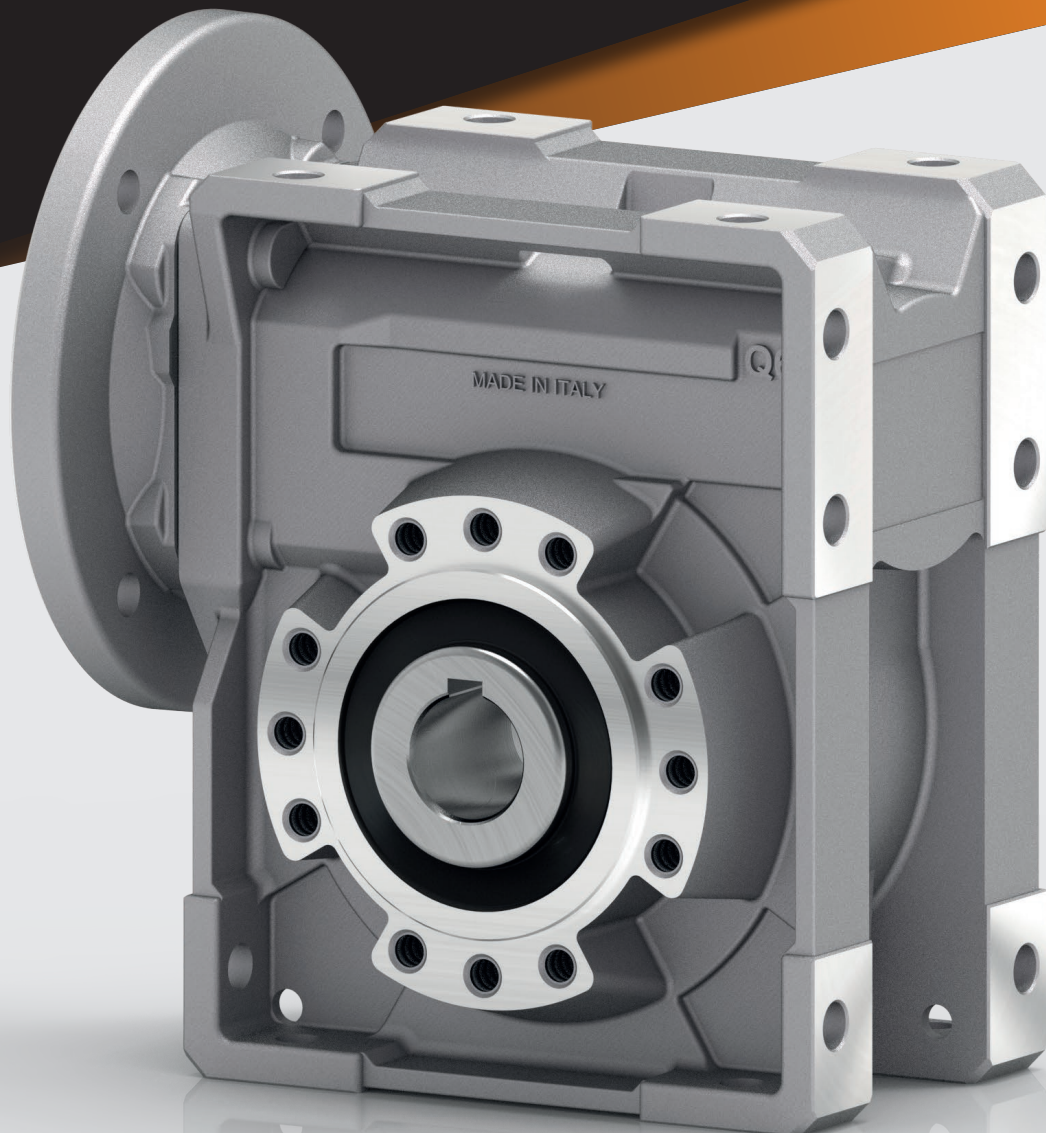


ALUMINUM WORM GEARBOXES

Q SQUARE GEARS
METRIC CATALOGUE EDITION 2025

ITALIAN MADE
PRODUCTS



HYDRO · MEC 

HIGH EFFICIENCY GEARBOXES

Q 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.

Painting

Cast iron gearboxes are painted RAL 7046

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

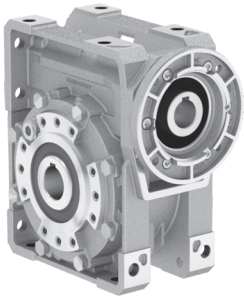


vent free



Specific type datasheet on page...

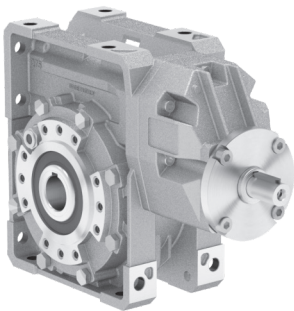
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Types / Tipi /
Tipen / Types /
Tipos →

| 3-5 | 3-7 | 3-9 | 3-11 |
|---------------------|---------------------|---------------------|---------------------|
| Q63 147Nm | Q75 270Nm | Q85 347Nm | Q11 651Nm |

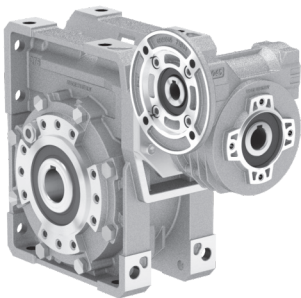
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Types / Tipi /
Tipen / Types /
Tipos →

| 3-13 | 3-15 | 3-17 | 3-19 |
|---------------------|---------------------|---------------------|---------------------|
| P6Q 187Nm | P7Q 310Nm | P8Q 440Nm | P1Q 803Nm |

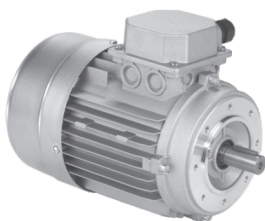
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Types / Tipi /
Tipen / Types /
Tipos →

| 3-21 | 3-23 | 3-25 | 3-27 | 3-29 |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 63Q 230Nm | 64Q 265Nm | 74Q 359Nm | 84Q 518Nm | 15Q 978Nm |

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi
Tipen / Types
Tipos →

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

Type - Tipo - Typ
Type - Tipo

Size - Grandezza
Grösse - Taille
Tamaño

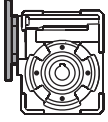
Mounting - Montaggio - Montage Fixation
Fixation - Tipo de montaje

P

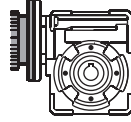
Q63

FC

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



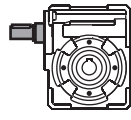
P



M

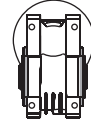


B

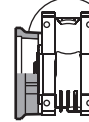


R

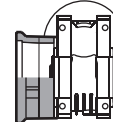
Q63
Q75
Q85
Q11



FB

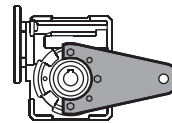


FC



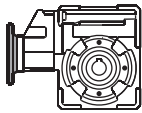
FL

F1
F2
F3
F4

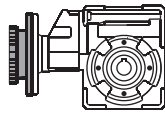


BR

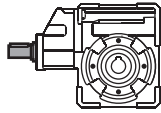
Worm gearboxes with primary reduction
Riduttori a vite senza fine con precoppia
Schneckengetriebe mit Stirradstufe am Eintrieb
Reducteurs a vis sans fin avec pré-réduction
Reductores corona sin fin con prerreductora de engrajes



P



M

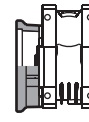


R

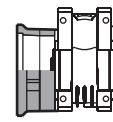
P6Q
P7Q
P8Q
P1Q



FB

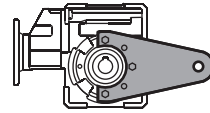


FC



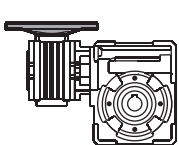
FL

F1
F2
F3
F4

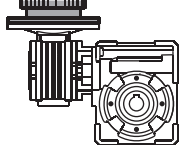


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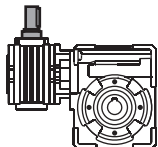
Combined worm gearboxes
Riduttori a vite senza fine combinati
Schneckengetriebekombinationen
Reducteurs a double train de vis sans fin
Reductores combinados corona sin fin



P

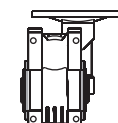


M

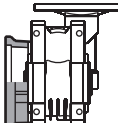


R

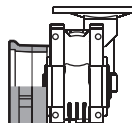
63Q
64Q
74Q
84Q
15Q



FB

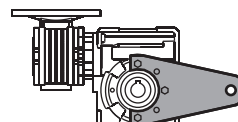


FC



FL

F1
F2
F3
F4

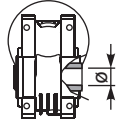
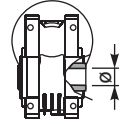
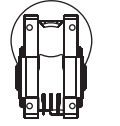
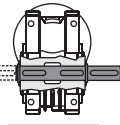
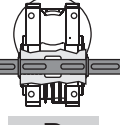
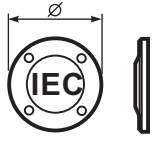
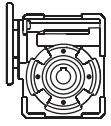
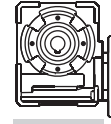
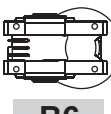
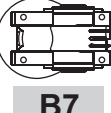
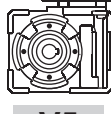
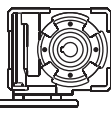
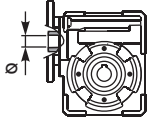
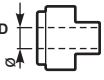
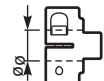


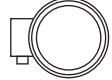
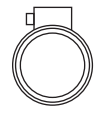

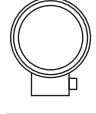


BR



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 Rapporto Untersetzung Reduction Relación | Hub Mozzo corona Hohlwelle Arbre creux Nucleo corona | Output shaft Albero lento Abtriebswelle Arbre de sortie Eje salida | Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor | Mounting position Posizione montaggio Einbaulage Position de montage Position de montaje | Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada | Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje | Terminal box position Posizione morsetti Klemmkastenlage Position boîte a bornes Posición caja de bornes |
|--|--|---|--|---|--|--|---|
| 10 | C | ∅ | -Q | B3 | ST | --- | |
| See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos |  STANDARD C Q63 ⇨ ∅25 Q75 ⇨ ∅30 Q85 ⇨ ∅35 Q11 ⇨ ∅42 I Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox  INCH U Q63 ⇨ ∅1.125" Q85 ⇨ ∅1.500" Z Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox |  ∅  S  D |  -M without flange Senza flangia B5 -A=56 (∅120) -B=63 (∅140) -C=71 (∅160) -D=80 (∅200) -E=90 (∅200) -F=100 (∅250) -G=132 (∅300) -H=160 (∅350) B14 -O=56 (∅80) -P=63 (∅90) -Q=71 (∅105) -R=80 (∅120) -T=90 (∅140) -U=100 (∅160) -V=132 (∅200) Brushless BB=50/70-M5 BC=60/75-M5 BD=70/90-M6 BE=80/100-M6 BF=95/115-M8 BG=110/145-M8 BH=130/165-M8 -0=Type R -S=Type R S series |  B3  B8  B6  B7  V5  V6 |  ST Standard bore * Kit R standard Foro standard * Kit R standard Input bore without Reduction Bushing -O = 9mm -P = 11mm -Q = 14mm -R = 19mm -T = 24mm -U = 28mm -V = 38mm COUPLING STANDARD (IEC)  -A = 9mm -B = 11mm -C = 14mm -D = 19mm -E = 24mm -F = 28mm BRUSHLESS *  -3 = 14mm -4 = 19mm -5 = 22mm -6 = 24mm Ready for input coupling Predisposto per giunto  -0 Type B Tipo B  -0 Type R Tipo R | Only for combined units See technical data table Solo per i riduttori combinati Vedi tabella dati tecnici. Ausführungen für Getriebekombinationen it Uniquement pour combinés. Voir tableau données techniques Sólo para combinados ver tabla datos técnicos | With Type M specify terminal box position Con tipo M specificare posizione morsetti  A  B STANDARD  C  D |

* With reduction bushing where applicable
 Con bussola di riduzione dove prevista

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 / rotação

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

Linear movement / traslazione / linearbewegung / translation / translación

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

3

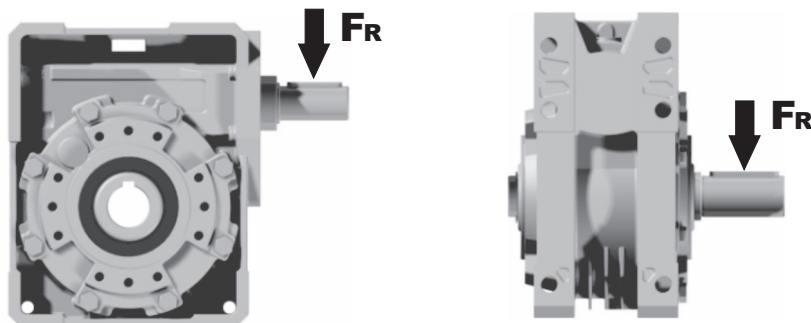
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

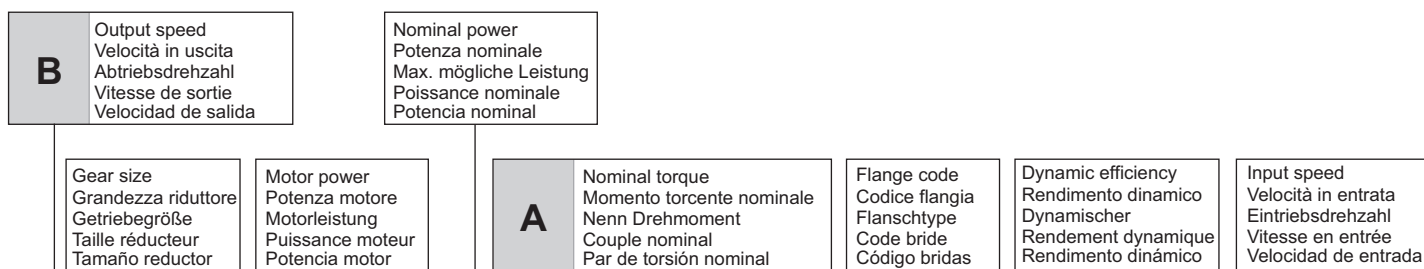
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée 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_k | Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal 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



Q63 Q Square - Gear

147Nm

Rating - Aluminum WORM GEARBOXES



QUICK SELECTION / Selezione veloce

| Output Speed n_2 [min ⁻¹] | Ratio i | Motor power P_{1M} [kW] | Output torque M_{2M} [Nm] | Service factor f.s. | Nominal power P_{1R} [kW] | Nominal torque M_{2R} [Nm] | Available B5 motor flanges | | | | Available B14 motor flanges | | | Dynamic efficiency RD | Tooth Module [mm] | Ratios code | |
|---|------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----------|----------|----|-----------------------------|------------|------------|--------------------------|----------------------|-------------|----|
| | | | | | | | -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 |

C Ratio
Rapporto
Untersetzung
Rapport de réduction
Relación

Nominal module
Modulo nominale
Nenn modul
Module nominale
Módulo nominal

Notes
Note
Anmerkungen
Note
Notas

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

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

| Type of load and starts per hour Tipo di carico e avviamenti per ora | | Oper. hours per day Ore di funz. giorn. | | |
|--|---------------------|--|---------|----------|
| | | <2 h | 2 - 8 h | 8 - 16 h |
| Continuous or intermittent appl. with start / hour 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 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 Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles |
| B) | Mounting with reduction ring Montaggio con boccola 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 boccola Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo |

| | | | | | |
|----------|--|--|--|---|--|
| A | 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 | Select output 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⁻¹

| Output Speed n_2 [min ⁻¹] | Ratio i | Motor power P_{1M} [kW] | Output torque M_{2M} [Nm] | Service factor f.s. | Nominal power P_{1R} [kW] | Nominal torque M_{2R} [Nm] | Available B5 motor flanges | | | | Available B14 motor flanges | | | Dynamic efficiency RD | Tooth Module [mm] | Ratios code | |
|---|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----------|----------|----|-----------------------------|------------|------------|---------------------------------|--------------------------|-----------------|----|
| | | | | | | | -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 |

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 **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.

SHELL Omala S4 WE 320

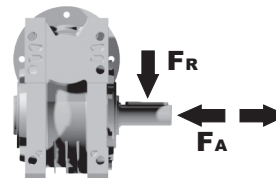
ENI Telium VSF 320

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

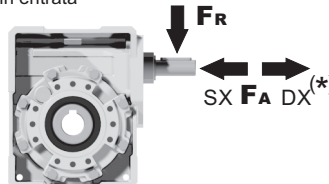
Albero di uscita



| n_2 [min ⁻¹] | F_A [N] | F_R [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 [min ⁻¹] | F_A [N] | F_R [N] |
|-------------------------------|--------------|--------------|
| 1400 | 90 | 450 |

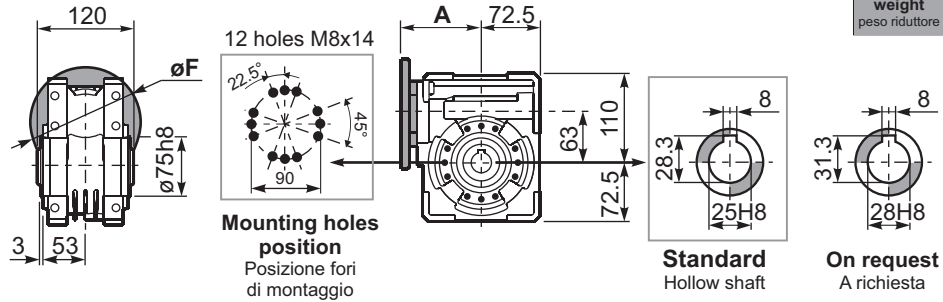
***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PQ63FB... Basic wormbox
Riduttore base

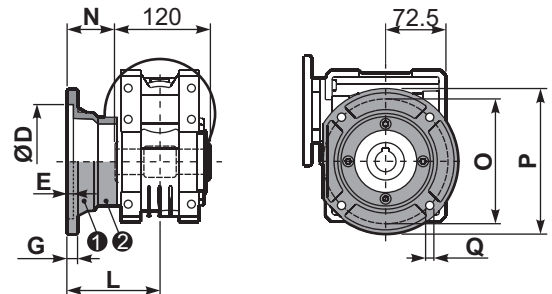
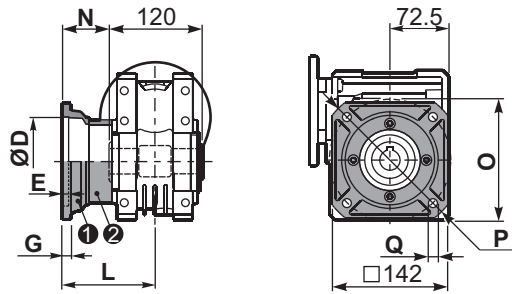
Gearbox weight
peso riduttore **6.00 kg**

| 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 |



PQ63FC... Square flange
Flangia quadrata

PQ63F1... Round flange
Flangia rotonda

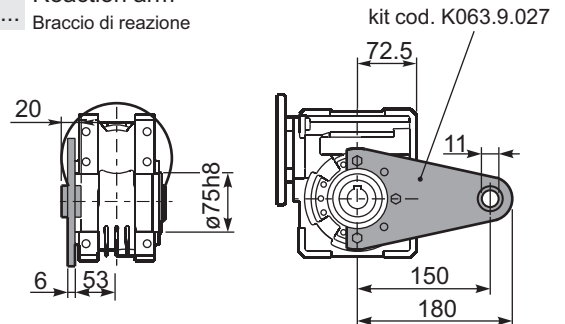
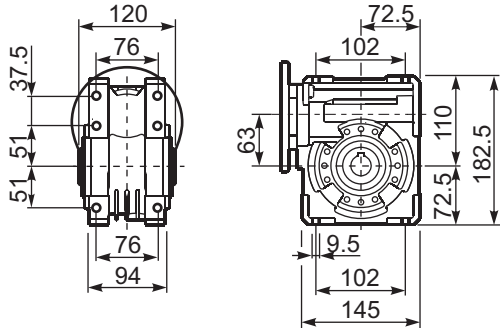


| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|---|----|-----|----|-----|-----|----|------------------------------|
| FC | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 86 | 26 | 150 | 180 | 11 | 1 KQ63.9.010 2 - |
| FL | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 116 | 56 | 150 | 180 | 11 | 1 KQ63.9.010 2 K063.0.200 |

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

PQ63FB... Feet
Piedini

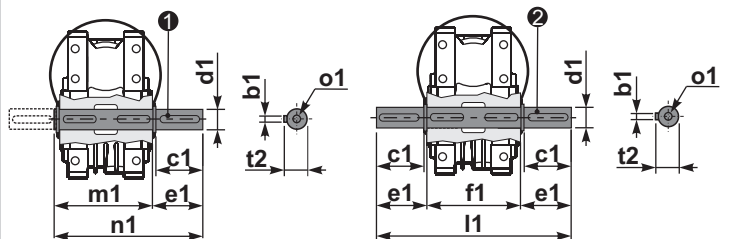
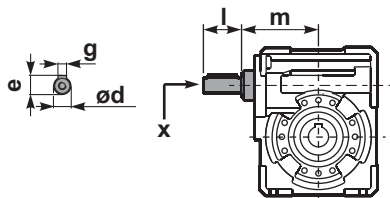
PQ63BR... Reaction arm
Braccio di reazione



RQ63FB... Input shaft
Albero in entrata

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

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

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-------|-------|-----|----|-------|
| type B | 8 | 60 | 25 ^{-0.005} / _{-0.020} | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

| Output Speed n_2 [min ⁻¹] | Ratio i | Motor power P_{1M} [kW] | Output torque M_{2M} [Nm] | Service factor f.s. | Nominal power P_{1R} [kW] | Nominal torque M_{2R} [Nm] | Available B5 motor flanges | | | | Available B14 motor flanges | | | Dynamic efficiency RD | Tooth Module [mm] | Ratios code | |
|---|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----------------------------|----|------------|--------------------------|----------------------|-------------|----|
| | | | | | | | -C | -D | -E | -F | -R | -T | -U | | | | |
| | | | | | | | 71 | 80 | 90 | 100 112 | 80 | 90 | 100 112 | | | | |
| 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 |

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 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.

SHELL Omala S4 WE 320

ENI Telium VSF 320

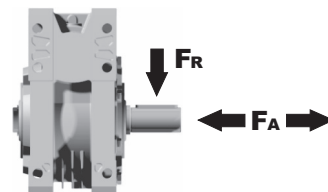
For all details on lubrication and plugs check our website

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

tab. 1

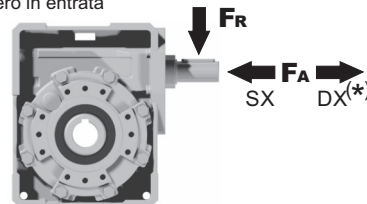
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [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 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 125 | 630 |

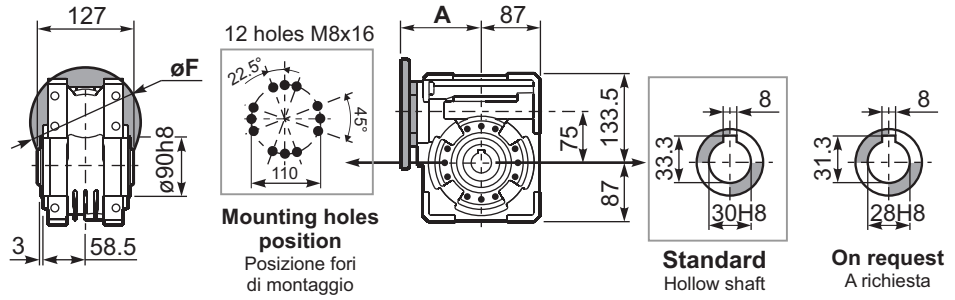
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

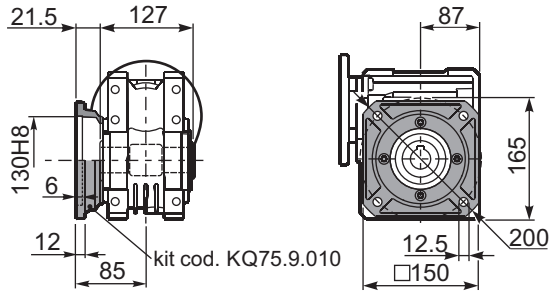
PQ75FB... Basic wormbox
Riduttore base

Gearbox weight
peso riduttore **8.70 kg**

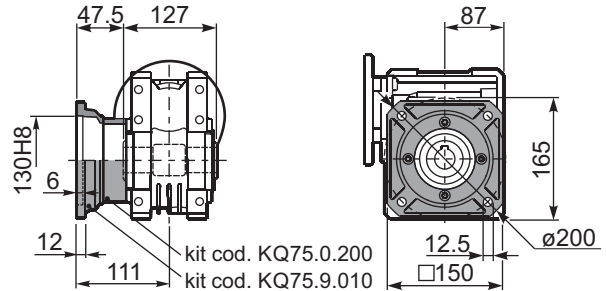
| M. flanges | Kit code | øF | A |
|------------|------------|-----|-----|
| 71B5 | K023.4.041 | 160 | 114 |
| 80/90B5 | K023.4.042 | 200 | 116 |
| 100/112B5 | K023.4.043 | 250 | 125 |
| 80B14 | K085.4.046 | 120 | 116 |
| 90B14 | K085.4.045 | 140 | 116 |
| 100/112B14 | K085.4.047 | 160 | 125 |



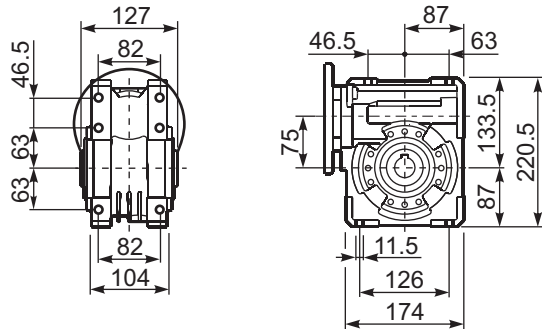
PQ75FC... Square flange
Flangia quadrata



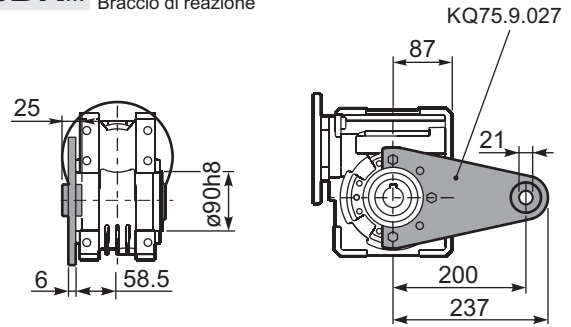
PQ75FL... Square flange
Flangia quadrata



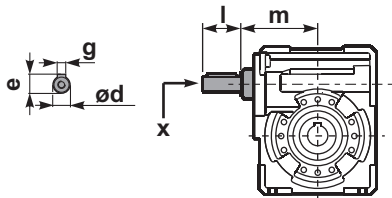
PQ75FB... Feet
Piedini



PQ75BR... Reaction arm
Braccio di reazione

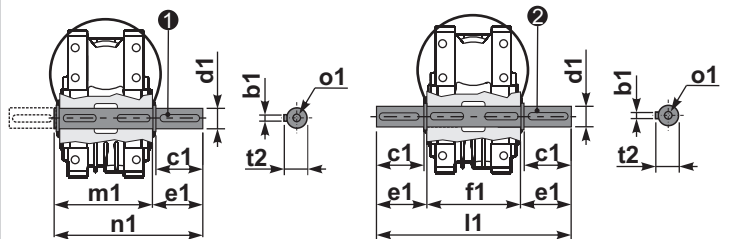


RQ75FB... Input shaft
Albero in entrata



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 K085.5.007 PAM90 K085.5.008 PAM100 |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|------------|----|----|--|----|-----|-----|-----|-----|----|-------|
| Standard | 8 | 60 | 30 ^{-0.005} _{-0.020} | 65 | 127 | 255 | 134 | 199 | 33 | M8x20 |
| On request | 8 | 60 | 28 ^{-0.005} _{-0.020} | 65 | - | - | 134 | 199 | 31 | M8x20 |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

| Output Speed n_2 [min ⁻¹] | Ratio i | Motor power P_{1M} [kW] | Output torque M_{2M} [Nm] | Service factor f.s. | Nominal power P_{1R} [kW] | Nominal torque M_{2R} [Nm] | Available B5 motor flanges | | | | Available B14 motor flanges | | | Dynamic efficiency RD | Tooth Module [mm] | Ratios code | |
|---|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----------------------------|----|------------|--------------------------|----------------------|-------------|----|
| | | | | | | | -C | -D | -E | -F | -R | -T | -U | | | | |
| | | | | | | | 71 | 80 | 90 | 100 112 | 80 | 90 | 100 112 | | | | |
| 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 | B | | 75 | 4.7 | 06 |
| 37 | 38 | 1.5 | 276 | 1.2 | 1.8 | 336 | B | B | | | | B | B | | 71 | 3.5 | 07 |
| 30 | 46 | 1.5 | 320 | 1.0 | 1.5 | 326 | B | B | | | | B | B | | 68 | 3.1 | 08 |
| 27 | 52 | 1.1 | 258 | 1.1 | 1.2 | 289 | B | B | | | | B | B | | 66 | 2.7 | 09 |
| 21 | 67 | 1.1 | 327 | 0.9 | 0.97 | 289 | B | B | | | | B | B | | 65 | 2.1 | 10 |
| 18.9 | 74 | 0.75 | 220 | 1.2 | 0.91 | 268 | B | B | | | | B | B | | 58 | 1.9 | 11 |
| 14.6 | 96 | 0.55 | 191 | 1.3 | 0.70 | 242 | B | 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 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.

SHELL Omala S4 WE 320

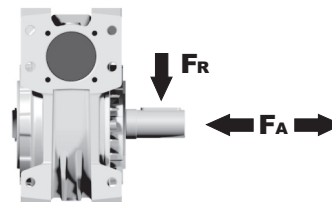
ENI Telium VSF 320

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

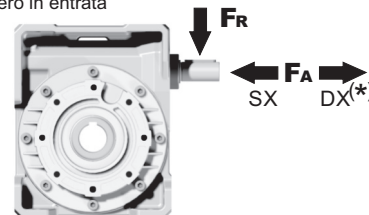
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [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 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 130 | 650 |

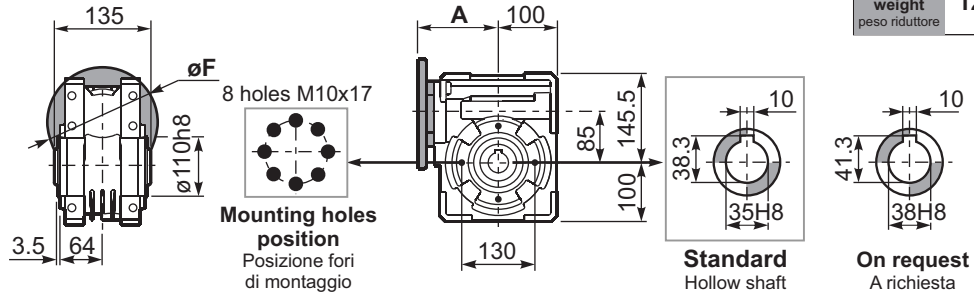
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PQ85**FB**... Basic wormbox
Riduttore base

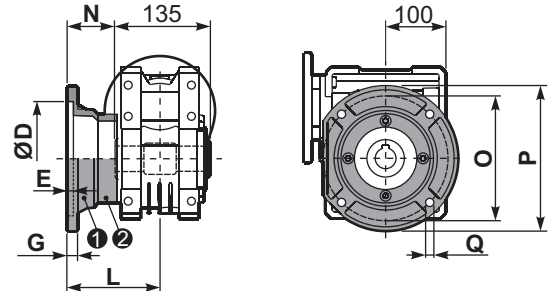
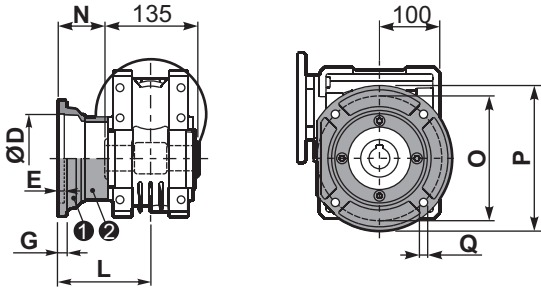
Gearbox weight
peso riduttore **12.1 kg**

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



PQ85**FC**... Output flange
Flangia uscita

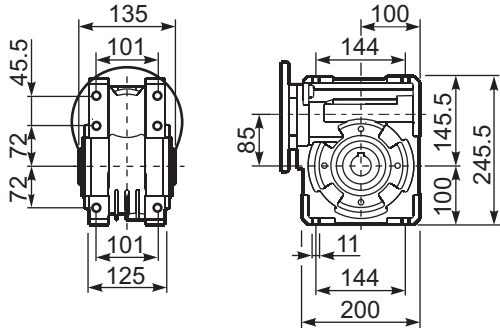
PQ85**F1**... Output flange
Flangia uscita



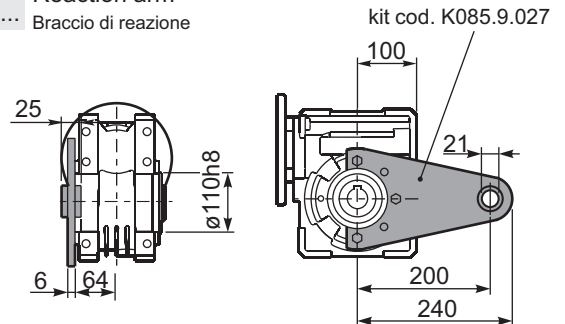
| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|---|----|-------|------|-----|-----|----|------------------------------|
| FC | 152 ^{+0.06} / _{+0.00} | 5 | 16 | 108 | 40.5 | 176 | 205 | 13 | ① K085.9.010 ② - |
| FL | 152 ^{+0.06} / _{+0.00} | 5 | 16 | 148.5 | 81 | 176 | 205 | 13 | ① K085.9.010 ② K085.0.201 |

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

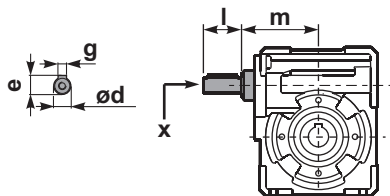
PQ85**FB**... Feet
Piedini



PQ85**BR**... Reaction arm
Braccio di reazione

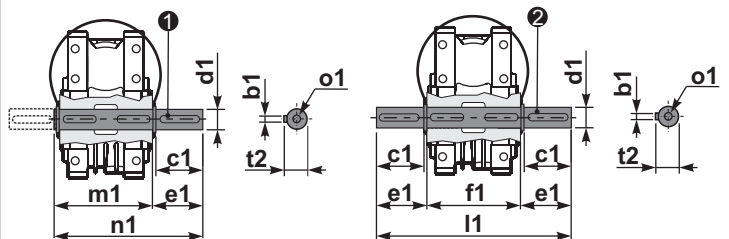


RQ85**FB**... Input shaft
Albero in entrata



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

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

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 ^{-0.005} / _{-0.020} | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

| Output Speed n_2 [min ⁻¹] | Ratio i | Motor power P_{1M} [kW] | Output torque M_{2M} [Nm] | Service factor f.s. | Nominal power P_{1R} [kW] | Nominal torque M_{2R} [Nm] | Available B5 motor flanges | | | | | Available B14 motor flanges | | | | Dynamic efficiency RD | Tooth Module [mm] | Ratios code | |
|---|--------------|---------------------------------|-----------------------------------|------------------------|-----------------------------------|------------------------------------|----------------------------|----|----|------------|-----|-----------------------------|----|------------|-----|--------------------------|----------------------|-------------|----|
| | | | | | | | -C | -D | -E | -F | -G | -R | -T | -U | -V | | | | |
| | | | | | | | 71 | 80 | 90 | 100 112 | 132 | 80 | 90 | 100 112 | 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 |

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 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.

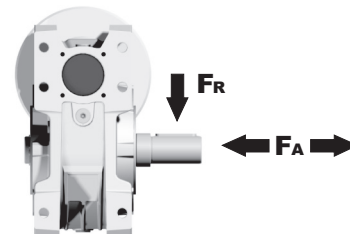
E El reductor tamaño Q11 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción 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 |
| SHELL Omala S2 GX 460 | | | ENI Blasias 460 | | |

For all details on lubrication and plugs check our website [www.enigearboxes.com](#) **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

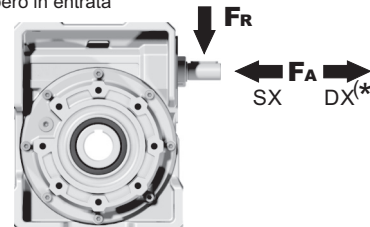
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [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 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 228 | 1140 |

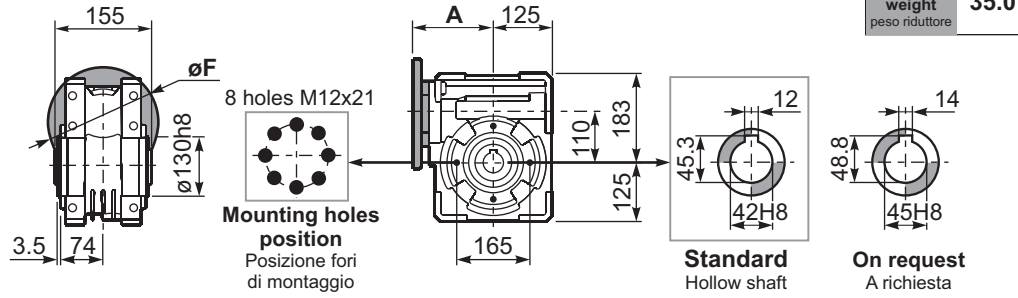
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PQ11FB... Basic wormbox
Riduttore base

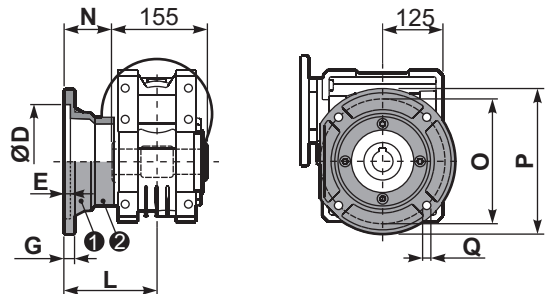
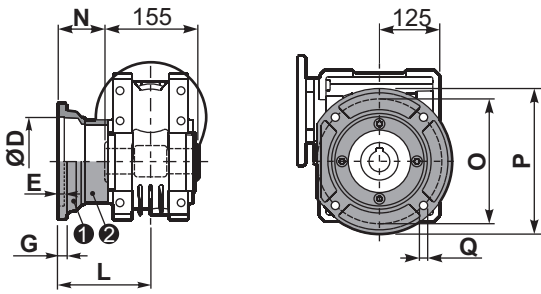
Gearbox weight
peso riduttore **35.0 kg**

| 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 |



PQ11FC... Output flange
Flangia uscita

PQ11F1... Output flange
Flangia uscita

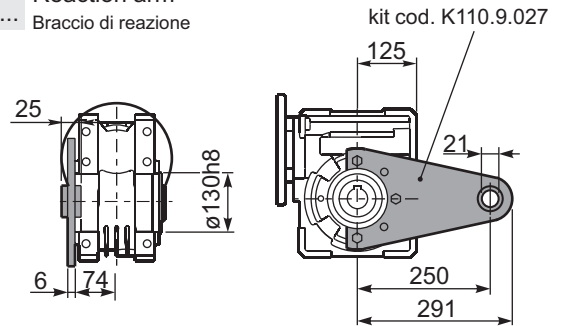
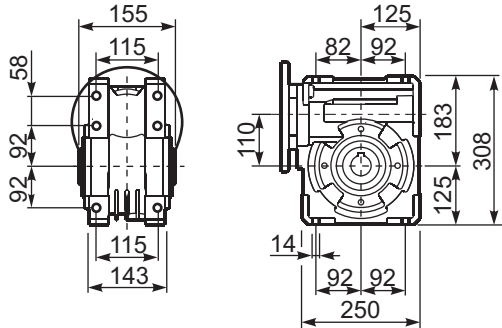


| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|----|------|-------|-----|-----|-----|----|---------------------|
| FC | 170 ^{+0.083} / _{+0.043} | 11 | 16.5 | 131.5 | 54 | 230 | 270 | 13 | ① K110.9.010 ② - |
| FL | 170 ^{+0.083} / _{+0.043} | 11 | 16.5 | 179.5 | 102 | 230 | 270 | 13 | ① K110.9.011 ② - |

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

PQ11FB... Feet
Piedini

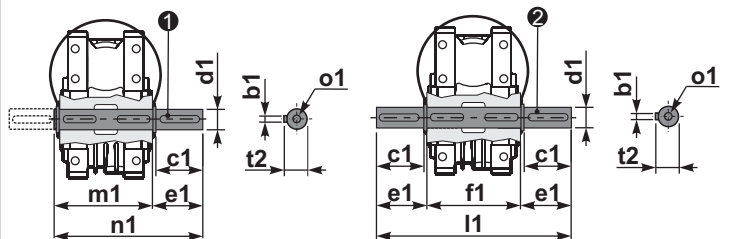
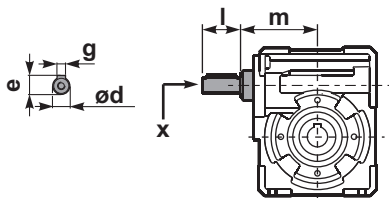
PQ11BR... Reaction arm
Braccio di reazione



RQ11FB... Input shaft
Albero in entrata

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

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

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 ^{-0.005} / _{-0.020} | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

| | Output Speed n_2 [min ⁻¹] | Ratio i | Motor power P_{1M} [kW] | Output torque M_{2M} [Nm] | Service factor f.s. | Nominal power P_{1R} [kW] | Nominal torque M_{2R} [Nm] | Available B5 motor flanges | | | | Available B14 motor flanges | | | | Dynamic efficiency RD | Tooth Module [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 | |

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 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.

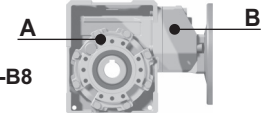
I Il riduttore tipo P6Q viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

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).



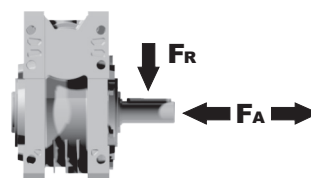
SHELL Omala S4 WE 320

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**

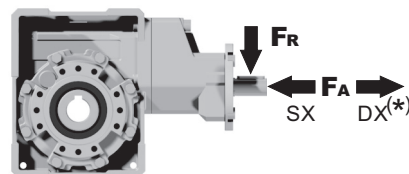
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 75 | 500 | 2500 |
| 50 | 600 | 3000 |
| 25 | 700 | 3800 |
| 15-6 | 800 | 4000 |

Input shaft
albero in entrata



| n_1 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 61 | 305 |

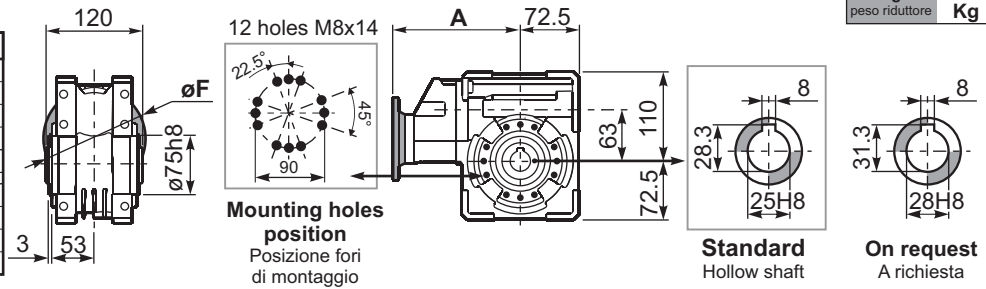
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP6QFB... Basic wormbox
Riduttore base

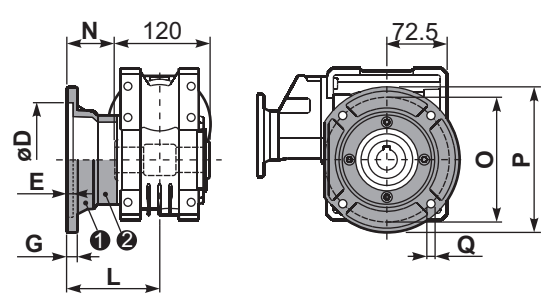
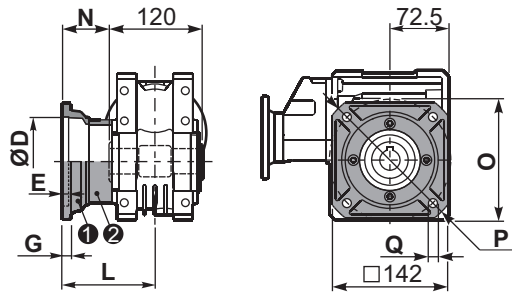
| | | |
|----------------|----------|---------|
| Gearbox weight | 29.9+111 | 139+434 |
| peso riduttore | 7.05 Kg | 6.60 Kg |

| 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 |
| <hr/> | | | |
| 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

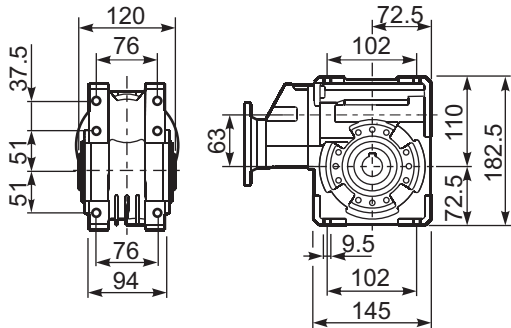
PP6QF1... Output flange
Flangia uscita



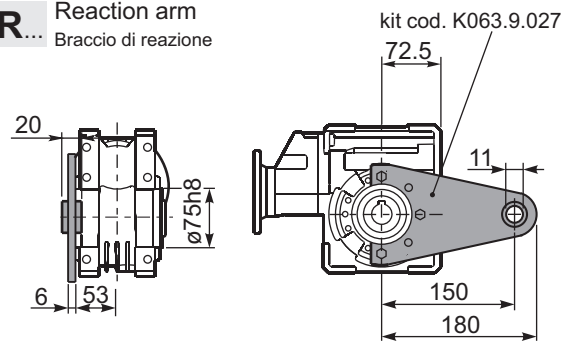
| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|---|----|-----|----|-----|-----|----|------------------------------|
| FC | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 86 | 26 | 150 | 180 | 11 | 1 KQ63.9.010 2 - |
| FL | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 116 | 56 | 150 | 180 | 11 | 1 KQ63.9.010 2 K063.0.200 |

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

PP6QFB... Feet
Piedini



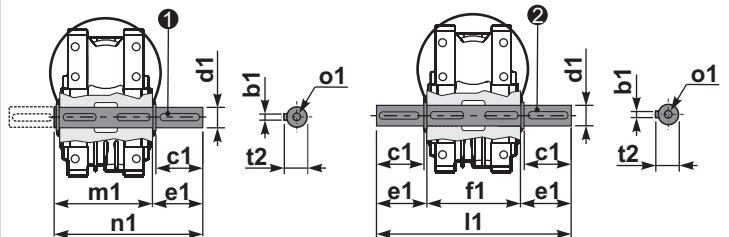
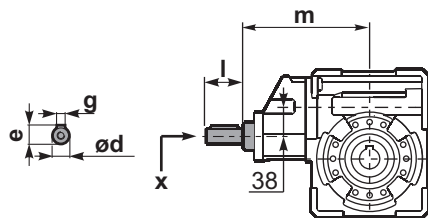
PP6QBR... Reaction arm
Braccio di reazione



RP6QFB... Input shaft
Albero in entrata

PP6Q...S... Single Shaft
Albero lento semplice

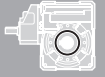
PP6Q...D... Double Shaft
Albero lento bisp.



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 | M6x16 | C40.5.062 |
| 139+434 | 14 h6 | 16 | 5 | 25 | 154 | M5x13 | C35.5.061 |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-------|-------|-----|----|-------|
| type B | 8 | 60 | 25 ^{-0.005} / _{-0.020} | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1400 min⁻¹

| Output Speed n ₂ [min ⁻¹] | Ratio i | Motor power P _{1M} [kW] | Output torque M _{2M} [Nm] | Service factor f.s. | Nominal power P _{1R} [kW] | Nominal torque M _{2R} [Nm] | Available B5 motor flanges | | | | Available B14 motor flanges | | | Dynamic efficiency RD | Tooth Module [mm] | Ratios code |
|--|-------------|--|--|------------------------|--|---|----------------------------|----|----|----|-----------------------------|----|----|--------------------------|----------------------|-------------|
| | | | | | | | -B | -C | -D | -E | -Q | -R | -T | | | |
| | | | | | | | 63 | 71 | 80 | 90 | 71 | 80 | 90 | | | |
| 22 | 62.9 | 0.75 | 248 | 1.2 | 0.87 | 286 | | | | | C | C | | 77 | 3.10 | 01 |
| 18 | 78.5 | 0.75 | 293 | 1.0 | 0.73 | 286 | | | | | C | C | | 73 | 2.41 | 02 |
| 15 | 94.2 | 0.75 | 333 | 0.9 | 0.70 | 310 | | | | | C | C | | 69 | 2.10 | 03 |
| 11 | 126 | 0.55 | 297 | 1.0 | 0.55 | 296 | B | | | | C | C | | 63 | 1.53 | 04 |
| 9 | 157 | 0.37 | 230 | 1.1 | 0.41 | 252 | B | | | | C | C | | 58 | 1.23 | 05 |
| 8 | 185 | 0.37 | 257 | 1.2 | 0.43 | 296 | B | | | | C | C | | 55 | 3.10 | 06 |
| 6 | 231 | 0.25 | 193 | 1.5 | 0.38 | 296 | B | | | | C | C | | 49 | 2.41 | 07 |
| 5 | 277 | 0.25 | 222 | 1.3 | 0.33 | 296 | B | | | | C | C | | 47 | 2.10 | 08 |
| 4 | 378 | 0.18 | 200 | 1.5 | 0.27 | 296 | B | | | | C | C | | 43 | 2.10 | 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 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.

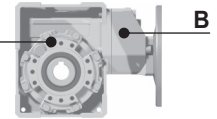
D Für die Lebensdauerschmierung ist das Getriebe der Größe P7Q mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

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).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

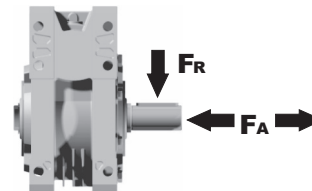
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

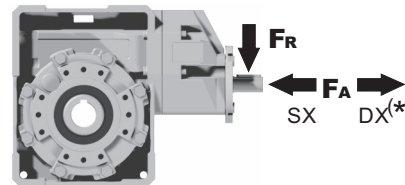
Albero di uscita



| n ₂ [min ⁻¹] | FA [N] | FR [N] |
|--|-----------|-----------|
| 75 | 620 | 3100 |
| 50 | 720 | 3600 |
| 25 | 880 | 4400 |
| 15-6 | 1000 | 5000 |

Input shaft

albero in entrata



| n [min ⁻¹] | FA [N] | FR [N] |
|---------------------------|-----------|-----------|
| 1400 | 108 | 540 |

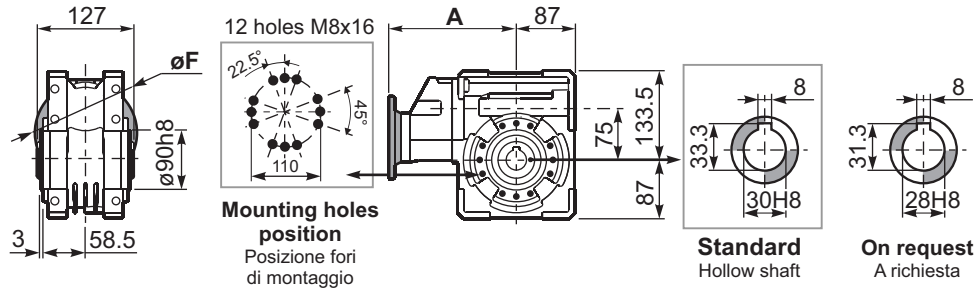
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

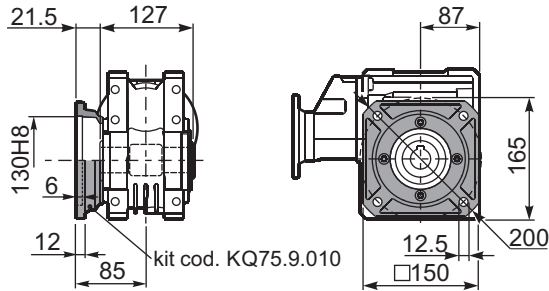
PP7QFB... Basic wormbox
Riduttore base

Gearbox weight
peso riduttore **9.90 kg**

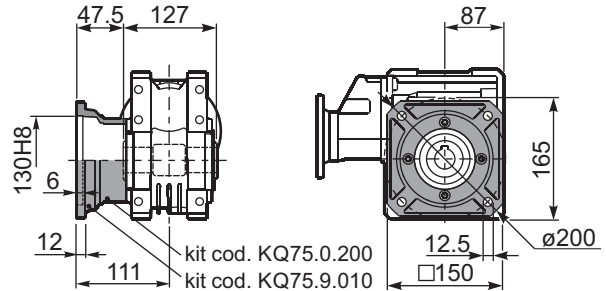
| M. flanges | Kit code | øF | A |
|------------|------------|-----|-------|
| 63B5 | K063.4.041 | 140 | 192.7 |
| 71B5 | K063.4.042 | 160 | 190.7 |
| 80/90B5 | K063.4.043 | 200 | 192.7 |
| 71B14 | K063.4.047 | 105 | 190.7 |
| 80B14 | K063.4.046 | 120 | 192.7 |
| 90B14 | K063.4.041 | 140 | 192.7 |



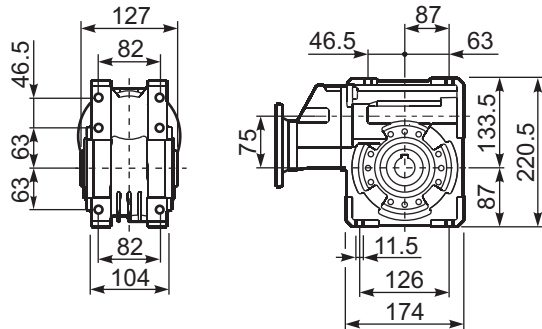
PP7QFC... Square flange
Flangia quadrata



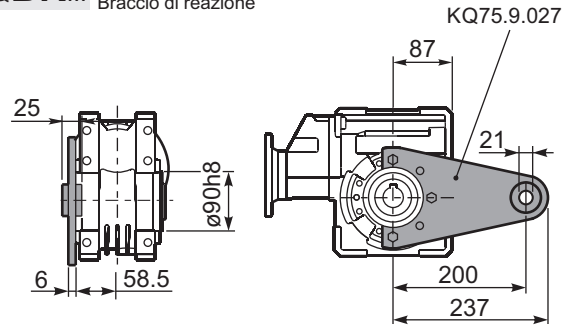
PP7QFL... Square flange
Flangia quadrata



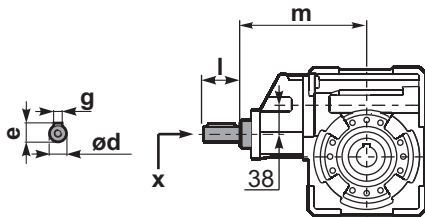
PP7QFB... Feet
Piedini



PP7QBR... Reaction arm
Braccio di reazione

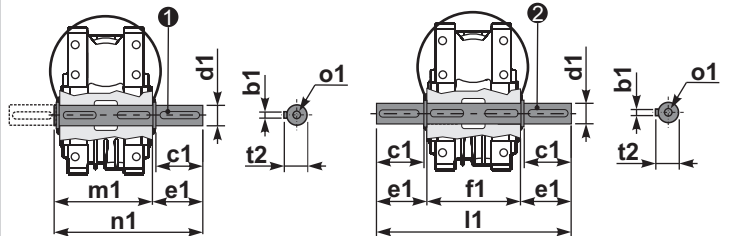


RP7QFB... Input shaft
Albero in entrata



PP7Q....S... Single Shaft
Albero lento semplice

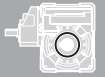
PP7Q....D... Double Shaft
Albero lento bisp.



① kit cod. KQ75.5.028 Standard ② kit cod. KQ75.5.029 Standard
kit cod. KQ75.5.026 On request

| | ød | e | g | l | m | x | |
|--------|-------|------|---|----|-------|-------|-----------|
| type B | 19 h6 | 21.5 | 6 | 35 | 185.5 | M6x16 | C40.5.062 |
| type S | - | - | - | - | - | - | |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|------------|----|----|--|----|-----|-----|-----|-----|----|-------|
| Standard | 8 | 60 | 30 ^{-0.005} _{-0.020} | 65 | 127 | 255 | 134 | 199 | 33 | M8x20 |
| On request | 8 | 50 | 28 ^{-0.005} _{-0.020} | 65 | - | - | 134 | 199 | 31 | M8x20 |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

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 **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.

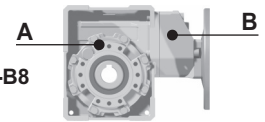
D Für die Lebensdauerschmierung ist das Getriebe der Größe **P8Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes 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) .



SHELL Omala S4 WE 320

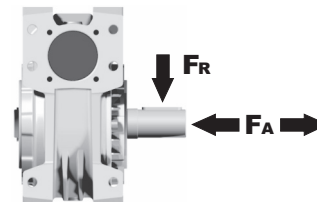
ENI Telium VSF 320

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

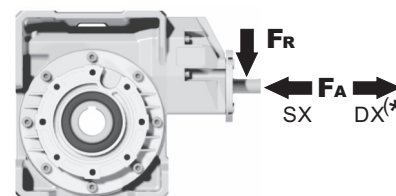
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 75 | 700 | 3500 |
| 50 | 800 | 4000 |
| 25 | 1000 | 5000 |
| 15-6 | 1160 | 5800 |

Input shaft

albero in entrata



| n_1 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 108 | 540 |

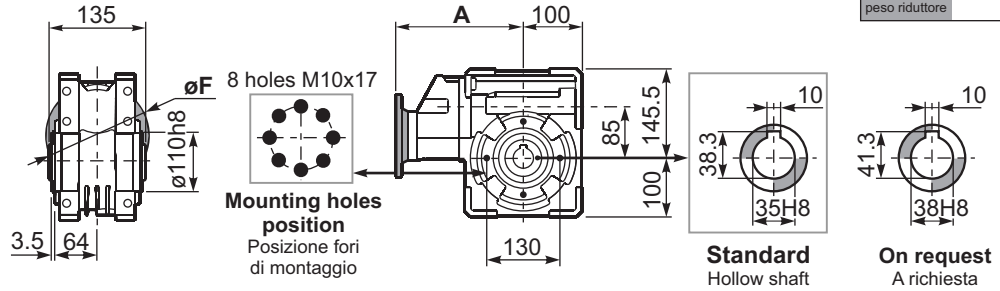
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP8QFB... Basic wormbox
Riduttore base

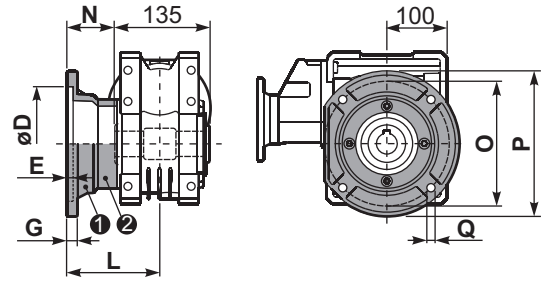
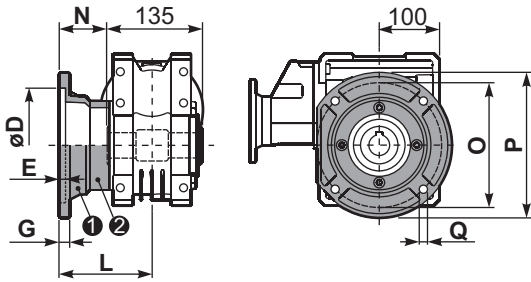
Gearbox weight
peso riduttore **12.3 kg**

| 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 |



PP8QFC... Output flange
Flangia uscita

PP8QF1... Output flange
Flangia uscita

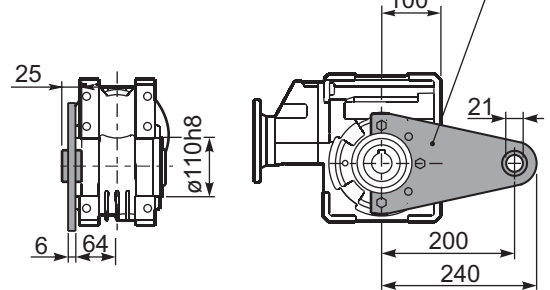
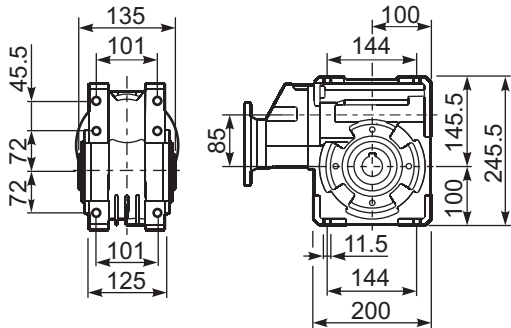


| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|---|----|-------|------|-----|-----|----|------------------------------|
| FC | 152 ^{+0.06} / _{+0.00} | 5 | 16 | 108 | 40.5 | 176 | 205 | 13 | 1 K085.9.010 2 - |
| FL | 152 ^{+0.06} / _{+0.00} | 5 | 16 | 148.5 | 81 | 176 | 205 | 13 | 1 K085.9.010 2 K085.0.201 |

| type S | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|---|----|-------|----|-----|-----|------|----------------------|
| F1 | 130 ^{+0.04} / _{+0.00} | 5 | 13 | 117.5 | 50 | 165 | 200 | 11.5 | 1 KS085.9.012 2 - |
| F2 | 152 ^{+0.06} / _{+0.00} | 5 | 15 | 147.5 | 80 | 180 | 205 | 12.5 | 1 KS085.9.013 2 - |
| F4 | 130 ^{+0.04} / _{+0.00} | 5 | 13 | 106.5 | 39 | 165 | 200 | 13 | 1 KS085.9.015 2 - |

PP8QFB... Feet
Piedini

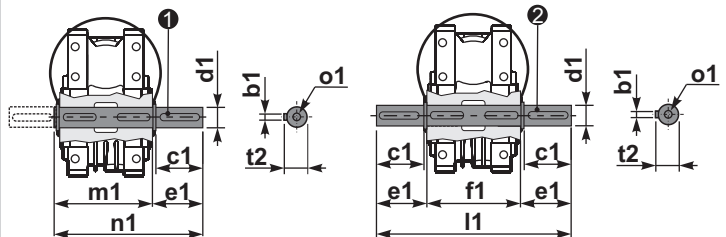
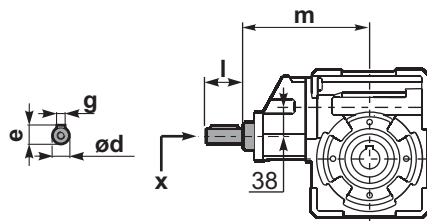
PP8QBR... Reaction arm
Braccio di reazione



RP8QFB... Input shaft
Albero in entrata

PP8Q...S... Single Shaft
Albero lento semplice

PP8Q...D... Double Shaft
Albero lento bisp.

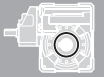


1 kit cod. K085.5.028 type B

2 kit cod. K085.5.029 type B

| | ød | e | g | l | m | x | |
|--------|-------|------|---|----|-----|-------|-----------|
| type B | 19 h6 | 21.5 | 6 | 35 | 186 | M6x16 | C40.5.062 |
| type S | - | - | - | - | - | - | - |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 ^{-0.005} / _{-0.020} | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

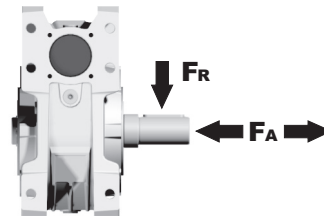
| B3 | B6 | B7 | B8 | V5 | V6 |
|-----------------------|--------------|--------------|-----------------|-------------|-------------|
| | | | | | |
| 1.9/0.14LT | 1.35/0.14 LT | 1.35/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT | 2.0/0.14 LT |
| SHELL Omala S2 GX 460 | | | ENI Blasias 460 | | |

For all details on lubrication and plugs check our website [www.p1q.com](#) **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

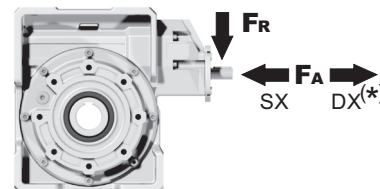
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 75 | 800 | 4000 |
| 50 | 920 | 4600 |
| 25 | 1200 | 6000 |
| 15-6 | 1400 | 7000 |

Input shaft

albero in entrata



| n_1 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 150 | 760 |

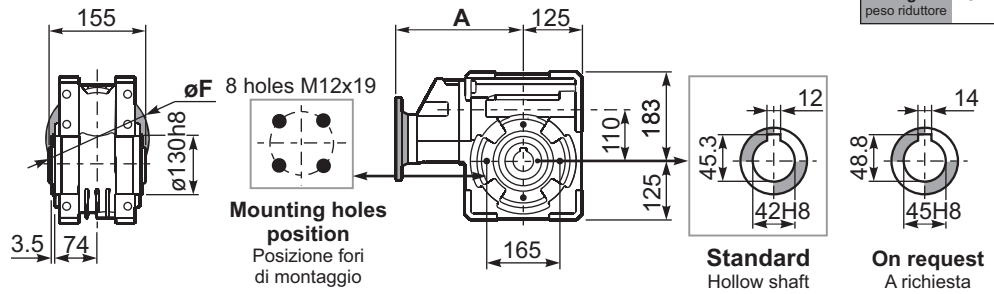
***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP1QFB... Basic wormbox
Riduttore base

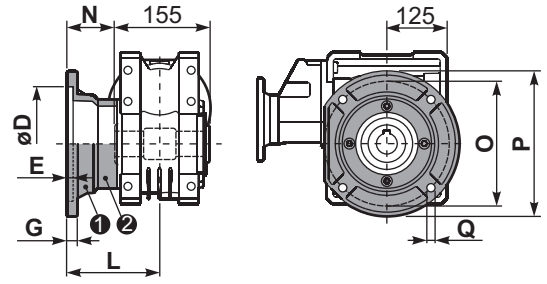
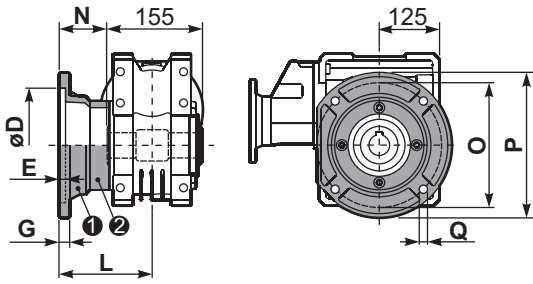
Gearbox weight
peso riduttore **37.3 kg**

| 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 |



PP1QFC... Output flange
Flangia uscita

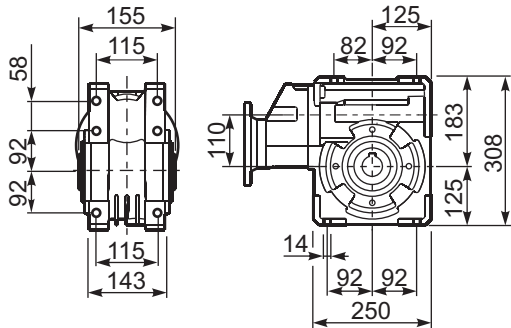
PP1QF1... Output flange
Flangia uscita



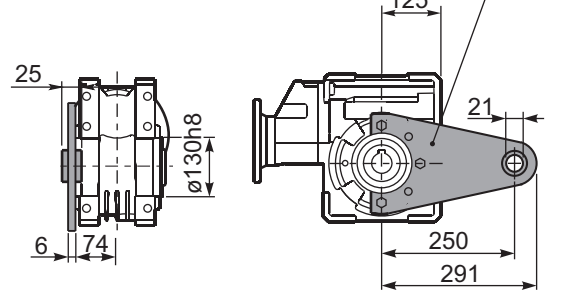
| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|----|------|-------|-----|-----|-----|----|---------------------|
| FC | 170 ^{+0.083} / _{+0.043} | 11 | 16.5 | 131.5 | 54 | 230 | 270 | 13 | 1 K110.9.010 2 - |
| FL | 170 ^{+0.083} / _{+0.043} | 11 | 16.5 | 179.5 | 102 | 230 | 270 | 13 | 1 K110.9.011 2 - |

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

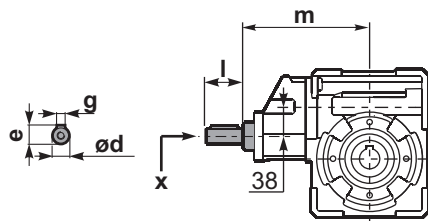
PP1QFB... Feet
Piedini



PP1QBR... Reaction arm
Braccio di reazione

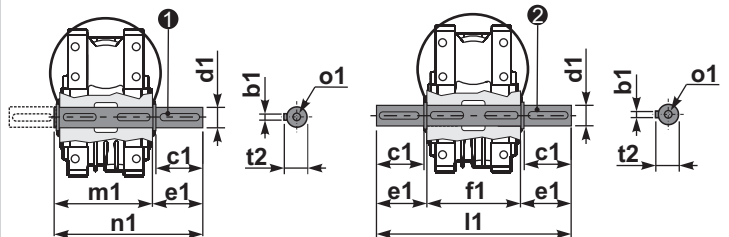


RP1QFB... Input shaft
Albero in entrata



PP1Q....S... Single Shaft
Albero lento semplice

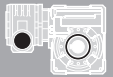
PP1Q....D... Double Shaft
Albero lento bisp.



1 kit cod. K110.5.028 type B 2 kit cod. K110.5.029 type B

| | 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 ^{-0.005} / _{-0.020} | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

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

| n_2 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 25 | 700 | 3800 |
| 15 | 800 | 4000 |

Input shaft
albero in entrata

| n_1 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 20 | 100 |

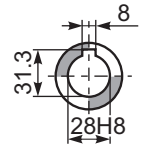
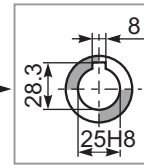
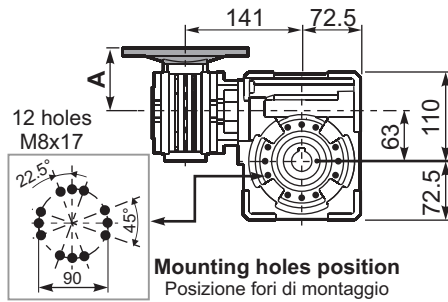
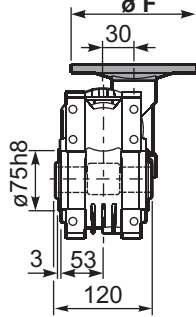
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P63QFB... Basic wormbox
Riduttore base

Gearbox weight
peso riduttore **7.25 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 |



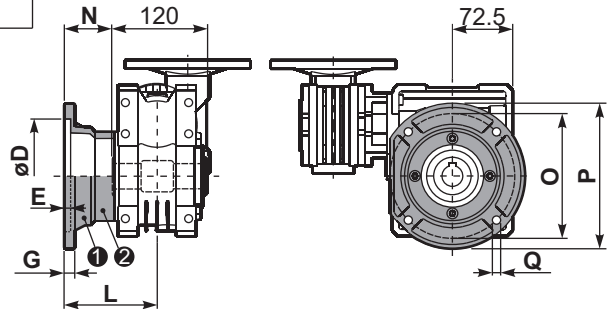
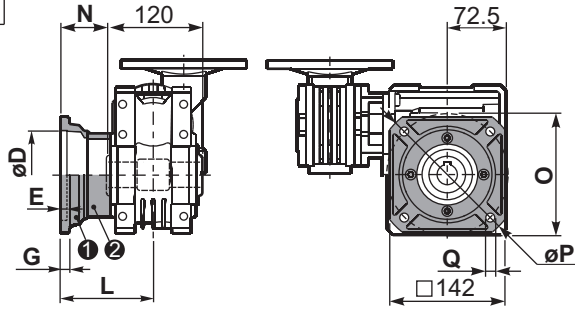
Mounting holes position
Posizione fori di montaggio

Standard
Hollow shaft

On Request
A richiesta

P63QFC... Square flange
Flangia quadrata

P63QF1... Round flange
Flangia rotonda



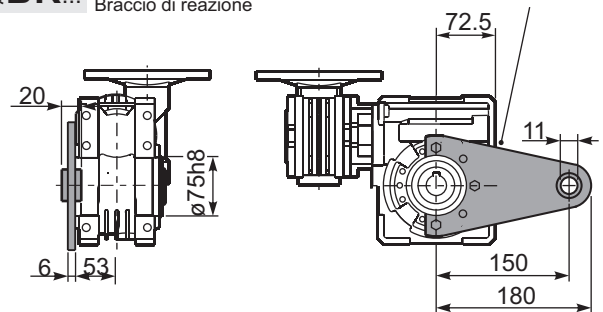
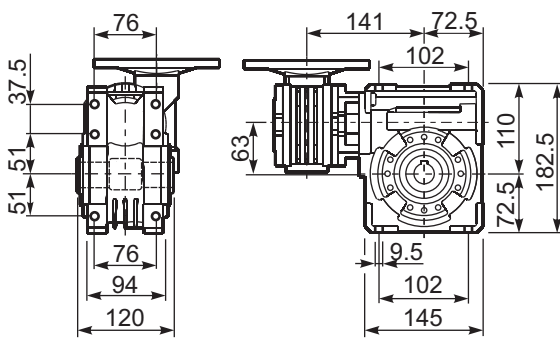
| type B | øD | E | G | L | N | O | P | Q | kit code |
|-----------|---|---|----|-----|----|-----|-----|----|------------------------------|
| FC | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 86 | 26 | 150 | 180 | 11 | 1 KQ63.9.010 2 - |
| FL | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 116 | 56 | 150 | 180 | 11 | 1 KQ63.9.010 2 K063.0.200 |

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

P63QFB... Feet
Piedini

P63QBR... Reaction arm
Braccio di reazione

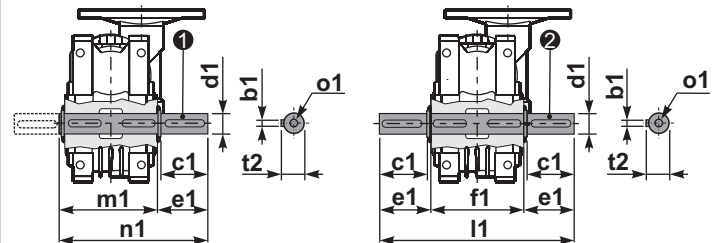
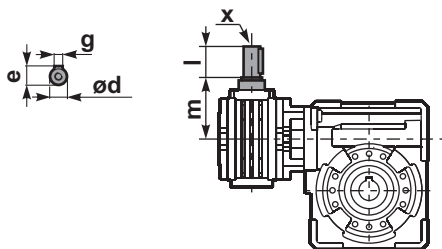
kit cod. K063.9.027



R63QFB... Input shaft
Albero in entrata

P63Q....S... Single Shaft
Albero lento semplice

P63Q....D... Double Shaft
Albero lento bisp.

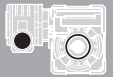


1 kit cod. K063.5.028 type B

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 2 - |
| type S | - | - | - | - | - | - | 1 - 2 - |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-------|-------|-----|----|-------|
| type B | 8 | 60 | 25 ^{-0.005} / _{-0.020} | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

SHELL Omala S4 WE 320

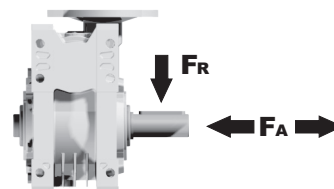
ENI Telium VSF 320

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

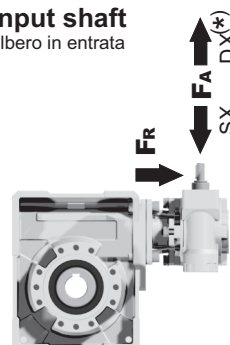
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 25 | 700 | 3800 |
| 15 | 800 | 4000 |

Input shaft

albero in entrata



| n_1 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 42 | 210 |

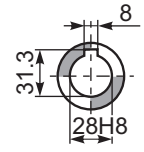
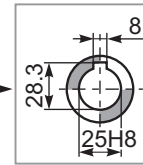
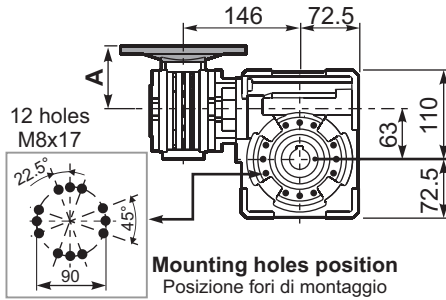
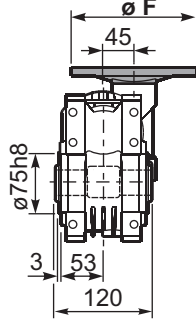
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P64QFB... Basic wormbox
Riduttore base

Gearbox weight
peso riduttore **7.25 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 |



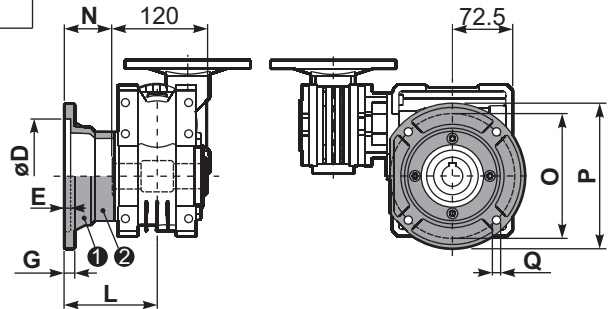
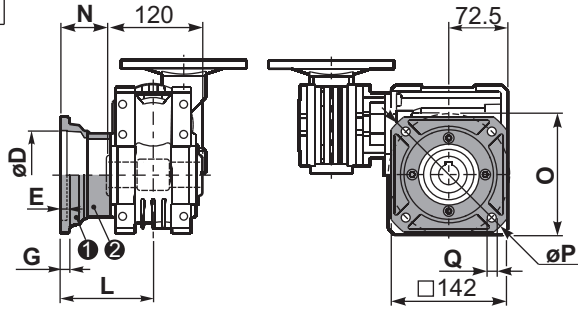
Mounting holes position
Posizione fori di montaggio

Standard
Hollow shaft

On Request
A richiesta

P64QFC... Square flange
Flangia quadrata

P64QF1... Round flange
Flangia rotonda



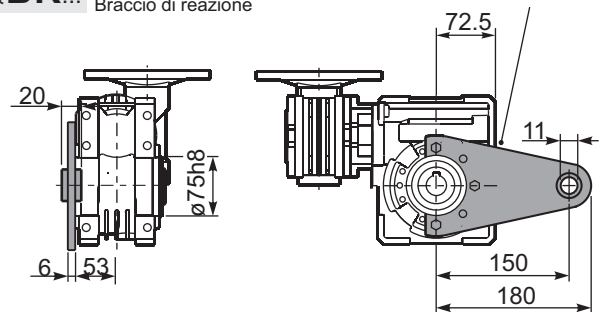
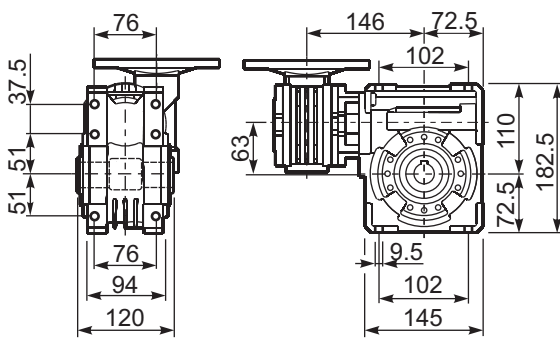
| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|---|----|-----|----|-----|-----|----|------------------------------|
| FC | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 86 | 26 | 150 | 180 | 11 | 1 KQ63.9.010 2 - |
| FL | 115 ^{+0.20} / _{+0.15} | 6 | 12 | 116 | 56 | 150 | 180 | 11 | 1 KQ63.9.010 2 K063.0.200 |

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

P64QFB... Feet
Piedi

P64QBR... Reaction arm
Braccio di reazione

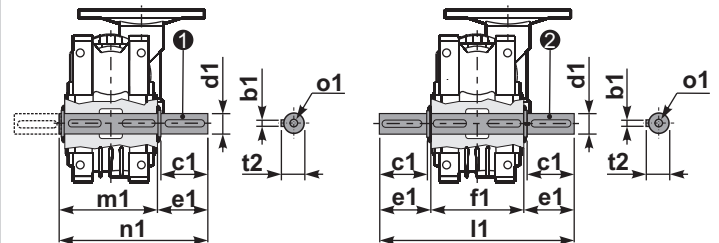
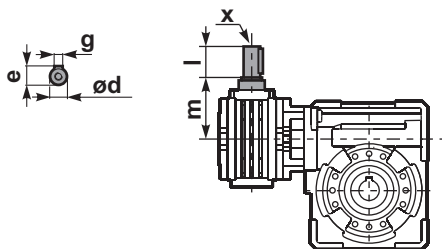
kit cod. K063.9.027



R64QFB... Input shaft
Albero in entrata

P64Q.....S... Single Shaft
Albero lento semplice

P64Q.....D... Double Shaft
Albero lento bisp.

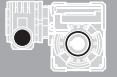


1 kit cod. K063.5.028 type B

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 2 - |
| type S | - | - | - | - | - | - | 1 - 2 - |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-------|-------|-----|----|-------|
| type B | 8 | 60 | 25 ^{-0.005} / _{-0.020} | 63.2 | 120 | 246.4 | 126.8 | 190 | 28 | M8x20 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

| Output Speed n_2 [min ⁻¹] | Ratio i | Motor power P_{1M} [kW] | Output torque M_{2M} [Nm] | Service factor f.s. | Nominal power P_{1R} [kW] | Nominal torque M_{2R} [Nm] | Available B5 motor flanges | | Available B14 motor flanges | | | Dynamic efficiency RD | Tooth Module [mm] | 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 |

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 **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.

LUBRICATION 74Q Oil
Quantity 0.40/0.09 Lt.

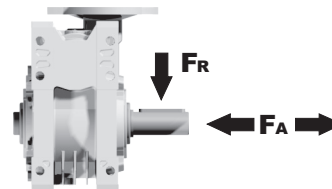
SHELL Omala S4 WE 320

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

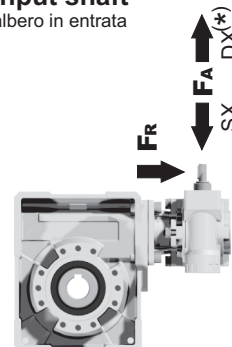
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 25 | 880 | 4400 |
| 15 | 1000 | 5000 |

Input shaft
albero in entrata



| n_1 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 42 | 210 |

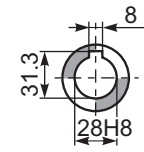
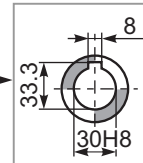
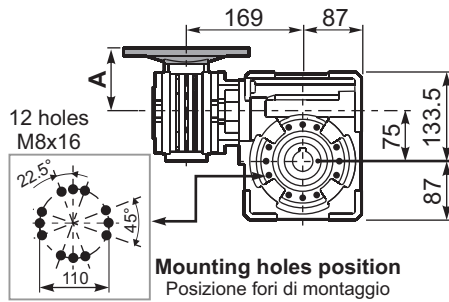
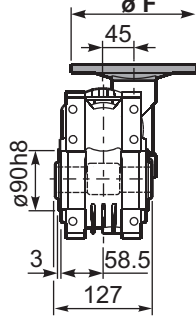
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P74QFB... Basic wormbox
Riduttore base

Gearbox 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 |



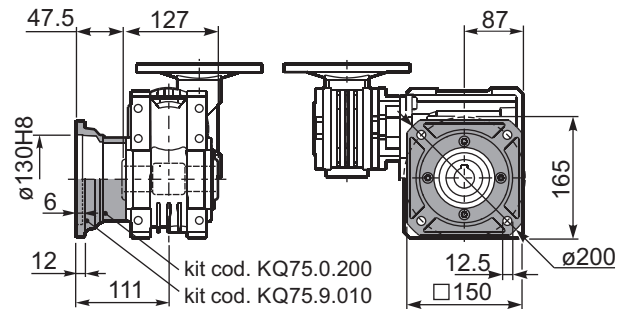
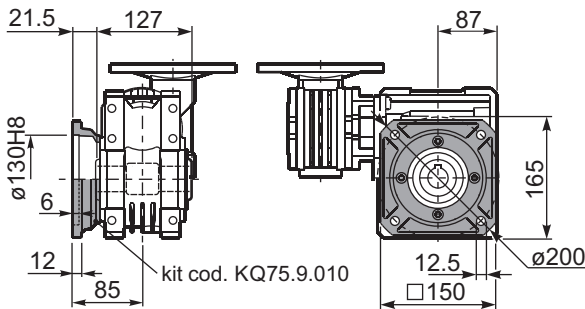
Mounting holes position
Posizione fori di montaggio

Standard
Hollow shaft

On request
A richiesta

P74QFC... Square flange
Flangia quadrata

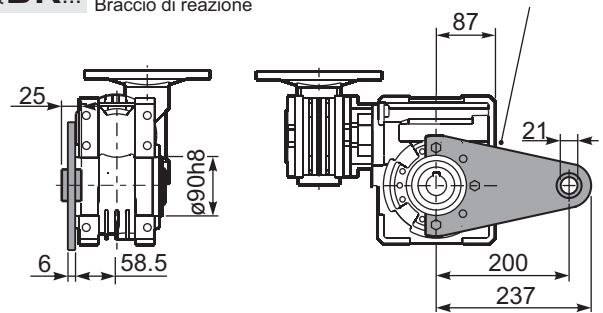
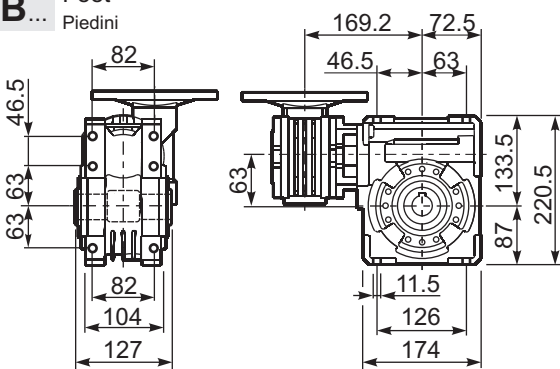
P74QFL... Square flange
Flangia quadrata



P74QFB... Feet
Piedini

P74QBR... Reaction arm
Braccio di reazione

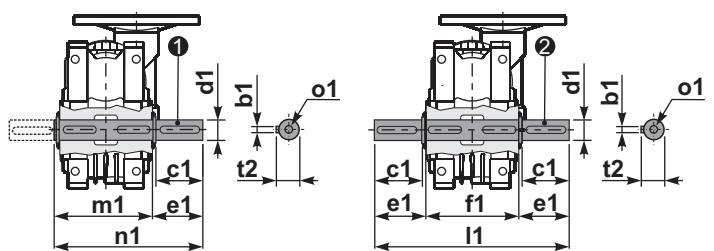
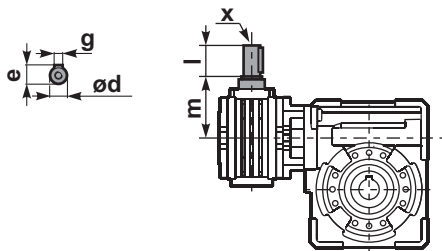
kit cod. KQ75.9.027



R74QFB... Input shaft
Albero in entrata

P74Q.....S... Single Shaft
Albero lento semplice

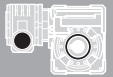
P74Q.....D... Double Shaft
Albero lento bisp.



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 ② - |
| type S | - | - | - | - | - | - | ① - ② - |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|------------|----|----|--|----|-----|-----|-----|-----|----|-------|
| Standard | 8 | 60 | 30 ^{-0.005} _{-0.020} | 65 | 127 | 255 | 134 | 199 | 33 | M8x20 |
| On request | 8 | 60 | 28 ^{-0.005} _{-0.020} | 65 | - | - | 134 | 199 | 31 | M8x20 |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

LUBRICATION 84Q Oil
Quantity 1.20/0.09 Lt.

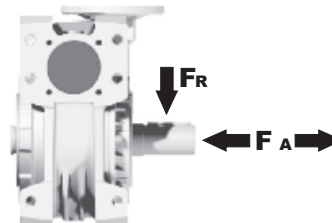
SHELL Omala S4 WE 320 **ENI** Telium VSF 320

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

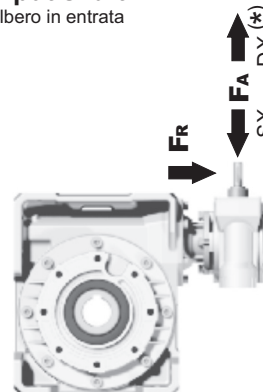
Albero di uscita



| n [min ⁻¹] | FA [N] | FR [N] |
|-----------------------------|-----------|-----------|
| 25 | 1000 | 5000 |
| 15 | 1160 | 5800 |

Input shaft

albero in entrata



| n [min ⁻¹] | FA [N] | FR [N] |
|-----------------------------|-----------|-----------|
| 1400 | 42 | 210 |

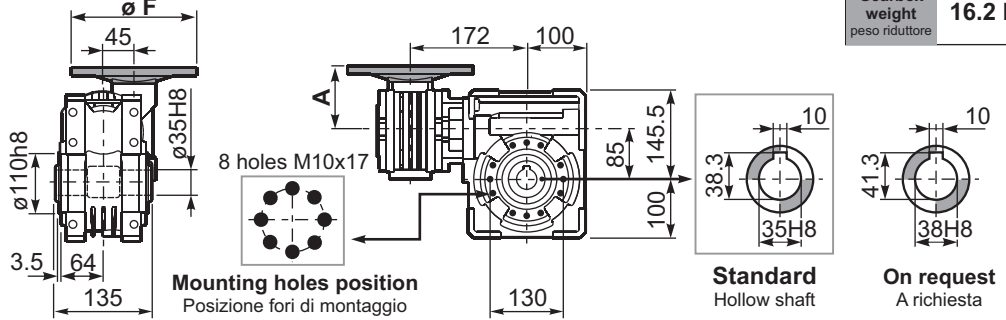
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P84QFB... Basic wormbox
Riduttore base

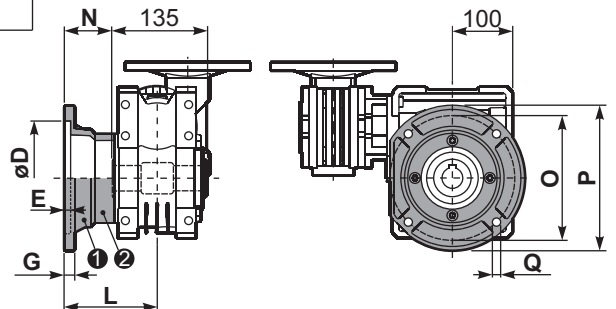
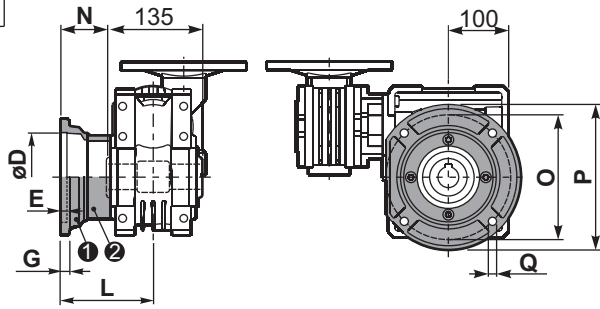
Gearbox weight
peso riduttore **16.2 kg**

| 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 |



P84QFC... Output flange
Flangia uscita

P84QF1... Output flange
Flangia uscita



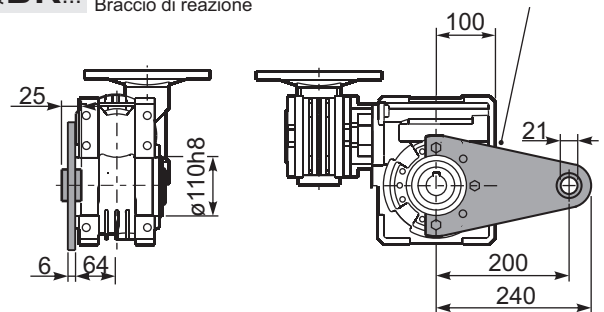
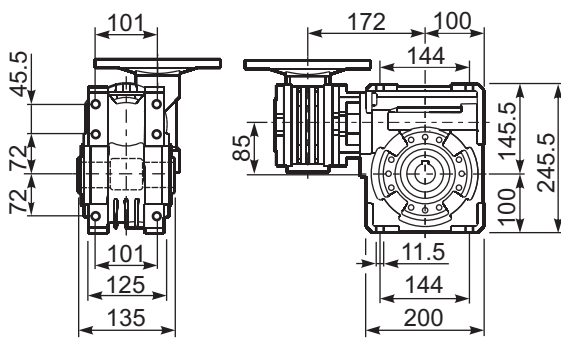
| type B | øD | E | G | L | N | O | P | Q | kit code |
|--------|---|---|----|-------|------|-----|-----|----|------------------------------|
| FC | 152 ^{+0.06} / _{+0.00} | 5 | 16 | 108 | 40.5 | 176 | 205 | 13 | 1 K085.9.010 2 - |
| FL | 152 ^{+0.06} / _{+0.00} | 5 | 16 | 148.5 | 81 | 176 | 205 | 13 | 1 K085.9.010 2 K085.0.201 |

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

P84QFB... Feet
Piedini

P84QBR... Reaction arm
Braccio di reazione

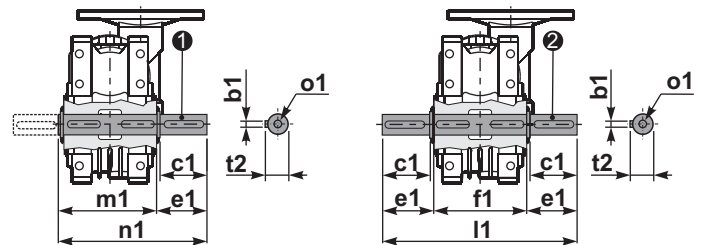
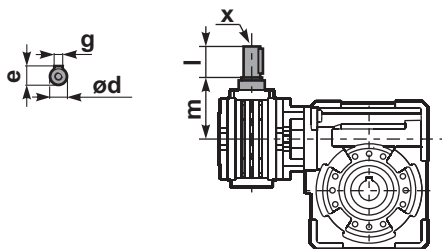
kit cod. K085.9.027



R84QFB... Input shaft
Albero in entrata

P84Q.....S... Single Shaft
Albero lento semplice

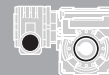
P84Q.....D... Double Shaft
Albero lento bisp.



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 2 - |
| type S | - | - | - | - | - | - | 1 - 2 - |

| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-----|-----|-------|----|--------|
| type B | 10 | 60 | 35 ^{-0.005} / _{-0.020} | 73.5 | 135 | 282 | 141 | 214.5 | 38 | M10x23 |
| type S | - | - | - | - | - | - | - | - | - | - |



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

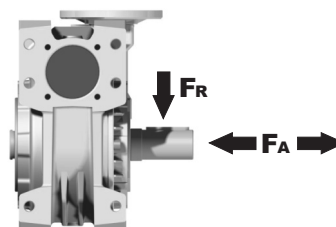
E El reductor tamaño 15Q se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiera utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. El reductor 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 |
| SHELL Omala S2 GX 460 | | | ENI Blasias 460 | | |

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

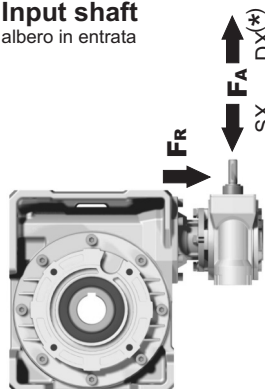
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



| n_2 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 25 | 1200 | 6000 |
| 15 | 1400 | 7000 |

Input shaft
albero in entrata



| n_1 [min ⁻¹] | FA [N] | FR [N] |
|-------------------------------|-----------|-----------|
| 1400 | 76 | 380 |

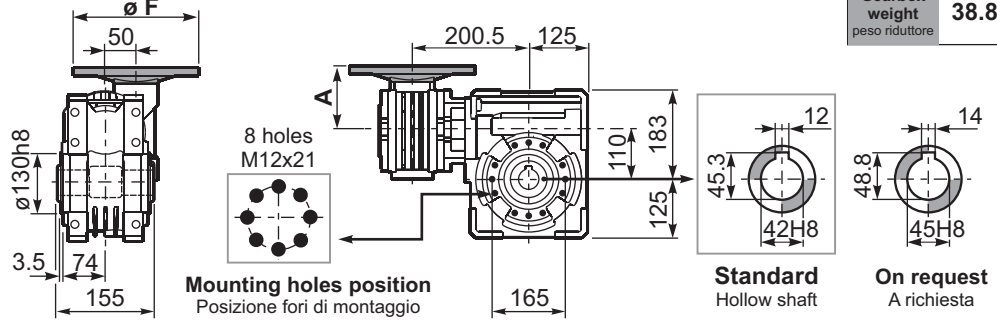
***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P15QFB... Basic wormbox
Riduttore base

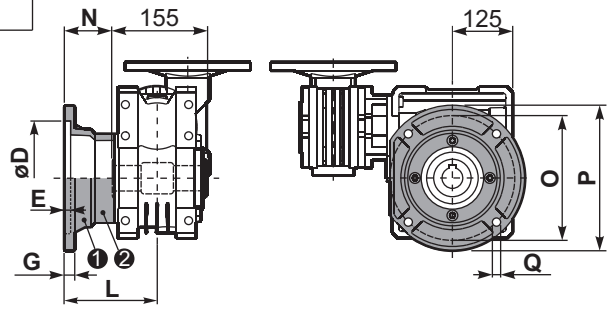
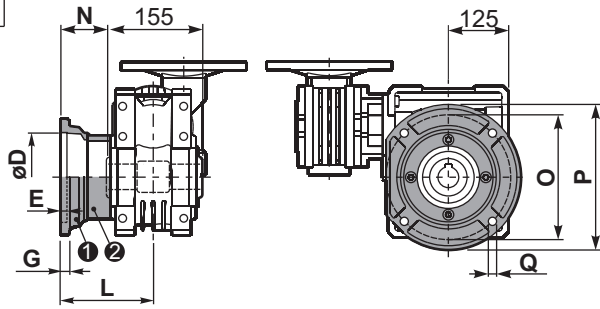
Gearbox weight
peso riduttore **38.8 kg**

| M. flanges | Kit code | øF | A |
|--------------|------------|-----|------|
| 63B5 | K050.4.041 | 138 | 78.5 |
| 71B5 | K050.4.042 | 160 | 76 |
| 80B5 | K050.4.043 | 200 | 76.5 |
| 56B14 | KC40.4.049 | 80 | 76 |
| 63B14 | K050.4.047 | 90 | 78.5 |
| 71B14 | K050.4.045 | 105 | 76 |
| 80B14 | K050.4.046 | 120 | 76.5 |



P15QFC... Output flange
Flangia uscita

P15QF1... Output flange
Flangia uscita



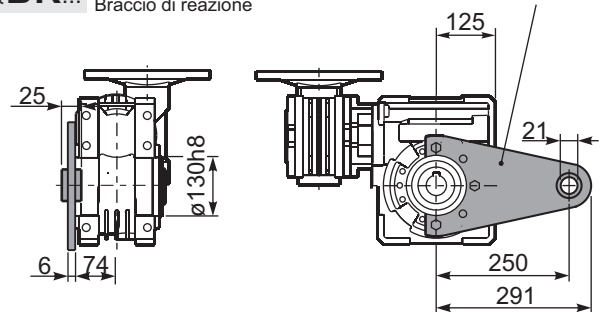
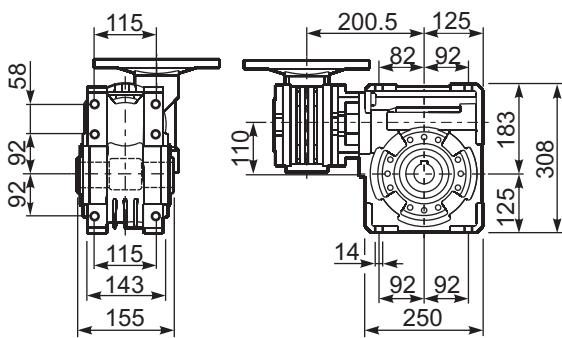
| type B | øD | E | G | L | N | O | P | Q | kit code |
|-----------|---|----|------|-------|-----|-----|-----|----|---------------------|
| FC | 170 ^{+0.083} _{+0.043} | 11 | 16.5 | 131.5 | 54 | 230 | 270 | 13 | ① K110.9.010 ② - |
| FL | 170 ^{+0.083} _{+0.043} | 11 | 16.5 | 179.5 | 102 | 230 | 270 | 13 | ① K110.9.011 ② - |

| type S | øD | E | G | L | N | O | P | Q | kit code |
|-----------|------------------------------------|---|----|-----|------|-----|-----|----|----------------------|
| F1 | 180 ^{+0.040} ₀ | 5 | 18 | 150 | 72.5 | 215 | 250 | 15 | ① KS110.9.014 ② - |
| F3 | 180 ^{+0.040} ₀ | 5 | 18 | 130 | 52.5 | 215 | 250 | 15 | ① KS110.9.013 ② - |

P15QFB... Feet
Piedini

P15QBR... Reaction arm
Braccio di reazione

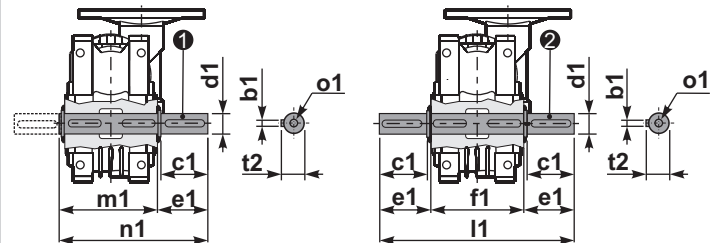
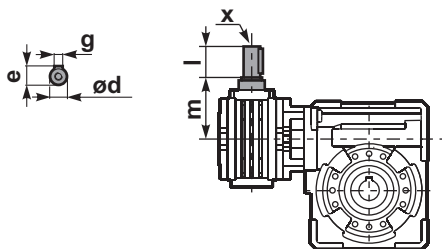
kit cod. K110.9.027



R15QFB... Input shaft
Albero in entrata

P15Q.....S... Single Shaft
Albero lento semplice

P15Q.....D... Double Shaft
Albero lento bisp.

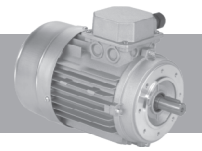


① kit cod. K110.5.028 type B ② kit cod. K110.5.029 type B

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

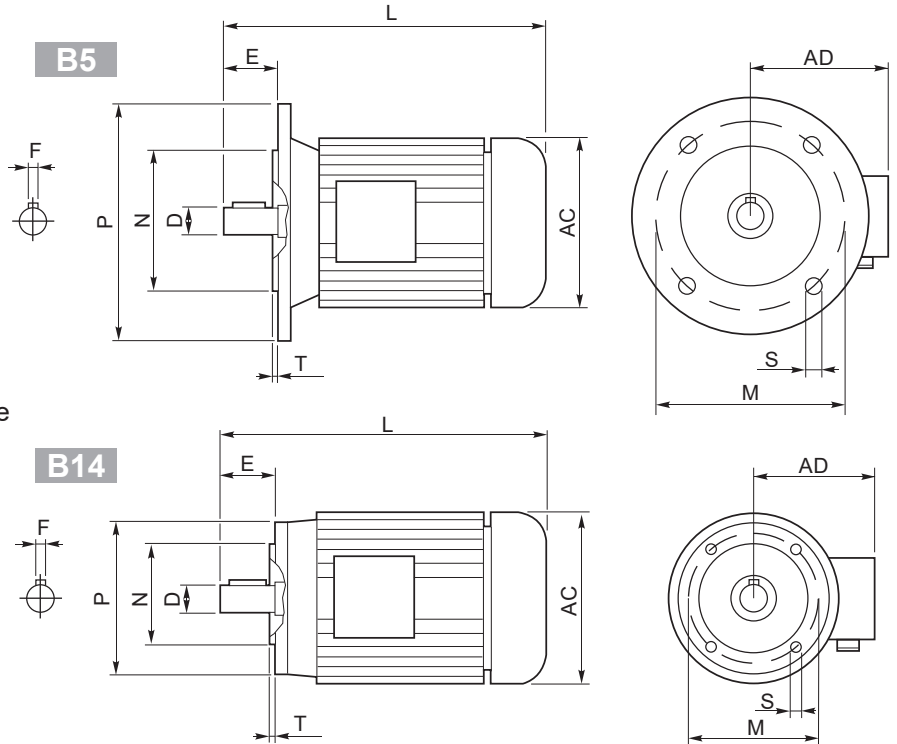
| | b1 | c1 | d1 | e1 | f1 | l1 | m1 | n1 | t2 | o1 |
|--------|----|----|--|------|-----|-----|-------|-----|----|--------|
| type B | 12 | 75 | 42 ^{-0.005} _{-0.020} | 96.5 | 155 | 348 | 163.5 | 260 | 45 | M12x32 |
| type S | - | - | - | - | - | - | - | - | - | - |

Aluminum IEC motors



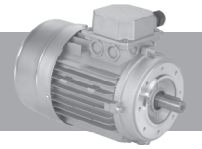
- 1) 230/400V - 50Hz three-phase asynchronous induction motor
- 2) Class F insulation
- 3) S1 duty
- 4) IP 55 protection
- 5) Not painted
- 6) Hard plastic sleeve to protect output shaft during the transportation

- 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



Outside dimensions and weight may be different according to manufacturers.
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 _(400V) | kW | Nm | A _(400V) | kW | Nm | A _(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 | — | — | — | 9 | 3 | 20 | 199 | 108 | 96 | 80 | 100 | 120 | 7 | 2.5 | 50 | 65 | 80 | M5 | 2.5 | 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 | 11 | 4 | 23 | 208 | 120 | 99 | 95 | 115 | 140 | 9.5 | 3 | 60 | 75 | 90 | M5 | 2.5 | 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 | 14 | 5 | 30 | 255 | 141 | 107 | 110 | 130 | 160 | 9.5 | 3.5 | 70 | 85 | 105 | M6 | 2.5 | 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 | 19 | 6 | 40 | 296 | 159 | 127 | 130 | 165 | 200 | 11.5 | 3.5 | 80 | 100 | 120 | M6 | 3 | 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 | 24 | 8 | 50 | 330 | 170 | 135 | 130 | 165 | 200 | 11.5 | 3.5 | 95 | 115 | 140 | M8 | 3 | 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 | — | — | — | 28 | 8 | 60 | - | 190 | 148 | 180 | 215 | 250 | 13 | 4 | 110 | 130 | 160 | M8 | 3.5 | 22 |
| 112 M | 4.0 | 13.4 | 8.10 | 4.0 | 26.7 | 8.55 | 2.2 | 22.6 | 5.30 | 28 | 8 | 60 | 381 | 210 | 164 | 180 | 215 | 250 | 13 | 4 | 110 | 130 | 160 | M8 | 3.5 | 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 | | | | | | | | | | | | | | | | | | | | | | | 51 |
| 132 M | — | — | — | 7.5 | 49.4 | 15.0 | 4.0 | 40.0 | 9.13 | 38 | 10 | 80 | 455 | 244 | 180 | 230 | 265 | 300 | 14 | 4 | 130 | 165 | 200 | M10 | 4 | 51 |
| | | | | 9 | 61.4 | 18.5 | | | | | | | | | | | | | | | | | | | | 51 |
| 160 M | — | — | — | 11 | 72 | 21.5 | — | — | — | 42 | 12 | 110 | 613 | 335 | 246 | 250 | 300 | 350 | 18 | 5 | — | — | — | — | — | 79.2 |
| 160 L | — | — | — | 15 | 98 | 29 | — | — | — | 42 | 12 | 110 | 657 | 335 | 246 | 250 | 300 | 350 | 18 | 5 | — | — | — | — | — | 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 | — | — | — | 48 | 14 | 110 | 712 | 366 | 266 | 250 | 300 | 350 | 19 | 5 | — | — | — | — | — | 170 |
| 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 | — | — | — | 60 | 18 | 140 | 888 | 463 | 360 | 350 | 400 | 450 | 19 | 5 | — | — | — | — | — | 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 CI.F
To be specified upon placing the order if different insulation is required.

Isolamento

CI.F Standard
Specificare in sede di ordinazione classe di isolamento diversa.

Isolierung

CI.F Standard.
Davon abweichende Isolierungsklasse im Auftrag angeben.

Isolement

CI.F Standard.
Au moment de la commande, spécifiez si vous souhaitez une classe d'isolement différente.

Aislamiento

CI.F standard.
Especificar al efectuar el pedido la clase diferente de aislamiento.

| Insulation / Isolamento Isolierung /Aislamiento | | E | B | F | H |
|--|----|------|------|------|------|
| Max. temp. | C° | 120° | 130° | 155° | 175° |
| | F* | 248° | 266° | 311° | 347° |

Connections

Collegamenti

Verbindungselemente

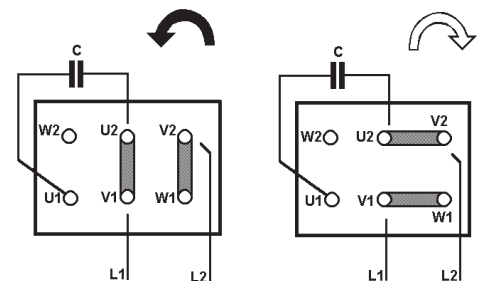
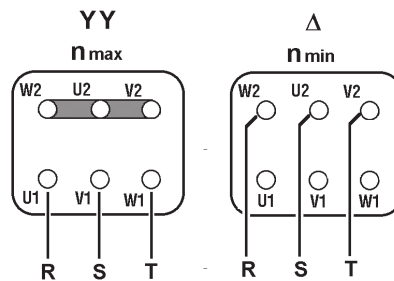
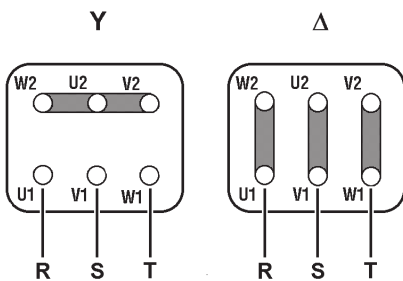
Branchements

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



HYDROMECS SPA IS THE LEGAL RESPONSABLE FOR WARRANTY ISSUES.

PLEASE READ CAREFULLY

The following WARNING and CAUTION information are supplied to you for the proper functioning of your product.

Read ALL instructions prior to operating reducer.

Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.

WARNING:

- **Written authorization is required to operate or use reducers in man lift or people moving devices.**
 - Check to make sure that certain applications do not exceed the allowable load capacities published in the current catalog.
 - Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which Buyer shall apply the product. The application by Buyer shall not be subject to any implied warranty of fitness for a particular purpose.
 - For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.
 - Gearboxes operating in high position should have a protective shield for any possible parts falling down for casual accidents where people are moving under them.
 - Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs and vents.
 - Make certain that the power supply is disconnected before attempting to service or remove any components. Lock out the power supply and tag it to prevent unexpected application power.
 - Reducers are not to be considered fail safe or self-locking devices. If these features are required, a properly sized, independent holding device should be utilized.
- Reducers should not be used as a brake.
- Any brakes that are used in conjunction with a reducer must be sized or positioned in such a way so as to not subject the reducer to loads beyond the catalog rating.
 - Lifting supports including eyebolts are to be used for vertically lifting the gearbox only and not other associated attachments or motors.
 - Use of an oil with an EP additive on units with backstops may prevent proper operation of the backstop. Injury to personnel, damage to the reducer or other equipment may result.
 - Overhung loads subject shaft bearings and shafts to stress which may cause premature bearing failure and or shaft breakage from bending fatigue, it not sized properly.

SELLING CONDITIONS

Warranty for manufacturing defects will expire one-year after the invoicing date. Hydro-Mec s.p.a. will replace or repair defective parts but will not accept any further changes for direct or indirect damages of any kind. The warranty will become null and void if repairs or changes are carried out without our prior written authorization.

Our company will not be responsible for any direct or indirect damages, caused by a wrong use of the products or for not observing the catalogue/web indication.

If the process requires total protections the customers should consider additional measures to avoid any contaminations arising from the gearboxes. All rights reserved.

All information shown in this catalogue are purely indicative;

Hydro-Mec s.p.a reserves the right to make any necessary variation without prior notice.

HYDROMECS SPA È LEGALMENTE IL RESPONSABILE DEI PROBLEMI DI GARANZIA.

LEGGERE ATTENTAMENTE

Le seguenti raccomandazioni sono fondamentali per un buon funzionamento del vostro prodotto.

Leggere attentamente tutte le istruzioni prima di azionare il riduttore.

L'inappropriata installazione, manutenzione o funzionamento del riduttore può causare incidenti al personale addetto edanni al riduttore stesso.

ATTENZIONE:

- **E' richiesta autorizzazione scritta per azionare riduttori in ascensori o dispositivi per il movimento delle persone.**
- Controllare che alcune applicazioni non eccedano la massima capacità di carico ammessa pubblicata in questo catalogo.
- L'acquirente è l'unico responsabile per la determinazione dell'adeguatezza del prodotto per qualcuna o tutte le utilizzazioni che l'acquirente stesso farà del riduttore. L'applicazione dell'acquirente non potrà essere soggetta ad alcuna implicita garanzia di montaggio per uno scopo particolare.
- Per ragioni di sicurezza l'acquirente dovrà provvedere a porre protezioni adeguate su tutta la lunghezza dell'albero a tutti gli organi in movimento. L'utilizzatore è responsabile del controllo di tutti i codici di sicurezza e la predisposizione di protezioni adeguate. In assenza di tali precauzioni si possono verificare incidenti alle persone e danni agli apparati.
- Su riduttori installati in posizioni elevate utilizzare protezioni adeguate per qualsiasi distacco accidentale di parti nel caso di passaggio di persone al di sotto.
- Olio e riduttori bollenti possono causare gravi ustioni. Usare estrema cautela nella rimozione dei tappi e delle ventole.
- Assicurarsi che la corrente di alimentazione sia scollegata prima di riparare o rimuovere alcun componente. Chiudere l'alimentazione e contrassegnare tale operazione per evitare accensioni accidentali.
- I riduttori non devono essere considerati esenti da guasti o a bloccaggio automatico. Se sono indispensabili queste caratteristiche, deve essere utilizzato un dispositivo indipendente della dimensione adatta. I riduttori non devono essere utilizzati come freni.
- Qualsiasi freno sia utilizzato insieme al riduttore deve essere della giusta grandezza e posizionato in modo da non causare carichi eccessivi non previsti dai dati forniti nel catalogo.
- I dispositivi di sollevamento come le golfare devono essere usati solo per sollevare verticalmente il riduttore e non altri dispositivi associati o motori.
- L'utilizzo di un olio con un additivo EP su gruppi provvisti di dispositivo di arresto possono inficiare l'uso corretto del freno e provocare danni alle persone, alle cose ed al riduttore stesso nonché ad altri apparecchi.
- I Carichi sospesi assoggettano i cuscinetti della vite e la vite stessa a sollecitazioni che possono causare, se non adeguatamente dimensionati, l'usura prematura dei cuscinetti e/o l'arottura della vite a causa della resistenza alla flessione.

CONDIZIONI DI VENDITA

La garanzia relativa a difetti di costruzione ha la durata di un anno dalla data di fatturazione della merce. Tale garanzia comporta per Hydro-Mec s.p.a. l'onere della sostituzione o riparazione delle parti difettose ma non ammette ulteriori addebiti per eventuali danni diretti o indiretti di qualsiasi natura. La garanzia decade nel caso in cui siano state eseguite riparazioni o apportate modifiche senza nostro consenso scritto.

La nostra ditta non si ritiene responsabile per eventuali danni diretti o indiretti derivanti da un uso improprio dei prodotti e dalla mancata osservanza delle indicazioni riportate a catalogo o web.

Se il processo richiede una protezione totale, i clienti dovrebbero prendere in considerazione misure aggiuntive per evitare qualsiasi contaminazione derivante dai riduttori.

Tutti i diritti sono riservati. Tutte le informazioni riportate nel presente catalogo sono puramente indicative; Hydro-Mec s.p.a si riserva il diritto di apportare qualsiasi variazione necessaria senza preavviso.

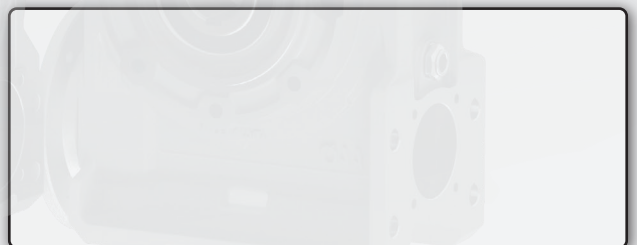
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