COMPACT GEARS

Edition 2024

HYDRO·MEC

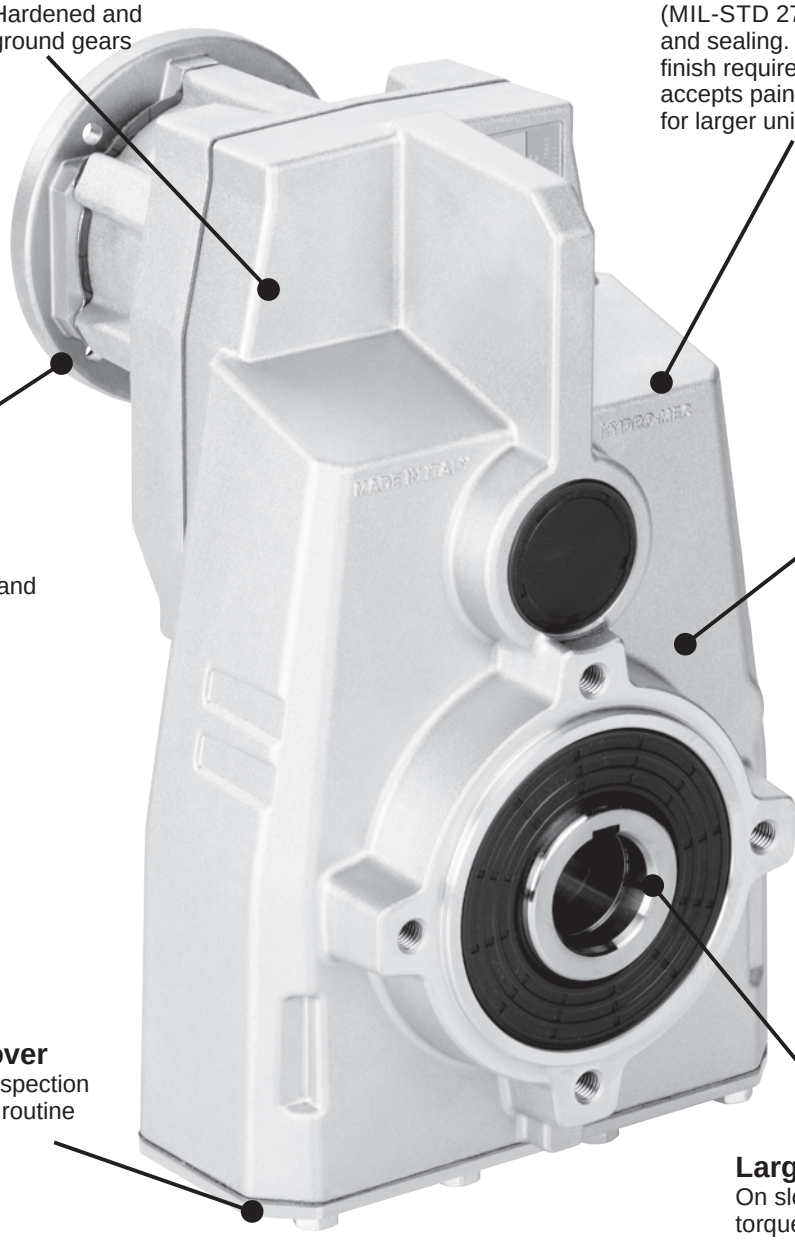
HIGH EFFICENCY GEARBOXES

Aluminum & cast iron shaft mounted gearboxes

A modular and compact product

Gears
Hardened and ground gears

Alloy housing
Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint or cast iron for larger units.



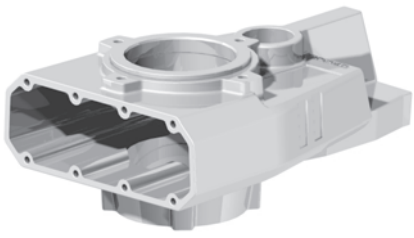
Flange
Fully modular to IEC and Compact integrated motor.
NEMA C flange

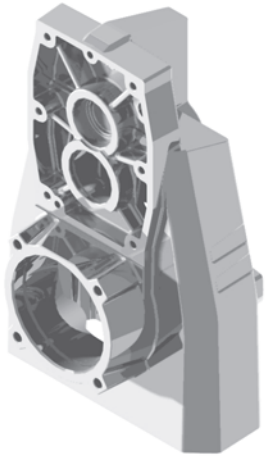
Large center distance

Removable inspection cover
Allows periodic inspection of gearing during routine maintenance

Large center distance
On slow gears for safe torque trasmission.

Single-piece aluminum / Cast Iron housing
Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing





Painting
Cast iron gearboxes are painted RAL 7046

World wide sales network.

Specific type datasheet on page...

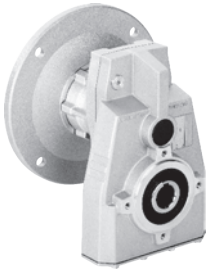
On page / A pagina / Auf Seite / À la page / En la página

3 Stage

	7-5	7-7
Types / Tipi / Tipen / Types / Tipos	**FS10** 60Nm	**FS20** 90Nm

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

1 Stage



	7-13	7-23	7-29	7-35
Types / Tipi / Tipen / Types / Tipos	**FA41** 225Nm	**FC61** 380Nm	**FC71** 670Nm	**FC81** 1175Nm

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

2 and 3 Stage

	7-9	7-11	7-15	7-17	7-19	7-21	7-25	7-27	7-31	7-33	7-37	7-39
Types / Tipi / Tipen / Types / Tipos	**FA32** 150Nm	**FA33** 150Nm	**FA42** 320Nm	**FA43** 320Nm	**FA52** 490Nm	**FA53** 510Nm	**FC62** 675Nm	**FC63** 675Nm	**FC72** 900Nm	**FC73** 900Nm	**FC82** 2100Nm	**FC83** 2100Nm

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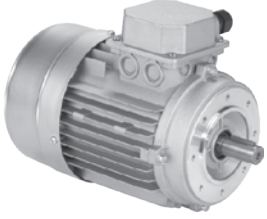
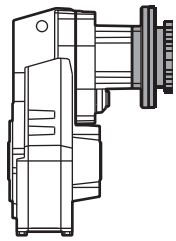


	M-1									
Types / Tipi / Tipen / Types / Tipos	**56A 56B**	**63A 63B**	**71A 71B**	**80A 80B**	**90S 90L**	**100LA 100LB**	**112M**	**132S 132M**	**160M 160L**	**180M 180L**

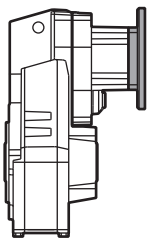
Type - Tipo - Typ Type - Tipo	**Size** - Grandezza - Grösse Taille - Tamaño	**Mounting** - Montaggio Montage - Fixation Tipo de montaje	**Rapporto** - Ratio Untersetzung Reduction - Relacion	**Output shaft** Albero uscita Abtriebswelle Arbre de sortie Eje en salida
M	FA42	C	10.04	-D

Shaft mounted helical
Riduttori ad assi paralleli



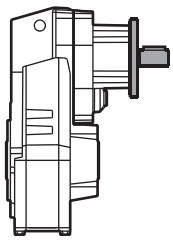
With IEC motor

M



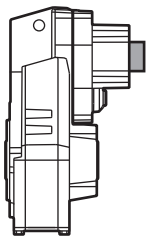
With motor flange

P



With male input shaft

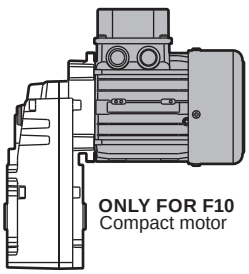
R



Modular base

B

Not available for: FC61, FC71, FC81, FC82 .



ONLY FOR F10
Compact motor

C

1 Stage Riduzione Stufe Trains Etapa | 2 Stages Riduzioni Stufen Trains Etapas | 3 Stages Riduzioni Stufen Trains Etapas

Aluminum/Alluminio/Aluminium/Aluminio

FA41

FA32 FA42 FA52

FS10

FS20

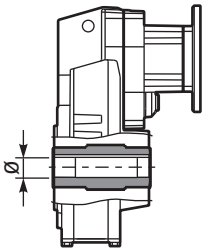
FA33 FA43 FA53

Cast Iron/Ghisa/Grauguss/Fonte/Fundicion

FC61 FC71 FC81

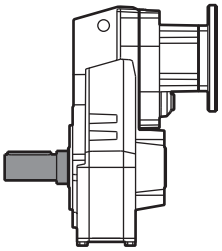
FC62 FC72 FC82

FC63 FC73 FC83



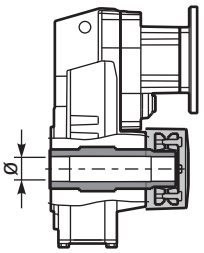
Hollow output shaft

C



Single output shaft

A



Shrink Disk

D

Only on request for Q.ty
A richiesta per quantità

See technical data table

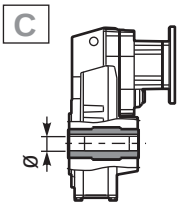
Vedi tabelle dati tecnici.

Technisches Datenblatt beachten

Voir Tableau données techniques

Ver tabla datos técnicos

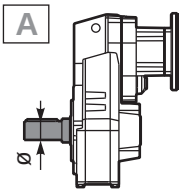
C



➡ **STANDARD**
⇨ Only on request for Q.ty
A richiesta per quantità

FS10	
-J	➡ ø17
FS20	
-B	➡ ø20
FA32-3	
-C	➡ ø25
FA41 FA42 FA43	
-C	⇨ ø25
-D	➡ **ø30**
-E	⇨ ø35
FA52 FA53 FC61 FC62 FC63	
-E	➡ **ø35**
-F	⇨ ø40
FC71 FC72 FC73	
-F	➡ **ø40**
-G	⇨ ø45
FC81 FC82 FC83	
-H	➡ **ø50**
-I	⇨ ø55

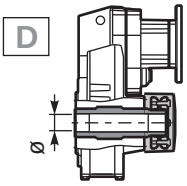
A



Single output shaft

-L	FA32/3	⇨ø25
-M	FA41/2/3	⇨ø30
-N	FA52/3 FC61/2/3	⇨ø35
-O	FC71/2/3	⇨ø40
-K	FC81/2/3	⇨ø50

D



Shrink disk

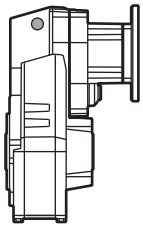
-Q	FA42/3	⇨ø30
-T	FA52/3 FC62/3	⇨ø35
-U	FC72/3	⇨ø40
-V	FC82/3	⇨ø50

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

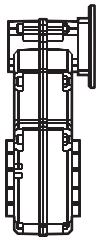
Type - Tipo - Typ
Types - Tipo

ST



ST

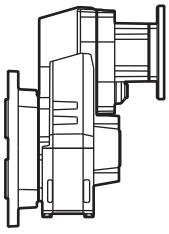
Foro standard
Standard bore



only for FS10 / FS20

ST

Senza braccio
di reazione
Without reaction arm

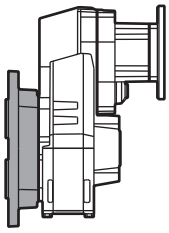


-F

Whit output flange
con flangia uscita

Output flange
Flangia uscita
Ausgangsflansch
Bride de sortie
Brida en salida

N



N Senza flangia
Without flange

FS20

1 ➡ ø140

FA32-3 FA41-2-3

2 ➡ ø160
3 ⇨ ø200
4 ⇨ ø250

FA52 FA53
FC61 FC62 FC63

4 ➡ ø250

FC71 FC72 FC73

4 ➡ ø250
5 ⇨ ø300

FC81 FC82 FC83

5 ➡ ø300
6 ⇨ ø350

Motor size - Grandezza motore
Motor Grösse
Grandeur moteur - Tamaño motor

-C

Flange
Flangia

B5

-A=56 (ø120)
-B=63 (ø140)
-C=71 (ø160)
-D=80 (ø200)
-E=90 (ø200)
-F=100 (ø250)
-G=132 (ø300)
-H=160 (ø350)
-I=180 (ø350)

B14

-O=56 (ø80)
-P=63 (ø90)
-Q=71 (ø105)
-R=80 (ø120)
-T=90 (ø140)
-U=100 (ø160)
-V=132 (ø200)

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

Type R
Tipo R

FA33 FA43
FS10 FS20

-1 ⇨ ø14

FA32 FA42
FA53 FC63 FC73

-2 ⇨ ø19

FA52 FC62
FC72 FC83

-3 ⇨ ø24

FC82

-4 ⇨ ø28

Without flange
Senza flangia

-M ⇨ With coupling

FA33 FA43
FS10 FS20

-Z ⇨ ø9 (56B5)
-0 ⇨ ø11 (63B5)
-1 ⇨ ø14 (71B5)

FA32 FA42 FA53
FC63 FC73

-1 ⇨ ø14 (71B5)
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)

FA52 FC62
FC72 FC83

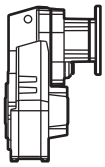
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)
-4 ⇨ ø28 (100B5)

FA41

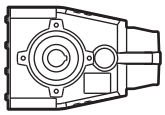
-4 ⇨ ø28 (100B5)

Mounting position
Posizione montaggio
Einbaulage
Position de montage
Position de montaje

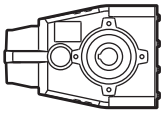
H1



H1
STANDARD

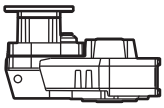


H4

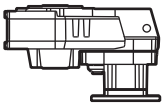


H3

H2



H5



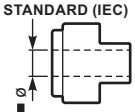
H6

Input bore
Foro entrata
Eingangshohlwelle
Trou d'entree
Eje hueco de entrada

ST

ST
standard bore
foro standard

COUPLING
STANDARD (IEC)



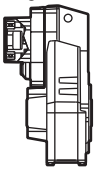
-A = 9mm
-B = 11mm
-C = 14mm
-D = 19mm
-E = 24mm
-F = 28mm

BRUSHLESS *

-2 = 11mm
-3 = 14mm
-4 = 19mm
-5 = 22mm
-6 = 24mm

-0

Ready for input
coupling
Predisposto per
giunto



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

Terminal box position
Posizione morsettiera
Klemmkastenlage
Position boîte à bornes
Posición caja de bornes

With Type M specify terminal box position

Con tipo M specificare
posizione morsettiera

A

B
STANDARD

C

D

7

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

Lifting / sollevamento / hubantriebe / levage / elevactión

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

Rotation / rotazione / drehung / rotation / rotaction

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

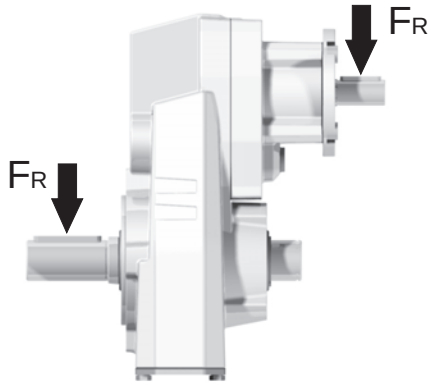
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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



$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{2000}}{\mathbf{d}\ [mm]} \cdot \mathbf{f_K}$	$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [lb\ in] \cdot \mathbf{8.9}}{\mathbf{d}\ [in]} \cdot \mathbf{f_K}$

M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo
$\mathbf{f_K}$	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión **1.15** Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje **1.25** Catena / Chain sprochets / 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.

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

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

Gear size / Grandezza riduttore / Getriebegröße / Taille réducteur / Tamaño reductor

Motor power / Potenza motore / Motorleistung / Puissance moteur / Potencia motor

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

Flange code / Codice flangia / Flanschtype / Code bride / Código bridas

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

FA42 Compact- Gear 320Nm

Rating - Aluminum
SHAFT MOUNTED HELICAL

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 -B 63	-C 71	-D 80	-E 90	-F 100 112	Available B14 motor flanges -Q 71	-R 80	-T 90	-U 100 112		Output Shaft ø	Ratios code
167	**8.38**	4	215	1.0	4.1	225	B					C	C			2821		01
139	**10.04**	3	194	1.2	3.7	240	B					C	C			2818		02
114	**12.33**	3	238	1.1	3.2	260	B					C	C			2813		03
92	**15.16**	2.2	216	1.2	2.6	260	B					C	C			1921		04

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

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

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

Output shaft diam. / Diam. albero uscita / Durchmesser abtriebswelle / Diametre arbre lent / Diametro eje de salida

Notes / Note / Anmerkungen / Note / Notas

fs

Type of load and starts per hour / Tipo di carico e avviamenti per ora			Oper. hours per day / Ore di funz. giorn. 3 h	10 h	24 h
Continuous or intermittent appl. with start / hour / Applicazione cont. o interm. con n.ro operazioni/ora	10	Uniform / Uniforme	0.8	1	1.25
		Moderate / Moderato	1	1.25	1.5
		Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour / Applicazione intermittente con n.ro operazioni/ora	> 10	Uniform / Uniforme	1	1.25	1.5
		Moderate / Moderato	1.25	1.5	1.75
		Heavy / Forte	1.5	1.75	2.15

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 ouput speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-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 -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Hollow Shaft ø	Ratios code
72	**19.42**	0.37	46	1.3	0.48	60			C	C		281713	standard ø17	01
51	**27.21**	0.37	65	0.9	0.34	60			C	C		281313		02
36.4	**38.49**	0.25	62	1.0	0.24	60			C	C		191713		03
31.7	**44.12**	0.18	54	1.1	0.21	60			C	C		171713		04
26.7	**52.50**	0.18	64	0.9	0.18	60			C	C		151713		05
22.6	**61.82**	0.12	49	1.2	0.15	60			C	C		171313		06
19.0	**73.56**	0.12	58	1.0	0.13	60			C	C		151313		07
15.9	**88.13**	0.09	56	1.1	0.11	60			C	C		101713		08
12.0	**116.67**	0.06	48	1.2	0.08	60			C	C		91713		09
11.3	**123.48**	0.06	51	1.2	0.08	60			C	C		101313		10
9.0	**155.37**	0.06	64	0.9	0.06	60			C	C		71713		11
8.6	**163.47**	0.06	68	0.9	0.06	60			C	C		91313		12
7.6	**184.39**	0.06	76	0.8	0.05	60			C	C		61713		13
6.4	**217.68**	0.06*	90	0.7	0.04	60			C	C		71313		14
5.4	**258.34**	0.06*	107	0.6	0.04	60			C	C		61313		15

The dynamic efficiency is **0.94** for all ratios

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

Motor Flanges Available Flange Motore Disponibili

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

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

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

EN Unit **FS10** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FS10** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FS10** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FS10** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FS10** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

▪ LUBRICATION FS10 Oil Quantity 0.35 Lt.

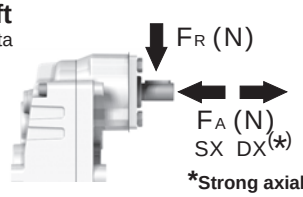
SHELL Omala S4 WE 320	**ENI** Telium VSF 320

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 LOADS

Input shaft
Albero in entrata



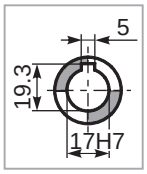
n_1	FA	FR
1400	140	700
900	160	800

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

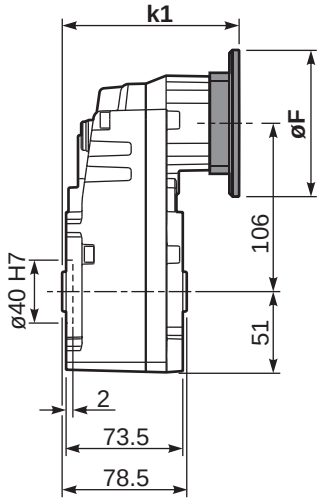
tab. 2

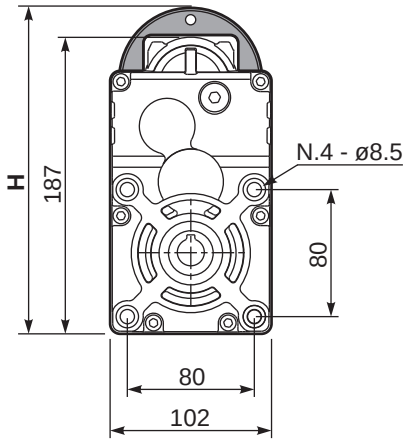
PFS10... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	3.1 kg



Standard
Hollow shaft

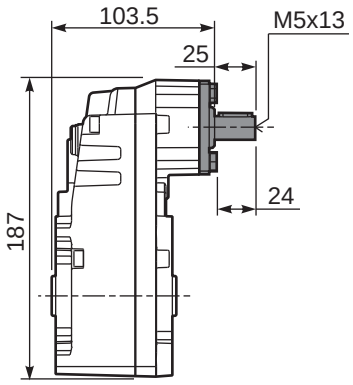


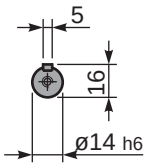


B14 Motor Flanges	H	øF	k1	kit code
56 B14	197	80	109.3	KC40.4.049
63 B14	202	90	111.8	K050.4.047
71 B14	209.5	105	109.3	K050.4.045

B5 Motor Flanges	H	øF	k1	kit code
63 B5	226	138	111.8	K050.4.041
71 B5	237	160	109.3	K050.4.042

RFS10... Input Shaft
Albero in entrata





▪ 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 -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Hollow Shaft ø	Ratios code
24.2	**57.95**	0.25	93	1.0	**0.24**	**90**			C	C		2844	**standard ø20**	01
13.4	**104.80**	0.12	83	1.1	**0.13**	**90**			C	C		1954		02
11.5	**121.47**	0.12	96	0.9	**0.12**	**90**			C	C		1756		03
9.8	**142.59**	0.09	90	1.0	**0.10**	**90**			C	C		1558		04
8.2	**170.20**	0.06	70	1.3	**0.08**	**90**			C	C		1360		05
6.0	**232.32**	0.06	96	0.9	**0.06**	**90**			C	C		1063		06
4.6	**303.20**	0.06*	126	0.7	**0.05**	**90**			C	C		974		07
3.5	**400.37**	0.06*	166	0.5	**0.04**	**90**			C	C		776		08

The dynamic efficiency is **0.94** for all ratios

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

Motor Flanges Available Flange Motore Disponibili

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

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

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

EN Unit **FS20** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FS20** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FS20** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FS20** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FS20** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

▪ LUBRICATION FS20 Oil Quantity 0.50 Lt.

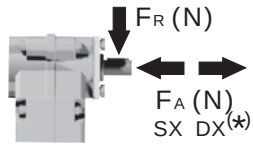
SHELL Omala S4 WE 320	**ENI** Telium VSF 320

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 LOADS

Input shaft
Albero in entrata



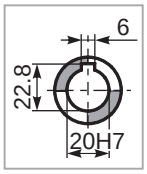
n_1	FA	FR
1400	140	700
900	160	800

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

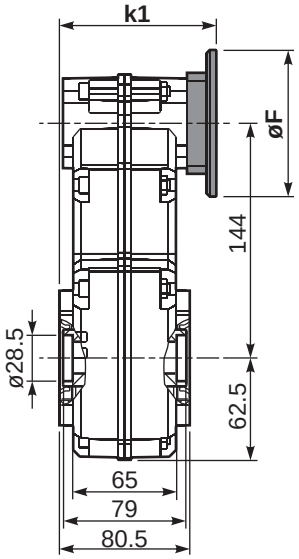
tab. 2

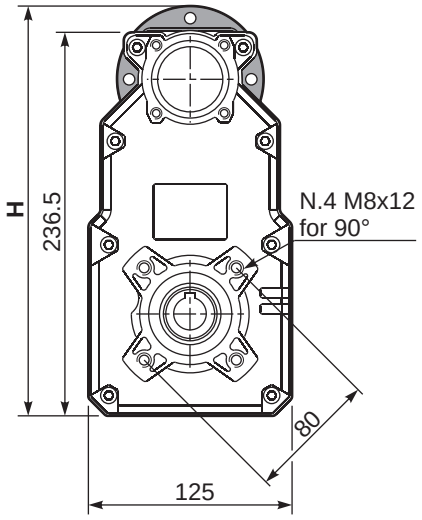
PFS20... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	4.3 kg



Standard
Hollow shaft

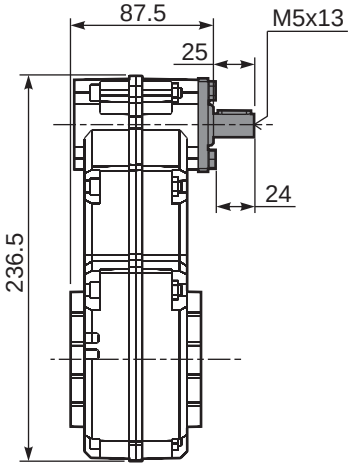


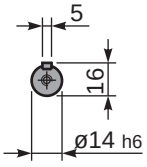


B14 Motor Flanges	H	øF	k1	kit code
56 B14	246.5	80	94.3	KC40.4.049
63 B14	251.5	90	96.8	K050.4.047
71 B14	259	105	94.3	K050.4.045

B5 Motor Flanges	H	øF	k1	kit code
63 B5	275.5	138	96.8	K050.4.041
71 B5	286.5	160	94.3	K050.4.042

RFS20... Input Shaft
Albero in entrata





▪ 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 -B 63	-C 71	-D 80	-E 90	-F 100 112	Available B14 motor flanges -Q 71	-R 80	-T 90	-U 100 112		Output Shaft ø	Ratios code
231	**6.06**	2.2	86	0.9	**2.02**	**80**	B					C	C			2821		01
150	**9.31**	1.5	91	1.0	**1.48**	**90**	B					C	C			2813		02
128	**10.96**	1.5	107	1.0	**1.53**	**110**	B					C	C			1921		03
110	**12.71**	1.5	124	1.0	**1.50**	**125**	B					C	C			1721		04
94	**14.91**	1.5	146	1.0	**1.45**	**142**	B					C	C			1521		05
83	**16.83**	1.5	165	0.9	**1.36**	**150**	B					C	C			1913		06
79	**17.80**	1.1	127	1.2	**1.29**	**150**	B					C	C			1321		07
72	**19.51**	1.1	140	1.1	**1.17**	**150**	B					C	C			1713		08
61	**22.90**	1.1	164	0.9	**1.00**	**150**	B					C	C			1513		09
58	**24.30**	1.1	174	0.9	**0.94**	**150**	B					C	C			1021		10
54	**26.15**	0.75	128	1.2	**0.88**	**150**	B					C	C			1910	**standard**	11
51	**27.34**	0.75	134	1.1	**0.84**	**150**	B					C	C			1313	**ø25**	12
46.2	**30.31**	0.75	149	1.0	**0.76**	**150**	B					C	C			1710		13
44.1	**31.71**	0.75	156	1.0	**0.72**	**150**	B					C	C			921		14
39.4	**35.57**	0.75	175	0.9	**0.64**	**150**	B					C	C			1510		15
37.5	**37.32**	0.55	135	1.1	**0.61**	**150**	B					C	C			1013		16
33.0	**42.46**	0.55	154	1.0	**0.54**	**150**	B					C	C			1310		17
28.7	**48.70**	0.55	176	0.9	**0.47**	**150**	B					C	C			913		18
24.2	**57.96**	0.37	140	1.1	**0.40**	**150**	B					C	C			1010		19
21.8	**64.31**	0.37	156	1.0	**0.36**	**150**	B					C	C			713		20
18.5	**75.64**	0.25	124	1.2	**0.30**	**150**	B					C	C			910		21
14.0	**99.89**	0.25	163	0.9	**0.23**	**150**	B					C	C			710		22

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili — B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione — **B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione — C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

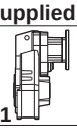
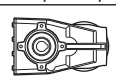
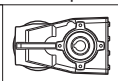
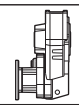
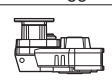
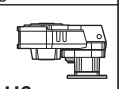
EN Unit **FA32** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA32** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA32** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA32** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

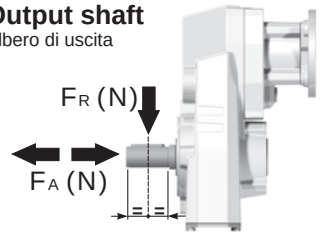
E El reductor tamaño **FA32** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 **H1**	 **H4**	 **H3**	 **H2**	 **H5**	 **H6**
0.65 LT	0.50 LT	0.50 LT	0.60 LT	0.80 LT	0.65 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

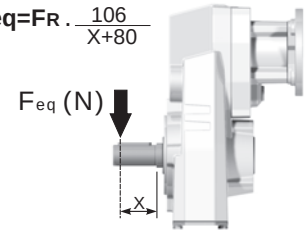
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



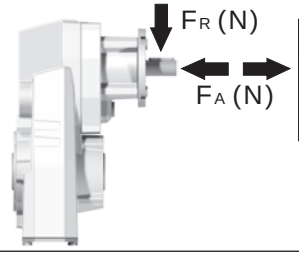
$$F_{eq} = F_R \cdot \frac{106}{X+80}$$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	250	1250	**140**	360	1800	**70**	470	2350
250	270	1350	**120**	380	1900	**40**	550	2750
200	320	1600	**85**	440	2200	**15**	560	2800

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



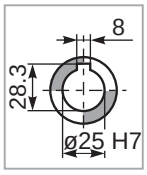
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

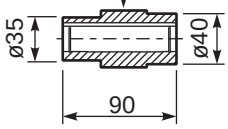
PFA32C... Basic gearbox
Riduttore base

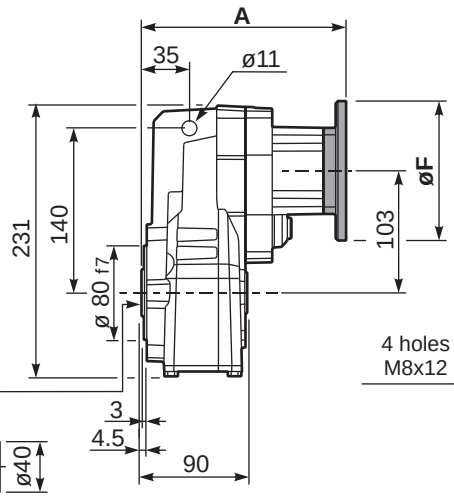
Gearbox weight peso riduttore	7.0 kg

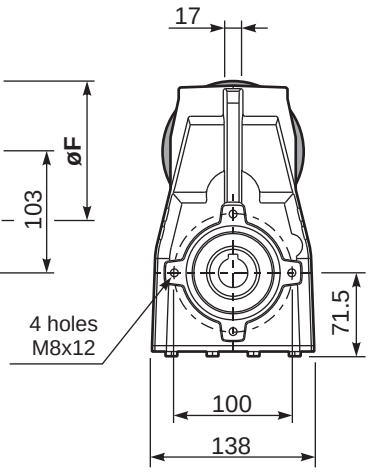
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	176.5
71B5	K063.4.042	160	174.5
80/90B5	K063.4.043	200	176.5
100/112B5	KC40.4.043	250	191.5
71B14	K063.4.047	105	174.5
80B14	K063.4.046	120	176.5
90B14	K063.4.041	140	176.5
100/112B14	KC40.4.041	160	191.5

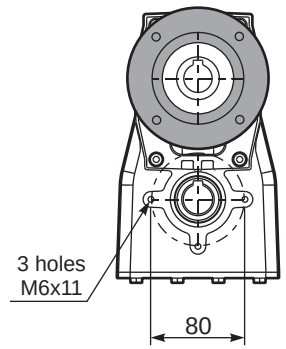


Standard
Hollow shaft



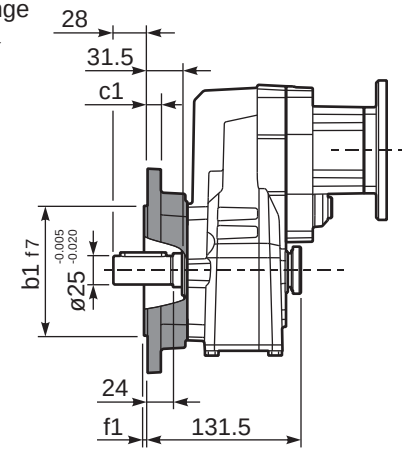


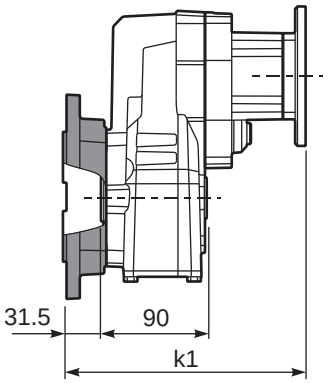


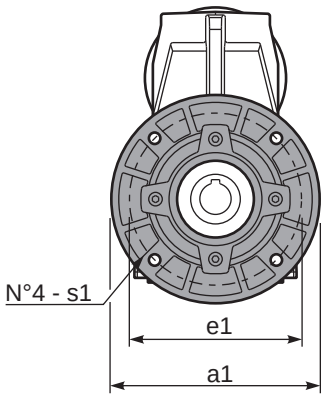


PFA32...-F... Output flange
Flangia uscita

Motor Flange	k1
63B5	208
71B5	206
80/90B5	208
100/112B5	223
71B14	206
80B14	208
90B14	208
100/112B14	223



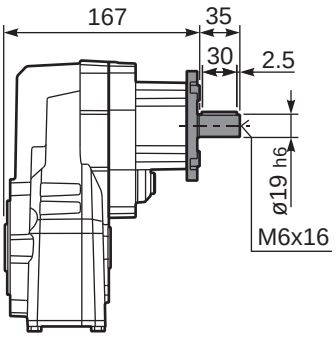


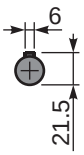


Available output flanges
Flange di uscita

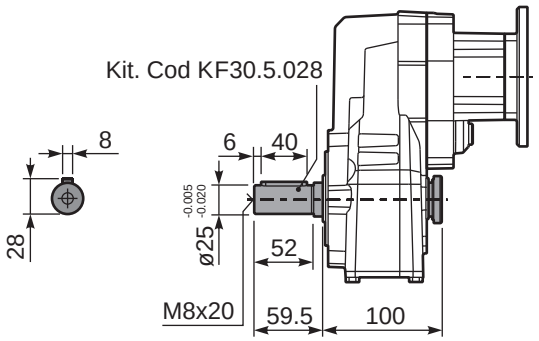
a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX4A.9.010
200	130	11	165	3.5	11	KX4A.9.011
-	-	-	-	-	-	-

RFA32C... Input Shaft
Albero in entrata





PFA32 A... Single output shaft
Albero uscita semplice



▪ 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 -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Output Shaft	Ratios code
13.6	**102.57**	0.25	164	0,9	**0.23**	**150**			C	C		131710	standard ø25	01
12.6	**110.77**	0.18	136	1.1	**0.21**	**150**			C	C		91321		02
11.8	**118.89**	0.18	145	1.0	**0.20**	**150**			C	C		151310		03
10.9	**128.49**	0.18	157	1.0	**0.18**	**150**			C	C		101313		04
9.7	**143.72**	0.18	176	0.9	**0.16**	**150**			C	C		131310		05
8.7	**161.67**	0.12	128	1.2	**0.14**	**150**			C	C		71713		06
8.2	**170.10**	0.12	134	1.1	**0.14**	**150**			C	C		91313		07
7.4	**188.57**	0.12	149	1.0	**0.12**	**150**			C	C		91710		08
7.0	**199.57**	0.12	158	1.0	**0.12**	**150**			C	C		101310		09
6.2	**226.51**	0.09	143	1.1	**0.10**	**150**			C	C		71313		10
5.6	**251.11**	0.09	158	0.9	**0.09**	**150**			C	C		71710		11
5.3	**264.21**	0.09	167	0.9	**0.09**	**150**			C	C		91310		12
4.7	**298.01**	0.06	123	1.2	**0.08**	**150**			C	C		61710		13
4.0	**351.82**	0.06	146	1.0	**0.07**	**150**			C	C		71310		14
3.4	**417.54**	0.06	173	0.9	**0.06**	**150**			C	C		61310		15

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

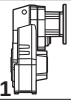
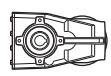
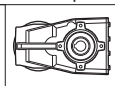
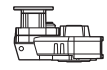
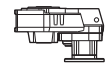
EN Unit **FA33** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA33** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA33** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA33** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

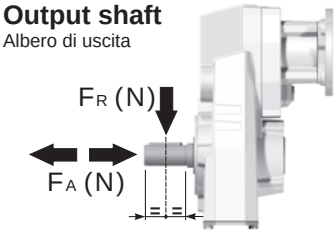
E El reductor tamaño **FA33** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 H1	 H4	 H3	H2	 H5	 H6
0.90 LT	0.55 LT	0.55 LT	0.65 LT	0.95 LT	0.70 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

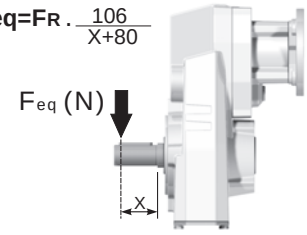
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



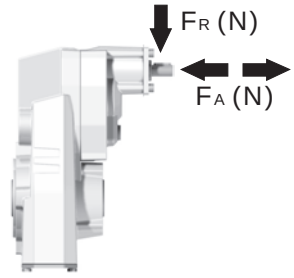
$$F_{eq} = F_R \cdot \frac{106}{X+80}$$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	250	1250	**140**	360	1800	**70**	470	2350
250	270	1350	**120**	380	1900	**40**	550	2750
200	320	1600	**85**	440	2200	**15**	560	2800

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



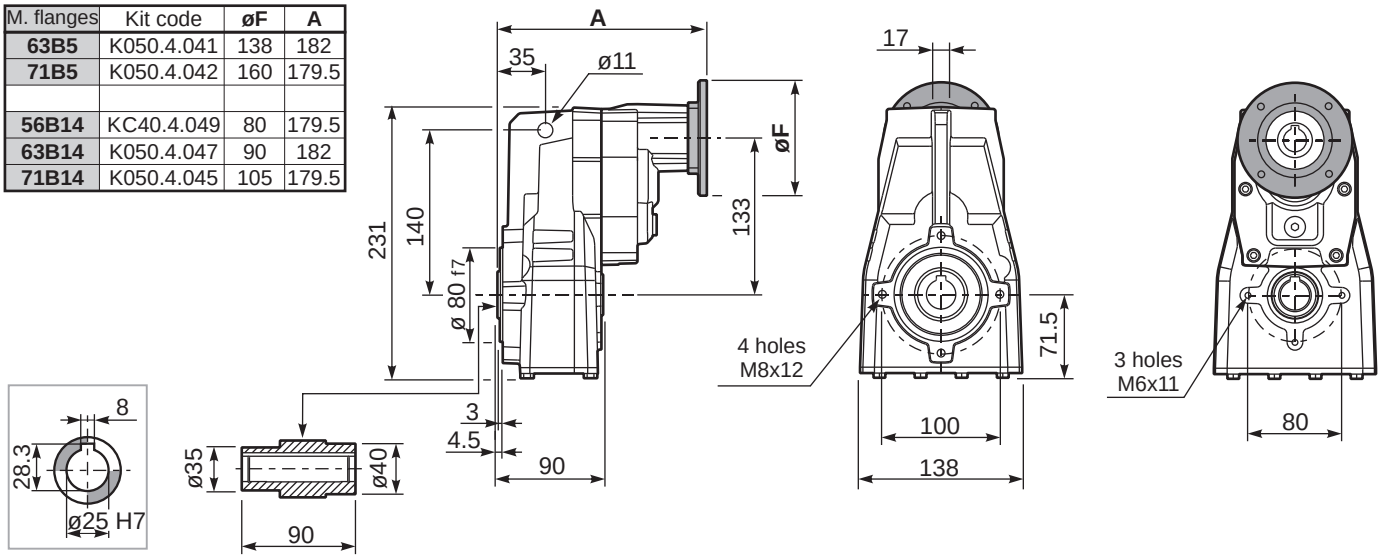
n_1	FA	FR
1400	140	700
900	160	800
500	190	950

tab. 2

PFA33C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	7.0 kg

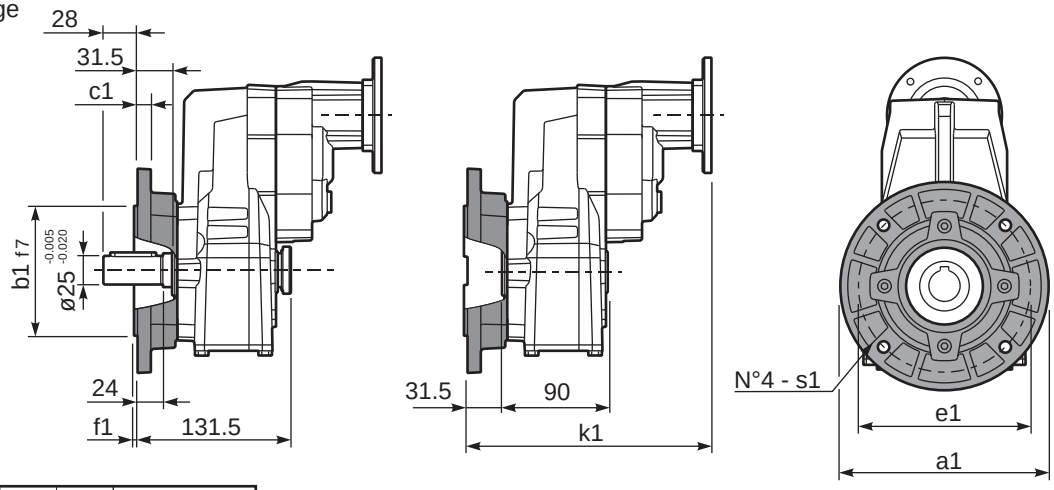
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	182
71B5	K050.4.042	160	179.5
56B14	KC40.4.049	80	179.5
63B14	K050.4.047	90	182
71B14	K050.4.045	105	179.5



Standard
Hollow shaft

PFA33...-F... Output flange
Flangia uscita

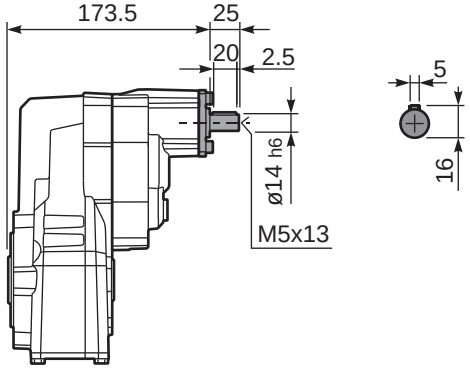
Motor Flange	k1
63B5	213.5
71B5	211
56B14	211
63B14	213.5
71B14	211



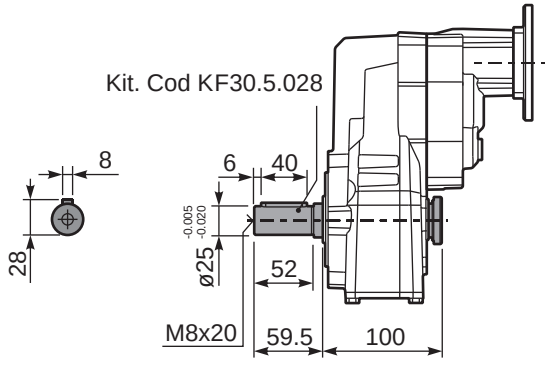
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX4A.9.010
200	130	11	165	3.5	11	KX4A.9.011
-	-	-	-	-	-	-

RFA33C... Input Shaft
Albero in entrata



PFA33 A... Single output shaft
Albero uscita semplice



▪ 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 -D 80	-E 90	-F 100 112	Available B14 motor flanges -R 80	-T 90	-U 100 112		Output Shaft ø	Ratios code
481	**2.91**	4	76	1.8	7.2	140	B	B		B	B		3499	**standard**	01
373	**3.75**	4	98	1.6	6.4	160	B	B		B	B		28105	**ø30**	02
263	**5.33**	4	140	1.2	4.8	170	B	B		B	B		21112		03
219	**6.39**	4	167	1.0	4.0	170	B	B		B	B		18115	ø25	04
178	**7.85**	4	205	1.1	4.3	225	B	B		B	B		13102	ø35	05
														On request	

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

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

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

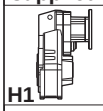
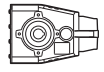
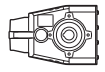
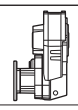
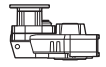
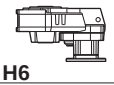
EN Unit **FA41** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA41** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA41** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA41** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA41** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

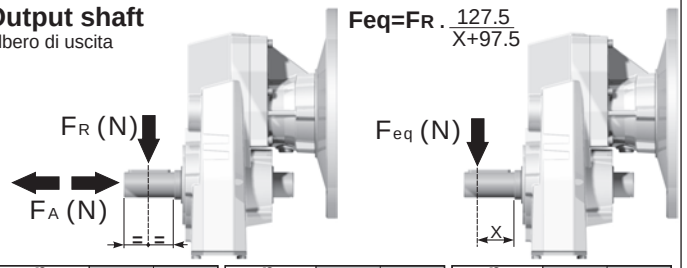
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
 H1	 H4	 H3	 H2	 H5	 H6
1.10 LT	0.65 LT	0.65 LT	0.65 LT	1.15 LT	0.80 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

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

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{127.5}{X+97.5}$$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	300	1500	**140**	390	1950	**70**	490	2450
250	320	1600	**120**	410	2050	**40**	590	2950
200	350	1750	**85**	460	2300	**15**	800	4000

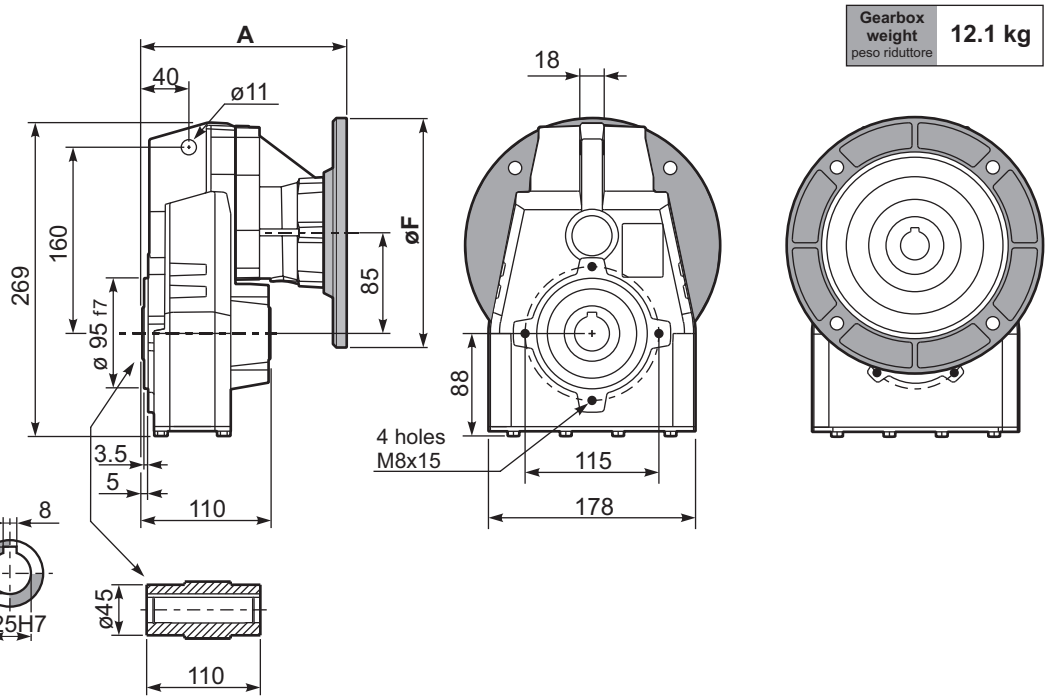
On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

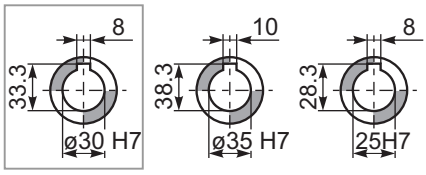
tab. 2

PFA41C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	12.1 kg

M. flanges	Kit code	øF	A
80/90B5	K023.4.042	200	179.5
100/112B5	K023.4.043	250	188.5
80B14	K085.4.046	120	179.5
90B14	K085.4.045	140	179.5
100/112B14	K085.4.047	160	188.5



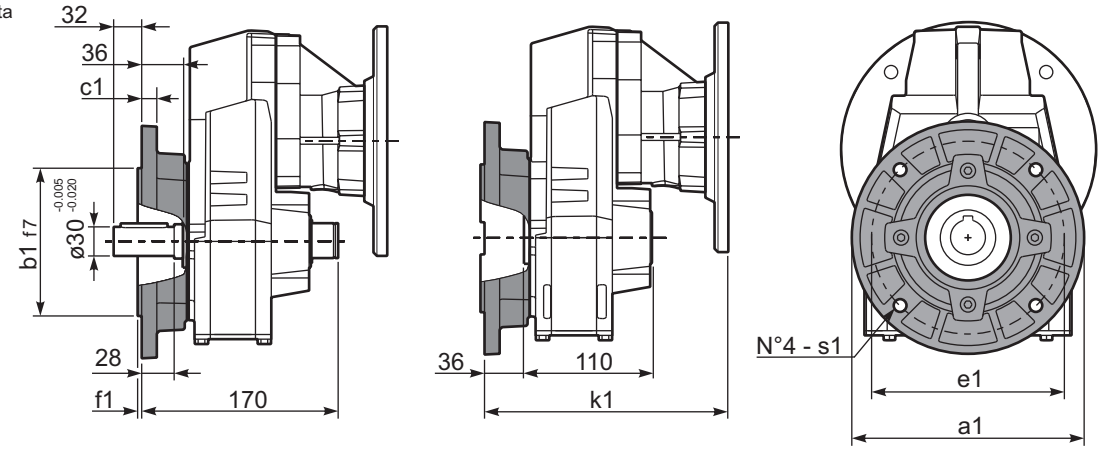


Standard
Hollow shaft

On request
A richiesta

PFA41...-F... Output flange
Flangia uscita

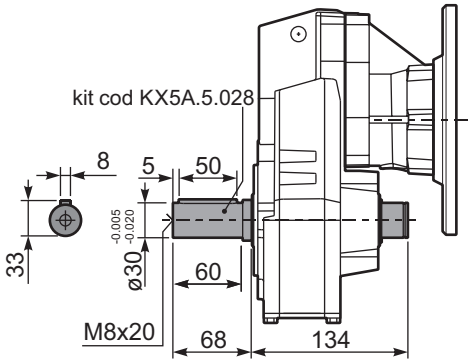
M. flanges	k1
80/90B5	215.5
100/112B5	221.5
80B14	213.5
90B14	213.5
100/112B14	224.5



Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012

PFA41 A... Single output shaft
Albero uscita semplice



▪ 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 -B 63	-C 71	-D 80	-E 90	-F 100 112	Available B14 motor flanges -Q 71	-R 80	-T 90	-U 100 112		Output Shaft ø	Ratios code
167	**8.38**	4	215	1.0	4.1	225	B					C	C			2821		01
139	**10.04**	3	194	1.2	3.7	240	B					C	C			2818		02
114	**12.33**	3	238	1.1	3.2	260	B					C	C			2813		03
92	**15.16**	2.2	215	1.2	2.6	260	B					C	C			1921		04
80	**17.57**	2.2	250	1.1	2.3	270	B					C	C			1721		05
77	**18.16**	2.2	258	1.1	2.4	290	B					C	C			1918		06
67	**21.05**	2.2	299	1.1	2.3	320	B					C	C			1718		07
63	**22.30**	2.2	317	1.0	2.2	320	B					C	C			1913	**standard**	08
57	**24.70**	1.5	242	1.3	2.0	320	B					C	C			1518	**ø30**	09
54	**25.85**	1.5	253	1.3	1.9	320	B					C	C			1713		10
47.5	**29.49**	1.5	289	1.1	1.7	320	B					C	C			1318	ø25	11
46.1	**30.34**	1.5	297	1.1	1.6	320	B					C	C			1513	ø35	12
41.7	**33.60**	1.1	240	1.0	1.1	250	B					C	C			1021	On request	13
38.7	**36.21**	1.1	259	1.2	1.3	320	B					C	C			1313		14
34.8	**40.25**	1.1	288	1.0	1.1	300	B					C	C			1018		15
28.3	**49.43**	1.1	354	0.9	0.99	320	B					C	C			1013		16
26.7	**52.53**	0.75	258	1.0	0.76	260	B					C	C			918		17
21.7	**64.51**	0.75	317	1.0	0.75	315	B					C	C			913		18
20.2	**69.37**	0.37	168	1.1	0.42	190	B					C	C			718		19
16.4	**85.19**	0.37	206	1.1	0.41	230	B					C	C			713		20

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FA42** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA42** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA42** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA42** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA42** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	**H4**	**H3**	**H2**	**H5**	**H6**
1.15 LT	0.70 LT	0.70 LT	0.70 LT	1.20 LT	0.80 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

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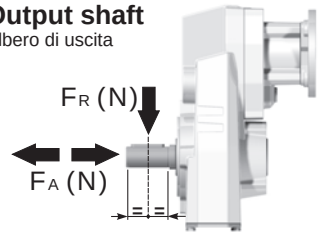
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

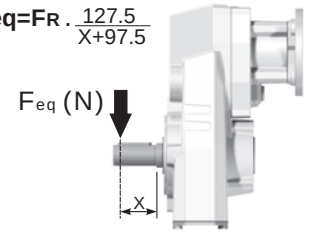
tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



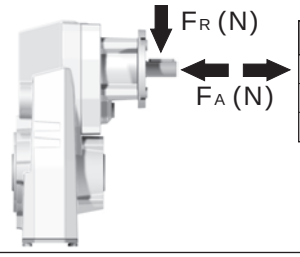
$$F_{eq} = F_R \cdot \frac{127.5}{X+97.5}$$



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	300	1500	**140**	390	1950	**70**	490	2450
250	320	1600	**120**	410	2050	**40**	590	2950
200	350	1750	**85**	460	2300	**15**	800	4000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



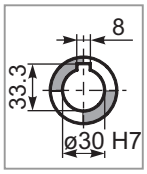
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

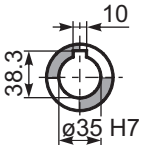
PFA42C... Basic gearbox
Riduttore base

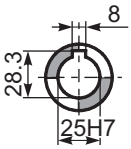
Gearbox weight peso riduttore	9.0 kg

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	169.5
71B5	K063.4.042	160	167.5
80/90B5	K063.4.043	200	169.5
100/112B5	KC40.4.043	250	184.5
71B14	K063.4.047	105	167.5
80B14	K063.4.046	120	169.5
90B14	K063.4.041	140	169.5
100/112B14	KC40.4.041	160	184.5

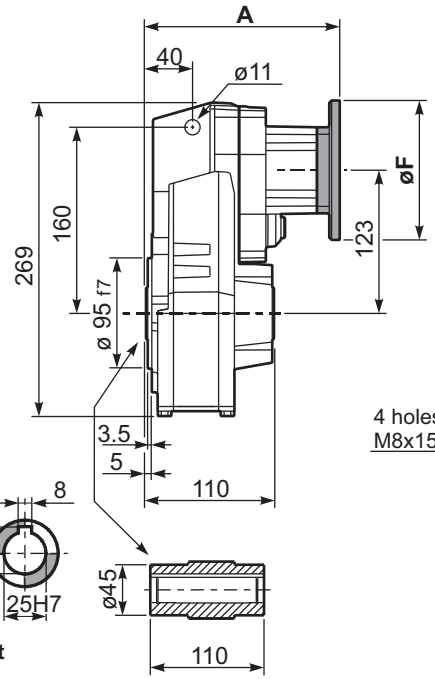


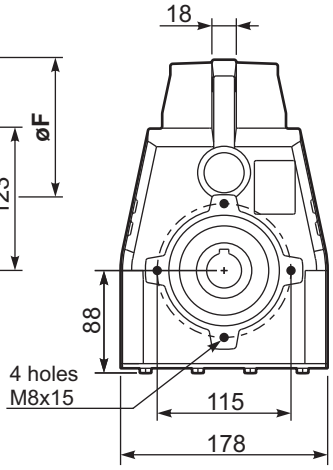
Standard
Hollow shaft

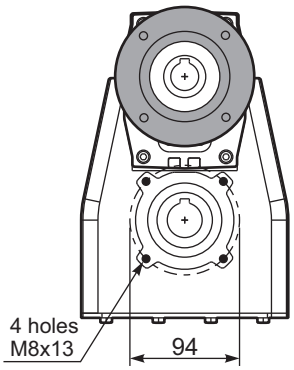




On request
A richiesta

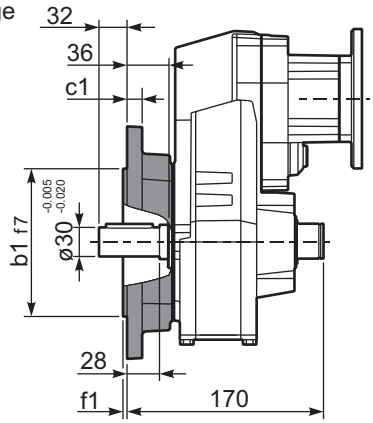


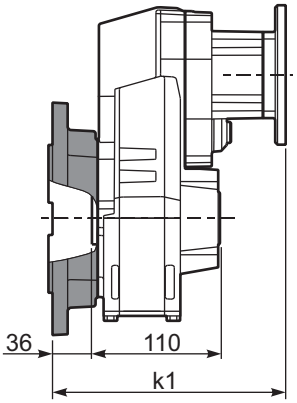


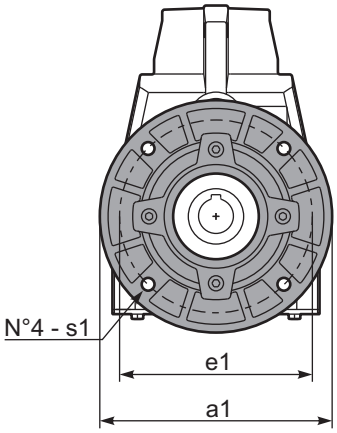


PFA42...-F... Output flange
Flangia uscita

Motor Flange	k1
63B5	205.5
71B5	203.5
80/90B5	205.5
100/112B5	220.5
71B14	203.5
80B14	205.5
90B14	205.5
100/112B14	220.5



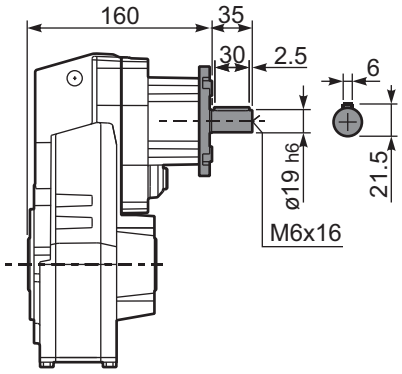




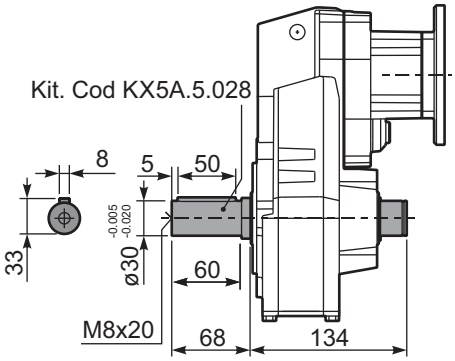
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012

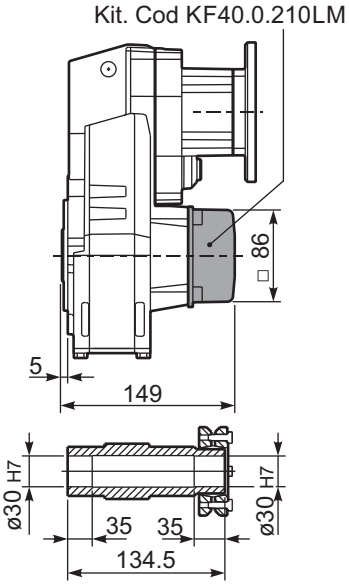
RFA42C... Input Shaft
Albero in entrata



PFA42 A... Single output shaft
Albero uscita semplice



PFA42D... Shrink disk
Calettatore



▪ 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 -B 63	Available B5 motor flanges -C 71	Available B14 motor flanges -O 56	Available B14 motor flanges -P 63	Available B14 motor flanges -Q 71		Output Shaft	Ratios code
18.8	**74.33**	0.37	176	1.8	0.67	320			C	C		191313		01
17.0	**82.56**	0.37	196	1.6	0.60	320			C	C		151318		02
16.0	**87.48**	0.37	207	1.5	0.57	320			C	C		131713		03
13.8	**101.40**	0.37	240	1.3	0.49	320			C	C		151313		04
11.4	**122.57**	0.37	291	1.1	0.41	320			C	C		131313		05
10.1	**138.59**	0.37	329	1.0	0.36	320			C	C		101318	**standard**	06
8.7	**160.82**	0.25	257	1.2	0.31	320			C	C		91713	**ø30**	07
8.2	**170.20**	0.25	272	1.2	0.29	320			C	C		101313		08
7.6	**183.48**	0.25	294	1.1	0.27	320			C	C		91318	ø25	09
6.5	**214.15**	0.18	262	1.2	0.23	320			C	C		71713	ø35	10
6.2	**225.33**	0.18	276	1.2	0.22	320			C	C		91313	On request	11
5.7	**244.32**	0.18	299	1.1	0.20	320			C	C		71318		12
5.5	**254.15**	0.18	311	1.0	0.20	320			C	C		61713		13
4.8	**289.96**	0.18	355	0.9	0.17	320			C	C		61318		14
4.7	**300.05**	0.18	367	0.9	0.17	320			C	C		71313		15
3.9	**356.09**	0.12	282	1.1	0.14	320			C	C		61313		16

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FA43** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA43** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA43** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA43** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

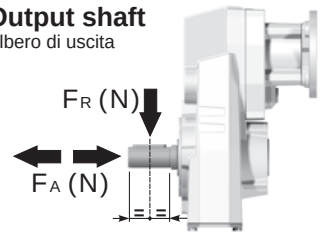
E El reductor tamaño **FA43** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	H4	H3	H2	H5	H6
1.30 LT	0.70 LT	0.70 LT	0.70 LT	1.35 LT	0.90 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

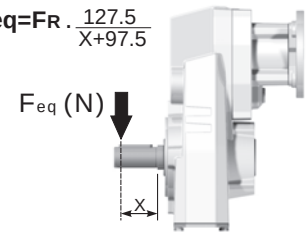
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



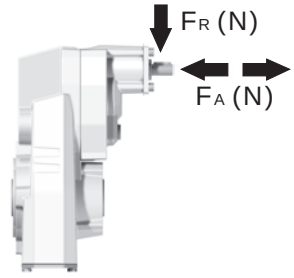
Feq=FR . 127.5 / X+97.5



n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR	n_2 [min^{-1}]	FA	FR
300	300	1500	**140**	390	1950	**70**	490	2450
250	320	1600	**120**	410	2050	**40**	590	2950
200	350	1750	**85**	460	2300	**15**	800	4000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



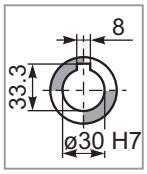
n_1	FA	FR
1400	140	700
900	160	800
500	190	950

tab. 2

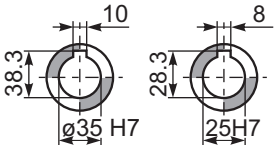
PFA43C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	8.9 kg

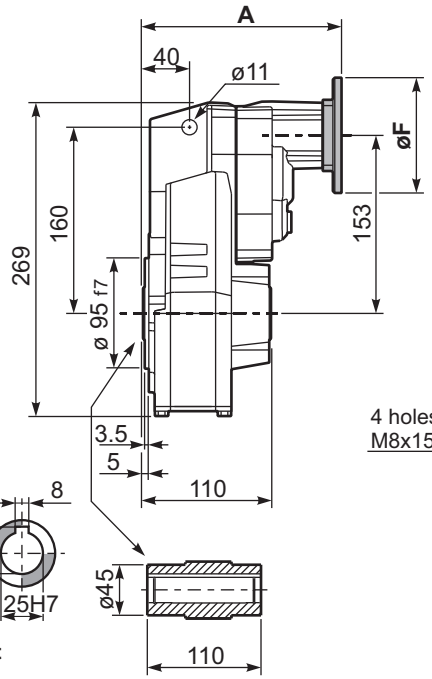
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	175
71B5	K050.4.042	160	172.5
56B14	KC40.4.049	80	172.5
63B14	K050.4.047	90	175
71B14	K050.4.045	105	172.5

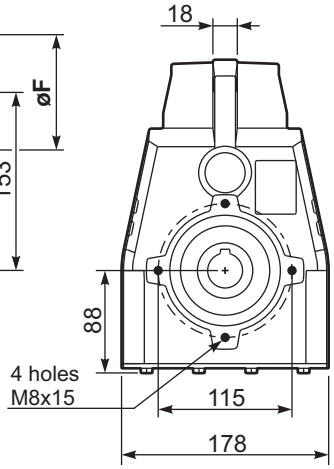


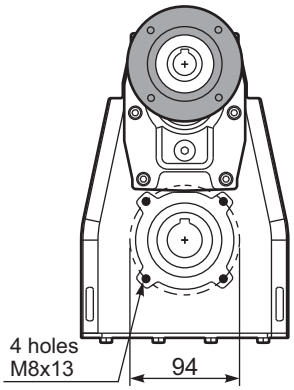
Standard
Hollow shaft



On request
A richiesta

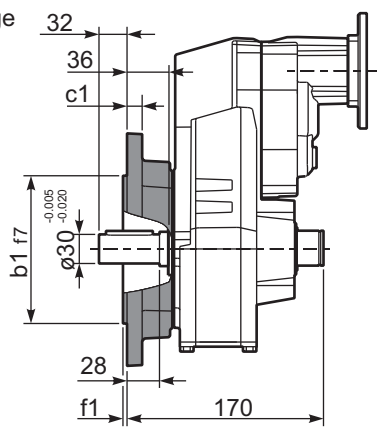


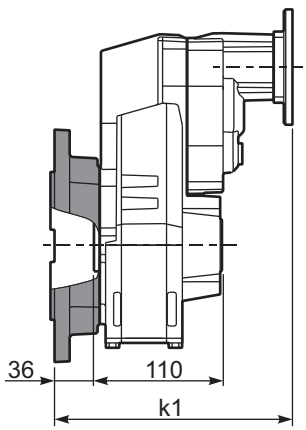


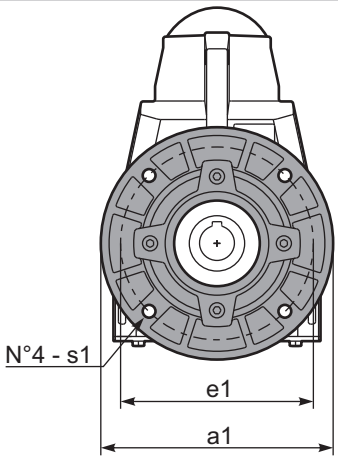


PFA43...-F... Output flange
Flangia uscita

Motor Flange	k1
63B5	211
71B5	208.5
56B14	208.5
63B14	211
71B14	208.5



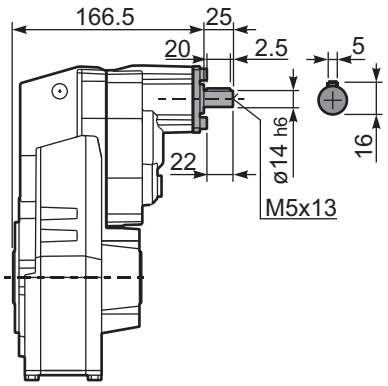




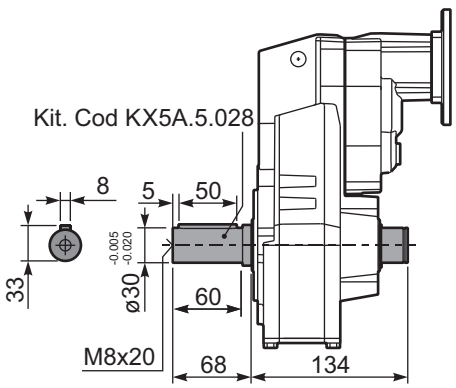
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012

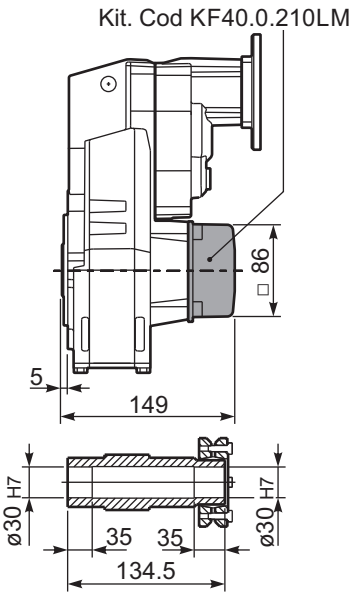
RFA43C... Input Shaft
Albero in entrata



PFA43 A... Single output shaft
Albero uscita semplice



PFA43D... Shrink disk
Calettatore



▪ 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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	5.5	230	1.2	6.5	280	B									3018	standard ø35	01
185	**7.56**	5.5	265	1.1	5.9	290	B									3016		02
159	**8.82**	5.5	309	1.0	5.5	320	B									3014		03
113	**12.39**	5.5	434	1.0	5.5	450	B									2018		04
98	**14.24**	5.5	499	0.9	4.8	450	B									2016		05
84	**16.75**	4	429	1.1	4.3	470	B									1618		06
73	**19.25**	4	494	1.0	3.9	490	B									1616		07
64	**21.78**	4	558	0.9	3.4	490	B									1318		08
56	**25.04**	3	483	1.0	3.0	490	B									1316	ø40 On request	09
47.9	**29.23**	3	564	0.9	2.6	490	B									1314		10
45.7	**30.65**	2.2	436	1.1	2.4	490	B									1116		11
39.1	**35.78**	2.2	509	1.0	2.1	490	B									1114		12
36.3	**38.55**	2.2	548	0.9	1.9	490	B									818		13
31.6	**44.32**	1.5	434	1.1	1.7	490	B									816		14
27.1	**51.74**	1.5	507	1.0	1.4	490	B									814		15
22.9	**61.03**	1.1	437	1.1	1.2	480	B									616		16
19.6	**71.25**	1.1	510	1.0	1.1	490	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

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

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

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

EN Unit **FA52** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA52** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA52** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA52** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA52** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	H4	H3	H2	H5	H6
1.85 LT	1.15 LT	1.15 LT	1.30 LT	2.10 LT	1.30 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

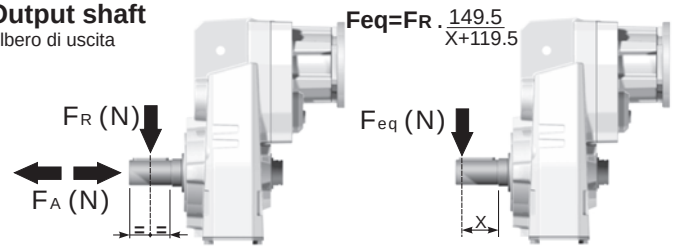
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

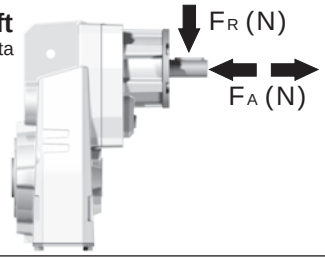
$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	400	2000	**140**	460	2300	**70**	580	2900
250	420	2100	**120**	500	2500	**40**	780	3900
200	440	2200	**85**	550	2750	**15**	1140	5700

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



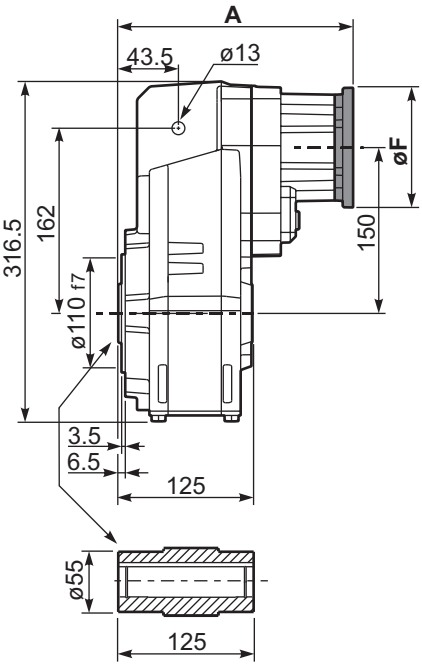
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

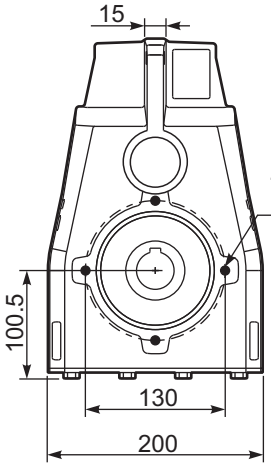
tab. 2

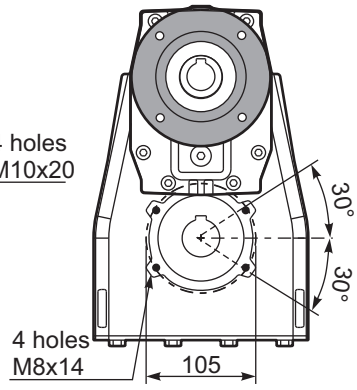
PFA52C... Basic gearbox
Riduttore base

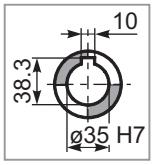
Gearbox weight peso riduttore	15.5 kg

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

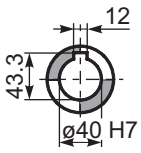








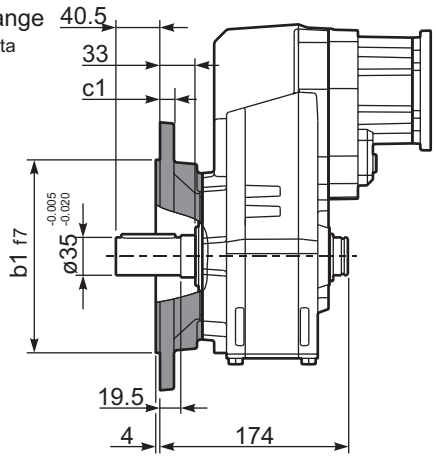
Standard
Hollow shaft

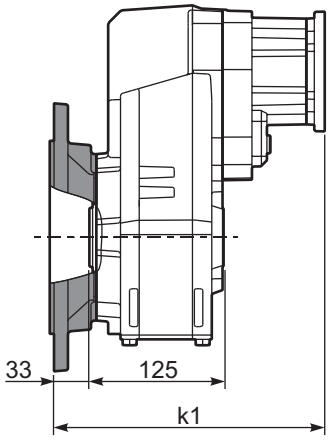


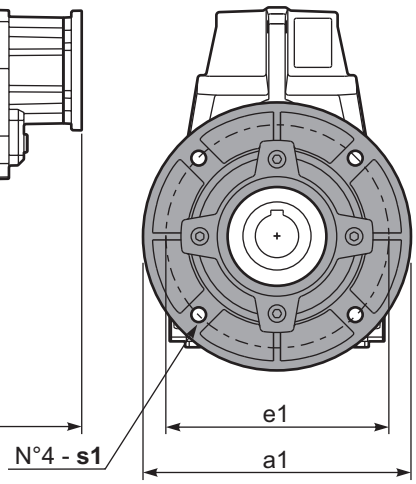
On request
A richiesta

PFA52...-F... Output flange
Flangia uscita

M. flanges	k1
71B5	260
80/90B5	262
100/112B5	271
132B5	289
80B14	262
90B14	262
100/112B14	271
132B14	289



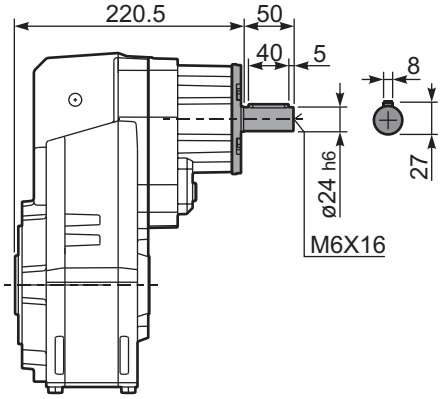




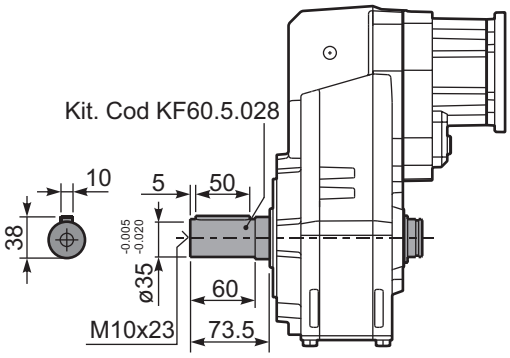
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

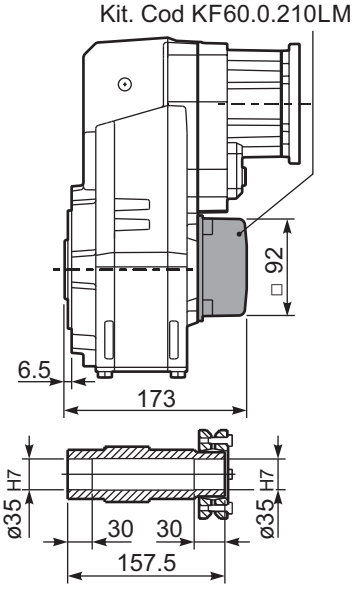
RFA52C... Input Shaft
Albero in entrata



PFA52 A... Single output shaft
Albero uscita semplice



PFA52D... Shrink disk
Calettatore



▪ 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 -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft ø	Ratios code
22.6	**61.89**	1.1	434	1.2	1.3	510	B				C	C		191318		01
19.7	**71.16**	1.1	499	1.0	1.1	510	B				C	C		191316		02
17.0	**82.48**	1.1	578	0.9	0.96	510	B				C	C		171316		03
14.5	**96.29**	0.75	463	1.1	0.83	510	B				C	C		171314		04
13.9	**100.51**	0.75	483	1.1	0.79	510	B				C	C		131318		05
12.1	**115.56**	0.55	410	1.2	0.69	510	B				C	C		131316		06
11.1	**125.96**	0.55	447	1.1	0.63	510	B				C	C		190816		07
10.4	**134.91**	0.55	479	1.1	0.59	510	B				C	C		131314	**standard ø35**	08
9.5	**147.05**	0.55	522	1.0	0.54	510	B				C	C		190814		09
8.2	**170.44**	0.37	404	1.3	0.47	510	B				C	C		170814		10
7.6	**184.15**	0.37	437	1.2	0.43	510	B				C	C		101314	ø40	11
6.8	**205.87**	0.37	488	1.0	0.39	510	B				C	C		91316	On request	12
5.8	**240.34**	0.37	570	0.9	0.33	510	B				C	C		91314		13
5.0	**279.22**	0.25	447	1.1	0.28	510	B				C	C		100816		14
4.3	**325.97**	0.25	522	1.0	0.24	510	B				C	C		100814		15
3.8	**364.41**	0.18	446	1.1	0.22	510	B				C	C		90816		16
3.3	**425.43**	0.18	521	1.0	0.19	510	B				C	C		90814		17
2.9	**481.19**	0.18	589	0.9	0.17	510	B				C	C		70816		18
2.5	**561.76**	0.12	444	1.1	0.14	510	B				C	C		70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

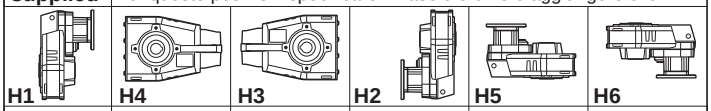
EN Unit **FA53** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA53** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA53** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA53** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA53** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

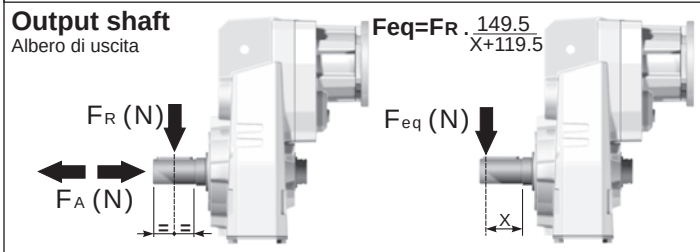
Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
					
H1	**H4**	**H3**	**H2**	**H5**	**H6**
2.15 LT	1.25 LT	1.25 LT	1.45 LT	2.35 LT	1.45 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

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

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

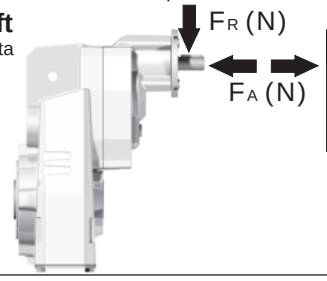


$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$

n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	400	2000	**140**	460	2300	**70**	580	2900
250	420	2100	**120**	500	2500	**40**	780	3900
200	440	2200	**85**	550	2750	**15**	1140	5700

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



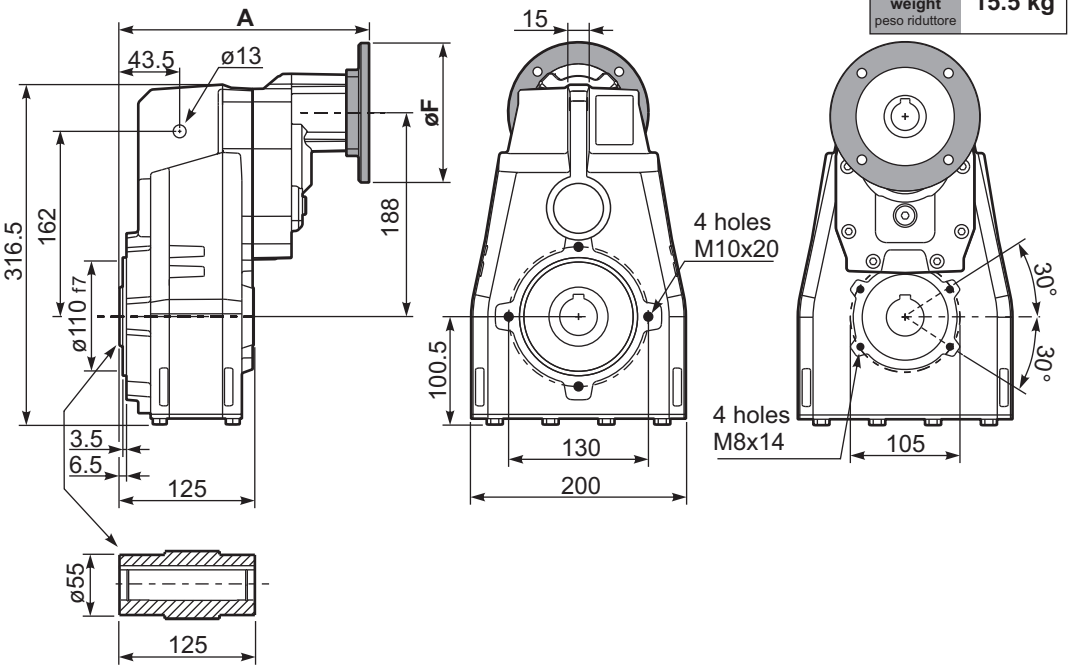
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

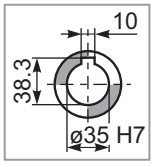
tab. 2

PFA53C... Basic gearbox
Riduttore base

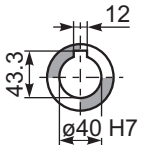
Gearbox weight peso riduttore	15.5 kg

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239





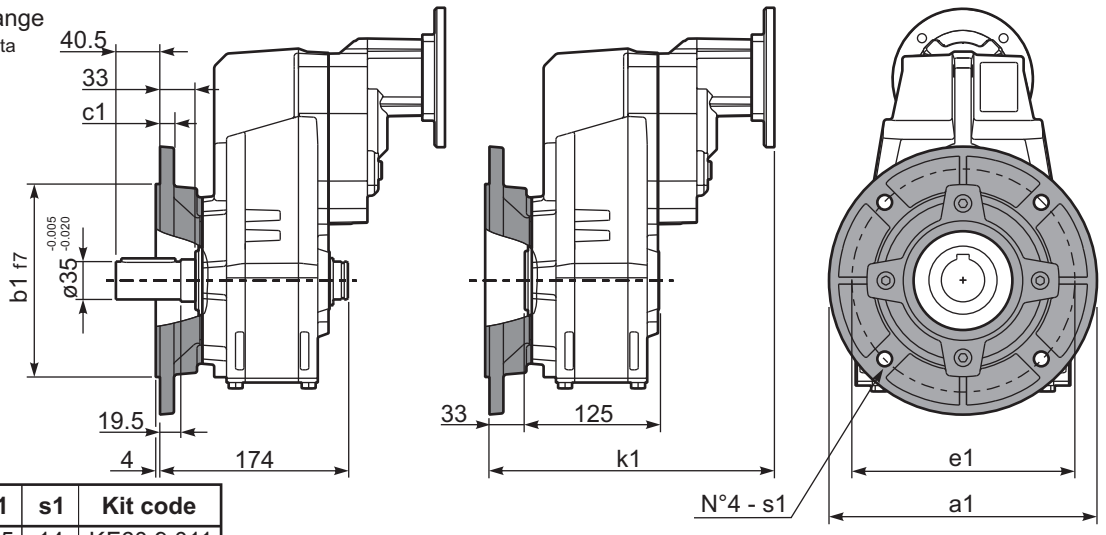
Standard
Hollow shaft



On request
A richiesta

PFA53...**-F**... Output flange
Flangia uscita

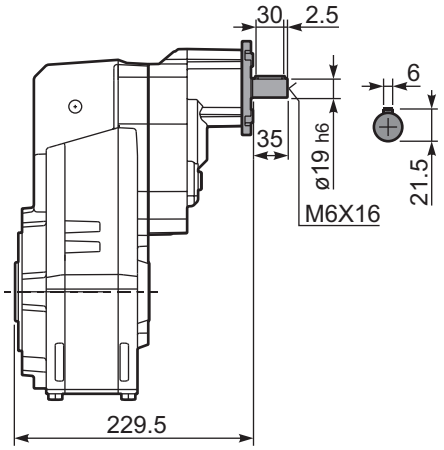
Motor Flange	k1
63B5	272
71B5	270
80/90B5	272
71B14	270
80B14	272
90B14	272



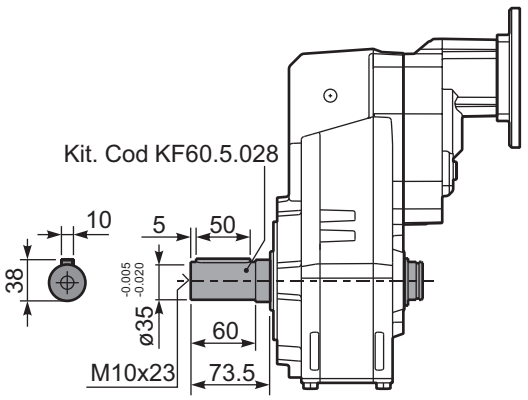
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

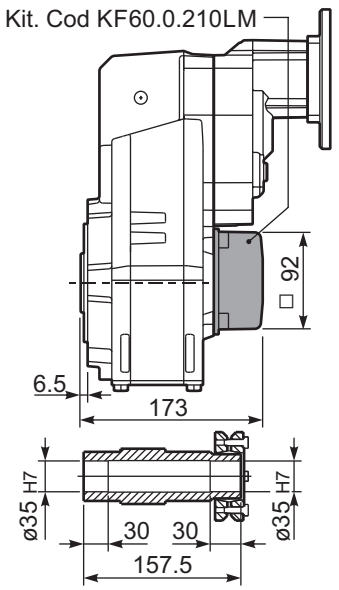
RFA53C... Input Shaft
Albero in entrata



PFA53 **A**... Single output shaft
Albero uscita semplice



PFA53**D**... Shrink disk
Calettatore



▪ 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 -G	Available B5 motor flanges 132	B14 motor flanges - - - -	B14 motor flanges - - - -		Output Shaft ø	Ratios code
507	**2.76**	9	166	1.6	14.4	265			**not available**		2980	**standard**	01
395	**3.54**	9	213	1.3	11.6	275					2485	**ø35**	02
277	**5.06**	9	304	1.0	8.6	290					1891		03
241	**5.81**	7.5	281	1.2	8.5	330					1693	ø40	04
206	**6.79**	7.5	329	1.2	8.4	380					1495	On request	05

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available
Flange Motore Disponibili

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

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

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

EN Unit **FC61** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC61** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC61** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC61** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FC61** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	**H4**	**H3**	**H2**	**H5**	**H6**
2.05 LT	1.25 LT	1.25 LT	1.40 LT	2.05 LT	1.40 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

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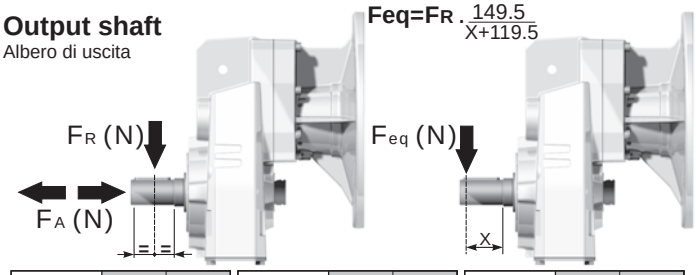
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



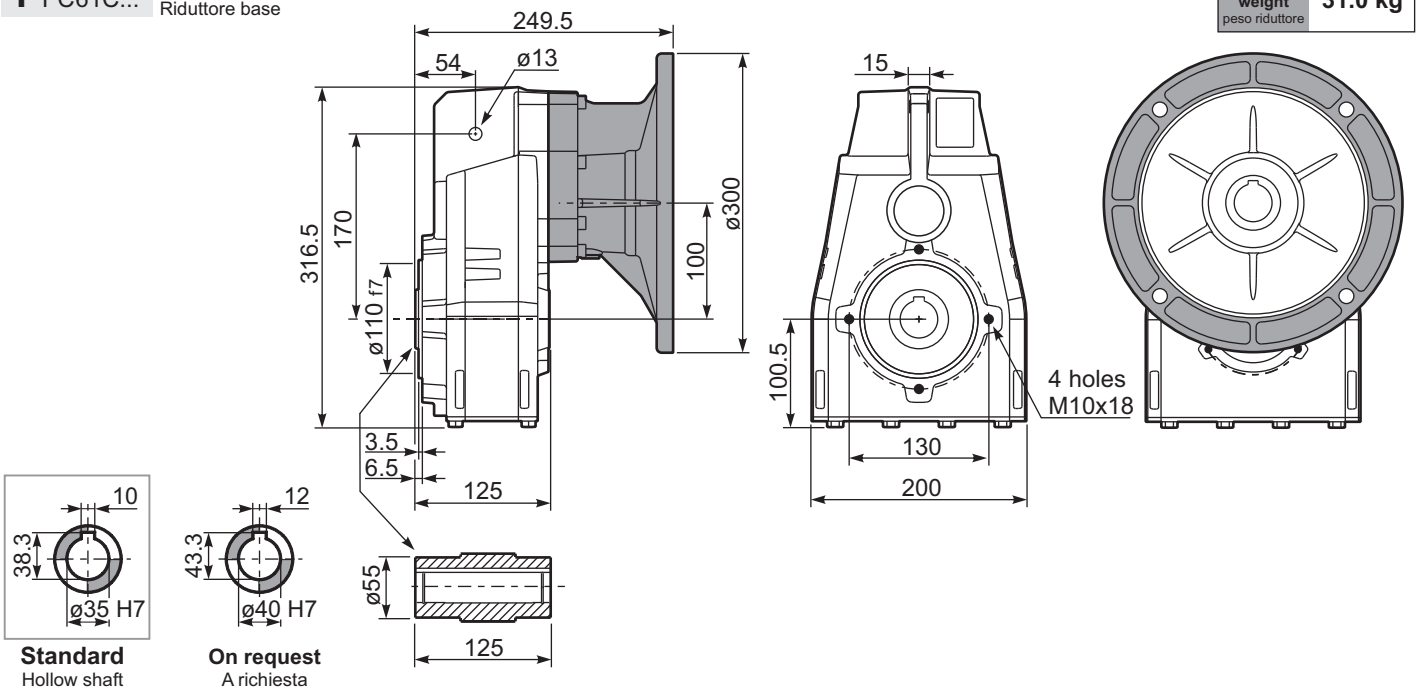
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

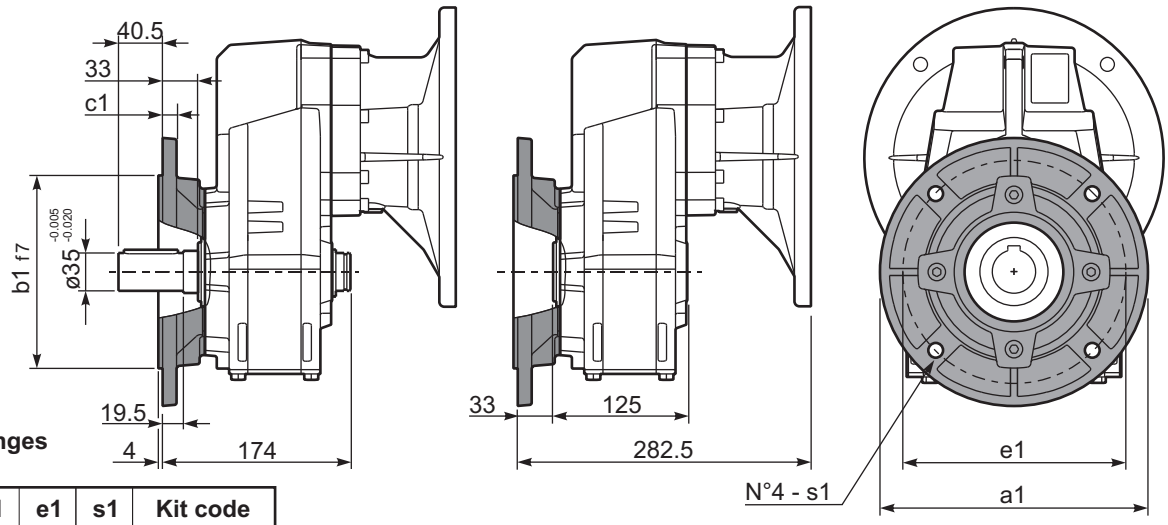
tab. 2

PFC61C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	31.0 kg



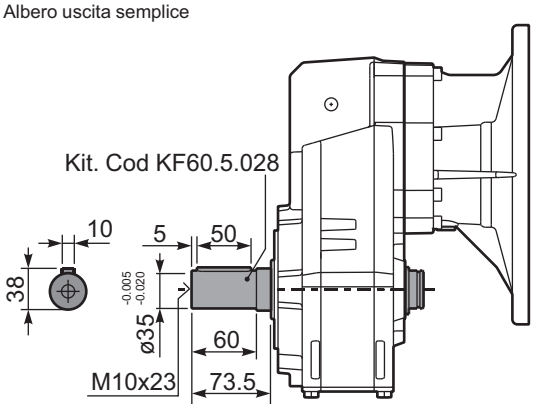
PFC61...**-F**... Output flange
Flangia uscita



Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

PFC61 **A**... Single output shaft
Albero uscita semplice



▪ 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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	7.5	312	1.2	8.8	380	B									3018	standard ø35	01
185	**7.56**	7.5	358	1.1	7.9	390	B									3016		02
159	**8.82**	7.5	419	1.0	7.1	410	B									3014		03
113	**12.39**	7.5	588	1.0	7.2	580	B									2018		04
98	**14.24**	5.5	499	1.2	6.4	600	B									2016		05
84	**16.75**	5.5	587	1.1	6.1	665	B									1618		06
73	**19.25**	5.5	675	1.0	5.4	675	B									1616		07
64	**21.78**	4	558	1.2	4.7	675	B									1318		08
56	**25.04**	4	642	1.1	4.1	675	B									1316		09
47.9	**29.23**	4	750	0.9	3.5	675	B									1314	ø40 On request	10
45.7	**30.65**	3	592	1.1	3.4	675	B									1116		11
39.1	**35.78**	3	691	1.0	2.9	675	B									1114		12
36.3	**38.55**	2.2	548	1.1	2.3	580	B									818		13
31.6	**44.32**	2.2	630	1.1	2.3	665	B									816		14
27.1	**51.74**	2.2	735	0.9	2.0	675	B									814		15
22.9	**61.03**	1.1	437	1.1	1.2	480	B									616		16
19.6	**71.25**	1.1	510	1.1	1.2	560	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

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

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

EN Unit **FC62** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC62** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC62** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC62** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FC62** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	H4	H3	H2	H5	H6
2.05 LT	1.25 LT	1.25 LT	1.40 LT	2.20 LT	1.40 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

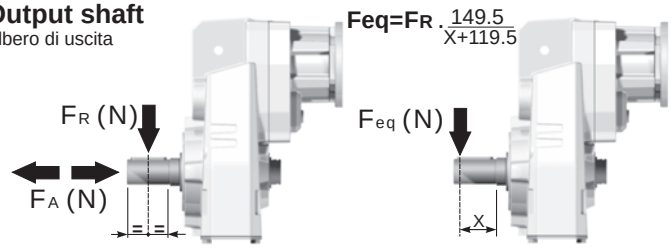
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

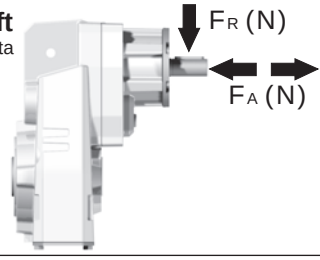
$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



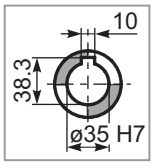
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

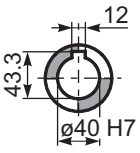
PFC62C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	20.8 kg

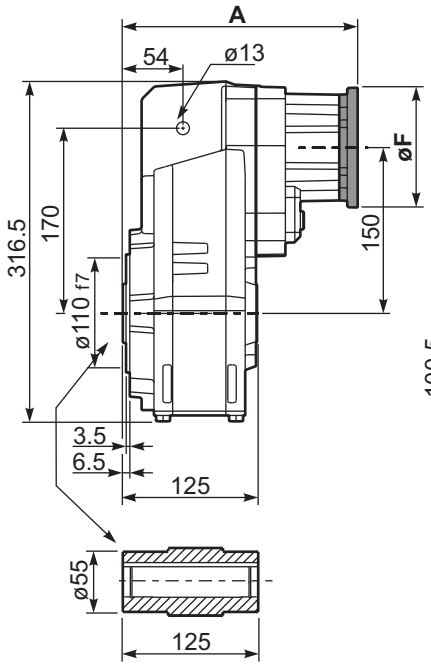
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

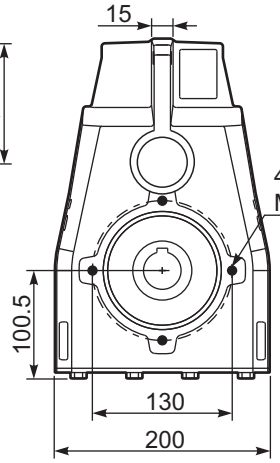


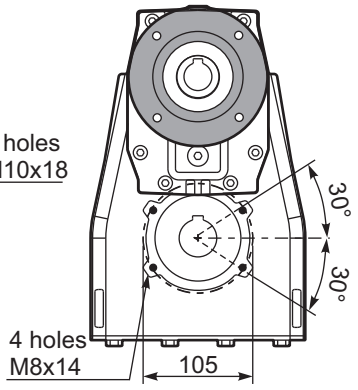
Standard
Hollow shaft



On request
A richiesta

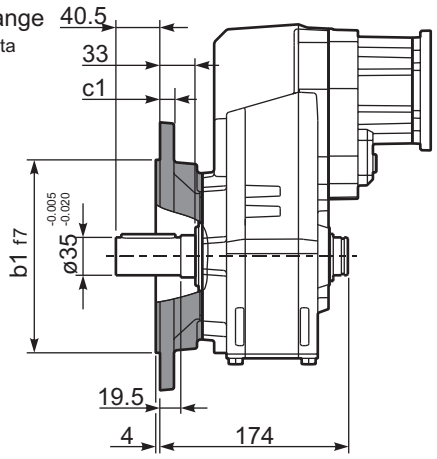


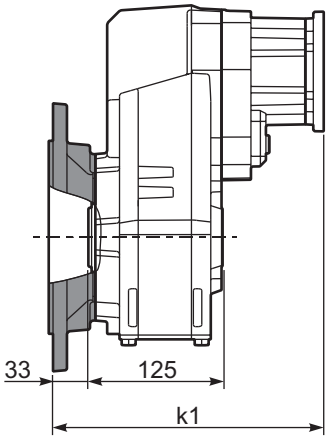


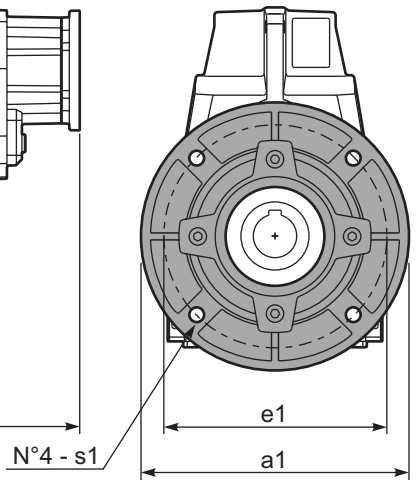


PFC62...-F... Output flange
Flangia uscita

M. flanges	k1
71B5	260
80/90B5	262
100/112B5	271
132B5	289
80B14	262
90B14	262
100/112B14	271
132B14	289



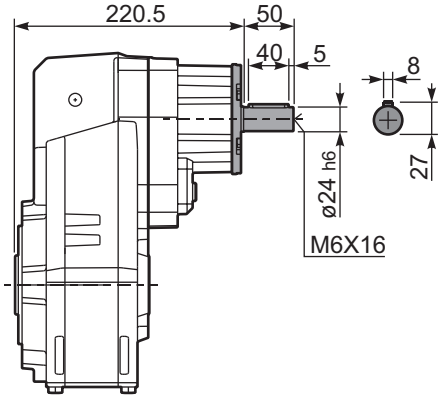




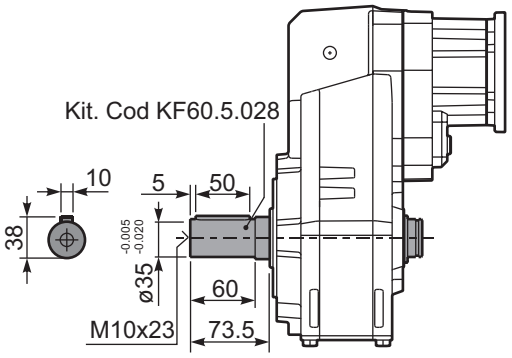
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

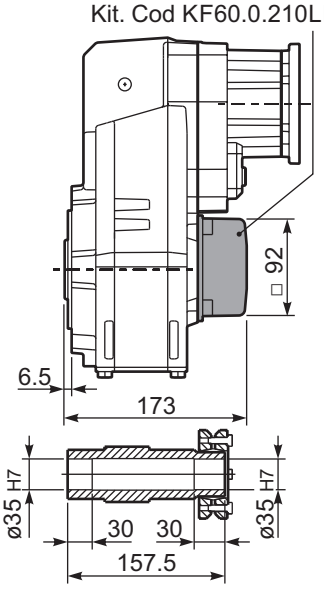
RFC62C... Input Shaft
Albero in entrata



PFC62 A... Single output shaft
Albero uscita semplice



PFC62D... Shrink disk
Calettatore



▪ 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 -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft	Ratios code
22.6	**61.89**	1.5	594	1.1	1.7	675	B				C	C		191318	standard ø35 ø40 On request	01
19.7	**71.16**	1.5	683	1.0	1.5	675	B				C	C		191316		02
17.0	**82.48**	1.5	792	0.9	1.3	675	B				C	C		171316		03
14.5	**96.29**	1.1	675	1.0	1.1	675	B				C	C		171314		04
13.9	**100.51**	1.1	705	1.0	1.0	675	B				C	C		131318		05
12.1	**115.56**	0.75	556	1.2	0.91	675	B				C	C		131316		06
11.1	**125.96**	0.75	606	1.1	0.82	665	B				C	C		190816		07
10.4	**134.91**	0.75	649	1.0	0.78	675	B				C	C		131314		08
9.5	**147.05**	0.75	707	1.0	0.72	675	B				C	C		190814		09
8.2	**170.44**	0.55	605	1.1	0.62	675	B				C	C		170814		10
7.6	**184.15**	0.55	653	1.0	0.57	675	B				C	C		101314		11
6.8	**205.87**	0.55	730	0.9	0.51	675	B				C	C		91316		12
5.8	**240.34**	0.37	570	1.2	0.44	675	B				C	C		91314		13
5.0	**279.22**	0.37	662	1.0	0.37	665	B				C	C		100816		14
4.3	**325.97**	0.37	773	0.9	0.32	675	B				C	C		100814		15
3.8	**364.41**	0.25	583	1.1	0.28	665	B				C	C		90816		16
3.3	**425.43**	0.25	681	1.0	0.25	675	B				C	C		90814		17
2.9	**481.19**	0.18	589	1.1	0.22	665	B				C	C		70816		18
2.5	**561.76**	0.18	687	1.0	0.19	675	B				C	C		70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

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

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

EN Unit **FC63** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC63** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC63** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC63** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FC63** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	**For these mounting position specify in the order or add oil** Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	H4	H3	H2	H5	H6
2.30 LT	1.35 LT	1.35 LT	1.55 LT	2.45 LT	1.55 LT
SHELL Omala S4 WE 320			**ENI** Telium VSF 320		

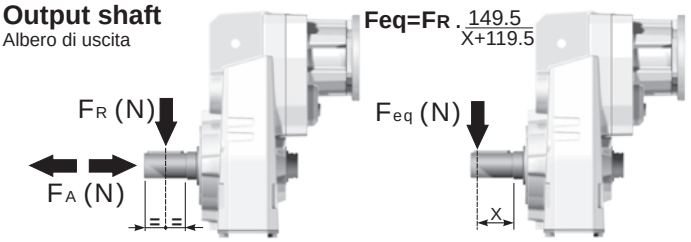
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

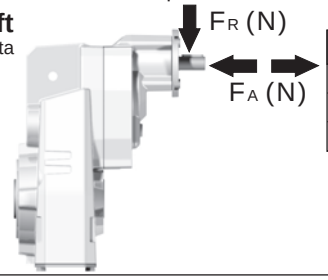
$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



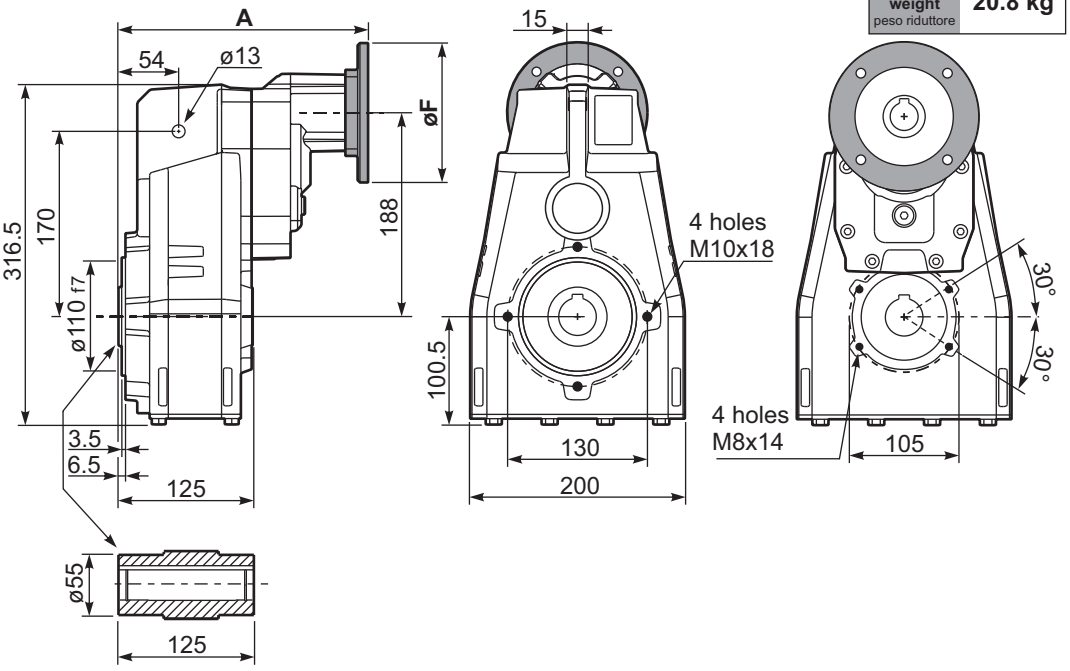
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

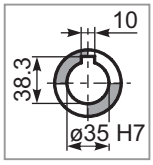
tab. 2

PFC63C... Basic gearbox
Riduttore base

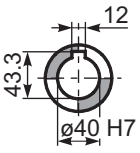
Gearbox weight peso riduttore	20.8 kg

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239





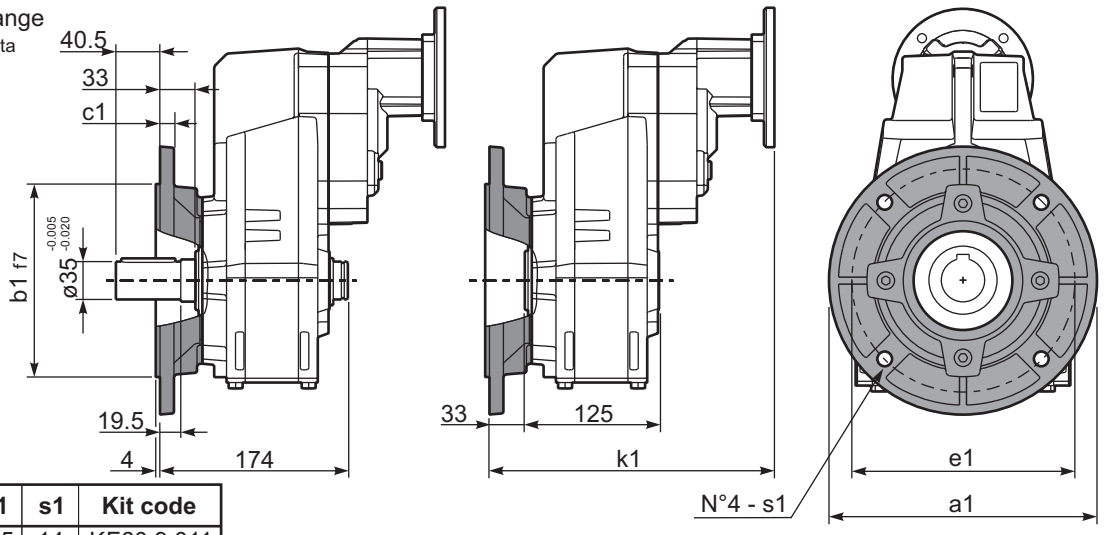
Standard
Hollow shaft



On request
A richiesta

PFC63...-F... Output flange
Flangia uscita

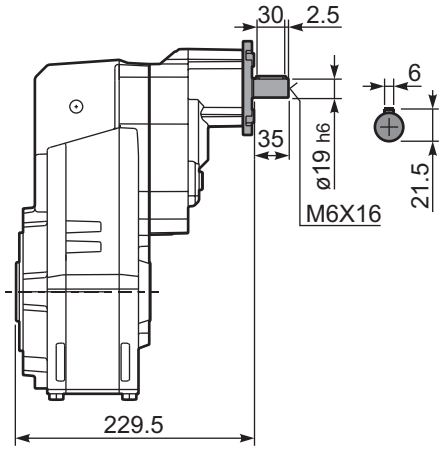
Motor Flange	k1
63B5	272
71B5	270
80/90B5	272
71B14	270
80B14	272
90B14	272



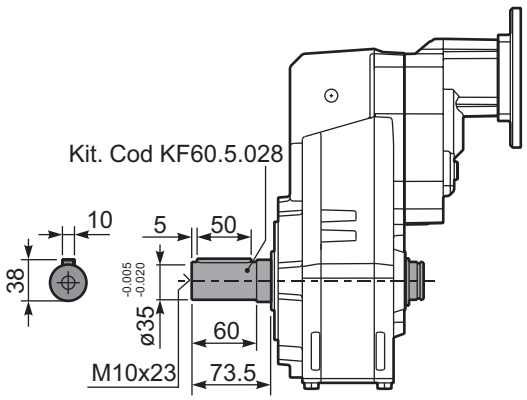
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

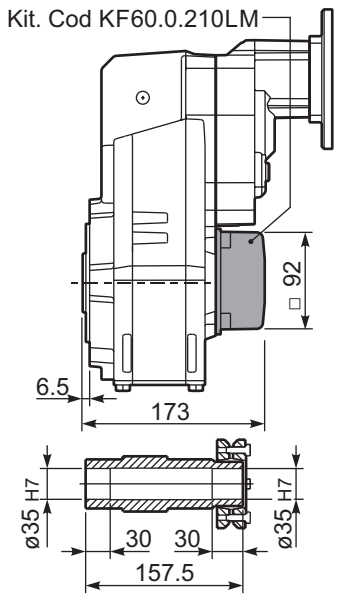
RFC63C... Input Shaft
Albero in entrata



PFC63 A... Single output shaft
Albero uscita semplice



PFC63D... Shrink disk
Calettatore



▪ 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 -G	Available B5 motor flanges 132	B14 motor flanges - - - -	B14 motor flanges - - - -		Output Shaft ø	Ratios code
227	**6.17**	9	371	1.2	10.9	450			**not available**		18111	**standard**	01
198	**7.06**	9	425	1.4	12.7	600					16113	**ø40**	02
170	**8.21**	9	494	1.4	12.2	670					14115	ø45 On request	03

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

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

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

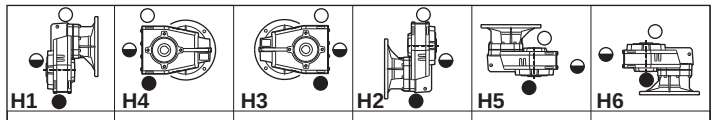
EN Unit **FC71** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC71** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC71** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC71** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC71** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.



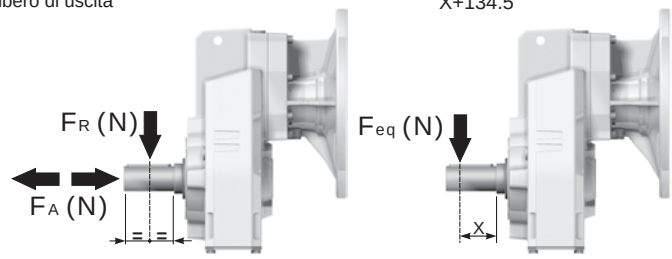
H1	H4	H3	H2	H5	H6
3.30 LT	1.90 LT	1.90 LT	1.80 LT	3.30 LT	1.90 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

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

$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



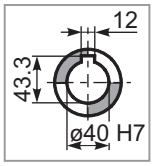
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

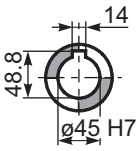
tab. 2

PFC71C... Basic gearbox
Riduttore base

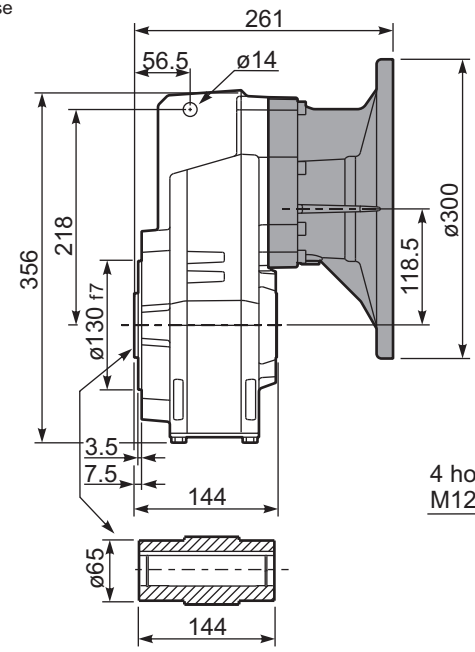
Gearbox weight peso riduttore	35.0 kg

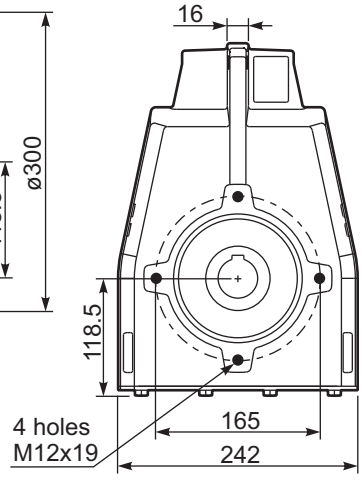


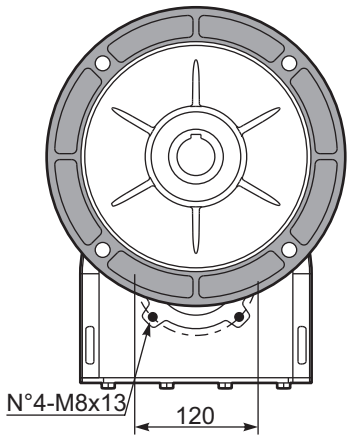
Standard
Hollow shaft



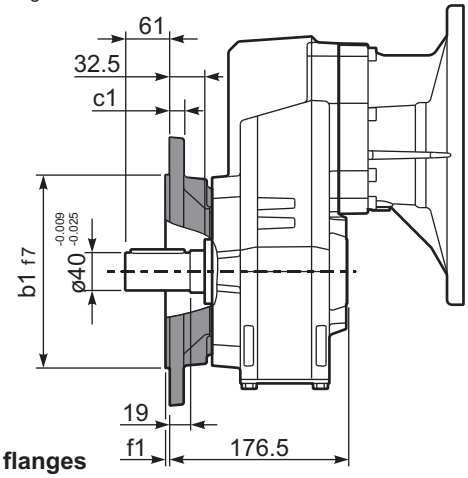
On request
A richiesta

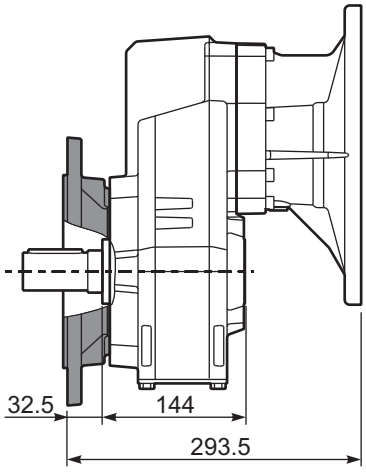


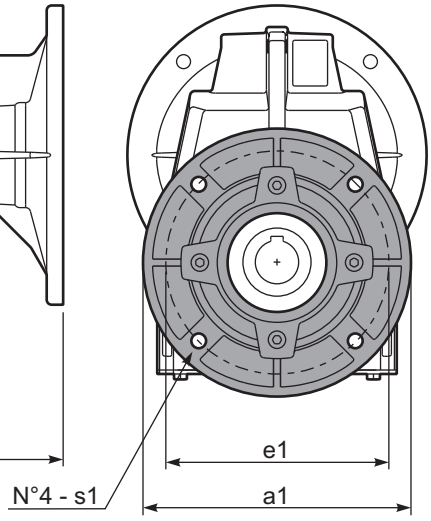




PFC71...-F... Output flange
Flangia uscita



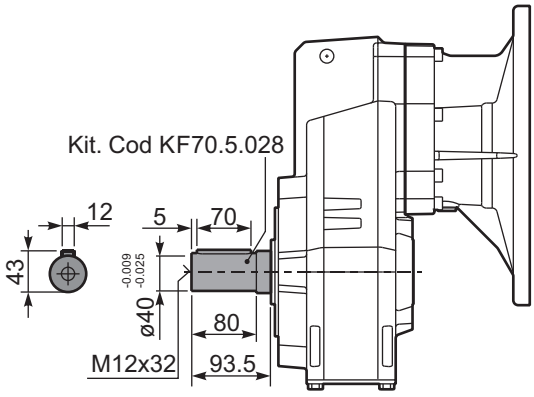




Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

PFC71 A... Single output shaft
Albero uscita semplice



▪ 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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
175	**8.02**	9	473	1.1	9.9	520	B									3018	standard ø40	01
152	**9.18**	9	541	1.1	9.8	590	B									3016		02
131	**10.68**	9	630	1.1	9.7	680	B									3014		03
93	**15.11**	7.5	717	1.1	7.8	775	B									2018		04
81	**17.30**	7.5	821	1.1	7.8	885	B									2016		05
70	**20.13**	7.5	955	0.9	6.8	900	B									2014		06
60	**23.39**	5.5	820	1.1	5.9	900	B									1616		07
51	**27.21**	5.5	954	0.9	5.1	900	B									1614		08
46.0	**30.42**	4	780	1.2	4.5	900	B									1316	ø45 On request	09
39.6	**35.38**	4	907	1.0	3.9	900	B									1314		10
37.6	**37.24**	3	719	1.2	3.7	895	B									1116		11
32.3	**43.31**	3	836	1.1	3.2	900	B									1114		12
29.8	**47.02**	2.2	668	1.1	2.3	705	B									818		13
26.0	**53.85**	2.2	765	1.1	2.3	810	B									816		14
22.4	**62.63**	2.2	890	1.0	2.2	900	B									814		15
18.9	**74.16**	1.1	531	1.1	1.2	585	B									616		16
16.2	**86.25**	1.1	617	1.1	1.2	680	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili — B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione — **B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione — C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC72** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC72** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC72** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC72** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC72** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

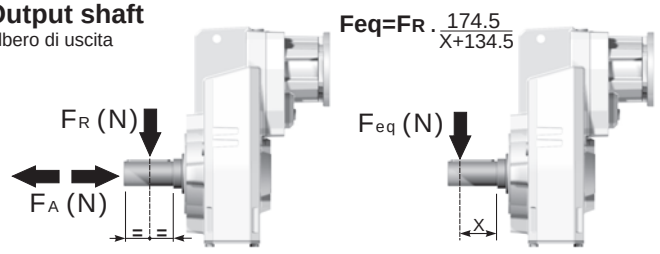
H1	H4	H3	H2	H5	H6
3.50 LT	1.90 LT	1.90 LT	1.80 LT	3.60 LT	1.90 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

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

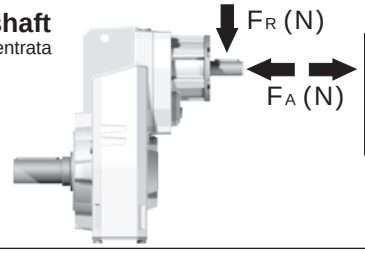
$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



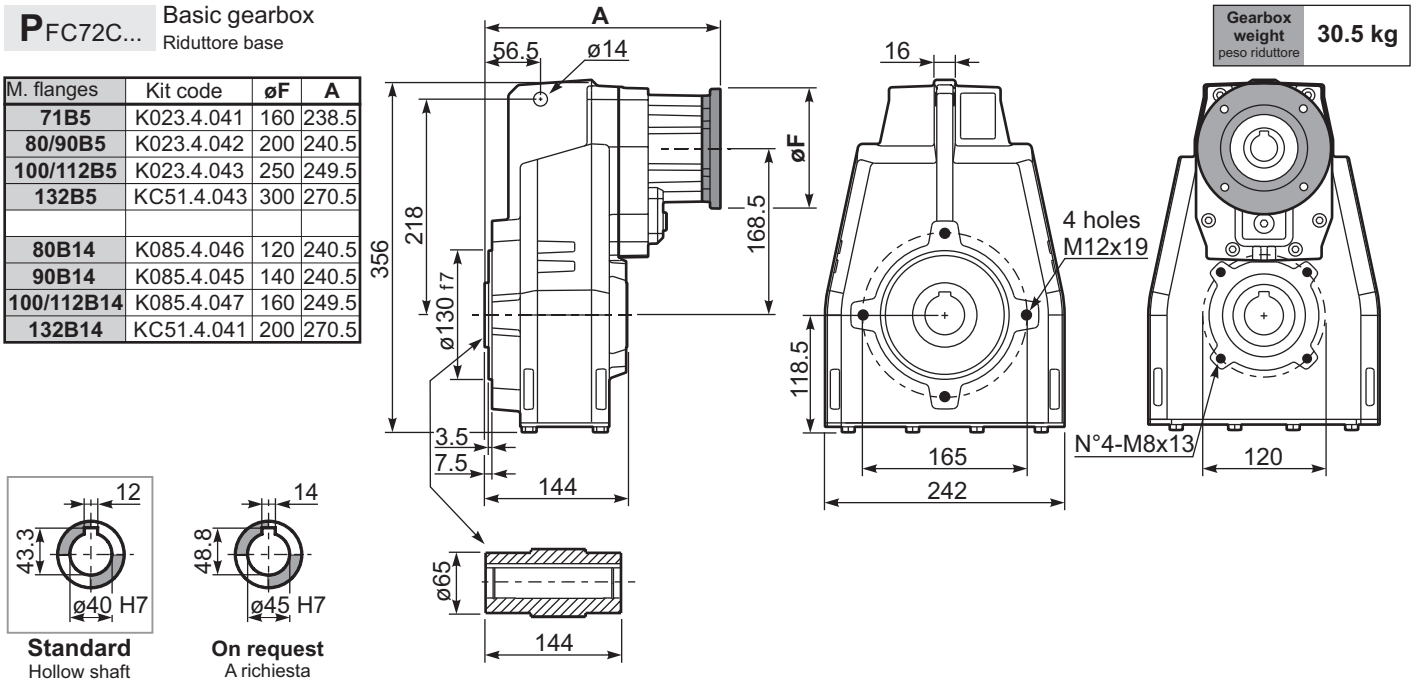
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

PFC72C... Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	238.5
80/90B5	K023.4.042	200	240.5
100/112B5	K023.4.043	250	249.5
132B5	KC51.4.043	300	270.5
80B14	K085.4.046	120	240.5
90B14	K085.4.045	140	240.5
100/112B14	K085.4.047	160	249.5
132B14	KC51.4.041	200	270.5

Gearbox weight / peso riduttore: 30.5 kg

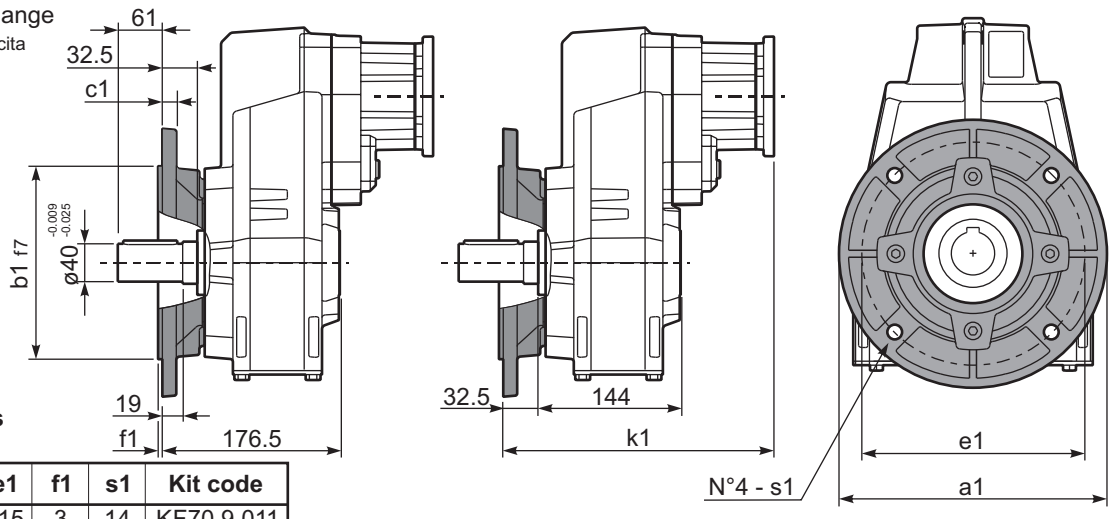


Standard
Hollow shaft

On request
A richiesta

PFC72...-F... Output flange
Flangia uscita

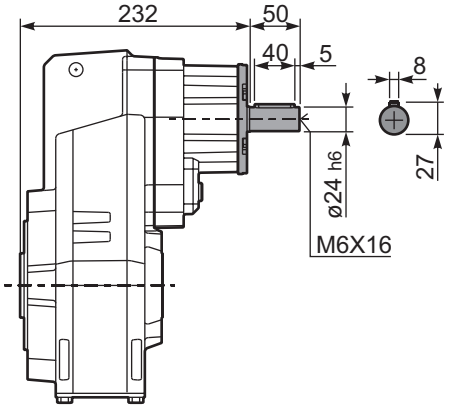
M. flanges	k1
71B5	271
80/90B5	273
100/112B5	282
132B5	300
80B14	273
90B14	273
100/112B14	282
132B14	300



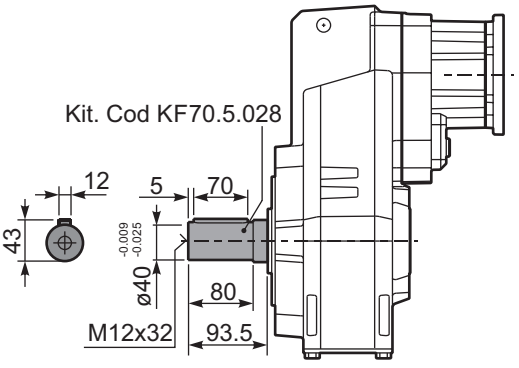
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

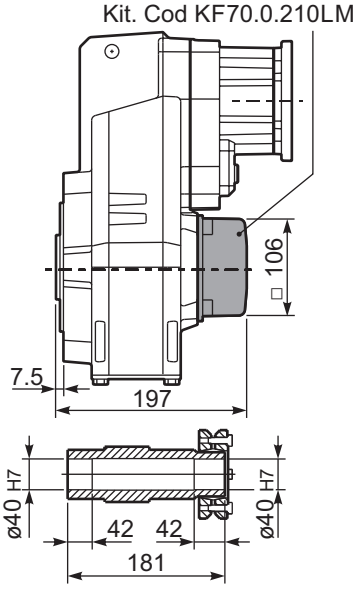
RFC72C... Input Shaft
Albero in entrata



PFC72 A... Single output shaft
Albero uscita semplice



PFC72D... Shrink disk
Calettatore



▪ 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 -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft	Ratios code
18.5	**75.50**	1.5	725	1.1	1.7	825	B				C	C		191318	standard ø40 ø45 On request	01
16.2	**86.47**	1.5	830	1.1	1.6	900	B				C	C		191316		02
14.0	**100.22**	1.5	962	0.9	1.4	900	B				C	C		171316		03
12.0	**116.56**	1.1	817	1.1	1.2	900	B				C	C		171314		04
10.2	**136.82**	1.1	959	0.9	1.0	900	B				C	C		151314		05
9.1	**153.05**	0.75	736	1.1	0.83	810	B				C	C		190816		06
8.6	**163.31**	0.75	785	1.1	0.86	900	B				C	C		131314		07
7.9	**178.01**	0.75	856	1.1	0.79	900	B				C	C		190814		08
7.3	**191.67**	0.75	922	1.0	0.73	900	B				C	C		101316		09
6.8	**206.32**	0.75	992	0.9	0.68	900	B				C	C		170814		10
6.3	**222.92**	0.55	791	1.1	0.63	900	B				C	C		101314		11
5.8	**242.18**	0.55	859	1.0	0.58	900	B				C	C		150814		12
5.6	**250.15**	0.55	888	1.0	0.56	900	B				C	C		91316		13
4.8	**289.08**	0.55	1026	0.9	0.49	900	B				C	C		130814		14
4.2	**330.31**	0.37	783	1.1	0.42	890	B				C	C		71316		15
3.5	**394.59**	0.37	936	1.0	0.36	900	B				C	C		100814		16
2.7	**514.99**	0.25	824	1.1	0.27	900	B				C	C		90814		17
2.1	**680.03**	0.18	832	1.1	0.21	900	B				C	C		70814		18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili — B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione — B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione — C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

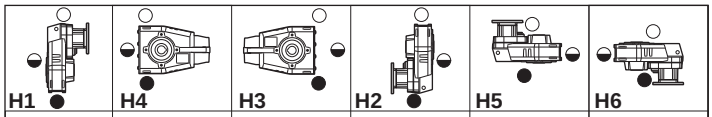
EN Unit **FC73** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC73** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC73** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC73** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC73** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.



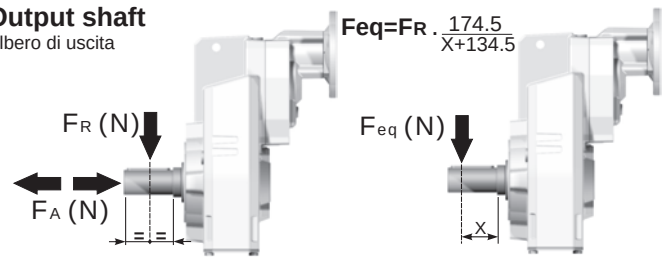
H1	H4	H3	H2	H5	H6
3.55 LT	1.95 LT	1.95 LT	1.95 LT	3.75 LT	2.00 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

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

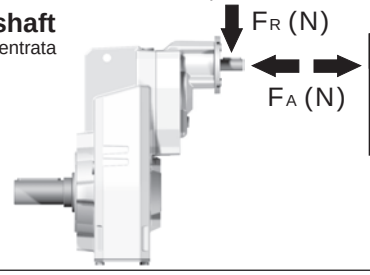
$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



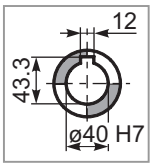
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

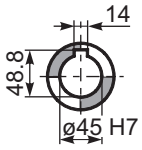
PFC73C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	30.5 kg

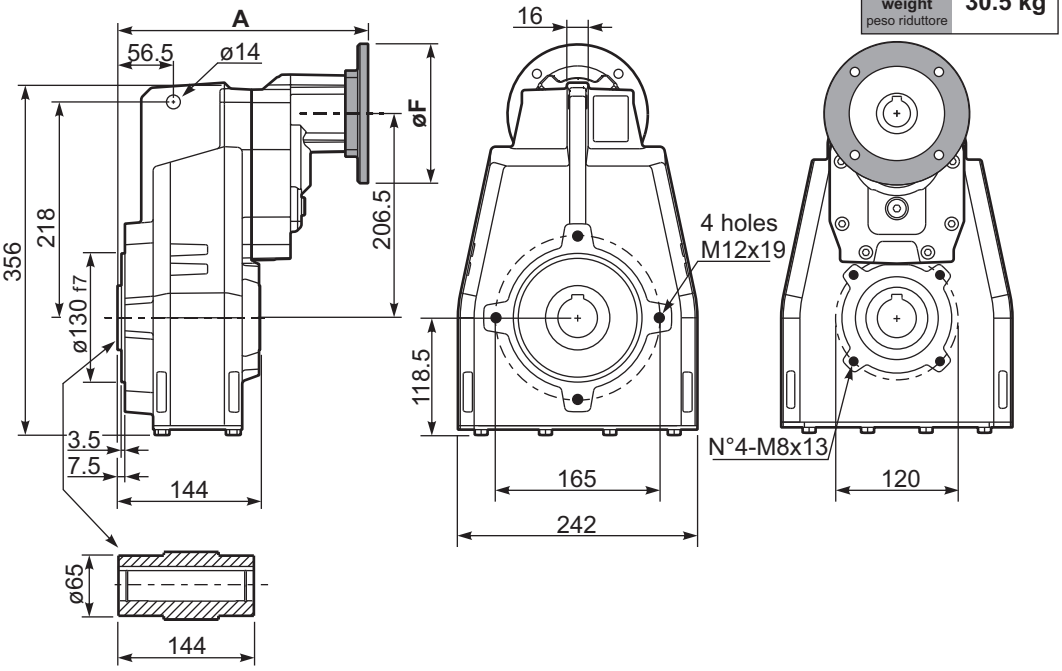
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	250.5
71B5	K063.4.042	160	248.5
80/90B5	K063.4.043	200	250.5
71B14	K063.4.047	105	248.5
80B14	K063.4.046	120	250.5
90B14	K063.4.041	140	250.5



Standard
Hollow shaft

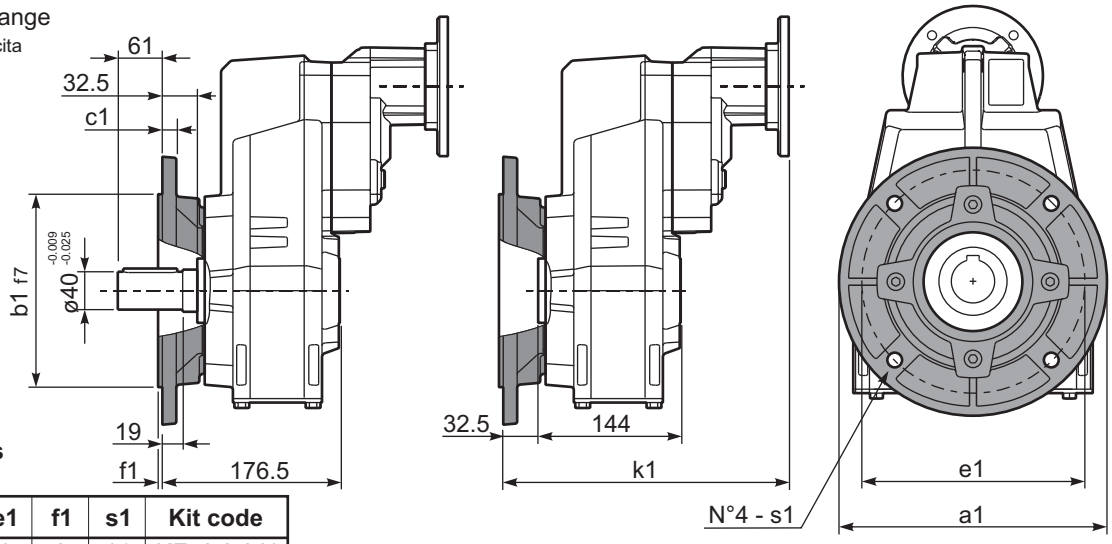


On request
A richiesta



PFC73...-F... Output flange
Flangia uscita

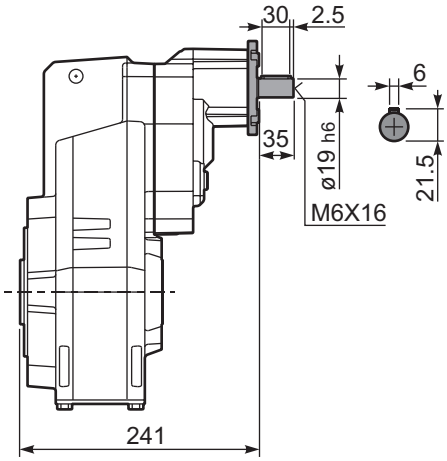
M. flanges	k1
63B5	283
71B5	281
80/90B5	283
71B14	281
80B14	283
90B14	283



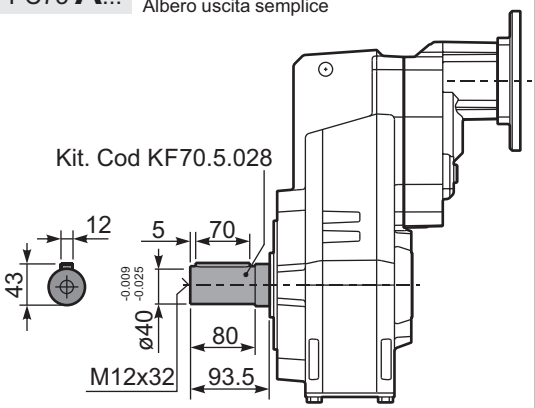
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

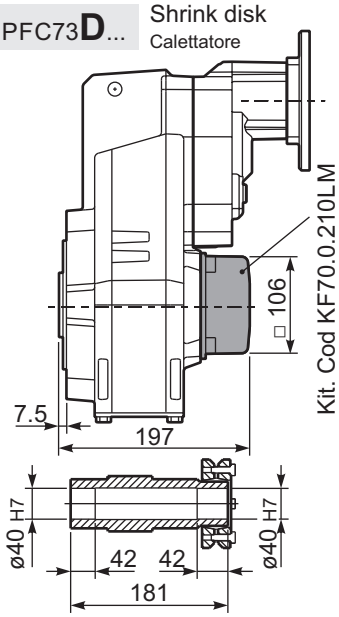
RFC73C... Input Shaft
Albero in entrata



PFC73 A... Single output shaft
Albero uscita semplice



PFC73D... Shrink disk
Calettatore



▪ 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 -H	Available B5 motor flanges -I	B14 motor flanges					Output Shaft ø	Ratios code
							160	180	-	-	-	-	-	-	
528	**2.65**	22	374	1.7	36.7	650			**not available**				2361	**standard**	01
409	**3.42**	22	483	1.6	32.8	750							1965	**ø50**	02
304	**4.60**	22	649	1.5	30.9	950							1569		03
256	**5.46**	22	771	1.3	27.4	1000							1371	ø55	04
211	**6.64**	22	937	1.3	26.5	1175							1173	On request	05

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili

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

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

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

EN Unit **FC81** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC81** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC81** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC81** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC81** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

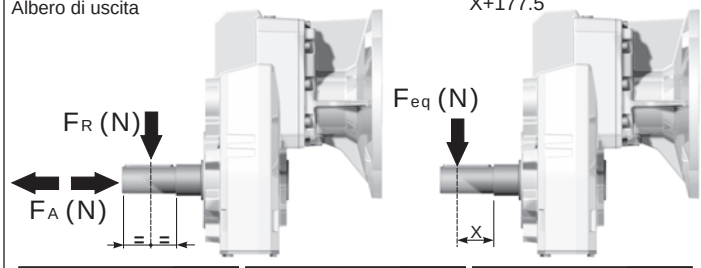
H1	H4	H3	H2	H5	H6
5.50 LT	3.50 LT	3.50 LT	3.50 LT	6.20 LT	4.40 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

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

$$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$$



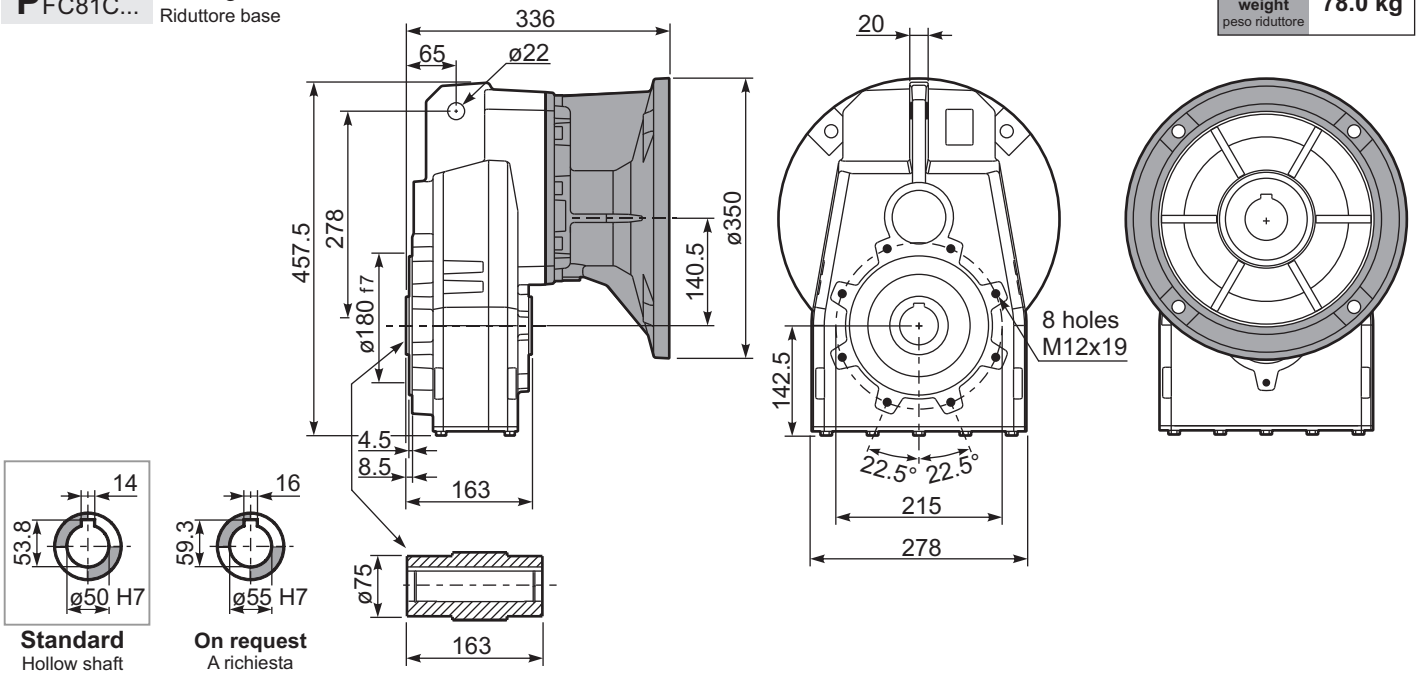
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

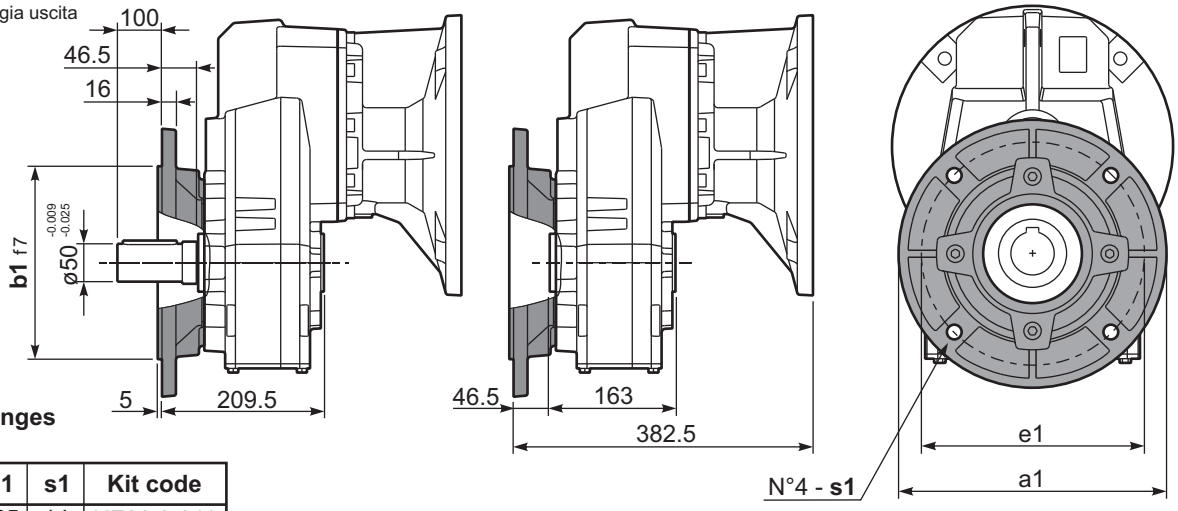
tab. 2

PFC81C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	78.0 kg



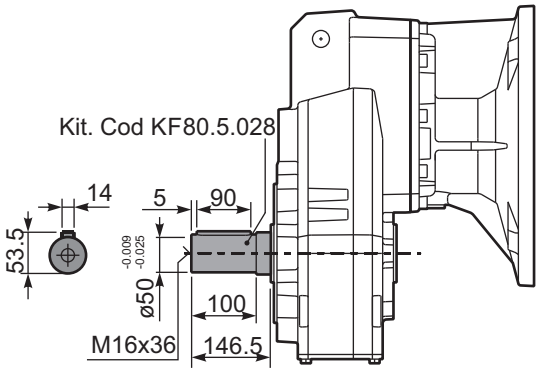
PFC81...**-F**... Output flange
Flangia uscita



Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PFC81**A**... Single output shaft
Albero uscita semplice



▪ 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]	B5 motor flanges -F 100 112	B5 -G 132	B5 -H 160	B5 -I 180	B14 motor flanges -U 100 112	B14 -V 132		Output Shaft ø	Ratios code
234	**5.98**	22	827	1.2	25.5	1000							3015	standard ø50	01
197	**7.10**	22	982	1.2	25.3	1175							3013		02
162	**8.63**	22	1193	1.1	23.9	1350							3011		03
124	**11.27**	18.5	1310	1.1	20.3	1500							2015		04
105	**13.38**	18.5	1555	1.1	19.4	1700							2013		05
92	**15.24**	18.5	1771	1.1	19.0	1900							1615		06
86	**16.26**	18.5	1889	1.1	19.7	2100							2011		07
77	**18.09**	18.5	2102	1.0	17.7	2100							1613		08
71	**19.82**	15	1865	1.1	15.9	2060							1315	ø55 On request	09
64	**21.98**	15	2069	1.0	14.6	2100							1611		10
60	**23.53**	15	2214	0.9	13.6	2100							1313		11
58	**24.25**	11	1677	1.2	12.2	1940							1115		12
48.6	**28.80**	11	1991	1.1	11.1	2100							1113		13
40.0	**34.99**	9	2063	1.0	9.2	2100							1111		14
33.6	**41.64**	7.5	1976	1.0	7.2	1960							813		15
27.7	**50.60**	5.5	1774	1.2	6.3	2100							811		16

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC82** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC82** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC82** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist 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 **FC82** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC82** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

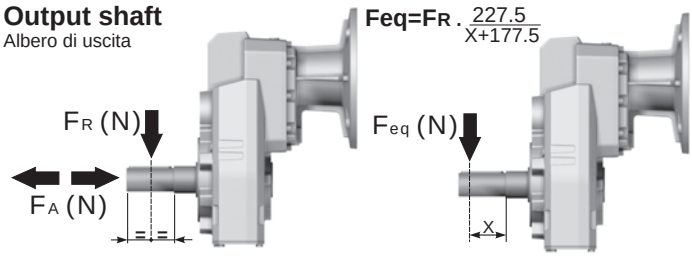
H1	H4	H3	H2	H5	H6
5.70 LT	3.60 LT	3.60 LT	3.60 LT	6.60 LT	4.50 LT
SHELL Omala S2 GX 460			**ENI** Blasia 460		

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

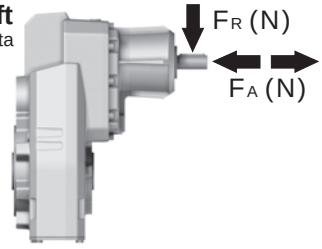
$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



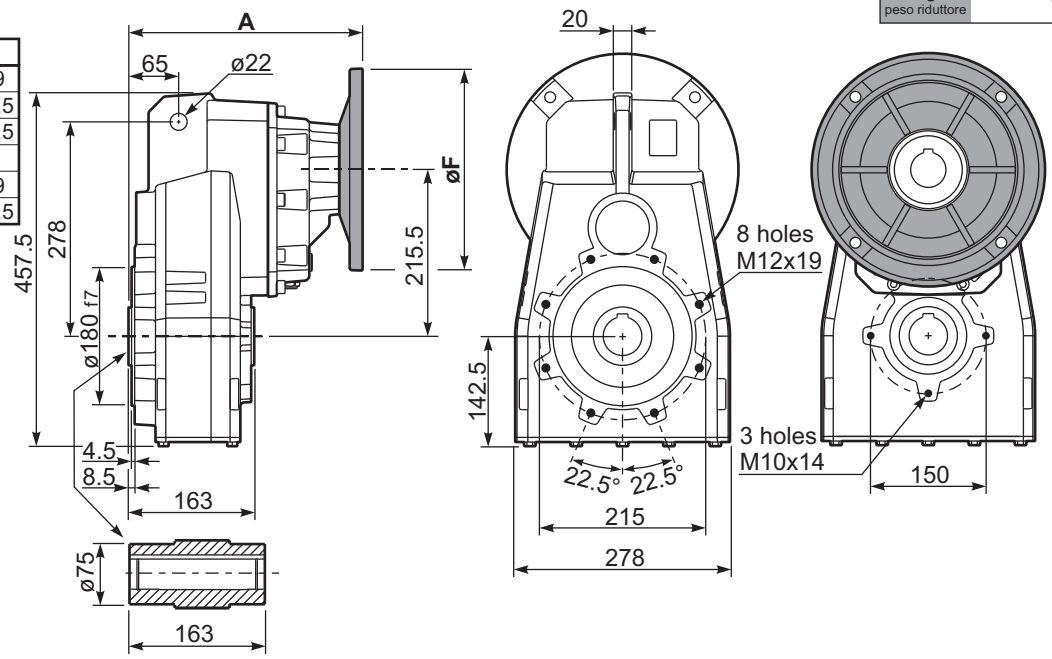
n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

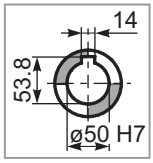
tab. 2

PFC82C... Basic gearbox
Riduttore base

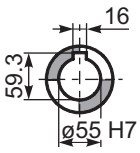
Gearbox weight peso riduttore	82.5 kg

M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	299
132B5	KC51.4.043C	300	320.5
160/180B5	KC86.4.0.43	350	352.5
100/112B14	K085.4.047	160	299
132B14	KC51.4.041C	200	320.5





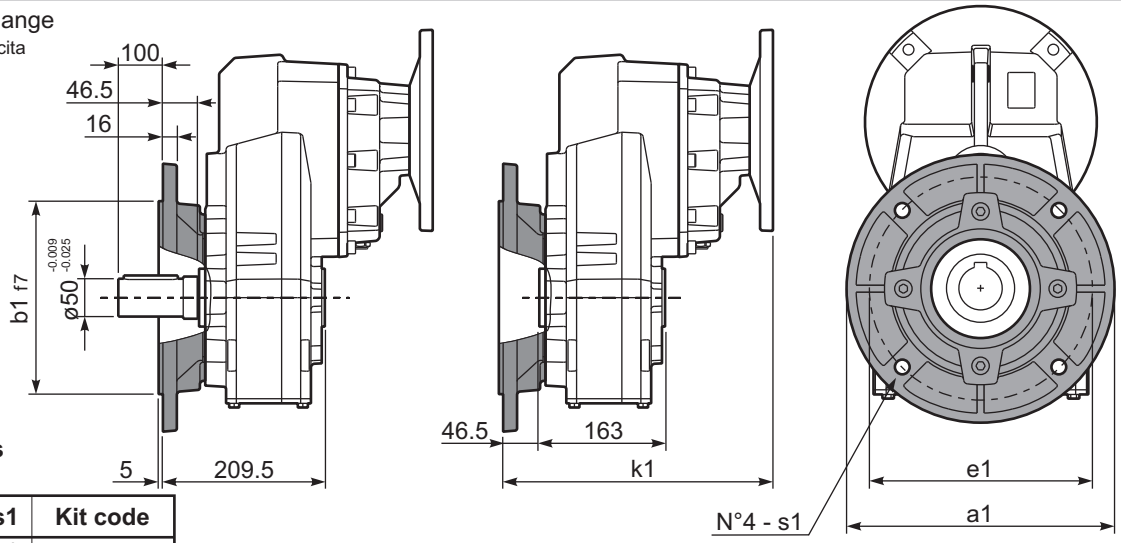
Standard
Hollow shaft



On request
A richiesta

PFC82...-F... Output flange
Flangia uscita

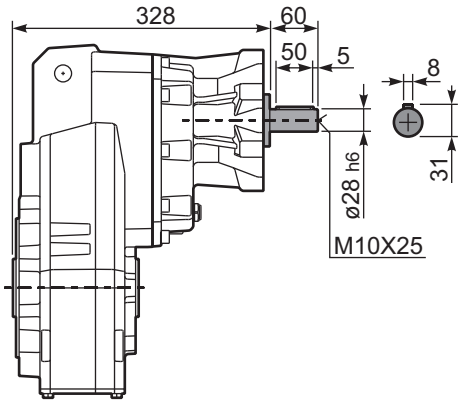
M. flanges	k1
100/112B5	345.5
132B5	367
160/180B5	399
100/112B14	345.5
132B14	367



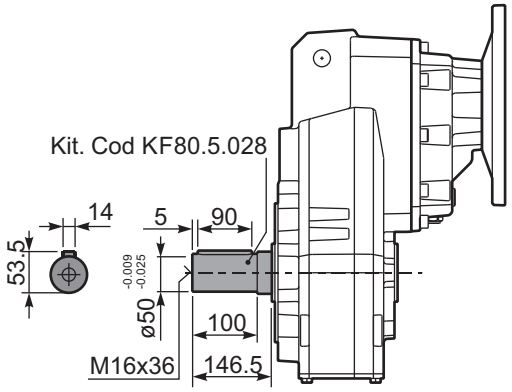
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

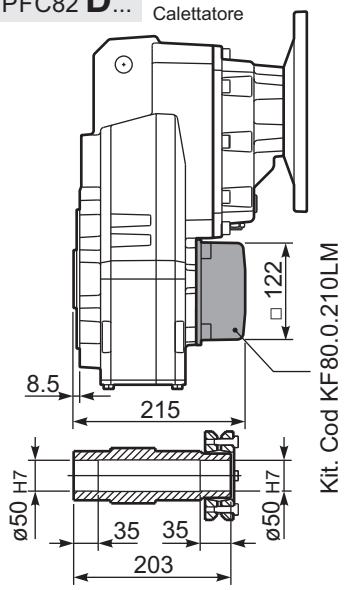
RFC82C... Input Shaft
Albero in entrata



PFC82 A... Single output shaft
Albero uscita semplice



PFC82 D... Shrink disk
Calettatore



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
28.8	**48.55**	7.5	2257	0.9	6.7	2100	B									201315		01
24.3	**57.64**	5.5	1980	1.1	5.7	2100	B									201313		02
21.3	**65.64**	5.5	2255	0.9	5.0	2100	B									161315		03
20.0	**70.04**	4	1760	1.2	4.7	2100	B									201311		04
18.0	**77.93**	4	1958	1.1	4.2	2100	B									161313		05
16.4	**85.36**	4	2145	1.0	3.8	2100	B									131315	**standard ø50**	06
14.8	**94.70**	4	2380	0.9	3.5	2100	B									161311		07
13.8	**101.35**	3	1917	1.1	3.2	2100	B									131313	ø55 On request	08
11.4	**123.15**	3	2330	0.9	2.7	2100	B									131311		09
9.3	**150.73**	2.2	2100	1.0	2.2	2100	B									111311		10
7.8	**179.39**	1.5	1722	1.2	1.8	2100	B									81313		11
6.4	**217.98**	1.5	2093	1.0	1.5	2100	B									81311		12
5.7	**247.03**	1.1	1732	1.1	1.2	1950	B									61313		13
4.7	**300.17**	1.1	2105	1.0	1.1	2100	B									61311		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **FC83** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC83** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC83** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC83** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC83** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

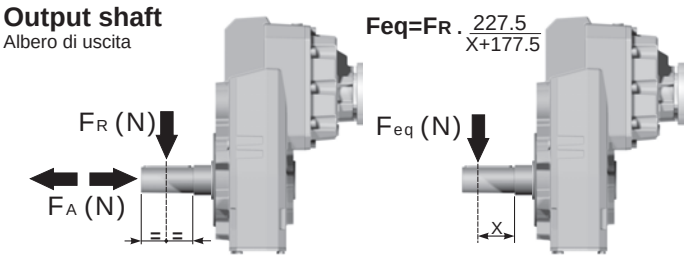
H1	H4	H3	H2	H5	H6
5.80 LT	3.90 LT	3.90 LT	3.90 LT	6.80 LT	4.90 LT

SHELL Omala S2 GX 460	ENI Blasia 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

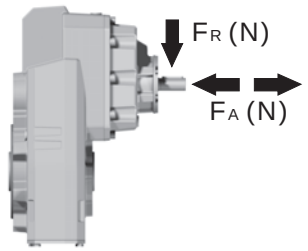


$$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$$

n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



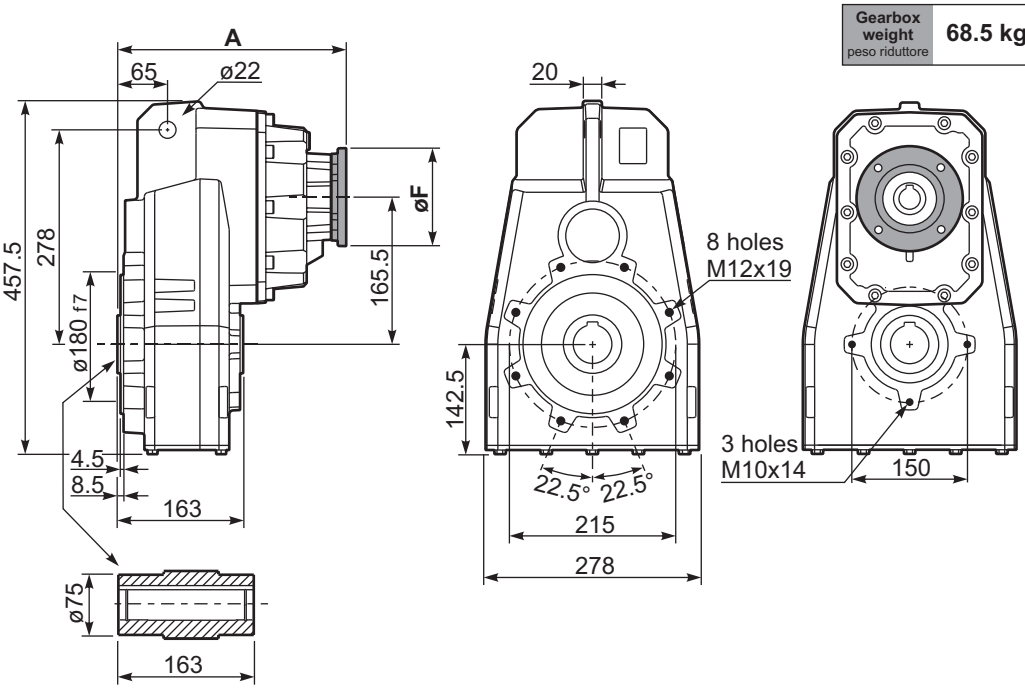
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

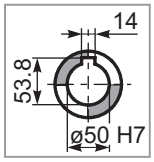
tab. 2

PFC83C... Basic gearbox
Riduttore base

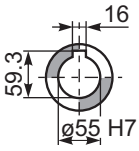
Gearbox weight peso riduttore	68.5 kg

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	292.5
80/90B5	K023.4.042	200	294.5
100/112B5	K023.4.043	250	303.5
132B5	KC51.4.043	300	324.5
80B14	K085.4.046	120	294.5
90B14	K085.4.045	140	294.5
100/112B14	K085.4.047	160	303.5
132B14	KC51.4.041	200	324.5





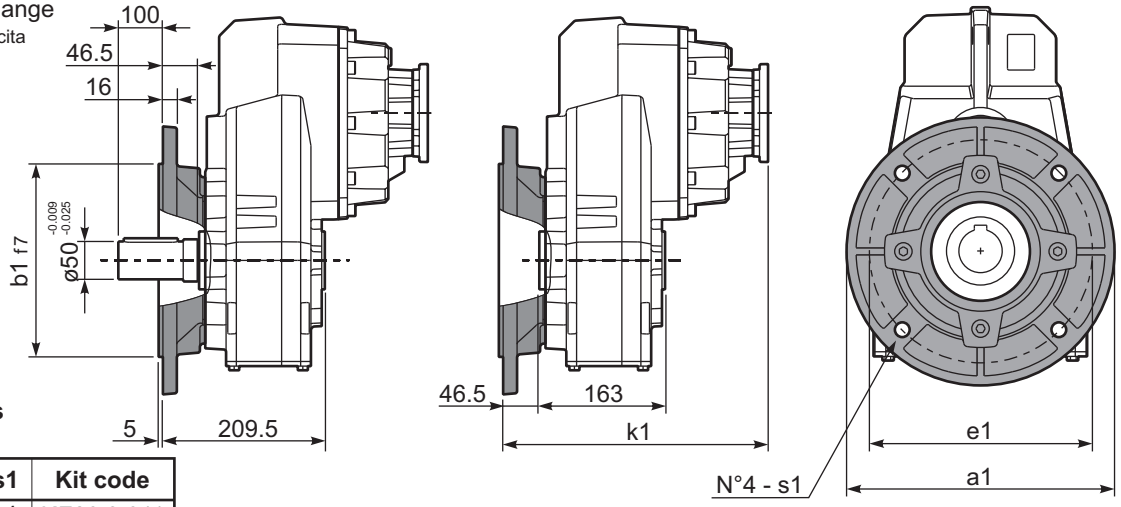
Standard
Hollow shaft



On request
A richiesta

PFC83...-F... Output flange
Flangia uscita

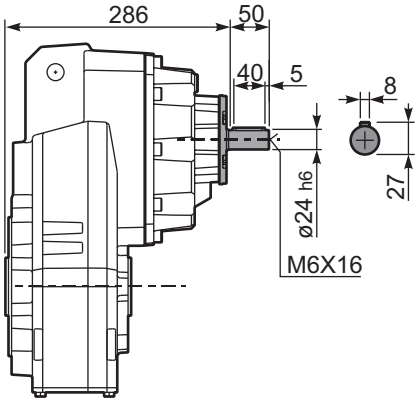
M. flanges	k1
71B5	339
80/90B5	341
100/112B5	350
132B5	368
80B14	341
90B14	341
100/112B14	350
132B14	368



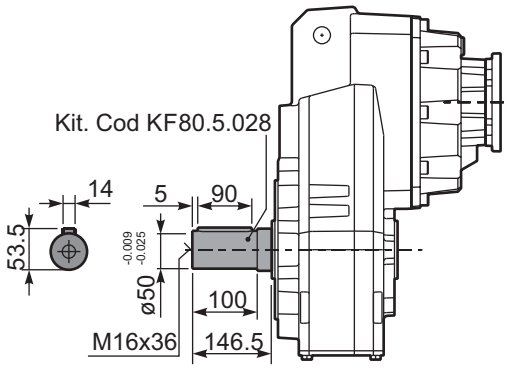
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

RFC83C... Input Shaft
Albero in entrata

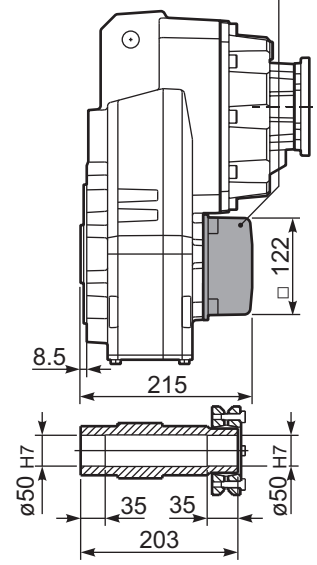


PFC83 A... Single output shaft
Albero uscita semplice



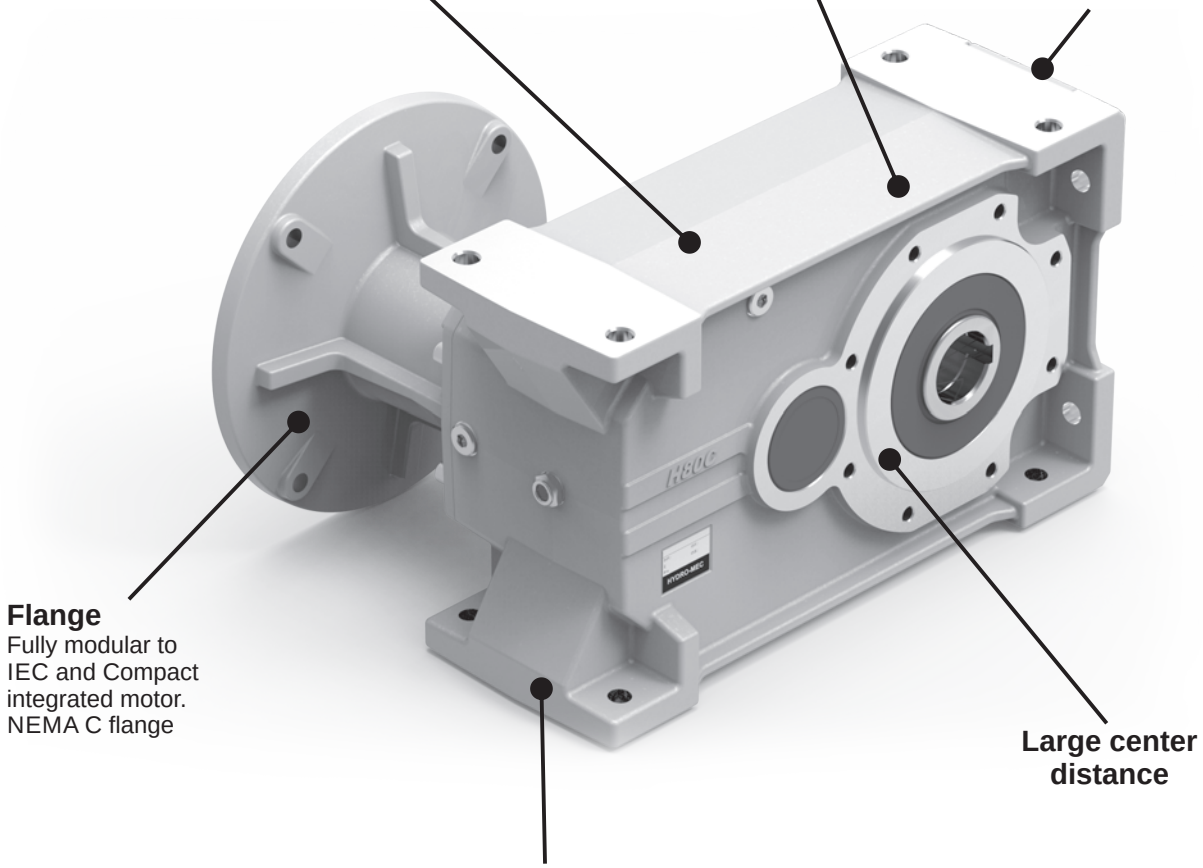
PFC83D... Shrink disk
Calettatore

Kit. Cod KF80.0.210LM



Cast iron parallel shaft gearboxes

A modular and compact product



Gears
Hardened and ground gears

Housing
Robust cast iron housing

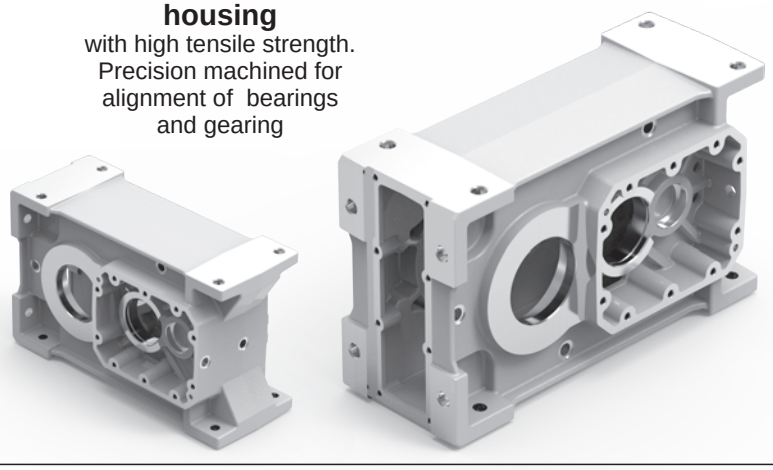
Removable inspection cover
Allows periodic inspection of gearing during routine maintenance

Flange
Fully modular to IEC and Compact integrated motor. NEMA C flange

Large center distance

Painted
RAL 7046

Single-piece Cast Iron housing
with high tensile strength. Precision machined for alignment of bearings and gearing



World wide sales network.

Specific type datasheet on page...

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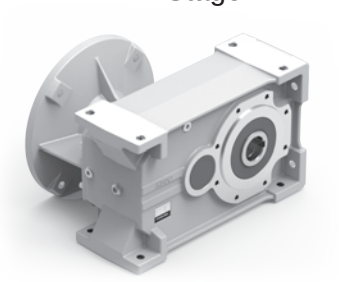
1 Stage

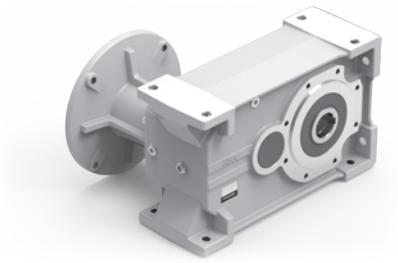


8-5	8-11	8-17
H61C 380Nm	**H71C** 670Nm	**H81C** 1175Nm

Types / Tipi / Tipen / Types / Tipos

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

2 and 3 Stage



8-7	8-9	8-13	8-15	8-19	8-21
H62C 675Nm	**H63C** 675Nm	**H72C** 900Nm	**H73C** 900Nm	**H82C** 2100Nm	**H83C** 2100Nm

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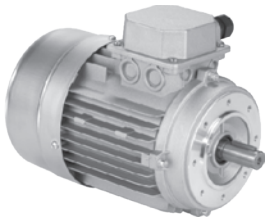
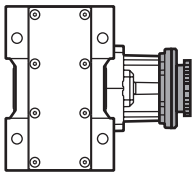


M-1									
56A 56B	**63A 63B**	**71A 71B**	**80A 80B**	**90S 90L**	**100LA 100LB**	**112M**	**132S 132M**	**160M 160L**	**180M 180L**

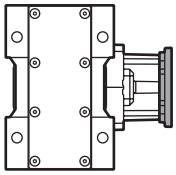
Types / Tipi / Tipen / Types / Tipos

Type - Tipo - Typ Type - Tipo	**Size** - Grandezza - Grösse Taille - Tamaño	**Mounting** - Montaggio Montage - Fixation Tipo de montaje	**Rapporto** - Ratio Untersetzung Reduction - Relacion	**Output shaft** Albero uscita Abtriebswelle Arbre de sortie Eje en salida
M	H62C	C	12.39	-E

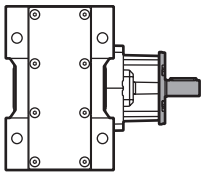
Parallel shaft helical
Riduttori ad assi paralleli



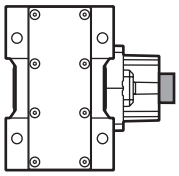
With IEC motor
M



With motor flange
P



With male input shaft
R



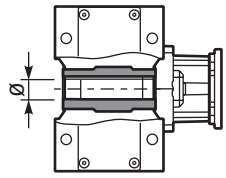
Modular base
B

Not available for:
H61C, H71C,
H81C, H82C

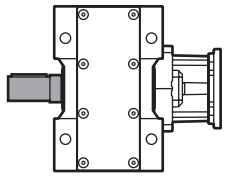
1 Stage Riduzione Stufe Trains Etapa	2 Stages Riduzioni Stufen Trains Etapas	3 Stages Riduzioni Stufen Trains Etapas

Cast Iron/Ghisa/Grauguss/Fonte/Fundicion

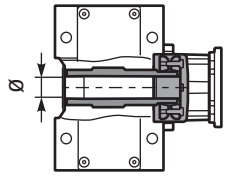
H61C **H71C** **H81C**	**H62C** **H72C** **H82C**	**H63C** **H73C** **H83C**



Hollow output shaft
C



Single output shaft
A



Shrink Disk
D

Only on request for Q.ty
A richiesta per quantità

See technical data table

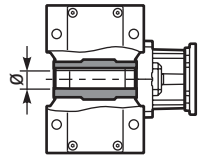
Vedi tabelle dati tecnici.

Technisches Datenblatt beachten

Voir Tableau données techniques

Ver tabla datos técnicos

C



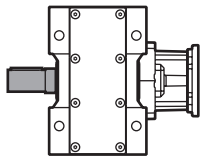
➡ **STANDARD**
⇨ Only on request for Q.ty
A richiesta per quantità

H61C H62C H63C
-E ➡ **ø35**
-F ⇨ ø40

H71C H72C H73C
-F ➡ **ø40**
-G ⇨ ø45

H81C H82C H83C
-H ➡ **ø50**
-I ⇨ ø55

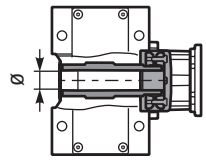
A



Single output shaft

-N H61/2/3C ⇨ ø35
-O H71/2/3C ⇨ ø40
-K H81/2/3C ⇨ ø50

D



Shrink disk

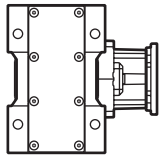
-T H62/3C ⇨ ø35
-U H72/3C ⇨ ø40
-V H82/3C ⇨ ø50

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

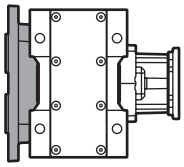
Type - Tipo - Typ
Types - Tipo

-N



-N

Senza flangia
Without flange

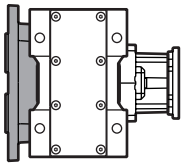


-F

Whit output flange
con flangia uscita

Output flange
Flangia uscita
Ausgangsflansch
Bride de sortie
Brida en salida

N



N Senza flangia / Without flange

H61C H62C H63C

4 ➡ ø250

H71C H72C H73C

4 ➡ ø250
5 ⇨ ø300

H81C H82C H83C

5 ➡ ø300
6 ⇨ ø350

Motor size - Grandezza motore
Motor Grösse
Grandeur moteur - Tamaño motor

-C

Flange / Flangia

B5

-A=56 (ø120)
-B=63 (ø140)
-C=71 (ø160)
-D=80 (ø200)
-E=90 (ø200)
-F=100 (ø250)
-G=132 (ø300)
-H=160 (ø350)
-I=180 (ø350)

B14

-O=56 (ø80)
-P=63 (ø90)
-Q=71 (ø105)
-R=80 (ø120)
-T=90 (ø140)
-U=100 (ø160)
-V=132 (ø200)

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

Type R / Tipo R

H63C H73C

-2 ⇨ ø19

H62C H72C H83C

-3 ⇨ ø24

H82C

-4 ⇨ ø28

Without flange / Senza flangia

-M ⇨ With coupling

H63C H73C

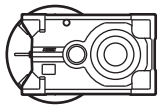
-1 ⇨ ø14 (71B5)
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)

H62C H72C H83C

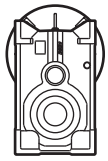
-2 ⇨ ø19 (80B5)
-3 ⇨ ø24 (90B5)
-4 ⇨ ø28 (100B5)

Mounting position
Posizione montaggio
Einbaulage
Position de montage
Position de montaje

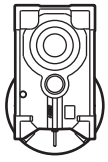
B3



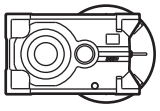
B3
STANDARD



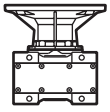
B6



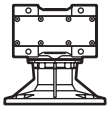
B7



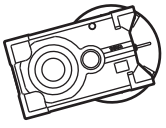
B8



V5



V6



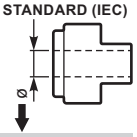
V8

Input bore
Foro entrata
Eingangshohlwelle
Trou d'entree
Eje hueco de entrada

ST

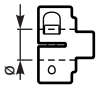
ST
standard bore
foro standard

COUPLING
STANDARD (IEC)



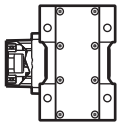
-A = 9mm
-B = 11mm
-C = 14mm
-D = 19mm
-E = 24mm
-F = 28mm

BRUSHLESS *



-3 = 14mm
-4 = 19mm
-5 = 22mm
-6 = 24mm

-0
Ready for input coupling
Predisposto per giunto



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

Terminal box position
Posizione morsettiera
Klemmkastenlage
Position boîte à bornes
Posición caja de bornes

With Type M specify terminal box position

Con tipo M specificare posizione morsettiera

A

B
STANDARD

C

D

8

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

Lifting / sollevamento / hubantriebe / levage / elevactión

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

Rotation / rotazione / drehung / rotation / rotaction

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

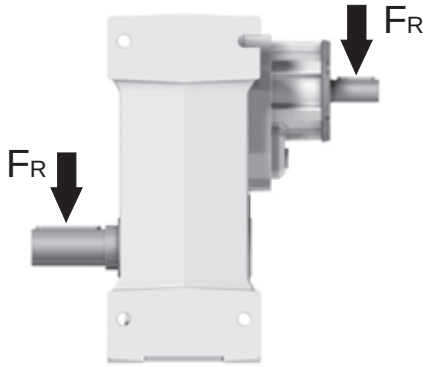
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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



$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [Nm] \cdot \mathbf{2000}}{\mathbf{d}\ [mm]} \cdot \mathbf{f_K}$	$\mathbf{F_R}\ [N] = \frac{\mathbf{M}\ [lb\ in] \cdot \mathbf{8.9}}{\mathbf{d}\ [in]} \cdot \mathbf{f_K}$

M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo
$\mathbf{f_K}$	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión **1.15** Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje **1.25** Catena / Chain sprochets / 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.

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

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

Gear size / Grandezza riduttore / Getriebegröße / Taille réducteur / Tamaño reductor

Motor power / Potenza motore / Motorleistung / Puissance moteur / Potencia motor

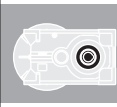
A — Nominal torque / Momento torcente nominale / Nenn Drehmoment / Couple nominal / Par de torsión nominal

Flange code / Codice flangia / Flanschtype / Code bride / Código bridas

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

H62C Cube gear 675Nm

Rating - Cast Iron
PARALLEL SHAFT GEARBOXES



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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	7.5	312	1.2	8.8	380	B									3018		01
185	**7.56**	7.5	358	1.1	7.9	390	B									3016		02
159	**8.82**	7.5	419	1.0	7.1	410	B									3014		03
113	**12.39**	7.5	588	1.0	7.2	580	B									2018		04

C — Ratio / Rapporto / Untersetzung / Rapport de réduction / Relación

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

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

Output shaft diam. / Diam. albero uscita / Durchmesser abtriebswelle / Diametre arbre lent / Diametro eje de salida

Notes / Note / Anmerkungen / Note / Notas

fs

Type of load and starts per hour / Tipo di carico e avviamenti per ora			Oper. hours per day / Ore di funz. giorn. 3 h	10 h	24 h
Continuous or intermittent appl. with start / hour / Applicazione cont. o interm. con n.ro operazioni/ora	10	Uniform / Uniforme	0.8	1	1.25
		Moderate / Moderato	1	1.25	1.5
		Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour / Applicazione intermittente con n.ro operazioni/ora	> 10	Uniform / Uniforme	1	1.25	1.5
		Moderate / Moderato	1.25	1.5	1.75
		Heavy / Forte	1.5	1.75	2.15

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 ouput speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)

▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-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 -G	Available B5 motor flanges 132	B14 motor flanges - - - -	B14 motor flanges - - - -		Output Shaft ø	Ratios code
507	**2.76**	9	166	1.6	14.4	265			**not available**		2980	**standard**	01
395	**3.54**	9	213	1.3	11.6	275					2485	**ø35**	02
277	**5.06**	9	304	1.0	8.6	290					1891		03
241	**5.81**	7.5	281	1.2	8.5	330					1693	ø40	04
206	**6.79**	7.5	329	1.2	8.4	380					1495	On request	05

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H61C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **H61C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **H61C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **H61C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H61C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
2.25 LT	3.20 LT	3.00 LT	2.25 LT	4.35 LT	2.35 LT	Ask
SHELL Omala S4 WE 320			**ENI** Telium VSF 320			

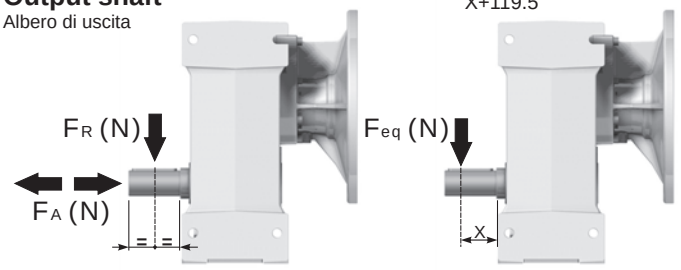
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



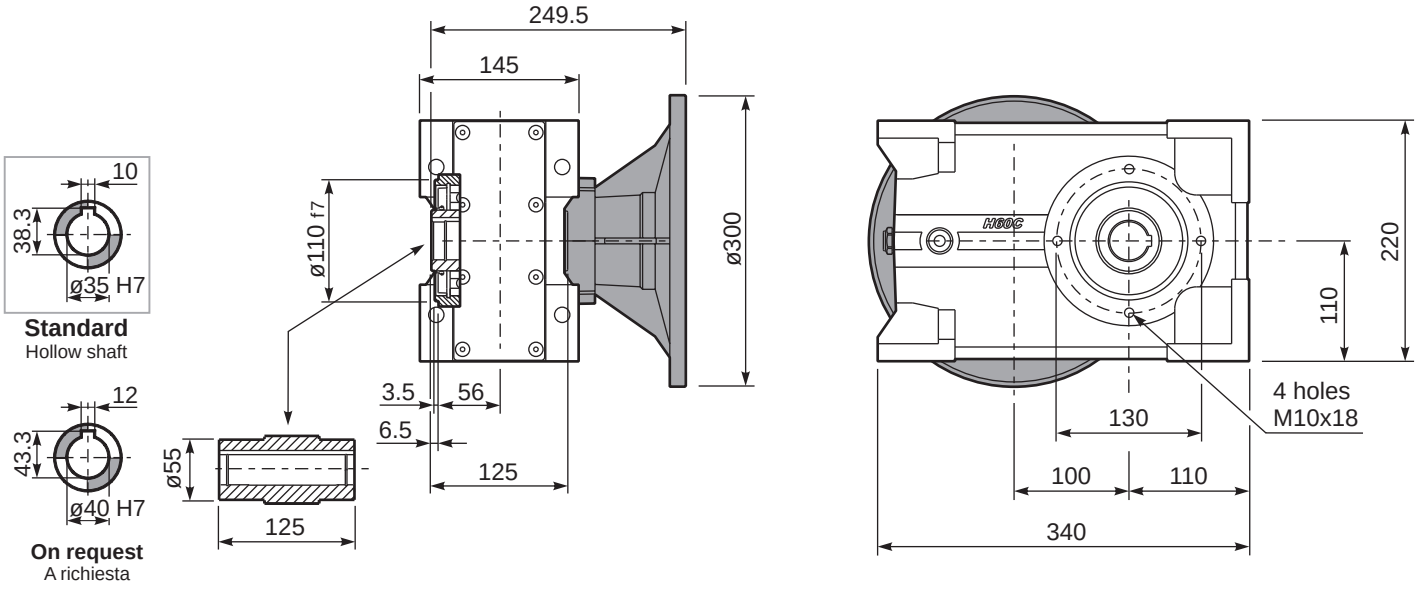
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

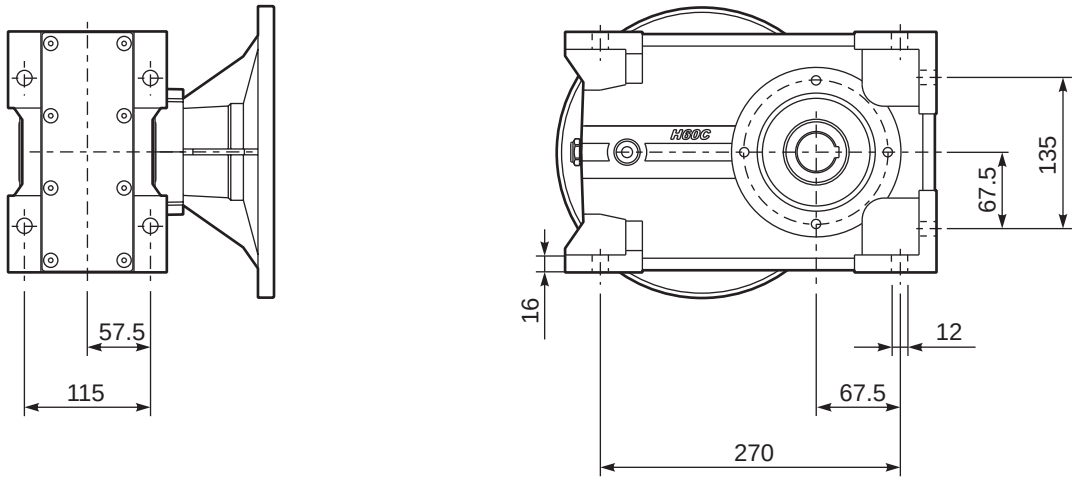
tab. 2

PH61C... Basic gearbox
Riduttore base

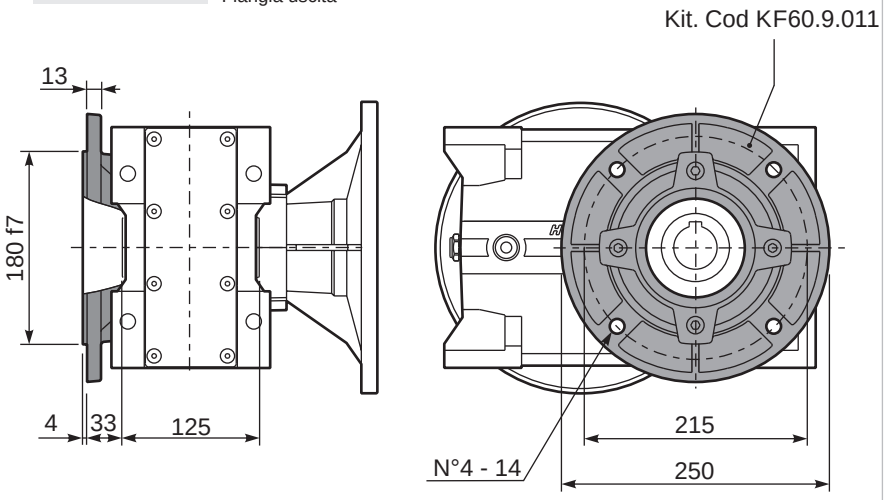
Gearbox weight peso riduttore	40.0 kg



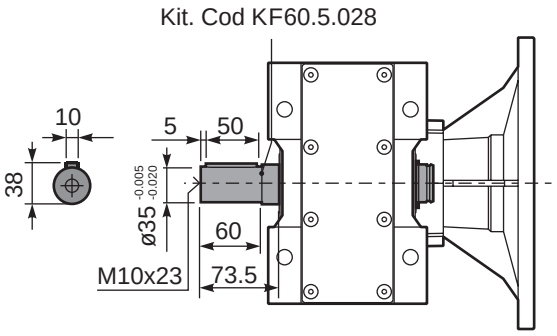
PH61C...-N Feet
Piedini



PH61C...-F Output flange
Flangia uscita



PH61C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
213	**6.57**	7.5	312	1.2	8.8	380	B									3018	standard ø35	01
185	**7.56**	7.5	358	1.1	7.9	390	B									3016		02
159	**8.82**	7.5	419	1.0	7.1	410	B									3014		03
113	**12.39**	7.5	588	1.0	7.2	580	B									2018		04
98	**14.24**	5.5	499	1.2	6.4	600	B									2016		05
84	**16.75**	5.5	587	1.1	6.1	665	B									1618		06
73	**19.25**	5.5	675	1.0	5.4	675	B									1616		07
64	**21.78**	4	558	1.2	4.7	675	B									1318		08
56	**25.04**	4	642	1.1	4.1	675	B									1316		09
47.9	**29.23**	4	750	0.9	3.5	675	B									1314	ø40 On request	10
45.7	**30.65**	3	592	1.1	3.4	675	B									1116		11
39.1	**35.78**	3	691	1.0	2.9	675	B									1114		12
36.3	**38.55**	2.2	548	1.1	2.3	580	B									818		13
31.6	**44.32**	2.2	630	1.1	2.3	665	B									816		14
27.1	**51.74**	2.2	735	0.9	2.0	675	B									814		15
22.9	**61.03**	1.1	437	1.1	1.2	480	B									616		16
19.6	**71.25**	1.1	510	1.1	1.2	560	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili — B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione — **B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione — C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H62C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **H62C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **H62C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **H62C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H62C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

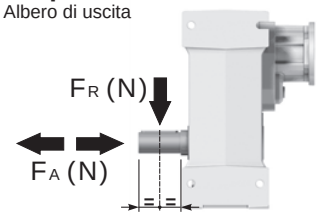
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
2.25 LT	3.20 LT	3.00 LT	2.25 LT	4.35 LT	2.35 LT	Ask
SHELL Omala S4 WE 320			**ENI** Telium VSF 320			

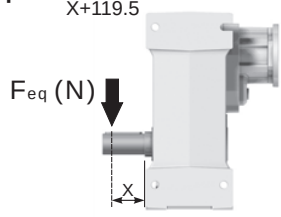
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$

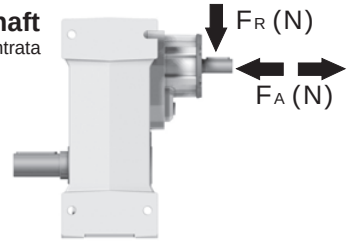




n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



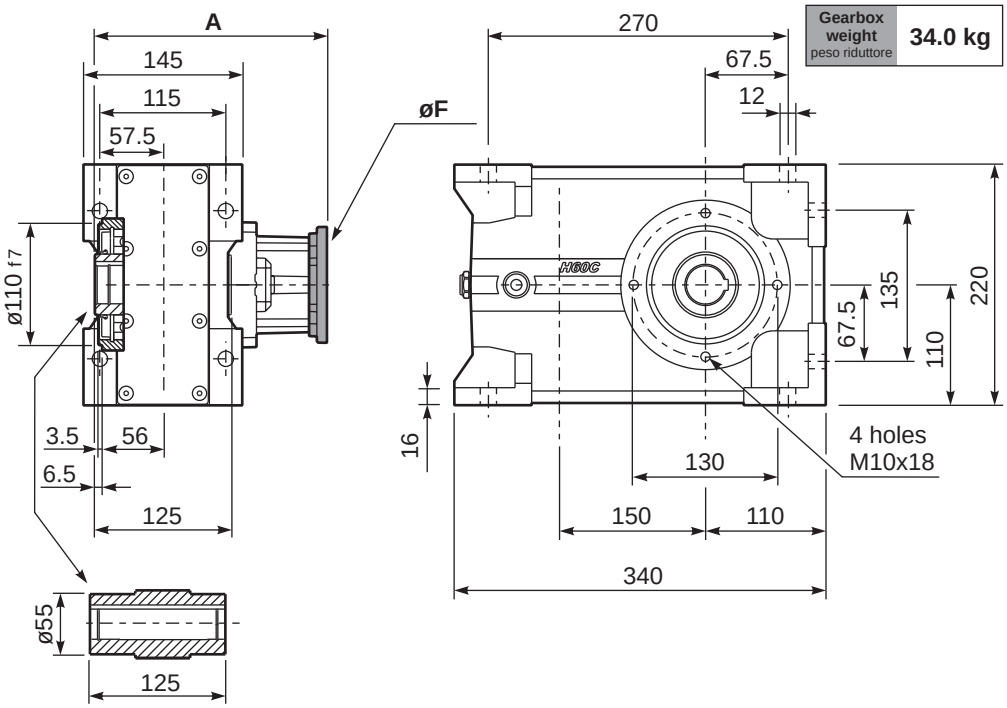
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

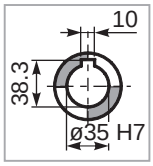
PH62C... Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

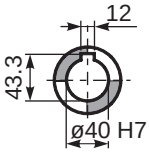
Gearbox weight peso riduttore	34.0 kg



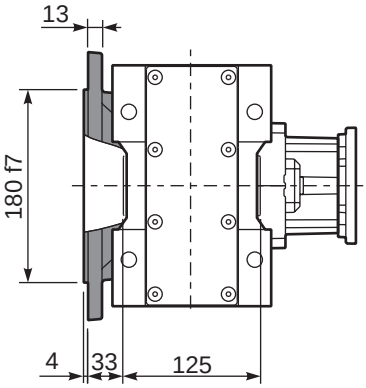
Standard
Hollow shaft

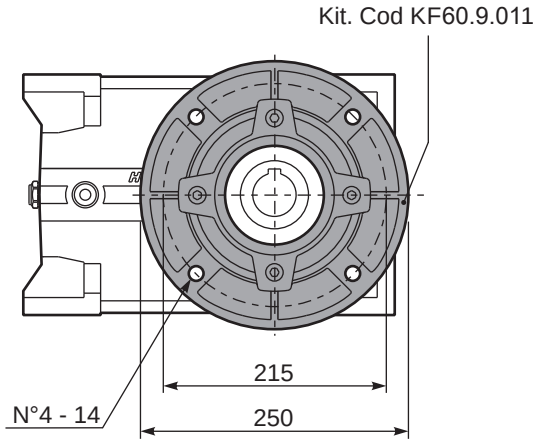


On request
A richiesta

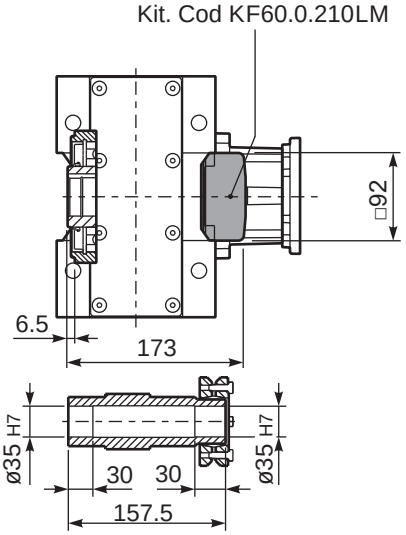


PH62C...-F Output flange
Flangia uscita

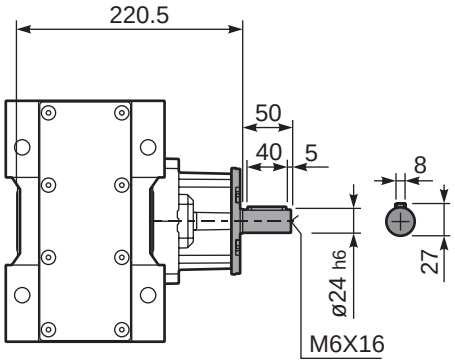




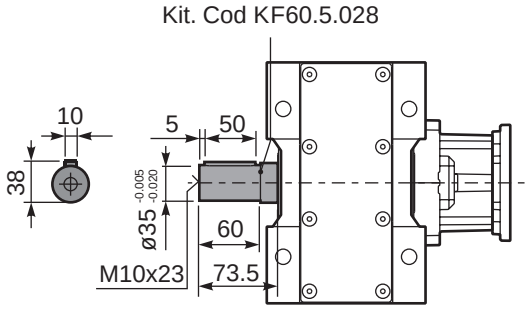
PH62C D... Shrink disk
Calettatore



RH62C... Input Shaft
Albero in entrata



PH62C A... Single output shaft
Albero uscita semplice



▪ 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 -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft	Ratios code
22.6	**61.89**	1.5	594	1.1	1.7	675	B				C	C		191318	standard ø35	01
19.7	**71.16**	1.5	683	1.0	1.5	675	B				C	C		191316		02
17.0	**82.48**	1.5	792	0.9	1.3	675	B				C	C		171316		03
14.5	**96.29**	1.1	675	1.0	1.1	675	B				C	C		171314		04
13.9	**100.51**	1.1	705	1.0	1.0	675	B				C	C		131318		05
12.1	**115.56**	0.75	556	1.2	0.91	675	B				C	C		131316		06
11.1	**125.96**	0.75	606	1.1	0.82	665	B				C	C		190816		07
10.4	**134.91**	0.75	649	1.0	0.78	675	B				C	C		131314		08
9.5	**147.05**	0.75	707	1.0	0.72	675	B				C	C		190814		09
8.2	**170.44**	0.55	605	1.1	0.62	675	B				C	C		170814	ø40 On request	10
7.6	**184.15**	0.55	653	1.0	0.57	675	B				C	C		101314		11
6.8	**205.87**	0.55	730	0.9	0.51	675	B				C	C		91316		12
5.8	**240.34**	0.37	570	1.2	0.44	675	B				C	C		91314		13
5.0	**279.22**	0.37	662	1.0	0.37	665	B				C	C		100816		14
4.3	**325.97**	0.37	773	0.9	0.32	675	B				C	C		100814		15
3.8	**364.41**	0.25	583	1.1	0.28	665	B				C	C		90816		16
3.3	**425.43**	0.25	681	1.0	0.25	675	B				C	C		90814		17
2.9	**481.19**	0.18	589	1.1	0.22	665	B				C	C		70816		18
2.5	**561.76**	0.18	687	1.0	0.19	675	B				C	C		70814		19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H63C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

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Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

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In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
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Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H63C** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

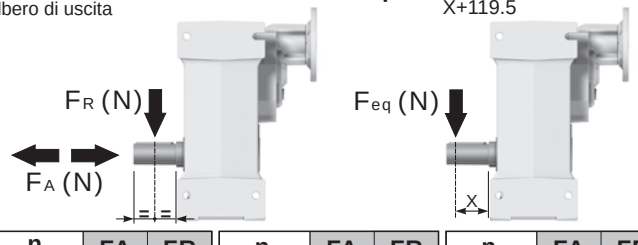
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
2.35 LT	3.85 LT	3.15 LT	2.35 LT	4.55 LT	2.50 LT	Ask
SHELL Omala S4 WE 320				**ENI** Telium VSF 320		

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

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

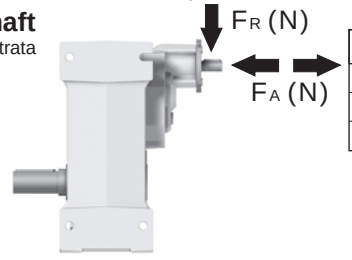
$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	**140**	720	3600	**70**	940	4700
250	640	3200	**120**	740	3700	**40**	1220	6100
200	690	3460	**85**	860	4300	**15**	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



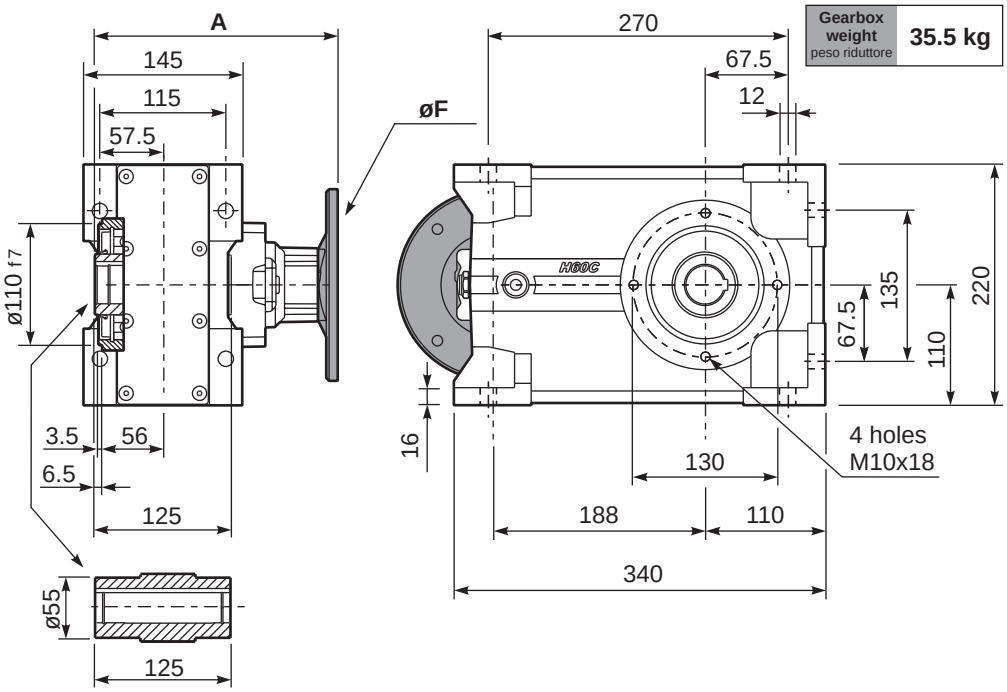
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

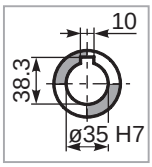
PH63C... Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239

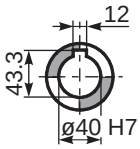
Gearbox weight peso riduttore	35.5 kg



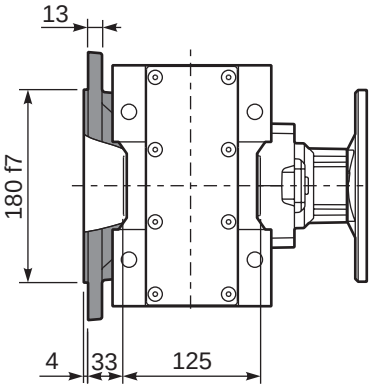
Standard
Hollow shaft

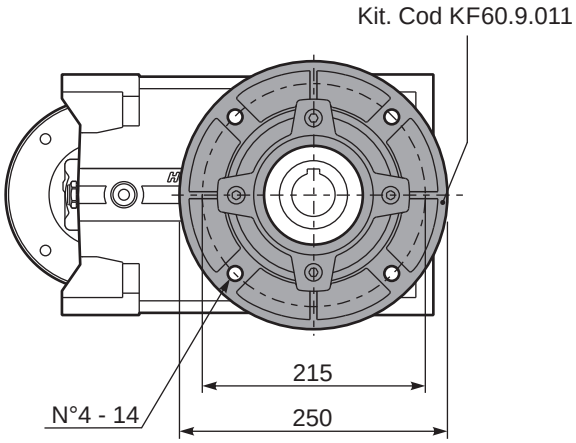


On request
A richiesta

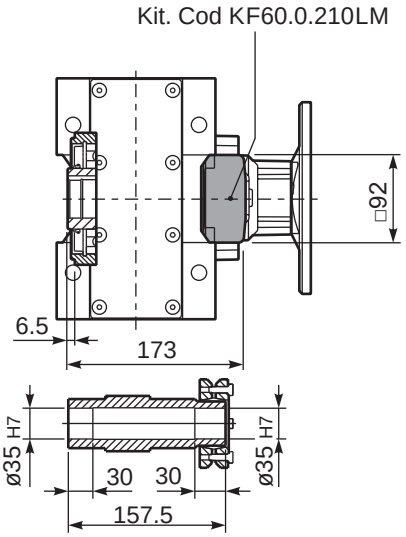


PH63C...**-F** Output flange
Flangia uscita

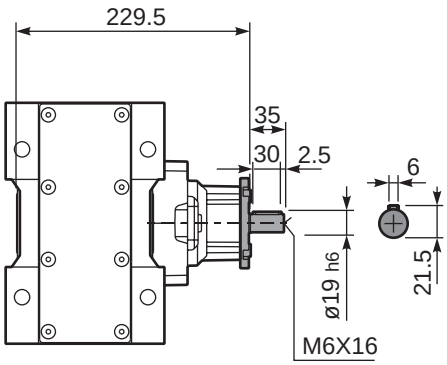




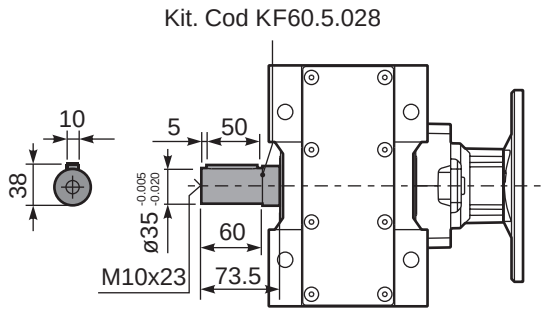
PH63C **D**... Shrink disk
Calettatore



RH63C... Input Shaft
Albero in entrata



PH63C **A**... Single output shaft
Albero uscita semplice



▪ 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 -G	Available B5 motor flanges 132	B14 motor flanges - - - -	B14 motor flanges - - - -	Output Shaft	Output Shaft ø	Ratios code
227	**6.17**	9	371	1.2	10.9	450			**not available**		18111	**standard**	01
198	**7.06**	9	425	1.4	12.7	600					16113	**ø40**	02
170	**8.21**	9	494	1.4	12.2	670					14115	ø45 On request	03

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H71C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H71C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H71C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist 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 **H71C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile.
L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H71C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes.
Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	4.65 LT	4.00 LT	3.20 LT	6.00 LT	3.10 LT	Ask

SHELL Omala S2 GX 460	**ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
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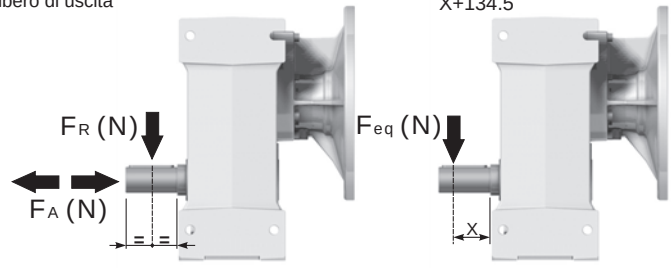
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



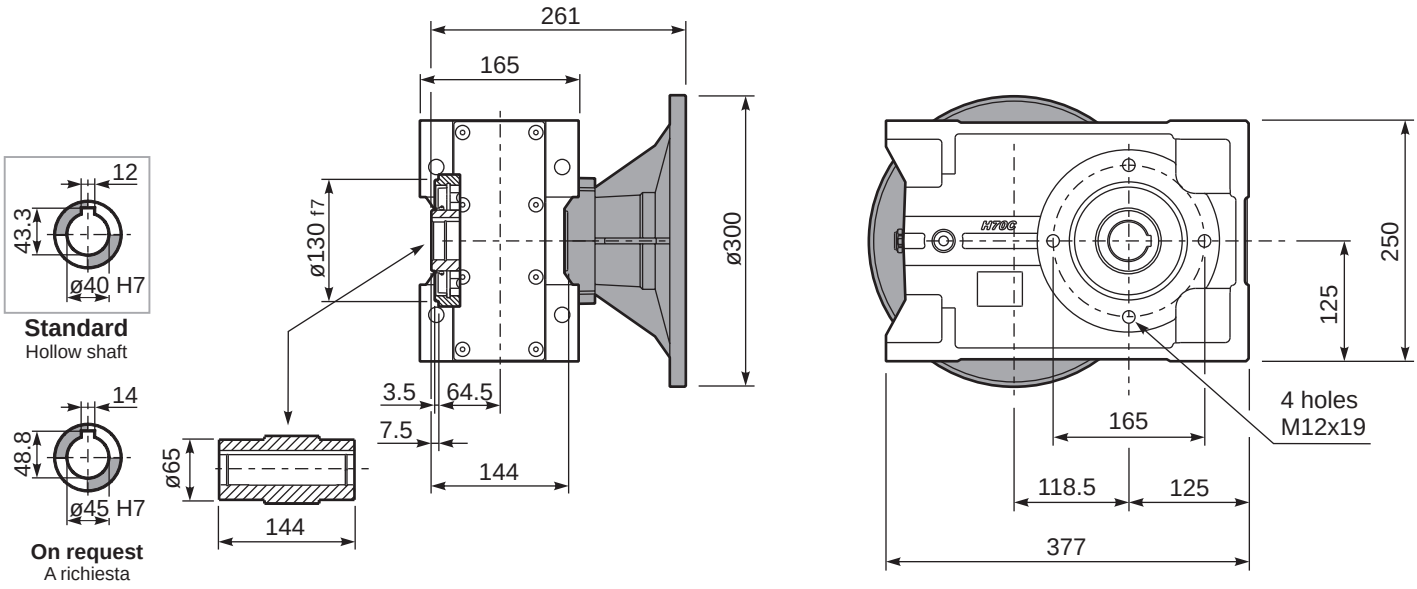
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

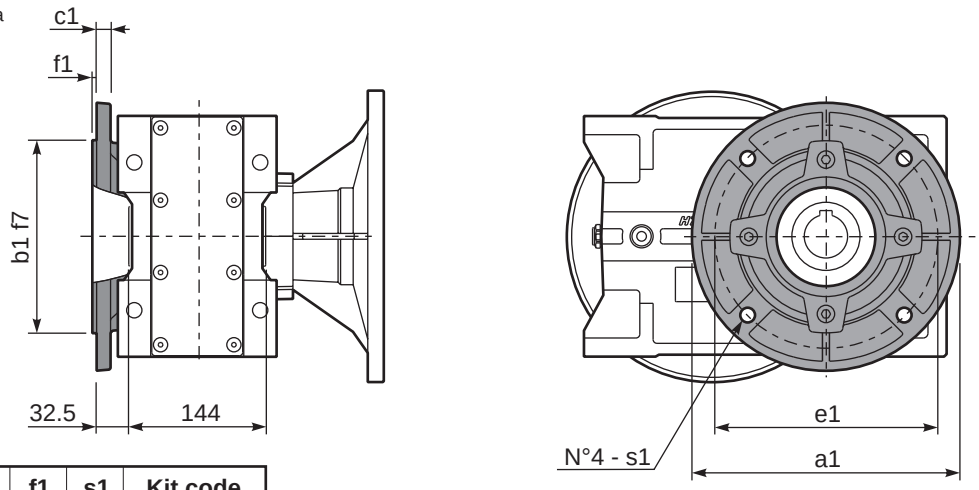
tab. 2

PH71C... Basic gearbox
Riduttore base

Gearbox weight / peso riduttore	51.0 kg



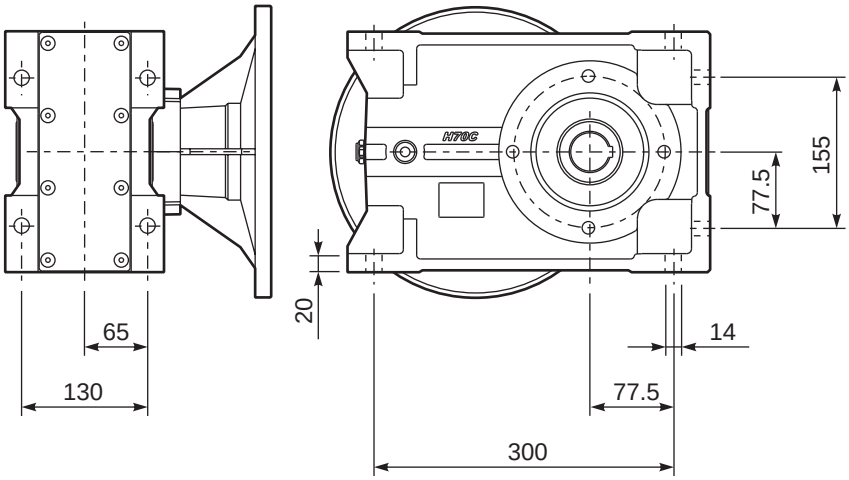
PH71C...-F Output flange
Flangia uscita



Available output flanges
Flange di uscita

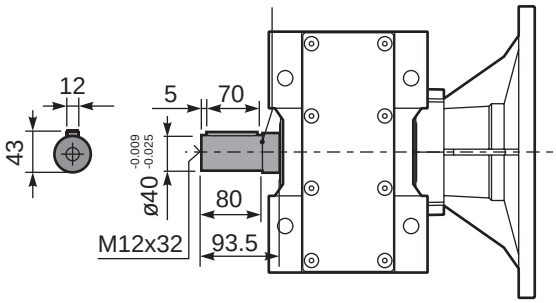
a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

PH71C...-N Feet
Piedini



PH71C A... Single output shaft
Albero uscita semplice

Kit. Cod KF70.5.028



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
175	**8.02**	9	473	1.1	9.9	520	B									3018	standard ø40	01
152	**9.18**	9	541	1.1	9.8	590	B									3016		02
131	**10.68**	9	630	1.1	9.7	680	B									3014		03
93	**15.11**	7.5	717	1.1	7.8	775	B									2018		04
81	**17.30**	7.5	821	1.1	7.8	885	B									2016		05
70	**20.13**	7.5	955	0.9	6.8	900	B									2014		06
60	**23.39**	5.5	820	1.1	5.9	900	B									1616		07
51	**27.21**	5.5	954	0.9	5.1	900	B									1614		08
46.0	**30.42**	4	780	1.2	4.5	900	B									1316	ø45 On request	09
39.6	**35.38**	4	907	1.0	3.9	900	B									1314		10
37.6	**37.24**	3	719	1.2	3.7	895	B									1116		11
32.3	**43.31**	3	836	1.1	3.2	900	B									1114		12
29.8	**47.02**	2.2	668	1.1	2.3	705	B									818		13
26.0	**53.85**	2.2	765	1.1	2.3	810	B									816		14
22.4	**62.63**	2.2	890	1.0	2.2	900	B									814		15
18.9	**74.16**	1.1	531	1.1	1.2	585	B									616		16
16.2	**86.25**	1.1	617	1.1	1.2	680	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili — B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione — **B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione — C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H72C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H72C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

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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.

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Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H72C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	4.65 LT	4.00 LT	3.20 LT	6.20 LT	3.10 LT	Ask

SHELL Omala S2 GX 460 — **ENI** Blasia 460

For all details on lubrication and plugs check our website **tab. 1**
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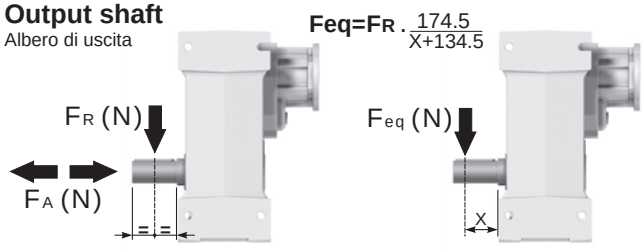
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

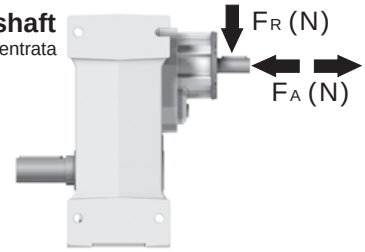
$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



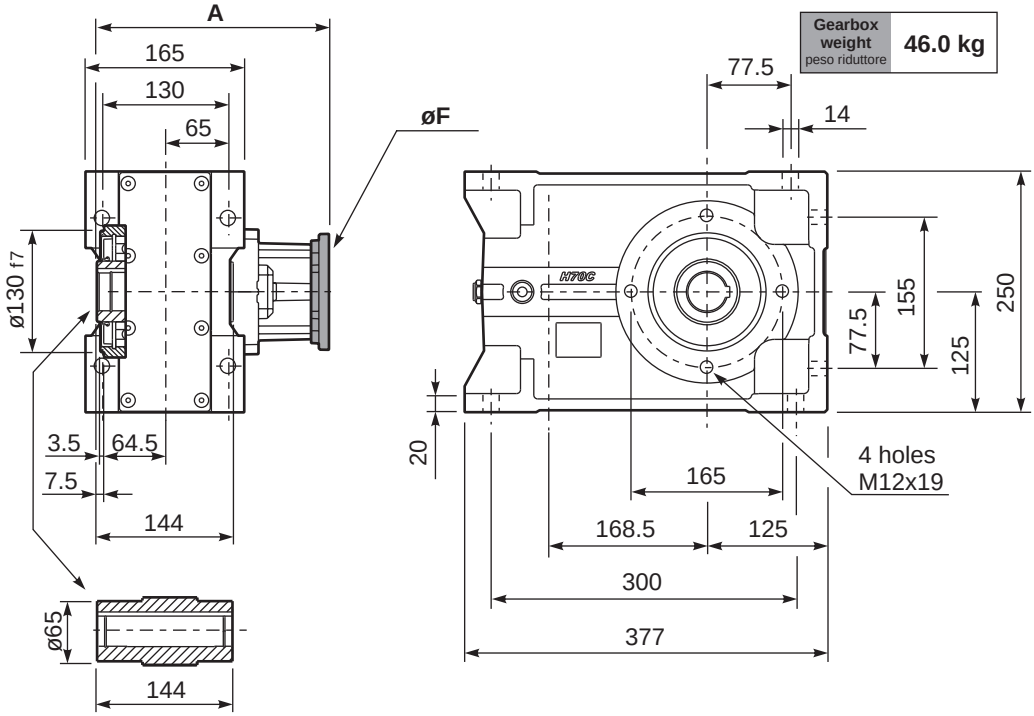
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

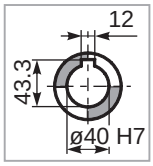
PH72C... Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	238.5
80/90B5	K023.4.042	200	240.5
100/112B5	K023.4.043	250	249.5
132B5	KC51.4.043	300	270.5
80B14	K085.4.046	120	240.5
90B14	K085.4.045	140	240.5
100/112B14	K085.4.047	160	249.5
132B14	KC51.4.041	200	270.5

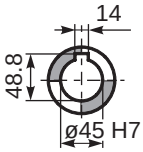
Gearbox weight / peso riduttore: 46.0 kg



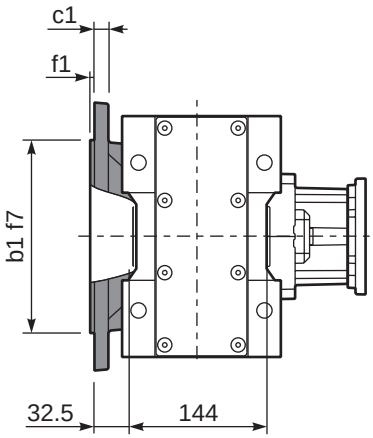
Standard
Hollow shaft

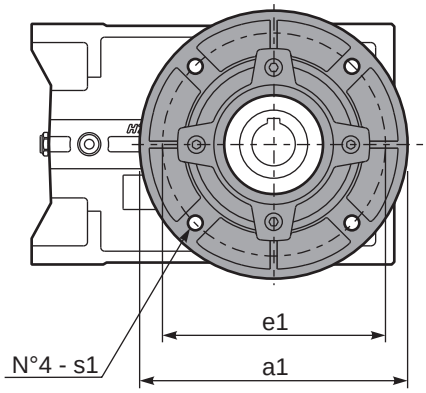


On request
A richiesta



PH72C...-F Output flange
Flangia uscita

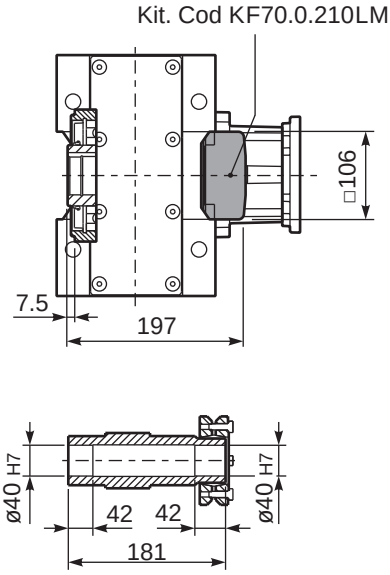




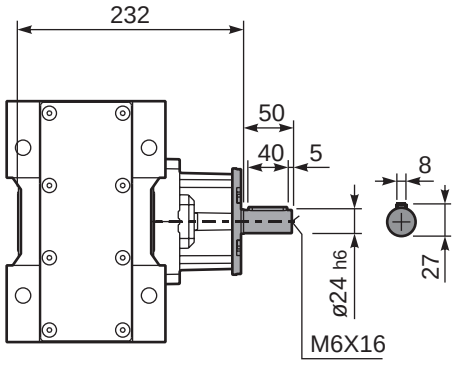
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

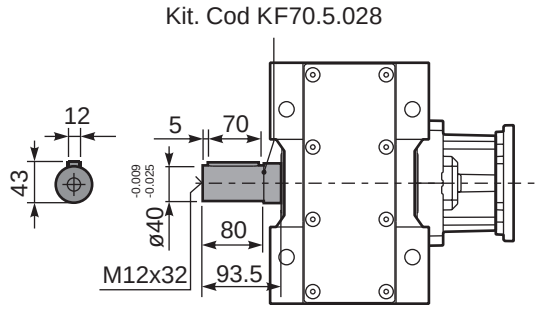
PH72C D... Shrink disk
Calettatore



RH72C... Input Shaft
Albero in entrata



PH72C A... Single output shaft
Albero uscita semplice



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-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 -B 63	-C 71	-D 80	-E 90	Available B14 motor flanges -Q 71	-R 80	-T 90		Output Shaft ø	Ratios code
18.5	**75.50**	1.5	725	1.1	1.7	825	B				C	C		191318	standard ø40	01
16.2	**86.47**	1.5	830	1.1	1.6	900	B				C	C		191316		02
14.0	**100.22**	1.5	962	0.9	1.4	900	B				C	C		171316		03
12.0	**116.56**	1.1	817	1.1	1.2	900	B				C	C		171314		04
10.2	**136.82**	1.1	959	0.9	1.0	900	B				C	C		151314		05
9.1	**153.05**	0.75	736	1.1	0.83	810	B				C	C		190816		06
8.6	**163.31**	0.75	785	1.1	0.86	900	B				C	C		131314		07
7.9	**178.01**	0.75	856	1.1	0.79	900	B				C	C		190814		08
7.3	**191.67**	0.75	922	1.0	0.73	900	B				C	C		101316	ø45 On request	09
6.8	**206.32**	0.75	992	0.9	0.68	900	B				C	C		170814		10
6.3	**222.92**	0.55	791	1.1	0.63	900	B				C	C		101314		11
5.8	**242.18**	0.55	859	1.0	0.58	900	B				C	C		150814		12
5.6	**250.15**	0.55	888	1.0	0.56	900	B				C	C		91316		13
4.8	**289.08**	0.55	1026	0.9	0.49	900	B				C	C		130814		14
4.2	**330.31**	0.37	783	1.1	0.42	890	B				C	C		71316		15
3.5	**394.59**	0.37	936	1.0	0.36	900	B				C	C		100814		16
2.7	**514.99**	0.25	824	1.1	0.27	900	B				C	C		90814		17
2.1	**680.03**	0.18	832	1.1	0.21	900	B				C	C		70814		18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili — B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione — B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione — C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

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See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H73C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H73C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H73C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H73C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.30 LT	5.70 LT	4.15 LT	3.30 LT	6.40 LT	3.25 LT	Ask
SHELL Omala S2 GX 460				**ENI** Blasia 460		

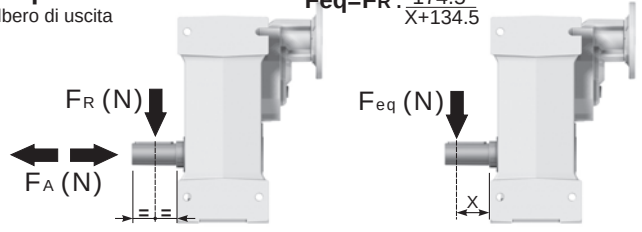
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

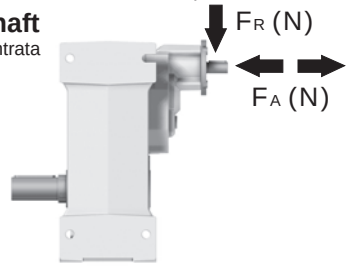
$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	**140**	860	4300	**70**	1020	5100
250	800	4000	**120**	900	4500	**40**	1300	6500
200	830	4150	**85**	970	4850	**15**	1700	8500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



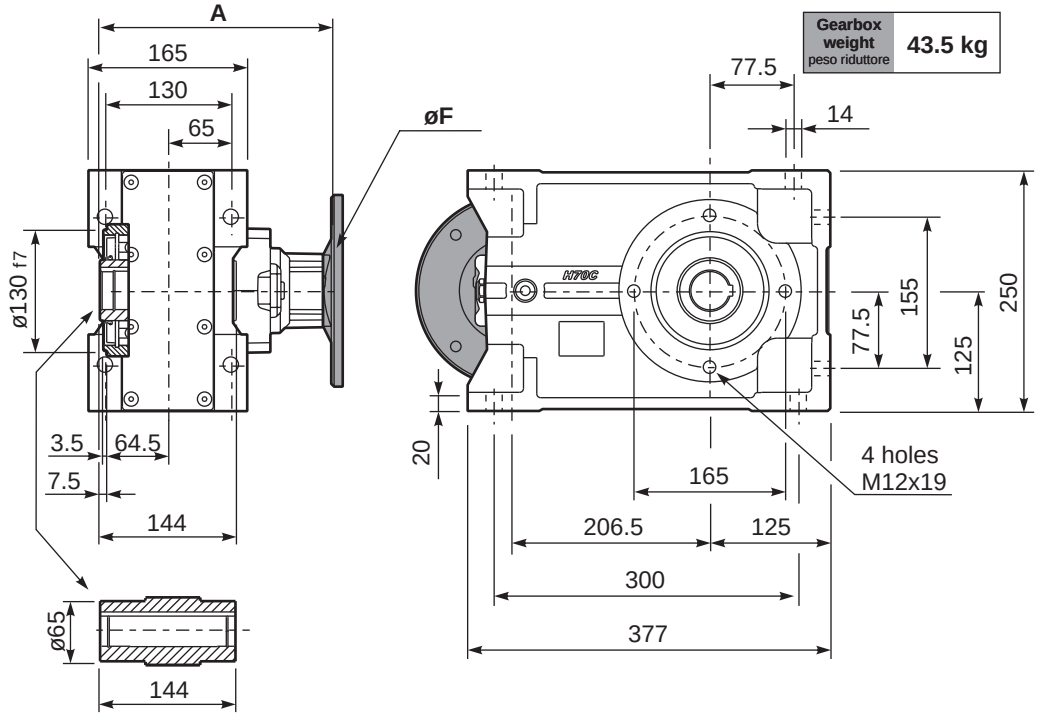
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

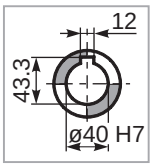
PH73C... Basic gearbox
Riduttore base

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	250.5
71B5	K063.4.042	160	248.5
80/90B5	K063.4.043	200	250.5
71B14	K063.4.047	105	248.5
80B14	K063.4.046	120	250.5
90B14	K063.4.041	140	250.5

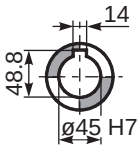
Gearbox weight peso riduttore	43.5 kg



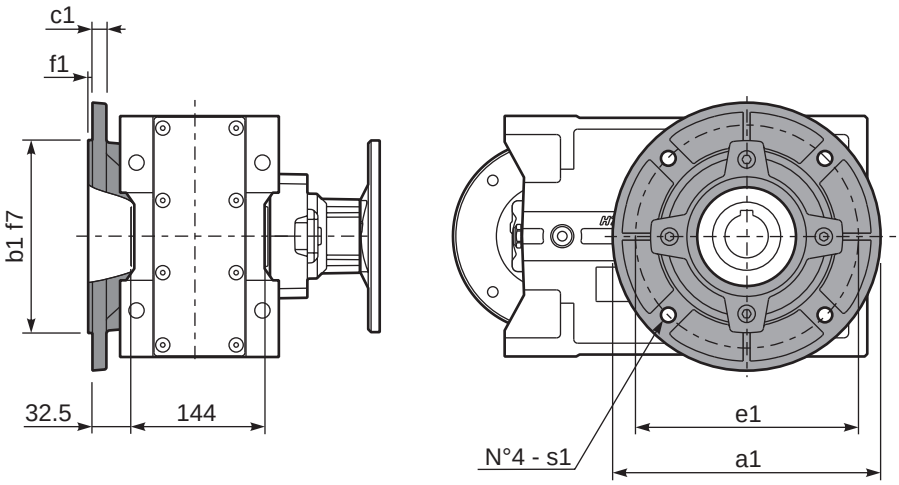
Standard
Hollow shaft



On request
A richiesta



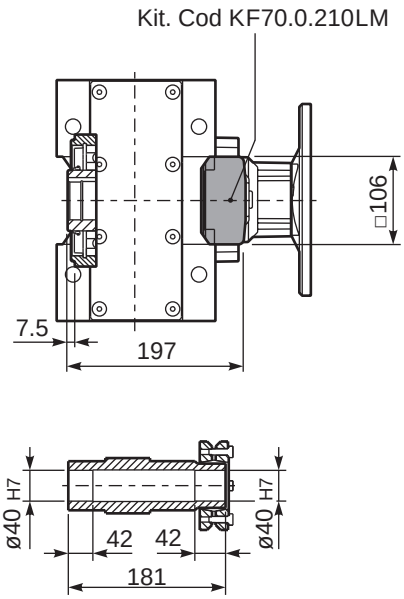
PH73C...-F Output flange
Flangia uscita



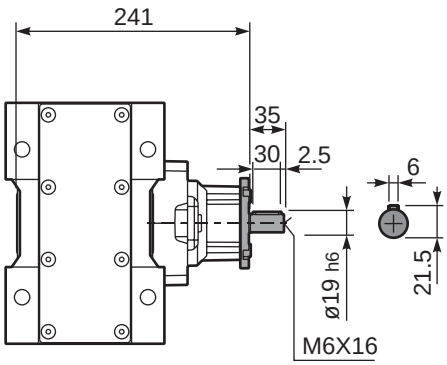
Available output flanges
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

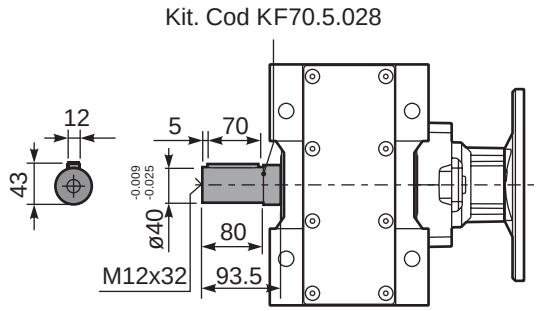
PH73C D... Shrink disk
Calettatore



RH73C... Input Shaft
Albero in entrata



PH73C A... Single output shaft
Albero uscita semplice



▪ 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 -H 160	Available B5 motor flanges -I 180	B14 motor flanges - - - -	B14 motor flanges - - - -		Output Shaft ø	Ratios code
528	**2.65**	22	374	1.7	36.7	650			**not available**		2361	**standard**	01
409	**3.42**	22	483	1.6	32.8	750					1965	**ø50**	02
304	**4.60**	22	649	1.5	30.9	950					1569		03
256	**5.46**	22	771	1.3	27.4	1000					1371	ø55	04
211	**6.64**	22	937	1.3	26.5	1175					1173	On request	05

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H81C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H81C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H81C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H81C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

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Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.70 LT	7.00 LT	7.90 LT	5.70 LT	10.20 LT	5.60 LT	Ask

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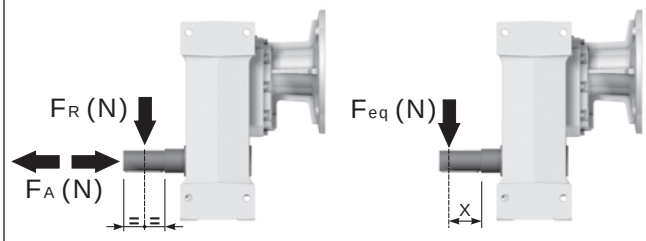
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq}=F_R \cdot \frac{227.5}{X+177.5}$$



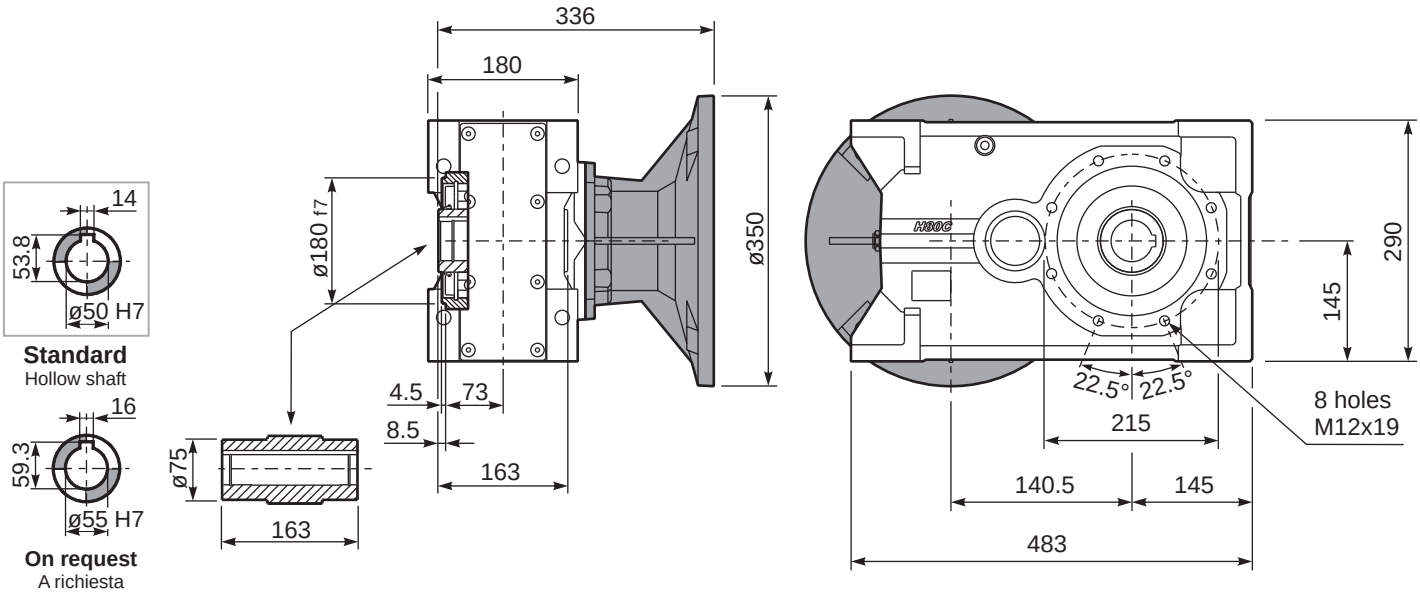
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

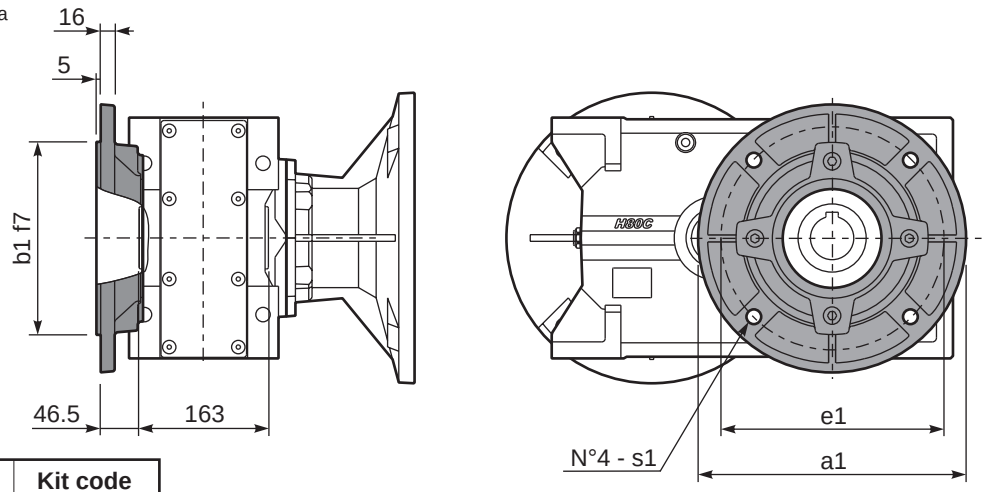
tab. 2

PH81C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	89.0 kg



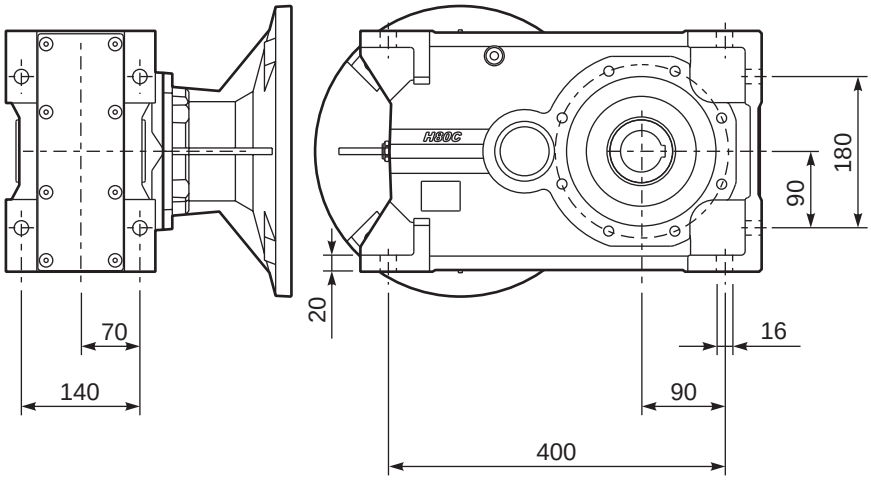
PH81C...**-F** Output flange
Flangia uscita



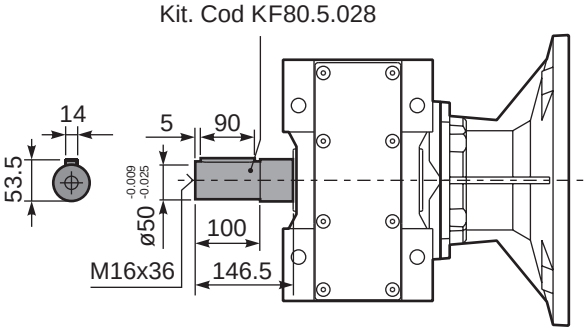
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PH81C...**-N** Feet
Piedini



PH81C **A**... Single output shaft
Albero uscita semplice



▪ 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]	B5 motor flanges -F 100 112	B5 -G 132	B5 -H 160	B5 -I 180	B14 motor flanges -U 100 112	B14 -V 132		Output Shaft ø	Ratios code
234	**5.98**	22	827	1.2	25.5	1000							3015	standard ø50	01
197	**7.10**	22	982	1.2	25.3	1175							3013		02
162	**8.63**	22	1193	1.1	23.9	1350							3011		03
124	**11.27**	18.5	1310	1.1	20.3	1500							2015		04
105	**13.38**	18.5	1555	1.1	19.4	1700							2013		05
92	**15.24**	18.5	1771	1.1	19.0	1900							1615		06
86	**16.26**	18.5	1889	1.1	19.7	2100							2011		07
77	**18.09**	18.5	2102	1.0	17.7	2100							1613		08
71	**19.82**	15	1865	1.1	15.9	2060							1315	ø55 On request	09
64	**21.98**	15	2069	1.0	14.6	2100							1611		10
60	**23.53**	15	2214	0.9	13.6	2100							1313		11
58	**24.25**	11	1677	1.2	12.2	1940							1115		12
48.6	**28.80**	11	1991	1.1	11.1	2100							1113		13
40.0	**34.99**	9	2063	1.0	9.2	2100							1111		14
33.6	**41.64**	7.5	1976	1.0	7.2	1960							813		15
27.7	**50.60**	5.5	1774	1.2	6.3	2100							811		16

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available Flange Motore Disponibili — B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione — B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione — C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

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See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

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Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.60 LT	6.80 LT	7.80 LT	5.60 LT	10.00 LT	5.50 LT	Ask

SHELL Omala S2 GX 460 — **ENI** Blasia 460

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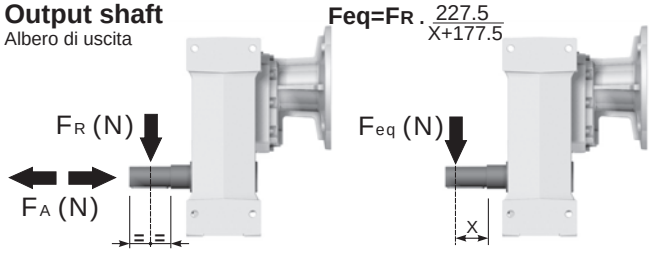
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

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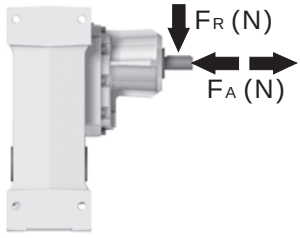
Input shaft
Albero in entrata



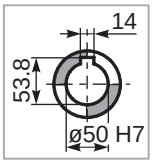
n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

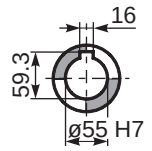
Gearbox weight peso riduttore	86.0 kg

PH82C... Basic gearbox
Riduttore base

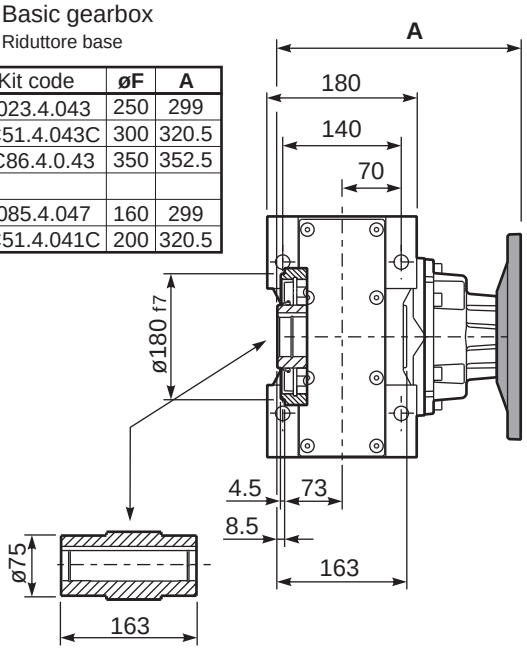
M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	299
132B5	KC51.4.043C	300	320.5
160/180B5	KC86.4.0.43	350	352.5
100/112B14	K085.4.047	160	299
132B14	KC51.4.041C	200	320.5

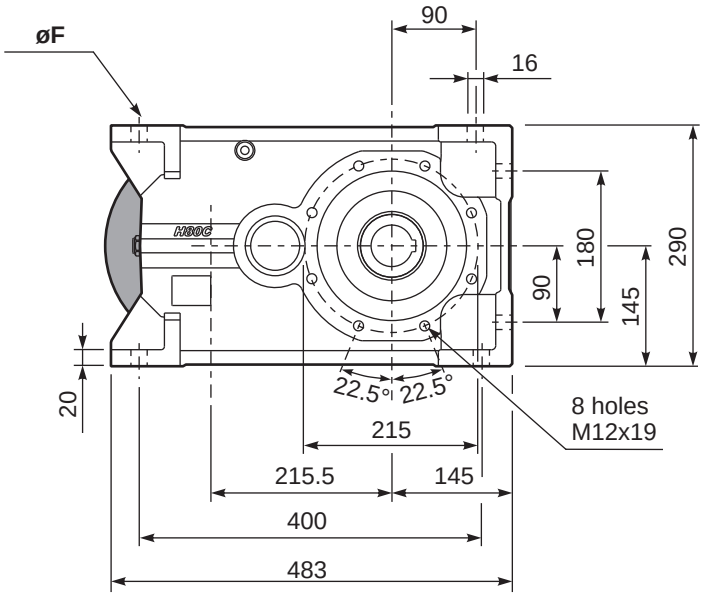


Standard
Hollow shaft

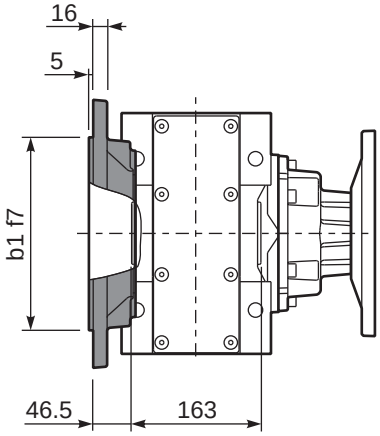


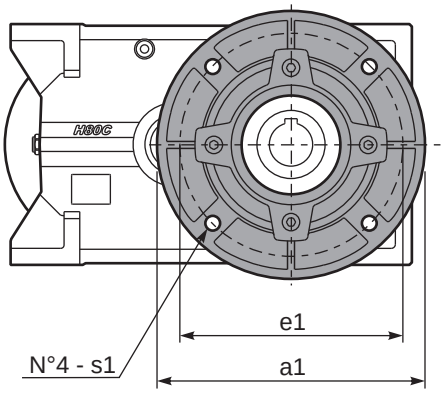
On request
A richiesta





PH82C...-F Output flange
Flangia uscita



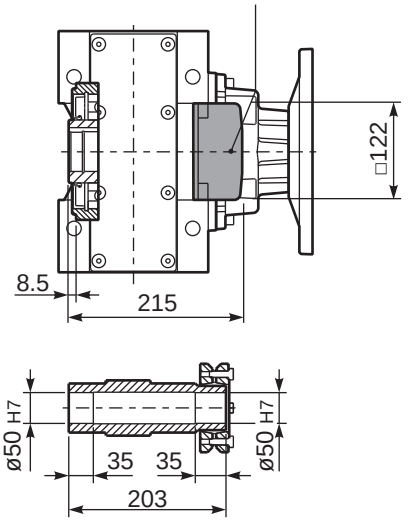


Available output flanges
Flange di uscita

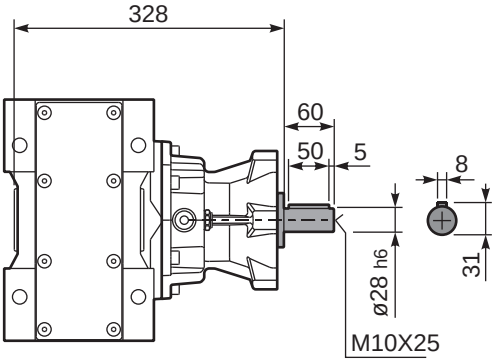
a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PH82C D... Shrink disk
Calettatore

Kit. Cod KF80.0.210LM

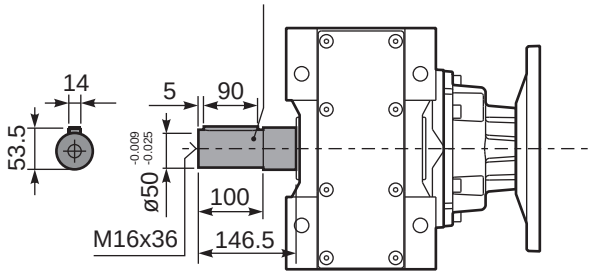


RH82C... Input Shaft
Albero in entrata



PH82C A... Single output shaft
Albero uscita semplice

Kit. Cod KF80.5.028



▪ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min^{-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 -C 71	-D 80	-E 90	-F 100 112	-G 132	Available B14 motor flanges -R 80	-T 90	-U 100 112	-V 132		Output Shaft ø	Ratios code
28.8	**48.55**	7.5	2257	0.9	6.7	2100	B									201315		01
24.3	**57.64**	5.5	1980	1.1	5.7	2100	B									201313		02
21.3	**65.64**	5.5	2255	0.9	5.0	2100	B									161315		03
20.0	**70.04**	4	1760	1.2	4.7	2100	B									201311		04
18.0	**77.93**	4	1958	1.1	4.2	2100	B									161313		05
16.4	**85.36**	4	2145	1.0	3.8	2100	B									131315	**standard ø50**	06
14.8	**94.70**	4	2380	0.9	3.5	2100	B									161311		07
13.8	**101.35**	3	1917	1.1	3.2	2100	B									131313	ø55 On request	08
11.4	**123.15**	3	2330	0.9	2.7	2100	B									131311		09
9.3	**150.73**	2.2	2100	1.0	2.2	2100	B									111311		10
7.8	**179.39**	1.5	1722	1.2	1.8	2100	B									81313		11
6.4	**217.98**	1.5	2093	1.0	1.5	2100	B									81311		12
5.7	**247.03**	1.1	1732	1.1	1.2	1950	B									61313		13
4.7	**300.17**	1.1	2105	1.0	1.1	2100	B									61311		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili
B) **Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
B) **Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
C) **Motor Flange Holes Position** Posizione Fori Flangia Motore

EN Unit **H83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablaßschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden.
Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.80 LT	7.10 LT	8.20 LT	5.80 LT	10.80 LT	6.00 LT	Ask
SHELL Omala S2 GX 460				**ENI** Blasia 460		

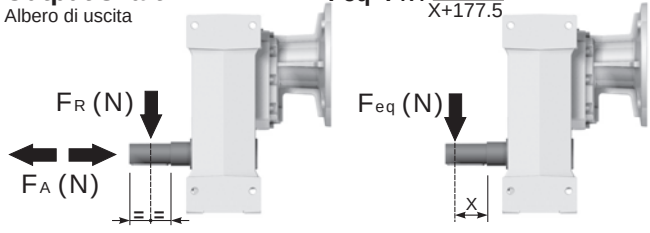
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

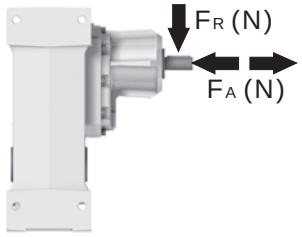
$$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	**140**	1120	5600	**70**	1400	7000
250	1000	5000	**120**	1140	5700	**40**	1800	9000
200	1060	5300	**85**	1300	6500	**15**	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



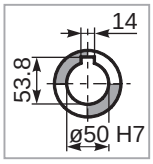
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

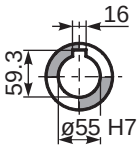
tab. 2

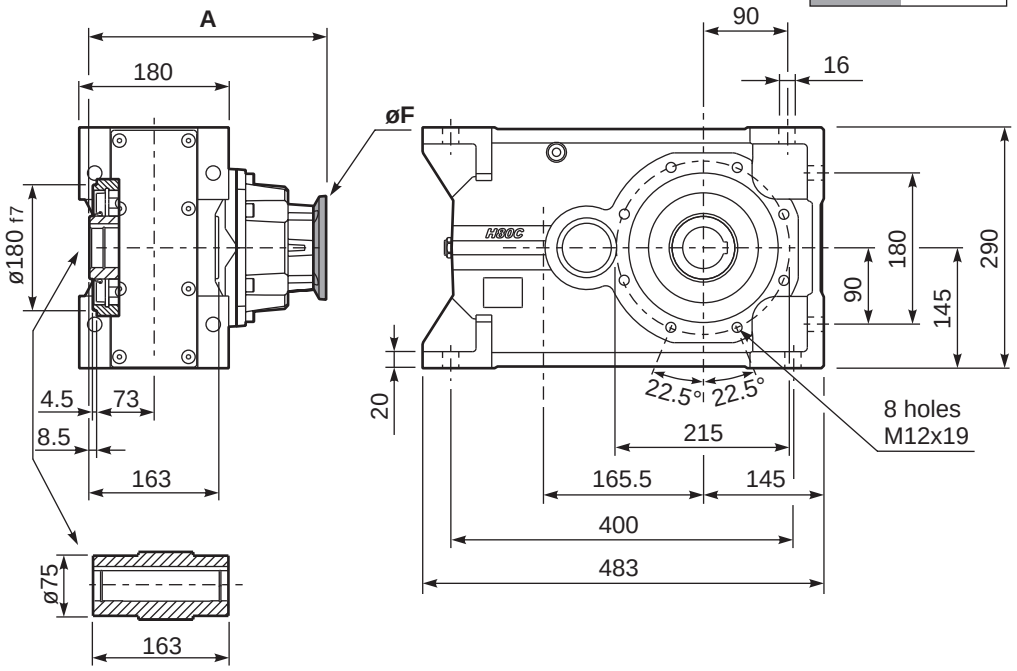
PH83C... Basic gearbox
Riduttore base

Gearbox weight peso riduttore	81.0 kg

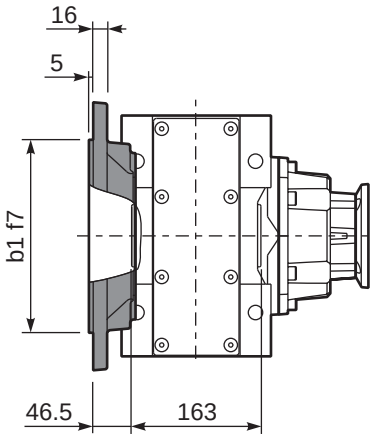
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	292.5
80/90B5	K023.4.042	200	294.5
100/112B5	K023.4.043	250	303.5
132B5	KC51.4.043	300	324.5
80B14	K085.4.046	120	294.5
90B14	K085.4.045	140	294.5
100/112B14	K085.4.047	160	303.5
132B14	KC51.4.041	200	324.5

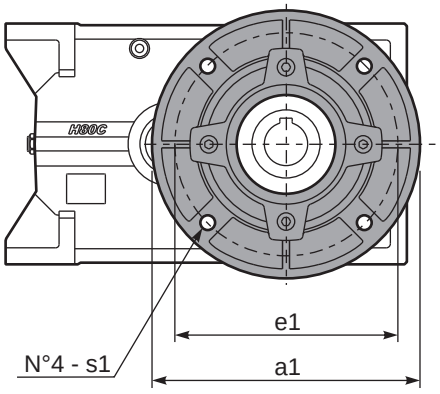






PH83C...-F Output flange
Flangia uscita

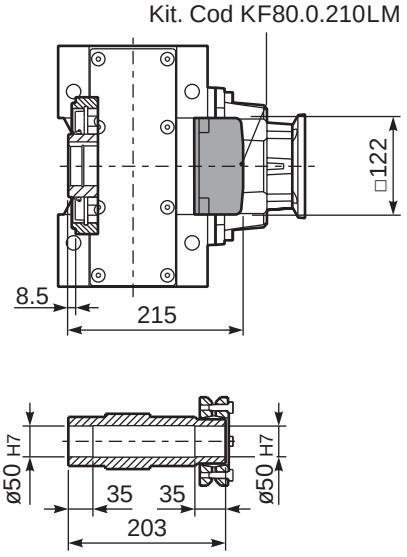




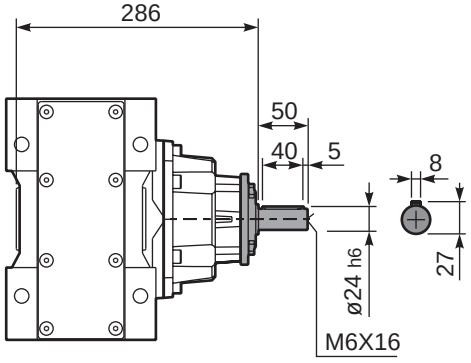
Available output flanges
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

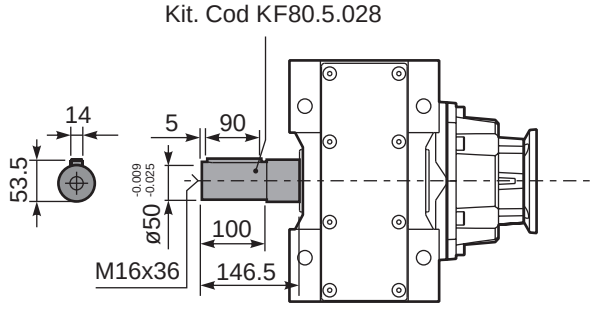
PH83C D... Shrink disk
Calettatore



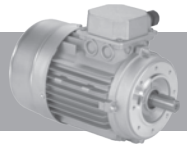
RH83C... Input Shaft
Albero in entrata



PH83C A... Single output shaft
Albero uscita semplice

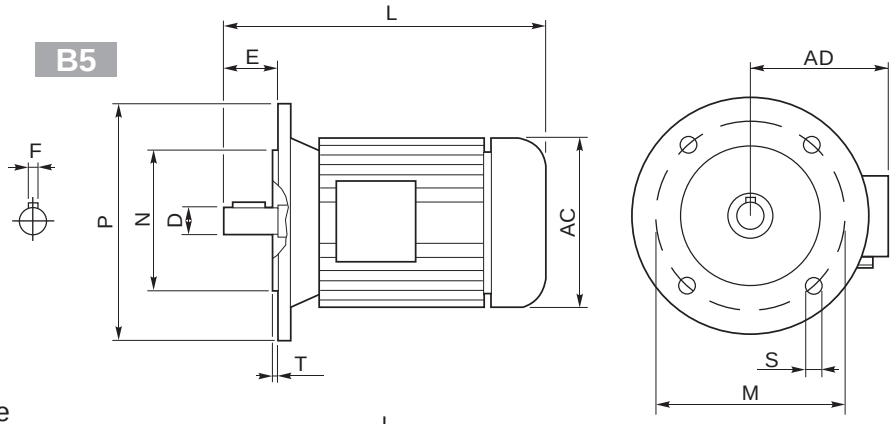


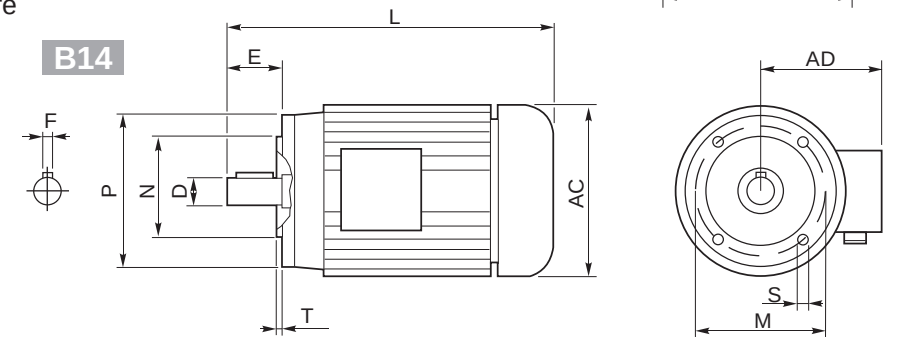
Aluminum IEC motors



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

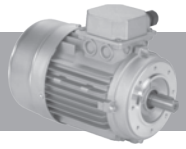
1) 230/400V - 50Hz motore trifase asincrono
2) Isolamento Classe F
3) S1 servizio continuo
4) Protezione IP 55
5) Non verniciato
6) Manicotto di protezione per l'albero motore





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	—	—	—																	2.9
63 A	**0.18**	0.63	0.60	**0.12**	0.84	0.50	**0.09**	0.99	0.57	11	4	23	208	120	99	95	115	140	9.5	3	60	75	90	M5	2.5	3.8
63 B	**0.25**	0.87	0.76	**0.18**	1.30	0.69	**0.12**	1.32	0.74																	4.2
71 A	**0.37**	1.30	1.00	**0.25**	1.70	0.91	**0.18**	1.90	0.80	14	5	30	-	130	104	110	130	160	9.5	3.5	70	85	105	M6	2.5	5.9
71 B	**0.55**	1.90	1.54	**0.37**	2.52	1.14	**0.25**	2.72	1.10				255	141	107											6.5
80 A	**0.75**	2.60	1.85	**0.55**	3.77	1.51	**0.37**	3.84	1.18	19	6	40	296	159	127	130	165	200	11.5	3.5	80	100	120	M6	3	8.5
80 B	**1.1**	3.90	2.64	**0.75**	5.11	2.57	**0.55**	5.84	1.80																	10
90 S	**1.5**	5.00	3.31	**1.1**	7.45	2.78	**0.75**	7.92	2.32	24	8	50	-	170	135	130	165	200	11.5	3.5	95	115	140	M8	3	12.5
90 L	**2.2**	7.50	4.46	**1.5**	10.2	3.61	**1.1**	11.6	3.45				330													15
100 LA	**3.0**	10.0	6.28	**2.2**	14.8	5.07	**1.5**	15.4	3.88	28	8	60	-	190	148	180	215	250	13	4	110	130	160	M8	3.5	20
100 LB	—	—	—	**3.0**	20.1	6.66	—	—	—																	22
112 M	**4.0**	13.4	8.10	**4.0**	26.7	8.55	**2.2**	22.6	5.30				381	210	164											35
132 S	**5.5**	18.3	11.2	**5.5**	36.5	11.4	**3.0**	30.2	7.20	38	10	80	455	244	180	230	265	300	14	4	130	165	200	M10	4	41
	7.5	24.9	15.3																							51
132 M	—	—	—	**7.5**	49.4	15.0	**4.0**	40.0	9.13				500													51
				9	61.4	18.5																				
160 M	—	—	—	**11**	72	21.5	—	—	—	42	12	110	613	335	246	250	300	350	18	5	—	—	—	—	—	79.2
160 L	—	—	—	**15**	98	29	—	—	—				657													97.5
180 M	—	—	—	**18.5**	121	35.5	—	—	—	48	14	110	712	366	266	250	300	350	19	5	—	—	—	—	—	170
180 L	—	—	—	**22**	144	42	—	—	—																	
200 L	—	—	—	**30**	196	53	—	—	—	55	16	110	780	405	341	300	350	400	19	5	—	—	—	—	—	240
225 S	—	—	—	**37**	240	69	—	—	—	60	18	140	888	463	360	350	400	450	19	5	—	—	—	—	—	305
225 M	—	—	—	**45**	292	84	—	—	—																	310



Protection
Standard IP55
Please specify on purchase orders if you need a higher IP protection class.

Grado di protezione
IP55 Standard
Specificare in sede di ordinazione per IP superiore.

Schutzart
IP55 Standard.
Höheren IP Grad bitte im Auftrag angeben.

Degré de protection
IP55 standard.
Au moment de la commande, spécifiez si vous souhaitez IP supérieur.

Grado de protección
IP55 standard.
Especificar en el pedido cuando necesiten protección IP superior.

Insulation
Standard 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 Isolierungsklas se 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.

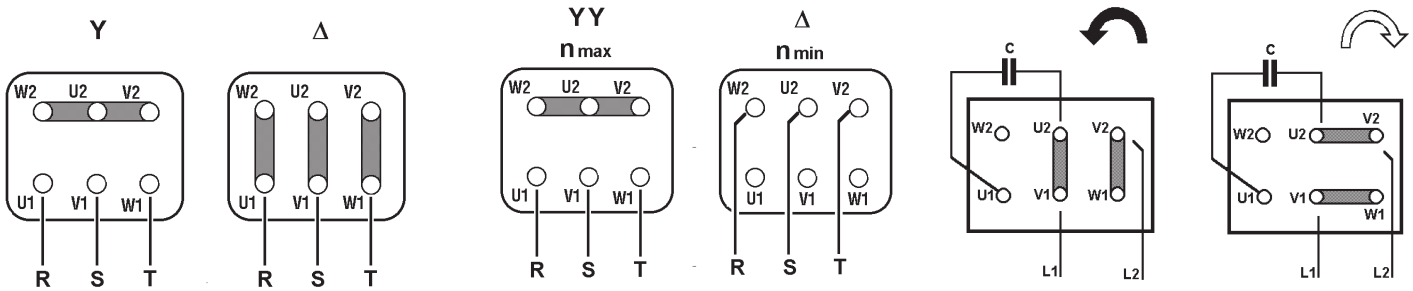
Insulation / Isolamento Isolierung /Aislamiento		E	B	F	H
Max. temp.	C°	120°	130°	155°	175°
	F*	248°	266°	311°	347°

Connections **Collegamenti** **Verbindungselemente** **Branchements** **Conexiones**

Threephase asyncronous single polarity
Asincrono trifase singola polarità
Asynchronmotor 3-ph eine Drehzahl
Moteur triphasé à une vitesse
Asincrono trifasico de una velocidad

Threephase asyncronous double polarity
Asincrono trifase doppia polarità
Asynchronmotor 3-ph doppelte Drehzahl
Moteur triphasé à deux vitesses
Asincrono trifasico de dos velocidades

Single phase asyncronous
Asincrono monofase
Einphasen-Asynchronmotor
Moteur monophasé
Asincrono monofasico



Quotations:
Unless differently agreed, the validity of all quotations is 2 months. The quotations are provided according the RFQ (request for quotation) which shall contain the complete and detailed specification of the Product, the correctness of which is fully under responsibility of RFQ applicant.

Orders:
Only official orders issued on the Customer's letter-head are accepted. The Order Confirmation (OC) is issued within 2 working days from the order receipt unless the Products configuration issues arise. The OC shall be confirmed in writing within 2 working days from the OC date and in all its parts the product code and description, quantities and price, other specific information, if any. The OC is considered confirmed by tacit approval in case no written confirmation is provided by the Customer.

Production time:
An average production time for the standard Products is 3-4 weeks and 2-3 weeks for kits from the OC confirmation date and/or payment receipt in case of advanced payment term. For some configurations of the standard Products the production time can be different and shall be advised in the quotation and/or in any case in OC. In the period of Christmas holidays and August holidays the days of company closure are excluded from the abovementioned production term.

Delivery terms:
FCA Sovizzo, Italy (Incoterms 2016)

Packaging:
The products are packed in wooden boxes as a standard packaging. Europallets can be also used on request. The prices and details of the packaging are indicated in the apposite section of the Price List.
Payment terms: the payment should be performed in terms indicated in the invoice and by wire transfer.
Prices: the prices are indicated in the invoice and intended ex-works, unless differently specified, and do not include any kind of taxes, shipment or other type of costs.

Standard Products orders cancellation:
Modification or cancellation of the orders is accepted only if notified to Hydro-Mec S.p.A. in writing and not later than 3 days from the Order Confirmation and in any case before the production of the ordered Products is launched.

Special execution of customized products:
The Products that are not included in the catalogue or configurations of the products that can not be realized using catalogue, options and accessories brochure and/or online configurator (www.cleangeartech.com) are considered Customized Products.
(a) Hydro-Mec S.p.A. is entitled to examine feasibility of Special Execution of Customized Products and define the minimum quantity, production time and eventually other special sales and production conditions issuing thereafter a Special Execution Quotation that shall be confirmed by the Customer in writing.
(b) Once the Quotation is confirmed, Hydro-Mec S.p.A. shall realize a Special Execution (SE) data sheet with its unique code for each Customized product. The SE data sheet shall be confirmed in full and in writing by The Customer.

(c) The production time of SE is definitely settled by Hydro-Mec S.p.A. and notified to the Customer after the SE data sheet confirmation. As a rule, the production time for SE of Customized products is longer than standard.

(d) The orders of Special Execution of Customized products can not be cancelled unless special written agreement is made before the production of SE is launched.

WARRANTY Conditions:

(a) Warranty period is 12 months form the shipment date.

(b) Warranty period could be extended to 18 months prior written agreement of the parties and in any case excluding wearable parts.

(c) Warranty covers only manufacturing defects. Wearable parts (for example, oil seals or lubricants leakages caused by normal wear) and failures due to the wrong assembling by the Customer are not covered by warranty.

(d) This warranty is also void in any case in which the products have been misused, used in improper environment conditions, configurated beyond design limits indicated in the catalogue (especially service factor, loads and type of motors) or damaged, even accidentally or whenever installation instructions have not been strictly followed and in case of any natural disasters, in case of negligence of the Customer and the end user.

(e) The Customer is fully responsible to assure the compatibility of applications and correct mechanical couplings and electrical connections with the specifications of the Products according to Hydro-Mec S.p.A. catalogues and technical documentation

(f) The liability of Hydro-Mec S.p.A. is strictly limited to the above-stated obligations and it is therefore clearly agreed that Hydro-Mec S.p.A. take on no responsibility for any damage to persons and/or property deriving from accidents of any nature that may occur during use of the Products, whether the warranty is confirmed or otherwise, also in cases of the choice of the Product configuration being recommended by Hydro-Mec S.p.A.

WARRANTY Procedure:

(a) The Customer shall fill in the COMPLAINT FORM and forward it to Hydro-Mec S.p.A. along with other relevant information.

(b) Hydro-Mec S.p.A. examines the COMPLAINT FORM and confirms or declines the warranty.

(c) Hydro-Mec S.p.A. has the right to ask the Customer to send the misfunctioning product to Hydro-Mec S.p.A. for further examination. In case the warranty is not confirmed the Product will be shipped back to the Customer at the Customer expense. If the warranty is confirmed, Hydro-Mec S.p.A. shall compensate the shipment costs to the Customer within the limits of the best shipment quotation.

(d) In case the warranty is confirmed the Products shall be substituted at Hydro-Mec S.p.A. expense using ordinary shipment procedure. The express shipment can be used prior the agreement of the parties.

(e) In case the Product can not be substituted Hydro-Mec S.p.A. shall reimburse the value of the Product by issuing of Credit Note or in any other way agreed by the Parties.

WARNING (Please Read Carefully):
The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation 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.
(a) Written authorization is required to operate or use reducers in man lift or people moving devices.
(b) Check to make sure that certain applications do not exceed the allowable load capacities published in the current catalog.
(c) 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.
(d) 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.
(e) 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.
(f) Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs and vents.
(g) 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.
(h) 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.
(i) 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.
(l) Lifting supports including eyebolts are to be used for vertically lifting the gearbox only and not other associated attachments or motors.
(m) 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.
(n) 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.

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.

1) Definizioni

1.1 Ai fini delle presenti condizioni generali di vendita (di seguito denominate “Condizioni di Vendita”), i seguenti termini avranno il significato di seguito ad essi attribuito:

- “HM”: Hydro-Mec S.p.A.;
- “Cliente”: qualunque società, ente o entità giuridica che acquisti i Prodotti di HM da quest’ultima;
- “Prodotti”: i beni prodotti, assemblati e/o venduti da HM;
- “Ordine/i”: ciascuna proposta di acquisto dei Prodotti inoltrata dal Cliente ad HM esclusivamente tramite e-mail, fax o web;
- “Vendita/e”: ciascun contratto di vendita concluso tra HM e il Cliente a seguito del ricevimento da parte del Cliente dell’accettazione scritta dell’Ordine da parte di HM;

2) Scopi

2.1 Le presenti Condizioni di Vendita si applicano a tutte le Vendite di Prodotti. Nel caso di contrasto tra le condizioni e i termini di cui alle presenti Condizioni di Vendita e le condizioni e i termini pattuiti nella singola Vendita, quest’ultimi prevarranno. HM non sarà vincolata da condizioni generali di acquisto del Cliente (di seguito, “CGA”), neanche nell’ipotesi in cui si faccia loro riferimento o siano contenute negli ordini o in qualsiasi altra documentazione di provenienza del Cliente, senza il preventivo consenso scritto di HM. Le CGA non saranno vincolanti per HM neppure per effetto di tacito consenso.

2.2 HM si riserva il diritto di aggiungere, modificare o eliminare qualsiasi previsione delle presenti Condizioni di Vendita, restando inteso che tali aggiunte, modifiche o cancellazioni si applicheranno a tutte le Vendite concluse a partire dal trentesimo giorno successivo alla notifica al Cliente delle nuove Condizioni di Vendita.

3) Ordini e Vendite

3.1 Il Cliente dovrà inoltrare a HM Ordini specifici contenenti la descrizione dei Prodotti, la quantità richiesta, il prezzo ed i termini richiesti per la consegna.

3.2 La Vendita dovrà ritenersi conclusa: (i) nel momento in cui il Cliente riceva da parte di HM una conferma scritta (tale conferma potrà essere inviata via e-mail, fax o mezzi telematici) conforme ai termini e alle condizioni dell’Ordine (ii) o, nel caso in cui il Cliente riceva da parte di HM una conferma scritta contenente termini difformi da quelli contenuti nell’Ordine, decorsi tre giorni lavorativi dalla data di ricezione della conferma contenente termini difformi senza che nel suddetto periodo pervenga a HM contestazione scritta da parte del Cliente; (iii) o, in assenza di conferma scritta da parte di HM, nel momento in cui i Prodotti saranno consegnati al Cliente.

3.3 Gli Ordini regolarmente accettati da HM non potranno essere annullati dal Cliente senza il consenso scritto di HM.

4) Prezzo dei Prodotti

4.1 I prezzi dei Prodotti saranno quelli indicati nel listino prezzi di HM in vigore al momento dell'inoltro dell'Ordine da parte del Cliente o, qualora il Prodotto non sia inserito nel listino prezzi o il listino prezzi non sia disponibile, quelli indicati nell'Ordine e confermati per iscritto da HM al momento dell'accettazione dell'Ordine. Eccetto quanto diversamente concordato per iscritto tra le parti, i predetti prezzi saranno calcolati franco fabbrica, al netto dell'IVA e degli sconti. Tali prezzi non comprendono i costi di imballaggio, spedizione e trasporto dai locali di HM a quelli del Cliente. Tali costi dovranno essere sostenuti separatamente dal Cliente.

4.2 HM manterrà la proprietà dei Prodotti fino alla completa corresponsione del prezzo degli stessi. Il Cliente dovrà compiere tutti gli adempimenti richiesti dalle leggi locali al fine di rendere valida ed eseguibile nei confronti di tutti i terzi la presente clausola di riserva della proprietà anche operando l'iscrizione in ogni apposito registro, ove localmente richiesto.

5) Termini di consegna

5.1 Eccetto quanto eventualmente diversamente concordato per iscritto tra le parti, HM consegnerà i prodotti franco fabbrica presso i propri stabilimenti, così come questo termine è definito negli INCOTERMS 2010 pubblicati dalla Camera di Commercio internazionale nella loro versione più aggiornata, in vigore al momento della consegna. Se richiesto, HM si occuperà del trasporto dei Prodotti a rischio, costi e spese del Cliente.

5.2 La consegna dovrà avvenire entro il termine indicato nell'Ordine come accettato nella conferma d'ordine. I termini di consegna sono indicativi e non sono termini essenziali ai sensi dell'art. 1457 del Codice Civile e, in ogni caso, non includono i tempi di trasporto.

5.3 Salvo quanto previsto dal precedente art. 5.2, HM non sarà considerata responsabile dei ritardi o della mancata consegna ascrivibili a circostanze che siano fuori dal suo controllo, quali a titolo meramente esemplificativo e senza pretesa di esaustività:

a) dati tecnici inadeguati o imprecisioni o ritardi del Cliente nella trasmissione a HM di informazioni o dati necessari alla spedizione dei Prodotti;

b) difficoltà nell'ottenere rifornimenti delle materie prime;

c) problemi legati alla produzione o alla pianificazione degli ordini;

d) scioperi parziali o totali, mancanza di energia elettrica, calamità naturali, misure imposte dalle autorità pubbliche, difficoltà nel trasporto, cause di forza maggiore, disordini, attacchi terroristici e tutte la altre cause di forza maggiore;

e) ritardi da parte dello spedizioniere.

5.4 Il verificarsi di alcuni degli eventi sopra elencati non darà diritto al Cliente di richiedere il risarcimento degli eventuali danni o indennizzi di alcun genere.

6) Trasporto

6.1 Eccetto quanto eventualmente diversamente concordato per iscritto tra le parti, il trasporto avverrà sempre a spese e rischio del Cliente. Nel caso in cui a HM, ai sensi dell'art. 5.1, venga richiesto di occuparsi del trasporto dei Prodotti, HM sceglierà il mezzo di trasporto che riterrà più appropriato in mancanza di specifiche istruzioni del Cliente.

7) Pagamenti

7.1 Salvo diverso accordo scritto tra le parti, HM emetterà le fatture al momento della consegna dei Prodotti.

7.2 Il mancato pagamento nel tempo concordato darà diritto a HM di chiedere al Cliente il pagamento degli interessi scaduti al tasso stabilito dal Decreto Legislativo n. 231/02.

7.3 Il mancato pagamento o il ritardo nei pagamenti superiore a 30 giorni daranno a HM il diritto di sospendere la consegna dei Prodotti e risolvere ogni singola Vendita sottoscritta. La sospensione della consegna dei Prodotti o la risoluzione delle Vendite non darà il diritto al Cliente di pretendere alcun risarcimento dei danni.

7.4 Ogni reclamo relativo ai Prodotti e/o alla consegna dei medesimi non potrà in alcun caso giustificare la sospensione o il ritardo nel pagamento.

8) Non-conformità

8.1 Qualsiasi difformità dei Prodotti consegnati al Cliente rispetto al tipo ed alla quantità indicata nell'Ordine dovrà essere denunciata per iscritto a HM entro cinque giorni dalla data di consegna. Qualora la denuncia non venga comunicata entro il predetto termine, i Prodotti consegnati verranno considerati come conformi a quelli ordinati dal Cliente.

9) Garanzia

9.1 Salvo diverso accordo scritto tra le parti, HM garantisce che i Prodotti sono esenti da vizi/difetti (con esclusione di quelle parti dei Prodotti che non sono prodotte da HM) per un periodo di 12 mesi decorrente dalla data di consegna dei medesimi al Cliente.

9.2 La garanzia non opererà con riferimento a quei Prodotti i cui difetti sono dovuti a

- danni causati durante il trasporto;
- un uso negligente o improprio degli stessi;
- inosservanza delle istruzioni di HM relative al funzionamento, manutenzione ed alla conservazione dei Prodotti;
- riparazioni o modifiche apportate dal Cliente o da soggetti terzi senza la previa autorizzazione scritta di HM.

9.3 A condizione che il reclamo del Cliente sia coperto dalla garanzia e notificato nei termini di cui al presente articolo, HM si impegnerà, a sua discrezione, a sostituire o riparare ciascun Prodotto o le parti di questo che presentino vizi o difetti.

9.4 Il Cliente dovrà denunciare per iscritto a HM, la presenza di vizi o difetti entro 8 giorni dalla consegna dei Prodotti se si tratta di vizi o difetti palesi, oppure, entro 8 giorni dalla scoperta in caso di vizi o difetti occulti o non rilevabili da una persona di media diligenza.

9.5 I Prodotti oggetto di denuncia dovranno essere immediatamente inviati presso la fabbrica di HM, o in qualsiasi altro luogo che quest'ultima indicherà di volta in volta, a costi e spese a carico del Cliente salvo diverso accordo tra le parti, al fine di consentire a HM l'espletamento dei necessari controlli. La garanzia non copre danni e/o difetti dei Prodotti derivanti da anomalie causate da, o connesse a, parti assemblate/aggiunte direttamente dal Cliente o dal consumatore finale. Qualora, nell'ambito della presente garanzia, un Prodotto o un componente difettoso venisse sostituito, la proprietà del Prodotto o del componente sostituito sarà ritrasferita dal Cliente a HM.

9.6 In ogni caso il Cliente non potrà far valere i diritti di garanzia verso HM se il prezzo dei Prodotti non sia stato corrisposto alle condizioni e nei termini pattuiti, anche nel caso in cui la mancata corresponsione del prezzo alle condizioni e nei termini pattuiti si riferisca a Prodotti diversi da quelli per i quali il Cliente intende far valere la garanzia.

9.7 HM non riconosce alcuna garanzia circa la conformità dei Prodotti alle norme e ai regolamenti di Paesi che non rientrano o non appartengono all'Unione Europea. Nessun'altra garanzia, espressa o implicita, quale, a titolo esemplificativo, la garanzia di buon funzionamento o di idoneità per uno scopo specifico, è concessa con riferimento ai Prodotti.

9.8 Senza pregiudizio a quanto indicato nel precedente art. 9.3 e salvo il caso di dolo o colpa grave, HM non sarà responsabile per qualsivoglia danno derivante e/connesso ai vizi dei Prodotti. In ogni caso, HM non sarà ritenuto responsabile per danni indiretti o consequenziali di qualsiasi natura quali, a titolo esemplificativo, le perdite derivanti dall'inattività del Cliente o il mancato guadagno.

10) Diritti di Proprietà Intellettuale

10.1 I Diritti di Proprietà Intellettuale sono di totale ed esclusiva proprietà di HM e la loro comunicazione o utilizzo nell'ambito delle presenti Condizioni di Vendita non crea, in relazione ad essi, alcun diritto o pretesa in capo al Cliente. Il Cliente si obbliga a non compiere alcun atto incompatibile con la titolarità dei Diritti di Proprietà Intellettuale.

11) Clausola risolutiva espressa

11.1 HM avrà facoltà di risolvere, ai sensi e per gli effetti dell'art. 1456 del Codice Civile Italiano, in qualsiasi momento mediante comunicazione scritta da inviare al Cliente, la singola Vendita nel caso di inadempimento delle obbligazioni previste dagli articoli: 4 (Prezzo dei Prodotti); 7 (Pagamenti); 10 (Diritti di Proprietà Intellettuale).

12) Mutamento nelle condizioni patrimoniali del Cliente

12.1 HM avrà diritto a sospendere l'adempimento delle obbligazioni derivanti dalla Vendita dei prodotti, in base all'art. 1461 del Codice Civile Italiano, nel caso in cui le condizioni patrimoniali del Cliente divenissero tali da porre in serio pericolo il conseguimento della controprestazione salvo che sia prestata idonea garanzia.

13) Domicilio legale, legge applicabile e giurisdizione

13.1 HM è legalmente domiciliata presso la sua sede principale.

13.2 Le Condizioni di Vendita e ogni singola Vendita saranno regolate e interpretate in conformità alla Legge Italiana.

13.3 Tutte le controversie derivanti da o connesse alle presenti Condizioni di Vendita e/o ad ogni Vendita saranno soggette alla esclusiva giurisdizione del Tribunale di Vicenza.

13.4 Salvo quanto pattuito nel precedente art. 13.3, HM si riserva il diritto, quando promotore di una azione legale in qualità di attore, di promuovere tale azione nel luogo di residenza del Cliente.

14) ATTENZIONE (Leggere attentamente):

Le seguenti raccomandazioni sono fondamentali per la vostra protezione e per garantirvi molti anni di sicuro funzionamento del vostro prodotto senza alcun problema.

Leggere attentamente tutte le istruzioni prima di azionare il riduttore. L'inappropriata installazione, manutenzione o funzionamento del riduttore può causare incidenti al personale addetto e danni al riduttore stesso.

14.1 E' richiesta autorizzazione scritta per azionare riduttori in ascensori o dispositivi per il movimento delle persone.

14.2 Controllare che alcune applicazioni non eccedano la massima capacità di carico ammessa pubblicata in questo catalogo.

14.3 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.

14.4 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.

14.5 Su riduttori installati in posizioni elevate utilizzare protezioni adeguate per qualsiasi distacco accidentale di parti nel caso di passaggio di persone al di sotto.

14.6 Olio e riduttori bollenti possono causare gravi ustioni. Usare estrema cautela nella rimozione dei tappi e delle ventole.

14.7 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.

14.8 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.

14.9 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.

14.10 I dispositivi di sollevamento come le golfare devono essere usati solo per sollevare verticalmente il riduttore e non altri dispositivi associati o motori.

14.11 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.

14.12 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 la rottura della vite a causa della resistenza alla flessione.

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.

NOTES / NOTE / AUFZEICHNUNG / NOTAS

HYDRO • MEC

HIGH EFFICENCY GEARBOXES

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