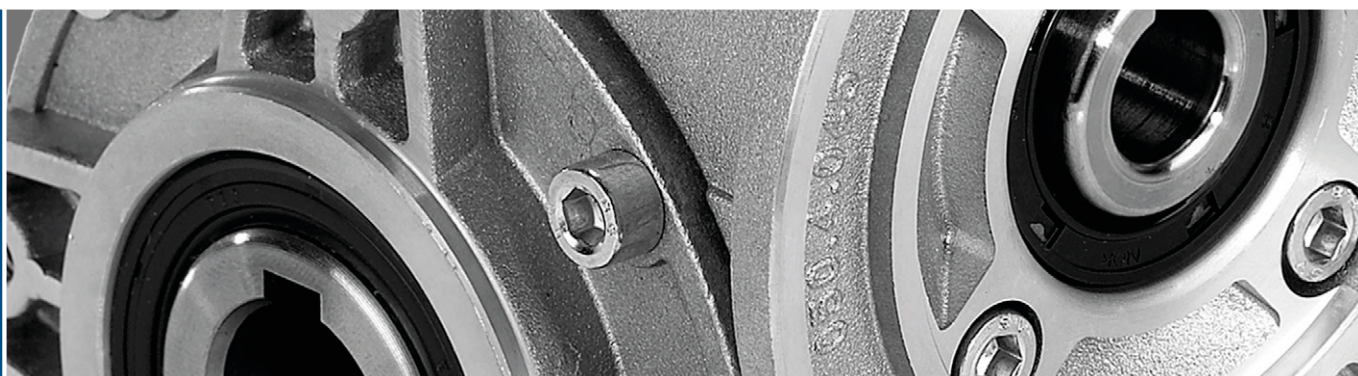


# reductores

*series aluminio y fundición*



**ASSEMBLY CENTER**



CT-GEMA-AD201

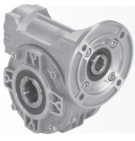


**catálogo general**





# IN THIS CATALOGUE



## Rightangle-Gear

**Worm gearboxes**  
Riduttori a vite senza fine

Paragraph **1**



## Square-Gear

**Square worm gearboxes**  
Riduttori a vite senza fine quadri

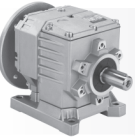
Paragraph **2**



## One step-Gear

**One step gearboxes**  
Riduttori a uno stadio

Paragraph **3**



## Coaxial-Gear

**Aluminum gearboxes**  
Riduttori coassiali in alluminio

Paragraph **4**



## Coaxial-Gear

**Cast iron gearboxes**  
Riduttori coassiali in ghisa

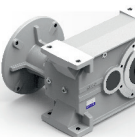
Paragraph **5**



## Compact-Gear

**Shaft mounted gearboxes**  
Riduttori ad assi paralleli

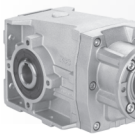
Paragraph **6**



## Cube-Gear

**Parallel shaft gearboxes**  
Riduttori ad assi paralleli

Paragraph **7**



## Angletech-Gear

**Helical bevel gearboxes**  
Riduttori a coppia conica

Paragraph **8**



## Electric motors

**Aluminum electric motors**  
Motori elettrici in alluminio

Paragraph **M**

# Worm gearboxes

## A modular and compact product

### Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

### Single piece alloy steel input shaft and worm shaft.

High helix angle worm is case-hardened (Rc 58-60), ground, teeth are profiled and radiused, for noise reduction and enhanced efficiency.

### Flange

Fully modular to IEC and compact integrated motor. NEMA C flange.

### Oversized bearings

Support positively-retained, high speed shaft for higher shock load capacity - ideal for frequent starting and reversing application. Premium, Nitrile® high temperature seals each end.

### Premium, high temperature

Nitrile® output seals

### Bronze alloy worm gears.

CuSn12Ni (C91700) Nickel bronze worm gears are centrifugally cast onto an iron hub for maximum strength and superior life. Removable hollow shaft with key for safe torque transmissions.

### Standard hollow output shaft mounting

Reduces total drive envelope size, weight and cost. Single and double solid output shaft is available.

### Impregnated and machined bearing caps

With exterior machined surfaces enable a variety of mounting accessories. Extra-deep thread engagement provided for greater support strength. Zinc plated hardware.

### Oversize bearing

For radial load capability and maximum hollow output shaft diameter.

### Vent Free Design.

No breather or vents to leak! Factory lubricated for life with synthetic, semi-fluid gear lubricant with an operating range of -15°C to 130°C.

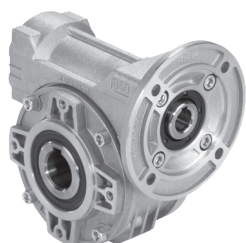
oil free



vent free

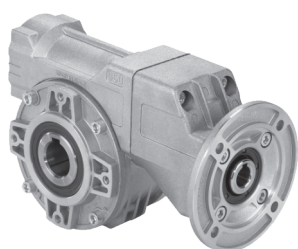


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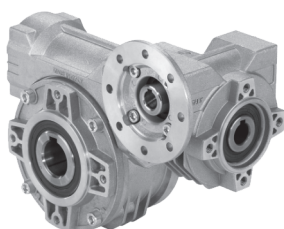
**Types / Tipi /**  
Tipen / Types /  
Tipos

| On page / A pagina / Auf Seite / À la page / En la página |                    |                    |                     |                     |                     |                     |
|-----------------------------------------------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| 1-5                                                       | 1-7                | 1-9                | 1-11                | 1-13                | 1-15                | 1-17                |
|                                                           |                    |                    |                     |                     |                     |                     |
| <b>030</b><br>21Nm                                        | <b>045</b><br>41Nm | <b>050</b><br>72Nm | <b>063</b><br>147Nm | <b>63A</b><br>191Nm | <b>085</b><br>347Nm | <b>110</b><br>651Nm |



**Types / Tipi /**  
Tipen / Types /  
Tipos

| On page / A pagina / Auf Seite / À la page / En la página |                    |                     |                     |                     |                     |
|-----------------------------------------------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| 1-19                                                      | 1-21               | 1-23                | 1-25                | 1-27                | 1-29                |
|                                                           |                    |                     |                     |                     |                     |
| <b>P45</b><br>55Nm                                        | <b>P50</b><br>88Nm | <b>P63</b><br>187Nm | <b>P6A</b><br>218Nm | <b>P85</b><br>440Nm | <b>P10</b><br>803Nm |



**Types / Tipi /**  
Tipen / Types /  
Tipos

| On page / A pagina / Auf Seite / À la page / En la página |                    |                     |                     |                     |                     |                     |                     |                     |
|-----------------------------------------------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
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|                                                           |                    |                     |                     |                     |                     |                     |                     |                     |
| <b>303</b><br>35Nm                                        | <b>453</b><br>69Nm | <b>503</b><br>109Nm | <b>633</b><br>230Nm | <b>634</b><br>265Nm | <b>6A3</b><br>290Nm | <b>6A4</b><br>304Nm | <b>854</b><br>518Nm | <b>115</b><br>978Nm |

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza  
Größe - Taille  
Tamaño

Mounting - Montaggio - Montage Fixation  
Fixation - Tipo de montaje

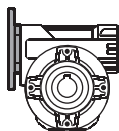
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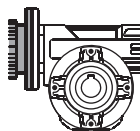
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**Worm gearboxes**

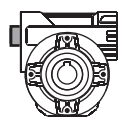
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Schneckengetriebe  
Reducteurs a vis sans fin  
Reductores de corona sin fin



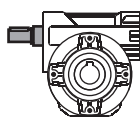
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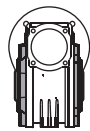


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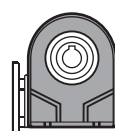


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050  
063  
63A  
085  
110**



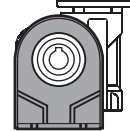
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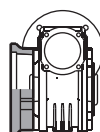
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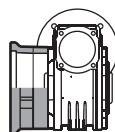
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**PV**

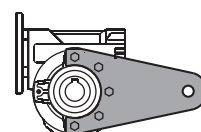


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**FL**

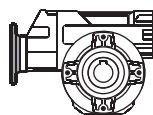
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F3  
F4**



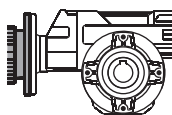
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**Worm gearboxes with primary reduction**

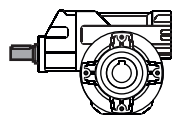
Riduttori a vite senza fine con precoppia  
Schneckengetriebe mit Stirradstufe am Eintrieb  
Reducteurs a vis sans fin avec pré-réduction  
Reductores corona sin fin con prereductora de engranajes



**P**

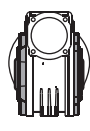


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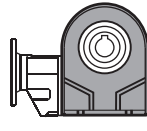


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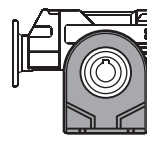
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P63  
P6A  
P85  
P10**



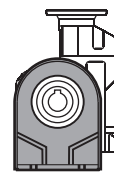
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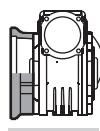
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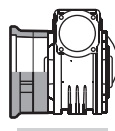
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**PV**

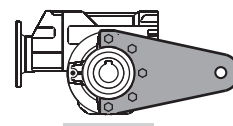


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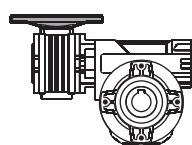
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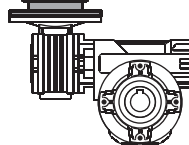
**BR**

**Combined worm gearboxes**

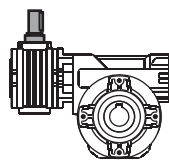
Riduttori a vite senza fine combinati  
Schneckengetriebekombinationen  
Reducteurs a double train de vis sans fin  
Reductores combinados corona sin fin



**P**

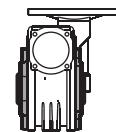


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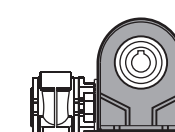


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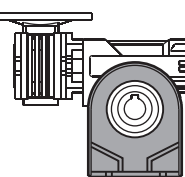
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6A4  
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115**



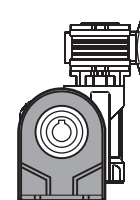
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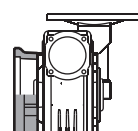
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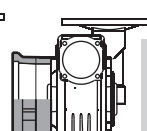
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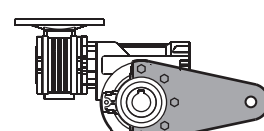


**FC**



**FL**

**F1  
F2  
F3  
F4**



**BR**



Dossier according  
to 94/9/EG 8. b ii  
stored



On request we can deliver our products according to the ATEX

A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX

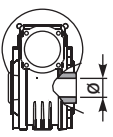
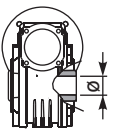
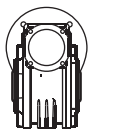
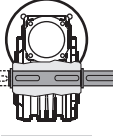
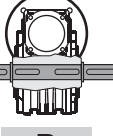
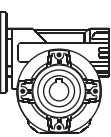
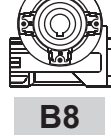
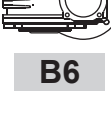
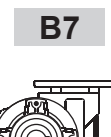
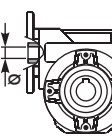
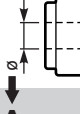
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern

Sur demande nos produits peuvent se conformer à la réglementation ATEX

A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.



# CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

| Ratio<br>Rapporto<br>Untersetzung<br>Reduction<br>Relación                                                                                               | Hub<br>Mozzo corona<br>Hohlwelle<br>Arbre creux<br>Núcleo corona                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Output shaft<br>Albero lento<br>Abtriebswelle<br>Arbre de sortie<br>Eje salida                                                                                                                                                                                                                        | Motor size<br>Grandezza motore<br>Motor Grösse<br>Grandeur moteur<br>Tamaño motor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Posición de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mountin position<br>Esecuzione montaggio<br>Einbaulage<br>Exécution de montage<br>Posición de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Terminal box position<br>Posizione morsettiera<br>Klemmkastenlage<br>Position boîte a bornes<br>Posición caja de bornes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>10</b>                                                                                                                                                | <b>C</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Ø</b>                                                                                                                                                                                                                                                                                              | <b>-Q</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>B3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>-</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>---</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                         |
| See technical data table<br>Vedi tabella dati tecnici.<br>Technisches Datenblatt beachten<br>Voir tableau données techniques<br>Ver tabla datos técnicos |  <p><b>STANDARD</b></p> <p><b>C</b></p> <p>030 ⇒ Ø14<br/>045 ⇒ Ø18<br/>050 ⇒ Ø25<br/>063 ⇒ Ø25<br/>63A ⇒ Ø28<br/>085 ⇒ Ø35<br/>110 ⇒ Ø42</p> <p><b>I</b></p> <p>Stainless steel hub<br/>Mozzo in acciaio Inox<br/>Edelstahlhohlwelle<br/>Moyeu en acier Inox<br/>Núcleo corona de acero Inox</p> <p><b>SPECIAL SERIES<br/>SERIE SPECIALE</b></p> <p><b>S</b></p> <p>045 ⇒ Ø19<br/>050 ⇒ Ø24</p> <p><b>X</b></p> <p>Stainless steel hub<br/>Mozzo in acciaio Inox<br/>Edelstahlhohlwelle<br/>Moyeu en acier Inox<br/>Núcleo corona de acero Inox</p>  <p><b>INCH</b></p> <p><b>U</b></p> <p>045 ⇒ Ø0.750"<br/>050 ⇒ Ø1.000"<br/>063 ⇒ Ø1.125"<br/>085 ⇒ Ø1.500"</p> <p><b>Z</b></p> <p>Stainless steel hub<br/>Mozzo in acciaio Inox<br/>Edelstahlhohlwelle<br/>Moyeu en acier Inox<br/>Núcleo corona de acero Inox</p> |  <p><b>Ø</b></p>  <p><b>S</b></p>  <p><b>D</b></p> |  <p><b>IEC</b></p> <p><b>-M</b><br/>without flange<br/>Senza flangia</p> <p><b>B5</b></p> <p><b>-A=56</b><br/>(Ø120)<br/><b>-B=63</b><br/>(Ø140)<br/><b>-C=71</b><br/>(Ø160)<br/><b>-D=80</b><br/>(Ø200)<br/><b>-E=90</b><br/>(Ø200)<br/><b>-F=100+112</b><br/>(Ø250)<br/><b>-G=132</b><br/>(Ø300)</p> <p><b>B14</b></p> <p><b>-O=56</b><br/>(Ø80)<br/><b>-P=63</b><br/>(Ø90)<br/><b>-Q=71</b><br/>(Ø105)<br/><b>-R=80</b><br/>(Ø120)<br/><b>-T=90</b><br/>(Ø140)<br/><b>-U=100+112</b><br/>(Ø160)<br/><b>-V=132</b><br/>(Ø200)</p> <p><b>-O=Type R</b><br/><b>-S=Type R</b><br/>S series</p> |  <p><b>B3</b></p>  <p><b>B8</b></p>  <p><b>B6</b></p>  <p><b>B7</b></p>  <p><b>V5</b></p>  <p><b>V6</b></p> |  <p><b>-</b></p> <p>Nothing indication:<br/><b>Standard bore</b><br/><b>Kit R standard</b></p> <p>Nessuna indicazione:<br/><b>Foro standard</b><br/><b>Kit R standard</b></p> <p><b>P</b></p> <p>Input bore reduced one size</p> <p>Foro entrata ridotto di una misura</p> <p>Ex.<br/>Input Flange<br/>71 B14<br/>Standard Ø14<br/>Reduced Ø11</p> <p><b>Q</b></p> <p>Input bore reduced two sizes</p> <p>Due grandezze ridotte foro entrata</p> <p>Ex.<br/>Input Flange<br/>71 B14<br/>Standard Ø14<br/>Reduced Ø9</p> <p><b>COUPLING</b></p>  <p><b>A = 9mm</b><br/><b>B = 11mm</b><br/><b>C = 14mm</b><br/><b>D = 19mm</b><br/><b>E = 24mm</b><br/><b>F = 28mm</b></p> <p>Ready for input coupling<br/>Predisposto per giunto</p>  <p><b>0</b><br/><b>Type B</b><br/>Tipo B</p>  <p><b>0</b><br/><b>Type R</b><br/>Tipo R</p> | <p><b>Only for combined units</b><br/><b>See technical data table</b></p> <p>Solo per i riduttori combinati<br/>Vedi tabella dati tecnici.</p> <p>Ausführungen für Getriebekombinationen it</p> <p>Uniquement pour combinés.<br/>Voir tableau données techniques</p> <p>Sólo para combinados<br/>ver tabla datos técnicos</p>  <p><b>A</b></p>  <p><b>B</b></p> <p><b>STANDARD</b></p>  <p><b>C</b></p>  <p><b>D</b></p> | <p><b>With Type M specify terminal box position</b></p> <p>Con tipo M specificare posizione morsettiera</p>             |

**POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA**

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

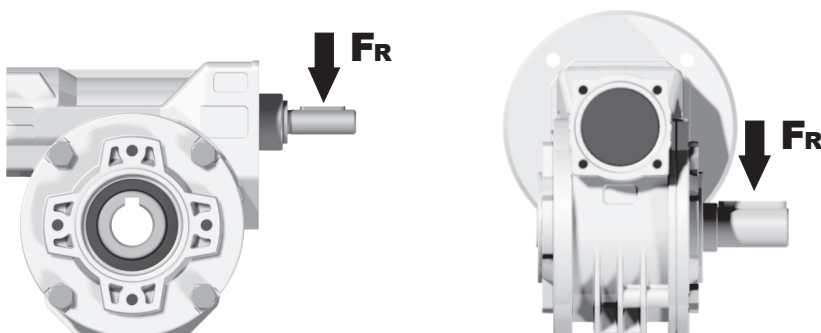
**TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR**

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

**RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL**

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



| $F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | $F_R [N] = \frac{M [lb\ in] \cdot 8.9}{d [in]} \cdot f_k$ |  |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--|
| M                                                      | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                         |                                                           |  |
| d                                                      | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                             |                                                           |  |
| f <sub>k</sub>                                         | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br>1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br>1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br>1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br>2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |                                                           |  |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B** Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Poissance nominale  
Potencia nominal

**A** Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Dynamic efficiency  
Rendimento dinamico  
Dynamischer  
Rendement dynamique  
Rendimento dinámico

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

**045** Rightangle - Gear  
**41Nm**

Rating - Aluminum WORM GEARBOXES

■ QUICK SELECTION / Selezione veloce

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |     |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|-----|----|--------------------------|----------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P  | -Q |                          |                      |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63  | 71 |                          |                      |                 |
| 200                                           | 7            | 0.37                            | 14                                | 2.2                    | 0.80                              | 30                                 | B                          |    | B-C                         | B-C |    | 80                       | 2.2                  | 01              |
| 140                                           | 10           | 0.37                            | 20                                | 1.5                    | 0.57                              | 30                                 | B                          |    | B-C                         | B-C |    | 79                       | 2.2                  | 02              |
| 100                                           | 14           | 0.37                            | 27                                | 1.1                    | 0.41                              | 30                                 | B                          |    | B-C                         | B-C |    | 77                       | 2.4                  | 03              |

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Nominal module  
Modulo nominale  
Nenn modul  
Module nominale  
Módulo nominal

Notes  
Note  
Anmerkungen  
Note  
Notas

| fs                                                                                                         |                     | Oper. hours per day<br>Ore di funz. giorn. |         |          |
|------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|---------|----------|
| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                    |                     | <2 h                                       | 2 - 8 h | 8 - 16 h |
| Continuous or intermittent appl. with start / hour<br>Applicazione cont. o interm. con n.ro operazioni/ora | Uniform / Uniforme  | 0.9                                        | 1       | 1.25     |
|                                                                                                            | Moderate / Moderato | 1                                          | 1.25    | 1.5      |
|                                                                                                            | Heavy / Forte       | 1.25                                       | 1.5     | 1.75     |
| Intermittent application with start / hour<br>Applicazione intermittente con n.ro operazioni/ora           | Uniform / Uniforme  | 1.25                                       | 1.5     | 1.75     |
|                                                                                                            | Moderate / Moderato | 1.5                                        | 1.75    | 2        |
|                                                                                                            | Heavy / Forte       | 1.75                                       | 2       | 2.25     |

| D | Motor flange available<br>Flange disponibili<br>Erhältliche Motorflansche<br>Bridas disponibles<br>Bridas disponibles                                                                                                             |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | B) Mounting with reduction ring<br>Montaggio con boccia di riduzione<br>Reduzierhülsen<br>Montage avec douille de réduction<br>Montaje con casquillo de reducción                                                                 |
|   | C) Motor flangeholes position/terminal box position<br>Posizione fori flangia/basetta motore<br>Bohrungsposition am Motorflansch/-sockel<br>Position trous bride/barrette à bornes moteur<br>Posición agujeros brida / base motor |
|   | B) Available without reduction bushes<br>Disponibile anche senza boccia<br>Auch ohne Reduzierbuchse verfügbar<br>Disponible aussi sans douille de réduction<br>Disponible tambien sin casquillo                                   |

| A | Select required torque<br>(according to service factor)                | Seleziona la coppia desiderata (comprensiva del fattore di servizio)                             | Max. Drehmoment in Bezug zum Betriebsfaktor                                                  | Sélectionner le couple souhaité (comprenant le facteur de service)                                | Seleccionar el par deseado (incluyendo el factor de servicio)                                      |
|---|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| B | Select ouput speed                                                     | Seleziona la velocità in uscita                                                                  | Ausgewählte Abtriebsdrehzahl                                                                 | Sélectionner la vitesse de sortie                                                                 | Seleccionar la velocidad de salida                                                                 |
| C | On the same line of selected geared motor, you can find the gear ratio | Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione | Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung | Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction | En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción |
| D | Select motor flange available (if requested)                           | Scegli la flangia disponibile (se richiesta)                                                     | Erhältliche Motorflansche (auf Anfrage)                                                      | Choisir la bride disponible ( si elle est demandée )                                              | Seleccionar la brida disponible (sobre pedido)                                                     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -O                             | -P |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 56                             | 63 |                          |                      |             |
| 280                                           | 5            | 0.18                            | 5                                 | 3.3                    | 0.60                              | 17                                 | B                             |    | B-C                            |    | 82                       | 1.26                 | 09          |
| 200                                           | 7            | 0.18                            | 7                                 | 2.4                    | 0.44                              | 17                                 | B                             |    | B-C                            |    | 80                       | 1.44                 | 01          |
| 140                                           | 10           | 0.18                            | 10                                | 1.8                    | 0.32                              | 17                                 | B                             |    | B-C                            |    | 78                       | 1.44                 | 02          |
| 93                                            | 15           | 0.18                            | 13                                | 1.4                    | 0.25                              | 19                                 | B                             |    | B-C                            |    | 73                       | 1.44                 | 03          |
| 70                                            | 20           | 0.18                            | 17                                | 1.1                    | 0.20                              | 19                                 | B                             |    | B-C                            |    | 70                       | 1.09                 | 04          |
| 47                                            | 30           | 0.12                            | 15                                | 1.4                    | 0.17                              | 21                                 | B                             |    | B-C                            |    | 62                       | 1.44                 | 05          |
| 35                                            | 40           | 0.12                            | 19                                | 1.1                    | 0.13                              | 20                                 | B                             |    | B-C                            |    | 57                       | 1.09                 | 06          |
| 23                                            | 61           | 0.09                            | 19                                | 1.1                    | 0.10                              | 20                                 | B                             |    | B-C                            |    | 50                       | 0.72                 | 07          |
| 17.5                                          | 80           | 0.06                            | 16                                | 1.0                    | 0.06                              | 16                                 | B                             |    | B-C                            |    | 48                       | 0.56                 | 08          |
| 14                                            | 100          | 0.06*                           | 16                                | 0.5                    | 0.03                              | 8                                  | B                             |    | B-C                            |    | 40                       | 0.45                 | 10          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 030 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 030 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 030 mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 030 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 030 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 030 Oil Quantity 0.03 Lt.

AGIP Telium VSF 320

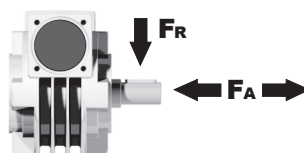
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

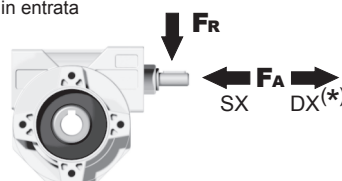
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 120       | 600       |
| 150                           | 140       | 700       |
| 100                           | 160       | 800       |
| 75                            | 180       | 900       |
| 50                            | 200       | 1000      |
| 25                            | 250       | 1250      |
| 15                            | 280       | 1400      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

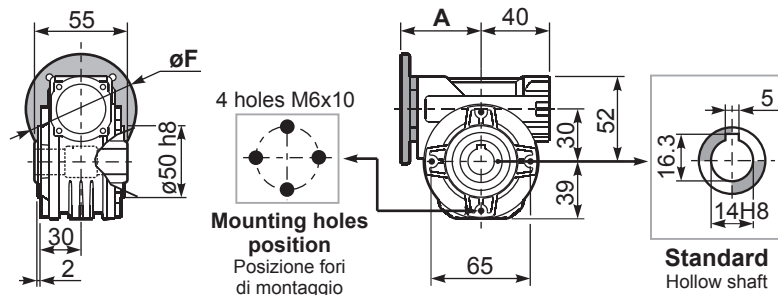
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

## P030FB...

Basic wormbox  
Riduttore baseGearbox weight  
peso riduttore 1.05 kg

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 56B5       | K030.4.041 | 120 | 61.5 |
| 63B5       | K030.4.042 | 140 | 62.5 |
| 56B14      | K030.4.046 | 80  | 61.5 |
| 63B14      | K030.4.045 | 90  | 62.5 |



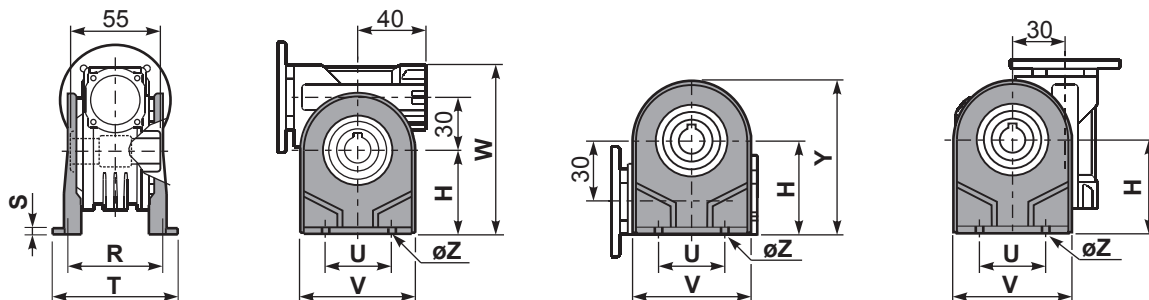
## P030PA...

Feet  
Piedini

## P030PB...

Feet  
Piedini

## P030PV...

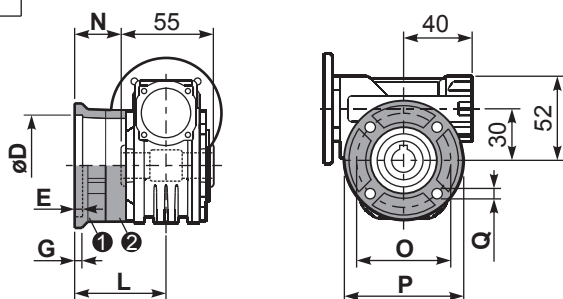
Feet  
Piedini

|        | H  | R  | S | T  | U  | V  | Y  | W   | øZ   | kit code    |
|--------|----|----|---|----|----|----|----|-----|------|-------------|
| type B | 55 | 66 | 3 | 87 | 50 | 78 | 94 | 107 | ø6.5 | K030.9.022  |
| type S | 52 | 66 | 3 | 87 | 52 | 90 | 91 | 104 | ø6.5 | KS030.9.023 |

## P030FC...

Output flange  
Flangia uscita

## P030BR...

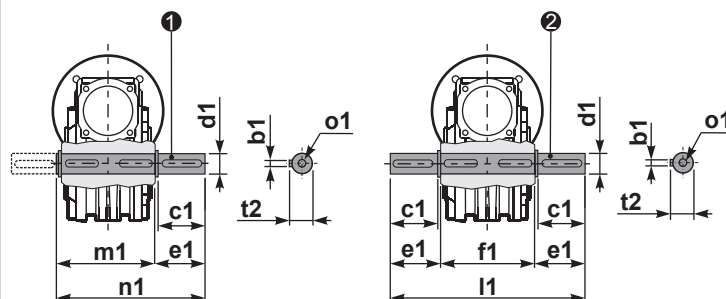
Reaction arm  
Braccio di reazione

| type B | øD                                   | E   | G   | L    | N    | O  | P   | Q   | kit code             |
|--------|--------------------------------------|-----|-----|------|------|----|-----|-----|----------------------|
| FC     | 50 <sup>+0.15</sup> <sub>+0.05</sub> | 6   | 6   | 50.5 | 23   | 68 | 80  | 7   | 1 K030.9.010<br>2 -  |
| FL     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 6   | 6   | 55.5 | 28   | 87 | 110 | 8.5 | 1 K045.9.010<br>2 -  |
| type S | øD                                   | E   | G   | L    | N    | O  | P   | Q   | kit code             |
| F1     | 40 <sup>+0.15</sup> <sub>+0.10</sub> | 3.5 | 5.5 | 49   | 21.5 | 56 | 80  | 6.5 | 1 KS030.9.012<br>2 - |

## P030.....S...

Single Shaft  
Albero lento semplice

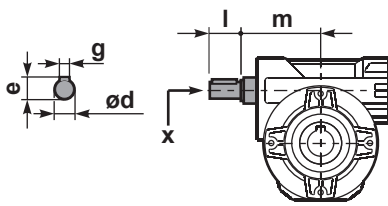
## P030.....D...

Double Shaft  
Albero lento bisp.

1 kit cod. K030.5.028 type B

2 kit cod. K030.5.029 type B

## R030FB...

Input shaft  
Albero in entrata

|        | ød   | e    | g | l  | m  | x | kit code         |
|--------|------|------|---|----|----|---|------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | K030.5.006 PAM63 |
| type S | -    | -    | - | -  | -  | - | -                |

|        | b1 | c1 | d1                                     | e1   | f1 | l1  | m1 | n1   | t2 | o1    |
|--------|----|----|----------------------------------------|------|----|-----|----|------|----|-------|
| type B | 5  | 25 | 14 <sup>-0.005</sup> <sub>-0.020</sub> | 35.5 | 55 | 126 | 59 | 94.5 | 16 | M5x14 |
| type S | -  | -  | -                                      | -    | -  | -   | -  | -    | -  | -     |





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|-----|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -O                             | -P  | -Q |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 56                             | 63  | 71 |                          |                      |             |
| 200                                           | 7            | 0.37                            | 14                                | 2.2                    | 0.80                              | 30                                 | B                             |    | B-C                            | B-C |    | 80                       | 2.2                  | 01          |
| 140                                           | 10           | 0.37                            | 20                                | 1.5                    | 0.57                              | 30                                 | B                             |    | B-C                            | B-C |    | 79                       | 2.2                  | 02          |
| 100                                           | 14           | 0.37                            | 27                                | 1.1                    | 0.41                              | 30                                 | B                             |    | B-C                            | B-C |    | 77                       | 2.4                  | 03          |
| 67                                            | 21           | 0.37                            | 36                                | 1.2                    | 0.43                              | 41                                 | B                             |    | B-C                            | B-C |    | 67                       | 1.6                  | 04          |
| 50                                            | 28           | 0.25                            | 31                                | 1.3                    | 0.33                              | 41                                 | B                             |    | B-C                            | B-C |    | 65                       | 2.5                  | 05          |
| 38                                            | 37           | 0.25                            | 40                                | 1.0                    | 0.26                              | 41                                 | B                             |    | B-C                            | B-C |    | 63                       | 1.8                  | 06          |
| 30                                            | 46           | 0.25                            | 46                                | 0.9                    | 0.22                              | 41                                 | B                             |    | B-C                            | B-C |    | 59                       | 1.5                  | 07          |
| 23                                            | 60           | 0.18                            | 41                                | 1.0                    | 0.18                              | 41                                 | B                             |    | B-C                            | B-C |    | 56                       | 1.2                  | 08          |
| 20                                            | 70           | 0.12                            | 31                                | 1.0                    | 0.12                              | 30                                 | B                             |    | B-C                            | B-C |    | 54                       | 1.0                  | 09          |
| 13.7                                          | 102          | 0.09                            | 31                                | 1.0                    | 0.09                              | 29                                 | B                             |    | B-C                            | B-C |    | 49                       | 0.72                 | 10          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **045** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **045** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **045** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **045** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **045** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 045 Oil Quantity 0.09 Lt.

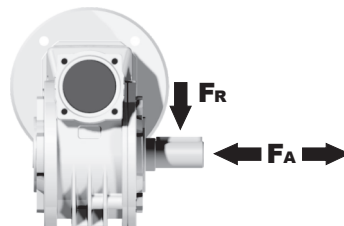
AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

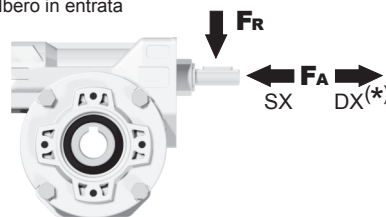
#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 180       | 900       |
| 150                           | 200       | 1000      |
| 100                           | 220       | 1100      |
| 75                            | 240       | 1200      |
| 50                            | 260       | 1400      |
| 25                            | 300       | 1800      |
| 15                            | 400       | 2000      |

Input shaft  
albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 42        | 210       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

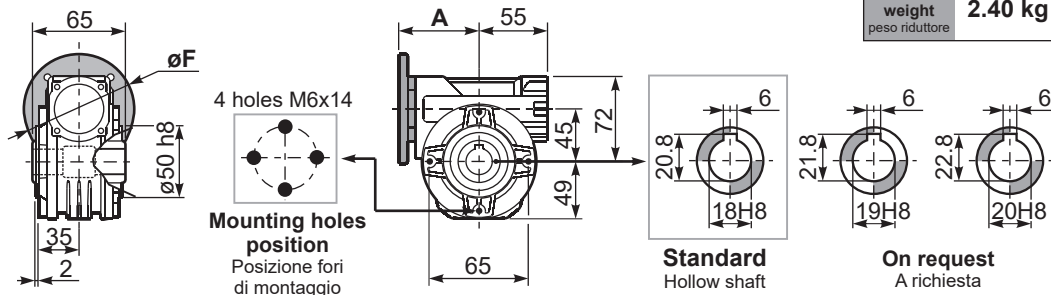
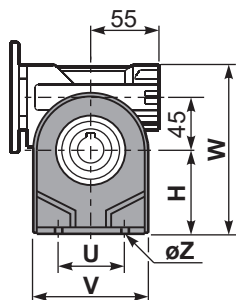
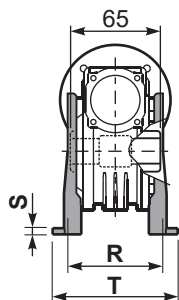
**tab. 2**

## P045FB..

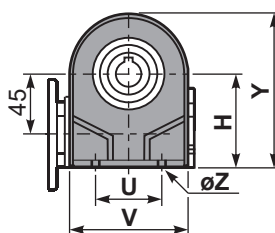
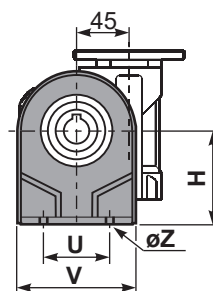
Basic wormbox  
Riduttore base

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>2.40 kg</b> |
|-----------------------------------------|----------------|

| M. flanges   | Kit code   | øF  | A    |
|--------------|------------|-----|------|
| <b>63B5</b>  | K050.4.041 | 138 | 74   |
| <b>71B5</b>  | K050.4.042 | 160 | 71.5 |
|              |            |     |      |
| <b>56B14</b> | KC40.4.049 | 80  | 71.5 |
| <b>63B14</b> | K050.4.047 | 90  | 74   |
| <b>71B14</b> | K050.4.045 | 105 | 71.5 |

P045**PA...**Feet  
Piedini

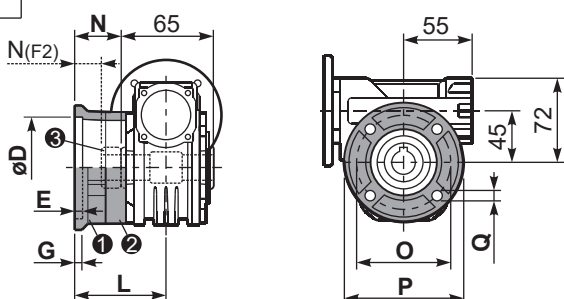
P045**PB**..

Feet  
PiediniP045**PV**...Feet  
Piedini

|               | H  | R  | S | T   | U  | V  | Y   | W   | øZ    | kit code    |
|---------------|----|----|---|-----|----|----|-----|-----|-------|-------------|
| type <b>B</b> | 72 | 81 | 3 | 100 | 52 | 98 | 121 | 144 | ø10.5 | K045.9.022  |
| type <b>S</b> | 71 | 84 | 8 | 100 | 70 | 90 | 120 | 143 | ø8    | KS045.9.023 |

P045**FC**..

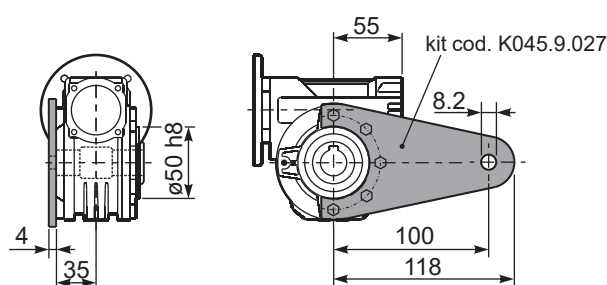
Output flange  
Flangia uscita



| type B | øD                                   | E | G  | L    | N  | O   | P   | Q   | kit code                      |
|--------|--------------------------------------|---|----|------|----|-----|-----|-----|-------------------------------|
| FC     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 9 | 9  | 60.5 | 28 | 87  | 110 | 8.5 | ① K045.9.010<br>② -           |
| FL     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 9 | 9  | 90.5 | 58 | 87  | 110 | 8.5 | ① K045.9.010<br>② K045.0.200  |
| type S | øD                                   | E | G  | L    | N  | O   | P   | Q   | kit code                      |
| F1     | 95 <sup>+0.20</sup> <sub>+0.15</sub> | 4 | 11 | 73.5 | 41 | 115 | 140 | 9   | ① KS045.9.013<br>② -          |
| F2     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 9 | 9  | 60.5 | 19 | 87  | 110 | 8.5 | ① KS045.9.010<br>③ S045.0.204 |
| F3     | 80 <sup>+0.15</sup> <sub>+0.10</sub> | 3 | 8  | 51.5 | 19 | 100 | 120 | 9   | ① KS045.9.014<br>② -          |

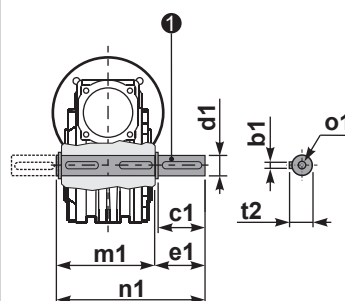
## P045BR..

Reaction arm  
Braccio di reazione



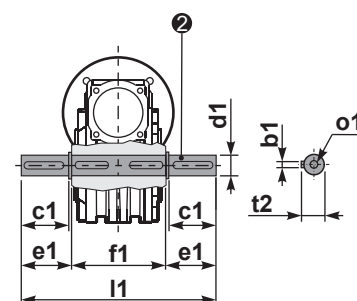
## P045.....S...

Single Shaft  
Albero lento semplice



## P045.....D...

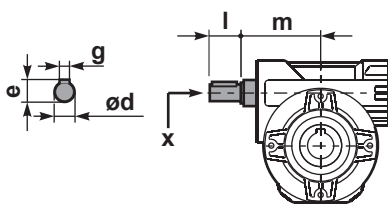
Double Shaft  
• Albero lento bisp.



❶ kit cod. K045.5.028 type **B**  
kit cod. KS045.5.030 type **S**

## R045FB...

Input shaft  
Albero in entrata



|               | ød    | e    | g | l  | m  | x | kit code                  |
|---------------|-------|------|---|----|----|---|---------------------------|
| type <b>B</b> | 11 h6 | 12.5 | 4 | 30 | 68 | - | ① K045.5.006 PAM71<br>② - |
| type <b>S</b> | -     | -    | - | -  | -  | - | ① -<br>② -                |

|               | <b>b1</b> | <b>c1</b> | <b>d1</b>                       | <b>e1</b> | <b>f1</b> | <b>l1</b> | <b>m1</b> | <b>n1</b> | <b>t2</b> | <b>o1</b> |
|---------------|-----------|-----------|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>type B</b> | 6         | 32        | 18 <sup>-0.005<br/>-0.020</sup> | 43        | 65        | 151       | 70        | 113       | 20.5      | M6x18     |
| <b>type S</b> | 6         | 40        | 19 <sup>-0.005<br/>-0.020</sup> | 58.8      | -         | -         | 70        | 128.5     | 21.5      | M8x20     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    | Available B14 motor flanges |     |    |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----------------------------|-----|----|----|------------------------------|--------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -O                          | -P  | -Q | -R |                              |                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 56                          | 63  | 71 | 80 |                              |                          |                 |
| 200                                           | 7            | 0.75                            | 29                                | 1.9                    | 1.5                               | 57                                 | B                          | B  |    |                             | B-C | B  |    | 82                           | 2.5                      | 01              |
| 140                                           | 10           | 0.75                            | 41                                | 1.5                    | 1.1                               | 62                                 | B                          | B  |    |                             | B-C | B  |    | 80                           | 2.4                      | 02              |
| 100                                           | 14           | 0.75                            | 57                                | 1.2                    | 0.90                              | 68                                 | B                          | B  |    |                             | B-C | B  |    | 79                           | 2.6                      | 03              |
| 78                                            | 18           | 0.55                            | 51                                | 1.2                    | 0.67                              | 62                                 | B                          | B  |    |                             | B-C | B  |    | 75                           | 2.0                      | 04              |
| 54                                            | 26           | 0.55                            | 67                                | 1.0                    | 0.54                              | 66                                 | B                          | B  |    |                             | B-C | B  |    | 69                           | 2.7                      | 05              |
| 47                                            | 30           | 0.55                            | 79                                | 0.9                    | 0.50                              | 72                                 | B                          | B  |    |                             | B-C | B  |    | 70                           | 2.5                      | 12              |
| 39                                            | 36           | 0.37                            | 63                                | 1.2                    | 0.43                              | 72                                 | B                          |    |    | B-C                         | B-C |    |    | 69                           | 2.1                      | 06              |
| 33                                            | 43           | 0.37                            | 72                                | 1.0                    | 0.35                              | 68                                 | B                          |    |    | B-C                         | B-C |    |    | 66                           | 1.8                      | 07              |
| 28                                            | 50           | 0.25                            | 53                                | 1.2                    | 0.31                              | 66                                 | B                          |    |    | B-C                         | B-C |    |    | 62                           | 1.5                      | 13              |
| 23                                            | 60           | 0.25                            | 59                                | 1.0                    | 0.26                              | 62                                 | B                          |    |    | B-C                         | B-C |    |    | 58                           | 1.3                      | 08              |
| 21                                            | 68           | 0.25                            | 66                                | 0.9                    | 0.22                              | 58                                 | B                          |    |    | B-C                         | B-C |    |    | 57                           | 1.2                      | 09              |
| 17.5                                          | 80           | 0.18                            | 53                                | 1.1                    | 0.19                              | 57                                 | B                          |    |    | B-C                         | B-C |    |    | 54                           | 1.0                      | 10              |
| 14                                            | 100          | 0.12                            | 41                                | 1.3                    | 0.15                              | 51                                 | B                          |    |    | B-C                         | B-C |    |    | 50                           | 0.8                      | 11              |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit 050 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 050 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 050 mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 050 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 050 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 050 Oil Quantity 0.14 Lt.

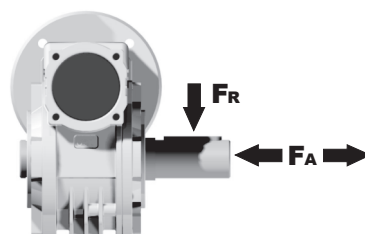
AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

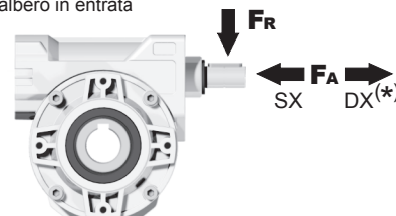
#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 240       | 1200      |
| 150                           | 280       | 1400      |
| 100                           | 300       | 1500      |
| 75                            | 340       | 1700      |
| 50                            | 380       | 1900      |
| 25                            | 480       | 2500      |
| 15                            | 560       | 2800      |

Input shaft  
albero in entrata



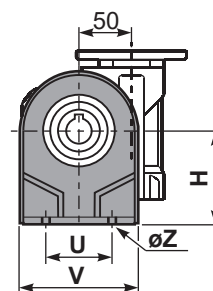
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 76        | 380       |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

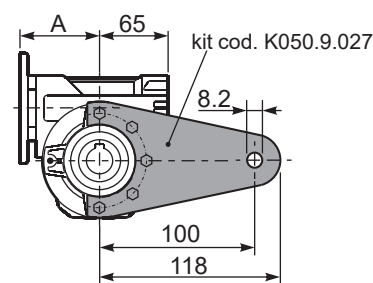
|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>3.00 kg</b> |
|-----------------------------------------|----------------|

**On request "type S"**  
A richiesta "tipo S"

Feet  
Piedini

|               | H  | R    | S   | T   | U  | V   | Y     | W   | øZ    | kit code    |
|---------------|----|------|-----|-----|----|-----|-------|-----|-------|-------------|
| type <b>B</b> | 82 | 98.5 | 3.5 | 123 | 63 | 113 | 138.5 | 163 | ø10.5 | K050.9.022  |
| type <b>S</b> | 85 | 96   | 10  | 114 | 85 | 110 | 139.5 | 166 | ø10   | KS050.9.023 |

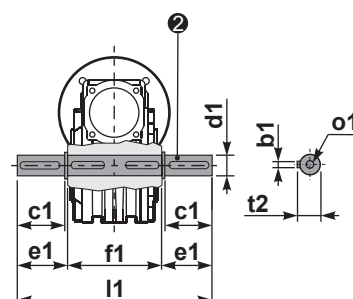
Reaction arm  
Braccio di reazione



| type B | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
|--------|---------------------------------------|---|----|-------|------|-----|-----|------|------------------------------|
| FC     | 70 <sup>+0.20</sup> <sub>+0.15</sub>  | 9 | 12 | 85    | 44.5 | 90  | 123 | 10.5 | ① K050.9.010<br>② -          |
| FL     | 70 <sup>+0.20</sup> <sub>+0.15</sub>  | 9 | 12 | 114.5 | 74   | 90  | 123 | 10.5 | ① K050.9.010<br>② K050.0.200 |
| type S | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
| F1     | 110 <sup>+0.20</sup> <sub>+0.15</sub> | 4 | 11 | 83.5  | 43   | 130 | 160 | 10   | ① KS050.9.012<br>② -         |
| F2     | 70 <sup>+0.20</sup> <sub>+0.15</sub>  | 9 | 12 | 76.5  | 36   | 90  | 123 | 10.5 | ① KS050.9.014<br>② -         |
| F3     | 95 <sup>+0.035</sup> <sub>0</sub>     | 4 | 10 | 66.5  | 26   | 115 | 140 | 10   | ① KS050.9.013<br>② -         |

|               | ød    | e  | g | l  | m    | x     | kit code                                 |
|---------------|-------|----|---|----|------|-------|------------------------------------------|
| type <b>B</b> | 16 h6 | 18 | 5 | 30 | 74.5 | M6x16 | ① K050.5.006 PAM71<br>② K050.5.007 PAM80 |
| type <b>S</b> | 14 h6 | 16 | 5 | 30 | 74.5 | M5x10 | ① K050.5.008 PAM71<br>② K050.5.009 PAM80 |

Double Shaft  
Albero lento bisp.



② kit cod. K050.5.029 type **B**

|               | <b>b1</b> | <b>c1</b> | <b>d1</b>              | <b>e1</b> | <b>f1</b> | <b>l1</b> | <b>m1</b> | <b>n1</b> | <b>t2</b> | <b>o1</b> |
|---------------|-----------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>type B</b> | 8         | 52        | $25^{+0.005}_{-0.020}$ | 59.5      | 81        | 200       | 86.5      | 146       | 28        | M8x20     |
| <b>type S</b> | 8         | 50        | $24^{+0.005}_{-0.020}$ | 68.8      | -         | -         | 86.5      | 155       | 27        | M8x20     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |     |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|-----|----|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R  | -T |                              |                          |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80  | 90 |                              |                          |                                                                                                    |
| 200                                           | 7            | 1.8                             | 71                                | 1.8                    | 3.2                               | 125                                |                            | B  | B  |    | B-C                         | B-C |    | 83                           | 3.1                      | 01                                                                                                 |
| 140                                           | 10           | 1.8                             | 99                                | 1.4                    | 2.4                               | 134                                |                            | B  | B  |    | B-C                         | B-C |    | 81                           | 3.1                      | 02                                                                                                 |
| 93                                            | 15           | 1.5                             | 121                               | 1.1                    | 1.7                               | 138                                |                            | B  | B  |    | B-C                         | B-C |    | 79                           | 3.1                      | 03                                                                                                 |
| 74                                            | 19           | 1.1                             | 111                               | 1.2                    | 1.4                               | 138                                |                            | B  | B  |    | B-C                         | B-C |    | 78                           | 2.6                      | 04                                                                                                 |
| 58                                            | 24           | 1.1                             | 135                               | 1.0                    | 1.2                               | 142                                |                            | B  | B  |    | B-C                         | B-C |    | 75                           | 2.0                      | 05                                                                                                 |
| 47                                            | 30           | 1.1                             | 167                               | 0.9                    | 0.96                              | 146                                |                            | B  | B  |    | B-C                         | B-C |    | 74                           | 3.2                      | 06                                                                                                 |
| 39                                            | 36           | 0.75                            | 125                               | 1.2                    | 0.88                              | 147                                |                            | B  | B  |    | B-C                         | B-C |    | 68                           | 2.7                      | 07                                                                                                 |
| 35                                            | 40           | 0.75                            | 135                               | 1.0                    | 0.78                              | 140                                |                            | B  | B  |    | B-C                         | B-C |    | 66                           | 2.5                      | 13                                                                                                 |
| 31                                            | 45           | 0.55                            | 111                               | 1.2                    | 0.67                              | 135                                | B                          | B  |    |    | B-C                         | C   |    | 66                           | 2.1                      | 08                                                                                                 |
| 23                                            | 60           | 0.55                            | 140                               | 0.9                    | 0.51                              | 130                                | B                          | B  |    |    | B-C                         | C   |    | 62                           | 1.6                      | 12                                                                                                 |
| 21                                            | 67           | 0.55                            | 151                               | 0.8                    | 0.45                              | 124                                | B                          | B  |    |    | B-C                         | C   |    | 60                           | 1.5                      | 09                                                                                                 |
| 17.5                                          | 80           | 0.37                            | 115                               | 1.0                    | 0.38                              | 119                                | B                          | B  |    |    | B-C                         | C   |    | 57                           | 1.3                      | 10                                                                                                 |
| 14.9                                          | 94           | 0.37                            | 123                               | 1.0                    | 0.36                              | 119                                | B                          | B  |    |    | B-C                         | C   |    | 52                           | 1.1                      | 11                                                                                                 |

 Motor Flanges Available  
Flange Motore Disponibili

 B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

 B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

 C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **063** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **063** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **063** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **063** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **063** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 063 Oil Quantity 0.40 Lt.

AGIP Telium VSF 320

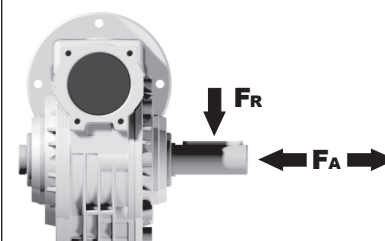
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

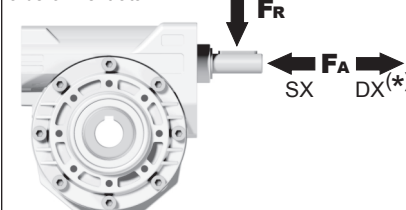
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 360       | 1800      |
| 150                           | 400       | 2000      |
| 100                           | 460       | 2300      |
| 75                            | 500       | 2500      |
| 50                            | 600       | 3000      |
| 25                            | 700       | 3800      |
| 15                            | 800       | 4000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 90        | 450       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

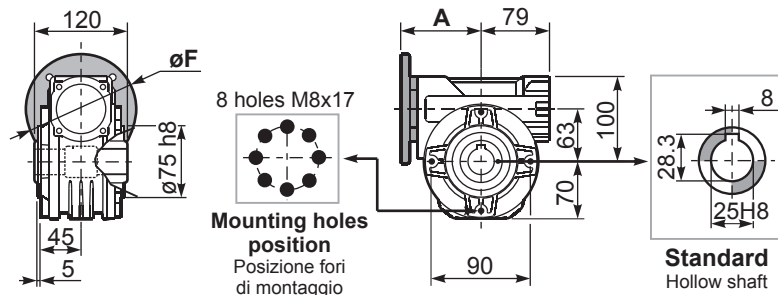


## P063FB...

Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore

6.00 kg

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 63B5       | K063.4.041 | 140 | 99.5 |
| 71B5       | K063.4.042 | 160 | 97.5 |
| 80/90B5    | K063.4.043 | 200 | 99.5 |
| 71B14      | K063.4.047 | 105 | 97.5 |
| 80B14      | K063.4.046 | 120 | 99.5 |
| 90B14      | K063.4.041 | 140 | 99.5 |



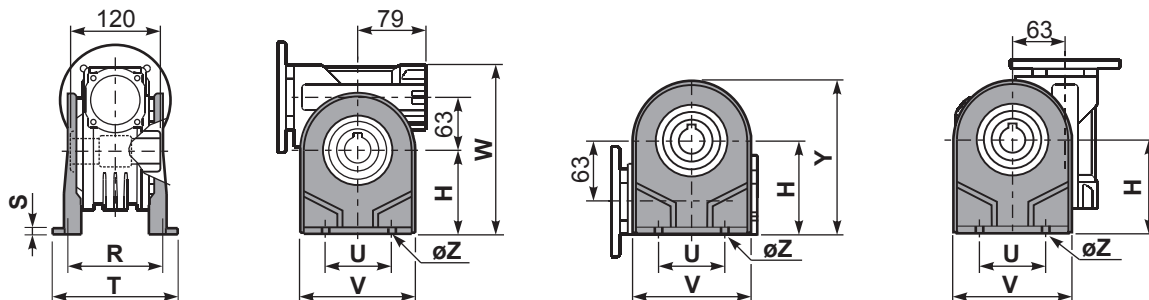
## P063PA...

Feet  
Piedini

## P063PB...

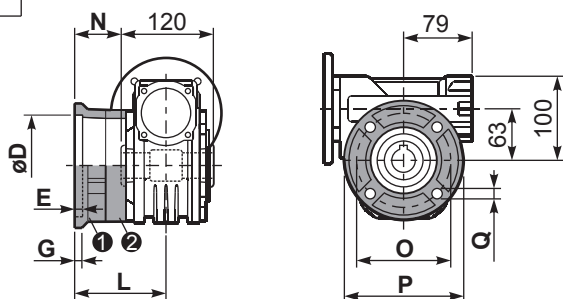
Feet  
Piedini

## P063PV...

Feet  
Piedini

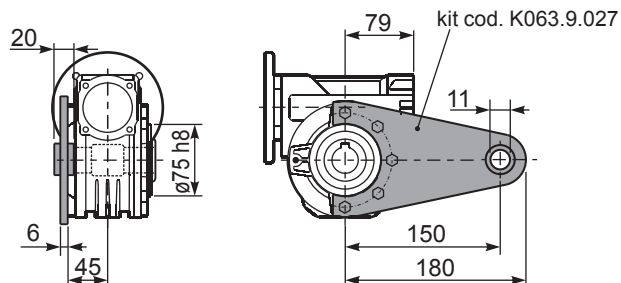
|        | H   | R   | S | T   | U  | V   | Y   | W   | øZ    | kit code   |
|--------|-----|-----|---|-----|----|-----|-----|-----|-------|------------|
| type B | 100 | 111 | 4 | 144 | 95 | 133 | 170 | 200 | ø10.5 | K063.9.022 |
| type S | -   | -   | - | -   | -  | -   | -   | -   | -     | -          |

## P063FC...

Output flange  
Flangia uscita

| type B | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|----|-----|----|-----|-----|----|------------------------------|
| FC     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 86  | 26 | 150 | 175 | 11 | ① K063.9.010<br>② -          |
| FL     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | ① K063.9.010<br>② K063.0.200 |
| type S | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 102 | 42 | 165 | 200 | 13 | ① KS070.9.013<br>② -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | ① KS063.9.013<br>② -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 11 | 82  | 22 | 130 | 160 | 10 | ① KS063.9.011<br>② -         |

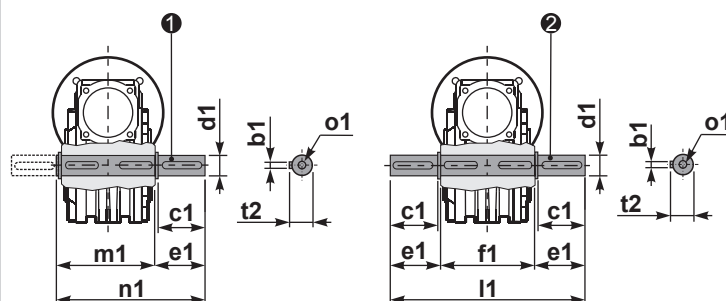
## P063BR...

Reaction arm  
Braccio di reazione

## P063.....S...

Single Shaft  
Albero lento semplice

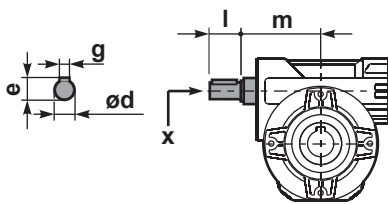
## P063.....D...

Double Shaft  
Albero lento bisp.

① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

## R063FB...

Input shaft  
Albero in entrata

|        | ød    | e    | g | l  | m  | x     | kit code                                   |
|--------|-------|------|---|----|----|-------|--------------------------------------------|
| type B | 18 h6 | 20.5 | 6 | 45 | 93 | M6x16 | ① K063.5.006 PAM80<br>② K063.5.007 PAM90   |
| type S | 19 h6 | 21.5 | 6 | 40 | 93 | M8x20 | ① KS063.5.008 PAM80<br>② KS063.5.009 PAM90 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1    | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-------|-------|-----|----|-------|
| type B | 8  | 60 | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -     | -     | -   | -  | -     |





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|-----|----|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -Q                             | -R  | -T |                              |                          |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 71                             | 80  | 90 |                              |                          |                                                                                                    |
| 200                                           | 7            | 1.8                             | 71                                | 2.3                    | 4.1                               | 162                                |                               | B  | B  |    | B-C                            | B-C |    | 83                           | 3.1                      | 01                                                                                                 |
| 140                                           | 10           | 1.8                             | 99                                | 1.7                    | 3.1                               | 173                                |                               | B  | B  |    | B-C                            | B-C |    | 81                           | 3.1                      | 02                                                                                                 |
| 93                                            | 15           | 1.5                             | 121                               | 1.5                    | 2.2                               | 178                                |                               | B  | B  |    | B-C                            | B-C |    | 79                           | 3.1                      | 03                                                                                                 |
| 74                                            | 19           | 1.5                             | 152                               | 1.2                    | 1.8                               | 178                                |                               | B  | B  |    | B-C                            | B-C |    | 78                           | 2.6                      | 04                                                                                                 |
| 58                                            | 24           | 1.5                             | 184                               | 1.0                    | 1.5                               | 185                                |                               | B  | B  |    | B-C                            | B-C |    | 75                           | 2.0                      | 05                                                                                                 |
| 47                                            | 30           | 1.5                             | 227                               | 0.8                    | 1.3                               | 189                                |                               | B  | B  |    | B-C                            | B-C |    | 74                           | 3.2                      | 06                                                                                                 |
| 39                                            | 36           | 1.1                             | 184                               | 1.0                    | 1.1                               | 191                                |                               | B  | B  |    | B-C                            | B-C |    | 68                           | 2.7                      | 07                                                                                                 |
| 35                                            | 40           | 1.1                             | 198                               | 0.9                    | 1.0                               | 181                                |                               | B  | B  |    | B-C                            | B-C |    | 66                           | 2.5                      | 13                                                                                                 |
| 31                                            | 45           | 0.75                            | 152                               | 1.2                    | 0.86                              | 175                                | B                             | B  |    |    | B-C                            | C   |    | 66                           | 2.1                      | 08                                                                                                 |
| 23                                            | 60           | 0.55                            | 140                               | 1.2                    | 0.66                              | 168                                | B                             | B  |    |    | B-C                            | C   |    | 62                           | 1.6                      | 12                                                                                                 |
| 21                                            | 67           | 0.55                            | 151                               | 1.1                    | 0.58                              | 159                                | B                             | B  |    |    | B-C                            | C   |    | 60                           | 1.5                      | 09                                                                                                 |
| 17.5                                          | 80           | 0.37                            | 115                               | 1.3                    | 0.49                              | 153                                | B                             | B  |    |    | B-C                            | C   |    | 57                           | 1.3                      | 10                                                                                                 |
| 14.9                                          | 94           | 0.37                            | 123                               | 1.1                    | 0.39                              | 130                                | B                             | B  |    |    | B-C                            | C   |    | 52                           | 1.1                      | 11                                                                                                 |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **63A** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **63A** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **63A** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **63A** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **63A** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 63A Oil Quantity 0.40 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

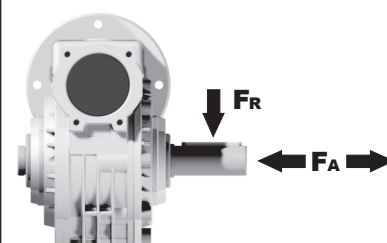
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

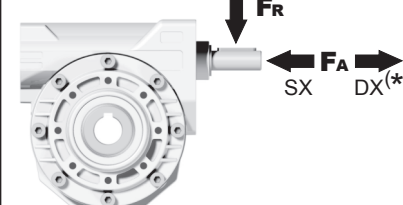
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 360       | 1800      |
| 150                           | 400       | 2000      |
| 100                           | 460       | 2300      |
| 75                            | 500       | 2500      |
| 50                            | 600       | 3000      |
| 25                            | 700       | 3800      |
| 15                            | 800       | 4000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 90        | 450       |

\*Strong axial loads in the DX direction are not allowed.

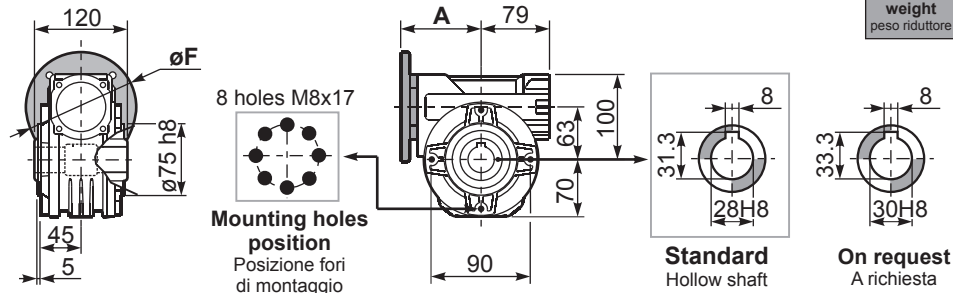
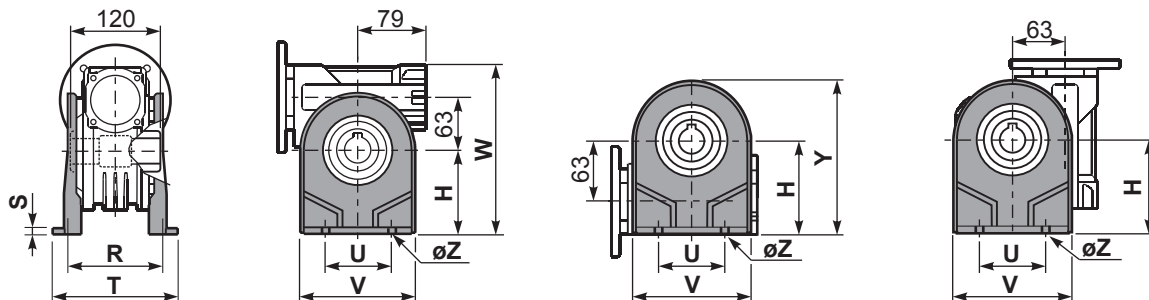
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

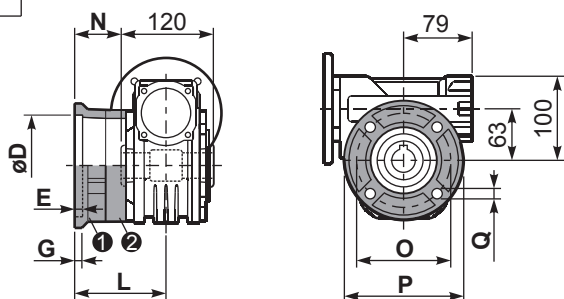
P63A**FB**...Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore

6.00 kg

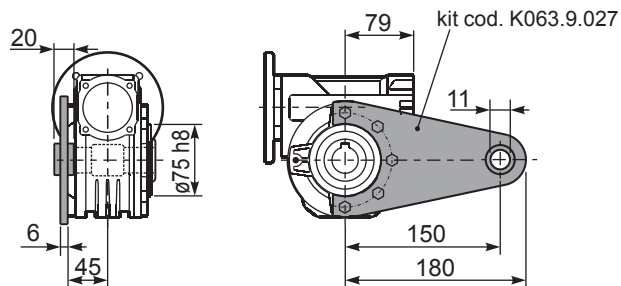
| M. flanges | Kit code   | $\phi F$ | A    |
|------------|------------|----------|------|
| 63B5       | K063.4.041 | 140      | 99.5 |
| 71B5       | K063.4.042 | 160      | 97.5 |
| 80/90B5    | K063.4.043 | 200      | 99.5 |
| 71B14      | K063.4.047 | 105      | 97.5 |
| 80B14      | K063.4.046 | 120      | 99.5 |
| 90B14      | K063.4.041 | 140      | 99.5 |

Standard  
Hollow shaftOn request  
A richiestaP63A**PA**...Feet  
PiediniP63A**PB**...Feet  
PiediniP63A**PV**...Feet  
Piedini

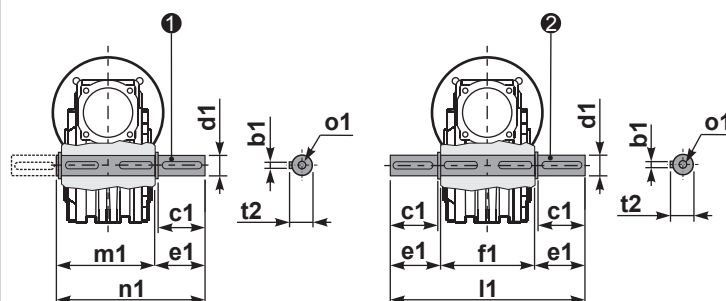
|        | H   | R   | S  | T   | U   | V   | Y   | W   | $\phi Z$  | kit code   |
|--------|-----|-----|----|-----|-----|-----|-----|-----|-----------|------------|
| type B | 115 | 115 | 12 | 142 | 120 | 156 | 185 | 215 | $\phi 11$ | K070.9.022 |
| type S | -   | -   | -  | -   | -   | -   | -   | -   | -         | -          |

P63A**FC**...Output flange  
Flangia uscita

| type B | $\phi D$                              | E | G    | L    | N    | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|------|------|------|-----|-----|----|------------------------------|
| FC     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 85   | 25   | 165 | 200 | 13 | ① K070.9.010<br>② -          |
| FL     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | ① K070.9.010<br>② K070.0.200 |
| type S | $\phi D$                              | E | G    | L    | N    | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | ① KS070.9.014<br>② -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 116  | 56   | 150 | 175 | 11 | ① KS063.9.013<br>② -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 13.5 | 84.5 | 24.5 | 130 | 160 | 11 | ① KS070.9.011<br>② -         |

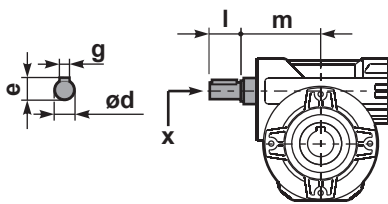
P63A**BR**...Reaction arm  
Braccio di reazione

kit cod. K063.9.027

P63A.....**S**...Single Shaft  
Albero lento sempliceP63A.....**D**...Double Shaft  
Albero lento bisp.

① kit cod. K070.5.028 type B

② kit cod. K070.5.029 type B

R63A**FB**...Input shaft  
Albero in entrata

|        | $\phi d$ | e    | g | l  | m  | x     | kit code                                   |
|--------|----------|------|---|----|----|-------|--------------------------------------------|
| type B | 18 h6    | 20.5 | 6 | 45 | 93 | M6x16 | ① K063.5.006 PAM80<br>② K063.5.007 PAM90   |
| type S | 19 h6    | 21.5 | 6 | 40 | 93 | M8x20 | ① KS063.5.008 PAM80<br>② KS063.5.009 PAM90 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|-------|
| type B | 8  | 60 | 28 <sup>-0.005</sup> <sub>-0.020</sub> | 63.5 | 120 | 247 | 127.5 | 191 | 31 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            | Available B14 motor flanges |    |            | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----------------------------|----|------------|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -R                          | -T | -U         |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 80                          | 90 | 100<br>112 |                          |                      |             |
| 200                                           | 7            | 4.0                             | 168                               | 1.5                    | 6.1                               | 257                                |                            | B  | B  |            | B                           | B  |            | 88                       | 4.23                 | 01          |
| 140                                           | 10           | 4.0                             | 218                               | 1.3                    | 5.2                               | 284                                |                            | B  | B  |            | B                           | B  |            | 80                       | 4.2                  | 02          |
| 100                                           | 14           | 3.0                             | 223                               | 1.4                    | 4.1                               | 305                                |                            | B  | B  |            | B                           | B  |            | 78                       | 4.5                  | 03          |
| 70                                            | 20           | 2.2                             | 237                               | 1.2                    | 2.7                               | 294                                |                            | B  | B  |            | B                           | B  |            | 79                       | 3.4                  | 04          |
| 64                                            | 22           | 2.2                             | 258                               | 1.1                    | 2.5                               | 294                                |                            | B  | B  |            | B                           | B  |            | 78                       | 3.1                  | 05          |
| 50                                            | 28           | 2.2                             | 315                               | 1.1                    | 2.4                               | 347                                |                            | B  | B  |            | B                           | B  |            | 75                       | 4.7                  | 06          |
| 37                                            | 38           | 1.5                             | 276                               | 1.2                    | 1.8                               | 336                                | B                          | B  |    |            | B                           |    |            | 71                       | 3.5                  | 07          |
| 30                                            | 46           | 1.5                             | 320                               | 1.0                    | 1.5                               | 326                                | B                          | B  |    |            | B                           |    |            | 68                       | 3.1                  | 08          |
| 27                                            | 52           | 1.1                             | 258                               | 1.1                    | 1.2                               | 289                                | B                          | B  |    |            | B                           |    |            | 66                       | 2.7                  | 09          |
| 21                                            | 67           | 1.1                             | 327                               | 0.9                    | 0.97                              | 289                                | B                          | B  |    |            | B                           |    |            | 65                       | 2.1                  | 10          |
| 18.9                                          | 74           | 0.75                            | 220                               | 1.2                    | 0.91                              | 268                                | B                          | B  |    |            | B                           |    |            | 58                       | 1.9                  | 11          |
| 14.6                                          | 96           | 0.55                            | 191                               | 1.3                    | 0.70                              | 242                                | B                          | B  |    |            | B                           |    |            | 53                       | 1.5                  | 12          |

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **085** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **085** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **085** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **085** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **085** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 085 Oil Quantity 1.20 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

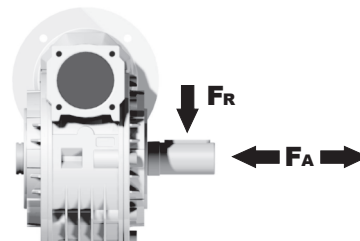
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

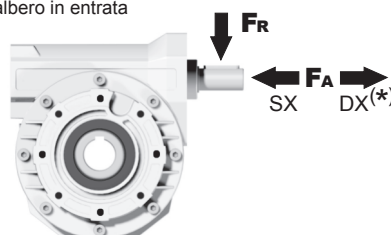
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 500       | 2500      |
| 150                           | 580       | 2900      |
| 100                           | 600       | 3000      |
| 75                            | 700       | 3500      |
| 50                            | 800       | 4000      |
| 25                            | 1000      | 5000      |
| 15                            | 1160      | 5800      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 130       | 650       |

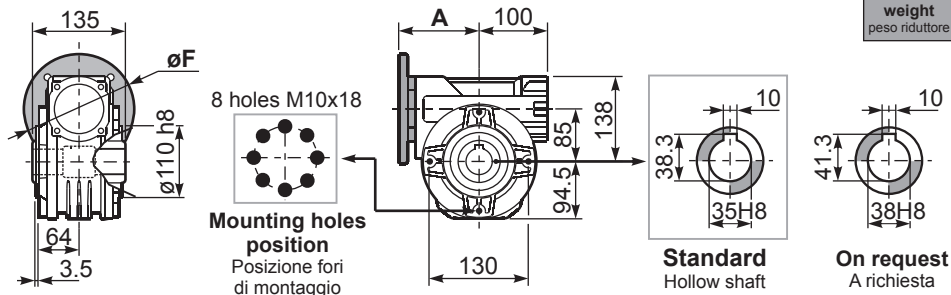
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

## P085FB...

Basic wormbox  
Riduttore baseGearbox weight  
peso riduttore **11.00 kg**

| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>71B5</b>       | K023.4.041 | 160 | 116.5 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 118.5 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 127.5 |
| <b>80B14</b>      | K085.4.046 | 120 | 118.5 |
| <b>90B14</b>      | K085.4.045 | 140 | 118.5 |
| <b>100/112B14</b> | K085.4.047 | 160 | 127.5 |



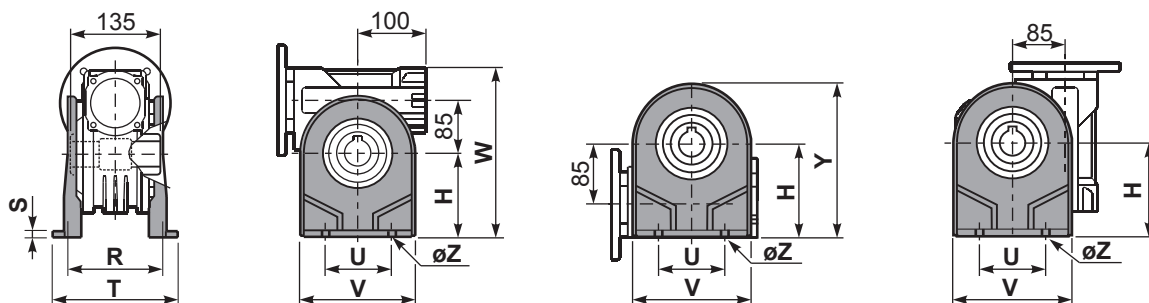
## P085PA...

Feet  
Piedini

## P085PB...

Feet  
Piedini

## P085PV...

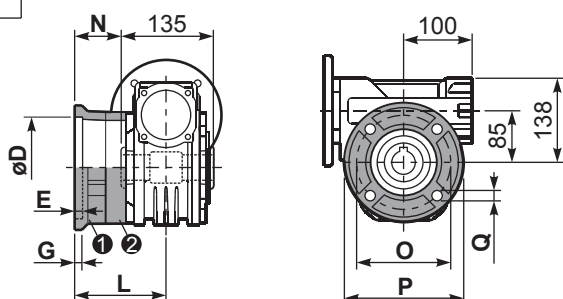
Feet  
Piedini

|        | H   | R   | S | T   | U   | V   | Y     | W   | øZ    | kit code   |
|--------|-----|-----|---|-----|-----|-----|-------|-----|-------|------------|
| type B | 142 | 145 | 5 | 182 | 140 | 180 | 236.5 | 280 | ø10.5 | K085.9.022 |
| type S | -   | -   | - | -   | -   | -   | -     | -   | -     | -          |

## P085FC...

Output flange  
Flangia uscita

## P085BR...

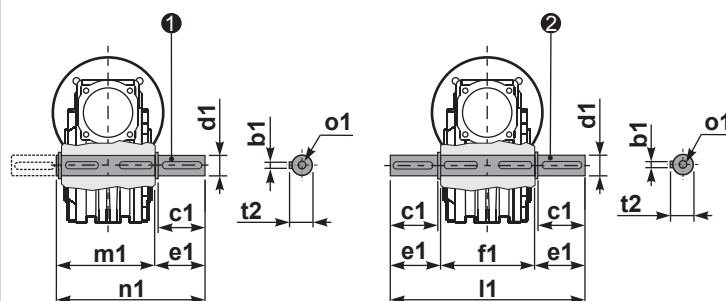
Reaction arm  
Braccio di reazione

| type B    | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
|-----------|---------------------------------------|---|----|-------|------|-----|-----|------|------------------------------|
| <b>FC</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 108   | 40.5 | 176 | 205 | 13   | ① K085.9.010<br>② -          |
| <b>FL</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 148.5 | 81   | 176 | 205 | 13   | ① K085.9.010<br>② K085.0.201 |
| type S    | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
| <b>F1</b> | 130 H7                                | 5 | 13 | 117.5 | 50   | 165 | 200 | 11.5 | ① KS085.9.012<br>② -         |
| <b>F2</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 15 | 147.5 | 80   | 180 | 205 | 12.5 | ① KS085.9.013<br>② -         |
| <b>F4</b> | 130 H7                                | 5 | 13 | 106.5 | 39   | 165 | 200 | 13   | ① KS085.9.015<br>② -         |

## P085.....S...

Single Shaft  
Albero lento semplice

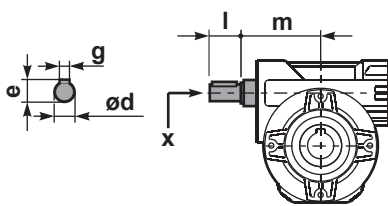
## P085.....D...

Double Shaft  
Albero lento bisp.

① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

## R085FB...

Input shaft  
Albero in entrata

|        | ød    | e  | g | l  | m   | x     | kit code                                    |
|--------|-------|----|---|----|-----|-------|---------------------------------------------|
| type B | 25 h6 | 28 | 8 | 50 | 112 | M8x20 | ① K085.5.007 PAM90<br>② K085.5.008 PAM100   |
| type S | 24 h6 | 27 | 8 | 50 | 112 | M8x20 | ① KS085.5.009 PAM90<br>② KS085.5.011 PAM100 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1  | n1    | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 <sup>-0.005</sup> <sub>-0.020</sub> | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | -  | -  | -                                      | -    | -   | -   | -   | -     | -  | -      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                          |                      |             |
| 200                                           | 7            | 7.5                             | 315                               | 1.5                    | 11.5                              | 483                                |                            | B  | B  |            |     | B                           | B  |            |     | 88                       | 5.5                  | 01          |
| 140                                           | 10           | 7.5                             | 440                               | 1.2                    | 9.0                               | 525                                |                            | B  | B  |            |     | B                           | B  |            |     | 86                       | 5.4                  | 02          |
| 88                                            | 16           | 5.5                             | 492                               | 1.1                    | 6.0                               | 536                                |                            | B  | B  |            |     | B                           | B  |            |     | 82                       | 5.3                  | 03          |
| 70                                            | 20           | 4.0                             | 447                               | 1.2                    | 4.9                               | 546                                |                            | B  | B  |            |     | B                           | B  |            |     | 82                       | 4.5                  | 04          |
| 61                                            | 23           | 3.0                             | 377                               | 1.4                    | 4.1                               | 515                                |                            | B  | B  |            |     | B                           | B  |            |     | 80                       | 3.9                  | 05          |
| 47                                            | 30           | 3.0                             | 467                               | 1.4                    | 4.2                               | 651                                |                            | B  | B  |            |     | B                           | B  |            |     | 76                       | 5.6                  | 06          |
| 37                                            | 38           | 3.0                             | 583                               | 1.1                    | 3.3                               | 641                                |                            | B  | B  |            |     | B                           | B  |            |     | 75                       | 4.7                  | 07          |
| 31                                            | 45           | 2.2                             | 493                               | 1.2                    | 2.7                               | 599                                |                            | B  | B  |            |     | B                           | B  |            |     | 73                       | 4.0                  | 08          |
| 26                                            | 53           | 2.2                             | 557                               | 1.1                    | 2.5                               | 620                                |                            | B  | B  |            |     | B                           | B  |            |     | 70                       | 3.5                  | 09          |
| 22                                            | 64           | 1.5                             | 452                               | 1.2                    | 1.8                               | 536                                | B                          | B  |    |            |     | B                           |    |            |     | 69                       | 2.9                  | 10          |
| 16.7                                          | 84           | 1.1                             | 410                               | 1.2                    | 1.3                               | 494                                | B                          | B  |    |            |     | B                           |    |            |     | 65                       | 2.2                  | 11          |
| 14.1                                          | 99           | 1.1                             | 446                               | 1.1                    | 1.2                               | 483                                | B                          | B  |    |            |     | B                           |    |            |     | 60                       | 1.9                  | 12          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit 110 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 110 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 110 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 110 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 110 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |        |         |        |
|---------|---------|---------|--------|---------|--------|
|         |         |         |        |         |        |
| B3      | B6      | B7      | B8     | V5      | V6     |
| 1.90 LT | 1.35 LT | 1.35 LT | 2.00LT | 2.00 LT | 2.00LT |

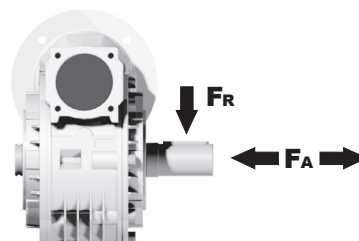
AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

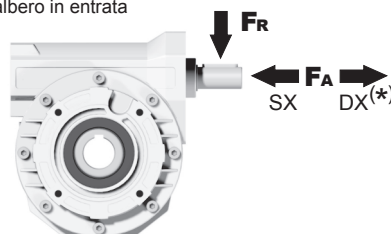
#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 600       | 2900      |
| 150                           | 700       | 3300      |
| 100                           | 750       | 3600      |
| 75                            | 800       | 4000      |
| 50                            | 920       | 4600      |
| 25                            | 1200      | 6000      |
| 15                            | 1400      | 7000      |

Input shaft  
albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 228       | 1140      |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

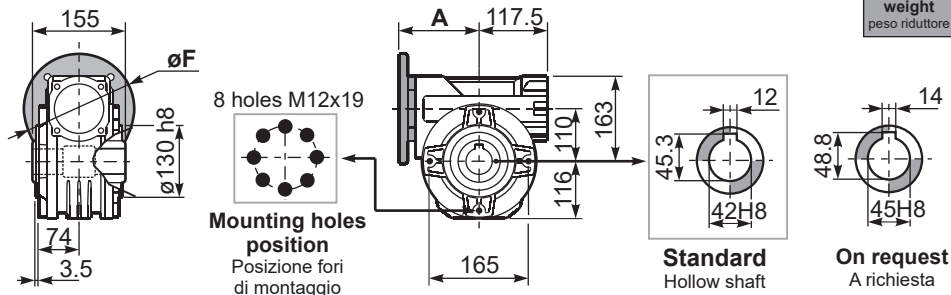


## P110FB...

Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore

35.00 kg

| M. flanges | Kit code   | øF  | A   |
|------------|------------|-----|-----|
| 71B5       | K023.4.041 | 160 | 136 |
| 80/90B5    | K023.4.042 | 200 | 138 |
| 100/112B5  | K023.4.043 | 250 | 147 |
| 132B5      | -          | 300 | 187 |
| 80B14      | K085.4.046 | 120 | 138 |
| 90B14      | K085.4.045 | 140 | 138 |
| 100/112B14 | K023.4.041 | 160 | 136 |
| 132B14     | -          | 200 | 187 |



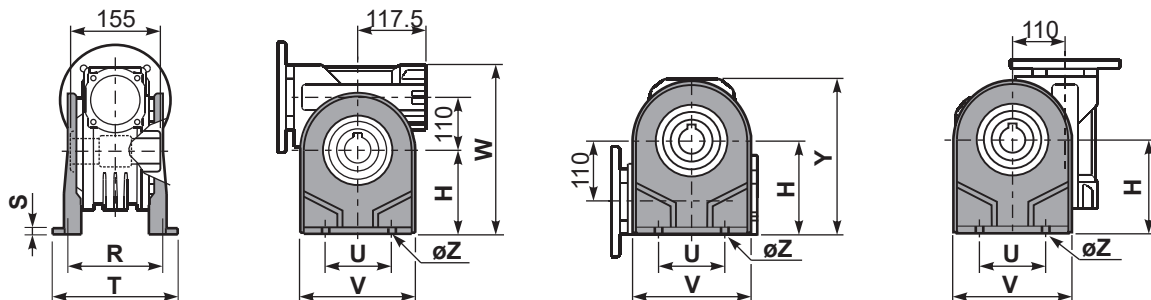
## P110PA...

Feet  
Piedini

## P110PB...

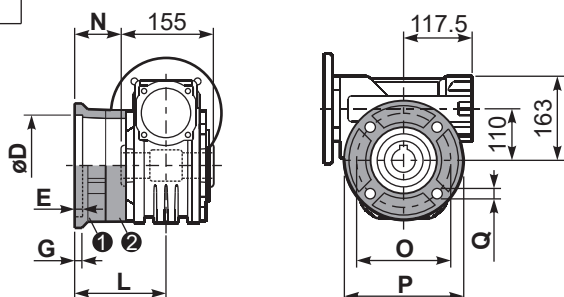
Feet  
Piedini

## P110PV...

Feet  
Piedini

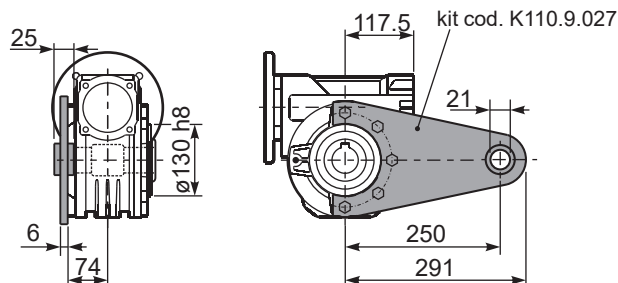
|        | H   | R   | S  | T   | U   | V   | Y   | W   | øZ  | kit code   |
|--------|-----|-----|----|-----|-----|-----|-----|-----|-----|------------|
| type B | 170 | 180 | 22 | 224 | 200 | 240 | 286 | 333 | ø13 | K110.9.022 |
| type S | -   | -   | -  | -   | -   | -   | -   | -   | -   | -          |

## P110FC...

Output flange  
Flangia uscita

| type B | øD                                      | E  | G    | L     | N    | O   | P   | Q  | kit code             |
|--------|-----------------------------------------|----|------|-------|------|-----|-----|----|----------------------|
| FC     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 131.5 | 54   | 230 | 270 | 13 | 1 K110.9.010<br>2 -  |
| FL     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 179.5 | 102  | 230 | 270 | 13 | 1 K110.9.011<br>2 -  |
| type S | øD                                      | E  | G    | L     | N    | O   | P   | Q  | kit code             |
| F1     | 180 <sup>+0.040</sup> <sub>0</sub>      | 5  | 18   | 150   | 72.5 | 215 | 250 | 15 | 1 KS110.9.014<br>2 - |
| F3     | 180 <sup>+0.040</sup> <sub>0</sub>      | 5  | 18   | 130   | 52.5 | 215 | 250 | 15 | 1 KS110.9.013<br>2 - |

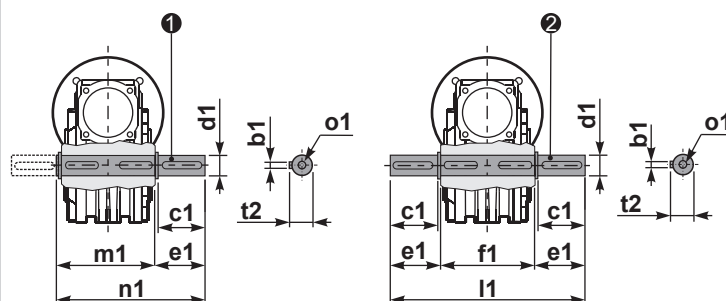
## P110BR...

Reaction arm  
Braccio di reazione

## P110.....S...

Single Shaft  
Albero lento semplice

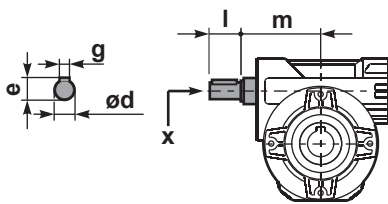
## P110.....D...

Double Shaft  
Albero lento bisp.

① kit cod. K110.5.028 type B

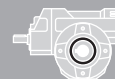
② kit cod. K110.5.029 type B

## R110FB...

Input shaft  
Albero in entrata

|        | ød    | e  | g | l  | m     | x     | kit code                                    |
|--------|-------|----|---|----|-------|-------|---------------------------------------------|
| type B | 25 h6 | 28 | 8 | 50 | 131.5 | M8x20 | 1 K085.5.007 PAM90<br>2 K085.5.008 PAM100   |
| type S | 24 h6 | 27 | 8 | 50 | 131.5 | M8x20 | 1 KS085.5.009 PAM90<br>2 KS085.5.011 PAM100 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 <sup>-0.005</sup> <sub>-0.020</sub> | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|--------------------------------|----|------------------------------|--------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -C | -P                             | -Q |                              |                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 71 | 63                             | 71 |                              |                          |                 |
| 47                                            | 30.1         | 0.25                            | 38                                | 1.4                    | 0.36                              | 55                                 |                               |    |    | C                              |    | 74                           | 2.2                      | 01              |
| 33                                            | 43.0         | 0.25                            | 53                                | 1.0                    | 0.26                              | 55                                 |                               |    |    | C                              |    | 72                           | 2.2                      | 02              |
| 23                                            | 60.2         | 0.25                            | 62                                | 0.9                    | 0.22                              | 55                                 |                               |    |    | C                              |    | 60                           | 2.4                      | 03              |
| 15.5                                          | 90.3         | 0.12                            | 42                                | 1.3                    | 0.16                              | 55                                 |                               |    |    | C                              |    | 57                           | 1.6                      | 04              |
| 11.6                                          | 120          | 0.12                            | 52                                | 1.1                    | 0.13                              | 55                                 |                               |    |    | C                              |    | 53                           | 2.5                      | 05              |
| 8.8                                           | 159          | 0.12                            | 64                                | 0.9                    | 0.10                              | 55                                 |                               |    |    | C                              |    | 49                           | 1.8                      | 06              |
| 7.1                                           | 198          | 0.12*                           | 55                                | <0.8                   | 0.09                              | 55                                 |                               |    |    | C                              |    | 47                           | 1.5                      | 07              |
| 5.4                                           | 258          | 0.12*                           | 55                                | <0.8                   | 0.07                              | 55                                 |                               |    |    | C                              |    | 45                           | 1.2                      | 08              |
| 4.7                                           | 301          | 0.12*                           | 39                                | <0.8                   | 0.05                              | 39                                 |                               |    |    | C                              |    | 40                           | 1.0                      | 09              |
| 3.2                                           | 439          | 0.12*                           | 39                                | <0.8                   | 0.04                              | 39                                 |                               |    |    | C                              |    | 36                           | 0.72                     | 10              |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P45** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P45** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P45** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P45** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P45** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P45 Oil

Common lubrication 0.17 l (A + B).



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

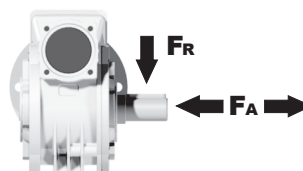
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

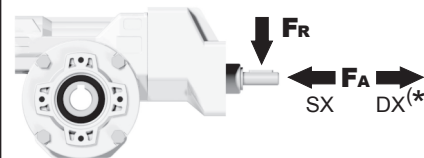
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 240       | 1200      |
| 50                            | 260       | 1400      |
| 25                            | 300       | 1800      |
| 15-6                          | 400       | 2000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 44        | 220       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

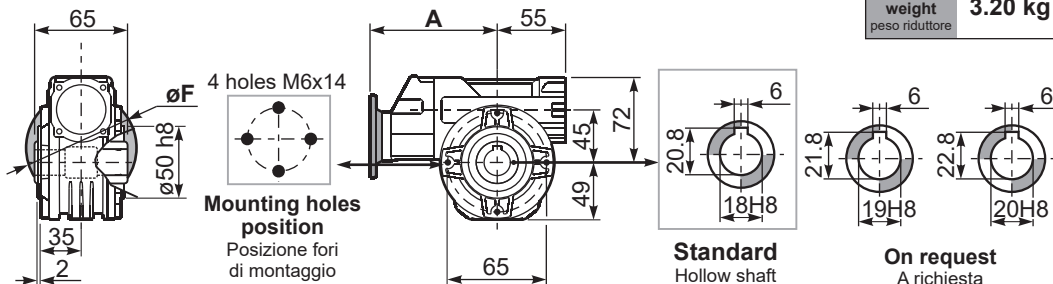
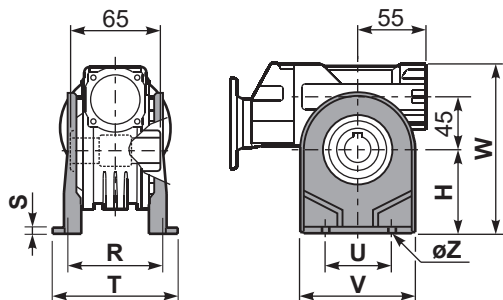
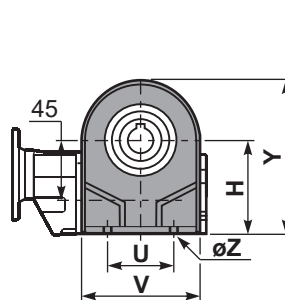
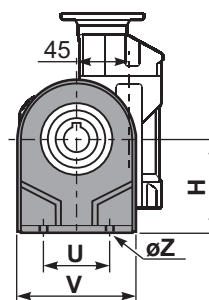
tab. 2

## PP45FB...

Basic wormbox  
Riduttore base

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>3.20 kg</b> |
|-----------------------------------------|----------------|

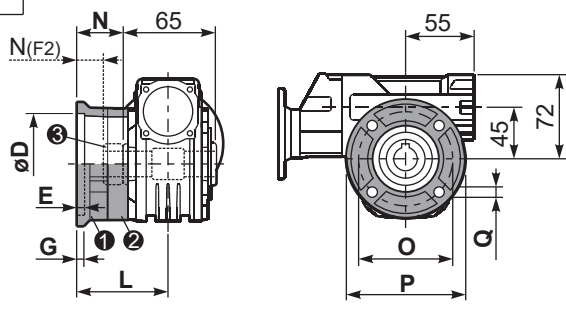
| M. flanges   | Kit code   | øF  | A     |
|--------------|------------|-----|-------|
| <b>56B5</b>  | K050.4.046 | 120 | 137.5 |
| <b>63B5</b>  | K050.4.041 | 138 | 139.5 |
| <b>71B5</b>  | K050.4.042 | 160 | 137   |
|              |            |     |       |
| <b>63B14</b> | K050.4.047 | 90  | 139.5 |
| <b>71B14</b> | K050.4.045 | 105 | 137   |

PP45**PA...**Feet  
PiediniPP45**PB**...Feet  
PiediniPP45**PV**..Feet  
Piedini

|               | H  | R  | S | T   | U  | V  | Y   | W   | øZ    | kit code    |
|---------------|----|----|---|-----|----|----|-----|-----|-------|-------------|
| type <b>B</b> | 72 | 81 | 3 | 100 | 52 | 98 | 121 | 144 | ø10.5 | K045.9.022  |
| type <b>S</b> | 71 | 84 | 8 | 100 | 70 | 90 | 120 | 143 | ø8    | KS045.9.023 |

PP45**FC**...

Output flange  
Flangia uscita



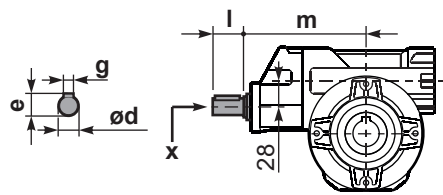
| type B | øD                                   | E | G | L    | N  | O  | P   | Q   | kit code                     |
|--------|--------------------------------------|---|---|------|----|----|-----|-----|------------------------------|
| FC     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 9 | 9 | 60.5 | 28 | 87 | 110 | 8.5 | ① K045.9.010<br>② -          |
| FL     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 9 | 9 | 90.5 | 58 | 87 | 110 | 8.5 | ① K045.9.010<br>② K045.0.200 |

| type S | øD                                   | E | G  | L    | N  | O   | P   | Q   | kit code                      |
|--------|--------------------------------------|---|----|------|----|-----|-----|-----|-------------------------------|
| F1     | 95 <sup>+0.20</sup> <sub>+0.15</sub> | 4 | 11 | 73.5 | 41 | 115 | 140 | 9   | ① KS045.9.013<br>② -          |
| F2     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 9 | 9  | 60.5 | 19 | 87  | 110 | 8.5 | ① KS045.9.010<br>③ S045.0.204 |
| F3     | 80 <sup>+0.03</sup> <sub>+0.00</sub> | 3 | 8  | 51.5 | 19 | 100 | 120 | 9   | ① KS045.9.014<br>② -          |

**RP45FB...**

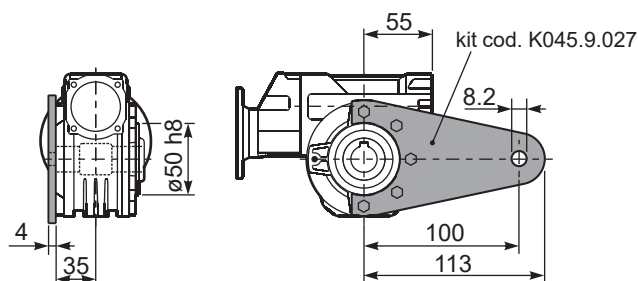
Input shaft  
Albero in entrata



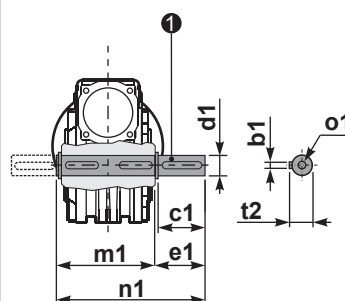
|               | ød    | e  | g | l  | m   | x     |           |
|---------------|-------|----|---|----|-----|-------|-----------|
| type <b>B</b> | 14 h6 | 16 | 5 | 25 | 131 | M5x13 | C35.5.061 |
| type <b>S</b> | -     | -  | - | -  | -   | -     |           |

## PP45BR...

Reaction arm  
Braccio di reazione

PP45 **S**

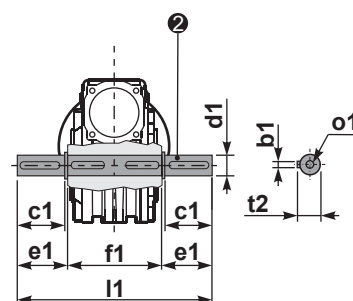
Single Shaft  
Albero lento semplice



① kit cod. K045.5.028 type **B**  
kit cod. KS045.5.030 type **S**

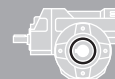
PP45... **D**

Double Shaft  
Albero lento bisp.



② kit cod. K045.5.029 type **B**

|               | <b>b1</b> | <b>c1</b> | <b>d1</b>                       | <b>e1</b> | <b>f1</b> | <b>l1</b> | <b>m1</b> | <b>n1</b> | <b>t2</b> | <b>o1</b> |
|---------------|-----------|-----------|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>type B</b> | 6         | 32        | 18 <sup>-0.005<br/>-0.020</sup> | 43        | 65        | 151       | 70        | 113       | 20.5      | M6x18     |
| <b>type S</b> | 6         | 40        | 19 <sup>-0.005<br/>-0.020</sup> | 58.8      | -         | -         | 70        | 128.5     | 21.5      | M8x20     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|--------------------------------|----|------------------------------|--------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -C | -P                             | -Q |                              |                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 71 | 63                             | 71 |                              |                          |                 |
| 47                                            | 30.1         | 0.37                            | 58                                | 1.3                    | 0.49                              | 77                                 |                               |    |    | C                              |    | 76                           | 2.5                      | 01              |
| 33                                            | 43.0         | 0.25                            | 55                                | 1.4                    | 0.35                              | 77                                 |                               |    |    | C                              |    | 75                           | 2.4                      | 02              |
| 23                                            | 60.2         | 0.25                            | 71                                | 1.1                    | 0.27                              | 77                                 |                               |    |    | C                              |    | 69                           | 2.6                      | 03              |
| 18.1                                          | 77.4         | 0.25                            | 81                                | 1.1                    | 0.27                              | 88                                 |                               |    |    | C                              |    | 61                           | 2.0                      | 04              |
| 12.5                                          | 112          | 0.18                            | 84                                | 1.1                    | 0.19                              | 88                                 |                               |    |    | C                              |    | 61                           | 2.7                      | 05              |
| 9.0                                           | 155          | 0.12                            | 71                                | 1.2                    | 0.15                              | 88                                 |                               |    |    | C                              |    | 56                           | 2.1                      | 06              |
| 7.6                                           | 185          | 0.12                            | 74                                | 1.0                    | 0.12                              | 77                                 |                               |    |    | C                              |    | 49                           | 1.8                      | 07              |
| 5.4                                           | 258          | 0.12*                           | 77                                | <0.8                   | 0.09                              | 77                                 |                               |    |    | C                              |    | 47                           | 1.3                      | 08              |
| 4.8                                           | 292          | 0.12*                           | 66                                | <0.8                   | 0.08                              | 66                                 |                               |    |    | C                              |    | 44                           | 1.2                      | 09              |
| 4.1                                           | 344          | 0.12*                           | 44                                | <0.8                   | 0.05                              | 44                                 |                               |    |    | C                              |    | 40                           | 1.0                      | 10              |
| 3.3                                           | 430          | 0.12*                           | 44                                | <0.8                   | 0.04                              | 44                                 |                               |    |    | C                              |    | 36                           | 0.8                      | 11              |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P50** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P50** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P50** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P50** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P50** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P50 Oil

Common lubrication 0.26 l ( A + B ).



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

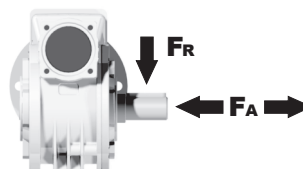
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

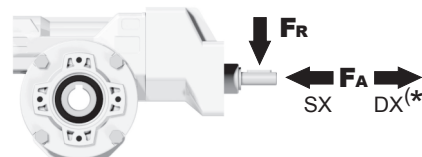
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 340       | 1700      |
| 50                            | 380       | 1900      |
| 25                            | 480       | 2500      |
| 15-6                          | 560       | 2800      |

##### Input shaft

albero in entrata



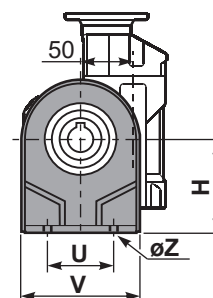
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 44        | 220       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

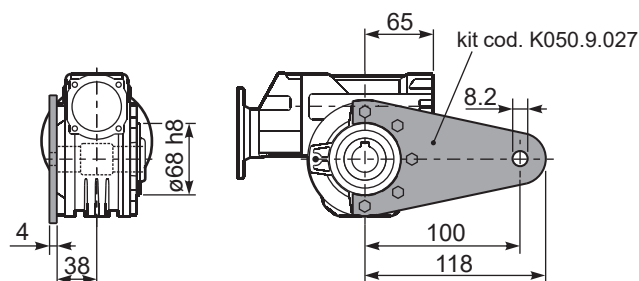
|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>3.80 kg</b> |
|-----------------------------------------|----------------|

**On Request "type S"**  
A richiesta "tipo S"

Feet  
Piedini

|               | H  | R    | S   | T   | U  | V   | Y     | W   | øZ    | kit code    |
|---------------|----|------|-----|-----|----|-----|-------|-----|-------|-------------|
| type <b>B</b> | 82 | 98.5 | 3.5 | 123 | 63 | 113 | 138.5 | 163 | ø10.5 | K050.9.022  |
| type <b>S</b> | 85 | 96   | 10  | 114 | 85 | 110 | 139.5 | 166 | ø10   | KS050.9.023 |

|              |                     |
|--------------|---------------------|
| Reaction arm | Braccio di reazione |
|--------------|---------------------|



| type B | øD                                   | E | G  | L     | N    | O  | P   | Q    | kit code                     |
|--------|--------------------------------------|---|----|-------|------|----|-----|------|------------------------------|
| FC     | 70 <sup>+0.20</sup> <sub>+0.15</sub> | 9 | 12 | 85    | 44.5 | 90 | 123 | 10.5 | ① K050.9.010<br>② -          |
| FL     | 70 <sup>+0.20</sup> <sub>+0.15</sub> | 9 | 12 | 114.5 | 74   | 90 | 123 | 10.5 | ① K050.9.010<br>② K050.0.200 |

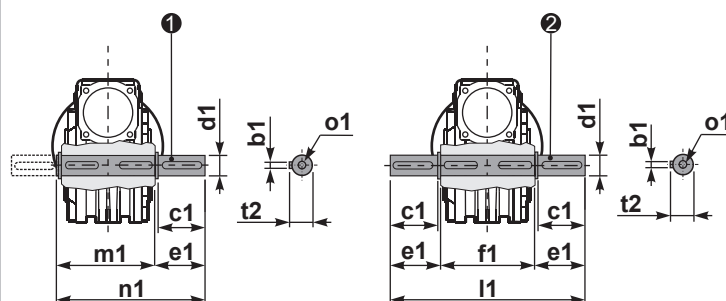
| type S | øD                                    | E | G  | L    | N  | O   | P   | Q    | kit code             |
|--------|---------------------------------------|---|----|------|----|-----|-----|------|----------------------|
| F1     | 110 <sup>+0.20</sup> <sub>+0.15</sub> | 4 | 11 | 83.5 | 43 | 130 | 160 | 10   | ① KS050.9.012<br>② - |
| F2     | 70 <sup>+0.20</sup> <sub>+0.15</sub>  | 9 | 12 | 76.5 | 36 | 90  | 123 | 10.5 | ① KS050.9.014<br>② - |
| F3     | 95 <sup>+0.035</sup> <sub>0</sub>     | 4 | 10 | 66.5 | 26 | 115 | 140 | 10   | ① KS050.9.013<br>② - |

Technical drawing of a ball bearing. The left view is a cross-section showing a ball of diameter  $\varnothing d$  inside a ring with inner diameter  $\varnothing d$  and outer diameter  $\varnothing D$ . The distance from the center of the ball to the inner ring bore is  $e$ , and the distance from the center of the ball to the outer ring outer diameter is  $g$ . The right view is a side view of the bearing assembly showing the inner ring (diameter  $\varnothing d$ ) and outer ring (diameter  $\varnothing D$ ). The distance from the center of the ball to the inner ring bore is  $x$ . The distance from the center of the ball to the outer ring outer diameter is  $l$ . The distance from the center of the ball to the outer ring outer diameter is  $m$ . The distance from the center of the ball to the outer ring outer diameter is  $28$ .

|        | ød    | e  | g | l  | m     | x     |           |
|--------|-------|----|---|----|-------|-------|-----------|
| type B | 14 h6 | 16 | 5 | 25 | 135.5 | M5x13 | C35.5.061 |
| type S | -     | -  | - | -  | -     | -     |           |

Single Shaft  
Albero lento semplice

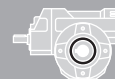
Double Shaft  
Albero lento bisp.



- ① kit cod. K050.5.028 type **B**  
kit cod. KS050.5.030 type **S**

|               | <b>b1</b> | <b>c1</b> | <b>d1</b>              | <b>e1</b> | <b>f1</b> | <b>l1</b> | <b>m1</b> | <b>n1</b> | <b>t2</b> | <b>o1</b> |
|---------------|-----------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>type B</b> | 8         | 52        | $25^{+0.005}_{-0.020}$ | 59.5      | 81        | 200       | 86.5      | 146       | 28        | M8x20     |
| <b>type S</b> | 8         | 50        | $24^{+0.005}_{-0.020}$ | 68.8      | -         | -         | 86.5      | 155       | 27        | M8x20     |





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

|                  | Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |    |    |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|------------------|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|----|----|----|--------------------------|----------------------|-------------|
|                  |                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -P                             | -Q | -R | -T |                          |                      |             |
|                  |                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 63                             | 71 | 80 | 90 |                          |                      |             |
| IEC 90 - 80 - 71 | 47                                            | 29.9         | 0.75                            | 113                               | 1.5                    | 1.1                               | 165                                |                               |    |    |    |                                | C  | C  |    | 74                       | 2.6                  | 01          |
|                  | 37                                            | 37.7         | 0.75                            | 141                               | 1.2                    | 0.88                              | 165                                |                               |    |    |    |                                | C  | C  |    | 73                       | 2.0                  | 02          |
|                  | 30                                            | 47.1         | 0.75                            | 169                               | 1.1                    | 0.83                              | 187                                |                               |    |    |    |                                | C  | C  |    | 70                       | 3.2                  | 03          |
|                  | 25                                            | 56.6         | 0.55                            | 136                               | 1.4                    | 0.76                              | 187                                |                               |    |    |    |                                | C  | C  |    | 64                       | 2.7                  | 04          |
|                  | 19.8                                          | 70.7         | 0.55                            | 164                               | 1.1                    | 0.63                              | 187                                |                               |    |    |    |                                | C  | C  |    | 62                       | 2.1                  | 05          |
|                  | 15.9                                          | 87.8         | 0.37                            | 162                               | 1.2                    | 0.43                              | 187                                |                               |    |    |    |                                | C  | C  |    | 73                       | 2.6                  | 06          |
|                  | 12.6                                          | 111.0        | 0.37                            | 199                               | 0.9                    | 0.35                              | 187                                |                               |    |    |    |                                | C  | C  |    | 71                       | 2.0                  | 07          |
|                  |                                               |              |                                 |                                   |                        |                                   |                                    |                               |    |    |    |                                |    |    |    |                          |                      |             |
| IEC 71 - 63      | 10.1                                          | 139          | 0.37                            | 234                               | 0.8                    | 0.30                              | 187                                |                               |    |    |    | C                              |    |    |    | 67                       | 3.2                  | 08          |
|                  | 8.4                                           | 166          | 0.25                            | 173                               | 1.1                    | 0.27                              | 187                                |                               |    |    |    | C                              |    |    |    | 61                       | 2.7                  | 09          |
|                  | 6.7                                           | 208          | 0.18                            | 151                               | 1.1                    | 0.20                              | 165                                |                               |    |    |    | C                              |    |    |    | 59                       | 2.1                  | 10          |
|                  | 4.5                                           | 310          | 0.12                            | 129                               | 1.3                    | 0.15                              | 165                                |                               |    |    |    | C                              |    |    |    | 51                       | 1.5                  | 11          |
|                  | 3.8                                           | 370          | 0.12                            | 145                               | 1.1                    | 0.14                              | 165                                |                               |    |    |    | C                              |    |    |    | 48                       | 1.3                  | 12          |
|                  | 3.2                                           | 434          | 0.12                            | 149                               | 0.9                    | 0.11                              | 138                                |                               |    |    |    | C                              |    |    |    | 42                       | 1.1                  | 13          |
|                  |                                               |              |                                 |                                   |                        |                                   |                                    |                               |    |    |    |                                |    |    |    |                          |                      |             |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **P63** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P63** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

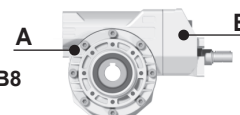
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P63** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P63** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P63** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P63 Oil

For B3-V5-V6 separate lubrication for A ( 0.40 l ) B ( 0.08 l ) , for B6-B7-B8 common lubrication 0.38 l ( A + B ).



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

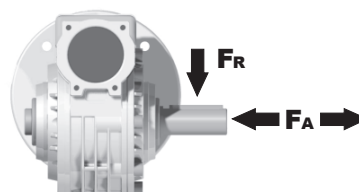
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

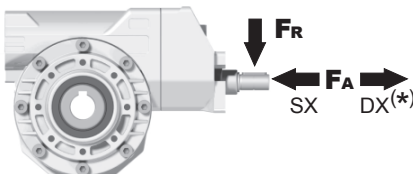
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 500       | 2500      |
| 50                            | 600       | 3000      |
| 25                            | 700       | 3800      |
| 15-6                          | 800       | 4000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 61        | 305       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

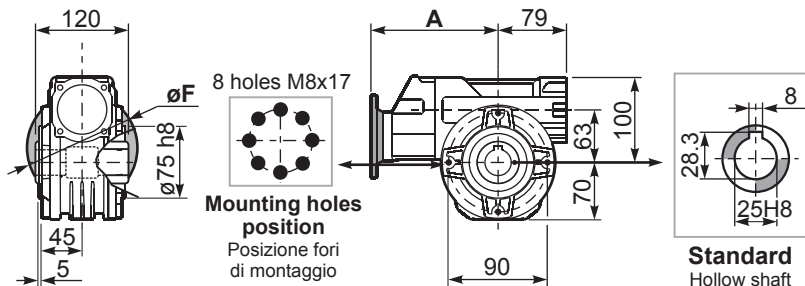
tab. 2

## PP63FB...

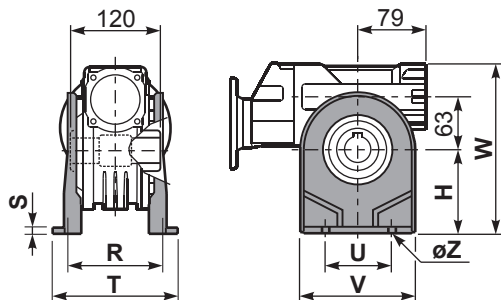
Basic wormbox  
Riduttore base

|                |          |         |
|----------------|----------|---------|
| Gearbox weight | 29.9+111 | 139+434 |
| peso riduttore | 7.30     | 7.80    |
|                | Kg       | Kg      |

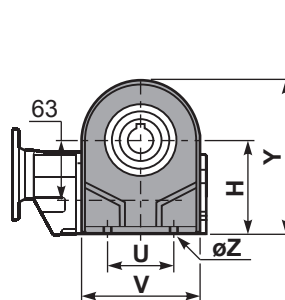
| M.flange | Kit code   | øF  | A     |
|----------|------------|-----|-------|
| 71B5     | K063.4.042 | 160 | 176.5 |
| 80/90B5  | K063.4.043 | 200 | 178.5 |
| 71B14    | K063.4.047 | 105 | 176.5 |
| 80B14    | K063.4.046 | 120 | 178.5 |
| 90B14    | K063.4.041 | 140 | 178.5 |
| 63B5     | K050.4.041 | 138 | 162.5 |
| 71B5     | K050.4.042 | 160 | 160   |
| 63B14    | K050.4.047 | 90  | 162.5 |
| 71B14    | K050.4.045 | 105 | 160   |



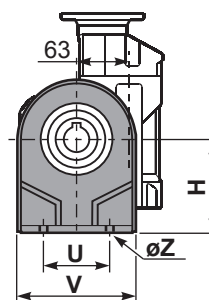
## PP63PA...

Feet  
Piedini

## PP63PB...

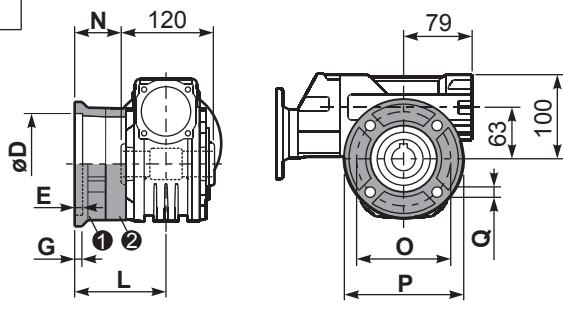
Feet  
Piedini

## PP63PV...

Feet  
Piedini

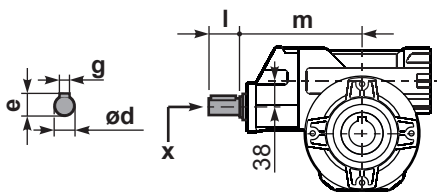
|        | H   | R   | S | T   | U  | V   | Y   | W   | øZ    | kit code   |
|--------|-----|-----|---|-----|----|-----|-----|-----|-------|------------|
| type B | 100 | 111 | 4 | 144 | 95 | 133 | 170 | 200 | ø10.5 | K063.9.022 |
| type S | -   | -   | - | -   | -  | -   | -   | -   | -     | -          |

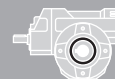
## PP63FC...

Output flange  
Flangia uscita

| type B | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|----|-----|----|-----|-----|----|------------------------------|
| FC     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 86  | 26 | 150 | 175 | 11 | 1 K063.9.010<br>2 -          |
| FL     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | 1 K063.9.010<br>2 K063.0.200 |
| type S | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 102 | 42 | 165 | 200 | 13 | 1 KS070.9.013<br>2 -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | 1 KS063.9.013<br>2 -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 11 | 82  | 22 | 130 | 160 | 10 | 1 KS063.9.011<br>2 -         |

## RP63FB...

Input shaft  
Albero in entrata



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

|                  | Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|------------------|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----|--------------------------|----------------------|-------------|
|                  |                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -P                          | -Q | -R | -T |                          |                      |             |
|                  |                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 63                          | 71 | 80 | 90 |                          |                      |             |
| IEC 90 - 80 - 71 | 47                                            | 29.9         | 0.75                            | 113                               | 1.6                    | 1.20                              | 182                                |                            |    |    |    |                             | C  | C  |    | 74                       | 2.6                  | 01          |
|                  | 37                                            | 37.7         | 0.75                            | 141                               | 1.3                    | 0.97                              | 182                                |                            |    |    |    |                             | C  | C  |    | 73                       | 2.0                  | 02          |
|                  | 30                                            | 47.1         | 0.75                            | 169                               | 1.2                    | 0.91                              | 206                                |                            |    |    |    |                             | C  | C  |    | 70                       | 3.2                  | 03          |
|                  | 25                                            | 56.6         | 0.75                            | 185                               | 1.1                    | 0.83                              | 206                                |                            |    |    |    |                             | C  | C  |    | 64                       | 2.7                  | 04          |
|                  | 19.8                                          | 70.7         | 0.55                            | 162                               | 1.3                    | 0.70                              | 206                                |                            |    |    |    |                             | C  | C  |    | 61                       | 2.1                  | 05          |
|                  | 15.9                                          | 87.8         | 0.37                            | 160                               | 1.4                    | 0.51                              | 218                                |                            |    |    |    |                             | C  | C  |    | 72                       | 2.6                  | 06          |
|                  | 12.6                                          | 111.0        | 0.37                            | 196                               | 1.1                    | 0.41                              | 218                                |                            |    |    |    |                             | C  | C  |    | 70                       | 2.0                  | 07          |
| IEC 71 - 63      | 10.1                                          | 139          | 0.37                            | 231                               | 0.9                    | 0.35                              | 218                                |                            |    |    |    | C                           |    |    |    | 66                       | 3.2                  | 08          |
|                  | 8.4                                           | 166          | 0.25                            | 170                               | 1.3                    | 0.32                              | 218                                |                            |    |    |    | C                           |    |    |    | 60                       | 2.7                  | 09          |
|                  | 6.7                                           | 208          | 0.25                            | 195                               | 1.0                    | 0.25                              | 194                                |                            |    |    |    | C                           |    |    |    | 55                       | 2.1                  | 10          |
|                  | 4.5                                           | 310          | 0.18                            | 194                               | 1.0                    | 0.18                              | 194                                |                            |    |    |    | C                           |    |    |    | 51                       | 1.5                  | 11          |
|                  | 3.8                                           | 370          | 0.18                            | 213                               | 0.9                    | 0.16                              | 194                                |                            |    |    |    | C                           |    |    |    | 47                       | 1.3                  | 12          |
|                  | 3.2                                           | 434          | 0.18*                           | 143                               | <0.8                   | 0.11                              | 143                                |                            |    |    |    | C                           |    |    |    | 42                       | 1.1                  | 13          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P6A** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P6A** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

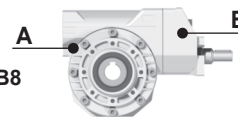
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P6A** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P6A** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P6A** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION P6A Oil

For B3-V5-V6 separate lubrication for A ( 0.40 l ) B ( 0.08 l ) , for B6-B7-B8 common lubrication 0.38 l ( A + B ).



AGIP Telium VSF 320

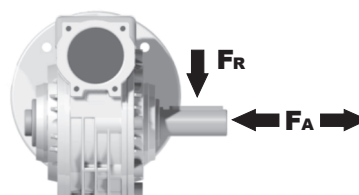
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

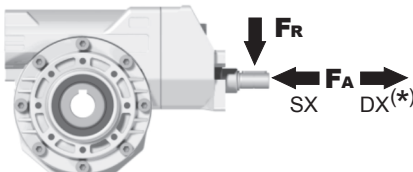
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 500       | 2500      |
| 50                            | 600       | 3000      |
| 25                            | 700       | 3800      |
| 15-6                          | 800       | 4000      |

#### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 61        | 305       |

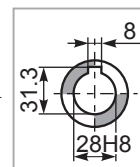
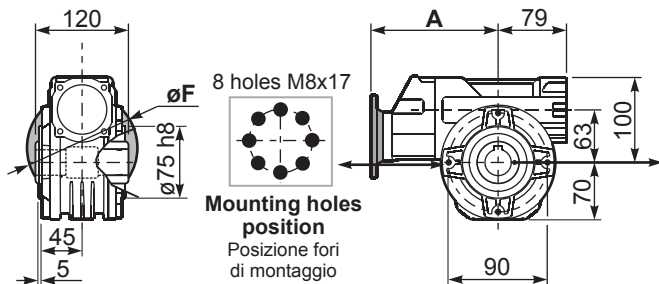
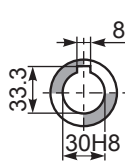
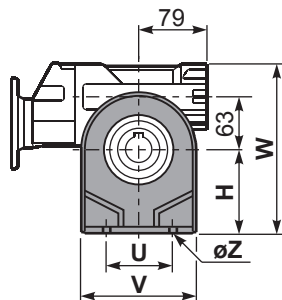
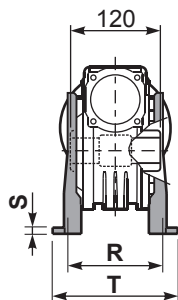
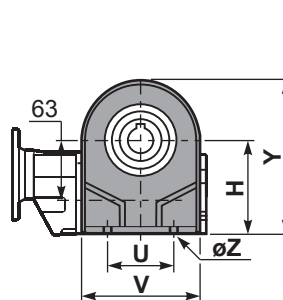
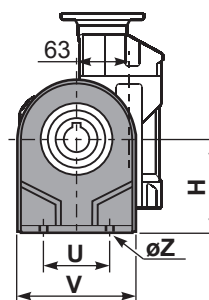
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

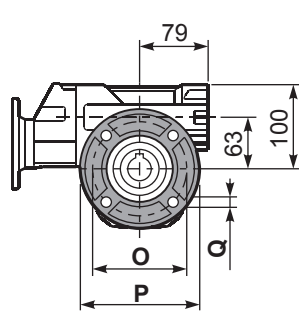
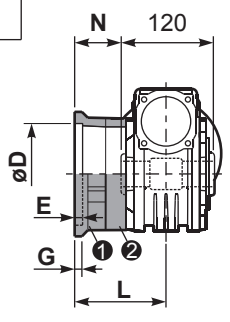
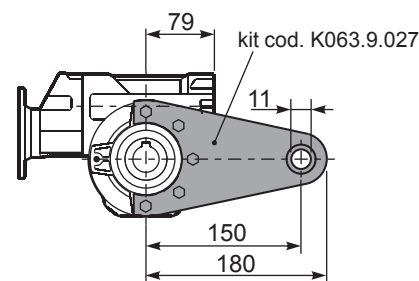
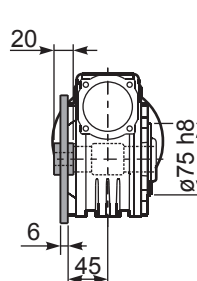
PP6A**FB**...Basic wormbox  
Riduttore base

|                                  |                |               |
|----------------------------------|----------------|---------------|
| Gearbox weight<br>peso riduttore | 29.9÷111<br>Kg | 139÷434<br>Kg |
|----------------------------------|----------------|---------------|

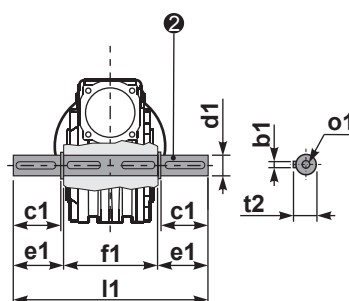
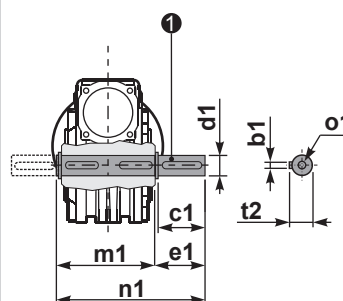
| M.flange | Kit code   | øF  | A     |
|----------|------------|-----|-------|
| 71B5     | K063.4.042 | 160 | 176.5 |
| 80/90B5  | K063.4.043 | 200 | 178.5 |
| 71B14    | K063.4.047 | 105 | 176.5 |
| 80B14    | K063.4.046 | 120 | 178.5 |
| 90B14    | K063.4.041 | 140 | 178.5 |
| 63B5     | K050.4.041 | 138 | 162.5 |
| 71B5     | K050.4.042 | 160 | 160   |
| 63B14    | K050.4.047 | 90  | 162.5 |
| 71B14    | K050.4.045 | 105 | 160   |

Standard  
Hollow shaftOn request  
A richiestaPP6A**PA**...Feet  
PiediniPP6A**PB**...Feet  
PiediniPP6A**PV**...Feet  
Piedini

|        | H   | R   | S  | T   | U   | V   | Y   | W   | øZ  | kit code   |
|--------|-----|-----|----|-----|-----|-----|-----|-----|-----|------------|
| type B | 115 | 115 | 12 | 142 | 120 | 156 | 185 | 215 | ø11 | K070.9.022 |
| type S | -   | -   | -  | -   | -   | -   | -   | -   | -   | -          |

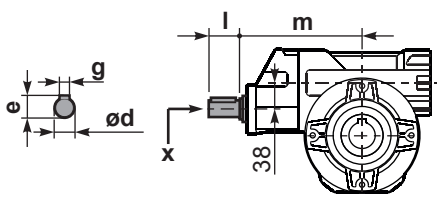
PP6A**FC**...Output flange  
Flangia uscitaPP6A**BR**...Reaction arm  
Braccio di reazione

| type B | øD                                    | E | G    | L    | N    | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|------|------|------|-----|-----|----|------------------------------|
| FC     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 85   | 25   | 165 | 200 | 13 | ① K070.9.010<br>② -          |
| FL     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | ① K070.9.010<br>② K070.0.200 |
| type S | øD                                    | E | G    | L    | N    | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | ① KS070.9.014<br>② -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 116  | 56   | 150 | 175 | 11 | ① KS063.9.013<br>② -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 13.5 | 84.5 | 24.5 | 130 | 160 | 11 | ① KS070.9.011<br>② -         |

PP6A.....**S**...Single Shaft  
Albero lento semplicePP6A.....**D**...Double Shaft  
Albero lento bisp.

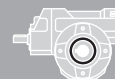
① kit cod. K070.5.028 type B

② kit cod. K070.5.029 type B

R**P6AFB**...Input shaft  
Albero in entrata

|          | ød    | e    | g | l  | m     | x     |           |
|----------|-------|------|---|----|-------|-------|-----------|
| 29.9÷111 | 19 h6 | 21.5 | 6 | 35 | 169.4 | M6x16 | C40.5.062 |
| 139÷434  | 14 h6 | 16   | 5 | 25 | 154.2 | M5x13 | C35.5.061 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|-------|
| type B | 8  | 60 | 28 <sup>-0.005</sup> <sub>-0.020</sub> | 63.5 | 120 | 247 | 127.5 | 191 | 31 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |    |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|----|----|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -Q                             | -R | -T |                              |                          |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 71                             | 80 | 90 |                              |                          |                                                                                                    |
| 23.5                                          | <b>59.7</b>  | 1.1                             | 300                               | 1.4                    | <b>1.5</b>                        | <b>418</b>                         |                               |    |    |    | C                              | C  |    | 67                           | 3.5                      | 01                                                                                                 |
| 19.4                                          | <b>72.3</b>  | 1.1                             | 347                               | 1.2                    | <b>1.3</b>                        | <b>407</b>                         |                               |    |    |    | C                              | C  |    | 64                           | 3.1                      | 02                                                                                                 |
| 17.1                                          | <b>81.7</b>  | 1.1                             | 374                               | 1.1                    | <b>1.2</b>                        | <b>418</b>                         |                               |    |    |    | C                              | C  |    | 61                           | 2.7                      | 03                                                                                                 |
| 13.3                                          | <b>105</b>   | 0.75                            | 323                               | 1.2                    | <b>0.89</b>                       | <b>385</b>                         |                               |    |    |    | C                              | C  |    | 60                           | 2.1                      | 04                                                                                                 |
| 8.0                                           | <b>176</b>   | 0.55                            | 415                               | 1.1                    | <b>0.58</b>                       | <b>440</b>                         | B                             |    |    |    | C                              | C  |    | 63                           | 3.5                      | 05                                                                                                 |
| 6.6                                           | <b>213</b>   | 0.37                            | 322                               | 1.3                    | <b>0.47</b>                       | <b>407</b>                         | B                             |    |    |    | C                              | C  |    | 60                           | 3.1                      | 06                                                                                                 |
| 5.8                                           | <b>240</b>   | 0.37                            | 321                               | 1.3                    | <b>0.48</b>                       | <b>418</b>                         | B                             |    |    |    | C                              | C  |    | 53                           | 2.7                      | 07                                                                                                 |
| 4.3                                           | <b>328</b>   | 0.37                            | 438                               | 1.0                    | <b>0.35</b>                       | <b>418</b>                         | B                             |    |    |    | C                              | C  |    | 53                           | 2.7                      | 08                                                                                                 |
| 3.3                                           | <b>422</b>   | 0.25                            | 374                               | 1.0                    | <b>0.26</b>                       | <b>385</b>                         | B                             |    |    |    | C                              | C  |    | 52                           | 2.1                      | 09                                                                                                 |
| 3.0                                           | <b>466</b>   | 0.25                            | 358                               | 0.9                    | <b>0.23</b>                       | <b>330</b>                         | B                             |    |    |    | C                              | C  |    | 45                           | 1.9                      | 10                                                                                                 |
| 2.3                                           | <b>605</b>   | 0.18                            | 297                               | 1.1                    | <b>0.20</b>                       | <b>330</b>                         | B                             |    |    |    | C                              | C  |    | 40                           | 1.5                      | 11                                                                                                 |

 **Motor Flanges Available**  
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **P85** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P85** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P85** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P85** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P85** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P85 Oil

For B3-V5-V6 separate lubrication for A ( 1.20 l ) B ( 0.14 l ) , for B6-B7-B8 common lubrication 0.90 l ( A + B ).



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

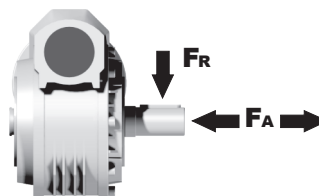
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

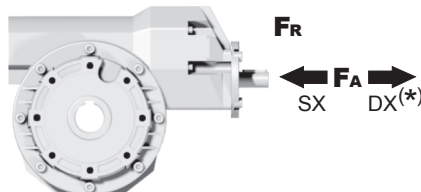
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| <b>75</b>                     | 700          | 3500         |
| <b>50</b>                     | 800          | 4000         |
| <b>25</b>                     | 1000         | 5000         |
| <b>15-6</b>                   | 1160         | 5800         |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| <b>1400</b>                   | 108          | 540          |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

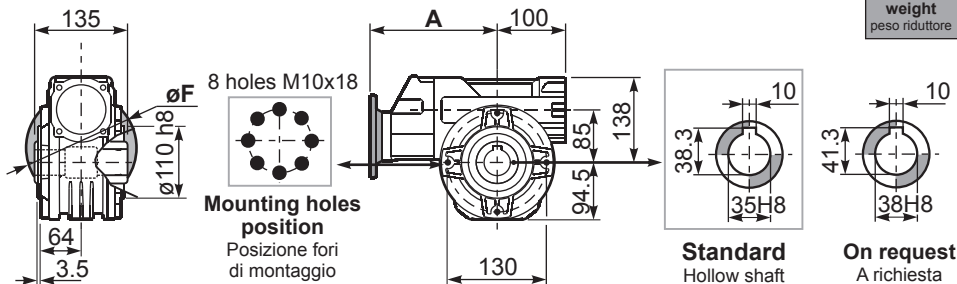
tab. 2



## PP85FB...

Basic wormbox  
Riduttore baseGearbox weight  
peso riduttore 19.30 kg

| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 63B5       | K063.4.041 | 140 | 195.2 |
| 71B5       | K063.4.042 | 160 | 193.2 |
| 80/90B5    | K063.4.043 | 200 | 195.2 |
| 71B14      | K063.4.047 | 105 | 193.2 |
| 80B14      | K063.4.046 | 120 | 195.2 |
| 90B14      | K063.4.041 | 140 | 195.2 |

Standard  
Hollow shaftOn request  
A richiesta

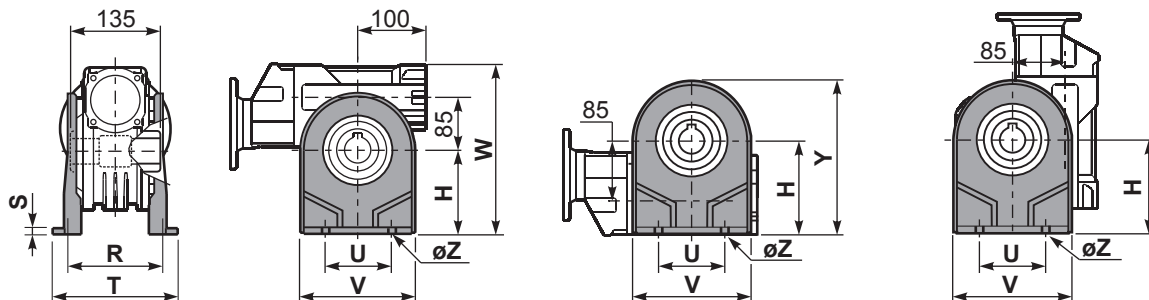
## PP85PA...

Feet  
Piedini

## PP85PB...

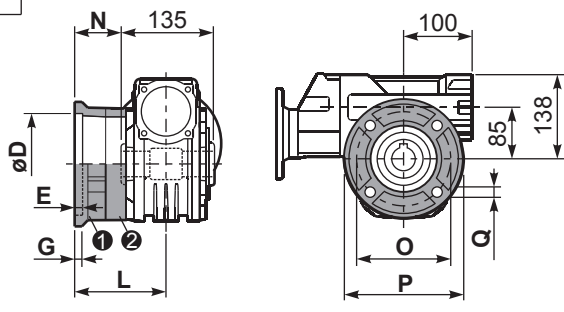
Feet  
Piedini

## PP85PV...

Feet  
Piedini

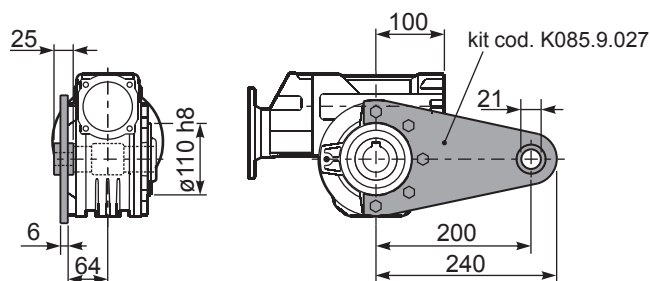
|        | H   | R   | S | T   | U   | V   | Y     | W   | øZ    | kit code   |
|--------|-----|-----|---|-----|-----|-----|-------|-----|-------|------------|
| type B | 142 | 145 | 5 | 182 | 140 | 180 | 236.5 | 280 | ø10.5 | K085.9.022 |
| type S | -   | -   | - | -   | -   | -   | -     | -   | -     | -          |

## PP85FC...

Output flange  
Flangia uscita

| type B | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
|--------|---------------------------------------|---|----|-------|------|-----|-----|------|------------------------------|
| FC     | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 108   | 40.5 | 176 | 205 | 13   | ① K085.9.010<br>② -          |
| FL     | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 148.5 | 81   | 176 | 205 | 13   | ① K085.9.010<br>② K085.0.201 |
| type S | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
| F1     | 130 <sup>+0.04</sup> <sub>+0.00</sub> | 5 | 13 | 117.5 | 50   | 165 | 200 | 11.5 | ① KS085.9.012<br>② -         |
| F2     | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 15 | 147.5 | 80   | 180 | 205 | 12.5 | ① KS085.9.013<br>② -         |
| F4     | 130 <sup>+0.04</sup> <sub>+0.00</sub> | 5 | 13 | 106.5 | 39   | 165 | 200 | 13   | ① KS085.9.015<br>② -         |

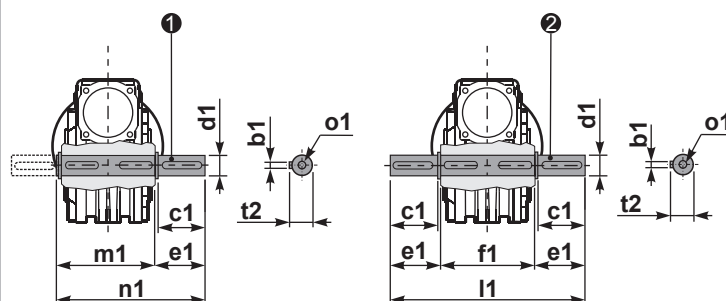
## PP85BR...

Reaction arm  
Braccio di reazione

## PP85.....S...

Single Shaft  
Albero lento semplice

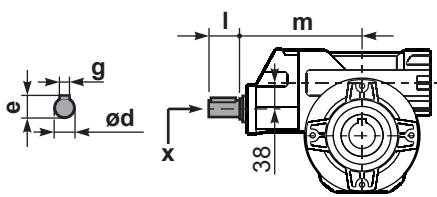
## PP85.....D...

Double Shaft  
Albero lento bisp.

① kit cod. K085.5.028 type B

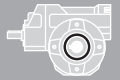
② kit cod. K085.5.029 type B

## RP85FB...

Input shaft  
Albero in entrata

|        | ød    | e    | g | l  | m     | x     |           |
|--------|-------|------|---|----|-------|-------|-----------|
| type B | 19 h6 | 21.5 | 6 | 35 | 187.5 | M6x16 | C40.5.062 |
| type S | -     | -    | - | -  | -     | -     | -         |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1  | n1    | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 <sup>-0.005</sup> <sub>-0.020</sub> | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | -  | -  | -                                      | -    | -   | -   | -   | -     | -  | -      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |    |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|----|----|------------------------------|--------------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -Q                             | -R | -T |                              |                          |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 71                             | 80 | 90 |                              |                          |             |
| 16.8                                          | <b>83.2</b>  | 1.5                             | 587                               | 1.1                    | <b>1.7</b>                        | <b>660</b>                         |                               |    |    |    | C                              |    |    | 69                           | 3.5                      | 01          |
| 13.9                                          | <b>100.5</b> | 1.5                             | 699                               | 0.8                    | <b>1.3</b>                        | <b>594</b>                         |                               |    |    |    | C                              |    |    | 68                           | 2.9                      | 02          |
| 10.6                                          | <b>132</b>   | 1.1                             | 634                               | 0.9                    | <b>0.95</b>                       | <b>550</b>                         |                               |    |    |    | C                              |    |    | 64                           | 2.2                      | 03          |
| 8.0                                           | <b>176</b>   | 0.75                            | 666                               | 1.2                    | <b>0.90</b>                       | <b>803</b>                         | B                             |    |    |    | C                              |    |    | 74                           | 4.7                      | 04          |
| 6.7                                           | <b>208</b>   | 0.75                            | 766                               | 0.9                    | <b>0.65</b>                       | <b>660</b>                         | B                             |    |    |    | C                              |    |    | 72                           | 4.0                      | 05          |
| 5.7                                           | <b>245</b>   | 0.55                            | 634                               | 1.0                    | <b>0.57</b>                       | <b>660</b>                         | B                             |    |    |    | C                              |    |    | 69                           | 3.5                      | 06          |
| 4.7                                           | <b>296</b>   | 0.55                            | 755                               | 0.8                    | <b>0.43</b>                       | <b>594</b>                         | B                             |    |    |    | C                              |    |    | 68                           | 2.9                      | 07          |
| 4.2                                           | <b>334</b>   | 0.55                            | 865                               | 0.8                    | <b>0.42</b>                       | <b>660</b>                         | B                             |    |    |    | C                              |    |    | 69                           | 3.5                      | 08          |
| 3.5                                           | <b>403</b>   | 0.37                            | 692                               | 0.9                    | <b>0.32</b>                       | <b>594</b>                         | B                             |    |    |    | C                              |    |    | 68                           | 2.9                      | 09          |
| 2.6                                           | <b>529</b>   | 0.25                            | 577                               | 1.0                    | <b>0.24</b>                       | <b>550</b>                         | B                             |    |    |    | C                              |    |    | 64                           | 2.2                      | 10          |
| 2.2                                           | <b>624</b>   | 0.25                            | 628                               | 0.8                    | <b>0.21</b>                       | <b>528</b>                         | B                             |    |    |    | C                              |    |    | 59                           | 1.9                      | 11          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **P10** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. Primary reduction unit is supplied with closed plugs and lubricated for life with synthetic oil. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P10** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. La precoppia è fornita con tappi chiusi e lubrificata a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **P10** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Die Stirnradvorstufe ist Lebensdauer geschmiert und wird mit synthetischem Öl geliefert. Die Stirnradvorstufe ist komplett geschlossen ohne Füllschrauben. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P10** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le pré couple est fourni lubrifié à vie avec de l'huile synthétique et avec des bouchons fermés. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **P10** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|             |              |              |             |             |             |
|-------------|--------------|--------------|-------------|-------------|-------------|
|             |              |              |             |             |             |
| B3          | B6           | B7           | B8          | V5          | V6          |
| 1.9/0.14 LT | 1.35/0.14 LT | 1.35/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT |

AGIP Blasias 460

For all details on lubrication and plugs check our website

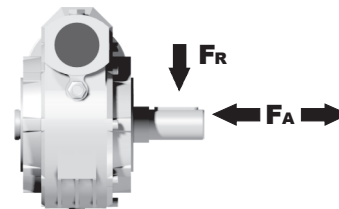
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

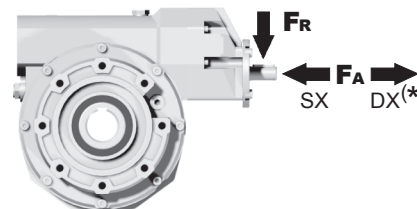
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 800       | 4000      |
| 50                            | 920       | 4600      |
| 25                            | 1200      | 6000      |
| 15-6                          | 1400      | 7000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 150       | 760       |

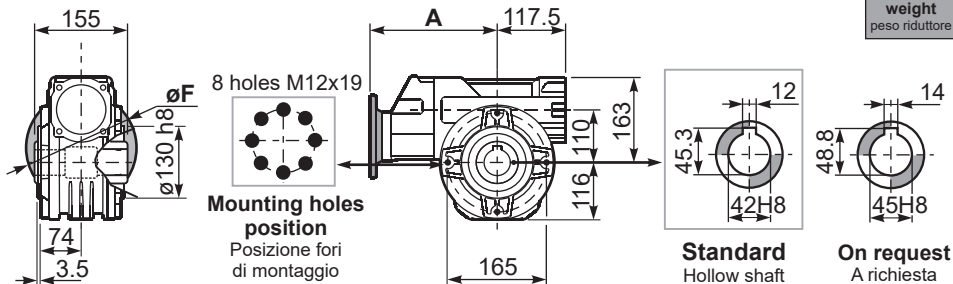
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

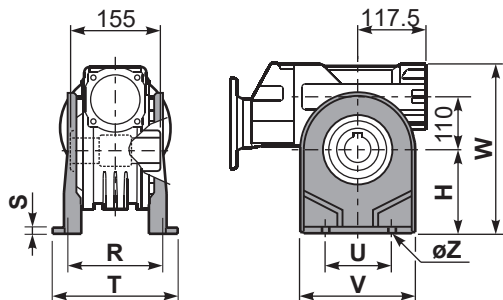
## PP10FB...

Basic wormbox  
Riduttore baseGearbox weight  
peso riduttore **41.00 kg**

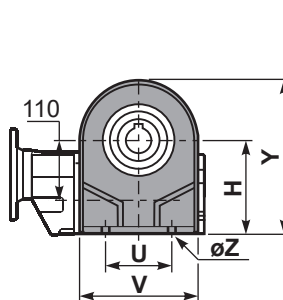
| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 63B5       | K063.4.041 | 140 | 214.7 |
| 71B5       | K063.4.042 | 160 | 212.7 |
| 80/90B5    | K063.4.043 | 200 | 214.7 |
| 71B14      | K063.4.047 | 105 | 212.7 |
| 80B14      | K063.4.046 | 120 | 214.7 |
| 90B14      | K063.4.041 | 140 | 214.7 |

Standard  
Hollow shaftOn request  
A richiesta

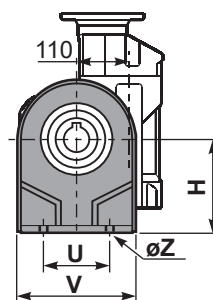
## PP10PA...

Feet  
Piedini

## PP10PB...

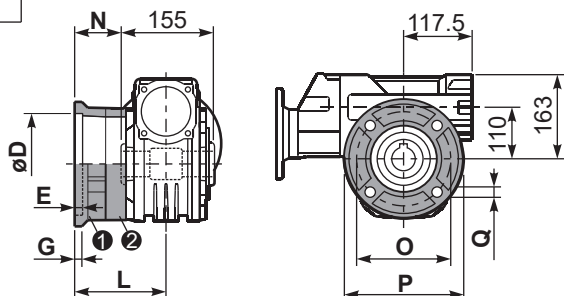
Feet  
Piedini

## PP10PV...

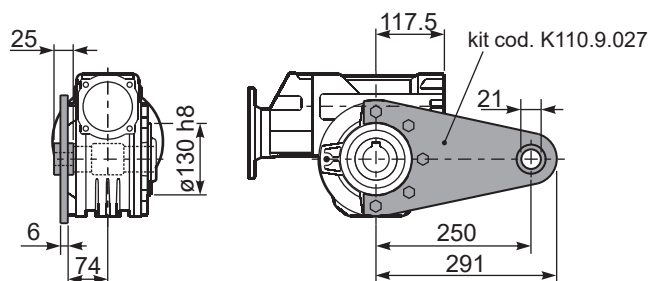
Feet  
Piedini

|        | H   | R   | S  | T   | U   | V   | Y   | W   | øZ  | kit code   |
|--------|-----|-----|----|-----|-----|-----|-----|-----|-----|------------|
| type B | 170 | 180 | 22 | 224 | 200 | 240 | 286 | 333 | ø13 | K110.9.022 |
| type S | -   | -   | -  | -   | -   | -   | -   | -   | -   | -          |

## PP10FC...

Output flange  
Flangia uscita

## PP10BR...

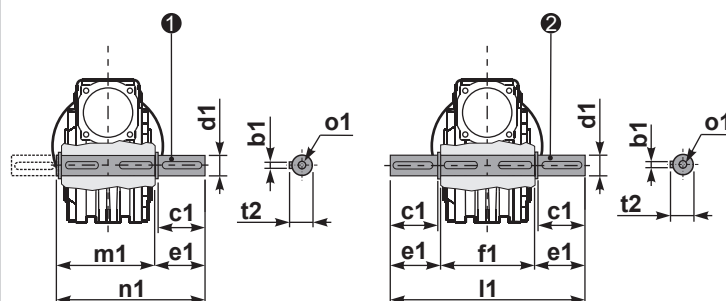
Reaction arm  
Braccio di reazione

| type B | øD                                      | E  | G    | L     | N    | O   | P   | Q  | kit code             |
|--------|-----------------------------------------|----|------|-------|------|-----|-----|----|----------------------|
| FC     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 131.5 | 54   | 230 | 270 | 13 | ① K110.9.010<br>② -  |
| FL     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 179.5 | 102  | 230 | 270 | 13 | ① K110.9.011<br>② -  |
| type S | øD                                      | E  | G    | L     | N    | O   | P   | Q  | kit code             |
| F1     | 180 <sup>+0.040</sup> <sub>0</sub>      | 5  | 18   | 150   | 72.5 | 215 | 250 | 15 | ① KS110.9.014<br>② - |
| F3     | 180 <sup>+0.040</sup> <sub>0</sub>      | 5  | 18   | 130   | 52.5 | 215 | 250 | 15 | ① KS110.9.013<br>② - |

## PP10.....S...

Single Shaft  
Albero lento semplice

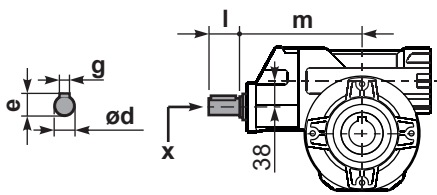
## PP10.....D...

Double Shaft  
Albero lento bisp.

① kit cod. K110.5.028 type B

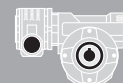
② kit cod. K110.5.029 type B

## RP10FB...

Input shaft  
Albero in entrata

|        | ød    | e    | g | l  | m   | x     |           |
|--------|-------|------|---|----|-----|-------|-----------|
| type B | 19 h6 | 21.5 | 6 | 35 | 205 | M6x16 | C40.5.062 |
| type S | -     | -    | - | -  | -   | -     | -         |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 <sup>-0.005</sup> <sub>-0.020</sub> | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|----|------------------------------|--------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -O                             | -P |                              |                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 56                             | 63 |                              |                          |                 |
| 9.3                                           | <b>150</b>   | 0.06                            | 29                                | 1.2                    | <b>0.07</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 48                           | 1.44                     | 01              |
| 6.7                                           | <b>210</b>   | 0.06                            | 39                                | 0.9                    | <b>0.05</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 45                           | 1.44                     | 02              |
| 4.7                                           | <b>300</b>   | 0.06*                           | 35                                | <0.8                   | <b>0.05</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 36                           | 1.44                     | 03              |
| 3.1                                           | <b>450</b>   | 0.06*                           | 35                                | <0.8                   | <b>0.03</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 33                           | 1.44                     | 04              |
| 2.3                                           | <b>600</b>   | 0.06*                           | 35                                | <0.8                   | <b>0.03</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 30                           | 1.44                     | 05              |
| 1.6                                           | <b>900</b>   | 0.06*                           | 35                                | <0.8                   | <b>0.02</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 27                           | 1.44                     | 06              |
| 1.2                                           | <b>1200</b>  | 0.06*                           | 35                                | <0.8                   | <b>0.02</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 26                           | 1.44                     | 07              |
| 0.8                                           | <b>1830</b>  | 0.06*                           | 35                                | <0.8                   | <b>0.01</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 24                           | 1.44                     | 08              |
| 0.6                                           | <b>2400</b>  | 0.06*                           | 35                                | <0.8                   | <b>0.01</b>                       | <b>35</b>                          | B                             |    | B-C                            |    | 22                           | 1.44                     | 09              |

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **303** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **303** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

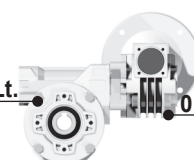
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **303** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **303** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **303** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 303 Oil Quantity 0.03/0.03 Lt.

0.03 Lt. 0.03 Lt.



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

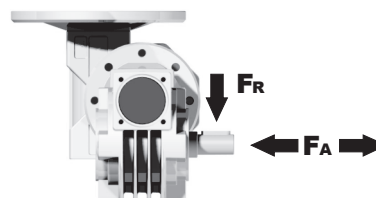
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

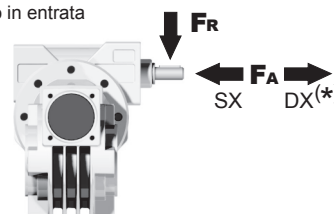
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 300       | 1800      |
| 15                            | 400       | 2000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

3D dimensions on request

Rightangle - Gear

35Nm

303

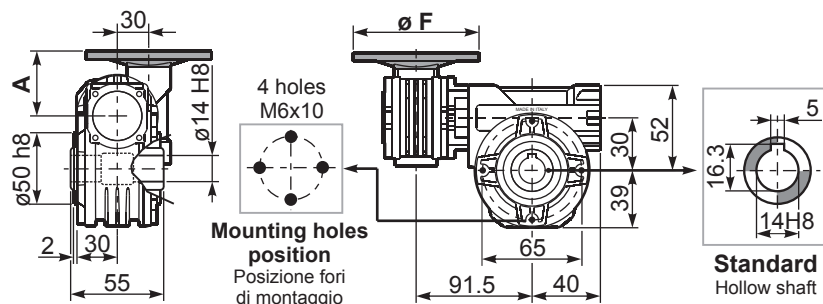
P303FB...

Basic wormbox  
Riduttore base

Gearbox  
weight  
peso riduttore

2.15 kg

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 56B5       | K030.4.041 | 120 | 61.5 |
| 63B5       | K030.4.042 | 140 | 62.5 |
| 56B14      | K030.4.046 | 80  | 61.5 |
| 63B14      | K030.4.045 | 90  | 62.5 |



P303PA...

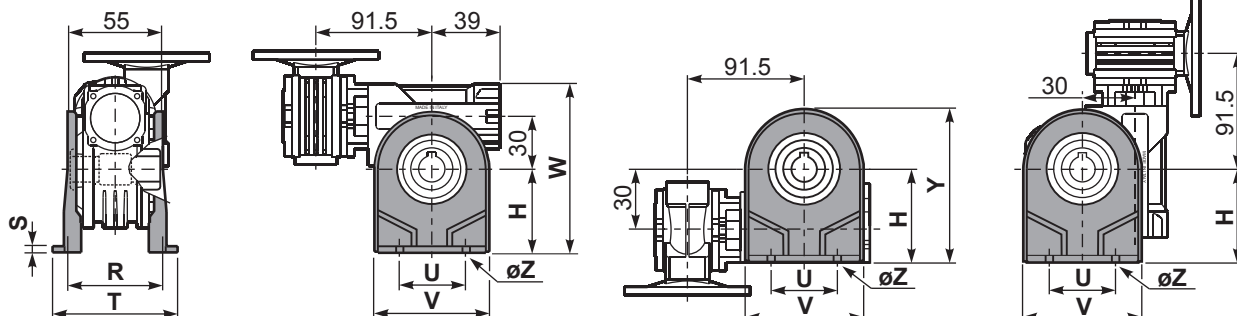
Feet  
Piedini

P303PB...

Feet  
Piedini

P303PV...

Feet  
Piedini



|        | H  | R  | S | T  | U  | V  | Y  | W   | øZ   | kit code    |
|--------|----|----|---|----|----|----|----|-----|------|-------------|
| type B | 55 | 66 | 3 | 87 | 50 | 78 | 94 | 107 | ø6.5 | K030.9.022  |
| type S | 52 | 66 | 3 | 87 | 52 | 90 | 91 | 104 | ø6.5 | KS030.9.023 |

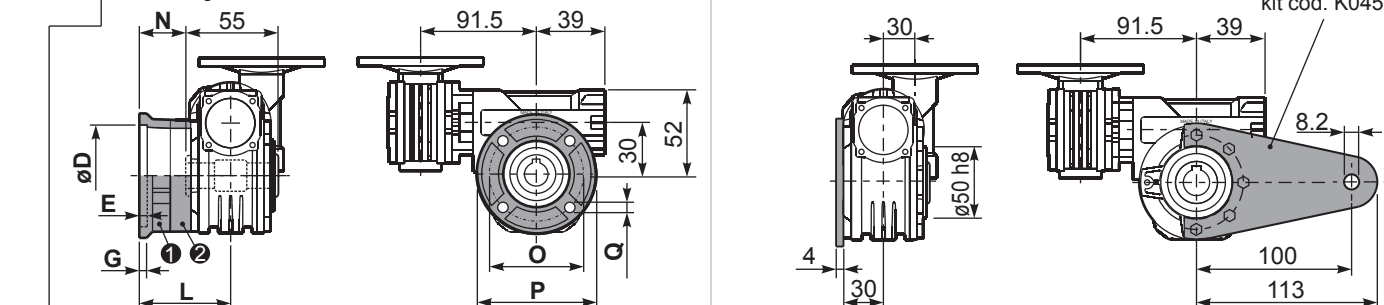
P303FC...

Output flange  
Flangia uscita

P303BR...

Reaction arm  
Braccio di reazione

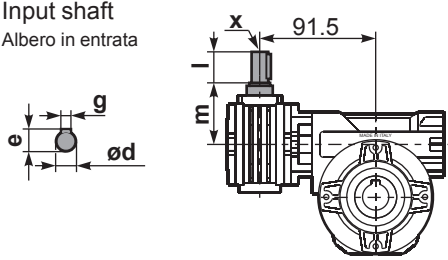
kit cod. K045.9.027



| type B | øD                                   | E   | G   | L    | N    | O  | P   | Q   | kit code             |
|--------|--------------------------------------|-----|-----|------|------|----|-----|-----|----------------------|
| FC     | 50 <sup>+0.15</sup> <sub>+0.05</sub> | 6   | 6   | 50.5 | 23   | 68 | 80  | 7   | 1 K030.9.010<br>2 -  |
| FL     | 60 <sup>+0.15</sup> <sub>+0.05</sub> | 6   | 6   | 55.5 | 28   | 87 | 110 | 8.5 | 1 K045.9.010<br>2 -  |
| type S | øD                                   | E   | G   | L    | N    | O  | P   | Q   | kit code             |
| F1     | 40 <sup>+0.15</sup> <sub>+0.10</sub> | 3.5 | 5.5 | 49   | 21.5 | 56 | 80  | 6.5 | 1 KS030.9.012<br>2 - |

R303FB...

Input shaft  
Albero in entrata



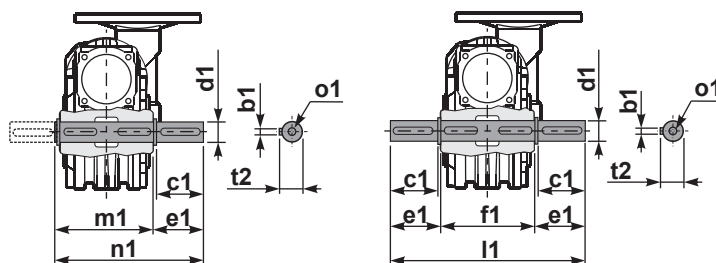
|        | ød   | e    | g | l  | m  | x | kit code         |
|--------|------|------|---|----|----|---|------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | K030.5.006 PAM63 |
| type S | -    | -    | - | -  | -  | - | -                |

P303.....S...

Single Shaft  
Albero lento semplice

P303.....D...

Double Shaft  
Albero lento bisp.

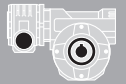


1 kit cod. K030.5.028 type B

2 kit cod. K030.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1 | l1  | m1 | n1   | t2   | o1    |
|--------|----|----|----------------------------------------|------|----|-----|----|------|------|-------|
| type B | 5  | 25 | 14 <sup>-0.005</sup> <sub>-0.020</sub> | 35.5 | 55 | 126 | 59 | 94.5 | 15.8 | M5x14 |
| type S | -  | -  | -                                      | -    | -  | -   | -  | -    | -    | -     |





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -O                             | -P |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 56                             | 63 |                          |                      |             |
| 10.0                                          | <b>140</b>   | 0.12                            | 57                                | 1.2                    | <b>0.14</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 50                       | 2.2                  | 01          |
| 7.0                                           | <b>200</b>   | 0.12                            | 79                                | 0.9                    | <b>0.11</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 48                       | 2.2                  | 02          |
| 5.0                                           | <b>280</b>   | 0.12*                           | 69                                | <0.8                   | <b>0.08</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 45                       | 2.4                  | 03          |
| 3.3                                           | <b>420</b>   | 0.12*                           | 69                                | <0.8                   | <b>0.07</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 36                       | 1.6                  | 04          |
| 2.5                                           | <b>560</b>   | 0.12*                           | 69                                | <0.8                   | <b>0.05</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 33                       | 2.5                  | 05          |
| 1.9                                           | <b>740</b>   | 0.12*                           | 69                                | <0.8                   | <b>0.05</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 30                       | 1.8                  | 06          |
| 1.5                                           | <b>920</b>   | 0.12*                           | 69                                | <0.8                   | <b>0.04</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 27                       | 1.5                  | 07          |
| 1.3                                           | <b>1120</b>  | 0.12*                           | 69                                | <0.8                   | <b>0.03</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 26                       | 2.5                  | 08          |
| 0.9                                           | <b>1480</b>  | 0.12*                           | 69                                | <0.8                   | <b>0.03</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 24                       | 1.8                  | 09          |
| 0.8                                           | <b>1840</b>  | 0.12*                           | 69                                | <0.8                   | <b>0.02</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 22                       | 1.5                  | 10          |
| 0.6                                           | <b>2400</b>  | 0.12*                           | 69                                | <0.8                   | <b>0.02</b>                       | <b>69</b>                          | B                             |    | B-C                            |    | 21                       | 1.2                  | 11          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **453** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **453** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **453** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

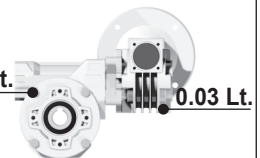
**F** Le réducteur de type **453** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **453** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 453 Oil

0.09 Lt.

Quantity 0.09/0.03 Lt.



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

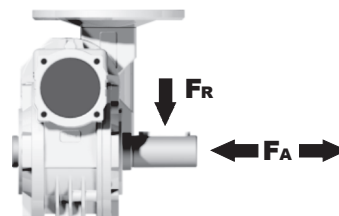
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

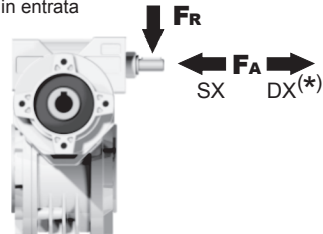
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 300       | 1800      |
| 15                            | 400       | 2000      |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

3D dimensions on request

Rightangle - Gear

69Nm

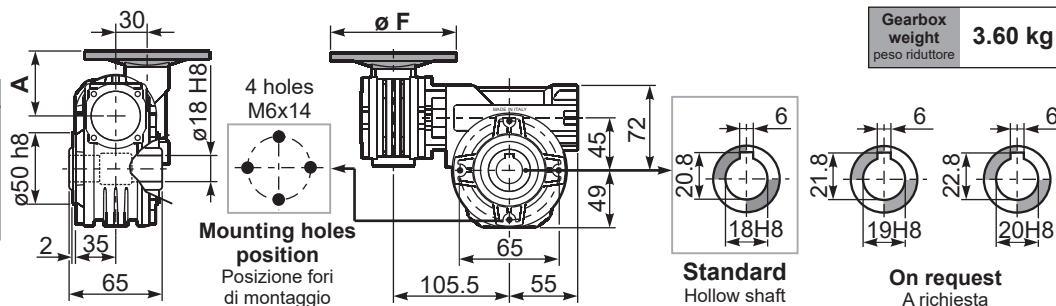
453

P453FB...

Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **3.60 kg**

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 56B5       | K030.4.041 | 120 | 61.5 |
| 63B5       | K030.4.042 | 140 | 62.5 |
| 56B14      | K030.4.046 | 80  | 61.5 |
| 63B14      | K030.4.045 | 90  | 62.5 |



P453PA...

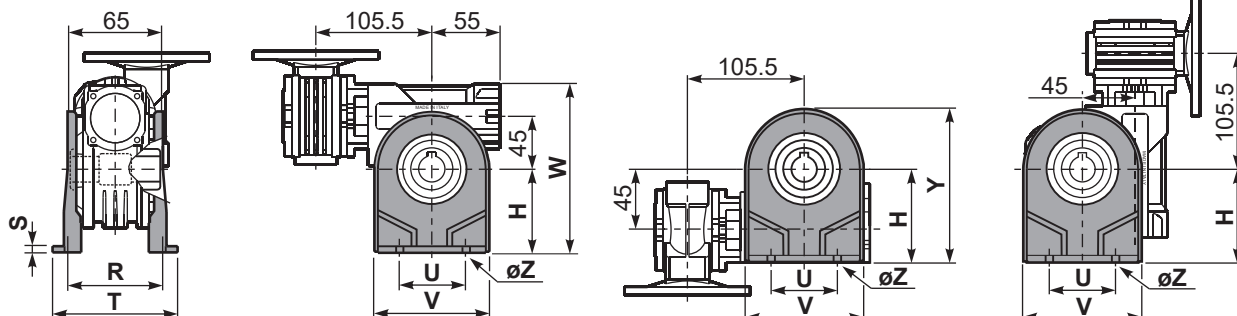
Feet  
Piedini

P453PB...

Feet  
Piedini

P453PV...

Feet  
Piedini



|        | H  | R  | S | T   | U  | V  | Y   | W   | øZ    | kit code    |
|--------|----|----|---|-----|----|----|-----|-----|-------|-------------|
| type B | 72 | 81 | 3 | 100 | 52 | 98 | 121 | 144 | ø10.5 | K045.9.022  |
| type S | 71 | 84 | 8 | 100 | 70 | 90 | 120 | 143 | ø8    | KS045.9.023 |

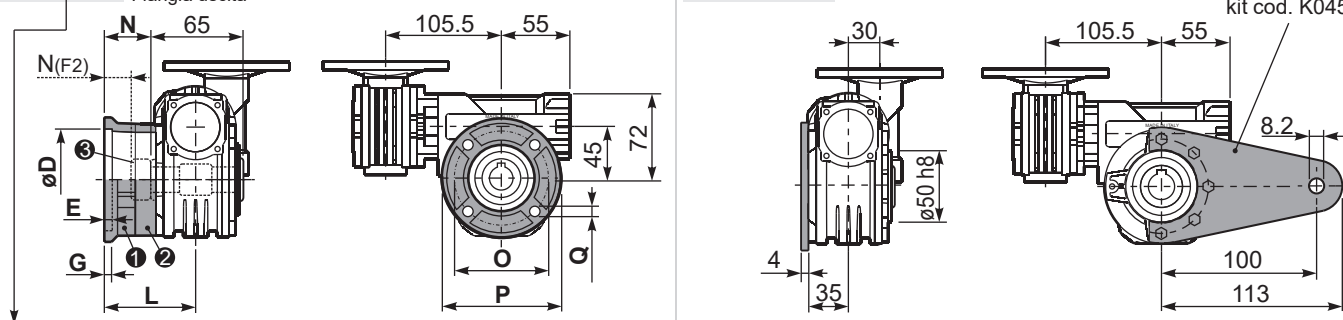
P453FC...

Output flange  
Flangia uscita

P453BR...

Reaction arm  
Braccio di reazione

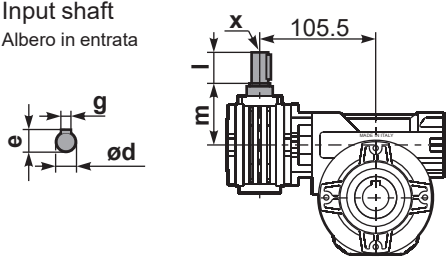
kit cod. K045.9.027



| type B | øD                                   | E | G  | L    | N  | O   | P   | Q   | kit code                      |
|--------|--------------------------------------|---|----|------|----|-----|-----|-----|-------------------------------|
| FC     | 60 <sup>+0.15</sup> <sub>-0.05</sub> | 9 | 9  | 60.5 | 28 | 87  | 110 | 8.5 | 1 K045.9.010<br>2 -           |
| FL     | 60 <sup>+0.15</sup> <sub>-0.05</sub> | 9 | 9  | 90.5 | 58 | 87  | 110 | 8.5 | 1 K045.9.010<br>2 K045.0.200  |
| type S | øD                                   | E | G  | L    | N  | O   | P   | Q   | kit code                      |
| F1     | 95 <sup>+0.20</sup> <sub>-0.15</sub> | 4 | 11 | 73.5 | 41 | 115 | 140 | 9   | 1 KS045.9.013<br>2 -          |
| F2     | 60 <sup>+0.15</sup> <sub>-0.05</sub> | 9 | 9  | 60.5 | 19 | 87  | 110 | 8.5 | 1 KS045.9.010<br>2 S045.0.204 |
| F3     | 80 <sup>+0.030</sup> <sub>0</sub>    | 3 | 8  | 51.5 | 19 | 100 | 120 | 9   | 1 KS045.9.014<br>2 -          |

R453FB...

Input shaft  
Albero in entrata



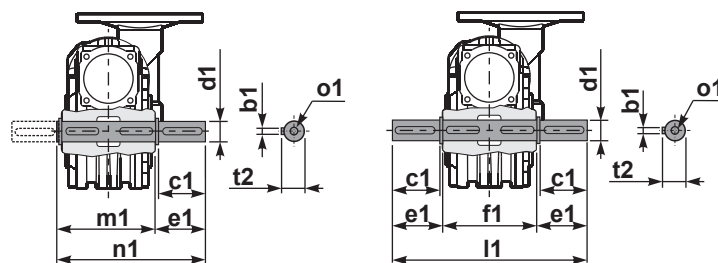
|        | ød   | e    | g | l  | m  | x | kit code                  |
|--------|------|------|---|----|----|---|---------------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | 1 K030.5.006 PAM63<br>2 - |
| type S | -    | -    | - | -  | -  | - | 1 -<br>2 -                |

P453.....S...

Single Shaft  
Albero lento semplice

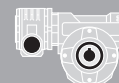
P453.....D...

Double Shaft  
Albero lento bisp.



- 1 kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S
- 2 kit cod. K045.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1 | l1  | m1 | n1    | t2   | o1    |
|--------|----|----|----------------------------------------|------|----|-----|----|-------|------|-------|
| type B | 6  | 32 | 18 <sup>-0.005</sup> <sub>-0.020</sub> | 43   | 65 | 151 | 70 | 113   | 20.5 | M6x18 |
| type S | 6  | 40 | 19 <sup>-0.005</sup> <sub>-0.020</sub> | 58.5 | -  | -   | 70 | 128.5 | 21.5 | M8x20 |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|----|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -O                             | -P |                              |                          |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 56                             | 63 |                              |                          |                                                                                                    |
| 5.6                                           | <b>252</b>   | 0.12                            | 97                                | 1.1                    | <b>0.14</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 47                           | 2.1                      | 01                                                                                                 |
| 3.9                                           | <b>360</b>   | 0.12                            | 124                               | 0.9                    | <b>0.11</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 42                           | 2.1                      | 02                                                                                                 |
| 2.6                                           | <b>540</b>   | 0.12*                           | 109                               | <0.8                   | <b>0.08</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 39                           | 2.1                      | 03                                                                                                 |
| 1.9                                           | <b>720</b>   | 0.12*                           | 109                               | <0.8                   | <b>0.06</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 36                           | 2.1                      | 04                                                                                                 |
| 1.6                                           | <b>860</b>   | 0.12*                           | 109                               | <0.8                   | <b>0.06</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 32                           | 1.8                      | 05                                                                                                 |
| 1.2                                           | <b>1200</b>  | 0.12*                           | 109                               | <0.8                   | <b>0.05</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 27                           | 1.3                      | 06                                                                                                 |
| 1.0                                           | <b>1440</b>  | 0.12*                           | 109                               | <0.8                   | <b>0.04</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 26                           | 2.1                      | 07                                                                                                 |
| 0.8                                           | <b>1720</b>  | 0.12*                           | 109                               | <0.8                   | <b>0.04</b>                       | <b>109</b>                         | B                             |    | B-C                            |    | 25                           | 1.8                      | 08                                                                                                 |
| 0.6                                           | <b>2400</b>  | 0.12*                           | 104                               | <0.8                   | <b>0.03</b>                       | <b>104</b>                         | B                             |    | B-C                            |    | 21                           | 1.3                      | 09                                                                                                 |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 503 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

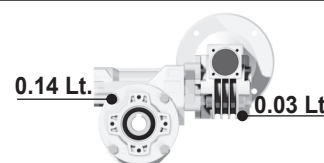
**I** Il riduttore tipo 503 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 503 mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 503 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 503 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 503 Oil Quantity 0.14/0.03 Lt.



**AGIP** Telium VSF 320

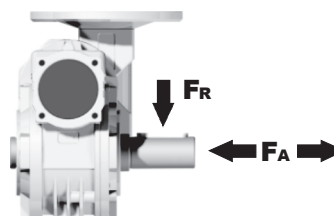
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

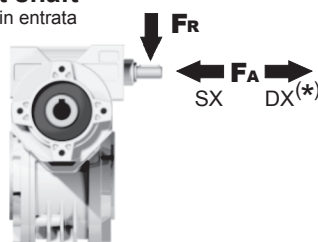
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 480       | 2500      |
| 15                            | 560       | 2800      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

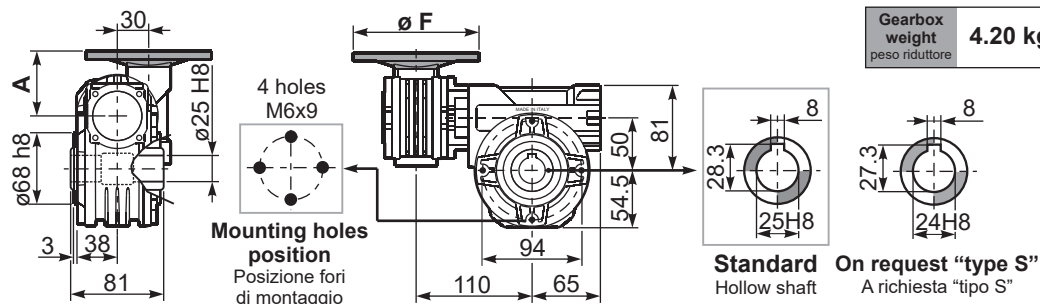
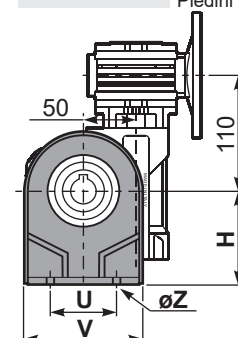
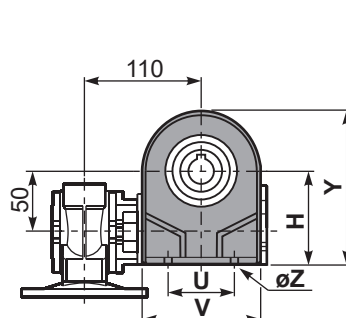
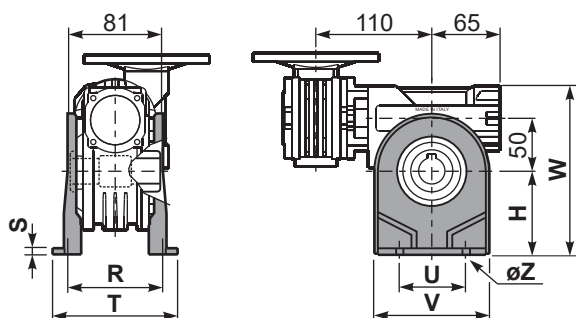
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

Basic wormbox  
Riduttore base

|                |         |
|----------------|---------|
| Gearbox weight | 4.20 kg |
|----------------|---------|

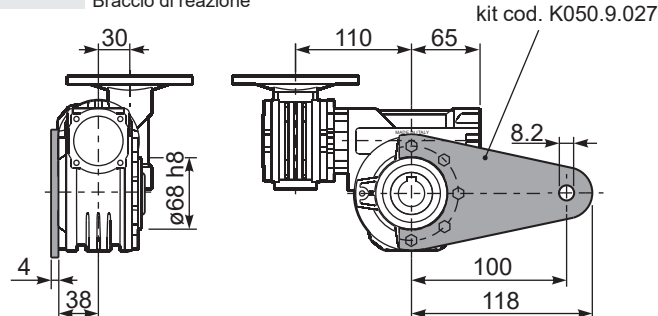
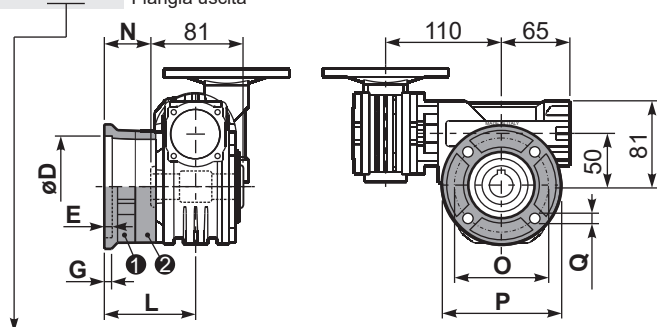
| M. flanges   | Kit code   | øF  | A    |
|--------------|------------|-----|------|
| <b>56B5</b>  | K030.4.041 | 120 | 61.5 |
| <b>63B5</b>  | K030.4.042 | 140 | 62.5 |
|              |            |     |      |
| <b>56B14</b> | K030.4.046 | 80  | 61.5 |
| <b>63B14</b> | K030.4.045 | 90  | 62.5 |

Feet  
PiediniFeet  
PiediniFeet  
Piedini

|               | H  | R    | S   | T   | U  | V   | Y     | W   | øZ    | kit code    |
|---------------|----|------|-----|-----|----|-----|-------|-----|-------|-------------|
| type <b>B</b> | 82 | 98.5 | 3.5 | 123 | 63 | 113 | 138.5 | 163 | ø10.5 | K050.9.022  |
| type <b>S</b> | 85 | 96   | 10  | 114 | 85 | 110 | 139.5 | 166 | ø10   | KS050.9.023 |

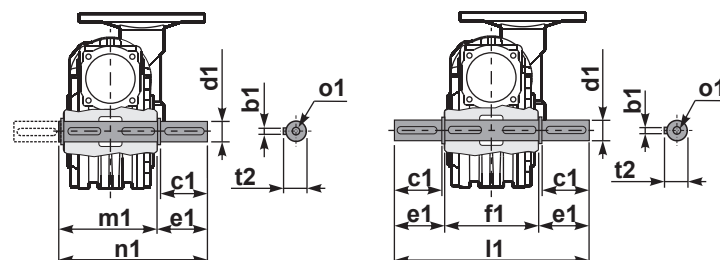
Output flange  
Flangia uscita

Reaction arm  
Braccio di reazione



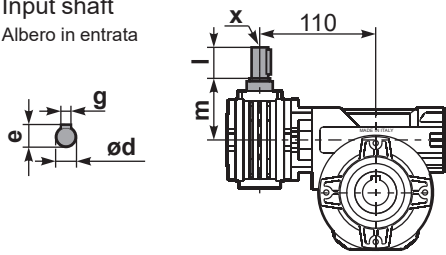
| type B    | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
|-----------|---------------------------------------|---|----|-------|------|-----|-----|------|------------------------------|
| <b>FC</b> | 70 <sup>+0.20</sup> <sub>+0.15</sub>  | 9 | 12 | 85    | 44.5 | 90  | 123 | 10.5 | ① K050.9.010<br>② -          |
| <b>FL</b> | 70 <sup>+0.20</sup> <sub>+0.15</sub>  | 9 | 12 | 114.5 | 74   | 90  | 123 | 10.5 | ① K050.9.010<br>② K050.0.200 |
| type S    | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
| <b>F1</b> | 110 <sup>+0.20</sup> <sub>+0.15</sub> | 4 | 11 | 83.5  | 43   | 130 | 160 | 10   | ① KS050.9.012<br>② -         |
| <b>F2</b> | 70 <sup>+0.20</sup> <sub>+0.15</sub>  | 9 | 12 | 76.5  | 36   | 90  | 123 | 10.5 | ① KS050.9.014<br>② -         |
| <b>F3</b> | 95 <sup>+0.035</sup> <sub>0</sub>     | 4 | 10 | 66.5  | 26   | 115 | 140 | 10   | ① KS050.9.013<br>② -         |

P503.....**D**... Double Shaft  
Albero lento bisp.



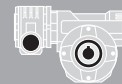
① kit cod. K050.5.028 type **B**  
kit cod. KS050.5.030 type **S**

Input shaft  
Albero in entrata



|        | ød   | e    | g | l  | m  | x | kit code                  |
|--------|------|------|---|----|----|---|---------------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | ① K030.5.006 PAM63<br>② - |
| type S | -    | -    | - | -  | -  | - | ① -<br>② -                |

|               | <b>b1</b> | <b>c1</b> | <b>d1</b>              | <b>e1</b> | <b>f1</b> | <b>l1</b> | <b>m1</b> | <b>n1</b> | <b>t2</b> | <b>o1</b> |
|---------------|-----------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>type B</b> | 8         | 52        | $25^{+0.005}_{-0.020}$ | 59.5      | 81        | 200       | 86.5      | 146       | 28        | M8x20     |
| <b>type S</b> | 8         | 50        | $24^{+0.005}_{-0.020}$ | 68.5      | -         | -         | 86.5      | 155       | 27        | M8x20     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                         | -B | -O                          | -P |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                         | 63 | 56                          | 63 |                          |                      |             |
| 5.6                                           | <b>252</b>   | 0.18                            | 142                               | 1.6                    | <b>0.29</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 46                       | 2.7                  | 01          |
| 3.9                                           | <b>360</b>   | 0.18                            | 181                               | 1.3                    | <b>0.23</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 41                       | 2.7                  | 02          |
| 2.6                                           | <b>540</b>   | 0.12                            | 164                               | 1.4                    | <b>0.17</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 37                       | 2.7                  | 03          |
| 1.9                                           | <b>720</b>   | 0.12                            | 200                               | 1.1                    | <b>0.14</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 34                       | 2.7                  | 04          |
| 1.3                                           | <b>1080</b>  | 0.12                            | 265                               | 0.9                    | <b>0.10</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 30                       | 2.7                  | 05          |
| 1.0                                           | <b>1440</b>  | 0.12*                           | 230                               | <0.8                   | <b>0.09</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 27                       | 2.7                  | 06          |
| 0.5                                           | <b>2745</b>  | 0.12*                           | 230                               | <0.8                   | <b>0.05</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 23                       | 2.1                  | 07          |

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 633 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

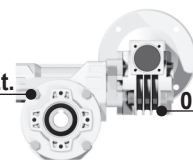
**I** Il riduttore tipo 633 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 633 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 633 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 633 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 633 Oil 0.40 Lt. Quantity 0.40/0.03 Lt.**



**AGIP** Telium VSF 320

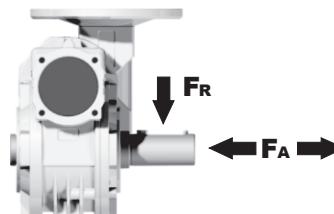
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

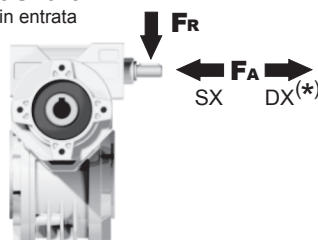
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 700       | 3800      |
| 15                            | 800       | 4000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**



3D dimensions on request

Rightangle - Gear

230Nm

633

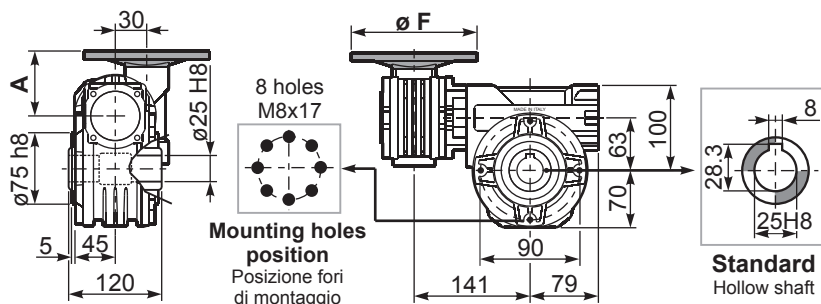
P633FB...

Basic wormbox  
Riduttore base

Gearbox  
weight  
peso riduttore

7.50 kg

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 56B5       | K030.4.041 | 120 | 61.5 |
| 63B5       | K030.4.042 | 140 | 62.5 |
| 56B14      | K030.4.046 | 80  | 61.5 |
| 63B14      | K030.4.045 | 90  | 62.5 |



P633PA...

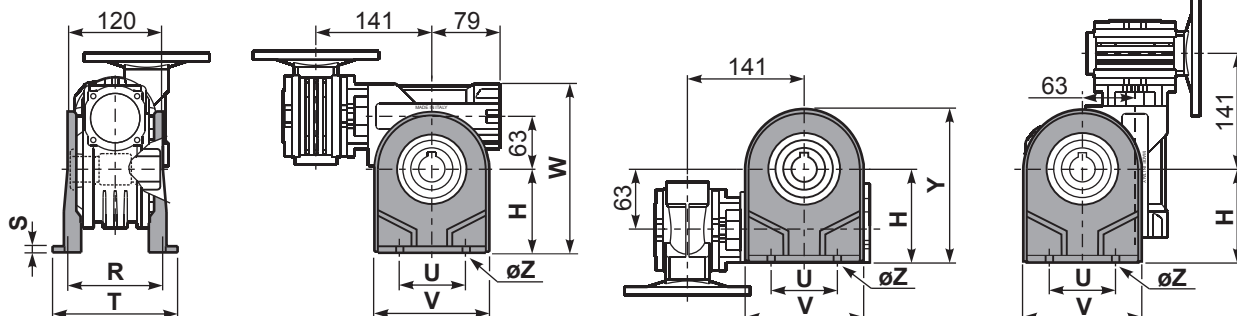
Feet  
Piedini

P633PB...

Feet  
Piedini

P633PV...

Feet  
Piedini



|        | H   | R   | S | T   | U  | V   | Y   | W   | øZ    | kit code   |
|--------|-----|-----|---|-----|----|-----|-----|-----|-------|------------|
| type B | 100 | 111 | 4 | 144 | 95 | 133 | 170 | 200 | ø10.5 | K063.9.022 |
| type S | -   | -   | - | -   | -  | -   | -   | -   | -     | -          |

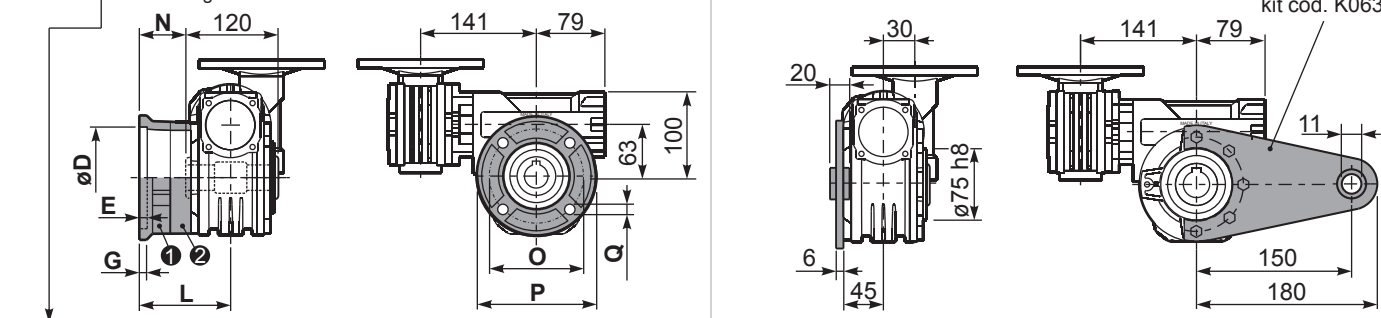
P633FC...

Output flange  
Flangia uscita

P633BR...

Reaction arm  
Braccio di reazione

kit cod. K063.9.027



| type B | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|----|-----|----|-----|-----|----|------------------------------|
| FC     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 86  | 26 | 150 | 175 | 11 | ① K063.9.010<br>② -          |
| FL     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | ① K063.9.010<br>② K063.0.200 |
| type S | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 102 | 42 | 165 | 200 | 13 | ① KS070.9.013<br>② -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | ① KS063.9.013<br>② -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 11 | 82  | 22 | 130 | 160 | 10 | ① KS063.9.011<br>② -         |

R633FB...

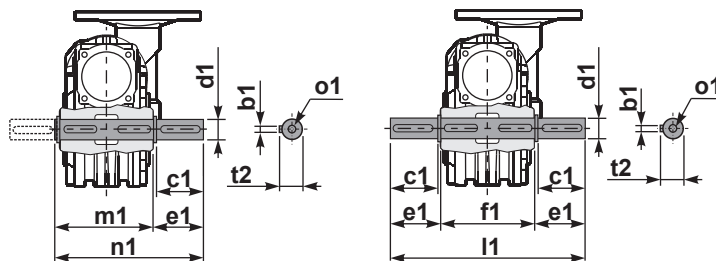
Input shaft  
Albero in entrata

P633.....S...

Single Shaft  
Albero lento semplice

P633.....D...

Double Shaft  
Albero lento bisp.

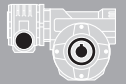


① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

|        | ød   | e    | g | l  | m  | x | kit code                  |
|--------|------|------|---|----|----|---|---------------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | ① K030.5.006 PAM63<br>② - |
| type S | -    | -    | - | -  | -  | - | ① -<br>② -                |

|        | b1 | c1 | d1                                     | e1   | f1  | l1    | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-------|-------|-----|----|-------|
| type B | 8  | 60 | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -     | -     | -   | -  | -     |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |     |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|-----|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P  | -Q |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63  | 71 |                          |                      |             |
| 5.6                                           | <b>252</b>   | 0.25                            | 198                               | 1.3                    | <b>0.33</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 46                       | 2.7                  | 01          |
| 3.9                                           | <b>360</b>   | 0.18                            | 186                               | 1.4                    | <b>0.26</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 42                       | 2.7                  | 02          |
| 2.8                                           | <b>504</b>   | 0.18                            | 241                               | 1.1                    | <b>0.20</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 39                       | 2.7                  | 03          |
| 1.9                                           | <b>756</b>   | 0.12                            | 204                               | 1.3                    | <b>0.16</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 33                       | 2.7                  | 04          |
| 1.4                                           | <b>1008</b>  | 0.12                            | 256                               | 1.0                    | <b>0.12</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 31                       | 2.7                  | 05          |
| 1.1                                           | <b>1332</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.10</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 30                       | 2.7                  | 06          |
| 0.8                                           | <b>1656</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.08</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 28                       | 2.7                  | 07          |
| 0.6                                           | <b>2160</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.07</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 26                       | 2.7                  | 08          |
| 0.6                                           | <b>2520</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.06</b>                       | <b>265</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 25                       | 2.7                  | 09          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **634** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **634** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **634** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **634** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **634** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 634 Oil** 0.40 Lt.  
**Quantity 0.40/0.09 Lt.**

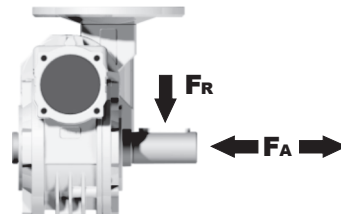
**AGIP** Telium VSF 320 **SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

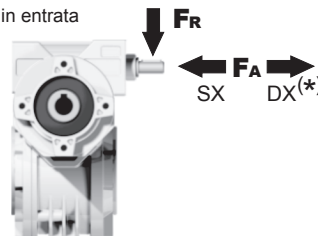
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 700       | 3800      |
| 15                            | 800       | 4000      |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 42        | 210       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

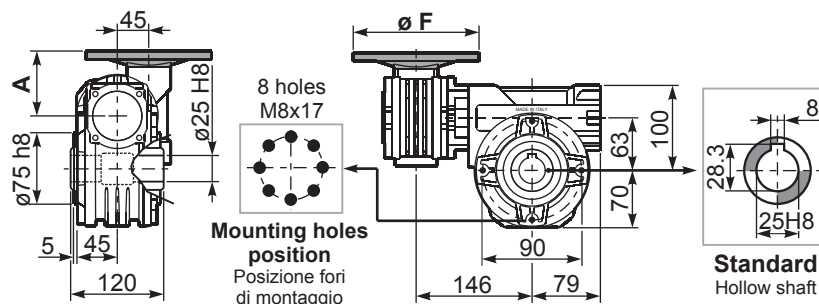
tab. 2

Basic wormbox  
Riduttore base

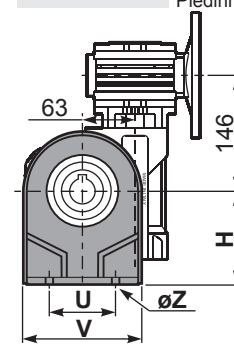
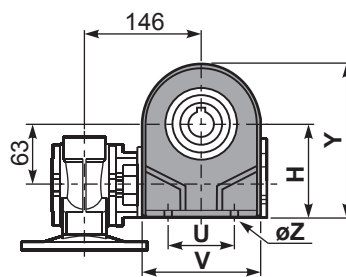
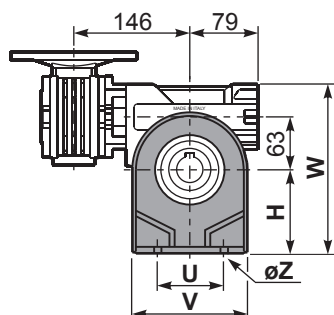
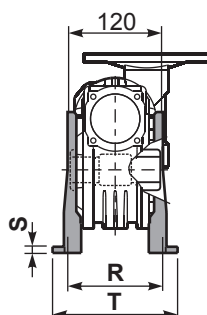
**Gearbox weight**  
peso riduttore

8.90 kg

| M. flanges   | Kit code   | $\phi F$ | A    |
|--------------|------------|----------|------|
| <b>63B5</b>  | K050.4.041 | 138      | 74   |
| <b>71B5</b>  | K050.4.042 | 160      | 71.5 |
|              |            |          |      |
| <b>56B14</b> | KC40.4.049 | 80       | 71.5 |
| <b>63B14</b> | K050.4.047 | 90       | 74   |
| <b>71B14</b> | K050.4.045 | 105      | 71.5 |

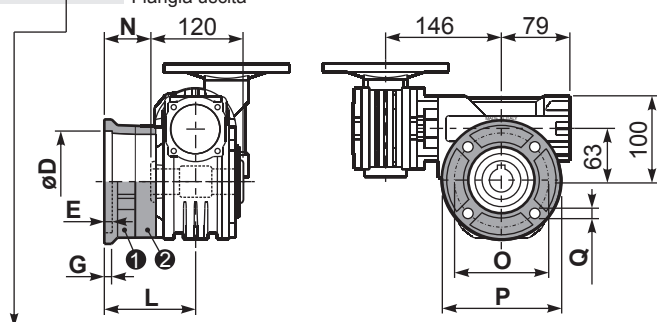


### Standard Hollow shaft

Feet  
PiediniFeet  
PiediniFeet  
Piedini[illegible]

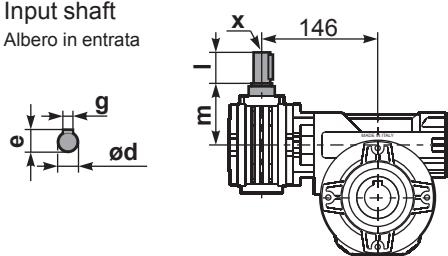
Output flange  
Flangia uscita

Reaction arm  
Braccio di reazione



| type B | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|----|-----|----|-----|-----|----|------------------------------|
| FC     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 86  | 26 | 150 | 175 | 11 | ① K063.9.010<br>② -          |
| FL     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | ① K063.9.010<br>② K063.0.200 |
| type S | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 102 | 42 | 165 | 200 | 13 | ① KS070.9.013<br>② -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 116 | 56 | 150 | 175 | 11 | ① KS063.9.013<br>② -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 11 | 82  | 22 | 130 | 160 | 10 | ① KS063.9.011<br>② -         |

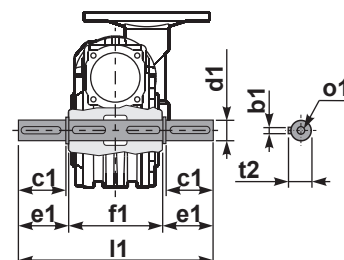
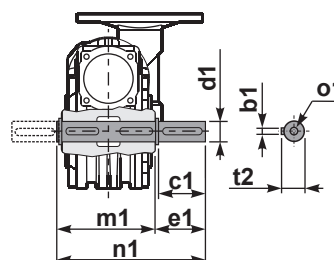
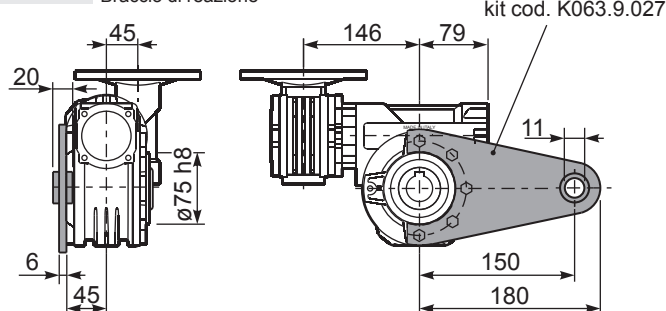
Input shaft  
Albero in entrata



|        | ød    | e    | g | l  | m  | x | kit code                  |
|--------|-------|------|---|----|----|---|---------------------------|
| type B | 11 h6 | 12.5 | 4 | 30 | 68 | - | ① K045.5.006 PAM71<br>② - |
| type S | -     | -    | - | -  | -  | - | ① -<br>② -                |

Single Shaft  
Albero lento semplice

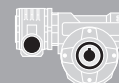
P634.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

[illegible]



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                         | -B | -O                          | -P |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                         | 63 | 56                          | 63 |                          |                      |             |
| 5.6                                           | <b>252</b>   | 0.18                            | 142                               | 2.0                    | <b>0.37</b>                       | <b>290</b>                         | B                          |    | B-C                         |    | 46                       | 2.7                  | 01          |
| 3.9                                           | <b>360</b>   | 0.18                            | 181                               | 1.6                    | <b>0.29</b>                       | <b>290</b>                         | B                          |    | B-C                         |    | 41                       | 2.7                  | 02          |
| 2.6                                           | <b>540</b>   | 0.18                            | 245                               | 1.2                    | <b>0.21</b>                       | <b>290</b>                         | B                          |    | B-C                         |    | 37                       | 2.7                  | 03          |
| 1.9                                           | <b>720</b>   | 0.12                            | 200                               | 1.4                    | <b>0.17</b>                       | <b>290</b>                         | B                          |    | B-C                         |    | 34                       | 2.7                  | 04          |
| 1.3                                           | <b>1080</b>  | 0.12                            | 265                               | 1.1                    | <b>0.13</b>                       | <b>290</b>                         | B                          |    | B-C                         |    | 30                       | 2.7                  | 05          |
| 1.0                                           | <b>1440</b>  | 0.12                            | 318                               | 0.9                    | <b>0.11</b>                       | <b>290</b>                         | B                          |    | B-C                         |    | 27                       | 2.7                  | 06          |
| 0.5                                           | <b>2745</b>  | 0.12*                           | 242                               | <0.8                   | <b>0.06</b>                       | <b>242</b>                         | B                          |    | B-C                         |    | 23                       | 2.1                  | 07          |

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **6A3** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **6A3** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

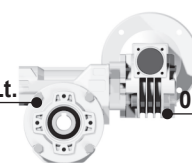
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **6A3** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **6A3** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **6A3** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 6A3 Oil Quantity 0.40/0.03 Lt.

0.40 Lt.



0.03 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

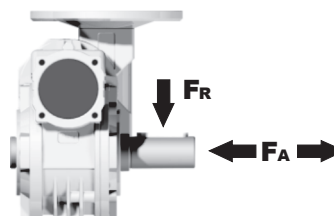
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

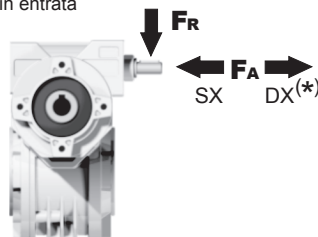
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| 25                            | 700          | 3800         |
| 15                            | 800          | 4000         |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| 1400                          | 20           | 100          |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

3D dimensions on request

Rightangle - Gear

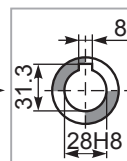
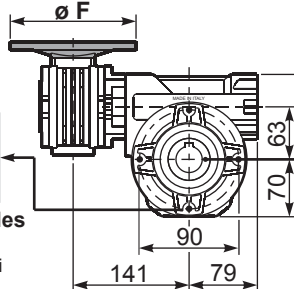
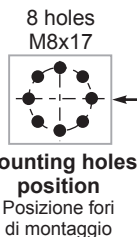
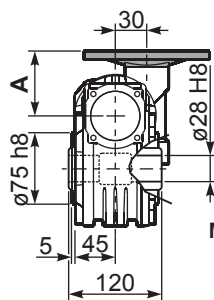
290Nm

6A3

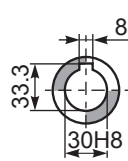
P6A3FB...

Basic wormbox  
Riduttore base

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 56B5       | K030.4.041 | 120 | 61.5 |
| 63B5       | K030.4.042 | 140 | 62.5 |
| 56B14      | K030.4.046 | 80  | 61.5 |
| 63B14      | K030.4.045 | 90  | 62.5 |



Standard  
Hollow shaft

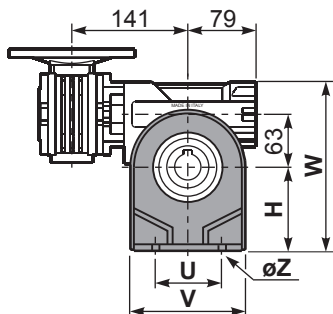
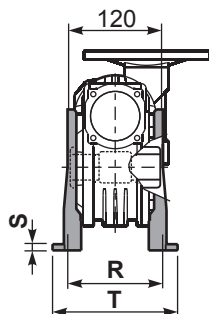


On request  
A richiesta

Gearbox weight  
peso riduttore 8.90 kg

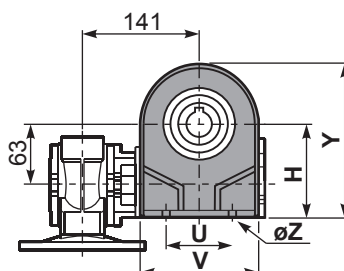
P6A3PA...

Feet  
Piedini



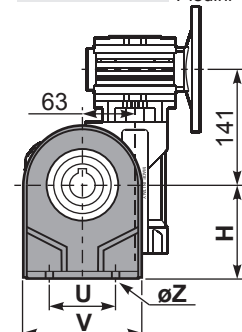
P6A3PB...

Feet  
Piedini



P6A3PV...

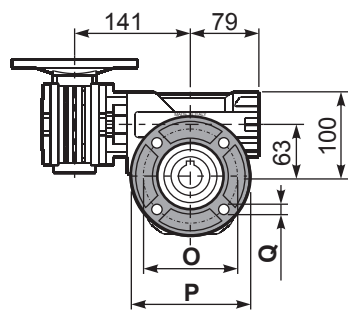
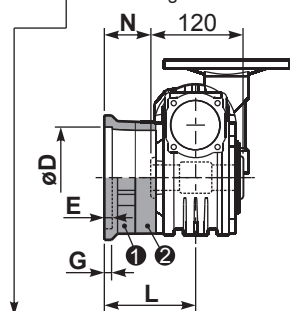
Feet  
Piedini



|        | H   | R   | S  | T   | U   | V   | Y   | W   | øZ  | kit code   |
|--------|-----|-----|----|-----|-----|-----|-----|-----|-----|------------|
| type B | 115 | 115 | 12 | 142 | 120 | 156 | 185 | 215 | ø11 | K070.9.022 |
| type S | -   | -   | -  | -   | -   | -   | -   | -   | -   | -          |

P6A3FC...

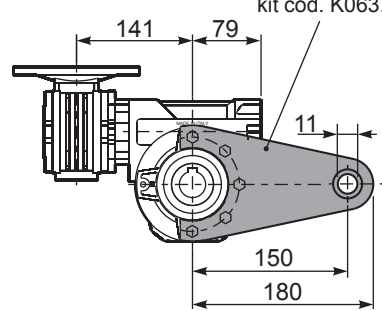
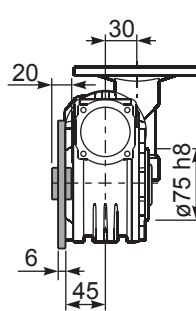
Output flange  
Flangia uscita



| type B | øD                                    | E | G    | L    | N    | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|------|------|------|-----|-----|----|------------------------------|
| FC     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 85   | 25   | 165 | 200 | 13 | 1 K070.9.010<br>2 -          |
| FL     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | 1 K070.9.010<br>2 K070.0.200 |
| type S | øD                                    | E | G    | L    | N    | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | 1 KS070.9.014<br>2 -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 116  | 56   | 150 | 175 | 11 | 1 KS063.9.013<br>2 -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 13.5 | 84.5 | 24.5 | 130 | 160 | 11 | 1 KS070.9.011<br>2 -         |

P6A3BR...

Reaction arm  
Braccio di reazione

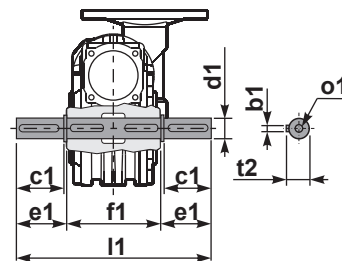
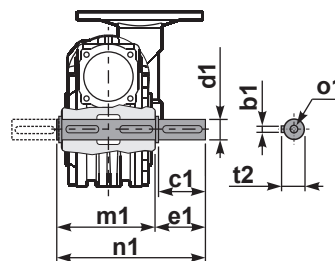


P6A3.....S...

Single Shaft  
Albero lento semplice

P6A3.....D...

Double Shaft  
Albero lento bisp.

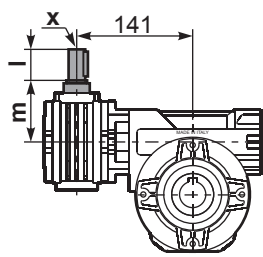
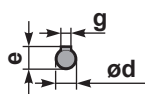


1 kit cod. K070.5.028 type B

2 kit cod. K070.5.029 type B

R6A3FB...

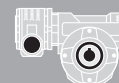
Input shaft  
Albero in entrata



|        | ød   | e    | g | l  | m  | x | kit code                  |
|--------|------|------|---|----|----|---|---------------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | 1 K030.5.006 PAM63<br>2 - |
| type S | -    | -    | - | -  | -  | - | 1 -<br>2 -                |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|-------|
| type B | 8  | 60 | 28 <sup>-0.005</sup> <sub>-0.020</sub> | 63.5 | 120 | 247 | 127.5 | 191 | 31 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -     |





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|-----|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -O                             | -P  | -Q |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 56                             | 63  | 71 |                          |                      |             |
| 5.6                                           | <b>252</b>   | 0.25                            | 198                               | 1.5                    | <b>0.38</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 46                       | 2.7                  | 01          |
| 3.9                                           | <b>360</b>   | 0.25                            | 258                               | 1.2                    | <b>0.29</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 42                       | 2.7                  | 02          |
| 2.8                                           | <b>504</b>   | 0.18                            | 241                               | 1.3                    | <b>0.23</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 39                       | 2.7                  | 03          |
| 1.9                                           | <b>756</b>   | 0.12                            | 204                               | 1.5                    | <b>0.18</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 33                       | 2.7                  | 04          |
| 1.4                                           | <b>1008</b>  | 0.12                            | 256                               | 1.2                    | <b>0.14</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 31                       | 2.7                  | 05          |
| 1.1                                           | <b>1332</b>  | 0.12                            | 327                               | 0.9                    | <b>0.11</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 30                       | 2.7                  | 06          |
| 0.8                                           | <b>1656</b>  | 0.12*                           | 304                               | <0.8                   | <b>0.10</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 28                       | 2.7                  | 07          |
| 0.6                                           | <b>2160</b>  | 0.12*                           | 304                               | <0.8                   | <b>0.08</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 26                       | 2.7                  | 08          |
| 0.6                                           | <b>2520</b>  | 0.12*                           | 304                               | <0.8                   | <b>0.07</b>                       | <b>304</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 25                       | 2.7                  | 09          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **6A4** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **6A4** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

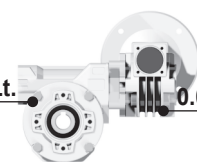
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **6A4** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **6A4** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **6A4** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 6A4 Oil Quantity 0.40/0.09 Lt.

0.40 Lt. 0.09 Lt.



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

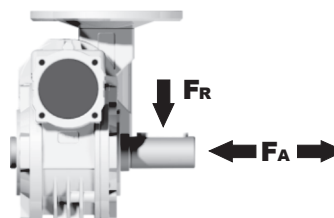
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

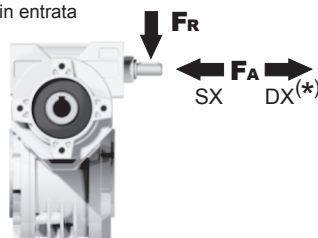
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 700       | 3800      |
| 15                            | 800       | 4000      |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 42        | 210       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

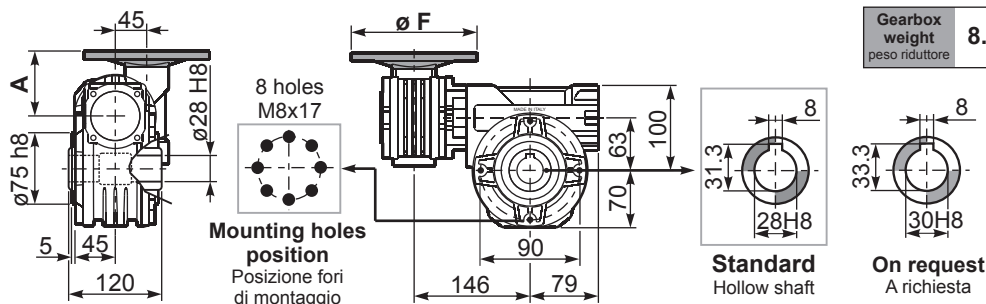
tab. 2

P6A4**FB**...

Basic wormbox  
Riduttore base

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>8.90 kg</b> |
|-----------------------------------------|----------------|

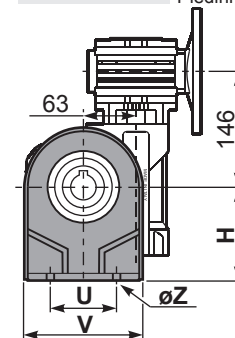
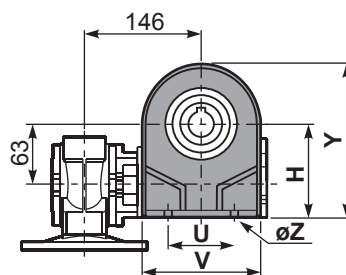
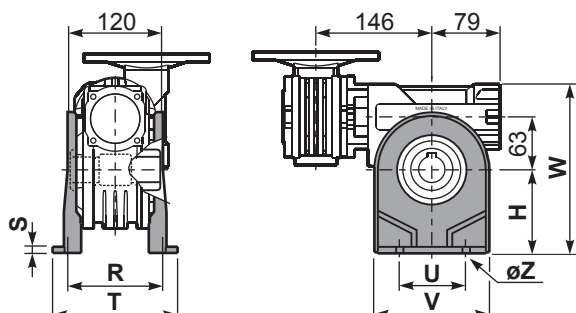
| M. flanges   | Kit code   | $\phi F$ | A    |
|--------------|------------|----------|------|
| <b>63B5</b>  | K050.4.041 | 138      | 74   |
| <b>71B5</b>  | K050.4.042 | 160      | 71.5 |
|              |            |          |      |
| <b>56B14</b> | KC40.4.049 | 80       | 71.5 |
| <b>63B14</b> | K050.4.047 | 90       | 74   |
| <b>71B14</b> | K050.4.045 | 105      | 71.5 |

P6A4**PA...**Feet  
Piedini

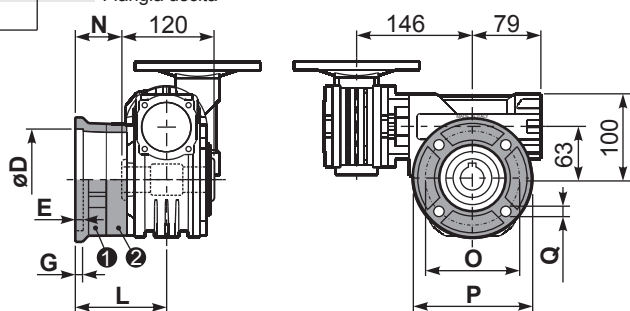
P6A4PB...

Feet  
Piedini

P6A4PV...

Feet  
Piedini[illegible]P6A4**FC**...

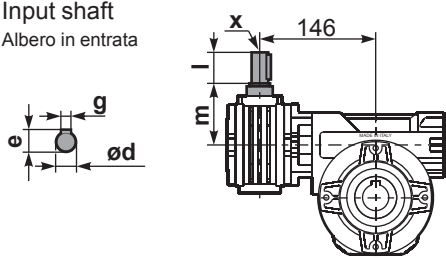
Output flange  
Flangia uscita



| type B | øD                                    | E | G    | L    | N    | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|------|------|------|-----|-----|----|------------------------------|
| FC     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 85   | 25   | 165 | 200 | 13 | ① K070.9.010<br>② -          |
| FL     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | ① K070.9.010<br>② K070.0.200 |
| type S | øD                                    | E | G    | L    | N    | O   | P   | Q  | kit code                     |
| F1     | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 111  | 51   | 165 | 200 | 13 | ① KS070.9.014<br>② -         |
| F2     | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13   | 116  | 56   | 150 | 175 | 11 | ① KS063.9.013<br>② -         |
| F3     | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 13.5 | 84.5 | 24.5 | 130 | 160 | 11 | ① KS070.9.011<br>② -         |

R6A4FB...

Input shaft  
Albero in entrata

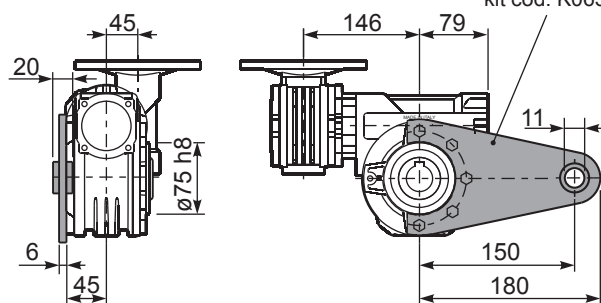


|        | ød    | e    | g | l  | m  | x | kit code                  |
|--------|-------|------|---|----|----|---|---------------------------|
| type B | 11 h6 | 12.5 | 4 | 30 | 68 | - | ① K045.5.006 PAM71<br>② - |
| type S | -     | -    | - | -  | -  | - | ① -<br>② -                |

P6A4BR...

Reaction arm  
Braccio di reazione

kit cod. K063.9.027

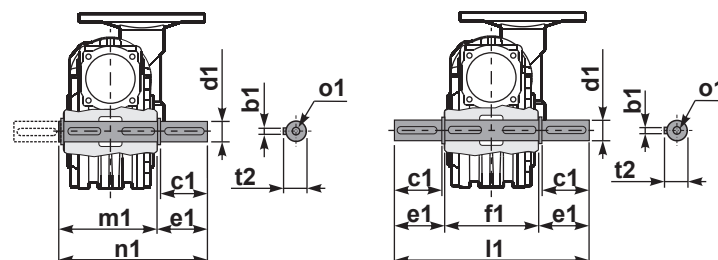


P6A4.....S...

Single Shaft  
Albero lento semplice

P6A4.....**D**..

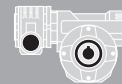
Double Shaft  
· Albero lento bisp.



① kit cod. K070.5.028 type B

② kit cod. K070.5.029 type B

[illegible]



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |     |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|-----|----|------------------------------|--------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P  | -Q |                              |                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63  | 71 |                              |                          |                 |
| 10                                            | <b>140</b>   | 0.37                            | 205                               | 1.8                    | <b>0.66</b>                       | <b>368</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 58                           | 4.5                      | 01              |
| 7.1                                           | <b>196</b>   | 0.37                            | 257                               | 1.4                    | <b>0.53</b>                       | <b>368</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 52                           | 4.7                      | 02              |
| 5.0                                           | <b>280</b>   | 0.37                            | 332                               | 1.6                    | <b>0.58</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 47                           | 4.7                      | 03              |
| 3.6                                           | <b>392</b>   | 0.37                            | 435                               | 1.2                    | <b>0.44</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 44                           | 4.7                      | 04              |
| 2.4                                           | <b>588</b>   | 0.25                            | 371                               | 1.4                    | <b>0.35</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 37                           | 4.7                      | 05              |
| 1.8                                           | <b>784</b>   | 0.25                            | 455                               | 1.1                    | <b>0.28</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 34                           | 4.7                      | 06              |
| 1.4                                           | <b>1036</b>  | 0.18                            | 420                               | 1.2                    | <b>0.22</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 33                           | 4.7                      | 07              |
| 1.1                                           | <b>1288</b>  | 0.18                            | 474                               | 1.1                    | <b>0.20</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 30                           | 4.7                      | 08              |
| 0.7                                           | <b>1960</b>  | 0.12                            | 449                               | 1.2                    | <b>0.14</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 28                           | 4.7                      | 09              |
| 0.5                                           | <b>2856</b>  | 0.12                            | 584                               | 0.9                    | <b>0.11</b>                       | <b>518</b>                         | <b>B</b>                   |    | B-C                         | B-C |    | 25                           | 4.7                      | 10              |

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **854** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

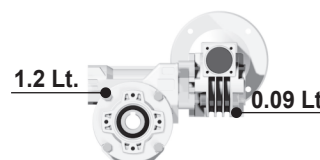
**I** Il riduttore tipo **854** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **854** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **854** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **854** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 854 Oil 1.2 Lt. Quantity 1.2/0.09 Lt.



**AGIP** Telium VSF 320

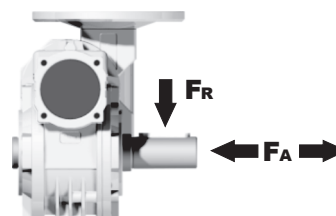
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

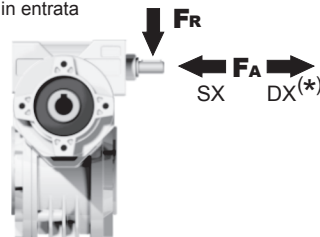
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 1000      | 5000      |
| 15                            | 1160      | 5800      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 42        | 210       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

3D dimensions on request

Rightangle - Gear

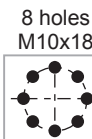
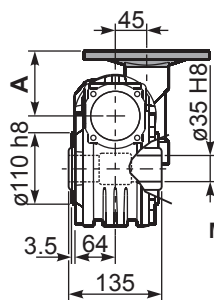
518Nm

854

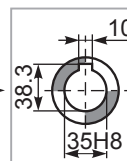
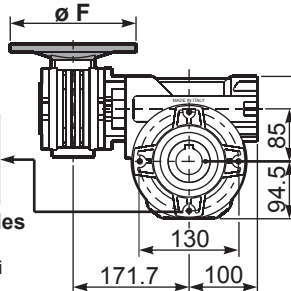
P854FB...

Basic wormbox  
Riduttore base

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 63B5       | K050.4.041 | 138 | 74   |
| 71B5       | K050.4.042 | 160 | 71.5 |
| 56B14      | KC40.4.049 | 80  | 71.5 |
| 63B14      | K050.4.047 | 90  | 74   |
| 71B14      | K050.4.045 | 105 | 71.5 |

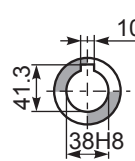


Mounting holes  
position  
Posizione fori  
di montaggio



Standard  
Hollow shaft

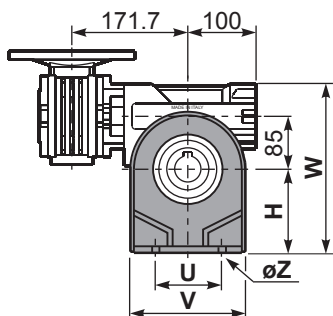
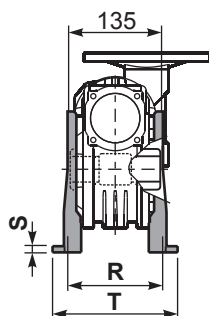
Gearbox weight  
peso riduttore 19.50 kg



On request  
A richiesta

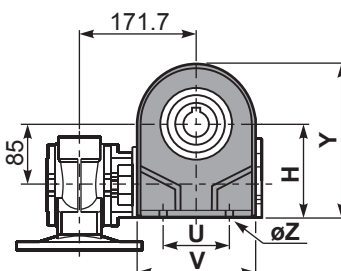
P854PA...

Feet  
Piedini



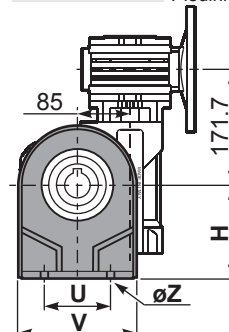
P854PB...

Feet  
Piedini



P854PV...

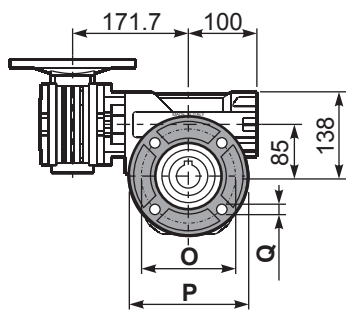
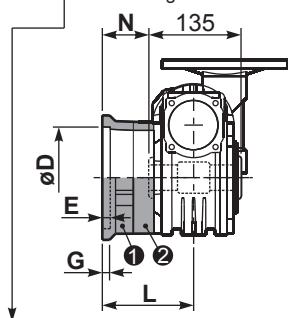
Feet  
Piedini



|        | H   | R   | S | T   | U   | V   | Y     | W   | øZ    | kit code   |
|--------|-----|-----|---|-----|-----|-----|-------|-----|-------|------------|
| type B | 142 | 145 | 5 | 182 | 140 | 180 | 236.5 | 280 | ø10.5 | K085.9.022 |
| type S | -   | -   | - | -   | -   | -   | -     | -   | -     | -          |

P854FC...

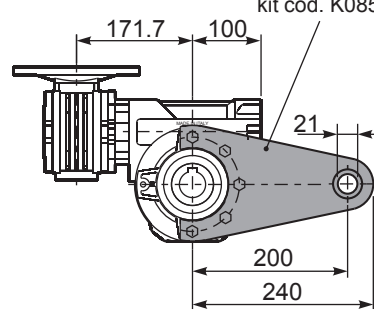
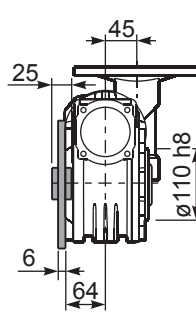
Output flange  
Flangia uscita



| type B | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
|--------|---------------------------------------|---|----|-------|------|-----|-----|------|------------------------------|
| FC     | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 108   | 40.5 | 176 | 205 | 13   | 1 K085.9.010<br>2 -          |
| FL     | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 148.5 | 81   | 176 | 205 | 13   | 1 K085.9.010<br>2 K085.0.201 |
| type S | øD                                    | E | G  | L     | N    | O   | P   | Q    | kit code                     |
| F1     | 130 <sup>+0.040</sup> <sub>0</sub>    | 5 | 13 | 117.5 | 50   | 165 | 200 | 11.5 | 1 KS085.9.012<br>2 -         |
| F2     | 152 <sup>+0.06</sup> <sub>0</sub>     | 5 | 15 | 147.5 | 80   | 180 | 205 | 12.5 | 1 KS085.9.013<br>2 -         |
| F4     | 130 <sup>+0.040</sup> <sub>0</sub>    | 5 | 13 | 106.5 | 39   | 165 | 200 | 13   | 1 KS085.9.015<br>2 -         |

P854BR...

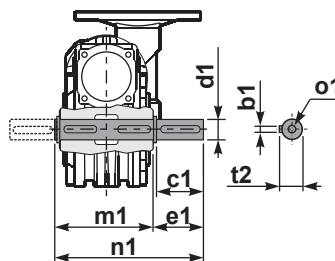
Reaction arm  
Braccio di reazione



kit cod. K085.9.027

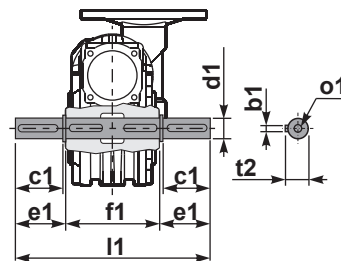
P854.....S...

Single Shaft  
Albero lento semplice



P854.....D...

Double Shaft  
Albero lento bisp.

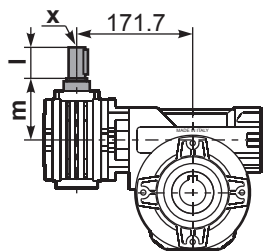
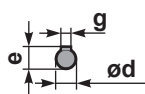


1 kit cod. K085.5.028 type B

2 kit cod. K085.5.029 type B

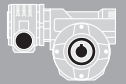
R854FB...

Input shaft  
Albero in entrata



|        | ød    | e    | g | l  | m  | x | kit code                  |
|--------|-------|------|---|----|----|---|---------------------------|
| type B | 11 h6 | 12.5 | 4 | 30 | 68 | - | 1 K045.5.006 PAM71<br>2 - |
| type S | -     | -    | - | -  | -  | - | 1 -<br>2 -                |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1  | n1    | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 <sup>-0.005</sup> <sub>-0.020</sub> | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | -  | -  | -                                      | -    | -   | -   | -   | -     | -  | -      |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    | Available B14 motor flanges |     |    |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----------------------------|-----|----|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -O                          | -P  | -Q | -R |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 56                          | 63  | 71 | 80 |                          |                      |             |
| 6.7                                           | <b>210</b>   | 0.75                            | 591                               | 1.5                    | <b>1.1</b>                        | <b>863</b>                         | B                          | B  |    |                             | B-C | B  |    | 55                       | 5.6                  | 01          |
| 4.7                                           | <b>300</b>   | 0.75                            | 752                               | 1.3                    | <b>0.97</b>                       | <b>978</b>                         | B                          | B  |    |                             | B-C | B  |    | 49                       | 5.6                  | 02          |
| 3.3                                           | <b>420</b>   | 0.55                            | 741                               | 1.3                    | <b>0.73</b>                       | <b>978</b>                         | B                          | B  |    |                             | B-C | B  |    | 47                       | 5.6                  | 03          |
| 2.6                                           | <b>540</b>   | 0.55                            | 851                               | 1.1                    | <b>0.63</b>                       | <b>978</b>                         | B                          | B  |    |                             | B-C | B  |    | 42                       | 5.6                  | 04          |
| 1.8                                           | <b>780</b>   | 0.37                            | 748                               | 1.3                    | <b>0.48</b>                       | <b>978</b>                         | B                          | B  |    |                             | B-C | B  |    | 38                       | 5.6                  | 05          |
| 1.3                                           | <b>1080</b>  | 0.37                            | 1009                              | 1.0                    | <b>0.36</b>                       | <b>978</b>                         | B                          |    |    | B-C                         | B-C |    |    | 37                       | 5.6                  | 06          |
| 1.1                                           | <b>1290</b>  | 0.25                            | 770                               | 1.3                    | <b>0.32</b>                       | <b>978</b>                         | B                          |    |    | B-C                         | B-C |    |    | 35                       | 5.6                  | 07          |
| 0.8                                           | <b>1800</b>  | 0.25                            | 921                               | 1.1                    | <b>0.27</b>                       | <b>978</b>                         | B                          |    |    | B-C                         | B-C |    |    | 30                       | 5.6                  | 08          |
| 0.7                                           | <b>2040</b>  | 0.18                            | 751                               | 1.3                    | <b>0.23</b>                       | <b>978</b>                         | B                          |    |    | B-C                         | B-C |    |    | 30                       | 5.6                  | 09          |
| 0.6                                           | <b>2400</b>  | 0.18                            | 825                               | 1.2                    | <b>0.21</b>                       | <b>978</b>                         | B                          |    |    | B-C                         | B-C |    |    | 28                       | 5.6                  | 10          |
| 0.5                                           | <b>3000</b>  | 0.18                            | 958                               | 1.0                    | <b>0.18</b>                       | <b>978</b>                         | B                          |    |    | B-C                         | B-C |    |    | 26                       | 5.6                  | 11          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit 115 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a type that are closed. Gearbox 050 is supplied lubricated for life. See tab.1 for oils and recommended quantity. In tab.2 there are radial loads and axial loads applicable to the gearbox.

**I** Il riduttore tipo 115 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Il riduttore 050 è fornito lubrificato a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 115 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Das Getriebe der Baugröße 050 ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 115 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le réducteur de type 050 est fourni lubrifié à vie avec de l'huile synthétique. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 115 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. El reductor 050 se suministra lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|             |              |              |             |             |             |
|-------------|--------------|--------------|-------------|-------------|-------------|
|             |              |              |             |             |             |
| B3          | B6           | B7           | B8          | V5          | V6          |
| 1.9/0.14 LT | 1.35/0.14 LT | 1.35/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT |

AGIP Blasias 460

For all details on lubrication and plugs check our website

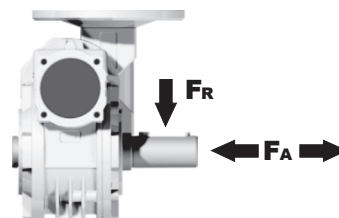
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

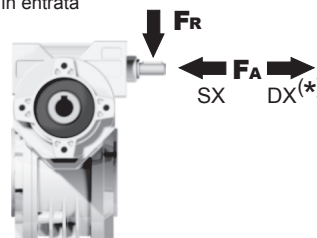
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 1200      | 6000      |
| 15                            | 1400      | 7000      |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 76        | 380       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

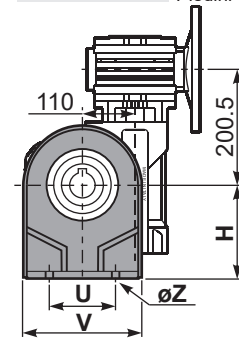
tab. 2



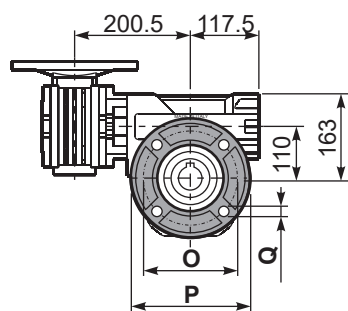
Basic wormbox  
Riduttore base

|                       |                 |
|-----------------------|-----------------|
| <b>Gearbox weight</b> | <b>38.00 kg</b> |
|-----------------------|-----------------|

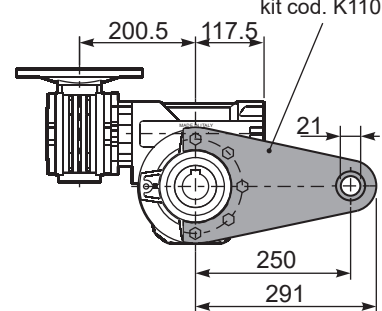
**On request**  
A richiesta

Feet  
PiediniFeet  
PiediniFeet  
Piedini

Output flange  
Flangia uscita

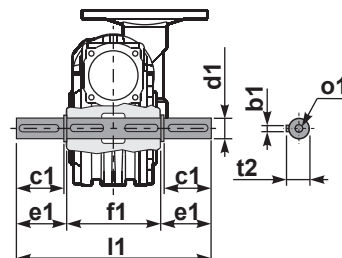


Reaction arm  
Braccio di reazione



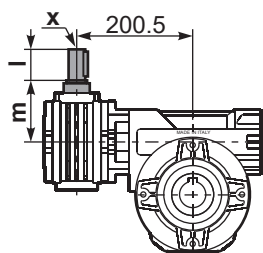
kit cod. K110.9.027

P115.....**D**... Double Shaft  
Albero lento bisp.



② kit cod. K110.5.029 type B

Input shaft  
Albero in entrata

[illegible]

# Square worm gearboxes

## A modular and compact product

### Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

### Single piece alloy steel input shaft and worm shaft.

High helix angle worm is case-hardened (Rc 58-60), ground, teeth are profiled and radiused, for noise reduction and enhanced efficiency.

### Oversized bearings

Support positively-retained, high speed shaft for higher shock load capacity - ideal for frequent starting and reversing application. Premium, Nitrile® high temperature seals each end.

### Flange

Fully modular to IEC and compact integrated motor. NEMA C flange.

### Premium, high temperature

Nitrile® output seals

### Bronze alloy worm gears.

CuSn12Ni (C91700) Nickel bronze worm gears are centrifugally cast onto an iron hub for maximum strength and superior life. Removable hollow shaft with key for safe torque transmissions.

### Over size bearing

For radial load capability and maximum hollow output shaft diameter.

### Standard hollow output shaft mounting

Reduces total drive envelope size, weight and cost. Single and double solid output shaft is available.

### Impregnated and machined bearing caps

With exterior machined surfaces enable a variety of mounting accessories. Extra-deep thread engagement provided for greater support strength. Zinc plated hardware.

### Vent Free Design.

No breather or vents to leak! Factory lubricated for life with synthetic, semi-fluid gear lubricant with an operating range of -15°C to 130°C.

oil free

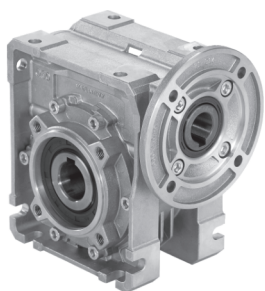


vent free



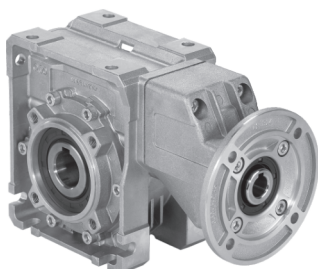
World wide sales network.

# Specific type datasheet on page...



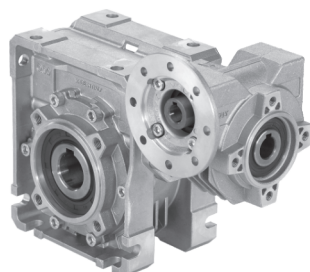
Types / Tipi /  
Tipen / Types /  
Tipos →

| On page / A pagina / Auf Seite / À la page / En la página |                    |                    |                     |                     |                     |                     |                      |                      |
|-----------------------------------------------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
| 2-5                                                       | 2-7                | 2-9                | 2-11                | 2-13                | 2-15                | 2-17                | 2-19                 | 2-21                 |
|                                                           |                    |                    |                     |                     |                     |                     |                      |                      |
| <b>Q30</b><br>21Nm                                        | <b>Q45</b><br>41Nm | <b>Q50</b><br>72Nm | <b>Q63</b><br>147Nm | <b>Q75</b><br>270Nm | <b>Q85</b><br>347Nm | <b>Q11</b><br>651Nm | <b>Q13</b><br>1050Nm | <b>Q15</b><br>1550Nm |



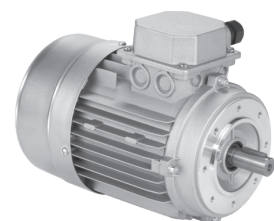
Types / Tipi /  
Tipen / Types /  
Tipos →

| On page / A pagina / Auf Seite / À la page / En la página |                    |                     |                     |                     |                     |
|-----------------------------------------------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| 2-23                                                      | 2-25               | 2-27                | 2-29                | 2-31                | 2-33                |
|                                                           |                    |                     |                     |                     |                     |
| <b>P4Q</b><br>55Nm                                        | <b>P5Q</b><br>88Nm | <b>P6Q</b><br>187Nm | <b>P7Q</b><br>310Nm | <b>P8Q</b><br>440Nm | <b>P1Q</b><br>803Nm |



Types / Tipi /  
Tipen / Types /  
Tipos →

| On page / A pagina / Auf Seite / À la page / En la página |                     |                     |                     |                     |                     |                     |
|-----------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 2-35                                                      | 2-37                | 2-39                | 2-41                | 2-43                | 2-45                | 2-47                |
|                                                           |                     |                     |                     |                     |                     |                     |
| <b>43Q</b><br>69Nm                                        | <b>53Q</b><br>109Nm | <b>63Q</b><br>230Nm | <b>64Q</b><br>265Nm | <b>74Q</b><br>359Nm | <b>84Q</b><br>518Nm | <b>15Q</b><br>978Nm |



Types / Tipi  
Tipen / Types  
Tipos →

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|-----------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|-------------|---------------------|---------------------|---------------------|--|
| M-1                                                       |                   |                   |                   |                   |                       |             |                     |                     |                     |  |
|                                                           |                   |                   |                   |                   |                       |             |                     |                     |                     |  |
| <b>56A</b><br>56B                                         | <b>63A</b><br>63B | <b>71A</b><br>71B | <b>80A</b><br>80B | <b>90S</b><br>90L | <b>100LA</b><br>100LB | <b>112M</b> | <b>132S</b><br>132M | <b>160M</b><br>160L | <b>180M</b><br>180L |  |

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza  
Größe - Taille  
Tamaño

Mounting - Montaggio - Montage Fixation  
Fixation - Tipo de montaje

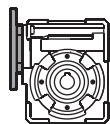
**P**

**Q45**

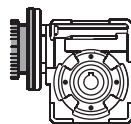
**FC**

**Worm gearboxes**

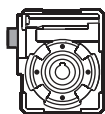
Riduttori a vite senza fine  
Schneckengetriebe  
Reducteurs a vis sans fin  
Reductores de corona sin fin



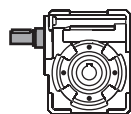
**P**



**M**

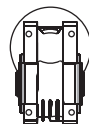


**B**

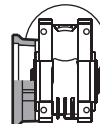


**R**

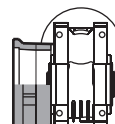
Q30  
Q45  
Q50  
Q63  
Q75  
Q85  
Q11  
Q13  
Q15



**FB**

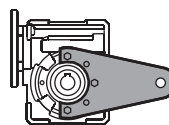


**FC**



**FL**

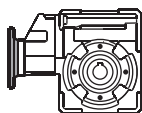
F1  
F2  
F3  
F4



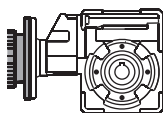
**BR**

**Worm gearboxes with primary reduction**

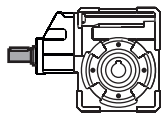
Riduttori a vite senza fine con precoppia  
Schneckengetriebe mit Stirradstufe am Eintrieb  
Reducteurs a vis sans fin avec pré-réduction  
Reductores corona sin fin con prereductora de engranajes



**P**

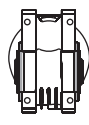


**M**

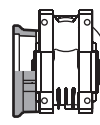


**R**

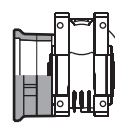
P4Q  
P5Q  
P6Q  
P7Q  
P8Q  
P1Q



**FB**

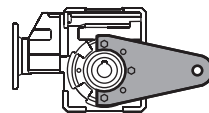


**FC**



**FL**

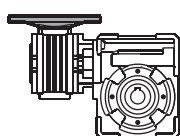
F1  
F2  
F3  
F4



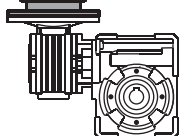
**BR**

**Combined worm gearboxes**

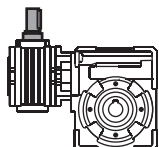
Riduttori a vite senza fine combinati  
Schneckengetriebekombinationen  
Reducteurs a double train de vis sans fin  
Reductores combinados corona sin fin



**P**

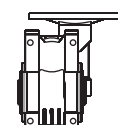


**M**

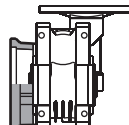


**R**

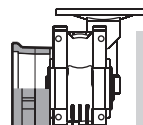
43Q  
53Q  
63Q  
64Q  
74Q  
84Q  
15Q



**FB**

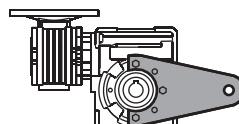


**FC**

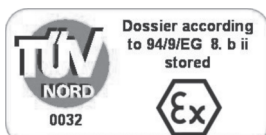


**FL**

F1  
F2  
F3  
F4

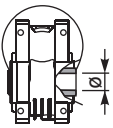
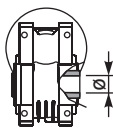
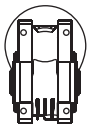
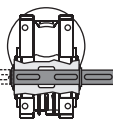
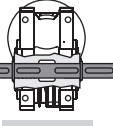
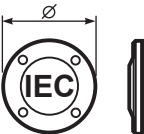
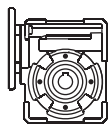
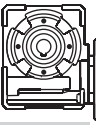
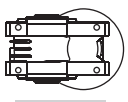
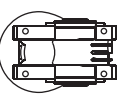
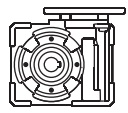
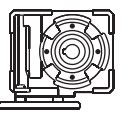
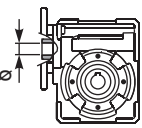
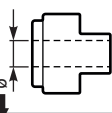
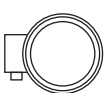
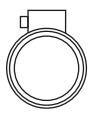
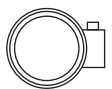


**BR**



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

# CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

| Ratio<br>Rapporto<br>Untersetzung<br>Reduction<br>Relación                                                                                                               | Hub<br>Mozzo corona<br>Hohlwelle<br>Arbre creux<br>Núcleo corona                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Output shaft<br>Albero lento<br>Abtriebswelle<br>Arbre de sortie<br>Eje salida                                                                                                                                                                                                                 | Motor size<br>Grandezza motore<br>Motor Grösse<br>Grandeur moteur<br>Tamaño motor                                                                                                                                                                                                                                                                                                                                                                        | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Posición de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mountin position<br>Esecuzione montaggio<br>Einbaulage<br>Exécution de montage<br>Posición de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Terminal box position<br>Posizione morsettiera<br>Klemmkastenlage<br>Position boîte a bornes<br>Posición caja de bornes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 10                                                                                                                                                                       | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Ø                                                                                                                                                                                                                                                                                              | -Q                                                                                                                                                                                                                                                                                                                                                                                                                                                       | B3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ---                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                         |
| See technical data table<br><br>Vedi tabella dati tecnici.<br><br>Technisches Datenblatt beachten<br><br>Voir tableau données techniques<br><br>Ver tabla datos técnicos | <br><br>STANDARD<br><br>C<br><br>Q30 ⇨ Ø14<br>Q45 ⇨ Ø18<br>Q50 ⇨ Ø25<br>Q63 ⇨ Ø25<br>Q75 ⇨ Ø30<br>Q85 ⇨ Ø35<br>Q11 ⇨ Ø42<br>Q13 ⇨ Ø45<br>Q15 ⇨ Ø50<br><br>I<br><br>Stainless steel hub<br>Mozzo in acciaio Inox<br>Edelstahlhohlwelle<br>Moyeu en acier Inox<br>Núcleo corona de acero Inox<br><br>SPECIAL SERIES<br>SERIE SPECIALE<br><br>S<br><br>Q45 ⇨ Ø19<br>Q50 ⇨ Ø24<br><br>X<br><br>Stainless steel hub<br>Mozzo in acciaio Inox<br>Edelstahlhohlwelle<br>Moyeu en acier Inox<br>Núcleo corona de acero Inox<br><br><br><br>INCH<br><br>U<br><br>Q45 ⇨ Ø0.750"<br>Q50 ⇨ Ø1.000"<br>Q63 ⇨ Ø1.125"<br>Q85 ⇨ Ø1.500"<br><br>Z<br><br>Stainless steel hub<br>Mozzo in acciaio Inox<br>Edelstahlhohlwelle<br>Moyeu en acier Inox<br>Núcleo corona de acero Inox | <br><br>Ø<br><br><br><br>S<br><br><br><br>D | <br><br>-M<br>without flange<br>Senza flangia<br><br>B5<br>-A=56 (Ø120)<br>-B=63 (Ø140)<br>-C=71 (Ø160)<br>-D=80 (Ø200)<br>-E=90 (Ø200)<br>-F=100+112 (Ø250)<br>-G=132 (Ø300)<br>-H=160 (Ø350)<br><br>B14<br>-O=56 (Ø80)<br>-P=63 (Ø90)<br>-Q=71 (Ø105)<br>-R=80 (Ø120)<br>-T=90 (Ø140)<br>-U=100+112 (Ø160)<br>-V=132 (Ø200)<br><br>-0=Type R<br>-S=Type R<br>S series | <br><br>B3<br><br><br><br>B8<br><br><br><br>B6<br><br><br><br>B7<br><br><br><br>V5<br><br><br><br>V6 | <br><br>-<br>Nothing indication:<br>Standard bore<br>Kit R standard<br><br>Nessuna indicazione:<br>Foro standard<br>Kit R standard<br><br>P<br>Input bore reduced one size<br><br>Foro entrata ridotto di una misura<br><br>Ex.<br>Input Flange 71 B14<br>Standard Ø14<br>Reduced Ø11<br><br>Q<br>Input bore reduced two sizes<br><br>Due grandezze ridotte foro entrata<br><br>Ex.<br>Input Flange 71 B14<br>Standard Ø14<br>Reduced Ø9<br><br>COUPLING<br><br>A = 9mm<br>B = 11mm<br>C = 14mm<br>D = 19mm<br>E = 24mm<br>F = 28mm<br><br>Ready for input coupling<br>Predisposto per giunto<br><br><br>0<br>Type B<br>Tipo B<br><br><br>0<br>Type R<br>Tipo R | Only for combined units<br>See technical data table<br><br>Solo per i riduttori combinati<br>Vedi tabella dati tecnici.<br><br>Ausführungen für Getriebekombinationen it<br><br>Uniquement pour combinés.<br>Voir tableau données techniques<br><br>Sólo para combinados<br>ver tabla datos técnicos<br><br>With Type M specify terminal box position<br>Con tipo M specificare posizione morsettiera<br><br><br>A<br><br><br>B<br>STANDARD<br><br><br>C<br><br><br>D |                                                                                                                         |



POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

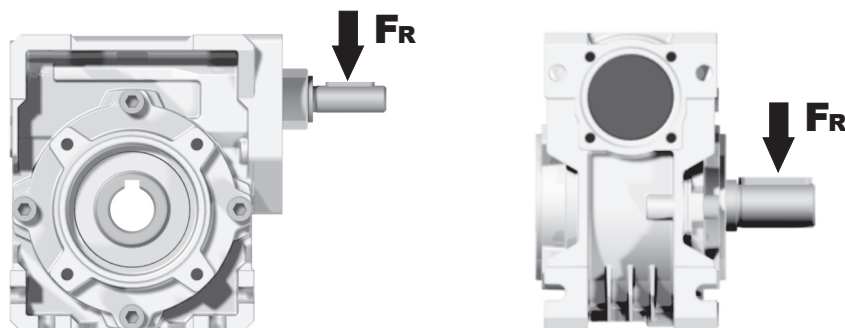
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P [KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P [HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



| $F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | $F_R [N] = \frac{M [lb\ in] \cdot 8.9}{d [in]} \cdot f_k$ |  |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--|
| M                                                      | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                         |                                                           |  |
| d                                                      | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                             |                                                           |  |
| f <sub>k</sub>                                         | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br>1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br>1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br>1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br>2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |                                                           |  |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B**

Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Poissance nominale  
Potencia nominal

**A**

Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Dynamic efficiency  
Rendimento dinamico  
Dynamischer  
Rendement dynamique  
Rendimiento dinámico

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

**Q45** Square - Gear  
**41Nm**

Rating - Aluminum WORM GEARBOXES

QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$ [min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$ [kW] | Output torque<br>$M_{2M}$ [Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$ [kW] | Nominal torque<br>$M_{2R}$ [Nm] | Available B5 motor flanges |    | Available B14 motor flanges |     |    | Dynamic efficiency | Tooth Module<br>[mm] | Ratio code<br> |
|--------------------------------------------|--------------|------------------------------|--------------------------------|------------------------|--------------------------------|---------------------------------|----------------------------|----|-----------------------------|-----|----|--------------------|----------------------|----------------|
|                                            |              |                              |                                |                        |                                |                                 | -B                         | -C | -O                          | -P  | -Q |                    |                      |                |
| 200                                        | 7            | 0.37                         | 14                             | 2.2                    | 0.80                           | 30                              | B                          |    | B-C                         | B-C |    | 80                 | 2.2                  | 01             |
| 140                                        | 10           | 0.37                         | 20                             | 1.5                    | 0.57                           | 30                              | B                          |    | B-C                         | B-C |    | 79                 | 2.2                  | 02             |
| 100                                        | 14           | 0.37                         | 27                             | 1.1                    | 0.41                           | 30                              | B                          |    | B-C                         | B-C |    | 77                 | 2.4                  | 03             |

**C**

Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Nominal module  
Modulo nominale  
Nenn modul  
Module nominale  
Módulo nominal

Notes  
Note  
Anmerkungen  
Note  
Notas

| fs                                                                                                         |                     | Oper. hours per day<br>Ore di funz. giorn. |         |          |
|------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|---------|----------|
| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                    |                     | <2 h                                       | 2 - 8 h | 8 - 16 h |
| Continuous or intermittent appl. with start / hour<br>Applicazione cont. o interm. con n.ro operazioni/ora | Uniform / Uniforme  | 0.9                                        | 1       | 1.25     |
|                                                                                                            | Moderate / Moderato | 1                                          | 1.25    | 1.5      |
|                                                                                                            | Heavy / Forte       | 1.25                                       | 1.5     | 1.75     |
| Intermittent application with start / hour<br>Applicazione intermittente con n.ro operazioni/ora           | Uniform / Uniforme  | 1.25                                       | 1.5     | 1.75     |
|                                                                                                            | Moderate / Moderato | 1.5                                        | 1.75    | 2        |
|                                                                                                            | Heavy / Forte       | 1.75                                       | 2       | 2.25     |

|           |                                                                                                                                                                                                                                |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>D</b>  | Motor flange available<br>Flange disponibili<br>Erhältliche Motorflansche<br>Bridas disponibles<br>Bridas disponibles                                                                                                          |
| <b>B)</b> | Mounting with reduction ring<br>Montaggio con boccia di riduzione<br>Reduzierhülsen<br>Montage avec douille de réduction<br>Montaje con casquillo de reducción                                                                 |
| <b>C)</b> | Motor flangeholes position/terminal box position<br>Posizione fori flangia/basetta motore<br>Bohrungsposition am Motorflansch/-sockel<br>Position trous bride/barrette à bornes moteur<br>Posición agujeros brida / base motor |
| <b>B)</b> | Available without reduction bushes<br>Disponibile anche senza boccia<br>Auch ohne Reduzierbuchse verfügbar<br>Disponible aussi sans douille de réduction<br>Disponible tambien sin casquillo                                   |

|          |                                                                        |                                                                                                  |                                                                                              |                                                                                                   |                                                                                                    |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>A</b> | Select required torque<br>(according to service factor)                | Seleziona la coppia desiderata (comprensiva del fattore di servizio)                             | Max. Drehmoment in Bezug zum Betriebsfaktor                                                  | Sélectionner le couple souhaité (comprenant le facteur de service)                                | Seleccionar el par deseado (incluyendo el factor de servicio)                                      |
| <b>B</b> | Select output speed                                                    | Seleziona la velocità in uscita                                                                  | Ausgewählte Abtriebsdrehzahl                                                                 | Sélectionner la vitesse de sortie                                                                 | Seleccionar la velocidad de salida                                                                 |
| <b>C</b> | On the same line of selected geared motor, you can find the gear ratio | Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione | Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung | Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction | En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción |
| <b>D</b> | Select motor flange available (if requested)                           | Scegli la flangia disponibile (se richiesta)                                                     | Erhältliche Motorflansche (auf Anfrage)                                                      | Choisir la bride disponible (si elle est demandée)                                                | Seleccionar la brida disponible (sobre pedido)                                                     |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -O                             | -P |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 56                             | 63 |                          |                      |             |
| 280                                           | 5            | 0.18                            | 5                                 | 3.3                    | 0.60                              | 17                                 | B                             |    | B-C                            |    | 82                       | 1.26                 | 01          |
| 200                                           | 7            | 0.18                            | 7                                 | 2.4                    | 0.44                              | 17                                 | B                             |    | B-C                            |    | 80                       | 1.44                 | 02          |
| 140                                           | 10           | 0.18                            | 10                                | 1.8                    | 0.32                              | 17                                 | B                             |    | B-C                            |    | 78                       | 1.44                 | 03          |
| 93                                            | 15           | 0.18                            | 13                                | 1.4                    | 0.25                              | 19                                 | B                             |    | B-C                            |    | 73                       | 1.44                 | 04          |
| 70                                            | 20           | 0.18                            | 17                                | 1.1                    | 0.20                              | 19                                 | B                             |    | B-C                            |    | 70                       | 1.09                 | 05          |
| 47                                            | 30           | 0.12                            | 15                                | 1.4                    | 0.17                              | 21                                 | B                             |    | B-C                            |    | 62                       | 1.44                 | 06          |
| 35                                            | 40           | 0.12                            | 19                                | 1.1                    | 0.13                              | 20                                 | B                             |    | B-C                            |    | 57                       | 1.09                 | 07          |
| 23                                            | 61           | 0.09                            | 19                                | 1.1                    | 0.10                              | 20                                 | B                             |    | B-C                            |    | 50                       | 0.72                 | 08          |
| 17.5                                          | 80           | 0.06                            | 16                                | 1.0                    | 0.06                              | 16                                 | B                             |    | B-C                            |    | 48                       | 0.56                 | 09          |
| 14                                            | 100          | 0.06*                           | 16                                | 0.5                    | 0.03                              | 8                                  | B                             |    | B-C                            |    | 40                       | 0.45                 | 10          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit Q30 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q30 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q30 mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q30 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q30 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION Q30 Oil Quantity 0.03Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

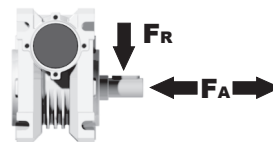
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

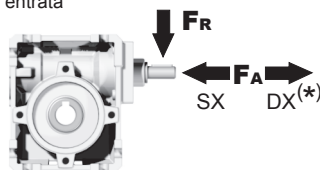
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 120       | 600       |
| 150                           | 140       | 700       |
| 100                           | 160       | 800       |
| 75                            | 180       | 900       |
| 50                            | 200       | 1000      |
| 25                            | 250       | 1250      |
| 15                            | 280       | 1400      |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

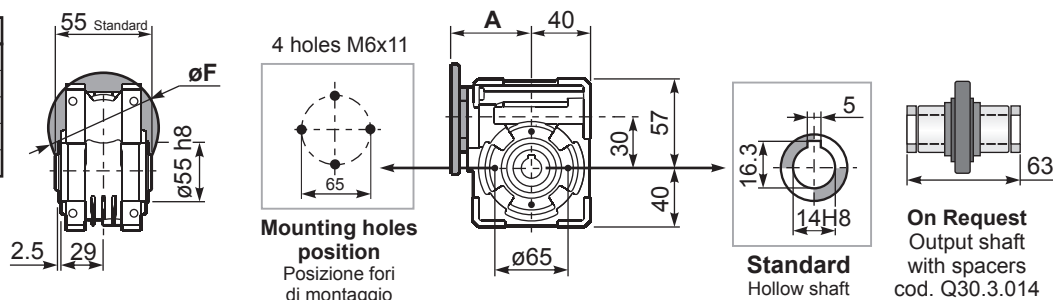
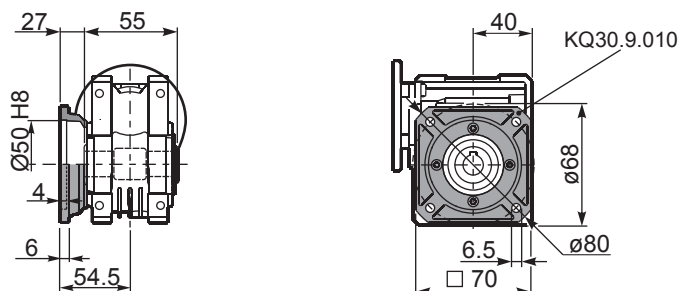
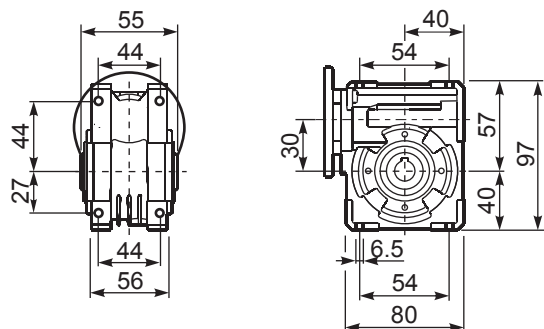
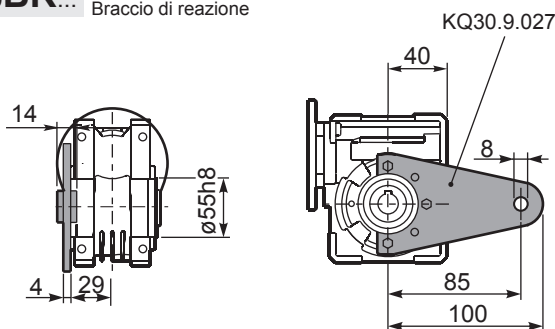
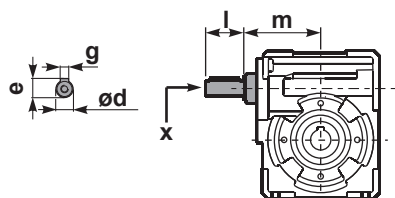
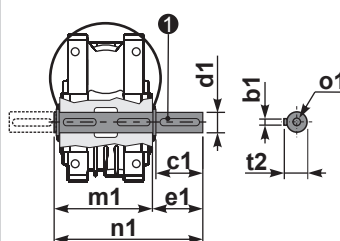
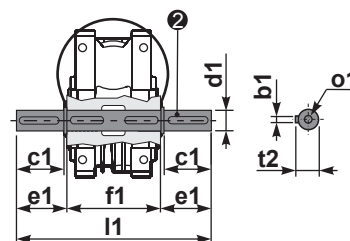
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PQ30**FB**...Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore

1.15 kg

| M. flanges   | Kit code   | øF  | A    |
|--------------|------------|-----|------|
| <b>56B5</b>  | K030.4.041 | 120 | 61.5 |
| <b>63B5</b>  | K030.4.042 | 140 | 62.5 |
| <b>56B14</b> | K030.4.046 | 80  | 61.5 |
| <b>63B14</b> | K030.4.045 | 90  | 62.5 |

PQ30**FC**...Square flange  
Flangia quadrataPQ30**FB**...Feet  
PiediniPQ30**BR**...Reaction arm  
Braccio di reazioneRQ30**FB**...Input shaft  
Albero in entrataPQ30.....**S**...Single Shaft  
Albero lento semplicePQ30.....**D**...Double Shaft  
Albero lento bisp.

① kit cod. K030.5.028 type B

② kit cod. K030.5.029 type B

|        | ød   | e    | g | l  | m  | x | kit code         |
|--------|------|------|---|----|----|---|------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | K030.5.006 PAM63 |
| type S | -    | -    | - | -  | -  | - | -                |

|        | b1 | c1 | d1                          | e1   | f1 | l1  | m1 | n1   | t2 | o1    |
|--------|----|----|-----------------------------|------|----|-----|----|------|----|-------|
| type B | 5  | 25 | 14 <sup>-0.005/-0.020</sup> | 35.5 | 55 | 126 | 59 | 94.5 | 16 | M5x14 |
| type S | -  | -  | -                           | -    | -  | -   | -  | -    | -  | -     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency<br>RD | Tooth Module<br><br>[mm] |  Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|-----|----|--------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -O                             | -P  | -Q |                          |                                                                                                             |                                                                                                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 56                             | 63  | 71 |                          |                                                                                                             |                                                                                                 |
| 200                                           | 7            | 0.37                            | 14                                | 2.2                    | 0.80                              | 30                                 | B                             |    | B-C                            | B-C |    | 80                       | 2.2                                                                                                         | 01                                                                                              |
| 140                                           | 10           | 0.37                            | 20                                | 1.5                    | 0.57                              | 30                                 | B                             |    | B-C                            | B-C |    | 79                       | 2.2                                                                                                         | 02                                                                                              |
| 100                                           | 14           | 0.37                            | 27                                | 1.1                    | 0.41                              | 30                                 | B                             |    | B-C                            | B-C |    | 77                       | 2.4                                                                                                         | 03                                                                                              |
| 67                                            | 21           | 0.37                            | 36                                | 1.2                    | 0.43                              | 41                                 | B                             |    | B-C                            | B-C |    | 67                       | 1.6                                                                                                         | 04                                                                                              |
| 50                                            | 28           | 0.25                            | 31                                | 1.3                    | 0.33                              | 41                                 | B                             |    | B-C                            | B-C |    | 65                       | 2.5                                                                                                         | 05                                                                                              |
| 38                                            | 37           | 0.25                            | 40                                | 1.0                    | 0.26                              | 41                                 | B                             |    | B-C                            | B-C |    | 63                       | 1.8                                                                                                         | 06                                                                                              |
| 30                                            | 46           | 0.25                            | 46                                | 0.9                    | 0.22                              | 41                                 | B                             |    | B-C                            | B-C |    | 59                       | 1.5                                                                                                         | 07                                                                                              |
| 23                                            | 60           | 0.18                            | 41                                | 1.0                    | 0.18                              | 41                                 | B                             |    | B-C                            | B-C |    | 56                       | 1.2                                                                                                         | 08                                                                                              |
| 20                                            | 70           | 0.12                            | 31                                | 1.0                    | 0.12                              | 30                                 | B                             |    | B-C                            | B-C |    | 54                       | 1.0                                                                                                         | 09                                                                                              |
| 13.7                                          | 102          | 0.09                            | 31                                | 1.0                    | 0.09                              | 29                                 | B                             |    | B-C                            | B-C |    | 49                       | 0.72                                                                                                        | 10                                                                                              |

 **Motor Flanges Available**  
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **Q45** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **Q45** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **Q45** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **Q45** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **Q45** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION Q45 Oil Quantity 0.09 Lt.

**AGIP** Telium VSF 320

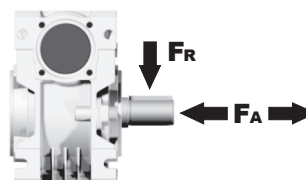
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

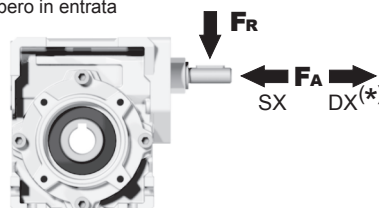
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 180       | 900       |
| 150                           | 200       | 1000      |
| 100                           | 220       | 1100      |
| 75                            | 240       | 1200      |
| 50                            | 260       | 1400      |
| 25                            | 300       | 1800      |
| 15                            | 400       | 2000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 42        | 210       |

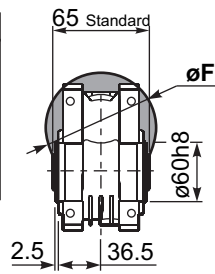
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2



PQ45**FB**... Basic wormbox  
Riduttore base

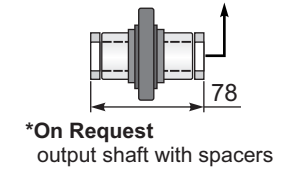
| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 63B5       | K050.4.041 | 138 | 80   |
| 71B5       | K050.4.042 | 160 | 77.5 |
| 56B14      | KC40.4.049 | 80  | 77.5 |
| 63B14      | K050.4.047 | 90  | 80   |
| 71B14      | K050.4.045 | 105 | 77.5 |



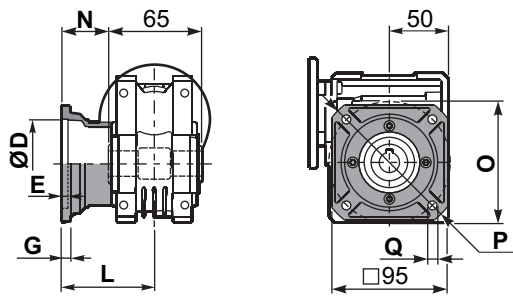
4 holes M6x12  
Mounting holes position  
Posizione fori di montaggio

Gearbox weight  
peso riduttore **2.30 kg**

| ø H8             | B    | C | *Spacer code |
|------------------|------|---|--------------|
| 18<br>Standard   | 20.8 | 6 | Q45.3.018    |
| 19<br>on request | 21.8 | 6 | Q45.3.019    |
| 20<br>on request | 22.8 | 6 | Q45.3.020    |

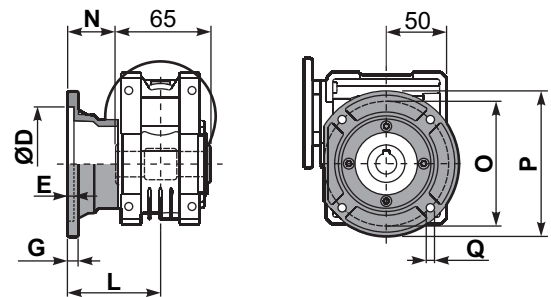


PQ45**FC**... Square flange  
Flangia quadrata



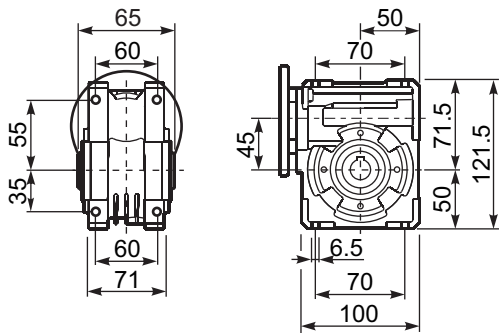
| type B | øD    | E | G | L  | N    | O  | P   | Q | kit code   |
|--------|-------|---|---|----|------|----|-----|---|------------|
| FC     | 60 H8 | 4 | 7 | 67 | 34.5 | 75 | 110 | 9 | KQ45.9.010 |
| FL     | 60 H8 | 4 | 7 | 97 | 64.5 | 75 | 110 | 9 | KQ45.9.011 |

PQ45**F1**... Round flange  
Flangia rotonda

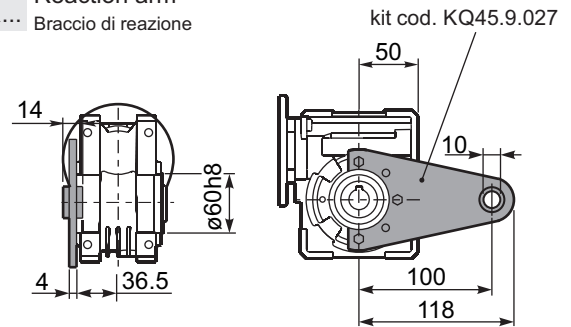


| type S | øD   | E | G | L  | N    | O   | P   | Q   | kit code    |
|--------|------|---|---|----|------|-----|-----|-----|-------------|
| F1     | 95H8 | 5 | 9 | 80 | 47.5 | 115 | 140 | 9.5 | KSQ45.9.012 |
| F2     | -    | - | - | -  | -    | -   | -   | -   | -           |

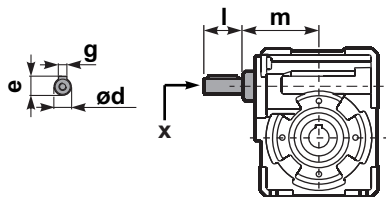
PQ45**FB**... Feet  
Piedini



PQ45**BR**... Reaction arm  
Braccio di reazione

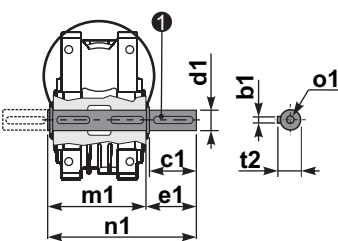


**RQ45FB**... Input shaft  
Albero in entrata



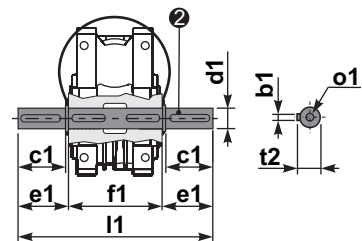
|        | ød    | e    | g | l  | m  | x | kit code                  |
|--------|-------|------|---|----|----|---|---------------------------|
| type B | 11 h6 | 12.5 | 4 | 30 | 74 | - | 1 K045.5.006 PAM71<br>2 - |
| type S | -     | -    | - | -  | -  | - | 1 -<br>2 -                |

PQ45.....**S**... Single Shaft  
Albero lento semplice



1 kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

PQ45.....**D**... Double Shaft  
Albero lento bisp.



2 kit cod. K045.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1 | l1  | m1 | n1    | t2   | o1    |
|--------|----|----|----------------------------------------|------|----|-----|----|-------|------|-------|
| type B | 6  | 32 | 18 <sup>-0.005</sup> <sub>-0.020</sub> | 43   | 65 | 151 | 70 | 113   | 20.5 | M6x18 |
| type S | 6  | 40 | 19 <sup>-0.005</sup> <sub>-0.020</sub> | 58.5 | -  | -   | 70 | 128.5 | 21.5 | M8x20 |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    | Available<br>B14 motor flanges |     |    |    | Dynamic efficiency | Tooth Module<br><br>[mm] | Ratio code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|--------------------------------|-----|----|----|--------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -O                             | -P  | -Q | -R | RD                 |                                                                                                             |                                                                                                   |
| 200                                           | 7            | 0.75                            | 29                                | 1.9                    | 1.5                               | 57                                 | B                             | B  |    |                                | B-C | B  |    | 82                 | 2.5                                                                                                         | 01                                                                                                |
| 140                                           | 10           | 0.75                            | 41                                | 1.5                    | 1.1                               | 62                                 | B                             | B  |    |                                | B-C | B  |    | 80                 | 2.4                                                                                                         | 02                                                                                                |
| 100                                           | 14           | 0.75                            | 57                                | 1.2                    | 0.90                              | 68                                 | B                             | B  |    |                                | B-C | B  |    | 79                 | 2.6                                                                                                         | 03                                                                                                |
| 78                                            | 18           | 0.55                            | 51                                | 1.2                    | 0.67                              | 62                                 | B                             | B  |    |                                | B-C | B  |    | 75                 | 2.0                                                                                                         | 04                                                                                                |
| 54                                            | 26           | 0.55                            | 67                                | 1.0                    | 0.54                              | 66                                 | B                             | B  |    |                                | B-C | B  |    | 69                 | 2.7                                                                                                         | 05                                                                                                |
| 47                                            | 30           | 0.55                            | 79                                | 0.9                    | 0.50                              | 72                                 | B                             | B  |    |                                | B-C | B  |    | 70                 | 2.5                                                                                                         | 12                                                                                                |
| 39                                            | 36           | 0.37                            | 63                                | 1.2                    | 0.43                              | 72                                 | B                             |    |    | B-C                            | B-C |    |    | 69                 | 2.1                                                                                                         | 06                                                                                                |
| 33                                            | 43           | 0.37                            | 72                                | 1.0                    | 0.35                              | 68                                 | B                             |    |    | B-C                            | B-C |    |    | 66                 | 1.8                                                                                                         | 07                                                                                                |
| 28                                            | 50           | 0.25                            | 53                                | 1.2                    | 0.31                              | 66                                 | B                             |    |    | B-C                            | B-C |    |    | 62                 | 1.5                                                                                                         | 13                                                                                                |
| 23                                            | 60           | 0.25                            | 59                                | 1.0                    | 0.26                              | 62                                 | B                             |    |    | B-C                            | B-C |    |    | 58                 | 1.3                                                                                                         | 08                                                                                                |
| 21                                            | 68           | 0.25                            | 66                                | 0.9                    | 0.22                              | 58                                 | B                             |    |    | B-C                            | B-C |    |    | 57                 | 1.2                                                                                                         | 09                                                                                                |
| 17.5                                          | 80           | 0.18                            | 53                                | 1.1                    | 0.19                              | 57                                 | B                             |    |    | B-C                            | B-C |    |    | 54                 | 1.0                                                                                                         | 10                                                                                                |
| 14                                            | 100          | 0.12                            | 41                                | 1.3                    | 0.15                              | 51                                 | B                             |    |    | B-C                            | B-C |    |    | 50                 | 0.8                                                                                                         | 11                                                                                                |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit Q50 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q50 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q50 mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q50 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q50 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION Q50 Oil Quantity 0.14 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

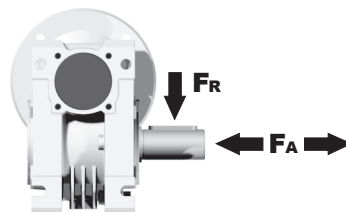
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

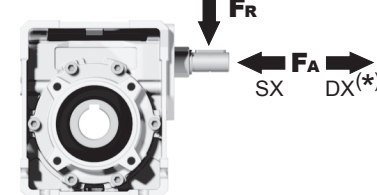
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 240       | 1200      |
| 150                           | 280       | 1400      |
| 100                           | 300       | 1500      |
| 75                            | 340       | 1700      |
| 50                            | 380       | 1900      |
| 25                            | 480       | 2500      |
| 15                            | 560       | 2800      |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 76        | 380       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

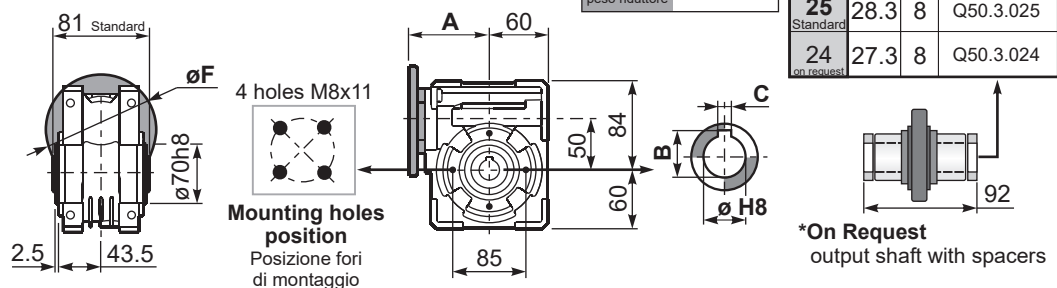
tab. 2

PQ50**FB**...

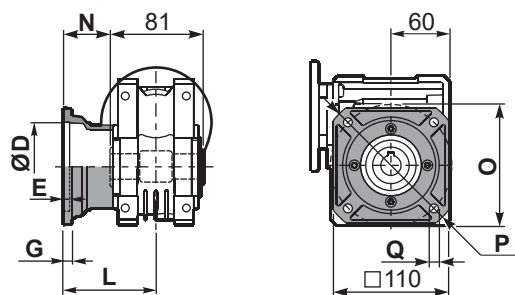
Basic wormbox  
Riduttore base

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>3.25 kg</b> |
|-----------------------------------------|----------------|

| M. flanges   | Kit code   | ØF  | A    |
|--------------|------------|-----|------|
| <b>63B5</b>  | K050.4.041 | 138 | 83.5 |
| <b>71B5</b>  | K050.4.042 | 160 | 81   |
| <b>80B5</b>  | K050.4.043 | 200 | 81.5 |
| <b>56B14</b> | KC40.4.049 | 80  | 81   |
| <b>63B14</b> | K050.4.047 | 90  | 83.5 |
| <b>71B14</b> | K050.4.045 | 105 | 81   |
| <b>80B14</b> | K050.4.046 | 120 | 81.5 |

PQ50**FC**...

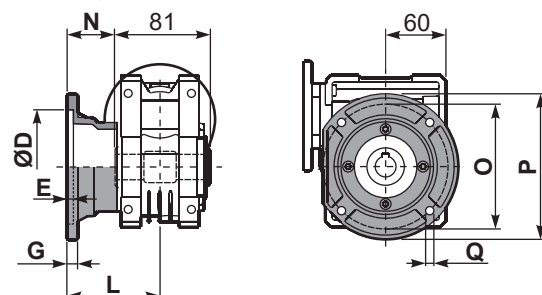
Square flange  
Flangia quadrata



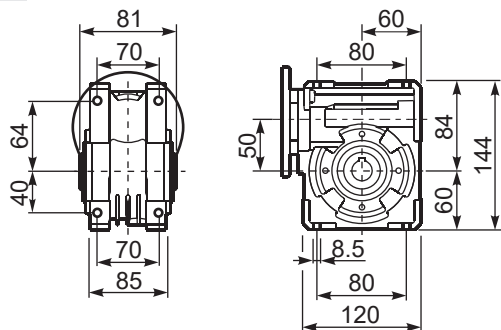
| type B | øD    | E | G | L   | N    | O  | P   | Q  | kit code   |
|--------|-------|---|---|-----|------|----|-----|----|------------|
| FC     | 70 H8 | 5 | 9 | 90  | 49.5 | 85 | 125 | 11 | KQ50.9.010 |
| FL     | 70 H8 | 5 | 9 | 120 | 79.5 | 85 | 125 | 11 | KQ50.9.011 |

PQ50**F1**...

Round flange  
Flangia rotonda

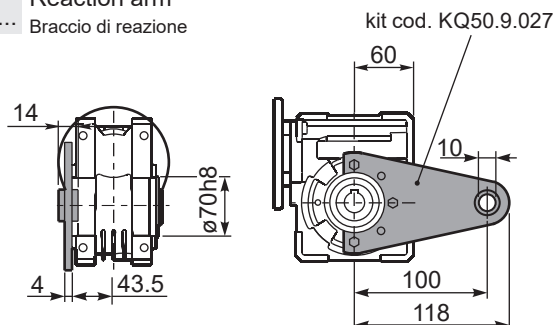


| type S    | øD     | E | G    | L  | N    | O   | P   | Q   | kit code    |
|-----------|--------|---|------|----|------|-----|-----|-----|-------------|
| <b>F1</b> | 110 H8 | 5 | 10   | 89 | 48.5 | 130 | 160 | 9.5 | KSQ50.9.012 |
| <b>F2</b> | 95 H8  | 5 | 14.5 | 72 | 31.5 | 115 | 140 | 11  | KSQ50.9.013 |

PQ50**FB**...Feet  
Piedini

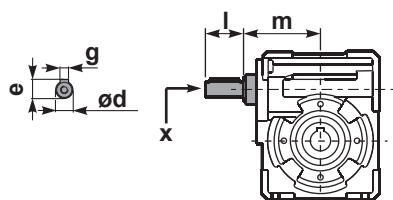
## PQ50BR...

Reaction arm  
Braccio di reazione



## RQ50FB...

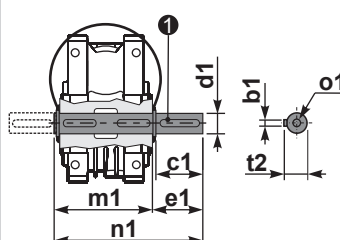
Input shaft  
Albero in entrata



|               | ød    | e  | g | l  | m    | x     | kit code                                   |
|---------------|-------|----|---|----|------|-------|--------------------------------------------|
| type <b>B</b> | 16 h6 | 18 | 5 | 30 | 79.5 | M6x16 | ① K050.5.006 PAM71<br>② K050.5.007 PAM80   |
| type <b>S</b> | 14 h6 | 16 | 5 | 30 | 79.5 | M5x10 | ① KS050.5.008 PAM71<br>② KS050.5.009 PAM80 |

PQ50.....**S**...

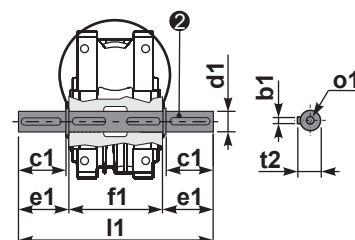
Single Shaft  
Albero lento semplice



❶ kit cod. K050.5.028 type **B**  
kit cod. KS050.5.030 type **S**

PQ50.....**D**...

Double Shaft  
Albero lento bisp.



|               | <b>b1</b> | <b>c1</b> | <b>d1</b>                              | <b>e1</b> | <b>f1</b> | <b>l1</b> | <b>m1</b> | <b>n1</b> | <b>t2</b> | <b>o1</b> |
|---------------|-----------|-----------|----------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>type B</b> | 8         | 52        | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 59.5      | 81        | 200       | 86.5      | 146       | 28        | M8x20     |
| <b>type S</b> | 8         | 50        | 24 <sup>-0.005</sup> <sub>-0.020</sub> | 68.8      | -         | -         | 86.5      | 155       | 27        | M8x20     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|-----|----|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -Q                             | -R  | -T |                              |                          |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 71                             | 80  | 90 |                              |                          |                                                                                                    |
| 200                                           | 7            | 1.8                             | 71                                | 1.8                    | 3.2                               | 125                                |                               | B  | B  |    | B-C                            | B-C |    | 83                           | 3.1                      | 01                                                                                                 |
| 140                                           | 10           | 1.8                             | 99                                | 1.4                    | 2.4                               | 134                                |                               | B  | B  |    | B-C                            | B-C |    | 81                           | 3.1                      | 02                                                                                                 |
| 93                                            | 15           | 1.5                             | 121                               | 1.1                    | 1.7                               | 138                                |                               | B  | B  |    | B-C                            | B-C |    | 79                           | 3.1                      | 03                                                                                                 |
| 74                                            | 19           | 1.1                             | 111                               | 1.2                    | 1.4                               | 138                                |                               | B  | B  |    | B-C                            | B-C |    | 78                           | 2.6                      | 04                                                                                                 |
| 58                                            | 24           | 1.1                             | 135                               | 1.0                    | 1.2                               | 142                                |                               | B  | B  |    | B-C                            | B-C |    | 75                           | 2.0                      | 05                                                                                                 |
| 47                                            | 30           | 1.1                             | 167                               | 0.9                    | 0.96                              | 146                                |                               | B  | B  |    | B-C                            | B-C |    | 74                           | 3.2                      | 06                                                                                                 |
| 39                                            | 36           | 0.75                            | 125                               | 1.2                    | 0.88                              | 147                                |                               | B  | B  |    | B-C                            | B-C |    | 68                           | 2.7                      | 07                                                                                                 |
| 35                                            | 40           | 0.75                            | 135                               | 1.0                    | 0.78                              | 140                                |                               | B  | B  |    | B-C                            | B-C |    | 66                           | 2.5                      | 13                                                                                                 |
| 31                                            | 45           | 0.55                            | 111                               | 1.2                    | 0.67                              | 135                                | B                             | B  |    |    | B-C                            | C   |    | 66                           | 2.1                      | 08                                                                                                 |
| 23                                            | 60           | 0.55                            | 140                               | 0.9                    | 0.51                              | 130                                | B                             | B  |    |    | B-C                            | C   |    | 62                           | 1.6                      | 12                                                                                                 |
| 21                                            | 67           | 0.55                            | 151                               | 0.8                    | 0.45                              | 124                                | B                             | B  |    |    | B-C                            | C   |    | 60                           | 1.5                      | 09                                                                                                 |
| 17.5                                          | 80           | 0.37                            | 115                               | 1.0                    | 0.38                              | 119                                | B                             | B  |    |    | B-C                            | C   |    | 57                           | 1.3                      | 10                                                                                                 |
| 14.9                                          | 94           | 0.37                            | 123                               | 1.0                    | 0.36                              | 119                                | B                             | B  |    |    | B-C                            | C   |    | 52                           | 1.1                      | 11                                                                                                 |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **Q63** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **Q63** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **Q63** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **Q63** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **Q63** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION Q63 Oil Quantity 0.30 Lt.

**AGIP** Telium VSF 320

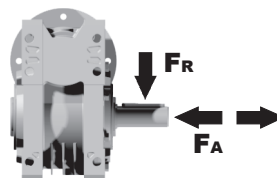
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

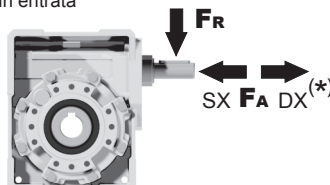
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 360       | 1800      |
| 150                           | 400       | 2000      |
| 100                           | 460       | 2300      |
| 75                            | 500       | 2500      |
| 50                            | 600       | 3000      |
| 25                            | 700       | 3800      |
| 15                            | 800       | 4000      |

##### Input shaft

albero in entrata



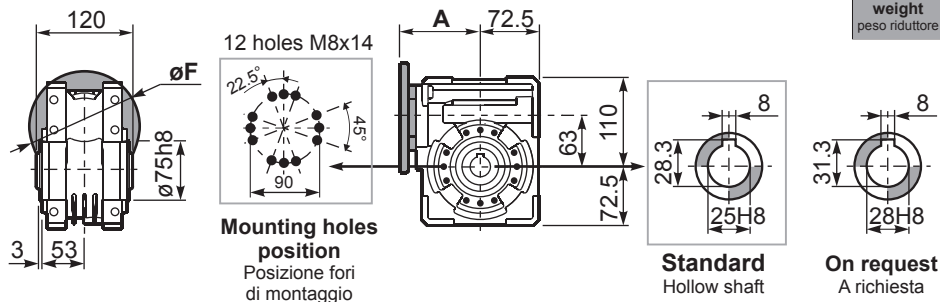
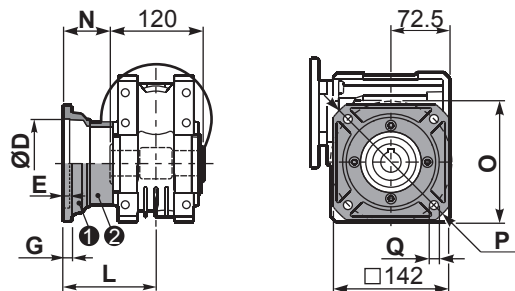
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 90        | 450       |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

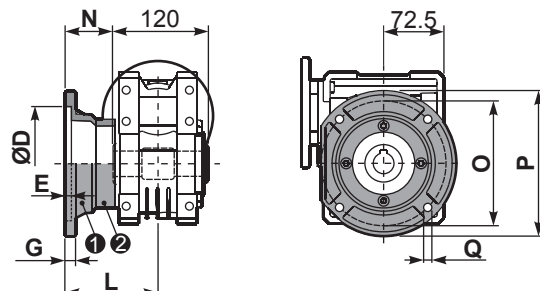
tab. 2

**PQ63FB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore**6.00 kg**

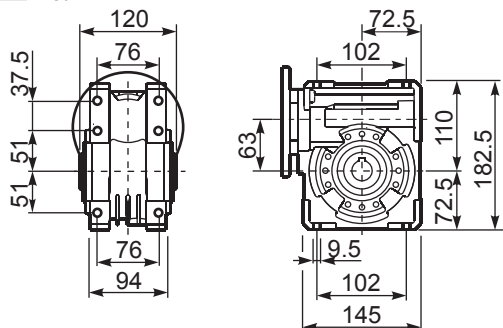
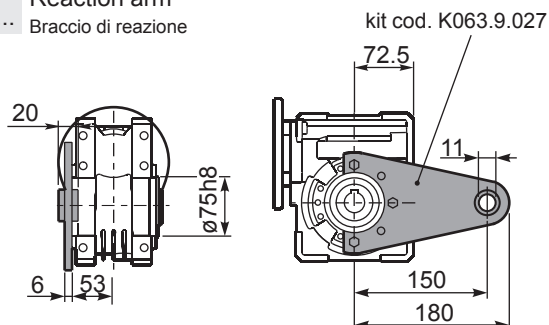
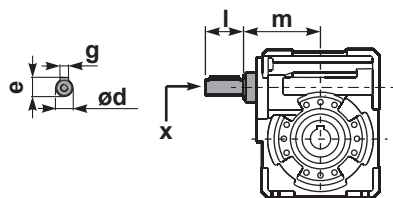
| M. flanges     | Kit code   | øF  | A    |
|----------------|------------|-----|------|
| <b>63B5</b>    | K063.4.041 | 140 | 99.5 |
| <b>71B5</b>    | K063.4.042 | 160 | 97.5 |
| <b>80/90B5</b> | K063.4.043 | 200 | 99.5 |
| <b>71B14</b>   | K063.4.047 | 105 | 97.5 |
| <b>80B14</b>   | K063.4.046 | 120 | 99.5 |
| <b>90B14</b>   | K063.4.041 | 140 | 99.5 |

**PQ63FC...**Square flange  
Flangia quadrata

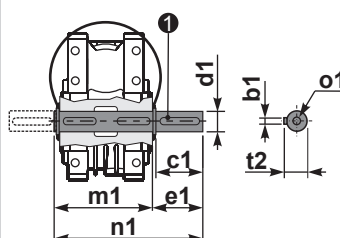
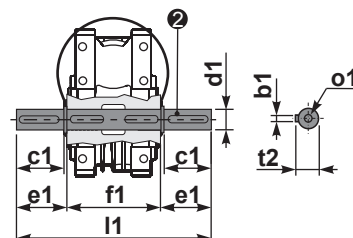
| type B    | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
|-----------|---------------------------------------|---|----|-----|----|-----|-----|----|------------------------------|
| <b>FC</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 6 | 12 | 86  | 26 | 150 | 180 | 11 | ① KQ63.9.010<br>② -          |
| <b>FL</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 6 | 12 | 116 | 56 | 150 | 180 | 11 | ① KQ63.9.010<br>② K063.0.200 |

**PQ63F1...**Round flange  
Flangia rotonda

| type S    | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code             |
|-----------|---------------------------------------|---|----|-----|----|-----|-----|----|----------------------|
| <b>F1</b> | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 110 | 50 | 165 | 200 | 13 | ① KS070.9.013<br>② - |
| <b>F2</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 124 | 64 | 150 | 175 | 11 | ① KS063.9.013<br>② - |
| <b>F3</b> | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 11 | 90  | 30 | 130 | 160 | 10 | ① KS063.9.011<br>② - |

**PQ63FB...**Feet  
Piedini**PQ63BR...**Reaction arm  
Braccio di reazione**RQ63FB...**Input shaft  
Albero in entrata

|        | ød    | e    | g | l  | m  | x     | kit code                                   |
|--------|-------|------|---|----|----|-------|--------------------------------------------|
| type B | 18 h6 | 20.5 | 6 | 45 | 93 | M6x16 | ① K063.5.006 PAM80<br>② K063.5.007 PAM90   |
| type S | 19 h6 | 21.5 | 6 | 40 | 93 | M8x20 | ① KS063.5.008 PAM80<br>② KS063.5.009 PAM90 |

**PQ63.....S...**Single Shaft  
Albero lento semplice**PQ63.....D...**Double Shaft  
Albero lento bisp.

① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1  | l1    | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-------|-------|-----|----|-------|
| type B | 8  | 60 | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -     | -     | -   | -  | -     |





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |            | Available<br>B14 motor flanges |    |            | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|------------|--------------------------------|----|------------|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                            | -D | -E | -F         | -R                             | -T | -U         |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                            | 80 | 90 | 100<br>112 | 80                             | 90 | 100<br>112 |                          |                      |             |
| 200                                           | 7            | 4                               | 172                               | 1.1                    | 4.4                               | 190                                |                               | B  | B  |            | B                              | B  |            | 90                       | 3.75                 | 01          |
| 140                                           | 10           | 4                               | 240                               | 1.0                    | 3.8                               | 230                                |                               | B  | B  |            | B                              | B  |            | 88                       | 3.75                 | 02          |
| 93                                            | 15           | 3                               | 261                               | 1.0                    | 2.9                               | 250                                |                               | B  | B  |            | B                              | B  |            | 85                       | 3.75                 | 03          |
| 70                                            | 20           | 2.2                             | 249                               | 1.0                    | 2.2                               | 250                                |                               | B  | B  |            | B                              | B  |            | 83                       | 3.00                 | 04          |
| 56                                            | 25           | 1.5                             | 205                               | 1.2                    | 1.8                               | 250                                | B                             | B  |    |            | B                              |    |            | 80                       | 2.41                 | 05          |
| 45                                            | 31           | 1.5                             | 244                               | 1.1                    | 1.7                               | 270                                | B                             | B  |    |            | B                              |    |            | 77                       | 3.75                 | 06          |
| 35                                            | 40           | 1.5                             | 295                               | 0.9                    | 1.3                               | 255                                | B                             | B  |    |            | B                              |    |            | 72                       | 3.10                 | 07          |
| 28                                            | 50           | 0.75                            | 174                               | 1.3                    | 0.95                              | 220                                | B                             |    |    |            |                                |    |            | 68                       | 2.41                 | 08          |
| 23                                            | 60           | 0.75                            | 200                               | 1.0                    | 0.75                              | 200                                | B                             |    |    |            |                                |    |            | 65                       | 2.10                 | 09          |
| 17.5                                          | 80           | 0.55                            | 177                               | 1.0                    | 0.56                              | 180                                | B                             |    |    |            |                                |    |            | 59                       | 1.53                 | 10          |
| 14.0                                          | 100          | 0.55*                           | 206                               | 0.7                    | 0.40                              | 150                                | B                             |    |    |            |                                |    |            | 55                       | 1.23                 | 11          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit Q75 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q75 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q75 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q75 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q75 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION Q75 Oil Quantity 0.40 Lt.

AGIP Telium VSF 320

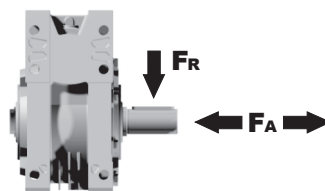
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

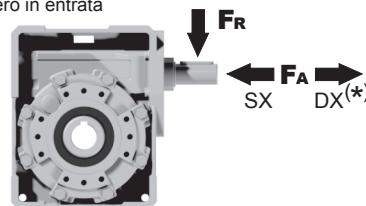
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 460       | 2300      |
| 150                           | 520       | 2600      |
| 100                           | 560       | 2800      |
| 75                            | 620       | 3100      |
| 50                            | 720       | 3600      |
| 25                            | 880       | 4400      |
| 15                            | 1000      | 5000      |

### Input shaft

albero in entrata



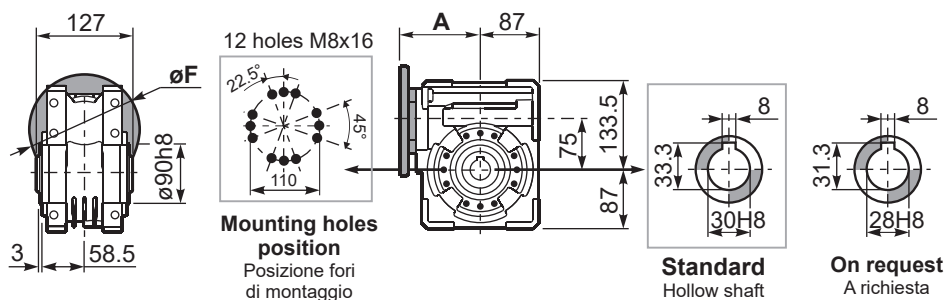
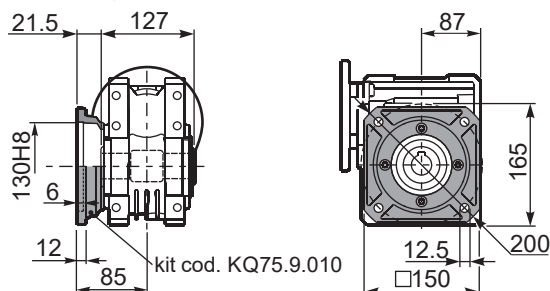
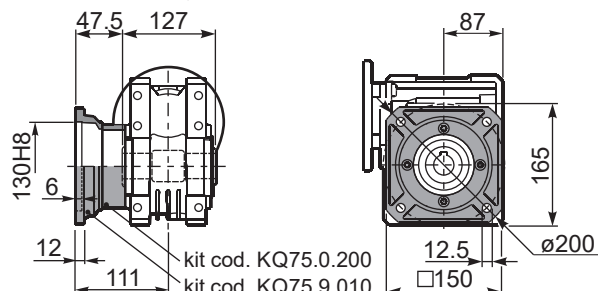
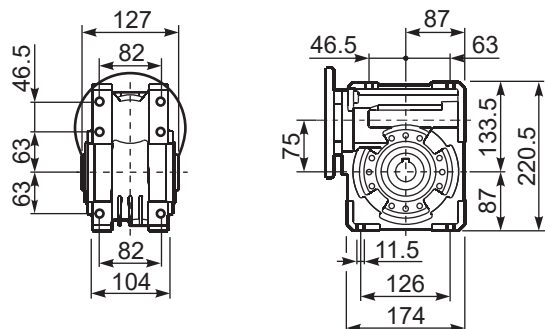
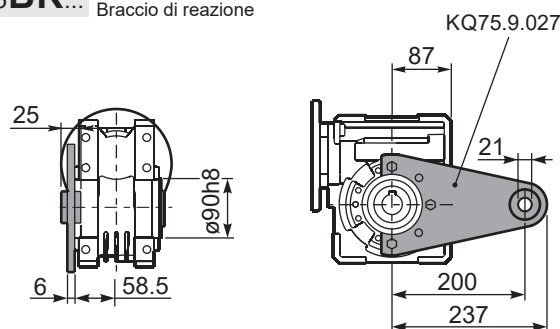
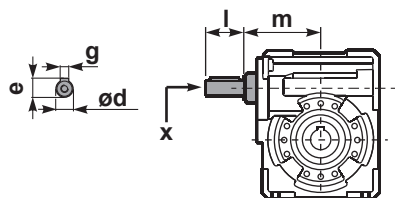
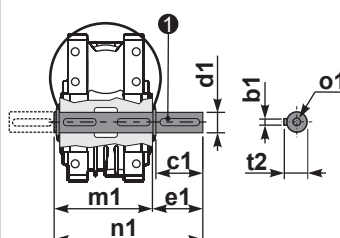
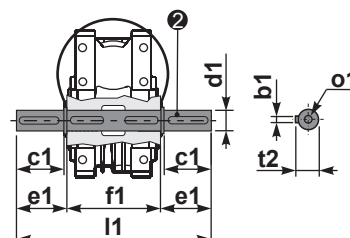
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 125       | 630       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PQ75FB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore **8.70 kg**

| M. flanges        | Kit code   | øF  | A   |
|-------------------|------------|-----|-----|
| <b>71B5</b>       | K023.4.041 | 160 | 114 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 116 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 125 |
|                   |            |     |     |
| <b>80B14</b>      | K085.4.046 | 120 | 116 |
| <b>90B14</b>      | K085.4.045 | 140 | 116 |
| <b>100/112B14</b> | K085.4.047 | 160 | 125 |

**PQ75FC...**Square flange  
Flangia quadrata**PQ75FL...**Square flange  
Flangia quadrata**PQ75FB...**Feet  
Piedini**PQ75BR...**Reaction arm  
Braccio di reazione**RQ75FB...**Input shaft  
Albero in entrata**PQ75.....S...**Single Shaft  
Albero lento semplice**PQ75.....D...**Double Shaft  
Albero lento bisp.

① kit cod. KQ75.5.028 Standard  
kit cod. KQ75.5.026 On request

② kit cod. KQ75.5.029 Standard

|        | ød    | e    | g | l  | m     | x     | kit code                                                  |
|--------|-------|------|---|----|-------|-------|-----------------------------------------------------------|
| type B | 25 h6 | 27.8 | 8 | 50 | 109.5 | M8x20 | KQ75.5.006 PAM80<br>K085.5.007 PAM90<br>K085.5.008 PAM100 |

|            | b1 | c1 | d1                          | e1 | f1  | l1  | m1  | n1  | t2 | o1    |
|------------|----|----|-----------------------------|----|-----|-----|-----|-----|----|-------|
| Standard   | 8  | 60 | 30 <sup>-0.005/-0.020</sup> | 65 | 127 | 255 | 134 | 199 | 33 | M8x20 |
| On request | 8  | 60 | 28 <sup>-0.005/-0.020</sup> | 65 | -   | -   | 134 | 199 | 31 | M8x20 |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |            | Available<br>B14 motor flanges |    |            | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|------------|--------------------------------|----|------------|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                            | -D | -E | -F         | -R                             | -T | -U         |                              |                          |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                            | 80 | 90 | 100<br>112 | 80                             | 90 | 100<br>112 |                              |                          |                                                                                                    |
| 200                                           | 7            | 4.0                             | 168                               | 1.5                    | 6.1                               | 257                                |                               | B  | B  |            | B                              | B  |            | 88                           | 4.23                     | 01                                                                                                 |
| 140                                           | 10           | 4.0                             | 218                               | 1.3                    | 5.2                               | 284                                |                               | B  | B  |            | B                              | B  |            | 80                           | 4.2                      | 02                                                                                                 |
| 100                                           | 14           | 3.0                             | 223                               | 1.4                    | 4.1                               | 305                                |                               | B  | B  |            | B                              | B  |            | 78                           | 4.5                      | 03                                                                                                 |
| 70                                            | 20           | 2.2                             | 237                               | 1.2                    | 2.7                               | 294                                |                               | B  | B  |            | B                              | B  |            | 79                           | 3.4                      | 04                                                                                                 |
| 64                                            | 22           | 2.2                             | 258                               | 1.1                    | 2.5                               | 294                                |                               | B  | B  |            | B                              | B  |            | 78                           | 3.1                      | 05                                                                                                 |
| 50                                            | 28           | 2.2                             | 315                               | 1.1                    | 2.4                               | 347                                |                               | B  | B  |            | B                              | B  |            | 75                           | 4.7                      | 06                                                                                                 |
| 37                                            | 38           | 1.5                             | 276                               | 1.2                    | 1.8                               | 336                                | B                             | B  |    |            | B                              |    |            | 71                           | 3.5                      | 07                                                                                                 |
| 30                                            | 46           | 1.5                             | 320                               | 1.0                    | 1.5                               | 326                                | B                             | B  |    |            | B                              |    |            | 68                           | 3.1                      | 08                                                                                                 |
| 27                                            | 52           | 1.1                             | 258                               | 1.1                    | 1.2                               | 289                                | B                             | B  |    |            | B                              |    |            | 66                           | 2.7                      | 09                                                                                                 |
| 21                                            | 67           | 1.1                             | 327                               | 0.9                    | 0.97                              | 289                                | B                             | B  |    |            | B                              |    |            | 65                           | 2.1                      | 10                                                                                                 |
| 18.9                                          | 74           | 0.75                            | 220                               | 1.2                    | 0.91                              | 268                                | B                             | B  |    |            | B                              |    |            | 58                           | 1.9                      | 11                                                                                                 |
| 14.6                                          | 96           | 0.55                            | 191                               | 1.3                    | 0.70                              | 242                                | B                             | B  |    |            | B                              |    |            | 53                           | 1.5                      | 12                                                                                                 |

 Motor Flanges Available  
Flange Motore Disponibili

 B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

 B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

 C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit Q85 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q85 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q85 mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q85 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q85 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION Q85 Oil Quantity 1.20 Lt.

AGIP Telium VSF 320

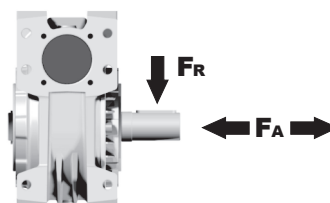
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

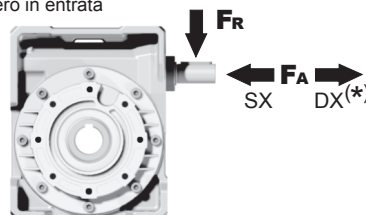
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 500       | 2500      |
| 150                           | 580       | 2900      |
| 100                           | 600       | 3000      |
| 75                            | 700       | 3500      |
| 50                            | 800       | 4000      |
| 25                            | 1000      | 5000      |
| 15                            | 1160      | 5800      |

##### Input shaft

albero in entrata



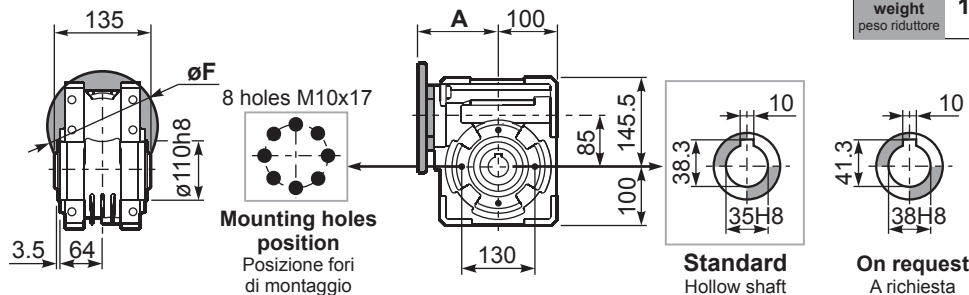
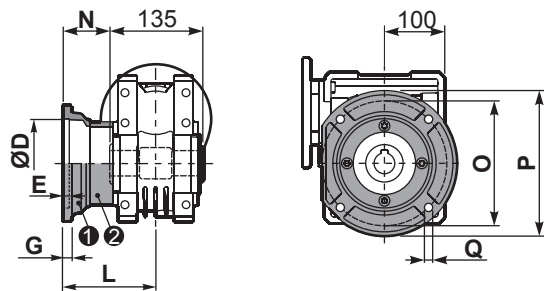
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 130       | 650       |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

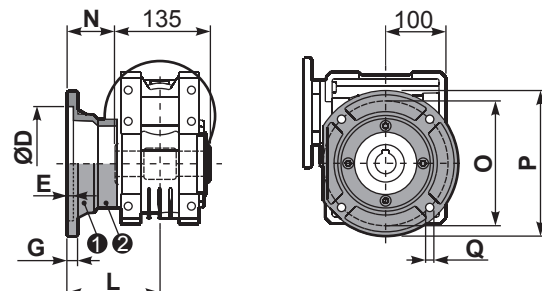
**tab. 2**

**PQ85FB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore**12.1 kg**

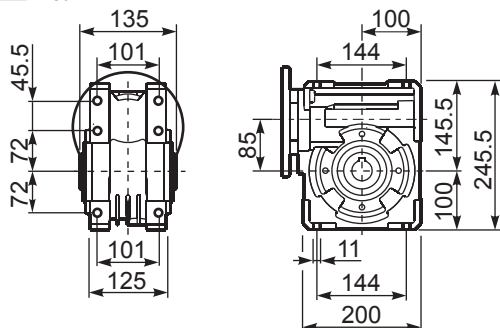
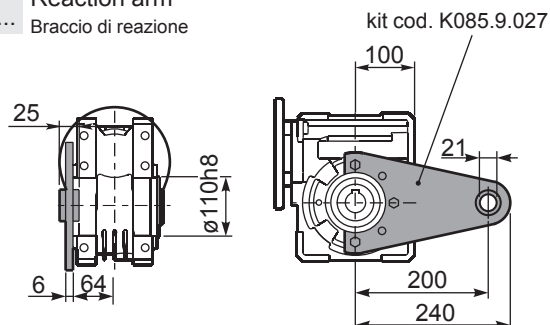
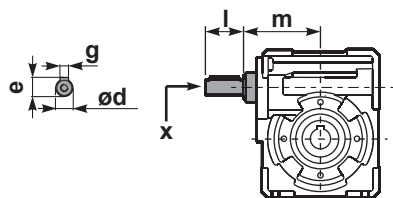
| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>71B5</b>       | K023.4.041 | 160 | 116.5 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 118.5 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 127.5 |
| <b>80B14</b>      | K085.4.046 | 120 | 118.5 |
| <b>90B14</b>      | K085.4.045 | 140 | 118.5 |
| <b>100/112B14</b> | K085.4.047 | 160 | 127.5 |

**PQ85FC...**Output flange  
Flangia uscita

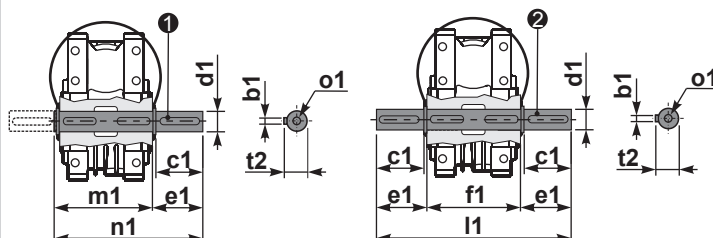
| type B    | øD                                    | E | G  | L     | N    | O   | P   | Q  | kit code                     |
|-----------|---------------------------------------|---|----|-------|------|-----|-----|----|------------------------------|
| <b>FC</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 108   | 40.5 | 176 | 205 | 13 | ① K085.9.010<br>② -          |
| <b>FL</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 148.5 | 81   | 176 | 205 | 13 | ① K085.9.010<br>② K085.0.201 |

**PQ85F1...**Output flange  
Flangia uscita

| type S    | øD                                    | E | G  | L     | N  | O   | P   | Q    | kit code             |
|-----------|---------------------------------------|---|----|-------|----|-----|-----|------|----------------------|
| <b>F1</b> | 130 H7                                | 5 | 13 | 117.5 | 50 | 165 | 200 | 11.5 | ① KS085.9.012<br>② - |
| <b>F2</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 15 | 147.5 | 80 | 180 | 205 | 12.5 | ① KS085.9.013<br>② - |
| <b>F4</b> | 130 H7                                | 5 | 13 | 106.5 | 39 | 165 | 200 | 13   | ① KS085.9.015<br>② - |

**PQ85FB...**Feet  
Piedini**PQ85BR...**Reaction arm  
Braccio di reazione**RQ85FB...**Input shaft  
Albero in entrata

|        | ød    | e  | g | l  | m   | x     | kit code                                    |
|--------|-------|----|---|----|-----|-------|---------------------------------------------|
| type B | 25 h6 | 28 | 8 | 50 | 112 | M8x20 | ① K085.5.007 PAM90<br>② K085.5.008 PAM100   |
| type S | 24 h6 | 27 | 8 | 50 | 112 | M8x20 | ① KS085.5.009 PAM90<br>② KS085.5.011 PAM100 |

**PQ85.....S...**Single Shaft  
Albero lento semplice**PQ85.....D...**Double Shaft  
Albero lento bisp.

① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1  | n1    | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 <sup>-0.005</sup> <sub>-0.020</sub> | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | -  | -  | -                                      | -    | -   | -   | -   | -     | -  | -      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                          |                      |             |
| 200                                           | 7            | 7.5                             | 315                               | 1.5                    | 11.5                              | 483                                |                            | B  | B  |            |     | B                           | B  |            |     | 88                       | 5.5                  | 01          |
| 140                                           | 10           | 7.5                             | 440                               | 1.2                    | 9.0                               | 525                                |                            | B  | B  |            |     | B                           | B  |            |     | 86                       | 5.4                  | 02          |
| 88                                            | 16           | 5.5                             | 492                               | 1.1                    | 6.0                               | 536                                |                            | B  | B  |            |     | B                           | B  |            |     | 82                       | 5.3                  | 03          |
| 70                                            | 20           | 4.0                             | 447                               | 1.2                    | 4.9                               | 546                                |                            | B  | B  |            |     | B                           | B  |            |     | 82                       | 4.5                  | 04          |
| 61                                            | 23           | 3.0                             | 377                               | 1.4                    | 4.1                               | 515                                |                            | B  | B  |            |     | B                           | B  |            |     | 80                       | 3.9                  | 05          |
| 47                                            | 30           | 3.0                             | 467                               | 1.4                    | 4.2                               | 651                                |                            | B  | B  |            |     | B                           | B  |            |     | 76                       | 5.6                  | 06          |
| 37                                            | 38           | 3.0                             | 583                               | 1.1                    | 3.3                               | 641                                |                            | B  | B  |            |     | B                           | B  |            |     | 75                       | 4.7                  | 07          |
| 31                                            | 45           | 2.2                             | 493                               | 1.2                    | 2.7                               | 599                                |                            | B  | B  |            |     | B                           | B  |            |     | 73                       | 4.0                  | 08          |
| 26                                            | 53           | 2.2                             | 557                               | 1.1                    | 2.5                               | 620                                |                            | B  | B  |            |     | B                           | B  |            |     | 70                       | 3.5                  | 09          |
| 22                                            | 64           | 1.5                             | 452                               | 1.2                    | 1.8                               | 536                                | B                          | B  |    |            |     | B                           |    |            |     | 69                       | 2.9                  | 10          |
| 16.7                                          | 84           | 1.1                             | 410                               | 1.2                    | 1.3                               | 494                                | B                          | B  |    |            |     | B                           |    |            |     | 65                       | 2.2                  | 11          |
| 14.1                                          | 99           | 1.1                             | 446                               | 1.1                    | 1.2                               | 483                                | B                          | B  |    |            |     | B                           |    |            |     | 60                       | 1.9                  | 12          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **Q11** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **Q11** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **Q11** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **Q11** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **Q11** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |        |         |        |
|---------|---------|---------|--------|---------|--------|
|         |         |         |        |         |        |
| B3      | B6      | B7      | B8     | V5      | V6     |
| 1.90 LT | 1.35 LT | 1.35 LT | 2.00LT | 2.00 LT | 2.00LT |

AGIP Blasias 460

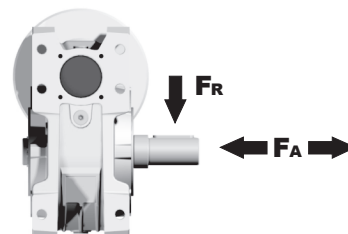
For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

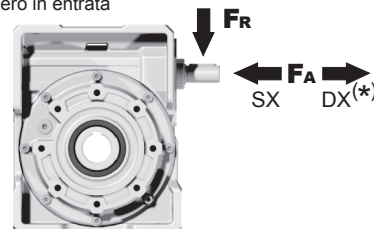
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 600       | 2900      |
| 150                           | 700       | 3300      |
| 100                           | 750       | 3600      |
| 75                            | 800       | 4000      |
| 50                            | 920       | 4600      |
| 25                            | 1200      | 6000      |
| 15                            | 1400      | 7000      |

**Input shaft**  
albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 228       | 1140      |

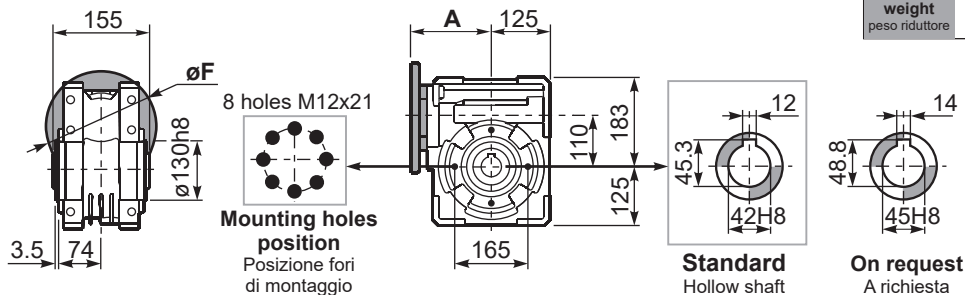
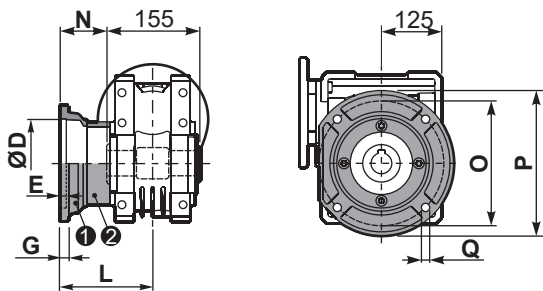
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

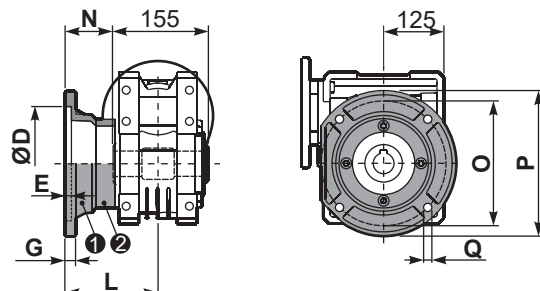


**PQ11FB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore **35.0 kg**

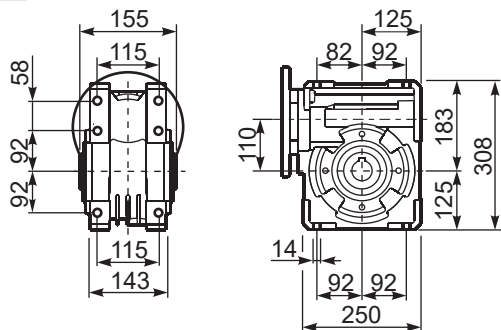
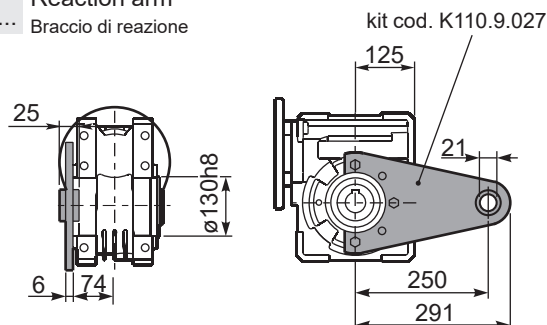
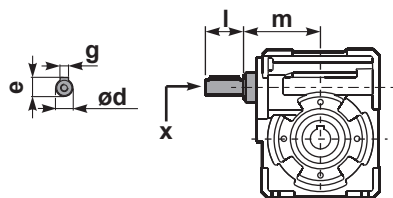
| M. flanges        | Kit code   | øF  | A   |
|-------------------|------------|-----|-----|
| <b>71B5</b>       | K023.4.041 | 160 | 136 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 138 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 147 |
| <b>132B5</b>      | -          | 300 | 187 |
| <hr/>             |            |     |     |
| <b>80B14</b>      | K085.4.046 | 120 | 138 |
| <b>90B14</b>      | K085.4.045 | 140 | 138 |
| <b>100/112B14</b> | K023.4.041 | 160 | 136 |
| <b>132B14</b>     | -          | 200 | 187 |

**PQ11FC...**Output flange  
Flangia uscita

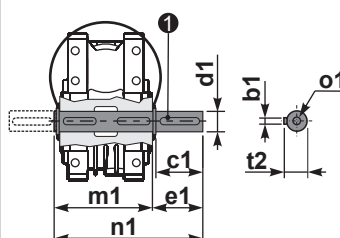
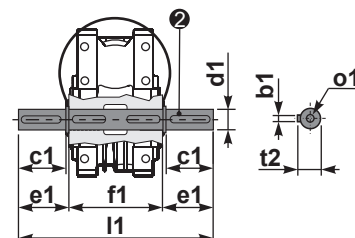
| type B    | øD                                      | E  | G    | L     | N   | O   | P   | Q  | kit code            |
|-----------|-----------------------------------------|----|------|-------|-----|-----|-----|----|---------------------|
| <b>FC</b> | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 131.5 | 54  | 230 | 270 | 13 | ① K110.9.010<br>② - |
| <b>FL</b> | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 179.5 | 102 | 230 | 270 | 13 | ① K110.9.011<br>② - |

**PQ11F1...**Output flange  
Flangia uscita

| type S    | øD                                 | E | G  | L   | N    | O   | P   | Q  | kit code             |
|-----------|------------------------------------|---|----|-----|------|-----|-----|----|----------------------|
| <b>F1</b> | 180 <sup>+0.040</sup> <sub>0</sub> | 5 | 18 | 150 | 72.5 | 215 | 250 | 15 | ① KS110.9.014<br>② - |
| <b>F3</b> | 180 <sup>+0.040</sup> <sub>0</sub> | 5 | 18 | 130 | 52.5 | 215 | 250 | 15 | ① KS110.9.013<br>② - |

**PQ11FB...**Feet  
Piedini**PQ11BR...**Reaction arm  
Braccio di reazione**RQ11FB...**Input shaft  
Albero in entrata

|        | ød    | e  | g | l  | m     | x     | kit code                                    |
|--------|-------|----|---|----|-------|-------|---------------------------------------------|
| type B | 25 h6 | 28 | 8 | 50 | 131.5 | M8x20 | ① K085.5.007 PAM90<br>② K085.5.008 PAM100   |
| type S | 24 h6 | 27 | 8 | 50 | 131.5 | M8x20 | ① KS085.5.009 PAM90<br>② KS085.5.011 PAM100 |

**PQ11.....S...**Single Shaft  
Albero lento semplice**PQ11.....D...**Double Shaft  
Albero lento bisp.

① kit cod. K110.5.028 type B

② kit cod. K110.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 <sup>-0.005</sup> <sub>-0.020</sub> | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br><br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br><br>i | Motor power<br><br>P <sup>1M</sup><br>[kW] | Output torque<br><br>M <sup>2M</sup><br>[Nm] | Service factor<br><br>f.s. | Nominal power<br><br>P <sup>1R</sup><br>[kW] | Nominal torque<br><br>M <sup>2R</sup><br>[Nm] | Available<br>B5 motor flanges |            |     | B14 motor flanges<br>not available |   |   |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br><br>[mm] | <br>Ratios code |
|------------------------------------------------------------|----------------|--------------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|-----------------------------------------------|-------------------------------|------------|-----|------------------------------------|---|---|----|------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                                            |                |                                            |                                              |                            |                                              |                                               | -E                            | -F         | -G  | -                                  | - | - | -  |                              |                                                                                                                 |                                                                                                    |
|                                                            |                |                                            |                                              |                            |                                              |                                               | 90                            | 100<br>112 | 132 | -                                  | - | - | -  |                              |                                                                                                                 |                                                                                                    |
| 187                                                        | 7.5            | 7.5                                        | 345                                          | 2.1                        | 16.1                                         | 741                                           |                               | B          |     |                                    |   |   | 90 | 6.11                         | 01                                                                                                              |                                                                                                    |
| 140                                                        | 10             | 7.5                                        | 455                                          | 1.8                        | 13.5                                         | 820                                           |                               | B          |     |                                    |   |   | 89 | 6.45                         | 02                                                                                                              |                                                                                                    |
| 93                                                         | 15             | 7.5                                        | 668                                          | 1.4                        | 10.3                                         | 917                                           |                               | B          |     |                                    |   |   | 87 | 6.72                         | 03                                                                                                              |                                                                                                    |
| 70                                                         | 20             | 7.5                                        | 870                                          | 1.0                        | 7.8                                          | 905                                           |                               | B          |     |                                    |   |   | 85 | 5.24                         | 04                                                                                                              |                                                                                                    |
| 56                                                         | 25             | 5.5                                        | 788                                          | 1.2                        | 6.5                                          | 931                                           |                               | B          |     |                                    |   |   | 84 | 4.28                         | 05                                                                                                              |                                                                                                    |
| 46.7                                                       | 30             | 5.5                                        | 900                                          | 1.2                        | 6.4                                          | 1047                                          |                               | B          |     |                                    |   |   | 80 | 6.91                         | 06                                                                                                              |                                                                                                    |
| 35                                                         | 40             | 4.0                                        | 851                                          | 1.2                        | 4.9                                          | 1043                                          |                               | B          |     |                                    |   |   | 78 | 5.36                         | 07                                                                                                              |                                                                                                    |
| 28                                                         | 50             | 4.0                                        | 1023                                         | 0.9                        | 3.8                                          | 972                                           | B                             |            |     |                                    |   |   | 75 | 4.35                         | 08                                                                                                              |                                                                                                    |
| 23.3                                                       | 60             | 3.0                                        | 896                                          | 1.0                        | 3.1                                          | 928                                           | B                             |            |     |                                    |   |   | 73 | 3.65                         | 09                                                                                                              |                                                                                                    |
| 17.5                                                       | 80             | 2.2                                        | 816                                          | 1.0                        | 2.3                                          | 853                                           | B                             |            |     |                                    |   |   | 68 | 2.76                         | 10                                                                                                              |                                                                                                    |
| 14                                                         | 100            | 1.5                                        | 655                                          | 1.1                        | 1.7                                          | 742                                           | B                             |            |     |                                    |   |   | 64 | 2.23                         | 11                                                                                                              |                                                                                                    |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit Q13 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q13 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße Q13 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q13 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño Q13 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| B3                                                                                | B6                                                                                 | B7                                                                                  | B8                                                                                  | V5                                                                                  | V6                                                                                  |
| 4.50 LT                                                                           | 3.50 LT                                                                            | 3.50 LT                                                                             | 3.30LT                                                                              | 4.50 LT                                                                             | 3.30LT                                                                              |

AGIP Blasias 460

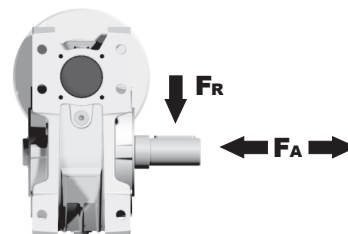
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

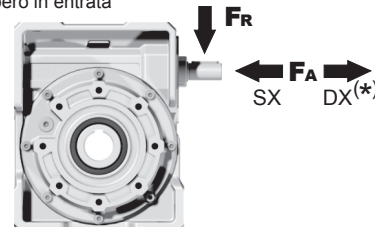
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 960       | 4800      |
| 150                           | 1100      | 5500      |
| 100                           | 1240      | 6200      |
| 75                            | 1380      | 6900      |
| 50                            | 1560      | 7800      |
| 25                            | 2000      | 10000     |
| 15                            | 2400      | 12000     |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 300       | 1500      |

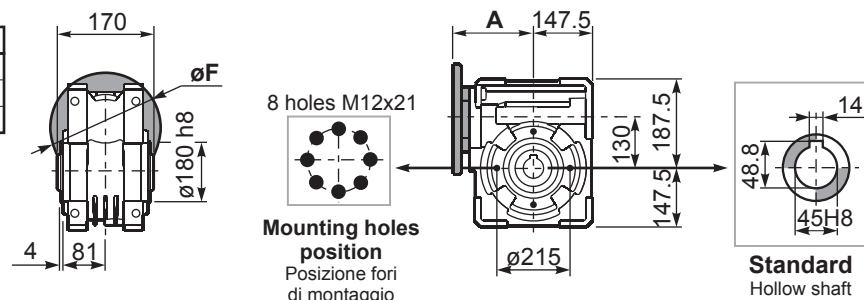
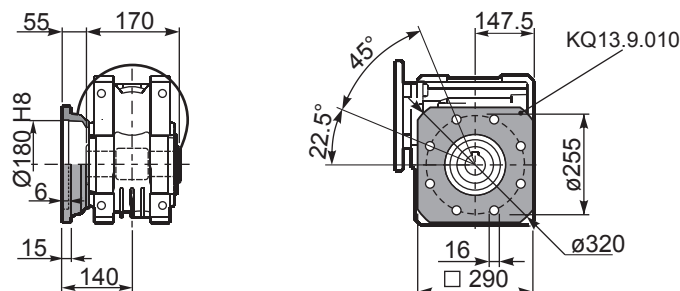
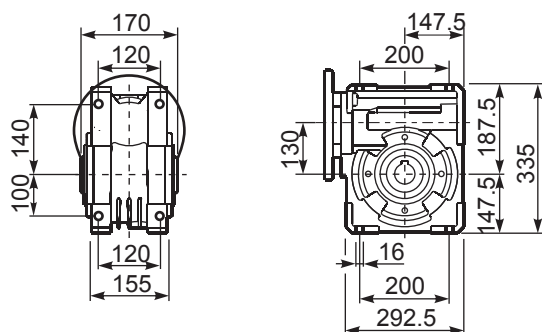
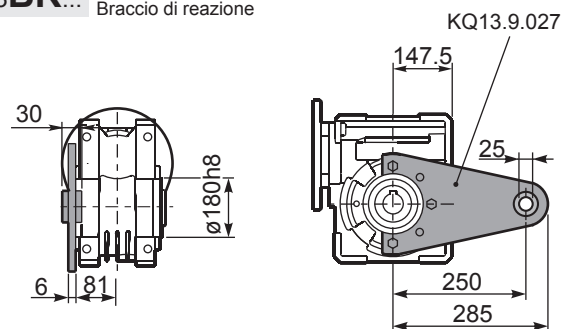
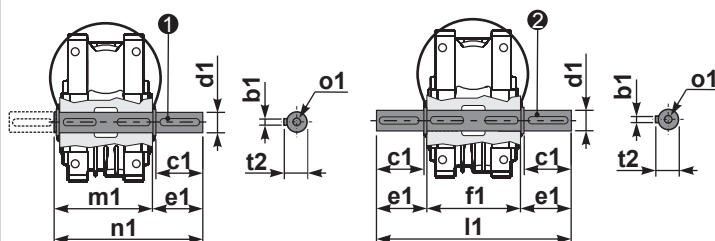
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PQ13**FB**...Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore

48.0 kg

| M. flanges | Kit code   | øF  | A   |
|------------|------------|-----|-----|
| 90B5       | KQ13.4.041 | 200 | 180 |
| 100/112B5  | KQ13.4.042 | 250 | 180 |
| 132B5      | KQ13.4.043 | 300 | 180 |

PQ13**FC**...Square flange  
Flangia quadrataPQ13**FB**...Feet  
PiediniPQ13**BR**...Reaction arm  
Braccio di reazionePQ13.....**S**...Single Shaft  
Albero lento semplicePQ13.....**D**...Double Shaft  
Albero lento bisp.

① kit cod. KQ13.5.028 type B

② kit cod. KQ13.5.029 type B

|      | b1 | c1 | d1                                     | e1 | f1  | l1  | m1  | n1  | t2   | o1  |
|------|----|----|----------------------------------------|----|-----|-----|-----|-----|------|-----|
| type | 14 | 80 | 45 <sup>-0.005</sup> <sub>-0.020</sub> | 85 | 170 | 340 | 180 | 265 | 48.5 | M16 |
| type | -  | -  | -                                      | -  | -   | -   | -   | -   | -    | -   |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    | B14 motor flanges<br>not available |   |   |   | Dynamic efficiency | Tooth Module<br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|------------------------------------|---|---|---|--------------------|----------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -F                            | -G | -H | -                                  | - | - | - | RD                 |                      |                 |
| 187                                           | 7.5          | 15                              | 698                               | 1.7                    | 25.8                              | 1200                               |                               | B  |    |                                    |   |   |   | 91                 | 5.5                  | 01              |
| 140                                           | 10           | 15                              | 921                               | 1.3                    | 20.2                              | 1240                               |                               | B  |    |                                    |   |   |   | 90                 | 6.155                | 02              |
| 93                                            | 15           | 11                              | 990                               | 1.3                    | 13.9                              | 1250                               |                               | B  |    |                                    |   |   |   | 88                 | 5.5                  | 03              |
| 70                                            | 20           | 11                              | 1291                              | 1.0                    | 11.1                              | 1300                               |                               | B  |    |                                    |   |   |   | 86                 | 6.155                | 04              |
| 56                                            | 25           | 9                               | 1289                              | 0.9                    | 8.4                               | 1200                               |                               | B  |    |                                    |   |   |   | 84                 | 5                    | 05              |
| 46.7                                          | 30           | 7.5                             | 1274                              | 0.9                    | 7.1                               | 1200                               | B                             |    |    |                                    |   |   |   | 83                 | 4.193                | 06              |
| 35                                            | 40           | 7.5                             | 1596                              | 1.0                    | 7.3                               | 1550                               | B                             |    |    |                                    |   |   |   | 78                 | 6.155                | 07              |
| 28                                            | 50           | 5.5                             | 1426                              | 1.0                    | 5.4                               | 1400                               | B                             |    |    |                                    |   |   |   | 76                 | 5                    | 08              |
| 23.3                                          | 60           | 4                               | 1195                              | 1.1                    | 4.2                               | 1260                               | B                             |    |    |                                    |   |   |   | 73                 | 4.193                | 09              |
| 17.5                                          | 80           | 3                               | 1113                              | 1.0                    | 3.1                               | 1150                               |                               |    |    |                                    |   |   |   | 68                 | 3.17                 | 10              |
| 14                                            | 100          | 2.2                             | 960                               | 1.0                    | 2.3                               | 1000                               |                               |    |    |                                    |   |   |   | 64                 | 2.55                 | 11              |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **Q15** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **Q15** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **Q15** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **Q15** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **Q15** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
|         |         |         |         |         |         |
| B3      | B6      | B7      | B8      | V5      | V6      |
| 7.00 LT | 5.40 LT | 5.40 LT | 5.10 LT | 7.00 LT | 5.10 LT |

AGIP Blasias 460

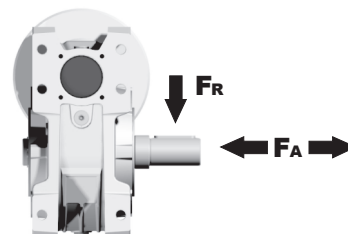
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

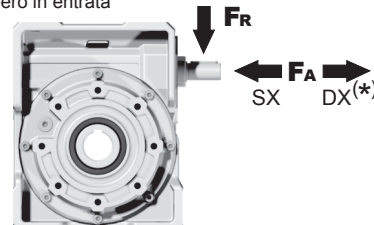
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 200                           | 1300      | 6500      |
| 150                           | 1440      | 7200      |
| 100                           | 1640      | 8200      |
| 75                            | 1800      | 9000      |
| 50                            | 2120      | 10600     |
| 25                            | 2700      | 13500     |
| 15                            | 3300      | 16500     |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 400       | 2000      |

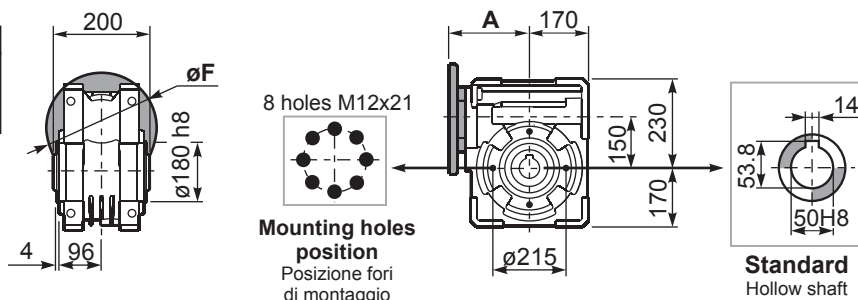
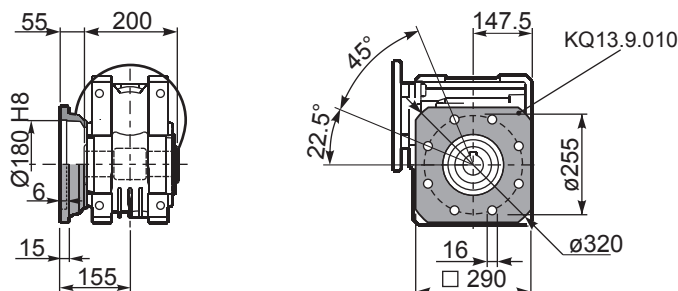
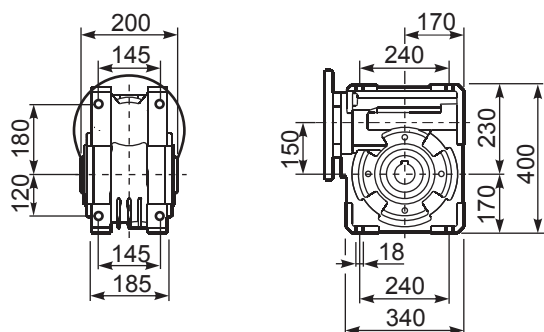
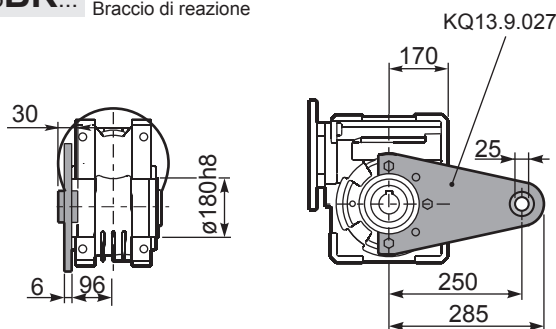
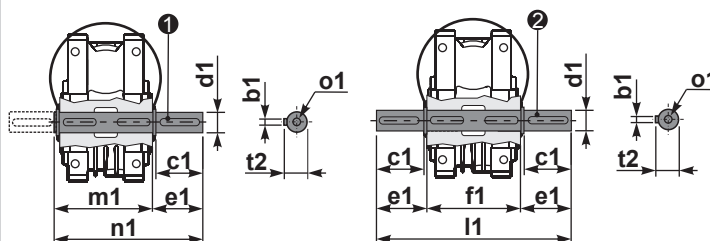
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PQ15**FB**...Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore

84.0 kg

| M. flanges | Kit code   | øF  | A   |
|------------|------------|-----|-----|
| 100/112B5  | KQ15.4.042 | 250 | 210 |
| 132B5      | KQ15.4.043 | 300 | 210 |
| 160B5      | KQ15.4.044 | 350 | 210 |

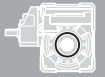
PQ15**FC**...Square flange  
Flangia quadrataPQ15**FB**...Feet  
PiediniPQ15**BR**...Reaction arm  
Braccio di reazionePQ15.....**S**...Single Shaft  
Albero lento semplicePQ15.....**D**...Double Shaft  
Albero lento bisp.

① kit cod. KQ15.5.028 type B

② kit cod. KQ15.5.029 type B

|      | b1 | c1 | d1                                     | e1 | f1  | l1  | m1  | n1  | t2   | o1  |
|------|----|----|----------------------------------------|----|-----|-----|-----|-----|------|-----|
| type | 14 | 82 | 50 <sup>-0.005</sup> <sub>-0.020</sub> | 87 | 200 | 374 | 210 | 297 | 53.5 | M16 |
| type | -  | -  | -                                      | -  | -   | -   | -   | -   | -    | -   |





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    | Available<br>B14 motor flanges |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|--------------------------------|----|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -C | -P                             | -Q |                              |                          |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 71 | 63                             | 71 |                              |                          |                                                                                                    |
| 47                                            | 30.1         | 0.25                            | 38                                | 1.4                    | 0.36                              | 55                                 |                               |    |    | C                              |    | 74                           | 2.2                      | 01                                                                                                 |
| 33                                            | 43.0         | 0.25                            | 53                                | 1.0                    | 0.26                              | 55                                 |                               |    |    | C                              |    | 72                           | 2.2                      | 02                                                                                                 |
| 23                                            | 60.2         | 0.25                            | 62                                | 0.9                    | 0.22                              | 55                                 |                               |    |    | C                              |    | 60                           | 2.4                      | 03                                                                                                 |
| 15.5                                          | 90.3         | 0.12                            | 42                                | 1.3                    | 0.16                              | 55                                 |                               |    |    | C                              |    | 57                           | 1.6                      | 04                                                                                                 |
| 11.6                                          | 120          | 0.12                            | 52                                | 1.1                    | 0.13                              | 55                                 |                               |    |    | C                              |    | 53                           | 2.5                      | 05                                                                                                 |
| 8.8                                           | 159          | 0.12                            | 64                                | 0.9                    | 0.10                              | 55                                 |                               |    |    | C                              |    | 49                           | 1.8                      | 06                                                                                                 |
| 7.1                                           | 198          | 0.12*                           | 55                                | <0.8                   | 0.09                              | 55                                 |                               |    |    | C                              |    | 47                           | 1.5                      | 07                                                                                                 |
| 5.4                                           | 258          | 0.12*                           | 55                                | <0.8                   | 0.07                              | 55                                 |                               |    |    | C                              |    | 45                           | 1.2                      | 08                                                                                                 |
| 4.7                                           | 301          | 0.12*                           | 39                                | <0.8                   | 0.05                              | 39                                 |                               |    |    | C                              |    | 40                           | 1.0                      | 09                                                                                                 |
| 3.2                                           | 439          | 0.12*                           | 39                                | <0.8                   | 0.04                              | 39                                 |                               |    |    | C                              |    | 36                           | 0.72                     | 10                                                                                                 |

 **Motor Flanges Available**  
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P4Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

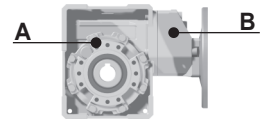
**I** Il riduttore tipo **P4Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P4Q** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P4Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P4Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION P4Q Oil Common lubrication 0.17 l (A + B).



**AGIP** Telium VSF 320

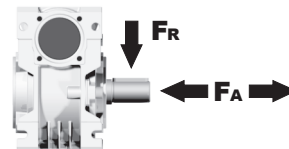
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

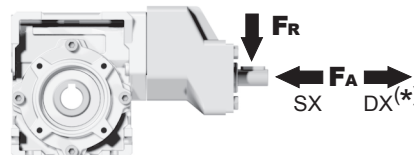
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 240       | 1200      |
| 50                            | 260       | 1400      |
| 25                            | 300       | 1800      |
| 15-6                          | 400       | 2000      |

### Input shaft

albero in entrata



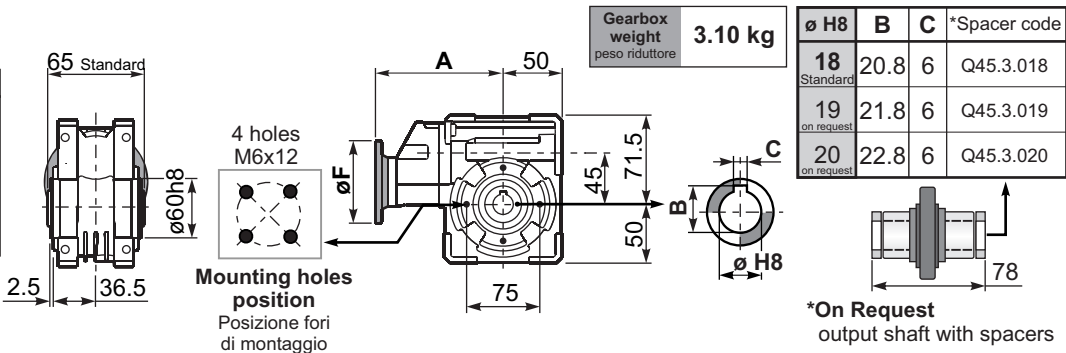
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 44        | 220       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

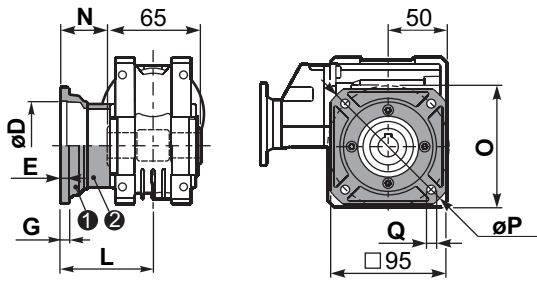
**tab. 2**

PP4Q**FB**... Basic wormbox  
Riduttore base

| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 56B5       | K050.4.046 | 120 | 143.5 |
| 63B5       | K050.4.041 | 138 | 145.5 |
| 71B5       | K050.4.042 | 160 | 143   |
| 63B14      | K050.4.047 | 90  | 145.5 |
| 71B14      | K050.4.045 | 105 | 143   |

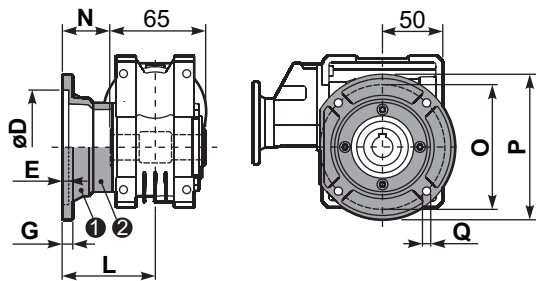


PP4Q**FC**... Square flange  
Flangia quadrata



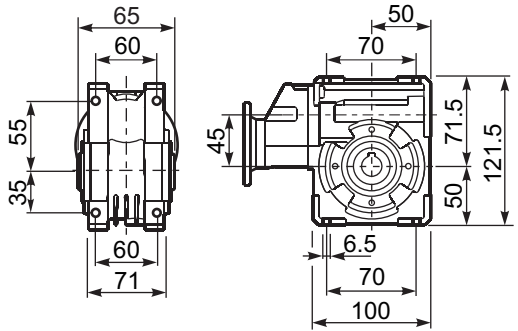
| type B | øD    | E | G | L  | N    | O  | P   | Q | kit code   |
|--------|-------|---|---|----|------|----|-----|---|------------|
| FC     | 60 H8 | 4 | 7 | 67 | 34.5 | 75 | 110 | 9 | KQ45.9.010 |
| FL     | 60 H8 | 4 | 7 | 97 | 64.5 | 75 | 110 | 9 | KQ45.9.011 |

PP4Q**F1**... Round flange  
Flangia rotonda

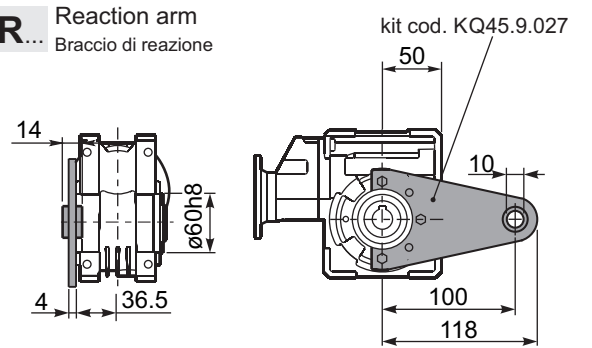


| type S | øD   | E | G | L  | N    | O   | P   | Q   | kit code    |
|--------|------|---|---|----|------|-----|-----|-----|-------------|
| F1     | 95H8 | 5 | 9 | 80 | 47.5 | 115 | 140 | 9.5 | KSQ45.9.012 |
| F2     | -    | - | - | -  | -    | -   | -   | -   | -           |

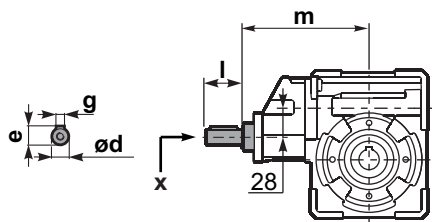
PP4Q**FB**... Feet  
Piedini



PP4Q**BR**... Reaction arm  
Braccio di reazione

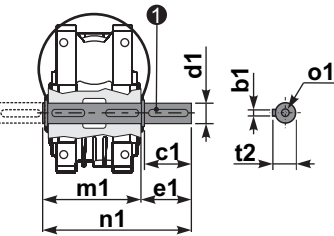


R**P4QFB**... Input shaft  
Albero in entrata



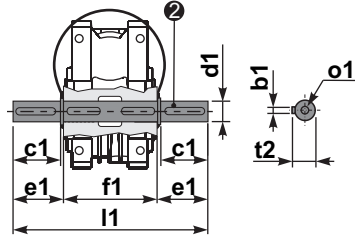
|        | ød    | e  | g | l  | m   | x     |           |
|--------|-------|----|---|----|-----|-------|-----------|
| type B | 14 h6 | 16 | 5 | 25 | 141 | M5x13 | C35.5.061 |
| type S | -     | -  | - | -  | -   | -     |           |

PP4Q.....**S**... Single Shaft  
Albero lento semplice



① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

PP4Q.....**D**... Double Shaft  
Albero lento bisp.



② kit cod. K045.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1 | l1  | m1 | n1    | t2   | o1    |
|--------|----|----|----------------------------------------|------|----|-----|----|-------|------|-------|
| type B | 6  | 32 | 18 <sup>-0.005</sup> <sub>-0.020</sub> | 43   | 65 | 151 | 70 | 113   | 20.5 | M6x18 |
| type S | 6  | 40 | 19 <sup>-0.005</sup> <sub>-0.020</sub> | 58.5 | -  | -   | 70 | 128.5 | 21.5 | M8x20 |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    | Available<br>B14 motor flanges |    | Dynamic efficiency | Tooth Module<br><br>[mm] | Ratio code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|--------------------------------|----|--------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -C | -P                             | -Q |                    |                                                                                                             |                                                                                                   |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 71 | 63                             | 71 | RD                 |                                                                                                             |                                                                                                   |
| 47                                            | 30.1         | 0.37                            | 58                                | 1.3                    | 0.49                              | 77                                 |                               |    |    | C                              |    | 76                 | 2.5                                                                                                         | 01                                                                                                |
| 33                                            | 43.0         | 0.25                            | 55                                | 1.4                    | 0.35                              | 77                                 |                               |    |    | C                              |    | 75                 | 2.4                                                                                                         | 02                                                                                                |
| 23                                            | 60.2         | 0.25                            | 71                                | 1.1                    | 0.27                              | 77                                 |                               |    |    | C                              |    | 69                 | 2.6                                                                                                         | 03                                                                                                |
| 18.1                                          | 77.4         | 0.25                            | 81                                | 1.1                    | 0.27                              | 88                                 |                               |    |    | C                              |    | 61                 | 2.0                                                                                                         | 04                                                                                                |
| 12.5                                          | 112          | 0.18                            | 84                                | 1.1                    | 0.19                              | 88                                 |                               |    |    | C                              |    | 61                 | 2.7                                                                                                         | 05                                                                                                |
| 9.0                                           | 155          | 0.12                            | 71                                | 1.2                    | 0.15                              | 88                                 |                               |    |    | C                              |    | 56                 | 2.1                                                                                                         | 06                                                                                                |
| 7.6                                           | 185          | 0.12                            | 74                                | 1.0                    | 0.12                              | 77                                 |                               |    |    | C                              |    | 49                 | 1.8                                                                                                         | 07                                                                                                |
| 5.4                                           | 258          | 0.12*                           | 77                                | <0.8                   | 0.09                              | 77                                 |                               |    |    | C                              |    | 47                 | 1.3                                                                                                         | 08                                                                                                |
| 4.8                                           | 292          | 0.12*                           | 66                                | <0.8                   | 0.08                              | 66                                 |                               |    |    | C                              |    | 44                 | 1.2                                                                                                         | 09                                                                                                |
| 4.1                                           | 344          | 0.12*                           | 44                                | <0.8                   | 0.05                              | 44                                 |                               |    |    | C                              |    | 40                 | 1.0                                                                                                         | 10                                                                                                |
| 3.3                                           | 430          | 0.12*                           | 44                                | <0.8                   | 0.04                              | 44                                 |                               |    |    | C                              |    | 36                 | 0.8                                                                                                         | 11                                                                                                |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P5Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

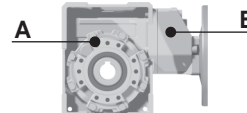
**I** Il riduttore tipo **P5Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P5Q** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P5Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P5Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION P5Q Oil Common lubrication 0.26 l (A + B).



AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

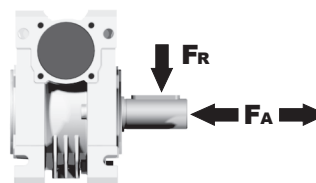
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

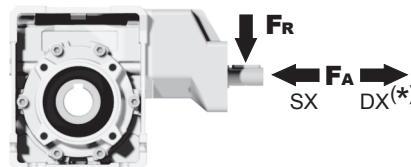
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 340       | 1700      |
| 50                            | 380       | 1900      |
| 25                            | 480       | 2500      |
| 15-6                          | 560       | 2800      |

### Input shaft

albero in entrata



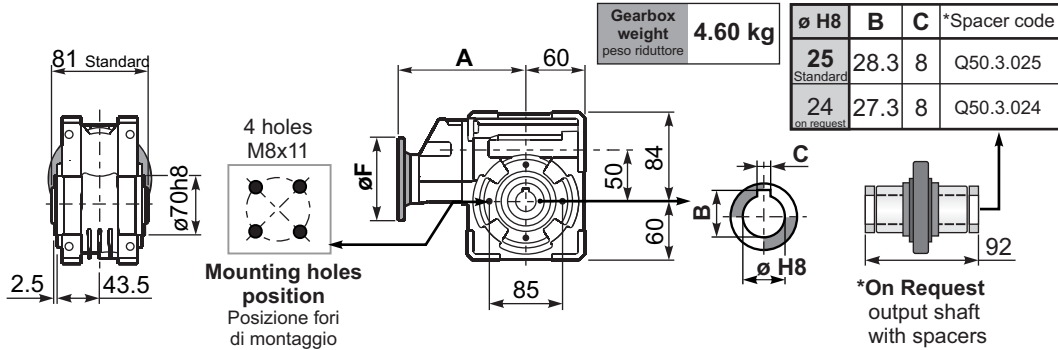
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 44        | 220       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

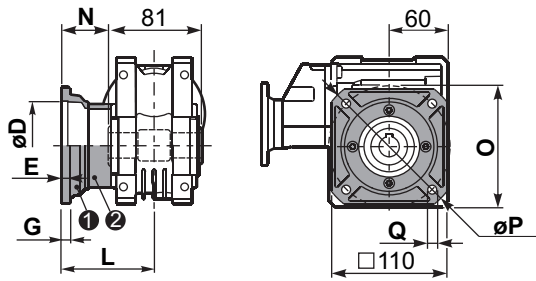
tab. 2

PP5Q**FB**... Basic wormbox  
Riduttore base

| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 56B5       | K050.4.046 | 120 | 147   |
| 63B5       | K050.4.041 | 138 | 149   |
| 71B5       | K050.4.042 | 160 | 146.5 |
| 63B14      | K050.4.047 | 90  | 149   |
| 71B14      | K050.4.045 | 105 | 146.5 |

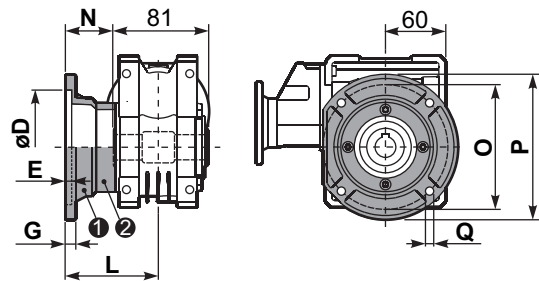


PP5Q**FC**... Square flange  
Flangia quadrata



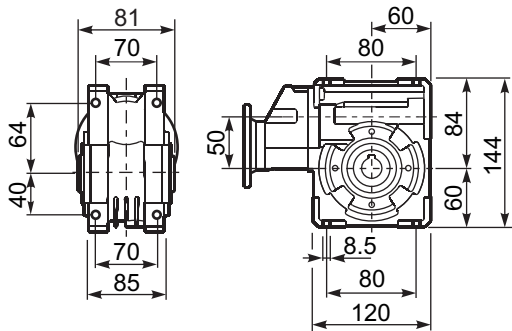
| type B | øD    | E | G | L   | N    | O  | P   | Q  | kit code   |
|--------|-------|---|---|-----|------|----|-----|----|------------|
| FC     | 70 H8 | 5 | 9 | 90  | 49.5 | 85 | 125 | 11 | KQ50.9.010 |
| FL     | 70 H8 | 5 | 9 | 120 | 79.5 | 85 | 125 | 11 | KQ50.9.011 |

PP5Q**F1**... Round flange  
Flangia rotonda

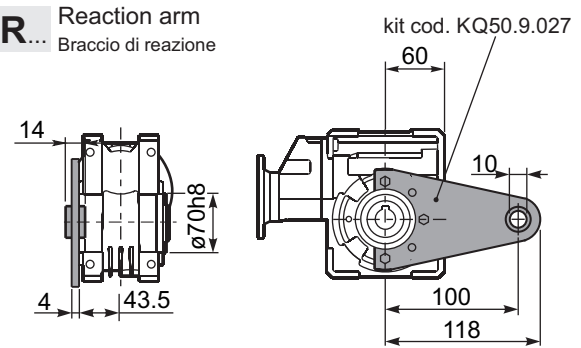


| type S | øD     | E | G    | L  | N    | O   | P   | Q   | kit code    |
|--------|--------|---|------|----|------|-----|-----|-----|-------------|
| F1     | 110 H8 | 5 | 10   | 89 | 69.5 | 130 | 160 | 9.5 | KSQ50.9.012 |
| F2     | 95 H8  | 5 | 14.5 | 72 | 31.5 | 115 | 140 | 11  | KSQ50.9.013 |

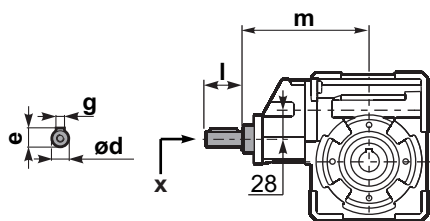
PP5Q**FB**... Feet  
Piedini



PP5Q**BR**... Reaction arm  
Braccio di reazione

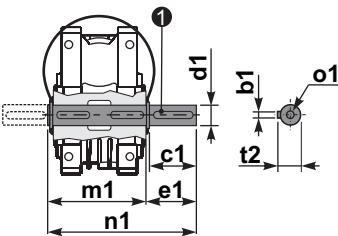


R**P5QFB**... Input shaft  
Albero in entrata



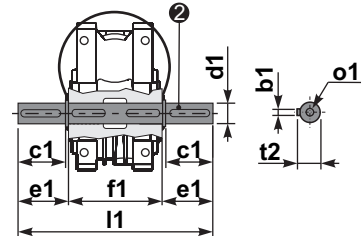
|        | ød    | e  | g | l  | m     | x     |           |
|--------|-------|----|---|----|-------|-------|-----------|
| type B | 14 h6 | 16 | 5 | 25 | 140.5 | M5x13 | C35.5.061 |
| type S | -     | -  | - | -  | -     | -     |           |

PP5Q.....**S**... Single Shaft  
Albero lento semplice



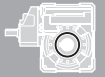
① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

PP5Q.....**D**... Double Shaft  
Albero lento bisp.



② kit cod. K050.5.029 type B

|        | b1 | c1 | d1                          | e1   | f1 | l1  | m1   | n1  | t2 | o1    |
|--------|----|----|-----------------------------|------|----|-----|------|-----|----|-------|
| type B | 8  | 52 | 25 <sup>-0.005/-0.020</sup> | 59.5 | 81 | 200 | 86.5 | 146 | 28 | M8x20 |
| type S | 8  | 50 | 24 <sup>-0.005/-0.020</sup> | 68.8 | -  | -   | 86.5 | 155 | 27 | M8x20 |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

|                  | Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |    |    |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|------------------|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|----|----|----|--------------------------|----------------------|-------------|
|                  |                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -P                             | -Q | -R | -T |                          |                      |             |
|                  |                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 63                             | 71 | 80 | 90 |                          |                      |             |
| IEC 90 - 80 - 71 | 47                                            | 29.9         | 0.75                            | 113                               | 1.5                    | 1.1                               | 165                                |                               |    |    |    |                                | C  | C  |    | 74                       | 2.6                  | 01          |
|                  | 37                                            | 37.7         | 0.75                            | 141                               | 1.2                    | 0.88                              | 165                                |                               |    |    |    |                                | C  | C  |    | 73                       | 2.0                  | 02          |
|                  | 30                                            | 47.1         | 0.75                            | 169                               | 1.1                    | 0.83                              | 187                                |                               |    |    |    |                                | C  | C  |    | 70                       | 3.2                  | 03          |
|                  | 25                                            | 56.6         | 0.55                            | 136                               | 1.4                    | 0.76                              | 187                                |                               |    |    |    |                                | C  | C  |    | 64                       | 2.7                  | 04          |
|                  | 19.8                                          | 70.7         | 0.55                            | 164                               | 1.1                    | 0.63                              | 187                                |                               |    |    |    |                                | C  | C  |    | 62                       | 2.1                  | 05          |
|                  | 15.9                                          | 87.8         | 0.37                            | 162                               | 1.2                    | 0.43                              | 187                                |                               |    |    |    |                                | C  | C  |    | 73                       | 2.6                  | 06          |
|                  | 12.6                                          | 111.0        | 0.37                            | 199                               | 0.9                    | 0.35                              | 187                                |                               |    |    |    |                                | C  | C  |    | 71                       | 2.0                  | 07          |
|                  |                                               |              |                                 |                                   |                        |                                   |                                    |                               |    |    |    |                                |    |    |    |                          |                      |             |
| IEC 71 - 63      | 10.1                                          | 139          | 0.37                            | 234                               | 0.8                    | 0.30                              | 187                                |                               |    |    |    | C                              |    |    |    | 67                       | 3.2                  | 08          |
|                  | 8.4                                           | 166          | 0.25                            | 173                               | 1.1                    | 0.27                              | 187                                |                               |    |    |    | C                              |    |    |    | 61                       | 2.7                  | 09          |
|                  | 6.7                                           | 208          | 0.18                            | 151                               | 1.1                    | 0.20                              | 165                                |                               |    |    |    | C                              |    |    |    | 59                       | 2.1                  | 10          |
|                  | 4.5                                           | 310          | 0.12                            | 129                               | 1.3                    | 0.15                              | 165                                |                               |    |    |    | C                              |    |    |    | 51                       | 1.5                  | 11          |
|                  | 3.8                                           | 370          | 0.12                            | 145                               | 1.1                    | 0.14                              | 165                                |                               |    |    |    | C                              |    |    |    | 48                       | 1.3                  | 12          |
|                  | 3.2                                           | 434          | 0.12                            | 149                               | 0.9                    | 0.11                              | 138                                |                               |    |    |    | C                              |    |    |    | 42                       | 1.1                  | 13          |
|                  |                                               |              |                                 |                                   |                        |                                   |                                    |                               |    |    |    |                                |    |    |    |                          |                      |             |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **P6Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P6Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P6Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P6Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P6Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION P6Q Oil

For B3-V5-V6 separate lubrication for A (0.30 l) B (0.08 l), for B6-B7-B8 common lubrication 0.35 l (A + B).

AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

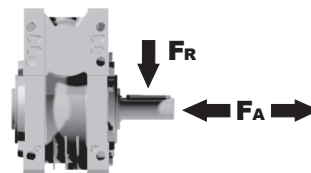
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

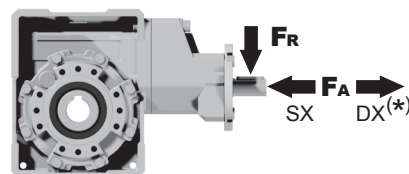
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| 75                            | 500          | 2500         |
| 50                            | 600          | 3000         |
| 25                            | 700          | 3800         |
| 15-6                          | 800          | 4000         |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| 1400                          | 61           | 305          |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

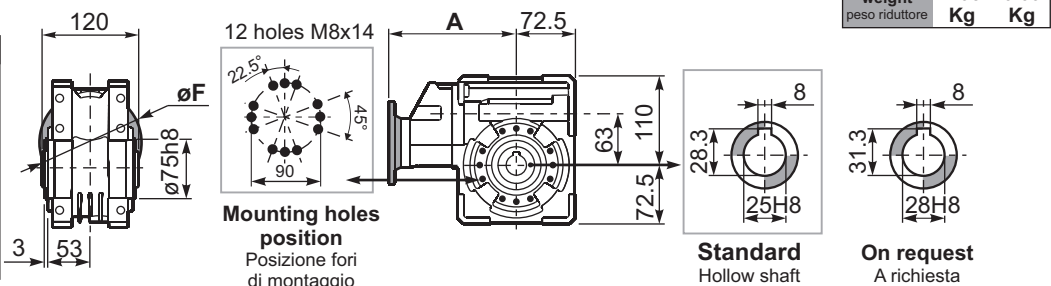


## PP6QFB...

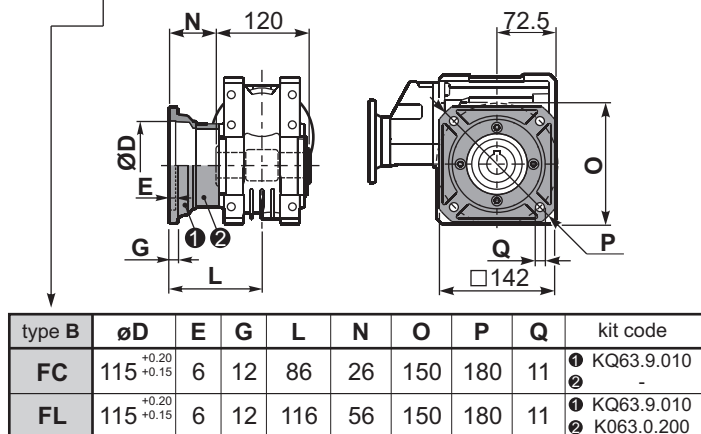
Basic wormbox  
Riduttore base

|                                  |          |         |
|----------------------------------|----------|---------|
| Gearbox weight<br>peso riduttore | 29.9+111 | 139+434 |
|                                  | 7.05 Kg  | 6.60 Kg |

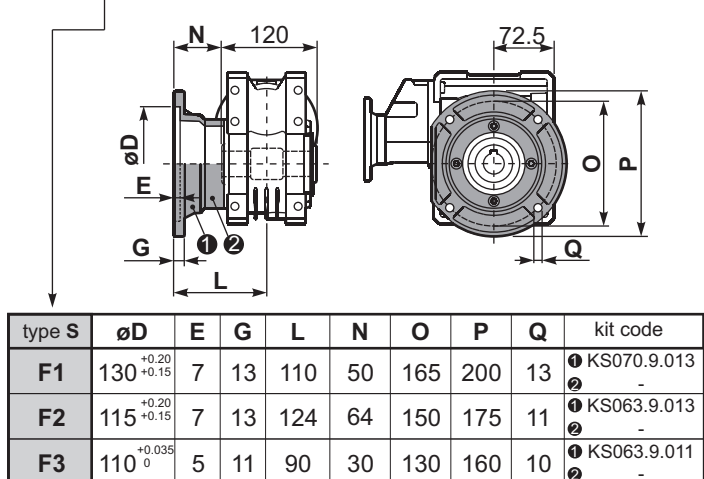
| M.flange | Kit code   | øF  | A     |
|----------|------------|-----|-------|
| 71B5     | K063.4.042 | 160 | 176.5 |
| 80/90B5  | K063.4.043 | 200 | 178.5 |
| 71B14    | K063.4.047 | 105 | 176.5 |
| 80B14    | K063.4.046 | 120 | 178.5 |
| 90B14    | K063.4.041 | 140 | 178.5 |
| 63B5     | K050.4.041 | 138 | 162.5 |
| 71B5     | K050.4.042 | 160 | 160   |
| 63B14    | K050.4.047 | 90  | 162.5 |
| 71B14    | K050.4.045 | 105 | 160   |



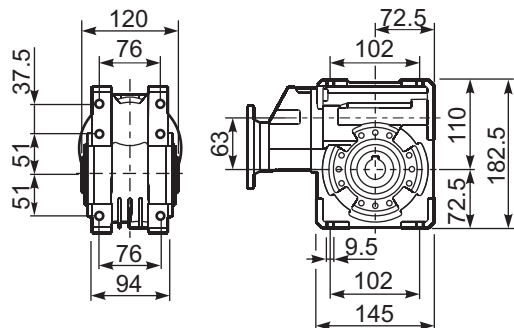
## PP6QFC...

Output flange  
Flangia uscita

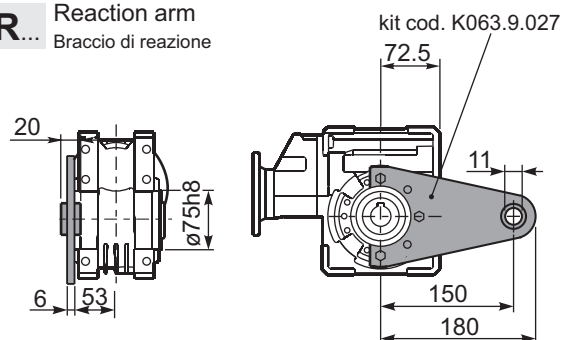
## PP6QF1...

Output flange  
Flangia uscita

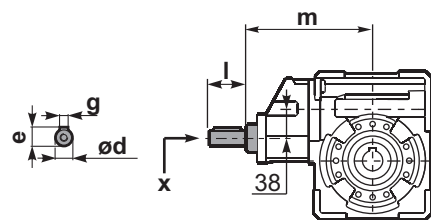
## PP6QFB...

Feet  
Piedini

## PP6QBR...

Reaction arm  
Braccio di reazione

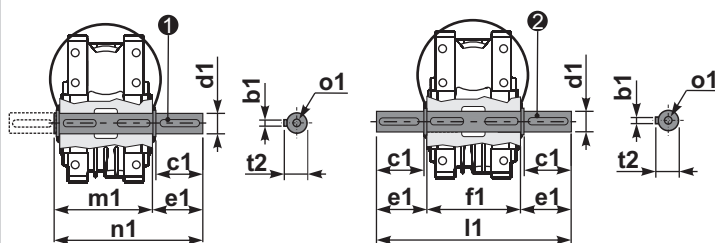
## RP6QFB...

Input shaft  
Albero in entrata

## PP6Q.....S...

Single Shaft  
Albero lento semplice

## PP6Q.....D...

Double Shaft  
Albero lento bisp.

1 kit cod. K063.5.028 type B

2 kit cod. K063.5.029 type B

|          | ød    | e    | g | l  | m     | x     |           |
|----------|-------|------|---|----|-------|-------|-----------|
| 29.9+111 | 19 h6 | 21.5 | 6 | 35 | 169.4 | M6x16 | C40.5.062 |
| 139+434  | 14 h6 | 16   | 5 | 25 | 154.2 | M5x13 | C35.5.061 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1    | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-------|-------|-----|----|-------|
| type B | 8  | 60 | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -     | -     | -   | -  | -     |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |    |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|----|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -Q                             | -R | -T |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 71                             | 80 | 90 |                          |                      |             |
| 22                                            | <b>62.9</b>  | 0.75                            | 248                               | 1.2                    | <b>0.87</b>                       | <b>286</b>                         |                               |    |    |    | C                              | C  |    | 77                       | 3.10                 | 01          |
| 18                                            | <b>78.5</b>  | 0.75                            | 293                               | 1.0                    | <b>0.73</b>                       | <b>286</b>                         |                               |    |    |    | C                              | C  |    | 73                       | 2.41                 | 02          |
| 15                                            | <b>94.2</b>  | 0.75                            | 333                               | 0.9                    | <b>0.70</b>                       | <b>310</b>                         |                               |    |    |    | C                              | C  |    | 69                       | 2.10                 | 03          |
| 11                                            | <b>126</b>   | 0.55                            | 297                               | 1.0                    | <b>0.55</b>                       | <b>296</b>                         | B                             |    |    |    | C                              | C  |    | 63                       | 1.53                 | 04          |
| 9                                             | <b>157</b>   | 0.37                            | 230                               | 1.1                    | <b>0.41</b>                       | <b>252</b>                         | B                             |    |    |    | C                              | C  |    | 58                       | 1.23                 | 05          |
| 8                                             | <b>185</b>   | 0.37                            | 257                               | 1.2                    | <b>0.43</b>                       | <b>296</b>                         | B                             |    |    |    | C                              | C  |    | 55                       | 3.10                 | 06          |
| 6                                             | <b>231</b>   | 0.25                            | 193                               | 1.5                    | <b>0.38</b>                       | <b>296</b>                         | B                             |    |    |    | C                              | C  |    | 49                       | 2.41                 | 07          |
| 5                                             | <b>277</b>   | 0.25                            | 222                               | 1.3                    | <b>0.33</b>                       | <b>296</b>                         | B                             |    |    |    | C                              | C  |    | 47                       | 2.10                 | 08          |
| 4                                             | <b>378</b>   | 0.18                            | 200                               | 1.5                    | <b>0.27</b>                       | <b>296</b>                         | B                             |    |    |    | C                              | C  |    | 43                       | 2.10                 | 09          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit P7Q is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo P7Q viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

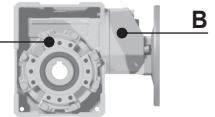
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe P7Q mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type P7Q est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño P7Q se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION P7Q Oil

For B3-V5-V6 separate lubrication for A (0.40 l) B (0.14 l), for B6-B7-B8 common lubrication 0.65 l (A + B).



**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

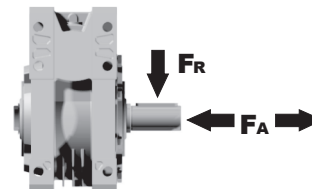
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

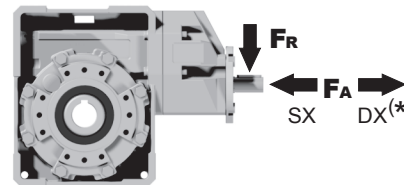
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| 75                            | 620          | 3100         |
| 50                            | 720          | 3600         |
| 25                            | 880          | 4400         |
| 15-6                          | 1000         | 5000         |

### Input shaft

albero in entrata



| $n$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-----------------------------|--------------|--------------|
| 1400                        | 108          | 540          |

\*Strong axial loads in the DX direction are not allowed.

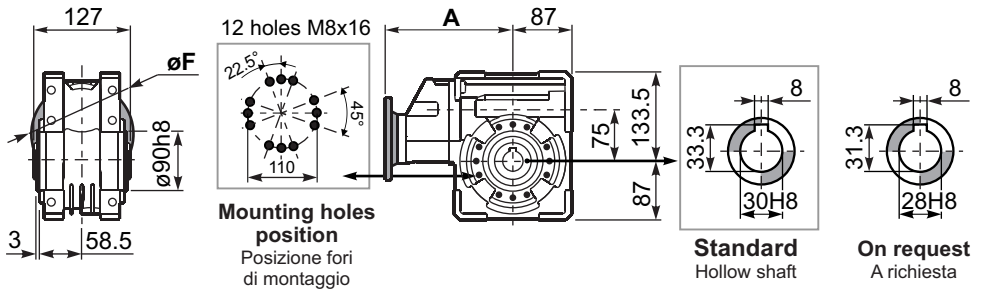
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

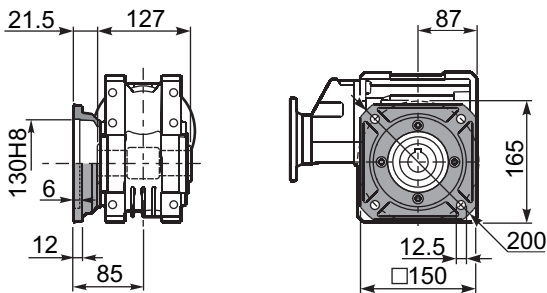
PP7Q**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **9.90 kg**

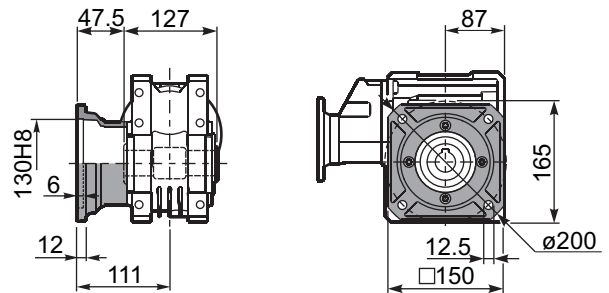
| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 63B5       | K063.4.041 | 140 | 192.7 |
| 71B5       | K063.4.042 | 160 | 190.7 |
| 80/90B5    | K063.4.043 | 200 | 192.7 |
| 71B14      | K063.4.047 | 105 | 190.7 |
| 80B14      | K063.4.046 | 120 | 192.7 |
| 90B14      | K063.4.041 | 140 | 192.7 |



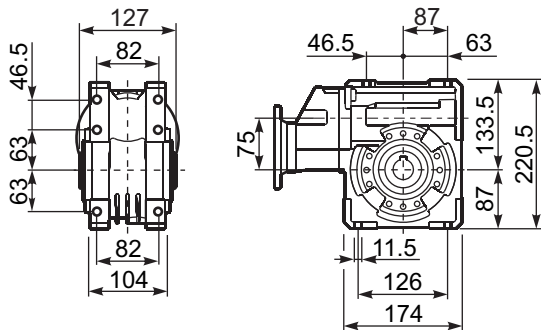
PP7Q**FC**... Square flange  
Flangia quadrata



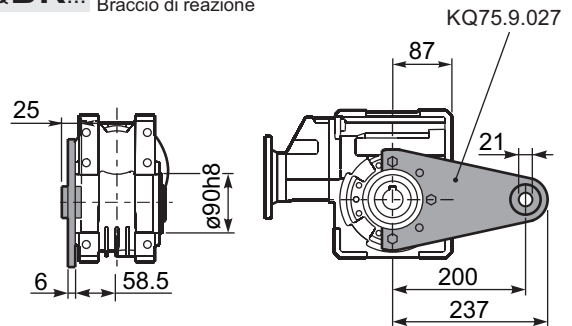
PP7Q**FL**... Square flange  
Flangia quadrata



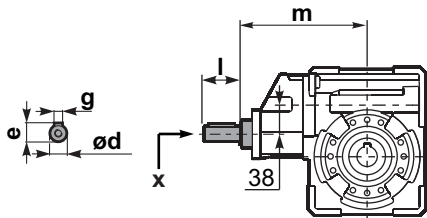
PP7Q**FB**... Feet  
Piedini



PP7Q**BR**... Reaction arm  
Braccio di reazione



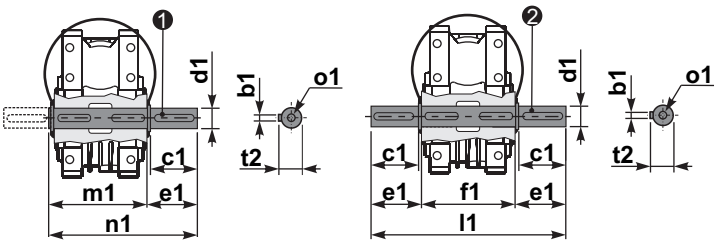
R**P7QFB**... Input shaft  
Albero in entrata



|        | ød    | e    | g | l  | m     | x     |           |
|--------|-------|------|---|----|-------|-------|-----------|
| type B | 19 h6 | 21.5 | 6 | 35 | 185.5 | M6x16 | C40.5.062 |
| type S | -     | -    | - | -  | -     | -     |           |

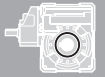
PP7Q.....**S**... Single Shaft  
Albero lento semplice

PP7Q.....**D**... Double Shaft  
Albero lento bisp.



1 kit cod. KQ75.5.028 Standard 2 kit cod. KQ75.5.029 Standard  
kit cod. KQ75.5.026 On request

|            | b1 | c1 | d1                          | e1 | f1  | l1  | m1  | n1  | t2 | o1    |
|------------|----|----|-----------------------------|----|-----|-----|-----|-----|----|-------|
| Standard   | 8  | 60 | 30 <sup>-0.005/-0.020</sup> | 65 | 127 | 255 | 134 | 199 | 33 | M8x20 |
| On request | 8  | 50 | 28 <sup>-0.005/-0.020</sup> | 65 | -   | -   | 134 | 199 | 31 | M8x20 |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |    |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|----|----|------------------------------|--------------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -Q                             | -R | -T |                              |                          |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 71                             | 80 | 90 |                              |                          |             |
| 23.5                                          | <b>59.7</b>  | 1.1                             | 300                               | 1.4                    | <b>1.5</b>                        | <b>418</b>                         |                               |    |    |    | C                              | C  |    | 67                           | 3.5                      | 01          |
| 19.4                                          | <b>72.3</b>  | 1.1                             | 347                               | 1.2                    | <b>1.3</b>                        | <b>407</b>                         |                               |    |    |    | C                              | C  |    | 64                           | 3.1                      | 02          |
| 17.1                                          | <b>81.7</b>  | 1.1                             | 374                               | 1.1                    | <b>1.2</b>                        | <b>418</b>                         |                               |    |    |    | C                              | C  |    | 61                           | 2.7                      | 03          |
| 13.3                                          | <b>105</b>   | 0.75                            | 323                               | 1.2                    | <b>0.89</b>                       | <b>385</b>                         |                               |    |    |    | C                              | C  |    | 60                           | 2.1                      | 04          |
| 8.0                                           | <b>176</b>   | 0.55                            | 415                               | 1.1                    | <b>0.58</b>                       | <b>440</b>                         | B                             |    |    |    | C                              | C  |    | 63                           | 3.5                      | 05          |
| 6.6                                           | <b>213</b>   | 0.37                            | 322                               | 1.3                    | <b>0.47</b>                       | <b>407</b>                         | B                             |    |    |    | C                              | C  |    | 60                           | 3.1                      | 06          |
| 5.8                                           | <b>240</b>   | 0.37                            | 321                               | 1.3                    | <b>0.48</b>                       | <b>418</b>                         | B                             |    |    |    | C                              | C  |    | 53                           | 2.7                      | 07          |
| 4.3                                           | <b>328</b>   | 0.37                            | 438                               | 1.0                    | <b>0.35</b>                       | <b>418</b>                         | B                             |    |    |    | C                              | C  |    | 53                           | 2.7                      | 08          |
| 3.3                                           | <b>422</b>   | 0.25                            | 374                               | 1.0                    | <b>0.26</b>                       | <b>385</b>                         | B                             |    |    |    | C                              | C  |    | 52                           | 2.1                      | 09          |
| 3.0                                           | <b>466</b>   | 0.25                            | 358                               | 0.9                    | <b>0.23</b>                       | <b>330</b>                         | B                             |    |    |    | C                              | C  |    | 45                           | 1.9                      | 10          |
| 2.3                                           | <b>605</b>   | 0.18                            | 297                               | 1.1                    | <b>0.20</b>                       | <b>330</b>                         | B                             |    |    |    | C                              | C  |    | 40                           | 1.5                      | 11          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **P8Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P8Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

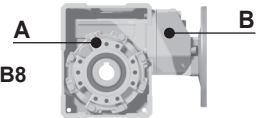
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P8Q** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P8Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P8Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P8Q Oil

For B3-V5-V6 separate lubrication for A ( 1.20 l ) B ( 0.14 l ) , for B6-B7-B8 common lubrication 1.00 l ( A + B ).



AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

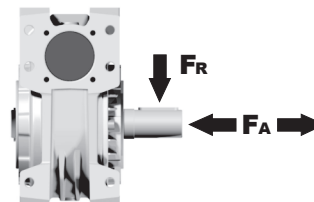
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

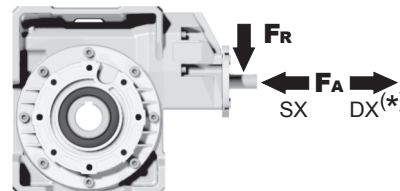
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 700       | 3500      |
| 50                            | 800       | 4000      |
| 25                            | 1000      | 5000      |
| 15-6                          | 1160      | 5800      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 108       | 540       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

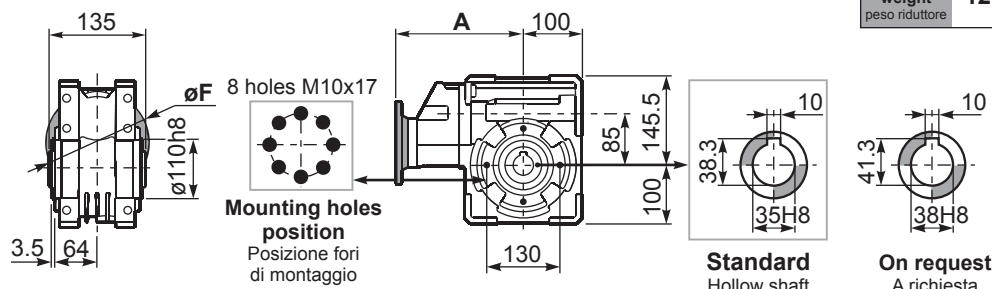
PP8Q**FB**...

Basic wormbox  
Riduttore base

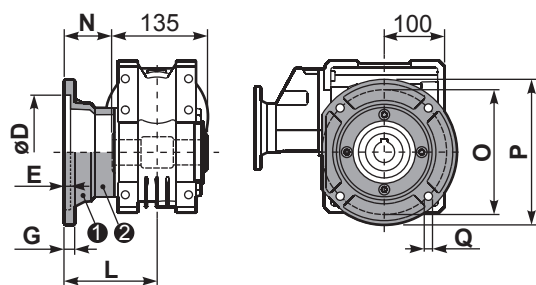
**Gearbox weight**  
peso riduttore

**12.3 kg**

| M. flanges     | Kit code   | ØF  | A     |
|----------------|------------|-----|-------|
| <b>63B5</b>    | K063.4.041 | 140 | 195.2 |
| <b>71B5</b>    | K063.4.042 | 160 | 193.2 |
| <b>80/90B5</b> | K063.4.043 | 200 | 195.2 |
|                |            |     |       |
| <b>71B14</b>   | K063.4.047 | 105 | 193.2 |
| <b>80B14</b>   | K063.4.046 | 120 | 195.2 |
| <b>90B14</b>   | K063.4.041 | 140 | 195.2 |

PP8Q**FC**...

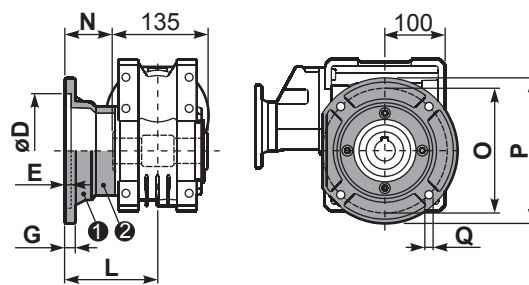
Output flange  
Flangia uscita



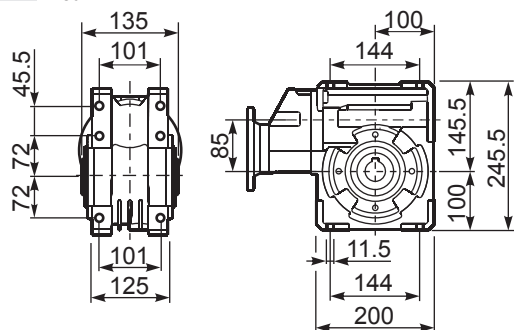
| type B | øD                                    | E | G  | L     | N    | O   | P   | Q  | kit code                     |
|--------|---------------------------------------|---|----|-------|------|-----|-----|----|------------------------------|
| FC     | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 108   | 40.5 | 176 | 205 | 13 | ① K085.9.010<br>② -          |
| FL     | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 148.5 | 81   | 176 | 205 | 13 | ① K085.9.010<br>② K085.0.201 |

PP8Q**F1**...

Output flange  
Flangia uscita



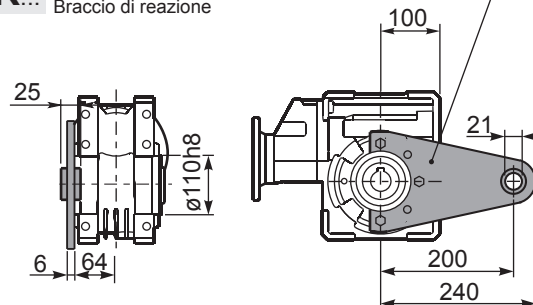
| type S    | øD                             | E | G  | L     | N  | O   | P   | Q    | kit code             |
|-----------|--------------------------------|---|----|-------|----|-----|-----|------|----------------------|
| <b>F1</b> | 130 <sup>+0.04<br/>+0.00</sup> | 5 | 13 | 117.5 | 50 | 165 | 200 | 11.5 | ① KS085.9.012<br>② - |
| <b>F2</b> | 152 <sup>+0.06<br/>+0.00</sup> | 5 | 15 | 147.5 | 80 | 180 | 205 | 12.5 | ① KS085.9.013<br>② - |
| <b>F4</b> | 130 <sup>+0.04<br/>+0.00</sup> | 5 | 13 | 106.5 | 39 | 165 | 200 | 13   | ① KS085.9.015<br>② - |

PP8Q**FB**...Feet  
Piedini

## PP8QBR...

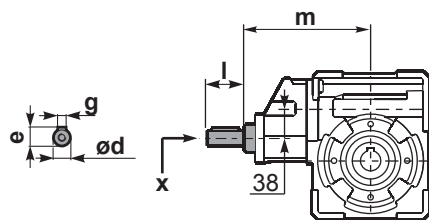
Reaction arm  
Braccio di reazione

kit cod. K085.9.027



RP8QFB...

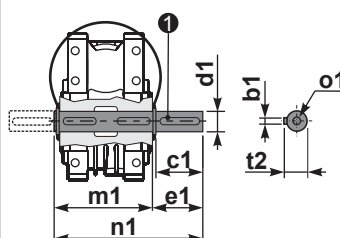
Input shaft  
Albero in entrata



|               | ød    | e    | g | l  | m     | x     |           |
|---------------|-------|------|---|----|-------|-------|-----------|
| type <b>B</b> | 19 h6 | 21.5 | 6 | 35 | 187.5 | M6x16 | C40.5.062 |
| type <b>S</b> | -     | -    | - | -  | -     | -     |           |

## PP8Q.....S...

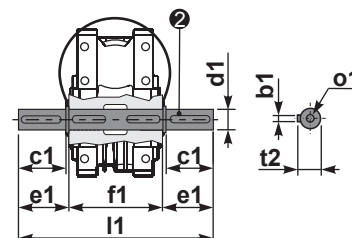
Single Shaft  
Albero lento semplice



① kit cod. K085.5.028 type B

PP8Q.....**D**...

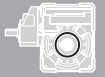
Double Shaft  
Albero lento bisp.



② kit cod. K085.5.029 type B

[illegible]





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    |    | Available<br>B14 motor flanges |    |    | Dynamic efficiency<br><br>RD | Tooth Module<br><br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|----|--------------------------------|----|----|------------------------------|--------------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -E | -Q                             | -R | -T |                              |                          |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 | 90 | 71                             | 80 | 90 |                              |                          |             |
| 16.8                                          | <b>83.2</b>  | 1.5                             | 587                               | 1.1                    | <b>1.7</b>                        | <b>660</b>                         |                               |    |    |    | C                              |    |    | 69                           | 3.5                      | 01          |
| 13.9                                          | <b>100.5</b> | 1.5                             | 699                               | 0.8                    | <b>1.3</b>                        | <b>594</b>                         |                               |    |    |    | C                              |    |    | 68                           | 2.9                      | 02          |
| 10.6                                          | <b>132</b>   | 1.1                             | 634                               | 0.9                    | <b>0.95</b>                       | <b>550</b>                         |                               |    |    |    | C                              |    |    | 64                           | 2.2                      | 03          |
| 8.0                                           | <b>176</b>   | 0.75                            | 666                               | 1.2                    | <b>0.90</b>                       | <b>803</b>                         | B                             |    |    |    | C                              |    |    | 74                           | 4.7                      | 04          |
| 6.7                                           | <b>208</b>   | 0.75                            | 766                               | 0.9                    | <b>0.65</b>                       | <b>660</b>                         | B                             |    |    |    | C                              |    |    | 72                           | 4.0                      | 05          |
| 5.7                                           | <b>245</b>   | 0.55                            | 634                               | 1.0                    | <b>0.57</b>                       | <b>660</b>                         | B                             |    |    |    | C                              |    |    | 69                           | 3.5                      | 06          |
| 4.7                                           | <b>296</b>   | 0.55                            | 755                               | 0.8                    | <b>0.43</b>                       | <b>594</b>                         | B                             |    |    |    | C                              |    |    | 68                           | 2.9                      | 07          |
| 4.2                                           | <b>334</b>   | 0.55                            | 865                               | 0.8                    | <b>0.42</b>                       | <b>660</b>                         | B                             |    |    |    | C                              |    |    | 69                           | 3.5                      | 08          |
| 3.5                                           | <b>403</b>   | 0.37                            | 692                               | 0.9                    | <b>0.32</b>                       | <b>594</b>                         | B                             |    |    |    | C                              |    |    | 68                           | 2.9                      | 09          |
| 2.6                                           | <b>529</b>   | 0.25                            | 577                               | 1.0                    | <b>0.24</b>                       | <b>550</b>                         | B                             |    |    |    | C                              |    |    | 64                           | 2.2                      | 10          |
| 2.2                                           | <b>624</b>   | 0.25                            | 628                               | 0.8                    | <b>0.21</b>                       | <b>528</b>                         | B                             |    |    |    | C                              |    |    | 59                           | 1.9                      | 11          |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **P1Q** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. Primary reduction unit is supplied with closed plugs and lubricated for life with synthetic oil. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P1Q** è fornito privo di lubrificazione con tappi di sfogo, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. La precoppia è fornita con tappi chiusi e lubrificata a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **P1Q** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Die Stirnradvorstufe ist Lebensdauergeschmiert und wird mit synthetischem Öl geliefert. Die Stirnradvorstufe ist komplett geschlossen ohne Füllschrauben. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P1Q** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le pré couple est fourni lubrifié à vie avec de l'huile synthétique et avec des bouchons fermés. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **P1Q** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| B3               | B6           | B7           | B8          | V5          | V6          |
|------------------|--------------|--------------|-------------|-------------|-------------|
| 1.9/0.14LT       | 1.35/0.14 LT | 1.35/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT |
| AGIP Blasias 460 |              |              |             |             |             |

For all details on lubrication and plugs check our website

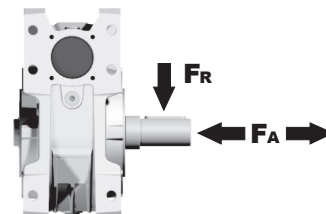
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

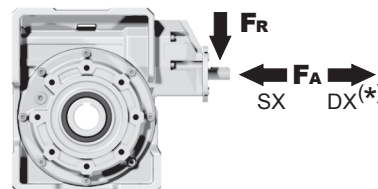
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 75                            | 800       | 4000      |
| 50                            | 920       | 4600      |
| 25                            | 1200      | 6000      |
| 15-6                          | 1400      | 7000      |

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 150       | 760       |

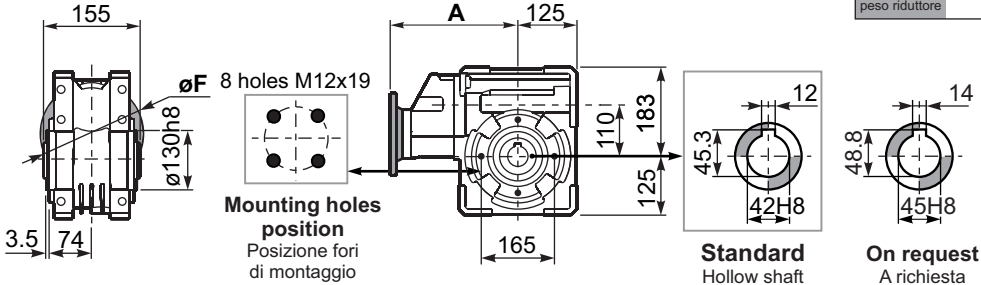
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

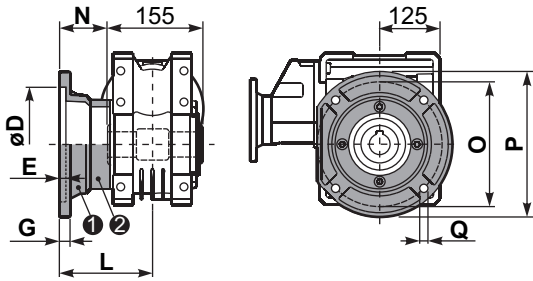
PP1Q**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **37.3 kg**

| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 63B5       | K063.4.041 | 140 | 214.7 |
| 71B5       | K063.4.042 | 160 | 212.7 |
| 80/90B5    | K063.4.043 | 200 | 214.7 |
| 71B14      | K063.4.047 | 105 | 212.7 |
| 80B14      | K063.4.046 | 120 | 214.7 |
| 90B14      | K063.4.041 | 140 | 214.7 |

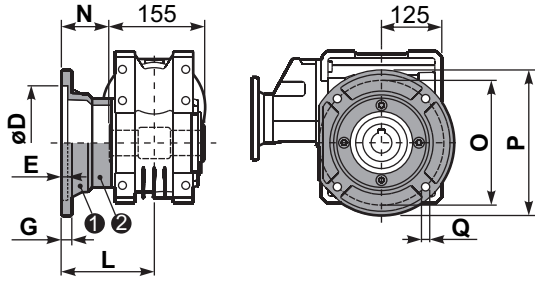


PP1Q**FC**... Output flange  
Flangia uscita



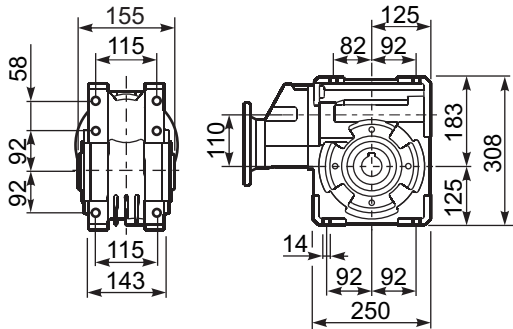
| type B | øD                                      | E  | G    | L     | N   | O   | P   | Q  | kit code            |
|--------|-----------------------------------------|----|------|-------|-----|-----|-----|----|---------------------|
| FC     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 131.5 | 54  | 230 | 270 | 13 | 1 K110.9.010<br>2 - |
| FL     | 170 <sup>+0.083</sup> <sub>+0.043</sub> | 11 | 16.5 | 179.5 | 102 | 230 | 270 | 13 | 1 K110.9.011<br>2 - |

PP1Q**F1**... Output flange  
Flangia uscita

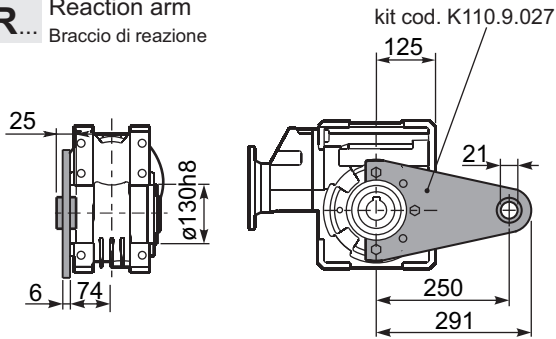


| type S | øD                                 | E | G  | L   | N    | O   | P   | Q  | kit code             |
|--------|------------------------------------|---|----|-----|------|-----|-----|----|----------------------|
| F1     | 180 <sup>+0.040</sup> <sub>0</sub> | 5 | 18 | 150 | 72.5 | 215 | 250 | 15 | 1 KS110.9.014<br>2 - |
| F3     | 180 <sup>+0.040</sup> <sub>0</sub> | 5 | 18 | 130 | 52.5 | 215 | 250 | 15 | 1 KS110.9.013<br>2 - |

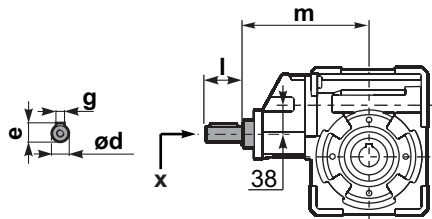
PP1Q**FB**... Feet  
Piedini



PP1Q**BR**... Reaction arm  
Braccio di reazione

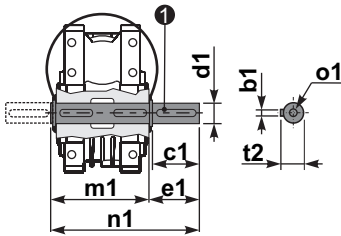


**R**PP1Q**FB**... Input shaft  
Albero in entrata

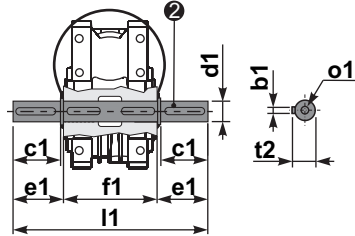


|        | ød    | e    | g | l  | m   | x     |           |
|--------|-------|------|---|----|-----|-------|-----------|
| type B | 19 h6 | 21.5 | 6 | 35 | 205 | M6x16 | C40.5.062 |
| type S | -     | -    | - | -  | -   | -     |           |

PP1Q.....**S**... Single Shaft  
Albero lento semplice

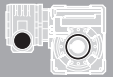


PP1Q.....**D**... Double Shaft  
Albero lento bisp.



1 kit cod. K110.5.028 type B      2 kit cod. K110.5.029 type B

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 <sup>-0.005</sup> <sub>-0.020</sub> | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -      |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |    | Dynamic efficiency | Tooth Module<br><br>[mm] | Ratio code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|----|--------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                            | -B | -O                             | -P |                    |                                                                                                             |                                                                                                   |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                            | 63 | 56                             | 63 | RD                 |                                                                                                             |                                                                                                   |
| 10.0                                          | 140          | 0.12                            | 57                                | 1.2                    | 0.14                              | 69                                 | B                             |    | B-C                            |    | 50                 | 2.2                                                                                                         | 01                                                                                                |
| 7.0                                           | 200          | 0.12                            | 79                                | 0.9                    | 0.11                              | 69                                 | B                             |    | B-C                            |    | 48                 | 2.2                                                                                                         | 02                                                                                                |
| 5.0                                           | 280          | 0.12*                           | 69                                | <0.8                   | 0.08                              | 69                                 | B                             |    | B-C                            |    | 45                 | 2.4                                                                                                         | 03                                                                                                |
| 3.3                                           | 420          | 0.12*                           | 69                                | <0.8                   | 0.07                              | 69                                 | B                             |    | B-C                            |    | 36                 | 1.6                                                                                                         | 04                                                                                                |
| 2.5                                           | 560          | 0.12*                           | 69                                | <0.8                   | 0.05                              | 69                                 | B                             |    | B-C                            |    | 33                 | 2.5                                                                                                         | 05                                                                                                |
| 1.9                                           | 740          | 0.12*                           | 69                                | <0.8                   | 0.05                              | 69                                 | B                             |    | B-C                            |    | 30                 | 1.8                                                                                                         | 06                                                                                                |
| 1.5                                           | 920          | 0.12*                           | 69                                | <0.8                   | 0.04                              | 69                                 | B                             |    | B-C                            |    | 27                 | 1.5                                                                                                         | 07                                                                                                |
| 1.3                                           | 1120         | 0.12*                           | 69                                | <0.8                   | 0.03                              | 69                                 | B                             |    | B-C                            |    | 26                 | 2.5                                                                                                         | 08                                                                                                |
| 0.9                                           | 1480         | 0.12*                           | 69                                | <0.8                   | 0.03                              | 69                                 | B                             |    | B-C                            |    | 24                 | 1.8                                                                                                         | 09                                                                                                |
| 0.8                                           | 1840         | 0.12*                           | 69                                | <0.8                   | 0.02                              | 69                                 | B                             |    | B-C                            |    | 22                 | 1.5                                                                                                         | 10                                                                                                |
| 0.6                                           | 2400         | 0.12*                           | 69                                | <0.8                   | 0.02                              | 69                                 | B                             |    | B-C                            |    | 21                 | 1.2                                                                                                         | 11                                                                                                |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 43Q is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 43Q viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

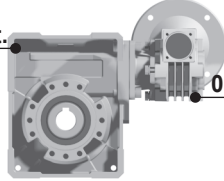
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 43Q mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 43Q est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 43Q se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

0.09 Lt.

**LUBRICATION 43Q Oil**  
Quantity 0.09/0.03 Lt.



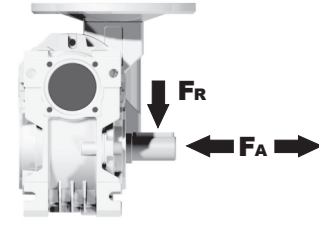
0.03 Lt.

|                            |                              |
|----------------------------|------------------------------|
| <b>AGIP</b> Telium VSF 320 | <b>SHELL</b> Omala S4 WE 320 |
|----------------------------|------------------------------|

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

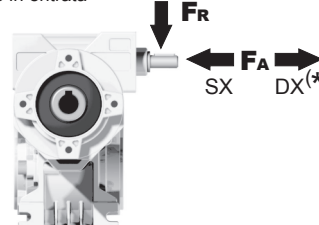
### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 300       | 1800      |
| 15                            | 400       | 2000      |

**Input shaft**  
albero in entrata



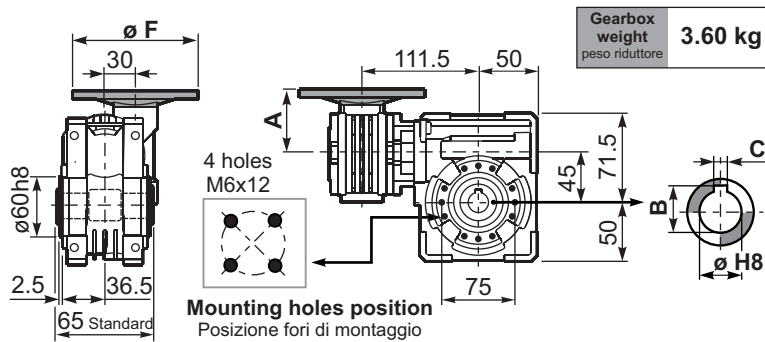
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

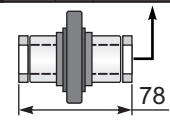
P43Q**FB**... Basic wormbox  
Riduttore base

| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 56B5       | K030.4.041 | 120 | 61.5 |
| 63B5       | K030.4.042 | 140 | 62.5 |
| 56B14      | K030.4.046 | 80  | 61.5 |
| 63B14      | K030.4.045 | 90  | 62.5 |



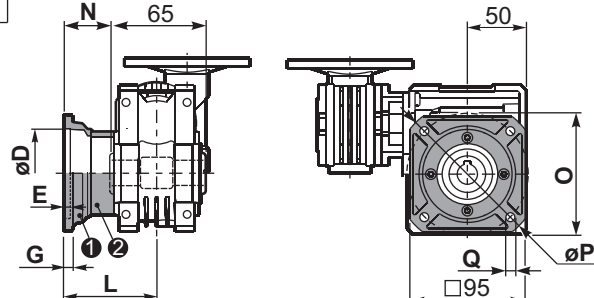
Gearbox weight  
peso riduttore **3.60 kg**

| ø H8             | B    | C | *Spacer code |
|------------------|------|---|--------------|
| 18<br>Standard   | 20.8 | 6 | Q45.3.018    |
| 19<br>on request | 21.8 | 6 | Q45.3.019    |
| 20<br>on request | 22.8 | 6 | Q45.3.020    |



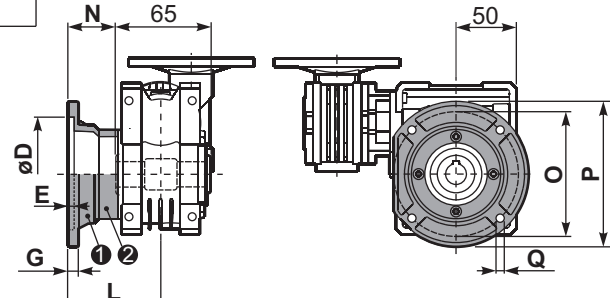
\*On Request  
output shaft with spacers

P43Q**FC**... Square flange  
Flangia quadrata



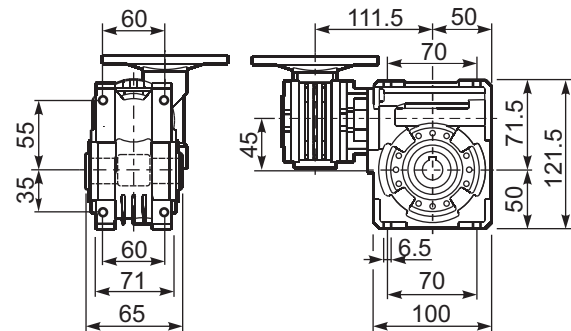
| type B | øD    | E | G | L  | N    | O  | P   | Q | kit code   |
|--------|-------|---|---|----|------|----|-----|---|------------|
| FC     | 60 H8 | 4 | 7 | 67 | 34.5 | 75 | 110 | 9 | KQ45.9.010 |
| FL     | 60 H8 | 4 | 7 | 97 | 64.5 | 75 | 110 | 9 | KQ45.9.011 |

P43Q**F1**... Round flange  
Flangia rotonda

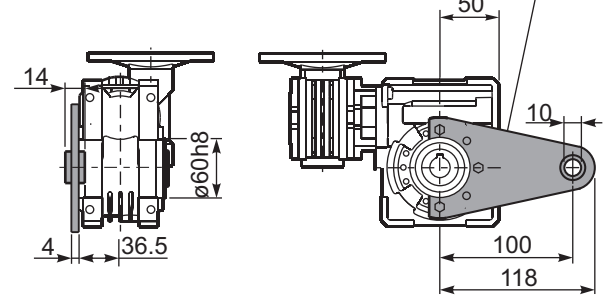


| type S | øD   | E | G | L  | N    | O   | P   | Q   | kit code    |
|--------|------|---|---|----|------|-----|-----|-----|-------------|
| F1     | 95H8 | 5 | 9 | 80 | 47.5 | 115 | 140 | 9.5 | KSQ45.9.012 |
| F2     | -    | - | - | -  | -    | -   | -   | -   | -           |

P43Q**FB**... Feet  
Piedini

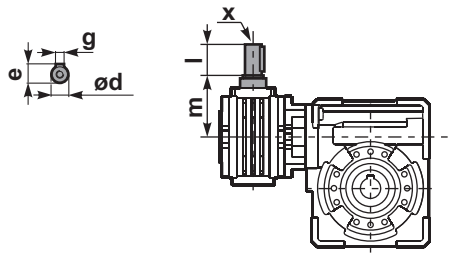


P43Q**BR**... Reaction arm  
Braccio di reazione



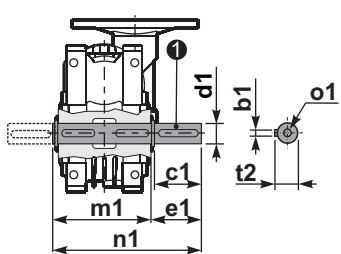
kit cod. KQ45.9.027

**R**43Q**FB**... Input shaft  
Albero in entrata

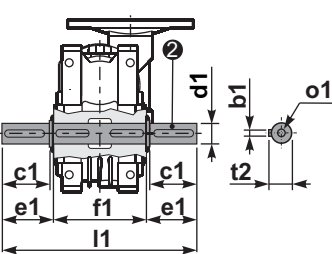


|        | ød   | e    | g | l  | m  | x | kit code         |
|--------|------|------|---|----|----|---|------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | K030.5.006 PAM63 |
| type S | -    | -    | - | -  | -  | - | -                |

P43Q.....**S**... Single Shaft  
Albero lento semplice



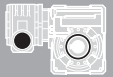
P43Q.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

② kit cod. K045.5.029 type B

|        | b1 | c1 | d1                          | e1   | f1 | l1  | m1 | n1    | t2   | o1    |
|--------|----|----|-----------------------------|------|----|-----|----|-------|------|-------|
| type B | 6  | 32 | 18 <sup>-0.005/-0.020</sup> | 43   | 65 | 151 | 70 | 113   | 20.5 | M6x18 |
| type S | 6  | 40 | 19 <sup>-0.005/-0.020</sup> | 58.5 | -  | -   | 70 | 128.5 | 21.5 | M8x20 |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    | Dynamic efficiency | Tooth Module<br><br>[mm] | Ratio code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|--------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                         | -B | -O                          | -P |                    |                                                                                                             |                                                                                                   |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                         | 63 | 56                          | 63 | RD                 |                                                                                                             |                                                                                                   |
| 5.6                                           | <b>252</b>   | 0.12                            | 97                                | 1.1                    | <b>0.14</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 47                 | 2.1                                                                                                         | 01                                                                                                |
| 3.9                                           | <b>360</b>   | 0.12                            | 124                               | 0.9                    | <b>0.11</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 42                 | 2.1                                                                                                         | 02                                                                                                |
| 2.6                                           | <b>540</b>   | 0.12*                           | 109                               | <0.8                   | <b>0.08</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 39                 | 2.1                                                                                                         | 03                                                                                                |
| 1.9                                           | <b>720</b>   | 0.12*                           | 109                               | <0.8                   | <b>0.06</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 36                 | 2.1                                                                                                         | 04                                                                                                |
| 1.6                                           | <b>860</b>   | 0.12*                           | 109                               | <0.8                   | <b>0.06</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 32                 | 1.8                                                                                                         | 05                                                                                                |
| 1.2                                           | <b>1200</b>  | 0.12*                           | 109                               | <0.8                   | <b>0.05</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 27                 | 1.3                                                                                                         | 06                                                                                                |
| 1.0                                           | <b>1440</b>  | 0.12*                           | 109                               | <0.8                   | <b>0.04</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 26                 | 2.1                                                                                                         | 07                                                                                                |
| 0.8                                           | <b>1720</b>  | 0.12*                           | 109                               | <0.8                   | <b>0.04</b>                       | <b>109</b>                         | B                          |    | B-C                         |    | 25                 | 1.8                                                                                                         | 08                                                                                                |
| 0.6                                           | <b>2400</b>  | 0.12*                           | 104                               | <0.8                   | <b>0.03</b>                       | <b>104</b>                         | B                          |    | B-C                         |    | 21                 | 1.3                                                                                                         | 09                                                                                                |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **53Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **53Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **53Q** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **53Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **53Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**0.14 Lt.**

**■ LUBRICATION 53Q Oil**  
Quantity 0.14/0.03 Lt.

**0.03 Lt.**

**AGIP** Telium VSF 320

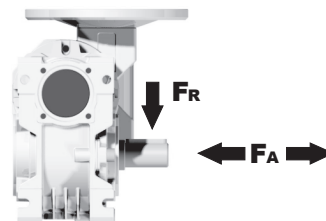
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

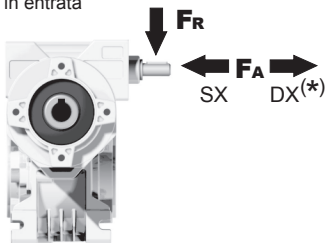
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 480       | 2500      |
| 15                            | 560       | 2800      |

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 20        | 100       |

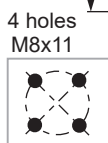
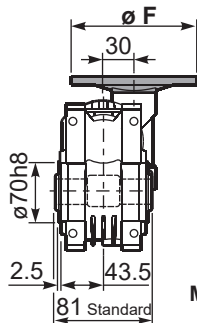
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

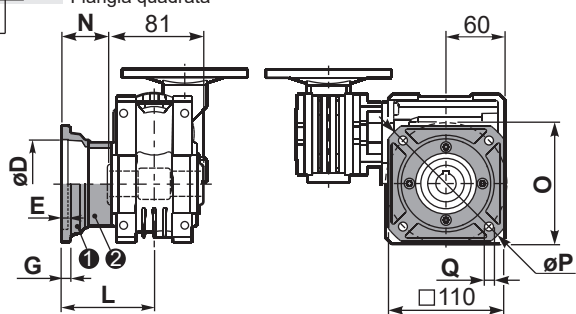
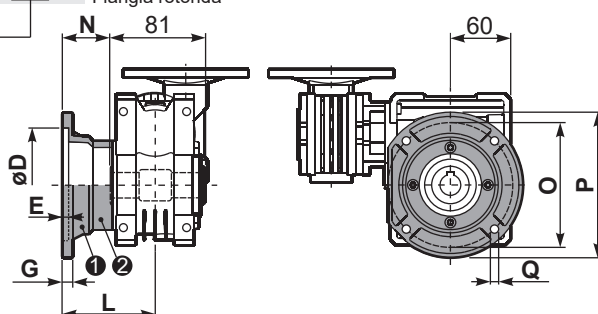


**P53QFB...** Basic wormbox  
Riduttore base

| M. flanges   | Kit code   | $\phi F$ | A    |
|--------------|------------|----------|------|
| <b>56B5</b>  | K030.4.041 | 120      | 61.5 |
| <b>63B5</b>  | K030.4.042 | 140      | 62.5 |
| <b>56B14</b> | K030.4.046 | 80       | 61.5 |
| <b>63B14</b> | K030.4.045 | 90       | 62.5 |

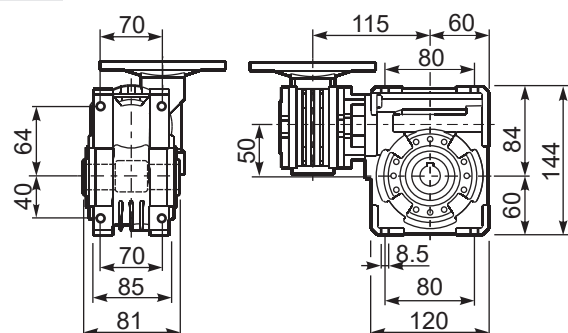
Mounting holes position  
Posizione fori di montaggioGearbox weight  
peso riduttore **4.61 kg**

| $\phi H8$               | B    | C | *Spacer code |
|-------------------------|------|---|--------------|
| <b>25</b><br>Standard   | 28.3 | 8 | Q50.3.025    |
| <b>24</b><br>on request | 27.3 | 8 | Q50.3.024    |

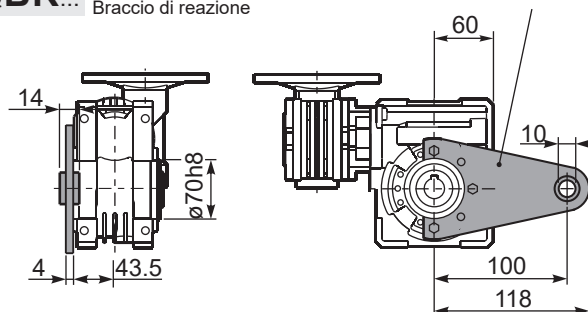
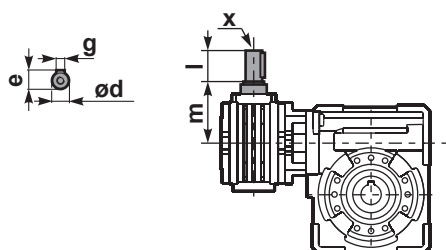
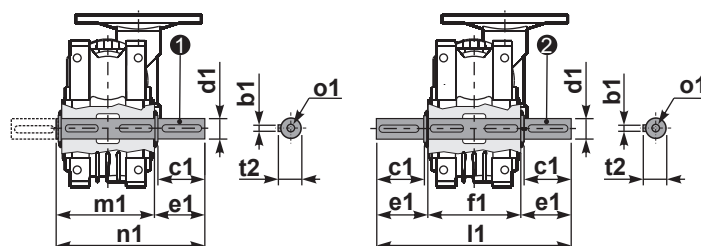
\*On Request  
output shaft  
with spacers**P53QFC...** Square flange  
Flangia quadrata**P53QF1...** Round flange  
Flangia rotonda

| type B    | $\phi D$ | E | G | L   | N    | O  | P   | Q  | kit code   |
|-----------|----------|---|---|-----|------|----|-----|----|------------|
| <b>FC</b> | 70 H8    | 5 | 9 | 90  | 49.5 | 85 | 125 | 11 | KQ50.9.010 |
| <b>FL</b> | 70 H8    | 5 | 9 | 120 | 79.5 | 85 | 125 | 11 | KQ50.9.011 |

| type S    | $\phi D$ | E | G    | L  | N    | O   | P   | Q   | kit code    |
|-----------|----------|---|------|----|------|-----|-----|-----|-------------|
| <b>F1</b> | 110 H8   | 5 | 10   | 89 | 48.5 | 130 | 160 | 9.5 | KSQ50.9.012 |
| <b>F2</b> | 95 H8    | 5 | 14.5 | 72 | 31.5 | 115 | 140 | 11  | KSQ50.9.013 |

**P53QFB...** Feet  
Piedini**P53QBR...** Reaction arm  
Braccio di reazione

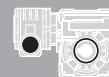
kit cod. KQ50.9.027

**R53QFB...** Input shaft  
Albero in entrata**P53Q.....S** Single Shaft  
Albero lento semplice**P53Q.....D** Double Shaft  
Albero lento bisp.① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

② kit cod. K050.5.029 type B

|        | $\phi d$ | e    | g | l  | m  | x | kit code         |
|--------|----------|------|---|----|----|---|------------------|
| type B | 9 h6     | 10.2 | 3 | 20 | 58 | - | K030.5.006 PAM63 |
| type S | -        | -    | - | -  | -  | - | -                |

|        | b1 | c1 | d1                                     | e1   | f1 | l1  | m1   | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|----|-----|------|-----|----|-------|
| type B | 8  | 52 | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 59.5 | 81 | 200 | 86.5 | 146 | 28 | M8x20 |
| type S | 8  | 50 | 24 <sup>-0.005</sup> <sub>-0.020</sub> | 68.8 | -  | -   | 86.5 | 155 | 27 | M8x20 |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    | Dynamic efficiency<br>RD | Tooth Module<br>[mm] | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|--------------------------|----------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -A                         | -B | -O                          | -P |                          |                      |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 56                         | 63 | 56                          | 63 |                          |                      |             |
| 5.6                                           | <b>252</b>   | 0.18                            | 142                               | 1.6                    | <b>0.29</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 46                       | 2.7                  | 01          |
| 3.9                                           | <b>360</b>   | 0.18                            | 181                               | 1.3                    | <b>0.23</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 41                       | 2.7                  | 02          |
| 2.6                                           | <b>540</b>   | 0.12                            | 164                               | 1.4                    | <b>0.17</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 37                       | 2.7                  | 03          |
| 1.9                                           | <b>720</b>   | 0.12                            | 200                               | 1.1                    | <b>0.14</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 34                       | 2.7                  | 04          |
| 1.3                                           | <b>1080</b>  | 0.12                            | 265                               | 0.9                    | <b>0.10</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 30                       | 2.7                  | 05          |
| 1.0                                           | <b>1440</b>  | 0.12*                           | 230                               | <0.8                   | <b>0.09</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 27                       | 2.7                  | 06          |
| 0.5                                           | <b>2745</b>  | 0.12*                           | 230                               | <0.8                   | <b>0.05</b>                       | <b>230</b>                         | B                          |    | B-C                         |    | 23                       | 2.1                  | 07          |

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima supportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **63Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **63Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **63Q** mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **63Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **63Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**0.30 Lt.**

**■ LUBRICATION 63Q Oil**  
Quantity 0.30/0.03 Lt.

**0.03 Lt.**

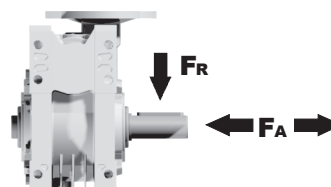
**AGIP** Telium VSF 320      **SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

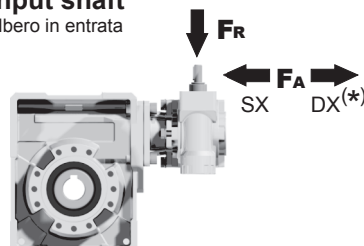
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| <b>25</b>                     | 700       | 3800      |
| <b>15</b>                     | 800       | 4000      |

### Input shaft

albero in entrata



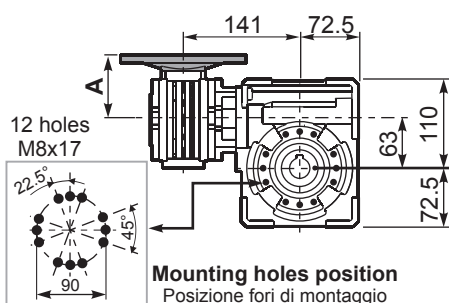
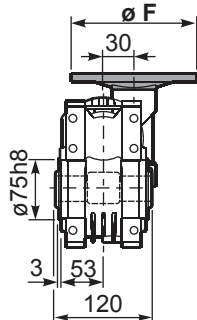
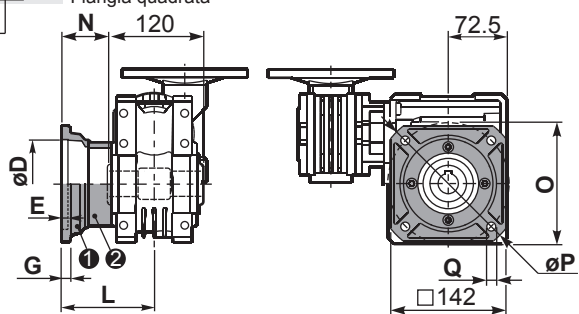
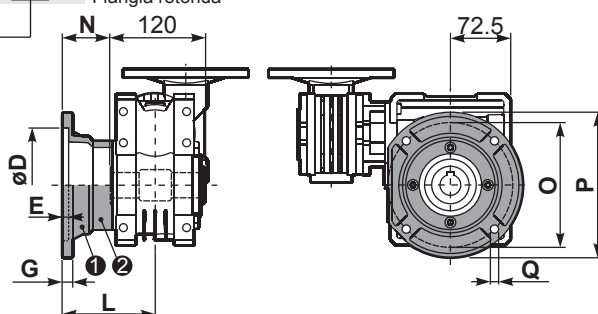
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| <b>1400</b>                   | 20        | 100       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

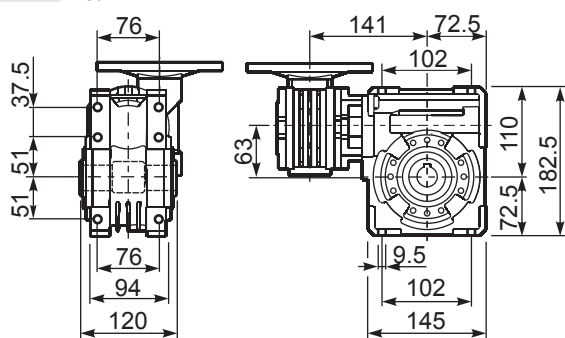
**P63QFB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore **7.25 kg**

| M. flanges   | Kit code   | øF  | A    |
|--------------|------------|-----|------|
| <b>56B5</b>  | K030.4.041 | 120 | 61.5 |
| <b>63B5</b>  | K030.4.042 | 140 | 62.5 |
| <b>56B14</b> | K030.4.046 | 80  | 61.5 |
| <b>63B14</b> | K030.4.045 | 90  | 62.5 |

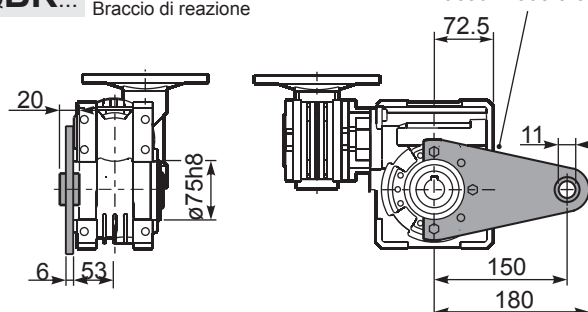
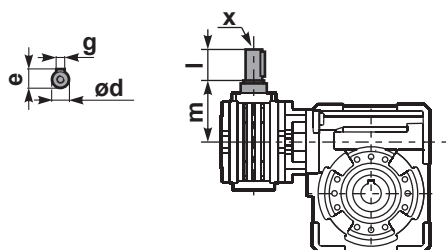
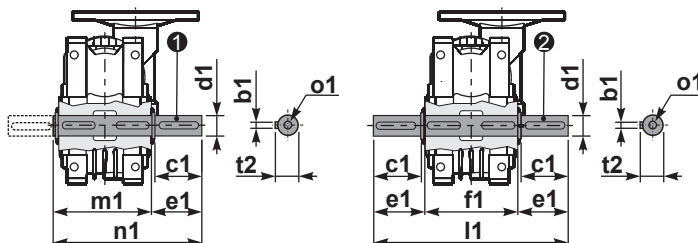
Mounting holes position  
Posizione fori di montaggioStandard  
Hollow shaftOn Request  
A richiesta**P63QFC...**Square flange  
Flangia quadrata**P63QF1...**Round flange  
Flangia rotonda

| type B    | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
|-----------|---------------------------------------|---|----|-----|----|-----|-----|----|------------------------------|
| <b>FC</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 6 | 12 | 86  | 26 | 150 | 180 | 11 | ① KQ63.9.010<br>② -          |
| <b>FL</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 6 | 12 | 116 | 56 | 150 | 180 | 11 | ① KQ63.9.010<br>② K063.0.200 |

| type S    | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code             |
|-----------|---------------------------------------|---|----|-----|----|-----|-----|----|----------------------|
| <b>F1</b> | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 110 | 50 | 165 | 200 | 13 | ① KS070.9.013<br>② - |
| <b>F2</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 124 | 64 | 150 | 175 | 11 | ① KS063.9.013<br>② - |
| <b>F3</b> | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 11 | 90  | 30 | 130 | 160 | 10 | ① KS063.9.011<br>② - |

**P63QFB...**Feet  
Piedini**P63QBR...**Reaction arm  
Braccio di reazione

kit cod. K063.9.027

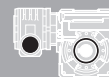
**R63QFB...**Input shaft  
Albero in entrata**P63Q.....S...**Single Shaft  
Albero lento semplice**P63Q.....D...**Double Shaft  
Albero lento bisp.

① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

|        | ød   | e    | g | l  | m  | x | kit code                  |
|--------|------|------|---|----|----|---|---------------------------|
| type B | 9 h6 | 10.2 | 3 | 20 | 58 | - | ① K030.5.006 PAM63<br>② - |
| type S | -    | -    | - | -  | -  | - | ① -<br>② -                |

|        | b1 | c1 | d1                                     | e1   | f1  | l1    | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-------|-------|-----|----|-------|
| type B | 8  | 60 | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -     | -     | -   | -  | -     |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|-----|----|--------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -O                             | -P  | -Q |                    |                                                                                                             |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 56                             | 63  | 71 | RD                 |                                                                                                             |                                                                                                    |
| 5.6                                           | <b>252</b>   | 0.25                            | 198                               | 1.3                    | <b>0.33</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 46                 | 2.7                                                                                                         | 01                                                                                                 |
| 3.9                                           | <b>360</b>   | 0.18                            | 186                               | 1.4                    | <b>0.26</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 42                 | 2.7                                                                                                         | 02                                                                                                 |
| 2.8                                           | <b>504</b>   | 0.18                            | 241                               | 1.1                    | <b>0.20</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 39                 | 2.7                                                                                                         | 03                                                                                                 |
| 1.9                                           | <b>756</b>   | 0.12                            | 204                               | 1.3                    | <b>0.16</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 33                 | 2.7                                                                                                         | 04                                                                                                 |
| 1.4                                           | <b>1008</b>  | 0.12                            | 256                               | 1.0                    | <b>0.12</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 31                 | 2.7                                                                                                         | 05                                                                                                 |
| 1.1                                           | <b>1332</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.10</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 30                 | 2.7                                                                                                         | 06                                                                                                 |
| 0.8                                           | <b>1656</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.08</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 28                 | 2.7                                                                                                         | 07                                                                                                 |
| 0.6                                           | <b>2160</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.07</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 26                 | 2.7                                                                                                         | 08                                                                                                 |
| 0.6                                           | <b>2520</b>  | 0.12*                           | 265                               | <0.8                   | <b>0.06</b>                       | <b>265</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 25                 | 2.7                                                                                                         | 09                                                                                                 |

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **64Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

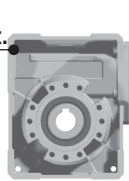
**I** Il riduttore tipo **64Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **64Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **64Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **64Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 64Q Oil**  
Quantity 0.30/0.09 Lt.

0.30 Lt.  0.09 Lt.

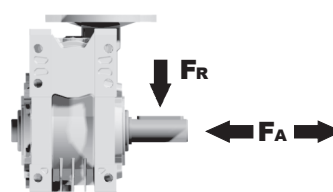
**AGIP** Telium VSF 320 **SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

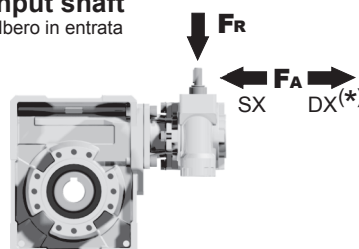
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| 25                            | 700          | 3800         |
| 15                            | 800          | 4000         |

### Input shaft

albero in entrata



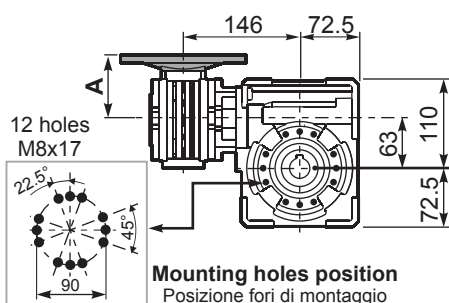
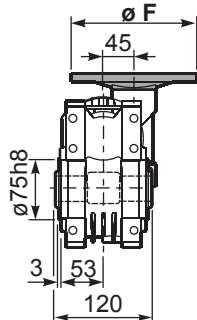
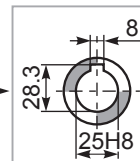
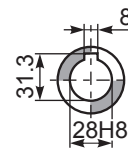
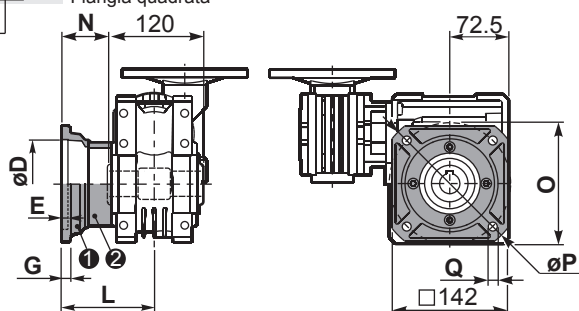
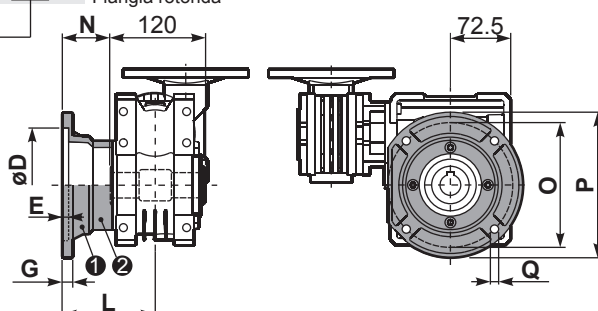
| $n_1$<br>[min <sup>-1</sup> ] | $F_A$<br>[N] | $F_R$<br>[N] |
|-------------------------------|--------------|--------------|
| 1400                          | 42           | 210          |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

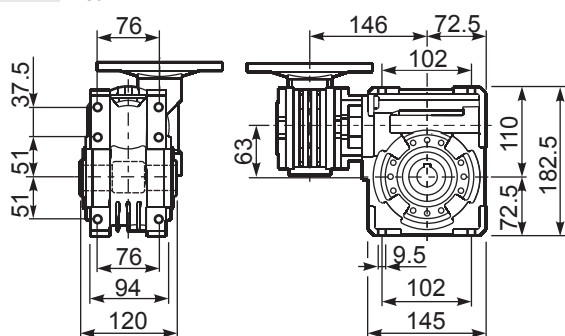
**P64QFB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore **7.25 kg**

| M. flanges   | Kit code   | øF  | A    |
|--------------|------------|-----|------|
| <b>63B5</b>  | K050.4.041 | 138 | 74   |
| <b>71B5</b>  | K050.4.042 | 160 | 71.5 |
| <b>56B14</b> | KC40.4.049 | 80  | 71.5 |
| <b>63B14</b> | K050.4.047 | 90  | 74   |
| <b>71B14</b> | K050.4.045 | 105 | 71.5 |

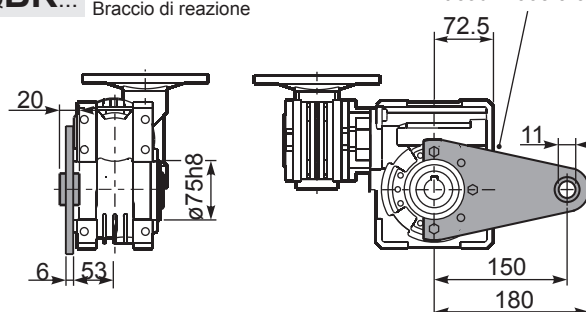
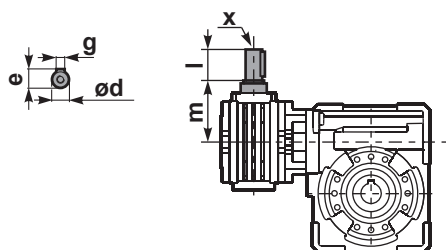
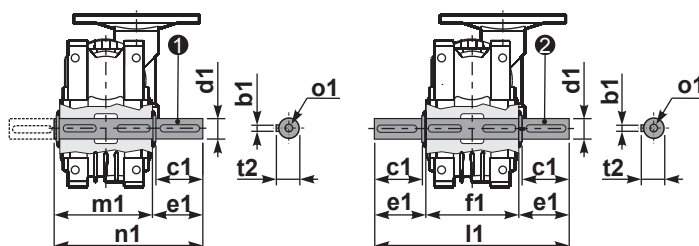
Mounting holes position  
Posizione fori di montaggioStandard  
Hollow shaftOn Request  
A richiesta**P64QFC...**Square flange  
Flangia quadrata**P64QF1...**Round flange  
Flangia rotonda

| type B    | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code                     |
|-----------|---------------------------------------|---|----|-----|----|-----|-----|----|------------------------------|
| <b>FC</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 6 | 12 | 86  | 26 | 150 | 180 | 11 | ① KQ63.9.010<br>② -          |
| <b>FL</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 6 | 12 | 116 | 56 | 150 | 180 | 11 | ① KQ63.9.010<br>② K063.0.200 |

| type S    | øD                                    | E | G  | L   | N  | O   | P   | Q  | kit code             |
|-----------|---------------------------------------|---|----|-----|----|-----|-----|----|----------------------|
| <b>F1</b> | 130 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 110 | 50 | 165 | 200 | 13 | ① KS070.9.013<br>② - |
| <b>F2</b> | 115 <sup>+0.20</sup> <sub>+0.15</sub> | 7 | 13 | 124 | 64 | 150 | 175 | 11 | ① KS063.9.013<br>② - |
| <b>F3</b> | 110 <sup>+0.035</sup> <sub>0</sub>    | 5 | 11 | 90  | 30 | 130 | 160 | 10 | ① KS063.9.011<br>② - |

**P64QFB...**Feet  
Piedini**P64QBR...**Reaction arm  
Braccio di reazione

kit cod. K063.9.027

**R64QFB...**Input shaft  
Albero in entrata**P64Q.....S...**Single Shaft  
Albero lento semplice**P64Q.....D...**Double Shaft  
Albero lento bisp.

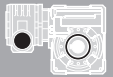
① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

|        | ød    | e    | g | l  | m  | x | kit code                  |
|--------|-------|------|---|----|----|---|---------------------------|
| type B | 11 h6 | 12.5 | 4 | 30 | 68 | - | ① K045.5.006 PAM71<br>② - |
| type S | -     | -    | - | -  | -  | - | ① -<br>② -                |

|        | b1 | c1 | d1                                     | e1   | f1  | l1    | m1    | n1  | t2 | o1    |
|--------|----|----|----------------------------------------|------|-----|-------|-------|-----|----|-------|
| type B | 8  | 60 | 25 <sup>-0.005</sup> <sub>-0.020</sub> | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | -  | -  | -                                      | -    | -   | -     | -     | -   | -  | -     |





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency<br>RD | Tooth Module<br><br>[mm] | <br>Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|-----|----|--------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -O                             | -P  | -Q |                          |                                                                                                             |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 56                             | 63  | 71 |                          |                                                                                                             |                                                                                                    |
| 5                                             | 280          | 0.37                            | 403                               | 0.9                    | 0.33                              | 359                                | B                             |    | B-C                            | B-C |    | 57                       | 3.10                                                                                                        | 01                                                                                                 |
| 3.5                                           | 400          | 0.25                            | 314                               | 1.1                    | 0.29                              | 359                                | B                             |    | B-C                            | B-C |    | 46                       | 3.10                                                                                                        | 02                                                                                                 |
| 2.5                                           | 560          | 0.25                            | 420                               | 0.9                    | 0.21                              | 359                                | B                             |    | B-C                            | B-C |    | 44                       | 3.10                                                                                                        | 03                                                                                                 |
| 1.7                                           | 840          | 0.18                            | 423                               | 0.8                    | 0.15                              | 359                                | B                             |    | B-C                            | B-C |    | 41                       | 3.10                                                                                                        | 04                                                                                                 |
| 1.3                                           | 1120         | 0.12                            | 339                               | 1.1                    | 0.13                              | 359                                | B                             |    | B-C                            | B-C |    | 37                       | 3.10                                                                                                        | 05                                                                                                 |
| 0.9                                           | 1480         | 0.09                            | 336                               | 1.1                    | 0.10                              | 359                                | B                             |    | B-C                            | B-C |    | 37                       | 3.10                                                                                                        | 06                                                                                                 |
| 0.8                                           | 1840         | 0.09                            | 373                               | 1.0                    | 0.09                              | 359                                | B                             |    | B-C                            | B-C |    | 33                       | 3.10                                                                                                        | 07                                                                                                 |
| 0.6                                           | 2400         | 0.06                            | 275                               | 1.3                    | 0.08                              | 359                                | B                             |    | B-C                            | B-C |    | 28                       | 3.10                                                                                                        | 08                                                                                                 |
| 0.5                                           | 2800         | 0.06                            | 298                               | 1.2                    | 0.07                              | 359                                | B                             |    | B-C                            | B-C |    | 26                       | 3.10                                                                                                        | 09                                                                                                 |
| 0.3                                           | 4080         | 0.06                            | 250                               | 1.4                    | 0.09                              | 359                                | B                             |    | B-C                            | B-C |    | 15                       | 3.10                                                                                                        | 10                                                                                                 |

 Motor Flanges Available  
Flange Motore Disponibili

 B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

 B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

 C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit 74Q is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 74Q viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

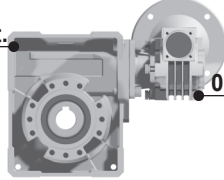
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 74Q mit synthetischem Öl befüllt.  
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 74Q est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.  
Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 74Q se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

0.40 Lt.

**LUBRICATION 74Q Oil**  
Quantity 0.40/0.09 Lt.



0.09 Lt.

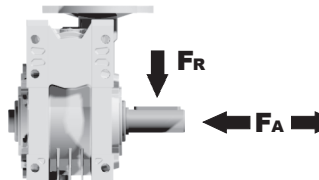
AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

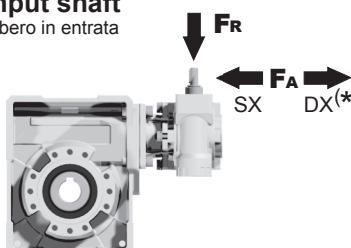
**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 880       | 4400      |
| 15                            | 1000      | 5000      |

**Input shaft**  
albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 42        | 210       |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

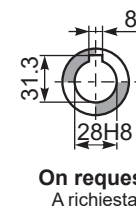
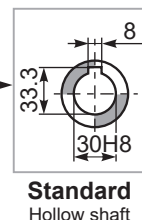
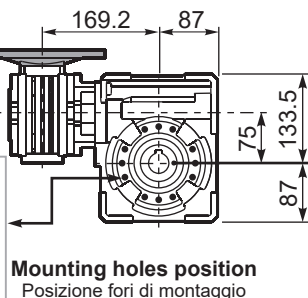
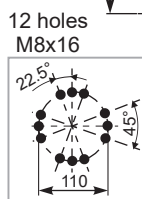
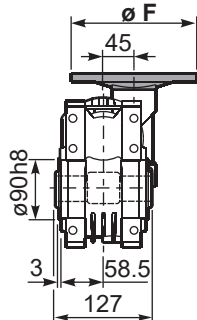
**tab. 2**

## P74QFB...

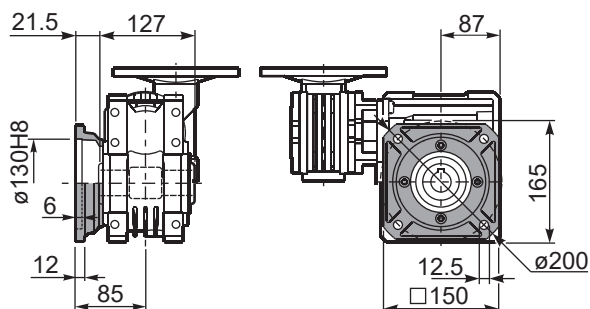
Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore

11.4 kg

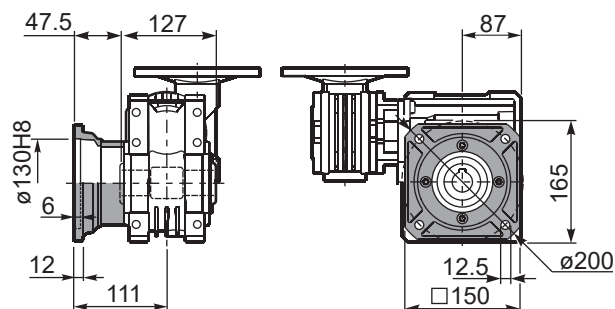
| M. flanges | Kit code   | øF  | A    |
|------------|------------|-----|------|
| 63B5       | K050.4.041 | 138 | 74   |
| 71B5       | K050.4.042 | 160 | 71.5 |
| 56B14      | KC40.4.049 | 80  | 71.5 |
| 63B14      | K050.4.047 | 90  | 74   |
| 71B14      | K050.4.045 | 105 | 71.5 |

Mounting holes position  
Posizione fori di montaggioStandard  
Hollow shaftOn request  
A richiesta

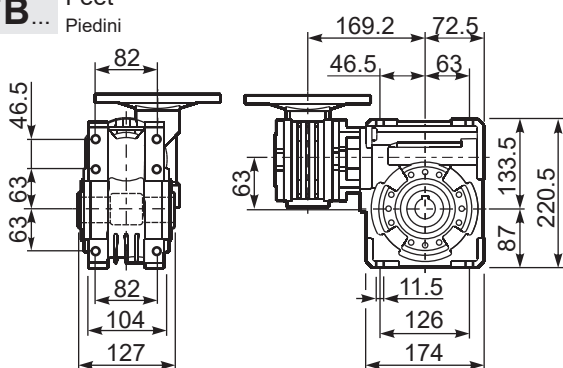
## P74QFC...

Square flange  
Flangia quadrata

## P74QFL...

Square flange  
Flangia quadrata

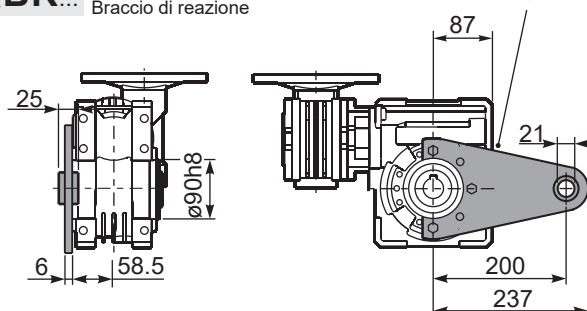
## P74QFB...

Feet  
Piedini

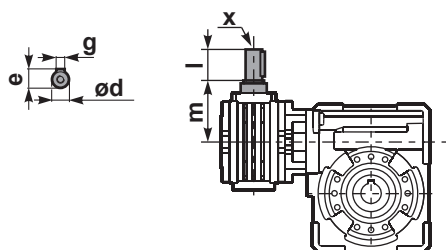
## P74QBR...

Reaction arm  
Braccio di reazione

kit cod. KQ75.9.027



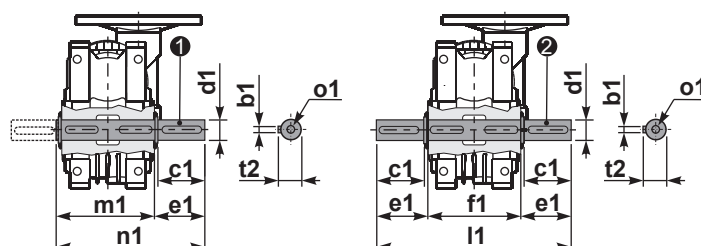
## R74QFB...

Input shaft  
Albero in entrata

## P74Q.....S...

Single Shaft  
Albero lento semplice

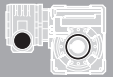
## P74Q.....D...

Double Shaft  
Albero lento bisp.

① kit cod. KQ75.5.028 Standard    ② kit cod. KQ75.5.029 Standard  
kit cod. KQ75.5.026 On request

|        | ød    | e    | g | l  | m  | x | kit code                  |
|--------|-------|------|---|----|----|---|---------------------------|
| type B | 11 h6 | 12.5 | 4 | 30 | 68 | - | ① K045.5.006 PAM71<br>② - |
| type S | -     | -    | - | -  | -  | - | ① -<br>② -                |

|            | b1 | c1 | d1                          | e1 | f1  | l1  | m1  | n1  | t2 | o1    |
|------------|----|----|-----------------------------|----|-----|-----|-----|-----|----|-------|
| Standard   | 8  | 60 | 30 <sup>-0.005/-0.020</sup> | 65 | 127 | 255 | 134 | 199 | 33 | M8x20 |
| On request | 8  | 60 | 28 <sup>-0.005/-0.020</sup> | 65 | -   | -   | 134 | 199 | 31 | M8x20 |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    | Available<br>B14 motor flanges |     |    | Dynamic efficiency<br>RD | Tooth Module<br><br>[mm] | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|--------------------------------|-----|----|--------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -O                             | -P  | -Q |                          |                                                                                                             |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 56                             | 63  | 71 |                          |                                                                                                             |                                                                                                    |
| 10                                            | <b>140</b>   | 0.37                            | 205                               | 1.8                    | <b>0.66</b>                       | <b>368</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 58                       | 4.5                                                                                                         | 01                                                                                                 |
| 7.1                                           | <b>196</b>   | 0.37                            | 257                               | 1.4                    | <b>0.53</b>                       | <b>368</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 52                       | 4.7                                                                                                         | 02                                                                                                 |
| 5.0                                           | <b>280</b>   | 0.37                            | 332                               | 1.6                    | <b>0.58</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 47                       | 4.7                                                                                                         | 03                                                                                                 |
| 3.6                                           | <b>392</b>   | 0.37                            | 435                               | 1.2                    | <b>0.44</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 44                       | 4.7                                                                                                         | 04                                                                                                 |
| 2.4                                           | <b>588</b>   | 0.25                            | 371                               | 1.4                    | <b>0.35</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 37                       | 4.7                                                                                                         | 05                                                                                                 |
| 1.8                                           | <b>784</b>   | 0.25                            | 455                               | 1.1                    | <b>0.28</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 34                       | 4.7                                                                                                         | 06                                                                                                 |
| 1.4                                           | <b>1036</b>  | 0.18                            | 420                               | 1.2                    | <b>0.22</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 33                       | 4.7                                                                                                         | 07                                                                                                 |
| 1.1                                           | <b>1288</b>  | 0.18                            | 474                               | 1.1                    | <b>0.20</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 30                       | 4.7                                                                                                         | 08                                                                                                 |
| 0.7                                           | <b>1960</b>  | 0.12                            | 449                               | 1.2                    | <b>0.14</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 28                       | 4.7                                                                                                         | 09                                                                                                 |
| 0.5                                           | <b>2856</b>  | 0.12                            | 584                               | 0.9                    | <b>0.11</b>                       | <b>518</b>                         | <b>B</b>                      |    | B-C                            | B-C |    | 25                       | 4.7                                                                                                         | 10                                                                                                 |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **84Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **84Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **84Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **84Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **84Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

1.20 Lt.

0.09 Lt.

**LUBRICATION 84Q Oil**  
Quantity 1.20/0.09 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

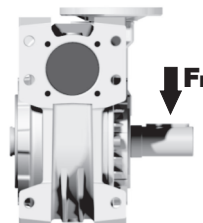
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

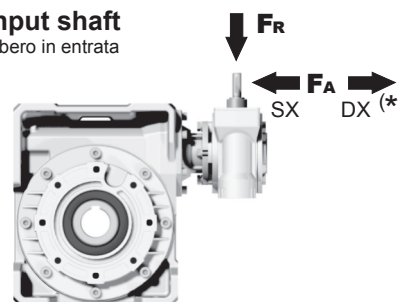
Albero di uscita



| $n$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-----------------------------|-----------|-----------|
| 25                          | 1000      | 5000      |
| 15                          | 1160      | 5800      |

##### Input shaft

albero in entrata



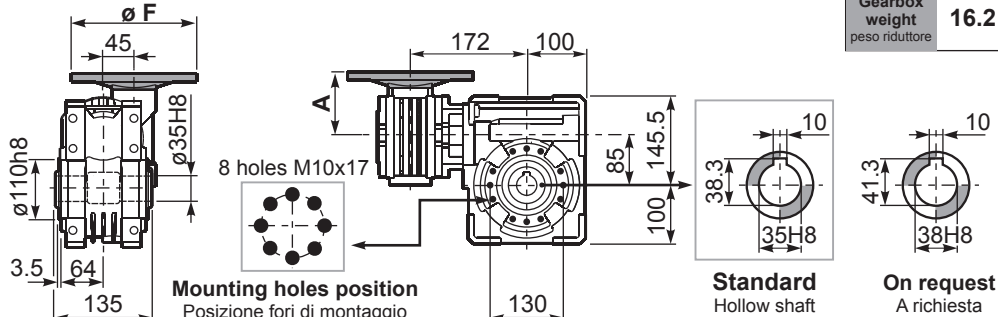
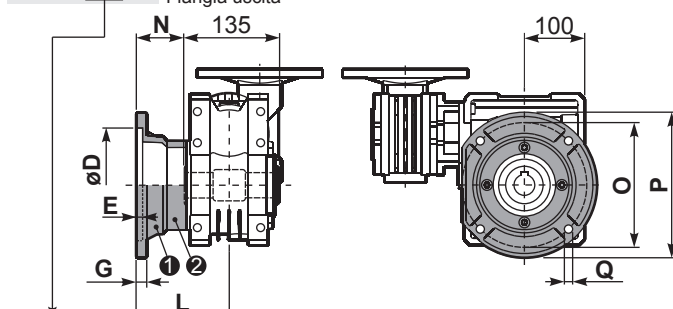
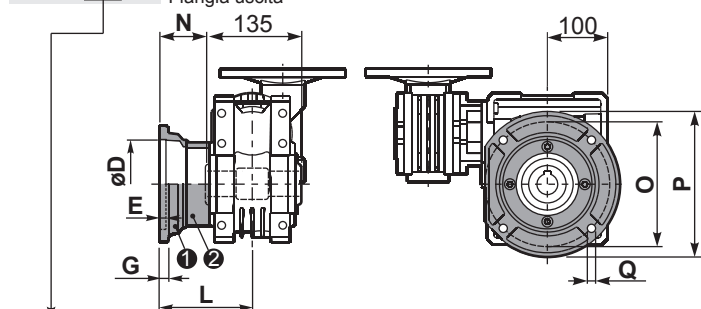
| $n$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-----------------------------|-----------|-----------|
| 1400                        | 42        | 210       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P84QFB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore **16.2 kg**

| M. flanges   | Kit code   | øF  | A    |
|--------------|------------|-----|------|
| <b>63B5</b>  | K050.4.041 | 138 | 74   |
| <b>71B5</b>  | K050.4.042 | 160 | 71.5 |
| <b>56B14</b> | KC40.4.049 | 80  | 71.5 |
| <b>63B14</b> | K050.4.047 | 90  | 74   |
| <b>71B14</b> | K050.4.045 | 105 | 71.5 |

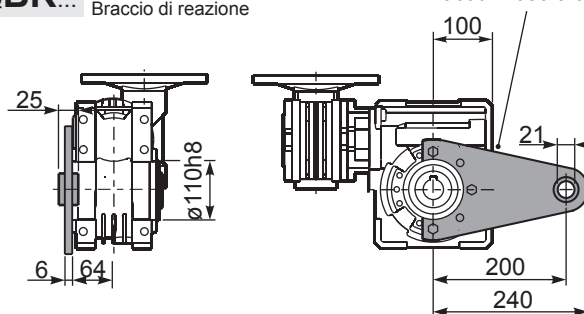
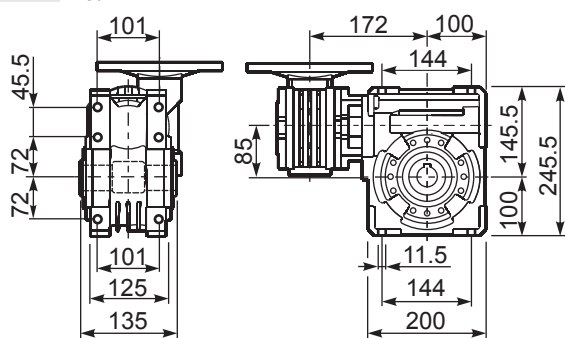
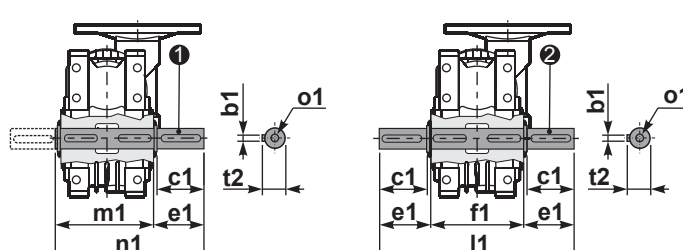
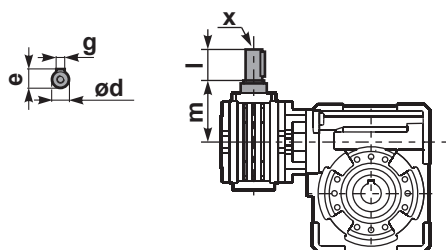
**P84QFC...**Output flange  
Flangia uscita**P84QF1...**Output flange  
Flangia uscita

| type B    | øD                                    | E | G  | L     | N    | O   | P   | Q  | kit code                     |
|-----------|---------------------------------------|---|----|-------|------|-----|-----|----|------------------------------|
| <b>FC</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 108   | 40.5 | 176 | 205 | 13 | ① K085.9.010<br>② -          |
| <b>FL</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 16 | 148.5 | 81   | 176 | 205 | 13 | ① K085.9.010<br>② K085.0.201 |

| type S    | øD                                    | E | G  | L     | N  | O   | P   | Q    | kit code             |
|-----------|---------------------------------------|---|----|-------|----|-----|-----|------|----------------------|
| <b>F1</b> | 130 H7                                | 5 | 13 | 117.5 | 50 | 165 | 200 | 11.5 | ① KS085.9.012<br>② - |
| <b>F2</b> | 152 <sup>+0.06</sup> <sub>+0.00</sub> | 5 | 15 | 147.5 | 80 | 180 | 205 | 12.5 | ① KS085.9.013<br>② - |
| <b>F4</b> | 130 H7                                | 5 | 13 | 106.5 | 39 | 165 | 200 | 13   | ① KS085.9.015<br>② - |

**P84QFB...**Feet  
Piedini**P84QBR...**Reaction arm  
Braccio di reazione

kit cod. K085.9.027

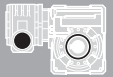
**R84QFB...**Input shaft  
Albero in entrata**P84Q.....S...**Single Shaft  
Albero lento semplice**P84Q.....D...**Double Shaft  
Albero lento bisp.

① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

|        | ød    | e    | g | l  | m  | x | kit code                  |
|--------|-------|------|---|----|----|---|---------------------------|
| type B | 11 h6 | 12.5 | 4 | 30 | 68 | - | ① K045.5.006 PAM71<br>② - |
| type S | -     | -    | - | -  | -  | - | ① -<br>② -                |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1  | n1    | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 <sup>-0.005</sup> <sub>-0.020</sub> | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | -  | -  | -                                      | -    | -   | -   | -   | -     | -  | -      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |    |    | Available<br>B14 motor flanges |     |    |    | Dynamic efficiency | Tooth Module<br>[mm] | Ratio code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|----|----|--------------------------------|-----|----|----|--------------------|----------------------|----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                            | -C | -D | -O                             | -P  | -Q | -R | RD                 |                      |                |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                            | 71 | 80 |                                |     |    |    |                    |                      |                |
| 6.7                                           | <b>210</b>   | 0.75                            | 591                               | 1.5                    | <b>1.1</b>                        | <b>863</b>                         | B                             | B  |    |                                | B-C | B  |    | 55                 | 5.6                  | 01             |
| 4.7                                           | <b>300</b>   | 0.75                            | 752                               | 1.3                    | <b>0.97</b>                       | <b>978</b>                         | B                             | B  |    |                                | B-C | B  |    | 49                 | 5.6                  | 02             |
| 3.3                                           | <b>420</b>   | 0.55                            | 741                               | 1.3                    | <b>0.73</b>                       | <b>978</b>                         | B                             | B  |    |                                | B-C | B  |    | 47                 | 5.6                  | 03             |
| 2.6                                           | <b>540</b>   | 0.55                            | 851                               | 1.1                    | <b>0.63</b>                       | <b>978</b>                         | B                             | B  |    |                                | B-C | B  |    | 42                 | 5.6                  | 04             |
| 1.8                                           | <b>780</b>   | 0.37                            | 748                               | 1.3                    | <b>0.48</b>                       | <b>978</b>                         | B                             | B  |    |                                | B-C | B  |    | 38                 | 5.6                  | 05             |
| 1.3                                           | <b>1080</b>  | 0.37                            | 1009                              | 1.0                    | <b>0.36</b>                       | <b>978</b>                         | B                             |    |    | B-C                            | B-C |    |    | 37                 | 5.6                  | 06             |
| 1.1                                           | <b>1290</b>  | 0.25                            | 770                               | 1.3                    | <b>0.32</b>                       | <b>978</b>                         | B                             |    |    | B-C                            | B-C |    |    | 35                 | 5.6                  | 07             |
| 0.8                                           | <b>1800</b>  | 0.25                            | 921                               | 1.1                    | <b>0.27</b>                       | <b>978</b>                         | B                             |    |    | B-C                            | B-C |    |    | 30                 | 5.6                  | 08             |
| 0.7                                           | <b>2040</b>  | 0.18                            | 751                               | 1.3                    | <b>0.23</b>                       | <b>978</b>                         | B                             |    |    | B-C                            | B-C |    |    | 30                 | 5.6                  | 09             |
| 0.6                                           | <b>2400</b>  | 0.18                            | 825                               | 1.2                    | <b>0.21</b>                       | <b>978</b>                         | B                             |    |    | B-C                            | B-C |    |    | 28                 | 5.6                  | 10             |
| 0.5                                           | <b>3000</b>  | 0.18                            | 958                               | 1.0                    | <b>0.18</b>                       | <b>978</b>                         | B                             |    |    | B-C                            | B-C |    |    | 26                 | 5.6                  | 11             |

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **15Q** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a type that are closed.  
Gearbox **050** is supplied lubricated for life.  
See tab.1 for oils and recommended quantity.  
In tab.2 there are radial loads and axial loads applicable to the gearbox.

**I** Il riduttore tipo **15Q** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Il riduttore **050** è fornito lubrificato a vita con olio sintetico.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **15Q** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
Das Getriebe der Baugröße **050** ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **15Q** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Le réducteur de type **050** est fourni lubrifié à vie avec de l'huile synthétique.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **15Q** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos.  
El reductor **050** se suministra lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

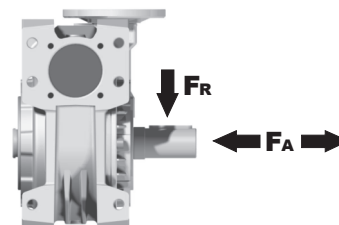
| B3               | B6           | B7           | B8          | V5          | V6          |
|------------------|--------------|--------------|-------------|-------------|-------------|
| 1.9/0.14LT       | 1.35/0.14 LT | 1.35/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT |
| AGIP Blasias 460 |              |              |             |             |             |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

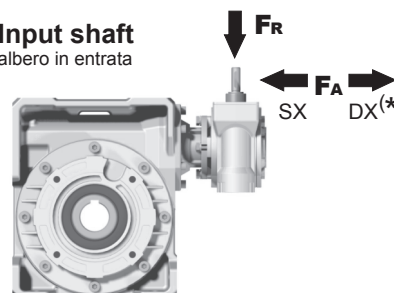
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 25                            | 1200      | 6000      |
| 15                            | 1400      | 7000      |

**Input shaft**  
albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 76        | 380       |

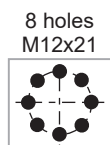
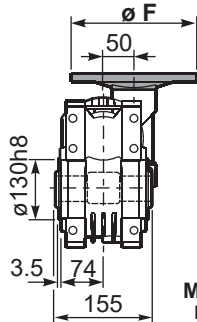
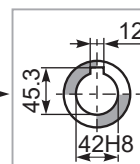
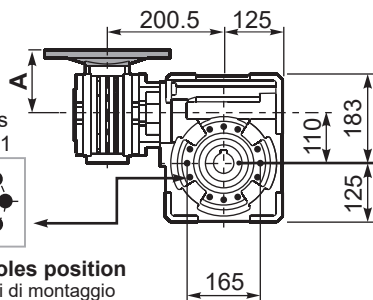
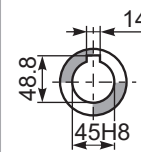
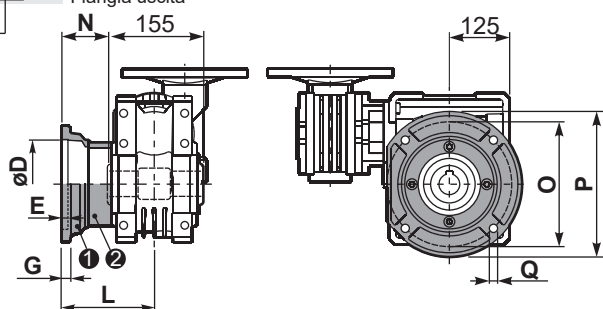
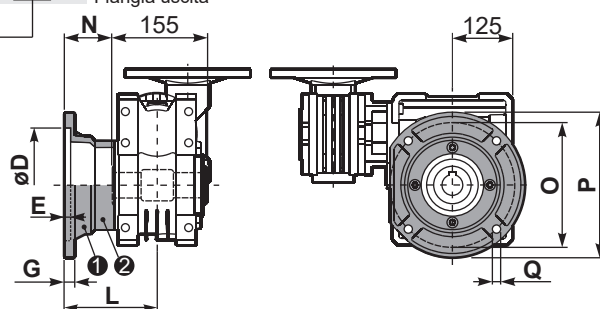
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2



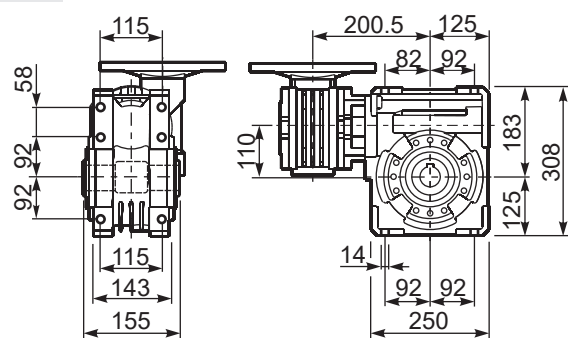
**P15QFB...**Basic wormbox  
Riduttore baseGearbox  
weight  
peso riduttore **38.8 kg**

| M. flanges   | Kit code   | øF  | A    |
|--------------|------------|-----|------|
| <b>63B5</b>  | K050.4.041 | 138 | 78.5 |
| <b>71B5</b>  | K050.4.042 | 160 | 76   |
| <b>80B5</b>  | K050.4.043 | 200 | 76.5 |
| <b>56B14</b> | KC40.4.049 | 80  | 76   |
| <b>63B14</b> | K050.4.047 | 90  | 78.5 |
| <b>71B14</b> | K050.4.045 | 105 | 76   |
| <b>80B14</b> | K050.4.046 | 120 | 76.5 |

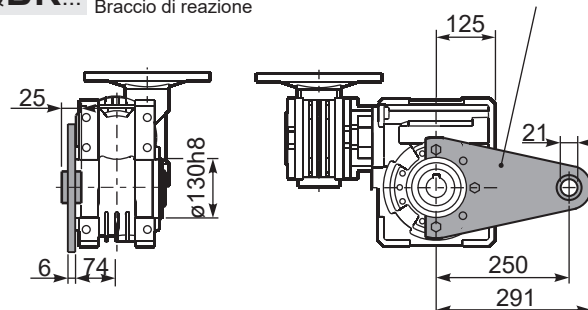
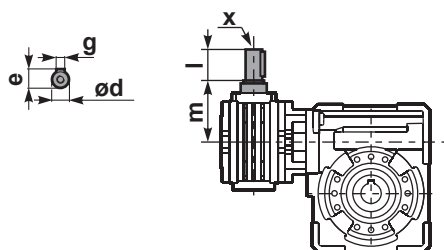
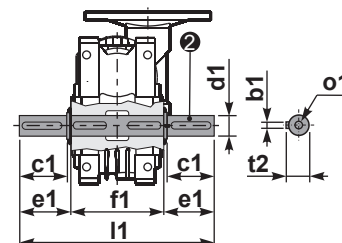
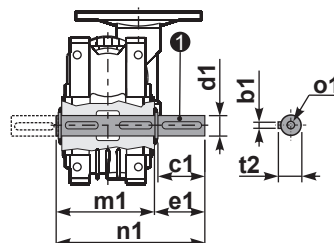
Mounting holes position  
Posizione fori di montaggioStandard  
Hollow shaftOn request  
A richiesta**P15QFC...**Output flange  
Flangia uscita**P15QF1...**Output flange  
Flangia uscita

| type B    | øD                                      | E  | G    | L     | N   | O   | P   | Q  | kit code            |
|-----------|-----------------------------------------|----|------|-------|-----|-----|-----|----|---------------------|
| <b>FC</b> | 170 <sup>+0.083</sup> <sub>-0.043</sub> | 11 | 16.5 | 131.5 | 54  | 230 | 270 | 13 | 1 K110.9.010<br>2 - |
| <b>FL</b> | 170 <sup>+0.083</sup> <sub>-0.043</sub> | 11 | 16.5 | 179.5 | 102 | 230 | 270 | 13 | 1 K110.9.011<br>2 - |

| type S    | øD                                 | E | G  | L   | N    | O   | P   | Q  | kit code             |
|-----------|------------------------------------|---|----|-----|------|-----|-----|----|----------------------|
| <b>F1</b> | 180 <sup>+0.040</sup> <sub>0</sub> | 5 | 18 | 150 | 72.5 | 215 | 250 | 15 | 1 KS110.9.014<br>2 - |
| <b>F3</b> | 180 <sup>+0.040</sup> <sub>0</sub> | 5 | 18 | 130 | 52.5 | 215 | 250 | 15 | 1 KS110.9.013<br>2 - |

**P15QFB...**Feet  
Piedini**P15QBR...**Reaction arm  
Braccio di reazione

kit cod. K110.9.027

**R15QFB...**Input shaft  
Albero in entrata**P15Q.....S...**Single Shaft  
Albero lento semplice**P15Q.....D...**Double Shaft  
Albero lento bisp.

1 kit cod. K110.5.028 type B

2 kit cod. K110.5.029 type B

|        | ød    | e  | g | l  | m    | x     | kit code                                   |
|--------|-------|----|---|----|------|-------|--------------------------------------------|
| type B | 16 h6 | 18 | 5 | 30 | 79.5 | M6x16 | 1 K050.5.006 PAM71<br>2 K050.5.007 PAM80   |
| type S | 14 h6 | 16 | 5 | 30 | 79.5 | M5x10 | 1 KS050.5.008 PAM71<br>2 KS050.5.009 PAM80 |

|        | b1 | c1 | d1                                     | e1   | f1  | l1  | m1    | n1  | t2 | o1     |
|--------|----|----|----------------------------------------|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 <sup>-0.005</sup> <sub>-0.020</sub> | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | -  | -  | -                                      | -    | -   | -   | -     | -   | -  | -      |

# Aluminum one step gearboxes

A modular and compact product

3

## Flange

Fully modular to IEC and Compact integrated motor.  
NEMA C flange

## Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint

## Gears

Hardened and ground gears.

## Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

## Output shaft

With well proportioned bearings

## Feet

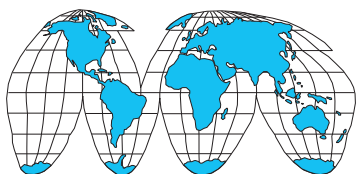
Removable feet.

## Single-piece aluminum alloy housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

Ideal for use as first step with wormgearboxes.

Lubricated for life with synthetic oil with operative range from  $-15^{\circ}$  to  $+130^{\circ}\text{C}$

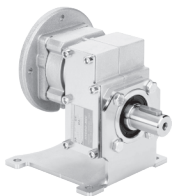


World wide sales network.



# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página

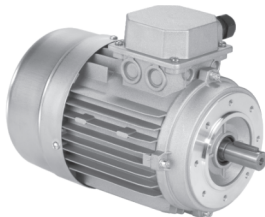


**Types / Tipi**  
Tipen / Types  
Tipos



| 3-5          | 3-7          | 3-9          | 3-11          |
|--------------|--------------|--------------|---------------|
| 211A<br>20Nm | 311A<br>30Nm | 411A<br>38Nm | 511A<br>110Nm |

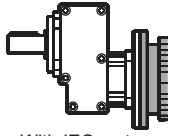
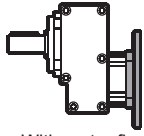
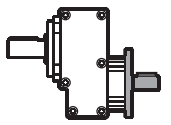
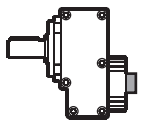
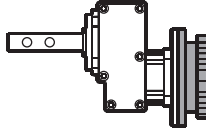
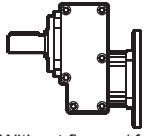
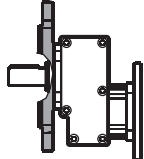
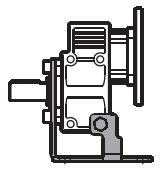
On page / A pagina / Auf Seite / À la page / En la página

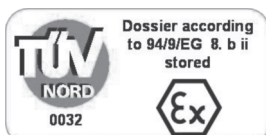


**Types / Tipi**  
Tipen / Types  
Tipos

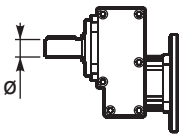
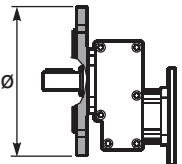
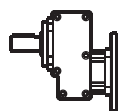
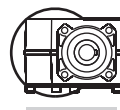
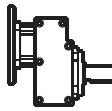
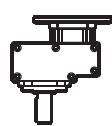
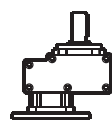


| M-1        |            |            |            |            |                |      |              |              |              |  |
|------------|------------|------------|------------|------------|----------------|------|--------------|--------------|--------------|--|
| 56A<br>56B | 63A<br>63B | 71A<br>71B | 80A<br>80B | 90S<br>90L | 100LA<br>100LB | 112M | 132S<br>132M | 160M<br>160L | 180M<br>180L |  |

| Type - Tipo - Typ<br>Type - Tipo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Size - Grandezza - Grösse<br>Taille - Tamaño                                                                                             | Mounting - Montaggio<br>Montage - Fixation<br>Tipo de montaje                                                                                                                                                                                                                                                                                                                                                            | Ratio - Rapporto<br>Untersetzung<br>Reduction<br>Relación                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>P</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>311A</b>                                                                                                                              | <b>-F</b>                                                                                                                                                                                                                                                                                                                                                                                                                | <b>2.84</b>                                                                                                                                                                            |
| <p><b>Aluminum one step gear</b><br/>Riduttori in alluminio a uno stadio</p> <div>  <p>With IEC motor<br/><b>M</b></p> </div> <div>  <p>With motor flange<br/><b>P</b></p> </div> <div>  <p>With male input shaft<br/><b>R</b></p> </div> <div>  <p>Modular Base<br/><b>B</b></p> </div> <div> <p><b>Special output shaft</b><br/>Albero uscita speciale</p>  <p><b>Only on request for Q.ty</b><br/>A richiesta per quantità</p> </div> | <p><b>1</b> Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p> <p><b>211A</b><br/><b>311A</b><br/><b>411A</b><br/><b>511A</b></p> | <div>  <p>Without flange / feet<br/><b>-N</b></p> </div> <div>  <p>Output flange mounted<br/><b>-F</b></p> </div> <div>  <p>Mounted feet<br/><b>H1</b></p> </div> | <p><b>See technical data table</b></p> <p>Vedi tabella dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p> |



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

| Output shaft<br>Albero uscita<br>Abtriebswelle<br>Arbre de sortie<br>Eje en salida                                                                                                                                                           | Output flange<br>Flangia uscita<br>Ausgangsflansch<br>Bride de sortie<br>Brida en salida                                                                                                                                                                                                                                                                                 | Motor size - Grandezza motore<br>Motor Größe<br>Grandeur moteur - Tamaño motor                                                                                                                                                                                                                                                                                                                          | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Position de montaje                                                                     | Terminal box position<br>Posizione morsettiera<br>Klemmkastenlage<br>Position boîte à bornes<br>Posición caja de bornes                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| S                                                                                                                                                                                                                                            | 2                                                                                                                                                                                                                                                                                                                                                                        | -C                                                                                                                                                                                                                                                                                                                                                                                                      | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | B3                                                                                                                                                                       | B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                            |
| <br>→ STANDARD<br>211A<br>S → Ø14<br>311A<br>S → Ø14<br>C ⇒ Ø19<br>E ⇒ Ø24<br>411A<br>S ⇒ Ø14<br>C → Ø19<br>E ⇒ Ø24<br>511A<br>C ⇒ Ø19<br>E ⇒ Ø24<br>G → Ø28 | <br>N Senza flangia<br>Without flange<br>211A<br>I ⇒ Ø105<br>Flangia integrata<br>Integrated flange<br>311A<br>1 ⇒ Ø120<br>2 ⇒ Ø140<br>3 → Ø160<br>4 ⇒ Ø200<br>411A<br>1 ⇒ Ø120<br>2 ⇒ Ø140<br>3 ⇒ Ø160<br>4 → Ø200<br>511A<br>1 ⇒ Ø120<br>2 ⇒ Ø140<br>3 ⇒ Ø160<br>4 ⇒ Ø200<br>5 → Ø250 | <br>Flange<br>Flangia<br>B5<br>-A=56<br>(Ø120)<br>-B=63<br>(Ø140)<br>-C=71<br>(Ø160)<br>-D=80<br>(Ø200)<br>-E=90<br>(Ø200)<br>-F=100+112<br>(Ø250)<br>-G=132<br>(Ø300)<br>B14<br>-O=56<br>(Ø80)<br>-P=63<br>(Ø90)<br>-Q=71<br>(Ø105)<br>-R=80<br>(Ø120)<br>-T=90<br>(Ø140)<br>-U=100+112<br>(Ø160)<br>-V=132<br>(Ø200) | <br>Type R<br>Tipo R<br>211A<br>311A<br>-1 ⇒ Ø14<br>411A<br>-2 ⇒ Ø19<br>511A<br>-3 ⇒ Ø24<br><br>Without flange<br>Senza flangia<br>211A<br>311A<br>-Z ⇒ Ø9<br>(56B5)<br>-0 ⇒ Ø11<br>(63B5)<br>-1 ⇒ Ø14<br>(71B5)<br>411A<br>-1 ⇒ Ø14<br>(71B5)<br>-2 ⇒ Ø19<br>(80B5)<br>-3 ⇒ Ø24<br>(90B5)<br>511A<br>-2 ⇒ Ø19<br>(80B5)<br>-3 ⇒ Ø24<br>(90B5)<br>-4 ⇒ Ø28<br>(100B5) | <br>-<br>Nothing indication:<br>standard bore<br>Nessuna indicazione:<br>foro standard | <br>B3<br>STANDARD<br><br>B6<br><br>B7<br><br>B8<br><br>V5<br><br>V6 | <br>A<br><br>B<br>STANDARD<br><br>C<br><br>D |



POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

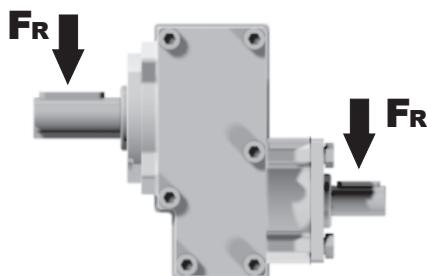
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



| $F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | $F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$ |  |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--|
| M                                                                              | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |  |
| d                                                                              | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                             |                                                                                  |  |
| f <sub>k</sub>                                                                 | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br>1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br>1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br>1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br>2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |                                                                                  |  |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

The diagram illustrates the relationship between input and output parameters for a gearbox. A central box labeled **A** (Input) is connected to four surrounding boxes labeled **B** (Output).

**Input (A):**

- Nominal torque
- Momento torcente nominale
- Nenn Drehmoment
- Couple nominal
- Par de torsión nominal

**Output (B):**

- Output speed
- Velocità in uscita
- Abtriebsdrehzahl
- Vitesse de sortie
- Velocidad de salida

**Other parameters:**

- Nominal power:** Potenza nominale, Max. mögliche Leistung, Poissance nominale, Potencia nominal
- Gear size:** Grandezza riduttore, Getriebegröße, Taille réducteur, Tamaño reductor
- Motor power:** Potenza motore, Motorleistung, Puissance moteur, Potencia motor
- Flange code:** Codice flangia, Flanschttype, Code bride, Código bridas
- Input speed:** Velocità in entrata, Eintriebsdrehzahl, Vitesse en entrée, Velocidad de entrada

**311A** One step **30Nm** Rating - Aluminum ONE STEP GEARBOXES 

▪ **QUICK SELECTION** / Selezione veloce

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>i  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    |  | Output Shaft<br> | <br>Ratios code |
|-----------------------------------------------|-------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |             |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                     |                                                                                                     |                                                                                                    |
|                                               |             |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63 | 71 |                                                                                     |                                                                                                     |                                                                                                    |
| 892                                           | <b>1.57</b> | 0.37                            | 3.9                               | 3.3                    | <b>1.24</b>                       | <b>13</b>                          |                            |    | C                           | C  |    | 2844                                                                                | <b>standard<br/>Ø14</b>                                                                             | 01                                                                                                 |
| 493                                           | <b>2.84</b> | 0.37                            | 7.0                               | 3.3                    | <b>1.21</b>                       | <b>23</b>                          |                            |    | C                           | C  |    | 1954                                                                                |                                                                                                     | 02                                                                                                 |
| 426                                           | <b>3.29</b> | 0.37                            | 8.1                               | 3.2                    | <b>1.18</b>                       | <b>26</b>                          |                            |    | C                           | C  |    | 1756                                                                                |                                                                                                     | 03                                                                                                 |
| 362                                           | <b>3.87</b> | 0.37                            | 9.6                               | 2.9                    | <b>1.08</b>                       | <b>28</b>                          |                            |    | C                           | C  |    | 1558                                                                                |                                                                                                     | 04                                                                                                 |

The diagram illustrates the relationship between the input and output shafts of a gearbox. It shows the input shaft on the left and the output shaft on the right, connected by a central shaft. The input shaft is labeled with 'C' for the ratio and 'Transmitted torque' in multiple languages. The output shaft is labeled with 'Output shaft diam.' and 'Notes' in multiple languages. The diagram also includes labels for the input and output shaft diameters and the output shaft speed.

| fs                                                                                                         |      |                                            |      |      |      |
|------------------------------------------------------------------------------------------------------------|------|--------------------------------------------|------|------|------|
| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                    |      | Oper. hours per day<br>Ore di funz. giorn. |      |      |      |
|                                                                                                            |      | 3 h                                        | 10 h | 24 h |      |
| Continuous or intermittent appl. with start / hour<br>Applicazione cont. o interm. con n.ro operazioni/ora | ≤ 10 | Uniform / Uniforme                         | 0.8  | 1    | 1.25 |
|                                                                                                            |      | Moderate / Moderato                        | 1    | 1.25 | 1.5  |
|                                                                                                            |      | Heavy / Forte                              | 1.25 | 1.5  | 1.75 |
| Intermittent application with start / hour<br>Applicazione intermittente con n.ro operazioni/ora           | > 10 | Uniform / Uniforme                         | 1    | 1.25 | 1.5  |
|                                                                                                            |      | Moderate / Moderato                        | 1.25 | 1.5  | 1.75 |
|                                                                                                            |      | Heavy / Forte                              | 1.5  | 1.75 | 2.15 |

|           |                                                                                                                                                                                                                                 |                                                                                       |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>D</b>  | Motor flange available<br>Flange disponibili<br>Erhältliche Motorflansche<br>Brides disponibles<br>Bidas disponibles                                                                                                            |                                                                                       |
| <b>B)</b> | Mounting with reduction ring<br>Montaggio con boccola di riduzione<br>Reduzierhülsen<br>Montage avec douille de réduction<br>Montaje con casquillo de reducción                                                                 |  |
| <b>C)</b> | Motor flangeholes position/terminal box position<br>Posizione fori flangia/basetta motore<br>Bohrungssposition am Motorflansch/-sockel<br>Position trous bride/barrette à bornes moteur<br>Posición agujeros brida / base motor |  |
| <b>B)</b> | Available without reduction bushes<br>Disponibile anche senza boccola<br>Auch ohne Reduzierbuchse verfügbar<br>Disponible aussi sans douille de réduction<br>Disponible tambien sin casquillo                                   |                                                                                       |

|          |                                                                              |                                                                                                           |                                                                                                       |                                                                                                           |                                                                                                             |
|----------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>A</b> | Select required torque<br>(according to service factor)                      | Seleziona la coppia<br>desiderata (comprensiva<br>del fattore di servizio)                                | Max. Drehmoment in Bezug<br>zum Betriebsfaktor                                                        | Sélectionner le couple<br>souhaité ( comprenant le<br>facteur de service )                                | Seleccionar el par deseado<br>(incluyendo el factor de<br>servicio)                                         |
| <b>B</b> | Select ouput speed                                                           | Seleziona la velocità in<br>uscita                                                                        | Ausgewählte<br>Abtriebsdrehzahl                                                                       | Sélectionner la vitesse de<br>sortie                                                                      | Seleccionar la velocidad de<br>salida                                                                       |
| <b>C</b> | On the same line of selected<br>geared motor, you can find<br>the gear ratio | Sulla riga corrispondente<br>alla motorizzazione<br>prescelta si può rilevare il<br>rapporto di riduzione | Auf der gleichen Linie wie<br>die ausgewählte<br>Motorleistung steht auch die<br>Getriebeuntersetzung | Sur la ligne correspondant<br>à la motorisation pré-choisie<br>on peut relever le rapport de<br>réduction | En la línea correspondiente<br>al motor preseleccionado es<br>posible encontrar la relación<br>de reducción |
| <b>D</b> | Select motor flange<br>available<br>(if requested)                           | Scegli la flangia disponibile<br>(se richiesta)                                                           | Erhältliche Motorflansche<br>(auf Anfrage)                                                            | Choisir la bride disponible<br>( si elle est demandée )                                                   | Seleccionar la brida<br>disponible (sobre pedido)                                                           |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    |    | Output Shaft<br><br>standard<br>ø14 | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -O                          | -P | -Q | -R |                                                                                                                        |                                                                                                    |
| 682                                           | 2.05         | 0.37                            | 5                                 | 2.0                    | 0.73                              | 10                                 |                            |    |    |    | C                           | C  |    |    | 1939                                                                                                                   | 01                                                                                                 |
| 595                                           | 2.35         | 0.37                            | 6                                 | 2.1                    | 0.76                              | 12                                 |                            |    |    |    | C                           | C  |    |    | 1740                                                                                                                   | 02                                                                                                 |
| 500                                           | 2.80         | 0.37                            | 7                                 | 2.0                    | 0.75                              | 14                                 |                            |    |    |    | C                           | C  |    |    | 1542                                                                                                                   | 03                                                                                                 |
| 414                                           | 3.38         | 0.37                            | 8                                 | 2.0                    | 0.75                              | 17                                 |                            |    |    |    | C                           | C  |    |    | 1344                                                                                                                   | 04                                                                                                 |
| 298                                           | 4.70         | 0.37                            | 12                                | 1.7                    | 0.64                              | 20                                 |                            |    |    |    | C                           | C  |    |    | 1047                                                                                                                   | 05                                                                                                 |
| 225                                           | 6.22         | 0.37                            | 15                                | 1.5                    | 0.55                              | 23                                 |                            |    |    |    | C                           | C  |    |    | 956                                                                                                                    | 06                                                                                                 |
| 169                                           | 8.29         | 0.37                            | 20                                | 1.0                    | 0.36                              | 20                                 |                            |    |    |    | C                           | C  |    |    | 758                                                                                                                    | 07                                                                                                 |
| 142                                           | 9.83         | 0.25                            | 16                                | 1.0                    | 0.24                              | 16                                 |                            |    |    |    | C                           | C  |    |    | 659                                                                                                                    | 08                                                                                                 |

The dynamic efficiency is **0.98** for all ratios

 **Motor Flanges Available**  
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **211A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **211A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **211A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **211A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **211A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 211A Oil Quantity 0.05 Lt.

**AGIP** Telium VSF 320

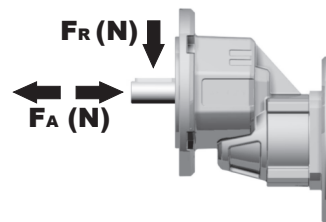
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

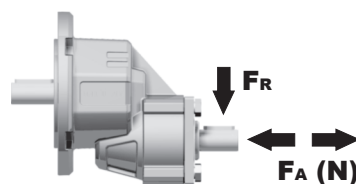
Albero di uscita



| $n_2$ | FA  | FR  |
|-------|-----|-----|
| 700   | 101 | 504 |
| 600   | 120 | 600 |
| 400   | 138 | 696 |
| 300   | 151 | 756 |
| 200   | 175 | 876 |
| 140   | 192 | 960 |

### Input shaft

albero in entrata



| $n_1$ | FA  | FR  |
|-------|-----|-----|
| 1400  | 168 | 840 |
| 900   | 192 | 960 |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

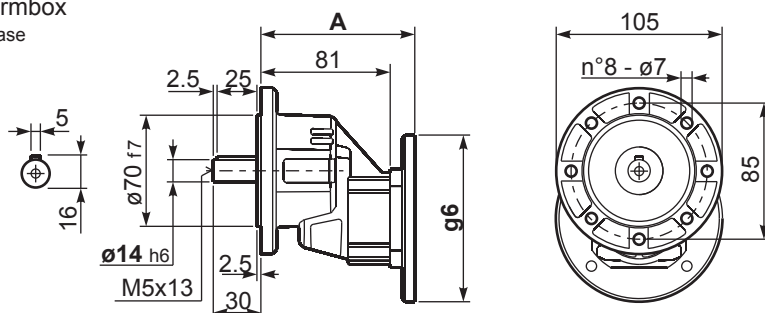
tab. 2

**P<sub>211A</sub>-F...**

Basic wormbox  
Riduttore base

**Gearbox weight**  
peso riduttore

1.40 kg

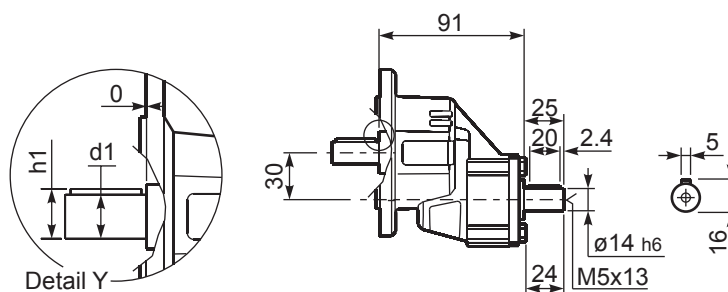


| B5 Motor Flanges | A    | g6  | kit code   |
|------------------|------|-----|------------|
| 63 B5            | 99.5 | 138 | K050.4.041 |
| 71 B5            | 97   | 160 | K050.4.042 |

| B14 Motor Flanges | A    | g6  | kit code   |
|-------------------|------|-----|------------|
| 56 B14            | 97   | 80  | KC40.4.049 |
| 63 B14            | 99.5 | 90  | K050.4.047 |
| 71 B14            | 97   | 105 | K050.4.045 |

## R211A-F...

Basic wormbox  
Riduttore base



**\*Available output shaft** / Albero di uscita

|          | Shaft - d1 | p1 | h1 | x     |
|----------|------------|----|----|-------|
| Standard | Ø 14x30    | 5  | 16 | M5x13 |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft | Ratio code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|--------------|------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |              |            |
| 891                                           | 1.57         | 0.37                            | 4                                 | 3.3                    | 1.2                               | 13                                 | 63                         | 71 | 56                          | 63 | 71 | 2844         | 01         |
| 493                                           | 2.84         | 0.37                            | 7                                 | 3.3                    | 1.2                               | 23                                 |                            |    | C                           | C  |    | 1954         | 02         |
| 425                                           | 3.29         | 0.37                            | 8                                 | 3.2                    | 1.2                               | 26                                 |                            |    | C                           | C  |    | 1756         | 03         |
| 362                                           | 3.87         | 0.37                            | 10                                | 2.9                    | 1.1                               | 28                                 |                            |    | C                           | C  |    | 1558         | 04         |
| 303                                           | 4.62         | 0.37                            | 11                                | 2.6                    | 0.97                              | 30                                 |                            |    | C                           | C  |    | 1360         | 05         |
| 222                                           | 6.30         | 0.37                            | 16                                | 2.2                    | 0.83                              | 35                                 |                            |    | C                           | C  |    | 1063         | 06         |
| 170                                           | 8.22         | 0.37                            | 20                                | 1.9                    | 0.69                              | 38                                 |                            |    | C                           | C  |    | 974          | 07         |
| 129                                           | 10.86        | 0.37                            | 27                                | 1.0                    | 0.39                              | 28                                 |                            |    | C                           | C  |    | 776          | 08         |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **311A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **311A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **311A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **311A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **311A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 311A Oil Quantity 0.10 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

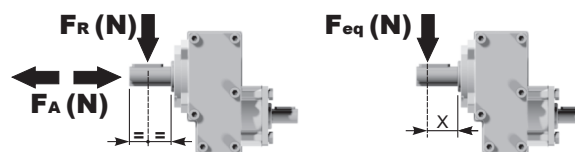
tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

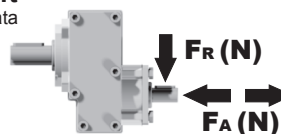
$$F_{eq} = F_R \cdot \frac{38.5}{X+18.5}$$



| $n_2$ | FA  | FR  | $n_2$ | FA  | FR  | $n_2$ | FA  | FR   |
|-------|-----|-----|-------|-----|-----|-------|-----|------|
| 700   | 120 | 640 | 400   | 160 | 800 | 200   | 200 | 1020 |
| 600   | 140 | 700 | 300   | 175 | 880 | 140   | 225 | 1120 |

### Input shaft

Albero in entrata



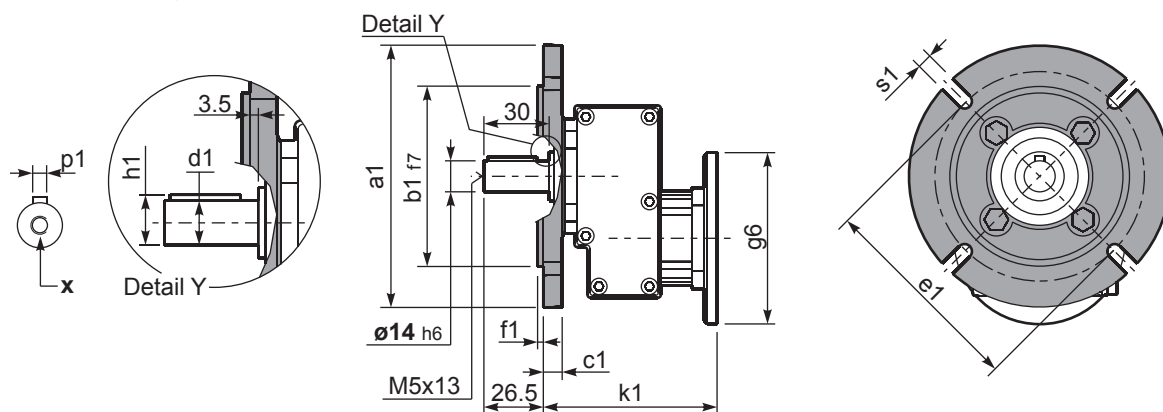
| $n_1$ | FA  | FR  |
|-------|-----|-----|
| 1400  | 180 | 860 |
| 900   | 200 | 980 |

tab. 2



**P311-F...** Output flange  
flange di uscita

Gearbox  
weight  
peso riduttore **2.50 kg**



**\*Available output shaft / Alberi di uscita**

|                           | Shaft - d1 | p1 | h1   | x     |
|---------------------------|------------|----|------|-------|
| Standard                  | Ø 14x30    | 5  | 16   | M5x13 |
| On request<br>A richiesta | Ø 19x40    | 6  | 21.5 | M6x16 |
|                           | Ø 24x40    | 8  | 27   | M6x16 |

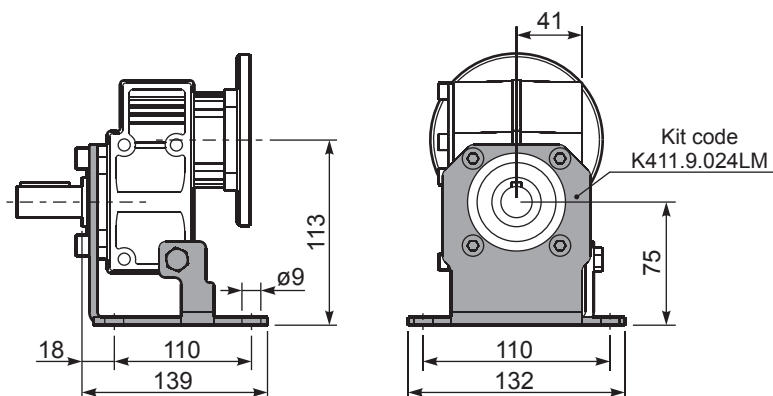
**Available output flanges / flange di uscita**

| a1 Ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 11.5 | 100 | 3   | 9* | KC30.9.010 |
| 140  | 95  | 11.5 | 115 | 3   | 9  | KC30.9.011 |
| 160  | 110 | 11.5 | 130 | 3.5 | 9  | KC30.9.012 |
| 200  | 130 | 11.5 | 165 | 3.5 | 11 | KC30.9.013 |

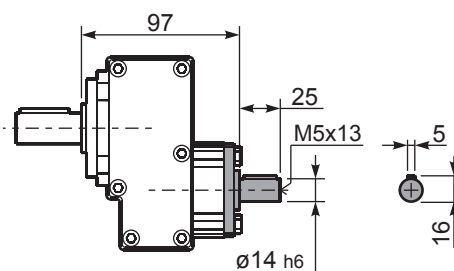
\*Holes position  
posizione fori



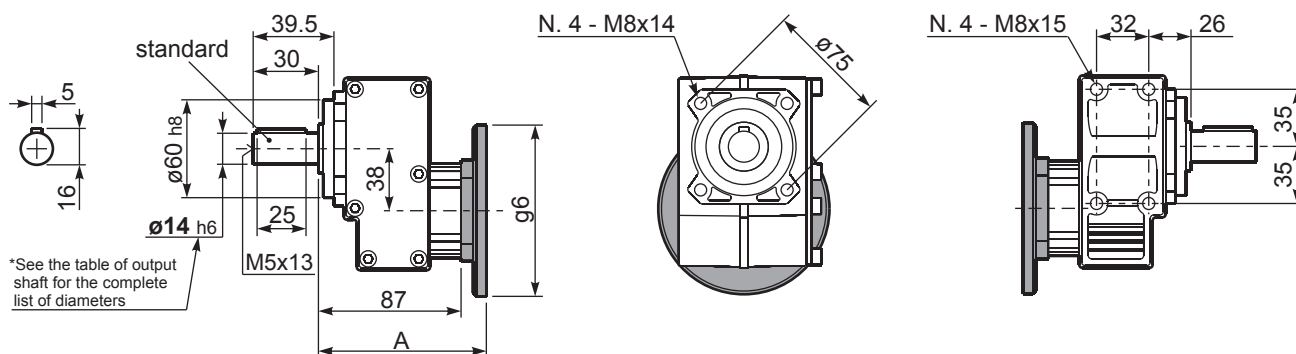
**P311-H1...** With feet  
Con piedini



**R311-N...** Input Shaft  
Albero in entrata



**P311-N...** Basic gearbox  
Riduttore base



\*See the table of output shaft for the complete list of diameters

| B14 Motor Flanges | A     | g6  | k1    | kit code   |
|-------------------|-------|-----|-------|------------|
| 56 B14            | 103   | 80  | 106.5 | KC40.4.049 |
| 63 B14            | 105.5 | 90  | 109   | K050.4.047 |
| 71 B14            | 103   | 105 | 106.5 | K050.4.045 |

| B5 Motor Flanges | A     | g6  | k1    | kit code   |
|------------------|-------|-----|-------|------------|
| 63 B5            | 105.5 | 138 | 109   | K050.4.041 |
| 71 B5            | 103   | 160 | 106.5 | K050.4.042 |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                     |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                     |             |
| 891                                           | 1.57         | 1.5                             | 16                                | 1.3                    | 1.9                               | 20                                 | B                          |    |    |    | C                           | C  |    | 2844                                                                                                | 01          |
| 493                                           | 2.84         | 1.5                             | 28                                | 1.2                    | 1.8                               | 35                                 | B                          |    |    |    | C                           | C  |    | 1954                                                                                                | 02          |
| 425                                           | 3.29         | 1.5                             | 33                                | 1.2                    | 1.7                               | 38                                 | B                          |    |    |    | C                           | C  |    | 1756                                                                                                | 03          |
| 362                                           | 3.87         | 1.5                             | 39                                | 1.0                    | 1.5                               | 40                                 | B                          |    |    |    | C                           | C  |    | 1558                                                                                                | 04          |
| 303                                           | 4.62         | 1.5                             | 46                                | 1.0                    | 1.5                               | 47                                 | B                          |    |    |    | C                           | C  |    | 1360                                                                                                | 05          |
| 222                                           | 6.30         | 1.1                             | 46                                | 1.0                    | 1.1                               | 46                                 | B                          |    |    |    | C                           | C  |    | 1063                                                                                                | 06          |
| 170                                           | 8.22         | 0.55                            | 30                                | 1.3                    | 0.69                              | 38                                 | B                          |    |    |    | C                           | C  |    | 974                                                                                                 | 07          |
| 129                                           | 10.86        | 0.37                            | 27                                | 1.0                    | 0.39                              | 28                                 | B                          |    |    |    | C                           | C  |    | 776                                                                                                 | 08          |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **411A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **411A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **411A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **411A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **411A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 411A Oil Quantity 0.10 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

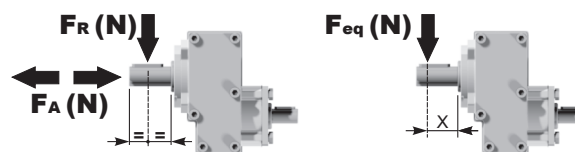
tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

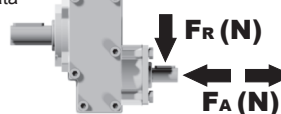
$$F_{eq} = F_R \cdot \frac{40}{X+20}$$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA  | FR   |
|-------|-----|------|-------|-----|------|-------|-----|------|
| 700   | 182 | 910  | 400   | 230 | 1150 | 200   | 290 | 1450 |
| 600   | 200 | 1000 | 300   | 250 | 1250 | 140   | 320 | 1600 |

### Input shaft

Albero in entrata

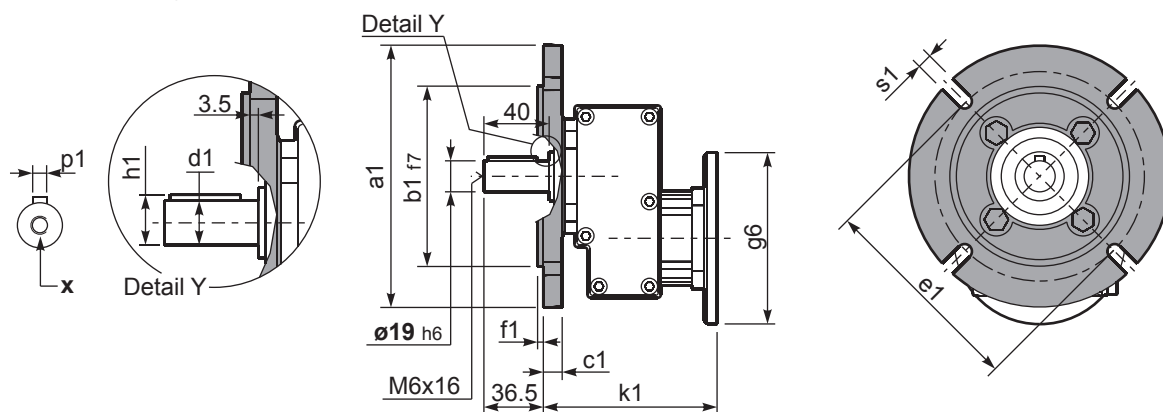


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |

tab. 2

P411-**F**... Output flange  
flange di uscita

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>3.20 kg</b> |
|-----------------------------------------|----------------|



**\*Available output shaft** / Albero di uscita

|             | Shaft - d1 | p1 | h1   | x     |
|-------------|------------|----|------|-------|
| Standard    | ø 19x40    | 6  | 21.5 | M6x16 |
| On request  | ø 14x30    | 5  | 16   | M5x13 |
| A richiesta | ø 24x40    | 8  | 27   | M6x16 |

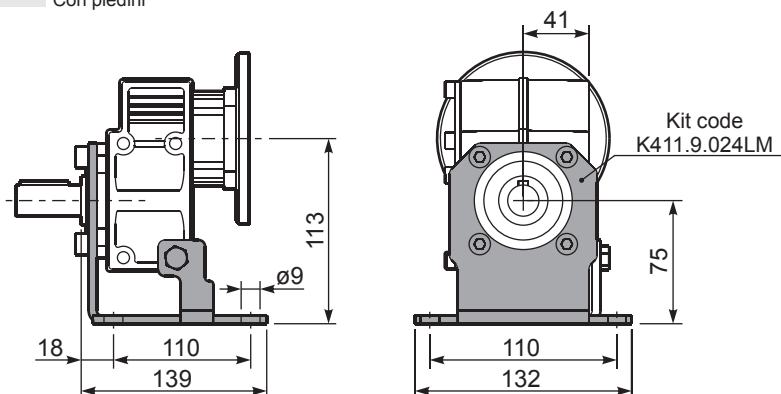
### Available output flanges / flange di uscita

| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 11.5 | 100 | 3   | 9* | KC30.9.010 |
| 140  | 95  | 11.5 | 115 | 3   | 9  | KC30.9.011 |
| 160  | 110 | 11.5 | 130 | 3.5 | 9  | KC30.9.012 |
| 200  | 130 | 11.5 | 165 | 3.5 | 11 | KC30.9.013 |

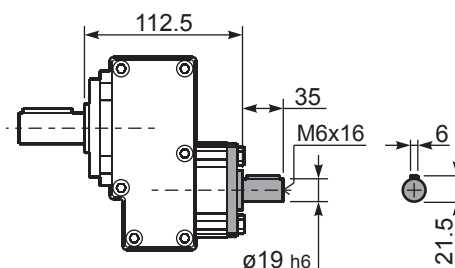
\*Holes position  
posizione fori



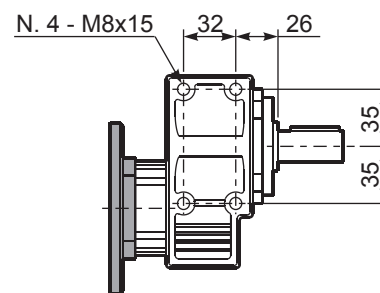
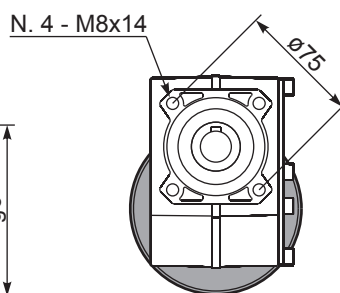
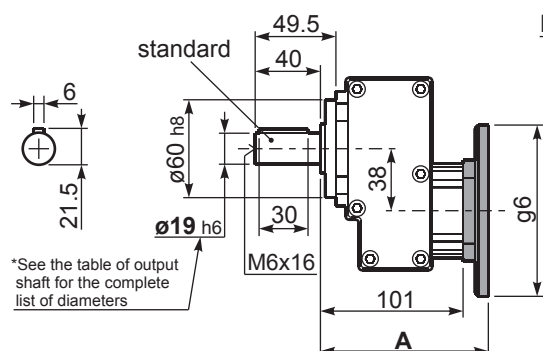
**P411-H1...** With feet  
Con piedini



|                  |                                  |
|------------------|----------------------------------|
| <b>R411-N...</b> | Input Shaft<br>Albero in entrata |
|------------------|----------------------------------|



|           |                                 |
|-----------|---------------------------------|
| P411-N... | Basic gearbox<br>Riduttore base |
|-----------|---------------------------------|



| <b>B5 Motor<br/>Flanges</b> | <b>A</b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|-----------------------------|----------|-----------|-----------|-----------------|
| 63 B5                       | 121.5    | 140       | 125       | K063.4.041      |
| 71 B5                       | 119.5    | 160       | 123       | K063.4.042      |
| 80/90 B5                    | 121.5    | 200       | 125       | K063.4.043      |

| <b>B14 Motor Flanges</b> | <b>A</b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|--------------------------|----------|-----------|-----------|-----------------|
| 71 B14                   | 119.5    | 105       | 123       | K063.4.047      |
| 80 B14                   | 121.5    | 120       | 125       | K063.4.046      |
| 90 B14                   | 121.5    | 140       | 125       | K063.4.041      |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br><br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br><br>i | Motor power<br><br>P <sub>1M</sub><br>[kW] | Output torque<br><br>M <sub>2M</sub><br>[Nm] | Service factor<br><br>f.s. | Nominal power<br><br>P <sub>1R</sub><br>[kW] | Nominal torque<br><br>M <sub>2R</sub><br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |      |                                                             |  |  |
|------------------------------------------------------------|----------------|--------------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|-----------------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                            |                |                                            |                                              |                            |                                              |                                               | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V   |                                                                                                                                                |                                                                                     |                                                                                     |
|                                                            |                |                                            |                                              |                            |                                              |                                               | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132  |                                                                                                                                                |                                                                                     |                                                                                     |
| 1077                                                       | 1.30           | 4                                          | 34                                           | 1.2                        | 4.6                                          | 40                                            | B                          |    |    |            |     |                             |    |            | 3039 | <br><b>standard<br/>ø28</b><br><br>On request<br>ø19<br>ø24 | 01                                                                                  |                                                                                     |
| 571                                                        | 2.45           | 4                                          | 64                                           | 1.1                        | 4.3                                          | 70                                            | B                          |    |    |            |     |                             |    | 2049       | 02   |                                                                                                                                                |                                                                                     |                                                                                     |
| 423                                                        | 3.31           | 4                                          | 87                                           | 1.0                        | 4.1                                          | 90                                            | B                          |    |    |            |     |                             |    | 1653       | 03   |                                                                                                                                                |                                                                                     |                                                                                     |
| 325                                                        | 4.31           | 4                                          | 113                                          | 1.0                        | 3.8                                          | 110                                           | B                          |    |    |            |     |                             |    | 1356       | 04   |                                                                                                                                                |                                                                                     |                                                                                     |
| 266                                                        | 5.27           | 3                                          | 104                                          | 1.1                        | 3.1                                          | 110                                           | B                          |    |    |            |     |                             |    | 1158       | 05   |                                                                                                                                                |                                                                                     |                                                                                     |
| 184                                                        | 7.63           | 2.2                                        | 111                                          | 1.0                        | 2.2                                          | 110                                           | B                          |    |    |            |     |                             |    | 861        | 06   |                                                                                                                                                |                                                                                     |                                                                                     |
| 133                                                        | 10.50          | 1.1                                        | 77                                           | 1.0                        | 1.1                                          | 80                                            | B                          |    |    |            |     |                             |    | 663        | 07   |                                                                                                                                                |                                                                                     |                                                                                     |
| The dynamic efficiency is <b>0.98</b> for all ratios       |                |                                            |                                              |                            |                                              |                                               |                            |    |    |            |     |                             |    |            |      |                                                                                                                                                |                                                                                     |                                                                                     |

The dynamic efficiency is 0.98 for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **511A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **511A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **511A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **511A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **511A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 511A Oil Quantity 0.29 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

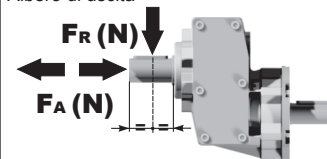
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

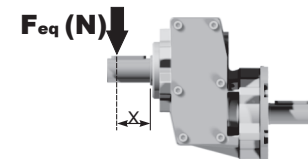
## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita



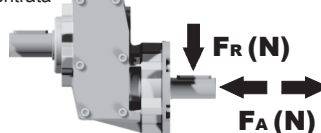
$$F_{eq} = F_R \cdot \frac{47.5}{X+22.5}$$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA  | FR   |
|-------|-----|------|-------|-----|------|-------|-----|------|
| 700   | 294 | 1470 | 400   | 370 | 1850 | 200   | 460 | 2300 |
| 600   | 320 | 1600 | 300   | 400 | 2000 | 140   | 510 | 2550 |

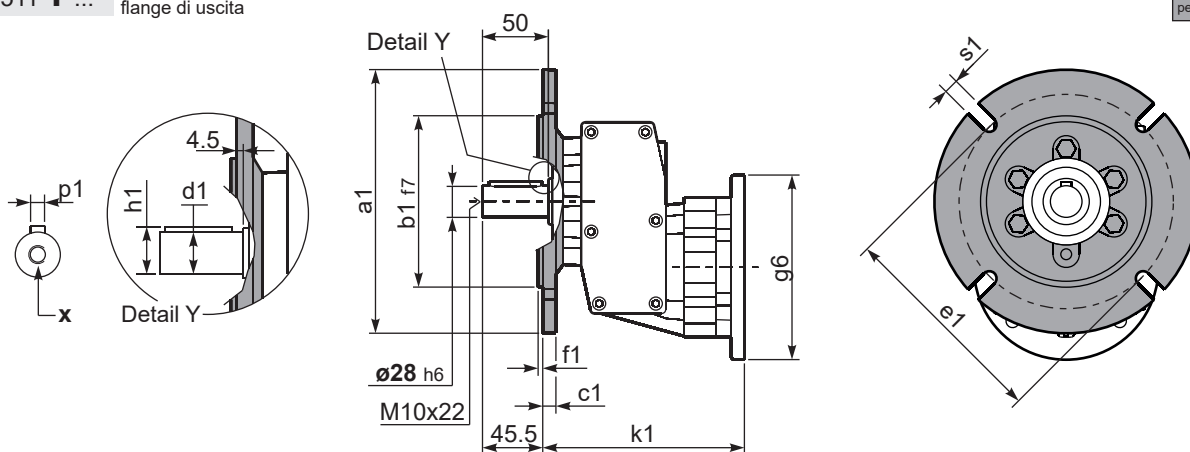
### Input shaft

Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |

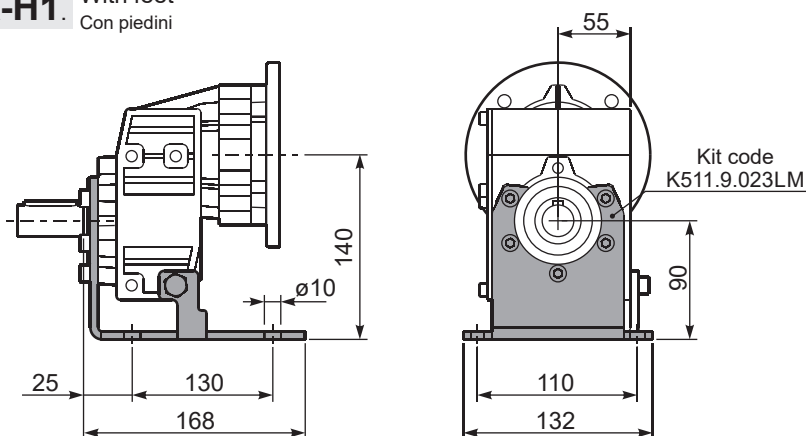
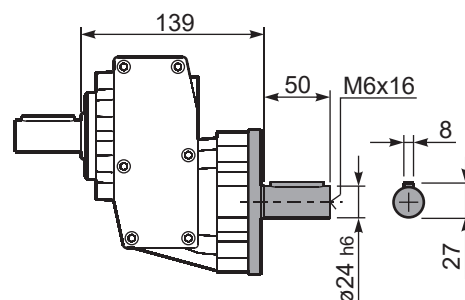
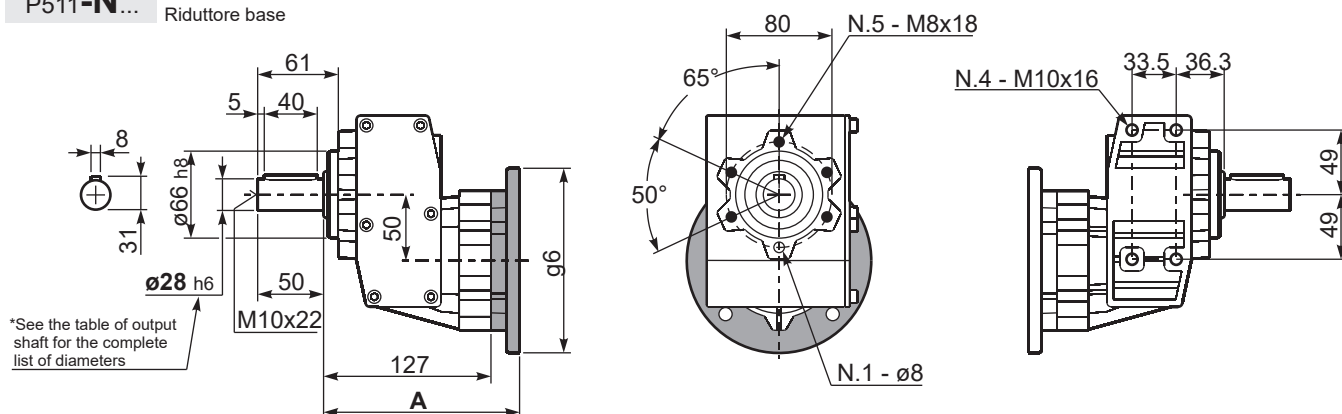
tab. 2

**P511-F...**Output flanges  
flange di uscitaGearbox  
weight  
peso riduttore**5.00 kg****\*Available output shaft / Albero di uscita**

|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | ø 28x50    | 8  | 31   | M10x22 |
| On request<br>A richiesta | ø 24x50    | 8  | 27   | M8x19  |
|                           | ø 19x40    | 6  | 21.5 | M6x16  |

**Available output flanges / flange di uscita**

| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 10   | 100 | 3   | 7  | KC40.9.010 |
| 140  | 95  | 10   | 115 | 3   | 9  | KC40.9.011 |
| 160  | 110 | 10   | 130 | 3.5 | 9  | KC40.9.012 |
| 200  | 130 | 11   | 165 | 3.5 | 11 | KC40.9.013 |
| 250  | 180 | 11.5 | 215 | 3.5 | 14 | KC40.9.014 |

**P511A-H1.**With feet  
Con piedini**R511A-N...**Input Shaft  
Albero in entrata**P511-N...**Basic gearbox  
Riduttore base

| B5 Motor Flanges | A     | g6  | k1  | kit code   |
|------------------|-------|-----|-----|------------|
| 71 B5            | 145.5 | 160 | 150 | K023.4.041 |
| 80/90 B5         | 147.5 | 200 | 152 | K023.4.042 |
| 100/112 B5       | 156.5 | 250 | 161 | K023.4.043 |
| 132 B5           | 174.5 | 300 | 179 | KC50.4.043 |

| B14 Motor Flanges | A     | g6  | k1  | kit code   |
|-------------------|-------|-----|-----|------------|
| 80 B14            | 147.5 | 120 | 152 | K085.4.046 |
| 90 B14            | 147.5 | 140 | 152 | K085.4.045 |
| 100/112 B14       | 156.5 | 160 | 161 | K085.4.047 |
| 132 B14           | 174.5 | 200 | 179 | KC50.4.041 |



# Aluminum in line gearboxes

## A modular and compact product

### Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint

### Flange

Fully modular to IEC and Compact integrated motor.  
NEMA C flange

### Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

### Oil seals

Two oil seals on request

### Output shaft

With well proportioned bearings

### Gears

Hardened and ground gears.

### Feet

Removable feet.  
With patented locking system.

### Foot prints

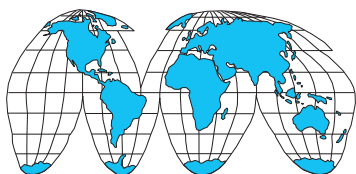
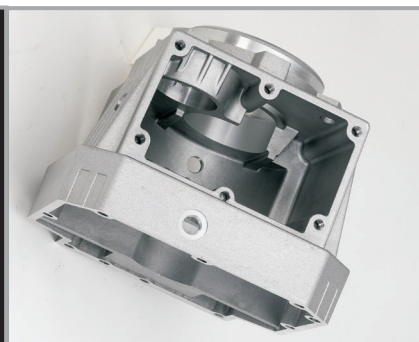
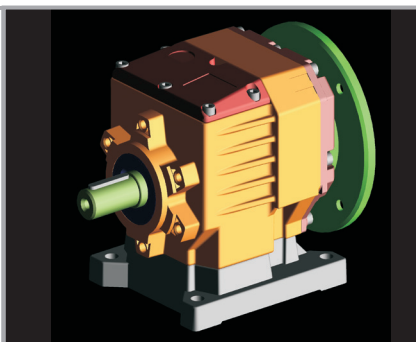
Compatible to the main standard of the market.

Lubricated for life with synthetic oil with operative range from  $-15^{\circ}$  to  $+130^{\circ}\text{C}$

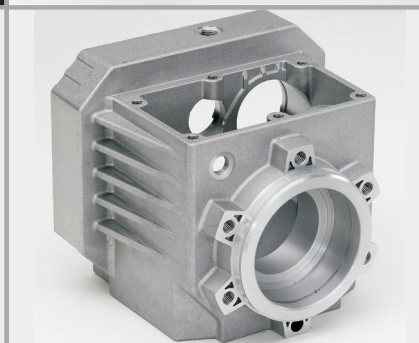
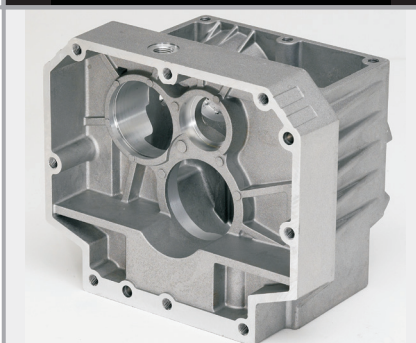


### Single-piece aluminum alloy housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

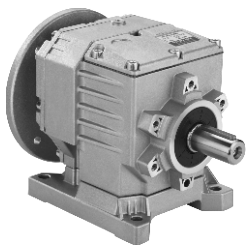


World wide sales network.



# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página

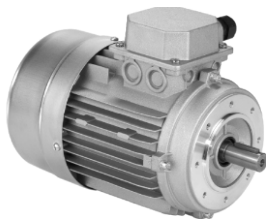


**Types / Tipi**  
Tipen / Types  
Tipos



| 4-5          | 4-7           | 4-9           | 4-11          | 4-13          | 4-15          | 4-17          | 4-19          | 4-21          |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 202A<br>70Nm | 302A<br>120Nm | 412A<br>175Nm | 413A<br>175Nm | 452A<br>300Nm | 512A<br>360Nm | 513A<br>360Nm | 612A<br>530Nm | 613A<br>530Nm |

On page / A pagina / Auf Seite / À la page / En la página



**Types / Tipi**  
Tipen / Types  
Tipos



| M-1        |            |            |            |            |                |      |              |              |              |  |
|------------|------------|------------|------------|------------|----------------|------|--------------|--------------|--------------|--|
| 56A<br>56B | 63A<br>63B | 71A<br>71B | 80A<br>80B | 90S<br>90L | 100LA<br>100LB | 112M | 132S<br>132M | 160M<br>160L | 180M<br>180L |  |

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza - Grösse  
Taille - Tamaño

Mounting - Montaggio  
Montage - Fixation  
Tipo de montaje

Ratio - Rapporto  
Untersetzung - Reduction  
Relación

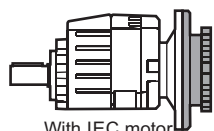
**P**

**412A**

**-F**

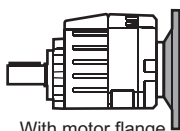
**7.33**

Aluminum coaxial gear boxes  
Riduttori coassiali in alluminio



With IEC motor

**M**



With motor flange

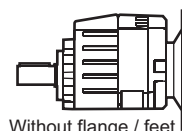
**P**

2 Stages  
Riduzioni  
Stufen  
Trains  
Etapas

3 Stages  
Riduzioni  
Stufen  
Trains  
Etapas

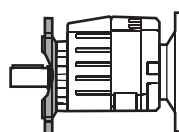
**202A  
302A  
412A  
452A  
512A  
612A**

**413A  
513A  
613A**



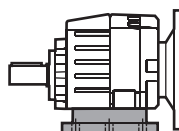
Without flange / feet

**-N**



Output flange mounted

**-F**



Mounted feet

**B..**

| Feet / piedini |                  | G  | H   | R       | L     | L1 | S |
|----------------|------------------|----|-----|---------|-------|----|---|
| Feet Code      | Market reference |    |     |         |       |    |   |
| B1             | 112              | 18 | 85  | 110     | 87    | 50 |   |
| B2             | 212/3            | 18 | 100 | 130     | 107.5 |    |   |
| S1             | 17               | 18 | 75  | 110     | 90+20 |    |   |
| S2             | 27               | 25 | 90  | 110     | 130   |    |   |
| M1             | 42/3             | 25 | 80  | 110+120 | 85    |    |   |
| L4             | 04               | 13 | 80  | 105     |       |    |   |
| L5             | 05               | 16 | 100 | 125     |       |    |   |

You see feet code in the chart of the dimensions  
Vedi codice piede nella tabella delle dimensioni

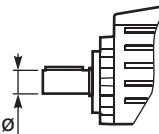
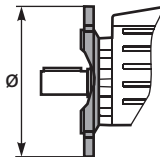
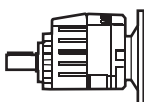
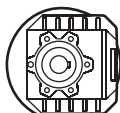
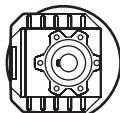
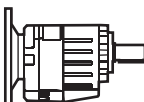
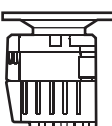
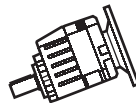
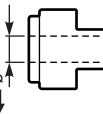
See technical data table

Vedi tabelle dati tecnici

Ver tabla datos técnicos



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

| Output shaft<br>Albero uscita<br>Abtriebswelle<br>Arbre de sortie<br>Eje en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Output flange<br>Flangia uscita<br>Ausgangsflansch<br>Bride de sortie<br>Brida en salida                                                                                                                                                                                                                                                                                                                                                                 | Motor size - Grandezza motore<br>Motor Grösse<br>Grandeur moteur - Tamaño motor                                                                                                                                                                                                                                                                                                                | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Position de montage                                                                                                                                                                                                                                                                                                                                                                                                                                   | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Terminal box position<br>Posizione morsettiera<br>Klemmkastenlage<br>Position boîte à bornes<br>Posición caja de bornes                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>V</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>-C</b>                                                                                                                                                                                                                                                                                                                                                                                      | <b>B3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>-</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <br>→ <b>STANDARD</b><br><div>202A<br/>S ⇒ Ø14<br/>B ⇒ <b>Ø16</b><br/>D ⇒ Ø20<br/>V ⇒ Ø25</div> <div>302A<br/>S ⇒ Ø14<br/>B ⇒ Ø16<br/>C ⇒ Ø19<br/>D ⇒ <b>Ø20</b><br/>E ⇒ Ø24<br/>V ⇒ Ø25</div> <div>412A 413A<br/>B ⇒ Ø16<br/>C ⇒ Ø19<br/>D ⇒ Ø20<br/>E ⇒ Ø24<br/>V ⇒ <b>Ø25</b></div> <div>452A 512A 513A<br/>E ⇒ Ø24<br/>V ⇒ Ø25<br/>G ⇒ Ø28<br/>H ⇒ <b>Ø30</b><br/>I ⇒ Ø35</div> <div>612A 613A<br/>G ⇒ Ø28<br/>H ⇒ Ø30<br/>I ⇒ <b>Ø35</b><br/>L ⇒ Ø38<br/>M ⇒ Ø40</div> | <br><b>N</b> Senza flangia<br>Without flange<br><div>202A 302A<br/>1 ⇒ Ø120<br/>2 ⇒ <b>Ø140</b><br/>3 ⇒ Ø160<br/>4 ⇒ Ø200</div> <div>412A 413A<br/>1 ⇒ Ø120<br/>2 ⇒ <b>Ø140</b><br/>3 ⇒ Ø160<br/>4 ⇒ Ø200<br/>5 ⇒ Ø250</div> <div>452A 512A 513A<br/>3 ⇒ Ø160<br/>4 ⇒ <b>Ø200</b><br/>5 ⇒ Ø250</div> <div>612A 613A<br/>3 ⇒ Ø160<br/>4 ⇒ Ø200<br/>5 ⇒ <b>Ø250</b></div> | <br>Flange<br>Flangia<br><div>B5<br/>-A=56 (Ø120)<br/>-B=63 (Ø140)<br/>-C=71 (Ø160)<br/>-D=80 (Ø200)<br/>-E=90 (Ø200)<br/>-F=100+112 (Ø250)<br/>-G=132 (Ø300)</div> <div>B14<br/>-O=56 (Ø80)<br/>-P=63 (Ø90)<br/>-Q=71 (Ø105)<br/>-R=80 (Ø120)<br/>-T=90 (Ø140)<br/>-U=100+112 (Ø160)<br/>-V=132 (Ø200)</div> | <br>Type R<br>Tipo R<br><div>202A 413A<br/>-1 ⇒ Ø14<br/>302A 412A 513A 613A<br/>-2 ⇒ Ø19<br/>452A 512A 612A<br/>-3 ⇒ Ø24</div> <div>Without flange<br/>Senza flangia<br/>-M ⇒ With coupling</div> <div>202A 413A<br/>-Z ⇒ Ø9 (56B5)<br/>-0 ⇒ Ø11 (63B5)<br/>-1 ⇒ Ø14 (71B5)<br/>302A 412A 513A 613A<br/>-1 ⇒ Ø14 (71B5)<br/>-2 ⇒ Ø19 (80B5)<br/>-3 ⇒ Ø24 (90B5)<br/>452A 512A 612A<br/>-2 ⇒ Ø19 (80B5)<br/>-3 ⇒ Ø24 (90B5)<br/>-4 ⇒ Ø28 (100B5)</div> | <br><b>B3</b><br><b>STANDARD</b><br><br><b>B6</b><br><br><b>B7</b><br><br><b>B8</b><br><br><b>V5</b><br><br><b>V6</b><br><br><b>V8</b> | <div><b>-</b><br/>Nothing indication:<br/><b>standard bore</b><br/>Nessuna indicazione:<br/><b>foro standard</b></div> <div><b>COUPLING</b><br/><br/><b>A</b> = 9mm<br/><b>B</b> = 11mm<br/><b>C</b> = 14mm<br/><b>D</b> = 19mm<br/><b>E</b> = 24mm<br/><b>F</b> = 28mm</div> <div><b>0</b><br/>Ready for input coupling<br/>Predisposto per giunto<br/></div> | <div><b>With Type M specify terminal box position</b><br/>Con tipo M specificare posizione morsettiera</div> <div><br/><b>A</b><br/><br/><b>B</b><br/><b>STANDARD</b><br/><br/><b>C</b><br/><br/><b>D</b></div> |

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

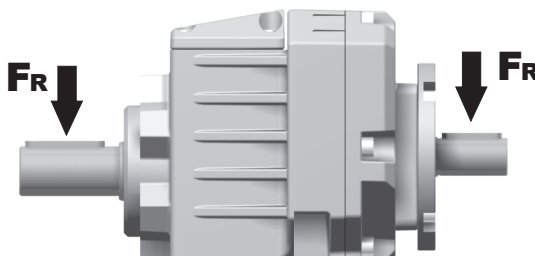
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



| $F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | $F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$ |  |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--|
| M                                                                              | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |  |
| d                                                                              | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                             |                                                                                  |  |
| f <sub>k</sub>                                                                 | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br>1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br>1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br>1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br>2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |                                                                                  |  |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

|                                                                                          |                                                                                                    |                                                                                                            |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>B</b>                                                                                 | Output speed<br>Velocità in uscita<br>Abtriebsdrehzahl<br>Vitesse de sortie<br>Velocidad de salida | Nominal power<br>Potenza nominale<br>Max. mögliche Leistung<br>Puissance nominale<br>Potencia nominal      |
| Gear size<br>Grandezza riduttore<br>Getriebegröße<br>Taille réducteur<br>Tamaño reductor | Motor power<br>Potenza motore<br>Motorleistung<br>Puissance moteur<br>Potencia motor               | <b>A</b>                                                                                                   |
|                                                                                          |                                                                                                    | Nominal torque<br>Momento torcente nominale<br>Nenn Drehmoment<br>Couple nominal<br>Par de torsión nominal |
|                                                                                          |                                                                                                    | Flange code<br>Codice flangia<br>Flanschtype<br>Code bride<br>Código bridas                                |
|                                                                                          |                                                                                                    | Input speed<br>Velocità in entrata<br>Eintriebsdrehzahl<br>Vitesse en entrée<br>Velocidad de entrada       |

**412A**

**Coaxial - Gear  
160Nm**

Rating - Aluminum COAXIAL GEARBOXES



■ QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |     |     | Available B14 motor flanges |    |    |     | Output Shaft |  | Notes |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----|-----|-----------------------------|----|----|-----|--------------|--|-------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D  | -E  | -Q                          | -R | -T | -U  |              |  |       |
| 398                                           | 3.52         | 3                               | 69                                | 1.2                    | 3.5                               | 80                                 | 63                         | 71 | 80* | 90* | 71                          | 80 | 90 | 100 | 2821         |  | 01    |
| 320                                           | 4.37         | 3                               | 86                                | 1.0                    | 3.1                               | 90                                 | B                          |    |     |     | C                           | C  |    |     | 2818         |  | 02    |
| 252                                           | 5.55         | 3                               | 109                               | 0.9                    | 2.8                               | 100                                | B                          |    |     |     | C                           | C  |    |     | 2813         |  | 03    |
| 220                                           | 6.36         | 2.2                             | 92                                | 1.0                    | 2.3                               | 95                                 | B                          |    |     |     | C                           | C  |    |     | 1921         |  | 04    |
| 191                                           | 7.33         | 2.2                             | 106                               | 1.1                    | 2.5                               | 120                                | B                          |    |     |     | C                           | C  |    |     | 2812         |  | 05    |

|          |                                                                       |
|----------|-----------------------------------------------------------------------|
| <b>C</b> | Ratio<br>Rapporto<br>Untersetzung<br>Rapport de réduction<br>Relación |
|----------|-----------------------------------------------------------------------|

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

| fs                                                                                                               |                     | Oper. hours per day<br>Ore di funz. giorn. |      |      |
|------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|------|------|
| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                          |                     | 3 h                                        | 10 h | 24 h |
| Continuous or intermittent<br>appl. with start / hour<br>Applicazione cont. o interm.<br>con n.ro operazioni/ora | Uniform / Uniforme  | 0.8                                        | 1    | 1.25 |
|                                                                                                                  | Moderate / Moderato | 1                                          | 1.25 | 1.5  |
|                                                                                                                  | Heavy / Forte       | 1.25                                       | 1.5  | 1.75 |
| Intermittent application<br>with start / hour<br>Applicazione intermittente<br>con n.ro operazioni/ora           | Uniform / Uniforme  | 1                                          | 1.25 | 1.5  |
|                                                                                                                  | Moderate / Moderato | 1.25                                       | 1.5  | 1.75 |
|                                                                                                                  | Heavy / Forte       | 1.5                                        | 1.75 | 2.15 |

|           |                                                                                                                                                                                                                                |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>D</b>  | Motor flange available<br>Flange disponibili<br>Erhältliche Motorflansche<br>Bridas disponibles<br>Bridas disponibles                                                                                                          |
| <b>B)</b> | Mounting with reduction ring<br>Montaggio con boccia di riduzione<br>Reduzierhülsen<br>Montage avec douille de réduction<br>Montaje con casquillo de reducción                                                                 |
| <b>C)</b> | Motor flangeholes position/terminal box position<br>Posizione fori flangia/basetta motore<br>Bohrungsposition am Motorflansch/-sockel<br>Position trous bride/barrette à bornes moteur<br>Posición agujeros brida / base motor |
| <b>B)</b> | Available without reduction bushes<br>Disponibile anche senza boccia<br>Auch ohne Reduzierbuchse verfügbar<br>Disponible aussi sans douille de réduction<br>Disponible tambien sin casquillo                                   |

|          |                                                                        |                                                                                                  |                                                                                              |                                                                                                   |                                                                                                    |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>A</b> | Select required torque<br>(according to service factor)                | Seleziona la coppia desiderata (comprensiva del fattore di servizio)                             | Max. Drehmoment in Bezug zum Betriebsfaktor                                                  | Sélectionner le couple souhaité (comprenant le facteur de service)                                | Seleccionar el par deseado (incluyendo el factor de servicio)                                      |
| <b>B</b> | Select output speed                                                    | Seleziona la velocità in uscita                                                                  | Ausgewählte Abtriebsdrehzahl                                                                 | Sélectionner la vitesse de sortie                                                                 | Seleccionar la velocidad de salida                                                                 |
| <b>C</b> | On the same line of selected geared motor, you can find the gear ratio | Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione | Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung | Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction | En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción |
| <b>D</b> | Select motor flange available (if requested)                           | Scegli la flangia disponibile (se richiesta)                                                     | Erhältliche Motorflansche (auf Anfrage)                                                      | Choisir la bride disponible (si elle est demandée)                                                | Seleccionar la brida disponible (sobre pedido)                                                     |





# QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratiosinput speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |     | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|-----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C  | -O                          | -P | -Q |                                                                                                     |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71* | 56                          | 63 | 71 |                                                                                                     |                                                                                                    |
| 407                                           | 3.44         | 0.55**                          | 12                                | 2.0                    | 1.1                               | 25                                 |                            |     | C                           | C  |    | 2821                                                                                                | 01                                                                                                 |
| 327                                           | 4.28         | 0.55**                          | 15                                | 1.9                    | 1.1                               | 30                                 |                            |     | C                           | C  |    | 2818                                                                                                | 02                                                                                                 |
| 257                                           | 5.45         | 0.55**                          | 20                                | 2.0                    | 1.1                               | 40                                 |                            |     | C                           | C  |    | 2815                                                                                                | 03                                                                                                 |
| 225                                           | 6.23         | 0.55**                          | 23                                | 2.0                    | 1.1                               | 45                                 |                            |     | C                           | C  |    | 1921                                                                                                | 04                                                                                                 |
| 194                                           | 7.20         | 0.55**                          | 26                                | 1.9                    | 1.1                               | 50                                 |                            |     | C                           | C  |    | 2812                                                                                                | 05                                                                                                 |
| 181                                           | 7.74         | 0.55**                          | 28                                | 1.8                    | 0.99                              | 50                                 |                            |     | C                           | C  |    | 1918                                                                                                | 06                                                                                                 |
| 142                                           | 9.85         | 0.55**                          | 36                                | 1.7                    | 0.93                              | 60                                 |                            |     | C                           | C  |    | 1915                                                                                                | 07                                                                                                 |
| 123                                           | 11.42        | 0.55**                          | 41                                | 1.5                    | 0.80                              | 60                                 |                            |     | C                           | C  |    | 1715                                                                                                | 08                                                                                                 |
| 107                                           | 13.03        | 0.55**                          | 47                                | 1.3                    | 0.70                              | 60                                 |                            |     | C                           | C  |    | 1912                                                                                                | 09                                                                                                 |
| 93                                            | 15.10        | 0.37                            | 37                                | 1.6                    | 0.61                              | 60                                 |                            |     | C                           | C  |    | 1712                                                                                                | 10                                                                                                 |
| 86                                            | 16.20        | 0.37                            | 39                                | 1.5                    | 0.57                              | 60                                 |                            |     | C                           | C  |    | 1910                                                                                                | 11                                                                                                 |
| 75                                            | 18.78        | 0.37                            | 45                                | 1.3                    | 0.49                              | 60                                 |                            |     | C                           | C  |    | 1710                                                                                                | 12                                                                                                 |
| 66                                            | 21.15        | 0.37                            | 51                                | 1.2                    | 0.43                              | 60                                 |                            |     | C                           | C  |    | 1312                                                                                                | 13                                                                                                 |
| 64                                            | 21.84        | 0.37                            | 53                                | 1.1                    | 0.42                              | 60                                 |                            |     | C                           | C  |    | 1015                                                                                                | 14                                                                                                 |
| 53                                            | 26.31        | 0.37                            | 64                                | 0.9                    | 0.35                              | 60                                 |                            |     | C                           | C  |    | 1310                                                                                                | 15                                                                                                 |
| 48.5                                          | 28.88        | 0.37                            | 70                                | 1.0                    | 0.37                              | 70                                 |                            |     | C                           | C  |    | 1012                                                                                                | 16                                                                                                 |
| 39                                            | 35.91        | 0.37                            | 87                                | 0.8                    | 0.30                              | 70                                 |                            |     | C                           | C  |    | 1010                                                                                                | 17                                                                                                 |
| 37.1                                          | 37.69        | 0.25                            | 62                                | 1.1                    | 0.28                              | 70                                 |                            |     | C                           | C  |    | 912                                                                                                 | 18                                                                                                 |
| 29.9                                          | 46.87        | 0.25                            | 77                                | 0.9                    | 0.23                              | 70                                 |                            |     | C                           | C  |    | 910                                                                                                 | 19                                                                                                 |
| 28.1                                          | 49.76        | 0.25                            | 81                                | 0.9                    | 0.21                              | 70                                 |                            |     | C                           | C  |    | 712                                                                                                 | 20                                                                                                 |
| 22.6                                          | 61.89        | 0.18                            | 77                                | 0.9                    | 0.17                              | 70                                 |                            |     | C                           | C  |    | 710                                                                                                 | 21                                                                                                 |

\*\* Concerning a reduced dimensions electric motor.  
Riferito a motore con grandezza ridotta

\* Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**Motor Flanges Available**  
Flangia Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **202A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **202A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **202A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **202A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **202A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION 202A Oil Quantity 0.15 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

tab. 1

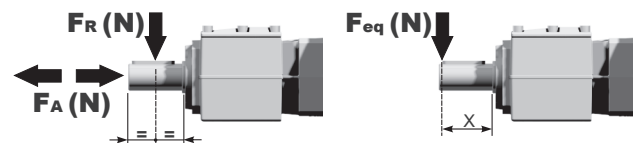
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

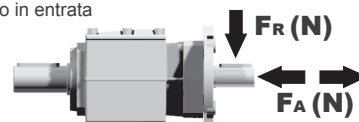
$$F_{eq} = F_R \cdot \frac{35.7}{X+20.7}$$



| $n_2$ | FA  | FR  | $n_2$ | FA  | FR   | $n_2$ | FA  | FR   |
|-------|-----|-----|-------|-----|------|-------|-----|------|
| 300   | 140 | 700 | 140   | 246 | 1320 | 70    | 340 | 1700 |
| 250   | 151 | 756 | 120   | 270 | 1350 | 40    | 380 | 1900 |
| 200   | 185 | 924 | 85    | 300 | 1500 | 15    | -   | -    |

### Input shaft

Albero in entrata

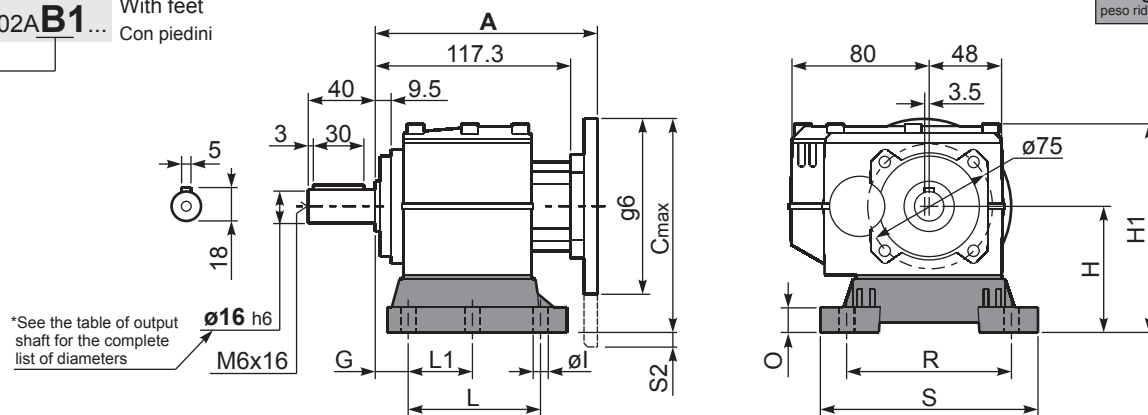


| $n_1$ | FA  | FR  |
|-------|-----|-----|
| 1400  | 140 | 700 |
| 900   | 160 | 800 |
| 500   | 190 | 950 |

tab. 2

P202A **B1**... With feet  
Con piedini

|                                         |             |               |
|-----------------------------------------|-------------|---------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>3.3 kg</b> |
|                                         | With feet   | <b>3.7 Kg</b> |



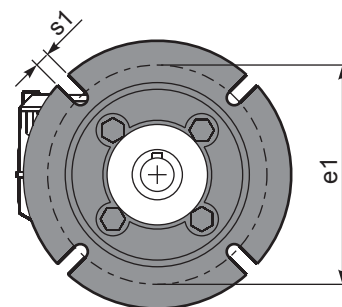
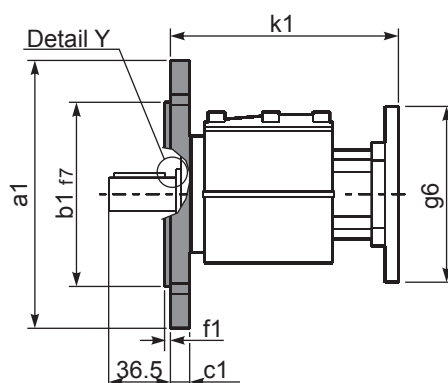
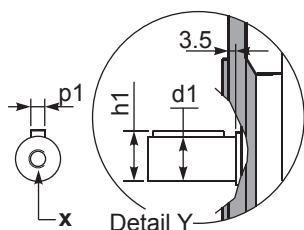
| Feet Code | Market reference | G  | H   | R   | L     | L1 | S   | H1  | O  | øI | S2 only with motor flange | B5 max. Flange | kit code     |
|-----------|------------------|----|-----|-----|-------|----|-----|-----|----|----|---------------------------|----------------|--------------|
| B1        | 112              | 18 | 85  | 110 | 87    | 50 | 130 | 133 | 15 | 9  | -                         | -              | KC30.9.022   |
| B2        | 212/3            | 18 | 100 | 130 | 107.5 | 60 | 155 | 145 | 5  | 11 | -                         | -              | KC30.9.023LM |
| S1        | 17-32            | 18 | 75  | 110 | 110   | 50 | 130 | 123 | 15 | 9  | -                         | 63B5           | KC30.9.024   |

Other feet are available,  
see our web site  
Sono disponibili altri piedini,  
consulta il nostro sito web

**A see on page bottom**

 Most popular types  
Tipi più diffusi

**P202A-F ...** Output flanges  
flange di uscita



**\*Available output shaft / Albero di uscita**

|                           | Shaft - d1 | p1 | h1   | x     |
|---------------------------|------------|----|------|-------|
| Standard                  | Ø 16x40    | 5  | 18   | M6x16 |
| On request<br>A richiesta | Ø 14x30    | 5  | 16   | M6x16 |
|                           | Ø 20x40    | 6  | 22.5 | M8x19 |
|                           | Ø 25x50    | 8  | 28   | M8x19 |

### Available output flanges / flange di uscita

| a1 Ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 11.5 | 100 | 3   | 9* | KC30.9.010 |
| 140  | 95  | 11.5 | 115 | 3   | 9  | KC30.9.011 |
| 160  | 110 | 11.5 | 130 | 3.5 | 9  | KC30.9.012 |
| 200  | 130 | 11.5 | 165 | 3.5 | 11 | KC30.9.013 |

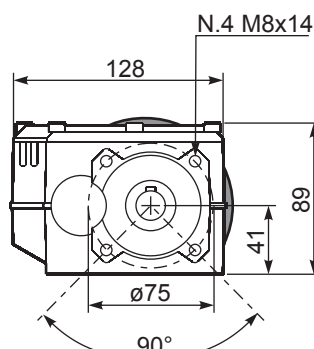
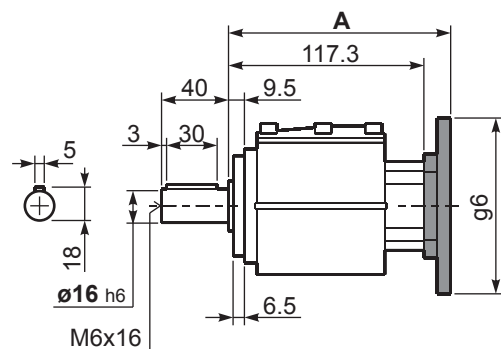


With flange and feet only on request. Ask for compatibility

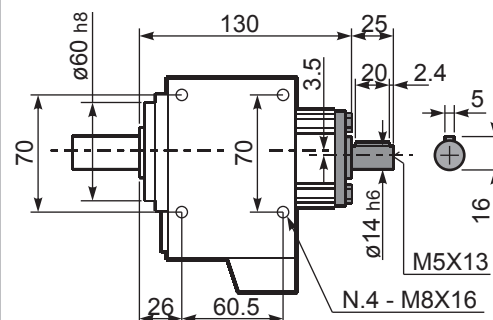
 \* Holes position  
Posizione fori

With flange and feet only on request. Ask for compatibility

|            |                                 |
|------------|---------------------------------|
| P202A-N... | Basic gearbox<br>Riduttore base |
|------------|---------------------------------|



**R202A-N...** Input Shaft  
Albero in entrata



| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|------------------|-------|------------------|-----|-------|------------|
| 63 B5            | 135.8 | 170              | 140 | 139.3 | K050.4.041 |
| 71 B5            | 133.3 | 180              | 160 | 136.8 | K050.4.042 |

| <b>B14 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|--------------------------|----------|------------------------|-----------|-----------|-----------------|
| 56 B14                   | 133.3    | 139                    | 80        | 136.8     | KC40.4.049      |
| 63 B14                   | 135.8    | 146                    | 90        | 139.3     | K050.4.047      |
| 71 B14                   | 133.3    | 152.5                  | 105       | 136.8     | K050.4.045      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |     |     |     | Available B14 motor flanges |    |    | Output Shaft<br> | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|-----|-----|-----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C  | -D  | -E  | -Q                          | -R | -T |                                                                                                     |                                                                                                     |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71* | 80* | 90* | 71                          | 80 | 90 |                                                                                                     |                                                                                                     |                                                                                                    |
| 407                                           | <b>3.44</b>  | 1.5                             | 34                                | 1.0                    | 1.6                               | 35                                 | B                          |     |     |     | C                           | C  |    | 2821                                                                                                |                                                                                                     | 01                                                                                                 |
| 327                                           | <b>4.28</b>  | 1.5                             | 42                                | 1.0                    | 1.4                               | 40                                 | B                          |     |     |     | C                           | C  |    | 2818                                                                                                |                                                                                                     | 02                                                                                                 |
| 257                                           | <b>5.45</b>  | 1.5                             | 53                                | 1.0                    | 1.5                               | 52                                 | B                          |     |     |     | C                           | C  |    | 2815                                                                                                |                                                                                                     | 03                                                                                                 |
| 225                                           | <b>6.23</b>  | 1.5                             | 61                                | 1.1                    | 1.7                               | 70                                 | B                          |     |     |     | C                           | C  |    | 1921                                                                                                |                                                                                                     | 04                                                                                                 |
| 194                                           | <b>7.20</b>  | 1.5                             | 71                                | 1.0                    | 1.5                               | 70                                 | B                          |     |     |     | C                           | C  |    | 2812                                                                                                |                                                                                                     | 05                                                                                                 |
| 181                                           | <b>7.74</b>  | 1.5                             | 76                                | 1.1                    | 1.6                               | 80                                 | B                          |     |     |     | C                           | C  |    | 1918                                                                                                | standard<br>ø20                                                                                     | 06                                                                                                 |
| 142                                           | <b>9.85</b>  | 1.5                             | 97                                | 1.0                    | 1.5                               | 95                                 | B                          |     |     |     | C                           | C  |    | 1915                                                                                                |                                                                                                     | 07                                                                                                 |
| 123                                           | <b>11.42</b> | 1.5                             | 112                               | 1.0                    | 1.5                               | 115                                | B                          |     |     |     | C                           | C  |    | 1715                                                                                                |                                                                                                     | 08                                                                                                 |
| 107                                           | <b>13.03</b> | 1.1                             | 93                                | 1.2                    | 1.3                               | 114                                | B                          |     |     |     | C                           | C  |    | 1912                                                                                                | ø14                                                                                                 | 09                                                                                                 |
| 93                                            | <b>15.10</b> | 1.1                             | 108                               | 1.1                    | 1.2                               | 114                                | B                          |     |     |     | C                           | C  |    | 1712                                                                                                | ø16                                                                                                 | 10                                                                                                 |
| 86                                            | <b>16.20</b> | 0.75                            | 80                                | 1.3                    | 1.0                               | 107                                | B                          |     |     |     | C                           | C  |    | 1910                                                                                                | ø19                                                                                                 | 11                                                                                                 |
| 75                                            | <b>18.78</b> | 0.75                            | 92                                | 1.2                    | 0.87                              | 107                                | B                          |     |     |     | C                           | C  |    | 1710                                                                                                | ø24                                                                                                 | 12                                                                                                 |
| 66                                            | <b>21.15</b> | 0.75                            | 104                               | 1.1                    | 0.82                              | 114                                | B                          |     |     |     | C                           | C  |    | 1312                                                                                                | ø25                                                                                                 | 13                                                                                                 |
| 64                                            | <b>21.84</b> | 0.75                            | 107                               | 1.1                    | 0.83                              | 119                                | B                          |     |     |     | C                           | C  |    | 1015                                                                                                | On request                                                                                          | 14                                                                                                 |
| 53                                            | <b>26.31</b> | 0.55                            | 95                                | 1.1                    | 0.62                              | 107                                | B                          |     |     |     | C                           | C  |    | 1310                                                                                                |                                                                                                     | 15                                                                                                 |
| 48.5                                          | <b>28.88</b> | 0.55                            | 105                               | 1.1                    | 0.60                              | 114                                | B                          |     |     |     | C                           | C  |    | 1012                                                                                                |                                                                                                     | 16                                                                                                 |
| 39                                            | <b>35.91</b> | 0.37                            | 87                                | 1.2                    | 0.46                              | 107                                | B                          |     |     |     | C                           | C  |    | 1010                                                                                                |                                                                                                     | 17                                                                                                 |
| 37.1                                          | <b>37.69</b> | 0.37                            | 91                                | 1.1                    | 0.41                              | 102                                | B                          |     |     |     | C                           | C  |    | 912                                                                                                 |                                                                                                     | 18                                                                                                 |
| 29.9                                          | <b>46.87</b> | 0.37                            | 113                               | 0.9                    | 0.35                              | 107                                | B                          |     |     |     | C                           | C  |    | 910                                                                                                 |                                                                                                     | 19                                                                                                 |
| 28.1                                          | <b>49.76</b> | 0.25                            | 81                                | 1.2                    | 0.31                              | 101                                | B                          |     |     |     | C                           | C  |    | 712                                                                                                 |                                                                                                     | 20                                                                                                 |
| 22.6                                          | <b>61.89</b> | 0.25                            | 101                               | 1.1                    | 0.26                              | 107                                | B                          |     |     |     | C                           | C  |    | 710                                                                                                 |                                                                                                     | 21                                                                                                 |

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **302A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **302A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **302A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **302A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **302A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 302A Oil Quantity 0.15 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita

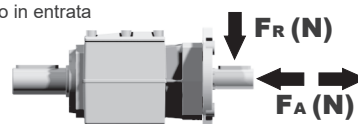
$$F_{eq} = F_R \cdot \frac{35.7}{X+20.7}$$



| $n_2$ | FA  | FR  | $n_2$ | FA  | FR   | $n_2$ | FA  | FR   |
|-------|-----|-----|-------|-----|------|-------|-----|------|
| 300   | 140 | 700 | 140   | 246 | 1320 | 70    | 340 | 1700 |
| 250   | 151 | 756 | 120   | 270 | 1350 | 40    | 380 | 1900 |
| 200   | 185 | 924 | 85    | 300 | 1500 | 15    | -   | -    |

##### Input shaft

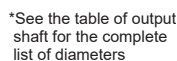
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 226 | 1130 |
| 900   | 264 | 1320 |
| 500   | 322 | 1610 |

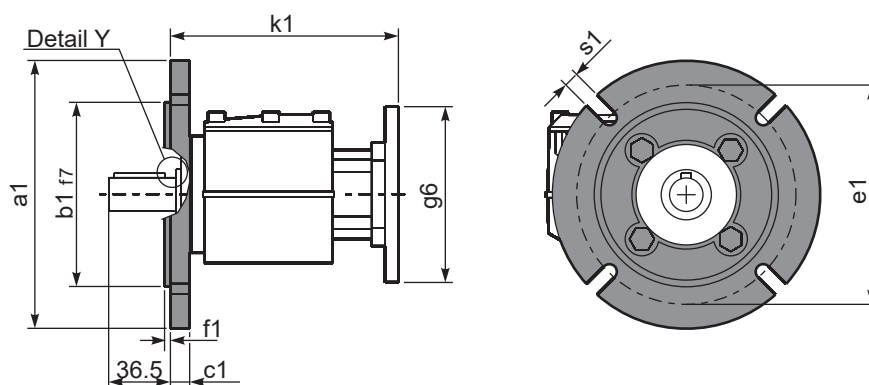
tab. 2

|                                         |             |               |
|-----------------------------------------|-------------|---------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>3.5 kg</b> |
|                                         | With feet   | <b>4.0 Kg</b> |



Other feet are available,  
see our web site  
Sono disponibili altri piedini,  
consulta il nostro sito web

Most popular types  
Tipi più diffusi



|                           | Shaft - d1 | p1 | h1   | x     |
|---------------------------|------------|----|------|-------|
| Standard                  | ø 20x40    | 6  | 22.5 | M8x19 |
| On request<br>A richiesta | ø 14x30    | 5  | 16   | M6x16 |
|                           | ø 16x40    | 5  | 18   | M6x16 |
|                           | ø 19x40    | 6  | 21.5 | M6x16 |
|                           | ø 24x50    | 8  | 27   | M8x19 |
|                           | ø 25x50    | 8  | 28   | M8x19 |

 \* Holes position  
Posizione fori

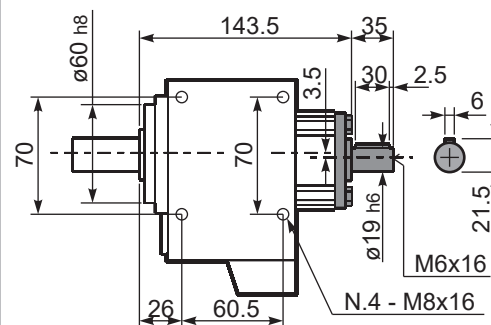
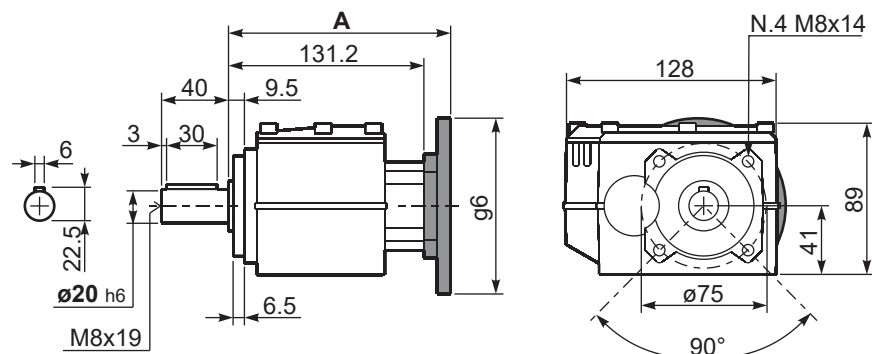
| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 11.5 | 100 | 3   | 9* | KC30.9.010 |
| 140  | 95  | 11.5 | 115 | 3   | 9  | KC30.9.011 |
| 160  | 110 | 11.5 | 130 | 3.5 | 9  | KC30.9.012 |
| 200  | 130 | 11.5 | 165 | 3.5 | 11 | KC30.9.013 |



With flange and feet only on request. Ask for compatibility

With flange and feet only on request. Ask for compatibility

**R302A-N...** Input Shaft  
Albero in entrata



| <b>B14 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|--------------------------|----------|------------------------|-----------|-----------|-----------------|
| 71 B14                   | 149.7    | 152.5                  | 105       | 153.2     | K063.4.047      |
| 80 B14                   | 151.7    | 160                    | 120       | 155.2     | K063.4.046      |
| 90 B14                   | 151.7    | 170                    | 140       | 155.2     | K063.4.041      |



## ■ QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |     |     |      | Available B14 motor flanges |    |    |     | Output Shaft |            |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----|-----|------|-----------------------------|----|----|-----|--------------|------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D  | -E  | -F   | -Q                          | -R | -T | -U  |              |            | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80* | 90* | 100* | 71                          | 80 | 90 | 100 |              |            |             |
| 398                                           | 3.52         | 3                               | 68                                | 1.2                    | 3.5                               | 80                                 | B                          |    |     |     |      | C                           | C  |    |     | 2821         |            | 01          |
| 321                                           | 4.37         | 3                               | 84                                | 1.1                    | 3.1                               | 90                                 | B                          |    |     |     |      | C                           | C  |    |     | 2818         |            | 02          |
| 252                                           | 5.56         | 3                               | 107                               | 0.9                    | 2.7                               | 100                                | B                          |    |     |     |      | C                           | C  |    |     | 2813         |            | 03          |
| 220                                           | 6.36         | 2.2                             | 90                                | 1.2                    | 2.5                               | 105                                | B                          |    |     |     |      | C                           | C  |    |     | 1921         |            | 04          |
| 191                                           | 7.33         | 2.2                             | 104                               | 1.2                    | 2.5                               | 120                                | B                          |    |     |     |      | C                           | C  |    |     | 2812         |            | 05          |
| 177                                           | 7.89         | 2.2                             | 112                               | 1.2                    | 2.5                               | 130                                | B                          |    |     |     |      | C                           | C  |    |     | 1918         |            | 06          |
| 139                                           | 10.06        | 2.2                             | 143                               | 1.2                    | 2.5                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1913         |            | 08          |
| 120                                           | 11.66        | 2.2                             | 166                               | 1.0                    | 2.2                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1713         | standard   | 09          |
| 106                                           | 13.26        | 1.5                             | 130                               | 1.3                    | 1.9                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1912         | ø25        | 10          |
| 102                                           | 13.68        | 1.5                             | 134                               | 1.2                    | 1.8                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1513         |            | 25          |
| 91                                            | 15.37        | 1.5                             | 151                               | 1.1                    | 1.6                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1712         | ø16        | 11          |
| 86                                            | 16.33        | 1.5                             | 160                               | 1.0                    | 1.5                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1313         | ø19        | 26          |
| 78                                            | 18.04        | 1.5                             | 177                               | 0.9                    | 1.4                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1512         | ø20        | 23          |
| 65                                            | 21.54        | 1.1                             | 154                               | 1.1                    | 1.2                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1312         | ø24        | 14          |
| 63                                            | 22.29        | 1.1                             | 160                               | 1.0                    | 1.1                               | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1013         | On request | 15          |
| 53                                            | 26.31        | 0.75                            | 129                               | 1.2                    | 0.90                              | 155                                | B                          |    |     |     |      | C                           | C  |    |     | 1310         |            | 16          |
| 47.6                                          | 29.40        | 0.75                            | 144                               | 1.1                    | 0.86                              | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 1012         |            | 17          |
| 39                                            | 35.91        | 0.55                            | 130                               | 1.2                    | 0.66                              | 155                                | B                          |    |     |     |      | C                           | C  |    |     | 1010         |            | 18          |
| 36.5                                          | 38.37        | 0.55                            | 139                               | 1.2                    | 0.66                              | 165                                | B                          |    |     |     |      | C                           | C  |    |     | 912          |            | 19          |
| 29.9                                          | 46.87        | 0.55                            | 170                               | 0.9                    | 0.51                              | 155                                | B                          |    |     |     |      | C                           | C  |    |     | 910          |            | 20          |
| 27.6                                          | 50.67        | 0.37                            | 123                               | 1.1                    | 0.41                              | 137                                | B                          |    |     |     |      | C                           | C  |    |     | 712          |            | 21          |
| 22.6                                          | 61.89        | 0.37                            | 150                               | 1.0                    | 0.38                              | 155                                | B                          |    |     |     |      | C                           | C  |    |     | 710          |            | 22          |

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14

\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

Motor Flanges Available  
Flange Motore DisponibiliB) Supplied with Reduction Bushing  
Fornito con Bussola di RiduzioneB) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di RiduzioneC) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **412A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **412A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **412A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **412A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **412A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                    |         |         |     |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|--------------------|---------|---------|-----|
|                       |                                                                                                                                    |         |         |                    |         |         |     |
|                       | B3                                                                                                                                 | B6      | B7      | B8                 | V5      | V6      | V8  |
|                       | 0.25 LT                                                                                                                            | 0.35 LT | 0.40 LT | 0.45 LT            | 0.40 LT | 0.50 LT | Ask |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         |         | ENI Telium VSF 320 |         |         |     |

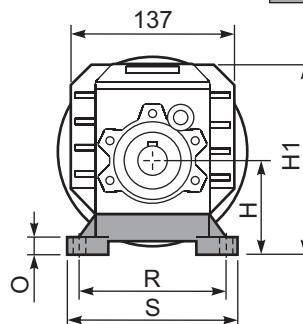
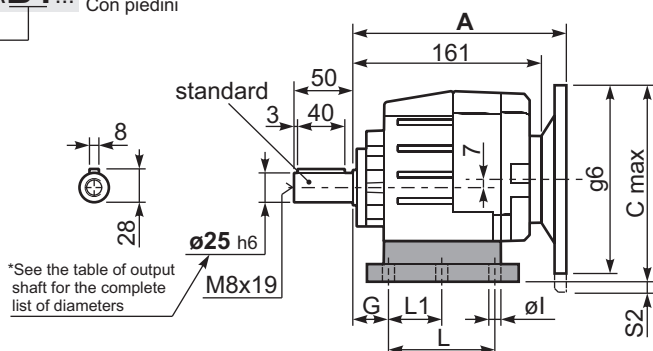
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS                  |       |       |       |       |                                      |       |       |       |  |
|-----------------------------------------|-------|-------|-------|-------|--------------------------------------|-------|-------|-------|--|
| <b>Output shaft</b><br>Albero di uscita |       |       |       |       | $F_{eq} = F_R \cdot \frac{46}{X+21}$ |       |       |       |  |
|                                         |       |       |       |       |                                      |       |       |       |  |
| $n_2$                                   | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$                                | $n_2$ | $F_A$ | $F_R$ |  |
| 300                                     | 310   | 1550  | 140   | 406   | 2030                                 | 70    | 540   | 2700  |  |
| 250                                     | 330   | 1650  | 120   | 448   | 2240                                 | 40    | 600   | 3000  |  |
| 200                                     | 360   | 1800  | 85    | 480   | 2400                                 | 15    | 600   | 3000  |  |
| <b>Input shaft</b><br>Albero in entrata |       |       |       |       |                                      |       |       |       |  |
|                                         |       |       |       |       |                                      |       |       |       |  |
| $n_1$                                   | $F_A$ | $F_R$ | $n_1$ | $F_A$ | $F_R$                                | $n_1$ | $F_A$ | $F_R$ |  |
| 1400                                    | 240   | 1200  | 900   | 280   | 1400                                 | 500   | 340   | 1700  |  |

tab. 2



P412A-B1... With feet  
Con piediniGearbox weight  
peso riduttore With flange 5.7 kg  
With feet 5.9 Kg

Feet / piedini

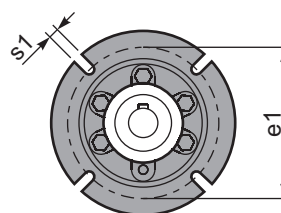
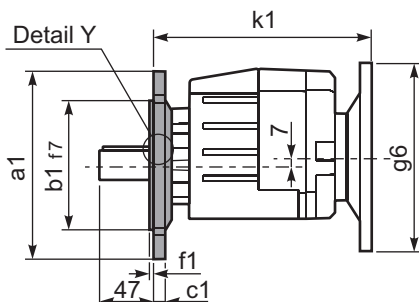
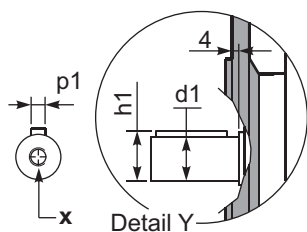
| Feet Code | Market reference | G  | H   | R       | L      | L1 | S   | H1    | O  | øl | S2 only with motor flange  | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|---------|--------|----|-----|-------|----|----|----------------------------|----------------|------------|
| B1        | 112              | 18 | 85  | 110     | 87     | 50 | 130 | 167.5 | 15 | -  | 8 80/90B5<br>33 100/112B5  | -              | KC35.9.021 |
| B2        | 212/3            | 18 | 100 | 130     | 107.5  | 60 | 155 | 182.5 | 17 | 11 | 18 100/112B5               | -              | KC40.9.025 |
| S1        | 17               | 18 | 75  | 110     | 90+110 | 50 | 145 | 155.5 | 15 | 9  | 18 80/90B5<br>43 100/112B5 | -              | KC40.9.022 |
| S2        | 27               | 25 | 90  | 110     | 130    | -  | 145 | 172.5 | 20 | 9  | 3 80/90B5<br>28 100/112B5  | -              | KC40.9.024 |
| H2        | 022-223          | 25 | 100 | 110     | 115    | -  | 145 | 182.5 | 20 | 9  | 18 100/112B5               | -              | KC40.9.026 |
| M1        | 42/3             | 25 | 80  | 110+120 | 85     | -  | 145 | 162.5 | 15 | 9  | 13 80/90B5<br>38 100/112B5 | -              | KC40.9.023 |

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

A see on page bottom

Most popular types  
Tipi più diffusi

4

P412A-F... Output flanges  
flange di uscita

\*Available output shaft / Albero di uscita

|                           | Shaft - d1 | p1 | h1   | x     |
|---------------------------|------------|----|------|-------|
| Standard                  | ø 25x50    | 8  | 28   | M8x19 |
| On request<br>A richiesta | ø 16x40    | 5  | 18   | M6x16 |
|                           | ø 19x40    | 6  | 21.5 | M6x16 |
|                           | ø 20x40    | 6  | 22.5 | M8x19 |
|                           | ø 24x50    | 8  | 27   | M8x19 |

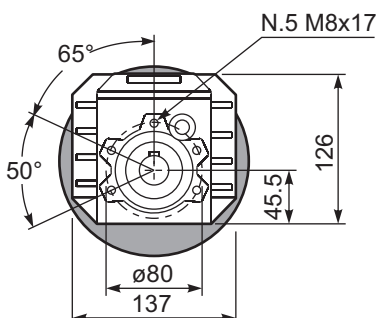
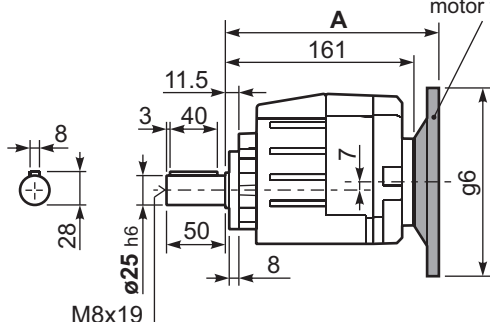
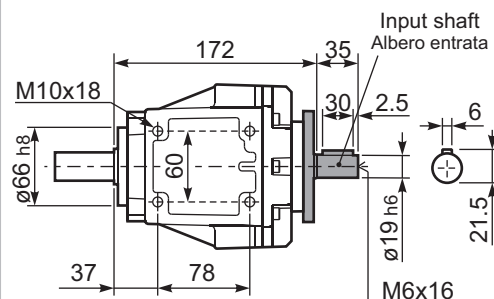
Available output flanges / flange di uscita

| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 10   | 100 | 3   | 7  | KC40.9.010 |
| 140  | 95  | 10   | 115 | 3   | 9  | KC40.9.011 |
| 160  | 110 | 10   | 130 | 3.5 | 9  | KC40.9.012 |
| 200  | 130 | 10   | 165 | 3.5 | 11 | KC40.9.013 |
| 250  | 180 | 11.5 | 215 | 3.5 | 14 | KC40.9.014 |

With flange and feet only on request.  
Ask for compatibility

P412A-N... Basic gearbox  
Riduttore base

Suggested B14 motor flanges

R412A-N... Input Shaft  
Albero in entrata

| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|------------------|-------|------------------|-----|-------|------------|
| 63 B5            | 181.5 | 177              | 140 | 185.5 | K063.4.041 |
| 71 B5            | 179.5 | 187              | 160 | 183.5 | K063.4.042 |
| 80/90 B5         | 181.5 | 207              | 200 | 185.5 | K063.4.043 |
| 100/112 B5       | 196.5 | 232              | 250 | 200.5 | KC40.4.043 |

| B14 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|-------------------|-------|------------------|-----|-------|------------|
| 71 B14            | 179.5 | 159.5            | 105 | 183.5 | K063.4.047 |
| 80 B14            | 181.5 | 167              | 120 | 185.5 | K063.4.046 |
| 90 B14            | 181.5 | 177              | 140 | 185.5 | K063.4.041 |
| 100/112 B14       | 196.5 | 187              | 160 | 200.5 | KC40.4.041 |





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                                     |                                                                                                    |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63 | 71 |                                                                                                     |                                                                                                    |
| 36.5                                          | <b>38.40</b>  | 0.37                            | 91                                | 1.8                    | <b>0.67</b>                       | <b>165</b>                         |                            |    | C                           | C  |    | 171713                                                                                              | 02                                                                                                 |
| 32.0                                          | <b>43.69</b>  | 0.37                            | 104                               | 1.6                    | <b>0.59</b>                       | <b>165</b>                         |                            |    | C                           | C  |    | 191712                                                                                              | 03                                                                                                 |
| 27.6                                          | <b>50.64</b>  | 0.37                            | 120                               | 1.4                    | <b>0.51</b>                       | <b>165</b>                         |                            |    | C                           | C  |    | 171712                                                                                              | 04                                                                                                 |
| 26.2                                          | <b>53.36</b>  | 0.37                            | 127                               | 1.3                    | <b>0.47</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 191710                                                                                              | 05                                                                                                 |
| 22.9                                          | <b>61.21</b>  | 0.37                            | 145                               | 1.2                    | <b>0.43</b>                       | <b>170</b>                         |                            |    | C                           | C  |    | 191312                                                                                              | 06                                                                                                 |
| 22.6                                          | <b>61.85</b>  | 0.37                            | 147                               | 1.1                    | <b>0.40</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 171710                                                                                              | 07                                                                                                 |
| 19.7                                          | <b>70.95</b>  | 0.37                            | 168                               | 1.0                    | <b>0.37</b>                       | <b>170</b>                         |                            |    | C                           | C  |    | 131712                                                                                              | 08                                                                                                 |
| 19.1                                          | <b>73.43</b>  | 0.37                            | 174                               | 1.0                    | <b>0.37</b>                       | <b>175</b>                         |                            |    | C                           | C  |    | 101713                                                                                              | 09                                                                                                 |
| 18.7                                          | <b>74.77</b>  | 0.37                            | 177                               | 0.9                    | <b>0.33</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 191310                                                                                              | 10                                                                                                 |
| 16.2                                          | <b>86.66</b>  | 0.25                            | 139                               | 1.2                    | <b>0.29</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 131710                                                                                              | 11                                                                                                 |
| 14.5                                          | <b>96.85</b>  | 0.25                            | 155                               | 1.1                    | <b>0.27</b>                       | <b>170</b>                         |                            |    | C                           | C  |    | 101712                                                                                              | 12                                                                                                 |
| 13.6                                          | <b>102.89</b> | 0.25                            | 165                               | 1.1                    | <b>0.27</b>                       | <b>175</b>                         |                            |    | C                           | C  |    | 101313                                                                                              | 13                                                                                                 |
| 11.1                                          | <b>126.40</b> | 0.18                            | 155                               | 1.1                    | <b>0.21</b>                       | <b>170</b>                         |                            |    | C                           | C  |    | 91712                                                                                               | 17                                                                                                 |
| 10.3                                          | <b>135.69</b> | 0.18                            | 166                               | 1.0                    | <b>0.20</b>                       | <b>170</b>                         |                            |    | C                           | C  |    | 101312                                                                                              | 15                                                                                                 |
| 8.4                                           | <b>165.74</b> | 0.12                            | 131                               | 1.2                    | <b>0.15</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 101310                                                                                              | 16                                                                                                 |
| 7.9                                           | <b>177.09</b> | 0.12                            | 140                               | 1.2                    | <b>0.15</b>                       | <b>170</b>                         |                            |    | C                           | C  |    | 91312                                                                                               | 18                                                                                                 |
| 6.5                                           | <b>216.31</b> | 0.09                            | 136                               | 1.2                    | <b>0.12</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 91310                                                                                               | 19                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **413A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **413A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **413A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

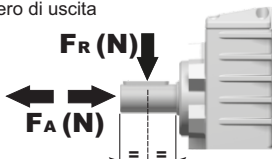
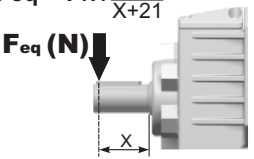
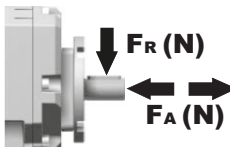
**F** Le réducteur **413A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **413A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

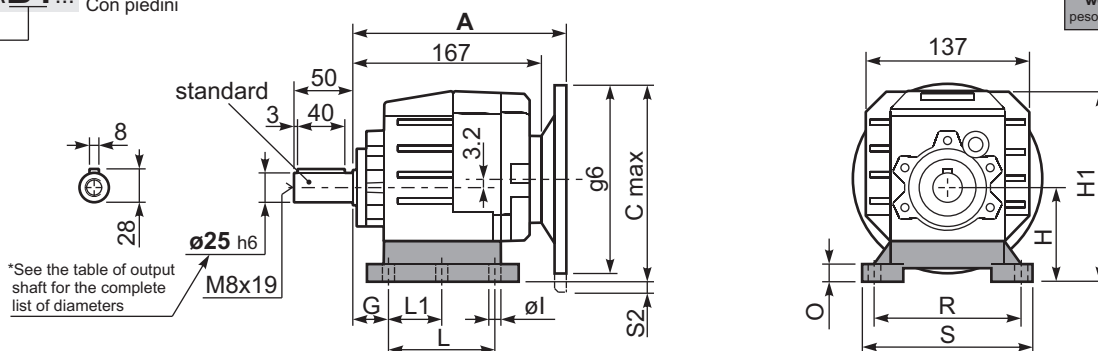
| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |  |
| B3                                                                                  | B6                                                                                                                                 | B7                                                                                    | B8                                                                                    | V5                                                                                    | V6                                                                                    | V8                                                                                    |
| 0.30 LT                                                                             | 0.35 LT                                                                                                                            | 0.45 LT                                                                               | 0.45 LT                                                                               | 0.45 LT                                                                               | 0.55 LT                                                                               | Ask                                                                                   |
| SHELL Omala S4 WE 320                                                               |                                                                                                                                    |                                                                                       |                                                                                       | ENI Telium VSF 320                                                                    |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS                                                               |       |       |       |       |                                                                                       |       |       |       |  |
|--------------------------------------------------------------------------------------|-------|-------|-------|-------|---------------------------------------------------------------------------------------|-------|-------|-------|--|
| Output shaft<br>Albero di uscita                                                     |       |       |       |       | $F_{eq} = F_R \cdot \frac{46}{X+21}$                                                  |       |       |       |  |
|  |       |       |       |       |  |       |       |       |  |
| $n_2$                                                                                | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$                                                                                 | $n_2$ | $F_A$ | $F_R$ |  |
| 300                                                                                  | 310   | 1550  | 140   | 406   | 2030                                                                                  | 70    | 540   | 2700  |  |
| 250                                                                                  | 330   | 1650  | 120   | 448   | 2240                                                                                  | 40    | 600   | 3000  |  |
| 200                                                                                  | 360   | 1800  | 85    | 480   | 2400                                                                                  | 15    | 600   | 3000  |  |
| Input shaft<br>Albero in entrata                                                     |       |       |       |       |   |       |       |       |  |
| $n_1$                                                                                | $F_A$ | $F_R$ | $n_1$ | $F_A$ | $F_R$                                                                                 | $n_1$ | $F_A$ | $F_R$ |  |
| 1400                                                                                 | 140   | 700   | 900   | 160   | 800                                                                                   | 500   | 190   | 950   |  |

tab. 2

P413A **B1** ...  
With feet  
Con piediniGearbox  
weight  
peso riduttore With flange **6.1 kg**  
With feet **6.3 Kg**

Feet / piedini

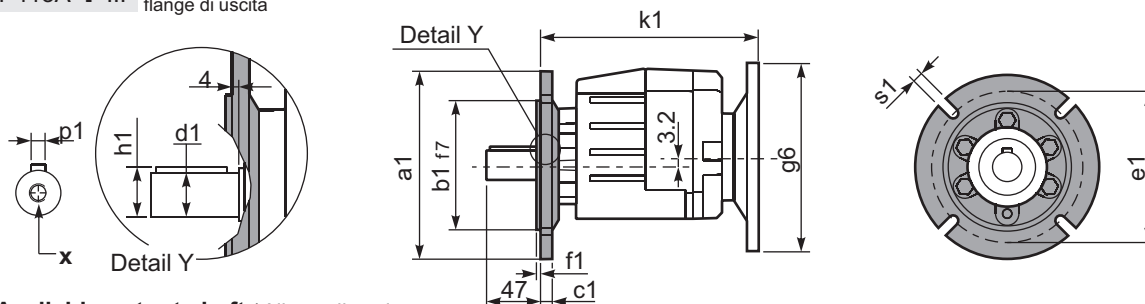
| Feet Code | Market reference | G  | H   | R       | L      | L1 | S   | H1    | O  | Øl | S2 only with motor flange | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|---------|--------|----|-----|-------|----|----|---------------------------|----------------|------------|
| B1        | 112              | 18 | 85  | 110     | 87     | 50 | 130 | 167.5 | 15 | -  | -                         | -              | KC35.9.021 |
| B2        | 212/3            | 18 | 100 | 130     | 107.5  | 60 | 155 | 182.5 | 17 | 11 | -                         | -              | KC40.9.025 |
| S1        | 17               | 18 | 75  | 110     | 90+110 | 50 | 145 | 155.5 | 15 | 9  | 2 80/90B5                 | -              | KC40.9.022 |
| S2        | 27               | 25 | 90  | 110     | 130    | -  | 145 | 172.5 | 20 | 9  | -                         | -              | KC40.9.024 |
| H2        | 022-223          | 25 | 100 | 110     | 115    | -  | 145 | 182.5 | 20 | 9  | -                         | -              | KC40.9.026 |
| M1        | 42/3             | 25 | 80  | 110+120 | 85     | -  | 145 | 162.5 | 15 | 9  | -                         | -              | KC40.9.023 |

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

A see on page bottom

Most popular types  
Tipi più diffusi

4

P413A-**F** ...  
Output flanges  
flange di uscita

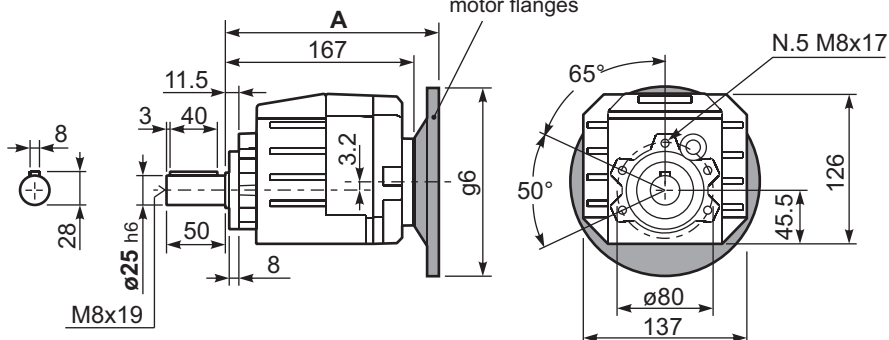
\*Available output shaft / Albero di uscita

|                           | Shaft - d1 | p1 | h1   | x     |
|---------------------------|------------|----|------|-------|
| Standard                  | Ø 25x50    | 8  | 28   | M8x19 |
| On request<br>A richiesta | Ø 16x40    | 5  | 18   | M6x16 |
|                           | Ø 19x40    | 6  | 21.5 | M6x16 |
|                           | Ø 20x40    | 6  | 22.5 | M8x19 |
|                           | Ø 24x50    | 8  | 27   | M8x19 |

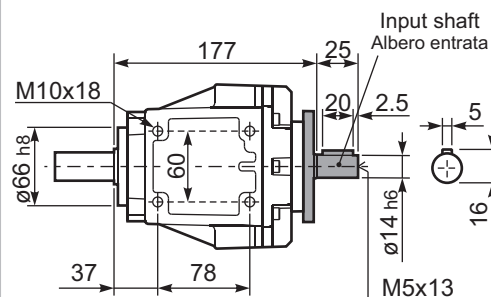
Available output flanges / flange di uscita

| a1 Ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 120  | 80  | 10   | 100 | 3   | 7  | KC40.9.010 |
| 140  | 95  | 10   | 115 | 3   | 9  | KC40.9.011 |
| 160  | 110 | 10   | 130 | 3.5 | 9  | KC40.9.012 |
| 200  | 130 | 10   | 165 | 3.5 | 11 | KC40.9.013 |
| 250  | 180 | 11.5 | 215 | 3.5 | 14 | KC40.9.014 |

With flange and feet only on request. Ask for compatibility

P413A-**N** ...  
Basic gearbox  
Riduttore baseSuggested B14  
motor flanges

| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|------------------|-------|------------------|-----|-------|------------|
| 63 B5            | 185.5 | 173.2            | 140 | 189.5 | K050.4.041 |
| 71 B5            | 183   | 183.2            | 160 | 187   | K050.4.042 |

R413A-**N** ...  
Input Shaft  
Albero in entrata

| B14 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|-------------------|-------|------------------|-----|-------|------------|
| 56 B14            | 183   | 143.2            | 80  | 187   | KC40.4.049 |
| 63 B14            | 185.5 | 148.2            | 90  | 189.5 | K050.4.047 |
| 71 B14            | 183   | 155.7            | 105 | 187   | K050.4.045 |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |     |     | Available B14 motor flanges |    |    |     | Output Shaft |                 |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----|-----|-----------------------------|----|----|-----|--------------|-----------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F  | -G  | -R                          | -T | -U | -V  |              |                 | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100 | 112 | 132                         | 80 | 90 | 100 | 112          |                 |             |
| 388                                           | 3.61         | 4                               | 93                                | 1.6                    | 6.3                               | 150                                | B                          |    |    |     |     |                             |    |    |     | 3018         |                 | 01          |
| 331                                           | 4.23         | 4                               | 108                               | 1.6                    | 6.1                               | 170                                | B                          |    |    |     |     |                             |    |    |     | 3016         |                 | 02          |
| 279                                           | 5.01         | 4                               | 129                               | 1.6                    | 6.1                               | 200                                | B                          |    |    |     |     |                             |    |    |     | 3014         |                 | 03          |
| 231                                           | 6.07         | 4                               | 156                               | 1.6                    | 6.3                               | 250                                | B                          |    |    |     |     |                             |    |    |     | 3012         |                 | 04          |
| 206                                           | 6.81         | 4                               | 175                               | 1.6                    | 6.2                               | 277                                | B                          |    |    |     |     |                             |    |    |     | 2018         |                 | 05          |
| 176                                           | 7.96         | 4                               | 204                               | 1.5                    | 5.8                               | 300                                | B                          |    |    |     |     |                             |    |    |     | 2016         | standard<br>ø30 | 06          |
| 148                                           | 9.45         | 4                               | 242                               | 1.3                    | 4.9                               | 304                                | B                          |    |    |     |     |                             |    |    |     | 2014         |                 | 07          |
| 122                                           | 11.43        | 4                               | 293                               | 1.0                    | 4.0                               | 300                                | B                          |    |    |     |     |                             |    |    |     | 2012         |                 | 08          |
| 99                                            | 14.21        | 3                               | 274                               | 1.0                    | 2.8                               | 265                                | B                          |    |    |     |     |                             |    |    |     | 2010         | ø24             | 09          |
| 84                                            | 16.62        | 3                               | 321                               | 0.9                    | 2.8                               | 304                                | B                          |    |    |     |     |                             |    |    |     | 1314         |                 | 10          |
| 70                                            | 20.10        | 2.2                             | 286                               | 1.0                    | 2.3                               | 300                                | B                          |    |    |     |     |                             |    |    |     | 1312         |                 | 11          |
| 56                                            | 24.98        | 1.85                            | 302                               | 0.9                    | 1.6                               | 265                                | B                          |    |    |     |     |                             |    |    |     | 1310         | ø35             | 12          |
| 47.6                                          | 29.41        | 1.5                             | 288                               | 1.1                    | 1.6                               | 304                                | B                          |    |    |     |     |                             |    |    |     | 814          | On request      | 13          |
| 39.3                                          | 35.58        | 1.5                             | 349                               | 0.9                    | 1.3                               | 300                                | B                          |    |    |     |     |                             |    |    |     | 812          |                 | 14          |
| 34.6                                          | 40.50        | 1.1                             | 290                               | 1.0                    | 1.1                               | 290                                | B                          |    |    |     |     |                             |    |    |     | 614          |                 | 15          |
| 31.7                                          | 44.23        | 1.1                             | 316                               | 0.8                    | 0.92                              | 265                                | B                          |    |    |     |     |                             |    |    |     | 810          |                 | 16          |
| 28.6                                          | 49.00        | 0.75                            | 240                               | 1.2                    | 0.93                              | 300                                | B                          |    |    |     |     |                             |    |    |     | 612          |                 | 17          |
| 23.0                                          | 60.90        | 0.75                            | 299                               | 0.9                    | 0.66                              | 265                                | B                          |    |    |     |     |                             |    |    |     | 610          |                 | 18          |

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14

\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **452A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **452A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **452A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **452A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **452A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 0.31 LT             | 0.31 LT                                                                                                                            | 0.31 LT | 0.31 LT | 0.31 LT               | 0.31 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

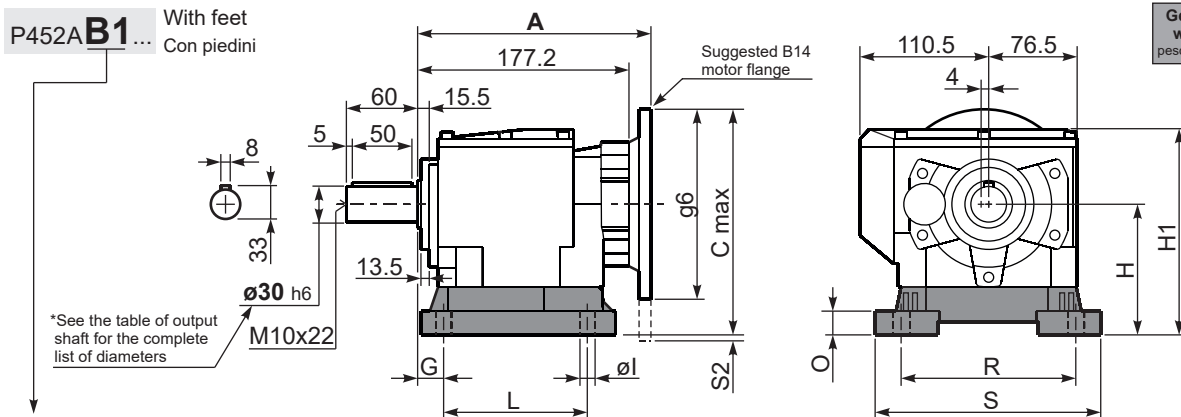
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS          |           |                                      |
|---------------------------------|-----------|--------------------------------------|
| Output shaft / Albero di uscita |           |                                      |
|                                 |           | $F_{eq} = F_R \cdot \frac{51}{X+21}$ |
| $F_R$ (N)                       | $F_A$ (N) |                                      |
| $F_{eq}$ (N)                    |           |                                      |
| $X$                             |           |                                      |
| $n_2$                           | FA        | FR                                   |
| 300                             | 415       | 2070                                 |
| 250                             | 430       | 2160                                 |
| 200                             | 470       | 2340                                 |
| 140                             | 540       | 2700                                 |
| 120                             | 560       | 2790                                 |
| 85                              | 630       | 3150                                 |
| 70                              | 700       | 3510                                 |
| 40                              | 810       | 4050                                 |
| 15                              | 900       | 4500                                 |
| Input shaft / Albero in entrata |           |                                      |
|                                 |           |                                      |
| $F_R$ (N)                       | $F_A$ (N) |                                      |
| $n_1$                           | FA        | FR                                   |
| 1400                            | 400       | 2000                                 |
| 900                             | 440       | 2200                                 |
| 500                             | 440       | 2200                                 |

tab. 2

## P452A-B1...

With feet  
Con piediniGearbox weight  
peso riduttore With flange **8.7 kg**  
With feet **8.9 Kg**

## Feet / piedini

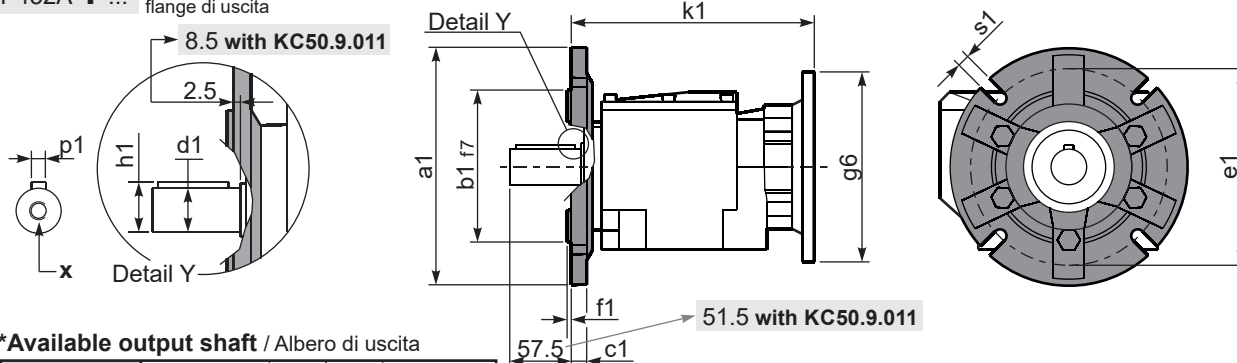
| Feet Code | Market reference | G  | H   | R       | L     | S   | H1  | O  | ØI   | S2 only with motor flange | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|---------|-------|-----|-----|----|------|---------------------------|----------------|------------|
| B3        | 312/3            | 18 | 110 | 160     | 130   | 190 | 173 | 20 | 11   | 15 100/112B5<br>40 132B5  | -              | KC50.9.024 |
| B4        | 30/35            | 20 | 130 | 180     | 149.5 | 216 | 193 | 18 | 14   | 20 132B5                  | -              | KC60.9.024 |
| S4        | 47-57            | 30 | 115 | 135     | 165   | 170 | 178 | 24 | 13.5 | -                         | 80/90B5        | KC50.9.022 |
| H3        | 023-233          | 30 | 130 | 135     | 135   | 185 | 193 | 25 | 14   | 20 132B5                  | -              | KC50.9.025 |
| M2        | 52/3             | 30 | 110 | 135+150 | 100   | 190 | 173 | 18 | 11   | 15 100/112B5<br>40 132B5  | -              | KC50.9.023 |

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

A see on page bottom

Most popular types  
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## P452A-F...

Output flanges  
flange di uscita

\*Available output shaft / Albero di uscita

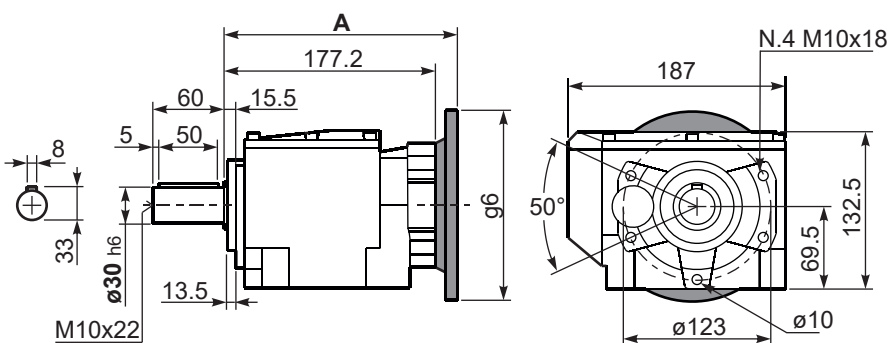
|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | Ø 30x60    | 8  | 33 | M10x22 |
| On request<br>A richiesta | Ø 24x50    | 8  | 27 | M8x19  |
|                           | Ø 25x50    | 8  | 28 | M8x19  |
|                           | Ø 28x60    | 8  | 31 | M8x19  |
|                           | Ø 35x60    | 10 | 38 | M10x22 |

Available output flanges / flange di uscita

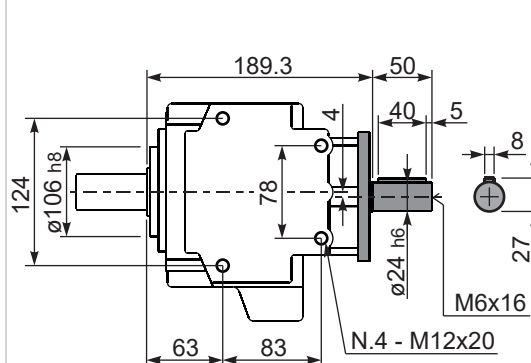
| a1 Ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 160  | 110 | 14   | 130 | 3.5 | 11 | KC50.9.011 |
| 200  | 130 | 13   | 165 | 3.5 | 11 | KC50.9.012 |
| 250  | 180 | 15.5 | 215 | 4   | 14 | KC50.9.013 |

With flange and feet only on request. Ask for compatibility

## P452A-N...

Basic gearbox  
Riduttore base

## R452A-N...

Input Shaft  
Albero in entrata

| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   | k1 with KC50.9.011 |
|------------------|-------|------------------|-----|-------|------------|--------------------|
| 71 B5            | 195.7 | 222              | 160 | 198.2 | K023.4.041 | 204.2              |
| 80/90 B5         | 197.7 | 242              | 200 | 200.2 | K023.4.042 | 206.2              |
| 100/112 B5       | 206.7 | 267              | 250 | 209.2 | K023.4.043 | 215.2              |
| 132 B5           | 224.7 | 292              | 300 | 227.2 | KC50.4.043 | 233.2              |

| B14 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   | k1 with KC50.9.011 |
|-------------------|-------|------------------|-----|-------|------------|--------------------|
| 80 B14            | 197.7 | 202              | 120 | 200.2 | K085.4.046 | 206.2              |
| 90 B14            | 197.7 | 212              | 140 | 200.2 | K085.4.045 | 206.2              |
| 100/112 B14       | 206.7 | 222              | 160 | 209.2 | K085.4.047 | 215.2              |
| 132 B14           | 224.7 | 242              | 200 | 227.2 | KC50.4.041 | 233.2              |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |      |      | Available B14 motor flanges |    |     |     | Output Shaft |            |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------|------|-----------------------------|----|-----|-----|--------------|------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F   | -G   | -R                          | -T | -U  | -V  |              |            | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100* | 112* | 80                          | 90 | 100 | 112 |              |            |             |
| 388                                           | 3.61         | 5.5                             | 127                               | 1.2                    | 6.6                               | 155                                | B                          |    |    |      |      |                             |    |     |     | 3018         |            | 01          |
| 331                                           | 4.23         | 5.5                             | 148                               | 1.2                    | 6.5                               | 180                                | B                          |    |    |      |      |                             |    |     |     | 3016         |            | 02          |
| 279                                           | 5.01         | 5.5                             | 176                               | 1.2                    | 6.4                               | 210                                | B                          |    |    |      |      |                             |    |     |     | 3014         |            | 03          |
| 231                                           | 6.07         | 5.5                             | 213                               | 1.2                    | 6.4                               | 255                                | B                          |    |    |      |      |                             |    |     |     | 3012         |            | 04          |
| 206                                           | 6.81         | 5.5                             | 239                               | 1.3                    | 6.7                               | 300                                | B                          |    |    |      |      |                             |    |     |     | 2018         |            | 05          |
| 176                                           | 7.96         | 5.5                             | 279                               | 1.2                    | 6.4                               | 335                                | B                          |    |    |      |      |                             |    |     |     | 2016         |            | 07          |
| 148                                           | 9.45         | 5.5                             | 331                               | 1.1                    | 5.8                               | 360                                | B                          |    |    |      |      |                             |    |     |     | 2014         | standard   | 08          |
| 122                                           | 11.43        | 4                               | 293                               | 1.1                    | 4.4                               | 330                                | B                          |    |    |      |      |                             |    |     |     | 2012         | ø30        | 09          |
| 100                                           | 14.00        | 3                               | 270                               | 1.3                    | 3.9                               | 360                                | B                          |    |    |      |      |                             |    |     |     | 1316         |            | 21          |
| 84                                            | 16.62        | 3                               | 321                               | 1.1                    | 3.3                               | 360                                | B                          |    |    |      |      |                             |    |     |     | 1314         | ø24        | 11          |
| 70                                            | 20.10        | 2.2                             | 286                               | 1.2                    | 2.5                               | 330                                | B                          |    |    |      |      |                             |    |     |     | 1312         | ø25        | 12          |
| 57                                            | 24.61        | 2.2                             | 350                               | 0.9                    | 2.0                               | 330                                | B                          |    |    |      |      |                             |    |     |     | 1112         | ø28        | 20          |
| 47.6                                          | 29.41        | 1.5                             | 288                               | 1.2                    | 1.9                               | 360                                | B                          |    |    |      |      |                             |    |     |     | 814          | ø35        | 14          |
| 39.3                                          | 35.58        | 1.5                             | 349                               | 0.9                    | 1.4                               | 330                                | B                          |    |    |      |      |                             |    |     |     | 812          | On request | 15          |
| 34.6                                          | 40.50        | 1.1                             | 290                               | 1.1                    | 1.2                               | 320                                | B                          |    |    |      |      |                             |    |     |     | 614          |            | 16          |
| 31.7                                          | 44.23        | 1.1                             | 316                               | 0.8                    | 0.88                              | 255                                | B                          |    |    |      |      |                             |    |     |     | 810          |            | 17          |
| 28.6                                          | 49.00        | 1.1                             | 351                               | 0.9                    | 1.0                               | 330                                | B                          |    |    |      |      |                             |    |     |     | 612          |            | 18          |
| 23.0                                          | 60.90        | 0.75                            | 299                               | 0.8                    | 0.64                              | 255                                | B                          |    |    |      |      |                             |    |     |     | 610          |            | 19          |

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **512A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **512A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **512A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **512A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **512A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

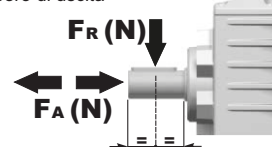
| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                    |         |     |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|--------------------|---------|-----|
|                       |                                                                                                                                    |         |         |                    |         |     |
| B3                    | B6                                                                                                                                 | B7      | B8      | V5                 | V6      | V8  |
| 0.70 LT               | 0.80 LT                                                                                                                            | 1.15 LT | 1.20 LT | 1.15 LT            | 1.25 LT | Ask |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         |         | ENI Telium VSF 320 |         |     |

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

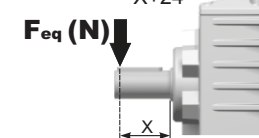
## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita



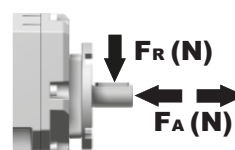
$$F_{eq} = F_R \cdot \frac{54}{X+24}$$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 460 | 2300 | 140   | 600 | 3000 | 70    | 780  | 3900 |
| 250   | 480 | 2400 | 120   | 620 | 3100 | 40    | 900  | 4500 |
| 200   | 520 | 2600 | 85    | 700 | 3500 | 15    | 1000 | 5000 |

### Input shaft

Albero in entrata

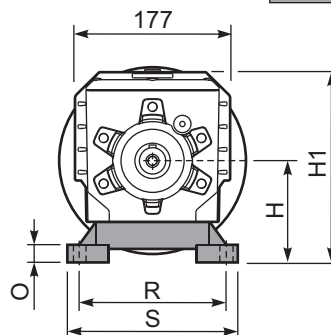


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

tab. 2



|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>11.7 kg</b> |
|                                         | With feet   | <b>11.9 Kg</b> |



| Feet Code | Market reference | G  | H   | R       | L     | S   | H1  | O  | ØI | S2 only with motor flange | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|---------|-------|-----|-----|----|----|---------------------------|----------------|------------|
| B3        | 312/3            | 18 | 110 | 160     | 130   | 190 | 211 | 20 | 11 | 10 100/112B5<br>35 132B5  | -              | KC50.9.024 |
| B4        | 30/35            | 20 | 130 | 180     | 149.5 | 216 | 231 | 18 | 14 | 15 132B5                  | -              | KC60.9.024 |
| S4        | 47-57            | 30 | 115 | 135     | 165   | 170 | 216 | 25 | 14 | 5 100/112B5<br>30 132B5   | -              | KC50.9.022 |
| H3        | 023-233          | 30 | 130 | 135     | 135   | 185 | 231 | 25 | 14 | 15 132B5                  | -              | KC50.9.025 |
| M2        | 52/3             | 30 | 110 | 135+150 | 100   | 190 | 211 | 18 | 11 | 10 100/112B5<br>35 132B5  | -              | KC50.9.023 |

 Most popular types  
Tipi più diffusi

4

Technical drawing of the KC50.9.011 motor showing front, side, and detail views with dimensions.

**Front View Dimensions:**

- Overall width: 8.5 with KC50.9.011
- Mounting flange thickness: 2.5
- Flange outer diameter:  $\varnothing 11$
- Flange inner diameter:  $\varnothing 9.6$
- Flange hole diameter:  $\varnothing 4$
- Flange hole offset: p1
- Flange hole position: x
- Motor body diameter:  $\varnothing 11$
- Motor body length: h1
- Motor body diameter: d1

**Side View Dimensions:**

- Overall height: 96
- Motor body length: a1
- Motor body diameter: b1
- Motor body diameter: f7
- Motor body diameter: f1
- Motor body diameter: c1
- Motor body diameter: 57.5
- Motor body diameter: 51.5 with KC50.9.011
- Motor body diameter: 5.3
- Motor body diameter: K1

**Detail Y:**

Detail Y shows the motor body and mounting flange assembly.

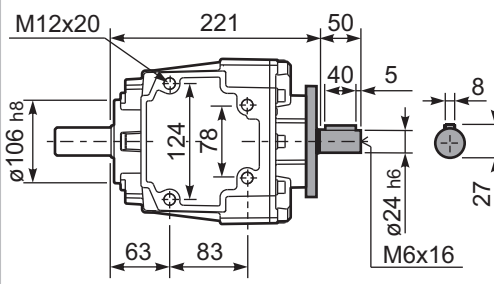
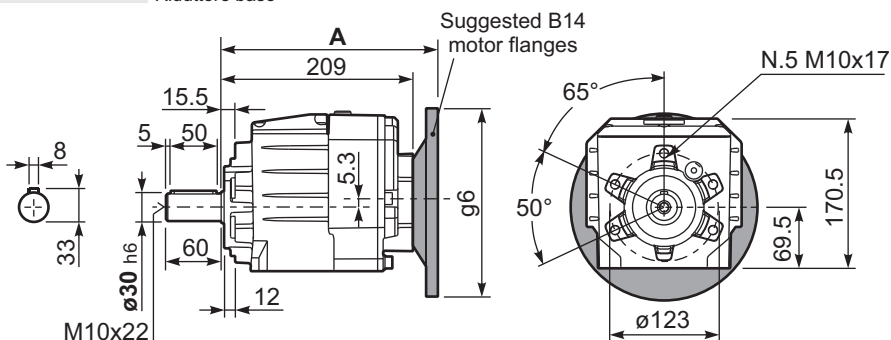
**\*Available output shaft / Albero di uscita**

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 30x60    | 8  | 33 | M10x22 |
| On request<br>A richiesta | ø 24x50    | 8  | 27 | M8x19  |
|                           | ø 25x50    | 8  | 28 | M8x19  |
|                           | ø 28x60    | 8  | 31 | M8x19  |
|                           | ø 35x60    | 10 | 38 | M10x22 |

| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 160  | 110 | 14   | 130 | 3.5 | 11 | KC50.9.011 |
| 200  | 130 | 13   | 165 | 3.5 | 11 | KC50.9.012 |
| 250  | 180 | 15.5 | 215 | 4   | 14 | KC50.9.013 |

With flange and feet only on request. Ask for compatibility

**R512A-N...** Input Shaft  
Albero in entrata



| <b>B5 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> | <b>k1 with KC50.9.011</b> | <b>B14 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> | <b>k1 with KC50.9.011</b> |
|-------------------------|----------|------------------------|-----------|-----------|-----------------|---------------------------|--------------------------|----------|------------------------|-----------|-----------|-----------------|---------------------------|
| 71 B5                   | 227.5    | 227.3                  | 160       | 230       | K023.4.041      | 236                       | 80 B14                   | 229.5    | 207.3                  | 120       | 232       | K085.4.046      | 238                       |
| 80/90 B5                | 229.5    | 247.3                  | 200       | 232       | K023.4.042      | 238                       | 90 B14                   | 229.5    | 217.3                  | 140       | 232       | K085.4.045      | 238                       |
| 100/112 B5              | 238.5    | 272.3                  | 250       | 241       | K023.4.043      | 247                       | 100/112 B14              | 238.5    | 227.3                  | 160       | 241       | K085.4.047      | 247                       |
| 132 B5                  | 259.5    | 297.3                  | 300       | 259       | KC51.4.043      | 265                       | 132 B14                  | 259.5    | 247                    | 200       | 259       | KC51.4.041      | 265                       |





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                     |                                                                                                    |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                     |                                                                                                    |
| 35.2                                          | <b>39.79</b>  | 1.5                             | 382                               | 0.9                    | <b>1.4</b>                        | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 191316                                                                                              | 01                                                                                                 |
| 29.6                                          | <b>47.22</b>  | 1.1                             | 331                               | 1.1                    | <b>1.2</b>                        | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 191314                                                                                              | 02                                                                                                 |
| 25.6                                          | <b>54.73</b>  | 1.1                             | 384                               | 0.9                    | <b>1.0</b>                        | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 171314                                                                                              | 03                                                                                                 |
| 21.1                                          | <b>66.22</b>  | 0.75                            | 318                               | 1.0                    | <b>0.78</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 171312                                                                                              | 04                                                                                                 |
| 18.3                                          | <b>76.69</b>  | 0.75                            | 369                               | 1.0                    | <b>0.73</b>                       | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 131314                                                                                              | 05                                                                                                 |
| 16.7                                          | <b>83.59</b>  | 0.55                            | 297                               | 1.2                    | <b>0.67</b>                       | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 190814                                                                                              | 06                                                                                                 |
| 15.1                                          | <b>92.78</b>  | 0.55                            | 329                               | 1.0                    | <b>0.55</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 131312                                                                                              | 07                                                                                                 |
| 13.4                                          | <b>104.68</b> | 0.55                            | 371                               | 1.0                    | <b>0.54</b>                       | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 101314                                                                                              | 08                                                                                                 |
| 11.9                                          | <b>117.22</b> | 0.37                            | 278                               | 1.2                    | <b>0.44</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 170812                                                                                              | 09                                                                                                 |
| 11.1                                          | <b>126.65</b> | 0.37                            | 300                               | 1.1                    | <b>0.41</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 101312                                                                                              | 10                                                                                                 |
| 10.2                                          | <b>136.62</b> | 0.37                            | 324                               | 1.1                    | <b>0.41</b>                       | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 91314                                                                                               | 11                                                                                                 |
| 8.5                                           | <b>165.29</b> | 0.25                            | 264                               | 1.2                    | <b>0.31</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 91312                                                                                               | 12                                                                                                 |
| 7.8                                           | <b>180.40</b> | 0.25                            | 289                               | 1.2                    | <b>0.31</b>                       | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 71314                                                                                               | 13                                                                                                 |
| 6.4                                           | <b>218.26</b> | 0.25                            | 349                               | 0.9                    | <b>0.24</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 71312                                                                                               | 14                                                                                                 |
| 5.8                                           | <b>241.82</b> | 0.25                            | 387                               | 0.9                    | <b>0.23</b>                       | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 90814                                                                                               | 15                                                                                                 |
| 4.8                                           | <b>292.57</b> | 0.18                            | 358                               | 0.9                    | <b>0.18</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 90812                                                                                               | 16                                                                                                 |
| 4.4                                           | <b>319.32</b> | 0.18                            | 391                               | 0.9                    | <b>0.18</b>                       | <b>360</b>                         | B                          |    |    |    | C                           | C  |    | 70814                                                                                               | 17                                                                                                 |
| 3.6                                           | <b>386.33</b> | 0.12                            | 305                               | 1.1                    | <b>0.13</b>                       | <b>330</b>                         | B                          |    |    |    | C                           | C  |    | 70812                                                                                               | 18                                                                                                 |
| 2.9                                           | <b>480.16</b> | 0.12                            | 380                               | 0.7                    | <b>0.08</b>                       | <b>255</b>                         | B                          |    |    |    | C                           | C  |    | 70810                                                                                               | 19                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **513A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **513A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **513A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

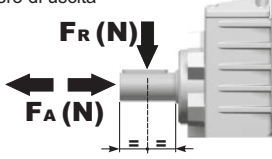
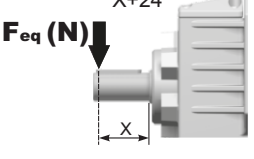
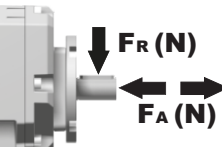
**F** Le réducteur **513A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **513A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |  |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|
|  |                                                 |  |  |  |  |  |  |
| 1.00 LT                                                                             | 0.90 LT                                                                                                                            | 1.25 LT                                                                              | 1.15 LT                                                                               | 1.45 LT                                                                               | 1.40 LT                                                                               | Ask                                                                                   |  |
| SHELL Omala S4 WE 320                                                               |                                                                                                                                    |                                                                                      |                                                                                       | ENI Telium VSF 320                                                                    |                                                                                       |                                                                                       |  |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

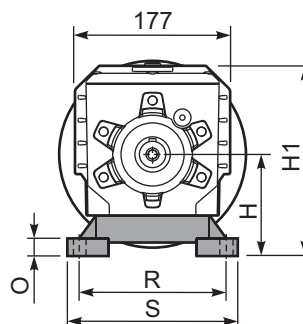
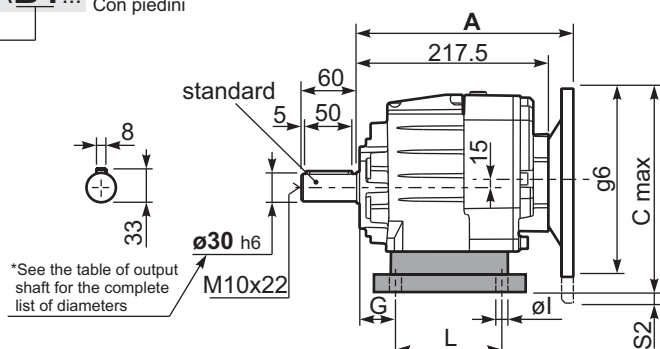
tab. 1

| RADIAL AND AXIAL LOADS                                                               |     |      |       |     |                                                                                       |       |      |      |  |
|--------------------------------------------------------------------------------------|-----|------|-------|-----|---------------------------------------------------------------------------------------|-------|------|------|--|
| Output shaft<br>Albero di uscita                                                     |     |      |       |     | $F_{eq} = F_R \cdot \frac{54}{X+24}$                                                  |       |      |      |  |
|  |     |      |       |     |  |       |      |      |  |
| $n_2$                                                                                | FA  | FR   | $n_2$ | FA  | FR                                                                                    | $n_2$ | FA   | FR   |  |
| 300                                                                                  | 460 | 2300 | 140   | 600 | 3000                                                                                  | 70    | 780  | 3900 |  |
| 250                                                                                  | 480 | 2400 | 120   | 620 | 3100                                                                                  | 40    | 900  | 4500 |  |
| 200                                                                                  | 520 | 2600 | 85    | 700 | 3500                                                                                  | 15    | 1000 | 5000 |  |
| Input shaft<br>Albero in entrata                                                     |     |      |       |     |   |       |      |      |  |
| $n_1$                                                                                | FA  | FR   | $n_1$ | FA  | FR                                                                                    | $n_1$ | FA   | FR   |  |
| 1400                                                                                 | 400 | 2000 | 900   | 440 | 2200                                                                                  | 500   | 440  | 2200 |  |

tab. 2

P513A **B1** ... With feet  
Con piedini

|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>11.9 kg</b> |
|                                         | With feet   | <b>12.1 Kg</b> |



## Feet / piedini

| Feet Code | Market reference | G  | H   | R       | L     | S   | H1  | O  | øI | S2 only with motor flange | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|---------|-------|-----|-----|----|----|---------------------------|----------------|------------|
| B3        | 312/3            | 18 | 110 | 160     | 130   | 190 | 211 | 20 | 11 | -                         | -              | KC50.9.024 |
| B4        | 30/35            | 20 | 130 | 180     | 149.5 | 216 | 231 | 18 | 14 | -                         | -              | KC60.9.024 |
| S4        | 47-57            | 30 | 115 | 135     | 165   | 170 | 216 | 25 | 14 | -                         | -              | KC50.9.022 |
| H3        | 023-233          | 30 | 130 | 135     | 135   | 185 | 231 | 25 | 14 | -                         | -              | KC50.9.025 |
| M2        | 52/3             | 30 | 110 | 135+150 | 100   | 190 | 211 | 18 | 11 | -                         | -              | KC50.9.023 |

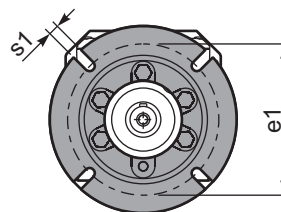
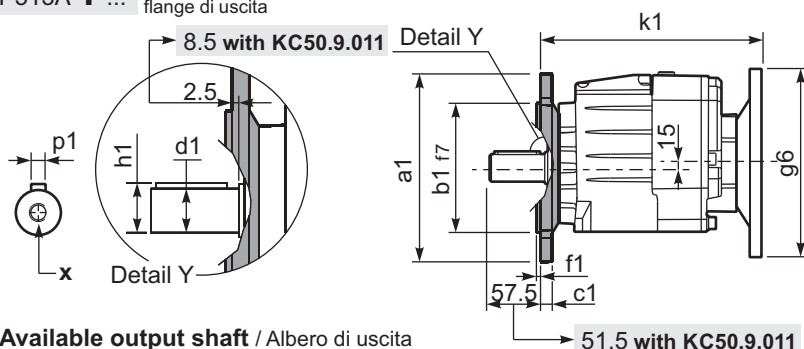
Other feet are available,  
see our web site  
Sono disponibili altri piedini,  
consulta il nostro sito web

**A see on page bottom**

 Most popular types  
Tipi più diffusi

4

**P513A-F...** Output flanges  
flange di uscita



**\*Available output shaft / Albero di uscita**

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 30x60    | 8  | 33 | M10x22 |
| On request<br>A richiesta | ø 24x50    | 8  | 27 | M8x19  |
|                           | ø 25x50    | 8  | 28 | M8x19  |
|                           | ø 28x60    | 8  | 31 | M8x19  |
|                           | ø 35x60    | 10 | 38 | M10x22 |

### Available output flanges / flange di uscita

| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 160  | 110 | 14   | 130 | 3.5 | 11 | KC50.9.011 |
| 200  | 130 | 13   | 165 | 3.5 | 11 | KC50.9.012 |
| 250  | 180 | 15.5 | 215 | 4   | 14 | KC50.9.013 |

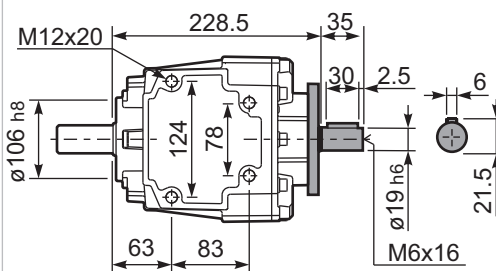
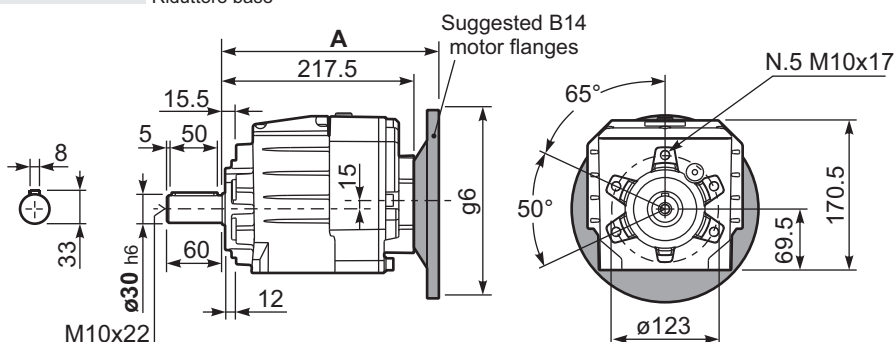
With flange and feet only on request. Ask for compatibility

2 With flange and feet  
only on request.

3 Ask for compatibility

P513A-N... Basic gearbox  
Riduttore base

**R513A-N...** Input Shaft  
Albero in entrata



| B5 Motor Flanges | A   | C <sub>max</sub> | g6  | k1    | kit code   | k1 with KC50.9.011 |
|------------------|-----|------------------|-----|-------|------------|--------------------|
| 63 B5            | 238 | 227              | 140 | 240.5 | K063.4.041 | 246.5              |
| 71 B5            | 236 | 237              | 160 | 238.5 | K063.4.042 | 244.5              |
| 80/90 B5         | 238 | 257              | 200 | 240.5 | K063.4.043 | 246.5              |

| <b>B14 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> | <b>k1 with KC50.9.011</b> |
|--------------------------|----------|------------------------|-----------|-----------|-----------------|---------------------------|
| 71 B14                   | 236      | 209.5                  | 105       | 238.5     | K063.4.047      | 244.5                     |
| 80 B14                   | 238      | 217                    | 120       | 240.5     | K063.4.046      | 246.5                     |
| 90 B14                   | 238      | 227                    | 140       | 240.5     | K063.4.041      | 246.5                     |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |     |     | Available B14 motor flanges |    |    |     | Output Shaft |            |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----|-----|-----------------------------|----|----|-----|--------------|------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F  | -G  | -R                          | -T | -U | -V  |              |            | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100 | 112 | 132                         | 80 | 90 | 100 | 112          |            |             |
| 388                                           | 3.61         | 7.5                             | 171                               | 1.1                    | 8.0                               | 190                                | B                          |    |    |     |     |                             |    |    |     | 3018         |            | 01          |
| 331                                           | 4.23         | 7.5                             | 200                               | 1.1                    | 8.3                               | 230                                | B                          |    |    |     |     |                             |    |    |     | 3016         |            | 02          |
| 279                                           | 5.01         | 7.5                             | 238                               | 1.1                    | 7.9                               | 260                                | B                          |    |    |     |     |                             |    |    |     | 3014         |            | 03          |
| 231                                           | 6.07         | 7.5                             | 288                               | 1.1                    | 7.8                               | 310                                | B                          |    |    |     |     |                             |    |    |     | 3012         |            | 04          |
| 206                                           | 6.81         | 7.5                             | 323                               | 1.1                    | 7.9                               | 350                                | B                          |    |    |     |     |                             |    |    |     | 2018         |            | 05          |
| 176                                           | 7.96         | 7.5                             | 378                               | 1.0                    | 7.1                               | 370                                | B                          |    |    |     |     |                             |    |    |     | 2016         |            | 07          |
| 148                                           | 9.45         | 5.5                             | 331                               | 1.2                    | 6.6                               | 410                                | B                          |    |    |     |     |                             |    |    |     | 2014         | standard   | 08          |
| 122                                           | 11.43        | 5.5                             | 401                               | 1.1                    | 5.7                               | 425                                | B                          |    |    |     |     |                             |    |    |     | 2012         | ø35        | 09          |
| 100                                           | 14.00        | 4                               | 359                               | 1.2                    | 4.7                               | 435                                | B                          |    |    |     |     |                             |    |    |     | 1316         |            | 10          |
| 84                                            | 16.62        | 4                               | 426                               | 1.2                    | 4.7                               | 515                                | B                          |    |    |     |     |                             |    |    |     | 1314         | ø28        | 11          |
| 70                                            | 20.10        | 4                               | 515                               | 1.0                    | 4.0                               | 530                                | B                          |    |    |     |     |                             |    |    |     | 1312         | ø30        | 12          |
| 57                                            | 24.61        | 3                               | 475                               | 1.1                    | 3.3                               | 530                                | B                          |    |    |     |     |                             |    |    |     | 1112         | ø38        | 20          |
| 47.6                                          | 29.41        | 2.2                             | 418                               | 1.1                    | 2.3                               | 450                                | B                          |    |    |     |     |                             |    |    |     | 814          | ø40        | 14          |
| 39.3                                          | 35.58        | 2.2                             | 506                               | 1.0                    | 2.3                               | 530                                | B                          |    |    |     |     |                             |    |    |     | 812          | On request | 15          |
| 34.6                                          | 40.50        | 1.1                             | 290                               | 1.1                    | 1.2                               | 320                                | B                          |    |    |     |     |                             |    |    |     | 614          |            | 16          |
| 31.7                                          | 44.23        | 1.5                             | 433                               | 0.9                    | 1.4                               | 410                                | B                          |    |    |     |     |                             |    |    |     | 810          |            | 17          |
| 28.6                                          | 49.00        | 1.1                             | 351                               | 1.1                    | 1.2                               | 400                                | B                          |    |    |     |     |                             |    |    |     | 612          |            | 18          |
| 23.0                                          | 60.90        | 1.1                             | 436                               | 0.9                    | 1.0                               | 410                                | B                          |    |    |     |     |                             |    |    |     | 610          |            | 19          |

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**C** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**D** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **612A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **612A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **612A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **612A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **612A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                    |         |     |     |  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|--------------------|---------|-----|-----|--|
|                       |                                                                                                                                    |         |         |                    |         |     |     |  |
| B3                    | B6                                                                                                                                 | B7      | B8      | V5                 | V6      | V8  | V8  |  |
| 0.80 LT               | 1.00 LT                                                                                                                            | 1.20 LT | 1.20 LT | 1.30 LT            | 1.35 LT | Ask | Ask |  |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         |         | ENI Telium VSF 320 |         |     |     |  |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS           |     |      |       |     |                                       |       |      |      |  |
|----------------------------------|-----|------|-------|-----|---------------------------------------|-------|------|------|--|
| Output shaft<br>Albero di uscita |     |      |       |     | Feq = $F_R \cdot \frac{60.5}{X+25.5}$ |       |      |      |  |
|                                  |     |      |       |     |                                       |       |      |      |  |
| $n_2$                            | FA  | FR   | $n_2$ | FA  | FR                                    | $n_2$ | FA   | FR   |  |
| 300                              | 560 | 2800 | 140   | 740 | 3700                                  | 70    | 890  | 4200 |  |
| 250                              | 600 | 3000 | 120   | 760 | 3800                                  | 40    | 1160 | 5800 |  |
| 200                              | 640 | 3200 | 85    | 840 | 4000                                  | 15    | 1300 | 6500 |  |
| Input shaft<br>Albero in entrata |     |      |       |     |                                       |       |      |      |  |
|                                  |     |      |       |     |                                       |       |      |      |  |
| $n_1$                            | FA  | FR   | $n_1$ | FA  | FR                                    | $n_1$ | FA   | FR   |  |
| 1400                             | 450 | 2250 | 900   | 500 | 2500                                  | 500   | 600  | 3000 |  |

tab. 2

|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>14.1 kg</b> |
|                                         | With feet   | <b>14.5 kg</b> |



Other feet are available,  
see our web site  
Sono disponibili altri piedini,  
consulta il nostro sito web

 Most popular types  
Tipi più diffusi

4

Technical drawing of the KC50.9.011 motor showing front, side, and detail views with dimensions.

**Front View (Left):** Shows the motor's base with dimensions  $p1$  and  $x$ .

**Side View (Middle):** Shows the motor's profile with dimensions  $h1$ ,  $d1$ , and  $2.5$ . A circular detail callout labeled "Detail Y" is shown.

**Detail Y (Top):** A magnified view of the motor's base with dimensions  $8.5$  with KC50.9.011 and  $2.5$ .

**Side View (Right):** Shows the motor's profile with dimensions  $a1$ ,  $b1 \pm 7$ ,  $f1$ ,  $c1$ ,  $67.5$ ,  $61.5$  with KC50.9.011,  $16.3$ ,  $96$ , and  $K1$ .

**\*Available output shaft / Albero di uscita**

**\*Available output shaft** / Albero di uscita

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 35x70    | 10 | 38 | M10x22 |
| On request<br>A richiesta | ø 28x60    | 8  | 31 | M8x20  |
|                           | ø 30x60    | 8  | 33 | M10x22 |
|                           | ø 38x70    | 10 | 41 | M10x25 |
|                           | ø 40x80    | 12 | 43 | M12x28 |

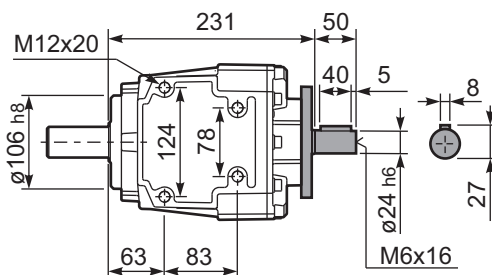
### Available output flanges / flange di uscita

| a1 Ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 160  | 110 | 14   | 130 | 3.5 | 11 | KC50.9.011 |
| 200  | 130 | 13   | 164 | 3.5 | 11 | KC50.9.012 |
| 250  | 180 | 15.5 | 215 | 4   | 14 | KC50.9.013 |

With flange and feet only on request. Ask for compatibility

With flange and feet  
only on request.  
Ask for compatibility

**R612A-N...** Input Shaft  
Albero in entrata

4-20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br> | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                     |                                                                                                     |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                     |                                                                                                     |                                                                                                    |
| 35.2                                          | 39.79        | 1.5                             | 382                               | 1.1                    | 1.7                               | 434                                | B                          |    |    |    | C                           | C  |    | 191316                                                                                              |                                                                                                     | 05                                                                                                 |
| 29.6                                          | 47.22        | 1.5                             | 453                               | 1.1                    | 1.7                               | 515                                | B                          |    |    |    | C                           | C  |    | 191314                                                                                              |                                                                                                     | 06                                                                                                 |
| 25.6                                          | 54.73        | 1.5                             | 525                               | 1.0                    | 1.5                               | 515                                | B                          |    |    |    | C                           | C  |    | 171314                                                                                              |                                                                                                     | 07                                                                                                 |
| 24.5                                          | 57.13        | 1.5                             | 548                               | 1.0                    | 1.4                               | 530                                | B                          |    |    |    | C                           | C  |    | 191312                                                                                              |                                                                                                     | 08                                                                                                 |
| 21.1                                          | 66.22        | 1.1                             | 464                               | 1.1                    | 1.2                               | 530                                | B                          |    |    |    | C                           | C  |    | 171312                                                                                              |                                                                                                     | 09                                                                                                 |
| 19.7                                          | 71.01        | 1.1                             | 498                               | 0.9                    | 0.96                              | 435                                | B                          |    |    |    | C                           | C  |    | 191310                                                                                              |                                                                                                     | 10                                                                                                 |
| 18.3                                          | 76.69        | 1.1                             | 538                               | 1.0                    | 1.0                               | 515                                | B                          |    |    |    | C                           | C  |    | 131314                                                                                              |                                                                                                     | 11                                                                                                 |
| 17.0                                          | 82.30        | 0.75                            | 396                               | 1.1                    | 0.82                              | 435                                | B                          |    |    |    | C                           | C  |    | 171310                                                                                              |                                                                                                     | 12                                                                                                 |
| 16.7                                          | 83.59        | 0.75                            | 402                               | 1.1                    | 0.82                              | 440                                | B                          |    |    |    | C                           | C  |    | 190814                                                                                              |                                                                                                     | 13                                                                                                 |
| 15.1                                          | 92.78        | 0.75                            | 446                               | 1.2                    | 0.89                              | 530                                | B                          |    |    |    | C                           | C  |    | 131312                                                                                              |                                                                                                     | 14                                                                                                 |
| 13.4                                          | 104.68       | 0.75                            | 503                               | 1.0                    | 0.77                              | 515                                | B                          |    |    |    | C                           | C  |    | 101314                                                                                              |                                                                                                     | 15                                                                                                 |
| 11.9                                          | 117.22       | 0.75                            | 564                               | 0.9                    | 0.71                              | 530                                | B                          |    |    |    | C                           | C  |    | 170812                                                                                              | ø28                                                                                                 | 16                                                                                                 |
| 11.1                                          | 126.65       | 0.55                            | 449                               | 1.2                    | 0.65                              | 530                                | B                          |    |    |    | C                           | C  |    | 101312                                                                                              | ø30                                                                                                 | 17                                                                                                 |
| 10.3                                          | 135.74       | 0.55                            | 482                               | 0.9                    | 0.51                              | 440                                | B                          |    |    |    | C                           | C  |    | 130814                                                                                              | ø38                                                                                                 | 18                                                                                                 |
| 9.6                                           | 145.68       | 0.37                            | 346                               | 1.3                    | 0.47                              | 435                                | B                          |    |    |    | C                           | C  |    | 170810                                                                                              | ø40                                                                                                 | 19                                                                                                 |
| 8.9                                           | 157.40       | 0.37                            | 373                               | 1.2                    | 0.43                              | 435                                | B                          |    |    |    | C                           | C  |    | 101310                                                                                              | On request                                                                                          | 20                                                                                                 |
| 8.5                                           | 165.29       | 0.37                            | 392                               | 1.3                    | 0.50                              | 525                                | B                          |    |    |    | C                           | C  |    | 91312                                                                                               |                                                                                                     | 21                                                                                                 |
| 7.6                                           | 185.29       | 0.37                            | 439                               | 1.0                    | 0.37                              | 440                                | B                          |    |    |    | C                           | C  |    | 100814                                                                                              |                                                                                                     | 22                                                                                                 |
| 6.8                                           | 205.43       | 0.37                            | 487                               | 0.9                    | 0.33                              | 435                                | B                          |    |    |    | C                           | C  |    | 91310                                                                                               |                                                                                                     | 23                                                                                                 |
| 6.2                                           | 224.18       | 0.37                            | 532                               | 1.0                    | 0.37                              | 530                                | B                          |    |    |    | C                           | C  |    | 100812                                                                                              |                                                                                                     | 24                                                                                                 |
| 5.8                                           | 241.82       | 0.25                            | 387                               | 1.1                    | 0.28                              | 440                                | B                          |    |    |    | C                           | C  |    | 90814                                                                                               |                                                                                                     | 25                                                                                                 |
| 5.0                                           | 278.62       | 0.25                            | 446                               | 1.0                    | 0.24                              | 435                                | B                          |    |    |    | C                           | C  |    | 100810                                                                                              |                                                                                                     | 26                                                                                                 |
| 4.8                                           | 292.57       | 0.25                            | 468                               | 1.1                    | 0.28                              | 530                                | B                          |    |    |    | C                           | C  |    | 90812                                                                                               |                                                                                                     | 27                                                                                                 |
| 3.9                                           | 363.63       | 0.18                            | 445                               | 1.0                    | 0.19                              | 435                                | B                          |    |    |    | C                           | C  |    | 90810                                                                                               |                                                                                                     | 28                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **613A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **613A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **613A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **613A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **613A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |  |
| B3                                                                                  | B6                                                                                                                                 | B7                                                                                    | B8                                                                                    | V5                                                                                    | V6                                                                                    | V8                                                                                    |
| 1.05 LT                                                                             | 1.10 LT                                                                                                                            | 1.25 LT                                                                               | 1.25 LT                                                                               | 1.35 LT                                                                               | 1.50 LT                                                                               | Ask                                                                                   |

**SHELL** Omala S4 WE 320

**ENI** Telium VSF 320

For all details on lubrication and plugs check our website

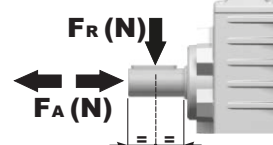
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

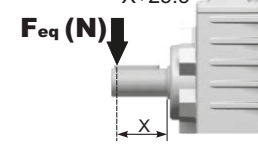
#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita



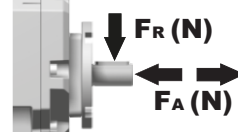
$$F_{eq} = F_R \cdot \frac{60.5}{X+25.5}$$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 560 | 2800 | 140   | 740 | 3700 | 70    | 890  | 4200 |
| 250   | 600 | 3000 | 120   | 760 | 3800 | 40    | 1160 | 5800 |
| 200   | 640 | 3200 | 85    | 840 | 4000 | 15    | 1300 | 6500 |

##### Input shaft

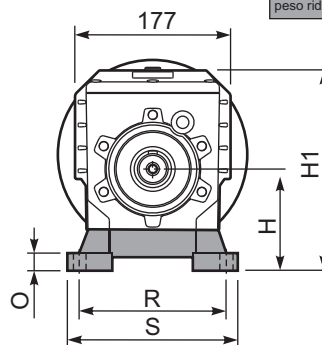
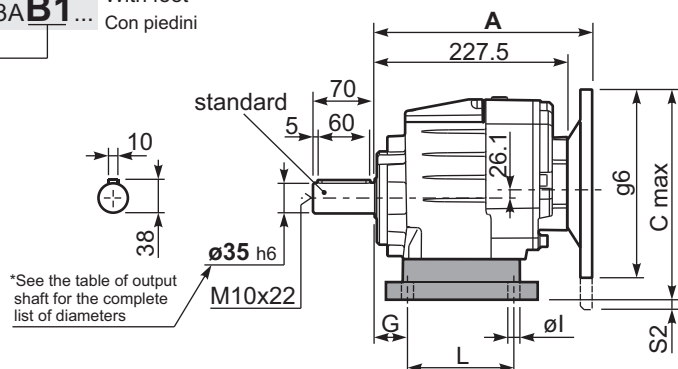
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

tab. 2



P613A-B1... With feet  
Con piediniGearbox weight  
peso riduttore With flange 14.3 kg  
With feet 14.7 Kg

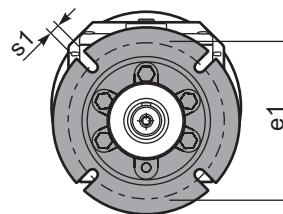
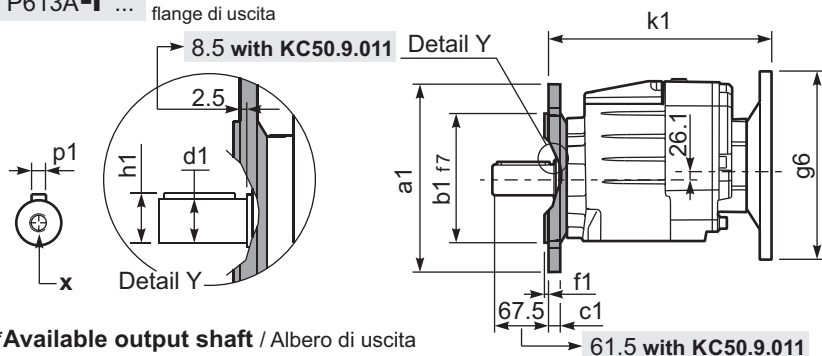
## Feet / piedini

| Feet Code | Market reference | G  | H   | R       | L     | S   | H1  | O  | øl | S2 only with motor flange | B5 max. Flange | kit code     |
|-----------|------------------|----|-----|---------|-------|-----|-----|----|----|---------------------------|----------------|--------------|
| B4        | 412/3            | 20 | 130 | 180     | 149.5 | 216 | 242 | 18 | 14 | -                         | -              | KC60.9.024   |
| S4        | 47-57            | 30 | 115 | 135     | 165   | 170 | 227 | 25 | 14 | 13 132B5                  | -              | KC50.9.022   |
| M3        | 62/3             | 35 | 120 | 170-185 | 110   | 230 | 232 | 20 | 14 | 8 132B5                   | -              | KC60.9.023   |
| S7        | 77               | 35 | 140 | 170     | 205   | 204 | 252 | 8  | 14 | -                         | -              | KC60.9.029LM |
| H4        | 024-243          | 35 | 155 | 170     | 150   | 225 | 267 | 30 | 14 | -                         | -              | KC60.9.025   |

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

A see on page bottom

Most popular types  
Tipi più diffusi

P613A-F... Output flanges  
flange di uscita

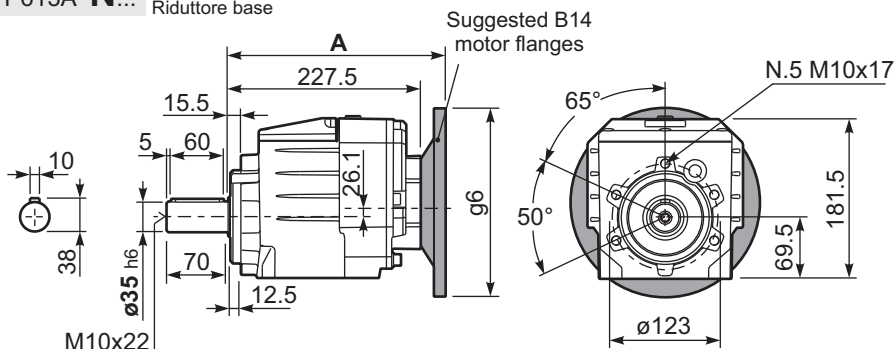
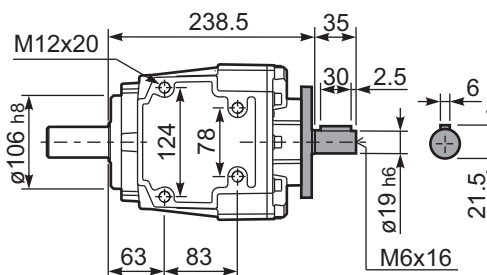
\*Available output shaft / Alberi di uscita

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 35x70    | 10 | 38 | M10x22 |
| On request<br>A richiesta | ø 28x60    | 8  | 31 | M8x20  |
|                           | ø 30x60    | 8  | 33 | M10x22 |
|                           | ø 38x70    | 10 | 41 | M10x25 |
|                           | ø 40x80    | 12 | 43 | M12x28 |

Available output flanges / flange di uscita

| a1 ø | b1  | c1   | e1  | f1  | s1 | kit code   |
|------|-----|------|-----|-----|----|------------|
| 160  | 110 | 14   | 130 | 3.5 | 11 | KC50.9.011 |
| 200  | 130 | 13   | 164 | 3.5 | 11 | KC50.9.012 |
| 250  | 180 | 15.5 | 215 | 4   | 14 | KC50.9.013 |

With flange and feet only on request.  
Ask for compatibility

P613A-N... Basic gearbox  
Riduttore baseR613A-N... Input Shaft  
Albero in entrata

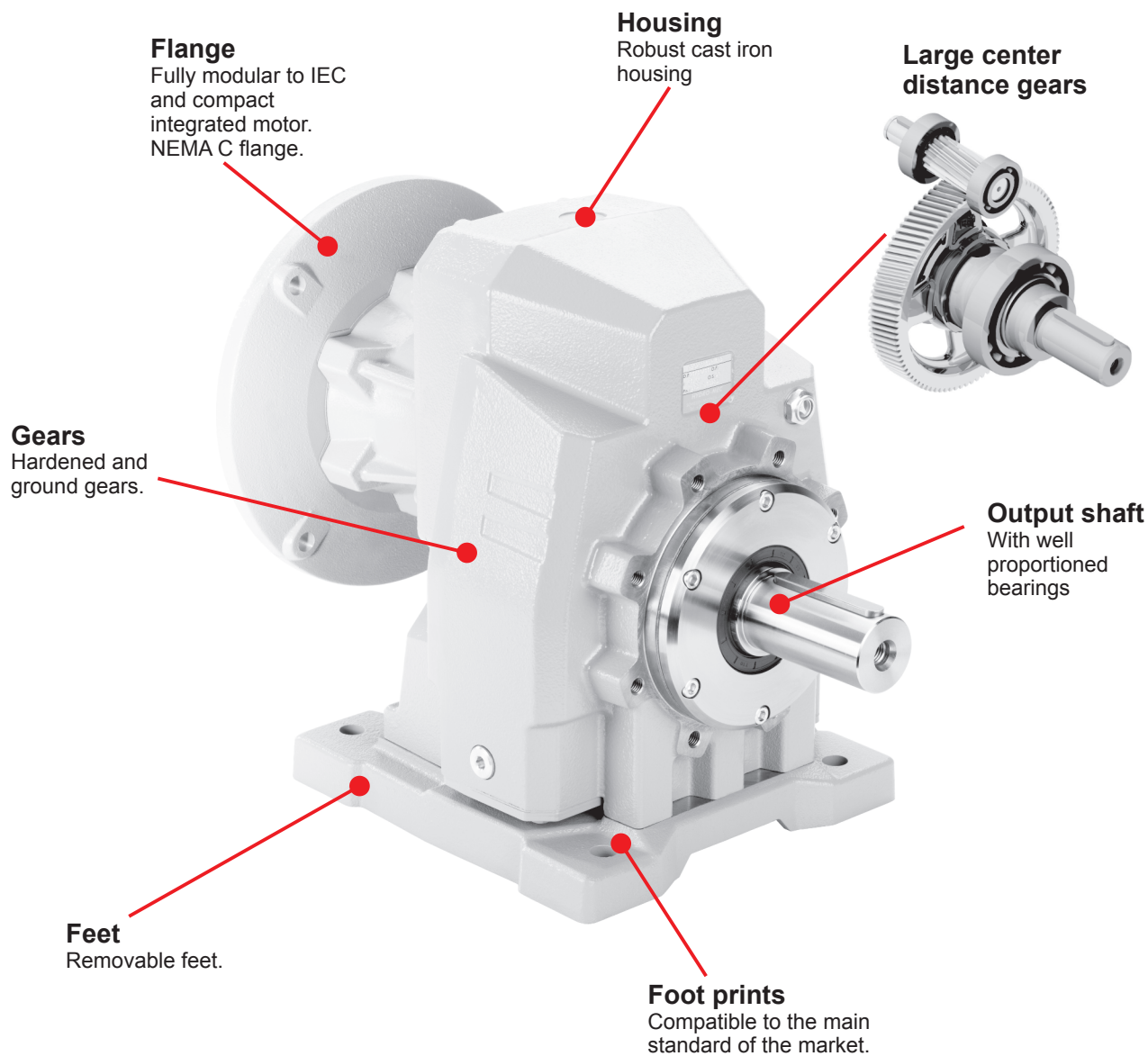
| B5 Motor Flanges | A   | C <sub>max</sub> | g6  | k1    | kit code   | k1 with KC50.9.011 |
|------------------|-----|------------------|-----|-------|------------|--------------------|
| 63 B5            | 248 | 247.5            | 140 | 250.5 | K063.4.041 | 256.5              |
| 71 B5            | 246 | 257.5            | 160 | 248.5 | K063.4.042 | 254.5              |
| 80/90 B5         | 248 | 277.5            | 200 | 250.5 | K063.4.043 | 256.5              |

| B14 Motor Flanges | A   | C <sub>max</sub> | g6  | k1    | kit code   | k1 with KC50.9.011 |
|-------------------|-----|------------------|-----|-------|------------|--------------------|
| 71 B14            | 246 | 230              | 105 | 248.5 | K063.4.047 | 254.5              |
| 80 B14            | 248 | 237.5            | 120 | 250.5 | K063.4.046 | 256.5              |
| 90 B14            | 248 | 247.5            | 140 | 250.5 | K063.4.041 | 256.5              |



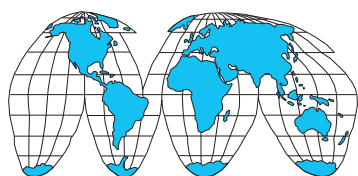
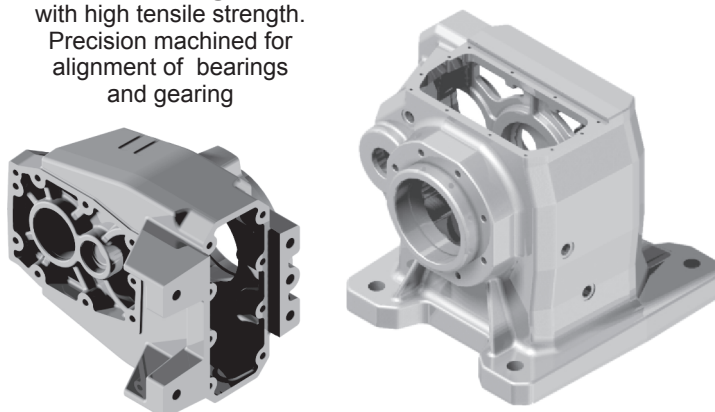
# Cast iron in line gearboxes

A modular and compact product



## Single-piece Cast Iron housing

with high tensile strength.  
Precision machined for alignment of bearings and gearing

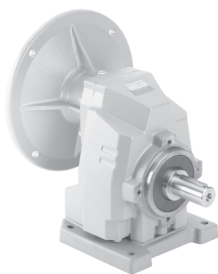


World wide sales network.

# Specific type datasheet on page...

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1 Stage

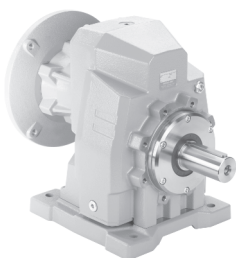


**Types / Tipi**  
Tipen / Types  
Tipos

| 5-5                  | 5-11                 | 5-17                 | 5-23                 | 5-29                  |
|----------------------|----------------------|----------------------|----------------------|-----------------------|
|                      |                      |                      |                      |                       |
| <b>501C</b><br>225Nm | <b>701C</b><br>380Nm | <b>801C</b><br>670Nm | <b>851C</b><br>700Nm | <b>901C</b><br>1175Nm |

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2 and 3 Stages

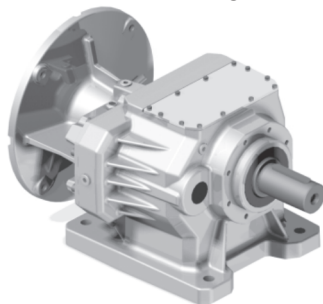


**Types / Tipi**  
Tipen / Types  
Tipos

| 5-7                  | 5-9                  | 5-13                 | 5-15                 | 5-19                 | 5-21                 | 5-25                  | 5-27                  | 5-31                  | 5-33                  |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                      |                      |                      |                      |                      |                      |                       |                       |                       |                       |
| <b>502C</b><br>320Nm | <b>503C</b><br>320Nm | <b>702C</b><br>675Nm | <b>703C</b><br>675Nm | <b>802C</b><br>900Nm | <b>803C</b><br>900Nm | <b>852C</b><br>1600Nm | <b>853C</b><br>1800Nm | <b>902C</b><br>2100Nm | <b>903C</b><br>2100Nm |

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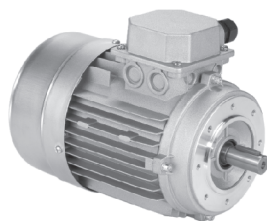
2 and 3 Stages



**Types / Tipi**  
Tipen / Types  
Tipos

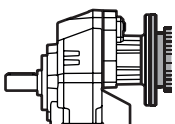
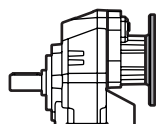
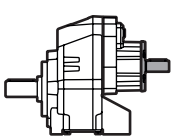
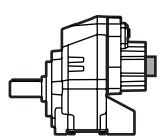
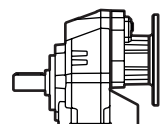
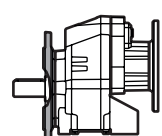
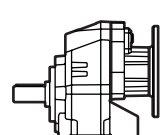
| 5-35                  | 5-37                  | 5-39                  | 5-41                  |
|-----------------------|-----------------------|-----------------------|-----------------------|
|                       |                       |                       |                       |
| <b>1002</b><br>2900Nm | <b>1003</b><br>3000Nm | <b>1102</b><br>4500Nm | <b>1103</b><br>4600Nm |

On page / A pagina / Auf Seite / À la page / En la página



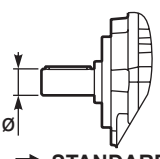
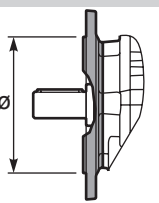
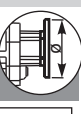
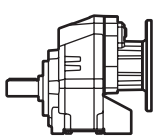
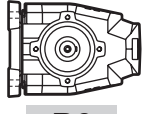
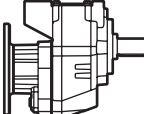
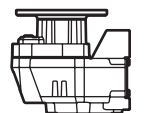
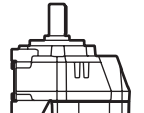
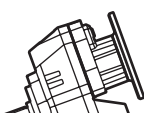
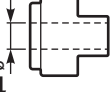
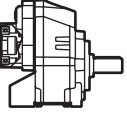
**Types / Tipi**  
Tipen / Types  
Tipos

| M-1               |                   |                   |                   |                   |                       |             |                     |                     |                     |  |
|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|-------------|---------------------|---------------------|---------------------|--|
|                   |                   |                   |                   |                   |                       |             |                     |                     |                     |  |
| <b>56A</b><br>56B | <b>63A</b><br>63B | <b>71A</b><br>71B | <b>80A</b><br>80B | <b>90S</b><br>90L | <b>100LA</b><br>100LB | <b>112M</b> | <b>132S</b><br>132M | <b>160M</b><br>160L | <b>180M</b><br>180L |  |

| Type - Tipo - Typ<br>Type - Tipo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Size - Grandezza - Grösse<br>Taille - Tamaño                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mounting - Montaggio<br>Montage - Fixation<br>Tipo de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Ratio - Rapporto<br>Untersetzung<br>Reduction<br>Relación |                  |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------|---|---|---|---|----|-----|----|----|-----|--|----|-------|----|-----|-----|--|----|----|----|----|-----|--|----|----|----|----|--|--|----|------|----|----|--|--|----|----|----|----|--|--|----|----|----|-----|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 702C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6.57                                                      |                  |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| <p>Cast iron coaxial gear boxes<br/>Riduttori coassiali in Ghisa</p> <div><p>With IEC motor<br/><b>M</b></p></div> <div><p>With motor flange<br/><b>P</b></p></div> <div><p>With male input shaft<br/><b>R</b></p></div> <div><p>Modular base<br/><b>B</b></p><p>Not available for:<br/>701C, 801C,<br/>851C, 901C,<br/>852C, 902C,<br/>1002 , 1102,<br/>1003 , 1103 .</p></div> | <div><p>1 Stage<br/>Riduzione<br/>Stufe<br/>Trains<br/>Etapas</p><p><b>501C</b><br/><b>701C</b><br/><b>801C</b><br/><b>851C</b><br/><b>901C</b></p></div> <div><p>2 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p><p><b>502C</b><br/><b>702C</b><br/><b>802C</b><br/><b>852C</b><br/><b>902C</b><br/><b>1002</b><br/><b>1102</b></p></div> <div><p>3 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p><p><b>503C</b><br/><b>703C</b><br/><b>803C</b><br/><b>853C</b><br/><b>903C</b><br/><b>1003</b><br/><b>1103</b></p></div> | <div><p>Without flange / feet<br/><b>-N</b></p></div> <div><p>Output flange mounted<br/><b>-F</b></p></div> <div><p>Mounted feet<br/><b>B..</b></p></div> <div><p>Feet / piedini</p><table><tr><th>Feet Code</th><th>Market reference</th><th>G</th><th>H</th><th>R</th><th>L</th></tr><tr><td>B1</td><td>112</td><td>18</td><td>85</td><td>110</td><td></td></tr><tr><td>B2</td><td>212/3</td><td>18</td><td>100</td><td>130</td><td></td></tr><tr><td>S1</td><td>17</td><td>18</td><td>75</td><td>110</td><td></td></tr><tr><td>S2</td><td>27</td><td>25</td><td>90</td><td></td><td></td></tr><tr><td>M1</td><td>42/3</td><td>25</td><td>80</td><td></td><td></td></tr><tr><td>L4</td><td>04</td><td>13</td><td>80</td><td></td><td></td></tr><tr><td>L5</td><td>05</td><td>16</td><td>100</td><td></td><td></td></tr></table><p>You see feet code in the chart of the dimensions<br/>Vedi codice piede nella tabella delle dimensioni</p></div> | Feet Code                                                 | Market reference | G | H | R | L | B1 | 112 | 18 | 85 | 110 |  | B2 | 212/3 | 18 | 100 | 130 |  | S1 | 17 | 18 | 75 | 110 |  | S2 | 27 | 25 | 90 |  |  | M1 | 42/3 | 25 | 80 |  |  | L4 | 04 | 13 | 80 |  |  | L5 | 05 | 16 | 100 |  |  | <p>See technical data table</p> <p>Vedi tabelle dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p> |
| Feet Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Market reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | H                                                         | R                | L |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| B1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 112                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 85                                                        | 110              |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| B2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 212/3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100                                                       | 130              |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| S1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 75                                                        | 110              |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| S2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 90                                                        |                  |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| M1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 42/3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 80                                                        |                  |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| L4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 80                                                        |                  |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |
| L5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100                                                       |                  |   |   |   |   |    |     |    |    |     |  |    |       |    |     |     |  |    |    |    |    |     |  |    |    |    |    |  |  |    |      |    |    |  |  |    |    |    |    |  |  |    |    |    |     |  |  |                                                                                                                                                                                 |



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

| Output shaft<br>Albero uscita<br>Abtriebswelle<br>Arbre de sortie<br>Eje en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Output flange<br>Flangia uscita<br>Ausgangsflansch<br>Bride de sortie<br>Brida en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Motor size - Grandezza motore<br>Motor Grösse<br>Grandeur moteur - Tamaño motor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Position de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                                          | Terminal box position<br>Posizione morsettiera<br>Klemmkastenlage<br>Position boîte à bornes<br>Posición caja de bornes                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | B3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | B                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|  <p>→ STANDARD</p> <p>501C 502C<br/>503C</p> <p><b>H</b> → <b>Ø30</b></p> <p><b>I</b> → <b>Ø35</b></p> <p>701C 702C<br/>703C</p> <p><b>I</b> → <b>Ø35</b></p> <p><b>L</b> → <b>Ø38</b></p> <p><b>M</b> → <b>Ø40</b></p> <p>801C<br/>802C 803C</p> <p><b>M</b> → <b>Ø40</b></p> <p><b>P</b> → <b>Ø50</b></p> <p>851C 852C<br/>853C</p> <p><b>P</b> → <b>Ø50</b></p> <p><b>J</b> → <b>Ø60</b></p> <p>901C 902C<br/>903C</p> <p><b>P</b> → <b>Ø50</b></p> <p><b>J</b> → <b>Ø60</b></p> <p>1002 1003</p> <p><b>J</b> → <b>Ø60</b></p> <p>1102 1103</p> <p><b>A</b> → <b>Ø70</b></p> |  <p>→ STANDARD</p> <p><b>N</b> Senza flangia<br/>Without flange</p> <p>501C 502C<br/>503C</p> <p><b>3</b> → <b>Ø160</b></p> <p><b>4</b> → <b>Ø200</b></p> <p><b>5</b> → <b>Ø250</b></p> <p>701C 702C<br/>703C</p> <p><b>4</b> → <b>Ø200</b></p> <p><b>5</b> → <b>Ø250</b></p> <p>801C<br/>802C 803C</p> <p><b>5</b> → <b>Ø250</b></p> <p><b>6</b> → <b>Ø300</b></p> <p>851C<br/>852C 853C</p> <p><b>6</b> → <b>Ø300</b></p> <p><b>7</b> → <b>Ø350</b></p> <p>901C 902C 903C<br/>1002 1003</p> <p><b>6</b> → <b>Ø300</b></p> <p><b>7</b> → <b>Ø350</b></p> <p><b>8</b> → <b>Ø450</b></p> <p>1102 1103</p> <p><b>7</b> → <b>Ø350</b></p> <p><b>8</b> → <b>Ø450</b></p> |  <p>Flange<br/>Flangia</p> <p><b>B5</b></p> <p><b>-A</b>=56<br/>(Ø120)</p> <p><b>-B</b>=63<br/>(Ø140)</p> <p><b>-C</b>=71<br/>(Ø160)</p> <p><b>-D</b>=80<br/>(Ø200)</p> <p><b>-E</b>=90<br/>(Ø200)</p> <p><b>-F</b>=100÷112<br/>(Ø250)</p> <p><b>-G</b>=132<br/>(Ø300)</p> <p><b>-H</b>=160<br/>(Ø350)</p> <p><b>-I</b>=180<br/>(Ø350)</p> <p><b>-L</b>=200<br/>(Ø400)</p> <p><b>CA</b>=225<br/>(Ø450)</p> <p><b>B14</b></p> <p><b>-O</b>=56<br/>(Ø80)</p> <p><b>-P</b>=63<br/>(Ø90)</p> <p><b>-Q</b>=71<br/>(Ø105)</p> <p><b>-R</b>=80<br/>(Ø120)</p> <p><b>-T</b>=90<br/>(Ø140)</p> <p><b>-U</b>=100÷112<br/>(Ø160)</p> <p><b>-V</b>=132<br/>(Ø200)</p> <p>Type R<br/>Tipo R</p> <p>503C</p> <p><b>-1</b> → <b>Ø14</b></p> <p>502C 703C 803C</p> <p><b>-2</b> → <b>Ø19</b></p> <p>702C 802C<br/>853C 903C</p> <p><b>-3</b> → <b>Ø24</b></p> <p>852C 902C<br/>1003 1103</p> <p><b>-4</b> → <b>Ø28</b></p> <p>1002 1102</p> <p><b>-6</b> → <b>Ø42</b></p> |  <p><b>B3</b></p> <p>STANDARD</p>  <p><b>B6</b></p>  <p><b>B7</b></p>  <p><b>B8</b></p>  <p><b>V5</b></p>  <p><b>V6</b></p>  <p><b>V8</b></p> | <p>-</p> <p>Nothing indication:<br/>standard bore</p> <p>Nessuna indicazione:<br/>foro standard</p> <p>COUPLING</p>  <p><b>A</b> = 9mm</p> <p><b>B</b> = 11mm</p> <p><b>C</b> = 14mm</p> <p><b>D</b> = 19mm</p> <p><b>E</b> = 24mm</p> <p><b>F</b> = 28mm</p> <p><b>0</b></p> <p>Ready for input coupling<br/>Predisposto per giunto</p>  |  <p><b>A</b></p>  <p><b>B</b></p> <p>STANDARD</p>  <p><b>C</b></p>  <p><b>D</b></p> |

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

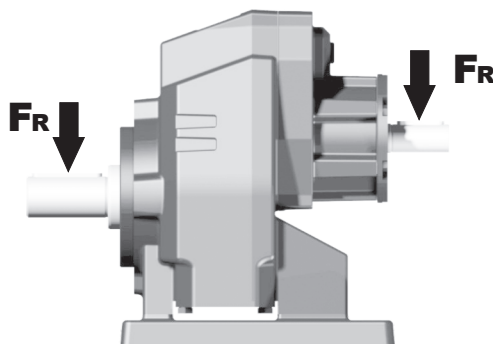
$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

5

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



|                      | $F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$                                                                                                                                                                                                                                                                                                                                                                                                                           | $F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$ |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| <b>M</b>             | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                                                     |                                                          |
| <b>d</b>             | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                                                         |                                                          |
| <b>f<sub>k</sub></b> | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br><b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br><b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br><b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br><b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |                                                          |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.



How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B** Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Puissance nominale  
Potencia nominal

**A** Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

**702C**

Coaxial - Gear  
**675Nm**

Rating - Cast Iron COAXIAL GEARBOXES

QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |     |     | Available B14 motor flanges |    |    |     | Output Shaft |      | Notes |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----|-----|-----------------------------|----|----|-----|--------------|------|-------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F  | -G  | -R                          | -T | -U | -V  |              |      |       |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100 | 112 | 132                         | 80 | 90 | 100 | 112          | 132  |       |
| 213                                           | <b>6.57</b>  | 7.5                             | 312                               | 1.2                    | <b>8.8</b>                        | <b>380</b>                         | B                          |    |    |     |     |                             |    |    |     |              | 3018 | 01    |
| 185                                           | <b>7.56</b>  | 7.5                             | 359                               | 1.1                    | <b>7.9</b>                        | <b>390</b>                         | B                          |    |    |     |     |                             |    |    |     |              | 3016 | 02    |
| 159                                           | <b>8.82</b>  | 7.5                             | 419                               | 1.0                    | <b>7.1</b>                        | <b>410</b>                         | B                          |    |    |     |     |                             |    |    |     |              | 3014 | 03    |
| 113                                           | <b>12.39</b> | 7.5                             | 588                               | 1.0                    | <b>7.2</b>                        | <b>580</b>                         | B                          |    |    |     |     |                             |    |    |     |              | 2018 | 04    |
| 98                                            | <b>14.24</b> | 5.5                             | 499                               | 1.2                    | <b>6.4</b>                        | <b>600</b>                         | B                          |    |    |     |     |                             |    |    |     |              | 2016 | 05    |

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

| fs                                                                                                         |                     | Oper. hours per day<br>Ore di funz. giorn. |      |      |
|------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|------|------|
| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                    |                     | 3 h                                        | 10 h | 24 h |
| Continuous or intermittent appl. with start / hour<br>Applicazione cont. o interm. con n.ro operazioni/ora | Uniform / Uniforme  | 0.8                                        | 1    | 1.25 |
|                                                                                                            | Moderate / Moderato | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Heavy / Forte       | 1.25                                       | 1.5  | 1.75 |
| Intermittent application with start / hour<br>Applicazione intermittente con n.ro operazioni/ora           | Uniform / Uniforme  | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Moderate / Moderato | 1.25                                       | 1.5  | 1.75 |
|                                                                                                            | Heavy / Forte       | 1.5                                        | 1.75 | 2.15 |

| D  | Motor flange available<br>Flange disponibili<br>Erhältliche Motorflansche<br>Bridas disponibles<br>Bridas disponibles                                                                                                          |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B) | Mounting with reduction ring<br>Montaggio con boccia di riduzione<br>Reduzierhülsen<br>Montage avec douille de réduction<br>Montaje con casquillo de reducción                                                                 |
| C) | Motor flangeholes position/terminal box position<br>Posizione fori flangia/basetta motore<br>Bohrungsposition am Motorflansch/-sockel<br>Position trous bride/barrette à bornes moteur<br>Posición agujeros brida / base motor |
| B) | Available without reduction bushes<br>Disponibile anche senza boccia<br>Auch ohne Reduzierbuchse verfügbar<br>Disponible aussi sans douille de réduction<br>Disponible tambien sin casquillo                                   |

|          |                                                                        |                                                                                                  |                                                                                              |                                                                                                   |                                                                                                    |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>A</b> | Select required torque<br>(according to service factor)                | Seleziona la coppia desiderata (comprensiva del fattore di servizio)                             | Max. Drehmoment in Bezug zum Betriebsfaktor                                                  | Sélectionner le couple souhaité (comprenant le facteur de service)                                | Seleccionar el par deseado (incluyendo el factor de servicio)                                      |
| <b>B</b> | Select output speed                                                    | Seleziona la velocità in uscita                                                                  | Ausgewählte Abtriebsdrehzahl                                                                 | Sélectionner la vitesse de sortie                                                                 | Seleccionar la velocidad de salida                                                                 |
| <b>C</b> | On the same line of selected geared motor, you can find the gear ratio | Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione | Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung | Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction | En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción |
| <b>D</b> | Select motor flange available (if requested)                           | Scegli la flangia disponibile (se richiesta)                                                     | Erhältliche Motorflansche (auf Anfrage)                                                      | Choisir la bride disponible (si elle est demandée)                                                | Seleccionar la brida disponible (sobre pedido)                                                     |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |            | Available B14 motor flanges |    |            | Output Shaft<br><br>$\emptyset$ | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|------------|-----------------------------|----|------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -D                         | -E | -F         | -R                          | -T | -U         |                                                                                                                    |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 80                         | 90 | 100<br>112 | 80                          | 90 | 100<br>112 |                                                                                                                    |                                                                                                    |
| 481                                           | <b>2.91</b>  | 4                               | 76                                | 1.8                    | <b>7.2</b>                        | <b>140</b>                         | B                          | B  |            | B                           | B  |            | 3499                                                                                                               | <b>standard<br/>ø30</b>                                                                            |
| 373                                           | <b>3.75</b>  | 4                               | 98                                | 1.6                    | <b>6.4</b>                        | <b>160</b>                         | B                          | B  |            | B                           | B  |            | 28105                                                                                                              |                                                                                                    |
| 263                                           | <b>5.33</b>  | 4                               | 140                               | 1.2                    | <b>4.8</b>                        | <b>170</b>                         | B                          | B  |            | B                           | B  |            | 21112                                                                                                              |                                                                                                    |
| 219                                           | <b>6.39</b>  | 4                               | 167                               | 1.0                    | <b>4.0</b>                        | <b>170</b>                         | B                          | B  |            | B                           | B  |            | 18115                                                                                                              |                                                                                                    |
| 178                                           | <b>7.85</b>  | 4                               | 205                               | 1.1                    | <b>4.3</b>                        | <b>225</b>                         | B                          | B  |            | B                           | B  |            | 13102                                                                                                              |                                                                                                    |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **501C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **501C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **501C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **501C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **501C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                 | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |                                                   |  |  |  |  |  |
| B3                                                                                | B6                                                                                                                                 | B7                                                                                  | B8                                                                                  | V5                                                                                  | V6                                                                                  | V8                                                                                  |
| 1.25 LT                                                                           | 0.80 LT                                                                                                                            | 0.80 LT                                                                             | 0.70 LT                                                                             | 1.40 LT                                                                             | 0.80 LT                                                                             | Ask                                                                                 |
| SHELL Omala S4 WE 320                                                             |                                                                                                                                    |                                                                                     |                                                                                     | ENI Telium VSF 320                                                                  |                                                                                     |                                                                                     |

For all details on lubrication and plugs check our website

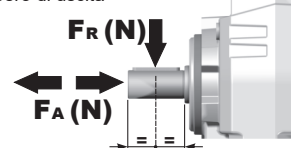
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

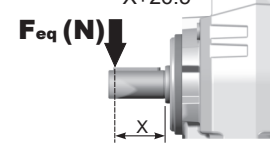
## RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{56.5}{X+26.5}$$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 500 | 2500 | 140   | 640 | 3200 | 70    | 820  | 4100 |
| 250   | 540 | 2700 | 120   | 680 | 3400 | 40    | 1020 | 5100 |
| 200   | 580 | 2900 | 85    | 760 | 3800 | 15    | 1100 | 5500 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

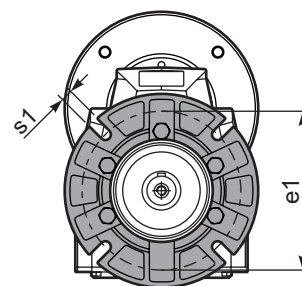
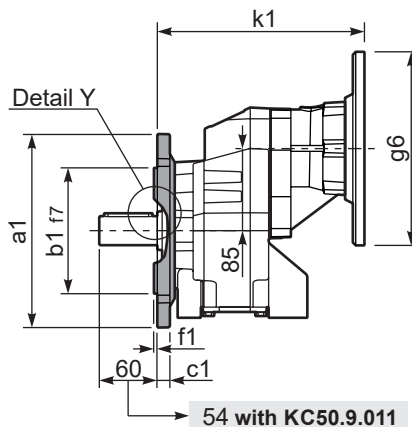
tab. 2

With feet  
Con piedini

|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>20.0 kg</b> |
|                                         | With feet   | <b>22.0 kg</b> |

[illegible]

Output flanges  
flange di uscita



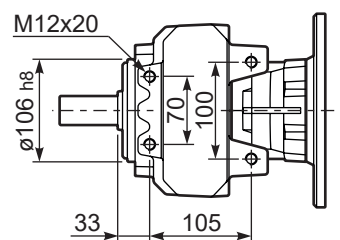
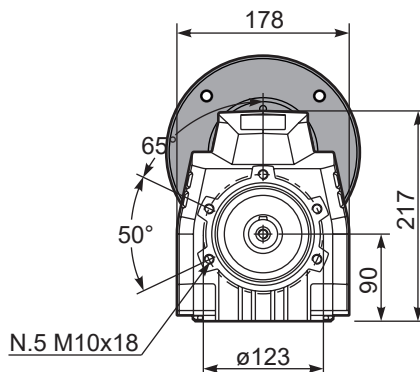
54 with KC50.9.011

### Available output flanges / flange di uscita

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 30x60    | 8  | 33 | M10x22 |
| On request<br>A richiesta | -          | -  | -  | -      |

| a1 Ø | b1  | c1   | e1  | f1  | s1 | kit code   | <br>With flange and feet<br>only on request.<br>Ask for compatibility |
|------|-----|------|-----|-----|----|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 160  | 110 | 14   | 130 | 3.5 | 11 | KC50.9.011 |                                                                                                                                                            |
| 200  | 130 | 13   | 165 | 3.5 | 11 | KC50.9.012 |                                                                                                                                                            |
| 250  | 180 | 15.5 | 215 | 4   | 14 | KC50.9.013 |                                                                                                                                                            |

Basic gearbox  
Riduttore base



| B5 Motor Flanges | A   | C <sub>max</sub> | g6  | k1  | kit code   | k1 with KC50.9.011 |
|------------------|-----|------------------|-----|-----|------------|--------------------|
| 80/90 B5         | 215 | 300              | 200 | 215 | K023.4.042 | 221                |
| 100/112 B5       | 224 | 325              | 250 | 224 | K023.4.043 | 230                |

| B14 Motor Flanges | A   | C <sub>max</sub> | g6  | k1  | kit code   | k1 with KC50.9.011 |
|-------------------|-----|------------------|-----|-----|------------|--------------------|
| 80 B14            | 215 | 260              | 120 | 215 | K085.4.046 | 221                |
| 90 B14            | 215 | 270              | 140 | 215 | K085.4.045 | 221                |
| 100/112 B14       | 224 | 280              | 160 | 224 | K085.4.047 | 230                |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    |            | Available B14 motor flanges |    |    |            |      | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|------------|-----------------------------|----|----|------------|------|------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -F         | -Q                          | -R | -T | -U         |      |                  |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 100<br>112 | 71                          | 80 | 90 | 100<br>112 |      |                  |                 |
| 167                                           | 8.38         | 4                               | 215                               | 1.0                    | 4.1                               | 225                                | B                          |    |    |    |            | C                           | C  |    |            | 2821 | standard<br>ø30  | 01              |
| 139                                           | 10.04        | 3                               | 194                               | 1.2                    | 3.7                               | 240                                | B                          |    |    |    |            | C                           | C  |    |            | 2818 |                  | 02              |
| 114                                           | 12.33        | 3                               | 238                               | 1.1                    | 3.2                               | 260                                | B                          |    |    |    |            | C                           | C  |    |            | 2813 |                  | 03              |
| 92                                            | 15.16        | 2.2                             | 215                               | 1.2                    | 2.6                               | 260                                | B                          |    |    |    |            | C                           | C  |    |            | 1921 |                  | 04              |
| 80                                            | 17.57        | 2.2                             | 250                               | 1.1                    | 2.3                               | 270                                | B                          |    |    |    |            | C                           | C  |    |            | 1721 |                  | 05              |
| 77                                            | 18.16        | 2.2                             | 258                               | 1.1                    | 2.4                               | 290                                | B                          |    |    |    |            | C                           | C  |    |            | 1918 |                  | 06              |
| 67                                            | 21.05        | 2.2                             | 299                               | 1.1                    | 2.3                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1718 |                  | 07              |
| 63                                            | 22.30        | 2.2                             | 317                               | 1.0                    | 2.2                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1913 |                  | 08              |
| 57                                            | 24.70        | 1.5                             | 242                               | 1.3                    | 2.0                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1518 |                  | 09              |
| 54                                            | 25.85        | 1.5                             | 253                               | 1.3                    | 1.9                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1713 |                  | 10              |
| 47.5                                          | 29.49        | 1.5                             | 289                               | 1.1                    | 1.7                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1318 |                  | 11              |
| 46.1                                          | 30.34        | 1.5                             | 297                               | 1.1                    | 1.6                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1513 |                  | 12              |
| 41.7                                          | 33.60        | 1.1                             | 240                               | 1.0                    | 1.1                               | 250                                | B                          |    |    |    |            | C                           | C  |    |            | 1021 |                  | 13              |
| 38.7                                          | 36.21        | 1.1                             | 259                               | 1.2                    | 1.3                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1313 |                  | 14              |
| 34.8                                          | 40.25        | 1.1                             | 288                               | 1.0                    | 1.1                               | 300                                | B                          |    |    |    |            | C                           | C  |    |            | 1018 |                  | 15              |
| 28.3                                          | 49.43        | 1.1                             | 354                               | 0.9                    | 0.99                              | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1013 |                  | 16              |
| 26.7                                          | 52.53        | 0.75                            | 258                               | 1.0                    | 0.76                              | 260                                | B                          |    |    |    |            | C                           | C  |    |            | 918  |                  | 17              |
| 21.7                                          | 64.51        | 0.75                            | 317                               | 1.0                    | 0.75                              | 315                                | B                          |    |    |    |            | C                           | C  |    |            | 913  |                  | 18              |
| 20.2                                          | 69.37        | 0.37                            | 168                               | 1.1                    | 0.42                              | 190                                | B                          |    |    |    |            | C                           | C  |    |            | 718  |                  | 19              |
| 16.4                                          | 85.19        | 0.37                            | 206                               | 1.1                    | 0.41                              | 230                                | B                          |    |    |    |            | C                           | C  |    |            | 713  |                  | 20              |

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

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In table 2 please see possible radial loads and axial loads on the gearbox.

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**E** El reductor tamaño **502C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
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En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

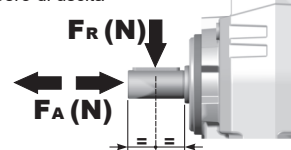
| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                    |         |     |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|--------------------|---------|-----|
|                       |                                                                                                                                    |         |         |                    |         |     |
| 1.25 LT               | 0.80 LT                                                                                                                            | 0.80 LT | 0.70 LT | 1.40 LT            | 0.80 LT | Ask |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         |         | ENI Telium VSF 320 |         |     |

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

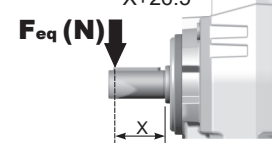
#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{56.5}{X+26.5}$$



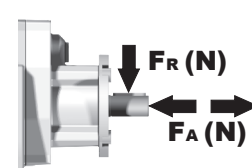
| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 500 | 2500 | 140   | 640 | 3200 | 70    | 820  | 4100 |
| 250   | 540 | 2700 | 120   | 680 | 3400 | 40    | 1020 | 5100 |
| 200   | 580 | 2900 | 85    | 760 | 3800 | 15    | 1100 | 5500 |

**On request reinforced bearings to increase loads.**

A richiesta cuscinetti rinforzati per aumentare i carichi.

##### Input shaft

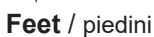
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |
| 500   | 340 | 1700 |

**tab. 2**

|                                         |                            |
|-----------------------------------------|----------------------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange <b>15.0 kg</b> |
|                                         | With feet <b>17.0 kg</b>   |

P502C-F...

Output flanges  
flange di uscita



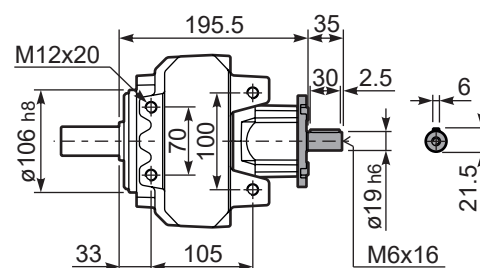
### Available output flanges / flange di uscita

P502C-N...

Basic gearbox  
Riduttore base



Input Shaft  
Albero in entrata



**5-8**





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                                                      |                                                                                                    |
| 18.8                                          | <b>74.33</b>  | 0.37                            | 176                               | 1.8                    | <b>0.67</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 191313                                                                                                               | 01                                                                                                 |
| 17.0                                          | <b>82.56</b>  | 0.37                            | 196                               | 1.6                    | <b>0.60</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 151318                                                                                                               | 02                                                                                                 |
| 16.0                                          | <b>87.48</b>  | 0.37                            | 207                               | 1.5                    | <b>0.57</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 131713                                                                                                               | 03                                                                                                 |
| 13.8                                          | <b>101.40</b> | 0.37                            | 240                               | 1.3                    | <b>0.49</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 151313                                                                                                               | 04                                                                                                 |
| 11.4                                          | <b>122.57</b> | 0.37                            | 291                               | 1.1                    | <b>0.41</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 131313                                                                                                               | 05                                                                                                 |
| 10.1                                          | <b>138.59</b> | 0.37                            | 329                               | 1.0                    | <b>0.36</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 101318                                                                                                               | 06                                                                                                 |
| 8.7                                           | <b>160.82</b> | 0.25                            | 257                               | 1.2                    | <b>0.31</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 91713                                                                                                                | 07                                                                                                 |
| 8.2                                           | <b>170.20</b> | 0.25                            | 272                               | 1.2                    | <b>0.29</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 101313                                                                                                               | 08                                                                                                 |
| 7.6                                           | <b>183.48</b> | 0.25                            | 294                               | 1.1                    | <b>0.27</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 91318                                                                                                                | 09                                                                                                 |
| 6.5                                           | <b>214.15</b> | 0.18                            | 262                               | 1.2                    | <b>0.23</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 71713                                                                                                                | 10                                                                                                 |
| 6.2                                           | <b>225.33</b> | 0.18                            | 276                               | 1.2                    | <b>0.22</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 91313                                                                                                                | 11                                                                                                 |
| 5.7                                           | <b>244.32</b> | 0.18                            | 299                               | 1.1                    | <b>0.20</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 71318                                                                                                                | 12                                                                                                 |
| 5.5                                           | <b>254.15</b> | 0.18                            | 311                               | 1.0                    | <b>0.20</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 61713                                                                                                                | 13                                                                                                 |
| 4.8                                           | <b>289.96</b> | 0.18                            | 355                               | 0.9                    | <b>0.17</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 61318                                                                                                                | 14                                                                                                 |
| 4.7                                           | <b>300.05</b> | 0.18                            | 367                               | 0.9                    | <b>0.17</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 71313                                                                                                                | 15                                                                                                 |
| 3.9                                           | <b>356.09</b> | 0.12                            | 282                               | 1.1                    | <b>0.14</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 61313                                                                                                                | 16                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **503C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **503C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **503C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **503C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **503C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |  |
| <b>B3</b>                                                                           | <b>B6</b>                                                                                                                          | <b>B7</b>                                                                             | <b>B8</b>                                                                             | <b>V5</b>                                                                             | <b>V6</b>                                                                             | <b>V8</b>                                                                             |
| 1.35 LT                                                                             | 0.80 LT                                                                                                                            | 0.80 LT                                                                               | 0.70 LT                                                                               | 1.50 LT                                                                               | 0.85 LT                                                                               | Ask                                                                                   |
| <b>SHELL</b> Omala S4 WE 320                                                        |                                                                                                                                    |                                                                                       |                                                                                       | <b>ENI</b> Telium VSF 320                                                             |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website

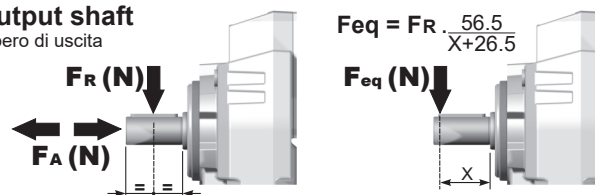
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{56.5}{X+26.5}$$

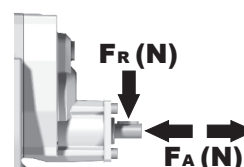
| $n_2$      | FA  | FR   | $n_2$      | FA  | FR   | $n_2$     | FA   | FR   |
|------------|-----|------|------------|-----|------|-----------|------|------|
| <b>300</b> | 500 | 2500 | <b>140</b> | 640 | 3200 | <b>70</b> | 820  | 4100 |
| <b>250</b> | 540 | 2700 | <b>120</b> | 680 | 3400 | <b>40</b> | 1020 | 5100 |
| <b>200</b> | 580 | 2900 | <b>85</b>  | 760 | 3800 | <b>15</b> | 1100 | 5500 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

##### Input shaft

Albero in entrata

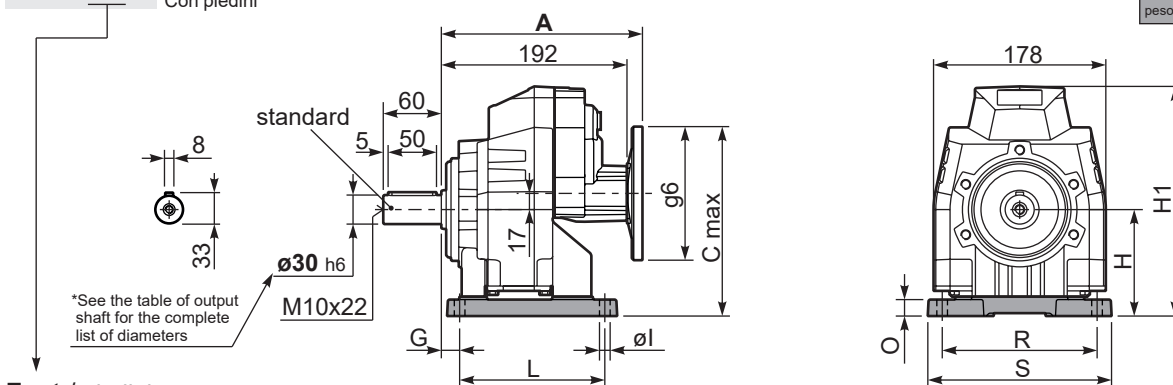


| $n_1$       | FA  | FR  |
|-------------|-----|-----|
| <b>1400</b> | 140 | 700 |
| <b>900</b>  | 160 | 800 |
| <b>500</b>  | 190 | 950 |

tab. 2



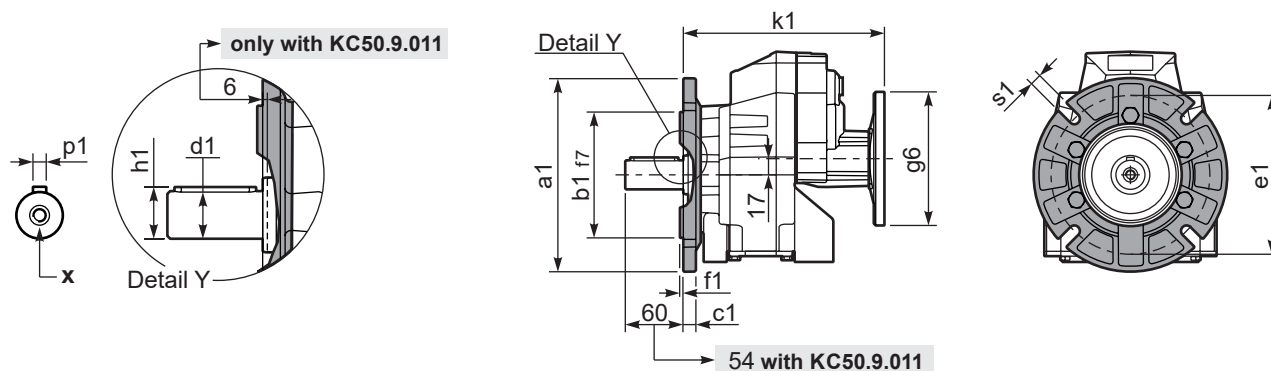
## P503C-S4...

With feet  
Con piediniGearbox weight  
peso riduttore With flange **15.0 kg**  
With feet **17.0 Kg**

## Feet / piedini

| Feet Code | Market reference | G  | H   | R   | L   | S   | H1  | O  | Øl   | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|-----|-----|-----|-----|----|------|----------------|------------|
| S4        | 47               | 30 | 115 | 135 | 165 | 170 | 242 | 22 | 13.5 | -              | C50C.9.024 |
| -         | -                | -  | -   | -   | -   | -   | -   | -  | -    | -              | -          |

## P503C-F...

Output flanges  
flange di uscita

## \*Available output shaft / Albero di uscita

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | Ø 30x60    | 8  | 33 | M10x22 |
| On request<br>A richiesta | -          | -  | -  | -      |

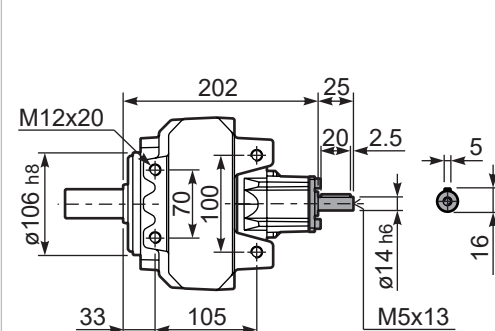
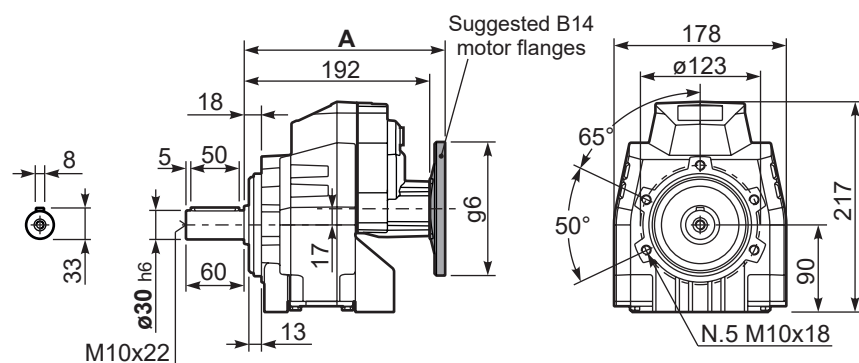
## Available output flanges / flange di uscita

| a1 Ø | b1  | c1   | e1  | f1  | s1 | kit code   | <br>With flange and feet<br>only on request.<br>Ask for compatibility |
|------|-----|------|-----|-----|----|------------|-----------------------------------------------------------------------|
| 160  | 110 | 14   | 130 | 3.5 | 11 | KC50.9.011 |                                                                       |
| 200  | 130 | 13   | 165 | 3.5 | 11 | KC50.9.012 |                                                                       |
| 250  | 180 | 15.5 | 215 | 4   | 14 | KC50.9.013 |                                                                       |

## P503C-N...

Basic gearbox  
Riduttore base

## R503C-N...

Input Shaft  
Albero in entrata

| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   | k1 with KC50.9.011 |
|------------------|-------|------------------|-----|-------|------------|--------------------|
| 63 B5            | 210.5 | 202              | 140 | 210.5 | K050.4.041 | 216.5              |
| 71 B5            | 208   | 212              | 160 | 208   | K050.4.042 | 214                |

| B14 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   | k1 with KC50.9.011 |
|-------------------|-------|------------------|-----|-------|------------|--------------------|
| 56 B14            | 208   | 172              | 80  | 208   | KC40.4.049 | 214                |
| 63 B14            | 210.5 | 177              | 90  | 210.5 | K050.4.047 | 216.5              |
| 71 B14            | 208   | 184.5            | 105 | 208   | K050.4.045 | 214                |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges<br>-G<br>132 | B14 motor flanges<br>- - - -<br>- - - - | Output Shaft<br><br>$\emptyset$ | Ratios code<br>    |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------|--------------------|
| 507                                           | <b>2.76</b>  | 9                               | 166                               | 1.6                    | <b>14.4</b>                       | <b>265</b>                         |                                         | <b>not available</b>                    | 2980                            | <b>standard</b> 01 |
| 395                                           | <b>3.54</b>  | 9                               | 213                               | 1.3                    | <b>11.6</b>                       | <b>275</b>                         |                                         |                                         | 2485                            | <b>ø35</b> 02      |
| 277                                           | <b>5.06</b>  | 9                               | 304                               | 1.0                    | <b>8.6</b>                        | <b>290</b>                         |                                         |                                         | 1891                            | 03                 |
| 241                                           | <b>5.81</b>  | 7.5                             | 281                               | 1.2                    | <b>8.5</b>                        | <b>330</b>                         |                                         |                                         | 1693                            | ø40 04             |
| 206                                           | <b>6.79</b>  | 7.5                             | 329                               | 1.2                    | <b>8.4</b>                        | <b>380</b>                         |                                         |                                         | 1495                            | On request 05      |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **701C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **701C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **701C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **701C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **701C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 1.85 LT             | 1.40 LT                                                                                                                            | 1.40 LT | 1.30 LT | 2.25 LT               | 1.60 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

For all details on lubrication and plugs check our website

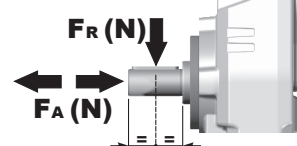
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

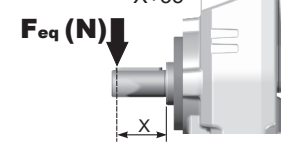
## RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{70}{X+35}$$



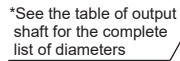
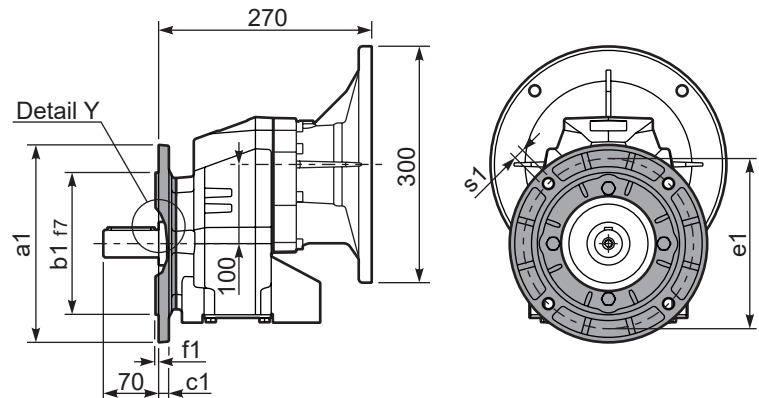
| $n_2$ | FA  | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|------|------|-------|------|------|
| 300   | 680 | 3400 | 140   | 960  | 4800 | 70    | 1300 | 6500 |
| 250   | 760 | 3800 | 120   | 1040 | 5200 | 40    | 1460 | 7300 |
| 200   | 900 | 4500 | 85    | 1120 | 5600 | 15    | 1800 | 9000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

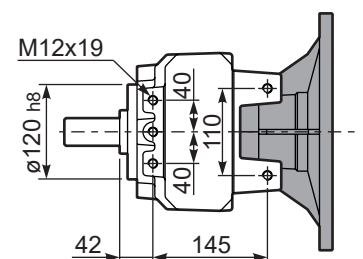
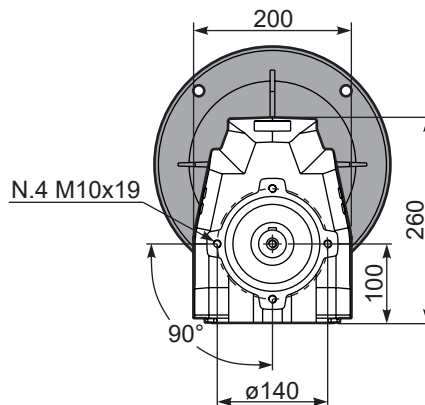
tab. 2

|                       |                            |
|-----------------------|----------------------------|
| <b>Gearbox weight</b> | With flange <b>36.0 kg</b> |
| peso riduttore        | With feet <b>39.5 kg</b>   |

[illegible]

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 35x70    | 10 | 38 | M10x22 |
| On request<br>A richiesta | ø 40x80    | 12 | 43 | M12x28 |

| a1 ø | b1  | c1 | e1  | f1  | s1 | kit code   |  <p>With flange and feet only on request.<br/>Ask for compatibility</p> |
|------|-----|----|-----|-----|----|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 200  | 130 | 11 | 165 | 3.5 | 11 | KC70.9.012 |                                                                                                                                                              |
| 250  | 180 | 13 | 215 | 4   | 14 | KC70.9.013 |                                                                                                                                                              |
| -    | -   | -  | -   | -   | -  | -          |                                                                                                                                                              |

[illegible]



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     |      | Output Shaft<br>                         | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|------|------------------------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |      |                                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |      |                                          |                 |
| 213                                           | 6.57         | 7.5                             | 312                               | 1.2                    | 8.8                               | 380                                | B                          |    |    |            |     |                             |    |            |     | 3018 | standard<br>ø35<br><br>ø40<br>On request | 01              |
| 185                                           | 7.56         | 7.5                             | 358                               | 1.1                    | 7.9                               | 390                                | B                          |    |    |            |     |                             |    |            |     | 3016 |                                          | 02              |
| 159                                           | 8.82         | 7.5                             | 419                               | 1.0                    | 7.1                               | 410                                | B                          |    |    |            |     |                             |    |            |     | 3014 |                                          | 03              |
| 113                                           | 12.39        | 7.5                             | 588                               | 1.0                    | 7.2                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 2018 |                                          | 04              |
| 98                                            | 14.24        | 5.5                             | 499                               | 1.2                    | 6.4                               | 600                                | B                          |    |    |            |     |                             |    |            |     | 2016 |                                          | 05              |
| 84                                            | 16.75        | 5.5                             | 587                               | 1.1                    | 6.1                               | 665                                | B                          |    |    |            |     |                             |    |            |     | 1618 |                                          | 06              |
| 73                                            | 19.25        | 5.5                             | 675                               | 1.0                    | 5.4                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1616 |                                          | 07              |
| 64                                            | 21.78        | 4                               | 558                               | 1.2                    | 4.7                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1318 |                                          | 08              |
| 56                                            | 25.04        | 4                               | 642                               | 1.1                    | 4.1                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1316 |                                          | 09              |
| 47.9                                          | 29.23        | 4                               | 750                               | 0.9                    | 3.5                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1314 |                                          | 10              |
| 45.7                                          | 30.65        | 3                               | 592                               | 1.1                    | 3.4                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1116 |                                          | 11              |
| 39.1                                          | 35.78        | 3                               | 691                               | 1.0                    | 2.9                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1114 |                                          | 12              |
| 36.3                                          | 38.55        | 2.2                             | 548                               | 1.1                    | 2.3                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 818  |                                          | 13              |
| 31.6                                          | 44.32        | 2.2                             | 630                               | 1.1                    | 2.3                               | 665                                | B                          |    |    |            |     |                             |    |            |     | 816  |                                          | 14              |
| 27.1                                          | 51.74        | 2.2                             | 735                               | 0.9                    | 2.0                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 814  |                                          | 15              |
| 22.9                                          | 61.03        | 1.1                             | 437                               | 1.1                    | 1.2                               | 480                                | B                          |    |    |            |     |                             |    |            |     | 616  |                                          | 16              |
| 19.6                                          | 71.25        | 1.1                             | 510                               | 1.1                    | 1.2                               | 560                                | B                          |    |    |            |     |                             |    |            |     | 614  |                                          | 17              |

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **702C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **702C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **702C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **702C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **702C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

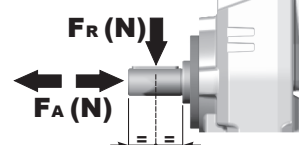
| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 2.10 LT             | 1.40 LT                                                                                                                            | 1.40 LT | 1.30 LT | 2.25 LT               | 1.60 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

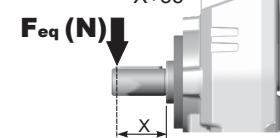
## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{70}{X+35}$$



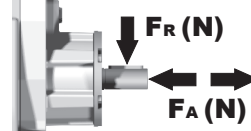
| $n_2$ | FA  | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|------|------|-------|------|------|
| 300   | 680 | 3400 | 140   | 960  | 4800 | 70    | 1300 | 6500 |
| 250   | 760 | 3800 | 120   | 1040 | 5200 | 40    | 1460 | 7300 |
| 200   | 900 | 4500 | 85    | 1120 | 5600 | 15    | 1800 | 9000 |

**On request reinforced bearings to increase loads.**

A richiesta cuscinetti rinforzati per aumentare i carichi.

### Input shaft

Albero in entrata

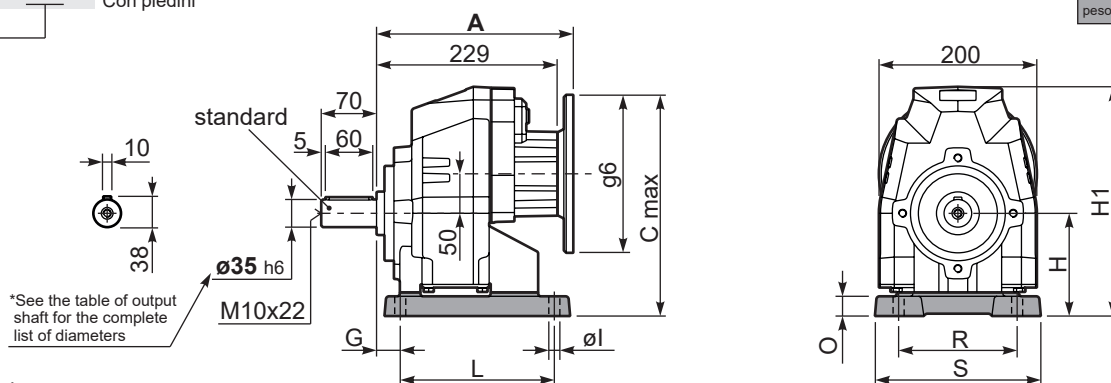


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

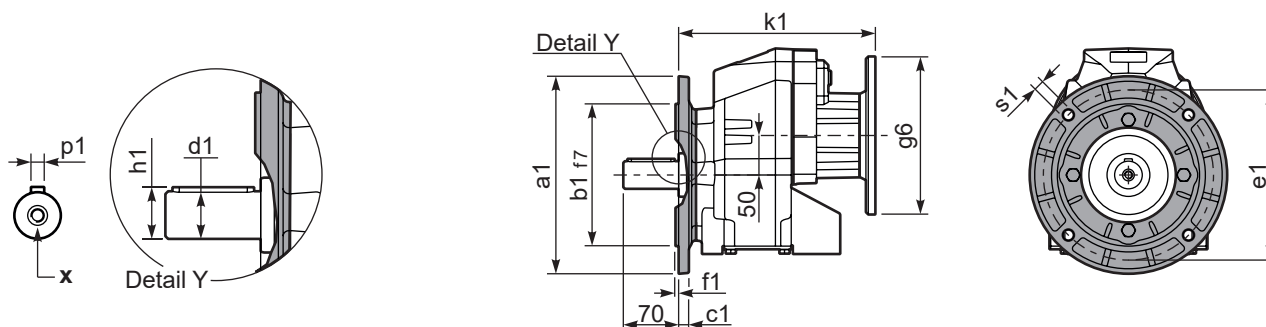
**tab. 2**

With feet  
Con piedini

|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>30.0 kg</b> |
|                                         | With feet   | <b>33.5 kg</b> |

[illegible]

Output flanges  
flange di uscita



|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 35x70    | 10 | 38 | M10x22 |
| On request<br>A richiesta | ø 40x80    | 12 | 43 | M12x28 |

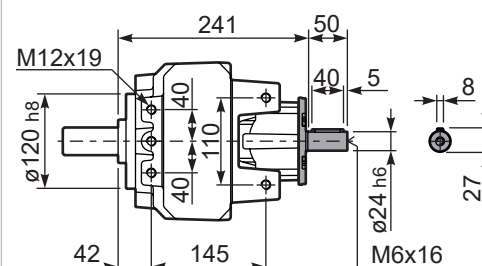
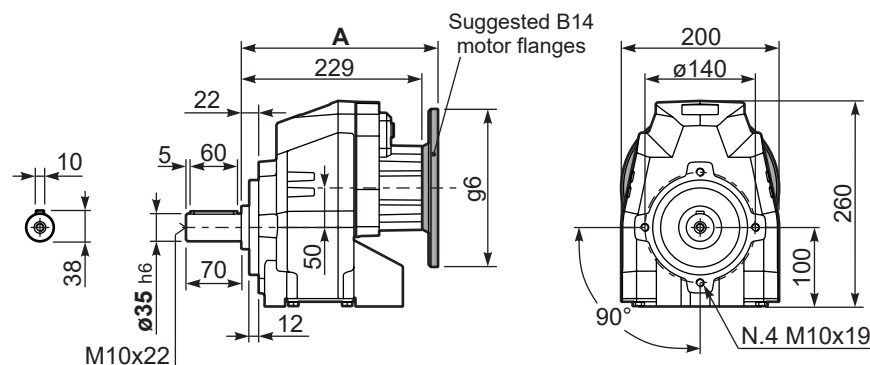
| a1 Ø | b1  | c1 | e1  | f1  | s1 | kit code   |
|------|-----|----|-----|-----|----|------------|
| 200  | 130 | 11 | 165 | 3.5 | 11 | KC70.9.012 |
| 250  | 180 | 13 | 215 | 4   | 14 | KC70.9.013 |
| -    | -   | -  | -   | -   | -  | -          |



With flange and feet  
only on request.  
Ask for compatibility

Basic gearbox  
Riduttore base

Input Shaft  
Albero in entrata



| <b>B5 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|-------------------------|----------|------------------------|-----------|-----------|-----------------|
| 71 B5                   | 247.5    | 290                    | 160       | 247.5     | K023.4.041      |
| 80/90 B5                | 249.5    | 310                    | 200       | 249.5     | K023.4.042      |
| 100/112 B5              | 258.5    | 335                    | 250       | 258.5     | K023.4.043      |
| 132 B5                  | 276.5    | 360                    | 300       | 276.5     | KC50.4.043      |

| B14 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|-------------------|-------|------------------|-----|-------|------------|
| 80 B14            | 249.5 | 270              | 120 | 249.5 | K085.4.046 |
| 90 B14            | 249.5 | 280              | 140 | 249.5 | K085.4.045 |
| 100/112 B14       | 258.5 | 290              | 160 | 258.5 | K085.4.047 |
| 132 B14           | 276.5 | 310              | 200 | 276.5 | KC50.4.041 |





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                                      |                                                                                                    |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                                      |                                                                                                    |
| 22.6                                          | <b>61.89</b>  | 1.5                             | 594                               | 1.1                    | <b>1.7</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 191318                                                                                                               | 01                                                                                                 |
| 19.7                                          | <b>71.16</b>  | 1.5                             | 683                               | 1.0                    | <b>1.5</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 191316                                                                                                               | 02                                                                                                 |
| 17.0                                          | <b>82.48</b>  | 1.5                             | 792                               | 0.9                    | <b>1.3</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 171316                                                                                                               | 03                                                                                                 |
| 14.5                                          | <b>96.29</b>  | 1.1                             | 675                               | 1.0                    | <b>1.1</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 171314                                                                                                               | 04                                                                                                 |
| 13.9                                          | <b>100.51</b> | 1.1                             | 705                               | 1.0                    | <b>1.0</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 131318                                                                                                               | 05                                                                                                 |
| 12.1                                          | <b>115.56</b> | 0.75                            | 556                               | 1.2                    | <b>0.91</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 131316                                                                                                               | 06                                                                                                 |
| 11.1                                          | <b>125.96</b> | 0.75                            | 606                               | 1.1                    | <b>0.82</b>                       | <b>665</b>                         | B                          |    |    |    | C                           | C  |    | 190816                                                                                                               | 07                                                                                                 |
| 10.4                                          | <b>134.91</b> | 0.75                            | 649                               | 1.0                    | <b>0.78</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 131314                                                                                                               | 08                                                                                                 |
| 9.5                                           | <b>147.05</b> | 0.75                            | 707                               | 1.0                    | <b>0.72</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 190814                                                                                                               | 09                                                                                                 |
| 8.2                                           | <b>170.44</b> | 0.55                            | 605                               | 1.1                    | <b>0.62</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 170814                                                                                                               | 10                                                                                                 |
| 7.6                                           | <b>184.15</b> | 0.55                            | 653                               | 1.0                    | <b>0.57</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 101314                                                                                                               | 11                                                                                                 |
| 6.8                                           | <b>205.87</b> | 0.55                            | 730                               | 0.9                    | <b>0.51</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 91316                                                                                                                | 12                                                                                                 |
| 5.8                                           | <b>240.34</b> | 0.37                            | 570                               | 1.2                    | <b>0.44</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 91314                                                                                                                | 13                                                                                                 |
| 5.0                                           | <b>279.22</b> | 0.37                            | 662                               | 1.0                    | <b>0.37</b>                       | <b>665</b>                         | B                          |    |    |    | C                           | C  |    | 100816                                                                                                               | 14                                                                                                 |
| 4.3                                           | <b>325.97</b> | 0.37                            | 773                               | 0.9                    | <b>0.32</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 100814                                                                                                               | 15                                                                                                 |
| 3.8                                           | <b>364.41</b> | 0.25                            | 583                               | 1.1                    | <b>0.28</b>                       | <b>665</b>                         | B                          |    |    |    | C                           | C  |    | 90816                                                                                                                | 16                                                                                                 |
| 3.3                                           | <b>425.43</b> | 0.25                            | 681                               | 1.0                    | <b>0.25</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 90814                                                                                                                | 17                                                                                                 |
| 2.9                                           | <b>481.19</b> | 0.18                            | 589                               | 1.1                    | <b>0.22</b>                       | <b>665</b>                         | B                          |    |    |    | C                           | C  |    | 70816                                                                                                                | 18                                                                                                 |
| 2.5                                           | <b>561.76</b> | 0.18                            | 687                               | 1.0                    | <b>0.19</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 70814                                                                                                                | 19                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

 **Motor Flanges Available**  
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **703C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **703C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **703C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

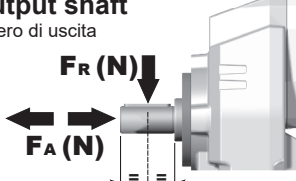
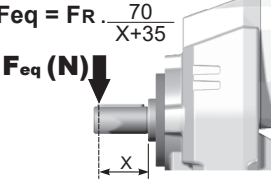
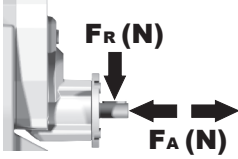
**F** Le réducteur **703C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **703C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |  |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|
|  |                                                 |  |  |  |  |  |  |
| <b>B3</b>                                                                           | <b>B6</b>                                                                                                                          | <b>B7</b>                                                                             | <b>B8</b>                                                                             | <b>V5</b>                                                                             | <b>V6</b>                                                                             | <b>V8</b>                                                                             |  |
| 2.20 LT                                                                             | 1.40 LT                                                                                                                            | 1.40 LT                                                                               | 1.30 LT                                                                               | 2.40 LT                                                                               | 1.70 LT                                                                               | Ask                                                                                   |  |
| <b>AGIP</b> Telium VSF 320                                                          |                                                                                                                                    |                                                                                       |                                                                                       | <b>SHELL</b> Omala S4 WE 320                                                          |                                                                                       |                                                                                       |  |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS                                                                                          |       |       |       |       |                                                                                       |       |       |       |  |
|-----------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|---------------------------------------------------------------------------------------|-------|-------|-------|--|
| Output shaft<br>Albero di uscita                                                                                |       |       |       |       | $F_{eq} = F_R \cdot \frac{70}{X+35}$                                                  |       |       |       |  |
|                             |       |       |       |       |  |       |       |       |  |
| $n_2$                                                                                                           | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$                                                                                 | $n_2$ | $F_A$ | $F_R$ |  |
| 300                                                                                                             | 680   | 3400  | 140   | 960   | 4800                                                                                  | 70    | 1300  | 6500  |  |
| 250                                                                                                             | 760   | 3800  | 120   | 1040  | 5200                                                                                  | 40    | 1460  | 7300  |  |
| 200                                                                                                             | 900   | 4500  | 85    | 1120  | 5600                                                                                  | 15    | 1800  | 9000  |  |
| On request reinforced bearings to increase loads.<br>A richiesta cuscinetti rinforzati per aumentare i carichi. |       |       |       |       |                                                                                       |       |       |       |  |
| Input shaft<br>Albero in entrata                                                                                |       |       |       |       |   |       |       |       |  |
| $n_1$                                                                                                           | $F_A$ | $F_R$ | $n_1$ | $F_A$ | $F_R$                                                                                 | $n_1$ | $F_A$ | $F_R$ |  |
| 1400                                                                                                            | 240   | 1200  | 900   | 280   | 1400                                                                                  | 500   | 310   | 1700  |  |

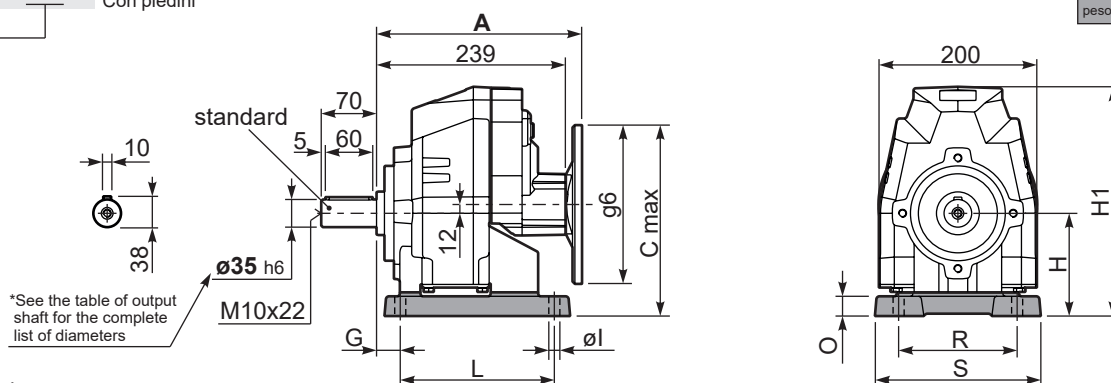
tab. 2

P703C**S6**...

With feet  
Con piedini

**Gearbox weight**  
peso riduttore

|             |                |
|-------------|----------------|
| With flange | <b>30.0 kg</b> |
| With feet   | <b>33.5 kg</b> |

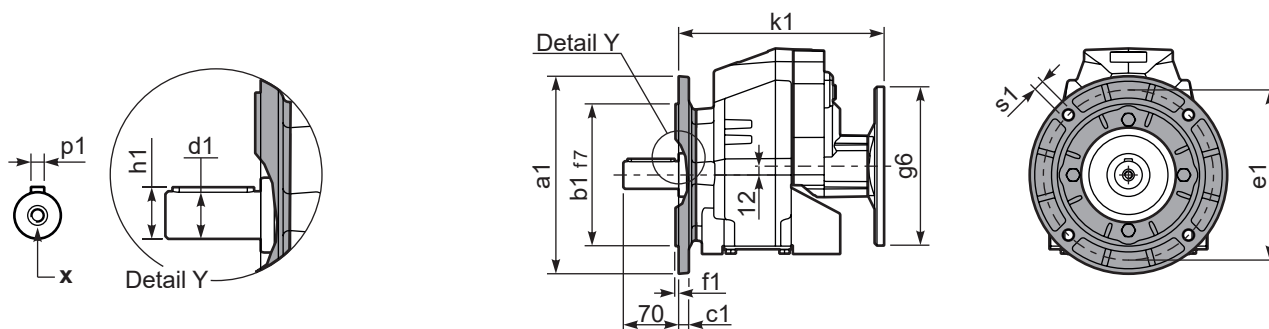


Feet / piedi

[illegible]

P703C-F...

Output flanges  
flange di uscita



**\*Available output shaft** / Albero di uscita

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | ø 35x70    | 10 | 38 | M10x22 |
| On request<br>A richiesta | ø 40x80    | 12 | 43 | M12x28 |

### Available output flanges / flange di uscita

| a1 Ø | b1  | c1 | e1  | f1  | s1 | kit code   |
|------|-----|----|-----|-----|----|------------|
| 200  | 130 | 11 | 165 | 3.5 | 11 | KC70.9.012 |
| 250  | 180 | 13 | 215 | 4   | 14 | KC70.9.013 |
| -    | -   | -  | -   | -   | -  | -          |

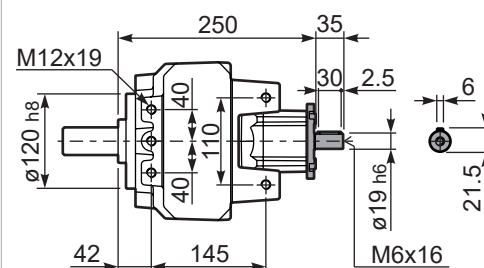
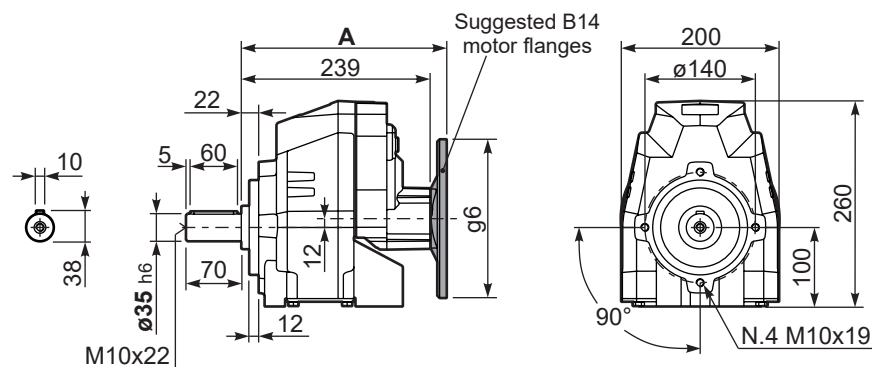
With flange and feet only on request. Ask for compatibility

P703C-N...

Basic gearbox  
Riduttore base

R703C-N..

Input Shaft  
Albero in entrata



| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|------------------|-------|------------------|-----|-------|------------|
| 63 B5            | 259.5 | 242              | 140 | 259.5 | K063.4.041 |
| 71 B5            | 257.5 | 252              | 160 | 257.5 | K063.4.042 |
| 80/90 B5         | 259.5 | 272              | 200 | 259.5 | K063.4.043 |

| B14 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code   |
|-------------------|-------|------------------|-----|-------|------------|
| 71 B14            | 257.5 | 224.5            | 105 | 257.5 | K063.4.047 |
| 80 B14            | 259.5 | 232              | 120 | 259.5 | K063.4.046 |
| 90 B14            | 259.5 | 242              | 140 | 259.5 | K063.4.041 |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5<br>motor flanges<br>-G<br>132 | B14<br>motor flanges<br>- - - -<br>- - - - | Output Shaft<br><br>$\emptyset$<br>Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|--------------------------------------------|--------------------------------------------|------------------------------------------------|
| 227                                           | <b>6.17</b>  | 9                               | 371                               | 1.2                    | <b>10.9</b>                       | <b>450</b>                         |                                            | <b>not available</b>                       | 18111 <b>standard</b> 01                       |
| 198                                           | <b>7.06</b>  | 9                               | 425                               | 1.4                    | <b>12.7</b>                       | <b>600</b>                         |                                            |                                            | 16113 <b>ø40</b> 02                            |
| 170                                           | <b>8.21</b>  | 9                               | 494                               | 1.4                    | <b>12.2</b>                       | <b>670</b>                         |                                            |                                            | 14115 <b>ø50</b> 03                            |

The dynamic efficiency is **0.98** for all ratios

On request

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **801C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **801C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **801C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **801C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **801C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           |           |           |           |           |           |           |
| <b>B3</b> | <b>B6</b> | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 3.20 LT   | 1.90 LT   | 1.90 LT   | 1.55 LT   | 3.20 LT   | 2.20 LT   | Ask       |

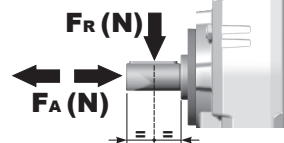
AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

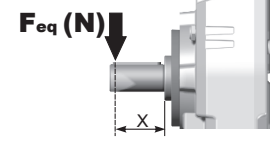
tab. 1

#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{80.5}{X+40.5}$$



| $n_2$      | FA   | FR   | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 1200 | 6000 | <b>140</b> | 1600 | 8000  | <b>70</b> | 2200 | 11000 |
| <b>250</b> | 1400 | 7000 | <b>120</b> | 1800 | 9000  | <b>40</b> | 2600 | 13000 |
| <b>200</b> | 1500 | 7500 | <b>85</b>  | 2000 | 10000 | <b>15</b> | 3000 | 15000 |

On request reinforced bearings to increase loads.

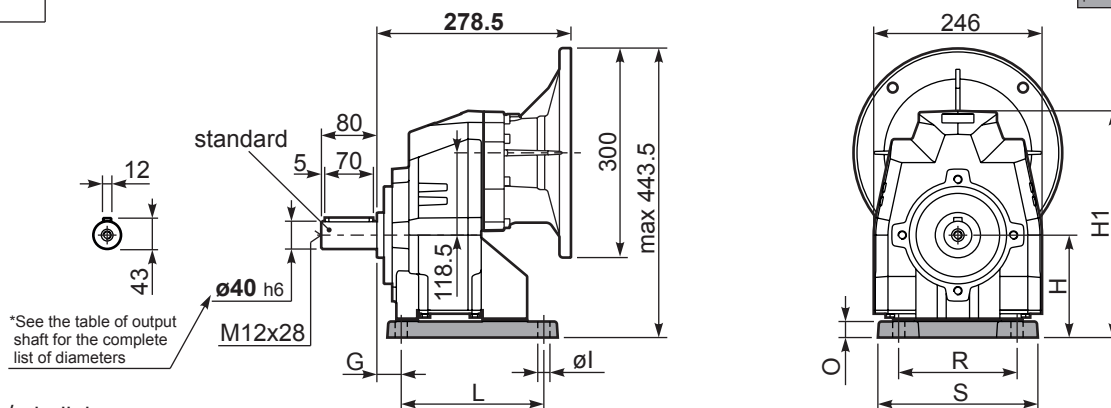
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

P801C**S7**...

With feet  
Con piedini

|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>45.5 kg</b> |
|                                         | With feet   | <b>49.5 kg</b> |

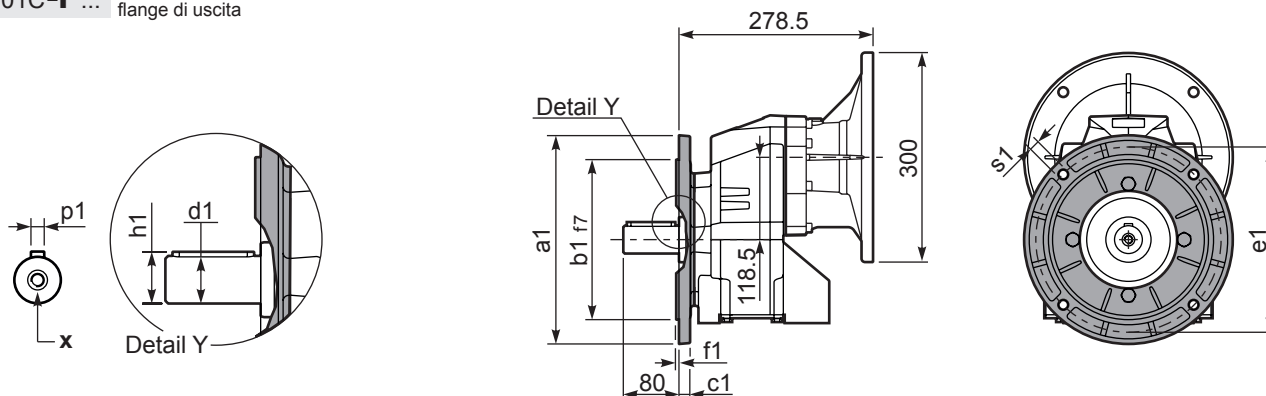


Feet / piedini

[illegible]

P801C-F..

Output flanges  
flange di uscita



**\*Available output shaft** / Albero di uscita

|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | ø 40x80    | 12 | 43   | M12x28 |
| On request<br>A richiesta | ø 50x100   | 14 | 53.5 | M16x36 |
|                           | -          | -  | -    | -      |

### Available output flanges / flange di uscita

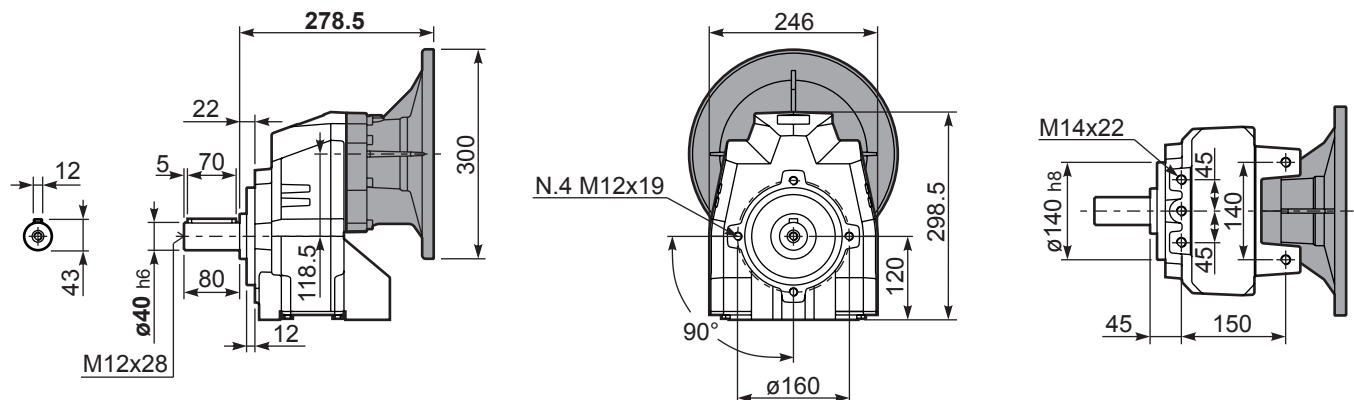
| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 250  | 180 | 13 | 215 | 4  | 14 | KC80.9.013 |
| 300  | 230 | 16 | 265 | 4  | 14 | KC80.9.014 |
| -    | -   | -  | -   | -  | -  | -          |

With flange and feet only on request. Ask for compatibility

With flange and feet  
only on request.  
Ask for compatibility

P801C-N...

Basic gearbox  
Riduttore base





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Output Shaft<br> | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                                                                                                     |                                                                                                     |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                                                                                                     |                                                                                                     |                                                                                                    |
| 175                                           | 8.02         | 9                               | 473                               | 1.1                    | 9.9                               | 520                                | B                          |    |    |            |     |                             |    |            |     | 3018                                                                                                | standard<br>ø40<br><br>ø50<br>On request                                                            | 01                                                                                                 |
| 152                                           | 9.18         | 9                               | 541                               | 1.1                    | 9.8                               | 590                                | B                          |    |    |            |     |                             |    |            |     | 3016                                                                                                |                                                                                                     | 02                                                                                                 |
| 131                                           | 10.68        | 9                               | 630                               | 1.1                    | 9.7                               | 680                                | B                          |    |    |            |     |                             |    |            |     | 3014                                                                                                |                                                                                                     | 03                                                                                                 |
| 93                                            | 15.11        | 7.5                             | 717                               | 1.1                    | 7.8                               | 775                                | B                          |    |    |            |     |                             |    |            |     | 2018                                                                                                |                                                                                                     | 04                                                                                                 |
| 81                                            | 17.30        | 7.5                             | 821                               | 1.1                    | 7.8                               | 885                                | B                          |    |    |            |     |                             |    |            |     | 2016                                                                                                |                                                                                                     | 05                                                                                                 |
| 70                                            | 20.13        | 7.5                             | 955                               | 0.9                    | 6.8                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 2014                                                                                                |                                                                                                     | 06                                                                                                 |
| 60                                            | 23.39        | 5.5                             | 820                               | 1.1                    | 5.9                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1616                                                                                                |                                                                                                     | 07                                                                                                 |
| 51                                            | 27.21        | 5.5                             | 954                               | 0.9                    | 5.1                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1614                                                                                                |                                                                                                     | 08                                                                                                 |
| 46.0                                          | 30.42        | 4                               | 780                               | 1.2                    | 4.5                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1316                                                                                                |                                                                                                     | 09                                                                                                 |
| 39.6                                          | 35.38        | 4                               | 907                               | 1.0                    | 3.9                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1314                                                                                                |                                                                                                     | 10                                                                                                 |
| 37.6                                          | 37.24        | 3                               | 719                               | 1.2                    | 3.7                               | 895                                | B                          |    |    |            |     |                             |    |            |     | 1116                                                                                                |                                                                                                     | 11                                                                                                 |
| 32.3                                          | 43.31        | 3                               | 836                               | 1.1                    | 3.2                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1114                                                                                                |                                                                                                     | 12                                                                                                 |
| 29.8                                          | 47.02        | 2.2                             | 668                               | 1.1                    | 2.3                               | 705                                | B                          |    |    |            |     |                             |    |            |     | 818                                                                                                 |                                                                                                     | 13                                                                                                 |
| 26.0                                          | 53.85        | 2.2                             | 765                               | 1.1                    | 2.3                               | 810                                | B                          |    |    |            |     |                             |    |            |     | 816                                                                                                 |                                                                                                     | 14                                                                                                 |
| 22.4                                          | 62.63        | 2.2                             | 890                               | 1.0                    | 2.2                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 814                                                                                                 |                                                                                                     | 15                                                                                                 |
| 18.9                                          | 74.16        | 1.1                             | 531                               | 1.1                    | 1.2                               | 585                                | B                          |    |    |            |     |                             |    |            |     | 616                                                                                                 |                                                                                                     | 16                                                                                                 |
| 16.2                                          | 86.25        | 1.1                             | 617                               | 1.1                    | 1.2                               | 680                                | B                          |    |    |            |     |                             |    |            |     | 614                                                                                                 |                                                                                                     | 17                                                                                                 |

The dynamic efficiency is 0.96 for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

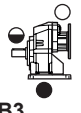
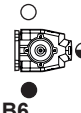
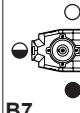
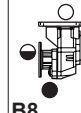
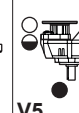
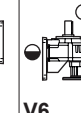
**EN** Unit 802C is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 802C è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 802C wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 802C est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño 802C se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                    |                                                                                    |                                                                                     |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| B3                                                                                 | B6                                                                                 | B7                                                                                  | B8                                                                                   | V5                                                                                   | V6                                                                                   | V8                                                                                   |
| 3.20 LT                                                                            | 1.90 LT                                                                            | 1.90 LT                                                                             | 1.55 LT                                                                              | 3.20 LT                                                                              | 2.20 LT                                                                              | Ask                                                                                  |

AGIP Blasias 460

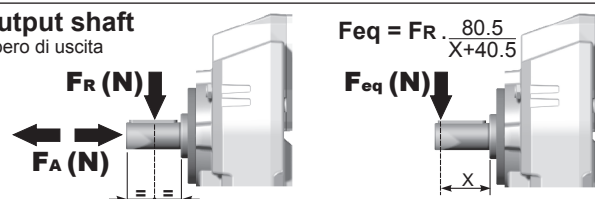
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita



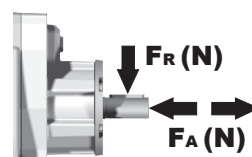
| $n_2$ | FA   | FR   | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|------|-------|------|-------|-------|------|-------|
| 300   | 1200 | 6000 | 140   | 1600 | 8000  | 70    | 2200 | 11000 |
| 250   | 1400 | 7000 | 120   | 1800 | 9000  | 40    | 2600 | 13000 |
| 200   | 1500 | 7500 | 85    | 2000 | 10000 | 15    | 3000 | 15000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

#### Input shaft

Albero in entrata



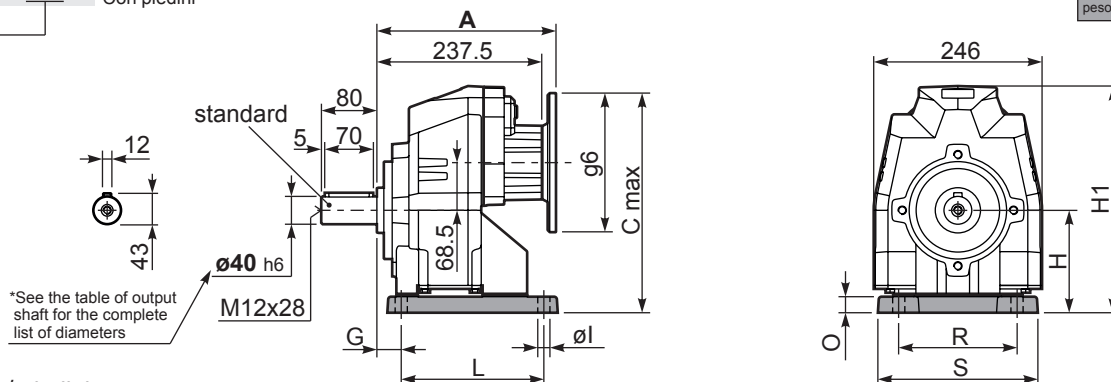
| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

tab. 2

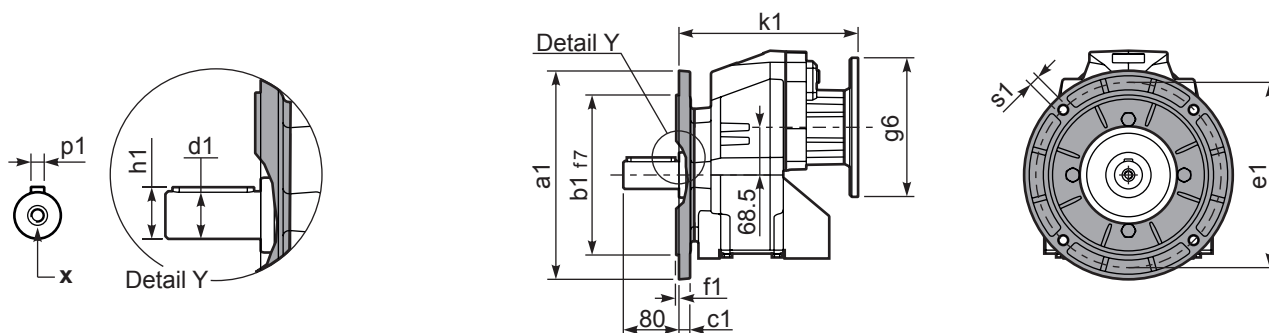


With feet  
Con piedini

|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>39.5 kg</b> |
|                                         | With feet   | <b>43.5 kg</b> |

[illegible]

Output flanges  
flange di uscita



|                           | Shaft - d1    | p1      | h1        | x           |
|---------------------------|---------------|---------|-----------|-------------|
| Standard                  | ø 40x80       | 12      | 43        | M12x28      |
| On request<br>A richiesta | ø 50x100<br>- | 14<br>- | 53.5<br>- | M16x36<br>- |

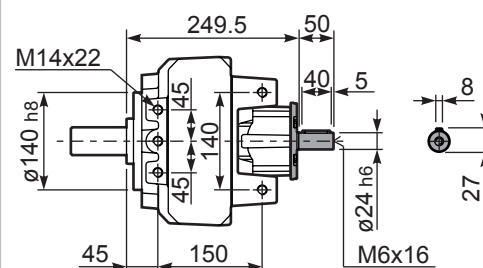
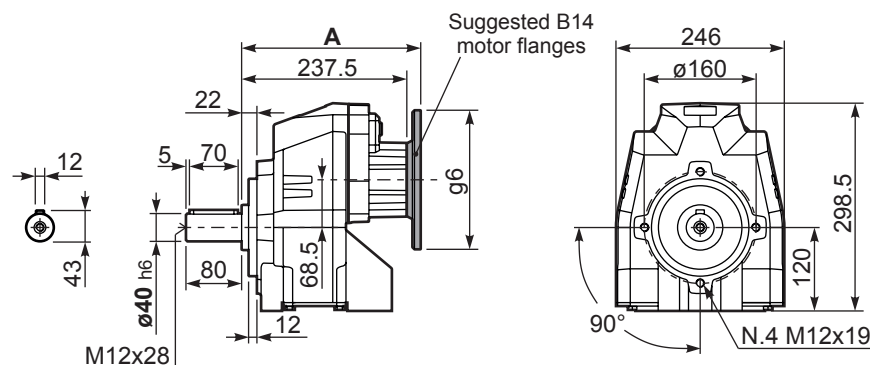
| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 250  | 180 | 13 | 215 | 4  | 14 | KC80.9.013 |
| 300  | 230 | 16 | 265 | 4  | 14 | KC80.9.014 |
| -    | -   | -  | -   | -  | -  | -          |



With flange and feet  
only on request.  
Ask for compatibility

Basic gearbox  
Riduttore base

Input Shaft  
Albero in entrata



| <b>B5 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|-------------------------|----------|------------------------|-----------|-----------|-----------------|
| 71 B5                   | 256      | 323.5                  | 160       | 256       | K023.4.041      |
| 80/90 B5                | 258      | 343.5                  | 200       | 258       | K023.4.042      |
| 100/112 B5              | 267      | 368.5                  | 250       | 267       | K023.4.043      |
| 132 B5                  | 285      | 393.5                  | 300       | 285       | KC50.4.043      |

| <b>B14 Motor<br/>Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|------------------------------|----------|------------------------|-----------|-----------|-----------------|
| 80 B14                       | 258      | 303.5                  | 120       | 258       | K085.4.046      |
| 90 B14                       | 258      | 313.5                  | 140       | 258       | K085.4.045      |
| 100/112 B14                  | 267      | 323.5                  | 160       | 267       | K085.4.047      |
| 132 B14                      | 285      | 343.5                  | 200       | 285       | KC50.4.041      |





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                                      |                                                                                                    |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                                      |                                                                                                    |
| 18.5                                          | <b>75.50</b>  | 1.5                             | 725                               | 1.1                    | <b>1.7</b>                        | <b>825</b>                         | B                          |    |    |    | C                           | C  |    | 191318                                                                                                               | 01                                                                                                 |
| 16.2                                          | <b>86.47</b>  | 1.5                             | 830                               | 1.1                    | <b>1.6</b>                        | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 191316                                                                                                               | 02                                                                                                 |
| 14.0                                          | <b>100.22</b> | 1.5                             | 962                               | 0.9                    | <b>1.4</b>                        | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 171316                                                                                                               | 03                                                                                                 |
| 12.0                                          | <b>116.56</b> | 1.1                             | 817                               | 1.1                    | <b>1.2</b>                        | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 171314                                                                                                               | 04                                                                                                 |
| 10.2                                          | <b>136.82</b> | 1.1                             | 959                               | 0.9                    | <b>1.0</b>                        | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 151314                                                                                                               | 05                                                                                                 |
| 9.1                                           | <b>153.05</b> | 0.75                            | 736                               | 1.1                    | <b>0.83</b>                       | <b>810</b>                         | B                          |    |    |    | C                           | C  |    | 190816                                                                                                               | 06                                                                                                 |
| 8.6                                           | <b>163.31</b> | 0.75                            | 785                               | 1.1                    | <b>0.86</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 131314                                                                                                               | 07                                                                                                 |
| 7.9                                           | <b>178.01</b> | 0.75                            | 856                               | 1.1                    | <b>0.79</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 190814                                                                                                               | 08                                                                                                 |
| 7.3                                           | <b>191.67</b> | 0.75                            | 922                               | 1.0                    | <b>0.73</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 101316                                                                                                               | 09                                                                                                 |
| 6.8                                           | <b>206.32</b> | 0.75                            | 992                               | 0.9                    | <b>0.68</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 170814                                                                                                               | 10                                                                                                 |
| 6.3                                           | <b>222.92</b> | 0.55                            | 791                               | 1.1                    | <b>0.63</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 101314                                                                                                               | 11                                                                                                 |
| 5.8                                           | <b>242.18</b> | 0.55                            | 859                               | 1.0                    | <b>0.58</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 150814                                                                                                               | 12                                                                                                 |
| 5.6                                           | <b>250.15</b> | 0.55                            | 888                               | 1.0                    | <b>0.56</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 91316                                                                                                                | 13                                                                                                 |
| 4.8                                           | <b>289.08</b> | 0.55                            | 1026                              | 0.9                    | <b>0.49</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 130814                                                                                                               | 14                                                                                                 |
| 4.2                                           | <b>330.31</b> | 0.37                            | 783                               | 1.1                    | <b>0.42</b>                       | <b>890</b>                         | B                          |    |    |    | C                           | C  |    | 71316                                                                                                                | 15                                                                                                 |
| 3.5                                           | <b>394.59</b> | 0.37                            | 936                               | 1.0                    | <b>0.36</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 100814                                                                                                               | 16                                                                                                 |
| 2.7                                           | <b>514.99</b> | 0.25                            | 824                               | 1.1                    | <b>0.27</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 90814                                                                                                                | 17                                                                                                 |
| 2.1                                           | <b>680.03</b> | 0.18                            | 832                               | 1.1                    | <b>0.21</b>                       | <b>900</b>                         | B                          |    |    |    | C                           | C  |    | 70814                                                                                                                | 18                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

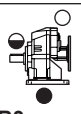
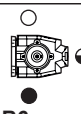
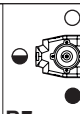
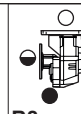
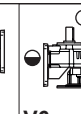
**EN** Unit **803C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **803C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **803C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **803C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **803C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>B3</b>                                                                           | <b>B6</b>                                                                           | <b>B7</b>                                                                            | <b>B8</b>                                                                             | <b>V5</b>                                                                             | <b>V6</b>                                                                             | <b>V8</b>                                                                             |
| 3.30 LT                                                                             | 1.90 LT                                                                             | 1.90 LT                                                                              | 1.55 LT                                                                               | 3.40 LT                                                                               | 2.30 LT                                                                               | Ask                                                                                   |

AGIP Blasias 460

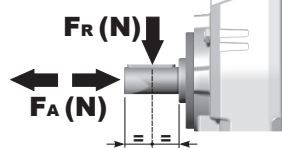
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

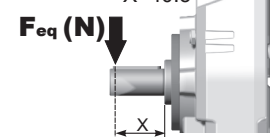
#### RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{80.5}{X+40.5}$$



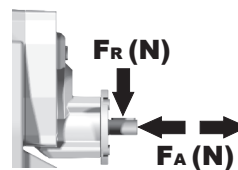
| $n_2$ | FA   | FR   | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|------|-------|------|-------|-------|------|-------|
| 300   | 1200 | 6000 | 140   | 1600 | 8000  | 70    | 2200 | 11000 |
| 250   | 1400 | 7000 | 120   | 1800 | 9000  | 40    | 2600 | 13000 |
| 200   | 1500 | 7500 | 85    | 2000 | 10000 | 15    | 3000 | 15000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

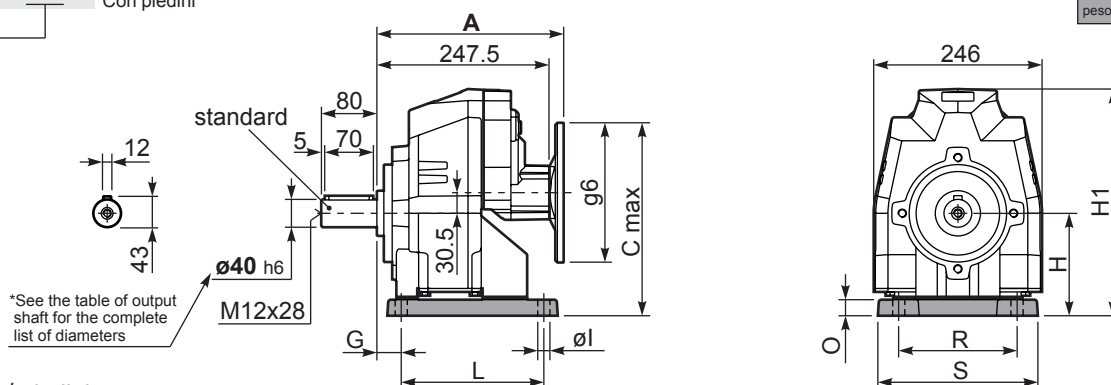
Input shaft

Albero in entrata



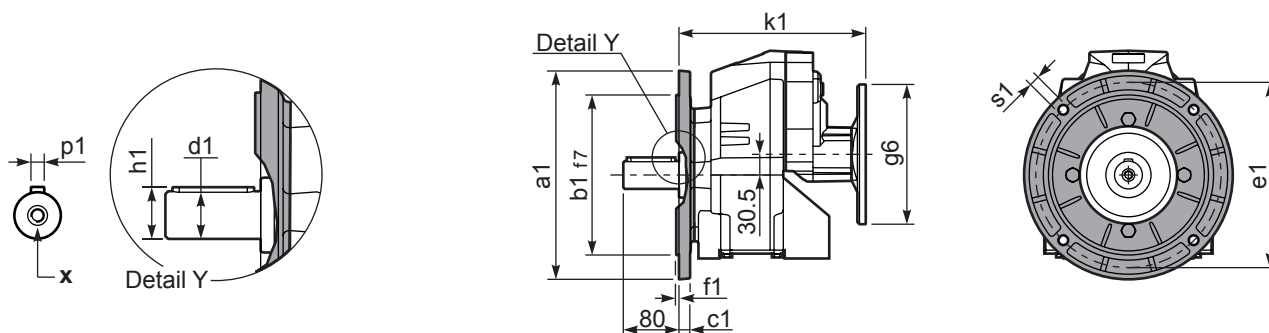
| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

tab. 2

P803C**S7**...With feet  
Con piediniGearbox weight  
peso riduttore  
With flange **39.5 kg**  
With feet **43.5 kg**

Feet / piedini

| Feet Code | Market reference | G  | H   | R   | L   | S   | H1    | O  | Øl   | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|-----|-----|-----|-------|----|------|----------------|------------|
| B5        | 512/3            | 25 | 155 | 225 | 156 | 270 | 333.5 | 30 | 18   | -              | KC80.9.022 |
| S7        | 77               | 35 | 140 | 170 | 205 | 230 | 318.5 | 18 | 17.5 | -              | KC80.9.024 |
| H6        | 026/263          | 40 | 175 | 215 | 215 | 265 | 353.5 | 30 | 16   | -              | KC80.9.023 |
| -         | -                | -  | -   | -   | -   | -   | -     | -  | -    | -              | -          |
| -         | -                | -  | -   | -   | -   | -   | -     | -  | -    | -              | -          |

P803C-**F**...Output flanges  
flange di uscita

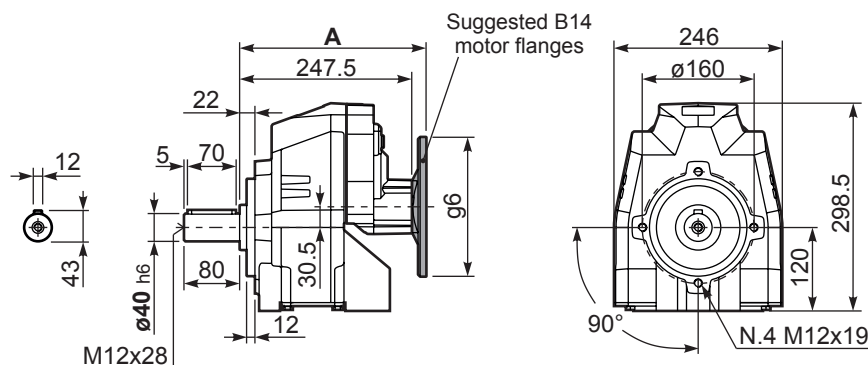
\*Available output shaft / Albero di uscita

|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | Ø 40x80    | 12 | 43   | M12x28 |
| On request<br>A richiesta | Ø 50x100   | 14 | 53.5 | M16x36 |
|                           | -          | -  | -    | -      |

Available output flanges / flange di uscita

| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 250  | 180 | 13 | 215 | 4  | 14 | KC80.9.013 |
| 300  | 230 | 16 | 265 | 4  | 14 | KC80.9.014 |
| -    | -   | -  | -   | -  | -  | -          |

With flange and feet only on request. Ask for compatibility

P803C-**N**...Basic gearbox  
Riduttore baseR803C-**N**...Input Shaft  
Albero in entrata

| B5 Motor Flanges | A   | C <sub>max</sub> | g6  | k1  | kit code   |
|------------------|-----|------------------|-----|-----|------------|
| 63 B5            | 268 | 275.5            | 140 | 268 | K063.4.041 |
| 71 B5            | 266 | 285.5            | 160 | 266 | K063.4.042 |
| 80/90 B5         | 268 | 305.5            | 200 | 268 | K063.4.043 |

| B14 Motor Flanges | A   | C <sub>max</sub> | g6  | k1  | kit code   |
|-------------------|-----|------------------|-----|-----|------------|
| 71 B14            | 266 | 258              | 105 | 266 | K063.4.047 |
| 80 B14            | 268 | 265.5            | 120 | 268 | K063.4.046 |
| 90 B14            | 268 | 275.5            | 140 | 268 | K063.4.041 |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |     | B14 motor flanges    |   |   |   | Output Shaft<br> | Ratios code<br>                                           |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|-----|----------------------|---|---|---|------------------|-----------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -H                         | -I  | -                    | - | - | - |                  |                                                           |
|                                               |              |                                 |                                   |                        |                                   |                                    | 160                        | 180 | -                    | - | - | - |                  |                                                           |
| 412                                           | <b>3.40</b>  | 22                              | 480                               | 1.3                    | <b>26.4</b>                       | <b>600</b>                         |                            |     | <b>not available</b> |   |   |   | 1551             | <b>standard</b><br><b>ø50</b><br><b>ø60</b><br>On request |
| 343                                           | <b>4.08</b>  | 22                              | 575                               | 1.2                    | <b>25.7</b>                       | <b>700</b>                         |                            |     |                      |   |   |   | 1353             |                                                           |
| 285                                           | <b>4.91</b>  | 22                              | 693                               | 1.0                    | <b>21.3</b>                       | <b>700</b>                         |                            |     |                      |   |   |   | 1154             |                                                           |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **851C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **851C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **851C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **851C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **851C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           |           |           |           |           |           |           |
| <b>B3</b> | <b>B6</b> | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 5.30 LT   | 3.60 LT   | 3.60 LT   | 2.80 LT   | 5.80 LT   | 4.10 LT   | Ask       |

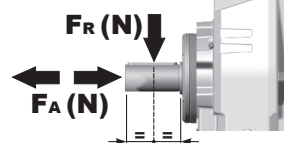
AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

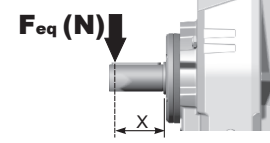
tab. 1

#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$$

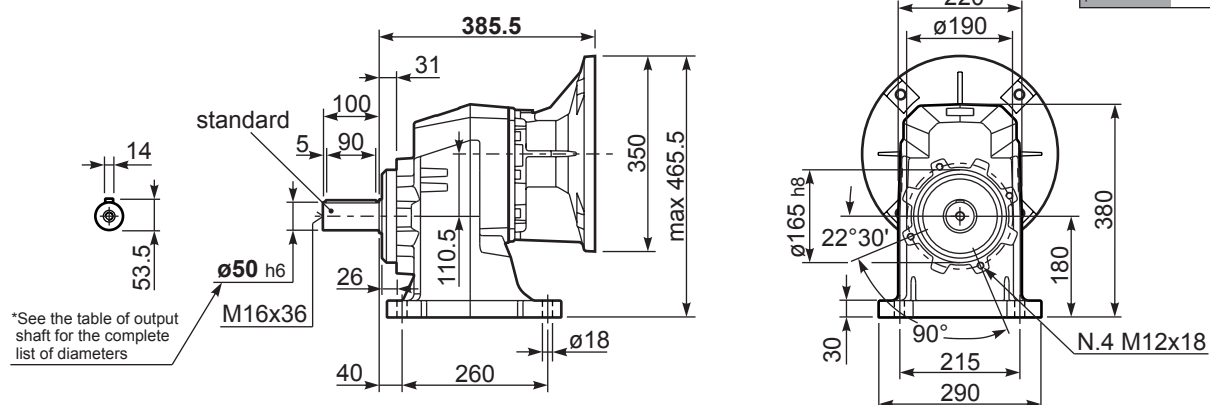
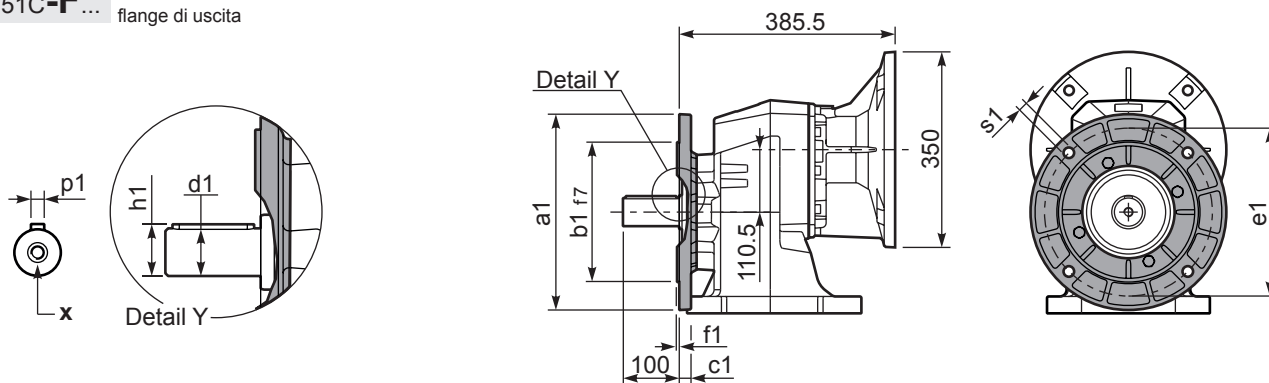


| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 1800 | 9000  | <b>140</b> | 2400 | 12000 | <b>70</b> | 3000 | 15000 |
| <b>250</b> | 2000 | 10000 | <b>120</b> | 2600 | 13000 | <b>40</b> | 3200 | 16000 |
| <b>200</b> | 2200 | 11000 | <b>85</b>  | 2800 | 14000 | <b>15</b> | 4000 | 20000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

**P851CS8...**With foot  
Con piedineGearbox  
weight  
peso riduttore  
With flange **90.0 kg**  
With feet **80.5 kg****P851C-F ...**Output flanges  
flange di uscita**\*Available output shaft / Albero di uscita**

|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | Ø 50x100   | 14 | 53.5 | M16x36 |
| On request<br>A richiesta | Ø 60x120   | 18 | 64   | M20x42 |
|                           | -          | -  | -    | -      |

**Available output flanges / flange di uscita**

| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   | <br>All flanges are compatible with the foot |
|------|-----|----|-----|----|----|------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 300  | 230 | 21 | 265 | 4  | 14 | KC90.9.014 |                                                                                                                                   |
| 350  | 250 | 21 | 300 | 5  | 18 | KC90.9.015 |                                                                                                                                   |
| -    | -   | -  | -   | -  | -  | -          |                                                                                                                                   |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     | B14<br>motor flanges |   |   |   | Output Shaft<br> | Ratios<br>code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|----------------------|---|---|---|------------------|----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -F                  | -G  | -H  | -I  | -                    | - | - | - |                  |                |
|                                               |              |                                 |                                   |                        |                                   |                                    | 100<br>112          | 132 | 160 | 180 | -                    | - | - | - |                  |                |
| 317                                           | 4.42         | 22                              | 611                               | 1.1                    | 24.2                              | 700                                | B                   |     |     |     | not available        |   |   |   | 3015             | 01             |
| 264                                           | 5.30         | 22                              | 733                               | 1.0                    | 20.2                              | 700                                | B                   |     |     |     |                      |   |   |   | 3013             | 02             |
| 219                                           | 6.38         | 18.5                            | 742                               | 1.1                    | 19.1                              | 800                                | B                   |     |     |     |                      |   |   |   | 3011             | 03             |
| 168                                           | 8.33         | 15                              | 784                               | 1.0                    | 14.7                              | 800                                | B                   |     |     |     |                      |   |   |   | 2015             | 04             |
| 140                                           | 9.99         | 15                              | 940                               | 1.0                    | 13.8                              | 900                                | B                   |     |     |     |                      |   |   |   | 2013             | 05             |
| 124                                           | 11.26        | 15                              | 1060                              | 1.0                    | 14.9                              | 1100                               | B                   |     |     |     |                      |   |   |   | 1615             | 06             |
| 116                                           | 12.03        | 15                              | 1132                              | 1.1                    | 15.2                              | 1200                               | B                   |     |     |     |                      |   |   |   | 2011             | 07             |
| 104                                           | 13.50        | 15                              | 1271                              | 1.1                    | 15.8                              | 1400                               | B                   |     |     |     |                      |   |   |   | 1613             | 08             |
| 96                                            | 14.65        | 15                              | 1378                              | 1.1                    | 15.6                              | 1500                               | B                   |     |     |     |                      |   |   |   | 1315             | 09             |
| 86                                            | 16.26        | 15                              | 1531                              | 1.0                    | 14.1                              | 1500                               | B                   |     |     |     |                      |   |   |   | 1611             | 10             |
| 80                                            | 17.56        | 11                              | 1214                              | 1.2                    | 13.0                              | 1500                               | B                   |     |     |     |                      |   |   |   | 1313             | 11             |
| 65                                            | 21.50        | 11                              | 1486                              | 1.1                    | 11.4                              | 1600                               | B                   |     |     |     |                      |   |   |   | 1113             | 12             |
| 54                                            | 25.88        | 9                               | 1526                              | 1.0                    | 9.4                               | 1600                               | B                   |     |     |     |                      |   |   |   | 1111             | 13             |
| 45.0                                          | 31.09        | 7.5                             | 1475                              | 1.0                    | 7.2                               | 1460                               | B                   |     |     |     |                      |   |   |   | 813              | 14             |
| 37.4                                          | 37.43        | 5.5                             | 1312                              | 1.2                    | 6.5                               | 1600                               | B                   |     |     |     |                      |   |   |   | 811              | 15             |

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **852C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **852C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **852C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **852C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **852C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |         |         |     |
|---------|---------|---------|---------|---------|---------|-----|
|         |         |         |         |         |         |     |
| B3      | B6      | B7      | B8      | V5      | V6      | V8  |
| 5.40 LT | 3.60 LT | 3.60 LT | 2.80 LT | 5.90 LT | 4.20 LT | Ask |

AGIP Blasias 460

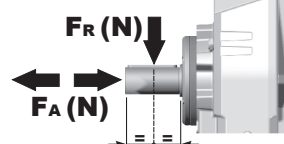
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

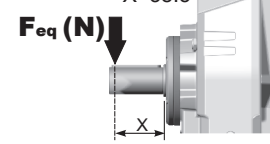
#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$$



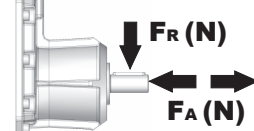
| $n_2$ | FA   | FR    | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|-------|-------|------|-------|-------|------|-------|
| 300   | 1800 | 9000  | 140   | 2400 | 12000 | 70    | 3000 | 15000 |
| 250   | 2000 | 10000 | 120   | 2600 | 13000 | 40    | 3200 | 16000 |
| 200   | 2200 | 11000 | 85    | 2800 | 14000 | 15    | 4000 | 20000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

##### Input shaft

Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 700 | 3500 |
| 900   | 840 | 4200 |
| 500   | 900 | 4500 |

tab. 2



|             |                |
|-------------|----------------|
| With flange | <b>86.0 kg</b> |
| With feet   | <b>76.5 kg</b> |







#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |     |     | Available B14 motor flanges |    |    |     |     |        | Output Shaft<br>$\varnothing$                                      | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----|-----|-----------------------------|----|----|-----|-----|--------|--------------------------------------------------------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F  | -G  | -R                          | -T | -U | -V  |     |        |                                                                    |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100 | 112 | 132                         | 80 | 90 | 100 | 112 |        |                                                                    |             |
| 32.5                                          | <b>43.03</b>  | 5.5                             | 1478                              | 1.1                    | <b>5.8</b>                        | <b>1600</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 201313 | standard<br>$\varnothing 50$<br><br>$\varnothing 60$<br>On request | 01          |
| 28.9                                          | <b>48.52</b>  | 5.5                             | 1667                              | 0.9                    | <b>5.0</b>                        | <b>1550</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 161315 |                                                                    | 02          |
| 27.0                                          | <b>51.81</b>  | 4                               | 1302                              | 1.2                    | <b>4.8</b>                        | <b>1600</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 201311 |                                                                    | 03          |
| 24.1                                          | <b>58.17</b>  | 4                               | 1462                              | 1.1                    | <b>4.3</b>                        | <b>1600</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 161313 |                                                                    | 04          |
| 22.2                                          | <b>63.09</b>  | 4                               | 1585                              | 1.0                    | <b>3.8</b>                        | <b>1550</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 131315 |                                                                    | 05          |
| 20.0                                          | <b>70.05</b>  | 4                               | 1760                              | 1.0                    | <b>4.0</b>                        | <b>1800</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 161311 |                                                                    | 06          |
| 18.5                                          | <b>75.65</b>  | 4                               | 1901                              | 0.9                    | <b>3.7</b>                        | <b>1800</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 131313 |                                                                    | 07          |
| 15.4                                          | <b>91.09</b>  | 3                               | 1723                              | 1.0                    | <b>3.1</b>                        | <b>1800</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 131311 |                                                                    | 08          |
| 12.6                                          | <b>111.50</b> | 2.2                             | 1553                              | 1.2                    | <b>2.5</b>                        | <b>1800</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 111311 |                                                                    | 09          |
| 10.5                                          | <b>133.91</b> | 2.2                             | 1865                              | 1.0                    | <b>2.1</b>                        | <b>1800</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 81313  |                                                                    | 10          |
| 8.7                                           | <b>161.24</b> | 1.5                             | 1548                              | 1.2                    | <b>1.7</b>                        | <b>1800</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 81311  |                                                                    | 11          |
| 7.6                                           | <b>184.40</b> | 1.1                             | 1293                              | 1.1                    | <b>1.2</b>                        | <b>1450</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 61313  |                                                                    | 12          |
| 6.3                                           | <b>222.04</b> | 1.1                             | 1557                              | 1.1                    | <b>1.2</b>                        | <b>1750</b>                        | B                          |    |    |     |     |                             |    |    |     |     | 61311  |                                                                    | 13          |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **853C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **853C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **853C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **853C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **853C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           |           |           |           |           |           |           |
| <b>B3</b> | <b>B6</b> | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 5.50 LT   | 3.80 LT   | 3.80 LT   | 3.20 LT   | 7.00 LT   | 4.60 LT   | Ask       |

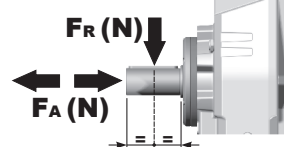
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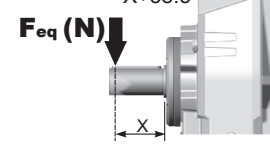
tab. 1

#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$$

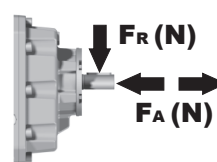


| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 1800 | 9000  | <b>140</b> | 2400 | 12000 | <b>70</b> | 3000 | 15000 |
| <b>250</b> | 2000 | 10000 | <b>120</b> | 2600 | 13000 | <b>40</b> | 3200 | 16000 |
| <b>200</b> | 2200 | 11000 | <b>85</b>  | 2800 | 14000 | <b>15</b> | 4000 | 20000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

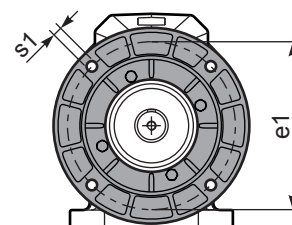
Input shaft  
Albero in entrata



| $n_1$       | FA  | FR   |
|-------------|-----|------|
| <b>1400</b> | 450 | 2250 |
| <b>900</b>  | 500 | 2500 |
| <b>500</b>  | 600 | 3000 |

tab. 2

|                                         |             |                |
|-----------------------------------------|-------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange | <b>80.5 kg</b> |
|                                         | With feet   | <b>71.0 kg</b> |



| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 300  | 230 | 21 | 265 | 4  | 14 | KC90.9.014 |
| 350  | 250 | 21 | 300 | 5  | 18 | KC90.9.015 |
| -    | -   | -  | -   | -  | -  | -          |



All flanges are compatible with the foot

Technical drawing of the M6x16 nut showing dimensions: 335.5, 50, 165 h8, 40, 5, 8, 27, and 24 h6.

| <b>B14 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|--------------------------|----------|------------------------|-----------|-----------|-----------------|
| 80 B14                   | 344      | 325.5                  | 120       | 344       | K085.4.046      |
| 90 B14                   | 344      | 335.5                  | 140       | 344       | K085.4.045      |
| 100/112 B14              | 353      | 345.5                  | 160       | 353       | K085.4.047      |
| 132 B14                  | 371      | 365.5                  | 200       | 371       | KC50.4.041      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |     | B14 motor flanges |   |   |   | Output Shaft |            |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|-----|-------------------|---|---|---|--------------|------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -H                         | -I  | -                 | - | - | - |              |            | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 160                        | 180 | -                 | - | - | - |              |            |             |
| 528                                           | 2.65         | 22                              | 374                               | 1.7                    | 36.7                              | 650                                |                            |     | not available     |   |   |   | 2361         | standard   | 01          |
| 409                                           | 3.42         | 22                              | 483                               | 1.6                    | 32.8                              | 750                                |                            |     |                   |   |   |   | 1965         | ø60        | 02          |
| 304                                           | 4.60         | 22                              | 649                               | 1.5                    | 30.9                              | 950                                |                            |     |                   |   |   |   | 1569         |            | 03          |
| 256                                           | 5.46         | 22                              | 771                               | 1.3                    | 27.4                              | 1000                               |                            |     |                   |   |   |   | 1371         | ø50        | 04          |
| 211                                           | 6.64         | 22                              | 937                               | 1.3                    | 26.5                              | 1175                               |                            |     |                   |   |   |   | 1173         | On request | 05          |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **901C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **901C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **901C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **901C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **901C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |         |         |     |
|---------|---------|---------|---------|---------|---------|-----|
|         |         |         |         |         |         |     |
| B3      | B6      | B7      | B8      | V5      | V6      | V8  |
| 5.90 LT | 3.80 LT | 3.80 LT | 3.50 LT | 6.80 LT | 4.50 LT | Ask |

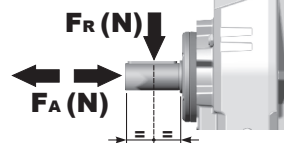
AGIP Blasias 460

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Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

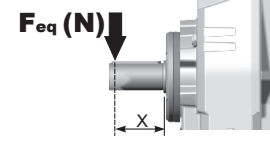
tab. 1

#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$$



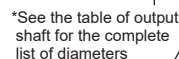
| $n_2$ | FA   | FR    | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|-------|-------|------|-------|-------|------|-------|
| 300   | 2070 | 10350 | 140   | 2760 | 13800 | 70    | 3450 | 17250 |
| 250   | 2300 | 11500 | 120   | 2990 | 14950 | 40    | 3680 | 18400 |
| 200   | 2530 | 12650 | 85    | 3220 | 16100 | 15    | 4600 | 23000 |

On request reinforced bearings to increase loads.

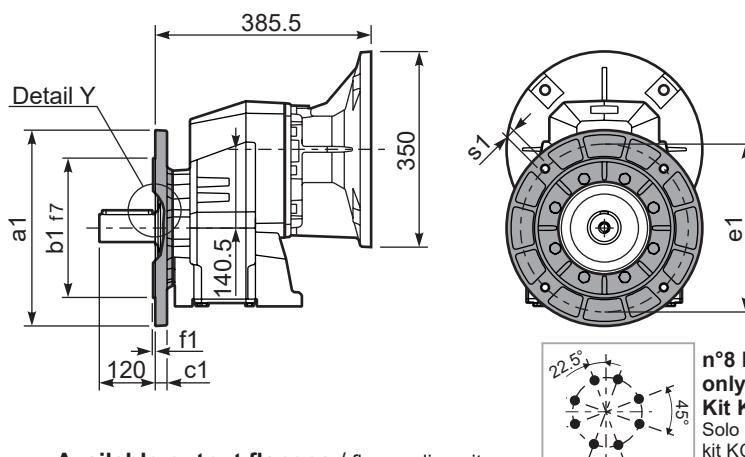
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

|                                         |                                                        |
|-----------------------------------------|--------------------------------------------------------|
| <b>Gearbox weight</b><br>peso riduttore | With flange <b>102 kg</b><br>With feet <b>110.5 kg</b> |
|-----------------------------------------|--------------------------------------------------------|



| Feet Code | Market reference | G  | H   | R   | L   | S   | H1  | O  | øI | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|-----|-----|-----|-----|----|----|----------------|------------|
| B6        | 612/3            | 25 | 195 | 250 | 180 | 300 | 422 | 25 | 18 | -              | KC90.9.022 |
| S8        | 87               | 40 | 180 | 215 | 260 | 290 | 407 | 30 | 18 | -              | KC90.9.024 |
| S9        | 97               | 40 | 225 | 250 | 310 | 340 | 452 | 45 | 22 | -              | KC90.9.026 |

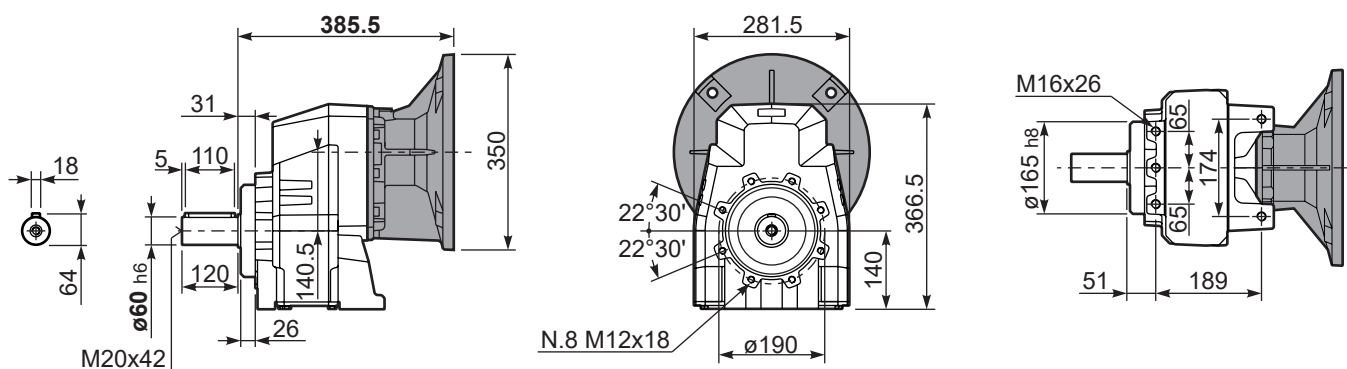


|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | ø 60x120   | 18 | 64   | M20x42 |
| On request<br>A richiesta | ø 50x100   | 14 | 53.5 | M16x36 |
|                           | -          | -  | -    | -      |

| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 300  | 230 | 21 | 265 | 4  | 14 | KC90.9.014 |
| 350  | 250 | 21 | 300 | 5  | 18 | KC90.9.015 |
| 450  | 350 | 22 | 400 | 5  | 18 | KC90.9.016 |

With flange and feet only on request.  
Ask for compatibility

Basic gearbox  
Riduttore base





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     | B14<br>motor flanges |   |   |   | Output Shaft<br> | Output Shaft<br> | Ratios<br>code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|----------------------|---|---|---|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -F                  | -G  | -H  | -I  | -                    | - | - | - |                                                                                                     |                                                                                                     |                                                                                                       |
|                                               |              |                                 |                                   |                        |                                   |                                    | 100<br>112          | 132 | 160 | 180 | -                    | - | - | - |                                                                                                     |                                                                                                     |                                                                                                       |
| 234                                           | <b>5.98</b>  | 22                              | 827                               | 1.2                    | <b>25.5</b>                       | <b>1000</b>                        | B                   |     |     |     | not<br>available     |   |   |   | 3015                                                                                                | standard<br>ø60<br><br>ø50<br>On request                                                            | 01                                                                                                    |
| 197                                           | <b>7.10</b>  | 22                              | 982                               | 1.2                    | <b>25.3</b>                       | <b>1175</b>                        | B                   |     |     |     |                      |   |   |   | 3013                                                                                                |                                                                                                     | 02                                                                                                    |
| 162                                           | <b>8.63</b>  | 22                              | 1193                              | 1.1                    | <b>23.9</b>                       | <b>1350</b>                        | B                   |     |     |     |                      |   |   |   | 3011                                                                                                |                                                                                                     | 03                                                                                                    |
| 124                                           | <b>11.27</b> | 18.5                            | 1310                              | 1.1                    | <b>20.3</b>                       | <b>1500</b>                        | B                   |     |     |     |                      |   |   |   | 2015                                                                                                |                                                                                                     | 04                                                                                                    |
| 105                                           | <b>13.38</b> | 18.5                            | 1555                              | 1.1                    | <b>19.4</b>                       | <b>1700</b>                        | B                   |     |     |     |                      |   |   |   | 2013                                                                                                |                                                                                                     | 05                                                                                                    |
| 92                                            | <b>15.24</b> | 18.5                            | 1771                              | 1.1                    | <b>19.0</b>                       | <b>1900</b>                        | B                   |     |     |     |                      |   |   |   | 1615                                                                                                |                                                                                                     | 06                                                                                                    |
| 86                                            | <b>16.26</b> | 18.5                            | 1889                              | 1.1                    | <b>19.7</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 2011                                                                                                |                                                                                                     | 07                                                                                                    |
| 77                                            | <b>18.09</b> | 18.5                            | 2102                              | 1.0                    | <b>17.7</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1613                                                                                                |                                                                                                     | 08                                                                                                    |
| 71                                            | <b>19.82</b> | 15                              | 1865                              | 1.1                    | <b>15.9</b>                       | <b>2060</b>                        | B                   |     |     |     |                      |   |   |   | 1315                                                                                                |                                                                                                     | 09                                                                                                    |
| 64                                            | <b>21.98</b> | 15                              | 2069                              | 1.0                    | <b>14.6</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1611                                                                                                |                                                                                                     | 10                                                                                                    |
| 60                                            | <b>23.53</b> | 15                              | 2214                              | 0.9                    | <b>13.6</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1313                                                                                                |                                                                                                     | 11                                                                                                    |
| 58                                            | <b>24.25</b> | 11                              | 1677                              | 1.2                    | <b>12.2</b>                       | <b>1940</b>                        | B                   |     |     |     |                      |   |   |   | 1115                                                                                                |                                                                                                     | 12                                                                                                    |
| 48.6                                          | <b>28.80</b> | 11                              | 1991                              | 1.1                    | <b>11.1</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1113                                                                                                |                                                                                                     | 13                                                                                                    |
| 40.0                                          | <b>34.99</b> | 9                               | 2063                              | 1.0                    | <b>9.2</b>                        | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1111                                                                                                |                                                                                                     | 14                                                                                                    |
| 33.6                                          | <b>41.64</b> | 7.5                             | 1976                              | 1.0                    | <b>7.2</b>                        | <b>1960</b>                        | B                   |     |     |     |                      |   |   |   | 813                                                                                                 |                                                                                                     | 15                                                                                                    |
| 27.7                                          | <b>50.60</b> | 5.5                             | 1774                              | 1.2                    | <b>6.3</b>                        | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 811                                                                                                 |                                                                                                     | 16                                                                                                    |

The dynamic efficiency is **0.96** for all ratios

 **Motor Flanges Available**  
Flange Motore Disponibile

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

 **B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

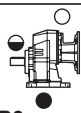
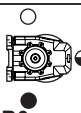
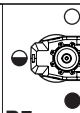
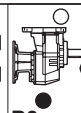
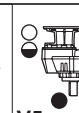
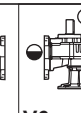
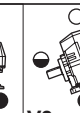
**EN** Unit **902C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **902C** è fornito privo di lubrificazione con tappi di sfato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **902C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **902C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **902C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                    |                                                                                    |                                                                                     |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| B3                                                                                 | B6                                                                                 | B7                                                                                  | B8                                                                                   | V5                                                                                   | V6                                                                                   | V8                                                                                   |
| 5.90 LT                                                                            | 3.80 LT                                                                            | 3.80 LT                                                                             | 3.40 LT                                                                              | 6.70 LT                                                                              | 4.40 LT                                                                              | Ask                                                                                  |

AGIP Blasias 460

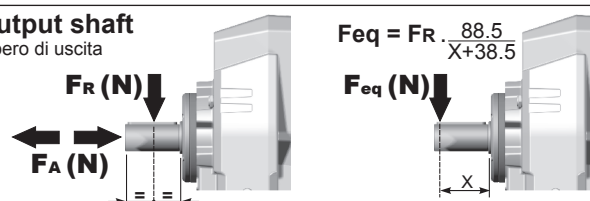
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita



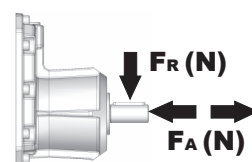
| $n_2$ | FA   | FR    | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|-------|-------|------|-------|-------|------|-------|
| 300   | 2070 | 10350 | 140   | 2760 | 13800 | 70    | 3450 | 17250 |
| 250   | 2300 | 11500 | 120   | 2990 | 14950 | 40    | 3680 | 18400 |
| 200   | 2530 | 12650 | 85    | 3220 | 16100 | 15    | 4600 | 23000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

##### Input shaft

Albero in entrata



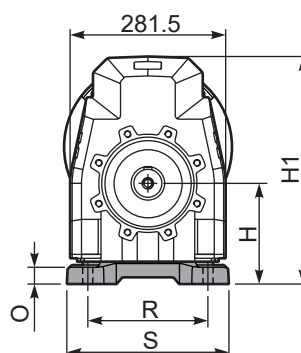
| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 700 | 3500 |
| 900   | 840 | 4200 |
| 500   | 900 | 4500 |

tab. 2



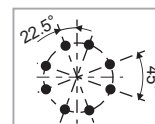
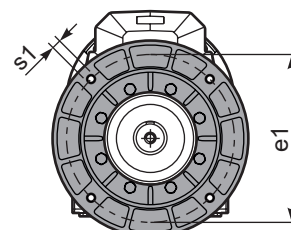
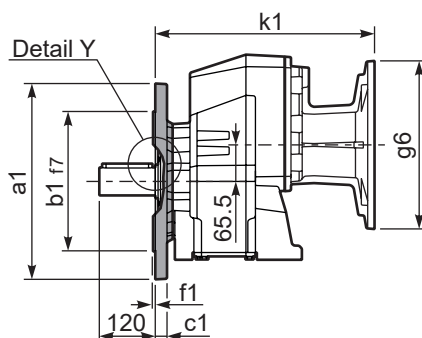
With feet  
Con piedini

With flange **98.5 kg**  
With feet **107.0 kg**



| Feet Code | Market reference | G  | H   | R   | L   | S   | H1  | O  | øI | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|-----|-----|-----|-----|----|----|----------------|------------|
| B6        | 612/3            | 25 | 195 | 250 | 180 | 300 | 422 | 25 | 18 | -              | KC90.9.022 |
| S8        | 87               | 40 | 180 | 215 | 260 | 290 | 407 | 30 | 18 | -              | KC90.9.024 |
| S9        | 97               | 40 | 225 | 250 | 310 | 340 | 452 | 45 | 22 | -              | KC90.9.026 |

Output flanges  
flange di uscita



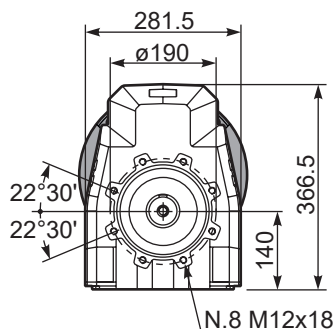
**n° 8 holes  
only for  
Kit KC909016**  
Solo per il  
kit KC909016

|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | ø 60x120   | 18 | 64   | M20x42 |
| On request<br>A richiesta | ø 50x100   | 14 | 53.5 | M16x36 |
|                           | -          | -  | -    | -      |

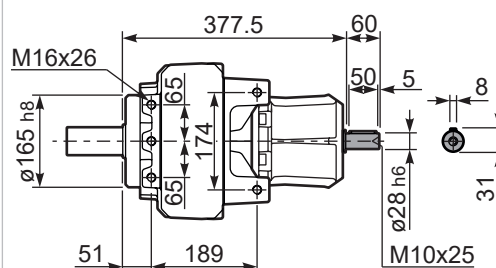
| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 300  | 230 | 21 | 265 | 4  | 14 | KC90.9.014 |
| 350  | 250 | 21 | 300 | 5  | 18 | KC90.9.015 |
| 450  | 350 | 22 | 400 | 5  | 18 | KC90.9.016 |

With flange and feet only on request. Ask for compatibility

Basic gearbox  
Riduttore base



Input Shaft  
Albero in entrata



| B5 Motor Flanges | A   | C <sub>max</sub> | g6  | k1  | kit code |
|------------------|-----|------------------|-----|-----|----------|
| 100/112 B5       | 387 | 415.5            | 250 | 387 | -        |
| 132 B5           | 391 | 440.5            | 300 | 391 | -        |
| 160/180 B5       | 402 | 465.5            | 350 | 402 | -        |





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br><br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br><br>i | Motor power<br><br>P <sub>1M</sub><br>[kW] | Output torque<br><br>M <sub>2M</sub><br>[Nm] | Service factor<br><br>f.s. | Nominal power<br><br>P <sub>1R</sub><br>[kW] | Nominal torque<br><br>M <sub>2R</sub><br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |        |  | Output Shaft<br> | <br>Ratios code |
|------------------------------------------------------------|----------------|--------------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|-----------------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|--------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                                            |                |                                            |                                              |                            |                                              |                                               | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V     |                                                                                     |                                                                                                     |                                                                                                    |
|                                                            |                |                                            |                                              |                            |                                              |                                               | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132    |                                                                                     |                                                                                                     |                                                                                                    |
| 28.8                                                       | 48.55          | 7.5                                        | 2257                                         | 0.9                        | 6.7                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 201315 | standard<br>ø60<br><br>ø50<br>On request                                            | 01                                                                                                  |                                                                                                    |
| 24.3                                                       | 57.64          | 5.5                                        | 1980                                         | 1.1                        | 5.7                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 201313 |                                                                                     | 02                                                                                                  |                                                                                                    |
| 21.3                                                       | 65.64          | 5.5                                        | 2255                                         | 0.9                        | 5.0                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 161315 |                                                                                     | 03                                                                                                  |                                                                                                    |
| 20.0                                                       | 70.04          | 4                                          | 1760                                         | 1.2                        | 4.7                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 201311 |                                                                                     | 04                                                                                                  |                                                                                                    |
| 18.0                                                       | 77.93          | 4                                          | 1958                                         | 1.1                        | 4.2                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 161313 |                                                                                     | 05                                                                                                  |                                                                                                    |
| 16.4                                                       | 85.36          | 4                                          | 2145                                         | 1.0                        | 3.8                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 131315 |                                                                                     | 06                                                                                                  |                                                                                                    |
| 14.8                                                       | 94.70          | 4                                          | 2380                                         | 0.9                        | 3.5                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 161311 |                                                                                     | 07                                                                                                  |                                                                                                    |
| 13.8                                                       | 101.35         | 3                                          | 1917                                         | 1.1                        | 3.2                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 131313 |                                                                                     | 08                                                                                                  |                                                                                                    |
| 11.4                                                       | 123.15         | 3                                          | 2330                                         | 0.9                        | 2.7                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 131311 |                                                                                     | 09                                                                                                  |                                                                                                    |
| 9.3                                                        | 150.73         | 2.2                                        | 2100                                         | 1.0                        | 2.2                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 111311 |                                                                                     | 10                                                                                                  |                                                                                                    |
| 7.8                                                        | 179.39         | 1.5                                        | 1722                                         | 1.2                        | 1.8                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 81313  |                                                                                     | 11                                                                                                  |                                                                                                    |
| 6.4                                                        | 217.98         | 1.5                                        | 2093                                         | 1.0                        | 1.5                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 81311  |                                                                                     | 12                                                                                                  |                                                                                                    |
| 5.7                                                        | 247.03         | 1.1                                        | 1732                                         | 1.1                        | 1.2                                          | 1950                                          | B                          |    |    |            |     |                             |    |            | 61313  |                                                                                     | 13                                                                                                  |                                                                                                    |
| 4.7                                                        | 300.17         | 1.1                                        | 2105                                         | 1.0                        | 1.1                                          | 2100                                          | B                          |    |    |            |     |                             |    |            | 61311  |                                                                                     | 14                                                                                                  |                                                                                                    |

The dynamic efficiency is **0.94** for all ratios

 **Motor Flanges Available**  
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **903C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **903C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **903C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **903C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **903C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                    |                                                                                    |                                                                                     |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>B3</b>                                                                          | <b>B6</b>                                                                          | <b>B7</b>                                                                           | <b>B8</b>                                                                            | <b>V5</b>                                                                            | <b>V6</b>                                                                            | <b>V8</b>                                                                            |
| 6.00 LT                                                                            | 4.10 LT                                                                            | 4.10 LT                                                                             | 3.70 LT                                                                              | 7.30 LT                                                                              | 4.90 LT                                                                              | Ask                                                                                  |

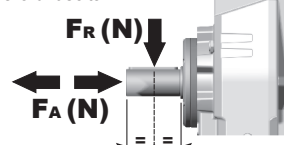
AGIP Blasias 460

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Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

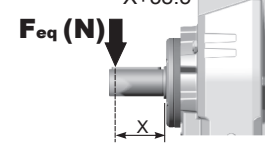
tab. 1

#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$$

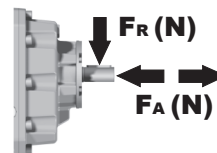


| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 2070 | 10350 | <b>140</b> | 2760 | 13800 | <b>70</b> | 3450 | 17250 |
| <b>250</b> | 2300 | 11500 | <b>120</b> | 2990 | 14950 | <b>40</b> | 3680 | 18400 |
| <b>200</b> | 2530 | 12650 | <b>85</b>  | 3220 | 16100 | <b>15</b> | 4600 | 23000 |

**On request reinforced bearings to increase loads.**

A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

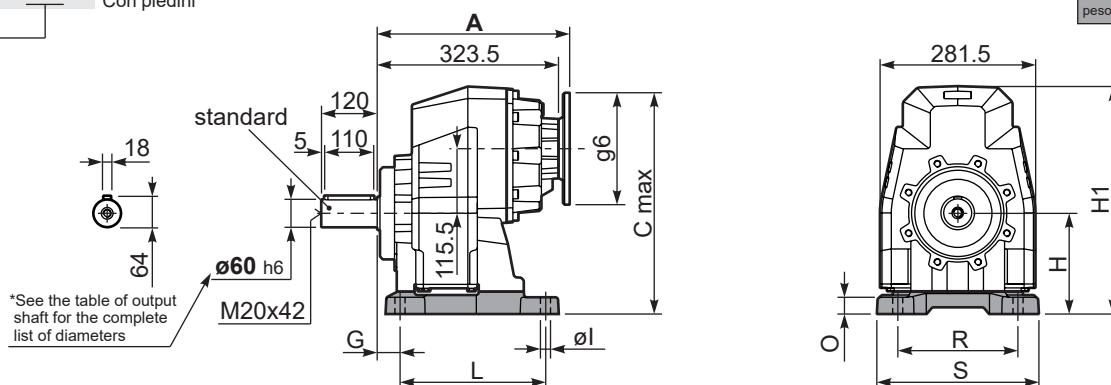


| $n_1$       | FA  | FR   |
|-------------|-----|------|
| <b>1400</b> | 450 | 2250 |
| <b>900</b>  | 500 | 2500 |
| <b>500</b>  | 600 | 3000 |

tab. 2

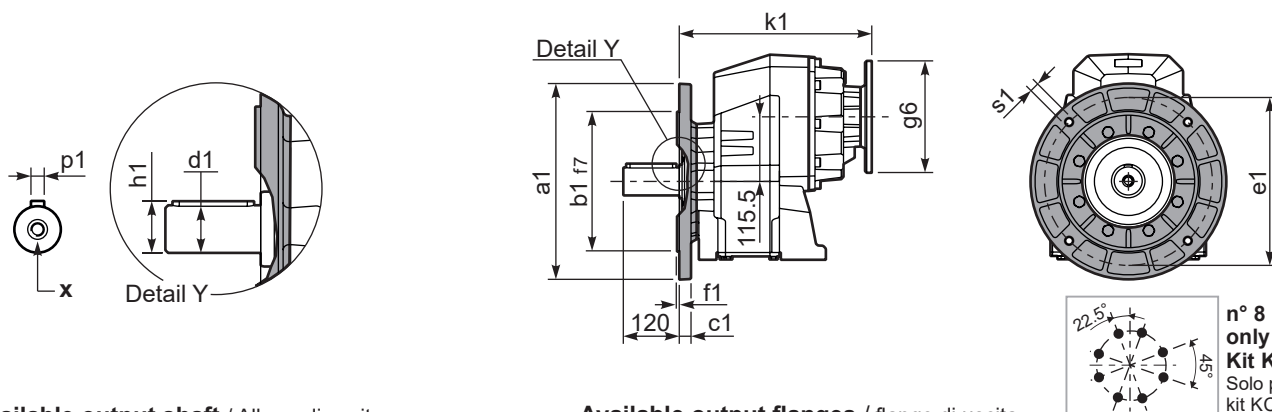
With feet  
Con piedini

|                       |                            |
|-----------------------|----------------------------|
| <b>Gearbox weight</b> | With flange <b>86.0 kg</b> |
| peso riduttore        | With feet <b>94.5 Kg</b>   |



| Feet Code | Market reference | G  | H   | R   | L   | S   | H1  | O  | øI | B5 max. Flange | kit code   |
|-----------|------------------|----|-----|-----|-----|-----|-----|----|----|----------------|------------|
| B6        | 612/3            | 25 | 195 | 250 | 180 | 300 | 422 | 25 | 18 | -              | KC90.9.022 |
| S8        | 87               | 40 | 180 | 215 | 260 | 290 | 407 | 30 | 18 | -              | KC90.9.024 |
| S9        | 97               | 40 | 225 | 250 | 310 | 340 | 452 | 45 | 22 | -              | KC90.9.026 |

Output flanges  
flange di uscita



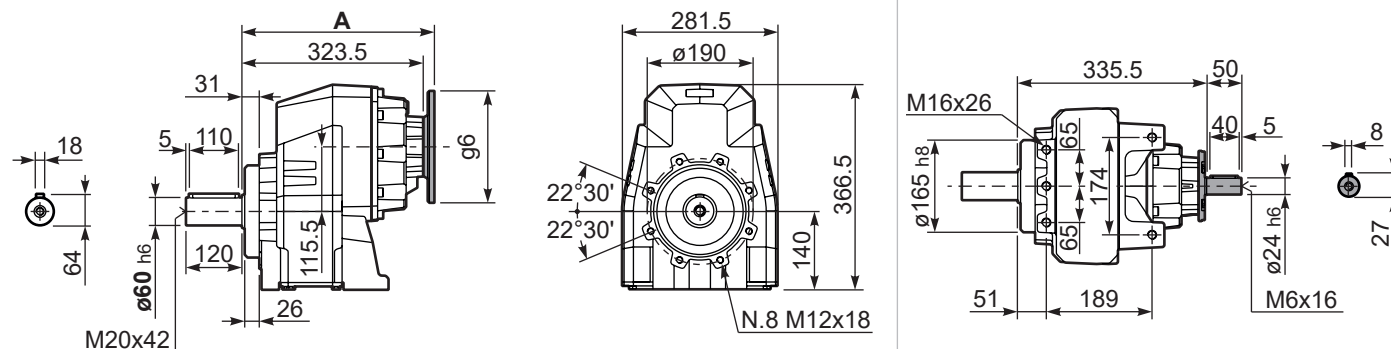
|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | ø 60x120   | 18 | 64   | M20x42 |
| On request<br>A richiesta | ø 50x100   | 14 | 53.5 | M16x36 |
|                           | -          | -  | -    | -      |

| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 300  | 230 | 21 | 265 | 4  | 14 | KC90.9.014 |
| 350  | 250 | 21 | 300 | 5  | 18 | KC90.9.015 |
| 450  | 350 | 22 | 400 | 5  | 18 | KC90.9.016 |

With flange and feet only on request.  
Ask for compatibility

Basic gearbox  
Riduttore base

Input Shaft  
Albero in entrata



| <b>B14 Motor Flanges</b> | <b>A</b> | <b>C<sub>max</sub></b> | <b>g6</b> | <b>k1</b> | <b>kit code</b> |
|--------------------------|----------|------------------------|-----------|-----------|-----------------|
| 80 B14                   | 344      | 400.5                  | 120       | 344       | K085.4.046      |
| 90 B14                   | 344      | 410.5                  | 140       | 344       | K085.4.045      |
| 100/112 B14              | 353      | 420.5                  | 160       | 353       | K085.4.047      |
| 132 B14                  | 371      | 440.5                  | 200       | 371       | KC50.4.041      |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     | B14<br>motor flanges |   |   |   | Output Shaft<br> | Ratios<br>code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|----------------------|---|---|---|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -G                  | -H  | -I  | -L  | -                    | - | - | - |                                                                                                     |                                                                                                       |
|                                               |              |                                 |                                   |                        |                                   |                                    | 132                 | 160 | 180 | 200 | -                    | - | - | - |                                                                                                     |                                                                                                       |
| 294                                           | <b>4.75</b>  | 30                              | 895                               | 1.8                    | <b>53.0</b>                       | <b>1650</b>                        |                     |     |     |     |                      |   |   |   | 3914                                                                                                | 01                                                                                                    |
| 269                                           | <b>5.21</b>  | 30                              | 980                               | 1.8                    | <b>51.3</b>                       | <b>1750</b>                        |                     |     |     |     |                      |   |   |   | 3913                                                                                                | 02                                                                                                    |
| 220                                           | <b>6.36</b>  | 30                              | 1197                              | 1.6                    | <b>45.6</b>                       | <b>1900</b>                        |                     |     |     |     |                      |   |   |   | 3911                                                                                                | 03                                                                                                    |
| 188                                           | <b>7.45</b>  | 30                              | 1401                              | 1.5                    | <b>43.1</b>                       | <b>2100</b>                        |                     |     |     |     |                      |   |   |   | 3014                                                                                                | 04                                                                                                    |
| 172                                           | <b>8.15</b>  | 30                              | 1535                              | 1.4                    | <b>39.3</b>                       | <b>2100</b>                        |                     |     |     |     |                      |   |   |   | 3013                                                                                                | 05                                                                                                    |
| 141                                           | <b>9.96</b>  | 30                              | 1874                              | 1.2                    | <b>33.7</b>                       | <b>2200</b>                        |                     |     |     |     |                      |   |   |   | 3011                                                                                                | 06                                                                                                    |
| 120                                           | <b>11.69</b> | 30                              | 2200                              | 1.0                    | <b>30.1</b>                       | <b>2300</b>                        |                     |     |     |     |                      |   |   |   | 2214                                                                                                | 07                                                                                                    |
| 109                                           | <b>12.80</b> | 30                              | 2409                              | 1.0                    | <b>27.4</b>                       | <b>2300</b>                        |                     |     |     |     |                      |   |   |   | 2213                                                                                                | 08                                                                                                    |
| 90                                            | <b>15.63</b> | 22                              | 2161                              | 1.1                    | <b>23.5</b>                       | <b>2400</b>                        |                     |     |     |     |                      |   |   |   | 2211                                                                                                | 09                                                                                                    |
| 79                                            | <b>17.65</b> | 22                              | 2441                              | 1.1                    | <b>22.5</b>                       | <b>2600</b>                        |                     |     |     |     |                      |   |   |   | 1614                                                                                                | 10                                                                                                    |
| 72                                            | <b>19.33</b> | 22                              | 2673                              | 1.1                    | <b>22.9</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1613                                                                                                | 11                                                                                                    |
| 67                                            | <b>20.77</b> | 22                              | 2872                              | 1.0                    | <b>21.3</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1414                                                                                                | 12                                                                                                    |
| 62                                            | <b>22.75</b> | 18.5                            | 2643                              | 1.1                    | <b>19.5</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1413                                                                                                | 13                                                                                                    |
| 59                                            | <b>23.60</b> | 18.5                            | 2743                              | 1.1                    | <b>18.8</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1611                                                                                                | 14                                                                                                    |
| 50                                            | <b>27.78</b> | 15                              | 2615                              | 1.1                    | <b>15.9</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1411                                                                                                | 15                                                                                                    |
| 45.5                                          | <b>30.76</b> | 15                              | 2896                              | 1.0                    | <b>14.4</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1014                                                                                                | 16                                                                                                    |
| 41.6                                          | <b>33.69</b> | 11                              | 2330                              | 1.2                    | <b>13.1</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1013                                                                                                | 17                                                                                                    |
| 34.0                                          | <b>41.15</b> | 11                              | 2845                              | 1.0                    | <b>10.8</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   | 1011                                                                                                | 18                                                                                                    |

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **1002** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **1002** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **1002** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **1002** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **1002** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>B3</b>                                                                           | <b>B6</b>                                                                           | <b>B7</b>                                                                            | <b>B8</b>                                                                             | <b>V5</b>                                                                             | <b>V6</b>                                                                             | <b>V8</b>                                                                             |
| 4.50 LT                                                                             | 8.00 LT                                                                             | 5.50 LT                                                                              | 6.00 LT                                                                               | 10.00 LT                                                                              | 7.50 LT                                                                               | Ask                                                                                   |

AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

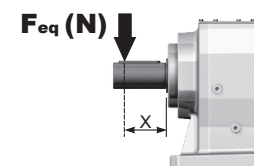
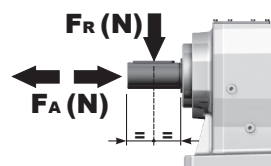
tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita

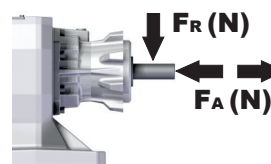
$$F_{eq} = F_R \cdot \frac{117}{X+57}$$



| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 2300 | 11500 | <b>140</b> | 2980 | 14900 | <b>70</b> | 3660 | 18300 |
| <b>250</b> | 2480 | 12400 | <b>120</b> | 3180 | 15900 | <b>40</b> | 4220 | 21100 |
| <b>200</b> | 2680 | 13400 | <b>85</b>  | 3440 | 17200 | <b>15</b> | 4820 | 24100 |

##### Input shaft

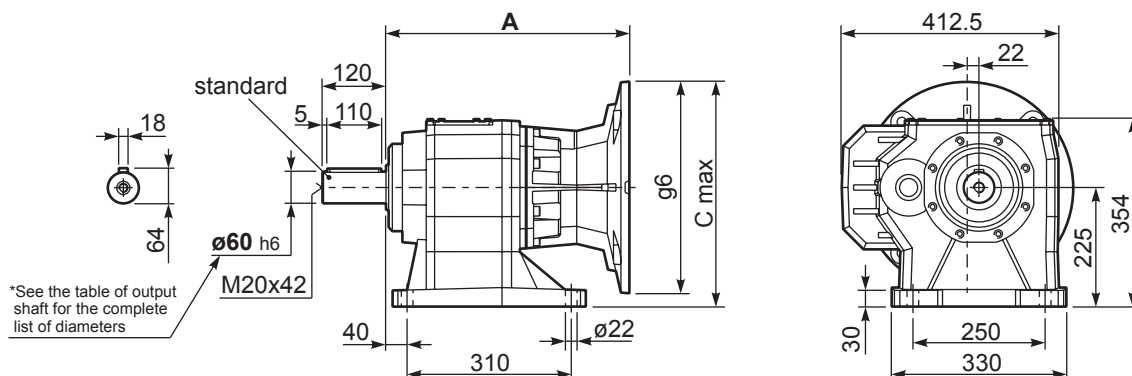
Albero in entrata



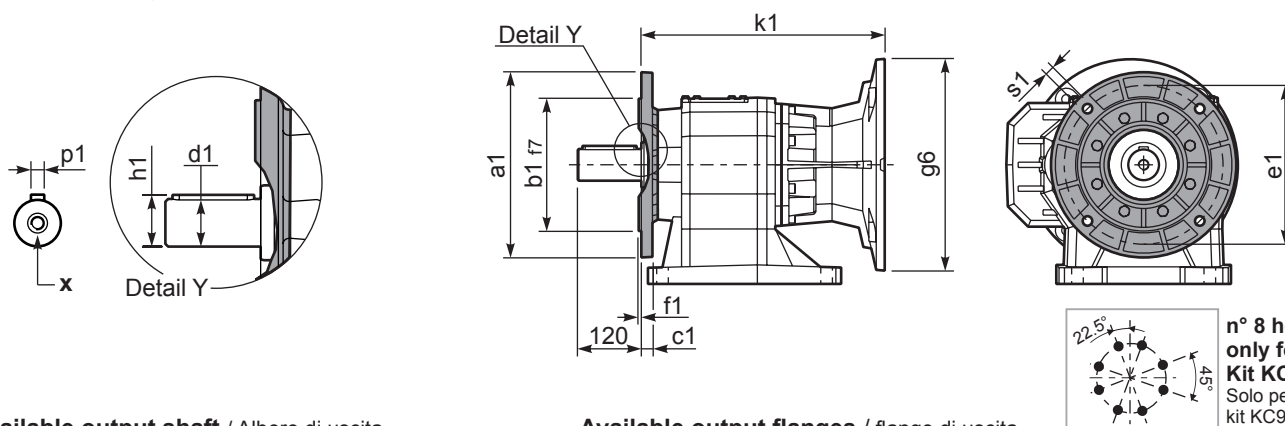
| $n_1$       | FA   | FR   |
|-------------|------|------|
| <b>1400</b> | 1120 | 5600 |
| <b>900</b>  | 1220 | 6100 |
| <b>500</b>  | 1300 | 6500 |

tab. 2

P1002S9...

With foot  
Con piedinoGearbox weight  
peso riduttore 120.0 kg

P1002-F...

Output flanges  
flange di uscita

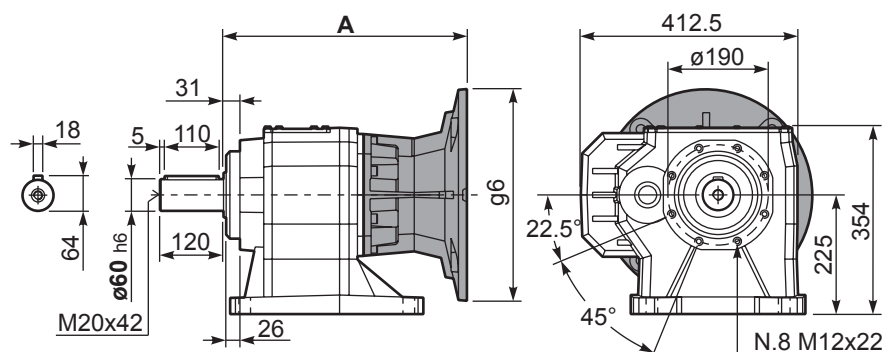
\*Available output shaft / Albero di uscita

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | Ø 60x120   | 18 | 64 | M20x42 |
| On request<br>A richiesta | -          | -  | -  | -      |

Available output flanges / flange di uscita

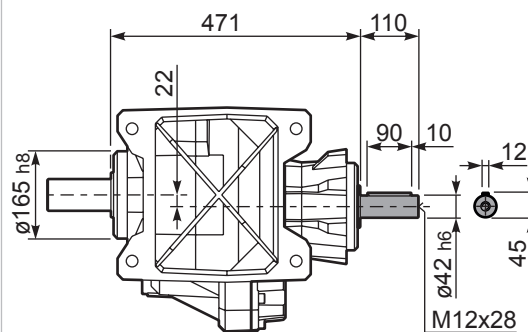
| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |                                          |
|------|-----|----|-----|----|----|------------|------------------------------------------|
| 300  | 230 | 21 | 265 | 4  | 14 | KC90.9.014 | All flanges are compatible with the foot |
| 350  | 250 | 21 | 300 | 5  | 18 | KC90.9.015 |                                          |
| 450  | 350 | 22 | 400 | 5  | 18 | KC90.9.016 |                                          |

P1002S9...

Basic gearbox  
Riduttore base

| B5 Motor Flanges | A   | C <sub>max</sub> | g6  | k1  | kit code    |
|------------------|-----|------------------|-----|-----|-------------|
| 132 B5           | 435 | 375              | 300 | 435 | KC1109052   |
| 160 B5           | 460 | 400              | 350 | 460 | KC1109053   |
| 180 B5           | 460 | 400              | 350 | 460 | KC1109053_B |
| 200 B5           | 460 | 425              | 400 | 460 | KC1109054   |

R1002S9...

Input Shaft  
Albero in entrata



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     | B14<br>motor flanges |   |   |  | Output Shaft<br> | <br>Ratios<br>code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|----------------------|---|---|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -F                  | -G  | -H  | -                    | - | - |                                                                                     |                                                                                                     |                                                                                                       |
|                                               |               |                                 |                                   |                        |                                   |                                    | 100<br>112          | 132 | 160 | -                    | - | - |                                                                                     |                                                                                                     |                                                                                                       |
| 38.8                                          | <b>36.11</b>  | 11                              | 2447                              | 1.2                    | <b>12.5</b>                       | <b>2900</b>                        | B                   |     |     | not<br>available     |   |   | 301411                                                                              | standard<br>ø60                                                                                     | 01                                                                                                    |
| 27.5                                          | <b>50.89</b>  | 9                               | 2941                              | 1.0                    | <b>9.2</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 201414                                                                              |                                                                                                     | 02                                                                                                    |
| 25.1                                          | <b>55.73</b>  | 7.5                             | 2591                              | 1.2                    | <b>8.4</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 201413                                                                              |                                                                                                     | 03                                                                                                    |
| 20.3                                          | <b>68.80</b>  | 7.5                             | 3199                              | 0.9                    | <b>6.8</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 161414                                                                              |                                                                                                     | 04                                                                                                    |
| 18.6                                          | <b>75.35</b>  | 5.5                             | 2589                              | 1.2                    | <b>6.2</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 161413                                                                              |                                                                                                     | 05                                                                                                    |
| 15.6                                          | <b>89.47</b>  | 5.5                             | 3074                              | 1.0                    | <b>5.2</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 131414                                                                              |                                                                                                     | 06                                                                                                    |
| 15.2                                          | <b>92.02</b>  | 5.5                             | 3161                              | 0.9                    | <b>5.1</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 161411                                                                              |                                                                                                     | 07                                                                                                    |
| 14.3                                          | <b>97.99</b>  | 4                               | 2462                              | 1.2                    | <b>4.8</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 131413                                                                              |                                                                                                     | 08                                                                                                    |
| 12.8                                          | <b>109.52</b> | 4                               | 2752                              | 1.1                    | <b>4.3</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 111414                                                                              |                                                                                                     | 09                                                                                                    |
| 11.7                                          | <b>119.94</b> | 4                               | 3014                              | 1.0                    | <b>3.9</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 111413                                                                              |                                                                                                     | 10                                                                                                    |
| 9.6                                           | <b>146.47</b> | 3                               | 2771                              | 1.1                    | <b>3.2</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 111411                                                                              |                                                                                                     | 11                                                                                                    |
| 8.8                                           | <b>158.37</b> | 3                               | 2996                              | 1.0                    | <b>3.0</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 81414                                                                               |                                                                                                     | 12                                                                                                    |
| 8.1                                           | <b>173.45</b> | 2.2                             | 2416                              | 1.2                    | <b>2.7</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 81413                                                                               |                                                                                                     | 13                                                                                                    |
| 6.6                                           | <b>211.82</b> | 2.2                             | 2951                              | 1.0                    | <b>2.2</b>                        | <b>3000</b>                        | B                   |     |     |                      |   |   | 81411                                                                               |                                                                                                     | 14                                                                                                    |

The dynamic efficiency is **0.94** for all ratios

 **Motor Flanges Available**  
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

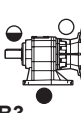
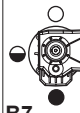
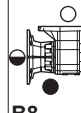
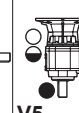
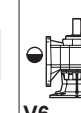
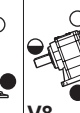
**EN** Unit **1003** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **1003** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **1003** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **1003** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **1003** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                    |                                                                                    |                                                                                     |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>B3</b>                                                                          | <b>B6</b>                                                                          | <b>B7</b>                                                                           | <b>B8</b>                                                                            | <b>V5</b>                                                                            | <b>V6</b>                                                                            | <b>V8</b>                                                                            |
| 5.00 LT                                                                            | 9.00 LT                                                                            | 6.50 LT                                                                             | 6.50 LT                                                                              | 11.00 LT                                                                             | 9.00 LT                                                                              | Ask                                                                                  |

AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

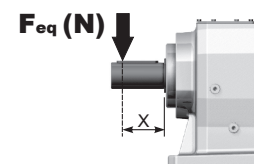
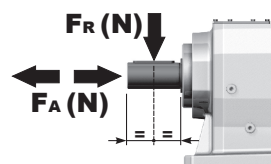
tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita

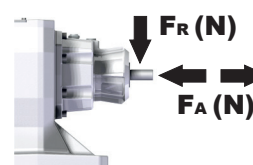
$$F_{eq} = F_R \cdot \frac{117}{X+57}$$



| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 2300 | 11500 | <b>140</b> | 2980 | 14900 | <b>70</b> | 3660 | 18300 |
| <b>250</b> | 2480 | 12400 | <b>120</b> | 3180 | 15900 | <b>40</b> | 4220 | 21100 |
| <b>200</b> | 2680 | 13400 | <b>85</b>  | 3440 | 17200 | <b>15</b> | 4820 | 24100 |

##### Input shaft

Albero in entrata



| $n_1$       | FA  | FR   |
|-------------|-----|------|
| <b>1400</b> | 700 | 3500 |
| <b>900</b>  | 840 | 4200 |
| <b>500</b>  | 900 | 4500 |

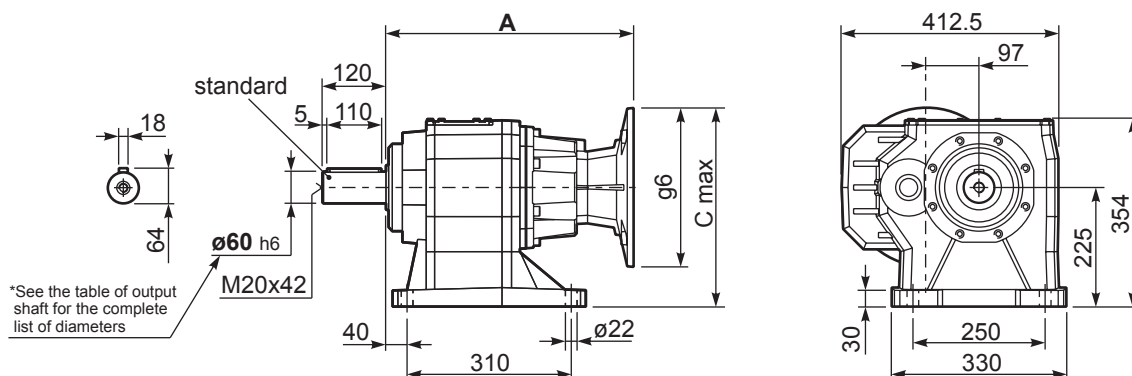
tab. 2



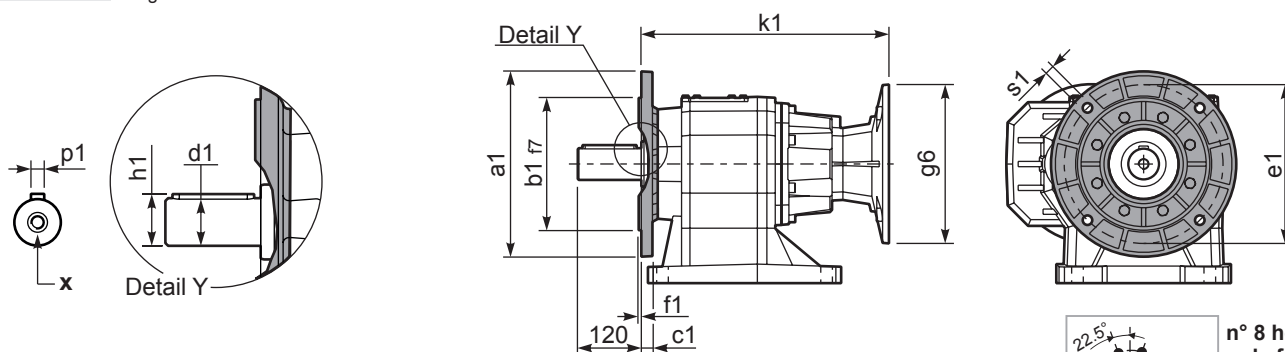
P1003S9...

With foot  
Con piedinoGearbox  
weight  
peso riduttore

116 kg



P1003-F...

Output flanges  
flange di uscita

\*Available output shaft / Albero di uscita

|                           | Shaft - d1 | p1 | h1 | x      |
|---------------------------|------------|----|----|--------|
| Standard                  | Ø 60x120   | 18 | 64 | M20x42 |
| On request<br>A richiesta | -          | -  | -  | -      |

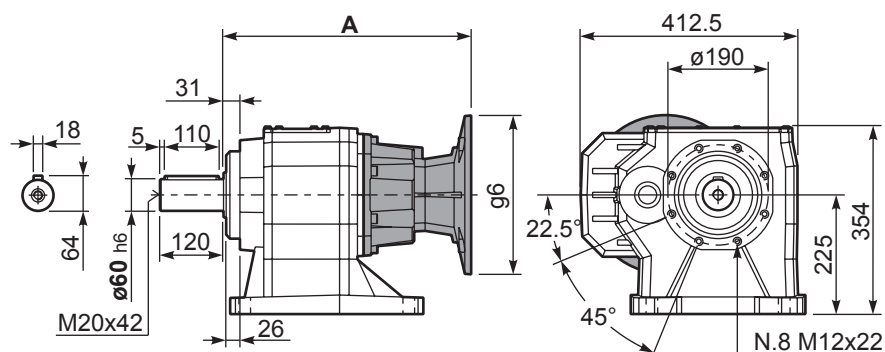
Available output flanges / flange di uscita

| a1 Ø | b1  | c1 | e1  | f1 | s1 | kit code   |
|------|-----|----|-----|----|----|------------|
| 300  | 230 | 21 | 265 | 4  | 14 | KC90.9.014 |
| 350  | 250 | 21 | 300 | 5  | 18 | KC90.9.015 |
| 450  | 350 | 22 | 400 | 5  | 18 | KC90.9.016 |

n° 8 holes  
only for  
Kit KC909016  
Solo per il  
kit KC909016

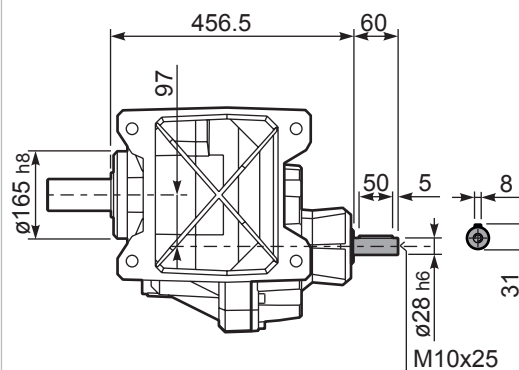
All flanges are  
compatible  
with the foot

P1003S9...

Basic gearbox  
Riduttore base

| B5 Motor<br>Flanges | A   | C <sub>max</sub> | g6  | k1  | kit code  |
|---------------------|-----|------------------|-----|-----|-----------|
| 100/112 B5          | 468 | 350              | 250 | 468 | KC1109056 |
| 132 B5              | 468 | 375              | 300 | 468 | KC1109057 |
| 160 B5              | 483 | 400              | 350 | 483 | KC1109058 |

R1003S9...

Input Shaft  
Albero in entrata



# **QUICK SELECTION / Selezione veloce**

**input speed ( $n_1$ ) = 1400 min<sup>-1</sup>**

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     |     | B14<br>motor flanges |   |   | Output Shaft |                 |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|-----|----------------------|---|---|--------------|-----------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -G                  | -H  | -I  | -L  | CA  | -                    | - | - |              |                 | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 132                 | 160 | 180 | 200 | 225 | -                    | - | - |              |                 |             |
| 294                                           | <b>4.75</b>  | 45                              | 1333                              | 2.0                    | <b>86.7</b>                       | <b>2700</b>                        |                     |     |     |     |     |                      |   |   | 3914         |                 | 01          |
| 269                                           | <b>5.21</b>  | 45                              | 1460                              | 1.9                    | <b>82.1</b>                       | <b>2800</b>                        |                     |     |     |     |     |                      |   |   | 3913         |                 | 02          |
| 220                                           | <b>6.36</b>  | 45                              | 1783                              | 1.7                    | <b>72.0</b>                       | <b>3000</b>                        |                     |     |     |     |     |                      |   |   | 3911         |                 | 03          |
| 188                                           | <b>7.45</b>  | 45                              | 2088                              | 1.6                    | <b>67.7</b>                       | <b>3300</b>                        |                     |     |     |     |     |                      |   |   | 3014         |                 | 04          |
| 172                                           | <b>8.15</b>  | 45                              | 2287                              | 1.5                    | <b>63.7</b>                       | <b>3400</b>                        |                     |     |     |     |     |                      |   |   | 3013         |                 | 05          |
| 141                                           | <b>9.96</b>  | 45                              | 2792                              | 1.3                    | <b>55.2</b>                       | <b>3600</b>                        |                     |     |     |     |     |                      |   |   | 3011         |                 | 06          |
| 120                                           | <b>11.69</b> | 45                              | 3277                              | 1.2                    | <b>49.7</b>                       | <b>3800</b>                        |                     |     |     |     |     |                      |   |   | 2214         |                 | 07          |
| 109                                           | <b>12.80</b> | 45                              | 3589                              | 1.1                    | <b>47.7</b>                       | <b>4000</b>                        |                     |     |     |     |     |                      |   |   | 2213         |                 | 08          |
| 90                                            | <b>15.63</b> | 45                              | 4383                              | 1.0                    | <b>42.0</b>                       | <b>4300</b>                        |                     |     |     |     |     |                      |   |   | 2211         | standard<br>Ø70 | 09          |
| 79                                            | <b>17.65</b> | 37                              | 4068                              | 1.1                    | <b>38.9</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1614         |                 | 10          |
| 72                                            | <b>19.33</b> | 37                              | 4455                              | 1.0                    | <b>35.6</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1613         |                 | 11          |
| 67                                            | <b>20.77</b> | 30                              | 3910                              | 1.2                    | <b>33.1</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1414         |                 | 12          |
| 62                                            | <b>22.75</b> | 30                              | 4282                              | 1.1                    | <b>30.2</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1413         |                 | 13          |
| 59                                            | <b>23.60</b> | 30                              | 4443                              | 1.0                    | <b>29.1</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1611         |                 | 14          |
| 50                                            | <b>27.78</b> | 22                              | 3842                              | 1.2                    | <b>24.7</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1411         |                 | 15          |
| 45.5                                          | <b>30.76</b> | 22                              | 4255                              | 1.1                    | <b>22.3</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1014         |                 | 16          |
| 41.6                                          | <b>33.69</b> | 22                              | 4660                              | 1.0                    | <b>20.4</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1013         |                 | 17          |
| 34.0                                          | <b>41.15</b> | 18.5                            | 4781                              | 0.9                    | <b>16.7</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 1011         |                 | 18          |

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **1102** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **1102** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **1102** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **1102** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **1102** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           |           |           |           |           |           |           |
| <b>B3</b> | <b>B6</b> | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 6.50 LT   | 12.50 LT  | 7.50 LT   | 8.50 LT   | 14.50 LT  | 11.50 LT  | Ask       |

**AGIP Blasias 460**

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

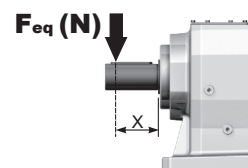
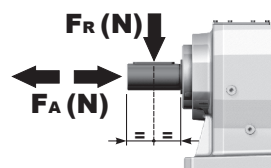
**tab. 1**

## **RADIAL AND AXIAL LOADS**

### **Output shaft**

Albero di uscita

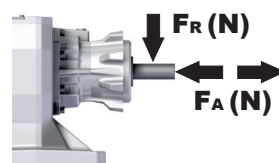
$$F_{eq} = F_R \cdot \frac{138}{X+68}$$



| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 2600 | 13000 | <b>140</b> | 3300 | 16500 | <b>70</b> | 4300 | 21500 |
| <b>250</b> | 2700 | 13500 | <b>120</b> | 3500 | 17500 | <b>40</b> | 5000 | 25000 |
| <b>200</b> | 3000 | 15000 | <b>85</b>  | 3900 | 19500 | <b>15</b> | 5900 | 29500 |

### **Input shaft**

Albero in entrata

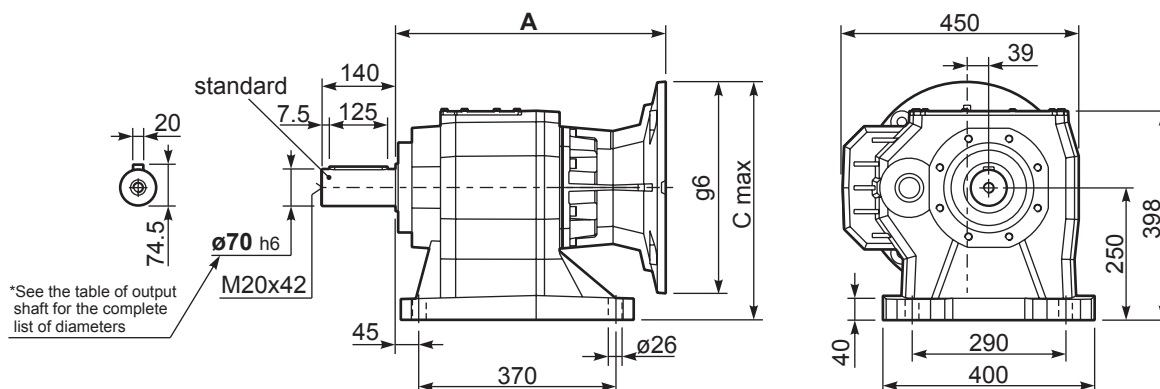
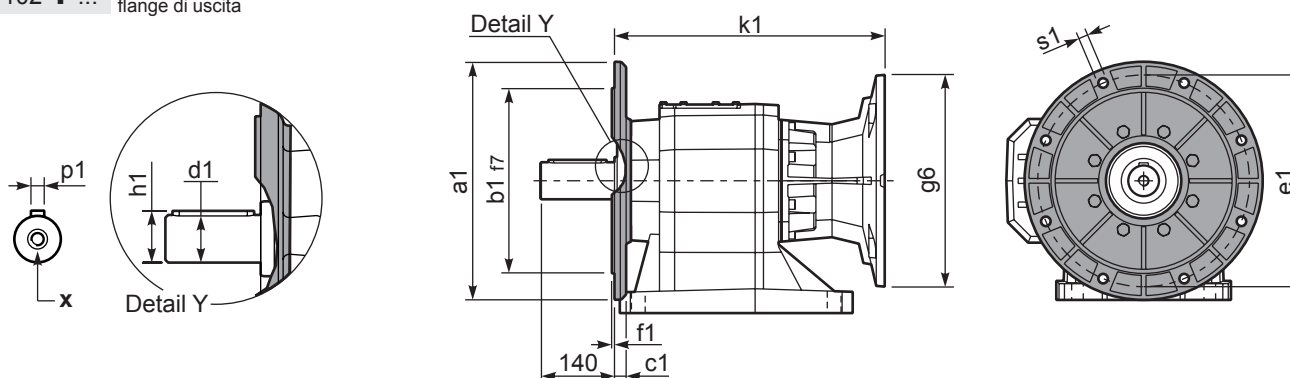


| $n_1$       | FA   | FR   |
|-------------|------|------|
| <b>1400</b> | 1120 | 5600 |
| <b>900</b>  | 1220 | 6100 |
| <b>500</b>  | 1300 | 6500 |

**tab. 2**

P1102**S0**...With foot  
Con piedinoGearbox  
weight  
peso riduttore

165 kg

P1102-**F**...Output flanges  
flange di uscita

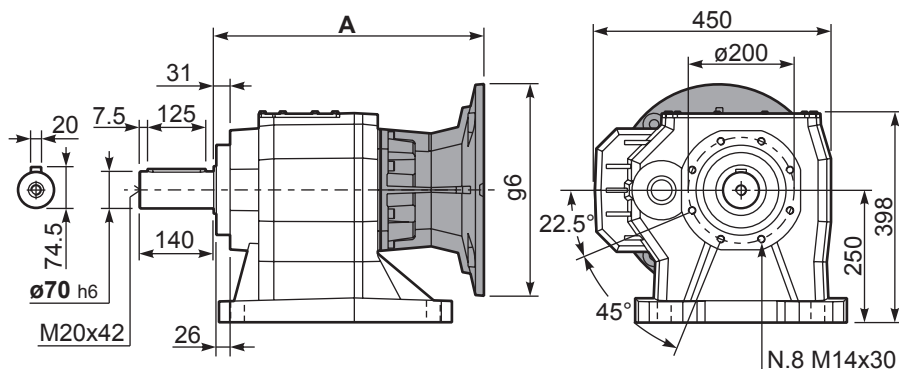
\*Available output shaft / Albero di uscita

|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | ø 70x140   | 20 | 74.5 | M20x42 |
| On request<br>A richiesta | -          | -  | -    | -      |

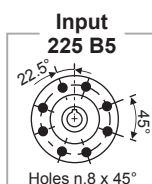
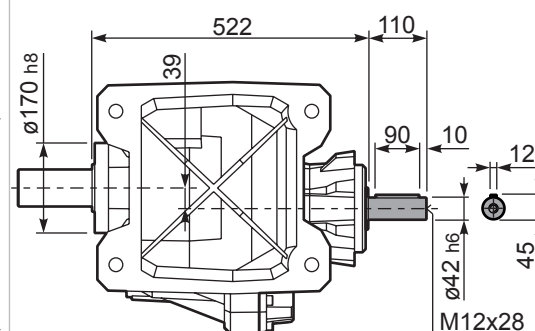
Available output flanges / flange di uscita

| a1 ø | b1  | c1 | e1  | f1 | s1 | kit code    |
|------|-----|----|-----|----|----|-------------|
| 350  | 250 | 21 | 300 | 5  | 18 | KC110.9.015 |
| 450  | 350 | 22 | 400 | 5  | 18 | KC110.9.016 |
| -    | -   | -  | -   | -  | -  | -           |

All flanges are compatible with the foot

P1102**S0**...Basic gearbox  
Riduttore base

| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code    |
|------------------|-------|------------------|-----|-------|-------------|
| 132 B5           | 485.5 | 400              | 300 | 485.5 | KC1109052   |
| 160 B5           | 510.5 | 425              | 350 | 510.5 | KC1109053   |
| 180 B5           | 510.5 | 425              | 350 | 510.5 | KC1109053_B |
| 200 B5           | 510.5 | 450              | 400 | 510.5 | KC1109054   |
| 225 B5           | 537.5 | 475              | 450 | 537.5 | KC1109055   |

R1102**S0**...Input Shaft  
Albero in entrata



# **QUICK SELECTION / Selezione veloce**

**input speed ( $n_1$ ) = 1400 min<sup>-1</sup>**

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available<br>B5 motor flanges |     |     |     | B14<br>motor flanges     |   |   | Output Shaft<br><br>$\varnothing$ | Ratios<br>code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-------------------------------|-----|-----|-----|--------------------------|---|---|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -F                            | -G  | -H  | -I  | -                        | - | - |                                                                                                                      |                                                                                                       |
|                                               |               |                                 |                                   |                        |                                   |                                    | 100<br>112                    | 132 | 160 | 180 | -                        | - | - |                                                                                                                      |                                                                                                       |
| 38.8                                          | <b>36.11</b>  | 18.5                            | 4113                              | 1.1                    | <b>19.4</b>                       | <b>4500</b>                        | B                             |     |     |     | <b>not<br/>available</b> |   |   | 301411                                                                                                               | 01                                                                                                    |
| 27.5                                          | <b>50.89</b>  | 15                              | 4694                              | 1.0                    | <b>14.1</b>                       | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 201414                                                                                                               | 02                                                                                                    |
| 25.1                                          | <b>55.73</b>  | 11                              | 3777                              | 1.2                    | <b>12.9</b>                       | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 201413                                                                                                               | 03                                                                                                    |
| 20.3                                          | <b>68.80</b>  | 11                              | 4662                              | 1.0                    | <b>10.4</b>                       | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 161414                                                                                                               | 04                                                                                                    |
| 18.6                                          | <b>75.35</b>  | 9                               | 4354                              | 1.1                    | <b>9.5</b>                        | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 161413                                                                                                               | 05                                                                                                    |
| 15.6                                          | <b>89.47</b>  | 7.5                             | 4160                              | 1.1                    | <b>8.0</b>                        | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 131414                                                                                                               | 06                                                                                                    |
| 15.2                                          | <b>92.02</b>  | 7.5                             | 4278                              | 1.1                    | <b>7.6</b>                        | <b>4500</b>                        | B                             |     |     |     |                          |   |   | 161411                                                                                                               | 07                                                                                                    |
| 14.3                                          | <b>97.99</b>  | 7.5                             | 4556                              | 1.0                    | <b>7.3</b>                        | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 131413                                                                                                               | 08                                                                                                    |
| 12.8                                          | <b>109.52</b> | 5.5                             | 3762                              | 1.2                    | <b>6.6</b>                        | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 111414                                                                                                               | 09                                                                                                    |
| 11.7                                          | <b>119.94</b> | 5.5                             | 4120                              | 1.1                    | <b>6.0</b>                        | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 111413                                                                                                               | 10                                                                                                    |
| 9.6                                           | <b>146.47</b> | 4                               | 3681                              | 1.2                    | <b>4.8</b>                        | <b>4500</b>                        | B                             |     |     |     |                          |   |   | 111411                                                                                                               | 11                                                                                                    |
| 8.8                                           | <b>158.37</b> | 4                               | 3980                              | 1.2                    | <b>4.5</b>                        | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 81414                                                                                                                | 12                                                                                                    |
| 8.1                                           | <b>173.45</b> | 4                               | 4359                              | 1.1                    | <b>4.1</b>                        | <b>4600</b>                        | B                             |     |     |     |                          |   |   | 81413                                                                                                                | 13                                                                                                    |
| 6.6                                           | <b>211.82</b> | 3                               | 4007                              | 1.1                    | <b>3.3</b>                        | <b>4500</b>                        | B                             |     |     |     |                          |   |   | 81411                                                                                                                | 14                                                                                                    |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

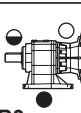
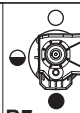
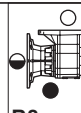
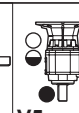
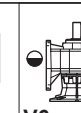
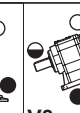
**EN** Unit **1103** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **1103** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **1103** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **1103** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **1103** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                    |                                                                                    |                                                                                     |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>B3</b>                                                                          | <b>B6</b>                                                                          | <b>B7</b>                                                                           | <b>B8</b>                                                                            | <b>V5</b>                                                                            | <b>V6</b>                                                                            | <b>V8</b>                                                                            |
| 7.00 LT                                                                            | 13.00 LT                                                                           | 8.00 LT                                                                             | 9.00 LT                                                                              | 16.00 LT                                                                             | 13.50 LT                                                                             | Ask                                                                                  |

**AGIP Blasias 460**

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

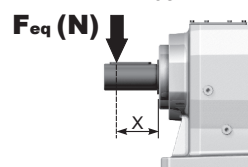
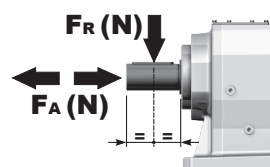
**tab. 1**

## **RADIAL AND AXIAL LOADS**

### **Output shaft**

Albero di uscita

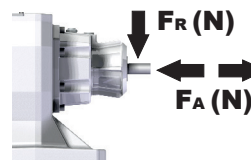
$$F_{eq} = F_R \cdot \frac{138}{X+68}$$



| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 2600 | 13000 | <b>140</b> | 3300 | 16500 | <b>70</b> | 4300 | 21500 |
| <b>250</b> | 2700 | 13500 | <b>120</b> | 3500 | 17500 | <b>40</b> | 5000 | 25000 |
| <b>200</b> | 3000 | 15000 | <b>85</b>  | 3900 | 19500 | <b>15</b> | 5900 | 29500 |

### **Input shaft**

Albero in entrata



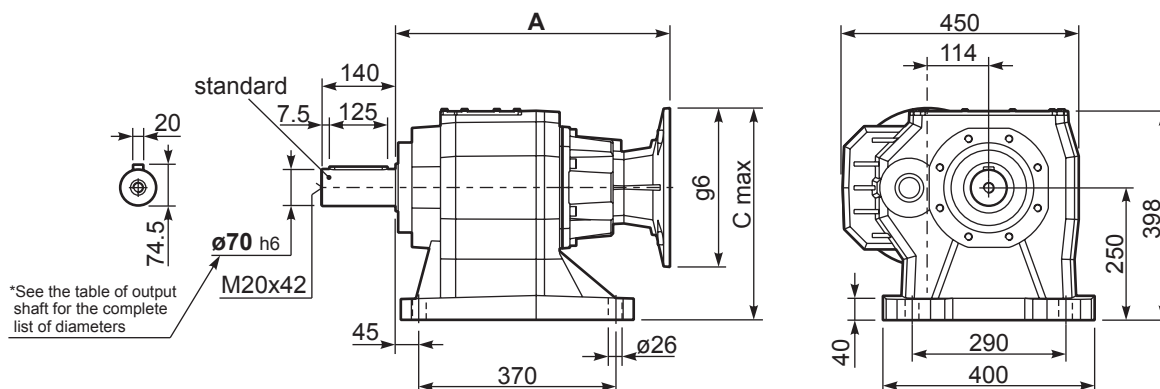
| $n_1$       | FA  | FR   |
|-------------|-----|------|
| <b>1400</b> | 700 | 3500 |
| <b>900</b>  | 840 | 4200 |
| <b>500</b>  | 900 | 4500 |

**tab. 2**

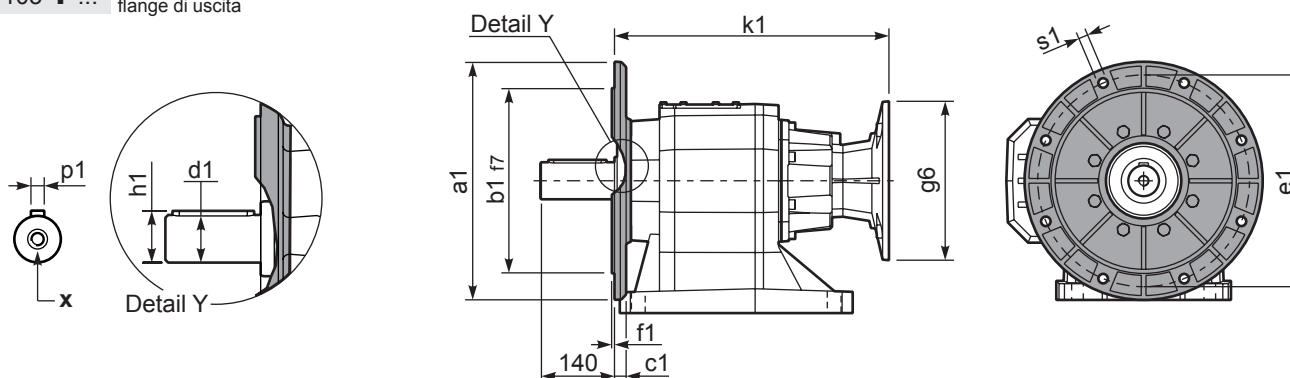
P1103S0...

With foot  
Con piedinoGearbox  
weight  
peso riduttore

156 kg



P1103-F...

Output flanges  
flange di uscita

\*Available output shaft / Albero di uscita

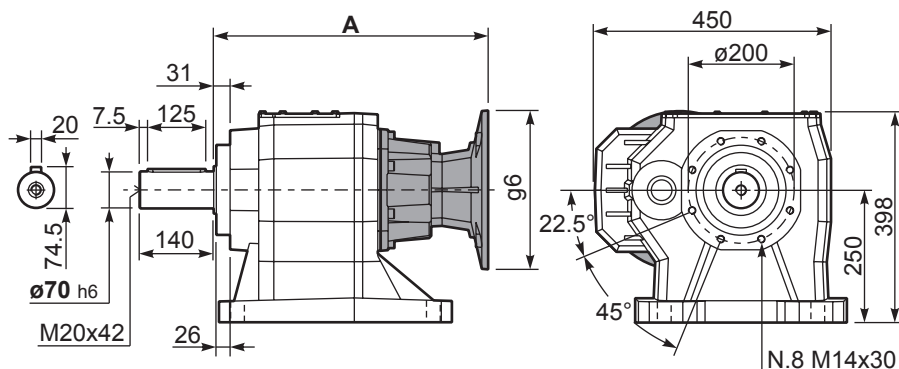
|                           | Shaft - d1 | p1 | h1   | x      |
|---------------------------|------------|----|------|--------|
| Standard                  | ø 70x140   | 20 | 74.5 | M20x42 |
| On request<br>A richiesta | -          | -  | -    | -      |

Available output flanges / flange di uscita

| a1 ø | b1  | c1 | e1  | f1 | s1 | kit code    |
|------|-----|----|-----|----|----|-------------|
| 350  | 250 | 21 | 300 | 5  | 18 | KC110.9.015 |
| 450  | 350 | 22 | 400 | 5  | 18 | KC110.9.016 |
| -    | -   | -  | -   | -  | -  | -           |

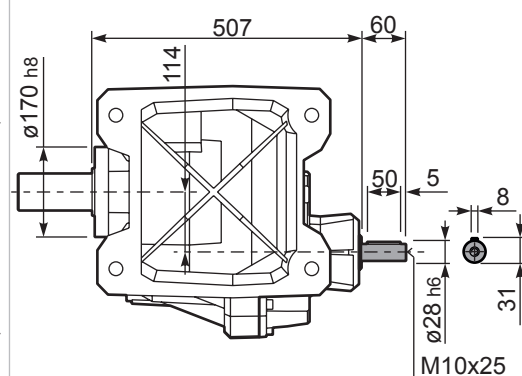
All flanges are compatible with the foot

P1103S0...

Basic gearbox  
Riduttore base

| B5 Motor Flanges | A     | C <sub>max</sub> | g6  | k1    | kit code    |
|------------------|-------|------------------|-----|-------|-------------|
| 100/112 B5       | 518.5 | 375              | 250 | 518.5 | KC1109056   |
| 132 B5           | 518.5 | 400              | 300 | 518.5 | KC1109057   |
| 160 B5           | 533.5 | 425              | 350 | 533.5 | KC1109058   |
| 180 B5           | 533.5 | 425              | 350 | 533.5 | KC1109058_B |

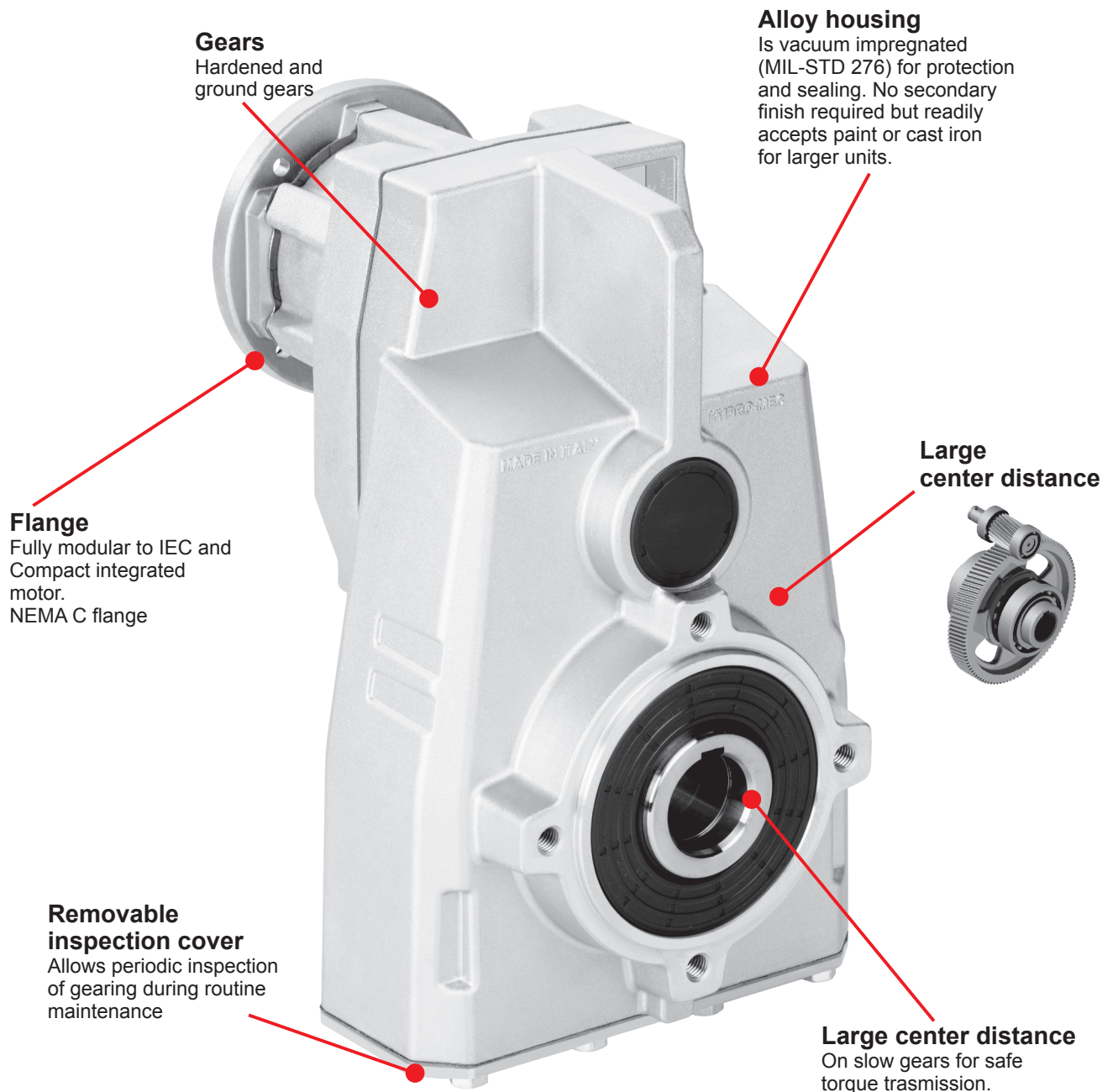
R1103S0...

Input Shaft  
Albero in entrata



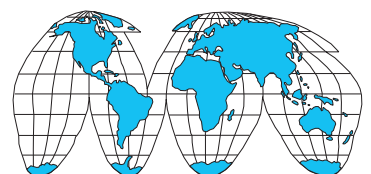
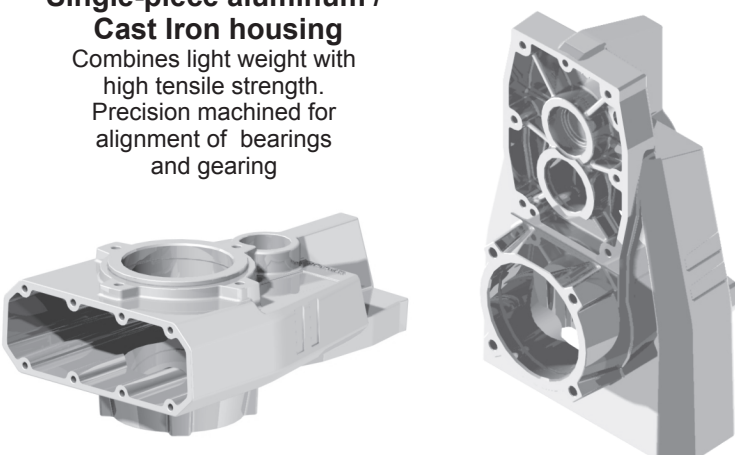
# Aluminum & cast iron shaft mounted gearboxes

## A modular and compact product



### Single-piece aluminum / Cast Iron housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing



World wide sales network.

# Specific type datasheet on page...

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3 Stage

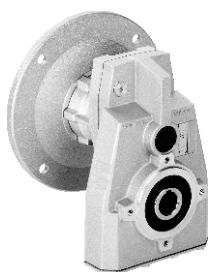


| 6-5                 | 6-7                 |
|---------------------|---------------------|
| <b>FS10</b><br>60Nm | <b>FS20</b><br>90Nm |

Types / Tipi /  
Tipen / Types /  
Tipos

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1 Stage



| 6-15                 | 6-25                 | 6-31                 | 6-37                  |
|----------------------|----------------------|----------------------|-----------------------|
| <b>FA41</b><br>225Nm | <b>FC61</b><br>380Nm | <b>FC71</b><br>670Nm | <b>FC81</b><br>1175Nm |

Types / Tipi /  
Tipen / Types /  
Tipos

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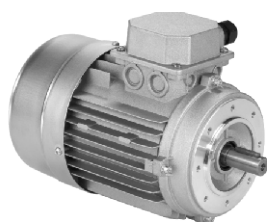
2 and 3 Stage



| 6-11                 | 6-13                 | 6-17                 | 6-19                 | 6-21                 | 6-23                 | 6-27                 | 6-29                 | 6-33                 | 6-35                 | 6-39                  | 6-41                  |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| <b>FA32</b><br>150Nm | <b>FA33</b><br>150Nm | <b>FA42</b><br>320Nm | <b>FA43</b><br>320Nm | <b>FA52</b><br>490Nm | <b>FA53</b><br>510Nm | <b>FC62</b><br>675Nm | <b>FC63</b><br>675Nm | <b>FC72</b><br>900Nm | <b>FC73</b><br>900Nm | <b>FC82</b><br>2100Nm | <b>FC83</b><br>2100Nm |

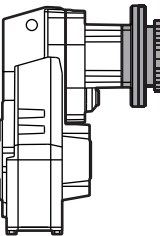
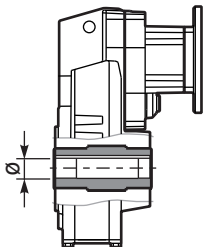
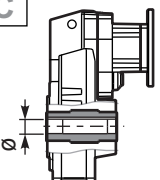
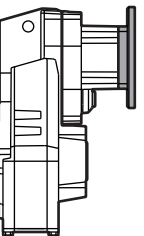
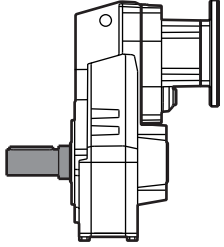
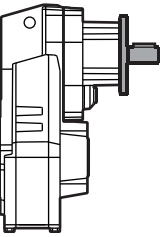
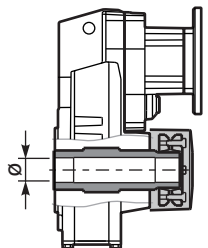
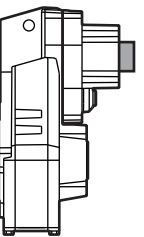
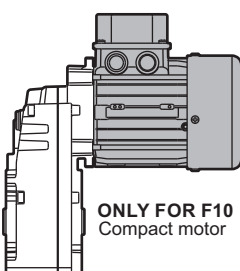
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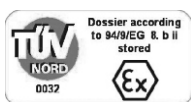
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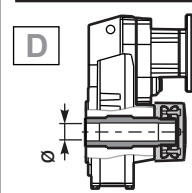
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Tipos

| M-1               |                   |                   |                   |                   |                       |             |                     |                     |                     |  |
|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|-------------|---------------------|---------------------|---------------------|--|
| <b>56A</b><br>56B | <b>63A</b><br>63B | <b>71A</b><br>71B | <b>80A</b><br>80B | <b>90S</b><br>90L | <b>100LA</b><br>100LB | <b>112M</b> | <b>132S</b><br>132M | <b>160M</b><br>160L | <b>180M</b><br>180L |  |

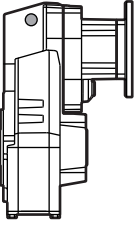
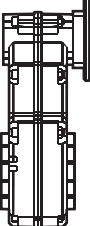
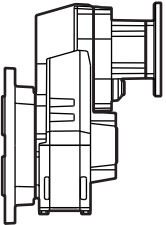
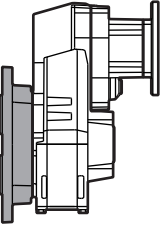
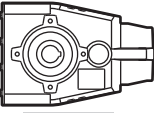
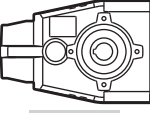
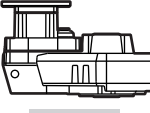
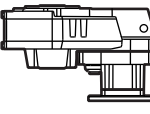
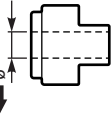
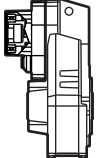
| Type - Tipo - Typ<br>Type - Tipo                                                                                                                                               | Size - Grandezza - Grösse<br>Taille - Tamaño                                                                                                                                                                                                     | Mounting - Montaggio<br>Montage - Fixation<br>Tipo de montaje                                                                                                           | Rapporto - Ratio<br>Untersetzung<br>Reduction - Relation                                                                                                        | Output shaft<br>Albero uscita<br>Abtriebswelle<br>Arbre de sortie<br>Eje en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M</b>                                                                                                                                                                       | <b>FA42</b>                                                                                                                                                                                                                                      | <b>C</b>                                                                                                                                                                | <b>10.04</b>                                                                                                                                                    | <b>-D</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Shaft mounted helical</b><br>Riduttori ad assi paralleli<br><br>With IEC motor<br><b>M</b> | <b>1</b> Stage<br>Riduzione<br>Stufe<br>Trains<br>Etapas<br><br><b>2</b> Stages<br>Riduzioni<br>Stufen<br>Trains<br>Etapas<br><br><b>3</b> Stages<br>Riduzioni<br>Stufen<br>Trains<br>Etapas<br><br><b>Aluminum/Alluminio/Aluminium/Aluminio</b> | <br>Hollow output shaft<br><b>C</b>                                                   | <b>See technical data table</b><br>Vedi tabella dati tecnici.<br>Technisches Datenblatt beachten<br>Voir Tableau données techniques<br>Ver tabla datos técnicos | <b>C</b> <br><b>STANDARD</b><br>Only on request for Q.ty<br>A richiesta per quantità<br><b>FS10</b><br><b>-J ⇒ Ø17</b><br><b>FS20</b><br><b>-B ⇒ Ø20</b><br><b>FA32-3</b><br><b>-C ⇒ Ø25</b><br><b>FA41 FA42 FA43</b><br><b>-C ⇒ Ø25</b><br><b>-D ⇒ Ø30</b><br><b>-E ⇒ Ø35</b><br><b>FA52 FA53 FC61 FC62 FC63</b><br><b>-E ⇒ Ø35</b><br><b>-F ⇒ Ø40</b><br><b>FC71 FC72 FC73</b><br><b>-F ⇒ Ø40</b><br><b>-G ⇒ Ø45</b><br><b>FC81 FC82 FC83</b><br><b>-H ⇒ Ø50</b><br><b>-I ⇒ Ø55</b> |
| <br>With motor flange<br><b>P</b>                                                             | <b>FA41</b><br><br><b>FA32 FA42 FA52</b><br><br><b>FA33 FA43 FA53</b>                                                                                                                                                                            | <br>Single output shaft<br><b>A</b>                                                   |                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <br>With male input shaft<br><b>R</b>                                                       | <b>Cast Iron/Ghisa/Grauguss/Fonte/Fundicion</b><br><br><b>FC61 FC71 FC81</b><br><br><b>FC62 FC72 FC82</b><br><br><b>FC63 FC73 FC83</b>                                                                                                           | <br>Shrink Disk<br><b>D</b><br>Only on request for Q.ty<br>A richiesta per quantità |                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <br>Modular base<br><b>B</b><br>Not available for: FC61, FC71, FC81, FC82.                  |                                                                                                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <br><b>ONLY FOR F10 Compact motor</b><br><b>C</b>                                            |                                                                                                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.



Shrink disk  
**-Q** FA42/3 ⇒ Ø30  
**-T** FA52/3 FC62/3 ⇒ Ø35  
**-U** FC72/3 ⇒ Ø40  
**-V** FC82/3 ⇒ Ø50

| Type - Tipo - Typ<br>Types - Tipo                                                                                                                                                                                                                                                                                                                                                                                                                               | Output flange<br>Flangia uscita<br>Ausgangsflansch<br>Bride de sortie<br>Brida en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Motor size - Grandezza motore<br>Motor Grösse<br>Grandeur moteur - Tamaño motor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Posición de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                                                       | Terminal box position<br>Posizione morsettiera<br>Klemmkastenlage<br>Position boîte à bornes<br>Posición caja de bornes                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ST                                                                                                                                                                                                                                                                                                                                                                                                                                                              | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | H1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|  <p><b>ST</b></p> <p>Foro standard<br/>Standard bore</p>  <p><b>ST</b></p> <p>Senza braccio<br/>di reazione<br/>Without reaction arm</p>  <p><b>-F</b></p> <p>Whit output flange<br/>con flangia uscita</p> |  <p><b>N</b> Senza flangia<br/>Without flange</p> <p>FS20</p> <p><b>1</b> → <b>Ø140</b></p> <p>FA32-3 FA41-2-3</p> <p><b>2</b> → <b>Ø160</b></p> <p><b>3</b> → <b>Ø200</b></p> <p><b>4</b> → <b>Ø250</b></p> <p>FA52 FA53<br/>FC61 FC62 FC63</p> <p><b>4</b> → <b>Ø250</b></p> <p>FC71 FC72 FC73</p> <p><b>4</b> → <b>Ø250</b></p> <p><b>5</b> → <b>Ø300</b></p> <p>FC81 FC82 FC83</p> <p><b>5</b> → <b>Ø300</b></p> <p><b>6</b> → <b>Ø350</b></p> <p><b>7</b> → <b>Ø400</b></p> | <p>Flange<br/>Flangia</p>  <p><b>B5</b></p> <p><b>-A</b>=56<br/>(Ø120)</p> <p><b>-B</b>=63<br/>(Ø140)</p> <p><b>-C</b>=71<br/>(Ø160)</p> <p><b>-D</b>=80<br/>(Ø200)</p> <p><b>-E</b>=90<br/>(Ø200)</p> <p><b>-F</b>=100+112<br/>(Ø250)</p> <p><b>-G</b>=132<br/>(Ø300)</p> <p><b>-H</b>=160<br/>(Ø350)</p> <p><b>-I</b>=180<br/>(Ø350)</p> <p><b>B14</b></p> <p><b>-O</b>=56<br/>(Ø80)</p> <p><b>-P</b>=63<br/>(Ø90)</p> <p><b>-Q</b>=71<br/>(Ø105)</p> <p><b>-R</b>=80<br/>(Ø120)</p> <p><b>-T</b>=90<br/>(Ø140)</p> <p><b>-U</b>=100+112<br/>(Ø160)</p> <p><b>-V</b>=132<br/>(Ø200)</p> <p><b>COMPACT</b></p> <p><b>CZ</b> = 56</p> <p><b>C0</b> = 63</p> <p>Type R<br/>Tipo R</p>  <p>FA33 FA43<br/>FS10 FS20</p> <p><b>-1</b> → <b>Ø14</b></p> <p>FA32 FA42<br/>FA53 FC63 FC73</p> <p><b>-2</b> → <b>Ø19</b></p> <p>FA52 FC62<br/>FC72 FC83</p> <p><b>-3</b> → <b>Ø24</b></p> <p>FC82</p> <p><b>-4</b> → <b>Ø28</b></p> <p>Without flange<br/>Senza flangia</p>  <p><b>-M</b> → With coupling</p> <p>FA33 FA43<br/>FS10 FS20</p> <p><b>-Z</b> → <b>Ø9</b><br/>(56B5)</p> <p><b>-0</b> → <b>Ø11</b><br/>(63B5)</p> <p><b>-1</b> → <b>Ø14</b><br/>(71B5)</p> <p>FA32 FA42 FA53<br/>FC63 FC73</p> <p><b>-1</b> → <b>Ø14</b><br/>(71B5)</p> <p><b>-2</b> → <b>Ø19</b><br/>(80B5)</p> <p><b>-3</b> → <b>Ø24</b><br/>(90B5)</p> <p>FA52 FC62<br/>FC72 FC83</p> <p><b>-2</b> → <b>Ø19</b><br/>(80B5)</p> <p><b>-3</b> → <b>Ø24</b><br/>(90B5)</p> <p><b>-4</b> → <b>Ø28</b><br/>(100B5)</p> <p>FA41</p> <p><b>-4</b> → <b>Ø28</b><br/>(100B5)</p> |  <p><b>H1</b></p> <p><b>STANDARD</b></p>  <p><b>H4</b></p>  <p><b>H3</b></p>  <p><b>H2</b></p>  <p><b>H5</b></p>  <p><b>H6</b></p> | <p><b>-</b></p> <p>Nothing indication:<br/><b>standard bore</b></p> <p>Nessuna indicazione:<br/><b>foro standard</b></p> <p><b>COUPLING</b></p>  <p><b>A</b> = 9mm<br/><b>B</b> = 11mm<br/><b>C</b> = 14mm<br/><b>D</b> = 19mm<br/><b>E</b> = 24mm<br/><b>F</b> = 28mm</p> <p><b>0</b></p> <p>Ready for input coupling<br/>Predisposto per giunto</p>  | <p>With Type M specify terminal box position</p> <p>Con tipo M specificare posizione morsettiera</p>  <p><b>A</b></p>  <p><b>B</b></p> <p><b>STANDARD</b></p>  <p><b>C</b></p>  <p><b>D</b></p> |

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

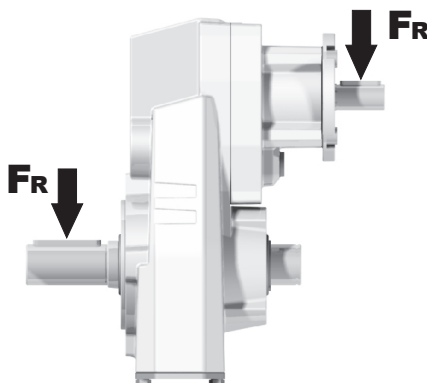
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



| $F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | $F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$ |  |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--|
| M                                                                              | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |  |
| d                                                                              | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                             |                                                                                  |  |
| f <sub>k</sub>                                                                 | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br>1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br>1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br>1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br>2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |                                                                                  |  |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.



How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B** Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Puissance nominale  
Potencia nominal

**A** Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

**FA42 Compact-Gear 320Nm** Rating - Aluminum SHAFT MOUNTED HELICAL

**QUICK SELECTION / Selezione veloce** input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    |     | Available B14 motor flanges |    |    |    | Output Shaft<br> | Notes<br> |     |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----|-----------------------------|----|----|----|------------------|-----------|-----|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -F  | -Q                          | -R | -T | -U |                  |           |     |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 100 | 112                         | 71 | 80 | 90 |                  |           | 100 |
| 167                                           | <b>8.38</b>  | 4                               | 215                               | 1.0                    | <b>4.1</b>                        | <b>225</b>                         | B                          |    |    |    |     |                             | C  | C  |    |                  | 2821      | 01  |
| 139                                           | <b>10.04</b> | 3                               | 194                               | 1.2                    | <b>3.7</b>                        | <b>240</b>                         | B                          |    |    |    |     |                             | C  | C  |    |                  | 2818      | 02  |
| 114                                           | <b>12.33</b> | 3                               | 238                               | 1.1                    | <b>3.2</b>                        | <b>260</b>                         | B                          |    |    |    |     |                             | C  | C  |    |                  | 2813      | 03  |
| 92                                            | <b>15.16</b> | 2.2                             | 216                               | 1.2                    | <b>2.6</b>                        | <b>260</b>                         | B                          |    |    |    |     |                             | C  | C  |    |                  | 1921      | 04  |

**D** Motor flange available  
Flange disponibili  
Erhältliche Motorflansche  
Bridas disponibles  
Bridas disponibles

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

**fs**

| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                    |                     | Oper. hours per day<br>Ore di funz. giorn. |      |      |
|------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|------|------|
|                                                                                                            |                     | 3 h                                        | 10 h | 24 h |
| Continuous or intermittent appl. with start / hour<br>Applicazione cont. o interm. con n.ro operazioni/ora | Uniform / Uniforme  | 0.8                                        | 1    | 1.25 |
|                                                                                                            | Moderate / Moderato | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Heavy / Forte       | 1.25                                       | 1.5  | 1.75 |
| Intermittent application with start / hour<br>Applicazione intermittente con n.ro operazioni/ora           | Uniform / Uniforme  | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Moderate / Moderato | 1.25                                       | 1.5  | 1.75 |
|                                                                                                            | Heavy / Forte       | 1.5                                        | 1.75 | 2.15 |

**B)** Mounting with reduction ring  
Montaggio con boccia di riduzione  
Reduzierhülsen  
Montage avec douille de réduction  
Montaje con casquillo de reducción

**C)** Motor flangeholes position/terminal box position  
Posizione fori flangia/basetta motore  
Bohrungsposition am Motorflansch/-sockel  
Position trous bride/barrette à bornes moteur  
Posición agujeros brida / base motor

**B)** Available without reduction bushes  
Disponibile anche senza boccia  
Auch ohne Reduzierbuchse verfügbar  
Disponible aussi sans douille de réduction  
Disponible tambien sin casquillo

|          |                                                                        |                                                                                                  |                                                                                              |                                                                                                   |                                                                                                    |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>A</b> | Select required torque<br>(according to service factor)                | Seleziona la coppia desiderata (comprensiva del fattore di servizio)                             | Max. Drehmoment in Bezug zum Betriebsfaktor                                                  | Sélectionner le couple souhaité (comprenant le facteur de service)                                | Seleccionar el par deseado (incluyendo el factor de servicio)                                      |
| <b>B</b> | Select output speed                                                    | Seleziona la velocità in uscita                                                                  | Ausgewählte Abtriebsdrehzahl                                                                 | Sélectionner la vitesse de sortie                                                                 | Seleccionar la velocidad de salida                                                                 |
| <b>C</b> | On the same line of selected geared motor, you can find the gear ratio | Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione | Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung | Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction | En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción |
| <b>D</b> | Select motor flange available (if requested)                           | Scegli la flangia disponibile (se richiesta)                                                     | Erhältliche Motorflansche (auf Anfrage)                                                      | Choisir la bride disponible (si elle est demandée)                                                | Seleccionar la brida disponible (sobre pedido)                                                     |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Hollow Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                                     |                                                                                                    |
| 72                                            | 19.42        | 0.37                            | 46                                | 1.3                    | 0.48                              | 60                                 |                            |    | C                           | C  |    | 281713                                                                                              | 01                                                                                                 |
| 51                                            | 27.21        | 0.37                            | 65                                | 0.9                    | 0.34                              | 60                                 |                            |    | C                           | C  |    | 281313                                                                                              | 02                                                                                                 |
| 36.4                                          | 38.49        | 0.25                            | 62                                | 1.0                    | 0.24                              | 60                                 |                            |    | C                           | C  |    | 191713                                                                                              | 03                                                                                                 |
| 31.7                                          | 44.12        | 0.18                            | 54                                | 1.1                    | 0.21                              | 60                                 |                            |    | C                           | C  |    | 171713                                                                                              | 04                                                                                                 |
| 26.7                                          | 52.50        | 0.18                            | 64                                | 0.9                    | 0.18                              | 60                                 |                            |    | C                           | C  |    | 151713                                                                                              | 05                                                                                                 |
| 22.6                                          | 61.82        | 0.12                            | 49                                | 1.2                    | 0.15                              | 60                                 |                            |    | C                           | C  |    | 171313                                                                                              | 06                                                                                                 |
| 19.0                                          | 73.56        | 0.12                            | 58                                | 1.0                    | 0.13                              | 60                                 |                            |    | C                           | C  |    | 151313                                                                                              | 07                                                                                                 |
| 15.9                                          | 88.13        | 0.09                            | 56                                | 1.1                    | 0.11                              | 60                                 |                            |    | C                           | C  |    | 101713                                                                                              | 08                                                                                                 |
| 12.0                                          | 116.67       | 0.06                            | 48                                | 1.2                    | 0.08                              | 60                                 |                            |    | C                           | C  |    | 91713                                                                                               | 09                                                                                                 |
| 11.3                                          | 123.48       | 0.06                            | 51                                | 1.2                    | 0.08                              | 60                                 |                            |    | C                           | C  |    | 101313                                                                                              | 10                                                                                                 |
| 9.0                                           | 155.37       | 0.06                            | 64                                | 0.9                    | 0.06                              | 60                                 |                            |    | C                           | C  |    | 71713                                                                                               | 11                                                                                                 |
| 8.6                                           | 163.47       | 0.06                            | 68                                | 0.9                    | 0.06                              | 60                                 |                            |    | C                           | C  |    | 91313                                                                                               | 12                                                                                                 |
| 7.6                                           | 184.39       | 0.06                            | 76                                | 0.8                    | 0.05                              | 60                                 |                            |    | C                           | C  |    | 61713                                                                                               | 13                                                                                                 |
| 6.4                                           | 217.68       | 0.06*                           | 90                                | 0.7                    | 0.04                              | 60                                 |                            |    | C                           | C  |    | 71313                                                                                               | 14                                                                                                 |
| 5.4                                           | 258.34       | 0.06*                           | 107                               | 0.6                    | 0.04                              | 60                                 |                            |    | C                           | C  |    | 61313                                                                                               | 15                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FS10** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FS10** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FS10** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FS10** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FS10** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION FS10 Oil Quantity 0.35 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

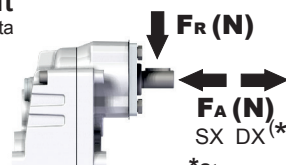
For all details on lubrication and plugs check our website

tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL LOADS

Input shaft  
Albero in entrata



| $n_1$ | FA  | FR  |
|-------|-----|-----|
| 1400  | 140 | 700 |
| 900   | 160 | 800 |

\* Strong axial loads in the DX direction are not allowed.

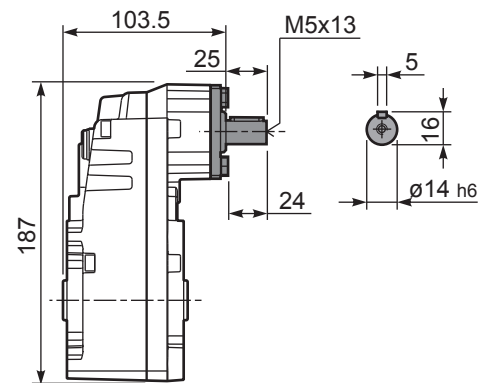
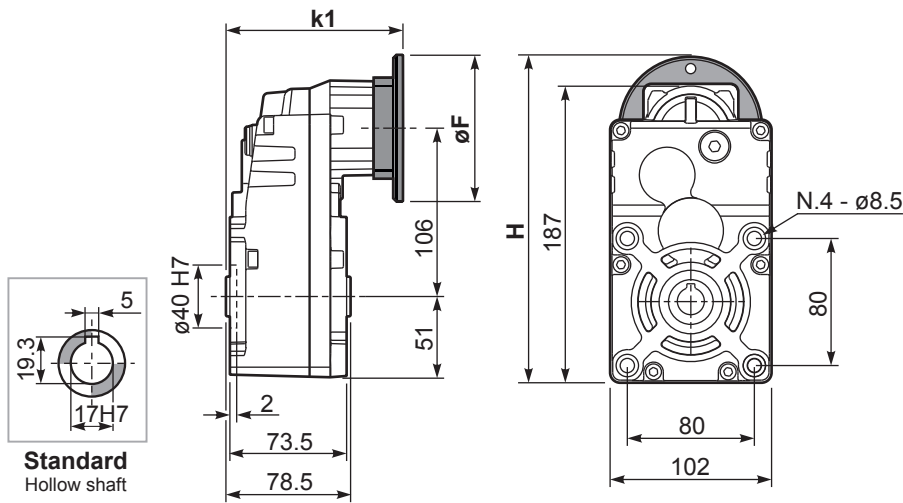
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PFS10...** Basic gearbox  
Riduttore base

Gearbox  
weight  
peso riduttore **3.1 kg**

**RFS10...** Input Shaft  
Albero in entrata



| B14 Motor Flanges | H     | $\phi F$ | $k_1$ | kit code   |
|-------------------|-------|----------|-------|------------|
| 56 B14            | 197   | 80       | 109.3 | KC40.4.049 |
| 63 B14            | 202   | 90       | 111.8 | K050.4.047 |
| 71 B14            | 209.5 | 105      | 109.3 | K050.4.045 |

| B5 Motor Flanges | H   | $\phi F$ | $k_1$ | kit code   |
|------------------|-----|----------|-------|------------|
| 63 B5            | 226 | 138      | 111.8 | K050.4.041 |
| 71 B5            | 237 | 160      | 109.3 | K050.4.042 |

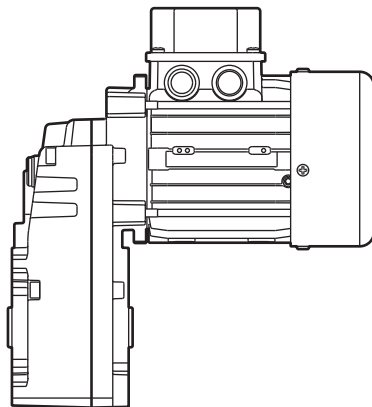
### Available with integrated motor

Disponibile con motore integrato

Motor sizes available :  
Grandezza motore disponibile:

- 56 IEC
- 63 IEC

For more information, contact us.  
Per maggiori informazioni, contattaci.





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Hollow Shaft<br> | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                                     |             |
| 24.2                                          | <b>57.95</b>  | 0.25                            | 93                                | 1.0                    | <b>0.24</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 2844                                                                                                | 01          |
| 13.4                                          | <b>104.80</b> | 0.12                            | 83                                | 1.1                    | <b>0.13</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 1954                                                                                                | 02          |
| 11.5                                          | <b>121.47</b> | 0.12                            | 96                                | 0.9                    | <b>0.12</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 1756                                                                                                | 03          |
| 9.8                                           | <b>142.59</b> | 0.09                            | 90                                | 1.0                    | <b>0.10</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 1558                                                                                                | 04          |
| 8.2                                           | <b>170.20</b> | 0.06                            | 70                                | 1.3                    | <b>0.08</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 1360                                                                                                | 05          |
| 6.0                                           | <b>232.32</b> | 0.06                            | 96                                | 0.9                    | <b>0.06</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 1063                                                                                                | 06          |
| 4.6                                           | <b>303.20</b> | 0.06*                           | 126                               | 0.7                    | <b>0.05</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 974                                                                                                 | 07          |
| 3.5                                           | <b>400.37</b> | 0.06*                           | 166                               | 0.5                    | <b>0.04</b>                       | <b>90</b>                          |                            |    | C                           | C  |    | 776                                                                                                 | 08          |

The dynamic efficiency is **0.94** for all ratios \* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FS20** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FS20** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FS20** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FS20** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FS20** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

## LUBRICATION FS20 Oil Quantity 0.50 Lt.

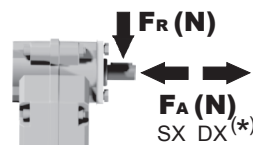
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL LOADS

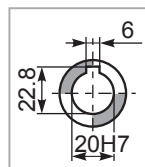
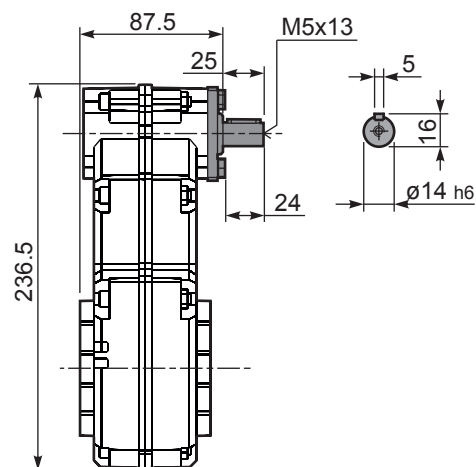
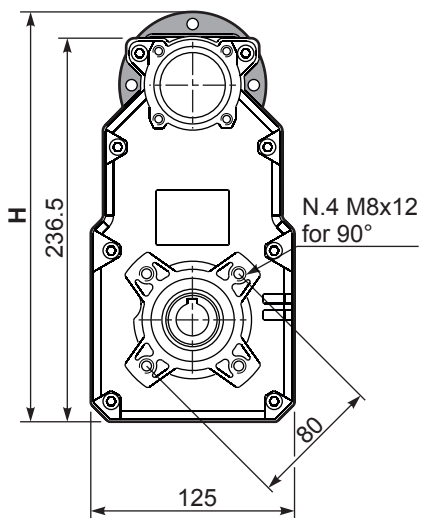
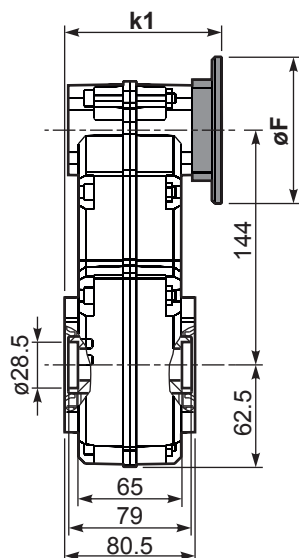
**Input shaft**  
Albero in entrata



| $n_1$ | FA  | FR  |
|-------|-----|-----|
| 1400  | 140 | 700 |
| 900   | 160 | 800 |

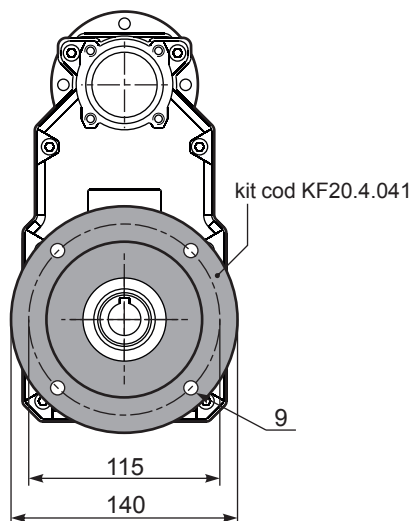
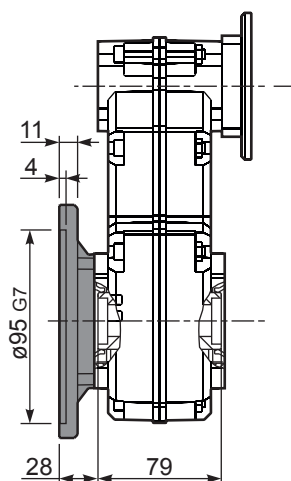
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**PFS20...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**4.3 kg****RFS20...**Input Shaft  
Albero in entrata**Standard**  
Hollow shaft

| B14 Motor Flanges | H     | øF  | k1   | kit code   |
|-------------------|-------|-----|------|------------|
| 56 B14            | 246.5 | 80  | 94.3 | KC40.4.049 |
| 63 B14            | 251.5 | 90  | 96.8 | K050.4.047 |
| 71 B14            | 259   | 105 | 94.3 | K050.4.045 |

| B5 Motor Flanges | H     | øF  | k1   | kit code   |
|------------------|-------|-----|------|------------|
| 63 B5            | 275.5 | 138 | 96.8 | K050.4.041 |
| 71 B5            | 286.5 | 160 | 94.3 | K050.4.042 |

**PFS20-F**Output flange  
flangia di uscita





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    |            | Available B14 motor flanges |    |    |            | Output Shaft<br><br>$\emptyset$ | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|------------|-----------------------------|----|----|------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -F         | -Q                          | -R | -T | -U         |                                                                                                                    |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 100<br>112 | 71                          | 80 | 90 | 100<br>112 |                                                                                                                    |                                                                                                    |
| 231                                           | 6.06         | 2.2                             | 86                                | 0.9                    | 2.02                              | 80                                 | B                          |    |    |    |            | C                           | C  |    |            | 2821                                                                                                               | 01                                                                                                 |
| 150                                           | 9.31         | 1.5                             | 91                                | 1.0                    | 1.48                              | 90                                 | B                          |    |    |    |            | C                           | C  |    |            | 2813                                                                                                               | 02                                                                                                 |
| 128                                           | 10.96        | 1.5                             | 107                               | 1.0                    | 1.53                              | 110                                | B                          |    |    |    |            | C                           | C  |    |            | 1921                                                                                                               | 03                                                                                                 |
| 110                                           | 12.71        | 1.5                             | 124                               | 1.0                    | 1.50                              | 125                                | B                          |    |    |    |            | C                           | C  |    |            | 1721                                                                                                               | 04                                                                                                 |
| 94                                            | 14.91        | 1.5                             | 146                               | 1.0                    | 1.45                              | 142                                | B                          |    |    |    |            | C                           | C  |    |            | 1521                                                                                                               | 05                                                                                                 |
| 83                                            | 16.83        | 1.5                             | 165                               | 0.9                    | 1.36                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1913                                                                                                               | 06                                                                                                 |
| 79                                            | 17.80        | 1.1                             | 127                               | 1.2                    | 1.29                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1321                                                                                                               | 07                                                                                                 |
| 72                                            | 19.51        | 1.1                             | 140                               | 1.1                    | 1.17                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1713                                                                                                               | 08                                                                                                 |
| 61                                            | 22.90        | 1.1                             | 164                               | 0.9                    | 1.00                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1513                                                                                                               | 09                                                                                                 |
| 58                                            | 24.30        | 1.1                             | 174                               | 0.9                    | 0.94                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1021                                                                                                               | 10                                                                                                 |
| 54                                            | 26.15        | 0.75                            | 128                               | 1.2                    | 0.88                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1910                                                                                                               | 11                                                                                                 |
| 51                                            | 27.34        | 0.75                            | 134                               | 1.1                    | 0.84                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1313                                                                                                               | 12                                                                                                 |
| 46.2                                          | 30.31        | 0.75                            | 149                               | 1.0                    | 0.76                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1710                                                                                                               | 13                                                                                                 |
| 44.1                                          | 31.71        | 0.75                            | 156                               | 1.0                    | 0.72                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 921                                                                                                                | 14                                                                                                 |
| 39.4                                          | 35.57        | 0.75                            | 175                               | 0.9                    | 0.64                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1510                                                                                                               | 15                                                                                                 |
| 37.5                                          | 37.32        | 0.55                            | 135                               | 1.1                    | 0.61                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1013                                                                                                               | 16                                                                                                 |
| 33.0                                          | 42.46        | 0.55                            | 154                               | 1.0                    | 0.54                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1310                                                                                                               | 17                                                                                                 |
| 28.7                                          | 48.70        | 0.55                            | 176                               | 0.9                    | 0.47                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 913                                                                                                                | 18                                                                                                 |
| 24.2                                          | 57.96        | 0.37                            | 140                               | 1.1                    | 0.40                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 1010                                                                                                               | 19                                                                                                 |
| 21.8                                          | 64.31        | 0.37                            | 156                               | 1.0                    | 0.36                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 713                                                                                                                | 20                                                                                                 |
| 18.5                                          | 75.64        | 0.25                            | 124                               | 1.2                    | 0.30                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 910                                                                                                                | 21                                                                                                 |
| 14.0                                          | 99.89        | 0.25                            | 163                               | 0.9                    | 0.23                              | 150                                | B                          |    |    |    |            | C                           | C  |    |            | 710                                                                                                                | 22                                                                                                 |

The dynamic efficiency is 0.96 for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit FA32 is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore FA32 viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe FA32 ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur FA32 est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño FA32 se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |
| H1                                                                                  | H4                                                                                                                                 | H3                                                                                    | H2                                                                                    | H5                                                                                    | H6                                                                                    |
| 0.65 LT                                                                             | 0.50 LT                                                                                                                            | 0.50 LT                                                                               | 0.60 LT                                                                               | 0.80 LT                                                                               | 0.65 LT                                                                               |
| SHELL Omala S4 WE 320                                                               |                                                                                                                                    |                                                                                       | ENI Telium VSF 320                                                                    |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

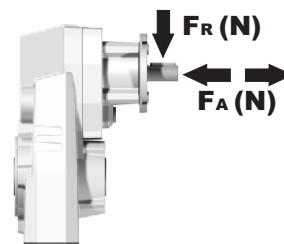


| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| 300                           | 250 | 1250 | 140                           | 360 | 1800 | 70                            | 470 | 2350 |
| 250                           | 270 | 1350 | 120                           | 380 | 1900 | 40                            | 550 | 2750 |
| 200                           | 320 | 1600 | 85                            | 440 | 2200 | 15                            | 560 | 2800 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft  
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |
| 500   | 340 | 1700 |

tab. 2

**7.0 kg**

Kit. Cod KF30.5.028

28

8

6

40

52

59.5

100

25

$-0.005$

$+0.020$

M8x20



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                                                      |                                                                                                    |
| 63                                            |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63 | 71 |                                                                                                                      |                                                                                                    |
| 13.6                                          | <b>102.57</b> | 0.25                            | 164                               | 0.9                    | <b>0.23</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 131710                                                                                                               | 01                                                                                                 |
| 12.6                                          | <b>110.77</b> | 0.18                            | 136                               | 1.1                    | <b>0.21</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 91321                                                                                                                | 02                                                                                                 |
| 11.8                                          | <b>118.89</b> | 0.18                            | 145                               | 1.0                    | <b>0.20</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 151310                                                                                                               | 03                                                                                                 |
| 10.9                                          | <b>128.49</b> | 0.18                            | 157                               | 1.0                    | <b>0.18</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 101313                                                                                                               | 04                                                                                                 |
| 9.7                                           | <b>143.72</b> | 0.18                            | 176                               | 0.9                    | <b>0.16</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 131310                                                                                                               | 05                                                                                                 |
| 8.7                                           | <b>161.67</b> | 0.12                            | 128                               | 1.2                    | <b>0.14</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 71713                                                                                                                | 06                                                                                                 |
| 8.2                                           | <b>170.10</b> | 0.12                            | 134                               | 1.1                    | <b>0.14</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 91313                                                                                                                | 07                                                                                                 |
| 7.4                                           | <b>188.57</b> | 0.12                            | 149                               | 1.0                    | <b>0.12</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 91710                                                                                                                | 08                                                                                                 |
| 7.0                                           | <b>199.57</b> | 0.12                            | 158                               | 1.0                    | <b>0.12</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 101310                                                                                                               | 09                                                                                                 |
| 6.2                                           | <b>226.51</b> | 0.09                            | 143                               | 1.1                    | <b>0.10</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 71313                                                                                                                | 10                                                                                                 |
| 5.6                                           | <b>251.11</b> | 0.09                            | 158                               | 0.9                    | <b>0.09</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 71710                                                                                                                | 11                                                                                                 |
| 5.3                                           | <b>264.21</b> | 0.09                            | 167                               | 0.9                    | <b>0.09</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 91310                                                                                                                | 12                                                                                                 |
| 4.7                                           | <b>298.01</b> | 0.06                            | 123                               | 1.2                    | <b>0.08</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 61710                                                                                                                | 13                                                                                                 |
| 4.0                                           | <b>351.82</b> | 0.06                            | 146                               | 1.0                    | <b>0.07</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 71310                                                                                                                | 14                                                                                                 |
| 3.4                                           | <b>417.54</b> | 0.06                            | 173                               | 0.9                    | <b>0.06</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 61310                                                                                                                | 15                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FA33** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA33** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA33** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA33** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA33** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                |  |  |  |  |
| H1                                                                                  | H4                                                                                                                                 | H3                                                                                    | H2                                                                                    | H5                                                                                    | H6                                                                                    |
| 0.90 LT                                                                             | 0.55 LT                                                                                                                            | 0.55 LT                                                                               | 0.65 LT                                                                               | 0.95 LT                                                                               | 0.70 LT                                                                               |
| SHELL Omala S4 WE 320                                                               |                                                                                                                                    |                                                                                       | ENI Telium VSF 320                                                                    |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{106}{X+80}$$

$F_R$  (N)  
 $F_A$  (N)

$F_{eq}$  (N)  
 $X$

| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| 300                           | 250 | 1250 | 140                           | 360 | 1800 | 70                            | 470 | 2350 |
| 250                           | 270 | 1350 | 120                           | 380 | 1900 | 40                            | 550 | 2750 |
| 200                           | 320 | 1600 | 85                            | 440 | 2200 | 15                            | 560 | 2800 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

$F_R$  (N)  
 $F_A$  (N)

| $n_1$ | FA  | FR  |
|-------|-----|-----|
| 1400  | 140 | 700 |
| 900   | 160 | 800 |
| 500   | 190 | 950 |

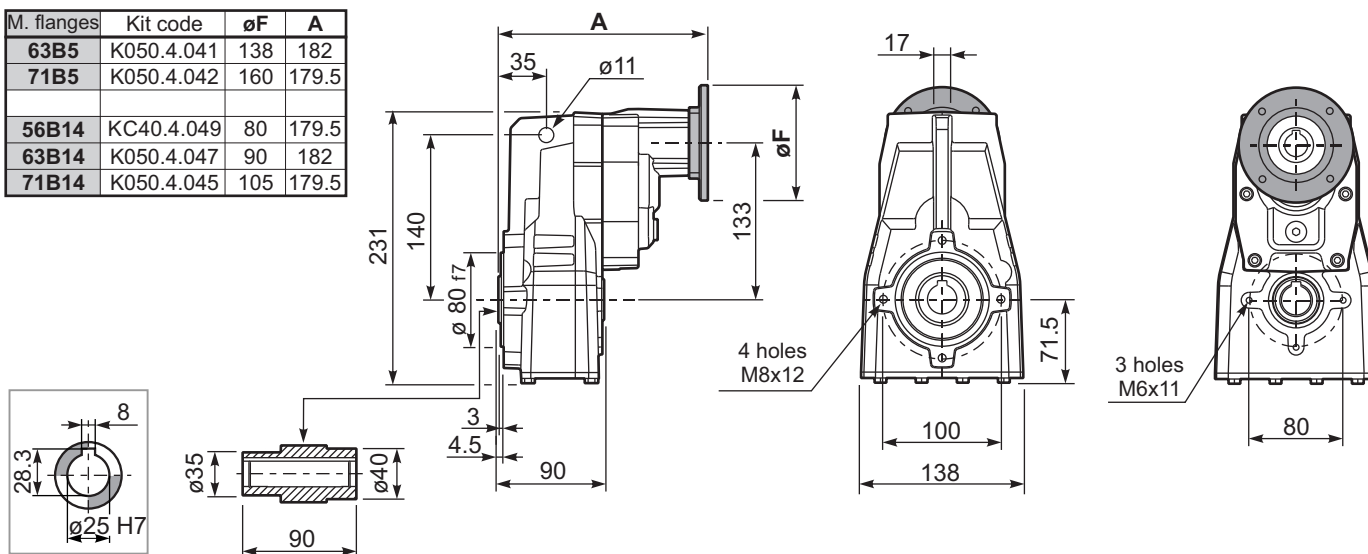
tab. 2

PFA33C...

Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore

7.0 kg

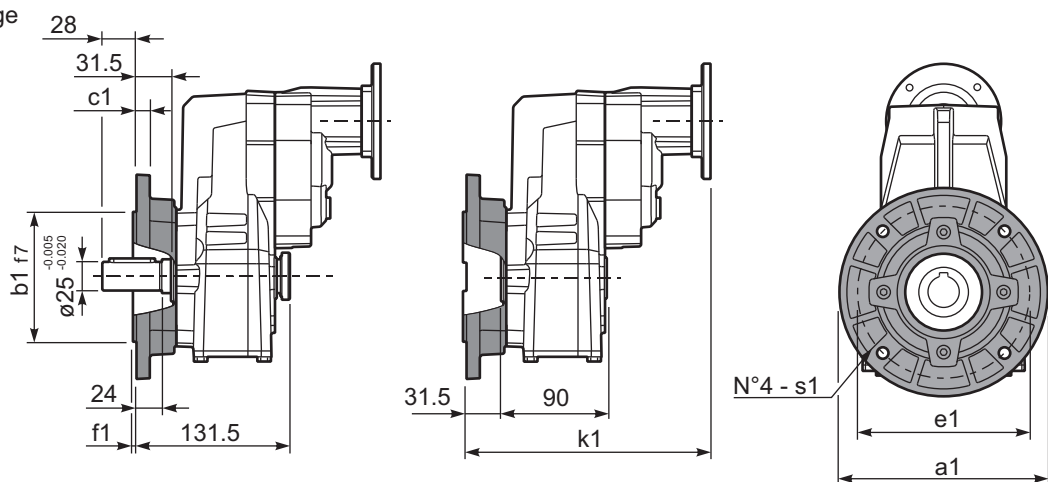
| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 63B5       | K050.4.041 | 138 | 182   |
| 71B5       | K050.4.042 | 160 | 179.5 |
| 56B14      | KC40.4.049 | 80  | 179.5 |
| 63B14      | K050.4.047 | 90  | 182   |
| 71B14      | K050.4.045 | 105 | 179.5 |

Standard  
Hollow shaft

PFA33...-F...

Output flange  
Flangia uscita

| Motor<br>Flange | k1    |
|-----------------|-------|
| 63B5            | 213.5 |
| 71B5            | 211   |
| 56B14           | 211   |
| 63B14           | 213.5 |
| 71B14           | 211   |

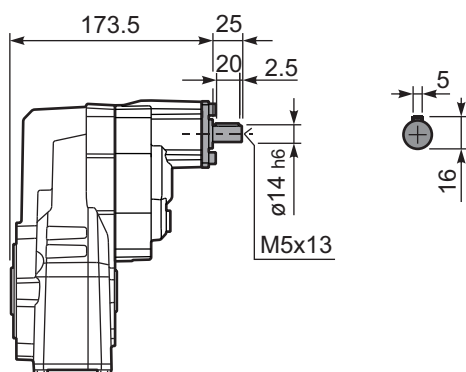


Available output flanges

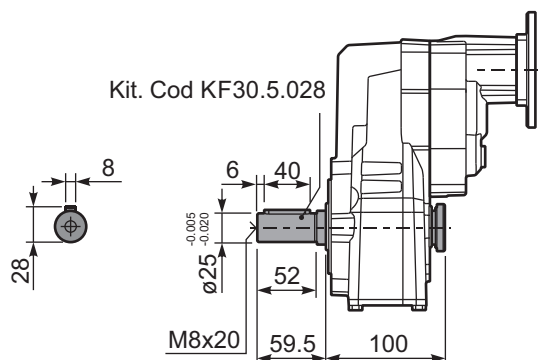
Flange di uscita

| a1 ø | b1  | c1 | e1  | f1  | s1 | Kit code   |
|------|-----|----|-----|-----|----|------------|
| 160  | 110 | 10 | 130 | 3   | 9  | KX4A.9.010 |
| 200  | 130 | 11 | 165 | 3.5 | 11 | KX4A.9.011 |
| -    | -   | -  | -   | -   | -  | -          |

RFA33C...

Input Shaft  
Albero in entrata

PFA33 A...

Single output shaft  
Albero uscita semplice

Kit. Cod KF30.5.028



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |            | Available B14 motor flanges |    |            | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|------------|-----------------------------|----|------------|------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -D                         | -E | -F         | -R                          | -T | -U         |                  |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 80                         | 90 | 100<br>112 | 80                          | 90 | 100<br>112 |                  |                 |
| 481                                           | 2.91         | 4                               | 76                                | 1.8                    | 7.2                               | 140                                | B                          | B  |            | B                           | B  |            | 3499             | 01              |
| 373                                           | 3.75         | 4                               | 98                                | 1.6                    | 6.4                               | 160                                | B                          | B  |            | B                           | B  |            | 28105            | 02              |
| 263                                           | 5.33         | 4                               | 140                               | 1.2                    | 4.8                               | 170                                | B                          | B  |            | B                           | B  |            | 21112            | 03              |
| 219                                           | 6.39         | 4                               | 167                               | 1.0                    | 4.0                               | 170                                | B                          | B  |            | B                           | B  |            | 18115            | 04              |
| 178                                           | 7.85         | 4                               | 205                               | 1.1                    | 4.3                               | 225                                | B                          | B  |            | B                           | B  |            | 13102            | 05              |

The dynamic efficiency is **0.98** for all ratios

On request

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FA41** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA41** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA41** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA41** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA41** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |                    |         |         |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|---------|---------|
|                       |                                                                                                                                    |         |                    |         |         |
| H1                    | H4                                                                                                                                 | H3      | H2                 | H5      | H6      |
| 1.10 LT               | 0.65 LT                                                                                                                            | 0.65 LT | 0.65 LT            | 1.15 LT | 0.80 LT |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         | ENI Telium VSF 320 |         |         |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS                  |     |                                             |                               |     |      |                               |     |      |  |
|-----------------------------------------|-----|---------------------------------------------|-------------------------------|-----|------|-------------------------------|-----|------|--|
| <b>Output shaft</b><br>Albero di uscita |     | $F_{eq} = F_R \cdot \frac{127.5}{X + 97.5}$ |                               |     |      |                               |     |      |  |
|                                         |     |                                             |                               |     |      |                               |     |      |  |
| $n_2$<br>[min <sup>-1</sup> ]           | FA  | FR                                          | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |  |
| 300                                     | 300 | 1500                                        | 140                           | 390 | 1950 | 70                            | 490 | 2450 |  |
| 250                                     | 320 | 1600                                        | 120                           | 410 | 2050 | 40                            | 590 | 2950 |  |
| 200                                     | 350 | 1750                                        | 85                            | 460 | 2300 | 15                            | 800 | 4000 |  |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

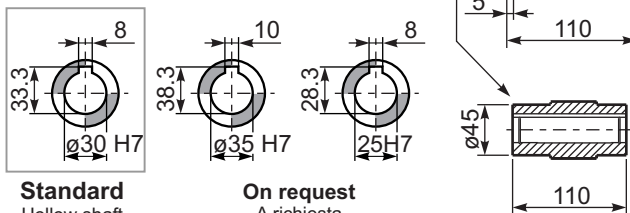


**PFA41C...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**12.1 kg**

| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>80/90B5</b>    | K023.4.042 | 200 | 179.5 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 188.5 |
| <b>80B14</b>      | K085.4.046 | 120 | 179.5 |
| <b>90B14</b>      | K085.4.045 | 140 | 179.5 |
| <b>100/112B14</b> | K085.4.047 | 160 | 188.5 |

- Available torque arms,  
see our web site

Bracci di reazione disponibili,  
consulta il nostro sito web

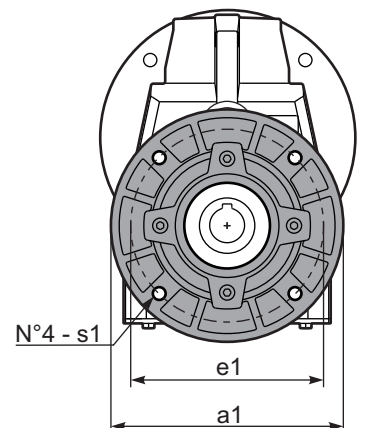
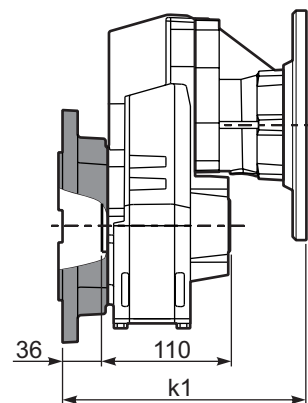
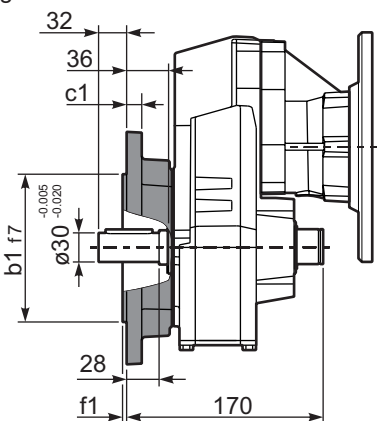


**Standard**  
Hollow shaft

**On request**  
A richiesta

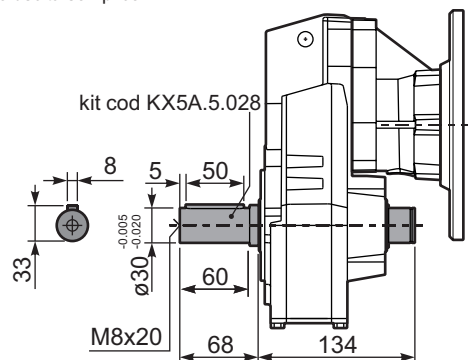
**PFA41...-F...**Output flange  
Flangia uscita

| M. flanges        | k1    |
|-------------------|-------|
| <b>80/90B5</b>    | 215.5 |
| <b>100/112B5</b>  | 221.5 |
| <b>80B14</b>      | 213.5 |
| <b>90B14</b>      | 213.5 |
| <b>100/112B14</b> | 224.5 |

**Available output flanges**

Flange di uscita

| a1 ø | b1  | c1 | e1  | f1  | s1 | Kit code   |
|------|-----|----|-----|-----|----|------------|
| 160  | 110 | 10 | 130 | 3   | 9  | KX5A.9.010 |
| 200  | 130 | 13 | 165 | 3.5 | 11 | KX5A.9.011 |
| 250  | 180 | 14 | 215 | 4   | 14 | KX5A.9.012 |

**PFA41 A...**Single output shaft  
Albero uscita semplice

kit cod KX5A.5.028



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    |            | Available B14 motor flanges |    |    |            |      | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|------------|-----------------------------|----|----|------------|------|------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -F         | -Q                          | -R | -T | -U         |      |                  |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 100<br>112 | 71                          | 80 | 90 | 100<br>112 |      |                  |                 |
| 167                                           | 8.38         | 4                               | 215                               | 1.0                    | 4.1                               | 225                                | B                          |    |    |    |            | C                           | C  |    |            | 2821 |                  | 01              |
| 139                                           | 10.04        | 3                               | 194                               | 1.2                    | 3.7                               | 240                                | B                          |    |    |    |            | C                           | C  |    |            | 2818 |                  | 02              |
| 114                                           | 12.33        | 3                               | 238                               | 1.1                    | 3.2                               | 260                                | B                          |    |    |    |            | C                           | C  |    |            | 2813 |                  | 03              |
| 92                                            | 15.16        | 2.2                             | 215                               | 1.2                    | 2.6                               | 260                                | B                          |    |    |    |            | C                           | C  |    |            | 1921 |                  | 04              |
| 80                                            | 17.57        | 2.2                             | 250                               | 1.1                    | 2.3                               | 270                                | B                          |    |    |    |            | C                           | C  |    |            | 1721 |                  | 05              |
| 77                                            | 18.16        | 2.2                             | 258                               | 1.1                    | 2.4                               | 290                                | B                          |    |    |    |            | C                           | C  |    |            | 1918 |                  | 06              |
| 67                                            | 21.05        | 2.2                             | 299                               | 1.1                    | 2.3                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1718 |                  | 07              |
| 63                                            | 22.30        | 2.2                             | 317                               | 1.0                    | 2.2                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1913 | standard<br>ø30  | 08              |
| 57                                            | 24.70        | 1.5                             | 242                               | 1.3                    | 2.0                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1518 |                  | 09              |
| 54                                            | 25.85        | 1.5                             | 253                               | 1.3                    | 1.9                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1713 |                  | 10              |
| 47.5                                          | 29.49        | 1.5                             | 289                               | 1.1                    | 1.7                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1318 | ø25              | 11              |
| 46.1                                          | 30.34        | 1.5                             | 297                               | 1.1                    | 1.6                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1513 | ø35              | 12              |
| 41.7                                          | 33.60        | 1.1                             | 240                               | 1.0                    | 1.1                               | 250                                | B                          |    |    |    |            | C                           | C  |    |            | 1021 | On request       | 13              |
| 38.7                                          | 36.21        | 1.1                             | 259                               | 1.2                    | 1.3                               | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1313 |                  | 14              |
| 34.8                                          | 40.25        | 1.1                             | 288                               | 1.0                    | 1.1                               | 300                                | B                          |    |    |    |            | C                           | C  |    |            | 1018 |                  | 15              |
| 28.3                                          | 49.43        | 1.1                             | 354                               | 0.9                    | 0.99                              | 320                                | B                          |    |    |    |            | C                           | C  |    |            | 1013 |                  | 16              |
| 26.7                                          | 52.53        | 0.75                            | 258                               | 1.0                    | 0.76                              | 260                                | B                          |    |    |    |            | C                           | C  |    |            | 918  |                  | 17              |
| 21.7                                          | 64.51        | 0.75                            | 317                               | 1.0                    | 0.75                              | 315                                | B                          |    |    |    |            | C                           | C  |    |            | 913  |                  | 18              |
| 20.2                                          | 69.37        | 0.37                            | 168                               | 1.1                    | 0.42                              | 190                                | B                          |    |    |    |            | C                           | C  |    |            | 718  |                  | 19              |
| 16.4                                          | 85.19        | 0.37                            | 206                               | 1.1                    | 0.41                              | 230                                | B                          |    |    |    |            | C                           | C  |    |            | 713  |                  | 20              |

The dynamic efficiency is 0.96 for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FA42** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA42** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA42** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA42** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA42** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |                    |         |         |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|---------|---------|
|                       |                                                                                                                                    |         |                    |         |         |
| 1.15 LT               | 0.70 LT                                                                                                                            | 0.70 LT | 0.70 LT            | 1.20 LT | 0.80 LT |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         | ENI Telium VSF 320 |         |         |

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Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

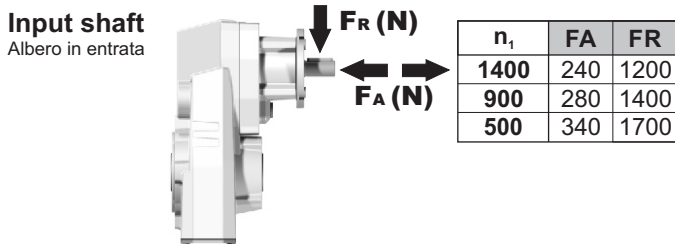
Output shaft  
Albero di uscita



| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| 300                           | 300 | 1500 | 140                           | 390 | 1950 | 70                            | 490 | 2450 |
| 250                           | 320 | 1600 | 120                           | 410 | 2050 | 40                            | 590 | 2950 |
| 200                           | 350 | 1750 | 85                            | 460 | 2300 | 15                            | 800 | 4000 |

On request reinforced bearings to increase loads.  
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft  
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |
| 500   | 340 | 1700 |

tab. 2

## PFA42C...

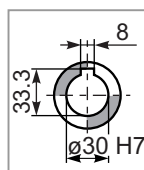
Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore

9.0 kg

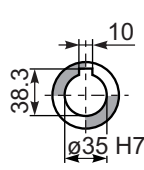
| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 63B5       | K063.4.041 | 140 | 169.5 |
| 71B5       | K063.4.042 | 160 | 167.5 |
| 80/90B5    | K063.4.043 | 200 | 169.5 |
| 100/112B5  | KC40.4.043 | 250 | 184.5 |
| 71B14      | K063.4.047 | 105 | 167.5 |
| 80B14      | K063.4.046 | 120 | 169.5 |
| 90B14      | K063.4.041 | 140 | 169.5 |
| 100/112B14 | KC40.4.041 | 160 | 184.5 |

● Available torque arms,  
see our web site

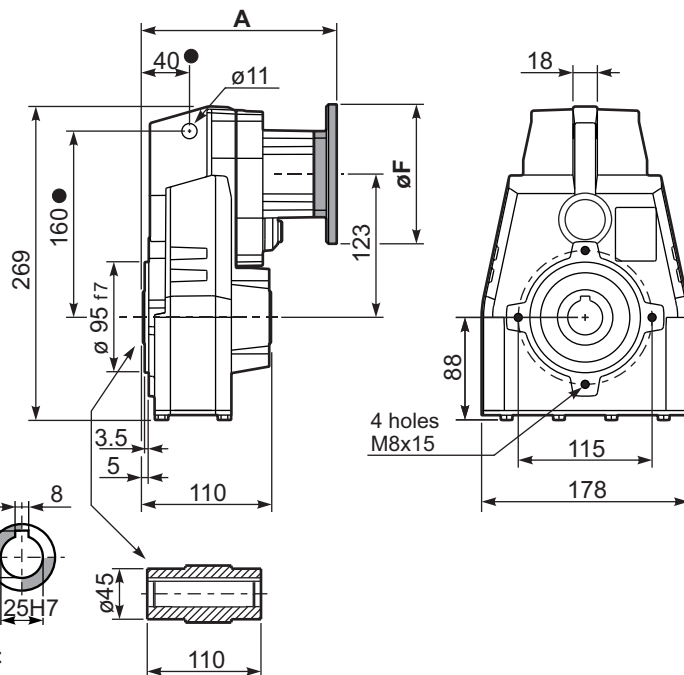
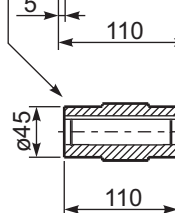
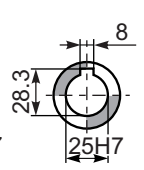
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft



**On request**  
A richiesta



## PFA42...-F...

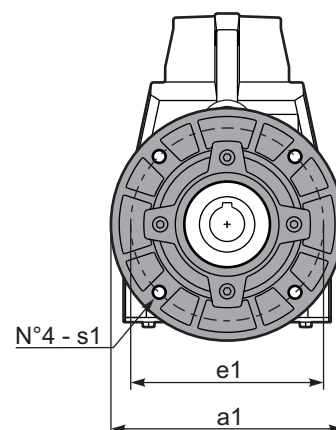
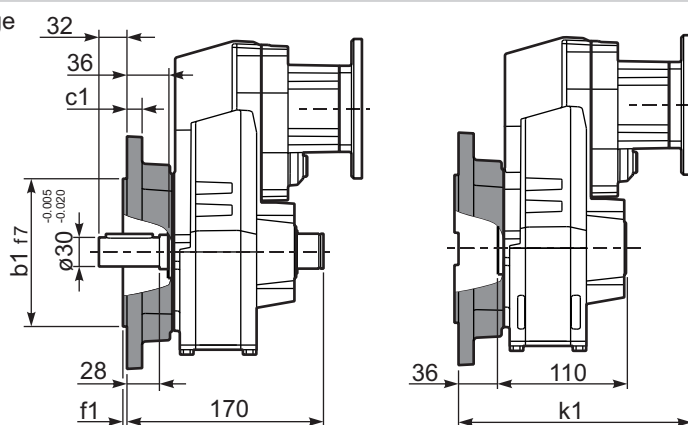
Output flange  
Flangia uscita

| Motor Flange | k1    |
|--------------|-------|
| 63B5         | 205.5 |
| 71B5         | 203.5 |
| 80/90B5      | 205.5 |
| 100/112B5    | 220.5 |
| 71B14        | 203.5 |
| 80B14        | 205.5 |
| 90B14        | 205.5 |
| 100/112B14   | 220.5 |

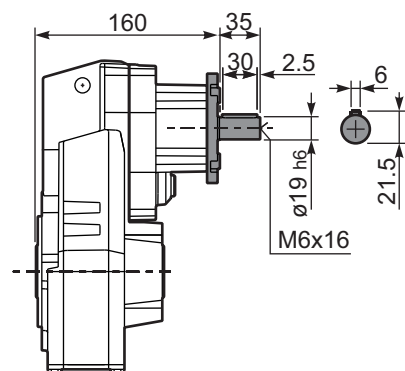
## Available output flanges

Flange di uscita

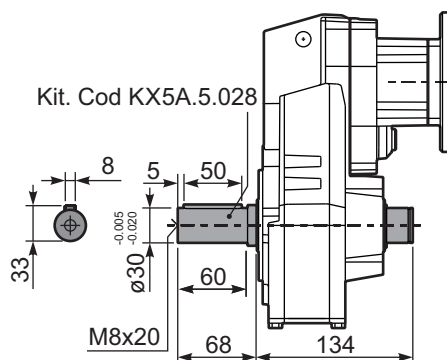
| a1 ø | b1  | c1 | e1  | f1  | s1 | Kit code   |
|------|-----|----|-----|-----|----|------------|
| 160  | 110 | 10 | 130 | 3   | 9  | KX5A.9.010 |
| 200  | 130 | 13 | 165 | 3.5 | 11 | KX5A.9.011 |
| 250  | 180 | 14 | 215 | 4   | 14 | KX5A.9.012 |



## RFA42C...

Input Shaft  
Albero in entrata

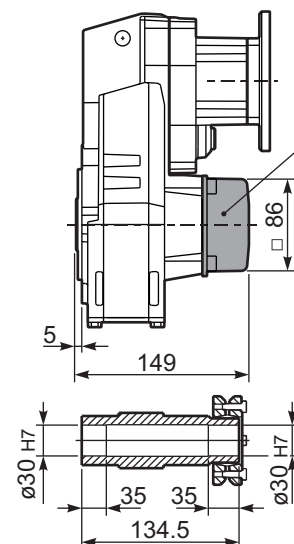
## PFA42 A...

Single output shaft  
Albero uscita semplice

## PFA42D...

Shrink disk  
Calettatore

Kit. Cod KF40.0.210LM





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                                     |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63 | 71 |                                                                                                     |             |
| 18.8                                          | <b>74.33</b>  | 0.37                            | 176                               | 1.8                    | <b>0.67</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 191313                                                                                              | 01          |
| 17.0                                          | <b>82.56</b>  | 0.37                            | 196                               | 1.6                    | <b>0.60</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 151318                                                                                              | 02          |
| 16.0                                          | <b>87.48</b>  | 0.37                            | 207                               | 1.5                    | <b>0.57</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 131713                                                                                              | 03          |
| 13.8                                          | <b>101.40</b> | 0.37                            | 240                               | 1.3                    | <b>0.49</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 151313                                                                                              | 04          |
| 11.4                                          | <b>122.57</b> | 0.37                            | 291                               | 1.1                    | <b>0.41</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 131313                                                                                              | 05          |
| 10.1                                          | <b>138.59</b> | 0.37                            | 329                               | 1.0                    | <b>0.36</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 101318                                                                                              | 06          |
| 8.7                                           | <b>160.82</b> | 0.25                            | 257                               | 1.2                    | <b>0.31</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 91713                                                                                               | 07          |
| 8.2                                           | <b>170.20</b> | 0.25                            | 272                               | 1.2                    | <b>0.29</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 101313                                                                                              | 08          |
| 7.6                                           | <b>183.48</b> | 0.25                            | 294                               | 1.1                    | <b>0.27</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 91318                                                                                               | 09          |
| 6.5                                           | <b>214.15</b> | 0.18                            | 262                               | 1.2                    | <b>0.23</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 71713                                                                                               | 10          |
| 6.2                                           | <b>225.33</b> | 0.18                            | 276                               | 1.2                    | <b>0.22</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 91313                                                                                               | 11          |
| 5.7                                           | <b>244.32</b> | 0.18                            | 299                               | 1.1                    | <b>0.20</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 71318                                                                                               | 12          |
| 5.5                                           | <b>254.15</b> | 0.18                            | 311                               | 1.0                    | <b>0.20</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 61713                                                                                               | 13          |
| 4.8                                           | <b>289.96</b> | 0.18                            | 355                               | 0.9                    | <b>0.17</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 61318                                                                                               | 14          |
| 4.7                                           | <b>300.05</b> | 0.18                            | 367                               | 0.9                    | <b>0.17</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 71313                                                                                               | 15          |
| 3.9                                           | <b>356.09</b> | 0.12                            | 282                               | 1.1                    | <b>0.14</b>                       | <b>320</b>                         |                            |    | C                           | C  |    | 61313                                                                                               | 16          |

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FA43** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA43** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA43** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA43** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA43** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |
| H1                                                                                  | H4                                                                                                                                 | H3                                                                                    | H2                                                                                    | H5                                                                                    | H6                                                                                    |
| 1.30 LT                                                                             | 0.70 LT                                                                                                                            | 0.70 LT                                                                               | 0.70 LT                                                                               | 1.35 LT                                                                               | 0.90 LT                                                                               |
| SHELL Omala S4 WE 320                                                               |                                                                                                                                    |                                                                                       | ENI Telium VSF 320                                                                    |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

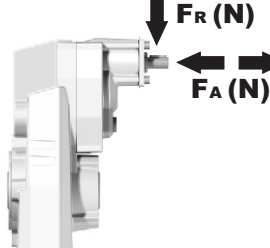
tab. 1

### RADIAL AND AXIAL LOADS



| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| 300                           | 300 | 1500 | 140                           | 390 | 1950 | 70                            | 490 | 2450 |
| 250                           | 320 | 1600 | 120                           | 410 | 2050 | 40                            | 590 | 2950 |
| 200                           | 350 | 1750 | 85                            | 460 | 2300 | 15                            | 800 | 4000 |

On request reinforced bearings to increase loads.  
A richiesta cuscinetti rinforzati per aumentare i carichi.

| Input shaft<br>Albero in entrata                                                     |  |  | $n_1$ | FA  | FR  |
|--------------------------------------------------------------------------------------|--|--|-------|-----|-----|
|  |  |  | 1400  | 140 | 700 |
|                                                                                      |  |  | 900   | 160 | 800 |
|                                                                                      |  |  | 500   | 190 | 950 |

tab. 2

## PFA43C...

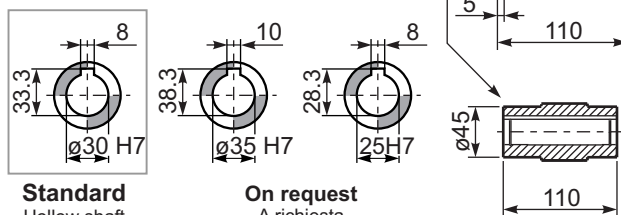
Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore

8.9 kg

| M. flanges | Kit code   | øF  | A     |
|------------|------------|-----|-------|
| 63B5       | K050.4.041 | 138 | 175   |
| 71B5       | K050.4.042 | 160 | 172.5 |
| 56B14      | KC40.4.049 | 80  | 172.5 |
| 63B14      | K050.4.047 | 90  | 175   |
| 71B14      | K050.4.045 | 105 | 172.5 |

- Available torque arms,  
see our web site

Bracci di reazione disponibili,  
consulta il nostro sito web



Standard

Hollow shaft

On request

A richiesta

## PFA43...-F...

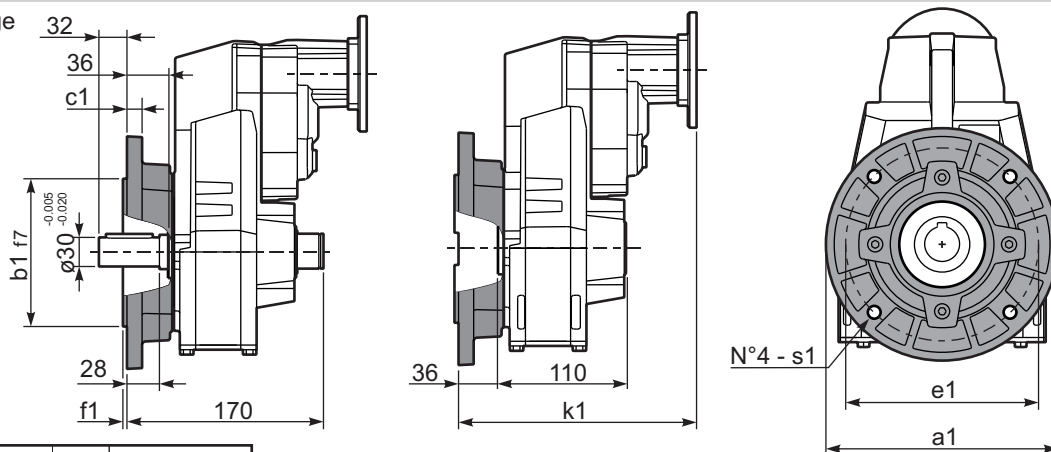
Output flange  
Flangia uscita

| Motor<br>Flange | k1    |
|-----------------|-------|
| 63B5            | 211   |
| 71B5            | 208.5 |
| 56B14           | 208.5 |
| 63B14           | 211   |
| 71B14           | 208.5 |

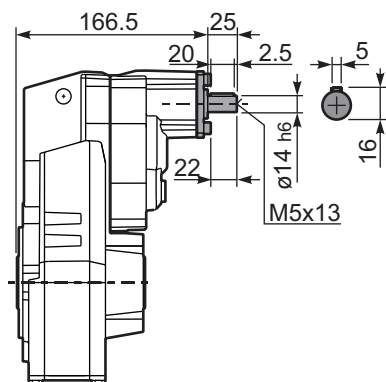
## Available output flanges

Flange di uscita

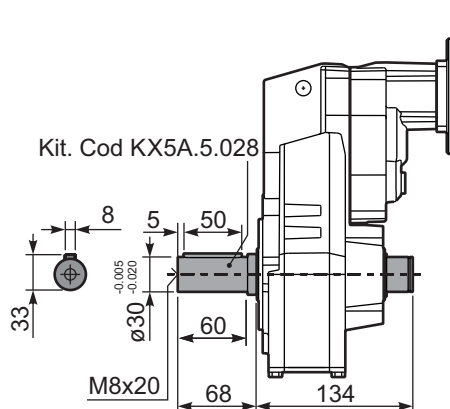
| a1 ø | b1  | c1 | e1  | f1  | s1 | Kit code   |
|------|-----|----|-----|-----|----|------------|
| 160  | 110 | 10 | 130 | 3   | 9  | KX5A.9.010 |
| 200  | 130 | 13 | 165 | 3.5 | 11 | KX5A.9.011 |
| 250  | 180 | 14 | 215 | 4   | 14 | KX5A.9.012 |



## RFA43C...

Input Shaft  
Albero in entrata

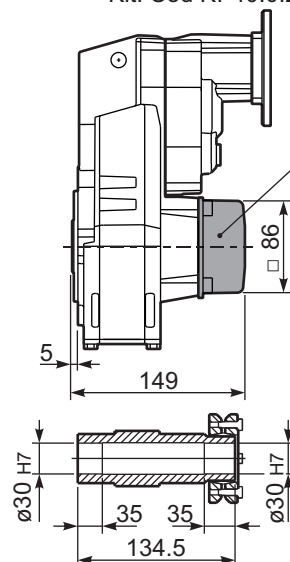
## PFA43 A...

Single output shaft  
Albero uscita semplice

## PFA43D...

Shrink disk  
Calettatore

Kit. Cod KF40.0.210LM







## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                                                                                                     |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                                                                                                     |                                                                                                    |
| 213                                           | 6.57         | 5.5                             | 230                               | 1.2                    | 6.5                               | 280                                | B                          |    |    |            |     |                             |    |            |     | 3018                                                                                                | 01                                                                                                 |
| 185                                           | 7.56         | 5.5                             | 265                               | 1.1                    | 5.9                               | 290                                | B                          |    |    |            |     |                             |    |            |     | 3016                                                                                                | 02                                                                                                 |
| 159                                           | 8.82         | 5.5                             | 309                               | 1.0                    | 5.5                               | 320                                | B                          |    |    |            |     |                             |    |            |     | 3014                                                                                                | 03                                                                                                 |
| 113                                           | 12.39        | 5.5                             | 434                               | 1.0                    | 5.5                               | 450                                | B                          |    |    |            |     |                             |    |            |     | 2018                                                                                                | 04                                                                                                 |
| 98                                            | 14.24        | 5.5                             | 499                               | 0.9                    | 4.8                               | 450                                | B                          |    |    |            |     |                             |    |            |     | 2016                                                                                                | 05                                                                                                 |
| 84                                            | 16.75        | 4                               | 429                               | 1.1                    | 4.3                               | 470                                | B                          |    |    |            |     |                             |    |            |     | 1618                                                                                                | 06                                                                                                 |
| 73                                            | 19.25        | 4                               | 494                               | 1.0                    | 3.9                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 1616                                                                                                | 07                                                                                                 |
| 64                                            | 21.78        | 4                               | 558                               | 0.9                    | 3.4                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 1318                                                                                                | 08                                                                                                 |
| 56                                            | 25.04        | 3                               | 483                               | 1.0                    | 3.0                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 1316                                                                                                | 09                                                                                                 |
| 47.9                                          | 29.23        | 3                               | 564                               | 0.9                    | 2.6                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 1314                                                                                                | 10                                                                                                 |
| 45.7                                          | 30.65        | 2.2                             | 436                               | 1.1                    | 2.4                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 1116                                                                                                | 11                                                                                                 |
| 39.1                                          | 35.78        | 2.2                             | 509                               | 1.0                    | 2.1                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 1114                                                                                                | 12                                                                                                 |
| 36.3                                          | 38.55        | 2.2                             | 548                               | 0.9                    | 1.9                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 818                                                                                                 | 13                                                                                                 |
| 31.6                                          | 44.32        | 1.5                             | 434                               | 1.1                    | 1.7                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 816                                                                                                 | 14                                                                                                 |
| 27.1                                          | 51.74        | 1.5                             | 507                               | 1.0                    | 1.4                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 814                                                                                                 | 15                                                                                                 |
| 22.9                                          | 61.03        | 1.1                             | 437                               | 1.1                    | 1.2                               | 480                                | B                          |    |    |            |     |                             |    |            |     | 616                                                                                                 | 16                                                                                                 |
| 19.6                                          | 71.25        | 1.1                             | 510                               | 1.0                    | 1.1                               | 490                                | B                          |    |    |            |     |                             |    |            |     | 614                                                                                                 | 17                                                                                                 |

The dynamic efficiency is 0.96 for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FA52** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA52** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA52** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA52** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA52** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

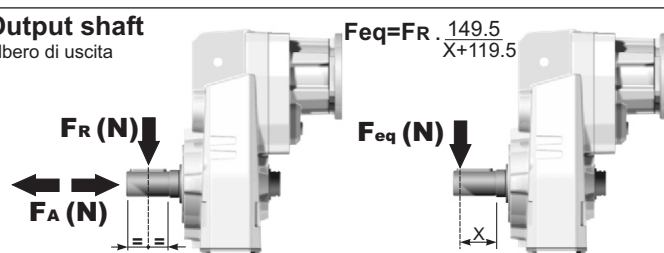
| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |
| 1.85 LT                                                                             | 1.15 LT                                                                                                                            | 1.15 LT                                                                               | 1.30 LT                                                                               | 2.10 LT                                                                               | 1.30 LT                                                                               |
| SHELL Omala S4 WE 320                                                               |                                                                                                                                    |                                                                                       | ENI Telium VSF 320                                                                    |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

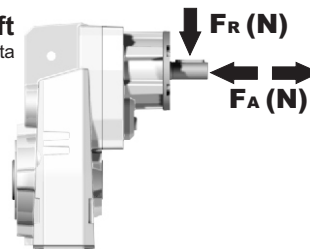


| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 400 | 2000 | 140   | 460 | 2300 | 70    | 580  | 2900 |
| 250   | 420 | 2100 | 120   | 500 | 2500 | 40    | 780  | 3900 |
| 200   | 440 | 2200 | 85    | 550 | 2750 | 15    | 1140 | 5700 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft  
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

tab. 2

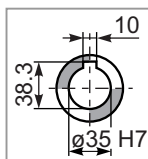
## PFA52C...

Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **15.5 kg**

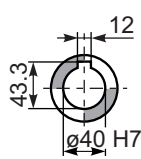
| M. flanges | Kit code   | øF  | A   |
|------------|------------|-----|-----|
| 71B5       | K023.4.041 | 160 | 227 |
| 80/90B5    | K023.4.042 | 200 | 229 |
| 100/112B5  | K023.4.043 | 250 | 238 |
| 132B5      | KC50.4.043 | 300 | 256 |
| 80B14      | K085.4.046 | 120 | 229 |
| 90B14      | K085.4.045 | 140 | 229 |
| 100/112B14 | K085.4.047 | 160 | 238 |
| 132B14     | KC50.4.041 | 200 | 256 |

- Available torque arms,  
see our web site

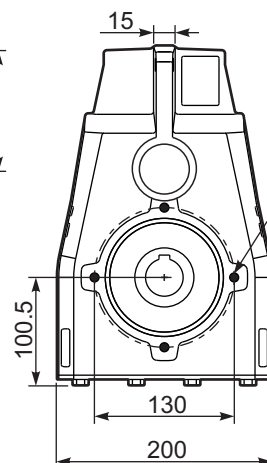
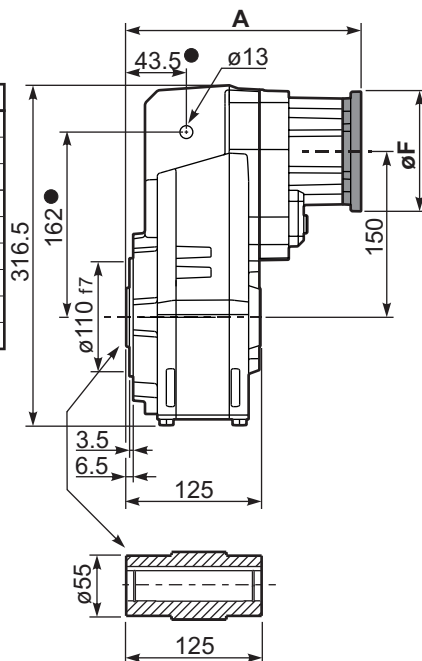
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft

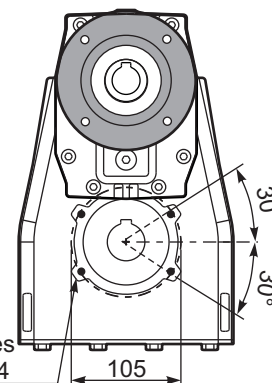


**On request**  
A richiesta



4 holes  
M10x20

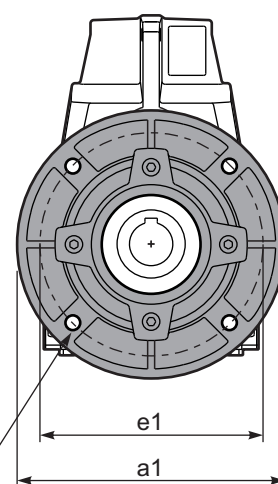
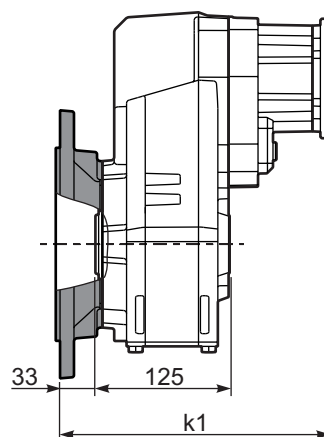
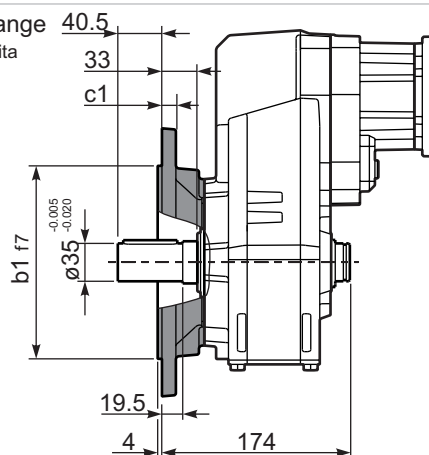
4 holes  
M8x14



## PFA52...-F...

Output flange  
Flangia uscita

| M. flanges | k1  |
|------------|-----|
| 71B5       | 260 |
| 80/90B5    | 262 |
| 100/112B5  | 271 |
| 132B5      | 289 |
| 80B14      | 262 |
| 90B14      | 262 |
| 100/112B14 | 271 |
| 132B14     | 289 |

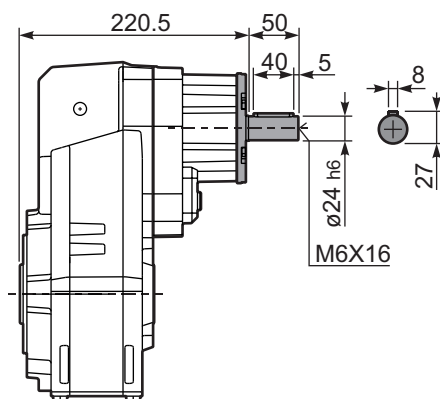


## Available output flanges

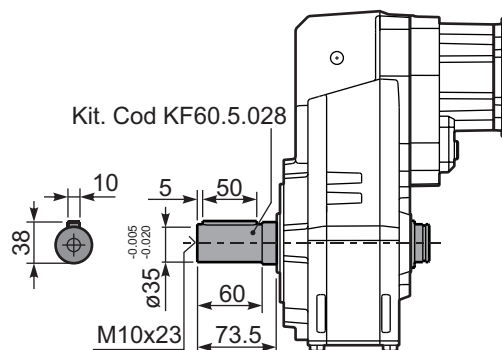
Flange di uscita

| a1 ø | b1  | c1 | e1  | s1 | Kit code   |
|------|-----|----|-----|----|------------|
| 250  | 180 | 13 | 215 | 14 | KF60.9.011 |
| -    | -   | -  | -   | -  | -          |

## RFA52C...

Input Shaft  
Albero in entrata

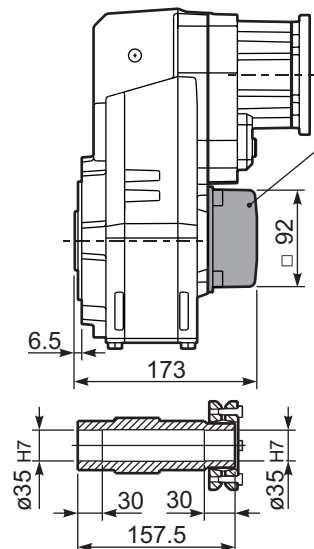
## PFA52 A...

Single output shaft  
Albero uscita semplice

## PFA52D...

Shrink disk  
Calettatore

Kit. Cod KF60.0.210LM





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    |        | Output Shaft<br>                     | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|--------|--------------------------------------|-----------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |        |                                      |                 |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |        |                                      |                 |
| 22.6                                          | <b>61.89</b>  | 1.1                             | 434                               | 1.2                    | 1.3                               | 510                                | B                          |    |    |    | C                           | C  |    | 191318 | standard<br>ø35<br>ø40<br>On request | 01              |
| 19.7                                          | <b>71.16</b>  | 1.1                             | 499                               | 1.0                    | 1.1                               | 510                                | B                          |    |    |    | C                           | C  |    | 191316 |                                      | 02              |
| 17.0                                          | <b>82.48</b>  | 1.1                             | 578                               | 0.9                    | 0.96                              | 510                                | B                          |    |    |    | C                           | C  |    | 171316 |                                      | 03              |
| 14.5                                          | <b>96.29</b>  | 0.75                            | 463                               | 1.1                    | 0.83                              | 510                                | B                          |    |    |    | C                           | C  |    | 171314 |                                      | 04              |
| 13.9                                          | <b>100.51</b> | 0.75                            | 483                               | 1.1                    | 0.79                              | 510                                | B                          |    |    |    | C                           | C  |    | 131318 |                                      | 05              |
| 12.1                                          | <b>115.56</b> | 0.55                            | 410                               | 1.2                    | 0.69                              | 510                                | B                          |    |    |    | C                           | C  |    | 131316 |                                      | 06              |
| 11.1                                          | <b>125.96</b> | 0.55                            | 447                               | 1.1                    | 0.63                              | 510                                | B                          |    |    |    | C                           | C  |    | 190816 |                                      | 07              |
| 10.4                                          | <b>134.91</b> | 0.55                            | 479                               | 1.1                    | 0.59                              | 510                                | B                          |    |    |    | C                           | C  |    | 131314 |                                      | 08              |
| 9.5                                           | <b>147.05</b> | 0.55                            | 522                               | 1.0                    | 0.54                              | 510                                | B                          |    |    |    | C                           | C  |    | 190814 |                                      | 09              |
| 8.2                                           | <b>170.44</b> | 0.37                            | 404                               | 1.3                    | 0.47                              | 510                                | B                          |    |    |    | C                           | C  |    | 170814 |                                      | 10              |
| 7.6                                           | <b>184.15</b> | 0.37                            | 437                               | 1.2                    | 0.43                              | 510                                | B                          |    |    |    | C                           | C  |    | 101314 |                                      | 11              |
| 6.8                                           | <b>205.87</b> | 0.37                            | 488                               | 1.0                    | 0.39                              | 510                                | B                          |    |    |    | C                           | C  |    | 91316  |                                      | 12              |
| 5.8                                           | <b>240.34</b> | 0.37                            | 570                               | 0.9                    | 0.33                              | 510                                | B                          |    |    |    | C                           | C  |    | 91314  |                                      | 13              |
| 5.0                                           | <b>279.22</b> | 0.25                            | 447                               | 1.1                    | 0.28                              | 510                                | B                          |    |    |    | C                           | C  |    | 100816 |                                      | 14              |
| 4.3                                           | <b>325.97</b> | 0.25                            | 522                               | 1.0                    | 0.24                              | 510                                | B                          |    |    |    | C                           | C  |    | 100814 |                                      | 15              |
| 3.8                                           | <b>364.41</b> | 0.18                            | 446                               | 1.1                    | 0.22                              | 510                                | B                          |    |    |    | C                           | C  |    | 90816  |                                      | 16              |
| 3.3                                           | <b>425.43</b> | 0.18                            | 521                               | 1.0                    | 0.19                              | 510                                | B                          |    |    |    | C                           | C  |    | 90814  |                                      | 17              |
| 2.9                                           | <b>481.19</b> | 0.18                            | 589                               | 0.9                    | 0.17                              | 510                                | B                          |    |    |    | C                           | C  |    | 70816  |                                      | 18              |
| 2.5                                           | <b>561.76</b> | 0.12                            | 444                               | 1.1                    | 0.14                              | 510                                | B                          |    |    |    | C                           | C  |    | 70814  |                                      | 19              |

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FA53** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA53** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA53** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA53** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA53** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |                    |         |         |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|---------|---------|
|                       |                                                                                                                                    |         |                    |         |         |
| 2.15 LT               | 1.25 LT                                                                                                                            | 1.25 LT | 1.45 LT            | 2.35 LT | 1.45 LT |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         | ENI Telium VSF 320 |         |         |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS                                                                                          |     |      |       |     |      |       |      |      |  |
|-----------------------------------------------------------------------------------------------------------------|-----|------|-------|-----|------|-------|------|------|--|
| Output shaft<br>Albero di uscita                                                                                |     |      |       |     |      |       |      |      |  |
| $n_2$                                                                                                           | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |  |
| 300                                                                                                             | 400 | 2000 | 140   | 460 | 2300 | 70    | 580  | 2900 |  |
| 250                                                                                                             | 420 | 2100 | 120   | 500 | 2500 | 40    | 780  | 3900 |  |
| 200                                                                                                             | 440 | 2200 | 85    | 550 | 2750 | 15    | 1140 | 5700 |  |
| On request reinforced bearings to increase loads.<br>A richiesta cuscinetti rinforzati per aumentare i carichi. |     |      |       |     |      |       |      |      |  |
| Input shaft<br>Albero in entrata                                                                                |     |      |       |     |      |       |      |      |  |
| $n_1$                                                                                                           | FA  | FR   | $n_1$ | FA  | FR   | $n_1$ | FA   | FR   |  |
| 1400                                                                                                            | 240 | 1200 | 900   | 280 | 1400 | 500   | 340  | 1700 |  |

tab. 2

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>15.5 kg</b> |
|-----------------------------------------|----------------|

Technical drawing of the KF60.0.210LM kit, showing side and front views with dimensions.

**Side View Dimensions:**

- Overall width: 173
- Distance from left edge to center of mounting hole: 6.5
- Distance from center of mounting hole to right edge: 92

**Front View Dimensions:**

- Overall width: 157.5
- Distance from left edge to center of mounting hole: 30
- Distance from center of mounting hole to right edge: 30
- Mounting hole diameter:  $\varnothing 35$  H7



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5<br>motor flanges<br>-G<br>132 | B14<br>motor flanges<br>- - - -<br>- - - - | Output Shaft<br><br>Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 507                                           | 2.76         | 9                               | 166                               | 1.6                    | 14.4                              | 265                                | not available                              | not available                              | 2980 standard 01                                                                                                   |
| 395                                           | 3.54         | 9                               | 213                               | 1.3                    | 11.6                              | 275                                |                                            |                                            | 2485 ø35 02                                                                                                        |
| 277                                           | 5.06         | 9                               | 304                               | 1.0                    | 8.6                               | 290                                |                                            |                                            | 1891 ø40 03                                                                                                        |
| 241                                           | 5.81         | 7.5                             | 281                               | 1.2                    | 8.5                               | 330                                |                                            |                                            | 1693 On request 04                                                                                                 |
| 206                                           | 6.79         | 7.5                             | 329                               | 1.2                    | 8.4                               | 380                                |                                            |                                            | 1495 On request 05                                                                                                 |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC61** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FC61** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FC61** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FC61** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FC61** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                 | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |                                                   |  |  |  |  |
| H1                                                                                | H4                                                                                                                                 | H3                                                                                  | H2                                                                                  | H5                                                                                  | H6                                                                                  |
| 2.05 LT                                                                           | 1.25 LT                                                                                                                            | 1.25 LT                                                                             | 1.40 LT                                                                             | 2.05 LT                                                                             | 1.40 LT                                                                             |
| SHELL Omala S4 WE 320                                                             |                                                                                                                                    |                                                                                     | ENI Telium VSF 320                                                                  |                                                                                     |                                                                                     |

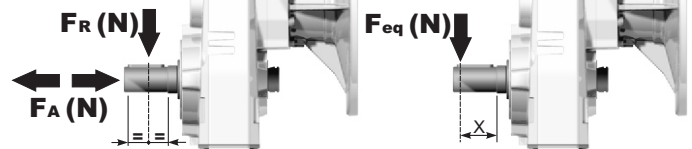
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = F_R \cdot \frac{149.5}{X + 119.5}$$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 600 | 3000 | 140   | 720 | 3600 | 70    | 940  | 4700 |
| 250   | 640 | 3200 | 120   | 740 | 3700 | 40    | 1220 | 6100 |
| 200   | 690 | 3460 | 85    | 860 | 4300 | 15    | 1300 | 6500 |

On request reinforced bearings to increase loads.  
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2



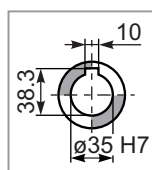
PFC61C...

Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore

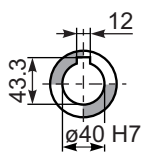
31.0 kg

- Available torque arms,  
see our web site

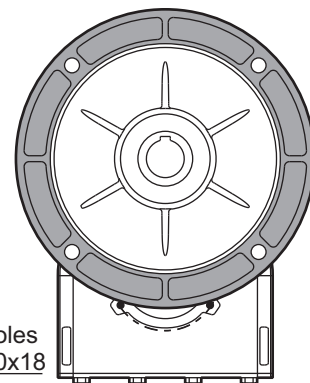
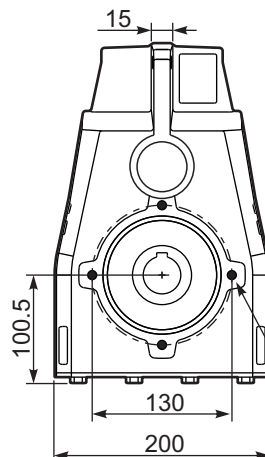
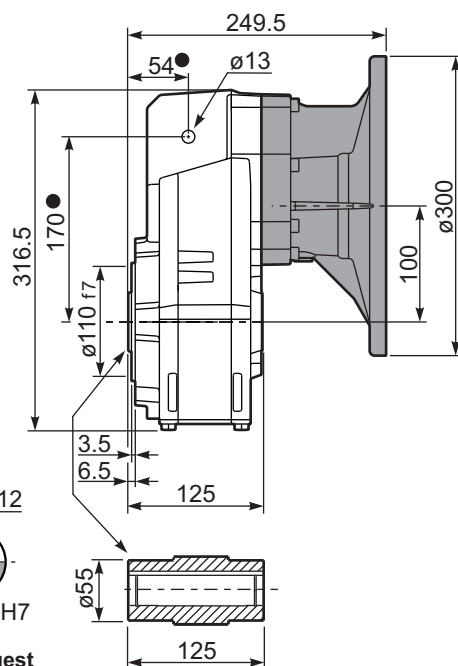
Bracci di reazione disponibili,  
consulta il nostro sito web



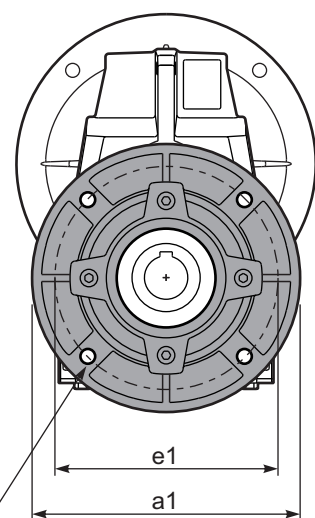
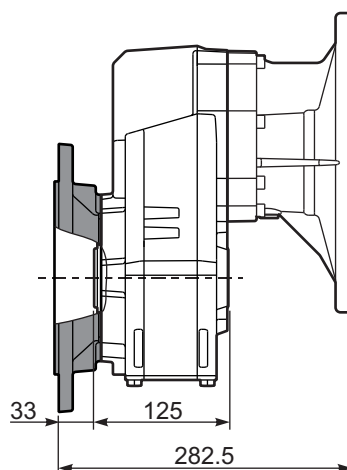
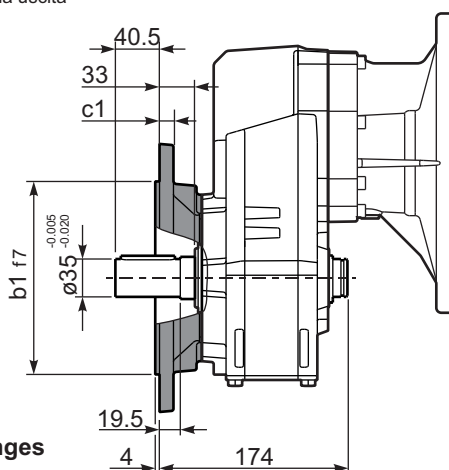
**Standard**  
Hollow shaft



**On request**  
A richiesta



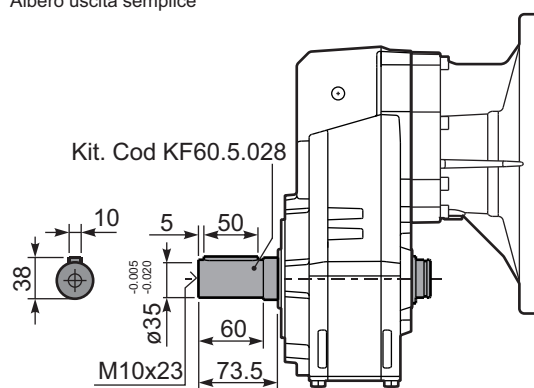
PFC61...-F...

Output flange  
Flangia uscita

**Available output flanges**  
Flange di uscita

| a1 Ø | b1  | c1 | e1  | s1 | Kit code   |
|------|-----|----|-----|----|------------|
| 250  | 180 | 13 | 215 | 14 | KF60.9.011 |
| -    | -   | -  | -   | -  | -          |

PFC61 A...

Single output shaft  
Albero uscita semplice

Kit. Cod KF60.5.028



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                                                                                                     |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                                                                                                     |                                                                                                    |
| 213                                           | 6.57         | 7.5                             | 312                               | 1.2                    | 8.8                               | 380                                | B                          |    |    |            |     |                             |    |            |     | 3018                                                                                                | 01                                                                                                 |
| 185                                           | 7.56         | 7.5                             | 358                               | 1.1                    | 7.9                               | 390                                | B                          |    |    |            |     |                             |    |            |     | 3016                                                                                                | 02                                                                                                 |
| 159                                           | 8.82         | 7.5                             | 419                               | 1.0                    | 7.1                               | 410                                | B                          |    |    |            |     |                             |    |            |     | 3014                                                                                                | 03                                                                                                 |
| 113                                           | 12.39        | 7.5                             | 588                               | 1.0                    | 7.2                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 2018                                                                                                | 04                                                                                                 |
| 98                                            | 14.24        | 5.5                             | 499                               | 1.2                    | 6.4                               | 600                                | B                          |    |    |            |     |                             |    |            |     | 2016                                                                                                | 05                                                                                                 |
| 84                                            | 16.75        | 5.5                             | 587                               | 1.1                    | 6.1                               | 665                                | B                          |    |    |            |     |                             |    |            |     | 1618                                                                                                | 06                                                                                                 |
| 73                                            | 19.25        | 5.5                             | 675                               | 1.0                    | 5.4                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1616                                                                                                | 07                                                                                                 |
| 64                                            | 21.78        | 4                               | 558                               | 1.2                    | 4.7                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1318                                                                                                | 08                                                                                                 |
| 56                                            | 25.04        | 4                               | 642                               | 1.1                    | 4.1                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1316                                                                                                | 09                                                                                                 |
| 47.9                                          | 29.23        | 4                               | 750                               | 0.9                    | 3.5                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1314                                                                                                | 10                                                                                                 |
| 45.7                                          | 30.65        | 3                               | 592                               | 1.1                    | 3.4                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1116                                                                                                | 11                                                                                                 |
| 39.1                                          | 35.78        | 3                               | 691                               | 1.0                    | 2.9                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1114                                                                                                | 12                                                                                                 |
| 36.3                                          | 38.55        | 2.2                             | 548                               | 1.1                    | 2.3                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 818                                                                                                 | 13                                                                                                 |
| 31.6                                          | 44.32        | 2.2                             | 630                               | 1.1                    | 2.3                               | 665                                | B                          |    |    |            |     |                             |    |            |     | 816                                                                                                 | 14                                                                                                 |
| 27.1                                          | 51.74        | 2.2                             | 735                               | 0.9                    | 2.0                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 814                                                                                                 | 15                                                                                                 |
| 22.9                                          | 61.03        | 1.1                             | 437                               | 1.1                    | 1.2                               | 480                                | B                          |    |    |            |     |                             |    |            |     | 616                                                                                                 | 16                                                                                                 |
| 19.6                                          | 71.25        | 1.1                             | 510                               | 1.1                    | 1.2                               | 560                                | B                          |    |    |            |     |                             |    |            |     | 614                                                                                                 | 17                                                                                                 |

The dynamic efficiency is 0.96 for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FC62** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FC62** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FC62** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FC62** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FC62** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |
| 2.05 LT                                                                             | 1.25 LT                                                                                                                            | 1.25 LT                                                                               | 1.40 LT                                                                               | 2.20 LT                                                                               | 1.40 LT                                                                               |
| SHELL Omala S4 WE 320                                                               |                                                                                                                                    |                                                                                       | ENI Telium VSF 320                                                                    |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website

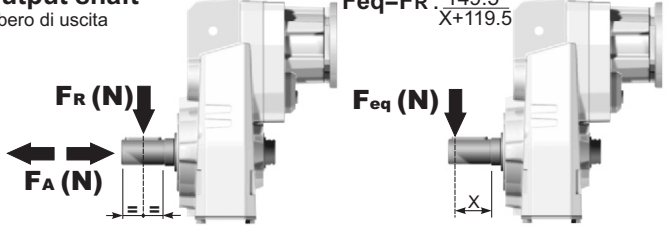
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

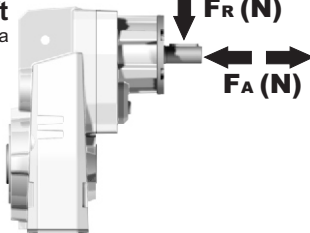
$F_{eq} = F_R \cdot \frac{149.5}{X + 119.5}$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 600 | 3000 | 140   | 720 | 3600 | 70    | 940  | 4700 |
| 250   | 640 | 3200 | 120   | 740 | 3700 | 40    | 1220 | 6100 |
| 200   | 690 | 3460 | 85    | 860 | 4300 | 15    | 1300 | 6500 |

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

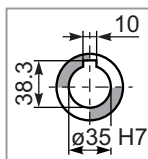
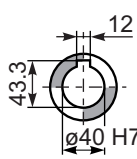
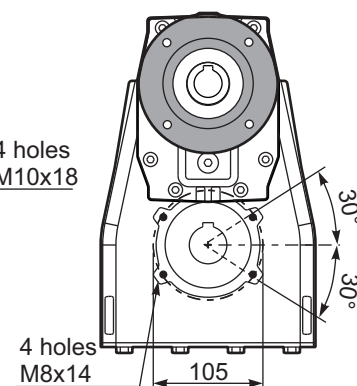
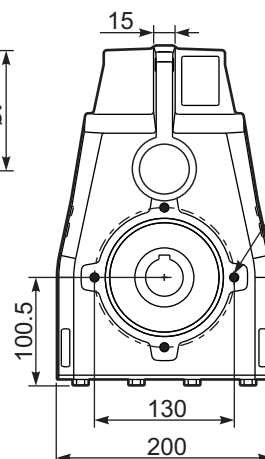
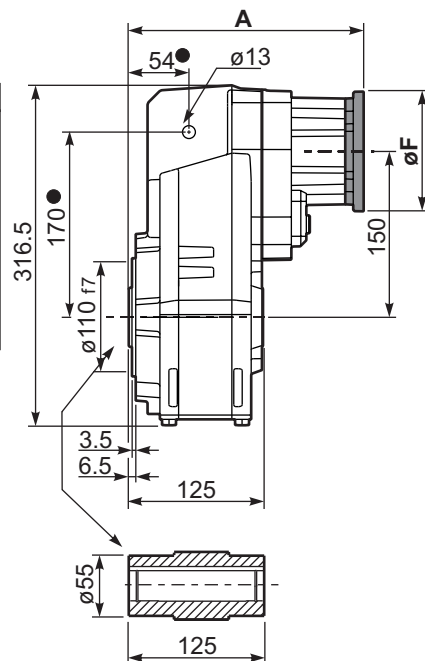
tab. 2

## PFC62C...

Basic gearbox  
Riduttore baseGearbox weight  
peso riduttore 20.8 kg

| M. flanges | Kit code   | øF  | A   |
|------------|------------|-----|-----|
| 71B5       | K023.4.041 | 160 | 227 |
| 80/90B5    | K023.4.042 | 200 | 229 |
| 100/112B5  | K023.4.043 | 250 | 238 |
| 132B5      | KC50.4.043 | 300 | 256 |
| 80B14      | K085.4.046 | 120 | 229 |
| 90B14      | K085.4.045 | 140 | 229 |
| 100/112B14 | K085.4.047 | 160 | 238 |
| 132B14     | KC50.4.041 | 200 | 256 |

- Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web

Standard  
Hollow shaftOn request  
A richiesta

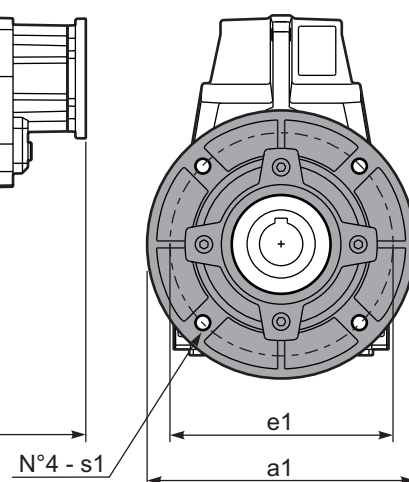
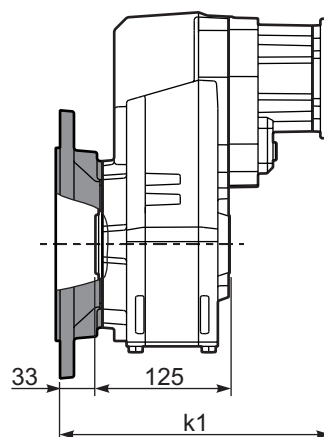
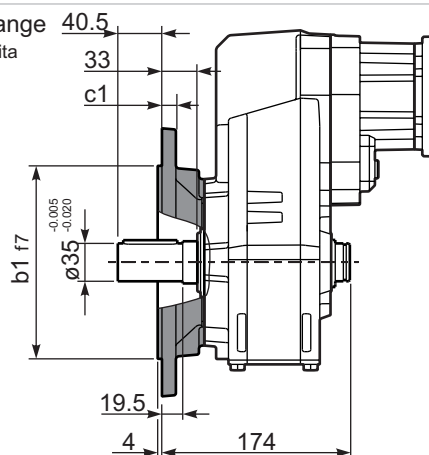
## PFC62...-F...

Output flange  
Flangia uscita

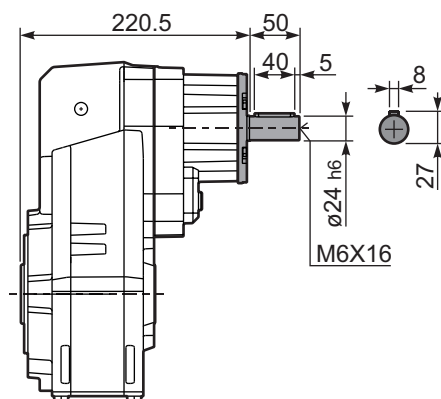
| M. flanges | k1  |
|------------|-----|
| 71B5       | 260 |
| 80/90B5    | 262 |
| 100/112B5  | 271 |
| 132B5      | 289 |
| 80B14      | 262 |
| 90B14      | 262 |
| 100/112B14 | 271 |
| 132B14     | 289 |

Available output flanges  
Flange di uscita

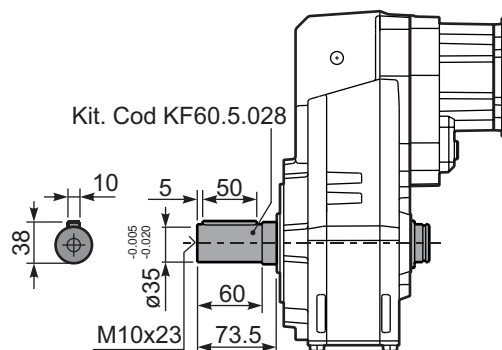
| a1 ø | b1  | c1 | e1  | s1 | Kit code   |
|------|-----|----|-----|----|------------|
| 250  | 180 | 13 | 215 | 14 | KF60.9.011 |
| -    | -   | -  | -   | -  | -          |



## RFC62C...

Input Shaft  
Albero in entrata

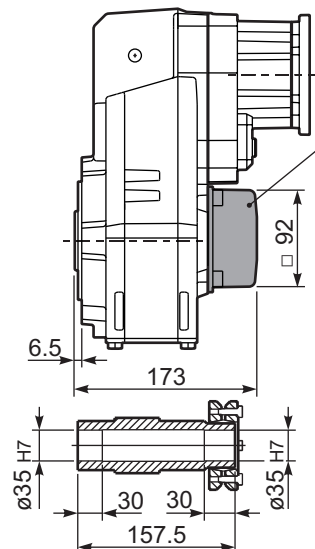
## PFC62 A...

Single output shaft  
Albero uscita semplice

## PFC62D...

Shrink disk  
Calettatore

Kit. Cod KF60.0.210LM





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    |        | Output Shaft<br>$\varnothing$  | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|--------|--------------------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |        |                                |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |        |                                |             |
| 22.6                                          | <b>61.89</b>  | 1.5                             | 594                               | 1.1                    | 1.7                               | 675                                | B                          |    |    |    | C                           | C  |    | 191318 | standard<br>$\varnothing 35$   | 01          |
| 19.7                                          | <b>71.16</b>  | 1.5                             | 683                               | 1.0                    | 1.5                               | 675                                | B                          |    |    |    | C                           | C  |    | 191316 |                                | 02          |
| 17.0                                          | <b>82.48</b>  | 1.5                             | 792                               | 0.9                    | 1.3                               | 675                                | B                          |    |    |    | C                           | C  |    | 171316 |                                | 03          |
| 14.5                                          | <b>96.29</b>  | 1.1                             | 675                               | 1.0                    | 1.1                               | 675                                | B                          |    |    |    | C                           | C  |    | 171314 |                                | 04          |
| 13.9                                          | <b>100.51</b> | 1.1                             | 705                               | 1.0                    | 1.0                               | 675                                | B                          |    |    |    | C                           | C  |    | 131318 |                                | 05          |
| 12.1                                          | <b>115.56</b> | 0.75                            | 556                               | 1.2                    | 0.91                              | 675                                | B                          |    |    |    | C                           | C  |    | 131316 |                                | 06          |
| 11.1                                          | <b>125.96</b> | 0.75                            | 606                               | 1.1                    | 0.82                              | 665                                | B                          |    |    |    | C                           | C  |    | 190816 |                                | 07          |
| 10.4                                          | <b>134.91</b> | 0.75                            | 649                               | 1.0                    | 0.78                              | 675                                | B                          |    |    |    | C                           | C  |    | 131314 |                                | 08          |
| 9.5                                           | <b>147.05</b> | 0.75                            | 707                               | 1.0                    | 0.72                              | 675                                | B                          |    |    |    | C                           | C  |    | 190814 |                                | 09          |
| 8.2                                           | <b>170.44</b> | 0.55                            | 605                               | 1.1                    | 0.62                              | 675                                | B                          |    |    |    | C                           | C  |    | 170814 | $\varnothing 40$<br>On request | 10          |
| 7.6                                           | <b>184.15</b> | 0.55                            | 653                               | 1.0                    | 0.57                              | 675                                | B                          |    |    |    | C                           | C  |    | 101314 |                                | 11          |
| 6.8                                           | <b>205.87</b> | 0.55                            | 730                               | 0.9                    | 0.51                              | 675                                | B                          |    |    |    | C                           | C  |    | 91316  |                                | 12          |
| 5.8                                           | <b>240.34</b> | 0.37                            | 570                               | 1.2                    | 0.44                              | 675                                | B                          |    |    |    | C                           | C  |    | 91314  |                                | 13          |
| 5.0                                           | <b>279.22</b> | 0.37                            | 662                               | 1.0                    | 0.37                              | 665                                | B                          |    |    |    | C                           | C  |    | 100816 |                                | 14          |
| 4.3                                           | <b>325.97</b> | 0.37                            | 773                               | 0.9                    | 0.32                              | 675                                | B                          |    |    |    | C                           | C  |    | 100814 |                                | 15          |
| 3.8                                           | <b>364.41</b> | 0.25                            | 583                               | 1.1                    | 0.28                              | 665                                | B                          |    |    |    | C                           | C  |    | 90816  |                                | 16          |
| 3.3                                           | <b>425.43</b> | 0.25                            | 681                               | 1.0                    | 0.25                              | 675                                | B                          |    |    |    | C                           | C  |    | 90814  |                                | 17          |
| 2.9                                           | <b>481.19</b> | 0.18                            | 589                               | 1.1                    | 0.22                              | 665                                | B                          |    |    |    | C                           | C  |    | 70816  |                                | 18          |
| 2.5                                           | <b>561.76</b> | 0.18                            | 687                               | 1.0                    | 0.19                              | 675                                | B                          |    |    |    | C                           | C  |    | 70814  |                                | 19          |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC63** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FC63** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FC63** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FC63** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FC63** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied     | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |                    |         |         |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|---------|---------|
|                       |                                                                                                                                    |         |                    |         |         |
| 2.30 LT               | 1.35 LT                                                                                                                            | 1.35 LT | 1.55 LT            | 2.45 LT | 1.55 LT |
| SHELL Omala S4 WE 320 |                                                                                                                                    |         | ENI Telium VSF 320 |         |         |

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{149.5}{X + 119.5}$

| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 600 | 3000 | 140   | 720 | 3600 | 70    | 940  | 4700 |
| 250   | 640 | 3200 | 120   | 740 | 3700 | 40    | 1220 | 6100 |
| 200   | 690 | 3460 | 85    | 860 | 4300 | 15    | 1300 | 6500 |

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |
| 500   | 340 | 1700 |

tab. 2

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>20.8 kg</b> |
|-----------------------------------------|----------------|

6-28





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5<br>motor flanges<br>-G<br>132 | B14<br>motor flanges<br>- - - -<br>- - - - | Output Shaft<br><br>standard<br>ø40<br>ø45<br>On request | Ratios<br>code<br>01<br>02<br>03 |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| 227                                           | <b>6.17</b>  | 9                               | 371                               | 1.2                    | <b>10.9</b>                       | <b>450</b>                         |                                            |                                            | 18111                                                                                                                                       | 01                               |
| 198                                           | <b>7.06</b>  | 9                               | 425                               | 1.4                    | <b>12.7</b>                       | <b>600</b>                         |                                            |                                            | 16113                                                                                                                                       | 02                               |
| 170                                           | <b>8.21</b>  | 9                               | 494                               | 1.4                    | <b>12.2</b>                       | <b>670</b>                         |                                            | <b>not available</b>                       | 14115                                                                                                                                       | 03                               |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC71** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC71** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC71** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC71** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC71** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| H1                                                                                | H4                                                                                | H3                                                                                 | H2                                                                                  | H5                                                                                  | H6                                                                                  |
| 3.30 LT                                                                           | 1.90 LT                                                                           | 1.90 LT                                                                            | 1.80 LT                                                                             | 3.30 LT                                                                             | 1.90 LT                                                                             |

ENI Blasias 460

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

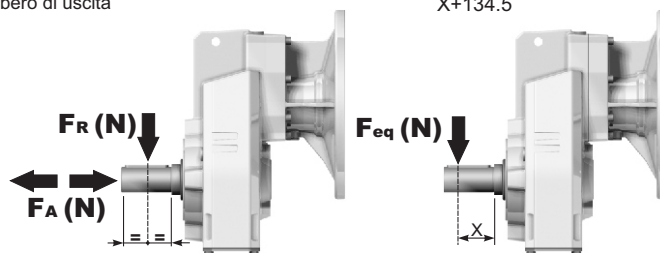
tab. 1

## RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{174.5}{X + 134.5}$$



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 740 | 3700 | 140   | 860 | 4300 | 70    | 1020 | 5100 |
| 250   | 800 | 4000 | 120   | 900 | 4500 | 40    | 1300 | 6500 |
| 200   | 830 | 4150 | 85    | 970 | 4850 | 15    | 1700 | 8500 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>35.0 kg</b> |
|-----------------------------------------|----------------|

- 

| a1 ø | b1  | c1 | e1  | f1 | s1 | Kit code   |
|------|-----|----|-----|----|----|------------|
| 250  | 180 | 13 | 215 | 3  | 14 | KF70.9.011 |
| 300  | 230 | 16 | 265 | 4  | 14 | KF70.9.012 |

[illegible]



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>$f.s.$ | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     |      | Output Shaft<br>                         | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|--------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|------|------------------------------------------|-----------------|
|                                               |              |                                 |                                   |                          |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |      |                                          |                 |
|                                               |              |                                 |                                   |                          |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |      |                                          |                 |
| 175                                           | 8.02         | 9                               | 473                               | 1.1                      | 9.9                               | 520                                | B                          |    |    |            |     |                             |    |            |     | 3018 | standard<br>ø40<br><br>ø45<br>On request | 01              |
| 152                                           | 9.18         | 9                               | 541                               | 1.1                      | 9.8                               | 590                                | B                          |    |    |            |     |                             |    |            |     | 3016 |                                          | 02              |
| 131                                           | 10.68        | 9                               | 630                               | 1.1                      | 9.7                               | 680                                | B                          |    |    |            |     |                             |    |            |     | 3014 |                                          | 03              |
| 93                                            | 15.11        | 7.5                             | 717                               | 1.1                      | 7.8                               | 775                                | B                          |    |    |            |     |                             |    |            |     | 2018 |                                          | 04              |
| 81                                            | 17.30        | 7.5                             | 821                               | 1.1                      | 7.8                               | 885                                | B                          |    |    |            |     |                             |    |            |     | 2016 |                                          | 05              |
| 70                                            | 20.13        | 7.5                             | 955                               | 0.9                      | 6.8                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 2014 |                                          | 06              |
| 60                                            | 23.39        | 5.5                             | 820                               | 1.1                      | 5.9                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1616 |                                          | 07              |
| 51                                            | 27.21        | 5.5                             | 954                               | 0.9                      | 5.1                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1614 |                                          | 08              |
| 46.0                                          | 30.42        | 4                               | 780                               | 1.2                      | 4.5                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1316 |                                          | 09              |
| 39.6                                          | 35.38        | 4                               | 907                               | 1.0                      | 3.9                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1314 |                                          | 10              |
| 37.6                                          | 37.24        | 3                               | 719                               | 1.2                      | 3.7                               | 895                                | B                          |    |    |            |     |                             |    |            |     | 1116 |                                          | 11              |
| 32.3                                          | 43.31        | 3                               | 836                               | 1.1                      | 3.2                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 1114 |                                          | 12              |
| 29.8                                          | 47.02        | 2.2                             | 668                               | 1.1                      | 2.3                               | 705                                | B                          |    |    |            |     |                             |    |            |     | 818  |                                          | 13              |
| 26.0                                          | 53.85        | 2.2                             | 765                               | 1.1                      | 2.3                               | 810                                | B                          |    |    |            |     |                             |    |            |     | 816  |                                          | 14              |
| 22.4                                          | 62.63        | 2.2                             | 890                               | 1.0                      | 2.2                               | 900                                | B                          |    |    |            |     |                             |    |            |     | 814  |                                          | 15              |
| 18.9                                          | 74.16        | 1.1                             | 531                               | 1.1                      | 1.2                               | 585                                | B                          |    |    |            |     |                             |    |            |     | 616  |                                          | 16              |
| 16.2                                          | 86.25        | 1.1                             | 617                               | 1.1                      | 1.2                               | 680                                | B                          |    |    |            |     |                             |    |            |     | 614  |                                          | 17              |

The dynamic efficiency is 0.96 for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC72** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC72** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC72** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC72** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC72** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
|         |         |         |         |         |         |
| H1      | H4      | H3      | H2      | H5      | H6      |
| 3.50 LT | 1.90 LT | 1.90 LT | 1.80 LT | 3.60 LT | 1.90 LT |

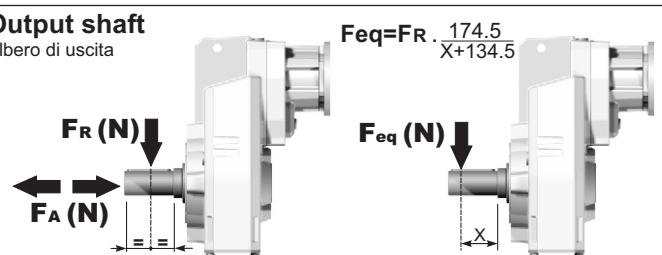
ENI Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$

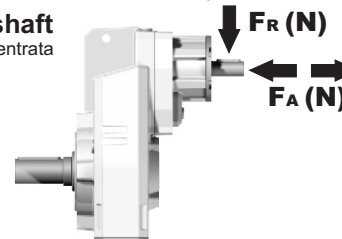
| $n_2$ | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 300   | 740   | 3700  | 140   | 860   | 4300  | 70    | 1020  | 5100  |
| 250   | 800   | 4000  | 120   | 900   | 4500  | 40    | 1300  | 6500  |
| 200   | 830   | 4150  | 85    | 970   | 4850  | 15    | 1700  | 8500  |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**

Albero in entrata



| $n_1$ | $F_A$ | $F_R$ |
|-------|-------|-------|
| 1400  | 450   | 2250  |
| 900   | 500   | 2500  |
| 500   | 600   | 3000  |

tab. 2





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                                      |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                                      |                                                                                                    |
| 18.5                                          | 75.50        | 1.5                             | 725                               | 1.1                    | 1.7                               | 825                                | B                          |    |    |    | C                           | C  |    | 191318                                                                                                               | 01                                                                                                 |
| 16.2                                          | 86.47        | 1.5                             | 830                               | 1.1                    | 1.6                               | 900                                | B                          |    |    |    | C                           | C  |    | 191316                                                                                                               | 02                                                                                                 |
| 14.0                                          | 100.22       | 1.5                             | 962                               | 0.9                    | 1.4                               | 900                                | B                          |    |    |    | C                           | C  |    | 171316                                                                                                               | 03                                                                                                 |
| 12.0                                          | 116.56       | 1.1                             | 817                               | 1.1                    | 1.2                               | 900                                | B                          |    |    |    | C                           | C  |    | 171314                                                                                                               | 04                                                                                                 |
| 10.2                                          | 136.82       | 1.1                             | 959                               | 0.9                    | 1.0                               | 900                                | B                          |    |    |    | C                           | C  |    | 151314                                                                                                               | 05                                                                                                 |
| 9.1                                           | 153.05       | 0.75                            | 736                               | 1.1                    | 0.83                              | 810                                | B                          |    |    |    | C                           | C  |    | 190816                                                                                                               | 06                                                                                                 |
| 8.6                                           | 163.31       | 0.75                            | 785                               | 1.1                    | 0.86                              | 900                                | B                          |    |    |    | C                           | C  |    | 131314                                                                                                               | 07                                                                                                 |
| 7.9                                           | 178.01       | 0.75                            | 856                               | 1.1                    | 0.79                              | 900                                | B                          |    |    |    | C                           | C  |    | 190814                                                                                                               | 08                                                                                                 |
| 7.3                                           | 191.67       | 0.75                            | 922                               | 1.0                    | 0.73                              | 900                                | B                          |    |    |    | C                           | C  |    | 101316                                                                                                               | 09                                                                                                 |
| 6.8                                           | 206.32       | 0.75                            | 992                               | 0.9                    | 0.68                              | 900                                | B                          |    |    |    | C                           | C  |    | 170814                                                                                                               | 10                                                                                                 |
| 6.3                                           | 222.92       | 0.55                            | 791                               | 1.1                    | 0.63                              | 900                                | B                          |    |    |    | C                           | C  |    | 101314                                                                                                               | 11                                                                                                 |
| 5.8                                           | 242.18       | 0.55                            | 859                               | 1.0                    | 0.58                              | 900                                | B                          |    |    |    | C                           | C  |    | 150814                                                                                                               | 12                                                                                                 |
| 5.6                                           | 250.15       | 0.55                            | 888                               | 1.0                    | 0.56                              | 900                                | B                          |    |    |    | C                           | C  |    | 91316                                                                                                                | 13                                                                                                 |
| 4.8                                           | 289.08       | 0.55                            | 1026                              | 0.9                    | 0.49                              | 900                                | B                          |    |    |    | C                           | C  |    | 130814                                                                                                               | 14                                                                                                 |
| 4.2                                           | 330.31       | 0.37                            | 783                               | 1.1                    | 0.42                              | 890                                | B                          |    |    |    | C                           | C  |    | 71316                                                                                                                | 15                                                                                                 |
| 3.5                                           | 394.59       | 0.37                            | 936                               | 1.0                    | 0.36                              | 900                                | B                          |    |    |    | C                           | C  |    | 100814                                                                                                               | 16                                                                                                 |
| 2.7                                           | 514.99       | 0.25                            | 824                               | 1.1                    | 0.27                              | 900                                | B                          |    |    |    | C                           | C  |    | 90814                                                                                                                | 17                                                                                                 |
| 2.1                                           | 680.03       | 0.18                            | 832                               | 1.1                    | 0.21                              | 900                                | B                          |    |    |    | C                           | C  |    | 70814                                                                                                                | 18                                                                                                 |

The dynamic efficiency is 0.94 for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit FC73 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo FC73 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße FC73 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type FC73 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño FC73 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| 3.55 LT                                                                             | 1.95 LT                                                                             | 1.95 LT                                                                              | 1.95 LT                                                                               | 3.75 LT                                                                               | 2.00 LT                                                                               |

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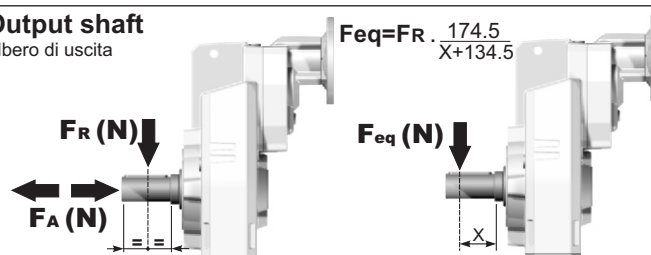
For all details on lubrication and plugs check our website

tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



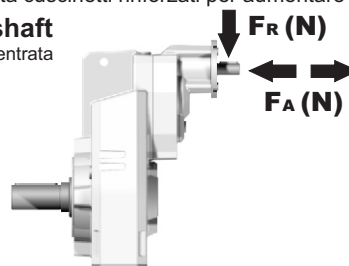
| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 740 | 3700 | 140   | 860 | 4300 | 70    | 1020 | 5100 |
| 250   | 800 | 4000 | 120   | 900 | 4500 | 40    | 1300 | 6500 |
| 200   | 830 | 4150 | 85    | 970 | 4850 | 15    | 1700 | 8500 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

tab. 2







### ■ QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |     | B14 motor flanges |   |   |   | Output Shaft |            |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|-----|-------------------|---|---|---|--------------|------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -H                         | -I  | -                 | - | - | - |              |            | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 160                        | 180 | -                 | - | - | - |              |            |             |
| 528                                           | 2.65         | 22                              | 374                               | 1.7                    | 36.7                              | 650                                |                            |     | not available     |   |   |   | 2361         | standard   | 01          |
| 409                                           | 3.42         | 22                              | 483                               | 1.6                    | 32.8                              | 750                                |                            |     |                   |   |   |   | 1965         | ø50        | 02          |
| 304                                           | 4.60         | 22                              | 649                               | 1.5                    | 30.9                              | 950                                |                            |     |                   |   |   |   | 1569         |            | 03          |
| 256                                           | 5.46         | 22                              | 771                               | 1.3                    | 27.4                              | 1000                               |                            |     |                   |   |   |   | 1371         | ø55        | 04          |
| 211                                           | 6.64         | 22                              | 937                               | 1.3                    | 26.5                              | 1175                               |                            |     |                   |   |   |   | 1173         | On request | 05          |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC81** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC81** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC81** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC81** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC81** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
|         |         |         |         |         |         |
| H1      | H4      | H3      | H2      | H5      | H6      |
| 5.50 LT | 3.50 LT | 3.50 LT | 3.50 LT | 6.20 LT | 4.40 LT |

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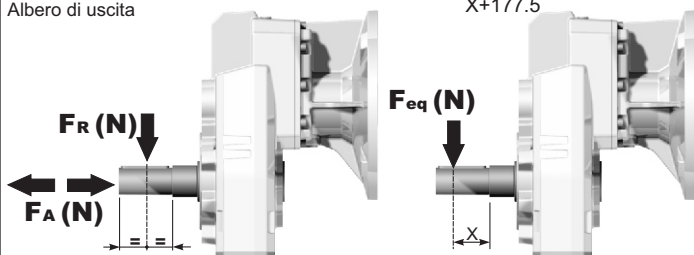
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = F_R \cdot \frac{227.5}{X + 177.5}$$



| $n_2$ | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 300   | 920   | 4600  | 140   | 1120  | 5600  | 70    | 1400  | 7000  |
| 250   | 1000  | 5000  | 120   | 1140  | 5700  | 40    | 1800  | 9000  |
| 200   | 1060  | 5300  | 85    | 1300  | 6500  | 15    | 2400  | 12000 |

**On request reinforced bearings to increase loads.**

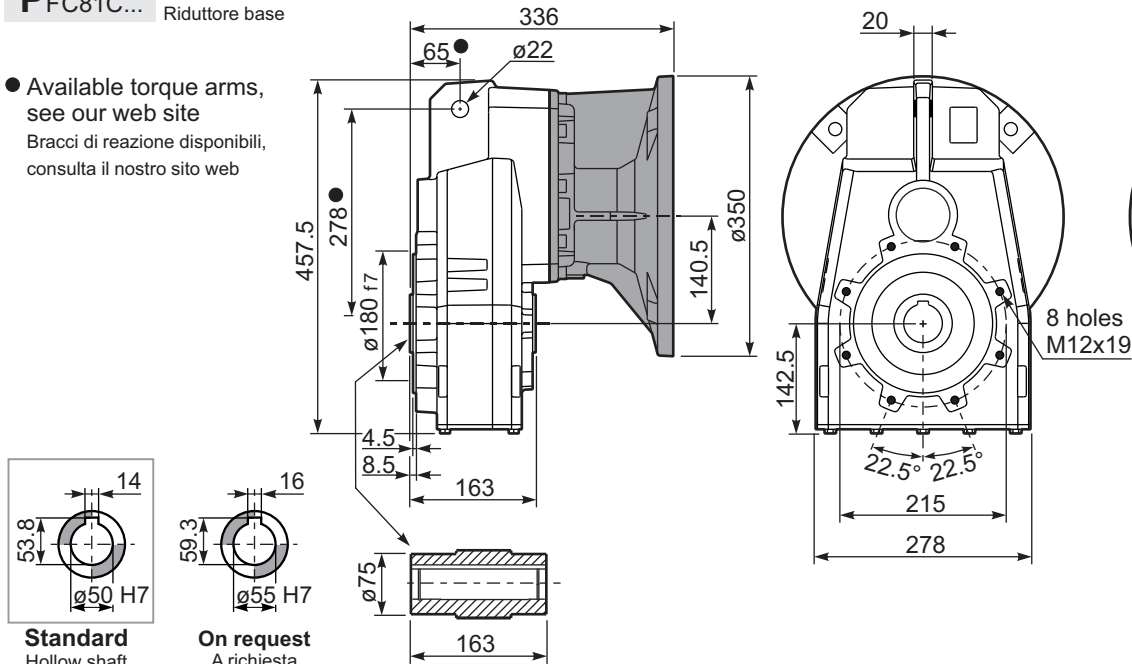
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

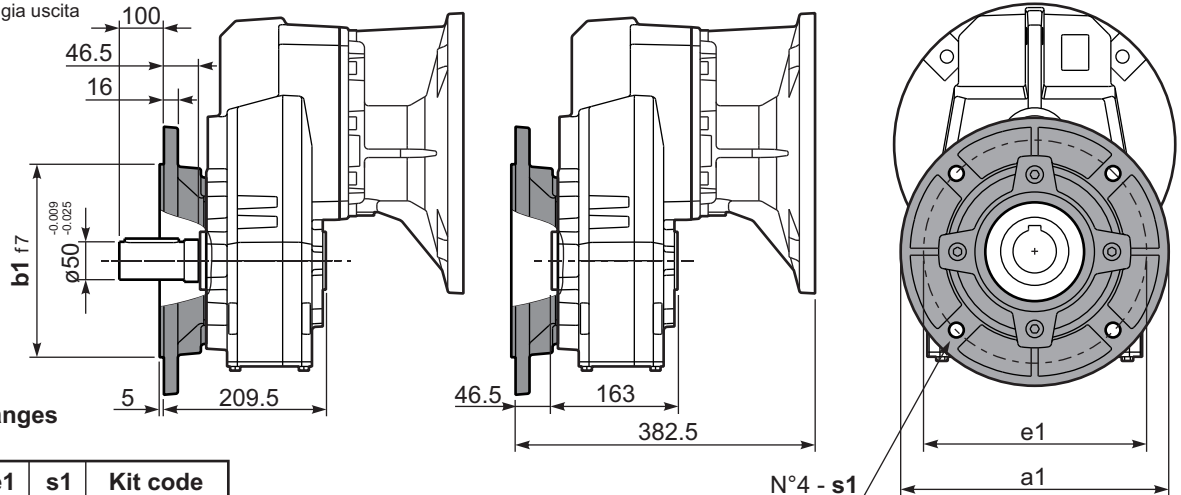
PFC81C...

Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **78.0 kg**

- Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web

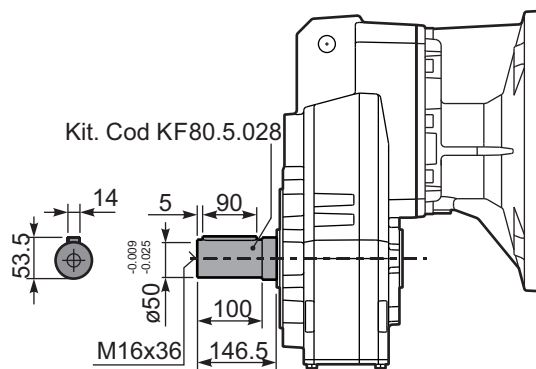


PFC81...-F...

Output flange  
Flangia uscitaAvailable output flanges  
Flange di uscita

| a1 $\phi$ | b1  | e1  | s1 | Kit code   |
|-----------|-----|-----|----|------------|
| 300       | 230 | 265 | 14 | KF80.9.011 |
| 350       | 250 | 300 | 18 | KF80.9.012 |

PFC81A...

Single output shaft  
Albero uscita semplice



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     | B14<br>motor flanges |     |      | Output Shaft<br>                         | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|----------------------|-----|------|------------------------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -F                  | -G  | -H  | -I  | -U                   | -V  |      |                                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 100<br>112          | 132 | 160 | 180 | 100<br>112           | 132 |      |                                          |                 |
| 234                                           | 5.98         | 22                              | 827                               | 1.2                    | 25.5                              | 1000                               | B                   |     |     |     | B                    |     | 3015 | standard<br>ø50<br><br>ø55<br>On request | 01              |
| 197                                           | 7.10         | 22                              | 982                               | 1.2                    | 25.3                              | 1175                               | B                   |     |     |     | B                    |     | 3013 |                                          | 02              |
| 162                                           | 8.63         | 22                              | 1193                              | 1.1                    | 23.9                              | 1350                               | B                   |     |     |     | B                    |     | 3011 |                                          | 03              |
| 124                                           | 11.27        | 18.5                            | 1310                              | 1.1                    | 20.3                              | 1500                               | B                   |     |     |     | B                    |     | 2015 |                                          | 04              |
| 105                                           | 13.38        | 18.5                            | 1555                              | 1.1                    | 19.4                              | 1700                               | B                   |     |     |     | B                    |     | 2013 |                                          | 05              |
| 92                                            | 15.24        | 18.5                            | 1771                              | 1.1                    | 19.0                              | 1900                               | B                   |     |     |     | B                    |     | 1615 |                                          | 06              |
| 86                                            | 16.26        | 18.5                            | 1889                              | 1.1                    | 19.7                              | 2100                               | B                   |     |     |     | B                    |     | 2011 |                                          | 07              |
| 77                                            | 18.09        | 18.5                            | 2102                              | 1.0                    | 17.7                              | 2100                               | B                   |     |     |     | B                    |     | 1613 |                                          | 08              |
| 71                                            | 19.82        | 15                              | 1865                              | 1.1                    | 15.9                              | 2060                               | B                   |     |     |     | B                    |     | 1315 |                                          | 09              |
| 64                                            | 21.98        | 15                              | 2069                              | 1.0                    | 14.6                              | 2100                               | B                   |     |     |     | B                    |     | 1611 |                                          | 10              |
| 60                                            | 23.53        | 15                              | 2214                              | 0.9                    | 13.6                              | 2100                               | B                   |     |     |     | B                    |     | 1313 |                                          | 11              |
| 58                                            | 24.25        | 11                              | 1677                              | 1.2                    | 12.2                              | 1940                               | B                   |     |     |     | B                    |     | 1115 |                                          | 12              |
| 48.6                                          | 28.80        | 11                              | 1991                              | 1.1                    | 11.1                              | 2100                               | B                   |     |     |     | B                    |     | 1113 |                                          | 13              |
| 40.0                                          | 34.99        | 9                               | 2063                              | 1.0                    | 9.2                               | 2100                               | B                   |     |     |     | B                    |     | 1111 |                                          | 14              |
| 33.6                                          | 41.64        | 7.5                             | 1976                              | 1.0                    | 7.2                               | 1960                               | B                   |     |     |     | B                    |     | 813  |                                          | 15              |
| 27.7                                          | 50.60        | 5.5                             | 1774                              | 1.2                    | 6.3                               | 2100                               | B                   |     |     |     | B                    |     | 811  |                                          | 16              |

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC82** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC82** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC82** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC82** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC82** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
|         |         |         |         |         |         |
| H1      | H4      | H3      | H2      | H5      | H6      |
| 5.70 LT | 3.60 LT | 3.60 LT | 3.60 LT | 6.60 LT | 4.50 LT |

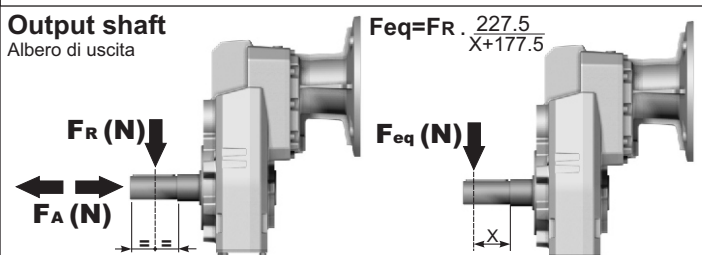
ENI Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

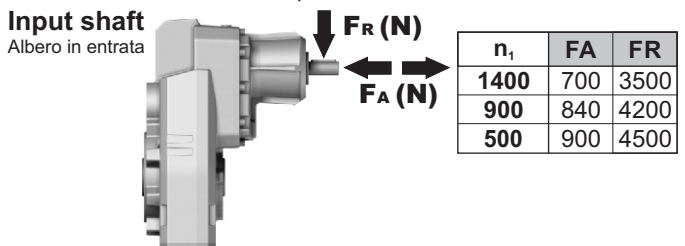
**Output shaft**  
Albero di uscita



| $n_2$ | FA   | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR    |
|-------|------|------|-------|------|------|-------|------|-------|
| 300   | 920  | 4600 | 140   | 1120 | 5600 | 70    | 1400 | 7000  |
| 250   | 1000 | 5000 | 120   | 1140 | 5700 | 40    | 1800 | 9000  |
| 200   | 1060 | 5300 | 85    | 1300 | 6500 | 15    | 2400 | 12000 |

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 700 | 3500 |
| 900   | 840 | 4200 |
| 500   | 900 | 4500 |

tab. 2

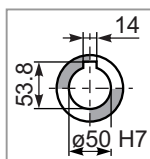
## PFC82C...

Basic gearbox  
Riduttore baseGearbox weight  
peso riduttore **82.5 kg**

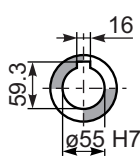
| M. flanges | Kit code    | øF  | A     |
|------------|-------------|-----|-------|
| 100/112B5  | K023.4.043  | 250 | 299   |
| 132B5      | KC51.4.043  | 300 | 320.5 |
| 160/180B5  | KC86.4.0.43 | 350 | 352.5 |
| 100/112B14 | K085.4.047  | 160 | 299   |
| 132B14     | KC51.4.041  | 200 | 320.5 |

- Available torque arms,  
see our web site

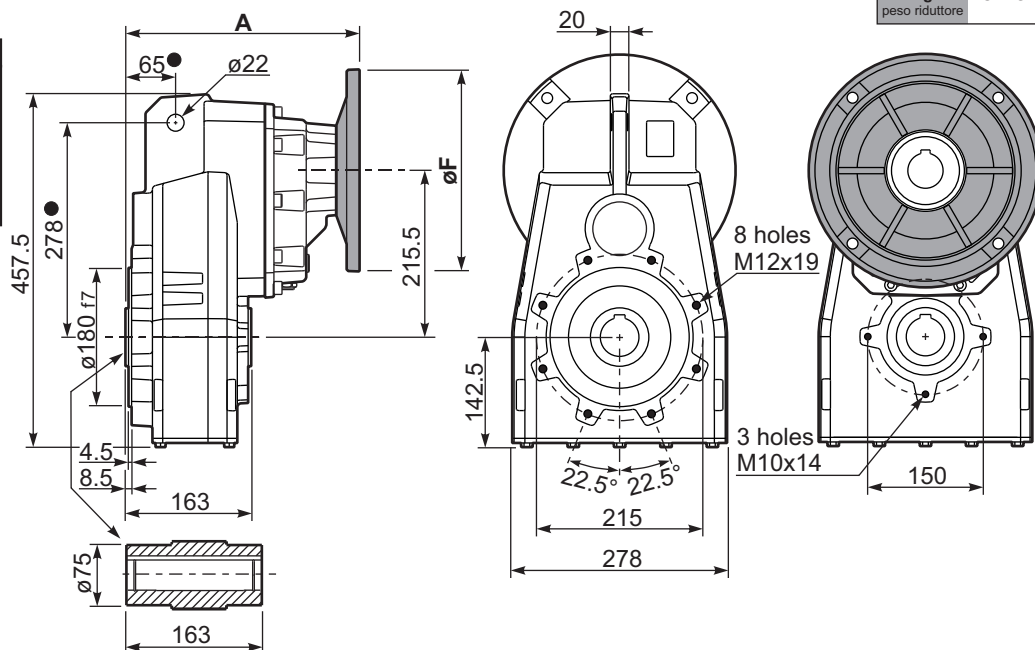
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft



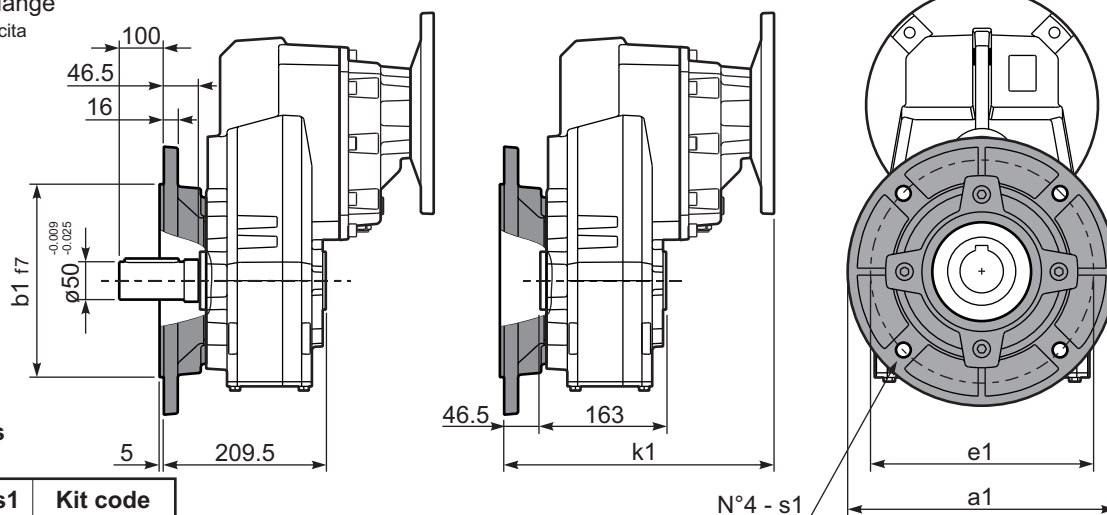
**On request**  
A richiesta



## PFC82...-F...

Output flange  
Flangia uscita

| M. flanges | k1    |
|------------|-------|
| 100/112B5  | 345.5 |
| 132B5      | 367   |
| 160/180B5  | 399   |
| 100/112B14 | 345.5 |
| 132B14     | 367   |

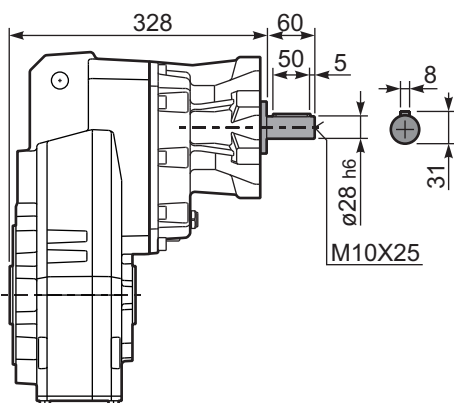


## Available output flanges

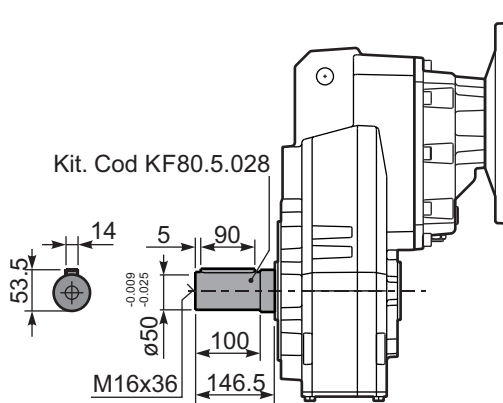
Flange di uscita

| a1 ø | b1  | e1  | s1 | Kit code   |
|------|-----|-----|----|------------|
| 300  | 230 | 265 | 14 | KF80.9.011 |
| 350  | 250 | 300 | 18 | KF80.9.012 |

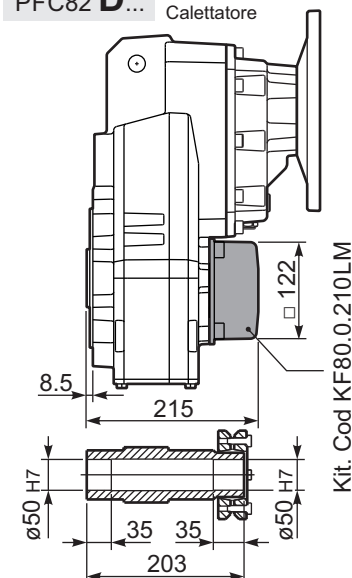
## RFC82C...

Input Shaft  
Albero in entrata

## PFC82 A...

Single output shaft  
Albero uscita semplice

## PFC82 D...

Shrink disk  
Calettatore





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |     |     | Available B14 motor flanges |    |    |     |     | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----|-----|-----------------------------|----|----|-----|-----|------------------|-----------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F  | -G  | -R                          | -T | -U | -V  |     |                  |                 |
|                                               |               |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100 | 112 | 132                         | 80 | 90 | 100 | 112 |                  |                 |
| 28.8                                          | <b>48.55</b>  | 7.5                             | 2257                              | 0.9                    | 6.7                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 201315           | 01              |
| 24.3                                          | <b>57.64</b>  | 5.5                             | 1980                              | 1.1                    | 5.7                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 201313           | 02              |
| 21.3                                          | <b>65.64</b>  | 5.5                             | 2255                              | 0.9                    | 5.0                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 161315           | 03              |
| 20.0                                          | <b>70.04</b>  | 4                               | 1760                              | 1.2                    | 4.7                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 201311           | 04              |
| 18.0                                          | <b>77.93</b>  | 4                               | 1958                              | 1.1                    | 4.2                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 161313           | 05              |
| 16.4                                          | <b>85.36</b>  | 4                               | 2145                              | 1.0                    | 3.8                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 131315           | 06              |
| 14.8                                          | <b>94.70</b>  | 4                               | 2380                              | 0.9                    | 3.5                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 161311           | 07              |
| 13.8                                          | <b>101.35</b> | 3                               | 1917                              | 1.1                    | 3.2                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 131313           | 08              |
| 11.4                                          | <b>123.15</b> | 3                               | 2330                              | 0.9                    | 2.7                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 131311           | 09              |
| 9.3                                           | <b>150.73</b> | 2.2                             | 2100                              | 1.0                    | 2.2                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 111311           | 10              |
| 7.8                                           | <b>179.39</b> | 1.5                             | 1722                              | 1.2                    | 1.8                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 81313            | 11              |
| 6.4                                           | <b>217.98</b> | 1.5                             | 2093                              | 1.0                    | 1.5                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 81311            | 12              |
| 5.7                                           | <b>247.03</b> | 1.1                             | 1732                              | 1.1                    | 1.2                               | 1950                               | B                          |    |    |     |     |                             |    |    |     |     | 61313            | 13              |
| 4.7                                           | <b>300.17</b> | 1.1                             | 2105                              | 1.0                    | 1.1                               | 2100                               | B                          |    |    |     |     |                             |    |    |     |     | 61311            | 14              |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC83** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC83** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC83** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC83** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC83** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
|         |         |         |         |         |         |
| H1      | H4      | H3      | H2      | H5      | H6      |
| 5.80 LT | 3.90 LT | 3.90 LT | 3.90 LT | 6.80 LT | 4.90 LT |

ENI Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$$

$F_R$  (N)  
 $F_A$  (N)

$F_{eq}$  (N)  
 $X$

| $n_2$ | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 300   | 920   | 4600  | 140   | 1120  | 5600  | 70    | 1400  | 7000  |
| 250   | 1000  | 5000  | 120   | 1140  | 5700  | 40    | 1800  | 9000  |
| 200   | 1060  | 5300  | 85    | 1300  | 6500  | 15    | 2400  | 12000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft  
Albero in entrata

| $n_1$ | $F_A$ | $F_R$ |
|-------|-------|-------|
| 1400  | 450   | 2250  |
| 900   | 500   | 2500  |
| 500   | 600   | 3000  |

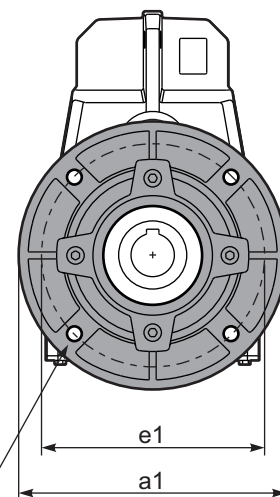
tab. 2

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>68.5 kg</b> |
|-----------------------------------------|----------------|

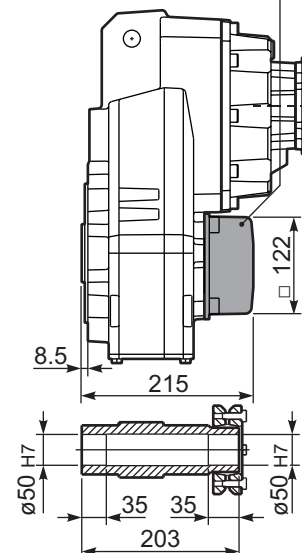
**On request**  
A richiesta



N°4 - s1

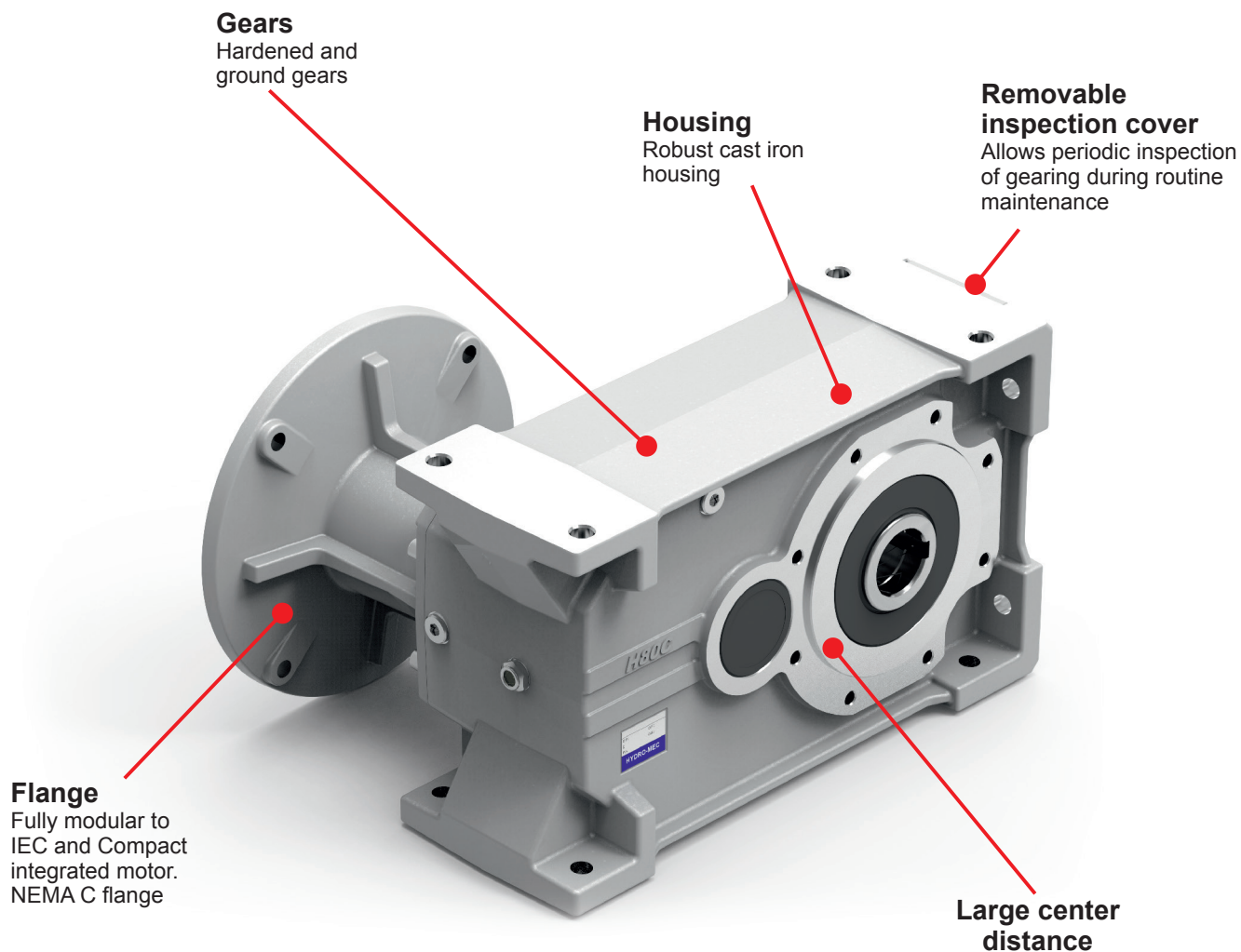


Kit. Cod KF80.0.210LM.



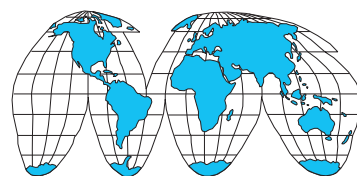
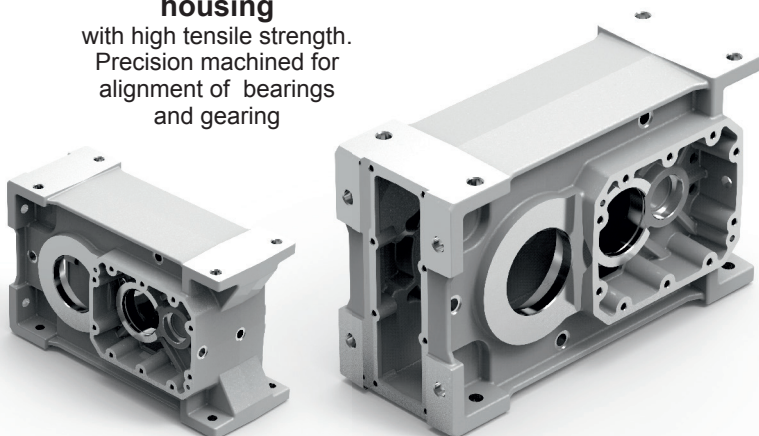
# Cast iron parallel shaft gearboxes

A modular and compact product



## Single-piece Cast Iron housing

with high tensile strength.  
Precision machined for  
alignment of bearings  
and gearing

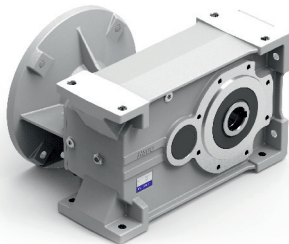


World wide sales network.

# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página

1 Stage

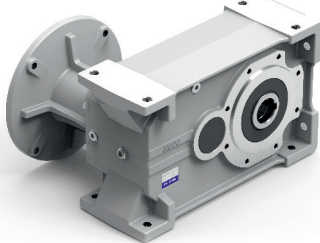


Types / Tipi /  
Tipen / Types /  
Tipos

| 7-5                  | 7-11                 | 7-17                  |
|----------------------|----------------------|-----------------------|
|                      |                      |                       |
| <b>H61C</b><br>380Nm | <b>H71C</b><br>670Nm | <b>H81C</b><br>1175Nm |

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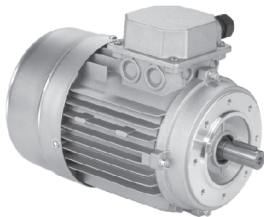
2 and 3 Stage



Types / Tipi /  
Tipen / Types /  
Tipos

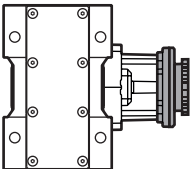
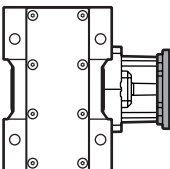
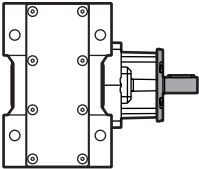
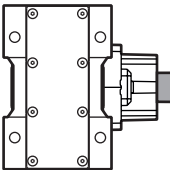
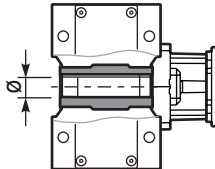
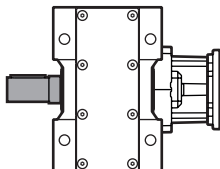
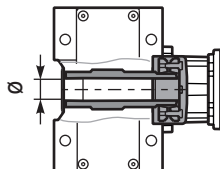
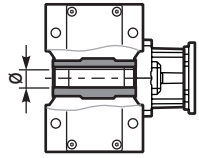
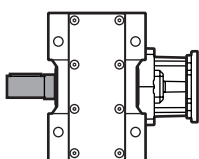
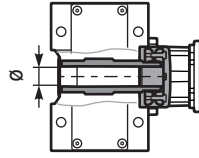
| 7-7                  | 7-9                  | 7-13                 | 7-15                 | 7-19                  | 7-21                  |
|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
|                      |                      |                      |                      |                       |                       |
| <b>H62C</b><br>675Nm | <b>H63C</b><br>675Nm | <b>H72C</b><br>900Nm | <b>H73C</b><br>900Nm | <b>H82C</b><br>2100Nm | <b>H83C</b><br>2100Nm |

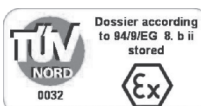
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Types / Tipi /  
Tipen / Types /  
Tipos

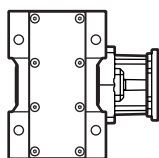
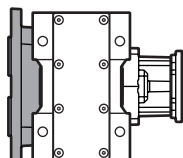
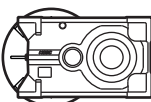
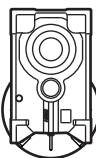
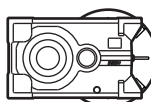
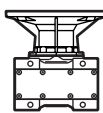
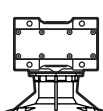
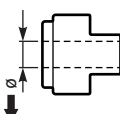
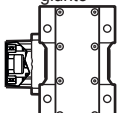
| M-1                      |                          |                          |                          |                          |                              |             |                            |                            |                            |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------|-------------|----------------------------|----------------------------|----------------------------|
|                          |                          |                          |                          |                          |                              |             |                            |                            |                            |
| <b>56A</b><br><b>56B</b> | <b>63A</b><br><b>63B</b> | <b>71A</b><br><b>71B</b> | <b>80A</b><br><b>80B</b> | <b>90S</b><br><b>90L</b> | <b>100LA</b><br><b>100LB</b> | <b>112M</b> | <b>132S</b><br><b>132M</b> | <b>160M</b><br><b>160L</b> | <b>180M</b><br><b>180L</b> |

| Type - Tipo - Typ<br>Type - Tipo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Size - Grandezza - Grösse<br>Taille - Tamaño                                                                                                                                                                                                                                                                                                                                                        | Mounting - Montaggio<br>Montage - Fixation<br>Tipo de montaje                                                                                                                                                                                                                                                                                                                                                                           | Rapporto - Ratio<br>Untersetzung<br>Reduction - Relacion                                                                                                                               | Output shaft<br>Albero uscita<br>Abtriebswelle<br>Arbre de sortie<br>Eje en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>H62C</b>                                                                                                                                                                                                                                                                                                                                                                                         | <b>C</b>                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>12.39</b>                                                                                                                                                                           | <b>-E</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Parallel shaft helical</b><br>Riduttori ad assi paralleli<br> <p>With IEC motor<br/><b>M</b></p>  <p>With motor flange<br/><b>P</b></p>  <p>With male input shaft<br/><b>R</b></p>  <p>Modular base<br/><b>B</b></p> <p>Not available for:<br/>H61C, H71C,<br/>H81C, H82C</p> | <p>1 Stage<br/>Riduzione<br/>Stufe<br/>Trains<br/>Etapas</p> <p>2 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p> <p>3 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p> <p>Cast Iron/Ghisa/Grauguss/Fonte/Fundicion</p> <p><b>H61C</b><br/><b>H71C</b><br/><b>H81C</b></p> <p><b>H62C</b><br/><b>H72C</b><br/><b>H82C</b></p> <p><b>H63C</b><br/><b>H73C</b><br/><b>H83C</b></p> |  <p>Hollow output shaft<br/><b>C</b></p>  <p>Single output shaft<br/><b>A</b></p>  <p>Shrink Disk<br/><b>D</b></p> <p>Only on request for Q.ty<br/>A richiesta per quantità</p> | <p><b>See technical data table</b></p> <p>Vedi tabella dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p> | <p><b>C</b></p>  <p><b>STANDARD</b><br/> ⇒ Only on request for Q.ty<br/> A richiesta per quantità</p> <p>H61C H62C H63C<br/> <b>-E</b> ⇒ <math>\varnothing 35</math><br/> <b>-F</b> ⇒ <math>\varnothing 40</math></p> <p>H71C H72C H73C<br/> <b>-F</b> ⇒ <math>\varnothing 40</math><br/> <b>-G</b> ⇒ <math>\varnothing 45</math></p> <p>H81C H82C H83C<br/> <b>-H</b> ⇒ <math>\varnothing 50</math><br/> <b>-I</b> ⇒ <math>\varnothing 55</math></p> <p><b>A</b></p>  <p>Single output shaft</p> <p><b>-N</b> H61/2/3C ⇒ <math>\varnothing 35</math><br/> <b>-O</b> H71/2/3C ⇒ <math>\varnothing 40</math><br/> <b>-K</b> H81/2/3C ⇒ <math>\varnothing 50</math></p> <p><b>D</b></p>  <p>Shrink disk</p> <p><b>-T</b> H62/3C ⇒ <math>\varnothing 35</math><br/> <b>-U</b> H72/3C ⇒ <math>\varnothing 40</math><br/> <b>-V</b> H82/3C ⇒ <math>\varnothing 50</math></p> |



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.



| Type - Tipo - Typ<br>Types - Tipo                                                                                                                                                                                                                                                  | Output flange<br>Flangia uscita<br>Ausgangsflansch<br>Bride de sortie<br>Brida en salida                                                                                                                                                                               | Motor size - Grandezza motore<br>Motor Grösse<br>Grandeur moteur - Tamaño motor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Position de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Terminal box position<br>Posizione morsettiera<br>Klemmkastenlage<br>Position boîte à bornes<br>Posición caja de bornes                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -N                                                                                                                                                                                                                                                                                 | N                                                                                                                                                                                                                                                                      | -C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | B3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <br><b>-N</b><br>Senza flangia<br>Without flange<br><br><br><b>-F</b><br>Whit output flange<br>con flangia uscita | <b>N</b> Senza flangia<br>Without flange<br><br>H61C H62C H63C<br><b>4</b> ➔ <b>Ø250</b><br><br>H71C H72C H73C<br><b>4</b> ➔ <b>Ø250</b><br><b>5</b> ➔ <b>Ø300</b><br><br>H81C H82C H83C<br><b>5</b> ➔ <b>Ø300</b><br><b>6</b> ➔ <b>Ø350</b><br><b>7</b> ➔ <b>Ø400</b> | <b>Flange</b><br>Flangia<br><br><b>B5</b><br><b>-A</b> =56<br>(Ø120)<br><b>-B</b> =63<br>(Ø140)<br><b>-C</b> =71<br>(Ø160)<br><b>-D</b> =80<br>(Ø200)<br><b>-E</b> =90<br>(Ø200)<br><b>-F</b> =100÷112<br>(Ø250)<br><b>-G</b> =132<br>(Ø300)<br><b>-H</b> =160<br>(Ø350)<br><b>-I</b> =180<br>(Ø350)<br><br><b>B14</b><br><b>-O</b> =56<br>(Ø80)<br><b>-P</b> =63<br>(Ø90)<br><b>-Q</b> =71<br>(Ø105)<br><b>-R</b> =80<br>(Ø120)<br><b>-T</b> =90<br>(Ø140)<br><b>-U</b> =100÷112<br>(Ø160)<br><b>-V</b> =132<br>(Ø200) | <b>Type R</b><br>Tipo R<br><br>H63C H73C<br><b>-2</b> ➔ <b>Ø19</b><br><br>H62C<br>H72C H83C<br><b>-3</b> ➔ <b>Ø24</b><br><br>H82C<br><b>-4</b> ➔ <b>Ø28</b><br><br><b>Without flange</b><br>Senza flangia<br><br><b>-M</b> ➔ With coupling<br><br>H63C H73C<br><b>-1</b> ➔ <b>Ø14</b><br>(71B5)<br><b>-2</b> ➔ <b>Ø19</b><br>(80B5)<br><b>-3</b> ➔ <b>Ø24</b><br>(90B5)<br><br>H62C<br>H72C H83C<br><b>-2</b> ➔ <b>Ø19</b><br>(80B5)<br><b>-3</b> ➔ <b>Ø24</b><br>(90B5)<br><b>-4</b> ➔ <b>Ø28</b><br>(100B5) | <br><b>B3</b><br><b>STANDARD</b><br><br><br><b>B6</b><br><br><br><b>B7</b><br><br><br><b>B8</b><br><br><br><b>V5</b><br><br><br><b>V6</b><br><br><br><b>V8</b> | <b>-</b><br>Nothing indication:<br><b>standard bore</b><br><br>Nessuna indicazione:<br><b>foro standard</b><br><br><b>COUPLING</b><br><br><b>A</b> = 9mm<br><b>B</b> = 11mm<br><b>C</b> = 14mm<br><b>D</b> = 19mm<br><b>E</b> = 24mm<br><b>F</b> = 28mm<br><br><b>0</b><br>Ready for input coupling<br>Predisposto per giunto<br> | <br><b>A</b><br><br><br><b>B</b><br><b>STANDARD</b><br><br><br><b>C</b><br><br><br><b>D</b> |

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

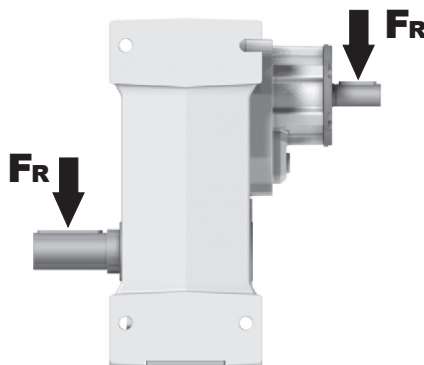
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



| $F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | $F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$ |  |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--|
| M                                                                              | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |  |
| d                                                                              | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                             |                                                                                  |  |
| f <sub>k</sub>                                                                 | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br>1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br>1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br>1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br>2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |                                                                                  |  |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B** Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Poissance nominale  
Potencia nominal

**A** Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

# H62C

## Cube gear 675Nm

### Rating - Cast Iron PARALLEL SHAFT GEARBOXES

**QUICK SELECTION / Selezione veloce**

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |     |     | Available B14 motor flanges |    |    |     | Output Shaft<br> | Notes<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----|-----|-----------------------------|----|----|-----|------------------|-----------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F  | -G  | -R                          | -T | -U | -V  |                  |           |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100 | 112 | 132                         | 80 | 90 | 100 |                  |           |
| 213                                           | <b>6.57</b>  | 7.5                             | 312                               | 1.2                    | 8.8                               | 380                                | B                          |    |    |     |     |                             |    |    |     | 3018             | 01        |
| 185                                           | <b>7.56</b>  | 7.5                             | 358                               | 1.1                    | 7.9                               | 390                                | B                          |    |    |     |     |                             |    |    |     | 3016             | 02        |
| 159                                           | <b>8.82</b>  | 7.5                             | 419                               | 1.0                    | 7.1                               | 410                                | B                          |    |    |     |     |                             |    |    |     | 3014             | 03        |
| 113                                           | <b>12.39</b> | 7.5                             | 588                               | 1.0                    | 7.2                               | 580                                | B                          |    |    |     |     |                             |    |    |     | 2018             | 04        |

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

**D** Motor flange available  
Flange disponibili  
Erhältliche Motorflansche  
Brides disponibles  
Bridas disponibles

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

**fs**

| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                    |                     | Oper. hours per day<br>Ore di funz. giorn. |      |      |
|------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|------|------|
|                                                                                                            |                     | 3 h                                        | 10 h | 24 h |
| Continuous or intermittent appl. with start / hour<br>Applicazione cont. o interm. con n.ro operazioni/ora | Uniform / Uniforme  | 0.8                                        | 1    | 1.25 |
|                                                                                                            | Moderate / Moderato | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Heavy / Forte       | 1.25                                       | 1.5  | 1.75 |
| Intermittent application with start / hour<br>Applicazione intermittente con n.ro operazioni/ora           | Uniform / Uniforme  | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Moderate / Moderato | 1.25                                       | 1.5  | 1.75 |
|                                                                                                            | Heavy / Forte       | 1.5                                        | 1.75 | 2.15 |

**B)** Mounting with reduction ring  
Montaggio con boccia di riduzione  
Reduzierhülsen  
Montage avec douille de réduction  
Montaje con casquillo de reducción

**C)** Motor flangeholes position/terminal box position  
Posizione fori flangia/basetta motore  
Bohrungsposition am Motorflansch/-sockel  
Position trous bride/barrette à bornes moteur  
Posición agujeros brida / base motor

**B)** Available without reduction bushes  
Disponibile anche senza boccia  
Auch ohne Reduzierbuchse verfügbar  
Disponible aussi sans douille de réduction  
Disponible tambien sin casquillo

|          |                                                                        |                                                                                                  |                                                                                              |                                                                                                   |                                                                                                    |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>A</b> | Select required torque (according to service factor)                   | Seleziona la coppia desiderata (comprensiva del fattore di servizio)                             | Max. Drehmoment in Bezug zum Betriebsfaktor                                                  | Sélectionner le couple souhaité (comprenant le facteur de service)                                | Seleccionar el par deseado (incluyendo el factor de servicio)                                      |
| <b>B</b> | Select output speed                                                    | Seleziona la velocità in uscita                                                                  | Ausgewählte Abtriebsdrehzahl                                                                 | Sélectionner la vitesse de sortie                                                                 | Seleccionar la velocidad de salida                                                                 |
| <b>C</b> | On the same line of selected geared motor, you can find the gear ratio | Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione | Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung | Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction | En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción |
| <b>D</b> | Select motor flange available (if requested)                           | Scegli la flangia disponibile (se richiesta)                                                     | Erhältliche Motorflansche (auf Anfrage)                                                      | Choisir la bride disponible (si elle est demandée)                                                | Seleccionar la brida disponible (sobre pedido)                                                     |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges<br>-G<br>132 | B14 motor flanges<br>- - - -<br>- - - - | Output Shaft<br><br>$\emptyset$ | Ratios code<br>    |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------|--------------------|
| 507                                           | <b>2.76</b>  | 9                               | 166                               | 1.6                    | <b>14.4</b>                       | <b>265</b>                         |                                         | <b>not available</b>                    | 2980                            | <b>standard</b> 01 |
| 395                                           | <b>3.54</b>  | 9                               | 213                               | 1.3                    | <b>11.6</b>                       | <b>275</b>                         |                                         |                                         | 2485                            | <b>ø35</b> 02      |
| 277                                           | <b>5.06</b>  | 9                               | 304                               | 1.0                    | <b>8.6</b>                        | <b>290</b>                         |                                         |                                         | 1891                            | 03                 |
| 241                                           | <b>5.81</b>  | 7.5                             | 281                               | 1.2                    | <b>8.5</b>                        | <b>330</b>                         |                                         |                                         | 1693                            | ø40 04             |
| 206                                           | <b>6.79</b>  | 7.5                             | 329                               | 1.2                    | <b>8.4</b>                        | <b>380</b>                         |                                         |                                         | 1495                            | On request 05      |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H61C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **H61C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **H61C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **H61C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **H61C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied          | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                      |                              |                      |                      |                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------|----------------------|----------------------|------------------|
|                            |                                                                                                                                    |                      |                              |                      |                      |                  |
| <b>B3</b><br>2.25 LT       | <b>B6</b><br>3.20 LT                                                                                                               | <b>B7</b><br>3.00 LT | <b>B8</b><br>2.25 LT         | <b>V5</b><br>4.35 LT | <b>V6</b><br>2.35 LT | <b>V8</b><br>Ask |
| <b>AGIP</b> Telium VSF 320 |                                                                                                                                    |                      | <b>SHELL</b> Omala S4 WE 320 |                      |                      |                  |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

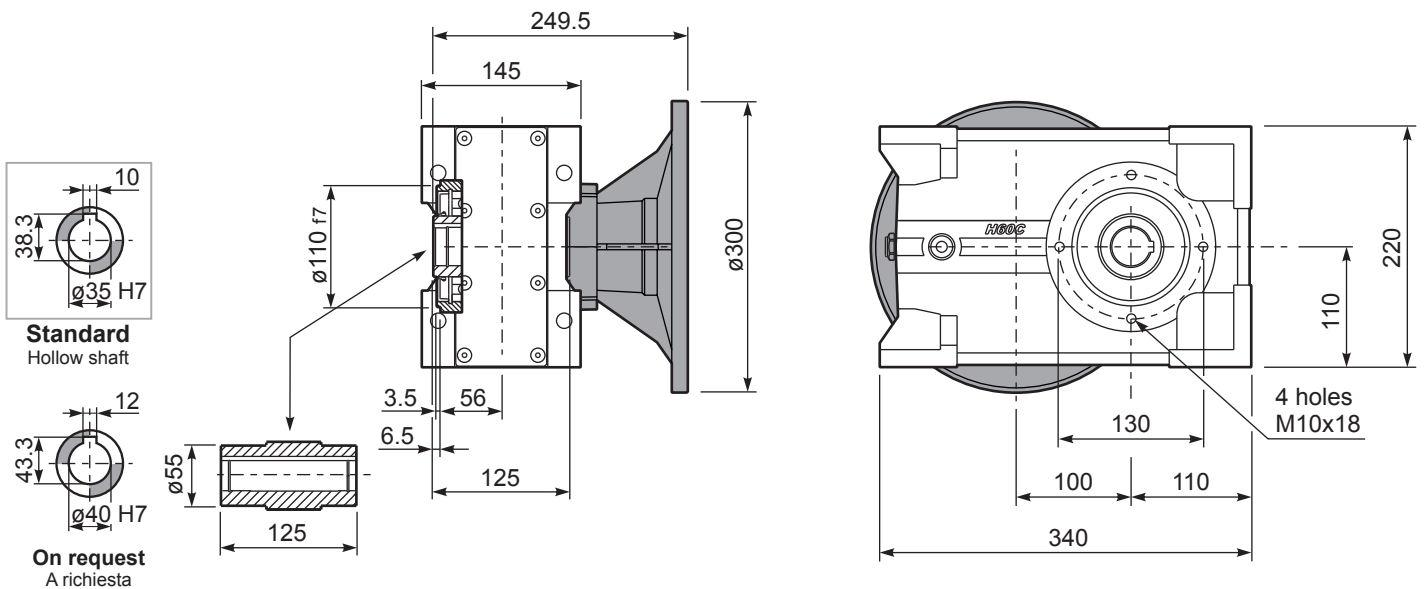
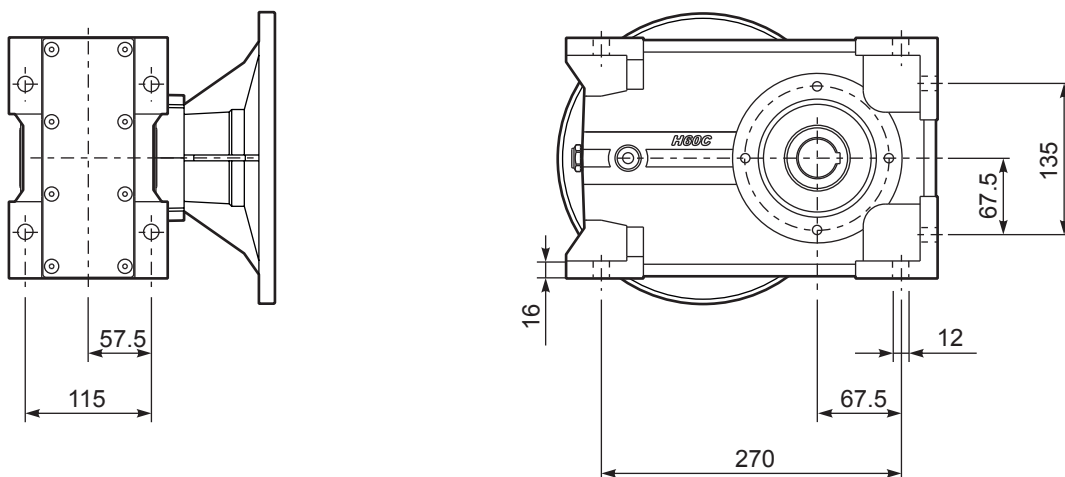
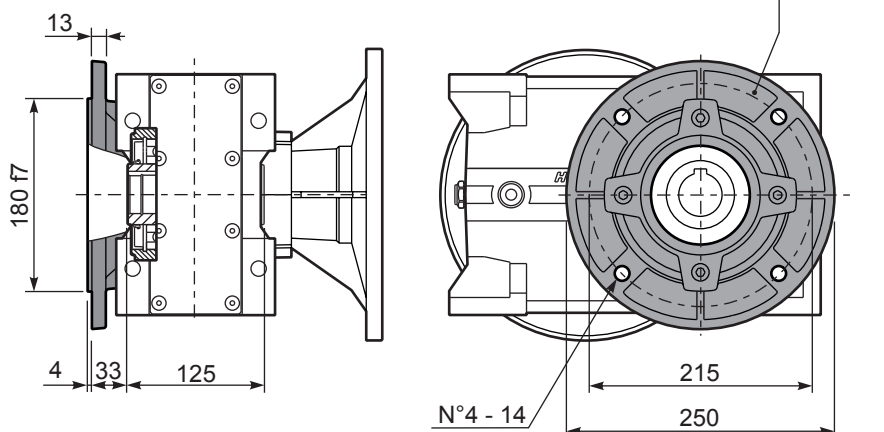
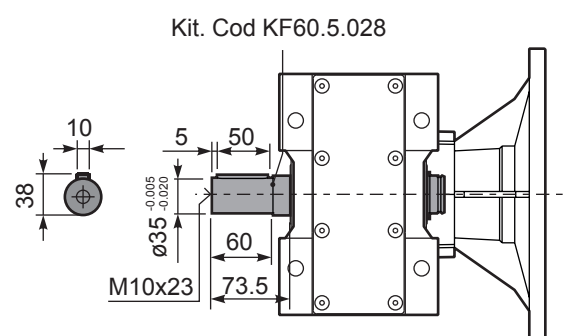
## RADIAL AND AXIAL LOADS

| Output shaft<br>Albero di uscita |      |      | F <sub>eq</sub> = F <sub>R</sub> · $\frac{149.5}{X+119.5}$ |      |      |
|----------------------------------|------|------|------------------------------------------------------------|------|------|
|                                  |      |      |                                                            |      |      |
| $n_2$                            | FA   | FR   | $n_2$                                                      | FA   | FR   |
| 300                              | 600  | 3000 | 140                                                        | 720  | 3600 |
| 250                              | 640  | 3200 | 120                                                        | 740  | 3700 |
| 200                              | 690  | 3460 | 85                                                         | 860  | 4300 |
| $n_2$                            | FA   | FR   | $n_2$                                                      | FA   | FR   |
| 70                               | 940  | 4700 | 40                                                         | 1220 | 6100 |
| 15                               | 1300 | 6500 |                                                            |      |      |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

**PH61C...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**40.0 kg****PH61C...-N**Feet  
Piedini**PH61C...-F**Output flange  
Flangia uscita**PH61C A...**Single output shaft  
Albero uscita semplice





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                  |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                  |                 |
| 213                                           | <b>6.57</b>  | 7.5                             | 312                               | 1.2                    | 8.8                               | 380                                | B                          |    |    |            |     |                             |    |            |     | 3018             | 01              |
| 185                                           | <b>7.56</b>  | 7.5                             | 358                               | 1.1                    | 7.9                               | 390                                | B                          |    |    |            |     |                             |    |            |     | 3016             | 02              |
| 159                                           | <b>8.82</b>  | 7.5                             | 419                               | 1.0                    | 7.1                               | 410                                | B                          |    |    |            |     |                             |    |            |     | 3014             | 03              |
| 113                                           | <b>12.39</b> | 7.5                             | 588                               | 1.0                    | 7.2                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 2018             | 04              |
| 98                                            | <b>14.24</b> | 5.5                             | 499                               | 1.2                    | 6.4                               | 600                                | B                          |    |    |            |     |                             |    |            |     | 2016             | 05              |
| 84                                            | <b>16.75</b> | 5.5                             | 587                               | 1.1                    | 6.1                               | 665                                | B                          |    |    |            |     |                             |    |            |     | 1618             | 06              |
| 73                                            | <b>19.25</b> | 5.5                             | 675                               | 1.0                    | 5.4                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1616             | 07              |
| 64                                            | <b>21.78</b> | 4                               | 558                               | 1.2                    | 4.7                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1318             | 08              |
| 56                                            | <b>25.04</b> | 4                               | 642                               | 1.1                    | 4.1                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1316             | 09              |
| 47.9                                          | <b>29.23</b> | 4                               | 750                               | 0.9                    | 3.5                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1314             | 10              |
| 45.7                                          | <b>30.65</b> | 3                               | 592                               | 1.1                    | 3.4                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1116             | 11              |
| 39.1                                          | <b>35.78</b> | 3                               | 691                               | 1.0                    | 2.9                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 1114             | 12              |
| 36.3                                          | <b>38.55</b> | 2.2                             | 548                               | 1.1                    | 2.3                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 818              | 13              |
| 31.6                                          | <b>44.32</b> | 2.2                             | 630                               | 1.1                    | 2.3                               | 665                                | B                          |    |    |            |     |                             |    |            |     | 816              | 14              |
| 27.1                                          | <b>51.74</b> | 2.2                             | 735                               | 0.9                    | 2.0                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 814              | 15              |
| 22.9                                          | <b>61.03</b> | 1.1                             | 437                               | 1.1                    | 1.2                               | 480                                | B                          |    |    |            |     |                             |    |            |     | 616              | 16              |
| 19.6                                          | <b>71.25</b> | 1.1                             | 510                               | 1.1                    | 1.2                               | 560                                | B                          |    |    |            |     |                             |    |            |     | 614              | 17              |

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H62C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **H62C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **H62C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **H62C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **H62C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |                       |         |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------|---------|---------|-----|
|                     |                                                                                                                                    |         |                       |         |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8                    | V5      | V6      | V8  |
| 2.25 LT             | 3.20 LT                                                                                                                            | 3.00 LT | 2.25 LT               | 4.35 LT | 2.35 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         | SHELL Omala S4 WE 320 |         |         |     |

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## RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{149.5}{X + 119.5}$$



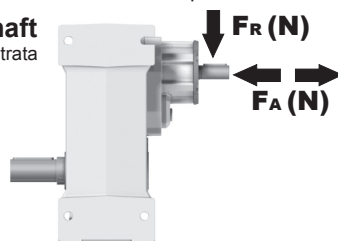
| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 600 | 3000 | 140   | 720 | 3600 | 70    | 940  | 4700 |
| 250   | 640 | 3200 | 120   | 740 | 3700 | 40    | 1220 | 6100 |
| 200   | 690 | 3460 | 85    | 860 | 4300 | 15    | 1300 | 6500 |

**On request reinforced bearings to increase loads.**

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

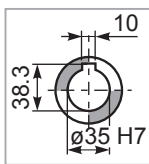
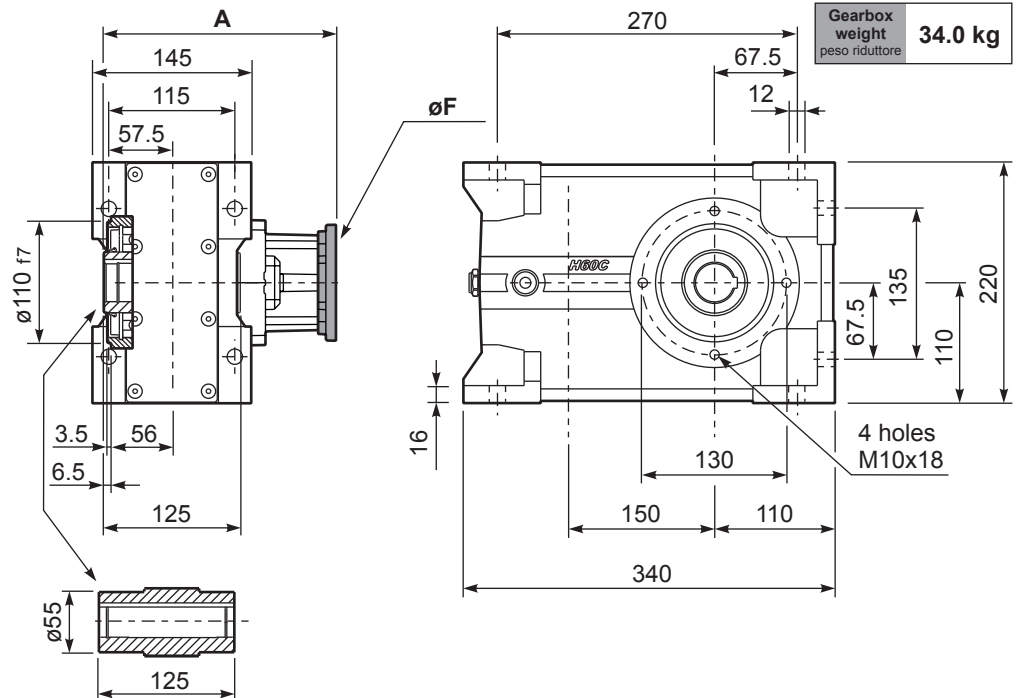
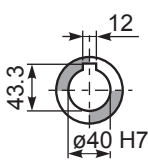
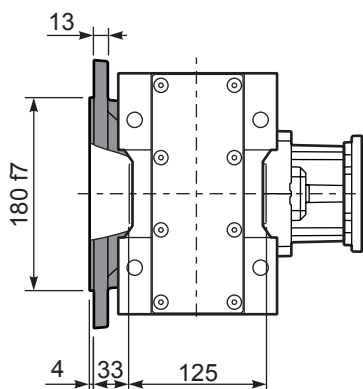


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

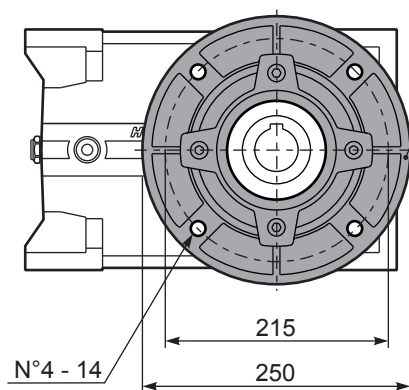
**tab. 2**

**PH62C...**Basic gearbox  
Riduttore base

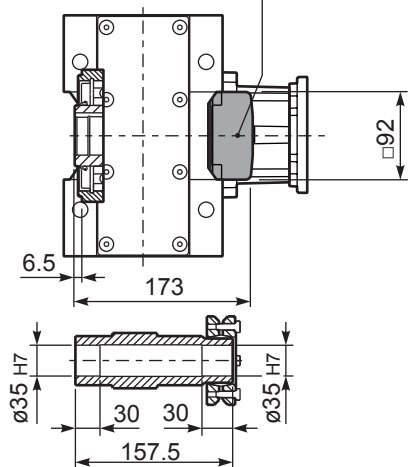
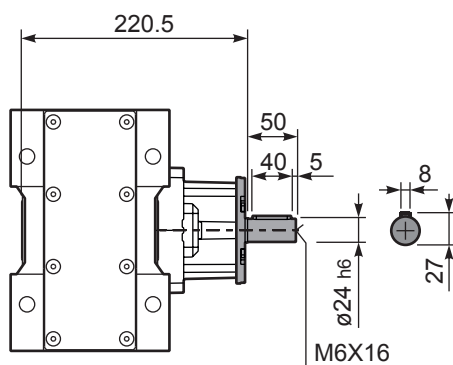
| M. flanges        | Kit code   | øF  | A   |
|-------------------|------------|-----|-----|
| <b>71B5</b>       | K023.4.041 | 160 | 227 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 229 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 238 |
| <b>132B5</b>      | KC50.4.043 | 300 | 256 |
| <hr/>             |            |     |     |
| <b>80B14</b>      | K085.4.046 | 120 | 229 |
| <b>90B14</b>      | K085.4.045 | 140 | 229 |
| <b>100/112B14</b> | K085.4.047 | 160 | 238 |
| <b>132B14</b>     | KC50.4.041 | 200 | 256 |

**Standard**  
Hollow shaft**On request**  
A richiesta**PH62C...-F**Output flange  
Flangia uscita

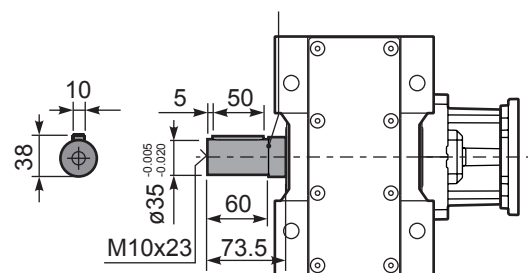
Kit. Cod KF60.9.011

**PH62C D...**Shrink disk  
Calettatore

Kit. Cod KF60.0.210LM

**RH62C...**Input Shaft  
Albero in entrata**PH62C A...**Single output shaft  
Albero uscita semplice

Kit. Cod KF60.5.028





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                                      |                                                                                                    |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                                      |                                                                                                    |
| 22.6                                          | <b>61.89</b>  | 1.5                             | 594                               | 1.1                    | 1.7                               | 675                                | B                          |    |    |    | C                           | C  |    | 191318                                                                                                               | 01                                                                                                 |
| 19.7                                          | <b>71.16</b>  | 1.5                             | 683                               | 1.0                    | 1.5                               | 675                                | B                          |    |    |    | C                           | C  |    | 191316                                                                                                               | 02                                                                                                 |
| 17.0                                          | <b>82.48</b>  | 1.5                             | 792                               | 0.9                    | 1.3                               | 675                                | B                          |    |    |    | C                           | C  |    | 171316                                                                                                               | 03                                                                                                 |
| 14.5                                          | <b>96.29</b>  | 1.1                             | 675                               | 1.0                    | 1.1                               | 675                                | B                          |    |    |    | C                           | C  |    | 171314                                                                                                               | 04                                                                                                 |
| 13.9                                          | <b>100.51</b> | 1.1                             | 705                               | 1.0                    | 1.0                               | 675                                | B                          |    |    |    | C                           | C  |    | 131318                                                                                                               | 05                                                                                                 |
| 12.1                                          | <b>115.56</b> | 0.75                            | 556                               | 1.2                    | 0.91                              | 675                                | B                          |    |    |    | C                           | C  |    | 131316                                                                                                               | 06                                                                                                 |
| 11.1                                          | <b>125.96</b> | 0.75                            | 606                               | 1.1                    | 0.82                              | 665                                | B                          |    |    |    | C                           | C  |    | 190816                                                                                                               | 07                                                                                                 |
| 10.4                                          | <b>134.91</b> | 0.75                            | 649                               | 1.0                    | 0.78                              | 675                                | B                          |    |    |    | C                           | C  |    | 131314                                                                                                               | 08                                                                                                 |
| 9.5                                           | <b>147.05</b> | 0.75                            | 707                               | 1.0                    | 0.72                              | 675                                | B                          |    |    |    | C                           | C  |    | 190814                                                                                                               | 09                                                                                                 |
| 8.2                                           | <b>170.44</b> | 0.55                            | 605                               | 1.1                    | 0.62                              | 675                                | B                          |    |    |    | C                           | C  |    | 170814                                                                                                               | 10                                                                                                 |
| 7.6                                           | <b>184.15</b> | 0.55                            | 653                               | 1.0                    | 0.57                              | 675                                | B                          |    |    |    | C                           | C  |    | 101314                                                                                                               | 11                                                                                                 |
| 6.8                                           | <b>205.87</b> | 0.55                            | 730                               | 0.9                    | 0.51                              | 675                                | B                          |    |    |    | C                           | C  |    | 91316                                                                                                                | 12                                                                                                 |
| 5.8                                           | <b>240.34</b> | 0.37                            | 570                               | 1.2                    | 0.44                              | 675                                | B                          |    |    |    | C                           | C  |    | 91314                                                                                                                | 13                                                                                                 |
| 5.0                                           | <b>279.22</b> | 0.37                            | 662                               | 1.0                    | 0.37                              | 665                                | B                          |    |    |    | C                           | C  |    | 100816                                                                                                               | 14                                                                                                 |
| 4.3                                           | <b>325.97</b> | 0.37                            | 773                               | 0.9                    | 0.32                              | 675                                | B                          |    |    |    | C                           | C  |    | 100814                                                                                                               | 15                                                                                                 |
| 3.8                                           | <b>364.41</b> | 0.25                            | 583                               | 1.1                    | 0.28                              | 665                                | B                          |    |    |    | C                           | C  |    | 90816                                                                                                                | 16                                                                                                 |
| 3.3                                           | <b>425.43</b> | 0.25                            | 681                               | 1.0                    | 0.25                              | 675                                | B                          |    |    |    | C                           | C  |    | 90814                                                                                                                | 17                                                                                                 |
| 2.9                                           | <b>481.19</b> | 0.18                            | 589                               | 1.1                    | 0.22                              | 665                                | B                          |    |    |    | C                           | C  |    | 70816                                                                                                                | 18                                                                                                 |
| 2.5                                           | <b>561.76</b> | 0.18                            | 687                               | 1.0                    | 0.19                              | 675                                | B                          |    |    |    | C                           | C  |    | 70814                                                                                                                | 19                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **H63C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **H63C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **H63C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **H63C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **H63C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |  |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|
|  |                                                 |  |  |  |  |  |  |
| B3                                                                                  | B6                                                                                                                                 | B7                                                                                    | B8                                                                                    | V5                                                                                    | V6                                                                                    | V8                                                                                    |  |
| 2.35 LT                                                                             | 3.85 LT                                                                                                                            | 3.15 LT                                                                               | 2.35 LT                                                                               | 4.55 LT                                                                               | 2.50 LT                                                                               | Ask                                                                                   |  |
| AGIP Telium VSF 320                                                                 |                                                                                                                                    |                                                                                       |                                                                                       | SHELL Omala S4 WE 320                                                                 |                                                                                       |                                                                                       |  |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



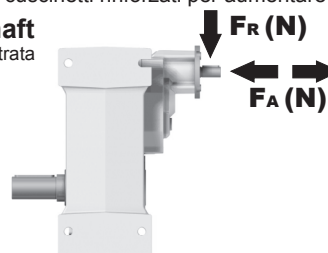
| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 600 | 3000 | 140   | 720 | 3600 | 70    | 940  | 4700 |
| 250   | 640 | 3200 | 120   | 740 | 3700 | 40    | 1220 | 6100 |
| 200   | 690 | 3460 | 85    | 860 | 4300 | 15    | 1300 | 6500 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

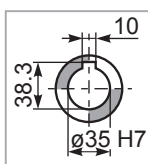
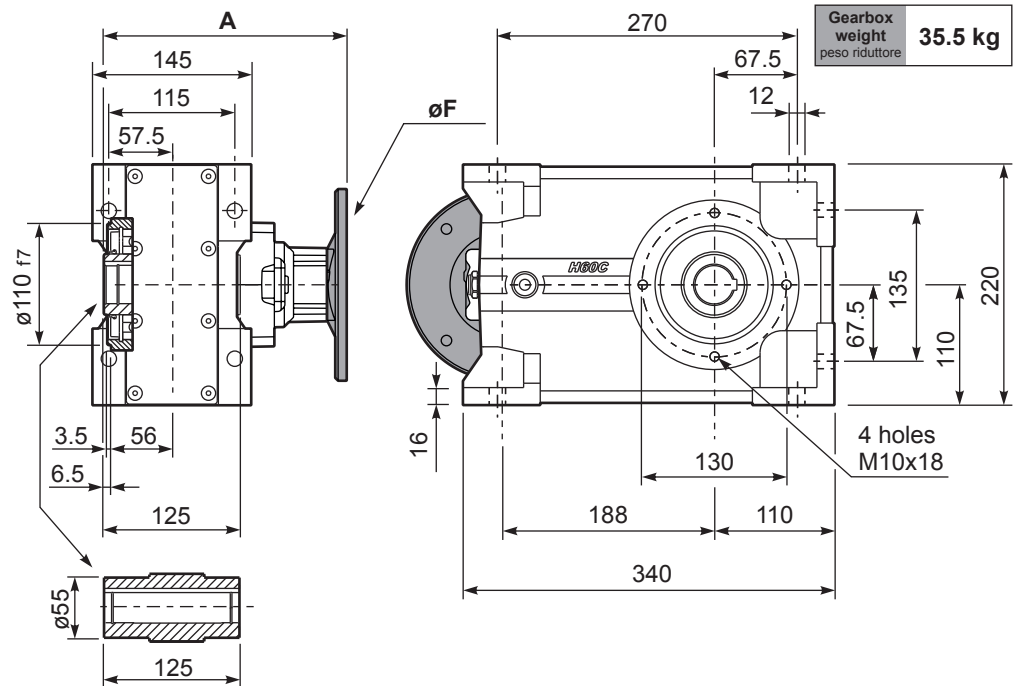
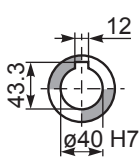
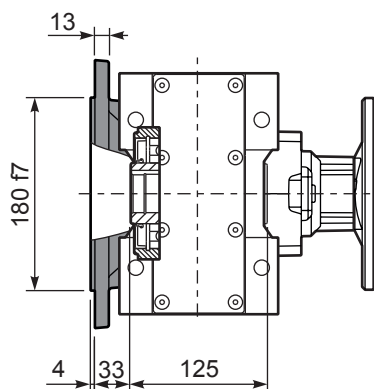


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |
| 500   | 340 | 1700 |

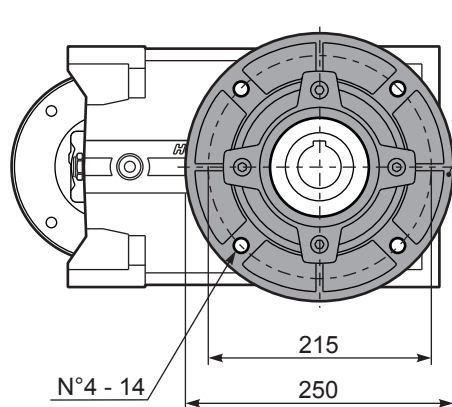
tab. 2

**P**H63C...Basic gearbox  
Riduttore base

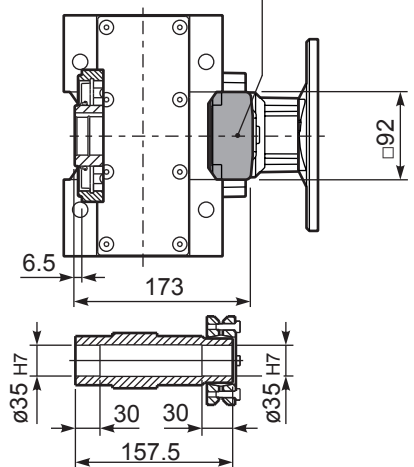
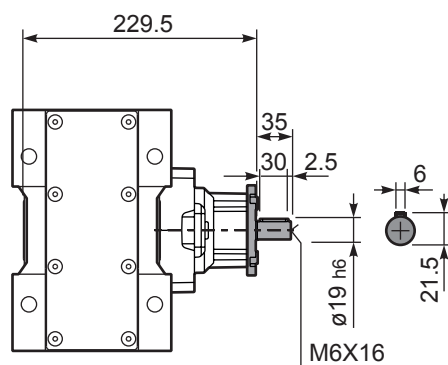
| M. flanges     | Kit code   | øF  | A   |
|----------------|------------|-----|-----|
| <b>63B5</b>    | K063.4.041 | 140 | 239 |
| <b>71B5</b>    | K063.4.042 | 160 | 237 |
| <b>80/90B5</b> | K063.4.043 | 200 | 239 |
| <b>71B14</b>   | K063.4.047 | 105 | 237 |
| <b>80B14</b>   | K063.4.046 | 120 | 239 |
| <b>90B14</b>   | K063.4.041 | 140 | 239 |

**Standard**  
Hollow shaft**On request**  
A richiestaGearbox weight  
peso riduttore **35.5 kg****PH63C...-F**Output flange  
Flangia uscita

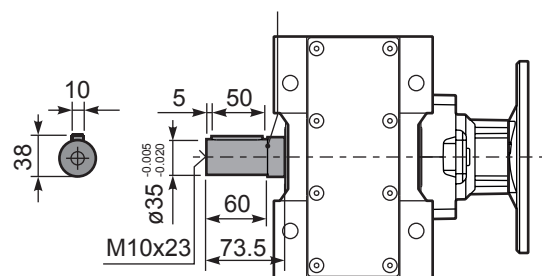
Kit. Cod KF60.9.011

**PH63C D...**Shrink disk  
Calettatore

Kit. Cod KF60.0.210LM

**R**H63C...Input Shaft  
Albero in entrata**PH63C A...**Single output shaft  
Albero uscita semplice

Kit. Cod KF60.5.028





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5<br>motor flanges<br>-G<br>132 | B14<br>motor flanges<br>- - - -<br>- - - - | Output Shaft<br><br>$\emptyset$ | Ratios<br>code<br>01<br>02<br>03 |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------|----------------------------------|
| 227                                           | <b>6.17</b>  | 9                               | 371                               | 1.2                    | <b>10.9</b>                       | <b>450</b>                         |                                            |                                            | 18111                           | standard                         |
| 198                                           | <b>7.06</b>  | 9                               | 425                               | 1.4                    | <b>12.7</b>                       | <b>600</b>                         |                                            |                                            | 16113                           | <b>ø40</b>                       |
| 170                                           | <b>8.21</b>  | 9                               | 494                               | 1.4                    | <b>12.2</b>                       | <b>670</b>                         |                                            |                                            | 14115                           | <b>ø45</b>                       |
|                                               |              |                                 |                                   |                        |                                   |                                    | <b>not available</b>                       |                                            | On request                      |                                  |

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H71C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H71C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H71C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H71C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H71C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           |           |           |           |           |           |           |
| <b>B3</b> | <b>B6</b> | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 3.20 LT   | 4.65 LT   | 4.00 LT   | 3.20 LT   | 6.00 LT   | 3.10 LT   | Ask       |

AGIP Blasias 460

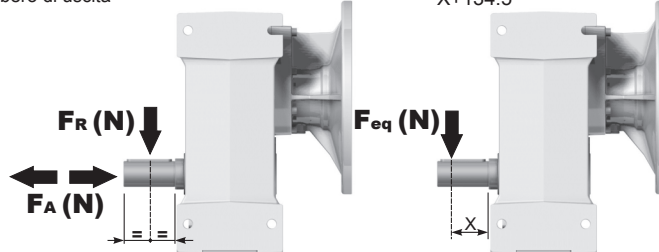
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



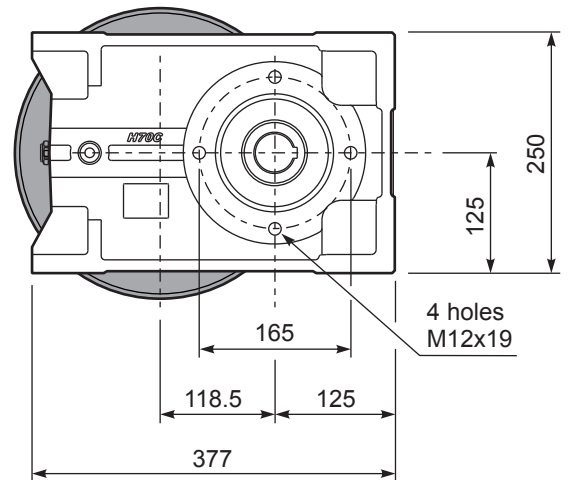
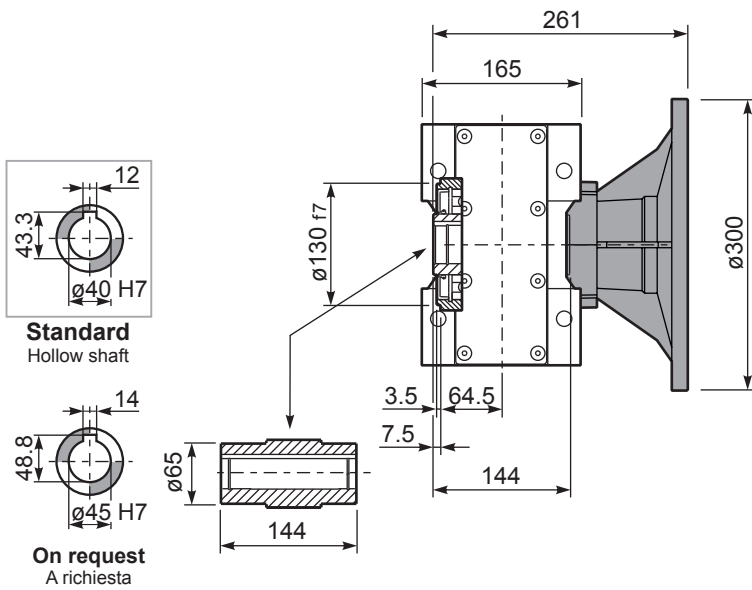
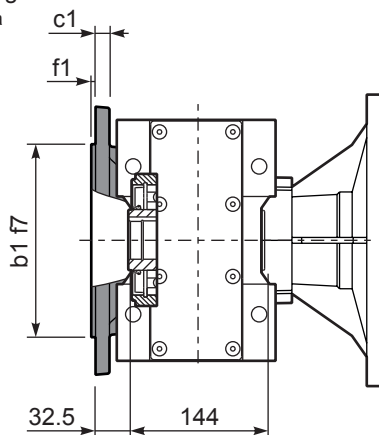
| $n_2$      | FA  | FR   | $n_2$      | FA  | FR   | $n_2$     | FA   | FR   |
|------------|-----|------|------------|-----|------|-----------|------|------|
| <b>300</b> | 740 | 3700 | <b>140</b> | 860 | 4300 | <b>70</b> | 1020 | 5100 |
| <b>250</b> | 800 | 4000 | <b>120</b> | 900 | 4500 | <b>40</b> | 1300 | 6500 |
| <b>200</b> | 830 | 4150 | <b>85</b>  | 970 | 4850 | <b>15</b> | 1700 | 8500 |

On request reinforced bearings to increase loads.

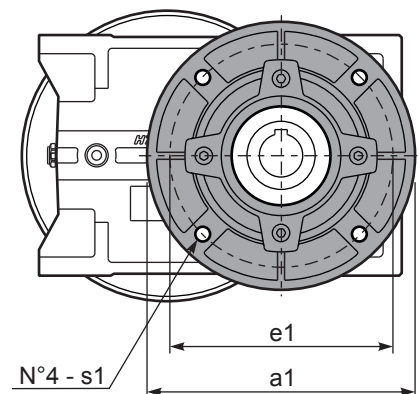
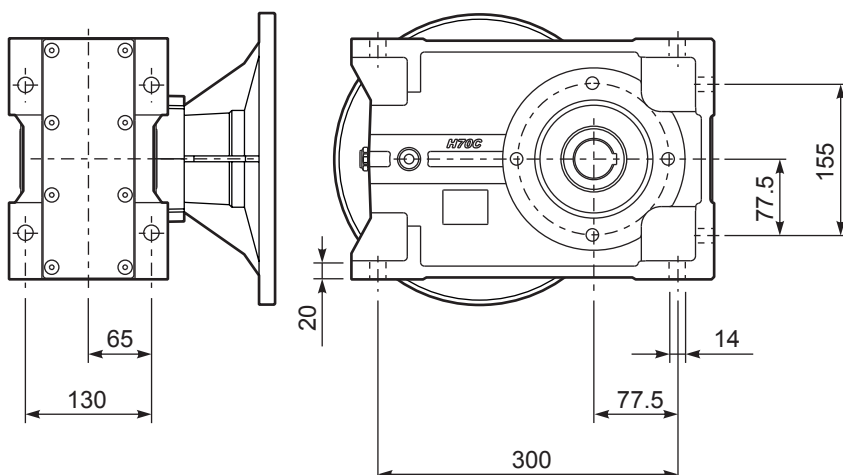
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

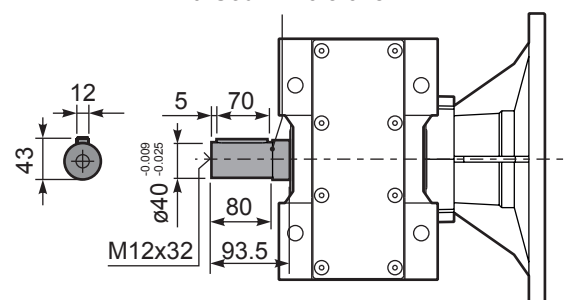


**PH71C...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**51.0 kg****PH71C...-F**Output flange  
Flangia uscitaAvailable output flanges  
Flange di uscita

| a1 $\varnothing$ | b1  | c1 | e1  | f1 | s1 | Kit code   |
|------------------|-----|----|-----|----|----|------------|
| 250              | 180 | 13 | 215 | 3  | 14 | KF70.9.011 |
| 300              | 230 | 16 | 265 | 4  | 14 | KF70.9.012 |

**PH71C...-N**Feet  
Piedini**PH71C A...**Single output shaft  
Albero uscita semplice

Kit. Cod KF70.5.028





## ■ QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br><br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br><br>i | Motor power<br><br>P <sub>1M</sub><br>[kW] | Output torque<br><br>M <sub>2M</sub><br>[Nm] | Service factor<br><br>f.s. | Nominal power<br><br>P <sub>1R</sub><br>[kW] | Nominal torque<br><br>M <sub>2R</sub><br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |      |  | Output Shaft<br> | <br>Ratios code |
|------------------------------------------------------------|----------------|--------------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|-----------------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                                            |                |                                            |                                              |                            |                                              |                                               | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V   |                                                                                     |                                                                                                     |                                                                                                    |
|                                                            |                |                                            |                                              |                            |                                              |                                               | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132  |                                                                                     |                                                                                                     |                                                                                                    |
| 175                                                        | 8.02           | 9                                          | 473                                          | 1.1                        | 9.9                                          | 520                                           | B                          |    |    |            |     |                             |    |            | 3018 | standard<br>ø40<br><br>ø45<br>On request                                            | 01                                                                                                  |                                                                                                    |
| 152                                                        | 9.18           | 9                                          | 541                                          | 1.1                        | 9.8                                          | 590                                           | B                          |    |    |            |     |                             |    |            | 3016 |                                                                                     | 02                                                                                                  |                                                                                                    |
| 131                                                        | 10.68          | 9                                          | 630                                          | 1.1                        | 9.7                                          | 680                                           | B                          |    |    |            |     |                             |    |            | 3014 |                                                                                     | 03                                                                                                  |                                                                                                    |
| 93                                                         | 15.11          | 7.5                                        | 717                                          | 1.1                        | 7.8                                          | 775                                           | B                          |    |    |            |     |                             |    |            | 2018 |                                                                                     | 04                                                                                                  |                                                                                                    |
| 81                                                         | 17.30          | 7.5                                        | 821                                          | 1.1                        | 7.8                                          | 885                                           | B                          |    |    |            |     |                             |    |            | 2016 |                                                                                     | 05                                                                                                  |                                                                                                    |
| 70                                                         | 20.13          | 7.5                                        | 955                                          | 0.9                        | 6.8                                          | 900                                           | B                          |    |    |            |     |                             |    |            | 2014 |                                                                                     | 06                                                                                                  |                                                                                                    |
| 60                                                         | 23.39          | 5.5                                        | 820                                          | 1.1                        | 5.9                                          | 900                                           | B                          |    |    |            |     |                             |    |            | 1616 |                                                                                     | 07                                                                                                  |                                                                                                    |
| 51                                                         | 27.21          | 5.5                                        | 954                                          | 0.9                        | 5.1                                          | 900                                           | B                          |    |    |            |     |                             |    |            | 1614 |                                                                                     | 08                                                                                                  |                                                                                                    |
| 46.0                                                       | 30.42          | 4                                          | 780                                          | 1.2                        | 4.5                                          | 900                                           | B                          |    |    |            |     |                             |    |            | 1316 |                                                                                     | 09                                                                                                  |                                                                                                    |
| 39.6                                                       | 35.38          | 4                                          | 907                                          | 1.0                        | 3.9                                          | 900                                           | B                          |    |    |            |     |                             |    |            | 1314 |                                                                                     | 10                                                                                                  |                                                                                                    |
| 37.6                                                       | 37.24          | 3                                          | 719                                          | 1.2                        | 3.7                                          | 895                                           | B                          |    |    |            |     |                             |    |            | 1116 |                                                                                     | 11                                                                                                  |                                                                                                    |
| 32.3                                                       | 43.31          | 3                                          | 836                                          | 1.1                        | 3.2                                          | 900                                           | B                          |    |    |            |     |                             |    |            | 1114 |                                                                                     | 12                                                                                                  |                                                                                                    |
| 29.8                                                       | 47.02          | 2.2                                        | 668                                          | 1.1                        | 2.3                                          | 705                                           | B                          |    |    |            |     |                             |    |            | 818  |                                                                                     | 13                                                                                                  |                                                                                                    |
| 26.0                                                       | 53.85          | 2.2                                        | 765                                          | 1.1                        | 2.3                                          | 810                                           | B                          |    |    |            |     |                             |    |            | 816  |                                                                                     | 14                                                                                                  |                                                                                                    |
| 22.4                                                       | 62.63          | 2.2                                        | 890                                          | 1.0                        | 2.2                                          | 900                                           | B                          |    |    |            |     |                             |    |            | 814  |                                                                                     | 15                                                                                                  |                                                                                                    |
| 18.9                                                       | 74.16          | 1.1                                        | 531                                          | 1.1                        | 1.2                                          | 585                                           | B                          |    |    |            |     |                             |    |            | 616  |                                                                                     | 16                                                                                                  |                                                                                                    |
| 16.2                                                       | 86.25          | 1.1                                        | 617                                          | 1.1                        | 1.2                                          | 680                                           | B                          |    |    |            |     |                             |    |            | 614  |                                                                                     | 17                                                                                                  |                                                                                                    |

The dynamic efficiency is 0.96 for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H72C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H72C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H72C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H72C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

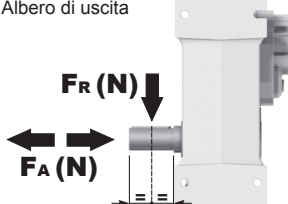
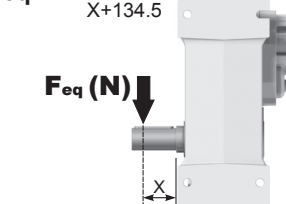
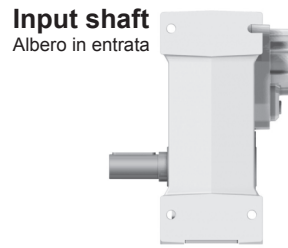
**E** El reductor tamaño **H72C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                    |                                                                                     |                                                                                      |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| B3                                                                                 | B6                                                                                  | B7                                                                                   | B8                                                                                   | V5                                                                                   | V6                                                                                   | V8                                                                                   |
| 3.20 LT                                                                            | 4.65 LT                                                                             | 4.00 LT                                                                              | 3.20 LT                                                                              | 6.20 LT                                                                              | 3.10 LT                                                                              | Ask                                                                                  |

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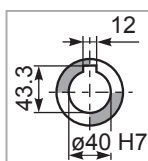
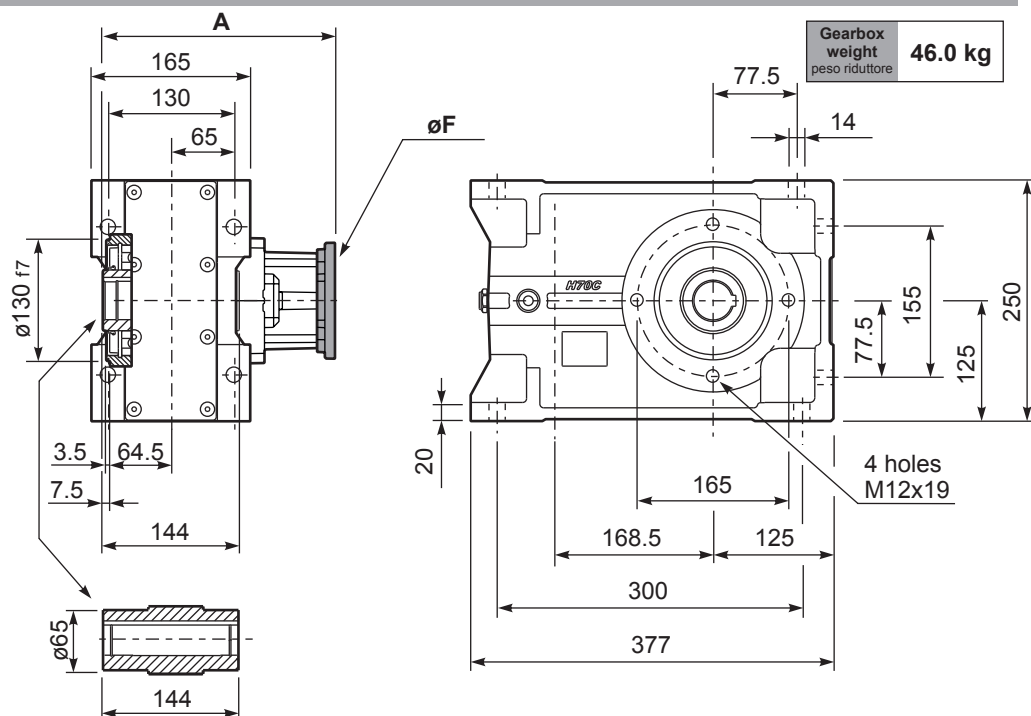
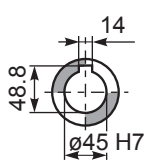
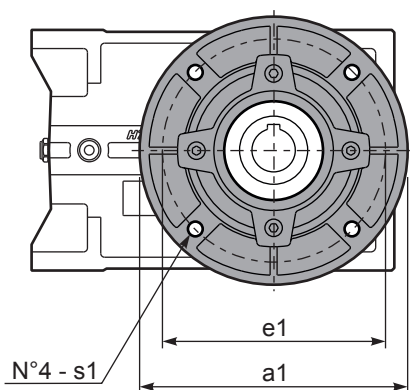
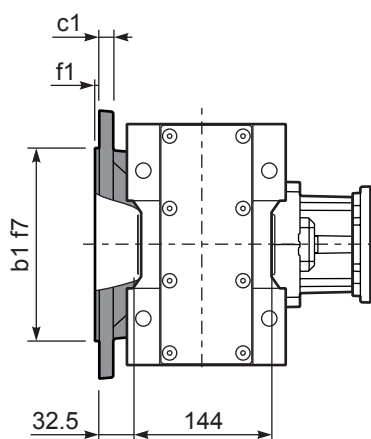
tab. 1

| RADIAL AND AXIAL LOADS                                                                                                 |       |       |                                                                                       |       |       |       |       |       |
|------------------------------------------------------------------------------------------------------------------------|-------|-------|---------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|
| <b>Output shaft</b><br>Albero di uscita                                                                                |       |       | $F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$                                            |       |       |       |       |       |
|                                    |       |       |  |       |       |       |       |       |
| $n_2$                                                                                                                  | $F_A$ | $F_R$ | $n_2$                                                                                 | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ |
| 300                                                                                                                    | 740   | 3700  | 140                                                                                   | 860   | 4300  | 70    | 1020  | 5100  |
| 250                                                                                                                    | 800   | 4000  | 120                                                                                   | 900   | 4500  | 40    | 1300  | 6500  |
| 200                                                                                                                    | 830   | 4150  | 85                                                                                    | 970   | 4850  | 15    | 1700  | 8500  |
| <b>On request reinforced bearings to increase loads.</b><br>A richiesta cuscinetti rinforzati per aumentare i carichi. |       |       |                                                                                       |       |       |       |       |       |
| <b>Input shaft</b><br>Albero in entrata                                                                                |       |       |   |       |       |       |       |       |
| $n_1$                                                                                                                  | $F_A$ | $F_R$ | $n_1$                                                                                 | $F_A$ | $F_R$ | $n_1$ | $F_A$ | $F_R$ |
| 1400                                                                                                                   | 450   | 2250  | 900                                                                                   | 500   | 2500  | 500   | 600   | 3000  |

tab. 2

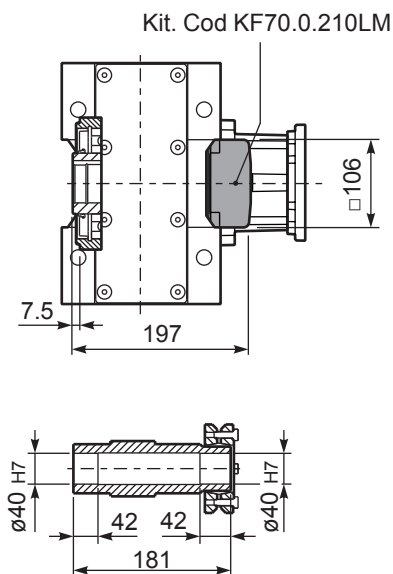
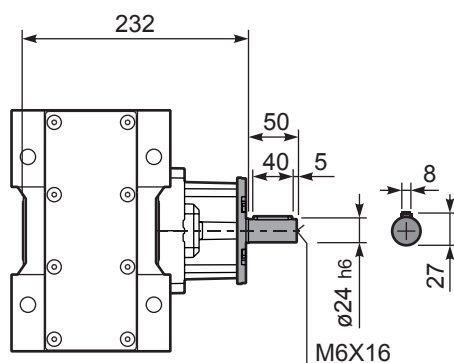
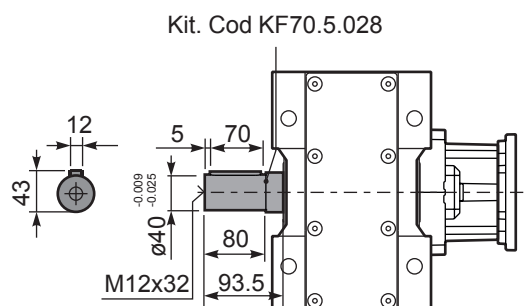
**PH72C...**Basic gearbox  
Riduttore base

| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>71B5</b>       | K023.4.041 | 160 | 238.5 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 240.5 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 249.5 |
| <b>132B5</b>      | KC50.4.043 | 300 | 267.5 |
|                   |            |     |       |
| <b>80B14</b>      | K085.4.046 | 120 | 240.5 |
| <b>90B14</b>      | K085.4.045 | 140 | 240.5 |
| <b>100/112B14</b> | K085.4.047 | 160 | 249.5 |
| <b>132B14</b>     | KC50.4.041 | 200 | 267.5 |

**Standard**  
Hollow shaft**On request**  
A richiesta**PH72C...-F**Output flange  
Flangia uscita**Available output flanges**

Flange di uscita

| a1 ø | b1  | c1 | e1  | f1 | s1 | Kit code   |
|------|-----|----|-----|----|----|------------|
| 250  | 180 | 13 | 215 | 3  | 14 | KF70.9.011 |
| 300  | 230 | 16 | 265 | 4  | 14 | KF70.9.012 |

**PH72C D...**Shrink disk  
Calettatore**RH72C...**Input Shaft  
Albero in entrata**PH72C A...**Single output shaft  
Albero uscita semplice



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                                      |                                                                                                    |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                                      |                                                                                                    |
| 18.5                                          | <b>75.50</b>  | 1.5                             | 725                               | 1.1                    | 1.7                               | 825                                | B                          |    |    |    | C                           | C  |    | 191318                                                                                                               | 01                                                                                                 |
| 16.2                                          | <b>86.47</b>  | 1.5                             | 830                               | 1.1                    | 1.6                               | 900                                | B                          |    |    |    | C                           | C  |    | 191316                                                                                                               | 02                                                                                                 |
| 14.0                                          | <b>100.22</b> | 1.5                             | 962                               | 0.9                    | 1.4                               | 900                                | B                          |    |    |    | C                           | C  |    | 171316                                                                                                               | 03                                                                                                 |
| 12.0                                          | <b>116.56</b> | 1.1                             | 817                               | 1.1                    | 1.2                               | 900                                | B                          |    |    |    | C                           | C  |    | 171314                                                                                                               | 04                                                                                                 |
| 10.2                                          | <b>136.82</b> | 1.1                             | 959                               | 0.9                    | 1.0                               | 900                                | B                          |    |    |    | C                           | C  |    | 151314                                                                                                               | 05                                                                                                 |
| 9.1                                           | <b>153.05</b> | 0.75                            | 736                               | 1.1                    | 0.83                              | 810                                | B                          |    |    |    | C                           | C  |    | 190816                                                                                                               | 06                                                                                                 |
| 8.6                                           | <b>163.31</b> | 0.75                            | 785                               | 1.1                    | 0.86                              | 900                                | B                          |    |    |    | C                           | C  |    | 131314                                                                                                               | 07                                                                                                 |
| 7.9                                           | <b>178.01</b> | 0.75                            | 856                               | 1.1                    | 0.79                              | 900                                | B                          |    |    |    | C                           | C  |    | 190814                                                                                                               | 08                                                                                                 |
| 7.3                                           | <b>191.67</b> | 0.75                            | 922                               | 1.0                    | 0.73                              | 900                                | B                          |    |    |    | C                           | C  |    | 101316                                                                                                               | 09                                                                                                 |
| 6.8                                           | <b>206.32</b> | 0.75                            | 992                               | 0.9                    | 0.68                              | 900                                | B                          |    |    |    | C                           | C  |    | 170814                                                                                                               | 10                                                                                                 |
| 6.3                                           | <b>222.92</b> | 0.55                            | 791                               | 1.1                    | 0.63                              | 900                                | B                          |    |    |    | C                           | C  |    | 101314                                                                                                               | 11                                                                                                 |
| 5.8                                           | <b>242.18</b> | 0.55                            | 859                               | 1.0                    | 0.58                              | 900                                | B                          |    |    |    | C                           | C  |    | 150814                                                                                                               | 12                                                                                                 |
| 5.6                                           | <b>250.15</b> | 0.55                            | 888                               | 1.0                    | 0.56                              | 900                                | B                          |    |    |    | C                           | C  |    | 91316                                                                                                                | 13                                                                                                 |
| 4.8                                           | <b>289.08</b> | 0.55                            | 1026                              | 0.9                    | 0.49                              | 900                                | B                          |    |    |    | C                           | C  |    | 130814                                                                                                               | 14                                                                                                 |
| 4.2                                           | <b>330.31</b> | 0.37                            | 783                               | 1.1                    | 0.42                              | 890                                | B                          |    |    |    | C                           | C  |    | 71316                                                                                                                | 15                                                                                                 |
| 3.5                                           | <b>394.59</b> | 0.37                            | 936                               | 1.0                    | 0.36                              | 900                                | B                          |    |    |    | C                           | C  |    | 100814                                                                                                               | 16                                                                                                 |
| 2.7                                           | <b>514.99</b> | 0.25                            | 824                               | 1.1                    | 0.27                              | 900                                | B                          |    |    |    | C                           | C  |    | 90814                                                                                                                | 17                                                                                                 |
| 2.1                                           | <b>680.03</b> | 0.18                            | 832                               | 1.1                    | 0.21                              | 900                                | B                          |    |    |    | C                           | C  |    | 70814                                                                                                                | 18                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H73C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H73C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H73C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H73C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H73C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| B3                                                                                  | B6                                                                                   | B7                                                                                    | B8                                                                                    | V5                                                                                    | V6                                                                                    | V8                                                                                    |
| 3.30 LT                                                                             | 5.70 LT                                                                              | 4.15 LT                                                                               | 3.30 LT                                                                               | 6.40 LT                                                                               | 3.25 LT                                                                               | Ask                                                                                   |

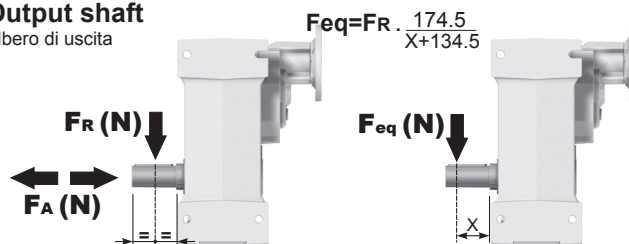
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Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

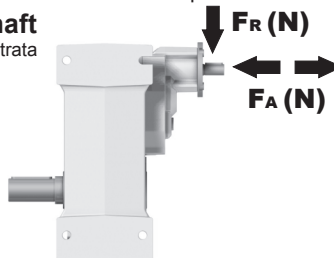
Output shaft  
Albero di uscita



| $n_2$ | FA  | FR   | $n_2$ | FA  | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|-----|------|-------|------|------|
| 300   | 740 | 3700 | 140   | 860 | 4300 | 70    | 1020 | 5100 |
| 250   | 800 | 4000 | 120   | 900 | 4500 | 40    | 1300 | 6500 |
| 200   | 830 | 4150 | 85    | 970 | 4850 | 15    | 1700 | 8500 |

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft  
Albero in entrata

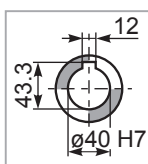
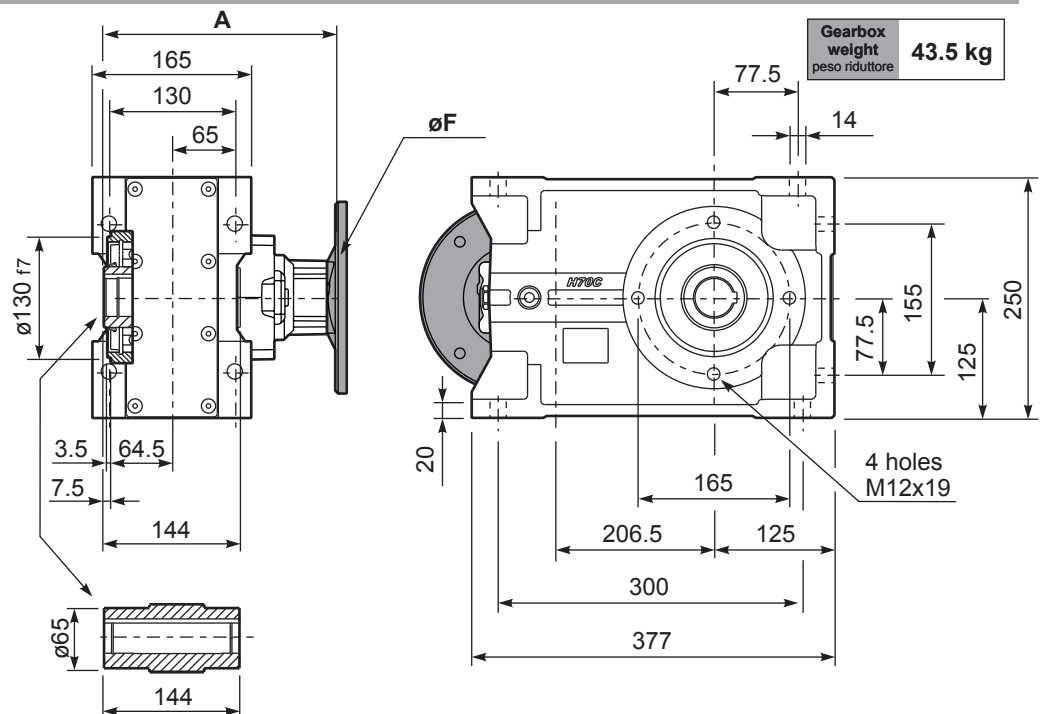
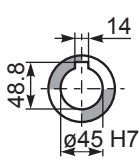
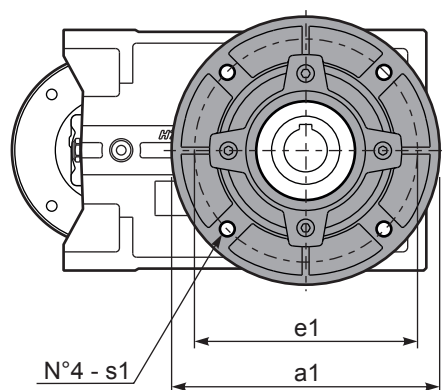
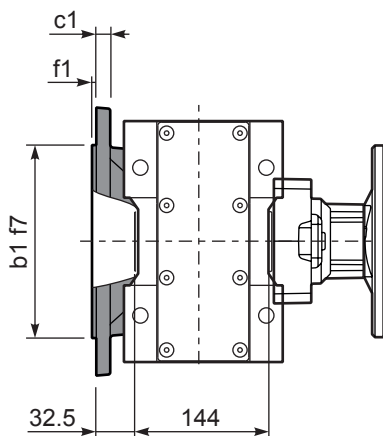


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

tab. 2

**PH73C...**Basic gearbox  
Riduttore base

| M. flanges     | Kit code   | øF  | A     |
|----------------|------------|-----|-------|
| <b>63B5</b>    | K063.4.041 | 140 | 250.5 |
| <b>71B5</b>    | K063.4.042 | 160 | 248.5 |
| <b>80/90B5</b> | K063.4.043 | 200 | 250.5 |
| <b>71B14</b>   | K063.4.047 | 105 | 248.5 |
| <b>80B14</b>   | K063.4.046 | 120 | 250.5 |
| <b>90B14</b>   | K063.4.041 | 140 | 250.5 |

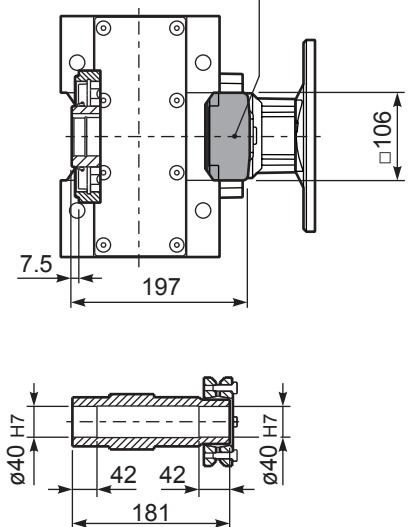
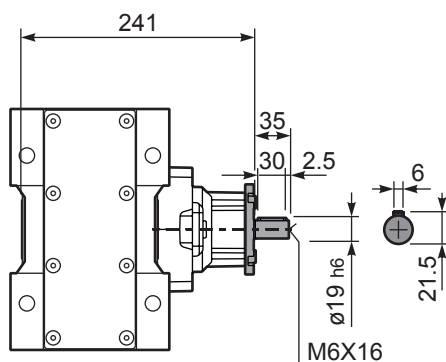
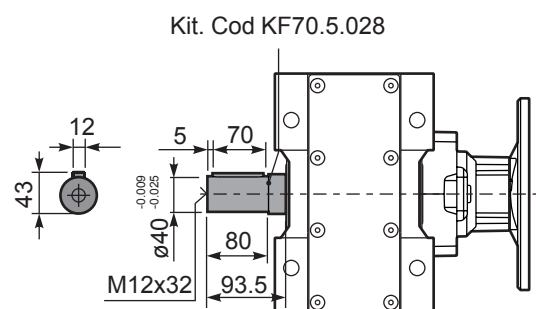
**Standard**  
Hollow shaft**On request**  
A richiesta**PH73C...-F**Output flange  
Flangia uscita**Available output flanges**

Flange di uscita

| a1 ø | b1  | c1 | e1  | f1 | s1 | Kit code   |
|------|-----|----|-----|----|----|------------|
| 250  | 180 | 13 | 215 | 3  | 14 | KF70.9.011 |
| 300  | 230 | 16 | 265 | 4  | 14 | KF70.9.012 |

**PH73C D...**Shrink disk  
Calettatore

Kit. Cod KF70.0.210LM

**RH73C...**Input Shaft  
Albero in entrata**PH73C A...**Single output shaft  
Albero uscita semplice





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |     | B14 motor flanges |   |   |   | Output Shaft |            |             |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|-----|-------------------|---|---|---|--------------|------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -H                         | -I  | -                 | - | - | - |              |            | Ratios code |
|                                               |              |                                 |                                   |                        |                                   |                                    | 160                        | 180 | -                 | - | - | - |              |            |             |
| 528                                           | 2.65         | 22                              | 374                               | 1.7                    | 36.7                              | 650                                |                            |     | not available     |   |   |   | 2361         | standard   | 01          |
| 409                                           | 3.42         | 22                              | 483                               | 1.6                    | 32.8                              | 750                                |                            |     |                   |   |   |   | 1965         | ø50        | 02          |
| 304                                           | 4.60         | 22                              | 649                               | 1.5                    | 30.9                              | 950                                |                            |     |                   |   |   |   | 1569         |            | 03          |
| 256                                           | 5.46         | 22                              | 771                               | 1.3                    | 27.4                              | 1000                               |                            |     |                   |   |   |   | 1371         | ø55        | 04          |
| 211                                           | 6.64         | 22                              | 937                               | 1.3                    | 26.5                              | 1175                               |                            |     |                   |   |   |   | 1173         | On request | 05          |

The dynamic efficiency is 0.98 for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H81C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H81C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H81C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H81C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **H81C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|         |         |         |         |          |         |     |
|---------|---------|---------|---------|----------|---------|-----|
|         |         |         |         |          |         |     |
| B3      | B6      | B7      | B8      | V5       | V6      | V8  |
| 5.70 LT | 7.00 LT | 7.90 LT | 5.70 LT | 10.20 LT | 5.60 LT | Ask |

AGIP Blasias 460

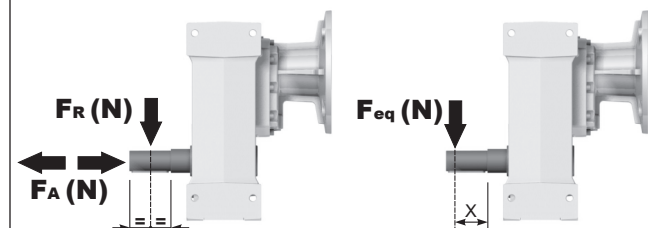
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$$

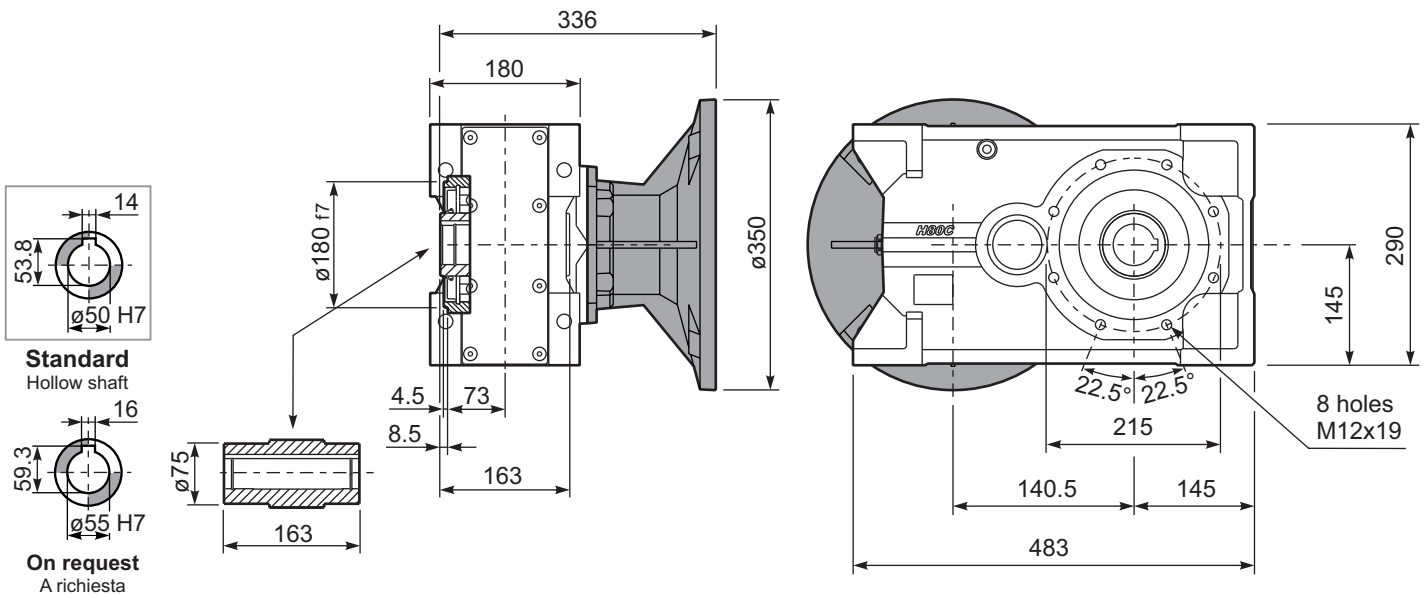
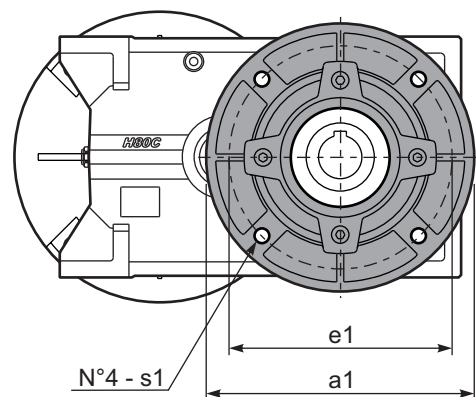
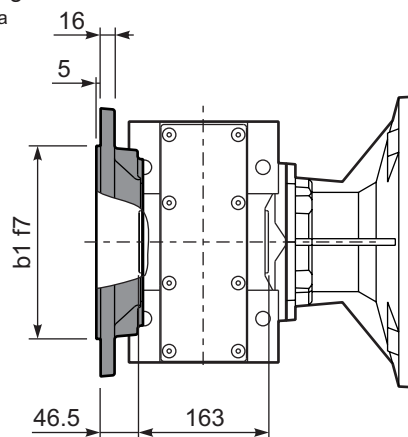


| $n_2$ | FA   | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR    |
|-------|------|------|-------|------|------|-------|------|-------|
| 300   | 920  | 4600 | 140   | 1120 | 5600 | 70    | 1400 | 7000  |
| 250   | 1000 | 5000 | 120   | 1140 | 5700 | 40    | 1800 | 9000  |
| 200   | 1060 | 5300 | 85    | 1300 | 6500 | 15    | 2400 | 12000 |

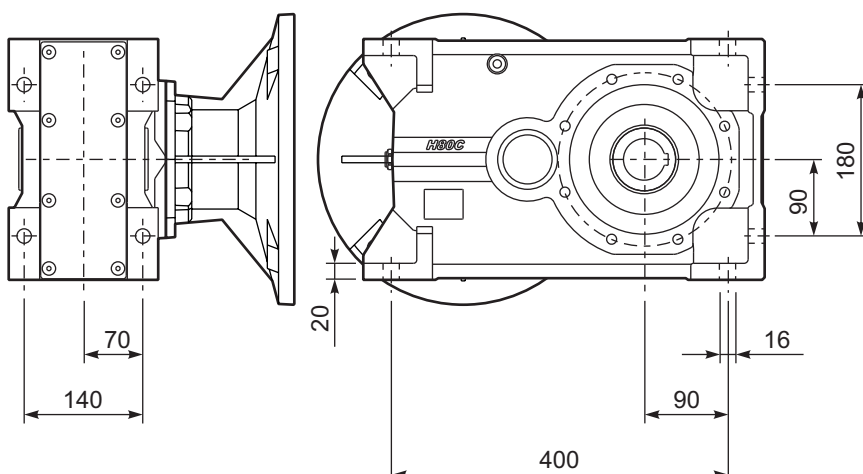
On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

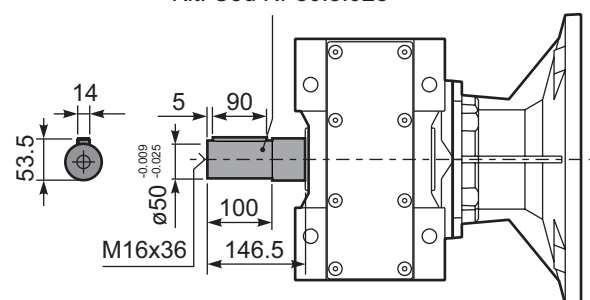
tab. 2

**P** H81C...Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**89.0 kg****PH81C...-F**Output flange  
Flangia uscitaAvailable output flanges  
Flange di uscita

| a1 $\phi$ | b1  | e1  | s1 | Kit code   |
|-----------|-----|-----|----|------------|
| 300       | 230 | 265 | 14 | KF80.9.011 |
| 350       | 250 | 300 | 18 | KF80.9.012 |

**PH81C...-N**Feet  
Piedini**PH81C A...**Single output shaft  
Albero uscita semplice

Kit. Cod KF80.5.028





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     | B14<br>motor flanges |   |   |   | Output Shaft<br> | Ratios<br>code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|----------------------|---|---|---|------------------|----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -F                  | -G  | -H  | -I  | -                    | - | - | - |                  |                |
|                                               |              |                                 |                                   |                        |                                   |                                    | 100<br>112          | 132 | 160 | 180 | -                    | - | - | - |                  |                |
| 234                                           | <b>5.98</b>  | 22                              | 827                               | 1.2                    | <b>25.5</b>                       | <b>1000</b>                        | B                   |     |     |     | not available        |   |   |   | 3015             | 01             |
| 197                                           | <b>7.10</b>  | 22                              | 982                               | 1.2                    | <b>25.3</b>                       | <b>1175</b>                        | B                   |     |     |     |                      |   |   |   | 3013             | 02             |
| 162                                           | <b>8.63</b>  | 22                              | 1193                              | 1.1                    | <b>23.9</b>                       | <b>1350</b>                        | B                   |     |     |     |                      |   |   |   | 3011             | 03             |
| 124                                           | <b>11.27</b> | 18.5                            | 1310                              | 1.1                    | <b>20.3</b>                       | <b>1500</b>                        | B                   |     |     |     |                      |   |   |   | 2015             | 04             |
| 105                                           | <b>13.38</b> | 18.5                            | 1555                              | 1.1                    | <b>19.4</b>                       | <b>1700</b>                        | B                   |     |     |     |                      |   |   |   | 2013             | 05             |
| 92                                            | <b>15.24</b> | 18.5                            | 1771                              | 1.1                    | <b>19.0</b>                       | <b>1900</b>                        | B                   |     |     |     |                      |   |   |   | 1615             | 06             |
| 86                                            | <b>16.26</b> | 18.5                            | 1889                              | 1.1                    | <b>19.7</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 2011             | 07             |
| 77                                            | <b>18.09</b> | 18.5                            | 2102                              | 1.0                    | <b>17.7</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1613             | 08             |
| 71                                            | <b>19.82</b> | 15                              | 1865                              | 1.1                    | <b>15.9</b>                       | <b>2060</b>                        | B                   |     |     |     |                      |   |   |   | 1315             | 09             |
| 64                                            | <b>21.98</b> | 15                              | 2069                              | 1.0                    | <b>14.6</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1611             | 10             |
| 60                                            | <b>23.53</b> | 15                              | 2214                              | 0.9                    | <b>13.6</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1313             | 11             |
| 58                                            | <b>24.25</b> | 11                              | 1677                              | 1.2                    | <b>12.2</b>                       | <b>1940</b>                        | B                   |     |     |     |                      |   |   |   | 1115             | 12             |
| 48.6                                          | <b>28.80</b> | 11                              | 1991                              | 1.1                    | <b>11.1</b>                       | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1113             | 13             |
| 40.0                                          | <b>34.99</b> | 9                               | 2063                              | 1.0                    | <b>9.2</b>                        | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 1111             | 14             |
| 33.6                                          | <b>41.64</b> | 7.5                             | 1976                              | 1.0                    | <b>7.2</b>                        | <b>1960</b>                        | B                   |     |     |     |                      |   |   |   | 813              | 15             |
| 27.7                                          | <b>50.60</b> | 5.5                             | 1774                              | 1.2                    | <b>6.3</b>                        | <b>2100</b>                        | B                   |     |     |     |                      |   |   |   | 811              | 16             |

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H82C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H82C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H82C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H82C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H82C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           |           |           |           |           |           |           |
| <b>B3</b> | <b>B6</b> | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 5.60 LT   | 6.80 LT   | 7.80 LT   | 5.60 LT   | 10.00 LT  | 5.50 LT   | Ask       |

AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

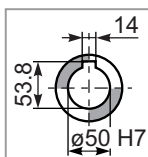
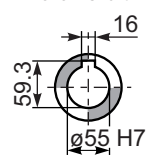
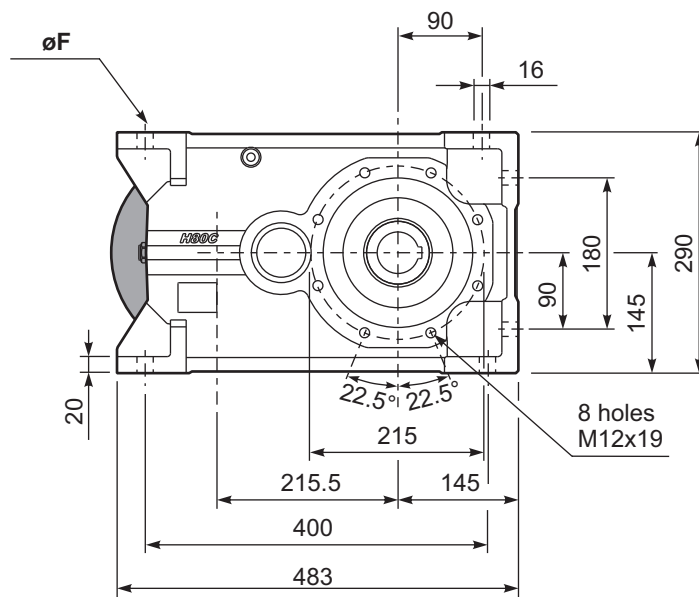
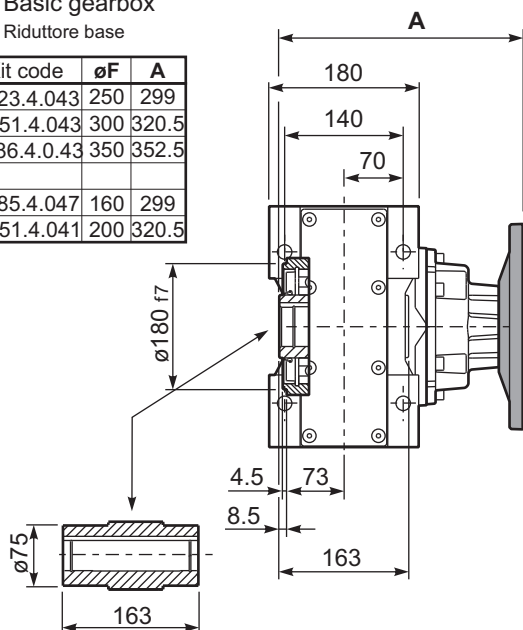
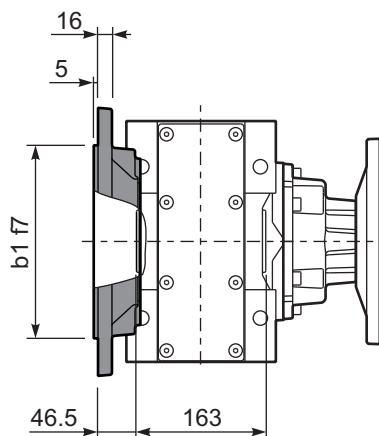
tab. 1

| RADIAL AND AXIAL LOADS                                                                                                 |      |      |                                            |      |      |       |      |       |
|------------------------------------------------------------------------------------------------------------------------|------|------|--------------------------------------------|------|------|-------|------|-------|
| <b>Output shaft</b><br>Albero di uscita                                                                                |      |      | $F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$ |      |      |       |      |       |
|                                                                                                                        |      |      |                                            |      |      |       |      |       |
| $n_2$                                                                                                                  | FA   | FR   | $n_2$                                      | FA   | FR   | $n_2$ | FA   | FR    |
| 300                                                                                                                    | 920  | 4600 | 140                                        | 1120 | 5600 | 70    | 1400 | 7000  |
| 250                                                                                                                    | 1000 | 5000 | 120                                        | 1140 | 5700 | 40    | 1800 | 9000  |
| 200                                                                                                                    | 1060 | 5300 | 85                                         | 1300 | 6500 | 15    | 2400 | 12000 |
| <b>On request reinforced bearings to increase loads.</b><br>A richiesta cuscinetti rinforzati per aumentare i carichi. |      |      |                                            |      |      |       |      |       |
| <b>Input shaft</b><br>Albero in entrata                                                                                |      |      |                                            |      |      |       |      |       |
| $n_1$                                                                                                                  | FA   | FR   | $n_1$                                      | FA   | FR   | $n_1$ | FA   | FR    |
| 1400                                                                                                                   | 700  | 3500 | 900                                        | 840  | 4200 | 500   | 900  | 4500  |

tab. 2

**P** H82C...Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **86.0 kg**

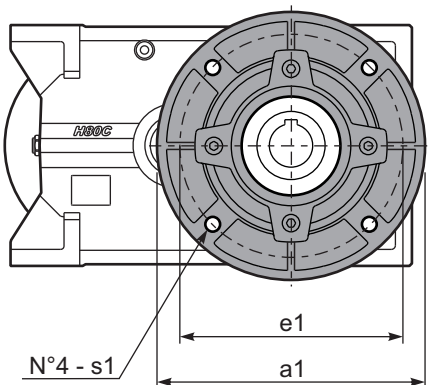
| M. flanges        | Kit code    | øF  | A     |
|-------------------|-------------|-----|-------|
| <b>100/112B5</b>  | K023.4.043  | 250 | 299   |
| <b>132B5</b>      | KC51.4.043  | 300 | 320.5 |
| <b>160/180B5</b>  | KC86.4.0.43 | 350 | 352.5 |
| <b>100/112B14</b> | K085.4.047  | 160 | 299   |
| <b>132B14</b>     | KC51.4.041  | 200 | 320.5 |

Standard  
Hollow shaftOn request  
A richiesta**PH82C...-F**Output flange  
Flangia uscita

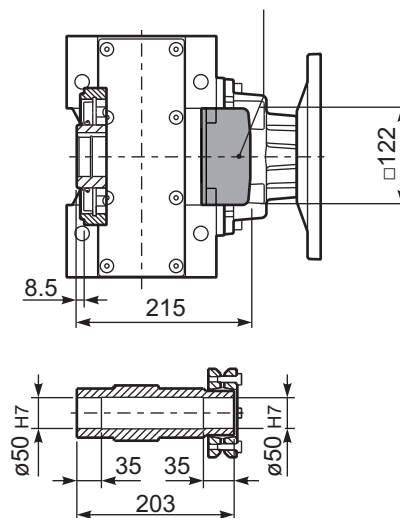
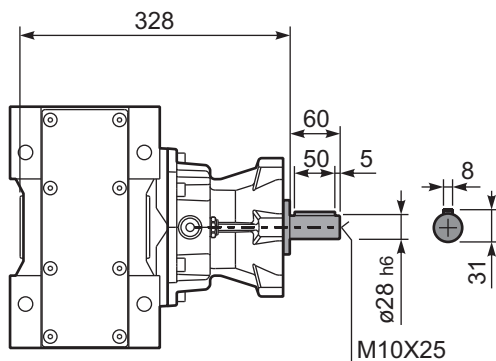
## Available output flanges

Flange di uscita

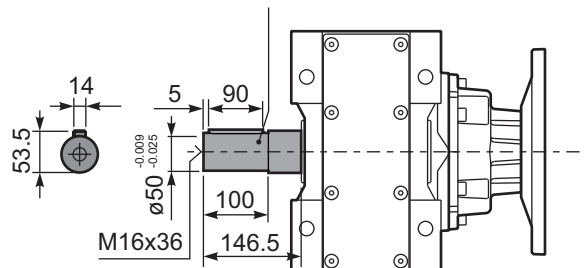
| a1 ø | b1  | e1  | s1 | Kit code   |
|------|-----|-----|----|------------|
| 300  | 230 | 265 | 14 | KF80.9.011 |
| 350  | 250 | 300 | 18 | KF80.9.012 |

**PH82C D...**Shrink disk  
Calettatore

Kit. Cod KF80.0.210LM

**R** H82C...Input Shaft  
Albero in entrata**PH82C A...**Single output shaft  
Albero uscita semplice

Kit. Cod KF80.5.028





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                                                                                                                      |                                                                                                    |
|                                               |               |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                                                                                                                      |                                                                                                    |
| 28.8                                          | <b>48.55</b>  | 7.5                             | 2257                              | 0.9                    | <b>6.7</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 201315                                                                                                               | 01                                                                                                 |
| 24.3                                          | <b>57.64</b>  | 5.5                             | 1980                              | 1.1                    | <b>5.7</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 201313                                                                                                               | 02                                                                                                 |
| 21.3                                          | <b>65.64</b>  | 5.5                             | 2255                              | 0.9                    | <b>5.0</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 161315                                                                                                               | 03                                                                                                 |
| 20.0                                          | <b>70.04</b>  | 4                               | 1760                              | 1.2                    | <b>4.7</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 201311                                                                                                               | 04                                                                                                 |
| 18.0                                          | <b>77.93</b>  | 4                               | 1958                              | 1.1                    | <b>4.2</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 161313                                                                                                               | 05                                                                                                 |
| 16.4                                          | <b>85.36</b>  | 4                               | 2145                              | 1.0                    | <b>3.8</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 131315                                                                                                               | 06                                                                                                 |
| 14.8                                          | <b>94.70</b>  | 4                               | 2380                              | 0.9                    | <b>3.5</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 161311                                                                                                               | 07                                                                                                 |
| 13.8                                          | <b>101.35</b> | 3                               | 1917                              | 1.1                    | <b>3.2</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 131313                                                                                                               | 08                                                                                                 |
| 11.4                                          | <b>123.15</b> | 3                               | 2330                              | 0.9                    | <b>2.7</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 131311                                                                                                               | 09                                                                                                 |
| 9.3                                           | <b>150.73</b> | 2.2                             | 2100                              | 1.0                    | <b>2.2</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 111311                                                                                                               | 10                                                                                                 |
| 7.8                                           | <b>179.39</b> | 1.5                             | 1722                              | 1.2                    | <b>1.8</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 81313                                                                                                                | 11                                                                                                 |
| 6.4                                           | <b>217.98</b> | 1.5                             | 2093                              | 1.0                    | <b>1.5</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 81311                                                                                                                | 12                                                                                                 |
| 5.7                                           | <b>247.03</b> | 1.1                             | 1732                              | 1.1                    | <b>1.2</b>                        | <b>1950</b>                        | B                          |    |    |            |     |                             |    |            |     | 61313                                                                                                                | 13                                                                                                 |
| 4.7                                           | <b>300.17</b> | 1.1                             | 2105                              | 1.0                    | <b>1.1</b>                        | <b>2100</b>                        | B                          |    |    |            |     |                             |    |            |     | 61311                                                                                                                | 14                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **H83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                    |                                                                                     |                                                                                      |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| B3                                                                                 | B6                                                                                  | B7                                                                                   | B8                                                                                   | V5                                                                                   | V6                                                                                   | V8                                                                                   |
| 5.80 LT                                                                            | 7.10 LT                                                                             | 8.20 LT                                                                              | 5.80 LT                                                                              | 10.80 LT                                                                             | 6.00 LT                                                                              | Ask                                                                                  |

AGIP Blasias 460

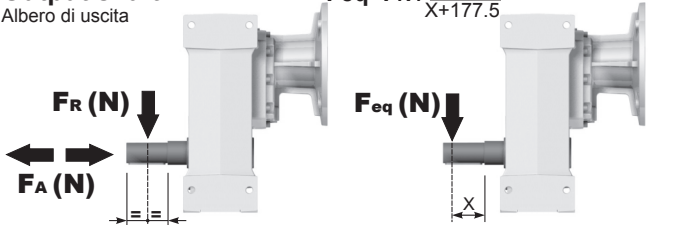
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

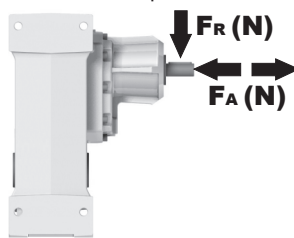
$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$



| $n_2$ | FA   | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR    |
|-------|------|------|-------|------|------|-------|------|-------|
| 300   | 920  | 4600 | 140   | 1120 | 5600 | 70    | 1400 | 7000  |
| 250   | 1000 | 5000 | 120   | 1140 | 5700 | 40    | 1800 | 9000  |
| 200   | 1060 | 5300 | 85    | 1300 | 6500 | 15    | 2400 | 12000 |

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata



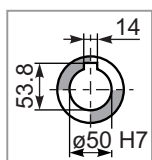
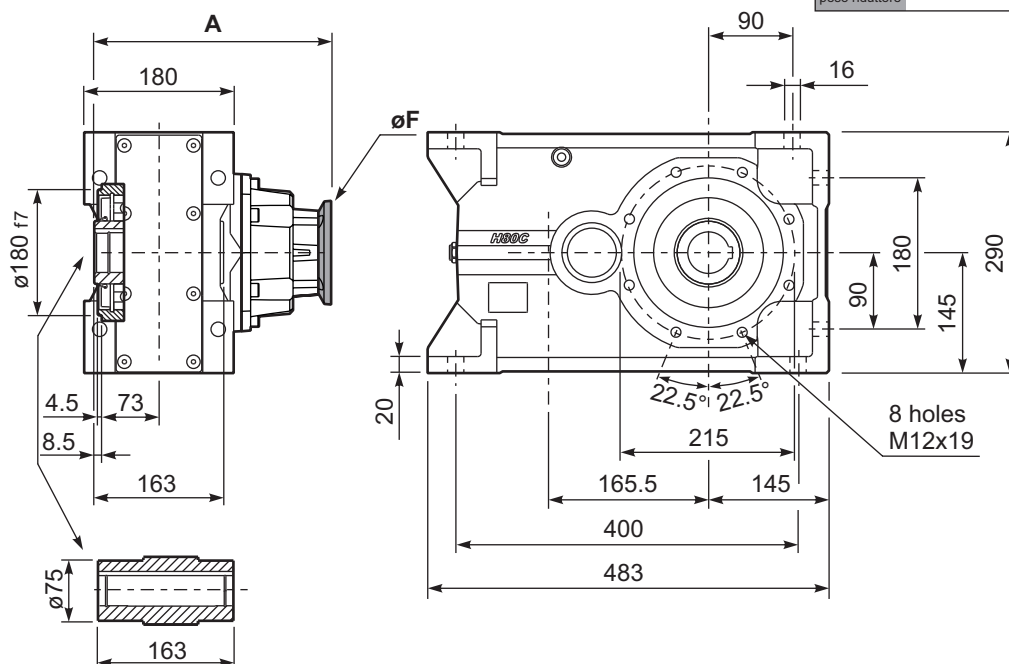
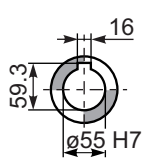
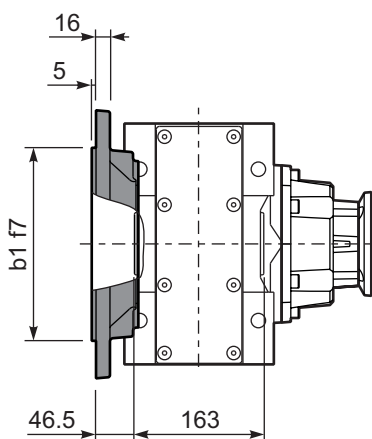
| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

tab. 2

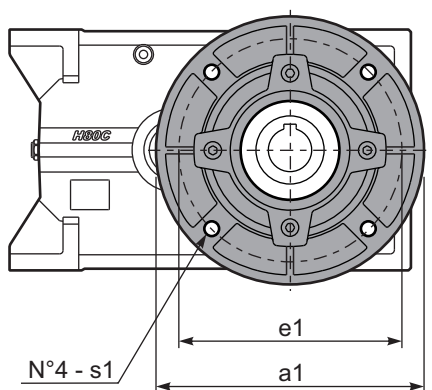


**P**H83C...Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**81.0 kg**

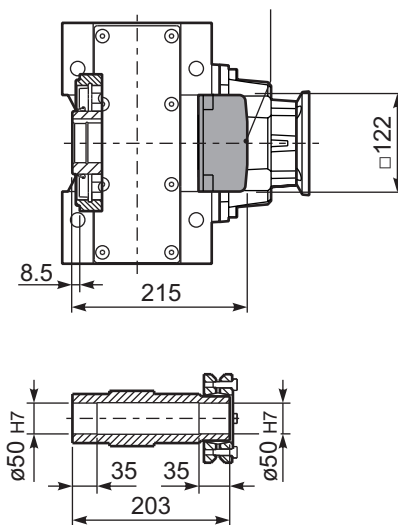
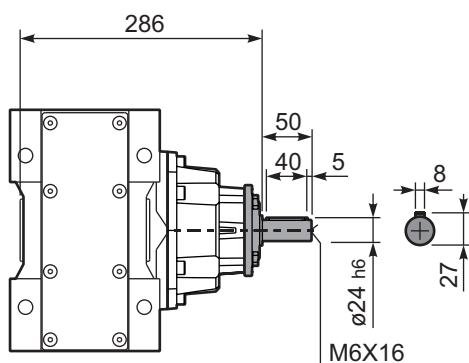
| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>71B5</b>       | K023.4.041 | 160 | 292.5 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 294.5 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 303.5 |
| <b>132B5</b>      | KC50.4.043 | 300 | 321.5 |
|                   |            |     |       |
| <b>80B14</b>      | K085.4.046 | 120 | 294.5 |
| <b>90B14</b>      | K085.4.045 | 140 | 294.5 |
| <b>100/112B14</b> | K085.4.047 | 160 | 303.5 |
| <b>132B14</b>     | KC50.4.041 | 200 | 321.5 |

**Standard**  
Hollow shaft**On request**  
A richiesta**PH83C...-F**Output flange  
Flangia uscita**Available output flanges**  
Flange di uscita

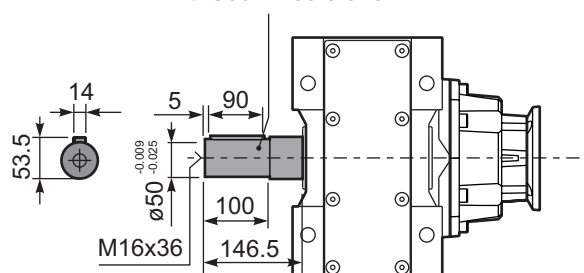
| a1 ø | b1  | e1  | s1 | Kit code   |
|------|-----|-----|----|------------|
| 300  | 230 | 265 | 14 | KF80.9.011 |
| 350  | 250 | 300 | 18 | KF80.9.012 |

**PH83C D...**Shrink disk  
Calettatore

Kit. Cod KF80.0.210LM

**R**H83C...Input Shaft  
Albero in entrata**PH83C A...**Single output shaft  
Albero uscita semplice

Kit. Cod KF80.5.028



# Aluminum and cast iron helical bevel gearboxes

**A modular and compact product**  
**Very energy efficient drive**

## **Removable inspection cover**

Allows periodic inspection of gearing during routine maintenance

## **Gears**

Hardened and ground gears

## **Alloy housing**

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint.

## **Oil seals**

Two oil seals on request

## **Single-piece aluminum**

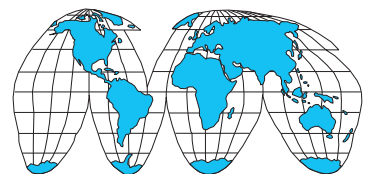
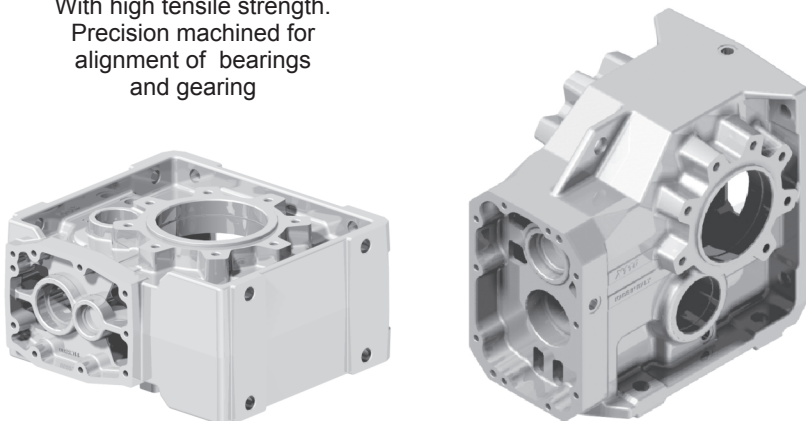
Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

## **Flange**

Fully modular to IEC and Compact integrated motor. NEMA C flange

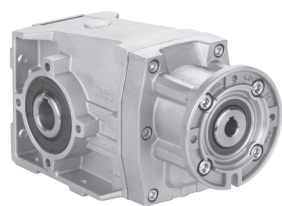
## **Cast Iron housing**

With high tensile strength. Precision machined for alignment of bearings and gearing



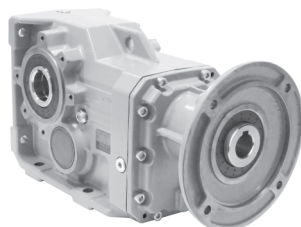
**World wide sales network.**

# Specific type datasheet on page...



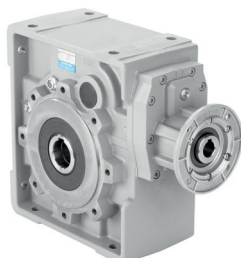
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Typen / Types  
Tipos

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|                                                           |                     |                      |                      |                      |                      |                      |                      |                      |
| <b>X22S</b><br>50Nm                                       | <b>X32S</b><br>90Nm | <b>X33S</b><br>100Nm | <b>X42A</b><br>150Nm | <b>X43A</b><br>160Nm | <b>X52A</b><br>250Nm | <b>X53A</b><br>250Nm | <b>X62A</b><br>410Nm | <b>X63A</b><br>410Nm |



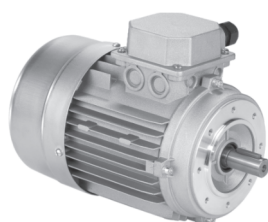
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|                                                           |                      |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>X73C</b><br>675Nm                                      | <b>X74C</b><br>675Nm | <b>X83C</b><br>1000Nm | <b>X84C</b><br>1000Nm | <b>X93C</b><br>1600Nm | <b>X94C</b><br>1650Nm | <b>X103</b><br>3000Nm | <b>X104</b><br>3000Nm | <b>X113</b><br>4500Nm | <b>X114</b><br>4600Nm |



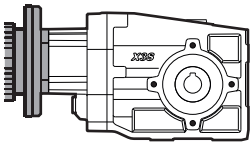
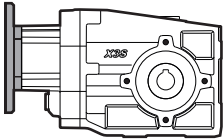
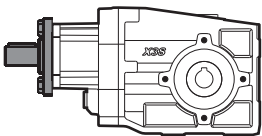
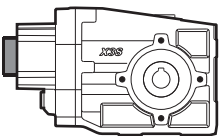
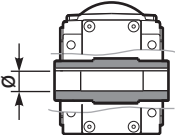
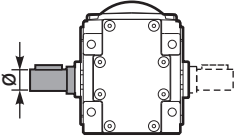
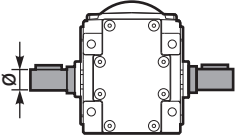
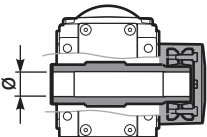
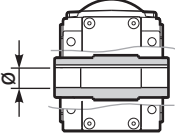
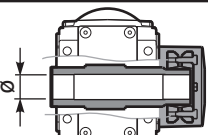
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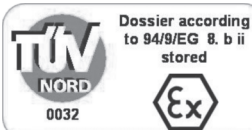
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| 8-43                                                      | 8-45                 | 8-47                  | 8-49                  |
|                                                           |                      |                       |                       |
| <b>113C</b><br>675Nm                                      | <b>114C</b><br>675Nm | <b>133C</b><br>1000Nm | <b>134C</b><br>1000Nm |



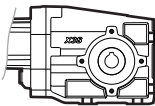
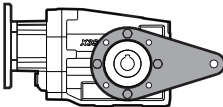
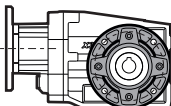
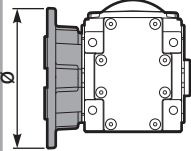
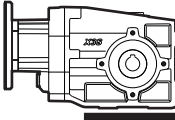
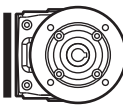
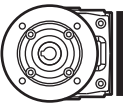
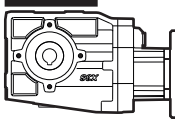
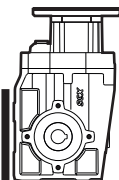
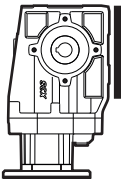
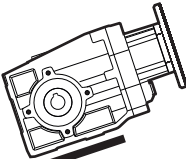
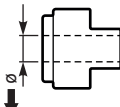
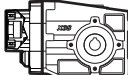
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| M-1                                                       |                   |                   |                   |                   |                       |             |                     |                     |                     |
|                                                           |                   |                   |                   |                   |                       |             |                     |                     |                     |
| <b>56A</b><br>56B                                         | <b>63A</b><br>63B | <b>71A</b><br>71B | <b>80A</b><br>80B | <b>90S</b><br>90L | <b>100LA</b><br>100LB | <b>112M</b> | <b>132S</b><br>132M | <b>160M</b><br>160L | <b>180M</b><br>180L |

| Type - Tipo - Typ<br>Type - Tipo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Size - Grandezza - Grösse<br>Taille - Tamaño                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Hub - Mozzo corona<br>Hohlwelle<br>Arbre creux<br>Nucleo corona                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rapporto - Ratio<br>Untersetzung<br>Reduction<br>Relacion                                                                                                                                                   | Output shaft - Albero uscita<br>Ausgangsflansch<br>Arbre de sortie<br>Brida en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>X22S</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>C</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>4.83</b>                                                                                                                                                                                                 | <b>-A</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p>Helical-bevel gear<br/>Riduttori ortogonali</p>  <p>With IEC motor<br/><b>M</b></p>  <p>With motor flange<br/><b>P</b></p>  <p>With male input shaft<br/><b>R</b></p>  <p>Modular base<br/><b>B</b></p> <p>Not available for:<br/>X93C, X103,<br/>X104, X113,<br/>X114.</p> | <p>2 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p> <p>3 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p> <p><b>Aluminum<br/>Alluminio<br/>Aluminium<br/>Aluminio</b></p> <p><b>X22S<br/>X32S<br/>X42A<br/>X52A<br/>X62A</b></p> <p><b>X33S<br/>X43A<br/>X53A<br/>X63A</b></p> <p>3 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p> <p>4 Stages<br/>Riduzioni<br/>Stufen<br/>Trains<br/>Etapas</p> <p><b>Cast Iron<br/>Ghisa<br/>Grauguss<br/>Fonte<br/>Fundicion</b></p> <p><b>113C 114C<br/>133C 134C<br/>X73C X74C<br/>X83C X84C<br/>X93C X94C<br/>X103 X104<br/>X113 X114</b></p> | <p>Hollow output shaft<br/><b>C</b></p>  <p>Single output shaft<br/><b>A</b></p>  <p>Double output shaft only for<br/>113/4C, 133/4C, X73/4C, X83/4C,<br/>X93/4C, X103/4 and X113/4<br/><b>B</b></p>  <p>Shrink Disk<br/>(only on the DX side)<br/><b>D</b></p>  <p>Only on request for Q.ty<br/>A richiesta per quantità</p> <p>Stainless steel hub<br/><b>I</b></p>  <p>Stainless steel hub<br/>Mozzo in acciaio Inox<br/>Edelstahlhohlwelle<br/>Moyeu en acier Inox<br/>Nucleo corona de<br/>acero Inox</p> <p>Only on request for Q.ty<br/>A richiesta per quantità</p> | <p>See technical<br/>data table</p> <p>Vedi tabella dati<br/>tecnici.</p> <p>Technisches<br/>Datenblatt<br/>beachten</p> <p>Voir Tableau<br/>données<br/>techniques</p> <p>Ver tabla datos<br/>técnicos</p> | <p>Hollow output shaft</p> <p><b>STANDARD</b></p> <p>X22S</p> <p><b>-A</b> ⇒ <math>\varnothing 18</math><br/><b>-B</b> ⇒ <math>\varnothing 20</math></p> <p>X32S X33S</p> <p><b>-B</b> ⇒ <math>\varnothing 20</math><br/><b>-C</b> ⇒ <math>\varnothing 25</math></p> <p>X42A X43A</p> <p><b>-C</b> ⇒ <math>\varnothing 25</math><br/><b>-D</b> ⇒ <math>\varnothing 30</math></p> <p>X52A X53A</p> <p><b>-D</b> ⇒ <math>\varnothing 30</math><br/><b>-E</b> ⇒ <math>\varnothing 35</math></p> <p>X62A X63A</p> <p><b>-E</b> ⇒ <math>\varnothing 35</math><br/><b>-F</b> ⇒ <math>\varnothing 40</math></p> <p>X73/4C X83/4C</p> <p><b>-F</b> ⇒ <math>\varnothing 40</math><br/><b>-H</b> ⇒ <math>\varnothing 45</math></p> <p>113C 114C</p> <p><b>-F</b> ⇒ <math>\varnothing 40</math><br/><b>-G</b> ⇒ <math>\varnothing 42</math></p> <p>133C 134C</p> <p><b>-F</b> ⇒ <math>\varnothing 40</math><br/><b>-H</b> ⇒ <math>\varnothing 45</math></p> <p>X93C X94C</p> <p><b>-H</b> ⇒ <math>\varnothing 45</math><br/><b>-J</b> ⇒ <math>\varnothing 50</math></p> <p>X103 X104</p> <p><b>-K</b> ⇒ <math>\varnothing 60</math></p> <p>X113 X114</p> <p><b>-T</b> ⇒ <math>\varnothing 70</math></p> <p>Single and double output shaft</p> <p><b>-I</b> X22S X32/3S ⇒ <math>\varnothing 20</math><br/><b>-L</b> X32/3S X42/3A ⇒ <math>\varnothing 25</math><br/><b>-M</b> X52/3A ⇒ <math>\varnothing 30</math><br/><b>-N</b> X52/3A X62/3A X73/4A* ⇒ <math>\varnothing 35</math><br/><b>-V</b> X83/4A 113/4C ⇒ <math>\varnothing 40^*</math><br/><b>-O</b> 113/4C ⇒ <math>\varnothing 42^*</math><br/><b>-P</b> 133/4C ⇒ <math>\varnothing 45^*</math><br/><b>-1</b> X93/4C ⇒ <math>\varnothing 50^*</math><br/><b>-3</b> X103/4 ⇒ <math>\varnothing 60^*</math><br/><b>-5</b> X113/4 ⇒ <math>\varnothing 70^*</math></p> <p>* Also available double output shaft</p>  <p>Shrink Disk</p> <p><b>-U</b> X22S X32/3S ⇒ <math>\varnothing 20</math><br/><b>-Q</b> X42/3A ⇒ <math>\varnothing 30</math><br/><b>-R</b> X52/3A ⇒ <math>\varnothing 35</math><br/><b>-S</b> X62/3A X73/4A X83/4A 113/4C ⇒ <math>\varnothing 40</math><br/><b>-6</b> 133/4C ⇒ <math>\varnothing 45</math><br/><b>-7</b> X93/4C ⇒ <math>\varnothing 50</math><br/><b>-8</b> X103/4 ⇒ <math>\varnothing 65</math><br/><b>-9</b> X113/4 ⇒ <math>\varnothing 75</math></p> |



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

| Type - Tipo - Typ<br>Type - Tipo                                                                                                                                                                                                                                                                                                                                                                                 | Output flange<br>Flangia di uscita<br>Ausgangs Flansch<br>Bride de sortie<br>Brida en salida                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Motor size - Grandezza motore<br>Motor Grösse<br>Grandeur moteur - Tamaño motor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mounting position<br>Posizione montaggio<br>Einbaulage<br>Position de montage<br>Position de montaje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Input bore<br>Foro entrata<br>Eingangshohlwelle<br>Trou d'entree<br>Eje hueco de entrada                                                                                                                                                                                                                                                                                                                                                                                                           | Terminal box position<br>Posizione morsettieria<br>Klemmkastenlage<br>Position boîte à bornes<br>Posición caja de bornes                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BR                                                                                                                                                                                                                                                                                                                                                                                                               | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | B3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | B                                                                                                                                                                                                                                                                                                                                                                                                                              |
|  <p><b>FB</b><br/>Forma base<br/>Universal</p>  <p><b>BR</b><br/>Braccio d reazione<br/>Reaction arm</p>  <p><b>-F</b><br/>Flangia uscita<br/>output flange</p> |  <p><b>N</b> Senza flangia<br/>Without flange<br/>X22S</p> <p><b>0</b> ⇒ Ø110<br/><b>1</b> ⇒ Ø120</p> <p>X32S X33S</p> <p><b>1</b> ⇒ Ø120<br/><b>2</b> ⇒ Ø160</p> <p>X42-3A X52-3A<br/>X62-3A</p> <p><b>2</b> ⇒ Ø160<br/><b>3</b> ⇒ Ø200<br/><b>4</b> ⇒ Ø250</p> <p>X73C X74C<br/>X83C X84C</p> <p><b>4</b> ⇒ Ø250</p> <p>113C 114C<br/>X93C X94C</p> <p><b>C</b> ⇒ Ø280<br/><b>L</b> ⇒ Ø280</p> <p>133C 134C</p> <p><b>C</b> ⇒ Ø320</p> <p>X103 X104</p> <p><b>6</b> ⇒ Ø350</p> <p>X113 X114</p> <p><b>7</b> ⇒ Ø450</p> |  <p><b>Flange</b><br/>Flangia</p> <p><b>B5</b></p> <p><b>-A</b>=56<br/>(Ø120)<br/><b>-B</b>=63<br/>(Ø140)<br/><b>-C</b>=71<br/>(Ø160)<br/><b>-D</b>=80<br/>(Ø200)<br/><b>-E</b>=90<br/>(Ø200)<br/><b>-F</b>=100÷112<br/>(Ø250)<br/><b>-G</b>=132<br/>(Ø300)<br/><b>-H</b>=160<br/>(Ø350)<br/><b>-I</b>=180<br/>(Ø350)<br/><b>-L</b>=200<br/>(Ø400)<br/><b>CA</b>=225<br/>(Ø450)</p> <p><b>B14</b></p> <p><b>-O</b>=56<br/>(Ø80)<br/><b>-P</b>=63<br/>(Ø90)<br/><b>-Q</b>=71<br/>(Ø105)<br/><b>-R</b>=80<br/>(Ø120)<br/><b>-T</b>=90<br/>(Ø140)<br/><b>-U</b>=100÷112<br/>(Ø160)<br/><b>-V</b>=132<br/>(Ø200)</p>  <p><b>Type R</b><br/>Tipo R</p> <p>X22S X33S X43A</p> <p><b>-1</b> ⇒ Ø14</p> <p>X32S X42A X53A<br/>X63A X74C X84C<br/>114C 134C</p> <p><b>-2</b> ⇒ Ø19</p> <p>X52A X62A<br/>113C 133C<br/>X73C X83C X94C</p> <p><b>-3</b> ⇒ Ø24</p> <p>X93C X104 X114</p> <p><b>-4</b> ⇒ Ø28</p> <p>X103 X113</p> <p><b>-6</b> ⇒ Ø42</p>  <p><b>Without flange</b><br/>Senza flangia</p> <p><b>-M</b> ⇒ With coupling<br/>X22S X33S X43A</p> <p><b>-Z</b> ⇒ Ø9<br/>(56B5)<br/><b>-0</b> ⇒ Ø11<br/>(63B5)<br/><b>-1</b> ⇒ Ø14<br/>(71B5)</p> <p>X32S X42A X53A<br/>X63A X74C X84C<br/>114C 134C</p> <p><b>-1</b> ⇒ Ø14<br/>(71B5)<br/><b>-2</b> ⇒ Ø19<br/>(80B5)<br/><b>-3</b> ⇒ Ø24<br/>(90B5)</p> <p>X52A X62A<br/>113C 133C<br/>X73C X83C X94C</p> <p><b>-2</b> ⇒ Ø19<br/>(80B5)<br/><b>-3</b> ⇒ Ø24<br/>(90B5)<br/><b>-4</b> ⇒ Ø28<br/>(100B5)</p> |  <p><b>B3</b><br/>STANDARD</p>  <p><b>B6</b></p>  <p><b>B7</b></p>  <p><b>B8</b></p>  <p><b>V5</b></p>  <p><b>V6</b></p>  <p><b>V8</b></p> | <p>-</p> <p>Nothing indication:<br/>standard bore</p> <p>Nessuna indicazione:<br/>foro standard</p> <p>COUPLING</p>  <p><b>A</b> = 9mm<br/><b>B</b> = 11mm<br/><b>C</b> = 14mm<br/><b>D</b> = 19mm<br/><b>E</b> = 24mm<br/><b>F</b> = 28mm</p> <p><b>0</b></p> <p>Ready for input coupling<br/>Predisposto per giunto</p>  |  <p><b>A</b></p>  <p><b>B</b><br/>STANDARD</p>  <p><b>C</b></p>  <p><b>D</b></p> |



POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

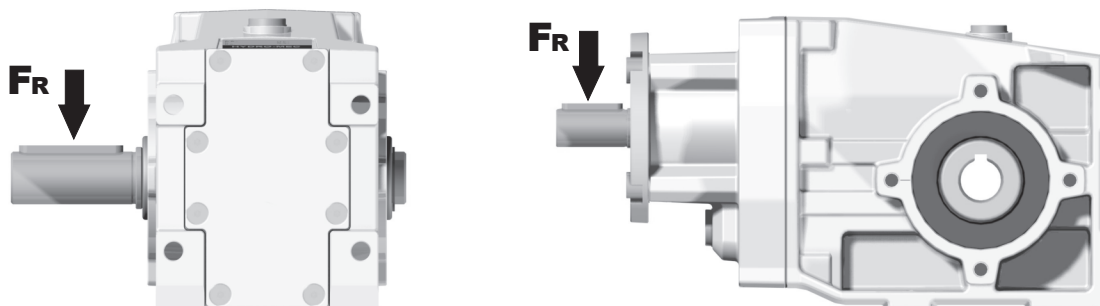
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P [KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P [HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$$

$$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$$

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M</b>             | Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>d</b>             | Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo                                                                                                                                                                                                                                                                                                                                                         |
| <b>f<sub>k</sub></b> | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión<br><b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje<br><b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena<br><b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal<br><b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana |

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B** Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Puissance nominale  
Potencia nominal

**A** Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

# X22S

## Angletech Gear 50Nm

### Rating - Aluminum HELICAL-BEVEL GEARBOXES

**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

| Output Speed<br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br>i   | Motor power<br>P <sub>1M</sub><br>[kW] | Output torque<br>M <sub>2M</sub><br>[Nm] | Service factor<br>f.s. | Nominal power<br>P <sub>1R</sub><br>[kW] | Nominal torque<br>M <sub>2R</sub><br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code<br> |
|--------------------------------------------------------|--------------|----------------------------------------|------------------------------------------|------------------------|------------------------------------------|-------------------------------------------|----------------------------|----|-----------------------------|----|----|------------------|-----------------|
|                                                        |              |                                        |                                          |                        |                                          |                                           | -B                         | -C | -O                          | -P | -Q |                  |                 |
| 289.7                                                  | <b>4.83</b>  | 0.37                                   | 11.7                                     | 2.6                    | <b>0.95</b>                              | <b>30</b>                                 |                            |    | C                           | C  |    | 289              | 01              |
| 189.2                                                  | <b>7.40</b>  | 0.37                                   | 17.9                                     | 1.7                    | <b>0.62</b>                              | <b>30</b>                                 |                            |    | C                           | C  |    | 287              | 02              |
| 146.2                                                  | <b>9.58</b>  | 0.37                                   | 23.2                                     | 1.7                    | <b>0.64</b>                              | <b>40</b>                                 |                            |    | C                           | C  |    | 199              | 03              |
| 127.5                                                  | <b>10.98</b> | 0.37                                   | 26.6                                     | 1.7                    | <b>0.63</b>                              | <b>45</b>                                 |                            |    | C                           | C  |    | 179              | 04              |

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

| Type of load and starts per hour<br>Tipo di carico e avviamenti per ora                                    |                     | Oper. hours per day<br>Ore di funz. giorn. |      |      |
|------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------|------|------|
|                                                                                                            |                     | 3 h                                        | 10 h | 24 h |
| Continuous or intermittent appl. with start / hour<br>Applicazione cont. o interm. con n.ro operazioni/ora | Uniform / Uniforme  | 0.8                                        | 1    | 1.25 |
|                                                                                                            | Moderate / Moderato | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Heavy / Forte       | 1.25                                       | 1.5  | 1.75 |
| Intermittent application with start / hour<br>Applicazione intermittente con n.ro operazioni/ora           | Uniform / Uniforme  | 1                                          | 1.25 | 1.5  |
|                                                                                                            | Moderate / Moderato | 1.25                                       | 1.5  | 1.75 |
|                                                                                                            | Heavy / Forte       | 1.5                                        | 1.75 | 2.15 |

|           |                                                                                                                                                                                                                                |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>D</b>  | Motor flange available<br>Flange disponibili<br>Erhältliche Motorflansche<br>Brides disponibles<br>Bridas disponibles                                                                                                          |
| <b>B)</b> | Mounting with reduction ring<br>Montaggio con boccia di riduzione<br>Reduzierhülsen<br>Montage avec douille de réduction<br>Montaje con casquillo de reducción                                                                 |
| <b>C)</b> | Motor flangeholes position/terminal box position<br>Posizione fori flangia/basetta motore<br>Bohrungsposition am Motorflansch/-sockel<br>Position trous bride/barrette à bornes moteur<br>Posición agujeros brida / base motor |
| <b>B)</b> | Available without reduction bushes<br>Disponibile anche senza boccia<br>Auch ohne Reduzierbuchse verfügbar<br>Disponible aussi sans douille de réduction<br>Disponible tambien sin casquillo                                   |

|          |                                                                        |                                                                                                  |                                                                                              |                                                                                                   |                                                                                                    |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>A</b> | Select required torque (according to service factor)                   | Seleziona la coppia desiderata (comprensiva del fattore di servizio)                             | Max. Drehmoment in Bezug zum Betriebsfaktor                                                  | Sélectionner le couple souhaité (comprenant le facteur de service)                                | Seleccionar el par deseado (incluyendo el factor de servicio)                                      |
| <b>B</b> | Select output speed                                                    | Seleziona la velocità in uscita                                                                  | Ausgewählte Abtriebsdrehzahl                                                                 | Sélectionner la vitesse de sortie                                                                 | Seleccionar la velocidad de salida                                                                 |
| <b>C</b> | On the same line of selected geared motor, you can find the gear ratio | Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione | Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung | Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction | En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción |
| <b>D</b> | Select motor flange available (if requested)                           | Scegli la flangia disponibile (se richiesta)                                                     | Erhältliche Motorflansche (auf Anfrage)                                                      | Choisir la bride disponible (si elle est demandée)                                                | Seleccionar la brida disponible (sobre pedido)                                                     |



## QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|------------------|-------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                  |             |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63 | 71 |                  |             |
| 290                                           | <b>4.83</b>  | 0.37                            | 12                                | 2.6                    | <b>0.95</b>                       | <b>30</b>                          |                            |    | C                           | C  |    | 289              | 01          |
| 189                                           | <b>7.40</b>  | 0.37                            | 18                                | 1.7                    | <b>0.62</b>                       | <b>30</b>                          |                            |    | C                           | C  |    | 287              | 02          |
| 146                                           | <b>9.58</b>  | 0.37                            | 23                                | 1.7                    | <b>0.64</b>                       | <b>40</b>                          |                            |    | C                           | C  |    | 199              | 03          |
| 128                                           | <b>10.98</b> | 0.37                            | 27                                | 1.7                    | <b>0.63</b>                       | <b>45</b>                          |                            |    | C                           | C  |    | 179              | 04          |
| 107                                           | <b>13.07</b> | 0.37                            | 32                                | 1.4                    | <b>0.53</b>                       | <b>45</b>                          |                            |    | C                           | C  |    | 159              | 05          |
| 95                                            | <b>14.66</b> | 0.37                            | 35                                | 1.3                    | <b>0.47</b>                       | <b>45</b>                          |                            |    | C                           | C  |    | 197              | 06          |
| 89                                            | <b>15.79</b> | 0.37                            | 38                                | 1.2                    | <b>0.44</b>                       | <b>45</b>                          |                            |    | C                           | C  |    | 139              | 07          |
| 83                                            | <b>16.81</b> | 0.37                            | 41                                | 1.1                    | <b>0.41</b>                       | <b>45</b>                          |                            |    | C                           | C  |    | 177              | 08          |
| 70                                            | <b>20.00</b> | 0.37                            | 48                                | 1.0                    | <b>0.37</b>                       | <b>48</b>                          |                            |    | C                           | C  |    | 157              | 09          |
| 64                                            | <b>21.93</b> | 0.37                            | 53                                | 0.9                    | <b>0.35</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 109              | 10          |
| 58                                            | <b>24.18</b> | 0.25                            | 39                                | 1.3                    | <b>0.32</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 137              | 11          |
| 48.2                                          | <b>29.04</b> | 0.25                            | 47                                | 1.1                    | <b>0.26</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 99               | 12          |
| 41.7                                          | <b>33.57</b> | 0.18                            | 42                                | 1.2                    | <b>0.23</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 107              | 13          |
| 36.2                                          | <b>38.67</b> | 0.18                            | 48                                | 1.0                    | <b>0.20</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 79               | 14          |
| 31.5                                          | <b>44.44</b> | 0.18                            | 55                                | 0.9                    | <b>0.17</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 97               | 15          |
| 23.7                                          | <b>59.18</b> | 0.12                            | 48                                | 1.0                    | <b>0.13</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 77               | 16          |
| 19.9                                          | <b>70.24</b> | 0.09                            | 45                                | 1.1                    | <b>0.11</b>                       | <b>50</b>                          |                            |    | C                           | C  |    | 67               | 17          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X22S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X22S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X22S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X22S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X22S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 0.25 LT             | 0.25 LT                                                                                                                            | 0.25 LT | 0.25 LT | 0.43 LT               | 0.31 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

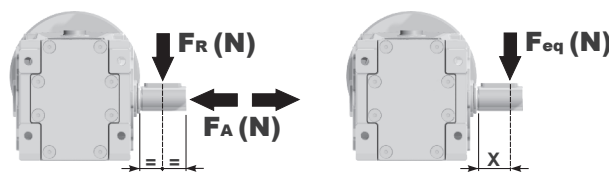
tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{42}{X+23}$$

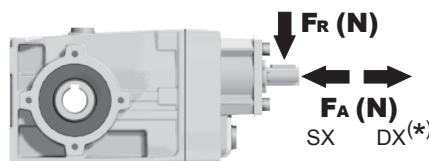


| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| 400                           | 360 | 1800 | 100                           | 440 | 2200 | 25                            | 440 | 2200 |
| 250                           | 380 | 1900 | 75                            | 440 | 2200 | 15                            | 440 | 2200 |
| 150                           | 420 | 2100 | 50                            | 440 | 2200 |                               |     |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA  | FR  |
|-------------------------------|-----|-----|
| 1400                          | 140 | 700 |
| 900                           | 160 | 800 |
| 500                           | 190 | 950 |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

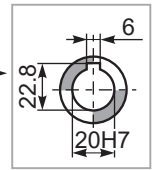
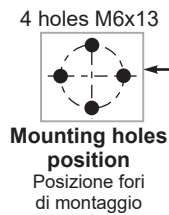
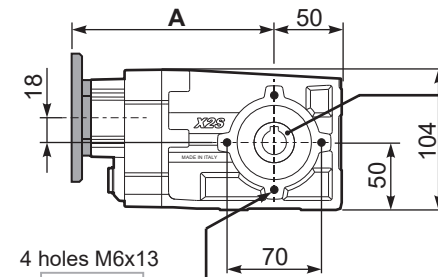
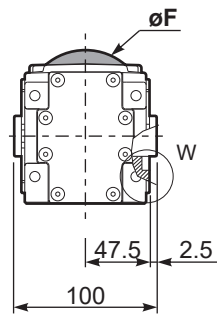
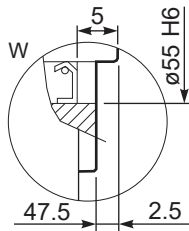
**P**X22SC...

## Basic Gearbox

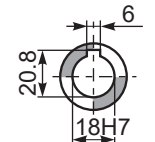
### Riduttore base

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>3.70 kg</b> |
|-----------------------------------------|----------------|

| M. flanges   | Kit code   | $\varnothing F$ | A     |
|--------------|------------|-----------------|-------|
| <b>63B5</b>  | K050.4.041 | 138             | 154.5 |
| <b>71B5</b>  | K050.4.042 | 160             | 152   |
|              |            |                 |       |
| <b>56B14</b> | KC40.4.049 | 80              | 152   |
| <b>63B14</b> | K050.4.047 | 90              | 154.5 |
| <b>71B14</b> | K050.4.045 | 105             | 152   |

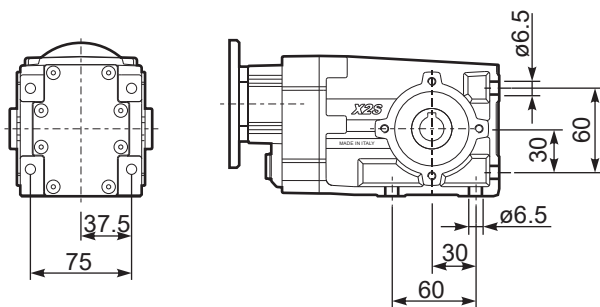


**Standard**  
Hollow shaft

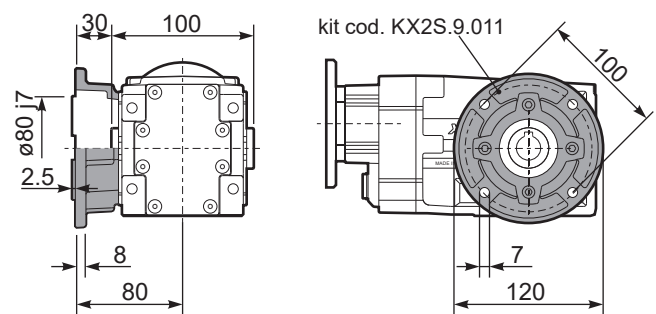


**On request**  
A richiesta

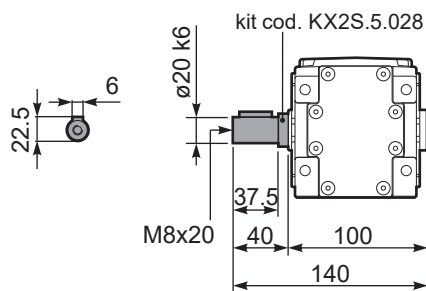
PX22S...**FB**.. Feet  
Piedini



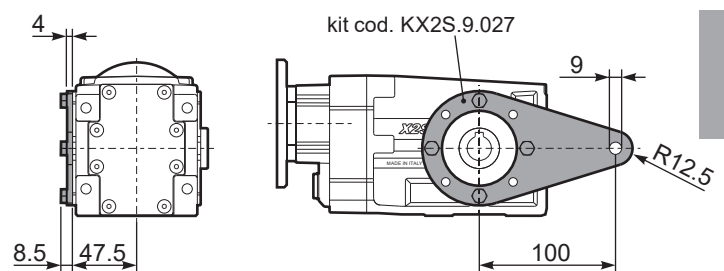
PX22S...-F1.. Output flange  
Flangia uscita



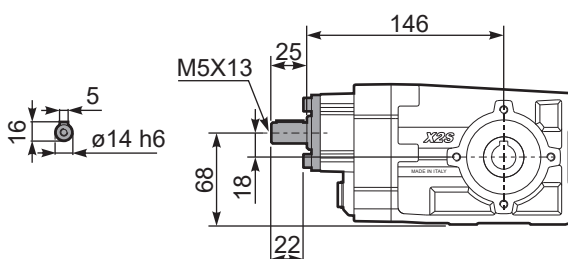
**PX22SA..** Single output shaft  
Albero semplice in uscita

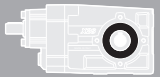


|                        |                                     |
|------------------------|-------------------------------------|
| PX22S... <b>BR</b> ... | Reaction Arm<br>Braccio di reazione |
|------------------------|-------------------------------------|



|                 |                                  |
|-----------------|----------------------------------|
| <b>R</b> X22S.. | Input shaft<br>Albero in entrata |
|-----------------|----------------------------------|





#### QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                  |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                  |                 |
| 191                                           | 7.33         | 1.5                             | 72                                | 1.0                    | 1.5                               | 70                                 | B                          |    |    |    | C                           | C  |    | 289              | 01              |
| 125                                           | 11.22        | 1.1                             | 80                                | 1.1                    | 1.2                               | 85                                 | B                          |    |    |    | C                           | C  |    | 287              | 02              |
| 106                                           | 13.26        | 1.1                             | 95                                | 0.9                    | 0.98                              | 85                                 | B                          |    |    |    | C                           | C  |    | 199              | 03              |
| 91                                            | 15.37        | 1.1                             | 110                               | 0.8                    | 0.89                              | 90                                 | B                          |    |    |    | C                           | C  |    | 179              | 04              |
| 78                                            | 18.04        | 0.75                            | 89                                | 1.0                    | 0.76                              | 90                                 | B                          |    |    |    | C                           | C  |    | 159              | 05              |
| 69                                            | 20.30        | 0.75                            | 100                               | 0.9                    | 0.68                              | 90                                 | B                          |    |    |    | C                           | C  |    | 197              | 06              |
| 65                                            | 21.54        | 0.75                            | 106                               | 0.9                    | 0.64                              | 90                                 | B                          |    |    |    | C                           | C  |    | 139              | 07              |
| 59                                            | 23.53        | 0.55                            | 85                                | 1.1                    | 0.58                              | 90                                 | B                          |    |    |    | C                           | C  |    | 177              | 08              |
| 51                                            | 27.62        | 0.55                            | 100                               | 0.9                    | 0.50                              | 90                                 | B                          |    |    |    | C                           | C  |    | 157              | 09              |
| 47.6                                          | 29.40        | 0.55                            | 106                               | 0.8                    | 0.47                              | 90                                 | B                          |    |    |    | C                           | C  |    | 109              | 10              |
| 42.5                                          | 32.97        | 0.37                            | 80                                | 1.1                    | 0.42                              | 90                                 | B                          |    |    |    | C                           | C  |    | 137              | 11              |
| 36.5                                          | 38.37        | 0.37                            | 93                                | 1.0                    | 0.36                              | 90                                 | B                          |    |    |    | C                           | C  |    | 99               | 12              |
| 31.1                                          | 45.00        | 0.25                            | 73                                | 1.2                    | 0.31                              | 90                                 | B                          |    |    |    | C                           | C  |    | 107              | 13              |
| 27.6                                          | 50.67        | 0.25                            | 83                                | 1.1                    | 0.27                              | 90                                 | B                          |    |    |    | C                           | C  |    | 79               | 14              |
| 23.8                                          | 58.73        | 0.18                            | 73                                | 1.2                    | 0.23                              | 90                                 | B                          |    |    |    | C                           | C  |    | 97               | 15              |
| 18.1                                          | 77.55        | 0.18                            | 97                                | 0.9                    | 0.18                              | 90                                 | B                          |    |    |    | C                           | C  |    | 77               | 16              |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X32S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X32S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X32S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X32S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X32S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 0.40 LT             | 0.60 LT                                                                                                                            | 0.40 LT | 0.60 LT | 0.85 LT               | 0.60 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

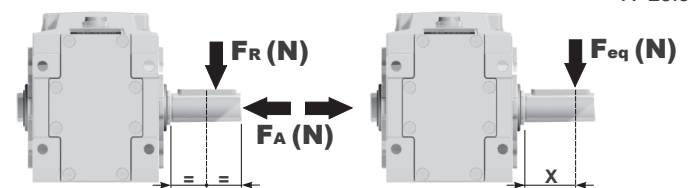
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{47.5}{X+28.5}$$

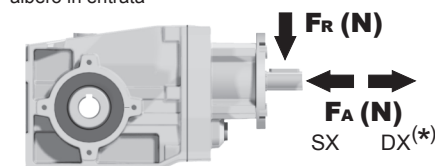


| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| 250                           | 400 | 2000 | 75                            | 560 | 2800 | 15                            | 560 | 2800 |
| 150                           | 450 | 2250 | 50                            | 560 | 2800 |                               |     |      |
| 100                           | 500 | 2500 | 25                            | 560 | 2800 |                               |     |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|
| 1400                          | 240 | 1200 |
| 900                           | 280 | 1400 |
| 500                           | 340 | 1700 |

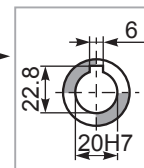
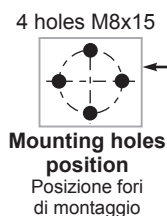
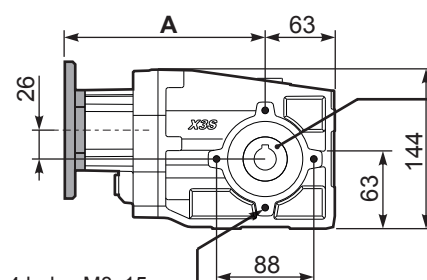
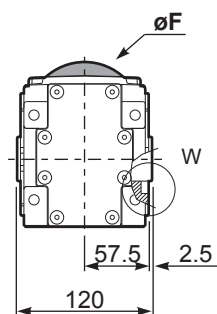
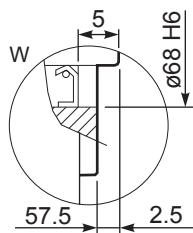
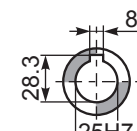
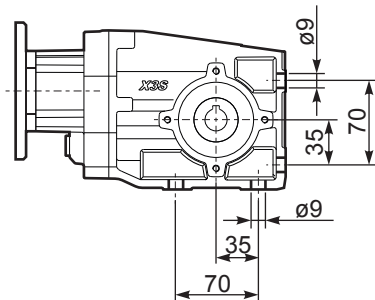
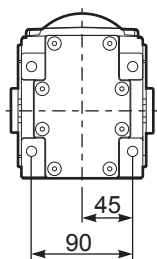
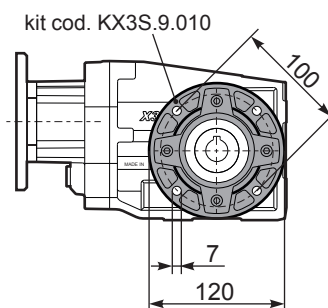
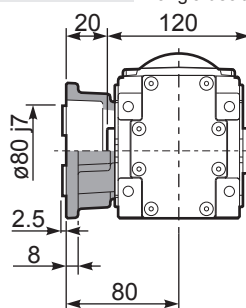
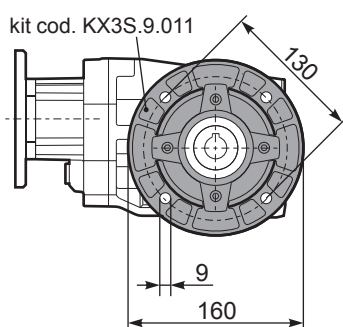
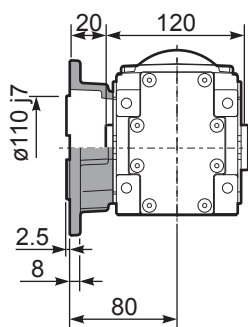
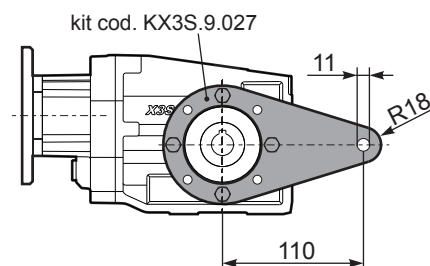
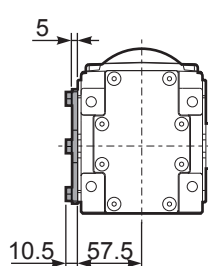
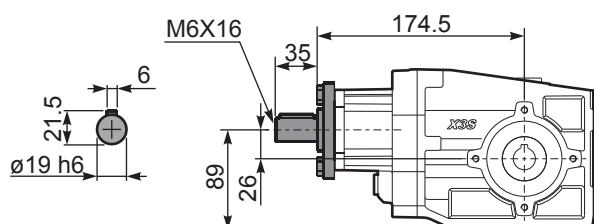
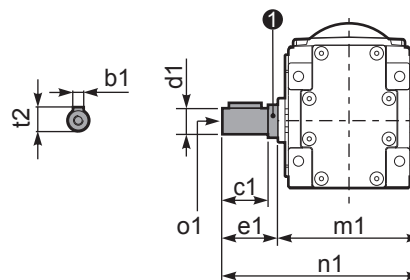
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

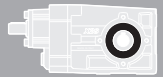


**PX32SC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**6.30 kg**

| M. flanges     | Kit code   | øF  | A   |
|----------------|------------|-----|-----|
| <b>63B5</b>    | K063.4.041 | 140 | 184 |
| <b>71B5</b>    | K063.4.042 | 160 | 182 |
| <b>80/90B5</b> | K063.4.043 | 200 | 184 |
| <b>71B14</b>   | K063.4.047 | 105 | 182 |
| <b>80B14</b>   | K063.4.046 | 120 | 184 |
| <b>90B14</b>   | K063.4.041 | 140 | 184 |

**Standard**  
Hollow shaft**On request**  
A richiesta**PX32S...FB..**Feet  
Piedini**PX32S...-F1..**Output flange  
Flangia uscita**PX32S...-F2..**Output flange  
Flangia uscita**PX32S...BR..**Reaction Arm  
Braccio di reazione**RX32S...**Input shaft  
Albero in entrata**PX32SA..**Single output shaft  
Albero semplice in uscita

| d1                           | b1 | c1   | e1   | m1    | n1  | t2   | o1    | 1 | kit code   |
|------------------------------|----|------|------|-------|-----|------|-------|---|------------|
| ø20 k6                       | 6  | 37.5 | 40   | 120   | 160 | 22.5 | M8x20 |   | KX2S.5.028 |
| ø25 <sup>-0.005/-0.020</sup> | 8  | 60   | 63.2 | 126.8 | 190 | 28   | M8x20 |   | K063.5.028 |



## QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                  |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63 | 71 |                  |             |
| 38.7                                          | <b>36.17</b>  | 0.37                            | 86                                | 1.2                    | <b>0.43</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 17179            | 02          |
| 31.7                                          | <b>44.21</b>  | 0.37                            | 105                               | 1.0                    | <b>0.35</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 19139            | 03          |
| 27.6                                          | <b>50.68</b>  | 0.25                            | 81                                | 1.2                    | <b>0.31</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 17139            | 04          |
| 25.3                                          | <b>55.36</b>  | 0.25                            | 89                                | 1.1                    | <b>0.28</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 17177            | 05          |
| 23.2                                          | <b>60.31</b>  | 0.25                            | 96                                | 1.0                    | <b>0.26</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 15139            | 06          |
| 21.2                                          | <b>65.88</b>  | 0.25                            | 105                               | 0.9                    | <b>0.24</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 15177            | 07          |
| 19.4                                          | <b>72.25</b>  | 0.18                            | 88                                | 1.1                    | <b>0.22</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 10179            | 08          |
| 17.6                                          | <b>79.64</b>  | 0.18                            | 97                                | 1.0                    | <b>0.20</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 13177            | 09          |
| 15.2                                          | <b>92.31</b>  | 0.18                            | 113                               | 0.9                    | <b>0.17</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 15137            | 10          |
| 14.6                                          | <b>95.65</b>  | 0.18                            | 117                               | 0.9                    | <b>0.16</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 9179             | 11          |
| 13.8                                          | <b>101.23</b> | 0.12                            | 80                                | 1.2                    | <b>0.15</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 10139            | 12          |
| 11.0                                          | <b>127.37</b> | 0.12                            | 101                               | 1.0                    | <b>0.12</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 7179             | 13          |
| 9.3                                           | <b>151.16</b> | 0.09                            | 95                                | 1.0                    | <b>0.10</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 6179             | 14          |
| 7.8                                           | <b>178.46</b> | 0.09                            | 113                               | 0.9                    | <b>0.09</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 7139             | 15          |
| 6.6                                           | <b>211.79</b> | 0.06                            | 88                                | 1.1                    | <b>0.07</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 6139             | 16          |
| 6.1                                           | <b>231.37</b> | 0.06                            | 96                                | 1.0                    | <b>0.07</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 6177             | 17          |
| 5.1                                           | <b>273.16</b> | 0.06                            | 113                               | 0.9                    | <b>0.06</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 7137             | 18          |
| 4.3                                           | <b>324.18</b> | 0.06                            | 134                               | 0.7                    | <b>0.05</b>                       | <b>100</b>                         |                            |    | C                           | C  |    | 6137             | 19          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X33S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X33S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X33S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X33S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X33S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 0.70 LT             | 0.65 LT                                                                                                                            | 0.40 LT | 0.65 LT | 0.95 LT               | 0.65 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

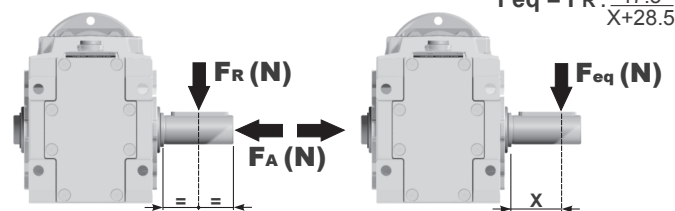
tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{47.5}{X+28.5}$$



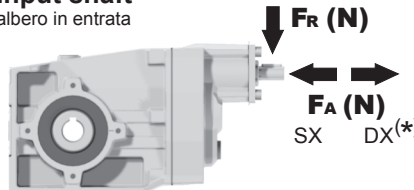
| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| 250                           | 400 | 2000 | 75                            | 560 | 2800 | 15                            | 560 | 2800 |
| 150                           | 450 | 2250 | 50                            | 560 | 2800 |                               |     |      |
| 100                           | 500 | 2500 | 25                            | 560 | 2800 |                               |     |      |

**FR** On request taper roller bearings to increase radial loads.

A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA  | FR  |
|-------------------------------|-----|-----|
| 1400                          | 140 | 700 |
| 900                           | 160 | 800 |
| 500                           | 190 | 950 |

\*Strong axial loads in the DX direction are not allowed.

Non sono consentiti forti carichi assiali con direzione DX

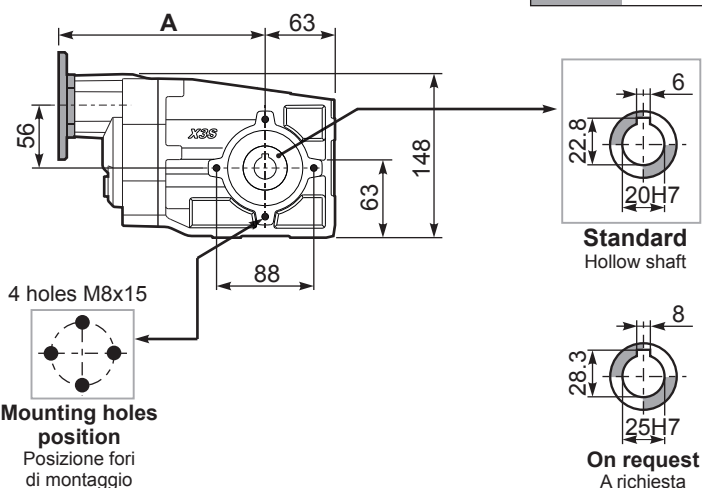
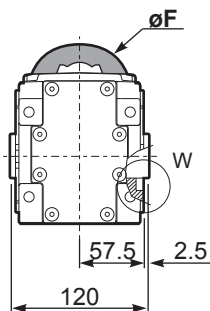
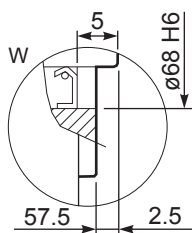
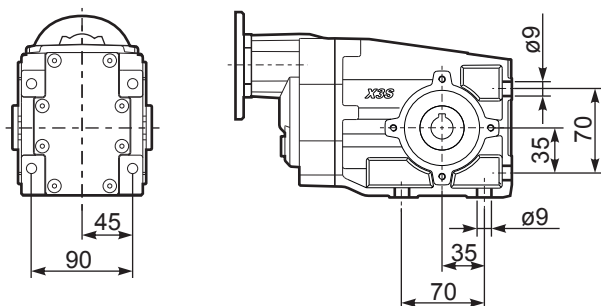
tab. 2

**P**X33SC...

Basic Gearbox  
Riduttore base

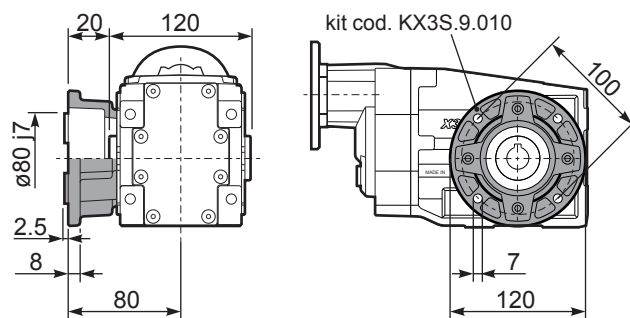
|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>6.55 kg</b> |
|-----------------------------------------|----------------|

| M. flanges   | Kit code   | øF  | A     |
|--------------|------------|-----|-------|
| <b>63B5</b>  | K050.4.041 | 138 | 189.5 |
| <b>71B5</b>  | K050.4.042 | 160 | 187   |
|              |            |     |       |
| <b>56B14</b> | KC40.4.049 | 80  | 187   |
| <b>63B14</b> | K050.4.047 | 90  | 189.5 |
| <b>71B14</b> | K050.4.045 | 105 | 187   |

PX33S...**FB**..Feet  
Piedini

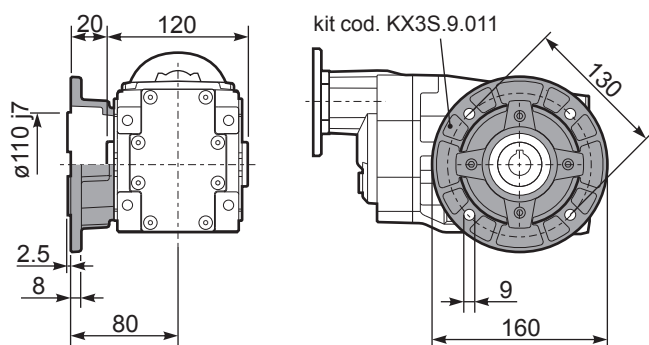
|                        |                                 |
|------------------------|---------------------------------|
| PX33S... <b>-F1</b> .. | Output flange<br>Flangia uscita |
|------------------------|---------------------------------|

Flangia uscita



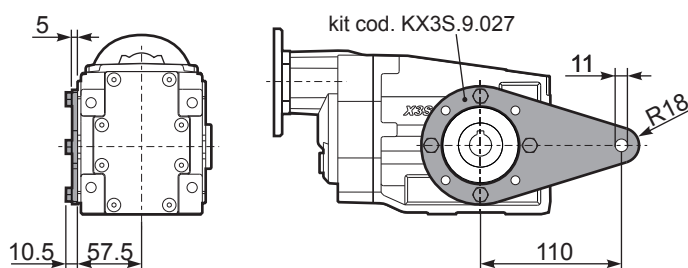
PX33S...**-F2..** Output flange  
Flangia uscita

Flangia uscita

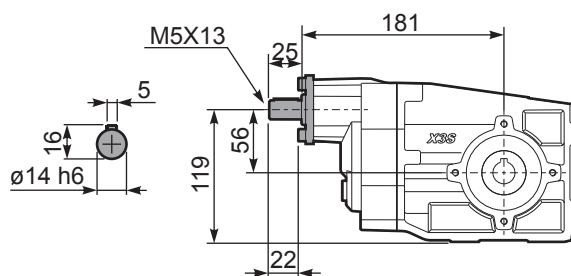


|                       |                                     |
|-----------------------|-------------------------------------|
| PX33S... <b>BR</b> .. | Reaction Arm<br>Braccio di reazione |
|-----------------------|-------------------------------------|

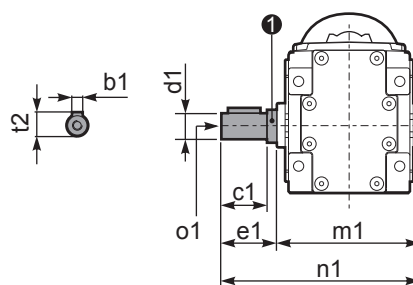
Braccio di reazione

**Rx33S...**

Input shaft  
Albero in entrata

PX33S**A..**

Single output shaft  
Albero semplice in uscita



| d1                               | b1 | c1   | e1   | m1    | n1  | t2   | o1    | ① kit code |
|----------------------------------|----|------|------|-------|-----|------|-------|------------|
| ø20 k6                           | 6  | 37.5 | 40   | 120   | 160 | 22.5 | M8x20 | KX2S.5.028 |
| ø25 <sup>-0.005<br/>-0.020</sup> | 8  | 60   | 63.2 | 126.8 | 190 | 28   | M8x20 | K063.5.028 |



**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

| Output Speed<br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br>i | Motor power<br>P <sub>1M</sub><br>[kW] | Output torque<br>M <sub>2M</sub><br>[Nm] | Service factor<br>f.s. | Nominal power<br>P <sub>1R</sub><br>[kW] | Nominal torque<br>M <sub>2R</sub><br>[Nm] | Available B5 motor flanges |    |    |    |            | Available B14 motor flanges |    |    |            | Output Shaft<br> | Ratios code |
|--------------------------------------------------------|------------|----------------------------------------|------------------------------------------|------------------------|------------------------------------------|-------------------------------------------|----------------------------|----|----|----|------------|-----------------------------|----|----|------------|-----------------------------------------------------------------------------------------------------|-------------|
|                                                        |            |                                        |                                          |                        |                                          |                                           | -B                         | -C | -D | -E | -F         | -Q                          | -R | -T | -U         |                                                                                                     |             |
|                                                        |            |                                        |                                          |                        |                                          |                                           | 63                         | 71 | 80 | 90 | 100<br>112 | 71                          | 80 | 90 | 100<br>112 |                                                                                                     |             |
| 192                                                    | 7.29       | 2.2                                    | 104                                      | 0.9                    | 2.0                                      | 95                                        | B                          |    |    |    |            | C                           | C  |    |            | 2811                                                                                                | 01          |
| 125                                                    | 11.20      | 2.2                                    | 159                                      | 0.9                    | 2.0                                      | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 288                                                                                                 | 02          |
| 106                                                    | 13.18      | 1.5                                    | 129                                      | 1.2                    | 1.7                                      | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 1911                                                                                                | 03          |
| 92                                                     | 15.27      | 1.1                                    | 109                                      | 1.4                    | 1.5                                      | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 1711                                                                                                | 04          |
| 78                                                     | 17.93      | 1.1                                    | 128                                      | 1.2                    | 1.3                                      | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 1511                                                                                                | 05          |
| 69                                                     | 20.25      | 1.1                                    | 145                                      | 1.0                    | 1.1                                      | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 198                                                                                                 | 06          |
| 65                                                     | 21.40      | 1.1                                    | 153                                      | 1.0                    | 1.1                                      | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 1311                                                                                                | 07          |
| 60                                                     | 23.47      | 0.75                                   | 115                                      | 1.3                    | 0.98                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 178                                                                                                 | 08          |
| 51                                                     | 27.55      | 0.75                                   | 135                                      | 1.1                    | 0.83                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 158                                                                                                 | 09          |
| 47.9                                                   | 29.21      | 0.75                                   | 143                                      | 1.0                    | 0.78                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 1011                                                                                                | 10          |
| 42.6                                                   | 32.88      | 0.75                                   | 161                                      | 0.9                    | 0.70                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 138                                                                                                 | 11          |
| 36.7                                                   | 38.12      | 0.55                                   | 138                                      | 1.1                    | 0.60                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 911                                                                                                 | 12          |
| 31.2                                                   | 44.89      | 0.55                                   | 163                                      | 0.9                    | 0.51                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 108                                                                                                 | 13          |
| 27.8                                                   | 50.34      | 0.37                                   | 122                                      | 1.1                    | 0.40                                     | 131                                       | B                          |    |    |    |            | C                           | C  |    |            | 711                                                                                                 | 14          |
| 23.9                                                   | 58.58      | 0.37                                   | 142                                      | 1.1                    | 0.39                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 98                                                                                                  | 15          |
| 18.1                                                   | 77.36      | 0.25                                   | 126                                      | 1.2                    | 0.30                                     | 150                                       | B                          |    |    |    |            | C                           | C  |    |            | 78                                                                                                  | 16          |

Motor Flanges Available Flange Motore Disponibili  B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione  B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione  C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **X42A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X42A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X42A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X42A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X42A** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                  | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                      |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |                                                  |  |  |  |  |  |
| B3                                                                                 | B6                                                                                                                                 | B7                                                                                   | B8                                                                                   | V5                                                                                   | V6                                                                                   | V8                                                                                   |
| 0.60 LT                                                                            | 0.75 LT                                                                                                                            | 0.50 LT                                                                              | 0.70 LT                                                                              | 1.10 LT                                                                              | 0.60 LT                                                                              | Ask                                                                                  |
| AGIP Telium VSF 320                                                                |                                                                                                                                    |                                                                                      |                                                                                      | SHELL Omala S4 WE 320                                                                |                                                                                      |                                                                                      |

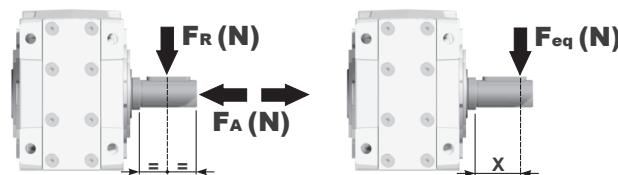
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{54}{X+28}$$



| n <sub>2</sub><br>[min <sup>-1</sup> ] | FA  | FR   | n <sub>2</sub><br>[min <sup>-1</sup> ] | FA  | FR   | n <sub>2</sub><br>[min <sup>-1</sup> ] | FA  | FR   |
|----------------------------------------|-----|------|----------------------------------------|-----|------|----------------------------------------|-----|------|
| 250                                    | 500 | 2500 | 75                                     | 800 | 4000 | 15                                     | 960 | 4800 |
| 150                                    | 600 | 3000 | 50                                     | 960 | 4800 |                                        |     |      |
| 100                                    | 700 | 3500 | 25                                     | 960 | 4800 |                                        |     |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata

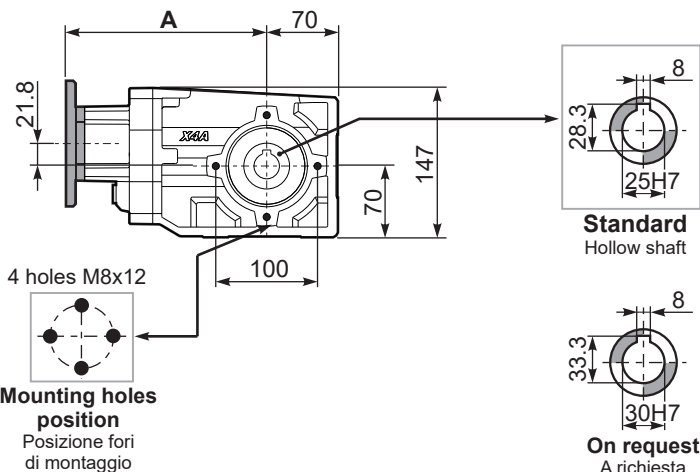
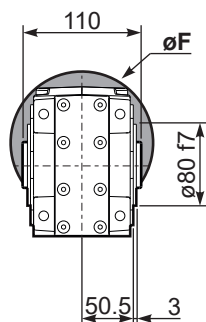
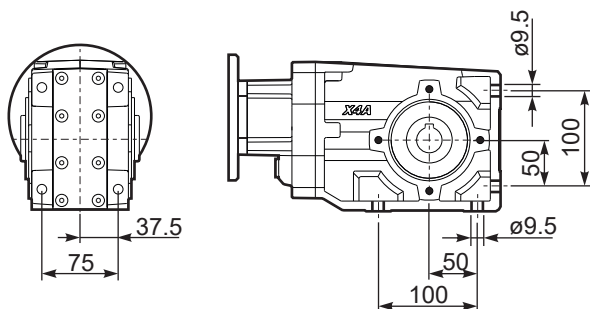
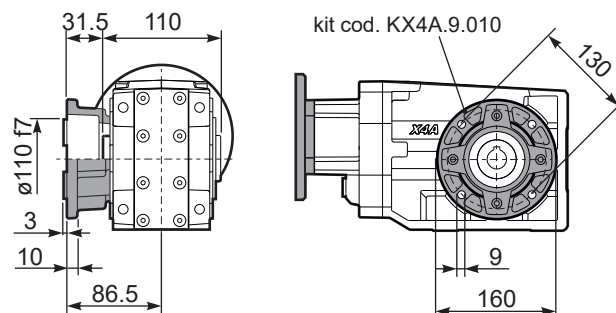
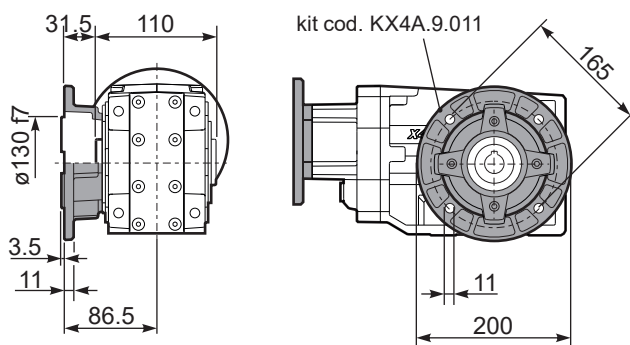
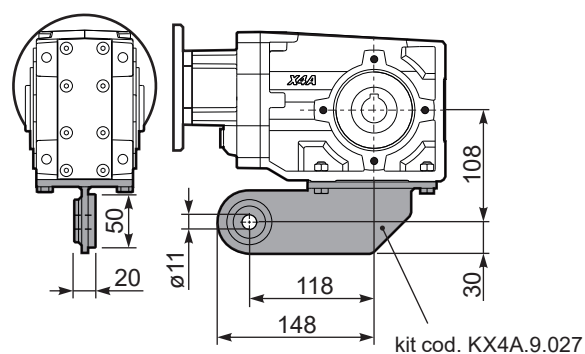
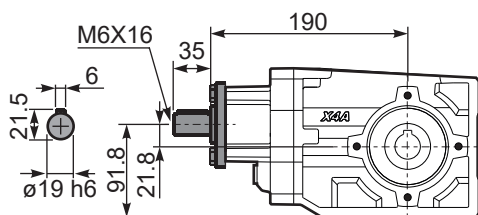
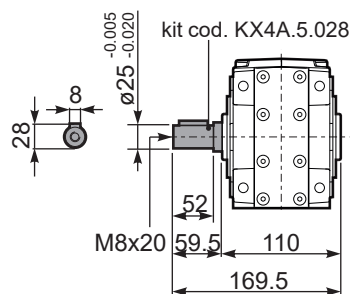
| n <sub>1</sub><br>[min <sup>-1</sup> ] | FA  | FR   |
|----------------------------------------|-----|------|
| 1400                                   | 240 | 1200 |
| 900                                    | 280 | 1400 |
| 500                                    | 340 | 1700 |

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PX42AC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**7.82 kg**

| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>63B5</b>       | K063.4.041 | 140 | 199.5 |
| <b>71B5</b>       | K063.4.042 | 160 | 197.5 |
| <b>80/90B5</b>    | K063.4.043 | 200 | 199.5 |
| <b>100/112B5</b>  | KC40.4.043 | 250 | 214.3 |
|                   |            |     |       |
| <b>71B14</b>      | K063.4.047 | 105 | 197.5 |
| <b>80B14</b>      | K063.4.046 | 120 | 199.5 |
| <b>90B14</b>      | K063.4.041 | 140 | 199.5 |
| <b>100/112B14</b> | KC40.4.041 | 160 | 214.5 |

**PX42A...FB..**Feet  
Piedini**PX42A...-F2..**Output flange  
Flangia uscita**PX42A...-F3..**Output flange  
Flangia uscita**PX42A...BR..**Reaction Arm  
Braccio di reazione**RX42A...**Input shaft  
Albero in entrata**PX42AA..**Single output shaft  
Albero semplice in uscita





## QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-----------------------------|----|----|-----------------------------------------------------------------------------------------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -O                          | -P | -Q |                                                                                                     |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 56                          | 63 | 71 |                                                                                                     |             |
| 27.8                                          | <b>50.35</b>  | 0.37                            | 119                               | 1.3                    | <b>0.46</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 171311                                                                                              | 01          |
| 25.4                                          | <b>55.22</b>  | 0.37                            | 131                               | 1.1                    | <b>0.42</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 17178                                                                                               | 02          |
| 23.4                                          | <b>59.92</b>  | 0.37                            | 142                               | 1.1                    | <b>0.39</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 151311                                                                                              | 03          |
| 21.3                                          | <b>65.72</b>  | 0.37                            | 156                               | 1.0                    | <b>0.36</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 15178                                                                                               | 04          |
| 19.5                                          | <b>71.78</b>  | 0.25                            | 115                               | 1.3                    | <b>0.33</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 101711                                                                                              | 05          |
| 17.6                                          | <b>79.44</b>  | 0.25                            | 127                               | 1.2                    | <b>0.29</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 13178                                                                                               | 06          |
| 15.2                                          | <b>92.08</b>  | 0.25                            | 147                               | 1.0                    | <b>0.25</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 15138                                                                                               | 07          |
| 14.7                                          | <b>95.03</b>  | 0.25                            | 152                               | 1.0                    | <b>0.25</b>                       | <b>150</b>                         |                            |    | C                           | C  |    | 91711                                                                                               | 08          |
| 11.1                                          | <b>126.55</b> | 0.18                            | 155                               | 1.0                    | <b>0.20</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 71711                                                                                               | 09          |
| 10.5                                          | <b>133.15</b> | 0.18                            | 163                               | 1.0                    | <b>0.19</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 91311                                                                                               | 10          |
| 9.3                                           | <b>150.18</b> | 0.12                            | 119                               | 1.3                    | <b>0.17</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 61711                                                                                               | 11          |
| 7.9                                           | <b>177.30</b> | 0.12                            | 140                               | 1.1                    | <b>0.14</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 71311                                                                                               | 12          |
| 6.7                                           | <b>210.42</b> | 0.09                            | 133                               | 1.2                    | <b>0.12</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 61311                                                                                               | 13          |
| 6.1                                           | <b>230.79</b> | 0.09                            | 146                               | 1.1                    | <b>0.11</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 6178                                                                                                | 14          |
| 5.1                                           | <b>272.47</b> | 0.06                            | 113                               | 1.4                    | <b>0.09</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 7138                                                                                                | 15          |
| 4.3                                           | <b>323.37</b> | 0.06                            | 134                               | 1.2                    | <b>0.08</b>                       | <b>160</b>                         |                            |    | C                           | C  |    | 6138                                                                                                | 16          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X43A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X43A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X43A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X43A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X43A** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                  | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                      |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |                                                  |  |  |  |  |  |
| <b>B3</b>                                                                          | <b>B6</b>                                                                                                                          | <b>B7</b>                                                                            | <b>B8</b>                                                                            | <b>V5</b>                                                                            | <b>V6</b>                                                                            | <b>V8</b>                                                                            |
| 0.80 LT                                                                            | 0.80 LT                                                                                                                            | 0.60 LT                                                                              | 0.80 LT                                                                              | 1.20 LT                                                                              | 0.70 LT                                                                              | Ask                                                                                  |
| AGIP Telium VSF 320                                                                |                                                                                                                                    |                                                                                      |                                                                                      | SHELL Omala S4 WE 320                                                                |                                                                                      |                                                                                      |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

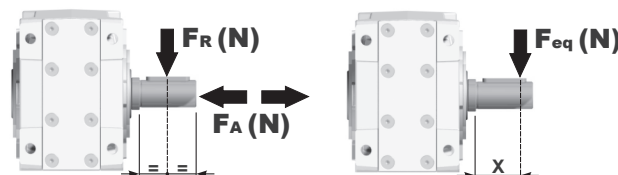
tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{54}{X+28}$$

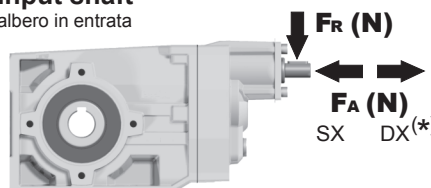


| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|-------------------------------|-----|------|-------------------------------|-----|------|
| <b>250</b>                    | 500 | 2500 | <b>75</b>                     | 800 | 4000 | <b>15</b>                     | 960 | 4800 |
| <b>150</b>                    | 600 | 3000 | <b>50</b>                     | 960 | 4800 |                               |     |      |
| <b>100</b>                    | 700 | 3500 | <b>25</b>                     | 960 | 4800 |                               |     |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata

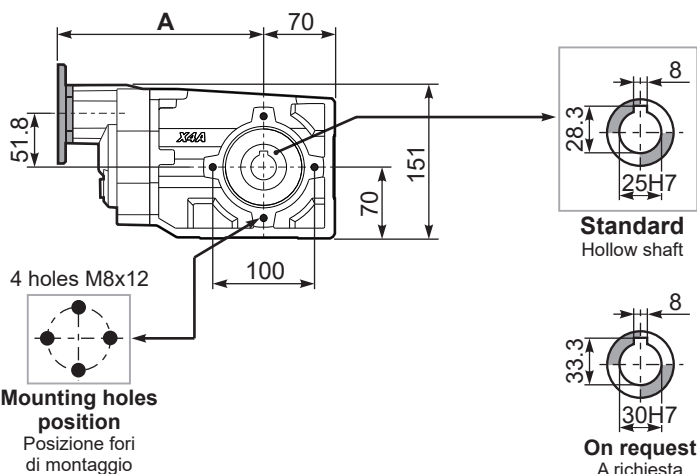
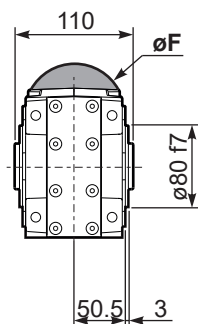
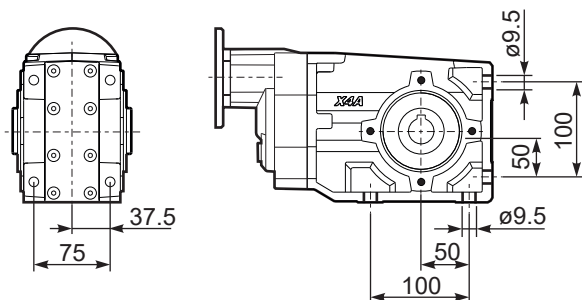
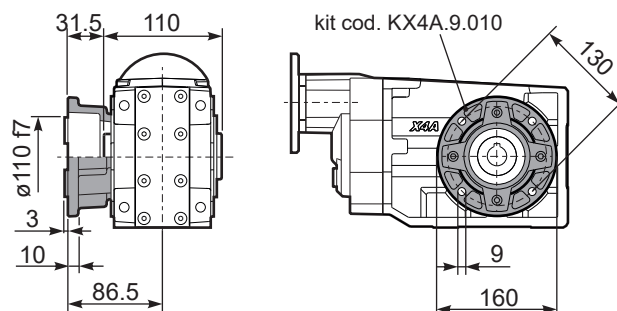
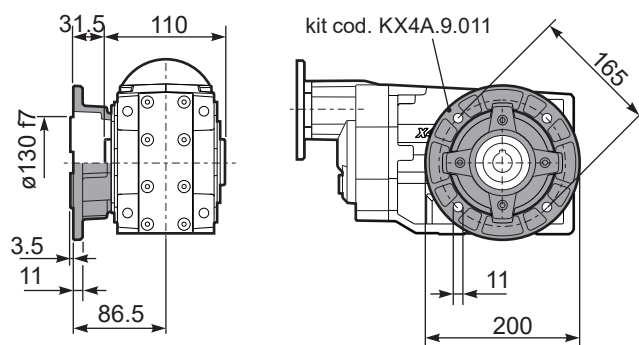
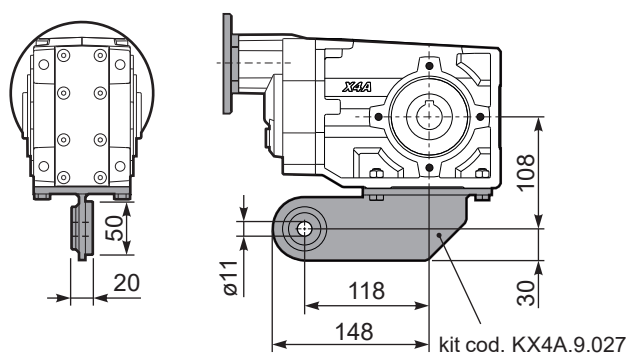
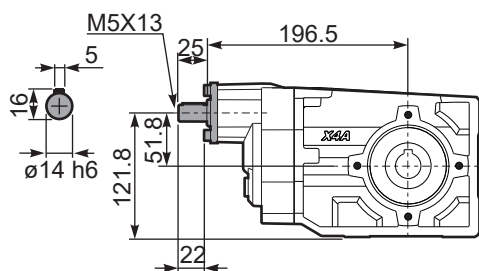
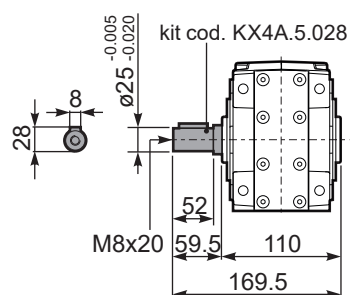


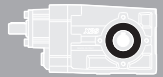
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| <b>1400</b>                   | 140       | 700       |
| <b>900</b>                    | 160       | 800       |
| <b>500</b>                    | 190       | 950       |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**PX43AC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**7.93 kg**

| M. flanges   | Kit code   | øF  | A     |
|--------------|------------|-----|-------|
| <b>63B5</b>  | K050.4.041 | 138 | 205   |
| <b>71B5</b>  | K050.4.042 | 160 | 202.5 |
| <b>56B14</b> | KC40.4.049 | 80  | 202.5 |
| <b>63B14</b> | K050.4.047 | 90  | 205   |
| <b>71B14</b> | K050.4.045 | 105 | 202.5 |

**PX43A...FB..** Feet  
Piedini**PX43A...-F2..** Output flange  
Flangia uscita**PX43A...-F3..** Output flange  
Flangia uscita**PX43A...BR..** Reaction Arm  
Braccio di reazione**RX43A...**Input shaft  
Albero in entrata**PX43AA..** Single output shaft  
Albero semplice in uscita



## QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br><br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br><br>i | Motor power<br><br>P <sub>1M</sub><br>[kW] | Output torque<br><br>M <sub>2M</sub><br>[Nm] | Service factor<br><br>f.s. | Nominal power<br><br>P <sub>1R</sub><br>[kW] | Nominal torque<br><br>M <sub>2R</sub><br>[Nm] | Available B5 motor flanges |    |    |            | Available B14 motor flanges |    |            |  |  | Output Shaft | <br>Ratios code |
|------------------------------------------------------------|----------------|--------------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|-----------------------------------------------|----------------------------|----|----|------------|-----------------------------|----|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------|
|                                                            |                |                                            |                                              |                            |                                              |                                               | -C                         | -D | -E | -F         | -R                          | -T | -U         |                                                                                     |                                                                                     |              |                                                                                                    |
|                                                            |                |                                            |                                              |                            |                                              |                                               | 71                         | 80 | 90 | 100<br>112 | 80                          | 90 | 100<br>112 |                                                                                     |                                                                                     |              |                                                                                                    |
| 232                                                        | <b>6.03</b>    | 3                                          | 116                                          | 1.2                        | <b>3.4</b>                                   | <b>135</b>                                    | B                          |    |    |            |                             |    |            | 3011                                                                                | <b>standard<br/>ø30</b>                                                             | 01           |                                                                                                    |
| 151                                                        | <b>9.26</b>    | 3                                          | 179                                          | 0.9                        | <b>2.6</b>                                   | <b>155</b>                                    | B                          |    |    |            |                             |    |            | 308                                                                                 |                                                                                     | 02           |                                                                                                    |
| 123                                                        | <b>11.36</b>   | 3                                          | 219                                          | 1.0                        | <b>3.1</b>                                   | <b>230</b>                                    | B                          |    |    |            |                             |    |            | 2011                                                                                |                                                                                     | 03           |                                                                                                    |
| 91                                                         | <b>15.36</b>   | 2.2                                        | 218                                          | 1.1                        | <b>2.5</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 1611                                                                                |                                                                                     | 04           |                                                                                                    |
| 80                                                         | <b>17.46</b>   | 2.2                                        | 248                                          | 1.0                        | <b>2.2</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 208                                                                                 |                                                                                     | 05           |                                                                                                    |
| 70                                                         | <b>19.97</b>   | 2.2                                        | 284                                          | 0.9                        | <b>1.9</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 1311                                                                                |                                                                                     | 06           |                                                                                                    |
| 59                                                         | <b>23.60</b>   | 1.5                                        | 231                                          | 1.1                        | <b>1.6</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 168                                                                                 |                                                                                     | 07           |                                                                                                    |
| 57                                                         | <b>24.45</b>   | 1.5                                        | 239                                          | 1.0                        | <b>1.6</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 1111                                                                                |                                                                                     | 08           |                                                                                                    |
| 45.6                                                       | <b>30.69</b>   | 1.1                                        | 220                                          | 1.1                        | <b>1.2</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 138                                                                                 |                                                                                     | 09           |                                                                                                    |
| 39.6                                                       | <b>35.35</b>   | 1.1                                        | 253                                          | 1.0                        | <b>1.1</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 811                                                                                 |                                                                                     | 10           |                                                                                                    |
| 37.3                                                       | <b>37.57</b>   | 1.1                                        | 269                                          | 0.9                        | <b>1.0</b>                                   | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 118                                                                                 | On request                                                                          | 11           |                                                                                                    |
| 28.8                                                       | <b>48.68</b>   | 0.75                                       | 239                                          | 1.0                        | <b>0.78</b>                                  | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 611                                                                                 |                                                                                     | 12           |                                                                                                    |
| 25.8                                                       | <b>54.33</b>   | 0.75                                       | 267                                          | 0.9                        | <b>0.70</b>                                  | <b>250</b>                                    | B                          |    |    |            |                             |    |            | 88                                                                                  |                                                                                     | 13           |                                                                                                    |
| 18.7                                                       | <b>74.81</b>   | 0.37                                       | 181                                          | 1.2                        | <b>0.43</b>                                  | <b>210</b>                                    | B                          |    |    |            |                             |    |            | 68                                                                                  |                                                                                     | 14           |                                                                                                    |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X52A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X52A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X52A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X52A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X52A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|--|
|                     |                                                                                                                                    |         |         |                       |         |     |  |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |  |
| 0.90 LT             | 1.50LT                                                                                                                             | 0.75 LT | 1.40 LT | 1.95 LT               | 1.15 LT | Ask |  |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |  |

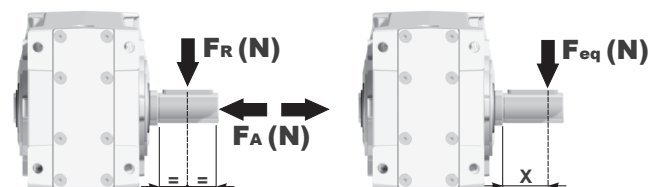
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{61.5}{X+31}$$



| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   |
|-------------------------------|-----|------|-------------------------------|------|------|-------------------------------|------|------|
| 250                           | 600 | 3000 | 75                            | 820  | 4100 | 15                            | 1660 | 8300 |
| 150                           | 700 | 3500 | 50                            | 960  | 4800 |                               |      |      |
| 100                           | 800 | 4000 | 25                            | 1350 | 6750 |                               |      |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata

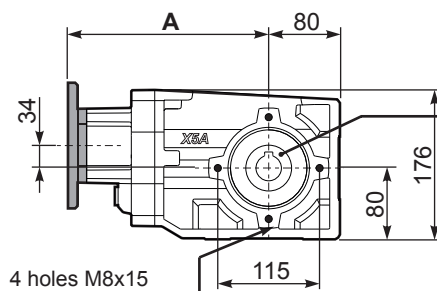
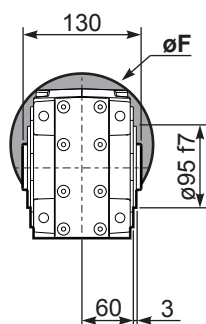
| $n_1$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|
| 1400                          | 450 | 2250 |
| 900                           | 500 | 2500 |
| 500                           | 600 | 3000 |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

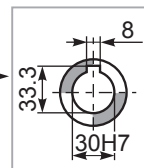
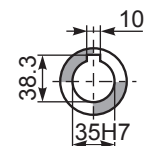
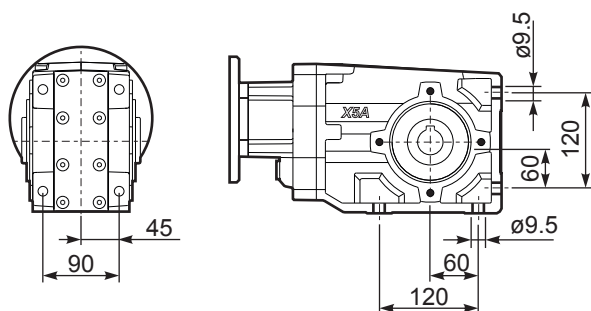
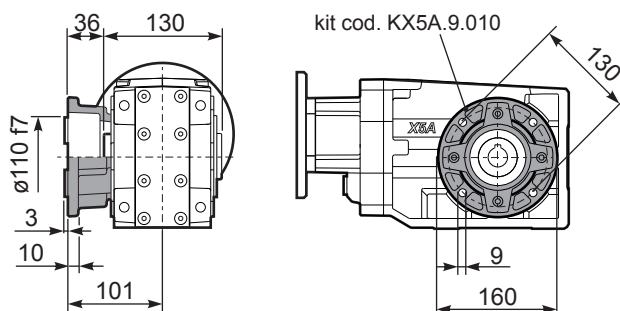
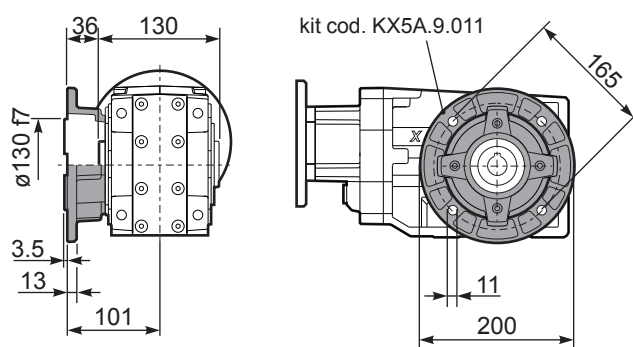
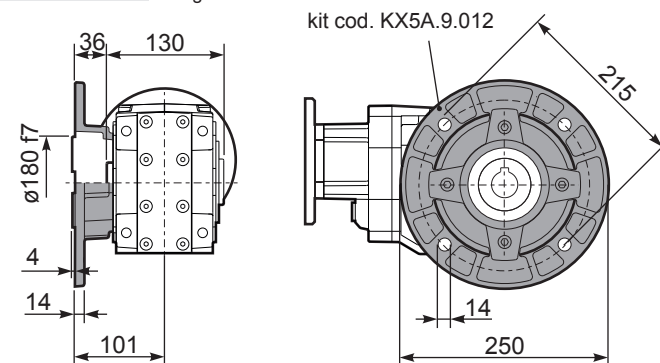
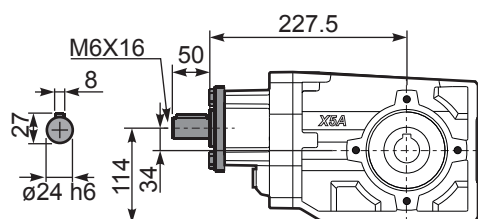
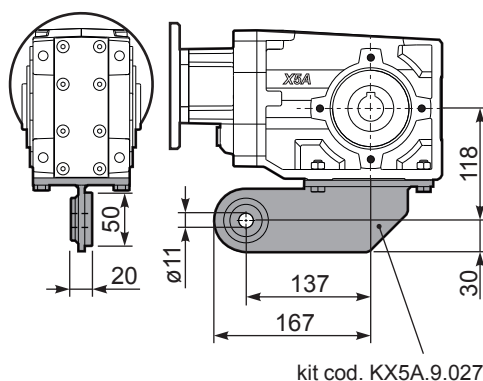
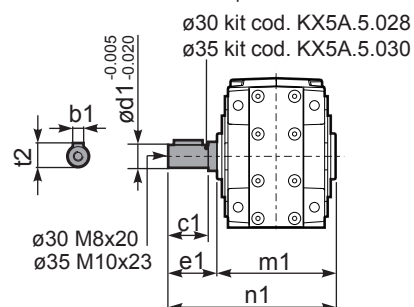
**tab. 2**

**PX52AC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**12.80 kg**

| M. flanges        | Kit code   | øF  | A   |
|-------------------|------------|-----|-----|
| <b>71B5</b>       | K023.4.041 | 160 | 234 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 236 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 245 |
| <b>80B14</b>      | K085.4.046 | 120 | 236 |
| <b>90B14</b>      | K085.4.045 | 140 | 236 |
| <b>100/112B14</b> | K085.4.047 | 160 | 245 |



4 holes M8x15

Mounting holes  
positionPosizione fori  
di montaggio**Standard**  
Hollow shaft**On request**  
A richiesta**PX52A...FB..**Feet  
Piedini**PX52A...-F2..**Output flange  
Flangia uscita**PX52A...-F3..**Output flange  
Flangia uscita**PX52A...-F4..**Output flange  
Flangia uscita**RX52A...**Input shaft  
Albero in entrata**PX52A...BR..**Reaction Arm  
Braccio di reazione**PX52AA..**Single output shaft  
Albero semplice in uscita

|            | b1 | c1 | d1 | e1   | m1  | n1    | t2 |
|------------|----|----|----|------|-----|-------|----|
| <b>ø30</b> | 8  | 60 | 30 | 68   | 134 | 202   | 33 |
| <b>ø35</b> | 10 | 60 | 35 | 73.5 | 141 | 214.5 | 38 |



#### QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                  |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                  |             |
| 24.7                                          | <b>56.76</b>  | 0.55                            | 201                               | 1.2                    | 0.69                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 191311           | 01          |
| 21.3                                          | <b>65.79</b>  | 0.55                            | 233                               | 1.1                    | 0.59                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 171311           | 02          |
| 18.1                                          | <b>77.23</b>  | 0.55                            | 274                               | 0.9                    | 0.50                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 151311           | 03          |
| 16.0                                          | <b>87.23</b>  | 0.37                            | 207                               | 1.2                    | 0.45                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 19138            | 04          |
| 15.2                                          | <b>92.18</b>  | 0.37                            | 219                               | 1.1                    | 0.42                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 131311           | 05          |
| 13.9                                          | <b>100.47</b> | 0.37                            | 238                               | 1.0                    | 0.39                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 19811            | 06          |
| 12.0                                          | <b>116.45</b> | 0.37                            | 276                               | 0.9                    | 0.33                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 17811            | 07          |
| 11.1                                          | <b>125.82</b> | 0.25                            | 201                               | 1.2                    | 0.31                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 101311           | 08          |
| 9.9                                           | <b>141.66</b> | 0.25                            | 227                               | 1.1                    | 0.28                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 13138            | 09          |
| 8.6                                           | <b>163.16</b> | 0.25                            | 261                               | 1.0                    | 0.24                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 13811            | 10          |
| 7.8                                           | <b>178.96</b> | 0.18                            | 219                               | 1.1                    | 0.22                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 1788             | 11          |
| 7.2                                           | <b>193.36</b> | 0.18                            | 237                               | 1.1                    | 0.20                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 10138            | 12          |
| 6.5                                           | <b>216.84</b> | 0.18                            | 265                               | 0.9                    | 0.18                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 71311            | 13          |
| 5.5                                           | <b>252.36</b> | 0.12                            | 200                               | 1.3                    | 0.15                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 9138             | 14          |
| 4.8                                           | <b>290.67</b> | 0.12                            | 230                               | 1.1                    | 0.13                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 9811             | 15          |
| 4.2                                           | <b>333.23</b> | 0.12                            | 263                               | 0.9                    | 0.12                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 7138             | 16          |
| 3.6                                           | <b>383.82</b> | 0.12                            | 303                               | 0.8                    | 0.10                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 7811             | 17          |
| 3.1                                           | <b>446.70</b> | 0.12*                           | 353                               | 0.7                    | 0.09                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 988              | 18          |
| 2.4                                           | <b>589.85</b> | 0.12*                           | 466                               | 0.5                    | 0.07                              | <b>250</b>                         | B                          |    |    |    | C                           | C  |    | 788              | 19          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **X53A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X53A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X53A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X53A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X53A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |           |           |                       |           |           |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------------------|-----------|-----------|
|                     |                                                                                                                                    |           |           |                       |           |           |
| <b>B3</b>           | <b>B6</b>                                                                                                                          | <b>B7</b> | <b>B8</b> | <b>V5</b>             | <b>V6</b> | <b>V8</b> |
| 1.30 LT             | 1.55 LT                                                                                                                            | 0.85 LT   | 1.45 LT   | 2.10 LT               | 1.25 LT   | Ask       |
| AGIP Telium VSF 320 |                                                                                                                                    |           |           | SHELL Omala S4 WE 320 |           |           |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

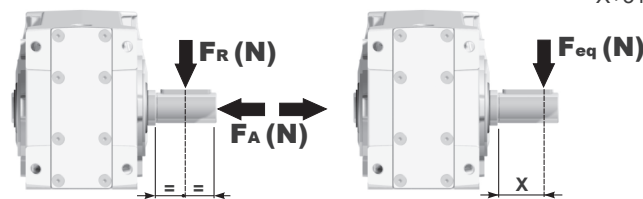
tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{61.5}{X+31}$$

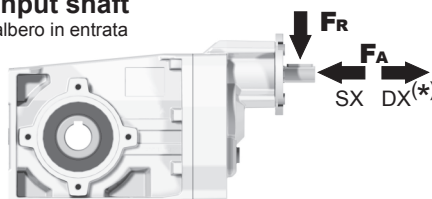


| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   |
|-------------------------------|-----|------|-------------------------------|------|------|-------------------------------|------|------|
| <b>250</b>                    | 600 | 3000 | <b>75</b>                     | 820  | 4100 | <b>15</b>                     | 1660 | 8300 |
| <b>150</b>                    | 700 | 3500 | <b>50</b>                     | 960  | 4800 |                               |      |      |
| <b>100</b>                    | 800 | 4000 | <b>25</b>                     | 1350 | 6750 |                               |      |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

##### Input shaft

albero in entrata



| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| <b>1400</b>                   | 400       | 2000      |
| <b>900</b>                    | 440       | 2200      |
| <b>500</b>                    | 440       | 2200      |

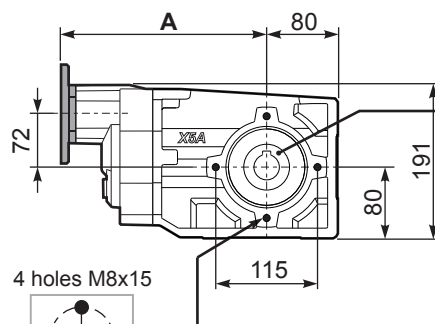
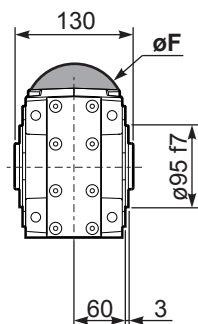
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

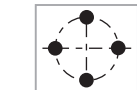


**PX53AC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **12.65 kg**

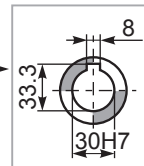
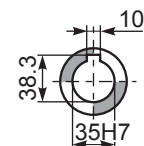
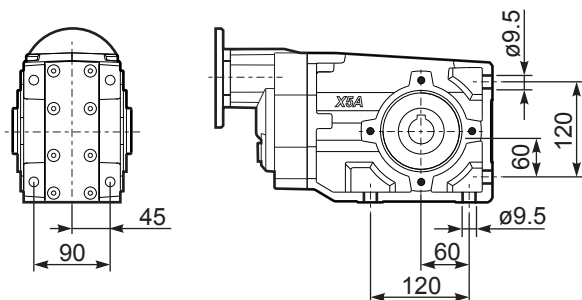
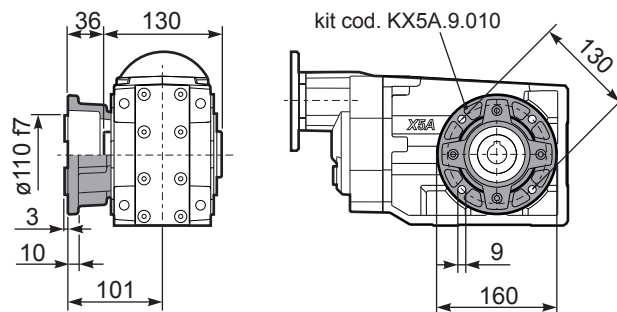
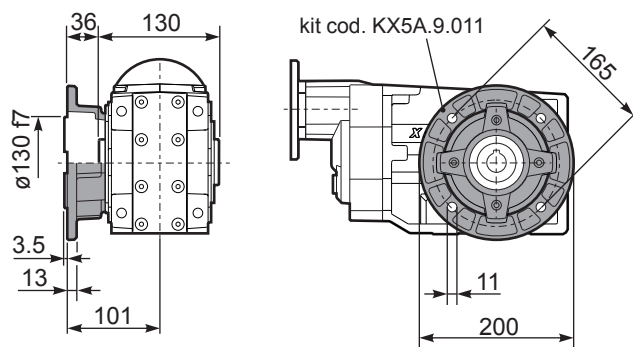
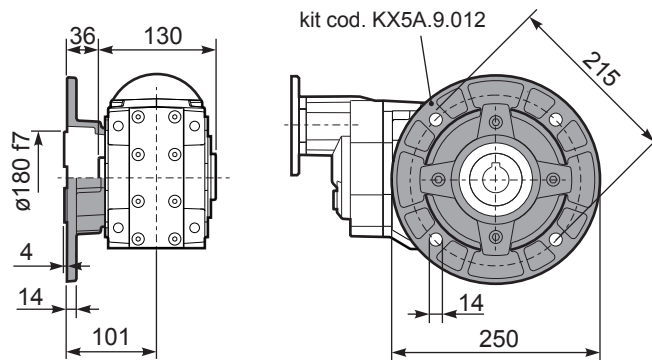
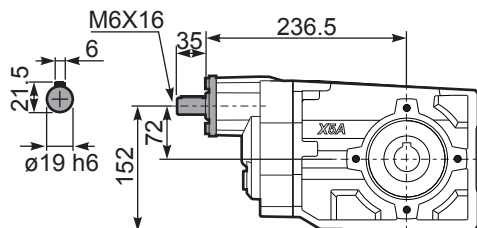
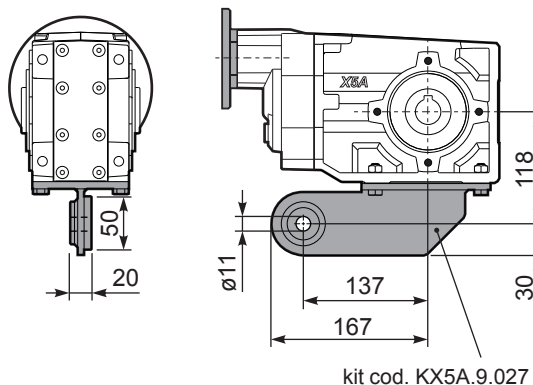
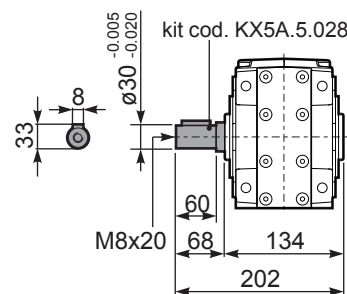
| M. flanges     | Kit code   | øF  | A   |
|----------------|------------|-----|-----|
| <b>63B5</b>    | K063.4.041 | 140 | 246 |
| <b>71B5</b>    | K063.4.042 | 160 | 244 |
| <b>80/90B5</b> | K063.4.043 | 200 | 246 |
| <b>71B14</b>   | K063.4.047 | 105 | 244 |
| <b>80B14</b>   | K063.4.046 | 120 | 246 |
| <b>90B14</b>   | K063.4.041 | 140 | 246 |



4 holes M8x15

**Mounting holes position**

Posizione fori di montaggio

**Standard**  
Hollow shaft**On request**  
A richiesta**PX53A...FB..**Feet  
Piedini**PX53A...-F2..**Output flange  
Flangia uscita**PX53A...-F3..**Output flange  
Flangia uscita**PX53A...-F4..**Output flange  
Flangia uscita**RX53A...**Input shaft  
Albero in entrata**PX53A...BR..**Reaction Arm  
Braccio di reazione**PX53A...**Single output shaft  
Albero semplice in uscita



## QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br><br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br><br>i | Motor power<br><br>P <sub>1M</sub><br>[kW] | Output torque<br><br>M <sub>2M</sub><br>[Nm] | Service factor<br><br>f.s. | Nominal power<br><br>P <sub>1R</sub><br>[kW] | Nominal torque<br><br>M <sub>2R</sub><br>[Nm] | Available B5<br>motor flanges |    |    |            |     | Available B14<br>motor flanges |    |            |      |  |  | <br>Ratios<br>code |
|------------------------------------------------------------|----------------|--------------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|-----------------------------------------------|-------------------------------|----|----|------------|-----|--------------------------------|----|------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                                            |                |                                            |                                              |                            |                                              |                                               | -C                            | -D | -E | -F         | -G  | -R                             | -T | -U         | -V   |                                                                                     |                                                                                     |                                                                                                       |
|                                                            |                |                                            |                                              |                            |                                              |                                               | 71                            | 80 | 90 | 100<br>112 | 132 | 80                             | 90 | 100<br>112 | 132  |                                                                                     |                                                                                     |                                                                                                       |
| 232                                                        | <b>6.03</b>    | 5.5                                        | 211                                          | 1.1                        | <b>6.1</b>                                   | <b>240</b>                                    | B                             |    |    |            |     |                                |    |            | 3011 | <b>standard</b><br>ø35                                                              | 01                                                                                  |                                                                                                       |
| 151                                                        | <b>9.26</b>    | 4                                          | 238                                          | 1.1                        | <b>4.5</b>                                   | <b>270</b>                                    | B                             |    |    |            |     |                                |    |            | 308  |                                                                                     | 02                                                                                  |                                                                                                       |
| 123                                                        | <b>11.36</b>   | 4                                          | 291                                          | 1.2                        | <b>4.7</b>                                   | <b>350</b>                                    | B                             |    |    |            |     |                                |    |            | 2011 |                                                                                     | 03                                                                                  |                                                                                                       |
| 91                                                         | <b>15.36</b>   | 4                                          | 394                                          | 1.0                        | <b>3.8</b>                                   | <b>385</b>                                    | B                             |    |    |            |     |                                |    |            | 1611 |                                                                                     | 04                                                                                  |                                                                                                       |
| 80                                                         | <b>17.46</b>   | 4                                          | 448                                          | 0.9                        | <b>3.5</b>                                   | <b>400</b>                                    | B                             |    |    |            |     |                                |    |            | 208  |                                                                                     | 05                                                                                  |                                                                                                       |
| 70                                                         | <b>19.97</b>   | 3                                          | 386                                          | 1.1                        | <b>3.1</b>                                   | <b>410</b>                                    | B                             |    |    |            |     |                                |    |            | 1311 |                                                                                     | 06                                                                                  |                                                                                                       |
| 59                                                         | <b>23.60</b>   | 3                                          | 456                                          | 0.9                        | <b>2.7</b>                                   | <b>410</b>                                    | B                             |    |    |            |     |                                |    |            | 168  |                                                                                     | 07                                                                                  |                                                                                                       |
| 57                                                         | <b>24.45</b>   | 3                                          | 472                                          | 0.9                        | <b>2.6</b>                                   | <b>410</b>                                    | B                             |    |    |            |     |                                |    |            | 1111 | ø40<br>On request                                                                   | 08                                                                                  |                                                                                                       |
| 45.6                                                       | <b>30.69</b>   | 2.2                                        | 436                                          | 0.9                        | <b>2.0</b>                                   | <b>410</b>                                    | B                             |    |    |            |     |                                |    |            | 138  |                                                                                     | 09                                                                                  |                                                                                                       |
| 39.6                                                       | <b>35.35</b>   | 1.5                                        | 346                                          | 1.2                        | <b>1.8</b>                                   | <b>410</b>                                    | B                             |    |    |            |     |                                |    |            | 811  |                                                                                     | 10                                                                                  |                                                                                                       |
| 37.3                                                       | <b>37.57</b>   | 1.5                                        | 368                                          | 1.1                        | <b>1.7</b>                                   | <b>410</b>                                    | B                             |    |    |            |     |                                |    |            | 118  |                                                                                     | 11                                                                                  |                                                                                                       |
| 28.8                                                       | <b>48.68</b>   | 1.1                                        | 348                                          | 1.0                        | <b>1.1</b>                                   | <b>365</b>                                    | B                             |    |    |            |     |                                |    |            | 611  |                                                                                     | 12                                                                                  |                                                                                                       |
| 25.8                                                       | <b>54.33</b>   | 1.1                                        | 389                                          | 1.1                        | <b>1.2</b>                                   | <b>410</b>                                    | B                             |    |    |            |     |                                |    |            | 88   |                                                                                     | 13                                                                                  |                                                                                                       |
| 18.7                                                       | <b>74.81</b>   | 0.75                                       | 367                                          | 1.0                        | <b>0.73</b>                                  | <b>360</b>                                    | B                             |    |    |            |     |                                |    |            | 68   |                                                                                     | 14                                                                                  |                                                                                                       |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X62A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X62A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X62A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X62A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X62A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|--|
|                     |                                                                                                                                    |         |         |                       |         |     |  |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |  |
| 1.25 LT             | 1.70 LT                                                                                                                            | 0.95 LT | 1.60 LT | 2.45 LT               | 1.50 LT | Ask |  |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |  |

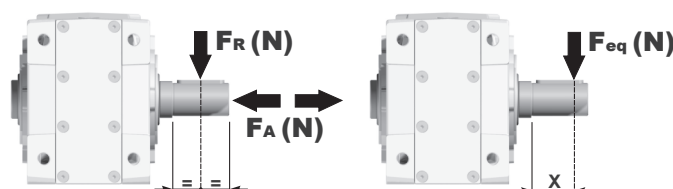
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{69}{X+39}$$



| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   |
|-------------------------------|-----|------|-------------------------------|------|------|-------------------------------|------|------|
| 250                           | 600 | 3000 | 75                            | 890  | 4450 | 15                            | 1660 | 8300 |
| 150                           | 700 | 3500 | 50                            | 1140 | 5700 |                               |      |      |
| 100                           | 780 | 3900 | 25                            | 1330 | 6650 |                               |      |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata

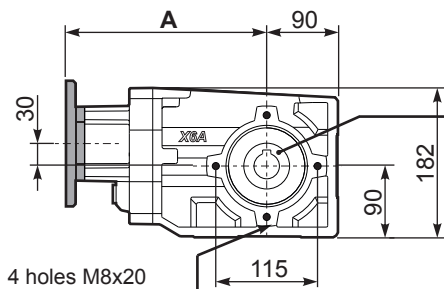
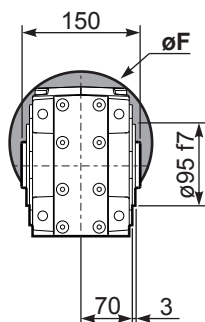
| $n_1$<br>[min <sup>-1</sup> ] | FA  | FR   |
|-------------------------------|-----|------|
| 1400                          | 450 | 2250 |
| 900                           | 500 | 2500 |
| 500                           | 600 | 3000 |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

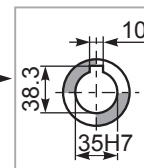
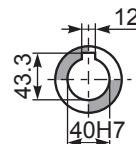
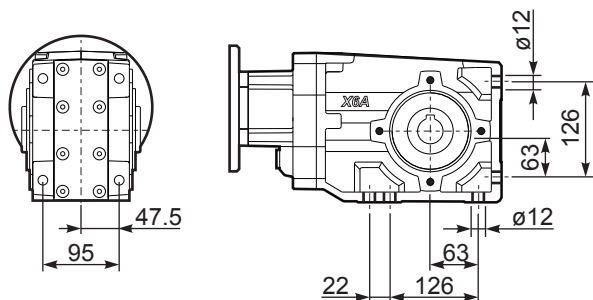
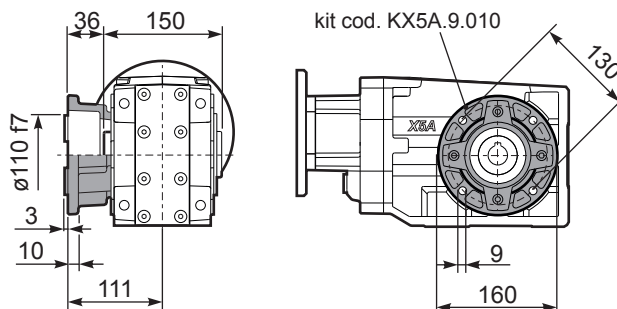
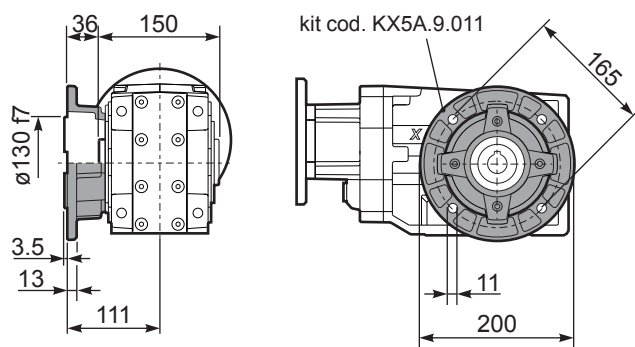
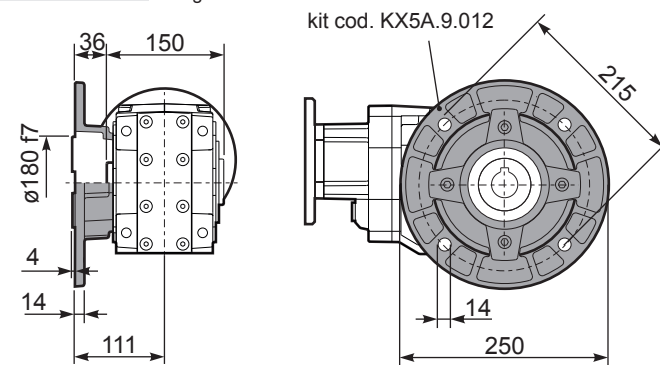
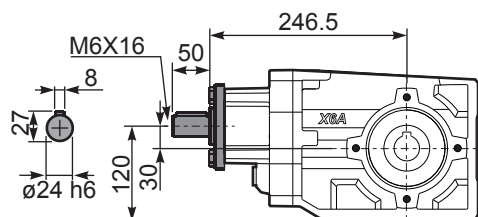
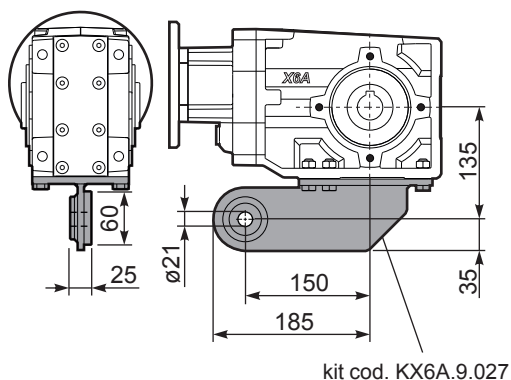
tab. 2

**PX62AC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **15.80 kg**

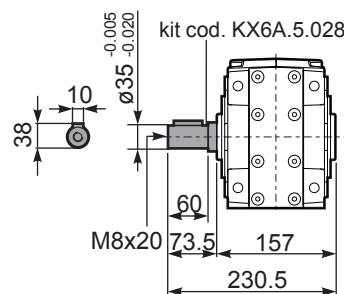
| M. flanges        | Kit code   | øF  | A   |
|-------------------|------------|-----|-----|
| <b>71B5</b>       | K023.4.041 | 160 | 253 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 255 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 264 |
| <b>132B5</b>      | KC50.4.043 | 300 | 282 |
|                   |            |     |     |
| <b>80B14</b>      | K085.4.046 | 120 | 255 |
| <b>90B14</b>      | K085.4.045 | 140 | 255 |
| <b>100/112B14</b> | K085.4.047 | 160 | 264 |
| <b>132B14</b>     | KC50.4.041 | 200 | 282 |

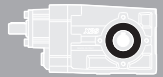


4 holes M8x20

Mounting holes  
positionPosizione fori  
di montaggio**Standard**  
Hollow shaft**On request**  
A richiesta**PX62A...FB..**Feet  
Piedini**PX62A...-F2..**Output flange  
Flangia uscita**PX62A...-F3..**Output flange  
Flangia uscita**PX62A...-F4..**Output flange  
Flangia uscita**RX62A...**Input shaft  
Albero in entrata**PX62A...BR..**Reaction Arm  
Braccio di reazione

kit cod. KX6A.9.027

**PX62A...**Single output shaft  
Albero semplice in uscita



## QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br> | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                  |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                  |             |
| 24.7                                          | <b>56.76</b>  | 1.1                             | 398                               | 1.0                    | <b>1.1</b>                        | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 191311           | 01          |
| 21.3                                          | <b>65.79</b>  | 0.75                            | 316                               | 1.3                    | <b>0.97</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 171311           | 02          |
| 18.1                                          | <b>77.23</b>  | 0.75                            | 371                               | 1.1                    | <b>0.83</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 151311           | 03          |
| 16.0                                          | <b>87.23</b>  | 0.75                            | 420                               | 1.0                    | <b>0.73</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 19138            | 04          |
| 15.2                                          | <b>92.18</b>  | 0.75                            | 443                               | 0.9                    | <b>0.69</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 131311           | 05          |
| 13.9                                          | <b>100.47</b> | 0.55                            | 357                               | 1.2                    | <b>0.64</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 19811            | 06          |
| 12.0                                          | <b>116.45</b> | 0.55                            | 413                               | 1.0                    | <b>0.55</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 17811            | 07          |
| 11.1                                          | <b>125.82</b> | 0.55                            | 446                               | 0.9                    | <b>0.51</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 101311           | 08          |
| 9.9                                           | <b>141.66</b> | 0.37                            | 336                               | 1.2                    | <b>0.45</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 13138            | 09          |
| 8.6                                           | <b>163.16</b> | 0.37                            | 387                               | 1.1                    | <b>0.39</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 13811            | 10          |
| 7.8                                           | <b>178.96</b> | 0.37                            | 424                               | 1.0                    | <b>0.36</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 1788             | 11          |
| 7.2                                           | <b>193.36</b> | 0.37                            | 459                               | 0.9                    | <b>0.33</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 10138            | 12          |
| 6.5                                           | <b>216.84</b> | 0.25                            | 347                               | 1.2                    | <b>0.29</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 71311            | 13          |
| 5.5                                           | <b>252.36</b> | 0.25                            | 404                               | 1.0                    | <b>0.25</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 9138             | 14          |
| 4.8                                           | <b>290.67</b> | 0.25                            | 465                               | 0.9                    | <b>0.22</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 9811             | 15          |
| 4.2                                           | <b>333.23</b> | 0.18                            | 408                               | 1.0                    | <b>0.19</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 7138             | 16          |
| 3.6                                           | <b>383.82</b> | 0.18                            | 470                               | 0.9                    | <b>0.17</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 7811             | 17          |
| 3.1                                           | <b>446.70</b> | 0.12                            | 353                               | 1.2                    | <b>0.14</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 988              | 18          |
| 2.4                                           | <b>589.85</b> | 0.12                            | 466                               | 0.9                    | <b>0.11</b>                       | <b>410</b>                         | B                          |    |    |    | C                           | C  |    | 788              | 19          |

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X63A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X63A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X63A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X63A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X63A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 1.80 LT             | 1.80 LT                                                                                                                            | 1.05 LT | 1.70 LT | 2.60 LT               | 1.65 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

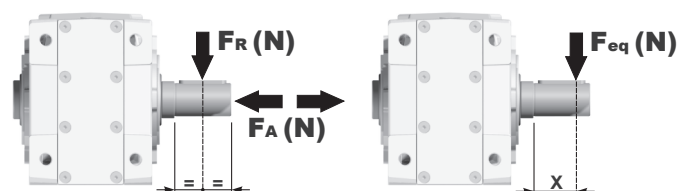
tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{69}{X+39}$$



| $n_2$<br>[min <sup>-1</sup> ] | FA  | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   | $n_2$<br>[min <sup>-1</sup> ] | FA   | FR   |
|-------------------------------|-----|------|-------------------------------|------|------|-------------------------------|------|------|
| 250                           | 600 | 3000 | 75                            | 890  | 4450 | 15                            | 1660 | 8300 |
| 150                           | 700 | 3500 | 50                            | 1140 | 5700 |                               |      |      |
| 100                           | 780 | 3900 | 25                            | 1330 | 6650 |                               |      |      |

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata

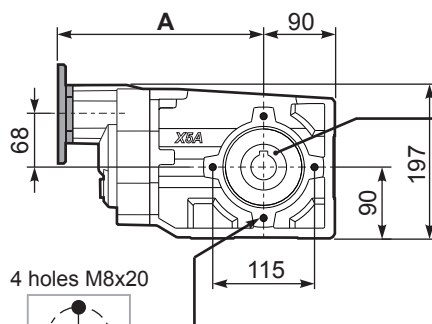
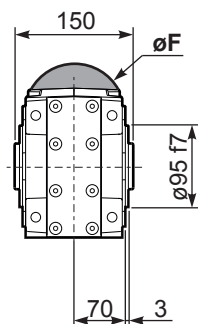
| $n_1$<br>[min <sup>-1</sup> ] | FA<br>[N] | FR<br>[N] |
|-------------------------------|-----------|-----------|
| 1400                          | 400       | 2000      |
| 900                           | 440       | 2200      |
| 500                           | 440       | 2200      |

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

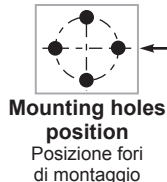
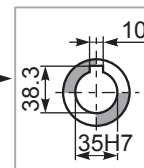
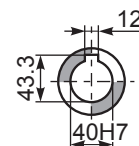
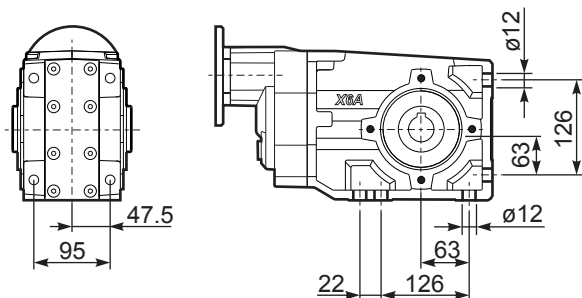
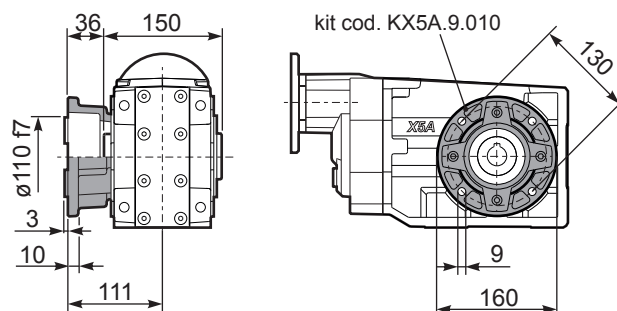
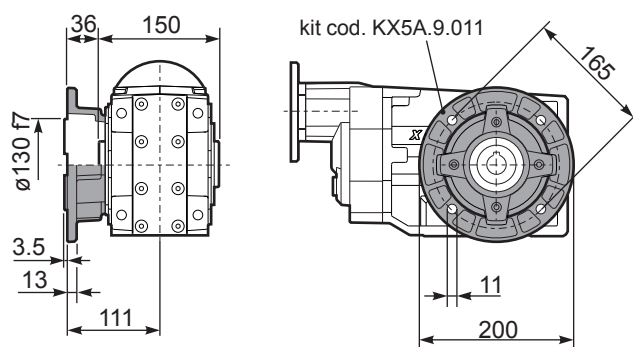
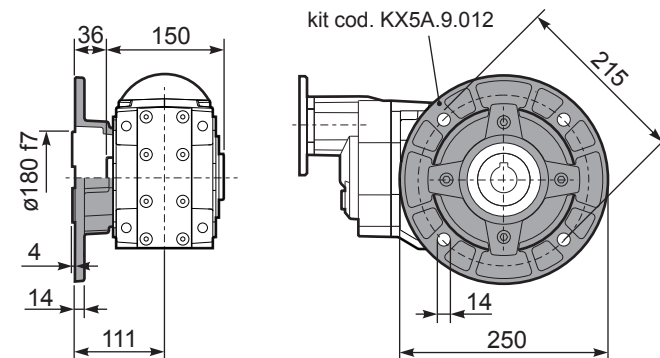
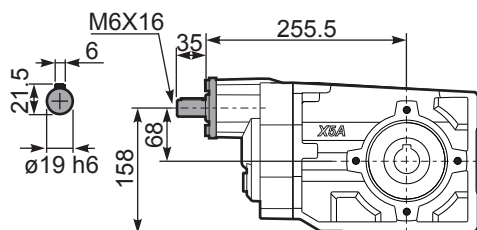
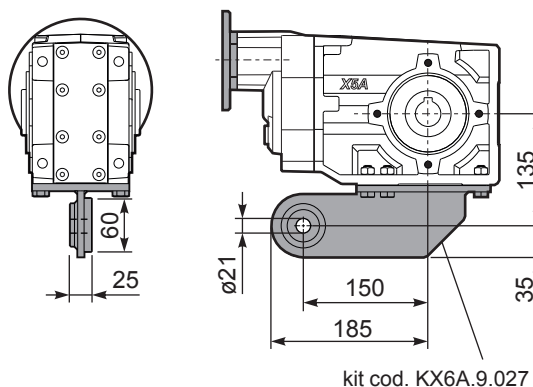
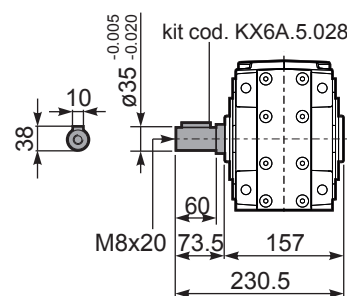
tab. 2

**PX63AC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **15.98 kg**

| M. flanges     | Kit code   | øF  | A   |
|----------------|------------|-----|-----|
| <b>63B5</b>    | K063.4.041 | 140 | 265 |
| <b>71B5</b>    | K063.4.042 | 160 | 263 |
| <b>80/90B5</b> | K063.4.043 | 200 | 265 |
| <b>71B14</b>   | K063.4.047 | 105 | 263 |
| <b>80B14</b>   | K063.4.046 | 120 | 265 |
| <b>90B14</b>   | K063.4.041 | 140 | 265 |



4 holes M8x20

Mounting holes  
position  
Posizione fori  
di montaggio**Standard**  
Hollow shaft**On request**  
A richiesta**PX63A...FB..**Feet  
Piedini**PX63A...-F2..**Output flange  
Flangia uscita**PX63A...-F3..**Output flange  
Flangia uscita**PX63A...-F4..**Output flange  
Flangia uscita**RX63A...**Input shaft  
Albero in entrata**PX63A...BR..**Reaction Arm  
Braccio di reazione**PX63A...**Single output shaft  
Albero semplice in uscita





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |     |     | Available B14 motor flanges |    |    |     |     | Output Shaft<br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|-----|-----|-----------------------------|----|----|-----|-----|-------------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F  | -G  | -R                          | -T | -U | -V  |     |                               |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100 | 112 | 132                         | 80 | 90 | 100 | 112 |                               |                 |
| 176                                           | 7.94         | 7.5                             | 369                               | 1.0                    | 7.5                               | 380                                | B                          |    |    |     |     |                             |    |    |     |     | 302418                        | 01              |
| 153                                           | 9.13         | 7.5                             | 425                               | 0.9                    | 6.7                               | 390                                | B                          |    |    |     |     |                             |    |    |     |     | 302416                        | 02              |
| 131                                           | 10.66        | 5.5                             | 366                               | 1.1                    | 6.0                               | 410                                | B                          |    |    |     |     |                             |    |    |     |     | 302414                        | 03              |
| 94                                            | 14.97        | 5.5                             | 514                               | 1.1                    | 6.0                               | 580                                | B                          |    |    |     |     |                             |    |    |     |     | 202418                        | 04              |
| 81                                            | 17.21        | 5.5                             | 591                               | 1.0                    | 5.4                               | 600                                | B                          |    |    |     |     |                             |    |    |     |     | 202416                        | 05              |
| 69                                            | 20.24        | 5.5                             | 695                               | 1.0                    | 5.2                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 162418                        | 06              |
| 60                                            | 23.27        | 4                               | 585                               | 1.2                    | 4.5                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 162416                        | 07              |
| 53                                            | 26.31        | 4                               | 661                               | 1.0                    | 4.0                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 132418                        | 08              |
| 46.3                                          | 30.25        | 4                               | 760                               | 0.9                    | 3.5                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 132416                        | 09              |
| 39.6                                          | 35.32        | 3                               | 668                               | 1.0                    | 3.0                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 132414                        | 10              |
| 37.8                                          | 37.03        | 3                               | 701                               | 1.0                    | 2.8                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 112416                        | 11              |
| 32.4                                          | 43.23        | 2.2                             | 602                               | 1.1                    | 2.4                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 112414                        | 12              |
| 30.1                                          | 46.58        | 2.2                             | 649                               | 1.0                    | 2.3                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 82418                         | 13              |
| 26.1                                          | 53.55        | 2.2                             | 746                               | 0.9                    | 2.0                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 82416                         | 14              |
| 22.4                                          | 62.52        | 1.5                             | 600                               | 1.1                    | 1.7                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 82414                         | 15              |
| 19.0                                          | 73.75        | 1.1                             | 517                               | 1.1                    | 1.2                               | 580                                | B                          |    |    |     |     |                             |    |    |     |     | 62416                         | 16              |
| 16.3                                          | 86.09        | 1.1                             | 604                               | 1.1                    | 1.2                               | 675                                | B                          |    |    |     |     |                             |    |    |     |     | 62414                         | 17              |

The dynamic efficiency is 0.94 for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X73C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X73C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X73C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X73C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X73C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 2.45 LT             | 2.55 LT                                                                                                                            | 1.80 LT | 1.95 LT | 4.05 LT               | 2.55 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

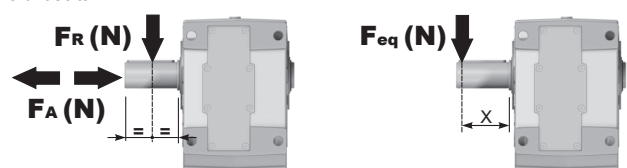
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$$



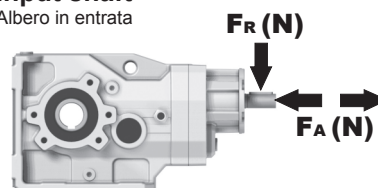
| $n_2$ | FA   | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR   |
|-------|------|------|-------|------|------|-------|------|------|
| 300   | 1360 | 6800 | 140   | 1480 | 7400 | 70    | 1720 | 8600 |
| 250   | 1400 | 7000 | 120   | 1520 | 7600 | 40    | 1840 | 9200 |
| 200   | 1440 | 7200 | 85    | 1560 | 7800 | 15    | 1920 | 9600 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

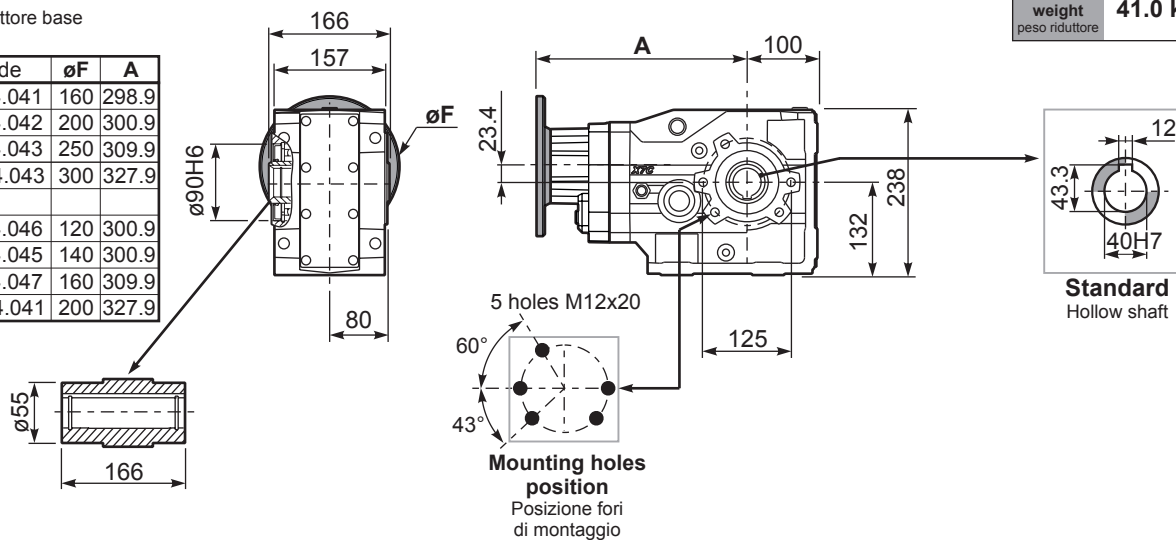
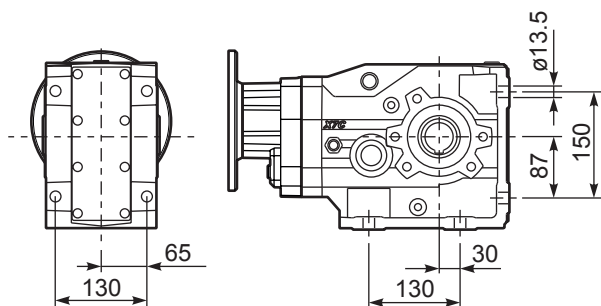
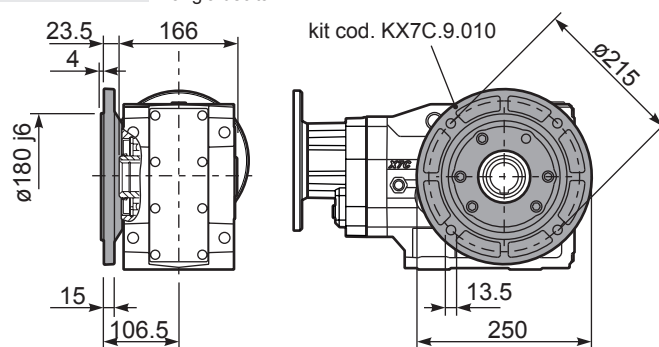
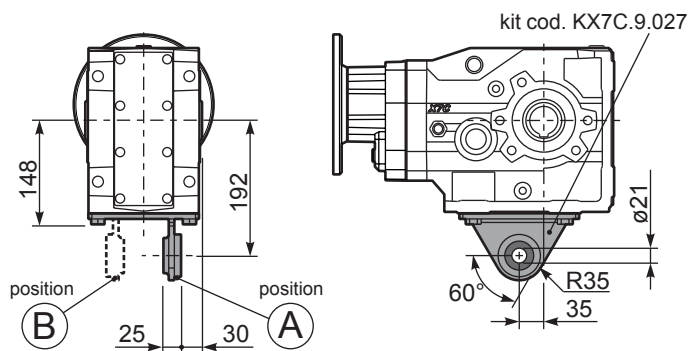
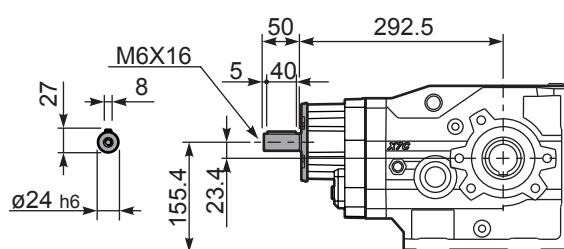
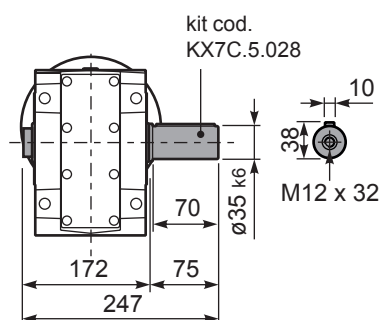
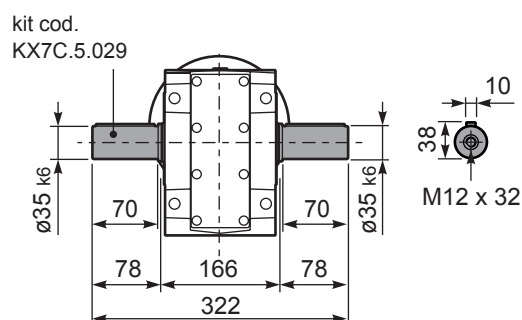


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

tab. 2

**PX73CC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**41.0 kg**

| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>71B5</b>       | K023.4.041 | 160 | 298.9 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 300.9 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 309.9 |
| <b>132B5</b>      | KC50.4.043 | 300 | 327.9 |
|                   |            |     |       |
| <b>80B14</b>      | K085.4.046 | 120 | 300.9 |
| <b>90B14</b>      | K085.4.045 | 140 | 300.9 |
| <b>100/112B14</b> | K085.4.047 | 160 | 309.9 |
| <b>132B14</b>     | KC50.4.041 | 200 | 327.9 |

**PX73C...FB..**Feet  
Piedini**PX73C...-F4...**Output flange  
Flangia uscita**PX73C...BR..**Reaction Arm  
Braccio di reazione**RX73C...**Input shaft  
Albero in entrata**PX73CA...**Single shaft  
Albero lento semplice**PX73CB...**Double shaft  
Albero lento bisp.



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    |          | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------|------------------|-----------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |          |                  |                 |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |          |                  |                 |
| 18.7                                          | <b>74.79</b>  | 1.5                             | 704                               | 1.0                    | <b>1.4</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19132418 | standard<br>ø40  | 01              |
| 16.3                                          | <b>85.99</b>  | 1.1                             | 591                               | 1.1                    | <b>1.3</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19132416 |                  | 02              |
| 14.0                                          | <b>99.66</b>  | 1.1                             | 685                               | 1.0                    | <b>1.1</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 17132416 |                  | 03              |
| 12.0                                          | <b>116.35</b> | 0.75                            | 548                               | 1.2                    | <b>0.92</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 17132414 |                  | 04              |
| 11.5                                          | <b>121.45</b> | 0.75                            | 572                               | 1.2                    | <b>0.89</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 13132418 |                  | 05              |
| 10.0                                          | <b>139.64</b> | 0.75                            | 658                               | 1.0                    | <b>0.77</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 13132416 |                  | 06              |
| 9.2                                           | <b>152.21</b> | 0.75                            | 717                               | 0.9                    | <b>0.71</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19082416 |                  | 07              |
| 8.6                                           | <b>163.02</b> | 0.55                            | 567                               | 1.2                    | <b>0.66</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 13132414 |                  | 08              |
| 7.9                                           | <b>177.69</b> | 0.55                            | 618                               | 1.1                    | <b>0.61</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19082414 |                  | 09              |
| 6.8                                           | <b>205.95</b> | 0.55                            | 716                               | 0.9                    | <b>0.52</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 17082414 |                  | 10              |
| 6.3                                           | <b>222.52</b> | 0.55                            | 774                               | 0.9                    | <b>0.48</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 10132414 |                  | 11              |
| 5.6                                           | <b>248.76</b> | 0.37                            | 578                               | 1.2                    | <b>0.43</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9132416  |                  | 12              |
| 4.8                                           | <b>290.41</b> | 0.37                            | 675                               | 1.0                    | <b>0.37</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9132414  |                  | 13              |
| 4.1                                           | <b>337.39</b> | 0.37                            | 784                               | 0.9                    | <b>0.32</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 10082416 |                  | 14              |
| 3.6                                           | <b>393.88</b> | 0.25                            | 618                               | 1.1                    | <b>0.27</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 10082414 |                  | 15              |
| 3.2                                           | <b>440.33</b> | 0.25                            | 690                               | 1.0                    | <b>0.24</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9082416  |                  | 16              |
| 2.7                                           | <b>514.06</b> | 0.18                            | 616                               | 1.1                    | <b>0.21</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9082414  |                  | 17              |
| 2.4                                           | <b>581.44</b> | 0.18                            | 697                               | 1.0                    | <b>0.18</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 7082416  |                  | 18              |
| 2.1                                           | <b>678.79</b> | 0.12                            | 526                               | 1.3                    | <b>0.16</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 7082414  |                  | 19              |

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X74C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X74C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X74C** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X74C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X74C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 3.55 LT             | 2.65 LT                                                                                                                            | 1.90 LT | 2.05 LT | 4.25 LT               | 2.65 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$$

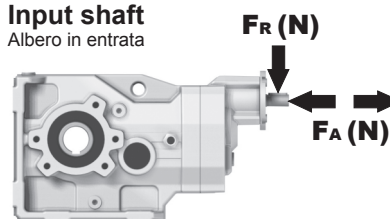


| $n_2$ | FA   | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR   |
|-------|------|------|-------|------|------|-------|------|------|
| 300   | 1360 | 6800 | 140   | 1480 | 7400 | 70    | 1720 | 8600 |
| 250   | 1400 | 7000 | 120   | 1520 | 7600 | 40    | 1840 | 9200 |
| 200   | 1440 | 7200 | 85    | 1560 | 7800 | 15    | 1920 | 9600 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft  
Albero in entrata



| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |
| 500   | 310 | 1700 |

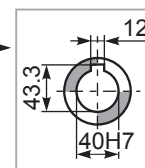
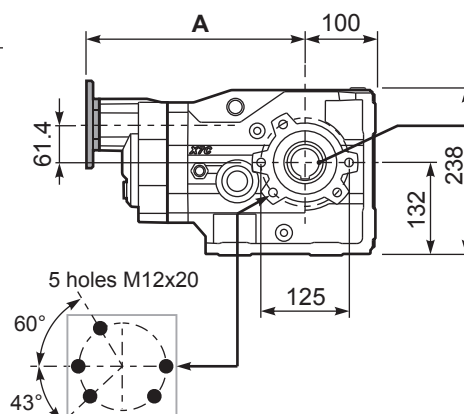
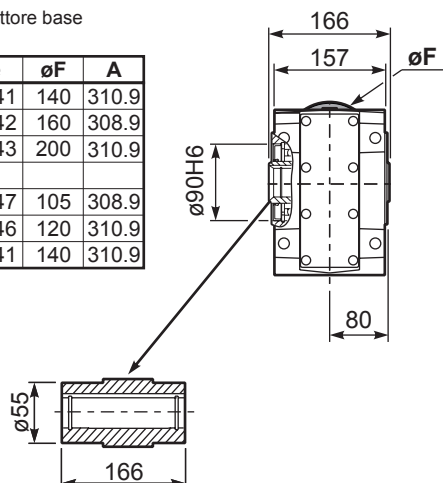
tab. 2

**P**X74CC...

Basic Gearbox  
Riduttore base

|                                         |                |
|-----------------------------------------|----------------|
| <b>Gearbox weight</b><br>peso riduttore | <b>39.0 kg</b> |
|-----------------------------------------|----------------|

| M. flanges     | Kit code   | ØF  | A     |
|----------------|------------|-----|-------|
| <b>63B5</b>    | K063.4.041 | 140 | 310.9 |
| <b>71B5</b>    | K063.4.042 | 160 | 308.9 |
| <b>80/90B5</b> | K063.4.043 | 200 | 310.9 |
|                |            |     |       |
| <b>71B14</b>   | K063.4.047 | 105 | 308.9 |
| <b>80B14</b>   | K063.4.046 | 120 | 310.9 |
| <b>90B14</b>   | K063.4.041 | 140 | 310.9 |

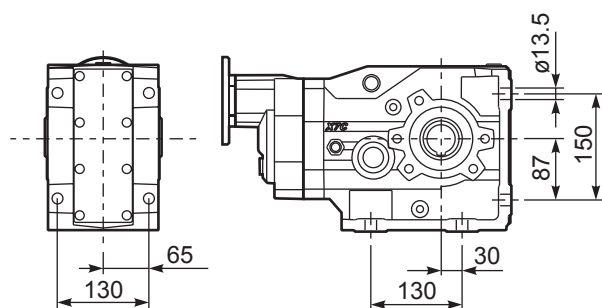


## Standard

Hollow shaft

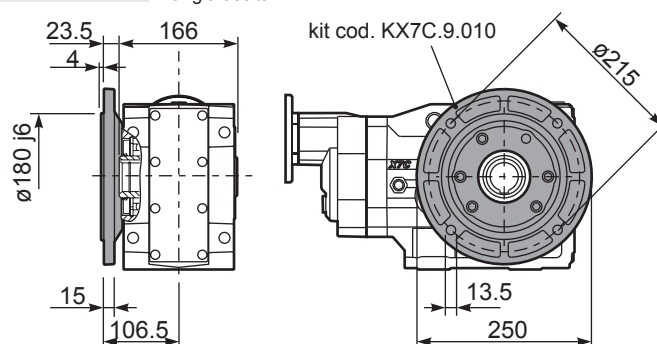
### Mounting holes

**position**  
Posizione fori  
di montaggio

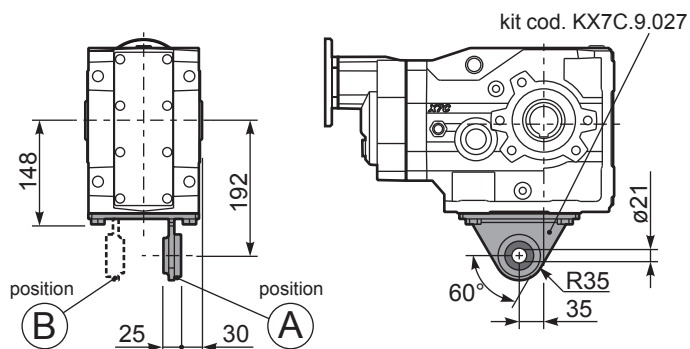
PX74C...**FB..**Feet  
Piedini

## PX74C...-F4...

Output flange  
Flangia uscita

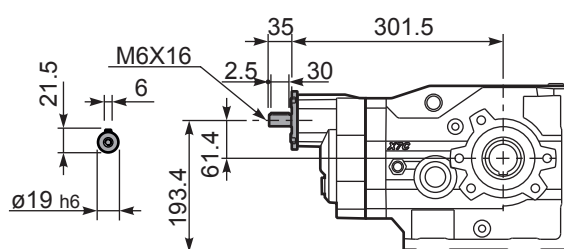
PX74C...**BR..**

Reaction Arm  
Braccio di reazione

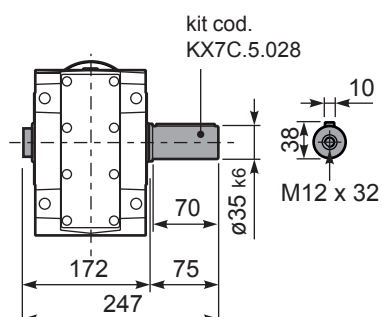


## Rx74C...

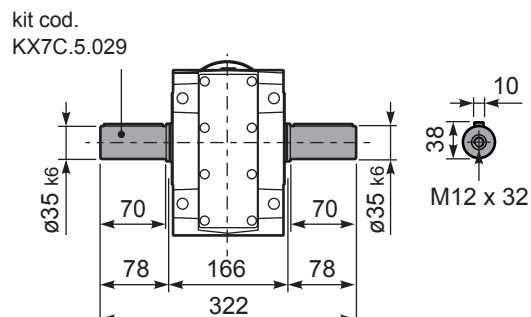
Input shaft  
Albero in entrata

PX74C**A**...

Single shaft  
Albero lento semplice

PX74C**B**...

Double shaft  
Albero lento bisp.





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br><br>n <sub>2</sub><br>[min <sup>-1</sup> ] | Ratio<br><br>i | Motor power<br><br>P <sub>1M</sub><br>[kW] | Output torque<br><br>M <sub>2M</sub><br>[Nm] | Service factor<br><br>f.s. | Nominal power<br><br>P <sub>1R</sub><br>[kW] | Nominal torque<br><br>M <sub>2R</sub><br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |        |  | Output Shaft<br> | <br>Ratios code |
|------------------------------------------------------------|----------------|--------------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|-----------------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|--------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                                            |                |                                            |                                              |                            |                                              |                                               | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V     |                                                                                     |                                                                                                     |                                                                                                    |
|                                                            |                |                                            |                                              |                            |                                              |                                               | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132    |                                                                                     |                                                                                                     |                                                                                                    |
| 145                                                        | 9.69           | 9                                          | 560                                          | 1.3                        | 12.2                                         | 755                                           | B                          |    |    |            |     |                             |    |            | 302418 | standard<br>ø40                                                                     | 01                                                                                                  |                                                                                                    |
| 126                                                        | 11.09          | 9                                          | 641                                          | 1.1                        | 9.6                                          | 680                                           | B                          |    |    |            |     |                             |    |            | 302416 |                                                                                     | 02                                                                                                  |                                                                                                    |
| 108                                                        | 12.90          | 9                                          | 746                                          | 1.1                        | 9.6                                          | 790                                           | B                          |    |    |            |     |                             |    |            | 302414 |                                                                                     | 03                                                                                                  |                                                                                                    |
| 77                                                         | 18.26          | 7.5                                        | 849                                          | 1.1                        | 8.0                                          | 935                                           | B                          |    |    |            |     |                             |    |            | 202418 |                                                                                     | 04                                                                                                  |                                                                                                    |
| 67                                                         | 20.91          | 7.5                                        | 972                                          | 1.0                        | 7.5                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 202416 |                                                                                     | 05                                                                                                  |                                                                                                    |
| 58                                                         | 24.32          | 5.5                                        | 835                                          | 1.2                        | 6.4                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 202414 |                                                                                     | 06                                                                                                  |                                                                                                    |
| 49.5                                                       | 28.27          | 5.5                                        | 971                                          | 1.0                        | 5.5                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 162416 |                                                                                     | 07                                                                                                  |                                                                                                    |
| 42.6                                                       | 32.88          | 4                                          | 826                                          | 1.2                        | 4.7                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 162414 |                                                                                     | 08                                                                                                  |                                                                                                    |
| 38.1                                                       | 36.76          | 4                                          | 924                                          | 1.1                        | 4.2                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 132416 |                                                                                     | 09                                                                                                  |                                                                                                    |
| 32.7                                                       | 42.76          | 3                                          | 809                                          | 1.2                        | 3.6                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 132414 |                                                                                     | 10                                                                                                  |                                                                                                    |
| 31.1                                                       | 45.00          | 3                                          | 851                                          | 1.2                        | 3.5                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 112416 |                                                                                     | 11                                                                                                  |                                                                                                    |
| 26.8                                                       | 52.33          | 3                                          | 990                                          | 1.0                        | 3.0                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 112414 |                                                                                     | 12                                                                                                  |                                                                                                    |
| 24.6                                                       | 56.82          | 2.2                                        | 791                                          | 1.1                        | 2.3                                          | 850                                           | B                          |    |    |            |     |                             |    |            | 82418  |                                                                                     | 13                                                                                                  |                                                                                                    |
| 21.5                                                       | 65.07          | 2.2                                        | 906                                          | 1.1                        | 2.3                                          | 975                                           | B                          |    |    |            |     |                             |    |            | 82416  |                                                                                     | 14                                                                                                  |                                                                                                    |
| 18.5                                                       | 75.68          | 2.2                                        | 1054                                         | 0.9                        | 2.1                                          | 1000                                          | B                          |    |    |            |     |                             |    |            | 82414  |                                                                                     | 15                                                                                                  |                                                                                                    |
| 15.6                                                       | 89.61          | 1.1                                        | 628                                          | 1.1                        | 1.2                                          | 710                                           | B                          |    |    |            |     |                             |    |            | 62416  |                                                                                     | 16                                                                                                  |                                                                                                    |
| 13.4                                                       | 104.22         | 1.1                                        | 731                                          | 1.1                        | 1.2                                          | 820                                           | B                          |    |    |            |     |                             |    |            | 62414  |                                                                                     | 17                                                                                                  |                                                                                                    |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **X83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>B3</b>                                                                           | <b>B6</b>                                                                            | <b>B7</b>                                                                             | <b>B8</b>                                                                             | <b>V5</b>                                                                             | <b>V6</b>                                                                             | <b>V8</b>                                                                             |
| 2.80 LT                                                                             | 3.10 LT                                                                              | 2.00 LT                                                                               | 2.50 LT                                                                               | 4.95 LT                                                                               | 2.80 LT                                                                               | Ask                                                                                   |

AGIP Blasias 460

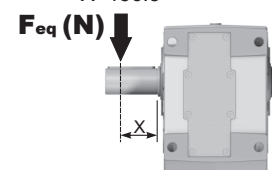
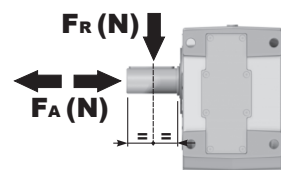
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$$F_{eq} = FR \cdot \frac{196.5}{X + 156.5}$$

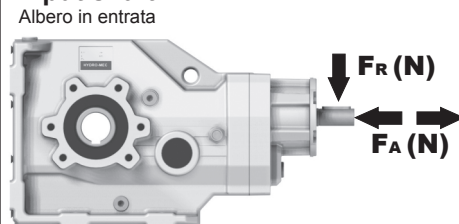


| $n_2$ | FA   | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR    |
|-------|------|------|-------|------|------|-------|------|-------|
| 300   | 1700 | 8500 | 140   | 1860 | 9300 | 70    | 2160 | 10800 |
| 250   | 1760 | 8800 | 120   | 1900 | 9500 | 40    | 2300 | 11500 |
| 200   | 1800 | 9000 | 85    | 1960 | 9800 | 15    | 2400 | 12000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft  
Albero in entrata



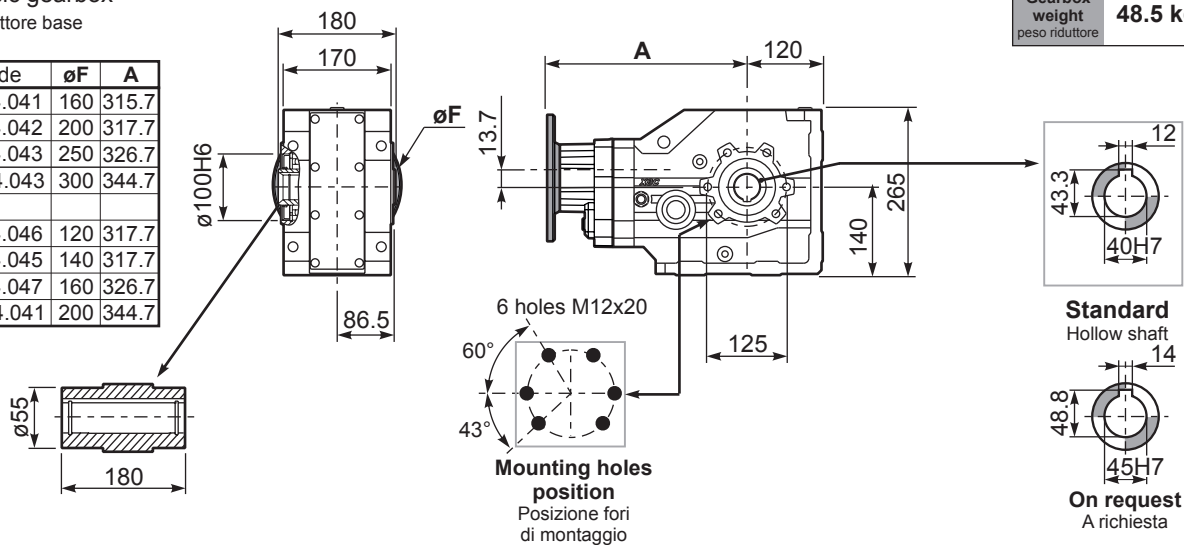
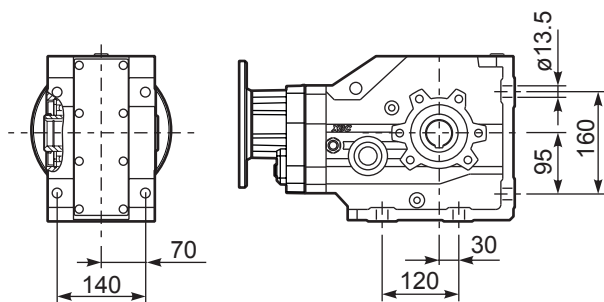
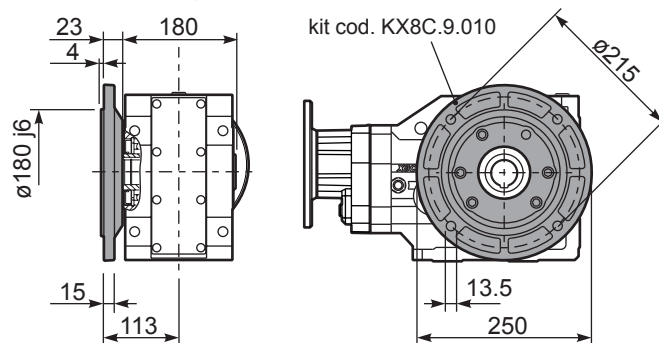
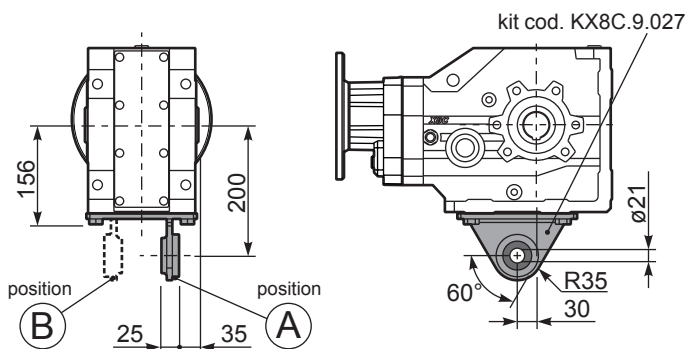
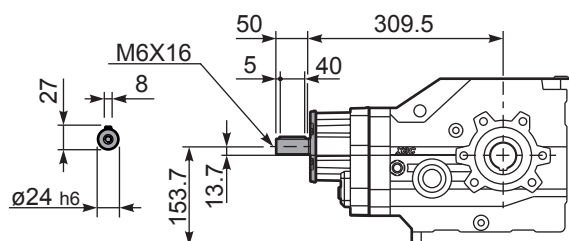
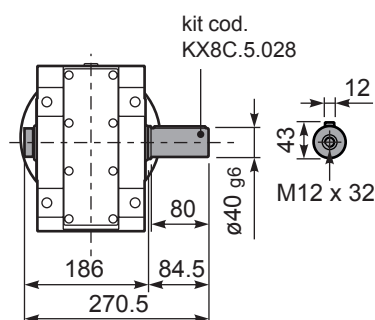
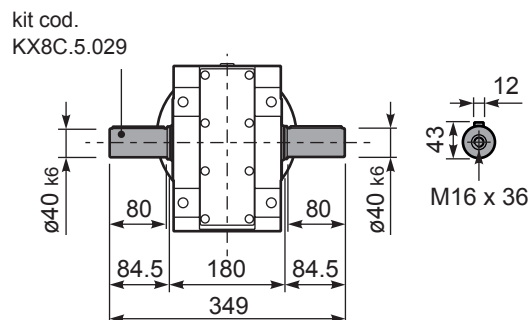
| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

tab. 2



**PX83CC...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **48.5 kg**

| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>71B5</b>       | K023.4.041 | 160 | 315.7 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 317.7 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 326.7 |
| <b>132B5</b>      | KC50.4.043 | 300 | 344.7 |
| <b>80B14</b>      | K085.4.046 | 120 | 317.7 |
| <b>90B14</b>      | K085.4.045 | 140 | 317.7 |
| <b>100/112B14</b> | K085.4.047 | 160 | 326.7 |
| <b>132B14</b>     | KC50.4.041 | 200 | 344.7 |

**PX83C...FB..**Feet  
Piedini**PX83C...-F4..**Output flange  
Flangia uscita**PX83C...BR..**Reaction Arm  
Braccio di reazione**RX83C...**Input shaft  
Albero in entrata**PX83CA...**Single shaft  
Albero lento semplice**PX83CB...**Double shaft  
Albero lento bisp.



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------------------------------------------------------------------------------------------------------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                                                                                                      |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                                                                                                      |             |
| 15.3                                          | <b>91.23</b>  | 1.5                             | 858                               | 1.2                    | <b>1.7</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19132418                                                                                                             | 01          |
| 13.4                                          | <b>104.48</b> | 1.5                             | 983                               | 1.0                    | <b>1.5</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19132416                                                                                                             | 02          |
| 11.6                                          | <b>121.10</b> | 1.5                             | 1139                              | 0.9                    | <b>1.3</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 17132416                                                                                                             | 03          |
| 9.9                                           | <b>140.84</b> | 1.1                             | 968                               | 1.0                    | <b>1.1</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 17132414                                                                                                             | 04          |
| 8.5                                           | <b>165.32</b> | 1.1                             | 1136                              | 0.9                    | <b>0.96</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 15132414                                                                                                             | 05          |
| 7.6                                           | <b>184.94</b> | 0.75                            | 872                               | 1.1                    | <b>0.86</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19082416                                                                                                             | 06          |
| 7.1                                           | <b>197.34</b> | 0.75                            | 930                               | 1.1                    | <b>0.81</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 13132414                                                                                                             | 07          |
| 6.5                                           | <b>215.10</b> | 0.75                            | 1014                              | 1.0                    | <b>0.74</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19082414                                                                                                             | 08          |
| 6.0                                           | <b>231.60</b> | 0.55                            | 805                               | 1.2                    | <b>0.69</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 10132416                                                                                                             | 09          |
| 5.6                                           | <b>249.31</b> | 0.55                            | 867                               | 1.2                    | <b>0.64</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 17082414                                                                                                             | 10          |
| 5.2                                           | <b>269.37</b> | 0.55                            | 937                               | 1.1                    | <b>0.59</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 10132414                                                                                                             | 11          |
| 4.8                                           | <b>292.64</b> | 0.55                            | 1018                              | 1.0                    | <b>0.54</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 15082414                                                                                                             | 12          |
| 4.6                                           | <b>302.26</b> | 0.55                            | 1051                              | 1.0                    | <b>0.53</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 9132416                                                                                                              | 13          |
| 4.0                                           | <b>349.30</b> | 0.37                            | 812                               | 1.2                    | <b>0.46</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 13082414                                                                                                             | 14          |
| 3.5                                           | <b>399.12</b> | 0.37                            | 928                               | 1.1                    | <b>0.40</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 7132416                                                                                                              | 15          |
| 2.9                                           | <b>476.80</b> | 0.37                            | 1108                              | 0.9                    | <b>0.33</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 10082414                                                                                                             | 16          |
| 2.2                                           | <b>622.28</b> | 0.25                            | 976                               | 1.0                    | <b>0.26</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 9082414                                                                                                              | 17          |
| 1.7                                           | <b>821.70</b> | 0.18                            | 985                               | 1.0                    | <b>0.19</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 7082414                                                                                                              | 18          |

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X84C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X84C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X84C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X84C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X84C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| <b>B3</b>                                                                           | <b>B6</b>                                                                            | <b>B7</b>                                                                             | <b>B8</b>                                                                             | <b>V5</b>                                                                             | <b>V6</b>                                                                             | <b>V8</b>                                                                             |
| 4.25 LT                                                                             | 3.20 LT                                                                              | 2.10 LT                                                                               | 2.60 LT                                                                               | 5.20 LT                                                                               | 2.90 LT                                                                               | Ask                                                                                   |

AGIP Blasias 460

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

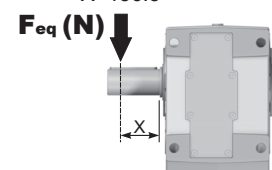
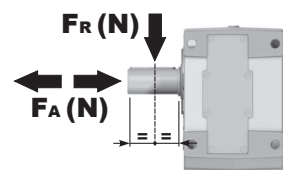
tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{196.5}{X + 156.5}$$



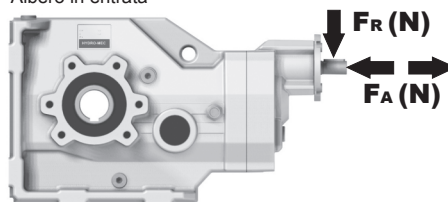
| $n_2$      | FA   | FR   | $n_2$      | FA   | FR   | $n_2$     | FA   | FR    |
|------------|------|------|------------|------|------|-----------|------|-------|
| <b>300</b> | 1700 | 8500 | <b>140</b> | 1860 | 9300 | <b>70</b> | 2160 | 10800 |
| <b>250</b> | 1760 | 8800 | <b>120</b> | 1900 | 9500 | <b>40</b> | 2300 | 11500 |
| <b>200</b> | 1800 | 9000 | <b>85</b>  | 1960 | 9800 | <b>15</b> | 2400 | 12000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

##### Input shaft

Albero in entrata

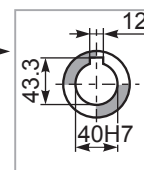
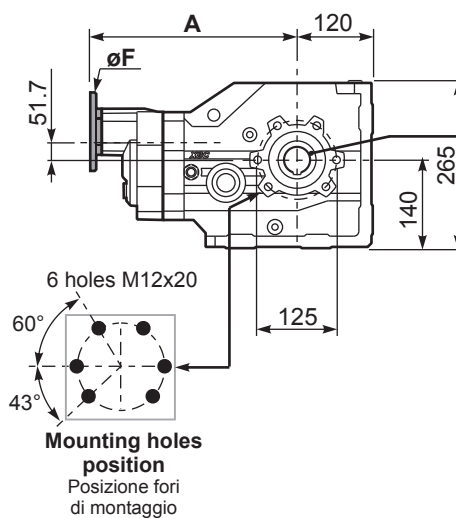
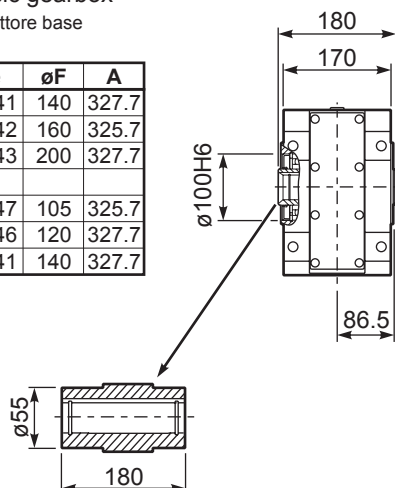
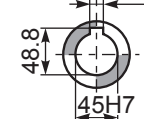
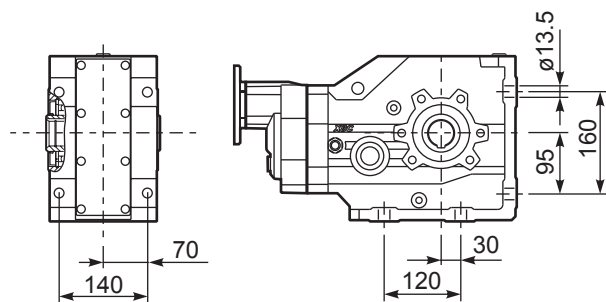
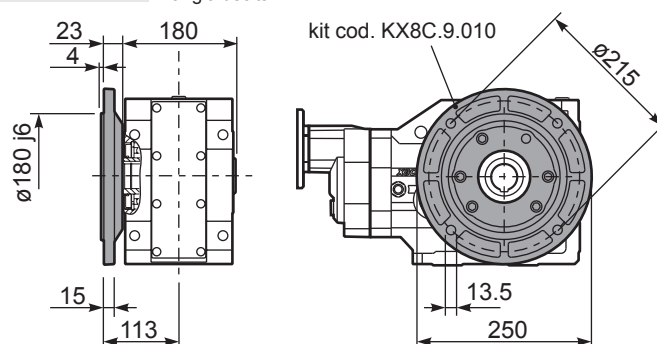
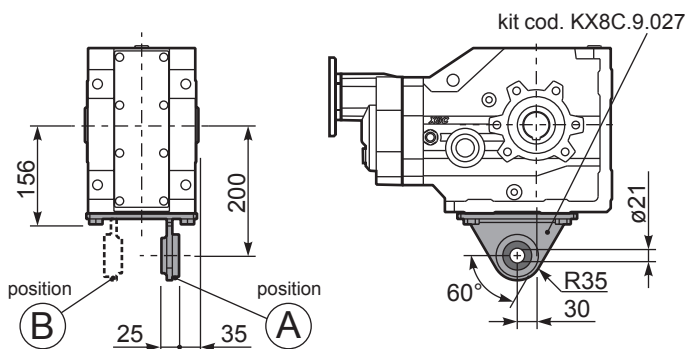
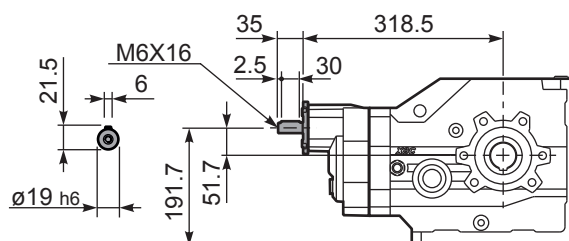
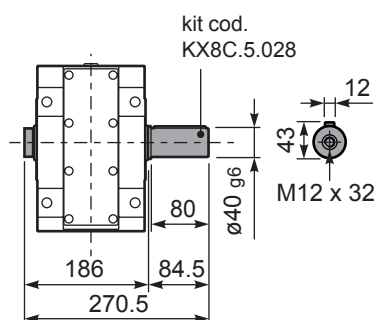
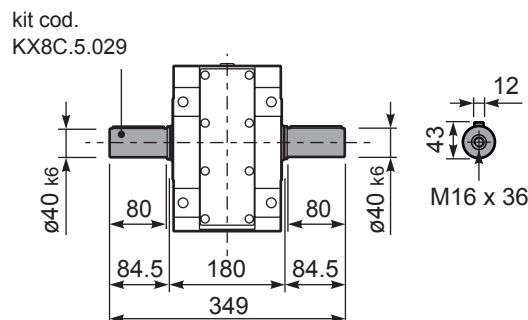


| $n_1$       | FA  | FR   |
|-------------|-----|------|
| <b>1400</b> | 400 | 2000 |
| <b>900</b>  | 440 | 2200 |
| <b>500</b>  | 440 | 2200 |

tab. 2

**PX84CC...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **46.5 kg**

| M. flanges     | Kit code   | øF  | A     |
|----------------|------------|-----|-------|
| <b>63B5</b>    | K063.4.041 | 140 | 327.7 |
| <b>71B5</b>    | K063.4.042 | 160 | 325.7 |
| <b>80/90B5</b> | K063.4.043 | 200 | 327.7 |
| <b>71B14</b>   | K063.4.047 | 105 | 325.7 |
| <b>80B14</b>   | K063.4.046 | 120 | 327.7 |
| <b>90B14</b>   | K063.4.041 | 140 | 327.7 |

Standard  
Hollow shaftOn request  
A richiesta**PX84C...FB..**Feet  
Piedini**PX84C...-F4..**Output flange  
Flangia uscita**PX84C...BR..**Reaction Arm  
Braccio di reazione**RX84C...**Input shaft  
Albero in entrata**PX84CA...**Single shaft  
Albero lento semplice**PX84CB...**Double shaft  
Albero lento bisp.



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     | B14<br>motor flanges |   |   |   | Output Shaft<br> | Output Shaft<br> | Ratios<br>code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|----------------------|---|---|---|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -F                  | -G  | -H  | -I  | -                    | - | - | - |                                                                                                     |                                                                                                     |                                                                                                       |
|                                               |              |                                 |                                   |                        |                                   |                                    | 100<br>112          | 132 | 160 | 180 | -                    | - | - | - |                                                                                                     |                                                                                                     |                                                                                                       |
| 236                                           | <b>5.94</b>  | 22                              | 806                               | 1.0                    | <b>21.0</b>                       | <b>800</b>                         | B                   |     |     |     | not<br>available     |   |   |   | 302915                                                                                              |                                                                                                     | 01                                                                                                    |
| 196                                           | <b>7.13</b>  | 18.5                            | 812                               | 1.0                    | <b>17.9</b>                       | <b>820</b>                         | B                   |     |     |     |                      |   |   |   | 302913                                                                                              |                                                                                                     | 02                                                                                                    |
| 163                                           | <b>8.58</b>  | 18.5                            | 977                               | 1.0                    | <b>17.3</b>                       | <b>950</b>                         | B                   |     |     |     |                      |   |   |   | 302911                                                                                              |                                                                                                     | 03                                                                                                    |
| 125                                           | <b>11.20</b> | 15                              | 1033                              | 1.0                    | <b>13.9</b>                       | <b>1000</b>                        | B                   |     |     |     |                      |   |   |   | 202915                                                                                              |                                                                                                     | 04                                                                                                    |
| 104                                           | <b>13.43</b> | 15                              | 1239                              | 1.1                    | <b>15.7</b>                       | <b>1350</b>                        | B                   |     |     |     |                      |   |   |   | 202913                                                                                              |                                                                                                     | 05                                                                                                    |
| 92                                            | <b>15.15</b> | 15                              | 1397                              | 1.0                    | <b>14.4</b>                       | <b>1400</b>                        | B                   |     |     |     |                      |   |   |   | 162915                                                                                              | standard<br>ø50                                                                                     | 06                                                                                                    |
| 87                                            | <b>16.17</b> | 15                              | 1492                              | 1.0                    | <b>14.0</b>                       | <b>1450</b>                        | B                   |     |     |     |                      |   |   |   | 202911                                                                                              |                                                                                                     | 07                                                                                                    |
| 77                                            | <b>18.16</b> | 15                              | 1675                              | 0.9                    | <b>13.3</b>                       | <b>1550</b>                        | B                   |     |     |     |                      |   |   |   | 162913                                                                                              |                                                                                                     | 08                                                                                                    |
| 71                                            | <b>19.70</b> | 11                              | 1335                              | 1.2                    | <b>12.3</b>                       | <b>1550</b>                        | B                   |     |     |     |                      |   |   |   | 132915                                                                                              | ø45<br>On request                                                                                   | 09                                                                                                    |
| 64                                            | <b>21.87</b> | 11                              | 1482                              | 1.1                    | <b>11.4</b>                       | <b>1600</b>                        | B                   |     |     |     |                      |   |   |   | 162911                                                                                              |                                                                                                     | 10                                                                                                    |
| 59                                            | <b>23.62</b> | 11                              | 1600                              | 1.0                    | <b>10.6</b>                       | <b>1600</b>                        | B                   |     |     |     |                      |   |   |   | 132913                                                                                              |                                                                                                     | 11                                                                                                    |
| 48.4                                          | <b>28.91</b> | 9                               | 1671                              | 1.0                    | <b>8.6</b>                        | <b>1600</b>                        | B                   |     |     |     |                      |   |   |   | 112913                                                                                              |                                                                                                     | 12                                                                                                    |
| 40.2                                          | <b>34.81</b> | 7.5                             | 1618                              | 1.0                    | <b>7.2</b>                        | <b>1600</b>                        | B                   |     |     |     |                      |   |   |   | 112911                                                                                              |                                                                                                     | 13                                                                                                    |
| 33.5                                          | <b>41.81</b> | 5.5                             | 1436                              | 1.1                    | <b>6.0</b>                        | <b>1600</b>                        | B                   |     |     |     |                      |   |   |   | 82913                                                                                               |                                                                                                     | 14                                                                                                    |
| 27.8                                          | <b>50.34</b> | 5.5                             | 1729                              | 0.9                    | <b>5.0</b>                        | <b>1600</b>                        | B                   |     |     |     |                      |   |   |   | 82911                                                                                               |                                                                                                     | 15                                                                                                    |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X93C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X93C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X93C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X93C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X93C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |  |
| <b>B3</b>                                                                           | <b>B6</b>                                                                                                                          | <b>B7</b>                                                                             | <b>B8</b>                                                                             | <b>V5</b>                                                                             | <b>V6</b>                                                                             | <b>V8</b>                                                                             |
| 4.20 LT                                                                             | 3.60 LT                                                                                                                            | 4.40 LT                                                                               | 5.10 LT                                                                               | 7.10 LT                                                                               | 5.00 LT                                                                               | Ask                                                                                   |
| AGIP Blasias 460                                                                    |                                                                                                                                    |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

### RADIAL AND AXIAL LOADS

#### Output shaft

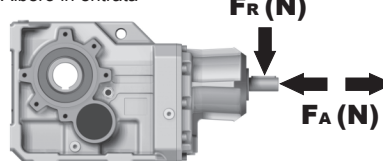
Albero di uscita



| $n_2$      | FA   | FR    | $n_2$      | FA   | FR    | $n_2$     | FA   | FR    |
|------------|------|-------|------------|------|-------|-----------|------|-------|
| <b>300</b> | 1800 | 9000  | <b>140</b> | 2700 | 13500 | <b>70</b> | 3020 | 15100 |
| <b>250</b> | 2400 | 12000 | <b>120</b> | 2800 | 14000 | <b>40</b> | 3200 | 16000 |
| <b>200</b> | 2600 | 13000 | <b>85</b>  | 2900 | 14500 | <b>15</b> | 3500 | 17500 |

#### Input shaft

Albero in entrata



| $n_1$       | FA  | FR   |
|-------------|-----|------|
| <b>1400</b> | 700 | 3500 |
| <b>900</b>  | 840 | 4200 |
| <b>500</b>  | 900 | 4500 |

tab. 2

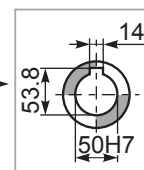
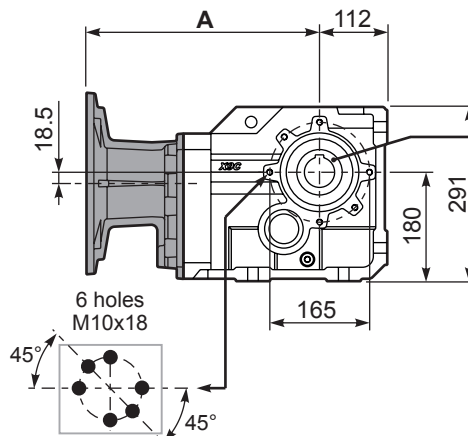
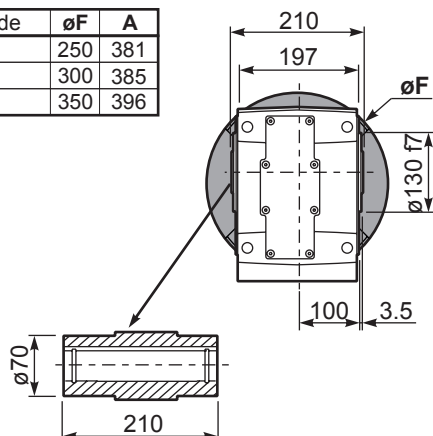
**P**X93CC...

Basic Gearbox  
Riduttore base

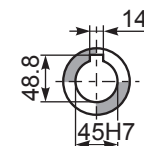
**Gearbox weight**  
peso riduttore

75.0 kg

| M. flanges       | Kit code | øF  | A   |
|------------------|----------|-----|-----|
| <b>100/112B5</b> | -        | 250 | 381 |
| <b>132B5</b>     | -        | 300 | 385 |
| <b>160/180B5</b> | -        | 350 | 396 |

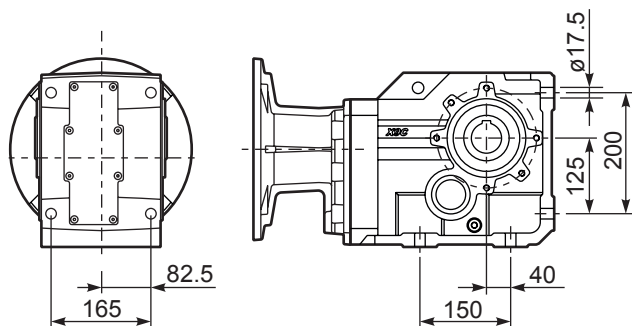


## Standard



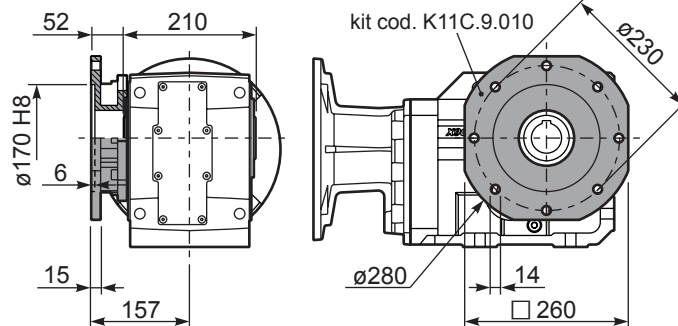
**On request**  
A richiesta

**Mounting holes position**  
Posizione fori di montaggio

PX93C...**FB.**Feet  
Piedini

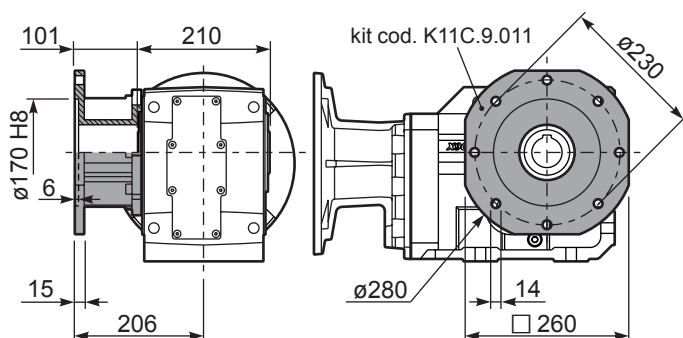
PX93C...-FC.

Output flange  
Flangia uscita

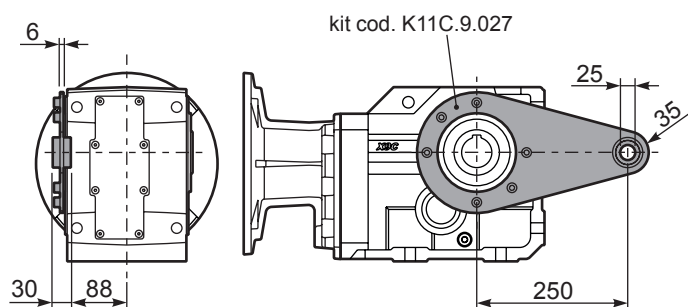


## PX93C...-FL

Output flange  
Flangia uscita

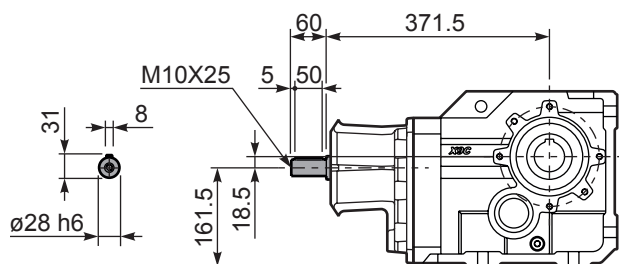
PX93C...**BR..**

Reaction Arm  
Braccio di reazione

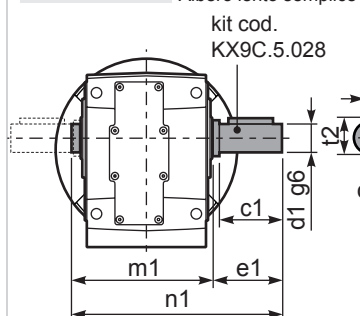


## Rx93C...

Input shaft  
Albero in entrata

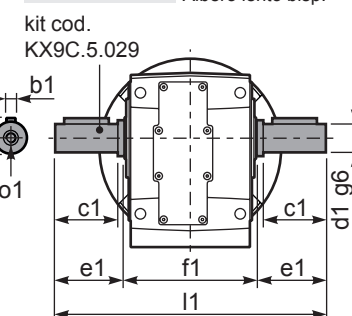
PX93C**A**...

Single shaft  
Albero lento semplice



## PX93CB...

Double shaft  
Albero lento bisp.

[illegible]





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     |          | Output Shaft<br>                         | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|----------|------------------------------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |          |                                          |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |          |                                          |                 |
| 45.6                                          | 30.70        | 7.5                             | 1399                              | 1.1                    | 8.3                               | 1600                               | B                          |    |    |            |     |                             |    |            |     | 30132913 | standard<br>ø50<br><br>ø45<br>On request | 01              |
| 37.9                                          | 36.97        | 7.5                             | 1685                              | 0.9                    | 6.9                               | 1600                               | B                          |    |    |            |     |                             |    |            |     | 30132911 |                                          | 02              |
| 29.0                                          | 48.26        | 5.5                             | 1625                              | 1.0                    | 5.3                               | 1600                               | B                          |    |    |            |     |                             |    |            |     | 20132915 |                                          | 03              |
| 24.2                                          | 57.86        | 4                               | 1425                              | 1.1                    | 4.4                               | 1600                               | B                          |    |    |            |     |                             |    |            |     | 20132913 |                                          | 04              |
| 21.5                                          | 65.24        | 4                               | 1607                              | 1.0                    | 3.9                               | 1600                               | B                          |    |    |            |     |                             |    |            |     | 16132915 |                                          | 05              |
| 20.1                                          | 69.68        | 4                               | 1716                              | 1.0                    | 3.8                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 20132911 |                                          | 06              |
| 17.9                                          | 78.23        | 3                               | 1450                              | 1.1                    | 3.4                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 16132913 |                                          | 07              |
| 16.5                                          | 84.85        | 3                               | 1573                              | 1.0                    | 3.0                               | 1600                               | B                          |    |    |            |     |                             |    |            |     | 13132915 |                                          | 08              |
| 14.9                                          | 94.20        | 3                               | 1747                              | 0.9                    | 2.8                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 16132911 |                                          | 09              |
| 13.8                                          | 101.74       | 3                               | 1886                              | 0.9                    | 2.6                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 13132913 |                                          | 10              |
| 11.4                                          | 122.51       | 2.2                             | 1672                              | 1.0                    | 2.1                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 13132911 |                                          | 11              |
| 9.3                                           | 149.95       | 1.5                             | 1411                              | 1.2                    | 1.8                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 11132911 |                                          | 12              |
| 7.8                                           | 180.09       | 1.5                             | 1694                              | 1.0                    | 1.5                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 8132913  |                                          | 13              |
| 6.8                                           | 206.81       | 1.1                             | 1421                              | 1.1                    | 1.2                               | 1600                               | B                          |    |    |            |     |                             |    |            |     | 6132915  |                                          | 14              |
| 6.5                                           | 216.85       | 1.1                             | 1490                              | 1.1                    | 1.2                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 8132911  |                                          | 15              |
| 5.6                                           | 247.99       | 1.1                             | 1704                              | 1.0                    | 1.1                               | 1650                               | B                          |    |    |            |     |                             |    |            |     | 6132913  |                                          | 16              |
| 4.7                                           | 298.61       | 0.75                            | 1407                              | 1.2                    | 0.88                              | 1650                               | B                          |    |    |            |     |                             |    |            |     | 6132911  |                                          | 17              |

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X94C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X94C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X94C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X94C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X94C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |           |           |           |           |           |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                   |                                                                                                                                    |           |           |           |           |           |
| <b>B3</b>         | <b>B6</b>                                                                                                                          | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 4.50 LT           | 3.80 LT                                                                                                                            | 4.50 LT   | 5.30 LT   | 7.60 LT   | 5.30 LT   | Ask       |
| AGIP Blasias 460  |                                                                                                                                    |           |           |           |           |           |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

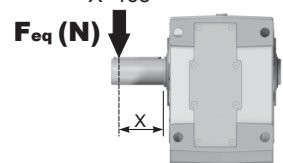
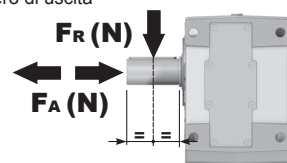
tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

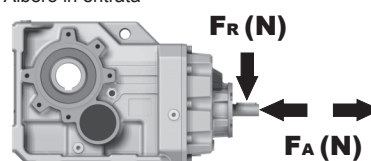
$$F_{eq} = F_R \cdot \frac{218}{X+168}$$



| $n_2$ | FA   | FR    | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|-------|-------|------|-------|-------|------|-------|
| 300   | 1800 | 9000  | 140   | 2700 | 13500 | 70    | 3020 | 15100 |
| 250   | 2400 | 12000 | 120   | 2800 | 14000 | 40    | 3200 | 16000 |
| 200   | 2600 | 13000 | 85    | 2900 | 14500 | 15    | 3500 | 17500 |

### Input shaft

Albero in entrata

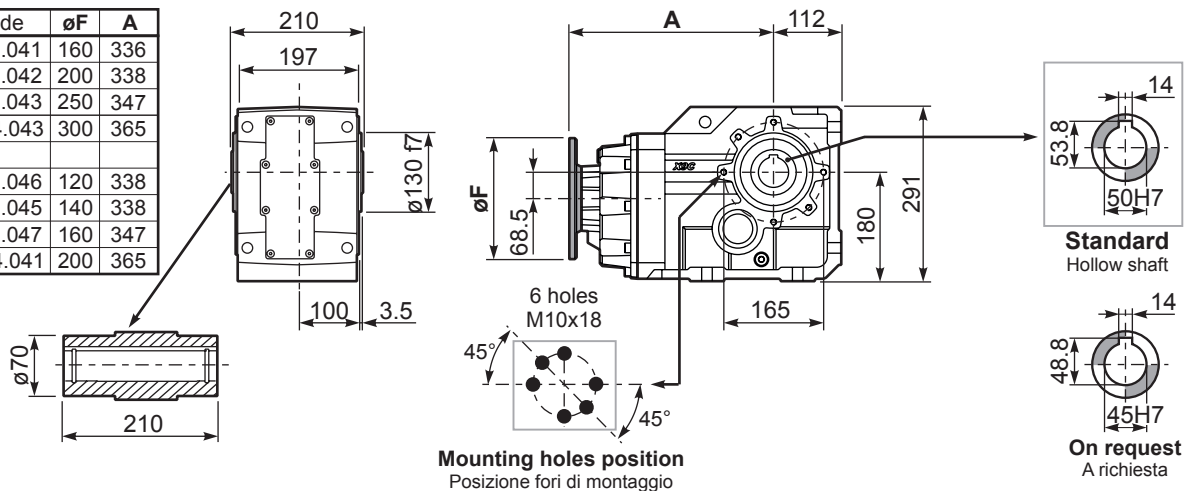
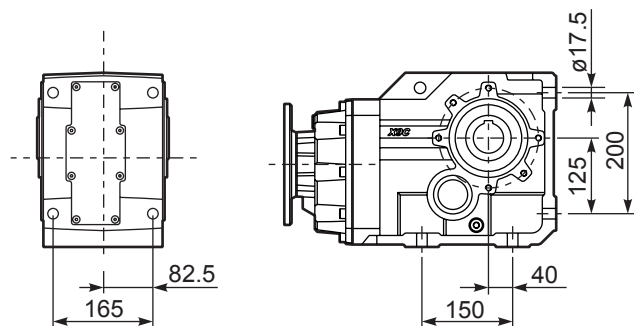
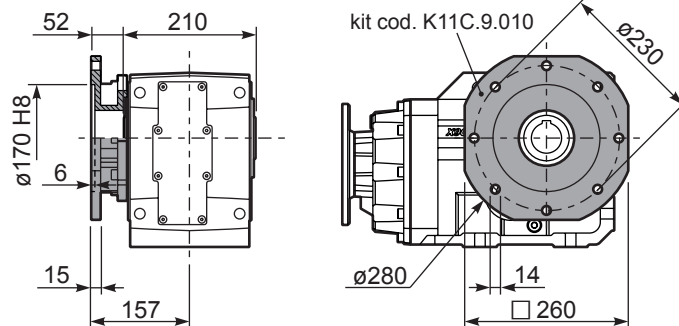
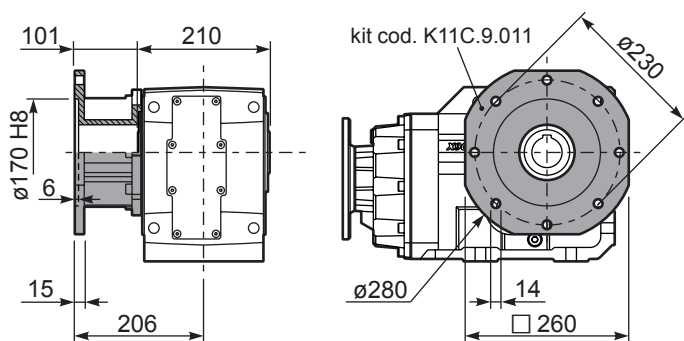
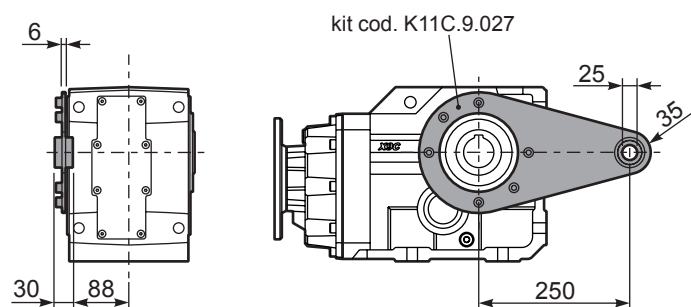
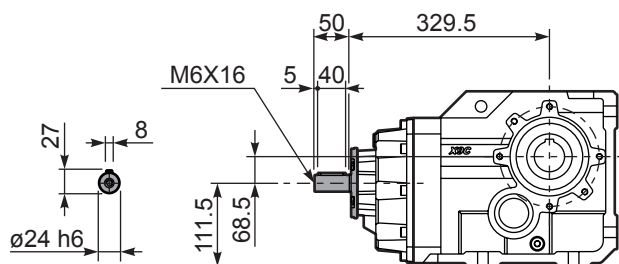
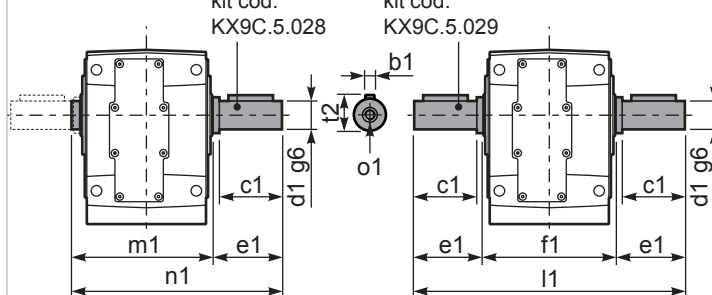


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

tab. 2

**PX94CC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**68.5 kg**

| M. flanges        | Kit code   | øF  | A   |
|-------------------|------------|-----|-----|
| <b>71B5</b>       | K023.4.041 | 160 | 336 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 338 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 347 |
| <b>132B5</b>      | KC50.4.043 | 300 | 365 |
| <b>80B14</b>      | K085.4.046 | 120 | 338 |
| <b>90B14</b>      | K085.4.045 | 140 | 338 |
| <b>100/112B14</b> | K085.4.047 | 160 | 347 |
| <b>132B14</b>     | KC50.4.041 | 200 | 365 |

Mounting holes position  
Posizione fori di montaggio**PX94C...FB..**Feet  
Piedini**PX94C...-FC..**Output flange  
Flangia uscita**PX94C...-FL..**Output flange  
Flangia uscita**PX94C...BR..**Reaction Arm  
Braccio di reazione**RX94C...**Input shaft  
Albero in entrata**PX94CA...**Single shaft  
Albero lento semplicekit cod.  
KX9C.5.028**PX94CB...**Double shaft  
Albero lento bisp.kit cod.  
KX9C.5.029

|          | b1 | c1  | d1 | e1  | f1  | l1  | m1  | n1  | t2   | o1  |
|----------|----|-----|----|-----|-----|-----|-----|-----|------|-----|
| Standard | 14 | 100 | 50 | 105 | 210 | 420 | 218 | 323 | 53.5 | M16 |
| -        | -  | -   | -  | -   | -   | -   | -   | -   | -    | -   |



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     | B14<br>motor flanges |   |   |   |  | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|----------------------|---|---|---|--|------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -G                  | -H  | -I  | -L  | -                    | - | - | - |  |                  |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 132                 | 160 | 180 | 200 | -                    | - | - | - |  |                  |                 |
| 219                                           | <b>6.39</b>  | 30                              | 1180                              | 1.1                    | <b>31.7</b>                       | <b>1300</b>                        |                     |     |     |     |                      |   |   |   |  | 392914           | 01              |
| 200                                           | <b>7.00</b>  | 30                              | 1292                              | 1.1                    | <b>31.2</b>                       | <b>1400</b>                        |                     |     |     |     |                      |   |   |   |  | 392913           | 02              |
| 164                                           | <b>8.55</b>  | 30                              | 1578                              | 1.0                    | <b>27.4</b>                       | <b>1500</b>                        |                     |     |     |     |                      |   |   |   |  | 392911           | 03              |
| 140                                           | <b>10.01</b> | 22                              | 1357                              | 1.2                    | <b>24.9</b>                       | <b>1600</b>                        |                     |     |     |     |                      |   |   |   |  | 302914           | 04              |
| 128                                           | <b>10.97</b> | 22                              | 1486                              | 1.1                    | <b>24.2</b>                       | <b>1700</b>                        |                     |     |     |     |                      |   |   |   |  | 302913           | 05              |
| 105                                           | <b>13.39</b> | 22                              | 1815                              | 1.2                    | <b>24.5</b>                       | <b>2100</b>                        |                     |     |     |     |                      |   |   |   |  | 302911           | 06              |
| 89                                            | <b>15.71</b> | 22                              | 2130                              | 1.0                    | <b>21.8</b>                       | <b>2200</b>                        |                     |     |     |     |                      |   |   |   |  | 222914           | 07              |
| 81                                            | <b>17.21</b> | 22                              | 2333                              | 1.0                    | <b>20.8</b>                       | <b>2300</b>                        |                     |     |     |     |                      |   |   |   |  | 222913           | 08              |
| 67                                            | <b>21.02</b> | 18.5                            | 2394                              | 1.0                    | <b>17.8</b>                       | <b>2400</b>                        |                     |     |     |     |                      |   |   |   |  | 222911           | 09              |
| 59                                            | <b>23.73</b> | 18.5                            | 2703                              | 1.0                    | <b>17.1</b>                       | <b>2600</b>                        |                     |     |     |     |                      |   |   |   |  | 162914           | 10              |
| 54                                            | <b>25.99</b> | 18.5                            | 2960                              | 0.9                    | <b>16.8</b>                       | <b>2800</b>                        |                     |     |     |     |                      |   |   |   |  | 162913           | 11              |
| 50                                            | <b>27.93</b> | 15                              | 2576                              | 1.1                    | <b>16.2</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   |  | 142914           | 12              |
| 45.8                                          | <b>30.59</b> | 15                              | 2822                              | 1.0                    | <b>14.8</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   |  | 142913           | 13              |
| 44.1                                          | <b>31.74</b> | 15                              | 2928                              | 1.0                    | <b>14.2</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   |  | 162911           | 14              |
| 37.5                                          | <b>37.36</b> | 11                              | 2532                              | 1.1                    | <b>12.1</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   |  | 142911           | 15              |
| 33.8                                          | <b>41.37</b> | 11                              | 2804                              | 1.0                    | <b>10.9</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   |  | 102914           | 16              |
| 30.9                                          | <b>45.31</b> | 9                               | 2618                              | 1.1                    | <b>10.0</b>                       | <b>2900</b>                        |                     |     |     |     |                      |   |   |   |  | 102913           | 17              |
| 25.3                                          | <b>55.33</b> | 7.5                             | 2573                              | 1.2                    | <b>8.5</b>                        | <b>3000</b>                        |                     |     |     |     |                      |   |   |   |  | 102911           | 18              |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X103** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X103** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X103** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X103** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X103** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |          |         |          |         |     |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------|---------|-----|
|                   |                                                                                                                                    |          |         |          |         |     |
| B3                | B6                                                                                                                                 | B7       | B8      | V5       | V6      | V8  |
| 11.50 LT          | 5.50 LT                                                                                                                            | 10.50 LT | 7.50 LT | 13.50 LT | 9.50 LT | Ask |

AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

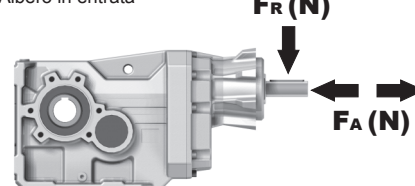


$$F_{eq} = F_R \cdot \frac{253}{X+193}$$

| $n_2$ | FA   | FR    | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|-------|-------|------|-------|-------|------|-------|
| 300   | 2000 | 10000 | 140   | 2800 | 14000 | 70    | 3500 | 17500 |
| 250   | 2500 | 12500 | 120   | 3000 | 15000 | 40    | 4200 | 21000 |
| 200   | 2700 | 13500 | 85    | 3200 | 16000 | 15    | 5400 | 27000 |

### Input shaft

Albero in entrata



| $n_1$ | FA   | FR   |
|-------|------|------|
| 1400  | 1120 | 5600 |
| 900   | 1220 | 6100 |
| 500   | 1300 | 6500 |

tab. 2

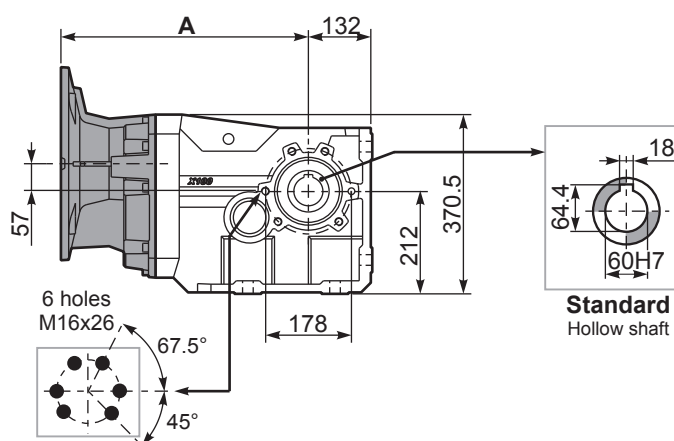
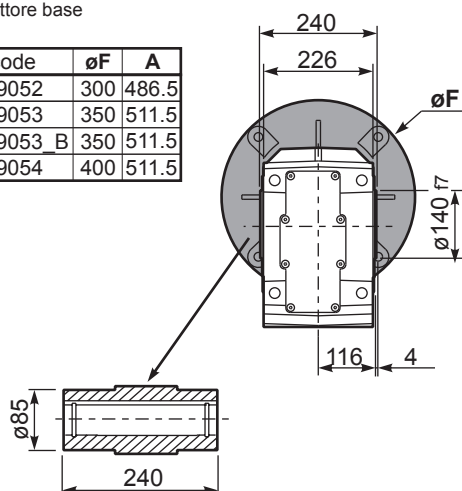
**P**X103C...

Basic Gearbox  
Riduttore base

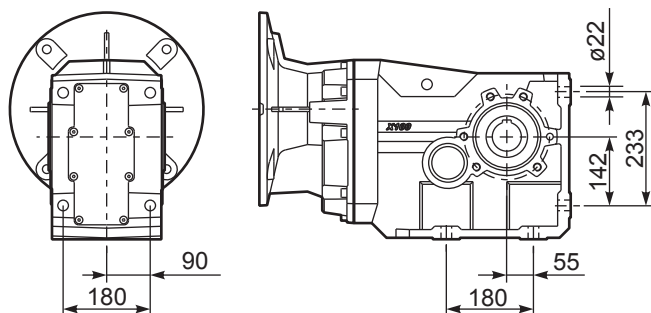
**Gearbox weight**  
peso riduttore

**125 kg**

| M. flanges   | Kit code    | øF  | A     |
|--------------|-------------|-----|-------|
| <b>132B5</b> | KC1109052   | 300 | 486.5 |
| <b>160B5</b> | KC1109053   | 350 | 511.5 |
| <b>180B5</b> | KC1109053_B | 350 | 511.5 |
| <b>200B5</b> | KC1109054   | 400 | 511.5 |

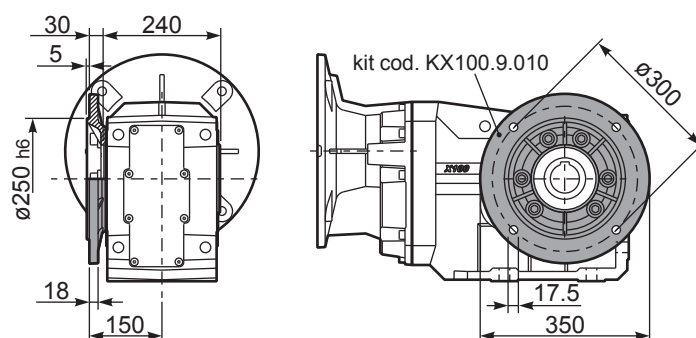


**Mounting holes position**  
Posizione fori di montaggio

PX103...**FB..**Feet  
Piedini

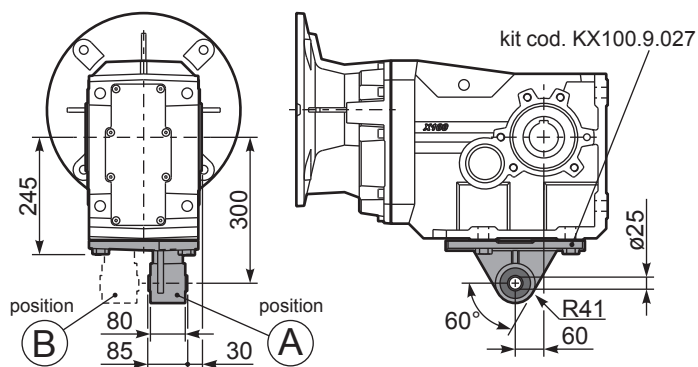
PX103...-F6...

Output flange  
Flangia uscita



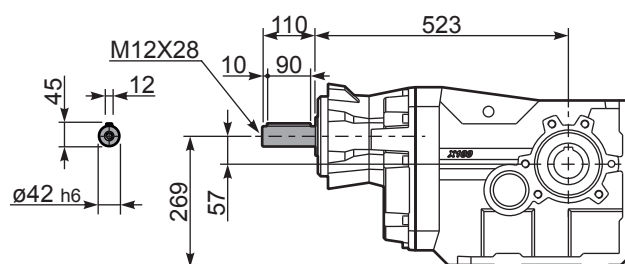
PX103...**BR.**

Reaction Arm  
Braccio di reazione

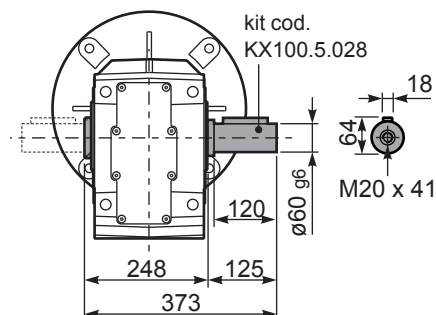


## Rx103...

Input shaft  
Albero in entrata

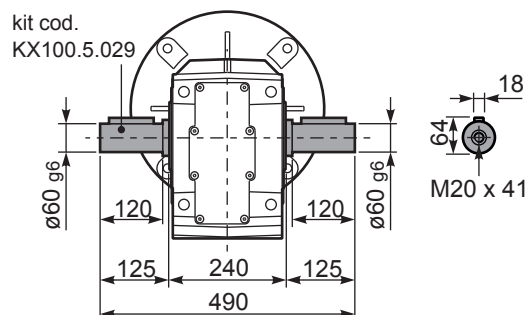
PX103**A**...

Single shaft  
Albero lento semplice



## PX103B...

Double shaft  
Albero lento bisp.







## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    | B14 motor flanges |   |   |          | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|-------------------|---|---|----------|------------------|-----------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -F                         | -G | -                 | - | - |          |                  |                 |
| 28.8                                          | <b>48.57</b>  | 9                               | 2750                              | 1.1                    | <b>9.5</b>                        | <b>2900</b>                        | B                          |    | not available     |   |   | 30142911 | standard<br>ø60  | 01              |
| 20.5                                          | <b>68.43</b>  | 7.5                             | 3118                              | 1.0                    | <b>7.0</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 20142914 |                  | 02              |
| 18.7                                          | <b>74.95</b>  | 5.5                             | 2523                              | 1.2                    | <b>6.4</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 20142913 |                  | 03              |
| 15.1                                          | <b>92.53</b>  | 5.5                             | 3115                              | 1.0                    | <b>5.2</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 16142914 |                  | 04              |
| 13.8                                          | <b>101.33</b> | 4                               | 2496                              | 1.2                    | <b>4.7</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 16142913 |                  | 05              |
| 11.6                                          | <b>120.33</b> | 4                               | 2963                              | 1.0                    | <b>4.0</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 13142914 |                  | 06              |
| 11.3                                          | <b>123.75</b> | 4                               | 3048                              | 1.0                    | <b>3.9</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 16142911 |                  | 07              |
| 10.6                                          | <b>131.78</b> | 4                               | 3245                              | 0.9                    | <b>3.6</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 13142913 |                  | 08              |
| 9.5                                           | <b>147.28</b> | 3                               | 2731                              | 1.1                    | <b>3.2</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 11142914 |                  | 09              |
| 8.7                                           | <b>161.30</b> | 3                               | 2990                              | 1.0                    | <b>3.0</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 11142913 |                  | 10              |
| 7.1                                           | <b>196.98</b> | 2.2                             | 2689                              | 1.1                    | <b>2.4</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 11142911 |                  | 11              |
| 6.6                                           | <b>212.99</b> | 2.2                             | 2907                              | 1.0                    | <b>2.2</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 8142914  |                  | 12              |
| 6.0                                           | <b>233.26</b> | 2.2                             | 3184                              | 0.9                    | <b>2.0</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 8142913  |                  | 13              |
| 4.9                                           | <b>284.86</b> | 2.2                             | 3889                              | 0.8                    | <b>1.7</b>                        | <b>3000</b>                        | B                          |    |                   |   |   | 8142911  |                  | 14              |

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X104** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X104** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X104** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X104** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X104** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |          |         |          |          |     |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------|----------|-----|
|                   |                                                                                                                                    |          |         |          |          |     |
| B3                | B6                                                                                                                                 | B7       | B8      | V5       | V6       | V8  |
| 12.00 LT          | 6.00 LT                                                                                                                            | 11.50 LT | 8.00 LT | 14.50 LT | 11.00 LT | Ask |

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Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

| RADIAL AND AXIAL LOADS           |      |       |                                |      |       |       |      |       |  |
|----------------------------------|------|-------|--------------------------------|------|-------|-------|------|-------|--|
| Output shaft<br>Albero di uscita |      |       | Feq = FR . $\frac{253}{X+193}$ |      |       |       |      |       |  |
|                                  |      |       |                                |      |       |       |      |       |  |
| $n_2$                            | FA   | FR    | $n_2$                          | FA   | FR    | $n_2$ | FA   | FR    |  |
| 300                              | 2000 | 10000 | 140                            | 2800 | 14000 | 70    | 3500 | 17500 |  |
| 250                              | 2500 | 12500 | 120                            | 3000 | 15000 | 40    | 4200 | 21000 |  |
| 200                              | 2700 | 13500 | 85                             | 3200 | 16000 | 15    | 5400 | 27000 |  |
| Input shaft<br>Albero in entrata |      |       |                                |      |       |       |      |       |  |
|                                  |      |       |                                |      |       |       |      |       |  |
| $n_1$                            | FA   | FR    |                                |      |       |       |      |       |  |
| 1400                             | 700  | 3500  |                                |      |       |       |      |       |  |
| 900                              | 840  | 4200  |                                |      |       |       |      |       |  |
| 500                              | 900  | 4500  |                                |      |       |       |      |       |  |

tab. 2



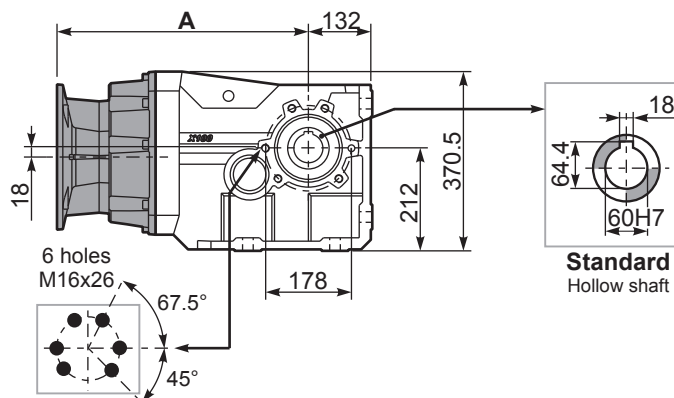
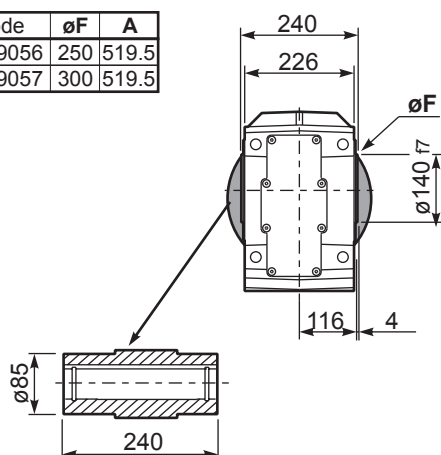
**P**X104C...

Basic Gearbox  
Riduttore base

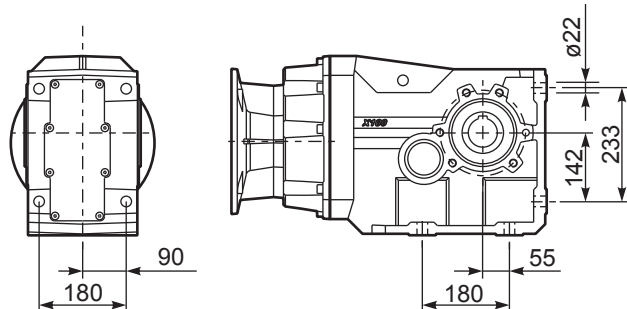
**Gearbox weight**  
peso riduttore

**118 kg**

| M. flanges       | Kit code  | øF  | A     |
|------------------|-----------|-----|-------|
| <b>100/112B5</b> | KC1109056 | 250 | 519.5 |
| <b>132B5</b>     | KC1109057 | 300 | 519.5 |

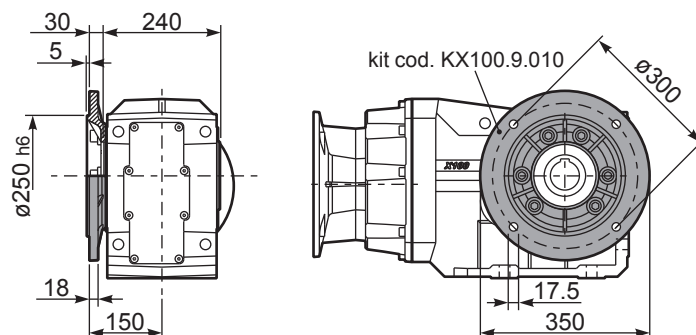


**Mounting holes position**  
Posizione fori di montaggio

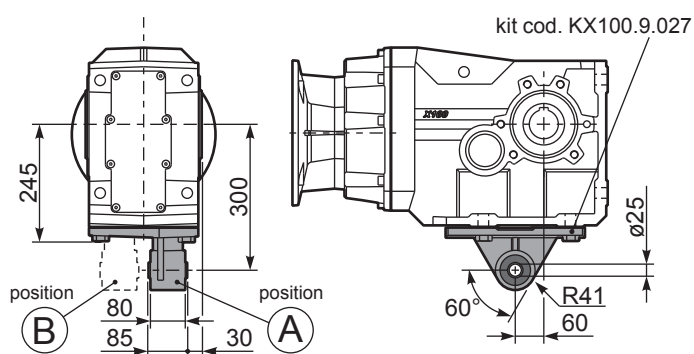
PX104...**FB**..Feet  
Piedini

PX104...-F6...

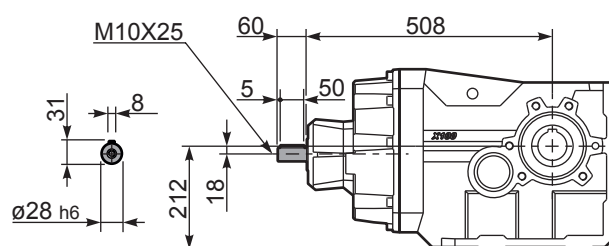
Output flange  
Flangia uscita

PX104...**BR..**

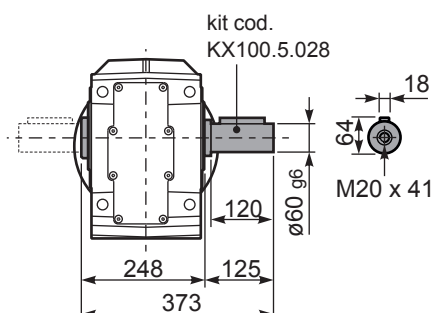
Reaction Arm  
Braccio di reazione

**R**X104...

Input shaft  
Albero in entrata

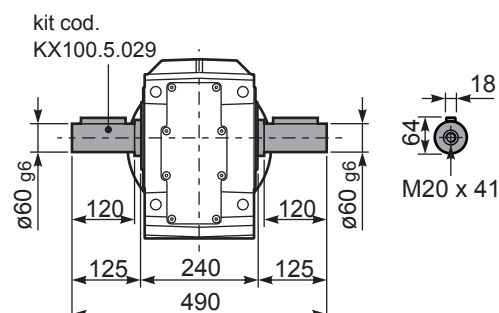
PX104**A**...

Single shaft  
Albero lento semplice



## PX104B...

Double shaft  
Albero lento bisp.





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     |     |     | B14<br>motor flanges |   |   | Output Shaft<br><br>$\varnothing$ | Ratios<br>code |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|-----|-----|----------------------|---|---|----------------------------------------------------------------------------------------------------------------------|----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -G                  | -H  | -I  | -L  | CA  | -                    | - | - |                                                                                                                      |                |
|                                               |              |                                 |                                   |                        |                                   |                                    | 132                 | 160 | 180 | 200 | 225 | -                    | - | - |                                                                                                                      |                |
| 219                                           | <b>6.39</b>  | 45                              | 1757                              | 1.4                    | <b>61.0</b>                       | <b>2500</b>                        |                     |     |     |     |     |                      |   |   | 392914                                                                                                               | 01             |
| 200                                           | <b>7.00</b>  | 45                              | 1925                              | 1.4                    | <b>59.0</b>                       | <b>2650</b>                        |                     |     |     |     |     |                      |   |   | 392913                                                                                                               | 02             |
| 164                                           | <b>8.55</b>  | 45                              | 2350                              | 1.2                    | <b>51.1</b>                       | <b>2800</b>                        |                     |     |     |     |     |                      |   |   | 392911                                                                                                               | 03             |
| 140                                           | <b>10.01</b> | 45                              | 2752                              | 1.2                    | <b>49.8</b>                       | <b>3200</b>                        |                     |     |     |     |     |                      |   |   | 302914                                                                                                               | 04             |
| 128                                           | <b>10.97</b> | 45                              | 3014                              | 1.1                    | <b>45.5</b>                       | <b>3200</b>                        |                     |     |     |     |     |                      |   |   | 302913                                                                                                               | 05             |
| 105                                           | <b>13.39</b> | 37                              | 3025                              | 1.1                    | <b>39.6</b>                       | <b>3400</b>                        |                     |     |     |     |     |                      |   |   | 302911                                                                                                               | 06             |
| 89                                            | <b>15.71</b> | 37                              | 3550                              | 1.0                    | <b>34.7</b>                       | <b>3500</b>                        |                     |     |     |     |     |                      |   |   | 222914                                                                                                               | 07             |
| 81                                            | <b>17.21</b> | 37                              | 3888                              | 1.0                    | <b>33.5</b>                       | <b>3700</b>                        |                     |     |     |     |     |                      |   |   | 222913                                                                                                               | 08             |
| 67                                            | <b>21.02</b> | 30                              | 3877                              | 1.0                    | <b>29.7</b>                       | <b>4000</b>                        |                     |     |     |     |     |                      |   |   | 222911                                                                                                               | 09             |
| 59                                            | <b>23.73</b> | 30                              | 4378                              | 0.9                    | <b>26.9</b>                       | <b>4100</b>                        |                     |     |     |     |     |                      |   |   | 162914                                                                                                               | 10             |
| 54                                            | <b>25.99</b> | 22                              | 3523                              | 1.2                    | <b>25.8</b>                       | <b>4300</b>                        |                     |     |     |     |     |                      |   |   | 162913                                                                                                               | 11             |
| 50                                            | <b>27.93</b> | 22                              | 3786                              | 1.1                    | <b>24.0</b>                       | <b>4300</b>                        |                     |     |     |     |     |                      |   |   | 142914                                                                                                               | 12             |
| 45.8                                          | <b>30.59</b> | 22                              | 4146                              | 1.1                    | <b>22.9</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 142913                                                                                                               | 13             |
| 44.1                                          | <b>31.74</b> | 22                              | 4302                              | 1.0                    | <b>22.1</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 162911                                                                                                               | 14             |
| 37.5                                          | <b>37.36</b> | 18.5                            | 4255                              | 1.1                    | <b>18.8</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 142911                                                                                                               | 15             |
| 33.8                                          | <b>41.37</b> | 18.5                            | 4712                              | 1.0                    | <b>17.0</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 102914                                                                                                               | 16             |
| 30.9                                          | <b>45.31</b> | 15                              | 4179                              | 1.1                    | <b>15.5</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 102913                                                                                                               | 17             |
| 25.3                                          | <b>55.33</b> | 11                              | 3750                              | 1.2                    | <b>12.7</b>                       | <b>4500</b>                        |                     |     |     |     |     |                      |   |   | 102911                                                                                                               | 18             |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X113** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X113** è fornito privo di lubrificazione con tappi di sfato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X113** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X113** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X113** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied                                                                   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |                                                 |  |  |  |  |  |
| B3                                                                                  | B6                                                                                                                                 | B7                                                                                    | B8                                                                                    | V5                                                                                    | V6                                                                                    | V8                                                                                    |
| 13.50 LT                                                                            | 8.00 LT                                                                                                                            | 15.50 LT                                                                              | 14.50 LT                                                                              | 22.00 LT                                                                              | 13.00 LT                                                                              | Ask                                                                                   |
| AGIP Blasias 460                                                                    |                                                                                                                                    |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

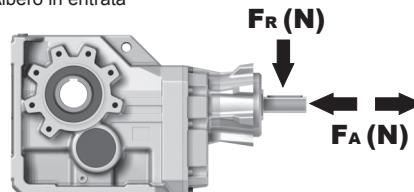
Albero di uscita



| $n_2$ | FA   | FR    | $n_2$ | FA   | FR    | $n_2$ | FA   | FR    |
|-------|------|-------|-------|------|-------|-------|------|-------|
| 300   | 2100 | 10500 | 140   | 3100 | 15500 | 70    | 4200 | 21000 |
| 250   | 2600 | 13000 | 120   | 3240 | 16200 | 40    | 5600 | 28000 |
| 200   | 3000 | 15000 | 85    | 3600 | 18000 | 15    | 8000 | 40000 |

##### Input shaft

Albero in entrata



| $n_1$ | FA   | FR   |
|-------|------|------|
| 1400  | 1120 | 5600 |
| 900   | 1220 | 6100 |
| 500   | 1300 | 6500 |

tab. 2

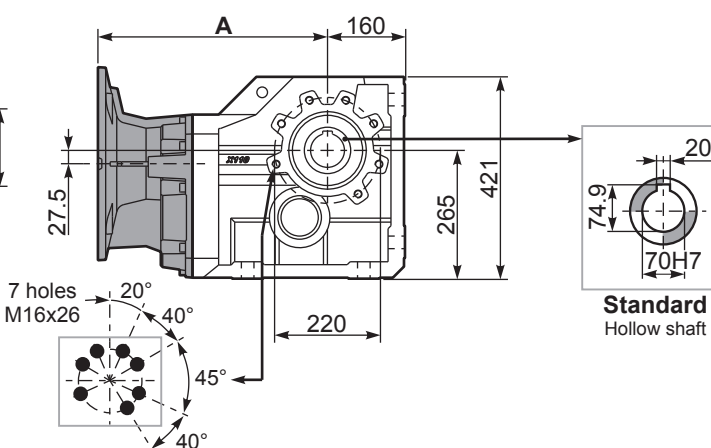
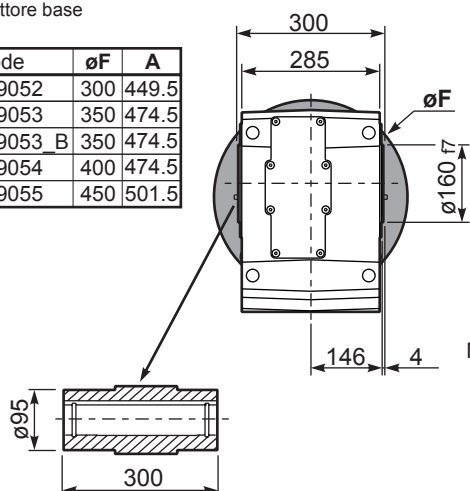
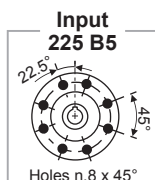
**P**X113C...

Basic Gearbox  
Riduttore base

**Gearbox weight**  
peso riduttore

**170 kg**

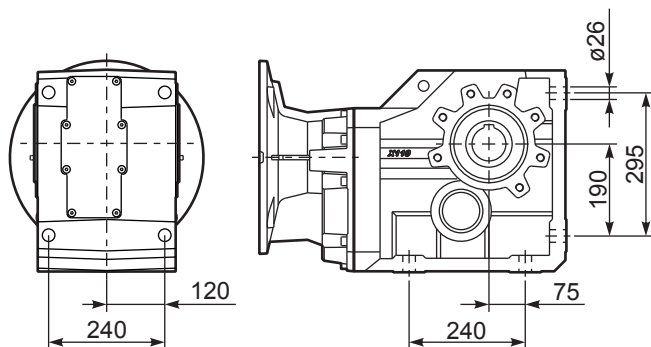
| M. flanges   | Kit code    | øF  | A     |
|--------------|-------------|-----|-------|
| <b>132B5</b> | KC1109052   | 300 | 449.5 |
| <b>160B5</b> | KC1109053   | 350 | 474.5 |
| <b>180B5</b> | KC1109053_B | 350 | 474.5 |
| <b>200B5</b> | KC1109054   | 400 | 474.5 |
| <b>225B5</b> | KC1109055   | 450 | 501.5 |



## Standard

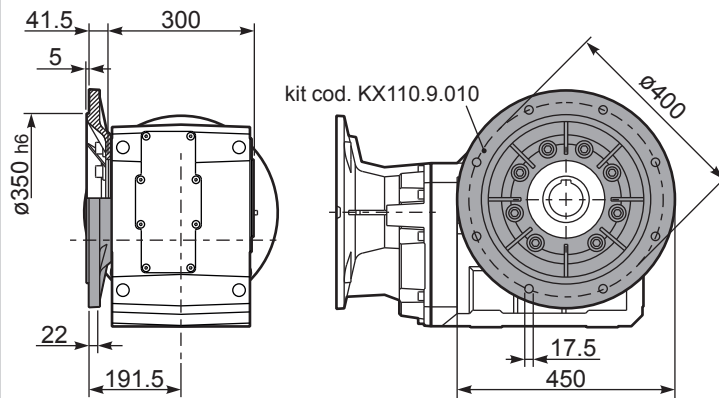
Hollow shaft

**Mounting holes position**  
Posizione fori di montaggio

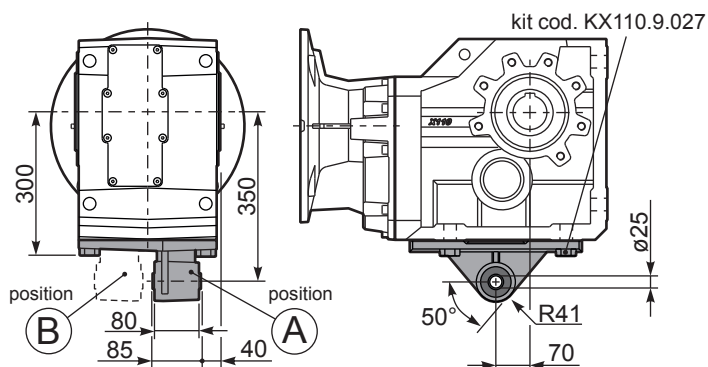
PX113...**FB**..Feet  
Piedini

PX113...-F7..

Output flange  
Flangia uscita

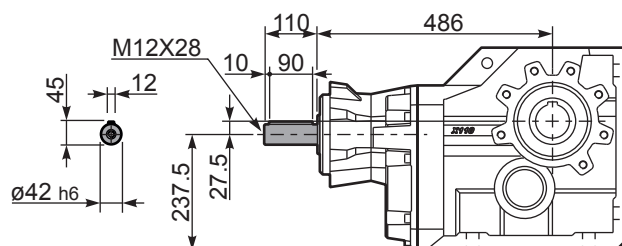
PX113...**BR..**

Reaction Arm  
Braccio di reazione

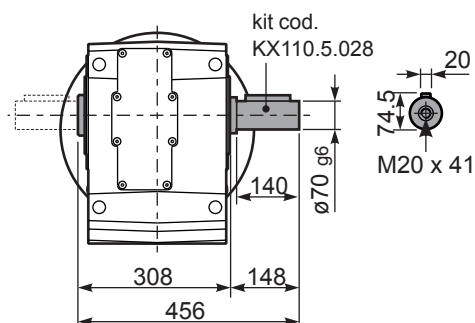


## Rx113...

Input shaft  
Albero in entrata

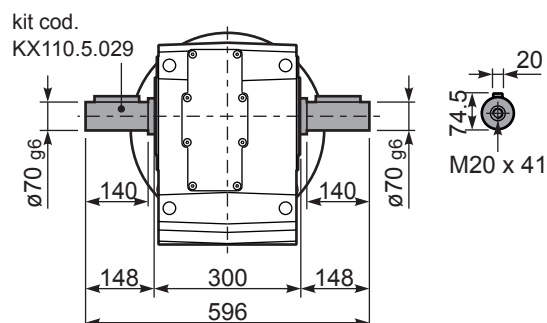
PX113**A**...

Single shaft  
Albero lento semplice



## PX113B...

Double shaft  
Albero lento bisp.





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | B5<br>motor flanges |     |     | B14<br>motor flanges |   |   |          | Output Shaft<br> | Ratios<br>code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|---------------------|-----|-----|----------------------|---|---|----------|------------------|----------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -F                  | -G  | -H  | -                    | - | - |          |                  |                |
|                                               |               |                                 |                                   |                        |                                   |                                    | 100<br>112          | 132 | 160 | -                    | - | - |          |                  |                |
| 28.8                                          | <b>48.57</b>  | 15                              | 4390                              | 1.0                    | <b>14.8</b>                       | <b>4500</b>                        | B                   |     |     | not<br>available     |   |   | 30142911 | standard<br>ø70  | 01             |
| 20.5                                          | <b>68.43</b>  | 11                              | 4545                              | 1.0                    | <b>10.7</b>                       | <b>4600</b>                        | B                   |     |     |                      |   |   | 20142914 |                  | 02             |
| 18.7                                          | <b>74.95</b>  | 11                              | 4977                              | 0.9                    | <b>9.8</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 20142913 |                  | 03             |
| 15.1                                          | <b>92.53</b>  | 7.5                             | 4216                              | 1.1                    | <b>7.9</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 16142914 |                  | 04             |
| 13.8                                          | <b>101.33</b> | 7.5                             | 4617                              | 1.0                    | <b>7.2</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 16142913 |                  | 05             |
| 11.6                                          | <b>120.33</b> | 5.5                             | 4051                              | 1.1                    | <b>6.1</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 13142914 |                  | 06             |
| 11.3                                          | <b>123.75</b> | 5.5                             | 4166                              | 1.1                    | <b>5.8</b>                        | <b>4500</b>                        | B                   |     |     |                      |   |   | 16142911 |                  | 07             |
| 10.6                                          | <b>131.78</b> | 5.5                             | 4436                              | 1.0                    | <b>5.6</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 13142913 |                  | 08             |
| 9.5                                           | <b>147.28</b> | 5.5                             | 4958                              | 0.9                    | <b>5.0</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 11142914 |                  | 09             |
| 8.7                                           | <b>161.30</b> | 4                               | 3972                              | 1.2                    | <b>4.5</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 11142913 |                  | 10             |
| 7.1                                           | <b>196.98</b> | 3                               | 3652                              | 1.2                    | <b>3.6</b>                        | <b>4500</b>                        | B                   |     |     |                      |   |   | 11142911 |                  | 11             |
| 6.6                                           | <b>212.99</b> | 3                               | 3949                              | 1.2                    | <b>3.4</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 8142914  |                  | 12             |
| 6.0                                           | <b>233.26</b> | 3                               | 4324                              | 1.1                    | <b>3.1</b>                        | <b>4600</b>                        | B                   |     |     |                      |   |   | 8142913  |                  | 13             |
| 4.9                                           | <b>284.86</b> | 2.2                             | 3889                              | 1.2                    | <b>2.5</b>                        | <b>4500</b>                        | B                   |     |     |                      |   |   | 8142911  |                  | 14             |

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X114** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X114** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X114** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X114** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X114** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |           |           |           |           |           |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                   |                                                                                                                                    |           |           |           |           |           |
| <b>B3</b>         | <b>B6</b>                                                                                                                          | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 14.50 LT          | 8.50 LT                                                                                                                            | 16.50 LT  | 16.00 LT  | 23.00 LT  | 14.50 LT  | Ask       |

AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

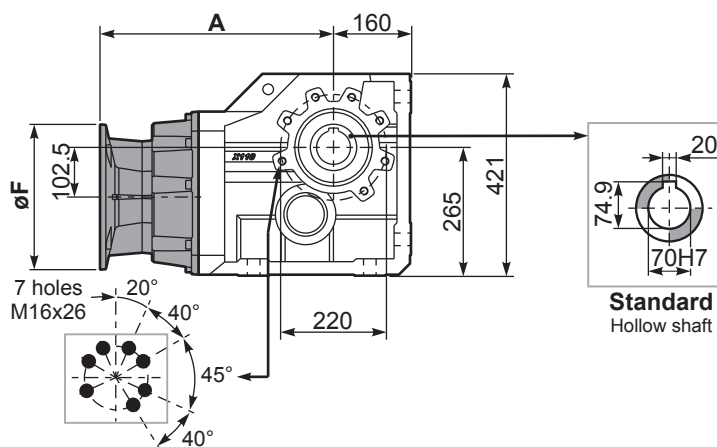
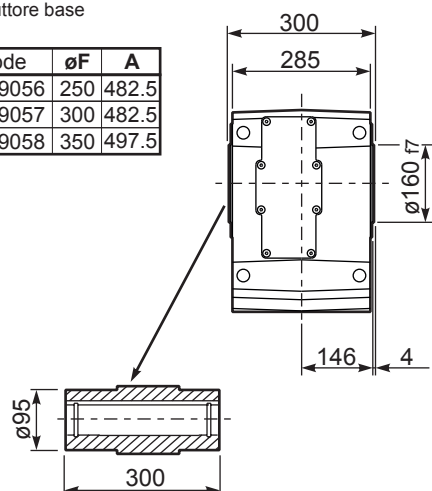
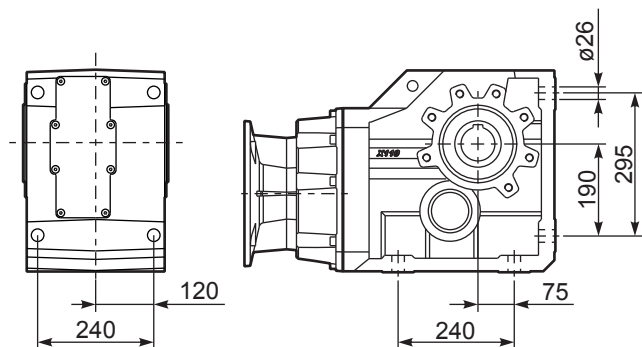
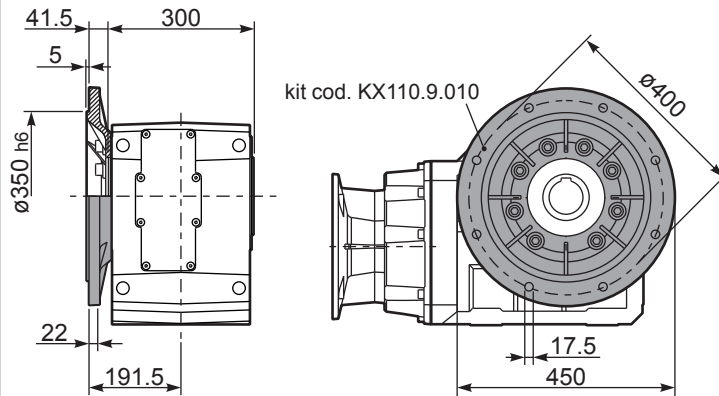
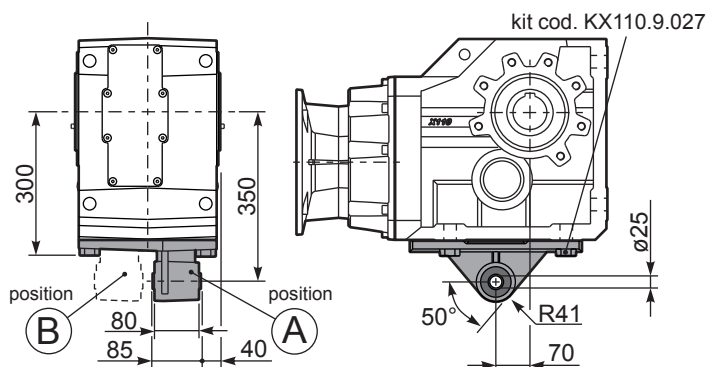
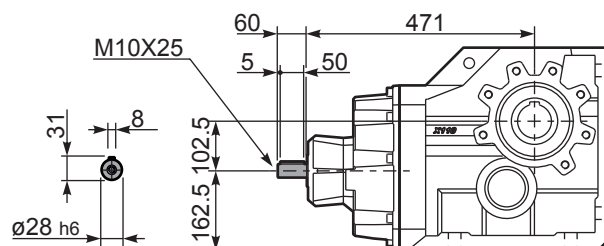
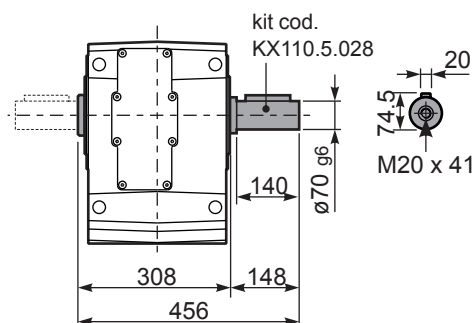
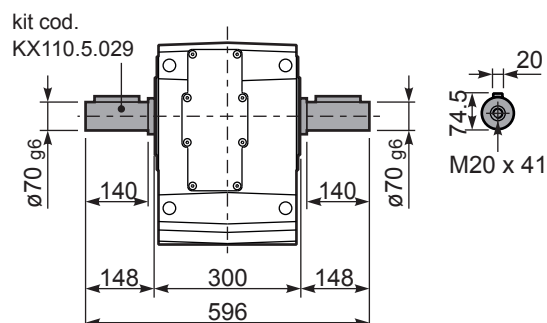
tab. 1

| RADIAL AND AXIAL LOADS                  |       |       |                                            |       |       |       |       |       |  |
|-----------------------------------------|-------|-------|--------------------------------------------|-------|-------|-------|-------|-------|--|
| <b>Output shaft</b><br>Albero di uscita |       |       | $F_{eq} = F_R \cdot \frac{325.5}{X+255.5}$ |       |       |       |       |       |  |
|                                         |       |       |                                            |       |       |       |       |       |  |
| $n_2$                                   | $F_A$ | $F_R$ | $n_2$                                      | $F_A$ | $F_R$ | $n_2$ | $F_A$ | $F_R$ |  |
| 300                                     | 2100  | 10500 | 140                                        | 3100  | 15500 | 70    | 4200  | 21000 |  |
| 250                                     | 2600  | 13000 | 120                                        | 3240  | 16200 | 40    | 5600  | 28000 |  |
| 200                                     | 3000  | 15000 | 85                                         | 3600  | 18000 | 15    | 8000  | 40000 |  |
| <b>Input shaft</b><br>Albero in entrata |       |       |                                            |       |       |       |       |       |  |
|                                         |       |       |                                            |       |       |       |       |       |  |
| $n_1$                                   | $F_A$ | $F_R$ |                                            |       |       |       |       |       |  |
| 1400                                    | 700   | 3500  |                                            |       |       |       |       |       |  |
| 900                                     | 840   | 4200  |                                            |       |       |       |       |       |  |
| 500                                     | 900   | 4500  |                                            |       |       |       |       |       |  |

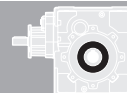
tab. 2

**PX114C...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**161 kg**

| M. flanges       | Kit code  | øF  | A     |
|------------------|-----------|-----|-------|
| <b>100/112B5</b> | KC1109056 | 250 | 482.5 |
| <b>132B5</b>     | KC1109057 | 300 | 482.5 |
| <b>160B5</b>     | KC1109058 | 350 | 497.5 |

Mounting holes position  
Posizione fori di montaggio**Standard**  
Hollow shaft**PX114...FB..**Feet  
Piedini**PX114...-F7..**Output flange  
Flangia uscita**PX114...BR..**Reaction Arm  
Braccio di reazione**RX114...**Input shaft  
Albero in entrata**PX114A...**Single shaft  
Albero lento semplice**PX114B...**Double shaft  
Albero lento bisp.





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     |        | Output Shaft<br> | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|--------|------------------|-----------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |        |                  |                 |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |        |                  |                 |
| 176                                           | 7.94         | 7.5                             | 369                               | 1.0                    | 7.5                               | 380                                | B                          |    |    |            |     |                             |    |            |     | 302418 | standard<br>ø40  | 01              |
| 153                                           | 9.13         | 7.5                             | 425                               | 0.9                    | 6.7                               | 390                                | B                          |    |    |            |     |                             |    |            |     | 302416 |                  | 02              |
| 131                                           | 10.66        | 5.5                             | 366                               | 1.1                    | 6.0                               | 410                                | B                          |    |    |            |     |                             |    |            |     | 302414 |                  | 03              |
| 94                                            | 14.97        | 5.5                             | 514                               | 1.1                    | 6.0                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 202418 |                  | 04              |
| 81                                            | 17.21        | 5.5                             | 591                               | 1.0                    | 5.4                               | 600                                | B                          |    |    |            |     |                             |    |            |     | 202416 |                  | 05              |
| 69                                            | 20.24        | 5.5                             | 695                               | 1.0                    | 5.2                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 162418 |                  | 06              |
| 60                                            | 23.27        | 4                               | 585                               | 1.2                    | 4.5                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 162416 |                  | 07              |
| 53                                            | 26.31        | 4                               | 661                               | 1.0                    | 4.0                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 132418 |                  | 08              |
| 46.3                                          | 30.25        | 4                               | 760                               | 0.9                    | 3.5                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 132416 |                  | 09              |
| 39.6                                          | 35.32        | 3                               | 668                               | 1.0                    | 3.0                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 132414 |                  | 10              |
| 37.8                                          | 37.03        | 3                               | 701                               | 1.0                    | 2.8                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 112416 | On request       | 11              |
| 32.4                                          | 43.23        | 2.2                             | 602                               | 1.1                    | 2.4                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 112414 |                  | 12              |
| 30.1                                          | 46.58        | 2.2                             | 649                               | 1.0                    | 2.3                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 82418  |                  | 13              |
| 26.1                                          | 53.55        | 2.2                             | 746                               | 0.9                    | 2.0                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 82416  |                  | 14              |
| 22.4                                          | 62.52        | 1.5                             | 600                               | 1.1                    | 1.7                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 82414  |                  | 15              |
| 19.0                                          | 73.75        | 1.1                             | 517                               | 1.1                    | 1.2                               | 580                                | B                          |    |    |            |     |                             |    |            |     | 62416  |                  | 16              |
| 16.3                                          | 86.09        | 1.1                             | 604                               | 1.1                    | 1.2                               | 675                                | B                          |    |    |            |     |                             |    |            |     | 62414  |                  | 17              |

The dynamic efficiency is 0.94 for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit 113C is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore 113C viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe 113C ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur 113C est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 113C se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

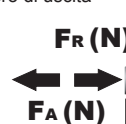
| Standard supplied   | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |         |                       |         |     |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------|---------|-----|
|                     |                                                                                                                                    |         |         |                       |         |     |
| B3                  | B6                                                                                                                                 | B7      | B8      | V5                    | V6      | V8  |
| 4.00 LT             | 2.60 LT                                                                                                                            | 2.60 LT | 2.60 LT | 5.15 LT               | 2.20 LT | Ask |
| AGIP Telium VSF 320 |                                                                                                                                    |         |         | SHELL Omala S4 WE 320 |         |     |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

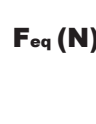
tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{171}{X+131}$$



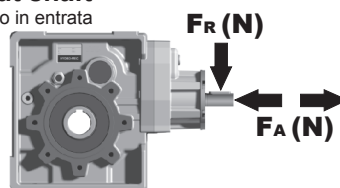
| $n_2$ | FA  | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|------|------|-------|------|------|
| 300   | 640 | 3200 | 140   | 860  | 4300 | 70    | 1080 | 5400 |
| 250   | 700 | 3500 | 120   | 900  | 4500 | 40    | 1300 | 6500 |
| 200   | 740 | 3700 | 85    | 1000 | 5000 | 15    | 1840 | 9200 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

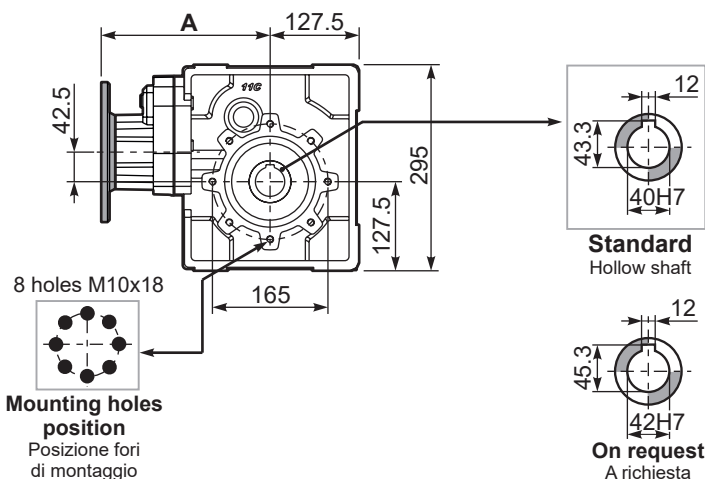
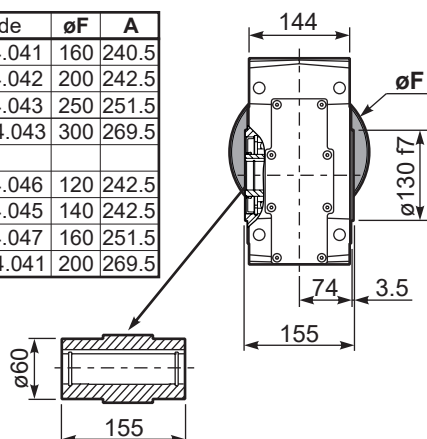


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 400 | 2000 |
| 900   | 440 | 2200 |
| 500   | 440 | 2200 |

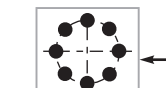
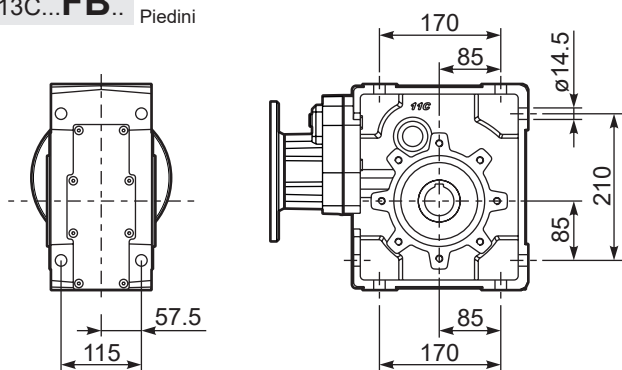
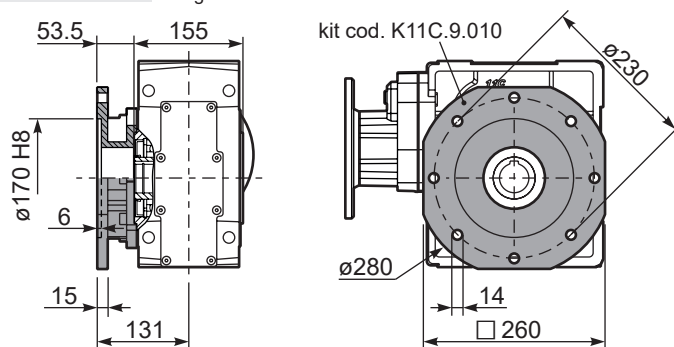
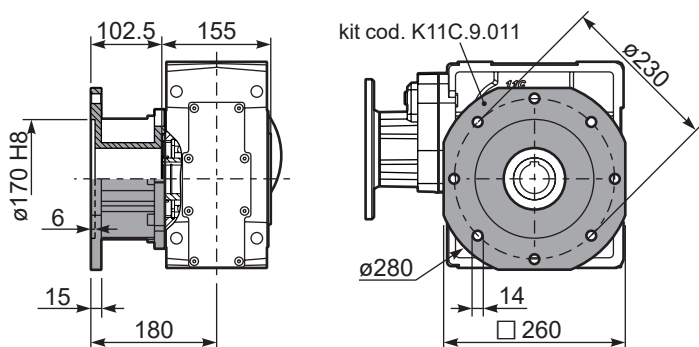
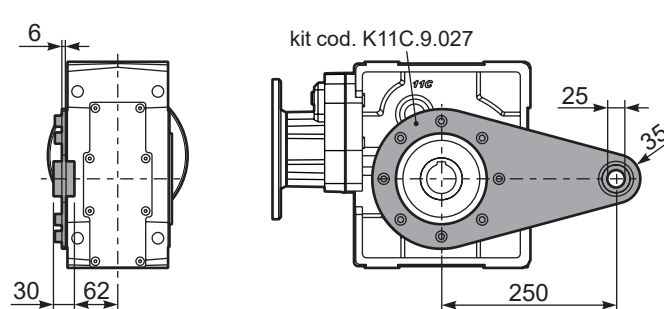
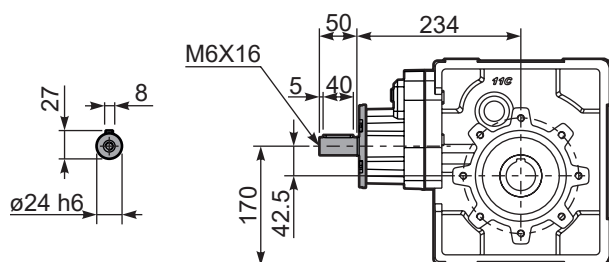
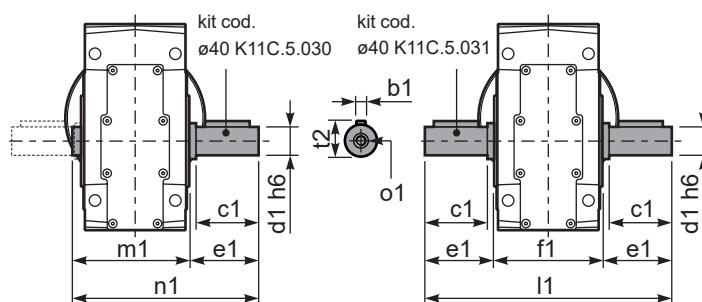
tab. 2

**P113CC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**38.0 kg**

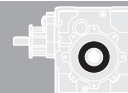
| M. flanges        | Kit code   | øF  | A     |
|-------------------|------------|-----|-------|
| <b>71B5</b>       | K023.4.041 | 160 | 240.5 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 242.5 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 251.5 |
| <b>132B5</b>      | KC50.4.043 | 300 | 269.5 |
|                   |            |     |       |
| <b>80B14</b>      | K085.4.046 | 120 | 242.5 |
| <b>90B14</b>      | K085.4.045 | 140 | 242.5 |
| <b>100/112B14</b> | K085.4.047 | 160 | 251.5 |
| <b>132B14</b>     | KC50.4.041 | 200 | 269.5 |



8 holes M10x18

Mounting holes  
positionPosizione fori  
di montaggio**P113C...FB..**Feet  
Piedini**P113C...-FC..**Output flange  
Flangia uscita**P113C...-FL..**Output flange  
Flangia uscita**P113C...BR..**Reaction Arm  
Braccio di reazione**R113C...**Input shaft  
Albero in entrata**P113CA...**Single shaft  
Albero lento semplice**P113CB...**Double shaft  
Albero lento bisp.

|                 | b1 | c1 | d1 | e1   | f1  | l1  | m1    | n1  | t2 | o1  |
|-----------------|----|----|----|------|-----|-----|-------|-----|----|-----|
| ø40<br>Standard | 12 | 80 | 40 | 84.5 | 155 | 324 | 164.5 | 249 | 43 | M12 |
| On request      | -  | -  | -  | -    | -   | -   | -     | -   | -  | -   |



## ■ QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    |          | Output Shaft<br>  | Ratios code<br> |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|----------|-------------------|-----------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |          |                   |                 |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |          |                   |                 |
| 18.7                                          | <b>74.79</b>  | 1.5                             | 704                               | 1.0                    | <b>1.4</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19132418 | standard<br>ø40   | 01              |
| 16.3                                          | <b>85.99</b>  | 1.1                             | 591                               | 1.1                    | <b>1.3</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19132416 |                   | 02              |
| 14.0                                          | <b>99.66</b>  | 1.1                             | 685                               | 1.0                    | <b>1.1</b>                        | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 17132416 |                   | 03              |
| 12.0                                          | <b>116.35</b> | 0.75                            | 548                               | 1.2                    | <b>0.92</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 17132414 |                   | 04              |
| 11.5                                          | <b>121.45</b> | 0.75                            | 572                               | 1.2                    | <b>0.89</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 13132418 |                   | 05              |
| 10.0                                          | <b>139.64</b> | 0.75                            | 658                               | 1.0                    | <b>0.77</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 13132416 |                   | 06              |
| 9.2                                           | <b>152.21</b> | 0.75                            | 717                               | 0.9                    | <b>0.71</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19082416 |                   | 07              |
| 8.6                                           | <b>163.02</b> | 0.55                            | 567                               | 1.2                    | <b>0.66</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 13132414 |                   | 08              |
| 7.9                                           | <b>177.69</b> | 0.55                            | 618                               | 1.1                    | <b>0.61</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 19082414 |                   | 09              |
| 6.8                                           | <b>205.95</b> | 0.55                            | 716                               | 0.9                    | <b>0.52</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 17082414 | ø42<br>On request | 10              |
| 6.3                                           | <b>222.52</b> | 0.55                            | 774                               | 0.9                    | <b>0.48</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 10132414 |                   | 11              |
| 5.6                                           | <b>248.76</b> | 0.37                            | 578                               | 1.2                    | <b>0.43</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9132416  |                   | 12              |
| 4.8                                           | <b>290.41</b> | 0.37                            | 675                               | 1.0                    | <b>0.37</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9132414  |                   | 13              |
| 4.1                                           | <b>337.39</b> | 0.37                            | 784                               | 0.9                    | <b>0.32</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 10082416 |                   | 14              |
| 3.6                                           | <b>393.88</b> | 0.25                            | 618                               | 1.1                    | <b>0.27</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 10082414 |                   | 15              |
| 3.2                                           | <b>440.33</b> | 0.25                            | 690                               | 1.0                    | <b>0.24</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9082416  |                   | 16              |
| 2.7                                           | <b>514.06</b> | 0.18                            | 616                               | 1.1                    | <b>0.21</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 9082414  |                   | 17              |
| 2.4                                           | <b>581.44</b> | 0.18                            | 697                               | 1.0                    | <b>0.18</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 7082416  |                   | 18              |
| 2.1                                           | <b>678.79</b> | 0.12                            | 526                               | 1.3                    | <b>0.16</b>                       | <b>675</b>                         | B                          |    |    |    | C                           | C  |    | 7082414  |                   | 19              |

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **114C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **114C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **114C** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **114C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

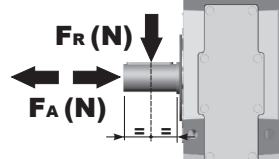
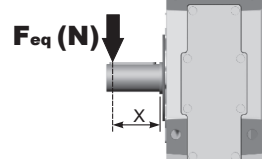
**E** El reductor tamaño **114C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

| Standard supplied   |         | For these mounting position specify in the order or add oil<br>Per queste posizioni specificare in fase d'ordine o aggiungere olio |         |                       |         |     |  |
|---------------------|---------|------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------|---------|-----|--|
|                     |         |                                                                                                                                    |         |                       |         |     |  |
| B3                  | B6      | B7                                                                                                                                 | B8      | V5                    | V6      | V8  |  |
| 4.10 LT             | 2.70 LT | 2.70 LT                                                                                                                            | 2.70 LT | 5.30 LT               | 2.35 LT | Ask |  |
| AGIP Telium VSF 320 |         |                                                                                                                                    |         | SHELL Omala S4 WE 320 |         |     |  |

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscitaF<sub>eq</sub> = F<sub>R</sub> ·  $\frac{171}{X+131}$ 

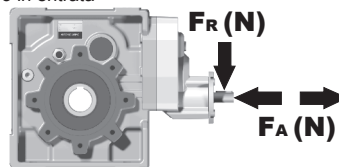
| $n_2$ | FA  | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR   |
|-------|-----|------|-------|------|------|-------|------|------|
| 300   | 640 | 3200 | 140   | 860  | 4300 | 70    | 1080 | 5400 |
| 250   | 700 | 3500 | 120   | 900  | 4500 | 40    | 1300 | 6500 |
| 200   | 740 | 3700 | 85    | 1000 | 5000 | 15    | 1840 | 9200 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

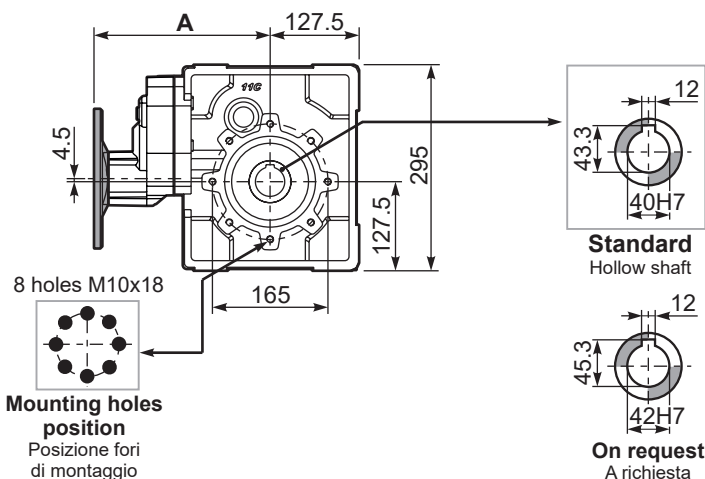
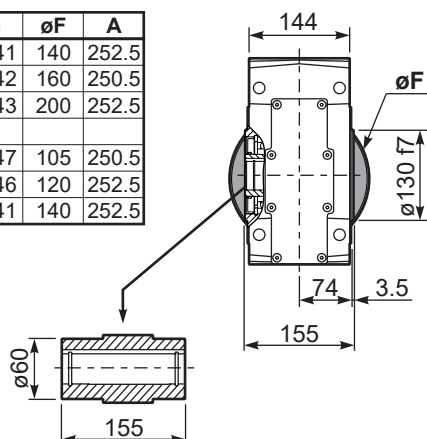
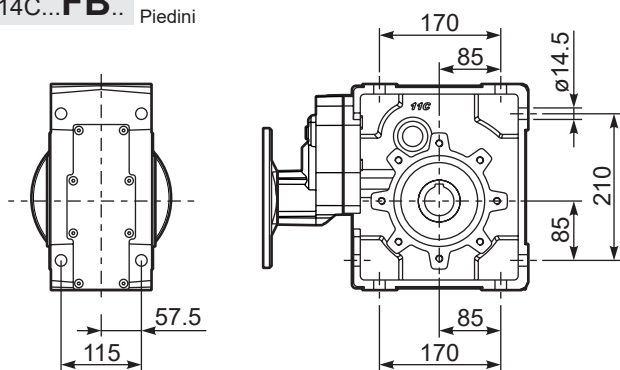
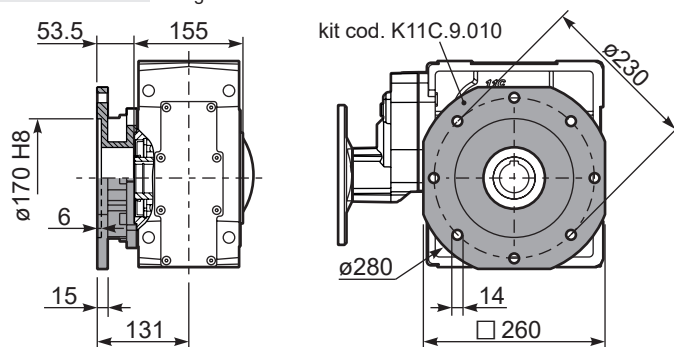
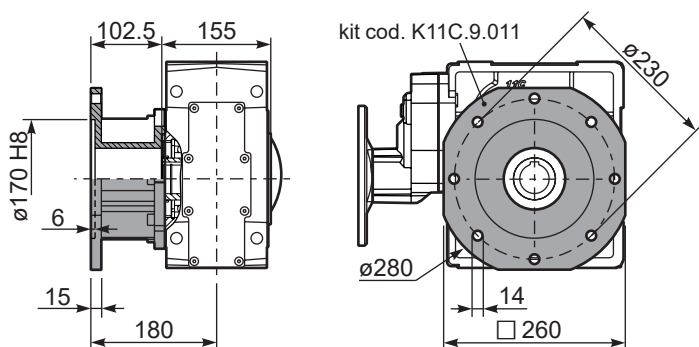
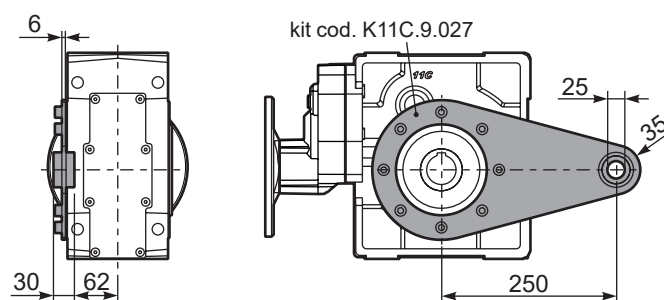
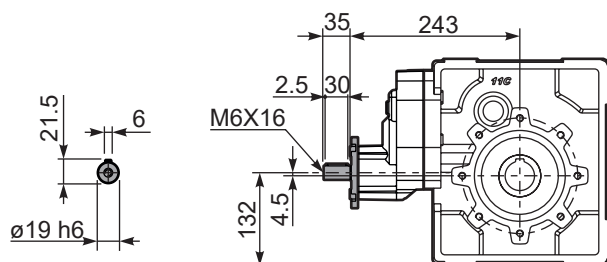
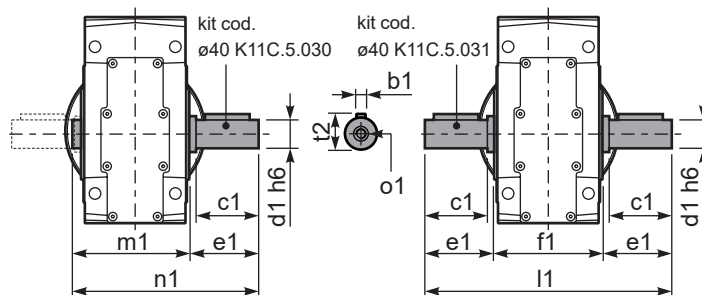


| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 240 | 1200 |
| 900   | 280 | 1400 |
| 500   | 310 | 1700 |

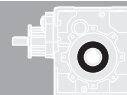
tab. 2

**P114CC...**Basic Gearbox  
Riduttore baseGearbox  
weight  
peso riduttore**38.0 kg**

| M. flanges     | Kit code   | øF  | A     |
|----------------|------------|-----|-------|
| <b>63B5</b>    | K063.4.041 | 140 | 252.5 |
| <b>71B5</b>    | K063.4.042 | 160 | 250.5 |
| <b>80/90B5</b> | K063.4.043 | 200 | 252.5 |
| <b>71B14</b>   | K063.4.047 | 105 | 250.5 |
| <b>80B14</b>   | K063.4.046 | 120 | 252.5 |
| <b>90B14</b>   | K063.4.041 | 140 | 252.5 |

**P114C...FB..**Feet  
Piedini**P114C...-FC..**Output flange  
Flangia uscita**P114C...-FL..**Output flange  
Flangia uscita**P114C...BR..**Reaction Arm  
Braccio di reazione**R114C...**Input shaft  
Albero in entrata**P114CA...**Single shaft  
Albero lento semplice**P114CB...**Double shaft  
Albero lento bisp.

|              | b1 | c1 | d1 | e1   | f1  | l1  | m1    | n1  | t2 | o1  |
|--------------|----|----|----|------|-----|-----|-------|-----|----|-----|
| ø40 Standard | 12 | 80 | 40 | 84.5 | 155 | 324 | 164.5 | 249 | 43 | M12 |
| On request   | -  | -  | -  | -    | -   | -   | -     | -   | -  | -   |



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$ | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |            |     | Available B14 motor flanges |    |            |     | Output Shaft<br><br>$\varnothing$ | Ratios code<br> |
|-----------------------------------------------|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                               |              |                                 |                                   |                        |                                   |                                    | -C                         | -D | -E | -F         | -G  | -R                          | -T | -U         | -V  |                                                                                                                      |                                                                                                    |
|                                               |              |                                 |                                   |                        |                                   |                                    | 71                         | 80 | 90 | 100<br>112 | 132 | 80                          | 90 | 100<br>112 | 132 |                                                                                                                      |                                                                                                    |
| 145                                           | 9.69         | 9                               | 560                               | 1.3                    | 12.2                              | 755                                | B                          |    |    |            |     |                             |    |            |     | 302418                                                                                                               | 01                                                                                                 |
| 126                                           | 11.09        | 9                               | 641                               | 1.1                    | 9.6                               | 680                                | B                          |    |    |            |     |                             |    |            |     | 302416                                                                                                               | 02                                                                                                 |
| 108                                           | 12.90        | 9                               | 746                               | 1.1                    | 9.6                               | 790                                | B                          |    |    |            |     |                             |    |            |     | 302414                                                                                                               | 03                                                                                                 |
| 77                                            | 18.26        | 7.5                             | 849                               | 1.1                    | 8.0                               | 935                                | B                          |    |    |            |     |                             |    |            |     | 202418                                                                                                               | 04                                                                                                 |
| 67                                            | 20.91        | 7.5                             | 972                               | 1.0                    | 7.5                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 202416                                                                                                               | 05                                                                                                 |
| 58                                            | 24.32        | 5.5                             | 835                               | 1.2                    | 6.4                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 202414                                                                                                               | 06                                                                                                 |
| 49.5                                          | 28.27        | 5.5                             | 971                               | 1.0                    | 5.5                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 162416                                                                                                               | 07                                                                                                 |
| 42.6                                          | 32.88        | 4                               | 826                               | 1.2                    | 4.7                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 162414                                                                                                               | 08                                                                                                 |
| 38.1                                          | 36.76        | 4                               | 924                               | 1.1                    | 4.2                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 132416                                                                                                               | 09                                                                                                 |
| 32.7                                          | 42.76        | 3                               | 809                               | 1.2                    | 3.6                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 132414                                                                                                               | 10                                                                                                 |
| 31.1                                          | 45.00        | 3                               | 851                               | 1.2                    | 3.5                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 112416                                                                                                               | 11                                                                                                 |
| 26.8                                          | 52.33        | 3                               | 990                               | 1.0                    | 3.0                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 112414                                                                                                               | 12                                                                                                 |
| 24.6                                          | 56.82        | 2.2                             | 791                               | 1.1                    | 2.3                               | 850                                | B                          |    |    |            |     |                             |    |            |     | 82418                                                                                                                | 13                                                                                                 |
| 21.5                                          | 65.07        | 2.2                             | 906                               | 1.1                    | 2.3                               | 975                                | B                          |    |    |            |     |                             |    |            |     | 82416                                                                                                                | 14                                                                                                 |
| 18.5                                          | 75.68        | 2.2                             | 1054                              | 0.9                    | 2.1                               | 1000                               | B                          |    |    |            |     |                             |    |            |     | 82414                                                                                                                | 15                                                                                                 |
| 15.6                                          | 89.61        | 1.1                             | 628                               | 1.1                    | 1.2                               | 710                                | B                          |    |    |            |     |                             |    |            |     | 62416                                                                                                                | 16                                                                                                 |
| 13.4                                          | 104.22       | 1.1                             | 731                               | 1.1                    | 1.2                               | 820                                | B                          |    |    |            |     |                             |    |            |     | 62414                                                                                                                | 17                                                                                                 |

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **133C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **133C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **133C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **133C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **133C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| B3                                                                                  | B6                                                                                   | B7                                                                                    | B8                                                                                    | V5                                                                                    | V6                                                                                    | V8                                                                                    |
| 6.00 LT                                                                             | 4.30 LT                                                                              | 4.30 LT                                                                               | 3.30 LT                                                                               | 7.40 LT                                                                               | 3.10 LT                                                                               | Ask                                                                                   |

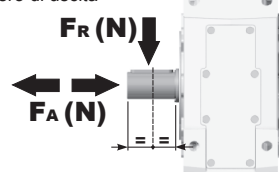
AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

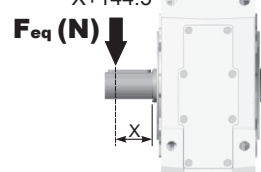
tab. 1

#### RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{184.5}{X + 144.5}$$



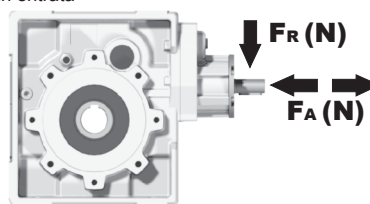
| $n_2$ | FA  | FR   | $n_2$ | FA   | FR   | $n_2$ | FA   | FR    |
|-------|-----|------|-------|------|------|-------|------|-------|
| 300   | 800 | 4000 | 140   | 1120 | 5600 | 70    | 1400 | 7000  |
| 250   | 900 | 4500 | 120   | 1200 | 6000 | 40    | 1700 | 8500  |
| 200   | 960 | 4800 | 85    | 1300 | 6500 | 15    | 2400 | 12000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



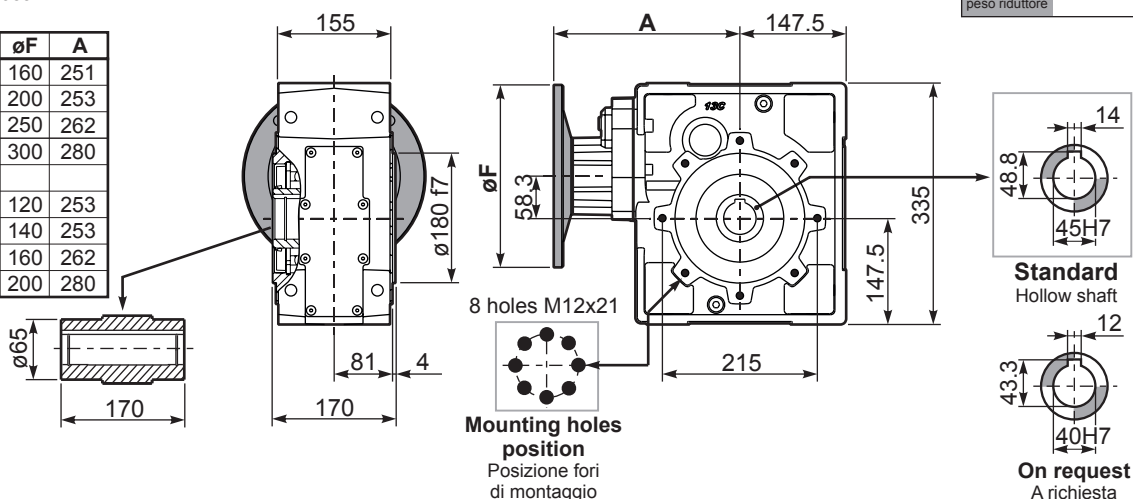
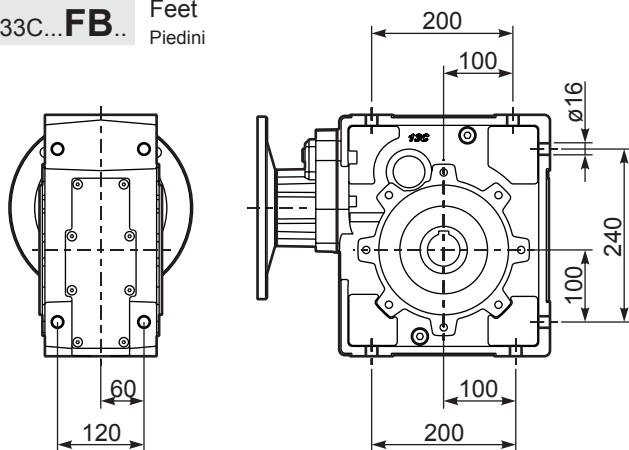
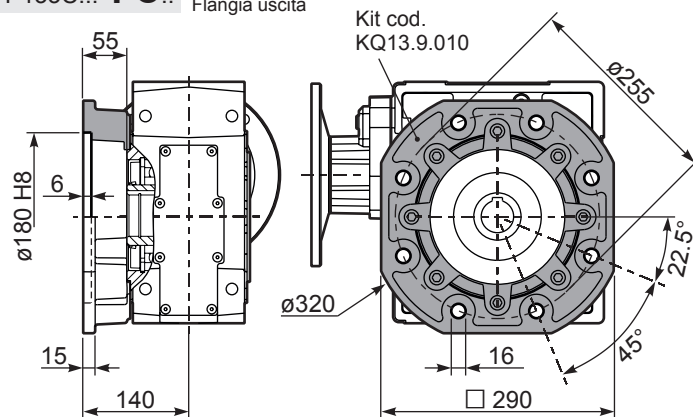
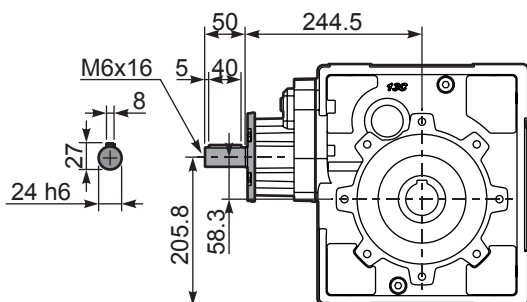
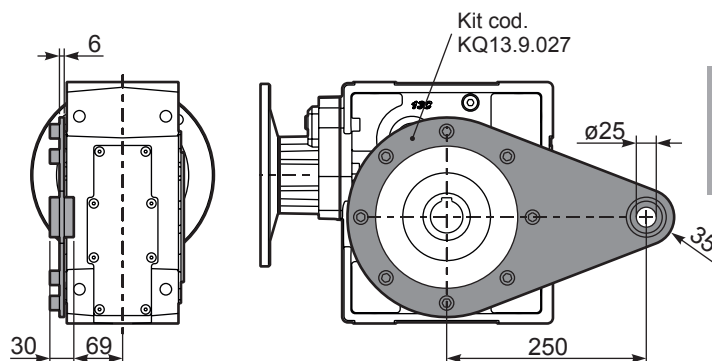
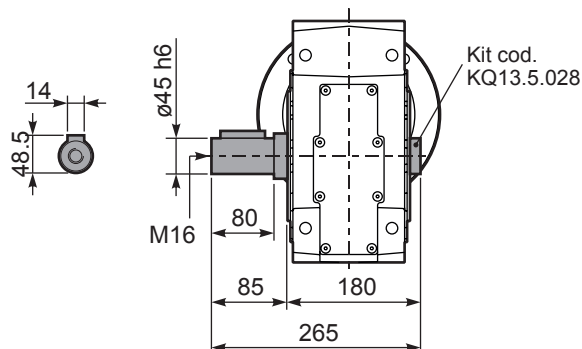
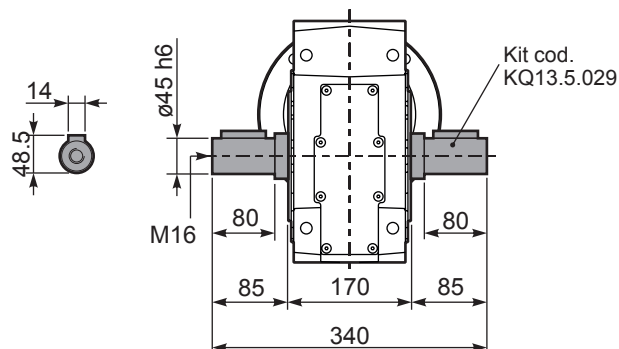
| $n_1$ | FA  | FR   |
|-------|-----|------|
| 1400  | 450 | 2250 |
| 900   | 500 | 2500 |
| 500   | 600 | 3000 |

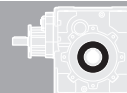
tab. 2



**P133CC...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **53.5 kg**

| M. flanges        | Kit code   | øF  | A   |
|-------------------|------------|-----|-----|
| <b>71B5</b>       | K023.4.041 | 160 | 251 |
| <b>80/90B5</b>    | K023.4.042 | 200 | 253 |
| <b>100/112B5</b>  | K023.4.043 | 250 | 262 |
| <b>132B5</b>      | KC50.4.043 | 300 | 280 |
|                   |            |     |     |
| <b>80B14</b>      | K085.4.046 | 120 | 253 |
| <b>90B14</b>      | K085.4.045 | 140 | 253 |
| <b>100/112B14</b> | K085.4.047 | 160 | 262 |
| <b>132B14</b>     | KC50.4.041 | 200 | 280 |

**P133C...FB..**Feet  
Piedini**P133C...-FC..**Output flange  
Flangia uscita**R133C...**Input Shaft  
Albero in entrata**P133C...BR..**Reaction arm  
Braccio di reazione**P133CA..**Single output Shaft  
Albero lento semplice**P133CB..**Double Input Shaft  
Albero lento bisporgente



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

| Output Speed<br>$n_2$<br>[min <sup>-1</sup> ] | Ratio<br>$i$  | Motor power<br>$P_{1M}$<br>[kW] | Output torque<br>$M_{2M}$<br>[Nm] | Service factor<br>f.s. | Nominal power<br>$P_{1R}$<br>[kW] | Nominal torque<br>$M_{2R}$<br>[Nm] | Available B5 motor flanges |    |    |    | Available B14 motor flanges |    |    | Output Shaft<br><br>$\varnothing$ | Ratios code |
|-----------------------------------------------|---------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|----|-----------------------------|----|----|-----------------------------------|-------------|
|                                               |               |                                 |                                   |                        |                                   |                                    | -B                         | -C | -D | -E | -Q                          | -R | -T |                                   |             |
|                                               |               |                                 |                                   |                        |                                   |                                    | 63                         | 71 | 80 | 90 | 71                          | 80 | 90 |                                   |             |
| 15.3                                          | <b>91.23</b>  | 1.5                             | 858                               | 1.2                    | <b>1.7</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19132418                          | 01          |
| 13.4                                          | <b>104.48</b> | 1.5                             | 983                               | 1.0                    | <b>1.5</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19132416                          | 02          |
| 11.6                                          | <b>121.10</b> | 1.5                             | 1139                              | 0.9                    | <b>1.3</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 17132416                          | 03          |
| 9.9                                           | <b>140.84</b> | 1.1                             | 968                               | 1.0                    | <b>1.1</b>                        | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 17132414                          | 04          |
| 8.5                                           | <b>165.32</b> | 1.1                             | 1136                              | 0.9                    | <b>0.96</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 15132414                          | 05          |
| 7.6                                           | <b>184.94</b> | 0.75                            | 872                               | 1.1                    | <b>0.86</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19082416                          | 06          |
| 7.1                                           | <b>197.34</b> | 0.75                            | 930                               | 1.1                    | <b>0.81</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 13132414                          | 07          |
| 6.5                                           | <b>215.10</b> | 0.75                            | 1014                              | 1.0                    | <b>0.74</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 19082414                          | 08          |
| 6.0                                           | <b>231.60</b> | 0.55                            | 805                               | 1.2                    | <b>0.69</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 10132416                          | 09          |
| 5.6                                           | <b>249.31</b> | 0.55                            | 867                               | 1.2                    | <b>0.64</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 17082414                          | 10          |
| 5.2                                           | <b>269.37</b> | 0.55                            | 937                               | 1.1                    | <b>0.59</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 10132414                          | 11          |
| 4.8                                           | <b>292.64</b> | 0.55                            | 1018                              | 1.0                    | <b>0.54</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 15082414                          | 12          |
| 4.6                                           | <b>302.26</b> | 0.55                            | 1051                              | 1.0                    | <b>0.53</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 9132416                           | 13          |
| 4.0                                           | <b>349.30</b> | 0.37                            | 812                               | 1.2                    | <b>0.46</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 13082414                          | 14          |
| 3.5                                           | <b>399.12</b> | 0.37                            | 928                               | 1.1                    | <b>0.40</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 7132416                           | 15          |
| 2.9                                           | <b>476.80</b> | 0.37                            | 1108                              | 0.9                    | <b>0.33</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 10082414                          | 16          |
| 2.2                                           | <b>622.28</b> | 0.25                            | 976                               | 1.0                    | <b>0.26</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 9082414                           | 17          |
| 1.7                                           | <b>821.70</b> | 0.18                            | 985                               | 1.0                    | <b>0.19</b>                       | <b>1000</b>                        | B                          |    |    |    | C                           | C  |    | 7082414                           | 18          |

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **134C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **134C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **134C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **134C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **134C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

|           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|           |           |           |           |           |           |           |
| <b>B3</b> | <b>B6</b> | <b>B7</b> | <b>B8</b> | <b>V5</b> | <b>V6</b> | <b>V8</b> |
| 6.10 LT   | 4.40 LT   | 4.40 LT   | 3.40 LT   | 7.50 LT   | 3.20 LT   | Ask       |

AGIP Blasias 460

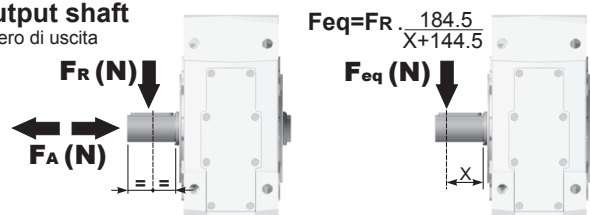
For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



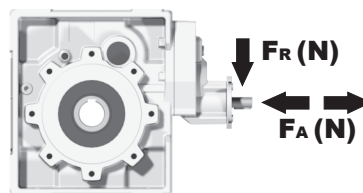
| $n_2$      | FA  | FR   | $n_2$      | FA   | FR   | $n_2$     | FA   | FR    |
|------------|-----|------|------------|------|------|-----------|------|-------|
| <b>300</b> | 800 | 4000 | <b>140</b> | 1120 | 5600 | <b>70</b> | 1400 | 7000  |
| <b>250</b> | 900 | 4500 | <b>120</b> | 1200 | 6000 | <b>40</b> | 1700 | 8500  |
| <b>200</b> | 960 | 4800 | <b>85</b>  | 1300 | 6500 | <b>15</b> | 2400 | 12000 |

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

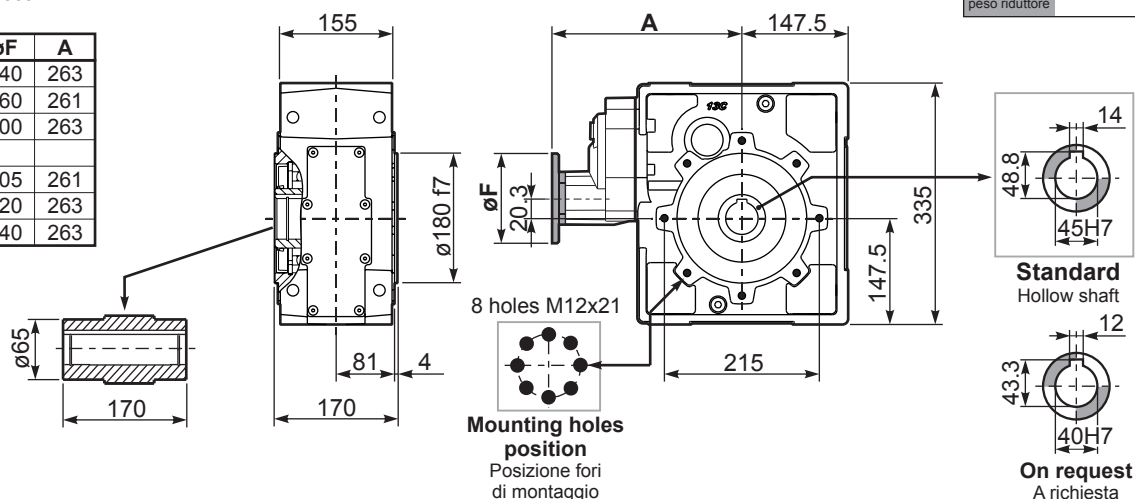
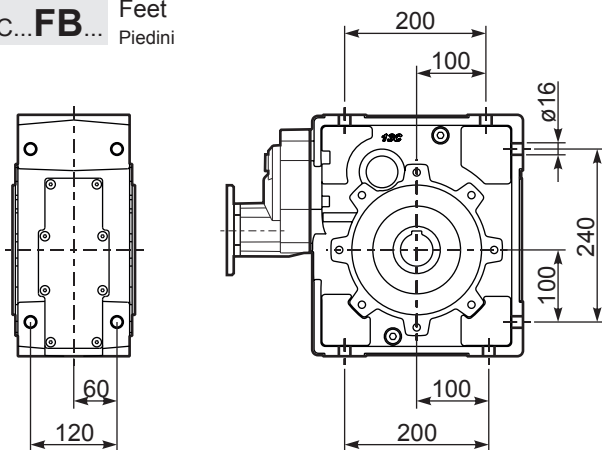
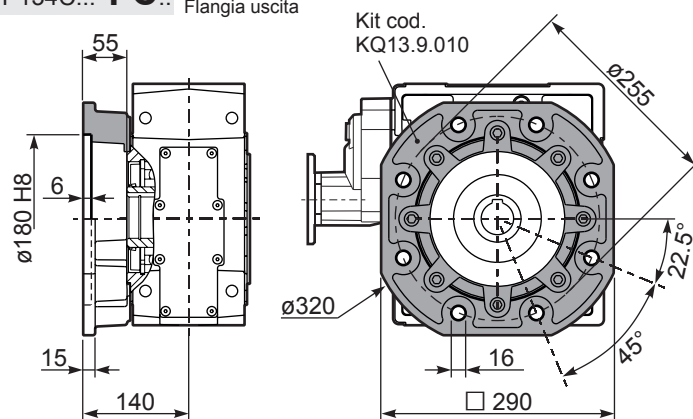
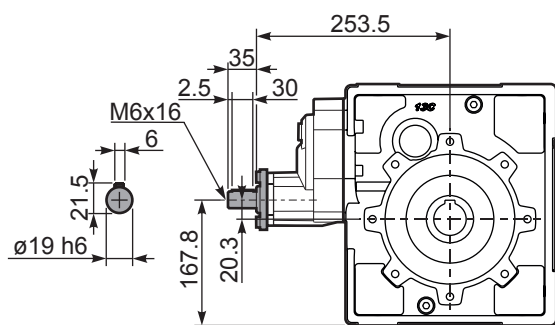
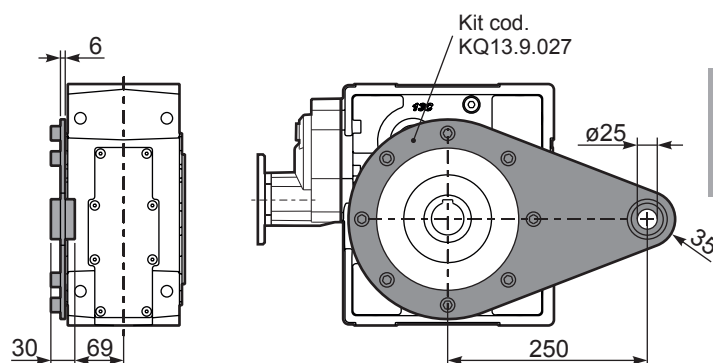
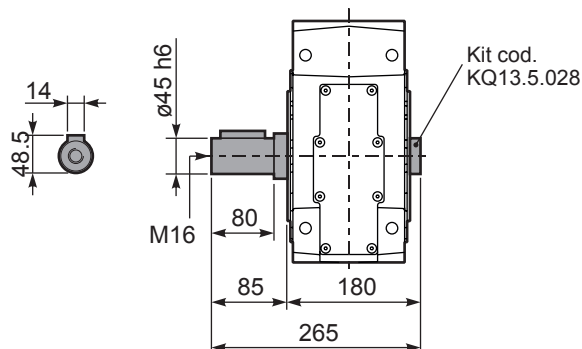
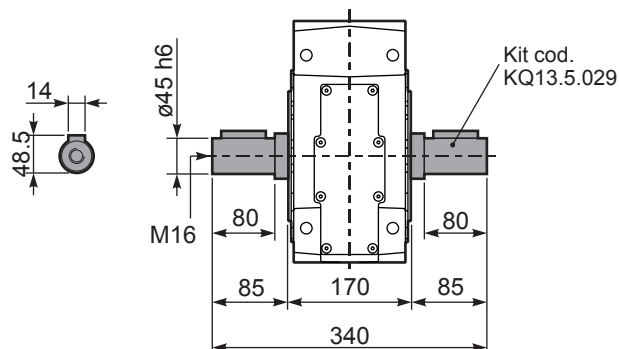


| $n_1$       | FA  | FR   |
|-------------|-----|------|
| <b>1400</b> | 400 | 2000 |
| <b>900</b>  | 440 | 2200 |
| <b>500</b>  | 440 | 2200 |

tab. 2

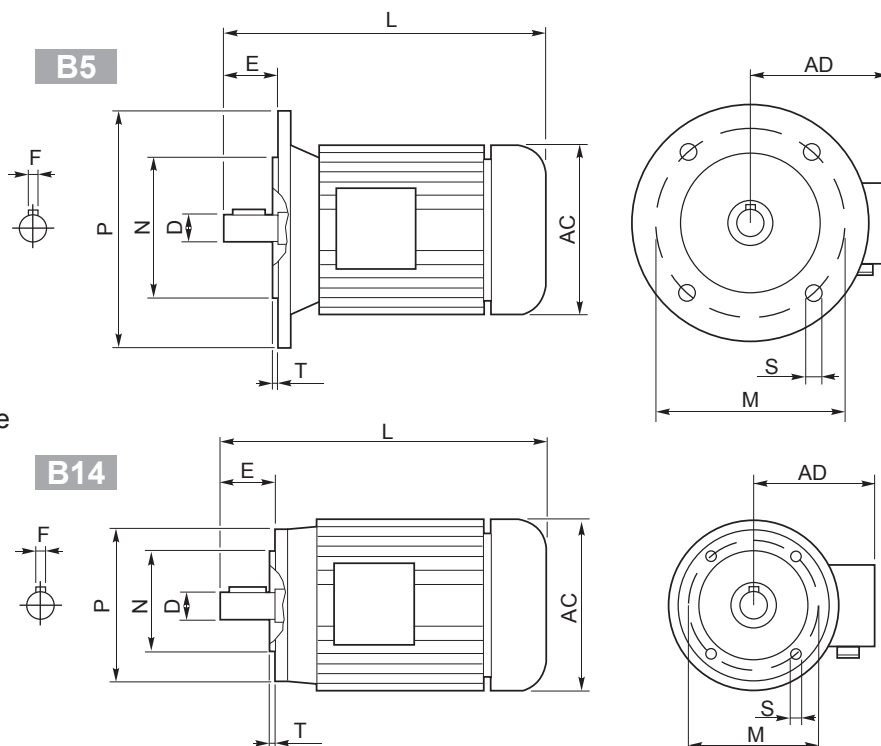
**P134CC...**Basic gearbox  
Riduttore baseGearbox  
weight  
peso riduttore **53.5 kg**

| M. flanges     | Kit code   | øF  | A   |
|----------------|------------|-----|-----|
| <b>63B5</b>    | K063.4.041 | 140 | 263 |
| <b>71B5</b>    | K063.4.042 | 160 | 261 |
| <b>80/90B5</b> | K063.4.043 | 200 | 263 |
| <b>71B14</b>   | K063.4.047 | 105 | 261 |
| <b>80B14</b>   | K063.4.046 | 120 | 263 |
| <b>90B14</b>   | K063.4.041 | 140 | 263 |

**P134C...FB...**Feet  
Piedini**P134C...-FC..**Output flange  
Flangia uscita**R134C...**Input Shaft  
Albero in entrata**P134C...BR..**Reaction arm  
Braccio di reazione**P134CA..**Single output Shaft  
Albero lento semplice**P134CB..**Double Input Shaft  
Albero lento bisporgente



- 1) 230/400V - 50Hz motore trifase asincrono
- 2) Isolamento Classe F
- 3) S1 servizio continuo
- 4) Protezione IP 55
- 5) Non verniciato
- 6) Manicotto di protezione per l'albero motore



Le dimensioni esterne e il peso sono indicative, possono variare tra i vari costruttori.

|        | 2 poli / poles |      |             | 4 poli / poles |      |             | 6 poli / poles |      |             | B5-B14 |    |     |      |     |     | B5  |     |     |      |     | B14 |     |     |     |     | Kg   |
|--------|----------------|------|-------------|----------------|------|-------------|----------------|------|-------------|--------|----|-----|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|------|
|        | kW             | Nm   | A<br>(400V) | kW             | Nm   | A<br>(400V) | kW             | Nm   | A<br>(400V) | D      | F  | E   | L    | AC  | AD  | N   | M   | P   | S    | T   | N   | M   | P   | S   | T   |      |
| 56 A   | 0.09           | 0.32 | 0.38        | 0.06           | 0.44 | 0.27        | —              | —    | —           | 9      | 3  | 20  | 199  | 108 | 96  | 80  | 100 | 120 | 7    | 2.5 | 50  | 65  | 80  | M5  | 2.5 | 2.7  |
| 56 B   | 0.12           | 0.42 | 0.46        | 0.09           | 0.67 | 0.37        | —              | —    | —           |        |    |     |      |     |     |     |     |     |      |     |     |     |     |     |     | 2.9  |
| 63 A   | 0.18           | 0.63 | 0.60        | 0.12           | 0.84 | 0.50        | 0.09           | 0.99 | 0.57        | 11     | 4  | 23  | 208  | 120 | 99  | 95  | 115 | 140 | 9.5  | 3   | 60  | 75  | 90  | M5  | 2.5 | 3.8  |
| 63 B   | 0.25           | 0.87 | 0.76        | 0.18           | 1.30 | 0.69        | 0.12           | 1.32 | 0.74        |        |    |     |      |     |     |     |     |     |      |     |     |     |     |     |     | 4.2  |
| 71 A   | 0.37           | 1.30 | 1.00        | 0.25           | 1.70 | 0.91        | 0.18           | 1.90 | 0.80        | 14     | 5  | 30  | -    | 130 | 104 | 110 | 130 | 160 | 9.5  | 3.5 | 70  | 85  | 105 | M6  | 2.5 | 5.9  |
| 71 B   | 0.55           | 1.90 | 1.54        | 0.37           | 2.52 | 1.14        | 0.25           | 2.72 | 1.10        |        |    |     | 255  | 141 | 107 |     |     |     |      |     |     |     |     |     |     | 6.5  |
| 80 A   | 0.75           | 2.60 | 1.85        | 0.55           | 3.77 | 1.51        | 0.37           | 3.84 | 1.18        | 19     | 6  | 40  | 296  | 159 | 127 | 130 | 165 | 200 | 11.5 | 3.5 | 80  | 100 | 120 | M6  | 3   | 8.5  |
| 80 B   | 1.1            | 3.90 | 2.64        | 0.75           | 5.11 | 2.57        | 0.55           | 5.84 | 1.80        |        |    |     |      |     |     |     |     |     |      |     |     |     |     |     |     | 10   |
| 90 S   | 1.5            | 5.00 | 3.31        | 1.1            | 7.45 | 2.78        | 0.75           | 7.92 | 2.32        | 24     | 8  | 50  | -    | 170 | 135 | 130 | 165 | 200 | 11.5 | 3.5 | 95  | 115 | 140 | M8  | 3   | 12.5 |
| 90 L   | 2.2            | 7.50 | 4.46        | 1.5            | 10.2 | 3.61        | 1.1            | 11.6 | 3.45        |        |    |     | 330  |     |     |     |     |     |      |     |     |     |     |     |     | 15   |
| 100 LA | 3.0            | 10.0 | 6.28        | 2.2            | 14.8 | 5.07        | 1.5            | 15.4 | 3.88        | 28     | 8  | 60  | -    | 190 | 148 | 180 | 215 | 250 | 13   | 4   | 110 | 130 | 160 | M8  | 3.5 | 20   |
| 100 LB | —              | —    | —           | 3.0            | 20.1 | 6.66        | —              | —    | —           |        |    |     | 22   |     |     |     |     |     |      |     |     |     |     |     |     |      |
| 112 M  | 4.0            | 13.4 | 8.10        | 4.0            | 26.7 | 8.55        | 2.2            | 22.6 | 5.30        |        |    |     | 381  | 210 | 164 |     |     |     |      |     |     |     |     |     |     | 35   |
| 132 S  | 5.5            | 18.3 | 11.2        | 5.5            | 36.5 | 11.4        | 3.0            | 30.2 | 7.20        | 38     | 10 | 80  | 455  | 244 | 180 | 230 | 265 | 300 | 14   | 4   | 130 | 165 | 200 | M10 | 4   | 41   |
|        |                | 7.5  | 24.9        |                |      |             |                |      |             |        |    |     | 15.3 |     |     |     |     |     |      |     |     |     |     |     |     | 500  |
| 132 M  | —              | —    | —           | 7.5            | 49.4 | 15.0        | 4.0            | 40.0 | 9.13        |        |    |     | 500  |     |     |     |     |     |      |     |     |     |     |     |     | 51   |
|        |                |      |             | 9              | 61.4 | 18.5        |                |      |             |        |    |     |      |     |     |     |     |     |      |     |     |     |     |     |     |      |
| 160 M  | —              | —    | —           | 11             | 72   | 21.5        | —              | —    | —           | 42     | 12 | 110 | 613  | 335 | 246 | 250 | 300 | 350 | 18   | 5   | —   | —   | —   | —   | —   | 79.2 |
| 160 L  | —              | —    | —           | 15             | 98   | 29          | —              | —    | —           |        |    |     | 657  |     |     |     |     |     |      |     |     |     |     |     |     | 97.5 |
| 180 M  | —              | —    | —           | 18.5           | 121  | 35.5        | —              | —    | —           | 48     | 14 | 110 | 712  | 366 | 266 | 250 | 300 | 350 | 19   | 5   | —   | —   | —   | —   | —   | 170  |
| 180 L  | —              | —    | —           | 22             | 144  | 42          | —              | —    | —           |        |    |     | 780  |     |     |     |     |     |      |     |     |     |     |     |     | 405  |
| 200 L  | —              | —    | —           | 30             | 196  | 53          | —              | —    | —           | 55     | 16 | 110 | 780  | 405 | 341 | 300 | 350 | 400 | 19   | 5   | —   | —   | —   | —   | —   | 240  |
| 225 S  | —              | —    | —           | 37             | 240  | 69          | —              | —    | —           | 60     | 18 | 140 | 888  | 463 | 360 | 350 | 400 | 450 | 19   | 5   | —   | —   | —   | —   | —   | 305  |
| 225 M  | —              | —    | —           | 45             | 292  | 84          | —              | —    | —           |        |    |     |      |     |     |     |     |     |      |     |     |     |     |     |     | 310  |

**Protection**

Standard IP55

Please specify on purchase orders if you need a higher IP protection class.

**Grado di protezione**

IP55 Standard

Specificare in sede di ordinazione per IP superiore.

**Schutzart**

IP55 Standard.

Höheren IP Grad bitte im Auftrag angeben.

**Degré de protection**

IP55 standard.

Au moment de la commande, spécifiez si vous souhaitez IP supérieur.

**Grado de protección**

IP55 standard.

Especificar en el pedido cuando necesiten protección IP superior.

**Insulation**

Standard Cl.F

To be specified upon placing the order if different insulation is required.

**Isolamento**

Cl.F Standard

Specificare in sede di ordinazione classe di isolamento diversa.

**Isolierung**

Cl.F Standard.

Davon abweichende Isolierungsklasse im Auftrag angeben.

**Isolement**

Cl.F Standard.

Au moment de la commande, spécifiez si vous souhaitez une classe d'isolement différente.

**Aislamiento**

Cl.F standard.

Especificar al efectuar el pedido la clase diferente de aislamiento.

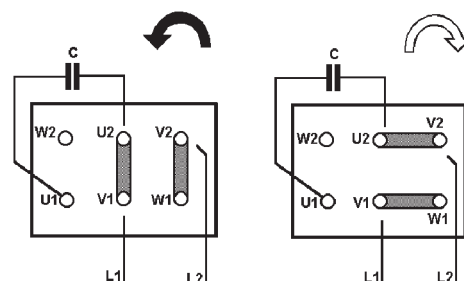
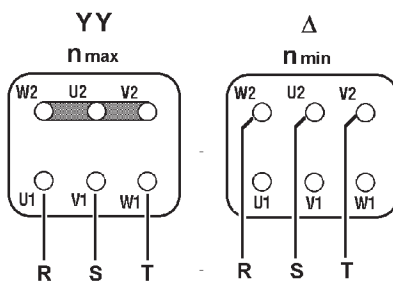
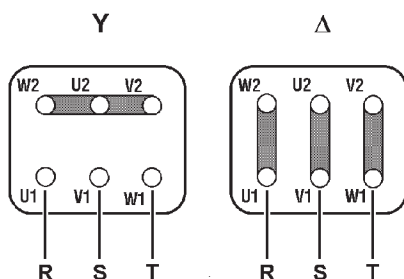
| Insulation / Isolamento<br>Isolierung / Aislamiento |    | E    | B    | F    | H    |
|-----------------------------------------------------|----|------|------|------|------|
| Max. temp.                                          | C° | 120° | 130° | 155° | 175° |
|                                                     | F* | 248° | 266° | 311° | 347° |

**Connections****Collegamenti****Verbindungselemente****Branchements****Conexiones**

Threephase asynchronous single polarity  
Asincrono trifase singola polarità  
Asynchronmotor 3-ph eine Drehzahl  
Moteur triphasé à une vitesse  
Asincrono trifasico de una velocidad

Threephase asynchronous double polarity  
Asincrono trifase doppia polarità  
Asynchronmotor 3-ph doppelte Drehzahl  
Moteur triphasé à deux vitesses  
Asincrono trifasico de dos velocidades

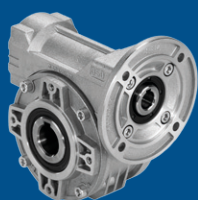
Single phase asynchronous  
Asincrono monofase  
Einphasen-Asynchronmotor  
Moteur monophasé  
Asincrono monofasico





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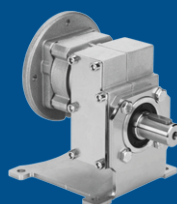




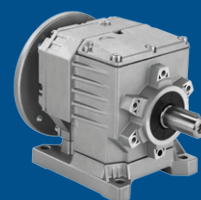
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serie 0*



*sinfin-corona  
serie Q*



*coaxial  
serie A 1e*



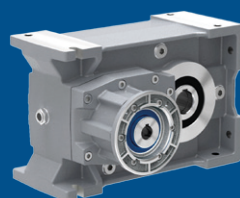
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serie A 2/3e*



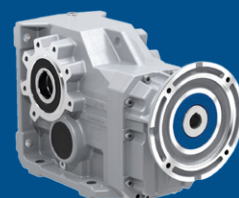
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serie C*



*pendular  
serie F*



*ejes paralelos  
serie H*



*ortogonal  
serie X*