

sotic[®]
motoréducteur/gearmotor

2024

Catalogue réducteurs

Gear Boxes catalogue



www.sotic.com





Spécialiste du motoréducteur

Depuis 1980, Sotic conçoit, fabrique et commercialise des solutions de transmission de puissance, d'entraînement et d'automatisation : moteur, réducteur, motoréducteur, variateur mécanique de vitesse et variateur de fréquence. Ce savoir-faire nous permet d'occuper aujourd'hui une place reconnue sur le marché, et dans tous les domaines d'activité : Agro-alimentaire, pharmaceutique, industriel, logistique, nucléaire, cosmétique et chimie.

Service : disponibilité et interchangeabilité

Avec près de 200 000 combinaisons en stock, nous proposons une polyvalence totale, des assemblages modulaires et des solutions interchangeables à de nombreuses marques. Cette disponibilité des produits ainsi que notre implantation française permet de garantir un service et un délai optimisés.

Solutions : réactivité et innovation

Aujourd'hui, forte de son expérience dans le choix et la définition du moteur, du motoréducteur et des organes de transmission, l'équipe Sotic analyse vos besoins et vous apporte conseil et assistance avec des devis sous 24 heures. La solution technique proposée optimise le système mécanique de l'ensemble en apportant des gains énergétiques significatifs ; moteur à haut rendement IE3 et IE4, vitesse variable et pilotage électronique.

A specialist of the Gearmotor

Since 1980, Sotic has been designing, manufacturing and selling solutions in power transmission; electric motor, gearbox, gear motor, speed variator and frequency inverter. This know-how enable us to occupy today a well-established position on the market, and in all sectors of activity: food industry, pharmaceutical, industrial, logistics, nuclear, cosmetics.

Service : availability and interchangeability

With more than 200000 combinations in our warehouse, Sotic is offering a complete adaptability, modular assembling and interchangeable solutions to many brands.

Solutions : reactivity and innovation

Based on long experience in the choice and definition in the power transmission, the Sotic team will analyse your needs and will offer you advice and assistance with in 24 hours, with a continuous concern for innovation: IE3 and IE4 high efficiency motors, variable speed, electronic control.



SOTIC a le plaisir d'annoncer l'obtention, en mai 2022, de la certification ISO 9001 V2015 pour la conception, la construction et la commercialisation de systèmes de transmission de puissance. Cette démarche d'amélioration continue ISO 9001 accompagne la croissance de l'entreprise, renforce et canalise notre sens de l'innovation.



Réducteurs roue et vis forme ronde

Worm gearboxes

1.



Réducteurs roue et vis forme carrée M

M square worm gearboxes

2.



Réducteurs roue et vis forme carrée Q

Q square worm gearboxes

3.



Pré-couples de réduction

One step gearboxes

4.



Réducteurs coaxiaux en aluminium

Aluminium gearboxes

5.



Réducteurs coaxiaux en fonte

Cast iron gearboxes

6.



Réducteurs à axes parallèles

Shaft mounted gearboxes

7.



Réducteurs à axes parallèles en fonte

Cast iron Parallel shaft gearboxes

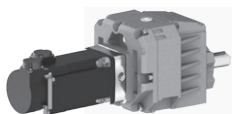
8.



Réducteurs couple conique

Helical bevel gearboxes

9.



Brides moteur brushless

Brushless motor flanges

B

The background of the entire image is a solid orange color. Overlaid on this is a faint, semi-transparent image of a hand holding a mechanical watch movement (caliber) over a grid pattern, which is also semi-transparent. The watch movement is shown from a top-down perspective, revealing its intricate gears and components.

NOS NOU- VEAU- TÉS

/ NEWS

GEAR UP - MOTORÉDUCTEUR CONNECTÉ
/ POUR LA MAINTENANCE PRÉDICTIVE, INDUSTRIE 4.0

MOTORÉDUCTEURS INOX AISI 316L

FA 32 ET FA 33

/150 NM, ARBRE CREUX Ø25
/ À ARBRES PARALLÈLES

GEAR UP.

Motoréducteur
connecté

POUR L'INDUSTRIE 4.0

Les informations recueillies à intervalles réguliers sont transmises par GPRS ou wifi et alimentent une database sur le cloud sécurisé SOTIC.

Un algorithme d'analyse fournit ensuite sur l'interface de l'utilisateur:

- des informations **utiles**
- des **recommandations** pour améliorer les résultats

✓		Température
✓		Consommation
✓		Bruit
✓		Vibrations
✓		Vitesse
✓		Niveau d'huile

Algorithme
d'analyse



CLOUD SÉCURISÉ
sotic



Motoréducteur
Gearmotor device

NOUVEAU

Business
recommandation



POUR QUI
ET POURQUOI ?



SERVICE
DE MAINTENANCE



Maintenance
prédictive

- Planification des interventions
- Réduction des arrêts de production



BUREAU
D'ÉTUDES



Appui
au design

- Informations en temps réel
- Possibilité d'affiner les calculs théoriques



SERVICE
APRÈS VENTE



Prise en charge
de la garantie

- Database de données claires et irréfutables



GESTIONNAIRE
DE SITE



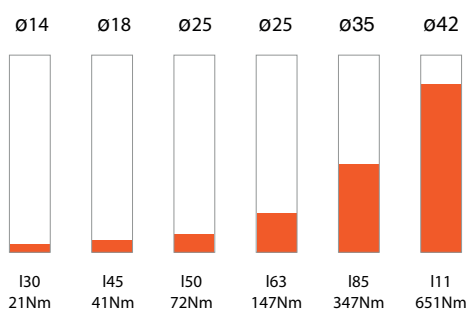
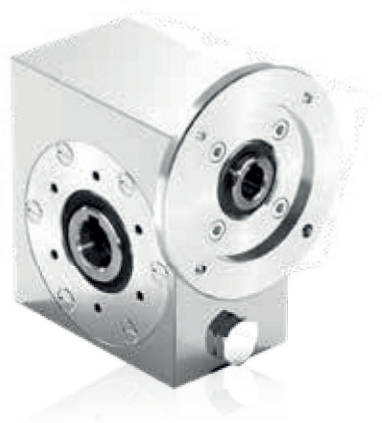
Économies
d'échelle

- Surveillance d'une flotte complète
- Suivi des actifs
- Efficacité énergétique
- Augmentation de la durée de vie des motoréducteurs

NOUVELLE GAMME DE MOTEURS ET DE RÉDUCTEURS INOX

RÉDUCTEURS ROUE ET VIS INOX

- Lubrification à vie
- Possibilité d'huile alimentaire
- Option ATEX
- Aisi 316L



PRÉ-COUPLES INOX

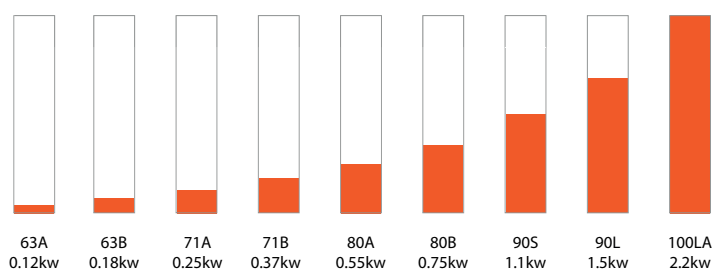
- À un étage de réduction



NOUVEAU

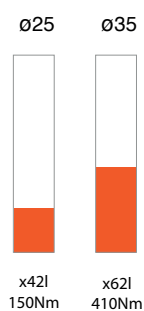
MOTEURS TRIPHASÉS INOX IE3 B14

- 230 / 400 V - 50 Hz
- 4 Pôles - IP 69 K
- Classe F - Service S1



RÉDUCTEURS COUPLES CONIQUES

- Double joint viton avec capot Inox IP 69K





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\emptyset$	Ratios code 
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100 112	71	80	90	100 112		
231	6.06	2.2	86	0.9	2.02	80	B					C	C			2821	01
150	9.31	1.5	91	1.0	1.48	90	B					C	C			2813	02
128	10.96	1.5	107	1.0	1.53	110	B					C	C			1921	03
110	12.71	1.5	124	1.0	1.50	125	B					C	C			1721	04
94	14.91	1.5	146	1.0	1.45	142	B					C	C			1521	05
83	16.83	1.5	165	0.9	1.36	150	B					C	C			1913	06
79	17.80	1.1	127	1.2	1.29	150	B					C	C			1321	07
72	19.51	1.1	140	1.1	1.17	150	B					C	C			1713	08
61	22.90	1.1	164	0.9	1.00	150	B					C	C			1513	09
58	24.30	1.1	174	0.9	0.94	150	B					C	C			1021	10
54	26.15	0.75	128	1.2	0.88	150	B					C	C			1910	11
51	27.34	0.75	134	1.1	0.84	150	B					C	C			1313	12
46.2	30.31	0.75	149	1.0	0.76	150	B					C	C			1710	13
44.1	31.71	0.75	156	1.0	0.72	150	B					C	C			921	14
39.4	35.57	0.75	175	0.9	0.64	150	B					C	C			1510	15
37.5	37.32	0.55	135	1.1	0.61	150	B					C	C			1013	16
33.0	42.46	0.55	154	1.0	0.54	150	B					C	C			1310	17
28.7	48.70	0.55	176	0.9	0.47	150	B					C	C			913	18
24.2	57.96	0.37	140	1.1	0.40	150	B					C	C			1010	19
21.8	64.31	0.37	156	1.0	0.36	150	B					C	C			713	20
18.5	75.64	0.25	124	1.2	0.30	150	B					C	C			910	21
14.0	99.89	0.25	163	0.9	0.23	150	B					C	C			710	22

The dynamic efficiency is 0.96 for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

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

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

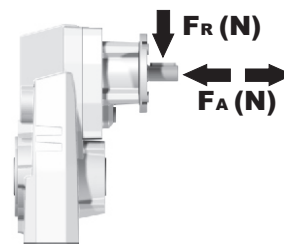


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
300	250	1250	140	360	1800	70	470	2350
250	270	1350	120	380	1900	40	550	2750
200	320	1600	85	440	2200	15	560	2800

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

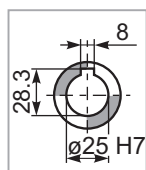
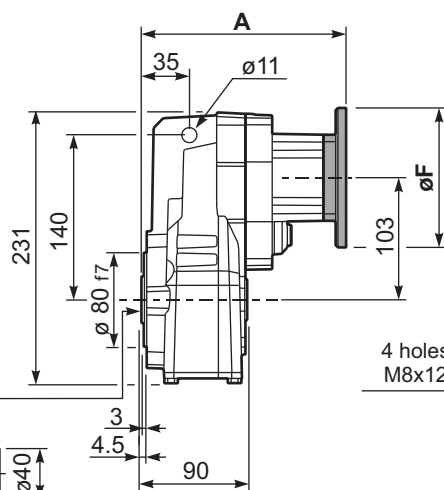
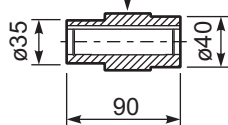
tab. 2

PFA32C...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore

7.0 kg

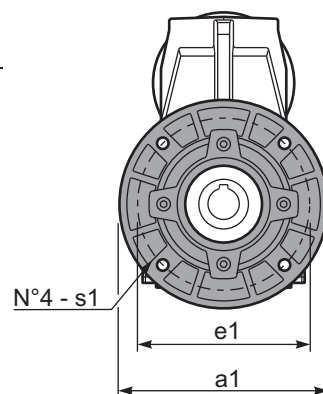
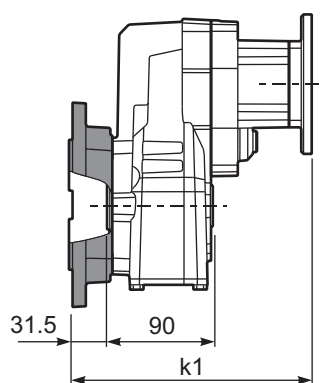
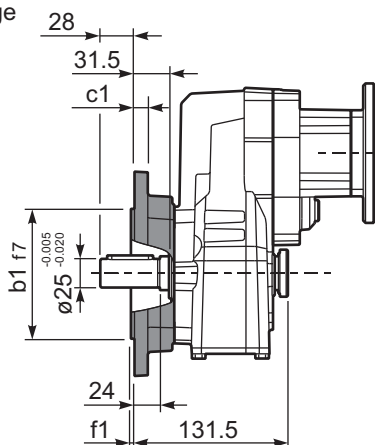
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	176.5
71B5	K063.4.042	160	174.5
80/90B5	K063.4.043	200	176.5
100/112B5	KC40.4.043	250	191.5
71B14	K063.4.047	105	174.5
80B14	K063.4.046	120	176.5
90B14	K063.4.041	140	176.5
100/112B14	KC40.4.041	160	191.5

Standard
Hollow shaft4 holes
M8x123 holes
M6x11

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

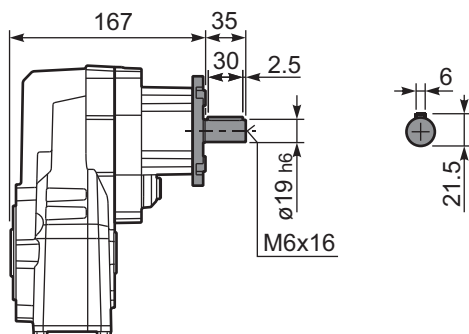


Available output flanges

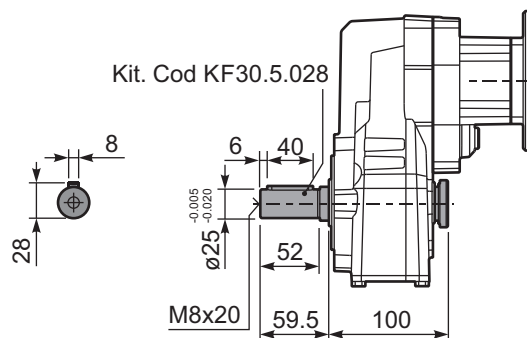
Flange di uscita

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		Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-O	-P	-Q		
13.6	102.57	0.25	164	0.9	0.23	150			C	C		131710	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 requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

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

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

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

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

F_R (N)
 F_A (N)

F_{eq} (N)
 X

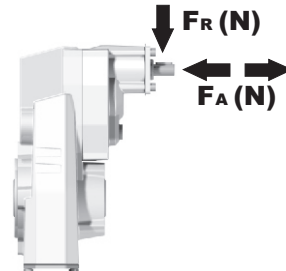
n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
300	250	1250	140	360	1800	70	470	2350
250	270	1350	120	380	1900	40	550	2750
200	320	1600	85	440	2200	15	560	2800

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

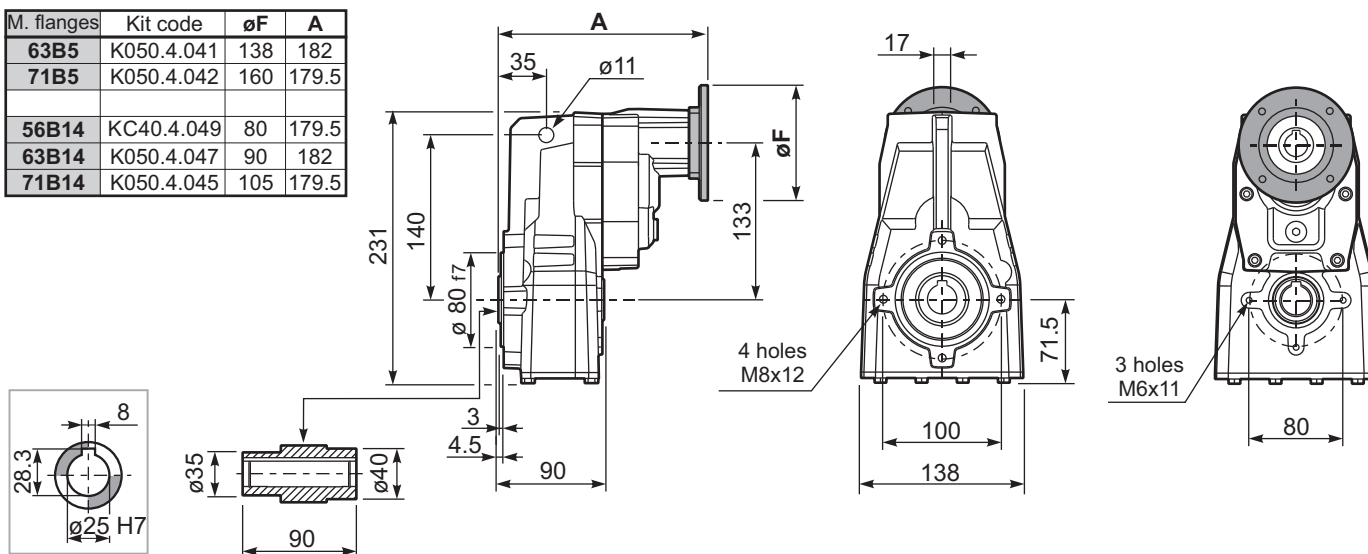
tab. 2

PFA33C...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore

7.0 kg

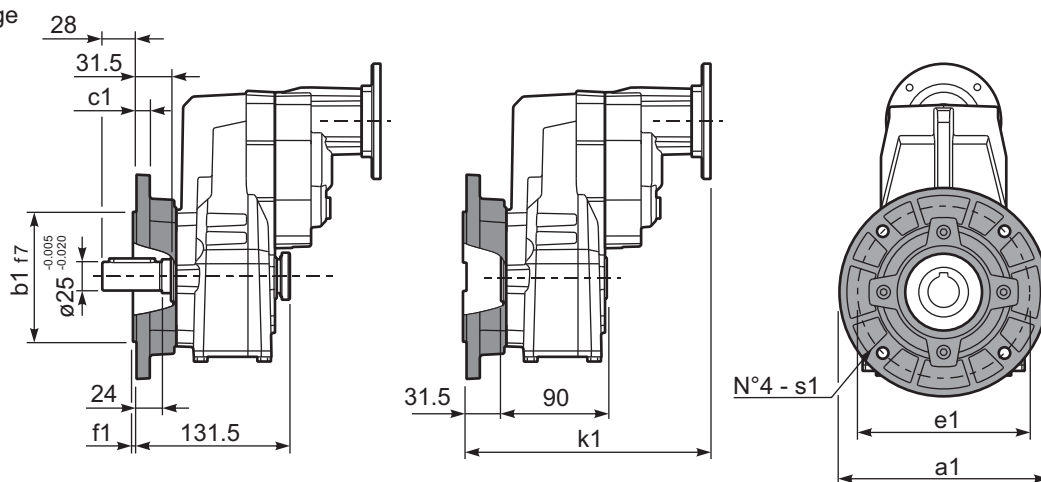
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	182
71B5	K050.4.042	160	179.5
56B14	KC40.4.049	80	179.5
63B14	K050.4.047	90	182
71B14	K050.4.045	105	179.5

Standard
Hollow shaft

PFA33...-F...

Output flange
Flangia uscita

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

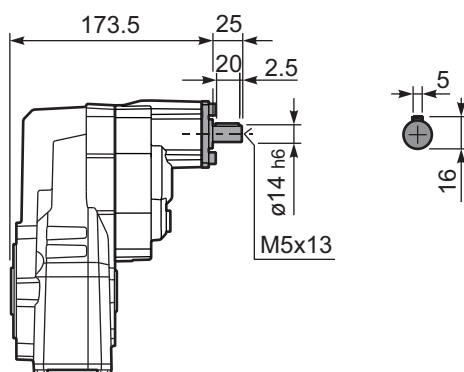


Available output flanges

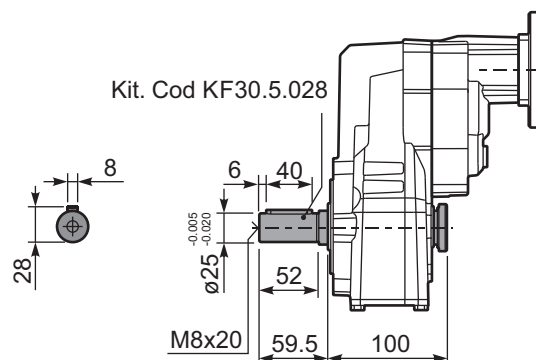
Flange di uscita

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

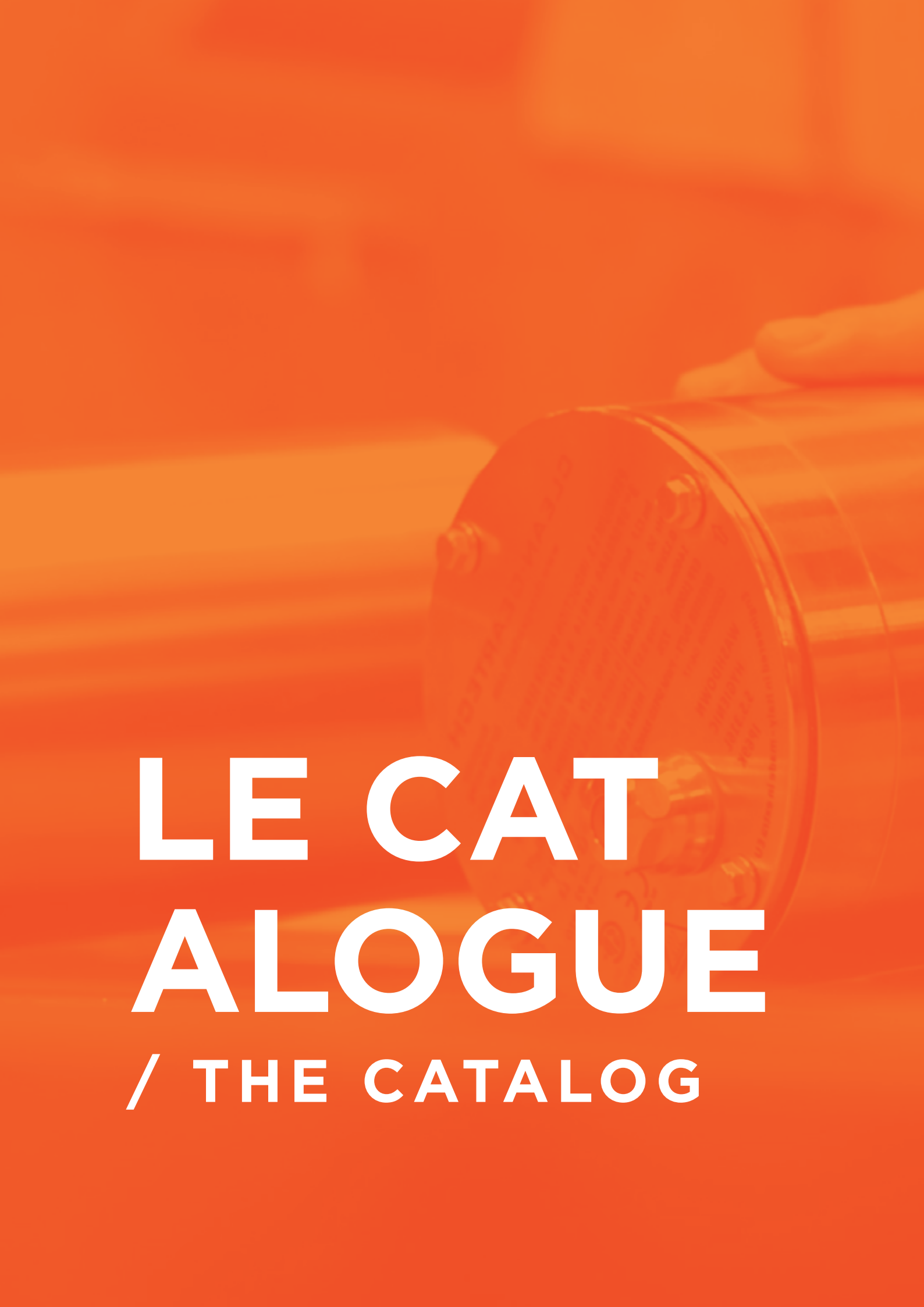
RFA33C...

Input Shaft
Albero in entrata

PFA33 A...

Single output shaft
Albero uscita semplice

Kit. Cod KF30.5.028

A hand is holding a clear, cylindrical container, possibly a jar or a small bucket, which contains a metal mesh screen. The background is a warm, orange-toned image, possibly of a sunset or a similar scene. The text is overlaid on the lower half of the image.

LE CAT ALOGUE

/ THE CATALOG

Réducteurs roue et vis de forme ronde

Worm gearboxes

Un produit compact et modulaire
A modular and compact product

Carcasse aluminium usinée en une seule pièce

Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing.

No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

Arbre d'entrée et vis sans fin en acier

Single piece alloy steel input shaft and worm shaft.

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

Roulements sur-dimensionnés

Oversized bearings

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

Bride modulaire

Flange

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

Joint en Nitrile haute température

Premium, high temperature

Nitrile® output seals

Roue bronze

Bronze alloy worm gears.

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

Arbre creux standard

Standard hollow output shaft mounting

Reduces total drive envelope size, weight and cost.

Single and double solid output shaft is available.

Flasques latérales avec portées de roulements usinées et imprégnées

Impregnated and machined bearing cap

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

Roulements sur-dimensionnés

Over size bearing

For radial load capability and maximum hollow output shaft diameter.

Peinture

Painting

Cast iron gearboxes are painted RAL 7046

Vent Free Design.

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

oil free



vent free

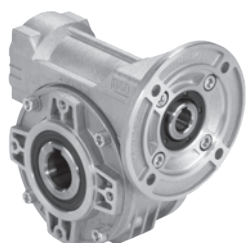


World wide sales network.

Fiche technique spécifique en page

Specific type datasheet on page

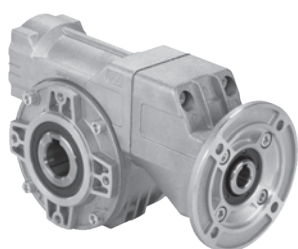
On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /
Tipen / Types /
Tipos

1-5	1-7	1-9	1-11	1-13	1-15	1-17
030 21Nm	045 41Nm	050 72Nm	063 147Nm	63A 191Nm	085 347Nm	110 651Nm

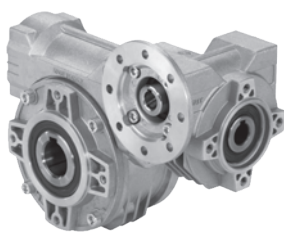
On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /
Tipen / Types /
Tipos

1-19	1-21	1-23	1-25	1-27	1-29
P45 55Nm	P50 88Nm	P63 187Nm	P6A 218Nm	P85 440Nm	P10 803Nm

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



Types / Tipi /
Tipen / Types /
Tipos

1-31	1-33	1-35	1-37	1-39	1-41	1-43	1-45	1-47
303 35Nm	453 69Nm	503 109Nm	633 230Nm	634 265Nm	6A3 290Nm	6A4 304Nm	854 518Nm	115 978Nm

Type - Tipo - Typ
Type - Tipo

Size - Grandezza
Größe - Taille
Tamaño

Mounting - Montaggio - Montage Fixation
Fixation - Tipo de montaje

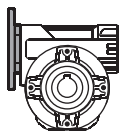
P

045

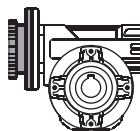
PA

Worm gearboxes

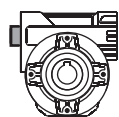
Riduttori a vite senza fine
Schneckengetriebe
Reducteurs a vis sans fin
Reductores de corona sin fin



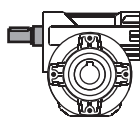
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M

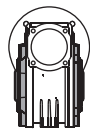


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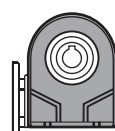


R

**030
045
050
063
63A
085
110**



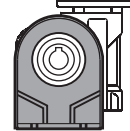
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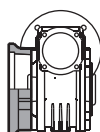
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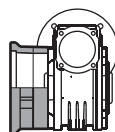
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PV

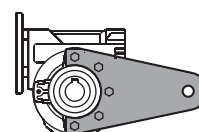


FC



FL

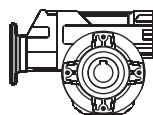
**F1
F2
F3
F4**



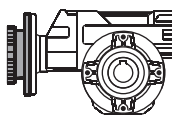
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Worm gearboxes with primary reduction

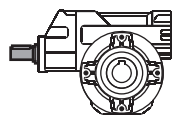
Riduttori a vite senza fine con precoppia
Schneckengetriebe mit stirnradstufe am Eintrieb
Reducteurs a vis sans fin avec pré-réduction
Reductores corona sin fin con prereductora de engranajes



P

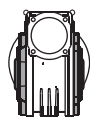


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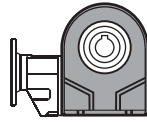


R

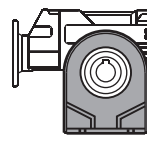
**P45
P50
P63
P6A
P85
P10**



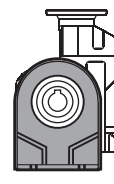
FB



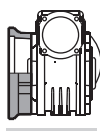
PB



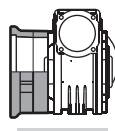
PA



PV

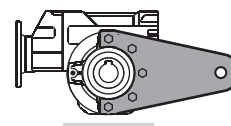


FC



FL

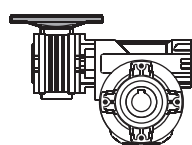
**F1
F2
F3
F4**



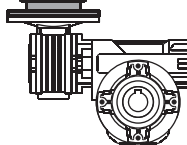
BR

Combined worm gearboxes

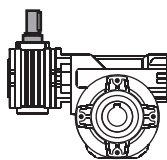
Riduttori a vite senza fine combinati
Schneckengetriebekombinationen
Reducteurs a double train de vis sans fin
Reductores combinados corona sin fin



P

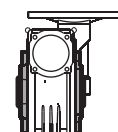


M

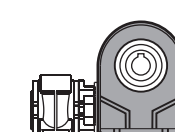


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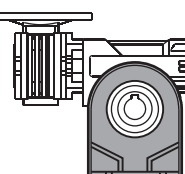
**303
453
503
633
634
6A3
6A4
854
115**



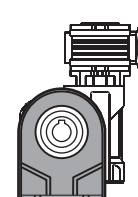
FB



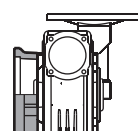
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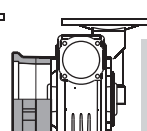
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PV

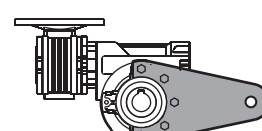


FC



FL

**F1
F2
F3
F4**

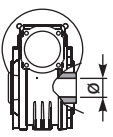
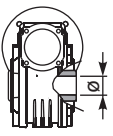
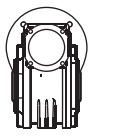
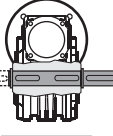
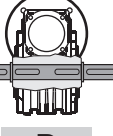
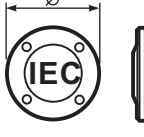
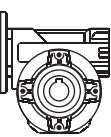
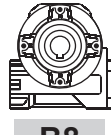
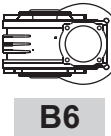
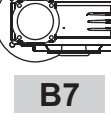
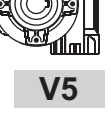
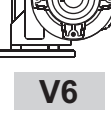
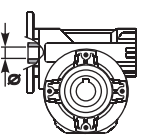
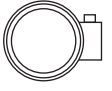


BR



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

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Ratio Rapporto Untersetzung Reduction Relación	Hub Mozzo corona Hohlwelle Arbre creux Núcleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje salida	Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje	Terminal box position Posizione morsetti Klemmkastenlage Position boîte a bornes Posición caja de bornes
10	C	Ø	-Q	B3	ST	---	
See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos	 STANDARD C 030 ⇒ Ø14 045 ⇒ Ø18 050 ⇒ Ø25 063 ⇒ Ø25 63A ⇒ Ø28 085 ⇒ Ø35 110 ⇒ Ø42 I Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Núcleo corona de acero Inox SPECIAL SERIES SERIE SPECIALE S 045 ⇒ Ø19 050 ⇒ Ø24 X Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Núcleo corona de acero Inox  INCH U 045 ⇒ Ø0.750" 050 ⇒ Ø1.000" 063 ⇒ Ø1.125" 085 ⇒ Ø1.500" Z Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Núcleo corona de acero Inox	 Ø  S  D	 -M without flange Senza flangia B5 -A=56 (Ø120) -B=63 (Ø140) -C=71 (Ø160) -D=80 (Ø200) -E=90 (Ø200) -F=100 (Ø250) -G=132 (Ø300) B14 -O=56 (Ø80) -P=63 (Ø90) -Q=71 (Ø105) -R=80 (Ø120) -T=90 (Ø140) -U=100 (Ø160) -V=132 (Ø200) Brushless BA=40/63-M5 BB=50/70-M5 BC=60/75-M5 BD=70/90-M6 BE=80/100-M6 BF=95/115-M8 BG=110/145-M8 BH=130/165-M8 -0=Type R -S=Type R S series	 B3  B8  B6  B7  V5  V6	 ST Standard bore * Kit R standard Foro standard * Kit R standard Input bore without Reduction Bushing -O = 9mm -P = 11mm -Q = 14mm -R = 19mm -T = 24mm -U = 28mm -V = 38mm COUPLING STANDARD (IEC)  -A = 9mm -B = 11mm -C = 14mm -D = 19mm -E = 24mm -F = 28mm BRUSHLESS *  -1 = 9mm -2 = 11mm -3 = 14mm -4 = 19mm -5 = 22mm -6 = 24mm Ready for input coupling Predisposto per giunto  -0 Type B Tipo B  -0 Type R Tipo R	Only for combined units See technical data table Solo per i riduttori combinati Vedi tabella dati tecnici. Ausführungen für Getriebekombinationen it Uniquement pour combinés. Voir tableau données techniques Sólo para combinados ver tabla datos técnicos	With Type M specify terminal box position Con tipo M specificare posizione morsetti  A  B STANDARD  C  D

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

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotation

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

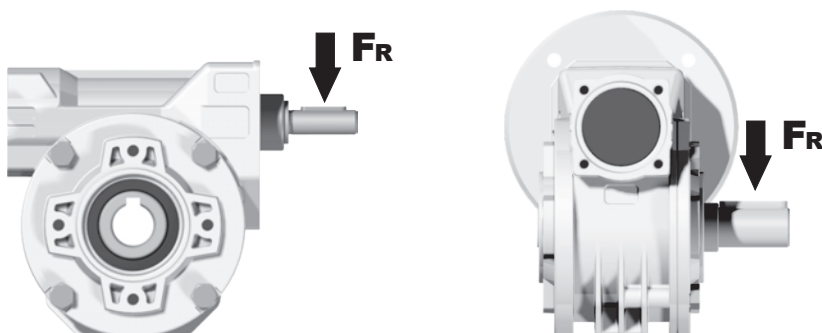
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

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



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

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

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

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

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

Flange code
Codice flangia
Flanschtype
Code bride
Código bridas

Dynamic efficiency
Rendimento dinamico
Dynamischer
Rendement dynamique
Rendimento dinámico

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

Gear size
Grandezza riduttore
Getriebegröße
Taille réducteur
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Puissance moteur
Potencia motor

045 Rightangle - Gear
41Nm

Rating - Aluminum **WORM GEARBOXES**

QUICK SELECTION / Selezione veloce										input speed (n _i) = 1400 min ⁻¹				
Output Speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency	Tooth Module	
n ₂ ⁻¹ [min ⁻¹]	i	P _{1M} [kW]	M _{2M} [Nm]	f.s.	P _{1R} [kW]	M _{2R} [Nm]	-B	-C	-O	-P	-Q	RD	[mm]	Ratio code
200	7	0.37	14	2.2	0.80	30	B		B-C	B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30	B		B-C	B-C		77	2.4	03

C Ratio
Rapporto
Untersetzung
Rapport de réduction
Relación

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

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

Nominal module
Modulo nominale
Nenn modul
Module nominale
Módulo nominal

Notes
Note
Anmerkungen
Note
Notas

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

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

LUBRICATION 030 Oil Quantity 0.03 Lt.

SHELL Omala S4 WE 320

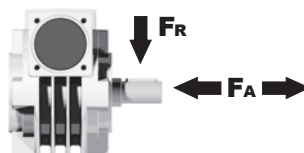
ENI Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

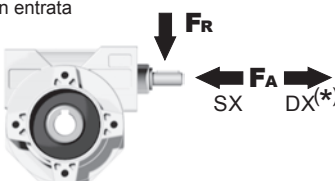
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	120	600
150	140	700
100	160	800
75	180	900
50	200	1000
25	250	1250
15	280	1400

Input shaft

albero in entrata



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

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

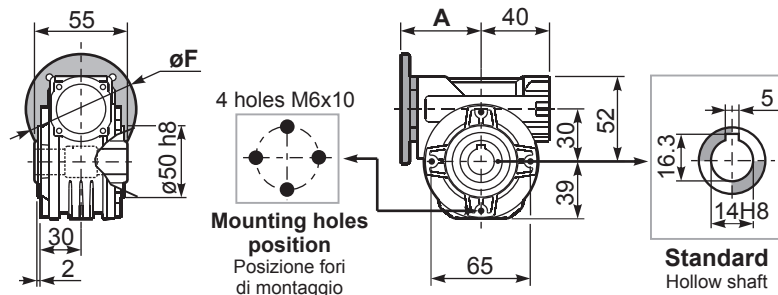
tab. 2

P030FB...

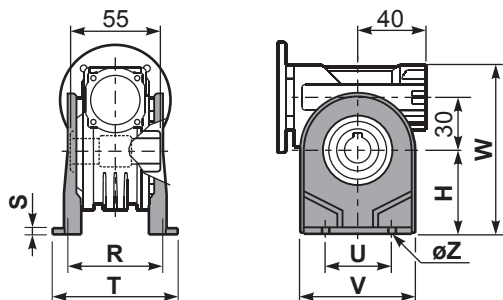
Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

1.05 kg

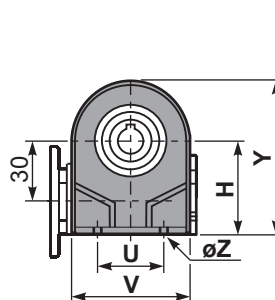
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



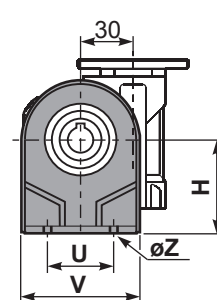
P030PA...

Feet
Piedini

P030PB...

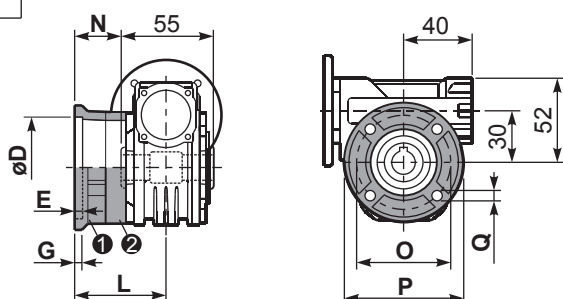
Feet
Piedini

P030PV...

Feet
Piedini

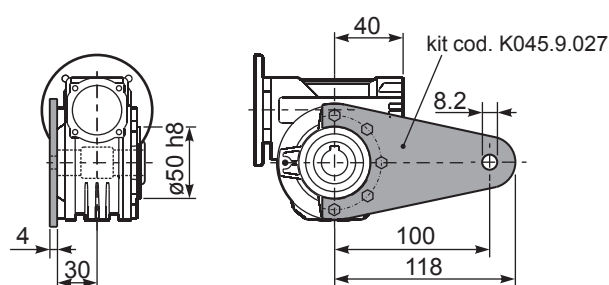
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	55	66	3	87	50	90	94	107	ø6.5	K030.9.022
type S	52	66	3	87	52	90	91	104	ø6.5	KS030.9.023

P030FC...

Output flange
Flangia uscita

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

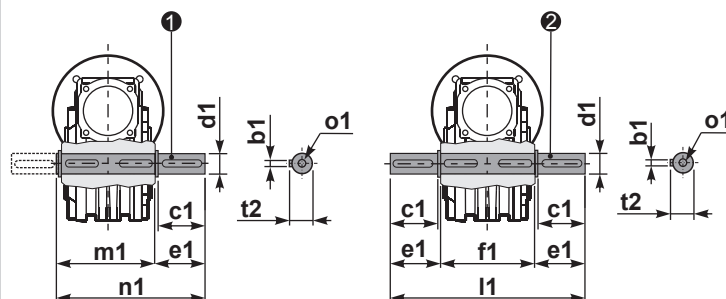
P030BR...

Reaction arm
Braccio di reazione

P030.....S...

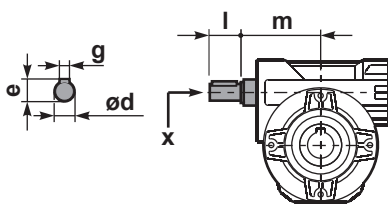
Single Shaft
Albero lento semplice

P030.....D...

Double Shaft
Albero lento bisp.

1 kit cod. K030.5.028 type B 2 kit cod. K030.5.029 type B

R030FB...

Input shaft
Albero in entrata

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 ^{-0.005} _{-0.020}	35.5	55	126	59	94.5	16	M5x14
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION 045 Oil Quantity 0.09 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

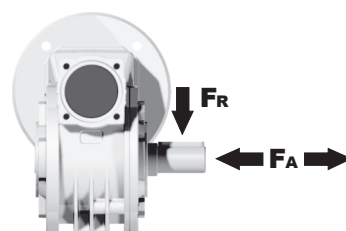
For all details on lubrication and plugs check our website

tab. 1

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

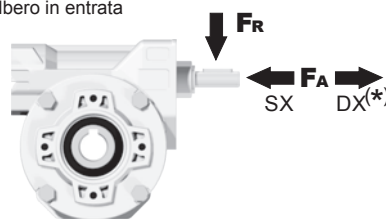
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	180	900
150	200	1000
100	220	1100
75	240	1200
50	260	1400
25	300	1800
15	400	2000

Input shaft
albero in entrata



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

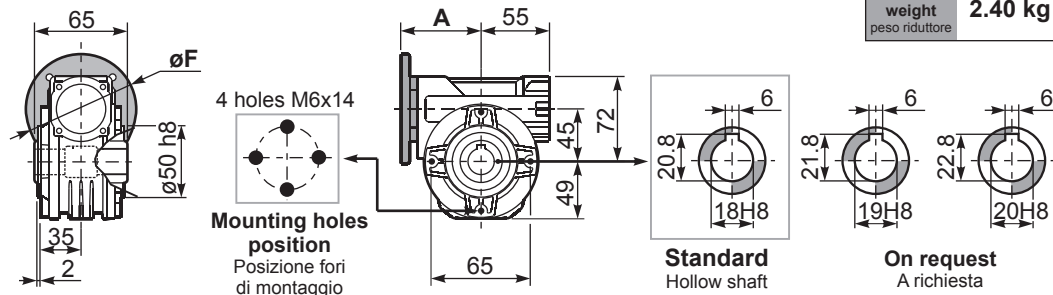
***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P045FB...

Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **2.40 kg**

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



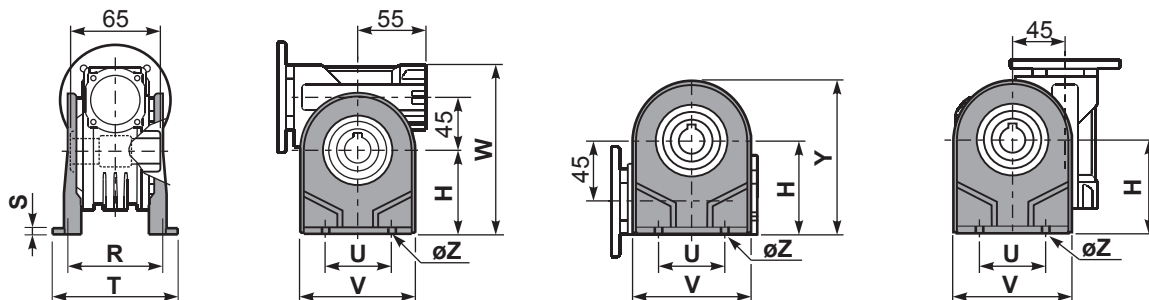
P045PA...

Feet
Piedini

P045PB...

Feet
Piedini

P045PV...

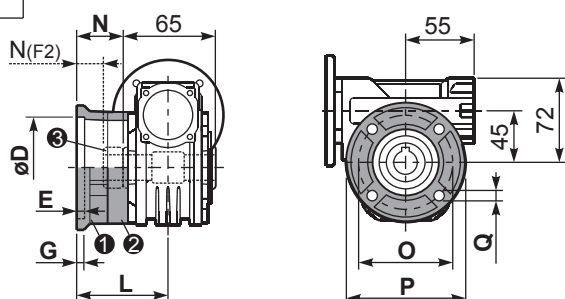
Feet
Piedini

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

P045FC...

Output flange
Flangia uscita

P045BR...

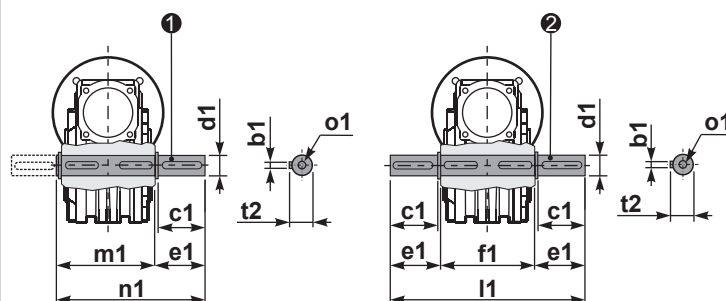
Reaction arm
Braccio di reazione

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

P045.....S...

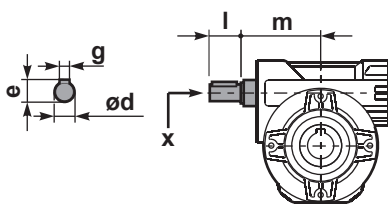
Single Shaft
Albero lento semplice

P045.....D...

Double Shaft
Albero lento bisp.

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

R045FB...

Input shaft
Albero in entrata

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 ^{-0.005} _{-0.020}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{-0.005} _{-0.020}	58.8	-	-	70	128.5	21.5	M8x20



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

A) Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION 050 Oil Quantity 0.14 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

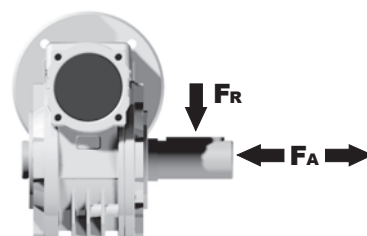
For all details on lubrication and plugs check our website

tab. 1

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

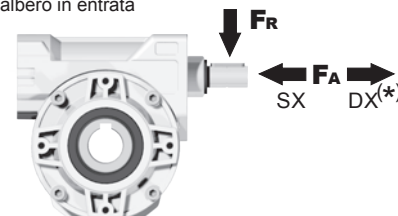
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	240	1200
150	280	1400
100	300	1500
75	340	1700
50	380	1900
25	480	2500
15	560	2800

Input shaft
albero in entrata



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

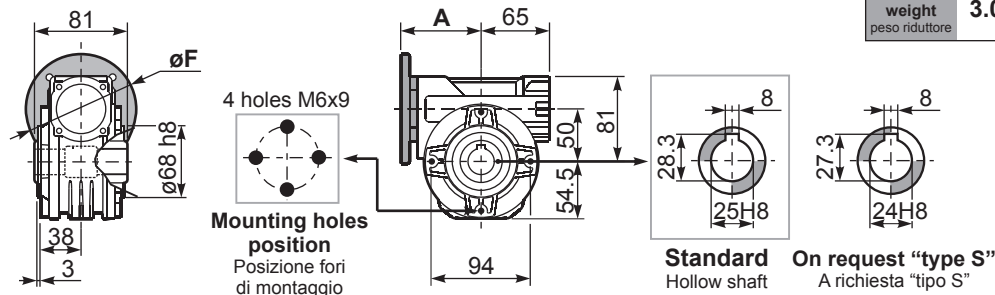
***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P050FB...

Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **3.00 kg**

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



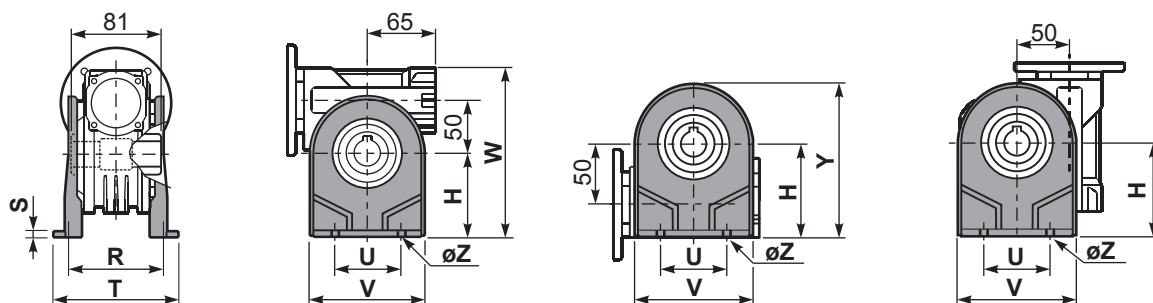
P050PA...

Feet
Piedini

P050PB...

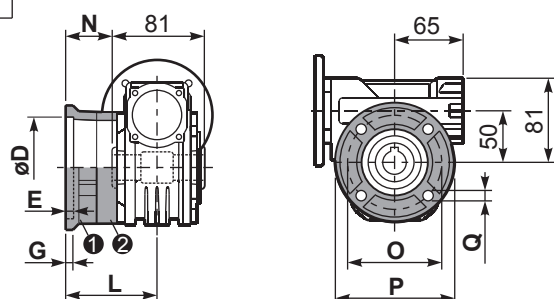
Feet
Piedini

P050PV...

Feet
Piedini

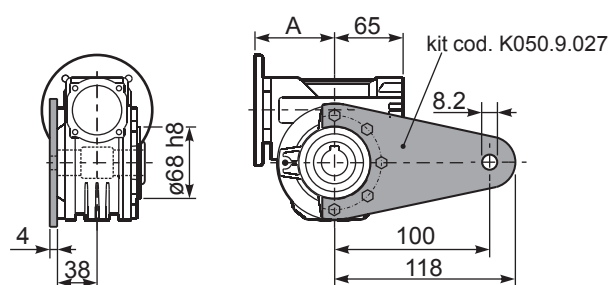
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	82	98.5	3.5	123	63	113	138.5	163	ø10.5	K050.9.022
type S	85	96	10	114	85	110	139.5	166	ø10	KS050.9.023

P050FC...

Output flange
Flangia uscita

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

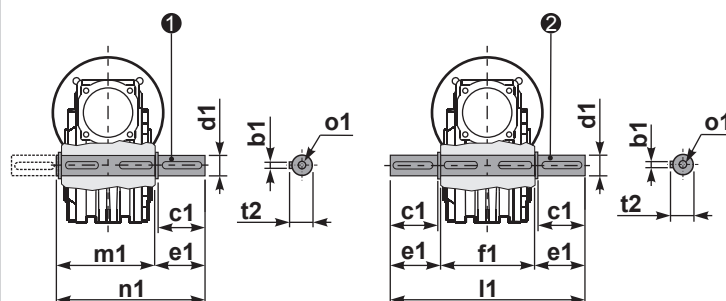
P050BR...

Reaction arm
Braccio di reazione

P050.....S...

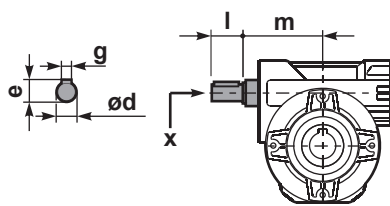
Single Shaft
Albero lento semplice

P050.....D...

Double Shaft
Albero lento bisp.

- ① kit cod. K050.5.028 type B
kit cod. KS050.5.030 type S
- ② kit cod. K050.5.029 type B

R050FB...

Input shaft
Albero in entrata

	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	74.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	74.5	M5x10	① KS050.5.008 PAM71 ② KS050.5.009 PAM80

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION 063 Oil Quantity 0.40 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

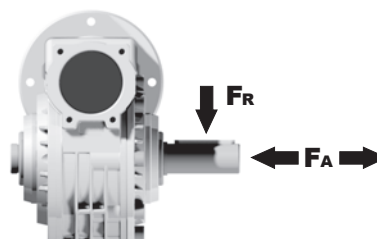
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

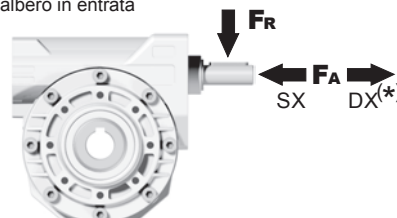
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	90	450

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

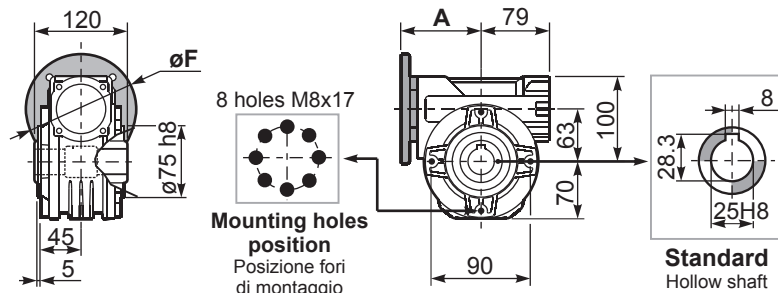
tab. 2

P063FB...

Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

6.00 kg

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



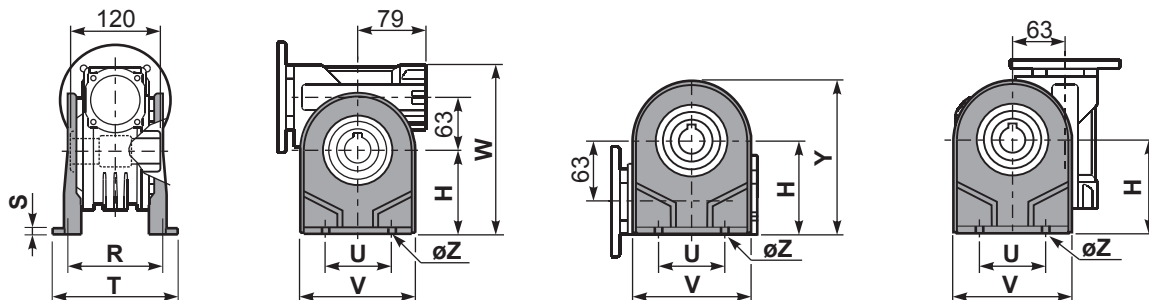
P063PA...

Feet
Piedini

P063PB...

Feet
Piedini

P063PV...

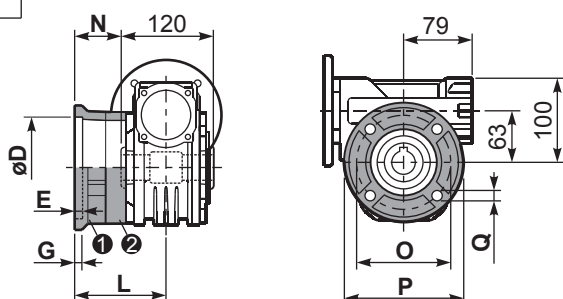
Feet
Piedini

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

P063FC...

Output flange
Flangia uscita

P063BR...

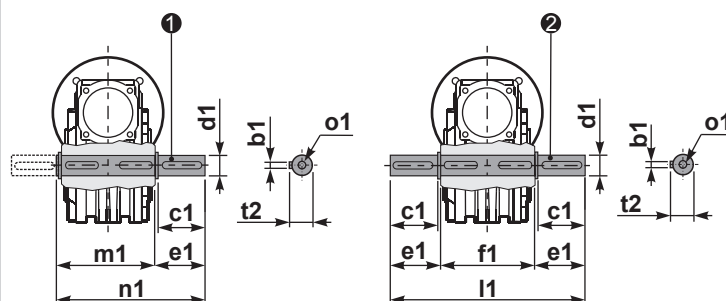
Reaction arm
Braccio di reazione

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

P063.....S...

Single Shaft
Albero lento semplice

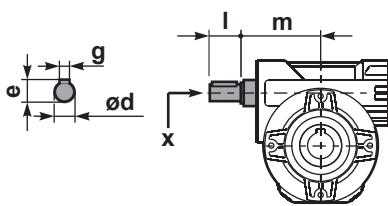
P063.....D...

Double Shaft
Albero lento bisp.

① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

R063FB...

Input shaft
Albero in entrata

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION 63A Oil Quantity 0.40 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

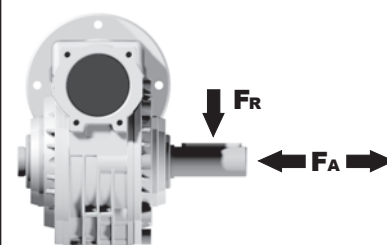
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

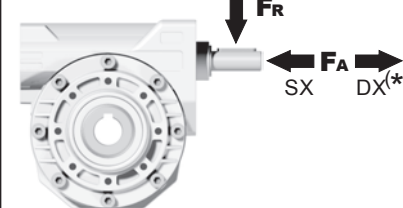
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	90	450

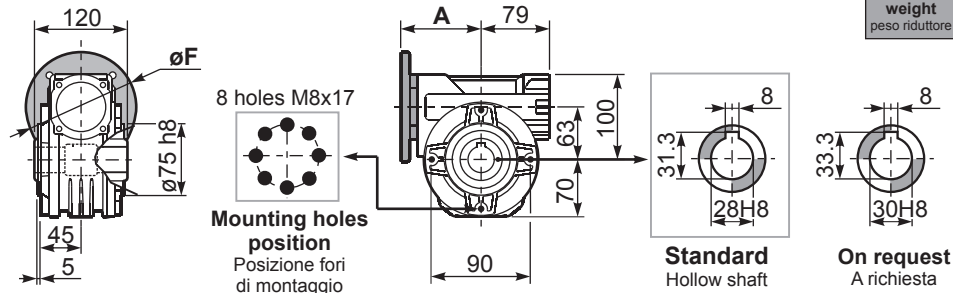
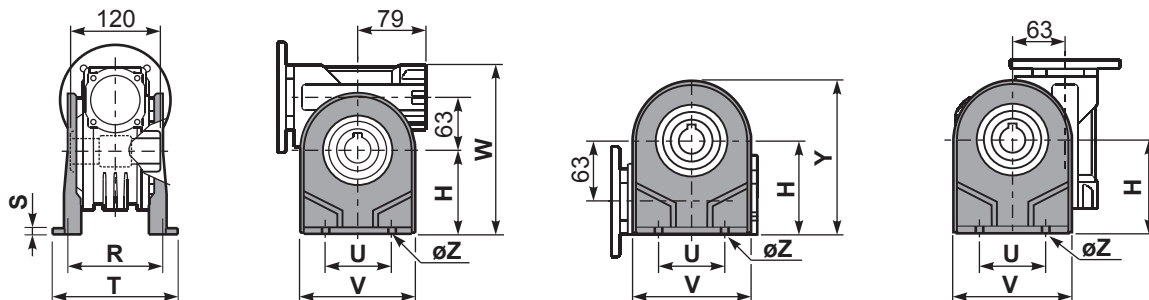
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

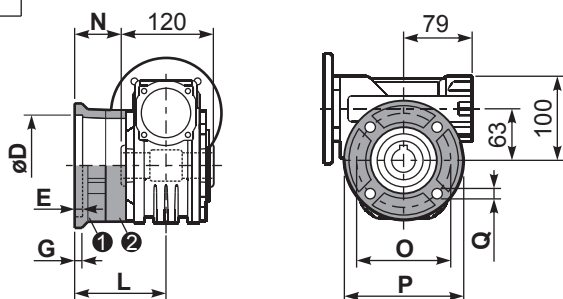
P63A**FB**...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

6.00 kg

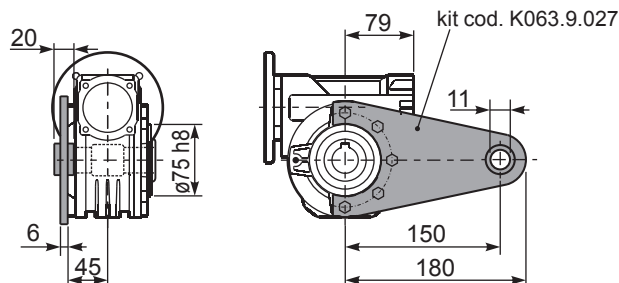
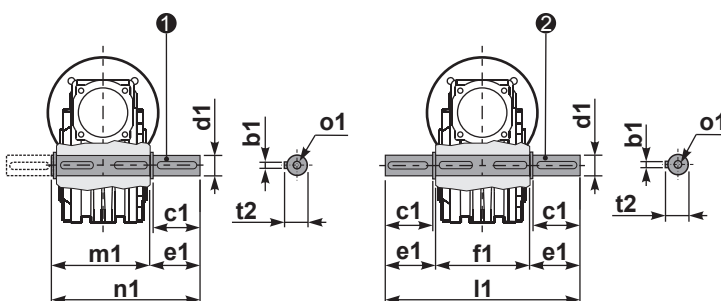
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	99.5
71B5	K063.4.042	160	97.5
80/90B5	K063.4.043	200	99.5
71B14	K063.4.047	105	97.5
80B14	K063.4.046	120	99.5
90B14	K063.4.041	140	99.5

P63A**PA**...Feet
PiediniP63A**PB**...Feet
PiediniP63A**PV**...Feet
Piedini

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

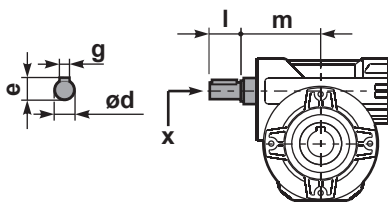
P63A**FC**...Output flange
Flangia uscita

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

P63A**BR**...Reaction arm
Braccio di reazioneP63A.....**S**...Single Shaft
Albero lento sempliceP63A.....**D**...Double Shaft
Albero lento bisp.

① kit cod. K070.5.028 type B

② kit cod. K070.5.029 type B

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

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 ^{-0.005} _{-0.020}	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION 085 Oil Quantity 1.20 Lt.

SHELL Omala S4 WE 320

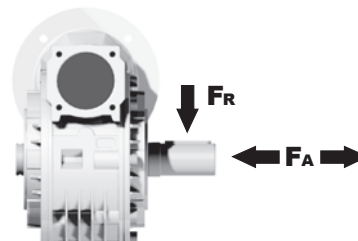
ENI Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

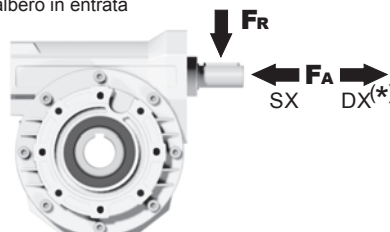
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	500	2500
150	580	2900
100	600	3000
75	700	3500
50	800	4000
25	1000	5000
15	1160	5800

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	130	650

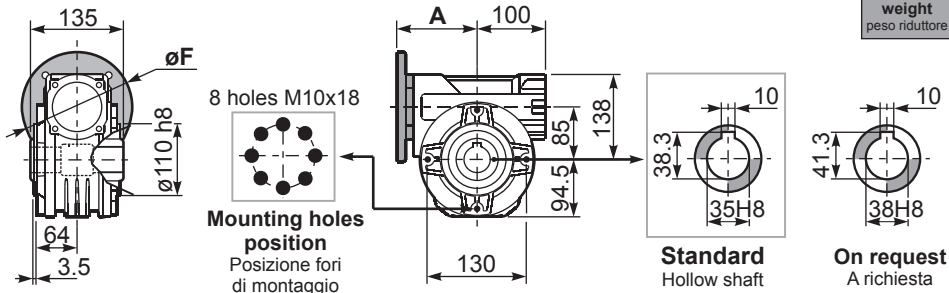
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P085FB...

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

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



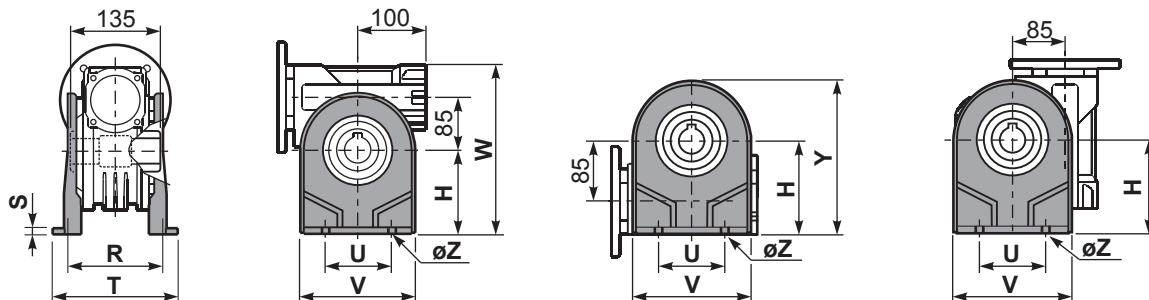
P085PA...

Feet
Piedini

P085PB...

Feet
Piedini

P085PV...

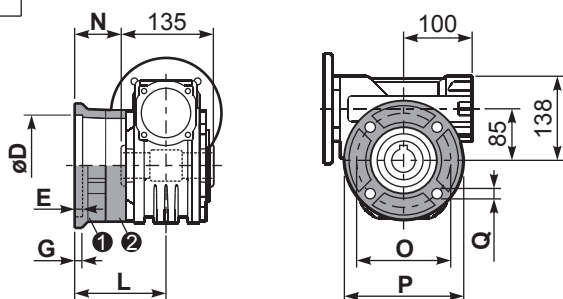
Feet
Piedini

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

P085FC...

Output flange
Flangia uscita

P085BR...

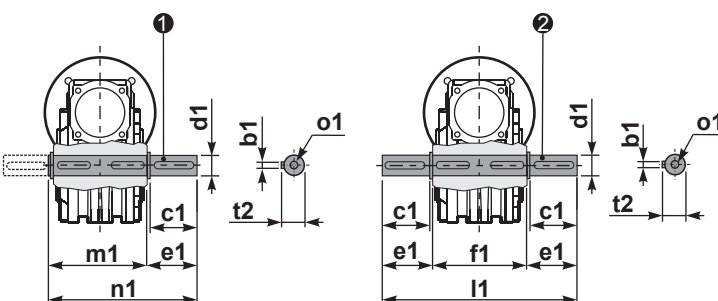
Reaction arm
Braccio di reazione

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

P085.....S...

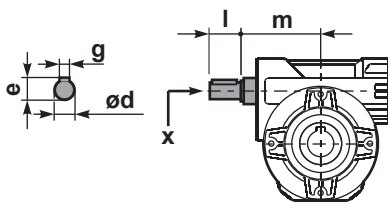
Single Shaft
Albero lento semplice

P085.....D...

Double Shaft
Albero lento bisp.

① kit cod. K085.5.028 type B ② kit cod. K085.5.029 type B

R085FB...

Input shaft
Albero in entrata

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

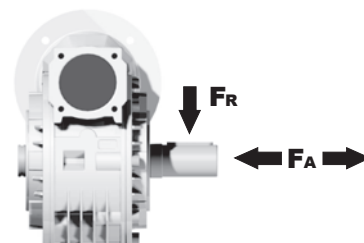
E El reductor tamaño 110 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción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

 B3	 B6	 B7	 B8	 V5	 V6
1.90 LT	1.35 LT	1.35 LT	2.00LT	2.00 LT	2.00LT
SHELL Omala S2 GX 460			ENI Blasias 460		

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

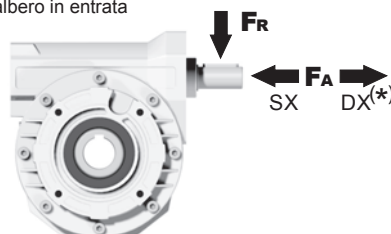
RADIAL AND AXIAL LOADS

Output shaft Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	600	2900
150	700	3300
100	750	3600
75	800	4000
50	920	4600
25	1200	6000
15	1400	7000

Input shaft albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	228	1140

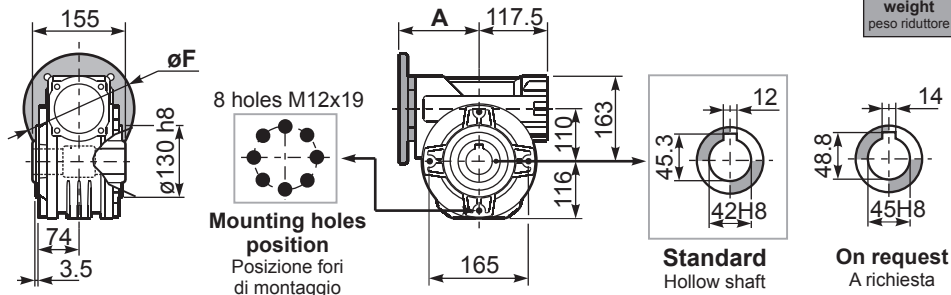
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P110FB...

Basic wormbox
Riduttore baseGearbox weight
peso riduttore **35.00 kg**

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



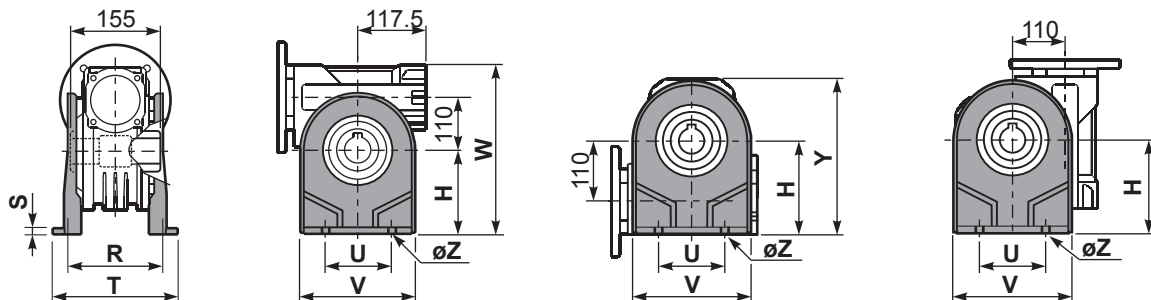
P110PA...

Feet
Piedini

P110PB...

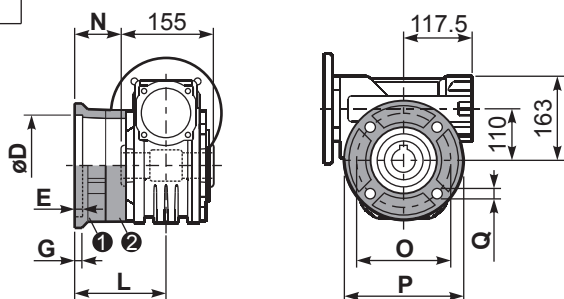
Feet
Piedini

P110PV...

Feet
Piedini

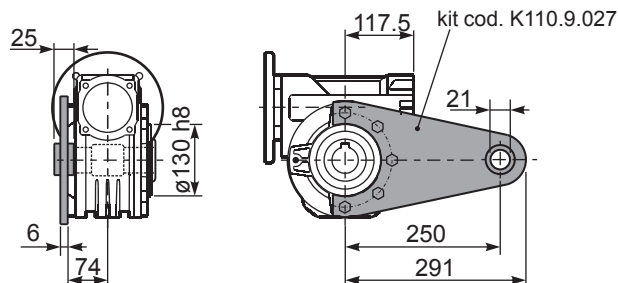
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	8	224	200	240	286	333	ø13	K110.9.022
type S	-	-	-	-	-	-	-	-	-	-

P110FC...

Output flange
Flangia uscita

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

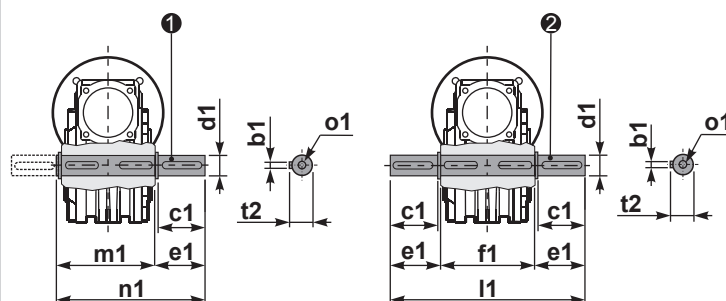
P110BR...

Reaction arm
Braccio di reazione

P110.....S...

Single Shaft
Albero lento semplice

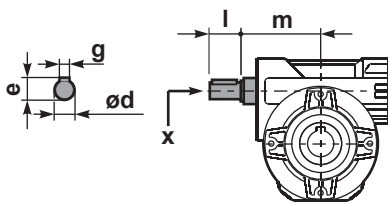
P110.....D...

Double Shaft
Albero lento bisp.

① kit cod. K110.5.028 type B

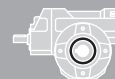
② kit cod. K110.5.029 type B

R110FB...

Input shaft
Albero in entrata

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

LUBRICATION P45 Oil

Common lubrication 0.17 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

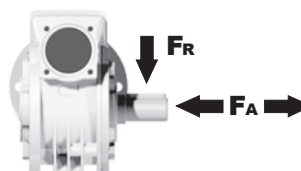
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

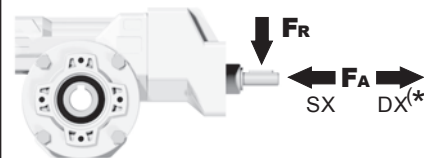
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
75	240	1200
50	260	1400
25	300	1800
15-6	400	2000

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	44	220

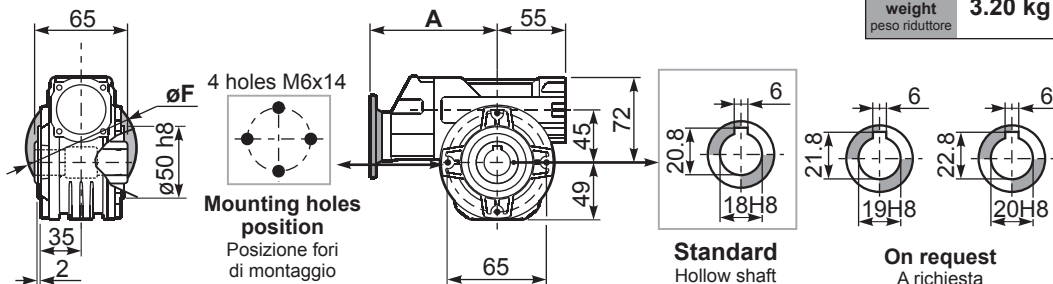
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

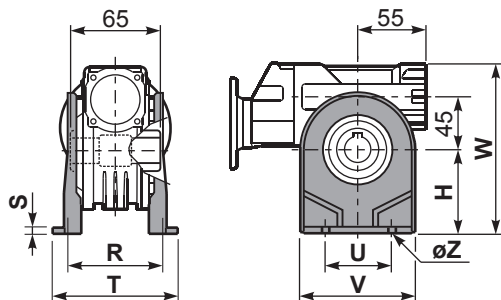
PP45FB...

Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **3.20 kg**

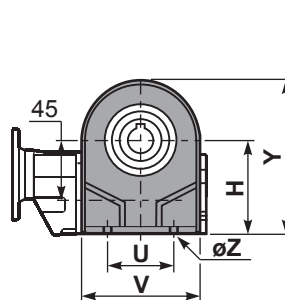
M. flanges	Kit code	øF	A
56B5	K050.4.046	120	137.5
63B5	K050.4.041	138	139.5
71B5	K050.4.042	160	137
63B14	K050.4.047	90	139.5
71B14	K050.4.045	105	137



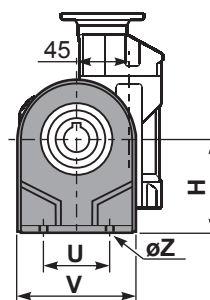
PP45PA...

Feet
Piedini

PP45PB...

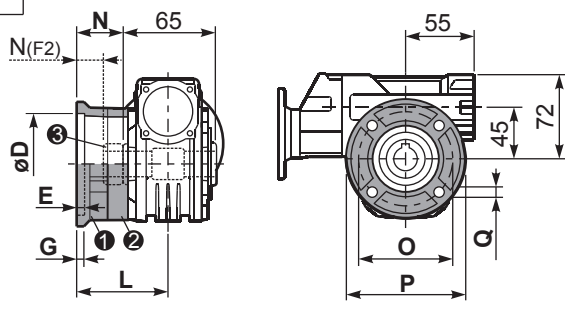
Feet
Piedini

PP45PV...

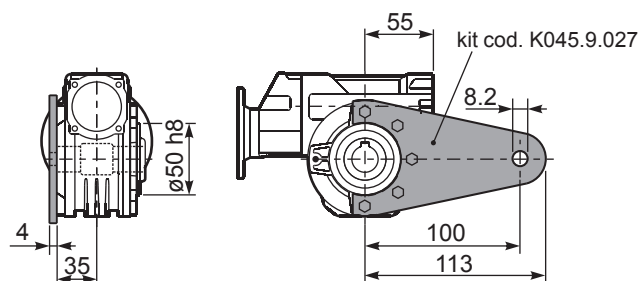
Feet
Piedini

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

PP45FC...

Output flange
Flangia uscita

PP45BR...

Reaction arm
Braccio di reazione

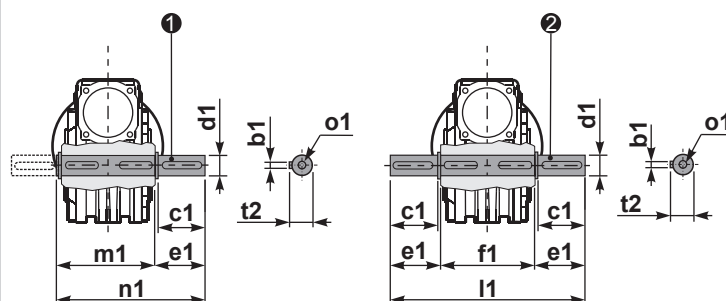
type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 ^{+0.15} _{+0.05}	9	9	60.5	28	87	110	8.5	① K045.9.010 ② -
FL	60 ^{+0.15} _{+0.05}	9	9	90.5	58	87	110	8.5	① K045.9.010 ② K045.0.200

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

PP45.....S...

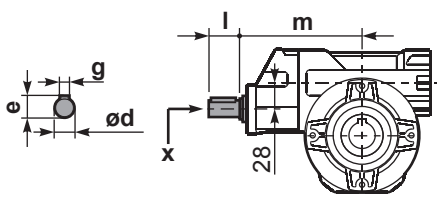
Single Shaft
Albero lento semplice

PP45.....D...

Double Shaft
Albero lento bisp.

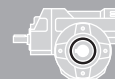
- ① kit cod. K045.5.028 type B
kit cod. KS045.5.030 type S
- ② kit cod. K045.5.029 type B

RP45FB...

Input shaft
Albero in entrata

	ød	e	g	l	m	x
type B	14 h6	16	5	25	131	M5x13
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 ^{-0.005} _{-0.020}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{-0.005} _{-0.020}	58.8	-	-	70	128.5	21.5	M8x20



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

LUBRICATION P50 Oil

Common lubrication 0.26 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

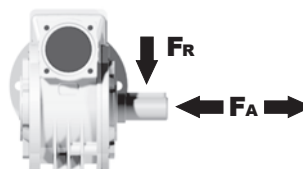
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

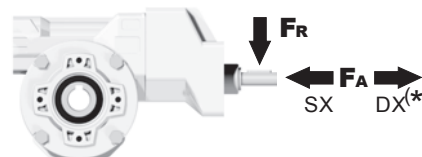
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
75	340	1700
50	380	1900
25	480	2500
15-6	560	2800

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	44	220

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

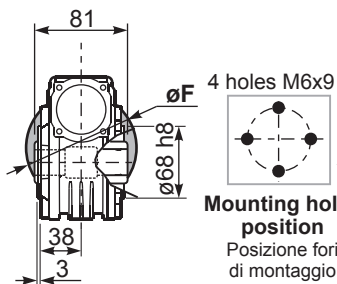
tab. 2

PP50**FB**...

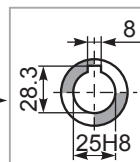
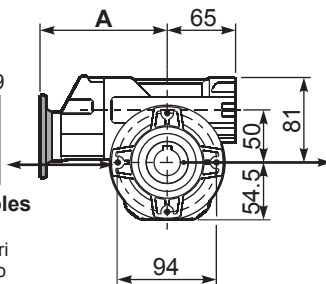
Basic wormbox
Riduttore base

Gearbox weight	3.80 kg
----------------	---------

M. flanges	Kit code	øF	A
56B5	K050.4.046	120	142
63B5	K050.4.041	138	144
71B5	K050.4.042	160	141.5
63B14	K050.4.047	90	144
71B14	K050.4.045	105	141.5

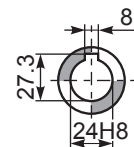


**Mounting holes
position**
Posizione fori
di montaggio

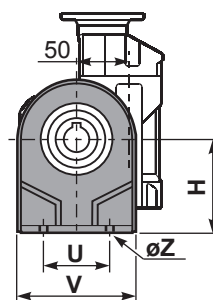
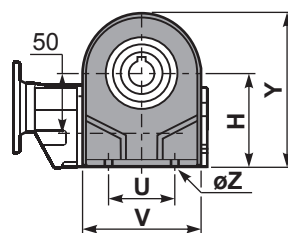
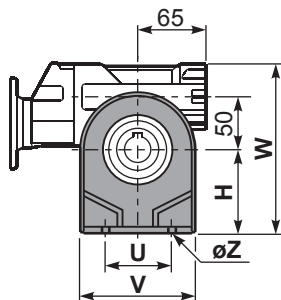
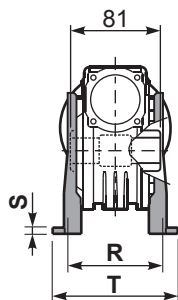


Standard

Hollow shaft



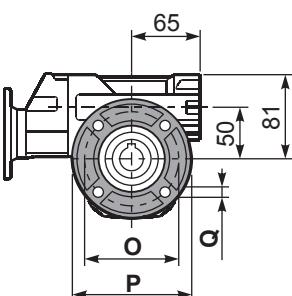
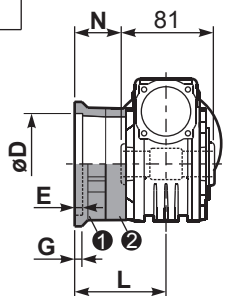
On Request "type S"
A richiesta "tipo S"

PP50**PA**...Feet
Piedini

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

PP50**FC**...

Output flange
Flangia uscita

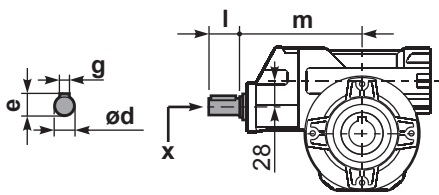


type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 ^{+0.20} _{+0.15}	9	12	85	44.5	90	123	10.5	① K050.9.010 ② -
FL	70 ^{+0.20} _{+0.15}	9	12	114.5	74	90	123	10.5	① K050.9.010 ② K050.0.200

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

RP50FB...

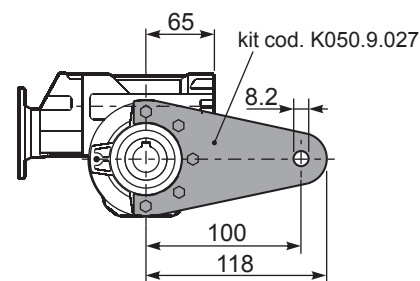
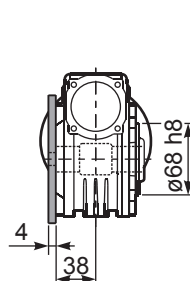
Input shaft
Albero in entrata



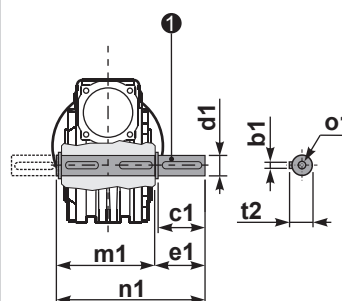
	ød	e	g	l	m	x	
type B	14 h6	16	5	25	135.5	M5x13	C35.5.061
type S	-	-	-	-	-	-	

PP50BR...

Reaction arm	Braccio di reazione
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PP50 **S**

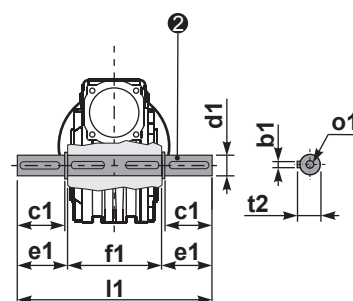
Single Shaft
Albero lento semplice



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

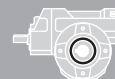
PP50 **D**

Double Shaft
Albero lento bisp.



② kit cod. K050.5.029 type B

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION P63 Oil

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



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

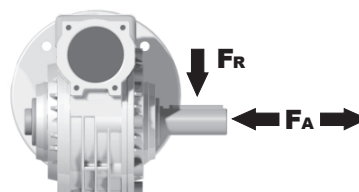
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

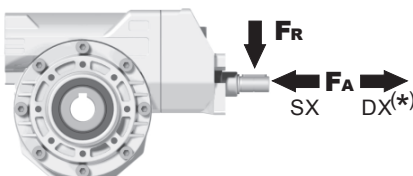
Albero di uscita



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

Input shaft

albero in entrata



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

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

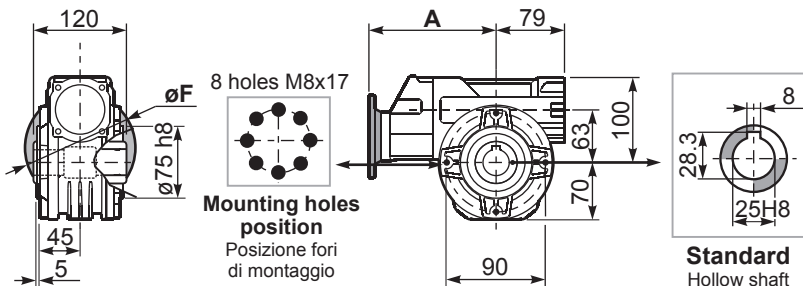
tab. 2

PP63FB...

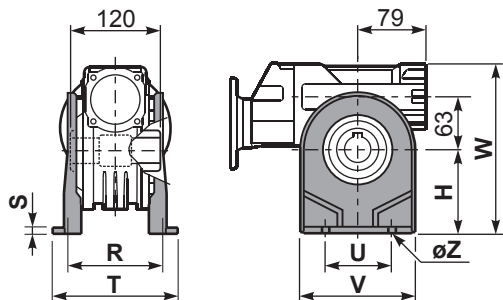
Basic wormbox
Riduttore base

Gearbox weight peso riduttore	29.9÷111	139÷434
	7.30	7.80
	Kg	Kg

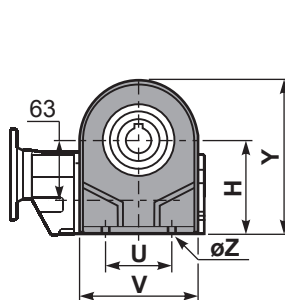
M.flange	Kit code	øF	A
71B5	K063.4.042	160	176.5
80/90B5	K063.4.043	200	178.5
71B14	K063.4.047	105	176.5
80B14	K063.4.046	120	178.5
90B14	K063.4.041	140	178.5
63B5	K050.4.041	138	162.5
71B5	K050.4.042	160	160
63B14	K050.4.047	90	162.5
71B14	K050.4.045	105	160



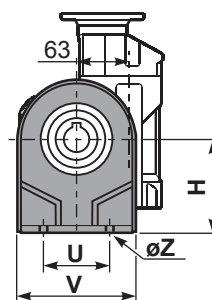
PP63PA...

Feet
Piedini

PP63PB...

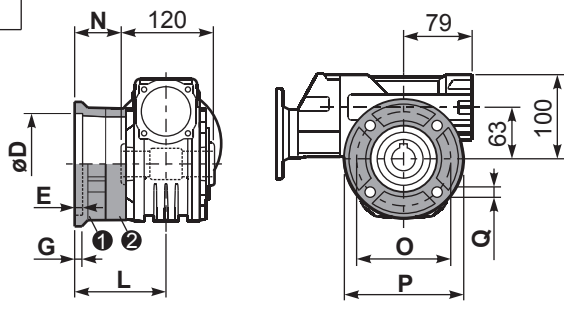
Feet
Piedini

PP63PV...

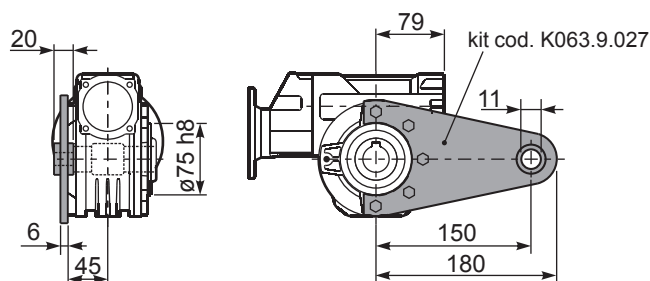
Feet
Piedini

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

PP63FC...

Output flange
Flangia uscita

PP63BR...

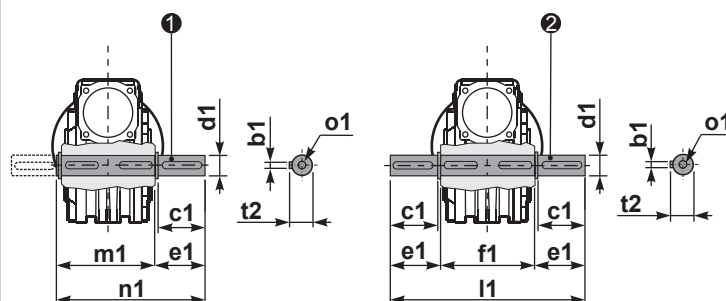
Reaction arm
Braccio di reazione

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

PP63.....S...

Single Shaft
Albero lento semplice

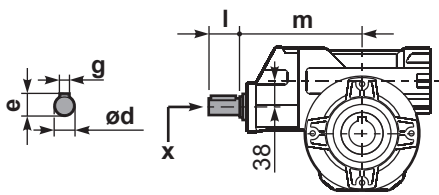
PP63.....D...

Double Shaft
Albero lento bisp.

1 kit cod. K063.5.028 type B

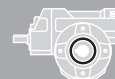
2 kit cod. K063.5.029 type B

RP63FB...

Input shaft
Albero in entrata

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

LUBRICATION P6A Oil

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



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

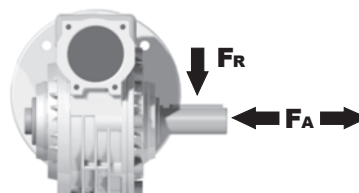
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

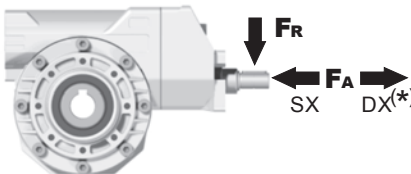
Albero di uscita



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

Input shaft

albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	61	305

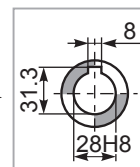
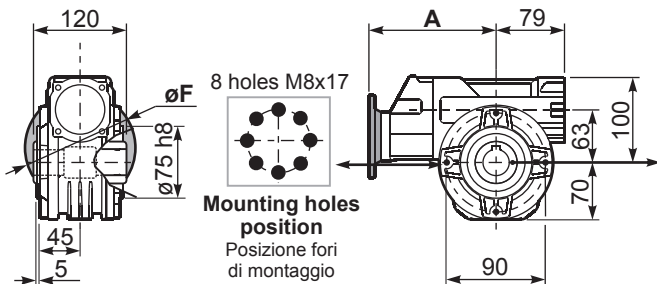
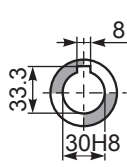
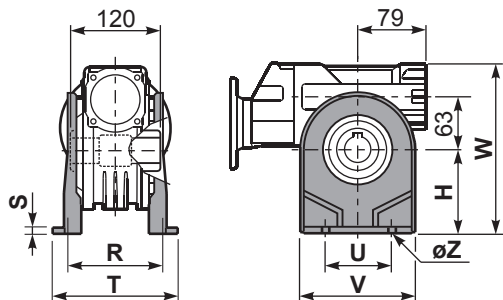
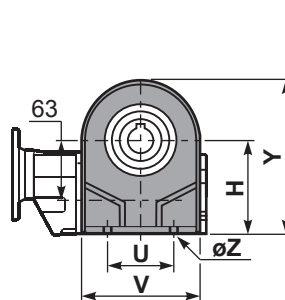
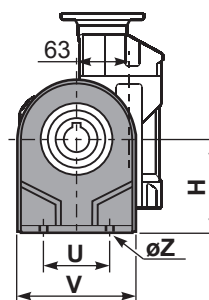
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

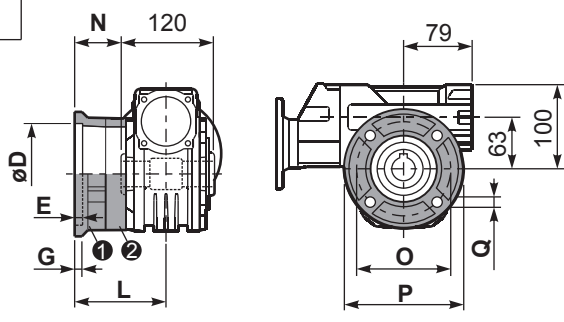
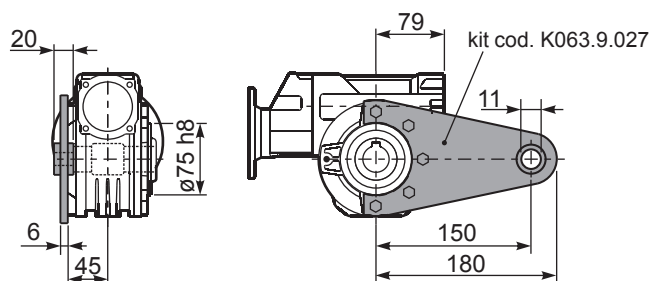
PP6A**FB**...Basic wormbox
Riduttore base

Gearbox weight peso riduttore	29.9÷111 Kg	139÷434 Kg
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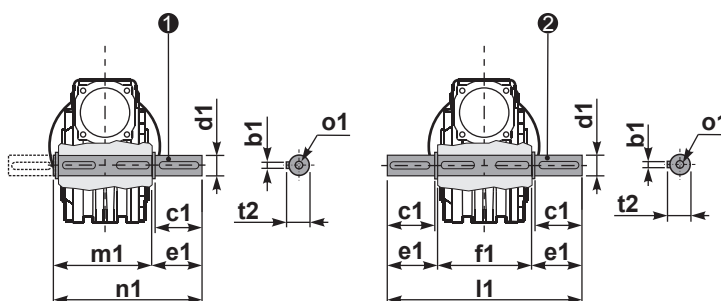
M.flange	Kit code	øF	A
71B5	K063.4.042	160	176.5
80/90B5	K063.4.043	200	178.5
71B14	K063.4.047	105	176.5
80B14	K063.4.046	120	178.5
90B14	K063.4.041	140	178.5
63B5	K050.4.041	138	162.5
71B5	K050.4.042	160	160
63B14	K050.4.047	90	162.5
71B14	K050.4.045	105	160

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

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

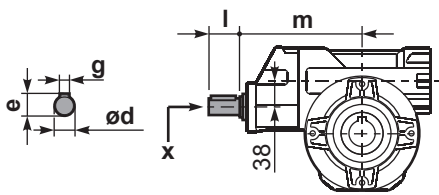
PP6A**FC**...Output flange
Flangia uscitaPP6A**BR**...Reaction arm
Braccio di reazione

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

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

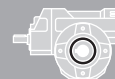
① kit cod. K070.5.028 type B

② kit cod. K070.5.029 type B

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

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 ^{-0.005} _{-0.020}	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION P85 Oil

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



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

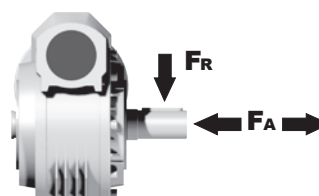
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

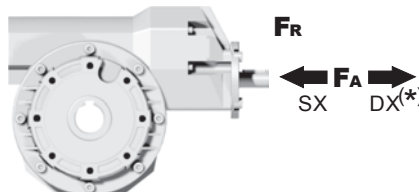
Albero di uscita



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

Input shaft

albero in entrata



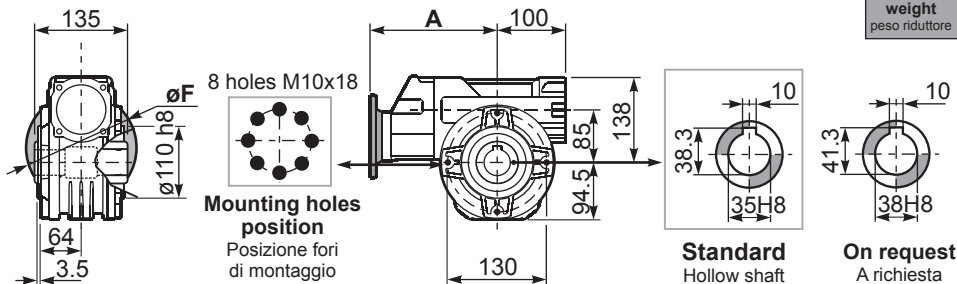
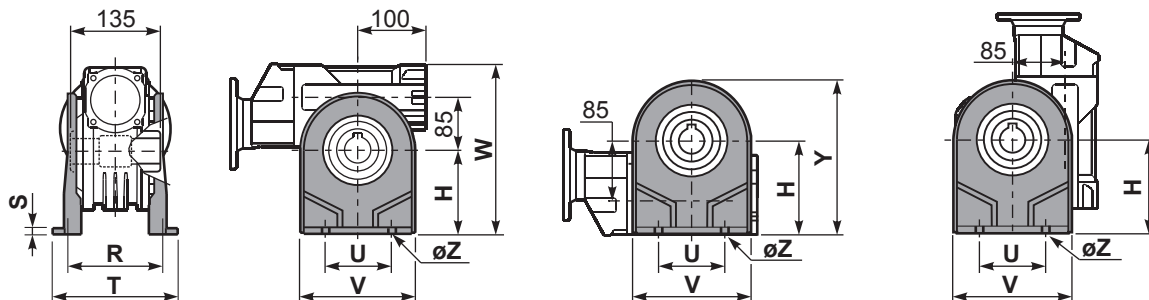
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	108	540

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

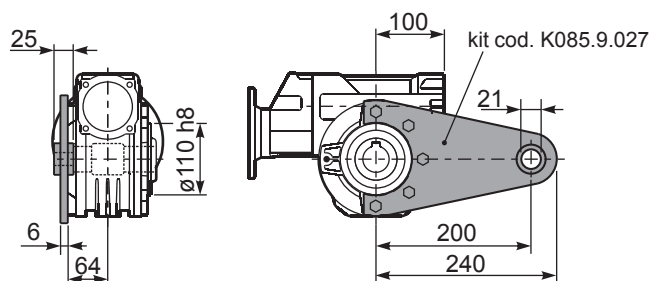
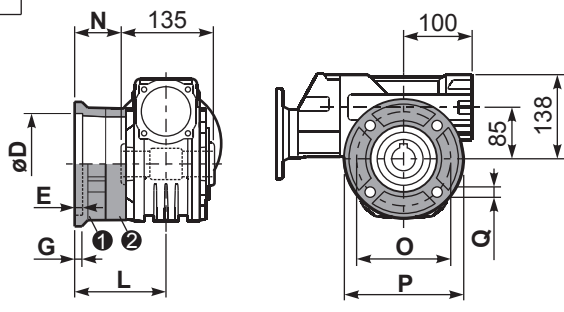
tab. 2

PP85FB...Basic wormbox
Riduttore baseGearbox weight
peso riduttore **19.30 kg**

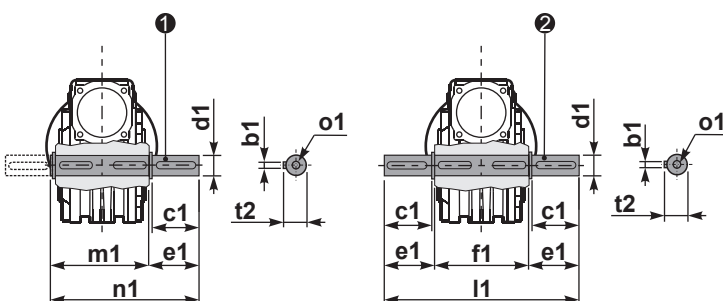
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	195.2
71B5	K063.4.042	160	193.2
80/90B5	K063.4.043	200	195.2
71B14	K063.4.047	105	193.2
80B14	K063.4.046	120	195.2
90B14	K063.4.041	140	195.2

**PP85PA...**Feet
Piedini**PP85PB...**Feet
Piedini**PP85PV...**Feet
Piedini

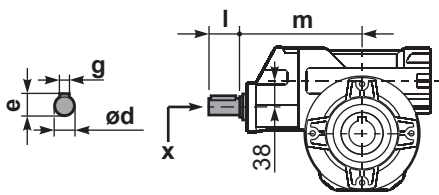
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	142	145	5	182	140	180	236.5	280	ø10.5	K085.9.022
type S	-	-	-	-	-	-	-	-	-	-

PP85FC...Output flange
Flangia uscita**PP85BR...**Reaction arm
Braccio di reazione

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

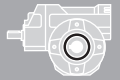
PP85.....S...Single Shaft
Albero lento semplice**PP85.....D...**Double Shaft
Albero lento bisp.

① kit cod. K085.5.028 type B ② kit cod. K085.5.029 type B

RP85FB...Input shaft
Albero in entrata

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

 **Motor Flanges Available**
Flange Motore Disponibili

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

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

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

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

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

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

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

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

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

For all details on lubrication and plugs check our website

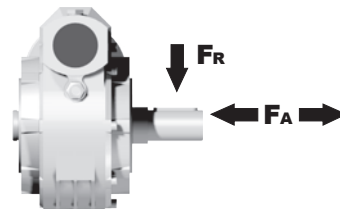
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

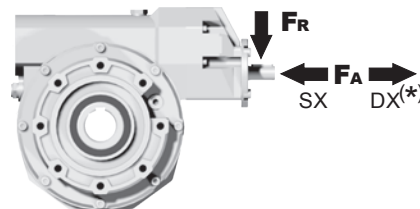
Albero di uscita



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

Input shaft

albero in entrata



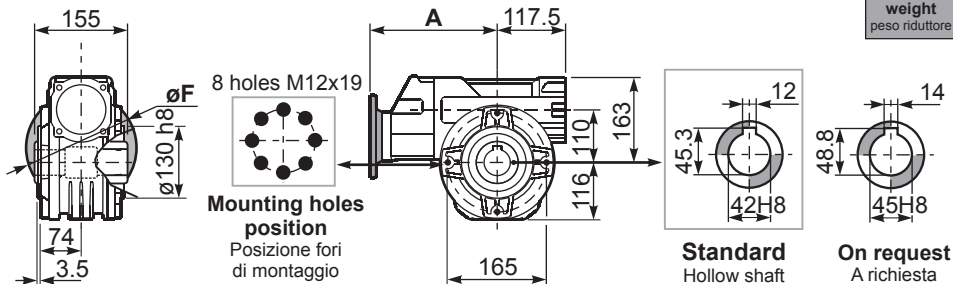
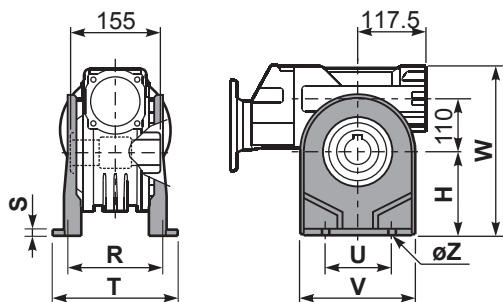
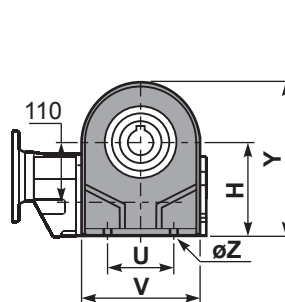
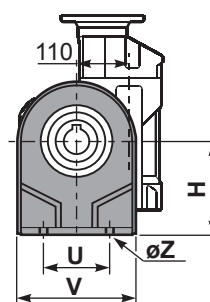
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	150	760

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

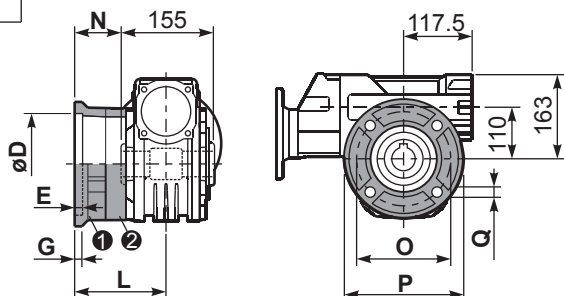
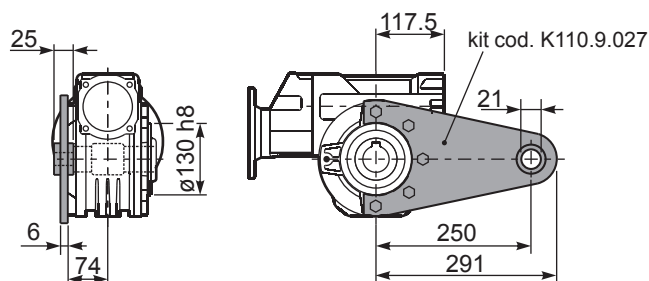
tab. 2

PP10FB...Basic wormbox
Riduttore baseGearbox weight
peso riduttore **41.00 kg**

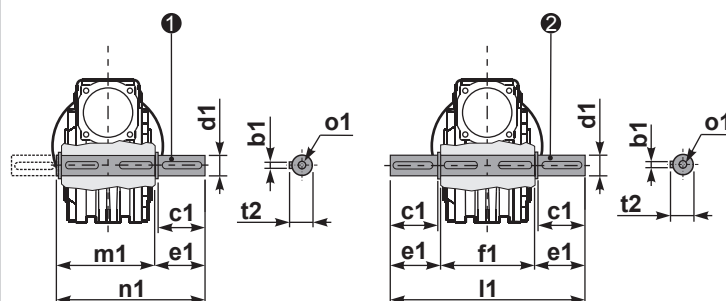
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	214.7
71B5	K063.4.042	160	212.7
80/90B5	K063.4.043	200	214.7
71B14	K063.4.047	105	212.7
80B14	K063.4.046	120	214.7
90B14	K063.4.041	140	214.7

**PP10PA...**Feet
Piedini**PP10PB...**Feet
Piedini**PP10PV...**Feet
Piedini

	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	8	224	200	240	286	333	ø13	K110.9.022
type S	-	-	-	-	-	-	-	-	-	-

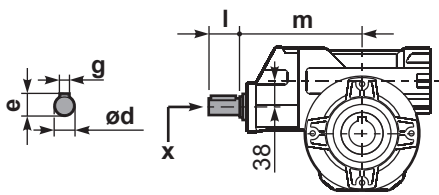
PP10FC...Output flange
Flangia uscita**PP10BR...**Reaction arm
Braccio di reazione

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

PP10.....S...Single Shaft
Albero lento semplice**PP10.....D...**Double Shaft
Albero lento bisp.

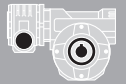
① kit cod. K110.5.028 type B

② kit cod. K110.5.029 type B

RP10FB...Input shaft
Albero in entrata

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
9.3	150	0.06	29	1.2	0.07	35	B		B-C		48	1.44	01
6.7	210	0.06	39	0.9	0.05	35	B		B-C		45	1.44	02
4.7	300	0.06	44	0.8	0.05	35	B		B-C		36	1.44	03
3.1	450	0.06*	35	<0.8	0.03	35	B		B-C		33	1.44	04
2.3	600	0.06*	35	<0.8	0.03	35	B		B-C		30	1.44	05
1.6	900	0.06*	35	<0.8	0.02	35	B		B-C		27	1.44	06
1.2	1200	0.06*	35	<0.8	0.02	35	B		B-C		26	1.44	07
0.8	1830	0.06*	35	<0.8	0.01	35	B		B-C		24	1.44	08
0.6	2400	0.06*	35	<0.8	0.01	35	B		B-C		22	1.44	09

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

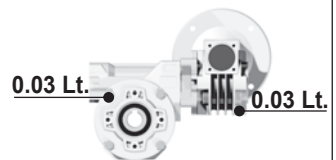
I Il riduttore tipo **303** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

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

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

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

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



SHELL Omala S4 WE 320

ENI Telium VSF 320

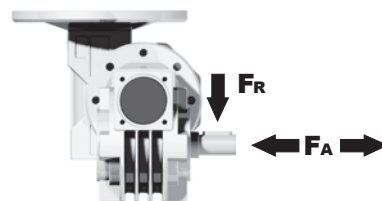
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

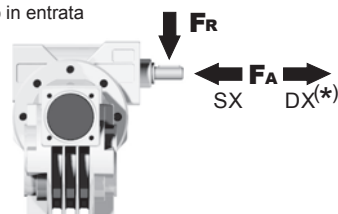
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
25	300	1800
15	400	2000

Input shaft

albero in entrata



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

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

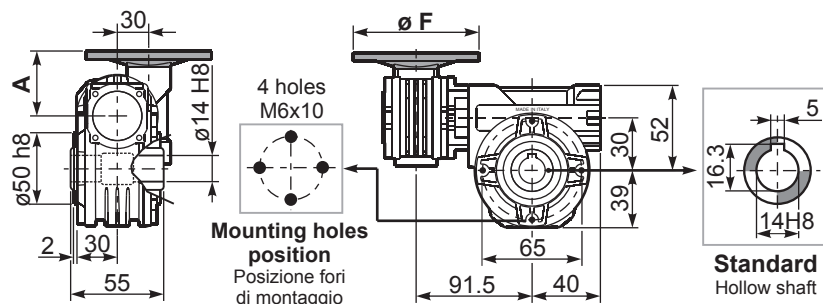
tab. 2

P303FB...

Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

2.15 kg

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



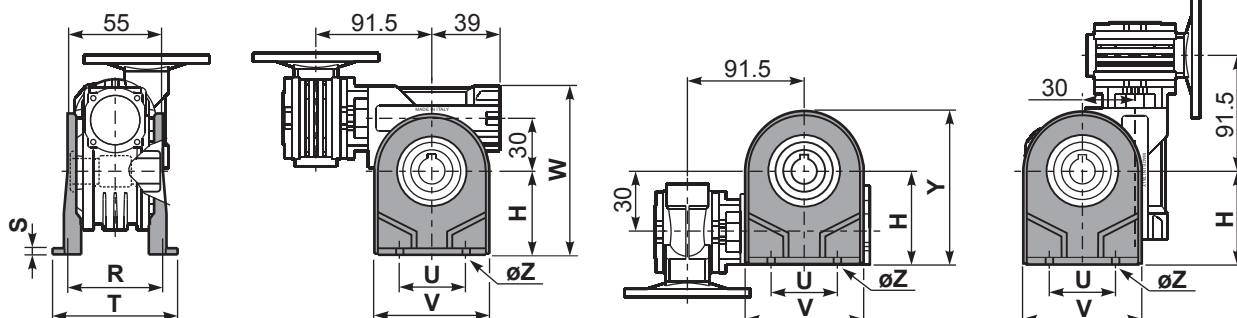
P303PA...

Feet
Piedini

P303PB...

Feet
Piedini

P303PV...

Feet
Piedini

	H	R	S	T	U	V	Y	W	ØZ	kit code
type B	55	66	3	87	50	90	94	107	Ø6.5	K030.9.022
type S	52	66	3	87	52	90	91	104	Ø6.5	KS030.9.023

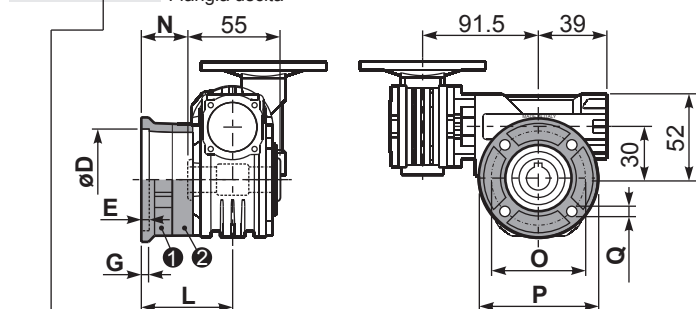
P303FC...

Output flange
Flangia uscita

P303BR...

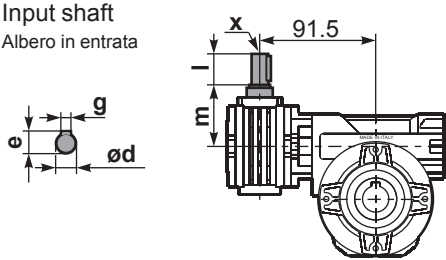
Reaction arm
Braccio di reazione

kit cod. K045.9.027



type B	ØD	E	G	L	N	O	P	Q	kit code
FC	50 ^{+0.15} _{+0.05}	6	6	50.5	23	68	80	7	1 K030.9.010 2 -
FL	60 ^{+0.15} _{+0.05}	6	6	55.5	28	87	110	8.5	1 K045.9.010 2 -
type S	ØD	E	G	L	N	O	P	Q	kit code
F1	40 ^{+0.15} _{+0.10}	3.5	5.5	49	21.5	56	80	6.5	1 KS030.9.012 2 -

R303FB...

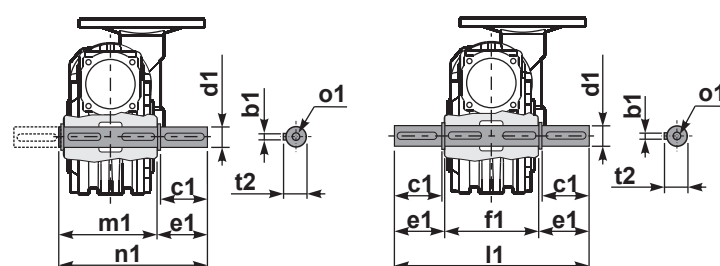
Input shaft
Albero in entrata

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

P303.....S...

Single Shaft
Albero lento semplice

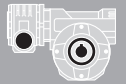
P303.....D...

Double Shaft
Albero lento bisp.

1 kit cod. K030.5.028 type B

2 kit cod. K030.5.029 type B

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 ^{-0.005} _{-0.020}	35.5	55	126	59	94.5	15.8	M5x14
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
10.0	140	0.12	57	1.2	0.14	69	B		B-C		50	2.2	01
7.0	200	0.12	79	0.9	0.11	69	B		B-C		48	2.2	02
5.0	280	0.06	52	1.3	0.08	69	B		B-C		45	2.4	03
3.3	420	0.06	62	1.1	0.07	69	B		B-C		36	1.6	04
2.5	560	0.06	76	0.9	0.05	69	B		B-C		33	2.5	05
1.9	740	0.06	91	0.8	0.05	69	B		B-C		30	1.8	06
1.5	920	0.06*	69	<0.8	0.04	69	B		B-C		27	1.5	07
1.3	1120	0.06*	69	<0.8	0.03	69	B		B-C		26	2.5	08
0.9	1480	0.06*	69	<0.8	0.03	69	B		B-C		24	1.8	09
0.8	1840	0.06*	69	<0.8	0.02	69	B		B-C		22	1.5	10
0.6	2400	0.06*	69	<0.8	0.02	69	B		B-C		21	1.2	11

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

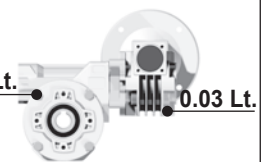
I Il riduttore tipo **453** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

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

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

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

LUBRICATION 453 Oil 0.09 Lt.
Quantity 0.09/0.03 Lt.



SHELL Omala S4 WE 320

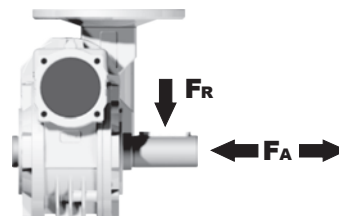
ENI Telium VSF 320

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

tab. 1

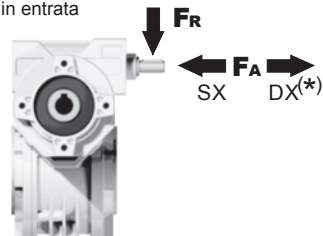
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n_2 [min ⁻¹]	F_A [N]	F_R [N]
25	300	1800
15	400	2000

Input shaft
albero in entrata



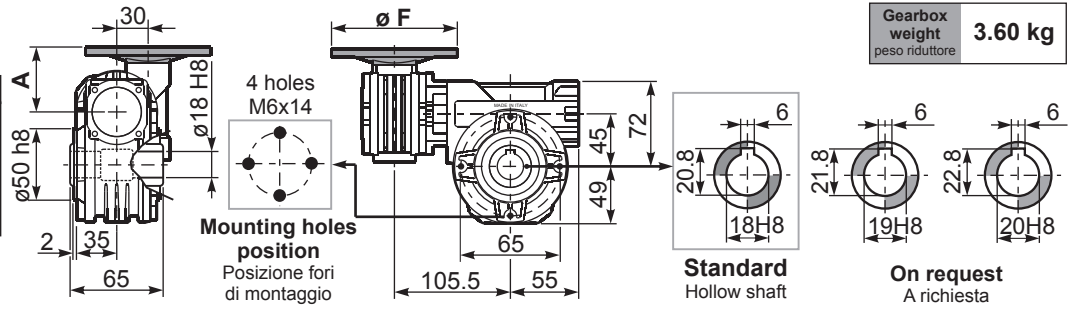
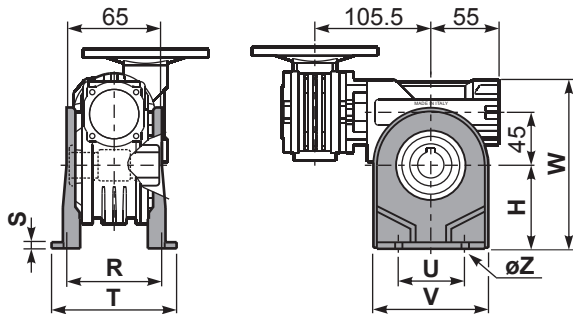
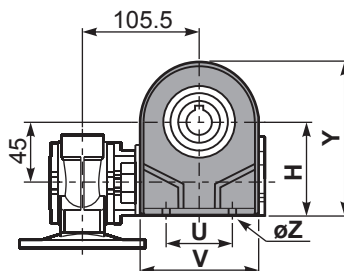
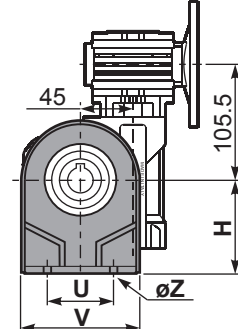
n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	20	100

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

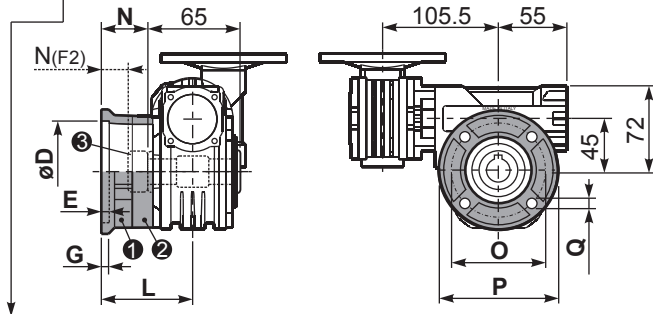
tab. 2

P453FB... Basic wormbox
Riduttore base

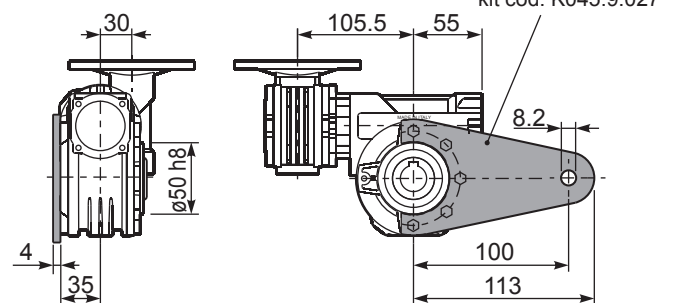
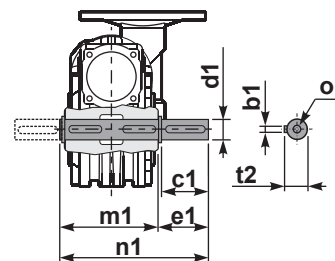
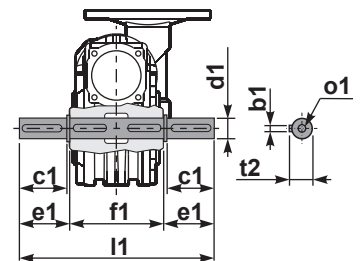
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5

P453PA... Feet
PiediniP453PB... Feet
PiediniP453PV... Feet
Piedini

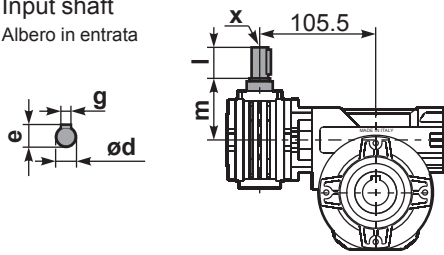
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

P453FC... Output flange
Flangia uscita

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

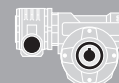
P453BR... Reaction arm
Braccio di reazioneP453.....S... Single Shaft
Albero lento sempliceP453.....D... Double Shaft
Albero lento bisp.

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

R453FB... Input shaft
Albero in entrata

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 ^{-0.005} _{-0.020}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{-0.005} _{-0.020}	58.5	-	-	70	128.5	21.5	M8x20



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
5.6	252	0.12	97	1.1	0.14	109	B		B-C		47	2.1	01
3.9	360	0.12	124	0.9	0.11	109	B		B-C		42	2.1	02
2.6	540	0.09	129	0.8	0.08	109	B		B-C		39	2.1	03
1.9	720	0.06	106	1.0	0.06	109	B		B-C		36	2.1	04
1.6	860	0.06	113	1.0	0.06	109	B		B-C		32	1.8	05
1.2	1200	0.06	133	0.8	0.05	109	B		B-C		27	1.3	06
1.0	1440	0.06*	109	<0.8	0.04	109	B		B-C		26	2.1	07
0.8	1720	0.06*	109	<0.8	0.04	109	B		B-C		25	1.8	08
0.6	2400	0.06*	109	<0.8	0.03	104	B		B-C		21	1.3	09

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

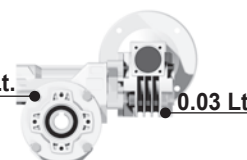
I Il riduttore tipo 503 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

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

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

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

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



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

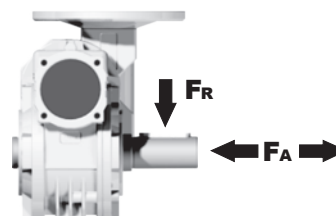
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

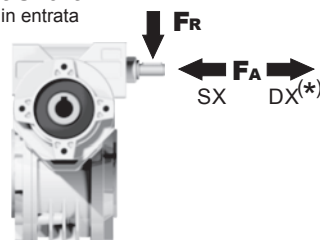
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
25	480	2500
15	560	2800

Input shaft

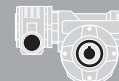
albero in entrata



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

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

tab. 2



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

A) Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

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

SHELL Omala S4 WE 320

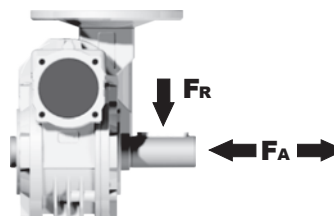
ENI Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

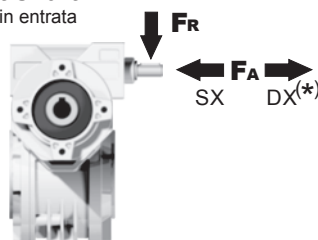
Albero di uscita



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

Input shaft

albero in entrata



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

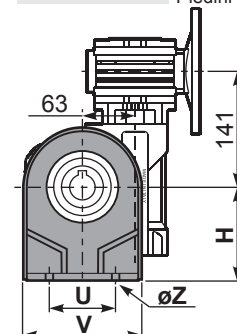
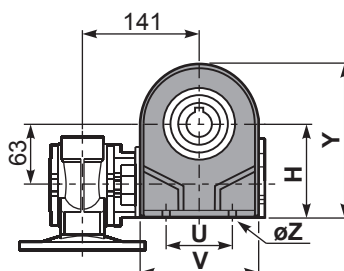
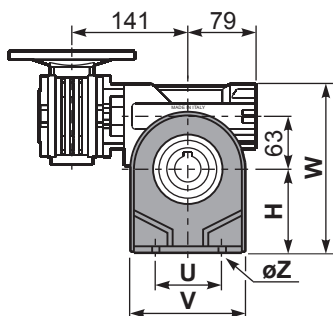
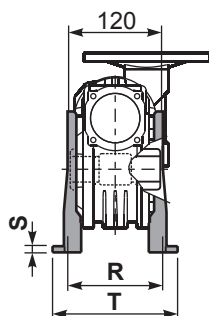
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

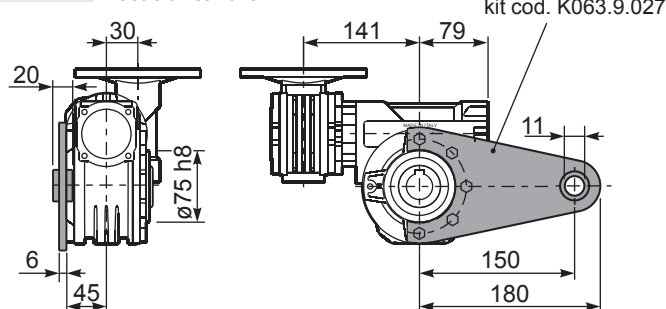
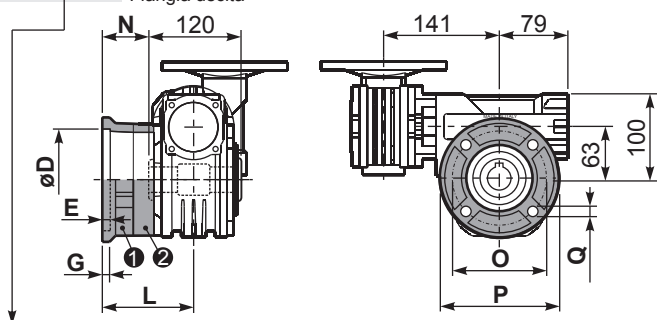
Gearbox weight peso riduttore	7.50 kg
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Technical drawing of the motor showing three views: front, side, and top. The front view shows a total width of 120mm, a mounting flange diameter of 75mm, and a total height of 100mm. The side view shows a total length of 141mm and a mounting flange diameter of 75mm. The top view shows a circular base with 8 mounting holes (M8x17) and a central shaft hole with a diameter of 25mm. The drawing also indicates a standard hollow shaft with a diameter of 25mm and a length of 79mm.

Standard Hollow shaft

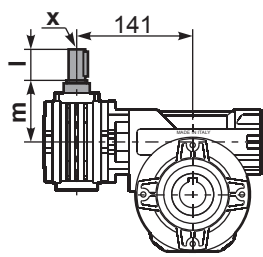
Feet
Piedini[illegible]

Reaction arm
Braccio di reazione



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

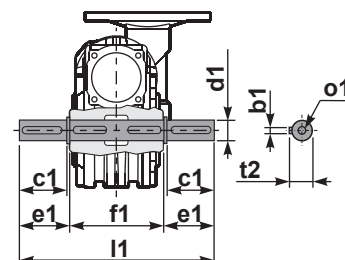
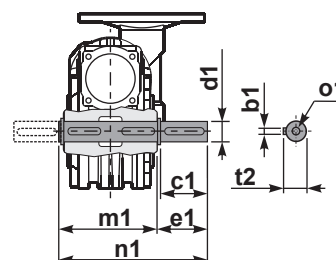
A technical diagram of a ball joint. It shows a cross-section of a ball seated within a housing. The dimension g is the horizontal distance from the center of the ball to the inner edge of the housing. The dimension e is the vertical distance from the center of the ball to the top edge of the housing. The dimension $\varnothing d$ is the diameter of the ball.



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

Single Shaft
Albero lento semplice

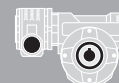
Double Shaft
Albero lento bisp.



① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

■ LUBRICATION 634 Oil

Quantity 0.40/0.09 Lt.

SHELL Omala S4 WE 320	ENI Telium VSF 320
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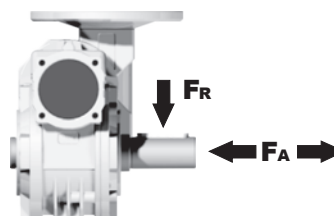
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

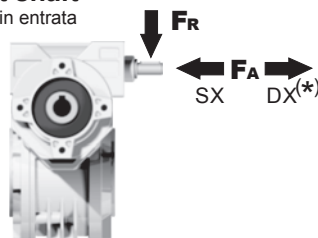
Albero di uscita



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

Input shaft

albero in entrata



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

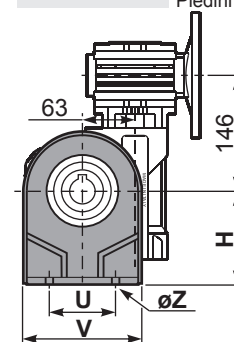
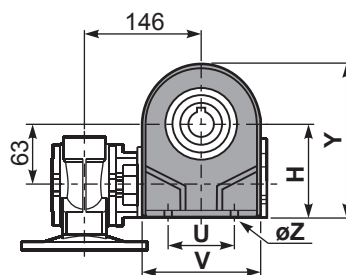
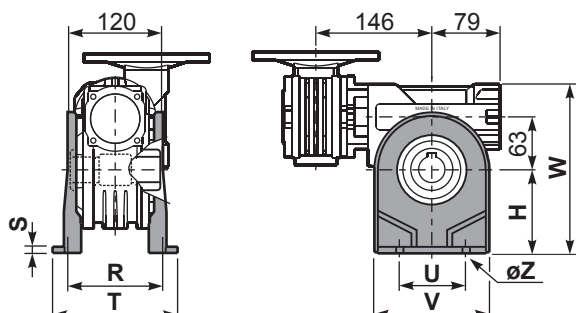
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

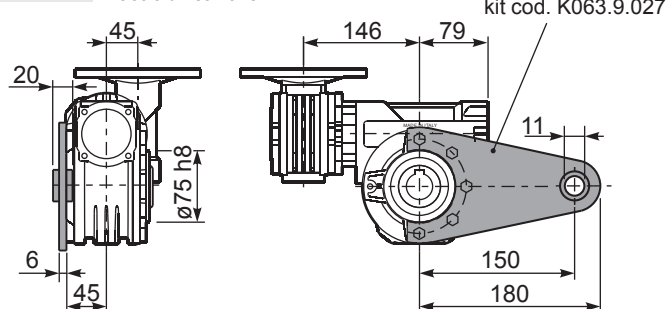
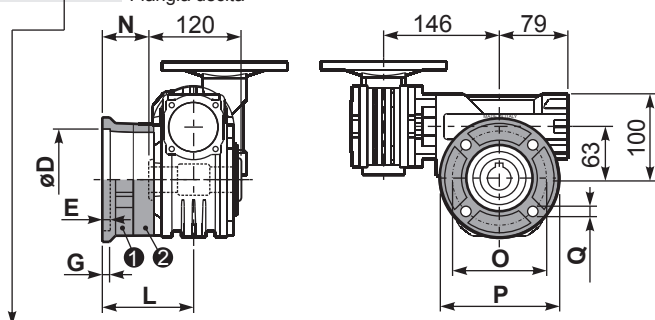
Gearbox weight peso riduttore	8.90 kg
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Technical drawing of the motor showing three views: front, side, and top. The front view shows a total width of 120mm, a mounting flange diameter of 45mm, and a shaft diameter of 25mm. The side view shows a total length of 146mm, a mounting flange diameter of 45mm, and a shaft diameter of 25mm. The top view shows a total width of 100mm, a mounting flange diameter of 45mm, and a shaft diameter of 25mm. The drawing also indicates 8 mounting holes (M8x17) and a standard hollow shaft.

Standard Hollow shaft

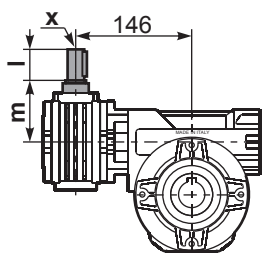
Feet
Piedini[illegible]

Reaction arm
Braccio di reazione



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

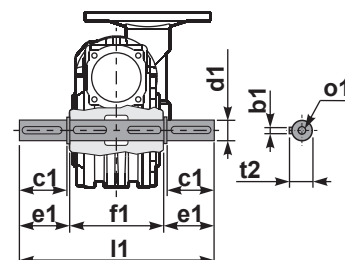
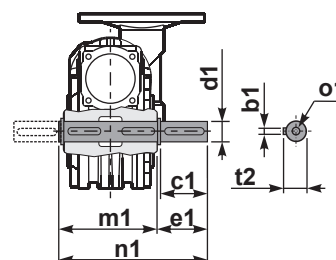
Technical drawing of a ball joint. The drawing shows a cross-section of a ball joint with a central ball. The dimensions are labeled as follows: g is the distance from the center of the ball to the top of the upper housing; e is the distance from the center of the ball to the bottom of the lower housing; and $\varnothing d$ is the diameter of the ball.



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

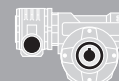
Single Shaft
Albero lento semplice

Double Shaft
Albero lento bisp.



② kit cod. K063.5.029 type B

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

A) Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

LUBRICATION 6A3 Oil 0.40 Lt. 0.03 Lt.

Quantity 0.40/0.03 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

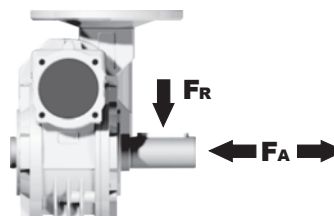
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

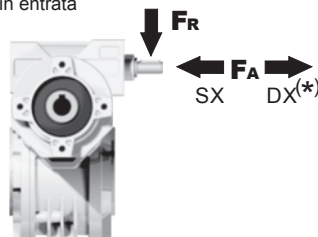
Albero di uscita



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

Input shaft

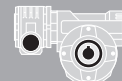
albero in entrata



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

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

tab. 2



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

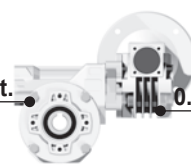
F Le réducteur de type **6A4** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées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

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

LUBRICATION 6A4 Oil

0.40 Lt.

Quantity 0.40/0.09 Lt.



0.09 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

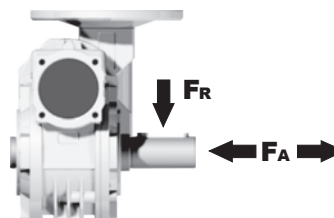
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

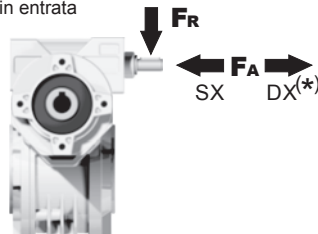
Albero di uscita



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

Input shaft

albero in entrata



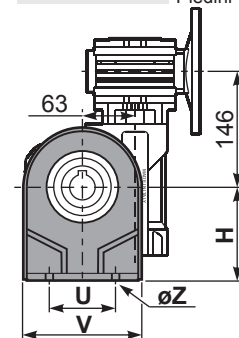
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	42	210

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

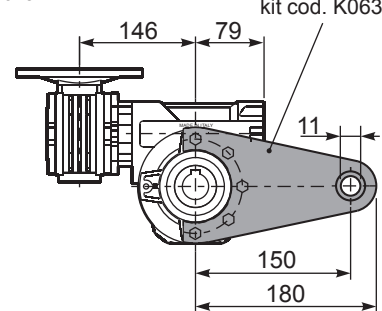
tab. 2

Gearbox weight	8.90 kg
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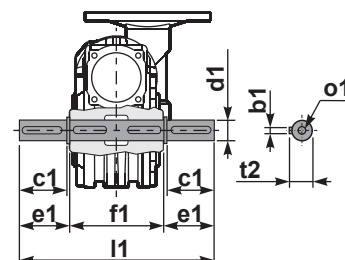
On request
A richiesta

Feet
Piedini

Reaction arm
Braccio di reazione



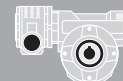
P6A4.....**D**... Double Shaft
Albero lento bisp.



Technical drawing of the 1000 series motor showing dimensions X, l, m, and 146.

② kit cod. K070.5.029 type B

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

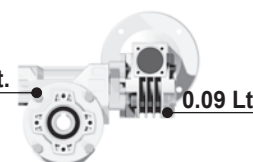
I Il riduttore tipo **854** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

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

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

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

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



SHELL Omala S4 WE 320

ENI Telium VSF 320

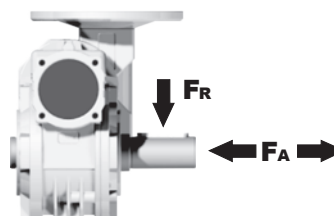
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

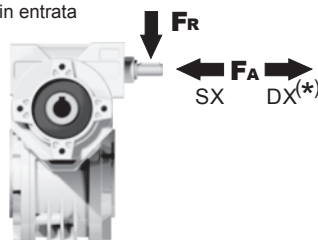
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
25	1000	5000
15	1160	5800

Input shaft

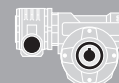
albero in entrata



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

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

tab. 2



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

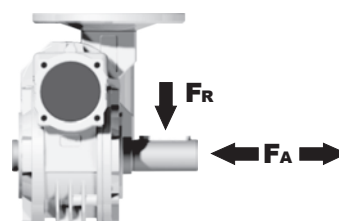
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

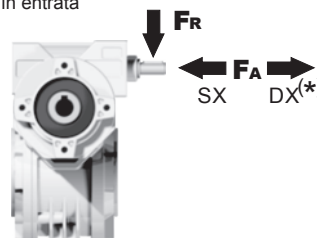
Albero di uscita



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

Input shaft

albero in entrata



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

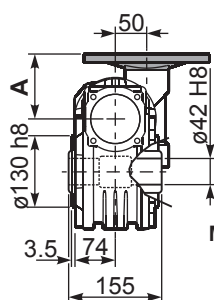
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P115FB...

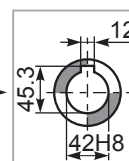
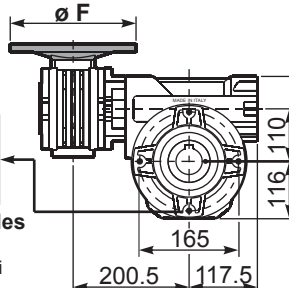
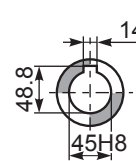
Basic wormbox
Riduttore base

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

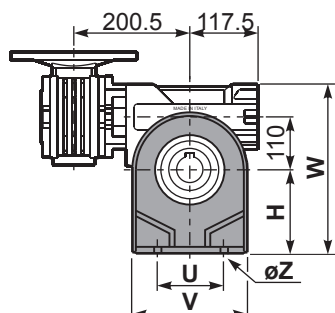
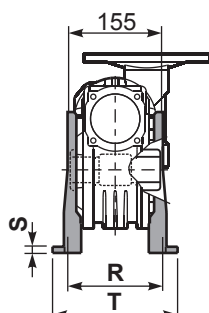


8 holes
M12x19

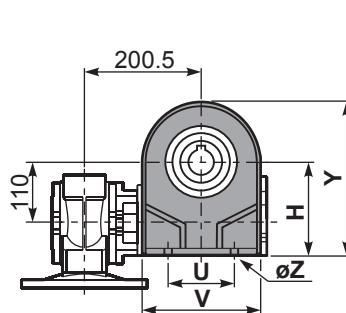
Mounting holes
position
Posizione fori
di montaggio

Standard
Hollow shaftOn request
A richiestaGearbox weight
peso riduttore 38.00 kg

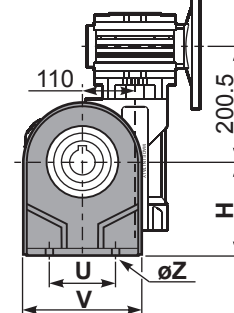
P115PA...

Feet
Piedini

P115PB...

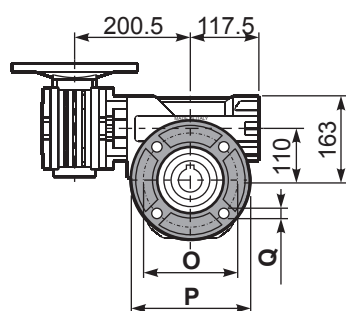
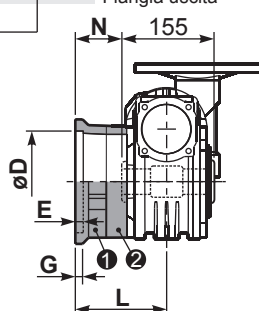
Feet
Piedini

P115PV...

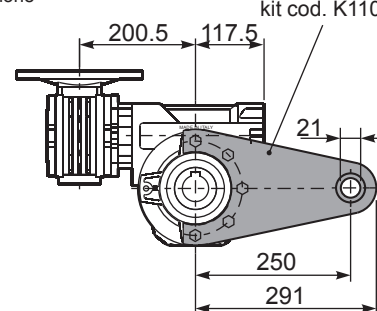
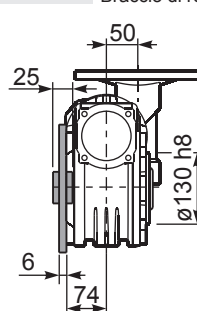
Feet
Piedini

	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	8	224	200	240	286	333	ø13	K110.9.022
type S	-	-	-	-	-	-	-	-	-	-

P115FC...

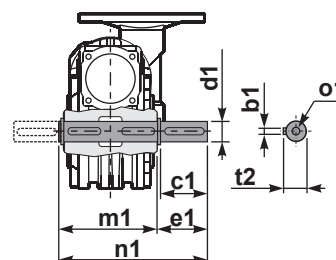
Output flange
Flangia uscita

P115BR...

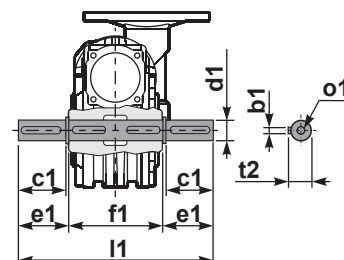
Reaction arm
Braccio di reazione

kit cod. K110.9.027

P115.....S...

Single Shaft
Albero lento semplice

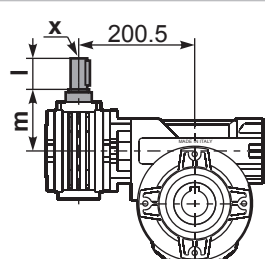
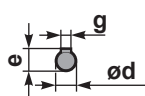
P115.....D...

Double Shaft
Albero lento bisp.

① kit cod. K110.5.028 type B

② kit cod. K110.5.029 type B

R115FB...

Input shaft
Albero in entrata

	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	74.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	74.5	M5x10	① KS050.5.008 PAM71 ② KS050.5.009 PAM80

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

Réducteurs roue et vis de forme carrée M

M square worm gearboxes

Un produit compact et modulaire
A modular and compact product

Carcasse aluminium usinée en une seule pièce

Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing.

No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

Arbre d'entrée et vis sans fin en acier

Single piece alloy steel input shaft and worm shaft.

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

Roulements sur-dimensionnés

Oversized bearings

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

Bride modulaire Flange

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

Joints en Nitrile haute température

Premium, high temperature

Nitrile® output seals

Roue bronze

Bronze alloy worm gears.

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

Roulements sur-dimensionnés

Over-size bearing

For radial load capability and maximum hollow output shaft diameter.

Arbre creux standard

Standard hollow output shaft mounting

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

Flasques latérales avec portées de roulements usinées et impregnées

Impregnated and machined bearing caps

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

Painting

Cast iron gearboxes are painted RAL 7046

Vent Free Design.

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

oil free



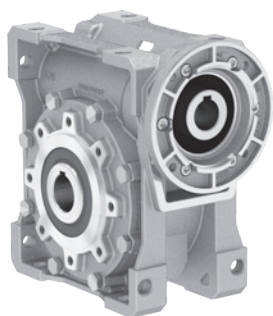
vent free



World wide sales network.

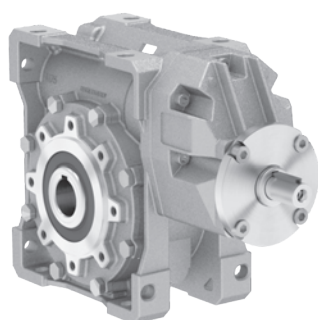
Fiche technique spécifique en page

Specific type datasheet on page



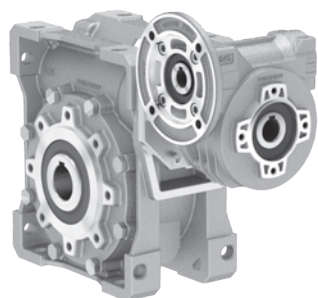
Types / Tipi /
Tipen / Types /
Tipos

On page / A pagina / Auf Seite / À la page / En la página								
2-5	2-7	2-9	2-11	2-13	2-15	2-17	2-19	2-21
M30 21Nm	M45 47Nm	M50 88Nm	M63 160Nm	M75 270Nm	M85 364Nm	M11 725Nm	M13 1050Nm	M15 1550Nm



Types / Tipi /
Tipen / Types /
Tipos

On page / A pagina / Auf Seite / À la page / En la página					
2-23	2-25	2-27	2-29	2-31	2-33
P4M 55Nm	P5M 88Nm	P6M 187Nm	P7M 310Nm	P8M 440Nm	P1M 803Nm



Types / Tipi /
Tipen / Types /
Tipos

On page / A pagina / Auf Seite / À la page / En la página							
2-35	2-37	2-39	2-41	2-43	2-45	2-47	2-49
33M 38Nm	43M 72Nm	53M 138Nm	63M 270Nm	64M 290Nm	74M 420Nm	84M 596Nm	15M 1174Nm

Type - Tipo - Typ
Type - Tipo

Size - Grandezza
Grösse - Taille
Tamaño

Mounting - Montaggio - Montage Fixation
Fixation - Tipo de montaje

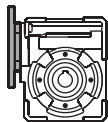
P

M45

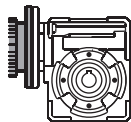
FC

Worm gearboxes

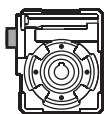
Riduttori a vite senza fine
Schneckengetriebe
Reducteurs a vis sans fin
Reductores de corona sin fin



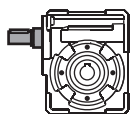
P



M

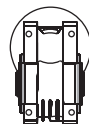


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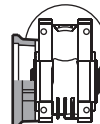


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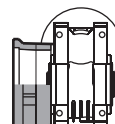
**M30
M45
M50
M63
M75
M85
M11
M13
M15**



FB

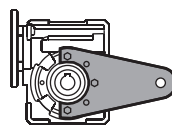


FC



FL

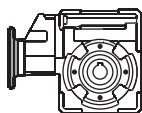
**F1
F2
F3
F4**



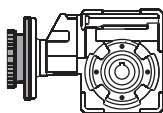
BR

Worm gearboxes with primary reduction

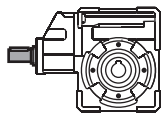
Riduttori a vite senza fine con precoppia
Schneckengetriebe mit Stirradstufe am Eintrieb
Reducteurs a vis sans fin avec pré-réduction
Reductores corona sin fin con prereductora de engranajes



P

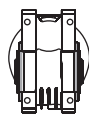


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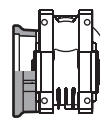


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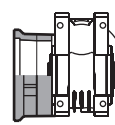
**P4M
P5M
P6M
P7M
P8M
P1M**



FB

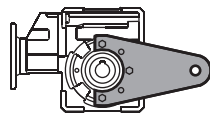


FC



FL

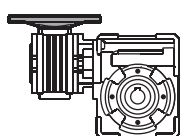
**F1
F2
F3
F4**



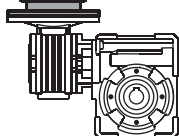
BR

Combined worm gearboxes

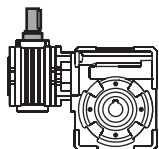
Riduttori a vite senza fine combinati
Schneckengetriebekombinationen
Reducteurs a double train de vis sans fin
Reductores combinados corona sin fin



P

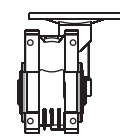


M

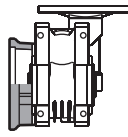


R

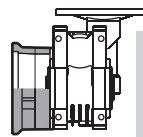
**33M
43M
53M
63M
64M
74M
84M
15M**



FB

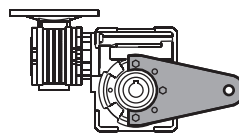


FC



FL

**F1
F2
F3
F4**

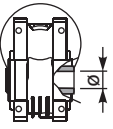
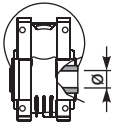
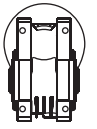
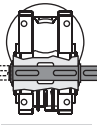
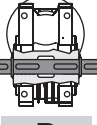
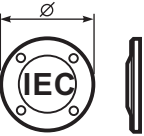
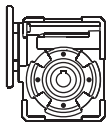
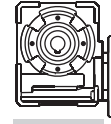
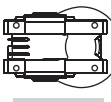
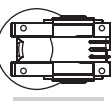
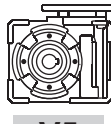
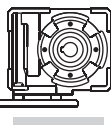
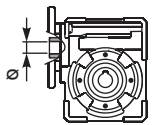
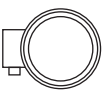
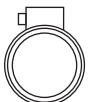
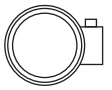
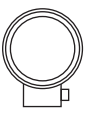


BR



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

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Ratio Rapporto Untersetzung Reduction Relación	Hub Mozzo corona Hohlwelle Arbre creux Núcleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje salida	Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte a bornes Posición caja de bornes
10	C	Ø	-Q	B3	ST	---	
See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos	 STANDARD C M30 ⇨ Ø14 M45 ⇨ Ø18 M50 ⇨ Ø25 M63 ⇨ Ø25 M75 ⇨ Ø28 M85 ⇨ Ø35 M11 ⇨ Ø42 M13 ⇨ Ø45 M15 ⇨ Ø50 I Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Núcleo corona de acero Inox SPECIAL SERIES: SERIE SPECIALE: S M45 ⇨ Ø19 M50 ⇨ Ø24 X Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Núcleo corona de acero Inox  INCH U M45 ⇨ Ø0.750" M50 ⇨ Ø1.000" M63 ⇨ Ø1.125" M85 ⇨ Ø1.500" Z Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Núcleo corona de acero Inox	 Ø  S  D	 -M without flange Senza 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) B14 -O=56 (Ø80) -P=63 (Ø90) -Q=71 (Ø105) -R=80 (Ø120) -T=90 (Ø140) -U=100 (Ø160) -V=132 (Ø200) Brushless BA=40/63-M5 BB=50/70-M5 BC=60/75-M5 BD=70/90-M6 BE=80/100-M6 BF=95/115-M8 BG=110/145-M8 BH=130/165-M8 -0=Type R -S=Type R S series	 B3  B8  B6  B7  V5  V6	 ST Standard bore * Kit R standard Foro standard * Kit R standard Input bore without Reduction Bushing -O = 9mm -P = 11mm -Q = 14mm -R = 19mm -T = 24mm -U = 28mm -V = 38mm COUPLING STANDARD (IEC) -A = 9mm -B = 11mm -C = 14mm -D = 19mm -E = 24mm -F = 28mm BRUSHLESS * -1 = 9mm -2 = 11mm -3 = 14mm -4 = 19mm -5 = 22mm -6 = 24mm Ready for input coupling Predisposto per giunto  -0 Type B Tipo B  -0 Type R Tipo R	Only for combined units See technical data table Solo per i riduttori combinati Vedi tabella dati tecnici. Ausführungen für Getriebekombinationen it Uniquement pour combinés. Voir tableau données techniques Sólo para combinados ver tabla datos técnicos	With Type M specify terminal box position Con tipo M specificare posizione morsettiere  A  B STANDARD  C  D

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

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotation

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

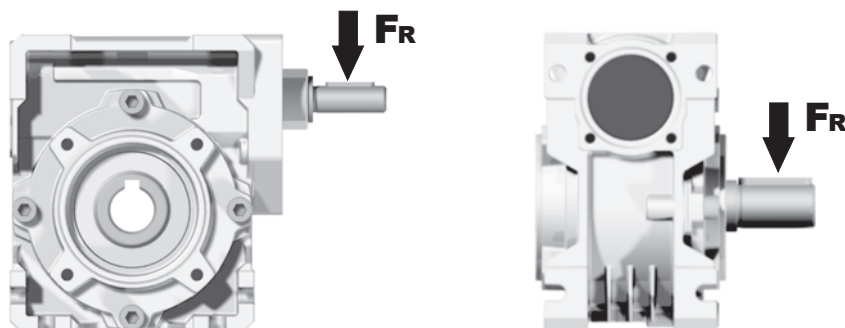
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

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



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

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

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

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
		Dynamic efficiency Rendimento dinamico Dynamischer Rendement dynamique Rendimiento dinámico
		Input speed Velocità in entrata Eintriebsdrehzahl Vitesse en entrée Velocidad de entrada

M45 M Square - Gear
47Nm

Rating - Aluminum WORM GEARBOXES

QUICK SELECTION / Selezione veloce

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
200	7	0.37	14	2.9	1.07	41	B		B-C	B-C		80	2.2	01
140	10	0.37	20	2.2	0.82	44	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.6	0.60	44	B		B-C	B-C		77	2.4	03

C	Ratio Rapporto Untersetzung Rapport de réduction Relación	Transmitted torque Momento torcente trasmesso Mögliche Drehmomente Couple de sortie Par transmitido	Service factor Fattore di servizio Betriebsfaktor Facteur de service Factor de servicio	Nominal module Modulo nominale Nenn modul Module nominale Módulo nominal	Notes Note Anmerkungen Note Notas
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fs		Oper. hours per day Ore di funz. giorn.		
Type of load and starts per hour Tipo di carico e avviamenti per ora		<2 h	2 - 8 h	8 - 16 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.9	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1.25	1.5	1.75
	Moderate / Moderato	1.5	1.75	2
	Heavy / Forte	1.75	2	2.25

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
280	5	0.18	5	3.8	0.68	19	B		B-C		82	1.26	01
200	7	0.18	7	2.8	0.50	19	B		B-C		80	1.44	02
140	10	0.18	10	2.0	0.36	19	B		B-C		78	1.44	03
93	15	0.18	13	1.4	0.25	19	B		B-C		73	1.44	04
70	20	0.18	17	1.1	0.20	19	B		B-C		70	1.09	05
47	30	0.12	15	1.4	0.17	21	B		B-C		62	1.44	06
35	40	0.12	19	1.1	0.13	20	B		B-C		57	1.09	07
23	61	0.09	19	1.1	0.10	20	B		B-C		50	0.72	08
17.5	80	0.06	16	1.0	0.06	16	B		B-C		48	0.56	09
14	100	0.06*	16	0.5	0.03	8	B		B-C		40	0.45	10

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **M30** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **M30** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **M30** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **M30** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **M30** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION M30 Oil Quantity 0.03Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

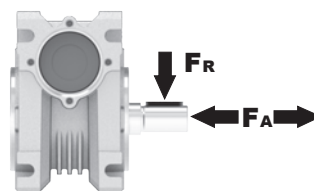
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

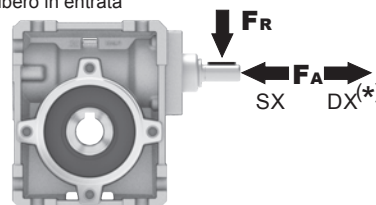
Albero di uscita



n_2 [min ⁻¹]	F_A [N]	F_R [N]
200	120	600
150	140	700
100	160	800
75	180	900
50	200	1000
25	250	1250
15	280	1400

Input shaft

albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	20	100

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

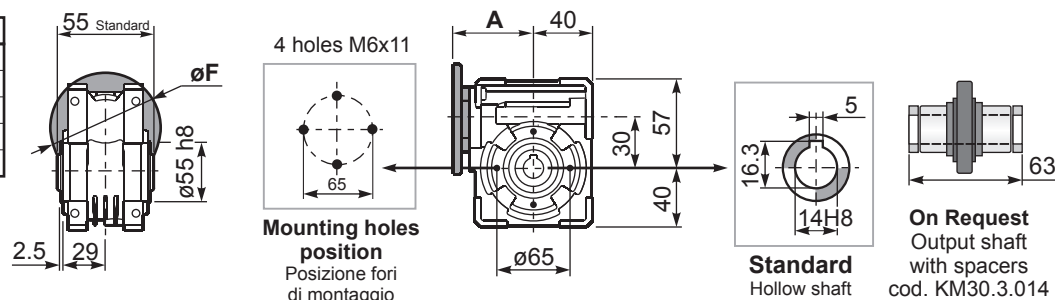
tab. 2

PM30FB...

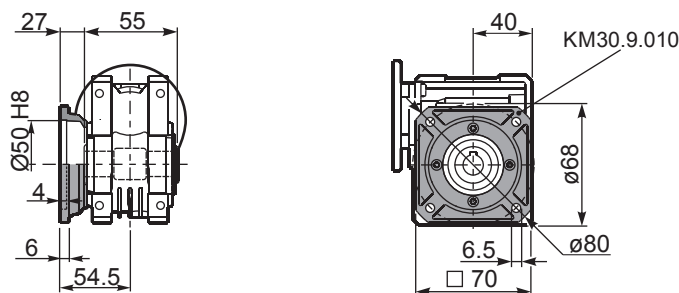
Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

1.15 kg

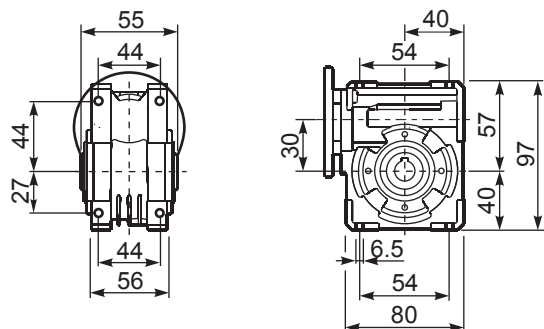
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



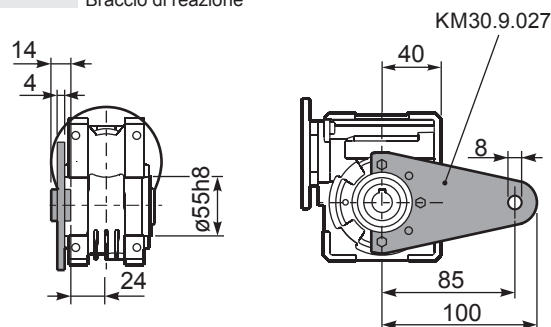
PM30FC...

Square flange
Flangia quadrata

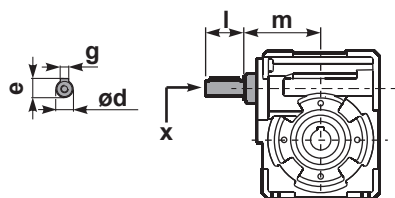
PM30FB...

Feet
Piedini

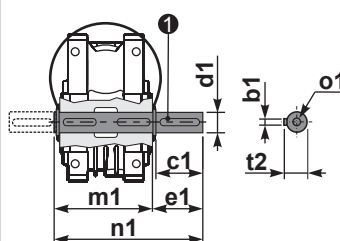
PM30BR...

Reaction arm
Braccio di reazione

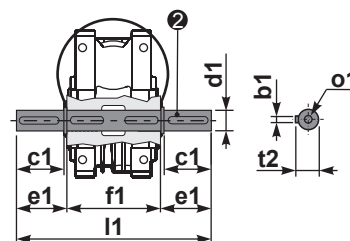
RM30FB...

Input shaft
Albero in entrata

PM30.....S...

Single Shaft
Albero lento semplice

PM30.....D...

Double Shaft
Albero lento bisp.

① kit cod. K030.5.028 type B

② kit cod. K030.5.029 type B

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 ^{-0.005} _{-0.020}	35.5	55	126	59	94.5	16	M5x14
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency	Tooth Module [mm]	Ratio code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71	RD		
200	7	0.37	14	2.9	1.07	41	B		B-C	B-C		80	2.2	01
140	10	0.37	20	2.2	0.82	44	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.6	0.60	44	B		B-C	B-C		77	2.4	03
67	21	0.37	36	1.2	0.44	42	B		B-C	B-C		67	1.6	04
50	28	0.37	46	1.0	0.38	47	B		B-C	B-C		65	2.5	05
38	37	0.25	40	1.0	0.26	41	B		B-C	B-C		63	1.8	06
30	46	0.25	46	0.9	0.22	41	B		B-C	B-C		59	1.5	07
23	60	0.18	41	1.0	0.18	41	B		B-C	B-C		56	1.2	08
20	70	0.12	31	1.0	0.12	30	B		B-C	B-C		54	1.0	09
13.7	102	0.09	31	0.9	0.09	29	B		B-C	B-C		49	0.72	10

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **M45** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **M45** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **M45** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **M45** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **M45** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION M45 Oil Quantity 0.09 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

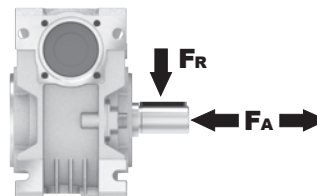
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

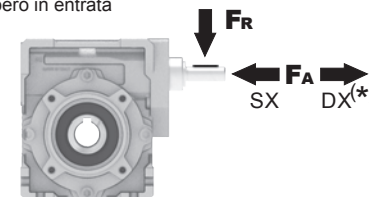
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	180	900
150	200	1000
100	220	1100
75	240	1200
50	260	1400
25	300	1800
15	400	2000

Input shaft

albero in entrata



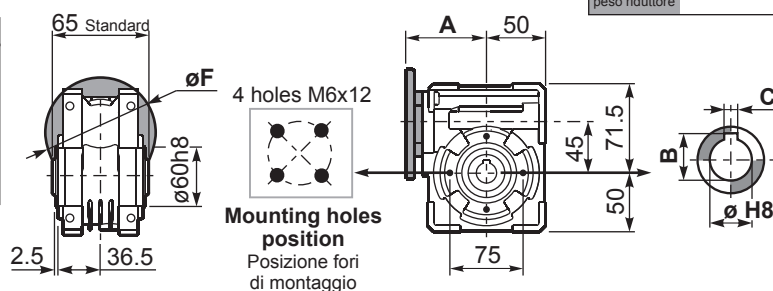
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	42	210

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

tab. 2

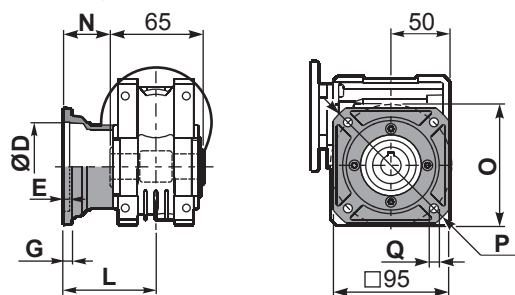
PM45FB... Basic wormbox
Riduttore base

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

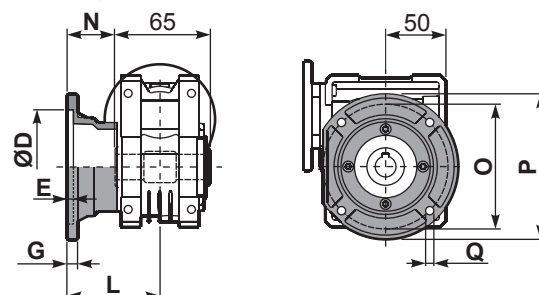


ø H8	B	C	*Spacer code
18 Standard	20.8	6	KM45.3.018
19 on request	21.8	6	KM45.3.019
20 on request	22.8	6	KM45.3.020

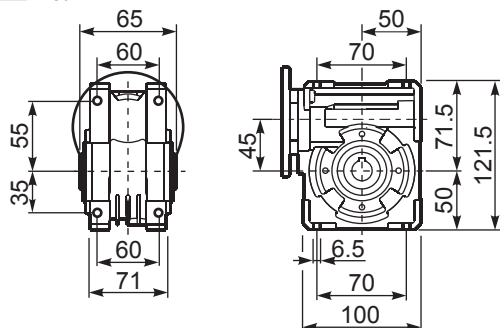
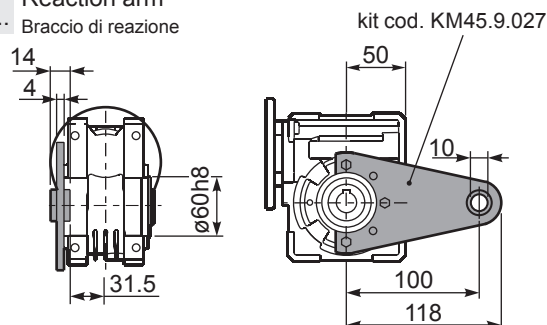
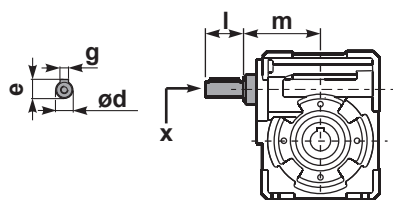
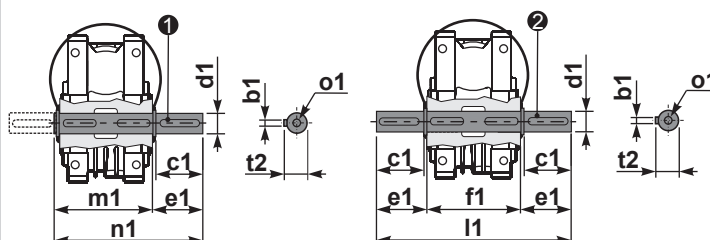
*On Request
output shaft with spacers

PM45FC... Square flange
Flangia quadrata

type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 H8	4	7	67	34.5	75	110	9	KM45.9.010
FL	60 H8	4	7	97	64.5	75	110	9	KM45.9.011

PM45F1... Round flange
Flangia rotonda

type S	øD	E	G	L	N	O	P	Q	kit code
F1	95H8	5	9	80	47.5	115	140	9.5	KM45.9.012
F2	-	-	-	-	-	-	-	-	-

PM45FB... Feet
Piedini**PM45BR...** Reaction arm
Braccio di reazione**RM45FB...** Input shaft
Albero in entrata**PM45.....S...** Single Shaft
Albero lento semplice**PM45.....D...** Double Shaft
Albero lento bisp.

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

	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	74	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	③ - ④ -

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency	Tooth Module  [mm]	Ratio code 
							-B	-C	-D	-O	-P	-Q	-R	RD		
200	7	0.75	29	2.6	1.92	75	B	B			B-C	B		82	2.5	01
140	10	0.75	41	1.9	1.43	78	B	B			B-C	B		80	2.4	02
100	14	0.75	57	1.4	1.05	79	B	B			B-C	B		79	2.6	03
78	18	0.75	69	1.1	0.81	75	B	B			B-C	B		75	2.0	04
54	26	0.55	67	1.1	0.58	71	B	B			B-C	B		69	2.7	05
47	30	0.55	79	1.1	0.61	88	B	B			B-C	B		70	2.5	12
39	36	0.37	63	1.3	0.48	82	B			B-C	B-C			69	2.1	06
33	43	0.37	72	1.1	0.42	82	B			B-C	B-C			66	1.8	07
28	50	0.37	78	1.0	0.36	76	B			B-C	B-C			62	1.5	13
23	60	0.25	59	1.2	0.30	71	B			B-C	B-C			58	1.3	08
21	68	0.25	66	1.0	0.25	66	B			B-C	B-C			57	1.2	09
17.5	80	0.18	53	1.2	0.22	65	B			B-C	B-C			54	1.0	10
14	100	0.12	41	1.3	0.16	55	B			B-C	B-C			50	0.8	11

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **M50** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **M50** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **M50** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **M50** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **M50** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION M50 Oil Quantity 0.14 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

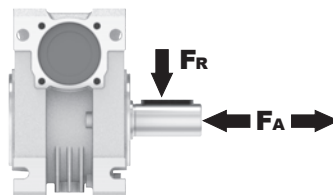
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

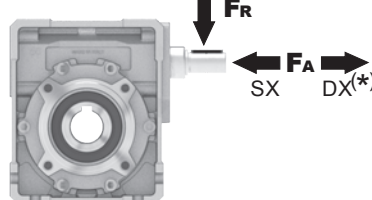
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	240	1200
150	280	1400
100	300	1500
75	340	1700
50	380	1900
25	480	2500
15	560	2800

Input shaft

albero in entrata



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

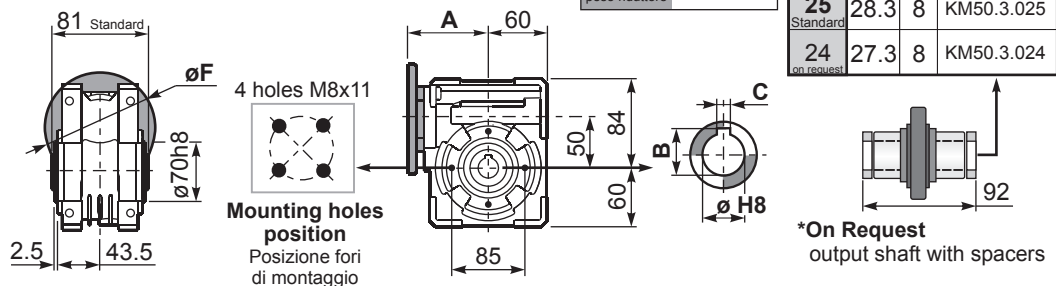
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

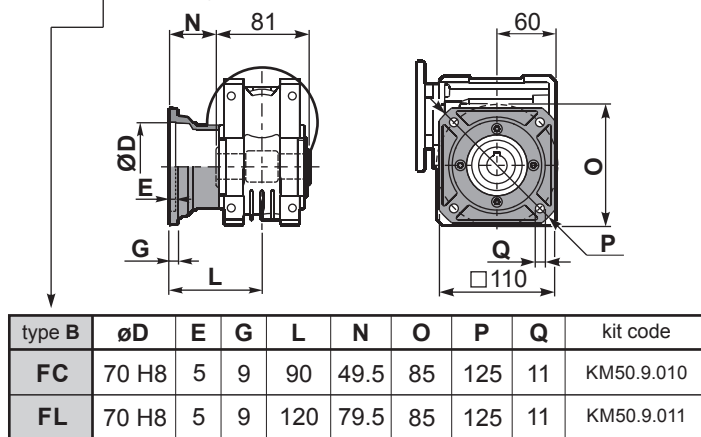
PM50FB...

Basic wormbox
Riduttore baseGearbox weight
peso riduttore **3.25 kg**

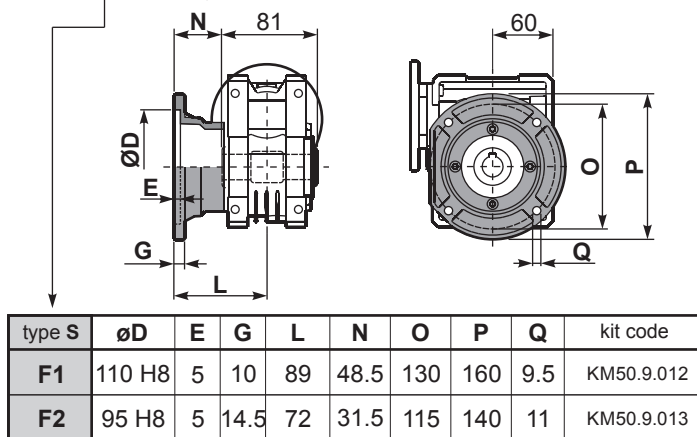
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	83.5
71B5	K050.4.042	160	81
80B5	K050.4.043	200	81.5
56B14	KC40.4.049	80	81
63B14	K050.4.047	90	83.5
71B14	K050.4.045	105	81
80B14	K050.4.046	120	81.5



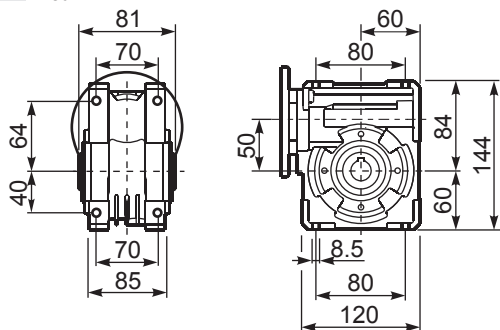
PM50FC...

Square flange
Flangia quadrata

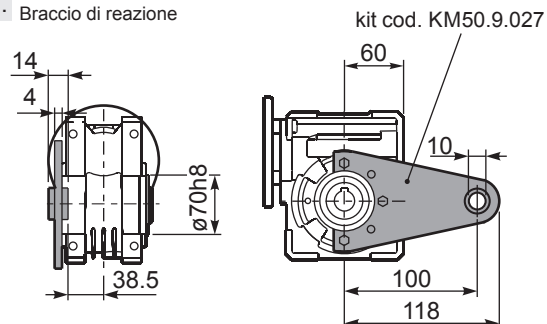
PM50F1...

Round flange
Flangia rotonda

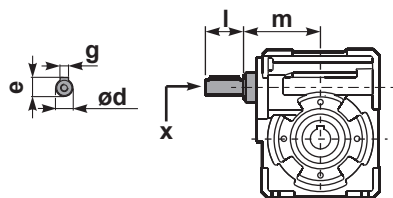
PM50FB...

Feet
Piedini

PM50BR...

Reaction arm
Braccio di reazione

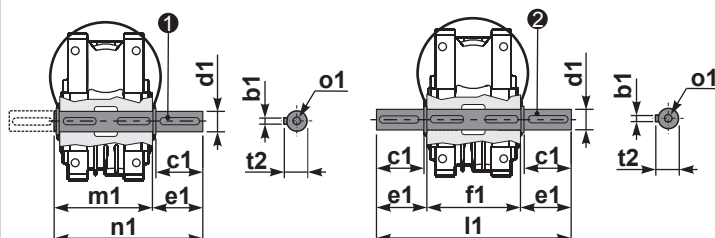
RM50FB...

Input shaft
Albero in entrata

PM50.....S...

Single Shaft
Albero lento semplice

PM50.....D...

Double Shaft
Albero lento bisp.

- ① kit cod. K050.5.028 type B
kit cod. KS050.5.030 type S
- ② kit cod. K050.5.029 type B

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
200	7	1.8	71	1.8	3.2	128		B	B		B-C	B-C		83	3.1	01
140	10	1.8	99	1.3	2.4	134		B	B		B-C	B-C		81	3.1	02
93	15	1.5	121	1.2	1.8	148		B	B		B-C	B-C		79	3.1	03
74	19	1.5	152	1.0	1.4	145		B	B		B-C	B-C		78	2.6	04
58	24	1.1	135	1.1	1.2	142		B	B		B-C	B-C		75	2.0	05
47	30	1.1	167	1.0	1.06	160		B	B		B-C	B-C		74	3.2	06
39	36	0.75	125	1.2	0.88	147		B	B		B-C	B-C		68	2.7	07
35	40	0.75	135	1.1	0.82	148		B	B		B-C	B-C		66	2.5	13
31	45	0.55	111	1.2	0.67	135	B	B			B-C	C		66	2.1	08
23	60	0.55	140	1.0	0.53	135	B	B			B-C	C		62	1.6	12
21	67	0.55	151	0.8	0.45	124	B	B			B-C	C		60	1.5	09
17.5	80	0.37	115	1.1	0.39	122	B	B			B-C	C		57	1.3	10
14.9	94	0.37	123	1.0	0.36	119	B	B			B-C	C		52	1.1	11

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **M63** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **M63** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **M63** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **M63** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **M63** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION M63 Oil Quantity 0.30 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

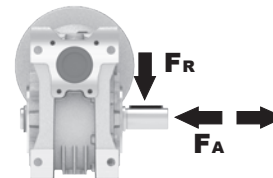
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

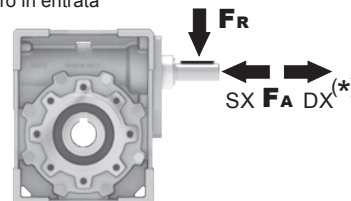
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	90	450

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

Non sono consentiti forti carichi assiali con direzione DX

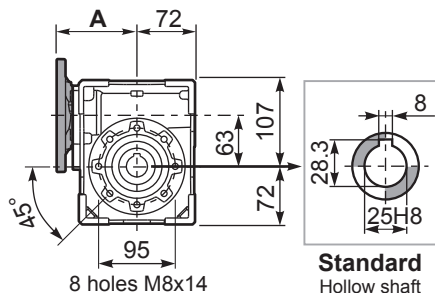
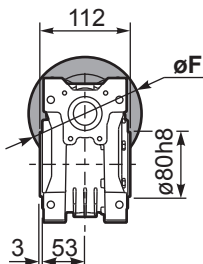
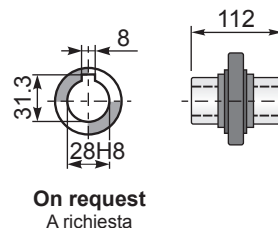
tab. 2

PM63FB...

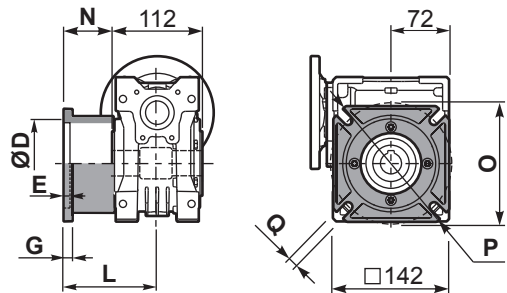
Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

6.00 kg

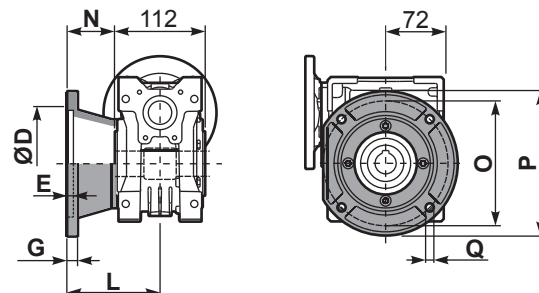
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	100.5
71B5	K063.4.042	160	98.5
80/90B5	K063.4.043	200	100.5
71B14	K063.4.047	105	98.5
80B14	K063.4.046	120	100.5
90B14	K063.4.041	140	100.5

Standard
Hollow shaft

PM63FC...

Square flange
Flangia quadrata

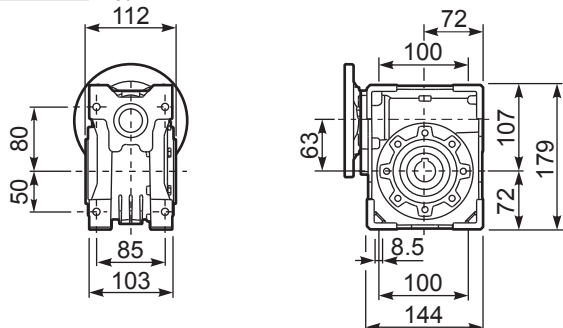
PM63F1...

Round flange
Flangia rotonda

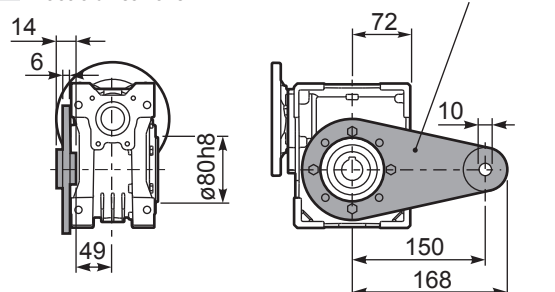
type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 H8	6	10	82	26	150	180	11	KM63.9.010
FL	115 H8	6	10	112	56	150	180	11	KM63.9.011

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H8	5	10	98	42	165	200	11	KM63.9.012
F2	130 H8	5	10	107	51	165	200	11	KM63.9.013
F3	110 H8	5	16.5	80.5	24.5	130	160	11	KM63.9.014

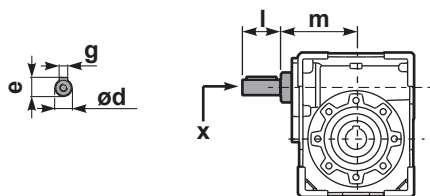
PM63FB...

Feet
Piedini

PM63BR...

Reaction arm
Braccio di reazione

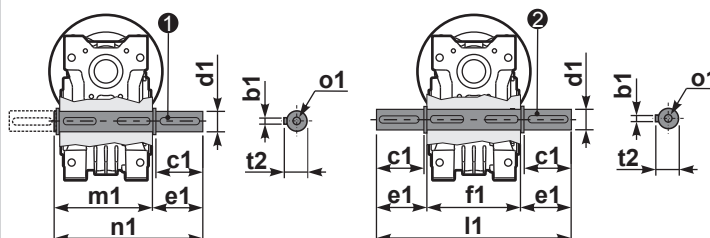
RM63FB...

Input shaft
Albero in entrata

PM63.....S...

Single Shaft
Albero lento semplice

PM63.....D...

Double Shaft
Albero lento bisp.

① kit cod. KM63.5.028 type B

② kit cod. KM63.5.029 type B

	ød	e	g	l	m	x	kit code
type B	18 h6	20.5	6	45	94	M6x16	① K063.5.006 PAM80 ② K063.5.007 PAM90
type S	19 h6	21.5	6	40	94	M8x20	③ KS063.5.008 PAM80 ④ KS063.5.009 PAM90

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	50	25 h6	53.5	112	219	119.5	173	28	M10x23
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code 
							-C	-D	-E	-F	-R	-T	-U			
							71	80	90	100 112	80	90	100 112			
200	7	4	172	1.1	4.4	190		B	B		B	B		90	3.75	01
140	10	4	240	1.0	3.8	230		B	B		B	B		88	3.75	02
93	15	3	261	1.0	2.9	250		B	B		B	B		85	3.75	03
70	20	2.2	249	1.0	2.2	250		B	B		B	B		83	3.00	04
56	25	1.5	205	1.2	1.8	250	B	B			B			80	2.41	05
45	31	1.5	244	1.1	1.7	270	B	B			B			77	3.75	06
35	40	1.5	295	0.9	1.3	255	B	B			B			72	3.10	07
28	50	0.75	174	1.3	0.96	223	B							68	2.41	08
23	60	0.75	200	1.1	0.80	213	B							65	2.10	09
17.5	80	0.55	177	1.1	0.61	195	B							59	1.53	10
14.0	100	0.55	206	0.8	0.47	175	B							55	1.23	11

 Motor Flanges Available
Flange Motore Disponibili

 B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

 C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **M75** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **M75** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **M75** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **M75** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **M75** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION M75 Oil Quantity 0.40 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

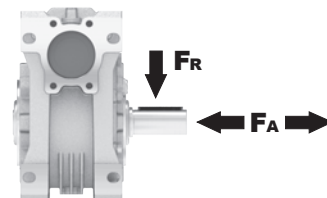
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

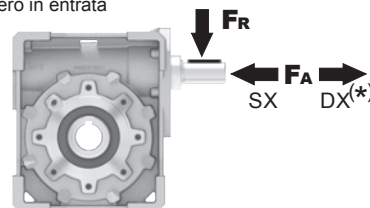
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	460	2300
150	520	2600
100	560	2800
75	620	3100
50	720	3600
25	880	4400
15	1000	5000

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	125	630

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

tab. 2

Gearbox weight peso riduttore	8.70 kg
---	----------------

Technical drawing of the 1000 series gear pump showing front, side, and shaft detail views with dimensions.

Front View Dimensions:

- Total width: 120
- Shaft diameter: $\varnothing F$
- Internal diameter: $\varnothing 95h8$
- Bottom flange thickness: 3
- Bottom flange width: 57

Side View Dimensions:

- Top flange width: A
- Top flange offset: 89
- Shaft diameter: $\varnothing 75$
- Shaft length: 123
- Bottom flange offset: 86
- Bottom flange width: 115
- Bottom flange thickness: 45°

Shaft Details:

- Standard Hollow shaft:**
 - Shaft diameter: 28H8
 - Key width: 8
 - Key height: 31.3
- On request (A richiesta):**
 - Shaft diameter: 30H8
 - Key width: 8
 - Key height: 33.3

Additional Dimensions:

- 8 holes M8x14
- Total width (including shaft): 120

Technical drawing of the KM75.9.011 kit, showing two views with dimensions in millimeters:

- Front View (Left):**
 - Overall width: 120
 - Overall height: 110
 - Top flange width: 30
 - Mounting bracket height: 6
 - Bottom flange width: 13
 - Bottom flange depth: 90
- Side View (Right):**
 - Overall width: 89
 - Overall height: 160
 - Mounting bracket height: 17
 - Central hole diameter: $\varnothing 130$

kit cod. KM75.9.011

Technical drawing of the KM75.9.010 kit, showing two views: a side view (left) and a front view (right).

Side View Dimensions:

- Top flange width: 51
- Top flange diameter: 120
- Height of the main body: 130H8
- Thickness of the main body: 6
- Bottom flange width: 13
- Bottom flange diameter: 111

Front View Dimensions:

- Top flange width: 89
- Height of the main body: 165
- Bottom flange width: 170
- Bottom flange diameter: 200
- Thickness of the main body: 14

Kit cod. KM75.9.010

Technical drawing of the 1000 series pressure washer, showing front and side views with dimensions in mm.

Front View Dimensions:

- Top width: 120
- Top inner width: $90 \div 95$
- Left height: 60, 93
- Bottom inner width: $90 \div 95$
- Bottom total width: 112

Side View Dimensions:

- Top width: 89
- Left height: 75
- Right height: 123, 209
- Right inner width: 86
- Bottom width: 11, 120, 178

Braccio di reazione

25
6
47.5
 $\varnothing 95h8$

89
20
200
230

KM75.9.027

Figure 1 shows two schematic diagrams of the proposed mechanism. Diagram (a) illustrates the first type, featuring a central horizontal bar with a vertical rod passing through it. The rod is connected to a circular component at the top and a rectangular component at the bottom. Dimensions are labeled: m_1 (width of the central bar), n_1 (total width), e_1 (distance from center to the bottom component), c_1 (width of the bottom component), d_1 (height of the central bar), b_1 (height of the vertical rod), t_2 (thickness of the vertical rod), and o_1 (radius of the circular component). Diagram (b) illustrates the second type, which is similar but has a different central bar width l_1 and a different distance from the center to the bottom component f_1 . Other dimensions are the same as in (a).

② kit cod. KM75.5.029 Standard

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-C	-D	-E	-F	-R	-T	-U			
							71	80	90	100 112	80	90	100 112			
200	7	4.0	168	1.6	6.4	270		B	B		B	B		88	4.23	01
140	10	4.0	218	1.4	5.5	298		B	B		B	B		80	4.2	02
100	14	4.0	298	1.1	4.3	320		B	B		B	B		78	4.5	03
70	20	3.0	323	1.0	2.9	309		B	B		B	B		79	3.4	04
64	22	2.2	258	1.2	2.6	309		B	B		B	B		78	3.1	05
50	28	2.2	315	1.2	2.5	364		B	B		B	B		75	4.7	06
37	38	1.5	276	1.3	1.9	353	B	B			B			71	3.5	07
30	46	1.5	320	1.1	1.6	342	B	B			B			68	3.1	08
27	52	1.1	258	1.2	1.3	303	B	B			B			66	2.7	09
21	67	1.1	327	0.9	1.02	303	B	B			B			65	2.1	10
18.9	74	0.75	220	1.3	0.96	281	B	B			B			58	1.9	11
14.6	96	0.55	191	1.3	0.73	254	B	B			B			53	1.5	12

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **M85** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **M85** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **M85** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **M85** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **M85** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION M85 Oil Quantity 1.20 Lt.

SHELL Omala S4 WE 320

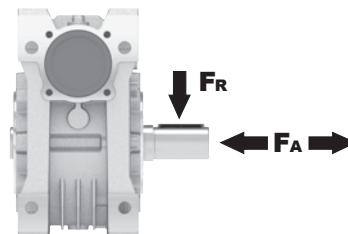
ENI Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

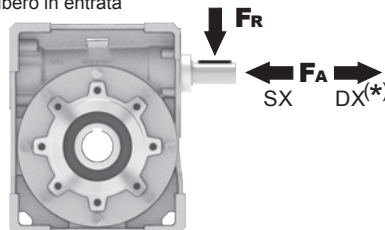
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	500	2500
150	580	2900
100	600	3000
75	700	3500
50	800	4000
25	1000	5000
15	1160	5800

Input shaft

albero in entrata



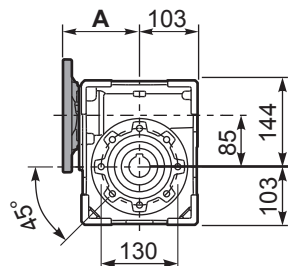
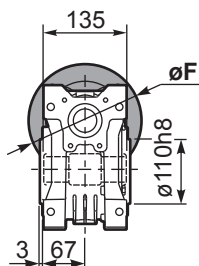
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	130	650

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

tab. 2

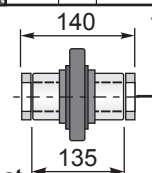
PM85**FB**... Basic wormbox
Riduttore base

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



Gearbox weight peso riduttore	12.1 kg
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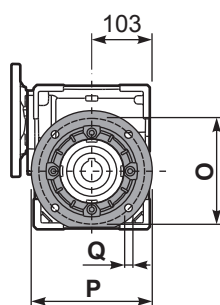
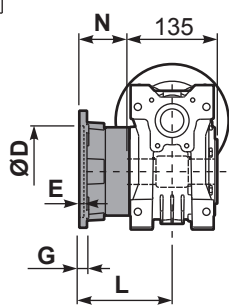
Ø H8	B	C	*Spacer code
35 Standard	38.3	10	KM85.3.035
38 on request	41.3	10	KM85.3.038



*On Request  135
output shaft with spacers

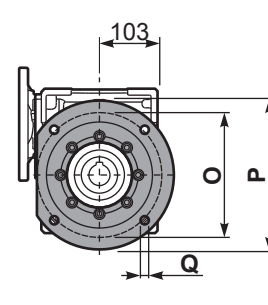
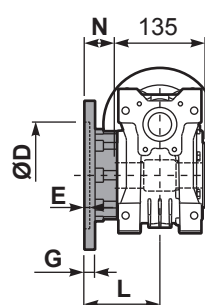
8 holes M10x18

PM85**FC**... Output flange
Flangia uscita



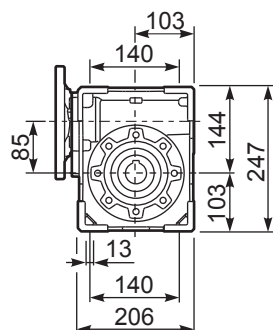
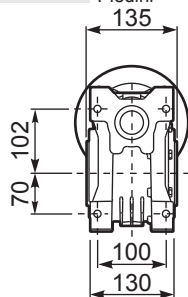
type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 H8	5	16	111	43.5	176	205	13	K085.9.010
FL	180 H8	6	18	122	54.5	215	250	14	KM85.9.011

PM85**F1** Output flange
Flangia usita

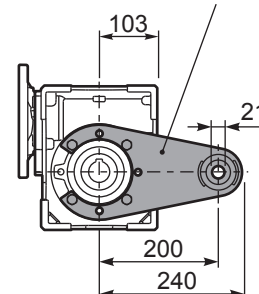
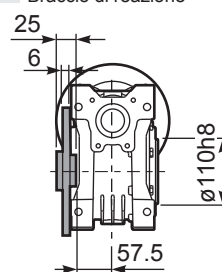


type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H8	5	13	109.5	42	165	200	13	KS085.9.015
F2	152 H8	5	16	151.5	84	176	205	13	K085.9.010 K085.0.201

PM85**FB**... Feet
Piedini

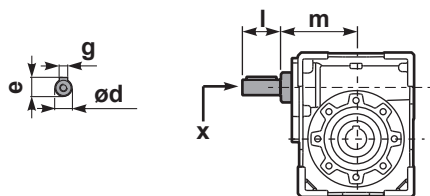


PM85 BR ...	Reaction arm Braccio di reazione
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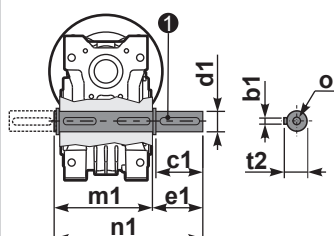
kit cod. K085.9.027

R M85FB...	Input shaft Albero in entrata
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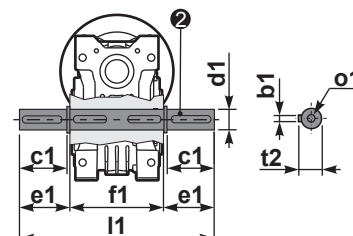
	ød	e	g	l	m	x	kit code
type B	25 h6	28	8	50	112	M8x20	① K085.5.007 PAM90 ② K085.5.008 PAM100
type S	24 h6	27	8	50	112	M8x20	① KS085.5.009 PAM90 ② KS085.5.011 PAM100

PM85.....**S**... Single Shaft
Albero lento semplice



① kit cod. K085.5.028 type B

PM85.....**D**... Double Shaft
Albero lento bisp.



② kit cod. K085.5.029 type B

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
200	7	7.5	315	1.7	13.0	546		B	B			B	B			88	5.5	01
140	10	7.5	440	1.4	10.1	595		B	B			B	B			86	5.4	02
88	16	5.5	492	1.3	7.3	650		B	B			B	B			82	5.3	03
70	20	4.0	447	1.4	5.7	640		B	B			B	B			82	4.5	04
61	23	4.0	502	1.3	5.3	670		B	B			B	B			80	3.9	05
47	30	4.0	622	1.2	4.7	725		B	B			B	B			76	5.6	06
37	38	3.0	583	1.2	3.6	698		B	B			B	B			75	4.7	07
31	45	2.2	493	1.3	2.9	650		B	B			B	B			73	4.0	08
26	53	2.2	557	1.2	2.6	660		B	B			B	B			70	3.5	09
22	64	1.5	452	1.4	2.0	612	B	B				B				69	2.9	10
16.7	84	1.1	410	1.3	1.4	515	B	B				B				65	2.2	11
14.1	99	1.1	446	1.1	1.2	483	B	B				B				60	1.9	12

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **M11** 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 **M11** 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 **M11** 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 **M11** 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 **M11** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6
1.90 LT	1.35 LT	1.35 LT	2.00LT	2.00 LT	2.00LT
SHELL Omala S2 GX 460			ENI Blasias 460		

For all details on lubrication and plugs check our website

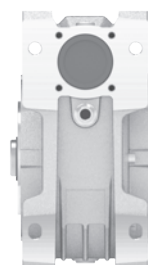
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	600	2900
150	700	3300
100	750	3600
75	800	4000
50	920	4600
25	1200	6000
15	1400	7000

Input shaft

albero in entrata



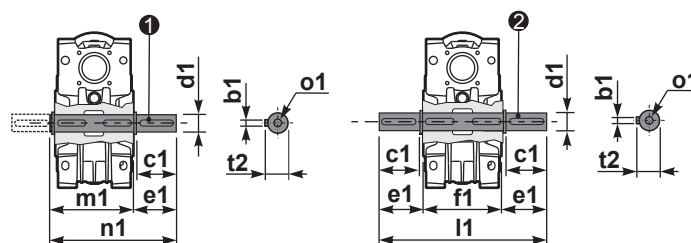
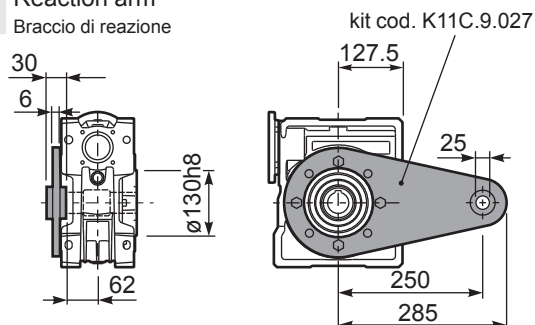
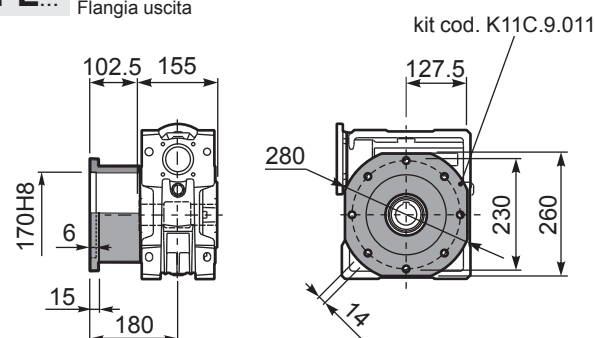
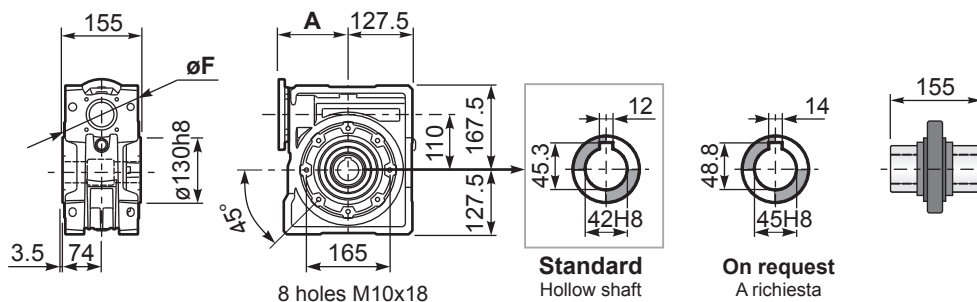
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	228	1140

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

Non sono consentiti forti carichi assiali con direzione DX

tab. 2

35.0 kg

[illegible]



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			B14 motor flanges not available				Dynamic efficiency RD	Tooth Module  [mm]	 Ratios code
							-E	-F	-G	-	-	-	-			
							90	100 112	132	-	-	-	-			
187	7.5	7.5	345	2.1	16.1	741		B						90	6.11	01
140	10	7.5	455	1.8	13.5	820		B						89	6.45	02
93	15	7.5	668	1.4	10.3	917		B						87	6.72	03
70	20	7.5	870	1.0	7.8	905		B						85	5.24	04
56	25	5.5	788	1.2	6.5	931		B						84	4.28	05
46.7	30	5.5	900	1.2	6.4	1047		B						80	6.91	06
35	40	4.0	851	1.2	4.9	1043		B						78	5.36	07
28	50	4.0	1023	0.9	3.8	972	B							75	4.35	08
23.3	60	3.0	896	1.0	3.1	928	B							73	3.65	09
17.5	80	2.2	816	1.0	2.3	853	B							68	2.76	10
14	100	1.5	655	1.1	1.7	742	B							64	2.23	11

 Motor Flanges Available
Flange Motore Disponibili

 B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

 C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **M13** 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 **M13** 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 **M13** 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 **M13** 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 **M13** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

					
B3	B6	B7	B8	V5	V6
4.50 LT	3.50 LT	3.50 LT	3.30LT	4.50 LT	3.30LT
SHELL Omala S2 GX 460			ENI Blasia 460		

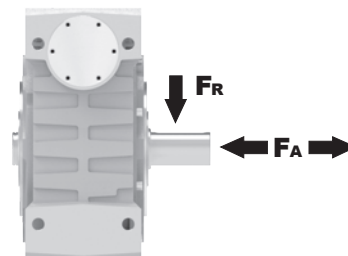
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

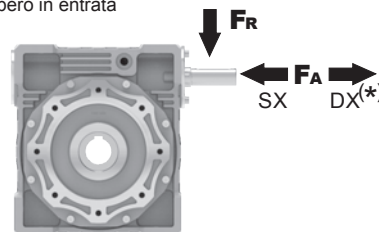
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	960	4800
150	1100	5500
100	1240	6200
75	1380	6900
50	1560	7800
25	2000	10000
15	2400	12000

Input shaft

albero in entrata



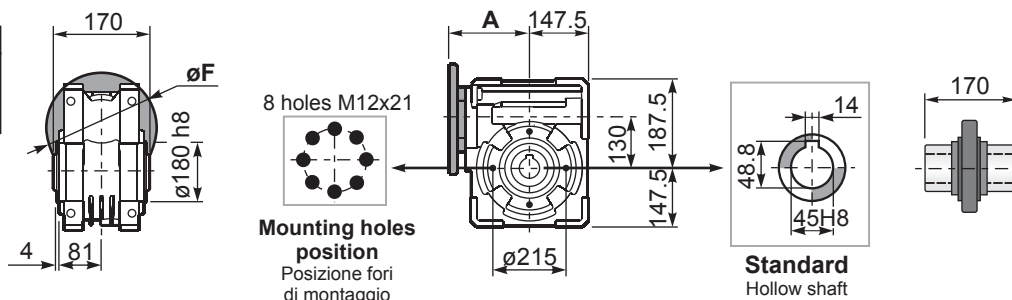
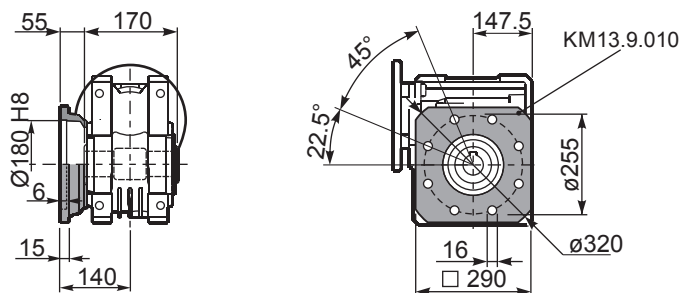
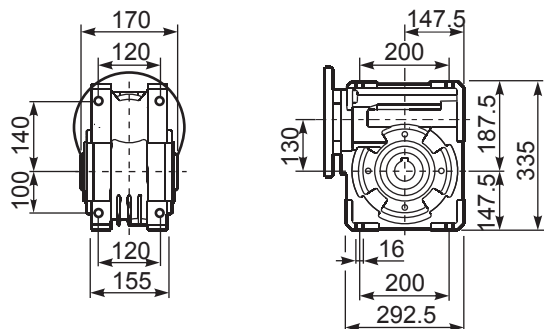
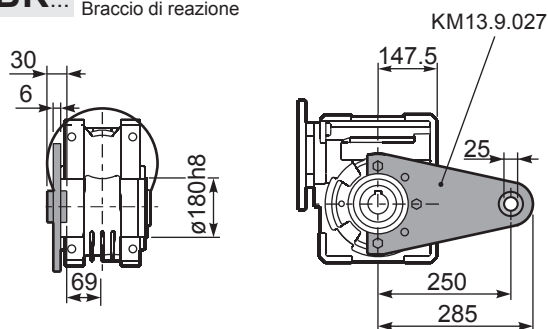
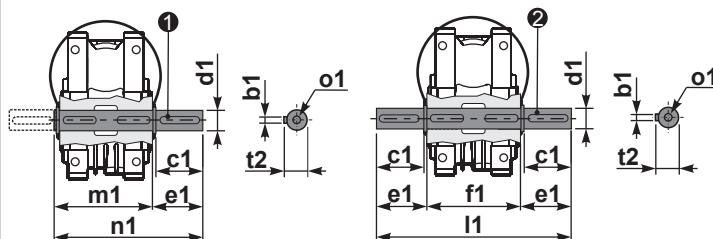
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	300	1500

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

tab. 2

PM13**FB**...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore**48.0 kg**

M. flanges	Kit code	øF	A
90B5	KM13.4.041	200	180
100/112B5	KM13.4.042	250	180
132B5	KM13.4.043	300	180

PM13**FC**...Square flange
Flangia quadrataPM13**FB**...Feet
PiediniPM13**BR**...Reaction arm
Braccio di reazionePM13.....**S**...Single Shaft
Albero lento semplicePM13.....**D**...Double Shaft
Albero lento bisp.

① kit cod. KM13.5.028 type B

② kit cod. KM13.5.029 type B

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type	14	80	45 ^{-0.005/-0.020}	85	170	340	180	265	48.5	M16
type	-	-	-	-	-	-	-	-	-	-



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			B14 motor flanges not available				Dynamic efficiency	Tooth Module [mm]	Ratios code
							-F	-G	-H	-	-	-	-			
187	7.5	15	698	1.7	25.8	1200		B						91	5.5	01
140	10	15	921	1.3	20.2	1240		B						90	6.155	02
93	15	11	990	1.3	13.9	1250		B						88	5.5	03
70	20	11	1291	1.0	11.1	1300		B						86	6.155	04
56	25	9	1289	0.9	8.4	1200		B						84	5	05
46.7	30	7.5	1274	0.9	7.1	1200	B							83	4.193	06
35	40	7.5	1596	1.0	7.3	1550	B							78	6.155	07
28	50	5.5	1426	1.0	5.4	1400	B							76	5	08
23.3	60	4	1195	1.1	4.2	1260	B							73	4.193	09
17.5	80	3	1113	1.0	3.1	1150								68	3.17	10
14	100	2.2	960	1.0	2.3	1000								64	2.55	11

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **M15** 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 **M15** 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 **M15** 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 **M15** 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 **M15** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6
7.00 LT	5.40 LT	5.40 LT	5.10 LT	7.00 LT	5.10 LT
SHELL Omala S2 GX 460			ENI Blasias 460		

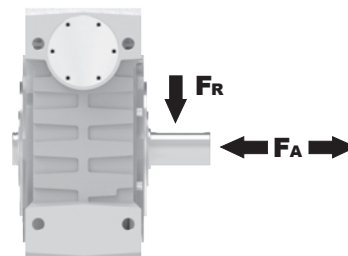
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

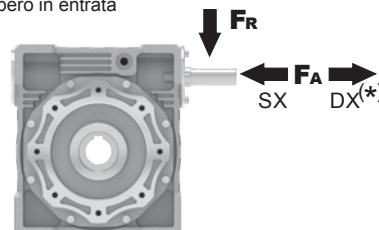
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	1300	6500
150	1440	7200
100	1640	8200
75	1800	9000
50	2120	10600
25	2700	13500
15	3300	16500

Input shaft

albero in entrata



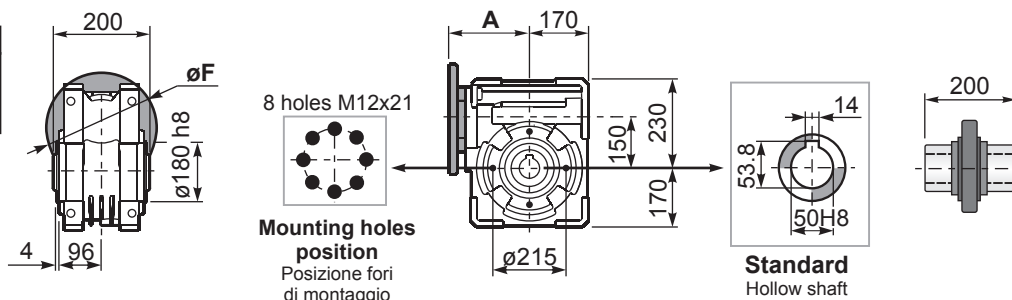
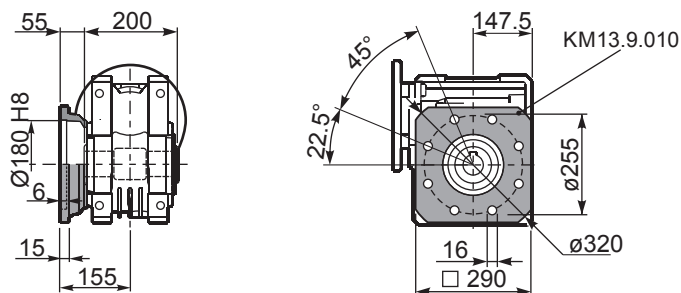
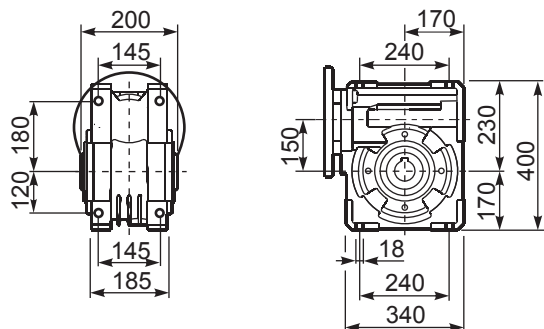
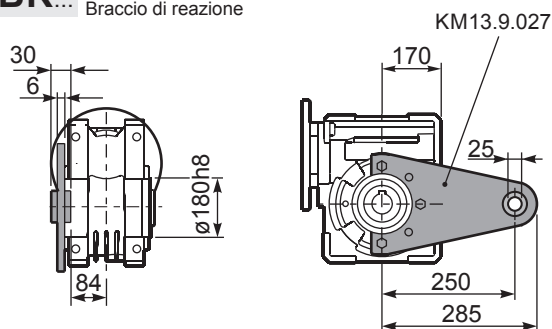
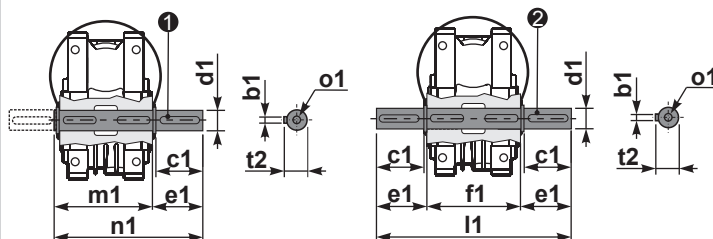
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	400	2000

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

tab. 2

PM15**FB**...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore**84.0 kg**

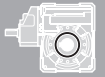
M. flanges	Kit code	øF	A
100/112B5	KM15.4.042	250	210
132B5	KM15.4.043	300	210
160B5	KM15.4.044	350	210

PM15**FC**...Square flange
Flangia quadrataPM15**FB**...Feet
PiediniPM15**BR**...Reaction arm
Braccio di reazionePM15.....**S**...Single Shaft
Albero lento semplicePM15.....**D**...Double Shaft
Albero lento bisp.

① kit cod. KM15.5.028 type B

② kit cod. KM15.5.029 type B

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type	14	82	50 ^{-0.005} _{-0.020}	87	200	374	210	297	53.5	M16
type	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **P4M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

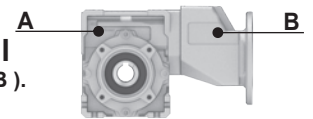
I Il riduttore tipo **P4M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **P4M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P4M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **P4M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION P4M Oil Common lubrication 0.17 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

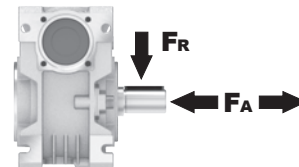
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

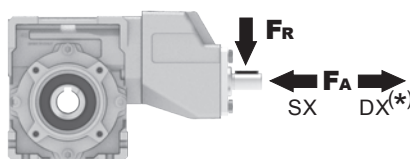
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
75	240	1200
50	260	1400
25	300	1800
15-6	400	2000

Input shaft

albero in entrata



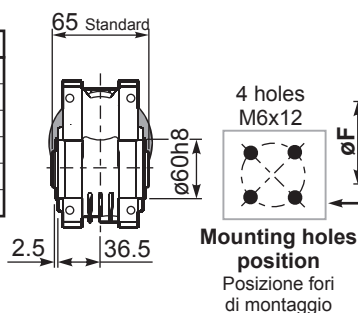
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	44	220

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

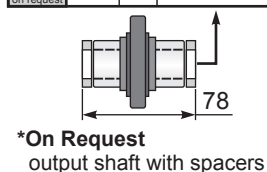
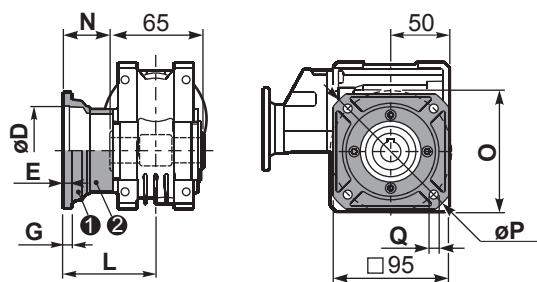
tab. 2

PP4MFB... Basic wormbox
Riduttore base

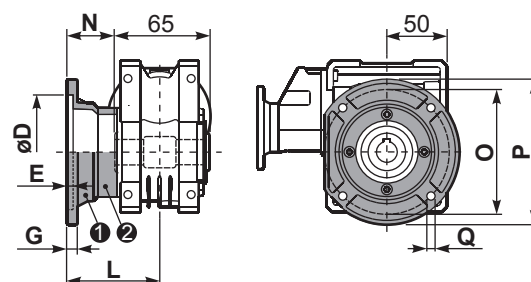
M. flanges	Kit code	øF	A
56B5	K050.4.046	120	143.5
63B5	K050.4.041	138	145.5
71B5	K050.4.042	160	143
63B14	K050.4.047	90	145.5
71B14	K050.4.045	105	143

Gearbox weight
peso riduttore **3.10 kg**

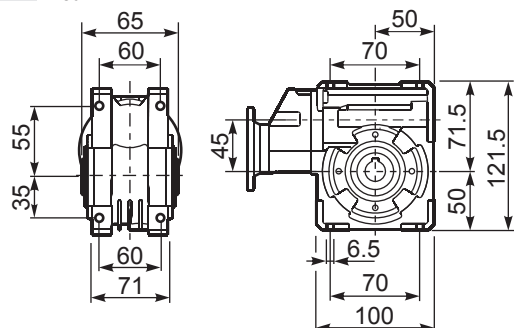
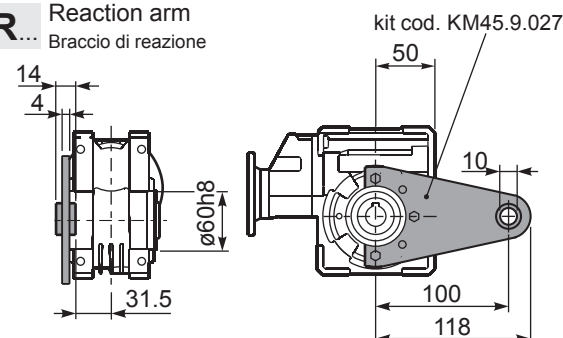
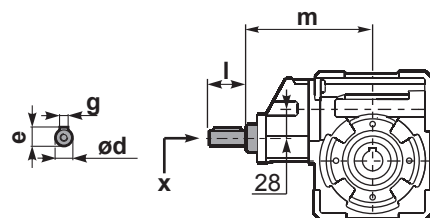
ø H8	B	C	*Spacer code
18 Standard	20.8	6	KM45.3.018
19 on request	21.8	6	KM45.3.019
20 on request	22.8	6	KM45.3.020

**PP4MFC...** Square flange
Flangia quadrata

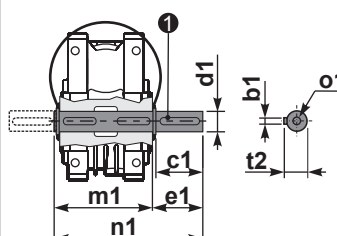
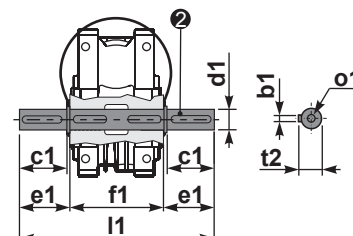
type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 H8	4	7	67	34.5	75	110	9	KM45.9.010
FL	60 H8	4	7	97	64.5	75	110	9	KM45.9.011

PP4MF1... Round flange
Flangia rotonda

type S	øD	E	G	L	N	O	P	Q	kit code
F1	95H8	5	9	80	47.5	115	140	9.5	KM45.9.012
F2	-	-	-	-	-	-	-	-	-

PP4MFB... Feet
Piedini**PP4MBR...** Reaction arm
Braccio di reazione**RP4MFB...** Input shaft
Albero in entrata

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

PP4M....S... Single Shaft
Albero lento semplice**PP4M....D...** Double Shaft
Albero lento bisp.

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 ^{-0.005} _{-0.020}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{-0.005} _{-0.020}	58.5	-	-	70	128.5	21.5	M8x20



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

 **Motor Flanges Available**
Flange Motore Disponibili

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

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

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

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

EN Unit **P5M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **P5M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **P5M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P5M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **P5M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

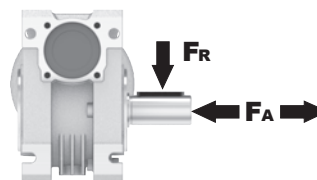
LUBRICATION P5M Oil	
Common lubrication 0.26 l (A + B).	
SHELL Omala S4 WE 320	ENI Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

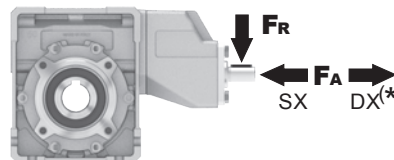
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
75	340	1700
50	380	1900
25	480	2500
15-6	560	2800

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	44	220

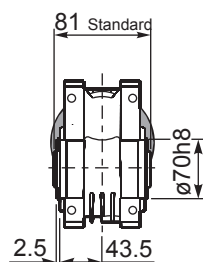
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP5MFB...

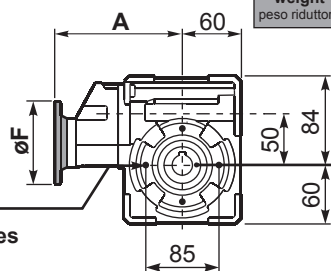
Basic wormbox
Riduttore base

M. flanges	Kit code	øF	A
56B5	K050.4.046	120	147
63B5	K050.4.041	138	149
71B5	K050.4.042	160	146.5
63B14	K050.4.047	90	149
71B14	K050.4.045	105	146.5



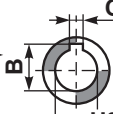
4 holes
M8x11

**Mounting holes
position**
Posizione fori
di montaggio

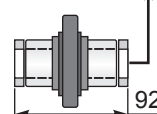


Gearbox weight	4.60 kg
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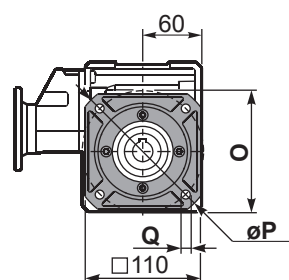
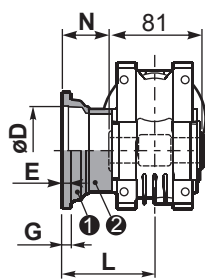
Ø H8	B	C	*Spacer code
25 Standard	28.3	8	KM50.3.025
24 on request	27.3	8	KM50.3.024



***On Request**
output shaft
with spacers

PP5M**FC**...

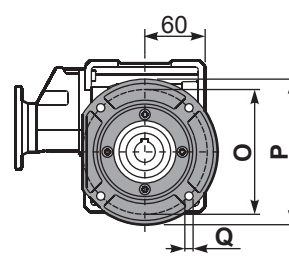
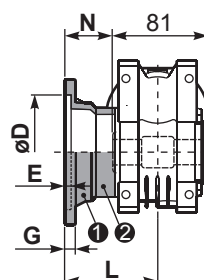
Square flange
Flangia quadrata



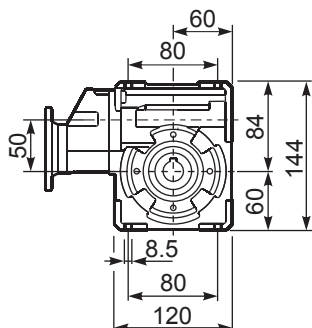
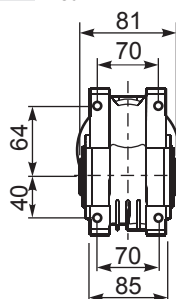
type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 H8	5	9	90	49.5	85	125	11	KM50.9.010
FL	70 H8	5	9	120	79.5	85	125	11	KM50.9.011

PP5M**F1**...

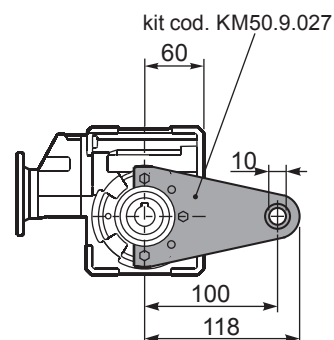
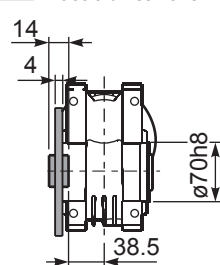
Round flange
Flangia rotonda



type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 H8	5	10	89	69.5	130	160	9.5	KM50.9.012
F2	95 H8	5	14.5	72	31.5	115	140	11	KM50.9.013

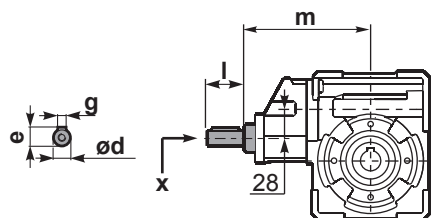
PP5M**FB**...Feet
PiediniPP5M **BR...**

Reaction arm
Braccio di reazione



RP5MFB...

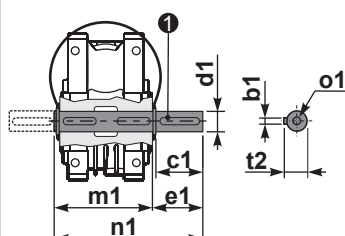
Input shaft
Albero in entrata



	ød	e	g	l	m	x	
type B	14 h6	16	5	25	140.5	M5x13	C35.5.061
type S	-	-	-	-	-	-	-

PP5M.....S...

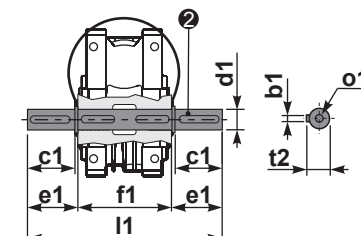
Single Shaft
Albero lento semplice



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

PP5M....D..

Double Shaft
• Albero lento bisp.



② kit cod. K050.5.029 type B

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **P6M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **P6M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

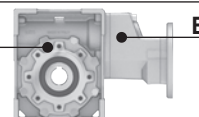
D Für die Lebensdauerschmierung ist das Getriebe der Größe **P6M** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P6M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **P6M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION P6M Oil

For B3-V5-V6 separate lubrication for A (0.30 l) B (0.08 l), for B6-B7-B8 common lubrication 0.35 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

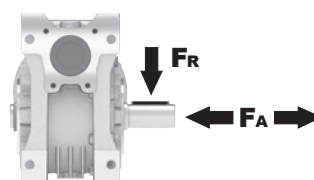
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

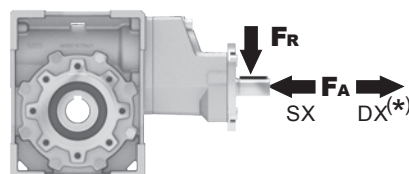
Albero di uscita



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

Input shaft

albero in entrata



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

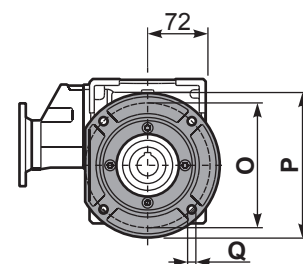
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

Gearbox weight peso riduttore	29.9+111 7.00 Kg	139+434 6.60 Kg
---	-------------------------------	------------------------------

On request
A richiesta

Output flange
Flangia uscita



type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H8	5	10	98	42	165	200	11	KM60.9.012
F2	130 H8	5	10	107	51	165	200	11	KM63.9.013
F3	110 H8	5	16.5	80.5	24.5	130	160	11	KM63.9.014

Reaction arm
Braccio di reazione

Technical drawing of the front view of a square flange motor. The drawing shows a square motor body with a circular terminal box on the left. Dimensions are provided in millimeters: overall width 144, overall height 179, terminal box width 63, terminal box height 8.5, motor body width 100, motor body height 107, and mounting hole spacing 72.

Technical drawing of a mechanical part, likely a pump or motor component. The drawing shows a side view of the part with a central shaft and a flange. Dimensions are indicated: 72 (width of the flange), 10 (thickness of the flange), 150 (length of the shaft), and 168 (total length of the part).

Single Shaft
Albero lento semplice

Technical drawings of two types of ball joints, labeled 1 and 2. Each drawing includes a front view and a side view.

Joint 1 (Left):

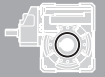
- Front View:** Shows a ball joint with dimensions: d_1 (outer diameter), c_1 (width of the lower part), m_1 (width of the upper part), e_1 (width of the lower part), and n_1 (total width).
- Side View:** Shows the ball joint with dimensions: b_1 (height of the ball), t_2 (height of the lower part), and o_1 (height of the upper part).

Joint 2 (Right):

- Front View:** Shows a ball joint with dimensions: d_1 (outer diameter), c_1 (width of the lower part), m_1 (width of the upper part), e_1 (width of the lower part), f_1 (width of the upper part), and l_1 (total width).
- Side View:** Shows the ball joint with dimensions: b_1 (height of the ball), t_2 (height of the lower part), and o_1 (height of the upper part).

② kit cod. KM63.5.029 type B

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
22	62.9	0.75	248	1.2	0.87	286					C	C		77	3.10	01
18	78.5	0.75	293	1.0	0.73	286					C	C		73	2.41	02
15	94.2	0.75	333	0.9	0.70	310					C	C		69	2.10	03
11	126	0.55	297	1.0	0.55	296	B				C	C		63	1.53	04
9	157	0.37	230	1.1	0.41	252	B				C	C		58	1.23	05
8	185	0.37	257	1.2	0.43	296	B				C	C		55	3.10	06
6	231	0.25	193	1.5	0.38	296	B				C	C		49	2.41	07
5	277	0.25	222	1.3	0.33	296	B				C	C		47	2.10	08
4	378	0.18	200	1.5	0.27	296	B				C	C		43	2.10	09

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **P7M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **P7M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

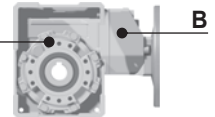
D Für die Lebensdauerschmierung ist das Getriebe der Größe **P7M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P7M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **P7M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION P7M Oil

For B3-V5-V6 separate lubrication for A (0.40 l) B (0.14 l), for B6-B7-B8 common lubrication 0.65 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

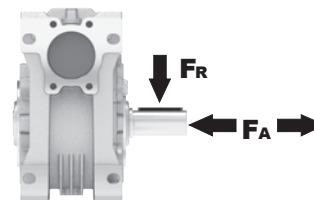
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

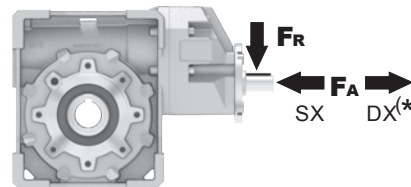
Albero di uscita



n_2 [min ⁻¹]	F_A [N]	F_R [N]
75	620	3100
50	720	3600
25	880	4400
15-6	1000	5000

Input shaft

albero in entrata



n [min ⁻¹]	F_A [N]	F_R [N]
1400	108	540

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

Non sono consentiti forti carichi assiali con direzione DX

tab. 2

9.90 kg

A technical drawing of a bolt and nut assembly. The bolt is shown in cross-section, passing through a nut. A dimension line above the bolt indicates a length of 120 units.

On request
A richiesta

[illegible]

Braccio di reazione

25
6
ø95h8
47.5

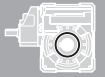
89
20
200
230

KM75.9.027

Technical drawing of a mechanical assembly. The main view is a cross-section of a component with a central hole. Dimensions include l_1 (total length), c_1 (offset from center), e_1 (offset from end), f_1 (central hole diameter), and d_1 (thickness). A side view shows a bolt with dimensions b_1 (height), t_2 (thickness), and a 60-degree angle.

② kit cod. KM75.5.029 Standard

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

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 **P8M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

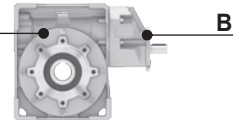
I Il riduttore tipo **P8M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **P8M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P8M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **P8M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION P8M Oil
For B3-V5-V6 separate lubrication for A (1.20 l) B (0.14 l) , for B6-B7-B8 common lubrication 1.00 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

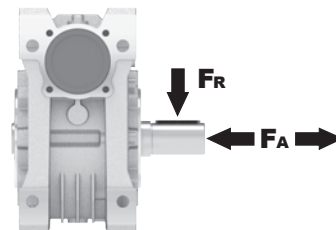
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

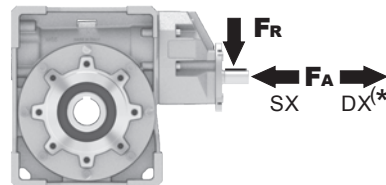
Albero di uscita



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

Input shaft

albero in entrata



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

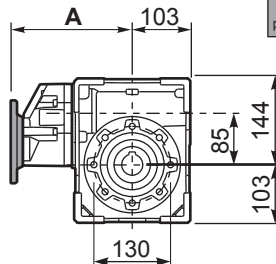
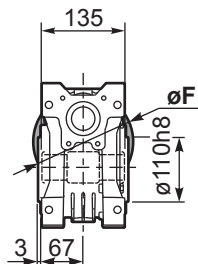
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

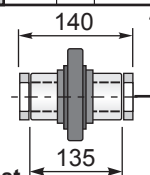
PP8MFB...

Basic wormbox
Riduttore base

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

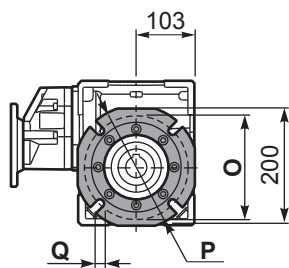
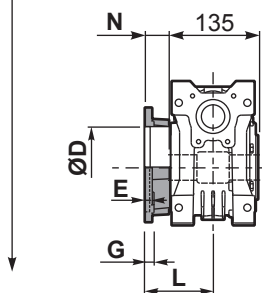
Gearbox weight
peso riduttore **12.3 kg**

ø H8	B	C	*Spacer code
35 Standard	38.3	10	KM85.3.035
38 on request	41.3	10	KM85.3.038

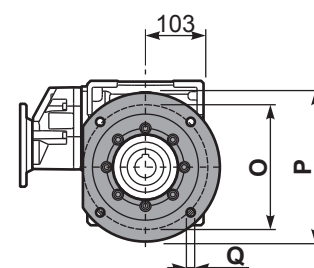
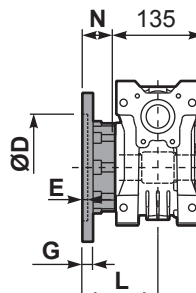
*On Request
output shaft with spacers

8 holes M10x18

PP8MFC...

Output flange
Flangia uscita

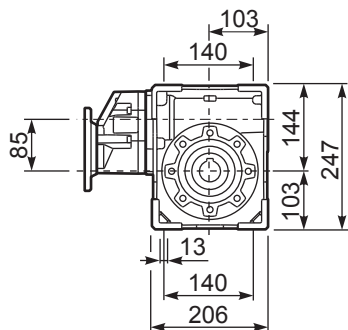
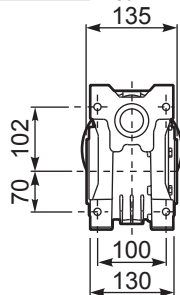
PP8MF1...

Output flange
Flangia uscita

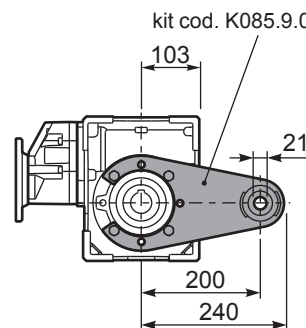
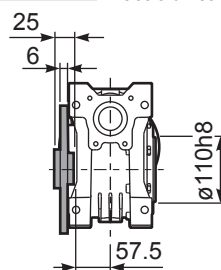
type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 H8	5	16	111	43.5	176	205	13	K085.9.010
FL	180 H8	6	18	122	54.5	215	250	14	KM85.9.011

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H8	5	13	109.5	42	165	200	13	KS085.9.015
F2	152 H8	5	16	151.5	84	176	205	13	K085.9.010 K085.0.201

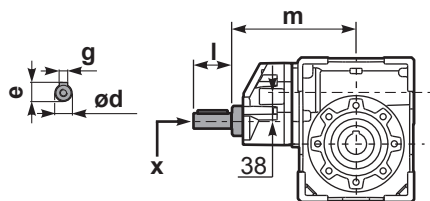
PP8MFB...

Feet
Piedini

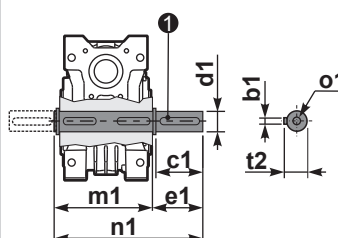
PP8MBR...

Reaction arm
Braccio di reazione

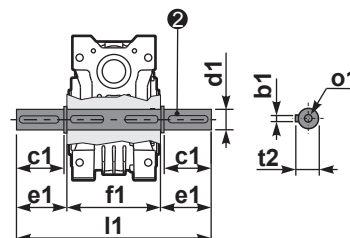
RP8MFB...

Input shaft
Albero in entrata

PP8M.....S...

Single Shaft
Albero lento semplice

PP8M.....D...

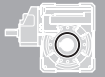
Double Shaft
Albero lento bisp.

① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **P1M** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. Primary reduction unit is supplied with closed plugs and lubricated for life with synthetic oil. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **P1M** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. La precoppia è fornita con tappi chiusi e lubrificata a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **P1M** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Die Stirnradvorstufe ist Lebensdauergeschmiert und wird mit synthetischem Öl geliefert. Die Stirnradvorstufe ist komplett geschlossen ohne Füllschrauben. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P1M** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le pré couple est fourni lubrifié à vie avec de l'huile synthétique et avec des bouchons fermés. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño **P1M** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

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

For all details on lubrication and plugs check our website

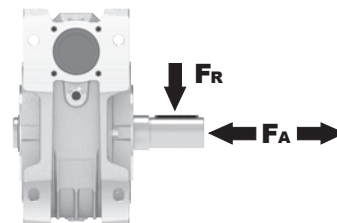
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

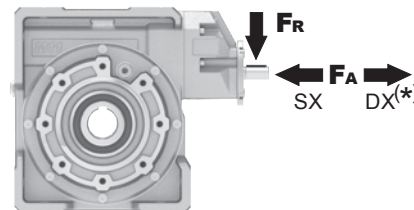
Albero di uscita



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

Input shaft

albero in entrata



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

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

tab. 2

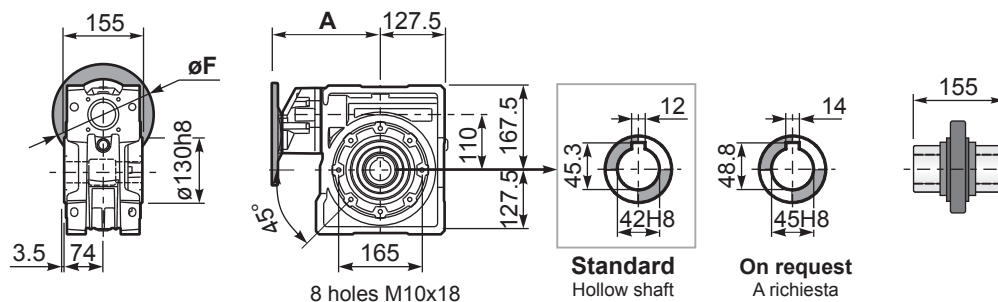
PP1M**FB**...

Basic wormbox
Riduttore base

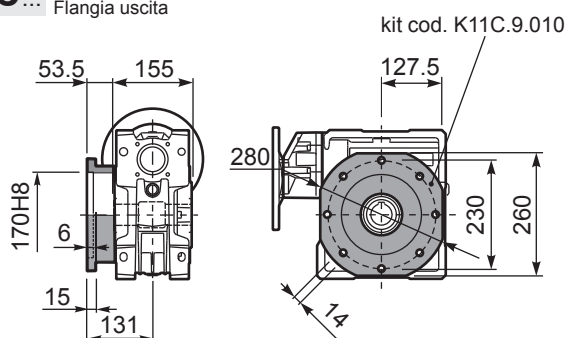
Gearbox weight
peso riduttore

37.3 kg

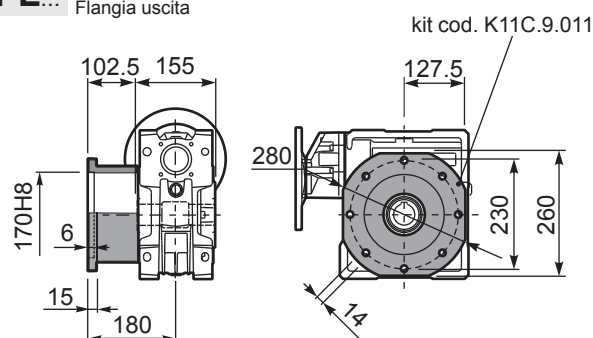
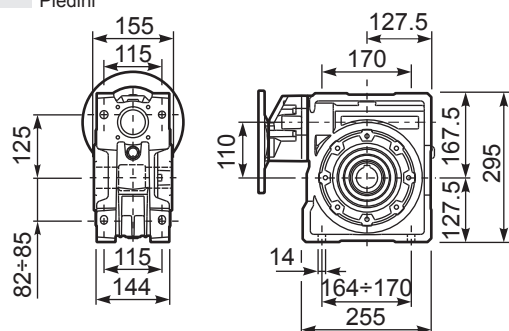
M. flanges	Kit code	ØF	A
63B5	K063.4.041	140	214.7
71B5	K063.4.042	160	212.7
80/90B5	K063.4.043	200	214.7
71B14	K063.4.047	105	212.7
80B14	K063.4.046	120	214.7
90B14	K063.4.041	140	214.7

PP1M**FC**...

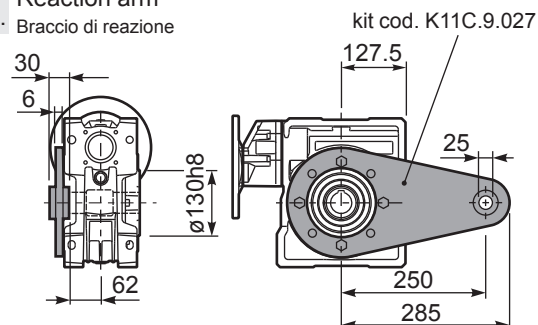
Output flange
Flangia uscita

PP1M**FL**...

Output flange
Flangia uscita

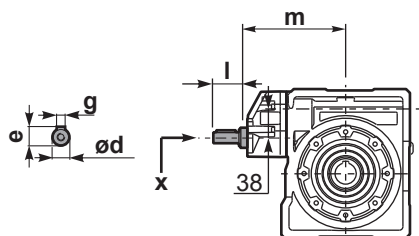
PP1M**FB**...Feet
PiediniPP1M**BR**...

Reaction arm
Braccio di reazione



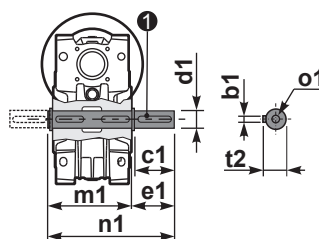
RP1MFB...

Input shaft
Albero in entrata

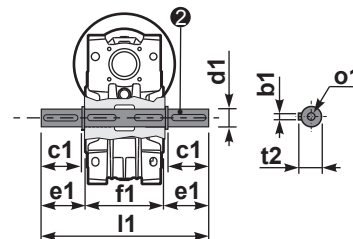


PP1M....S...

Single Shaft
Albero lento semplice

PP1M....**D**..

Double Shaft
· Albero lento bisp.

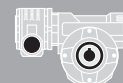


① kit cod. K11C.5.028 type B

② kit cod. K11C.5.029 type B

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

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency	Tooth Module [mm]	Ratio code
							-A	-B	-O	-P			
							56	63	56	63	RD		
9.3	150	0.06	29	1.3	0.08	38	B		B-C		48	1.44	01
6.7	210	0.06	39	1.0	0.06	38	B		B-C		45	1.44	02
4.7	300	0.06	44	0.9	0.05	38	B		B-C		36	1.44	03
3.1	450	0.06*	38	<0.8	0.04	38	B		B-C		33	1.44	04
2.3	600	0.06*	38	<0.8	0.03	38	B		B-C		30	1.44	05
1.6	900	0.06*	38	<0.8	0.02	38	B		B-C		27	1.44	06
1.2	1200	0.06*	38	<0.8	0.02	38	B		B-C		26	1.44	07
0.8	1830	0.06*	38	<0.8	0.01	38	B		B-C		24	1.44	08
0.6	2400	0.06*	38	<0.8	0.01	38	B		B-C		22	1.44	09

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit 33M is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

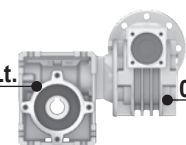
I Il riduttore tipo 33M viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe 33M mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type 33M est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño 33M se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 33M Oil 0.03 Lt.
Quantity 0.03/0.03 Lt.



SHELL Omala S4 WE 320

ENI Telium VSF 320

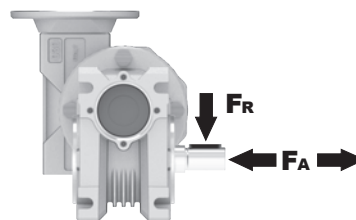
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

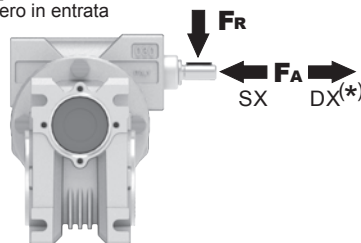
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
25	300	1800
15	400	2000

Input shaft

albero in entrata



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

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

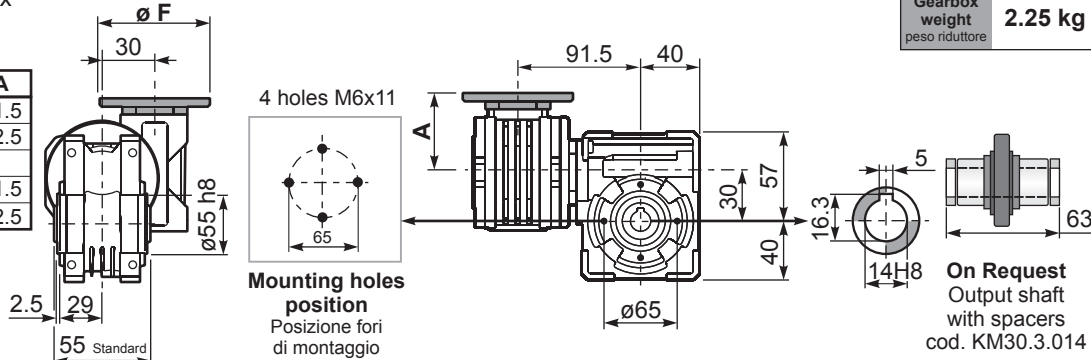
tab. 2

P33MFB...

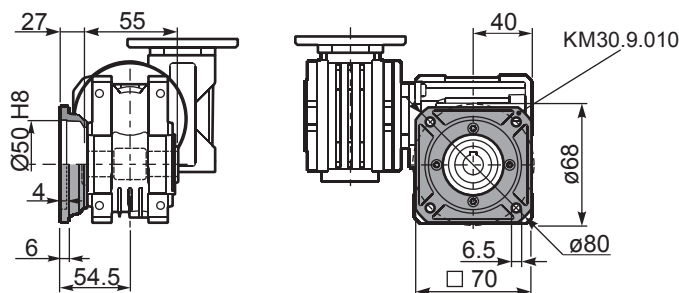
Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

2.25 kg

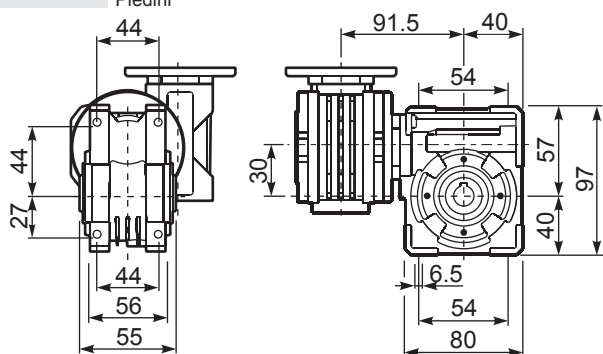
M. flanges	Kit code	ϕF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



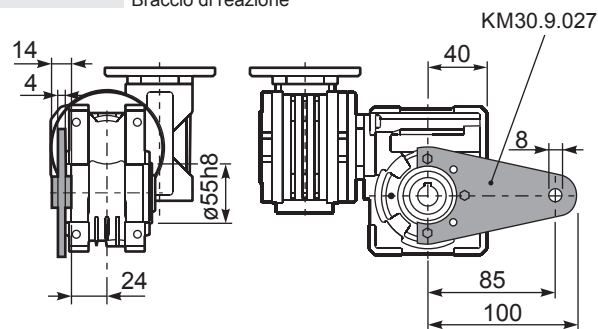
P33MFC...

Square flange
Flangia quadrata

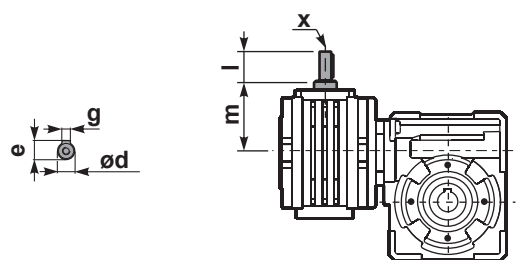
P33MFB...

Feet
Piedini

P33MBR...

Reaction arm
Braccio di reazione

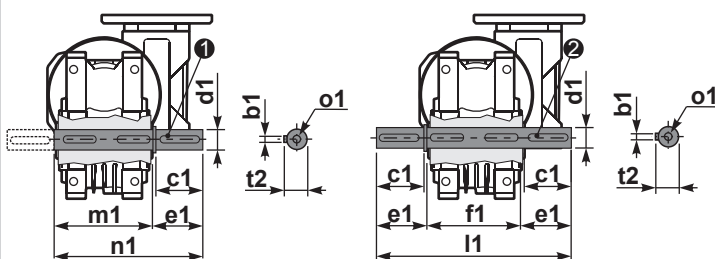
R33MFB...

Input shaft
Albero in entrata

P33M.....S...

Single Shaft
Albero lento semplice

P33M.....D...

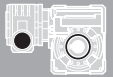
Double Shaft
Albero lento bisp.

① kit cod. K030.5.028 type B

② kit cod. K030.5.029 type B

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 ^{-0.005/-0.020}	35.5	55	126	59	94.5	16	M5x14
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63	RD		
10.0	140	0.12	57	1.3	0.15	72	B		B-C		50	2.2	01
7.0	200	0.12	79	0.9	0.11	72	B		B-C		48	2.2	02
5.0	280	0.09	77	0.9	0.08	72	B		B-C		45	2.4	03
3.3	420	0.06	62	1.2	0.07	72	B		B-C		36	1.6	04
2.5	560	0.06	76	1.0	0.06	72	B		B-C		33	2.5	05
1.9	740	0.06	91	0.8	0.05	72	B		B-C		30	1.8	06
1.5	920	0.06*	72	<0.8	0.04	72	B		B-C		27	1.5	07
1.3	1120	0.06*	72	<0.8	0.04	72	B		B-C		26	2.5	08
0.9	1480	0.06*	72	<0.8	0.03	72	B		B-C		24	1.8	09
0.8	1840	0.06*	72	<0.8	0.03	72	B		B-C		22	1.5	10
0.6	2400	0.06*	72	<0.8	0.02	72	B		B-C		21	1.2	11

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **43M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

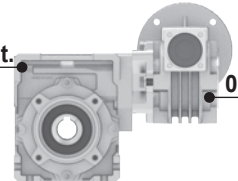
I Il riduttore tipo **43M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **43M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **43M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **43M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 43M Oil
Quantity 0.09/0.03 Lt.



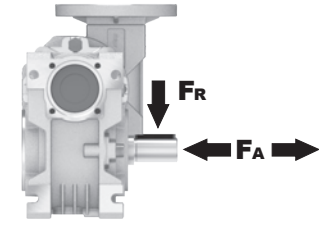
SHELL Omala S4 WE 320	ENI Telium VSF 320
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For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

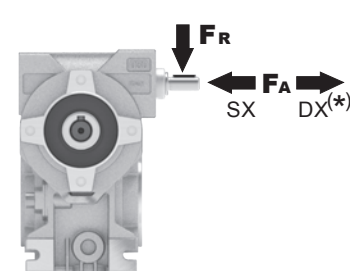
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
25	300	1800
15	400	2000

Input shaft
albero in entrata



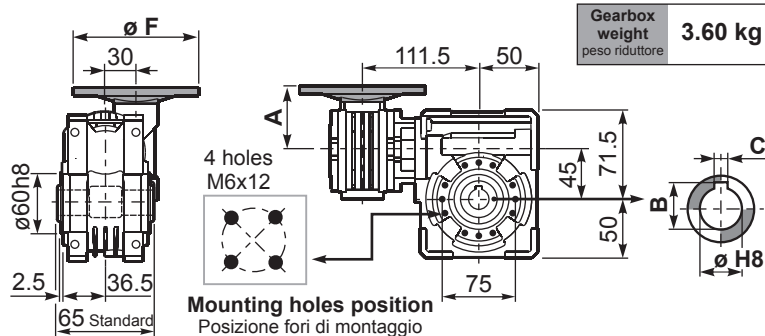
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	20	100

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

tab. 2

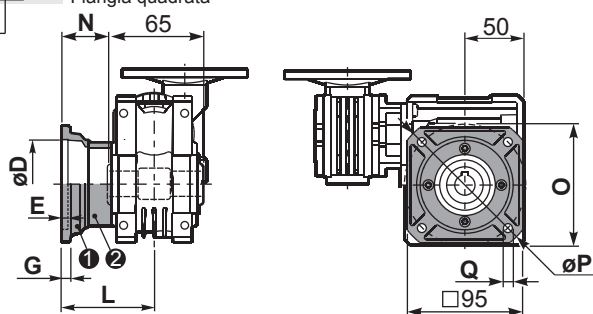
P43MFB... Basic wormbox
Riduttore base

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

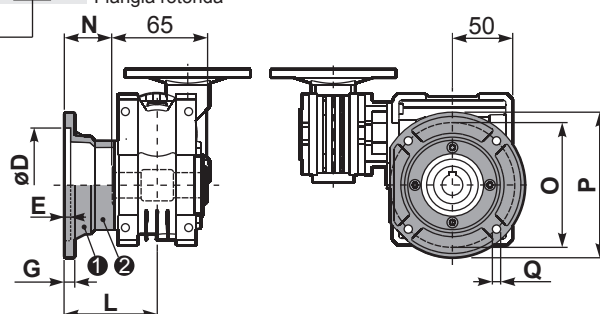


ø H8	B	C	*Spacer code
18 Standard	20.8	6	KM45.3.018
19 on request	21.8	6	KM45.3.019
20 on request	22.8	6	KM45.3.020

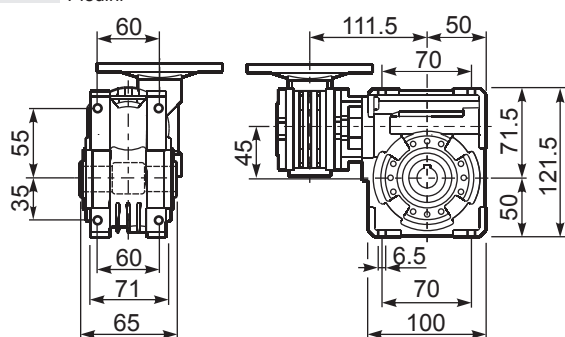
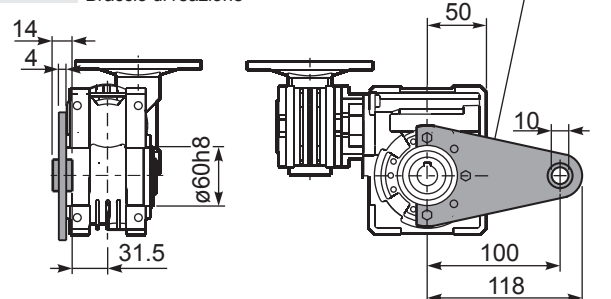
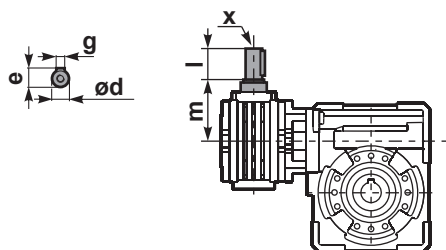
*On Request
output shaft with spacers

P43MFC... Square flange
Flangia quadrata

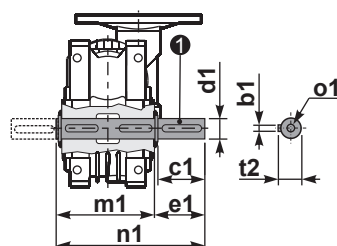
type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 H8	4	7	67	34.5	75	110	9	KM45.9.010
FL	60 H8	4	7	97	64.5	75	110	9	KM45.9.011

P43MF1... Round flange
Flangia rotonda

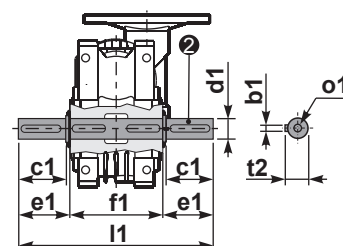
type S	øD	E	G	L	N	O	P	Q	kit code
F1	95H8	5	9	80	47.5	115	140	9.5	KM45.9.012
F2	-	-	-	-	-	-	-	-	-

P43MFB... Feet
Piedini**P43MBR...** Reaction arm
Braccio di reazione**R43MFB...** Input shaft
Albero in entrata

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

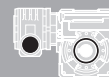
P43M.....S... Single Shaft
Albero lento semplice

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

P43M.....D... Double Shaft
Albero lento bisp.

② kit cod. K045.5.029 type B

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 ^{-0.005} _{-0.020}	43	65	151	70	113	20.5	M6x18
type S	6	40	19 ^{-0.005} _{-0.020}	58.5	-	-	70	128.5	21.5	M8x20



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
5.6	252	0.12	97	1.4	0.17	138	B		B-C		47	2.1	01
3.9	360	0.12	124	1.1	0.13	138	B		B-C		42	2.1	02
2.6	540	0.09	129	1.1	0.10	138	B		B-C		39	2.1	03
1.9	720	0.09	159	0.9	0.08	138	B		B-C		36	2.1	04
1.6	860	0.06	113	1.2	0.07	138	B		B-C		32	1.8	05
1.2	1200	0.06	133	1.0	0.06	138	B		B-C		27	1.3	06
1.0	1440	0.06	153	0.9	0.05	138	B		B-C		26	2.1	07
0.8	1720	0.06	176	0.8	0.05	138	B		B-C		25	1.8	08
0.6	2400	0.06*	132	<0.8	0.04	132	B		B-C		21	1.3	09

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **53M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **53M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **53M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **53M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **53M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 53M Oil
Quantity 0.14/0.03 Lt.

0.14 Lt. 0.03 Lt.

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

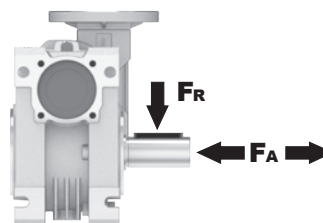
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

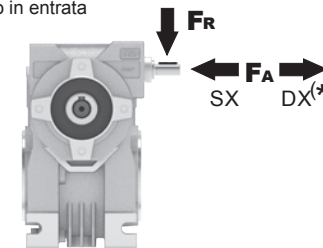
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
25	480	2500
15	560	2800

Input shaft

albero in entrata



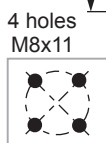
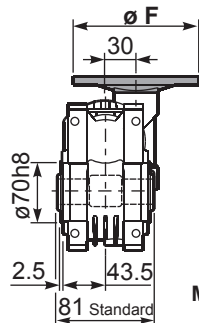
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	20	100

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

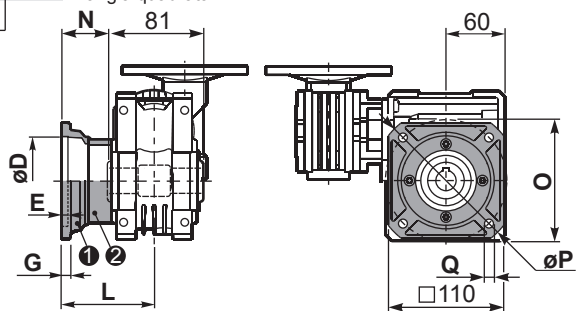
tab. 2

P53MFB... Basic wormbox
Riduttore base

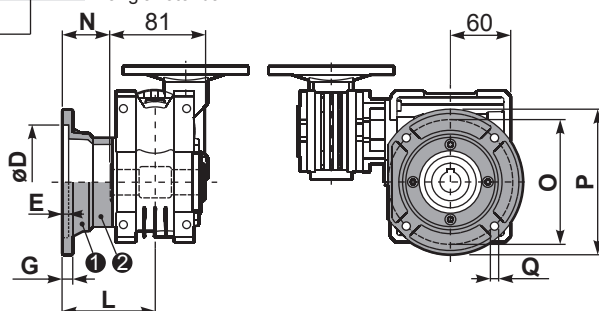
M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5

Mounting holes position
Posizione fori di montaggioGearbox weight
peso riduttore **4.61 kg**

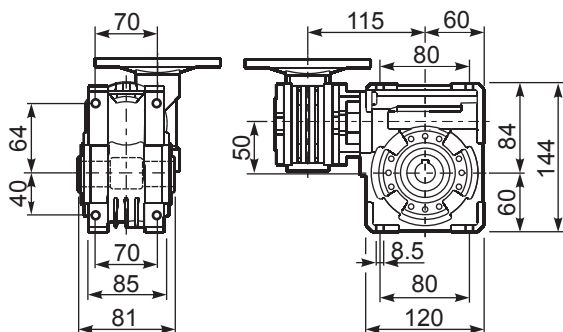
ø H8	B	C	*Spacer code
25 Standard	28.3	8	KM50.3.025
24 on request	27.3	8	KM50.3.024

*On Request
output shaft
with spacers**P53MFC...** Square flange
Flangia quadrata

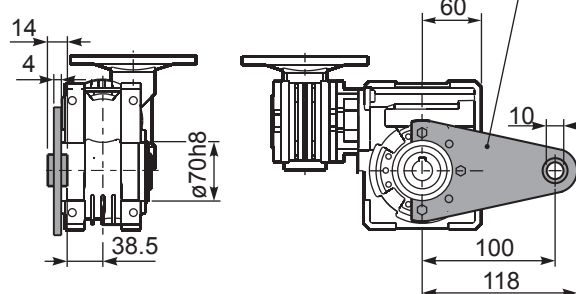
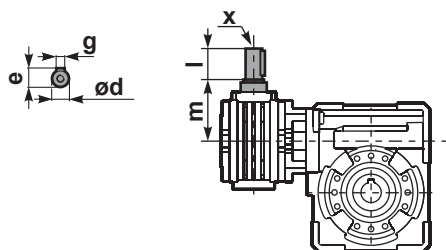
type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 H8	5	9	90	49.5	85	125	11	KM50.9.010
FL	70 H8	5	9	120	79.5	85	125	11	KM50.9.011

P53MF1... Round flange
Flangia rotonda

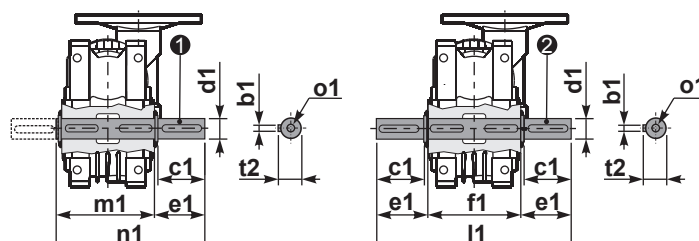
type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 H8	5	10	89	48.5	130	160	9.5	KM50.9.012
F2	95 H8	5	14.5	72	31.5	115	140	11	KM50.9.013

P53MFB... Feet
Piedini**P53MBR...** Reaction arm
Braccio di reazione

kit cod. KM50.9.027

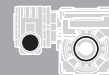
**R53MFB...** Input shaft
Albero in entrata

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

P53M.....S... Single Shaft
Albero lento semplice**P53M.....D...** Double Shaft
Albero lento bisp.① kit cod. K050.5.028 type B
kit cod. KS050.5.030 type S

② kit cod. K050.5.029 type B

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module $[mm]$	Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
5.6	252	0.18	142	1.9	0.34	270	B		B-C		46	2.7	01
3.9	360	0.18	181	1.5	0.27	270	B		B-C		41	2.7	02
2.6	540	0.18	245	1.1	0.20	270	B		B-C		37	2.7	03
1.9	720	0.12	200	1.3	0.16	270	B		B-C		34	2.7	04
1.3	1080	0.12	265	1.0	0.12	270	B		B-C		30	2.7	05
1.0	1440	0.09	239	1.1	0.10	270	B		B-C		27	2.7	06
0.5	2745	0.06	258	1.0	0.06	270	B		B-C		23	2.1	07

A) Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

LUBRICATION 63M Oil
Quantity 0.30/0.03 Lt.

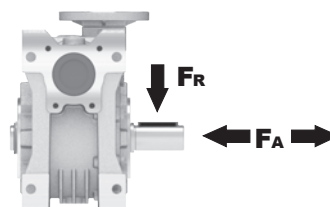
SHELL Omala S4 WE 320 **ENI** Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

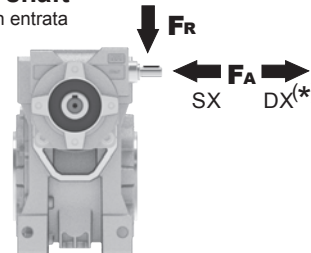
Albero di uscita



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

Input shaft

albero in entrata



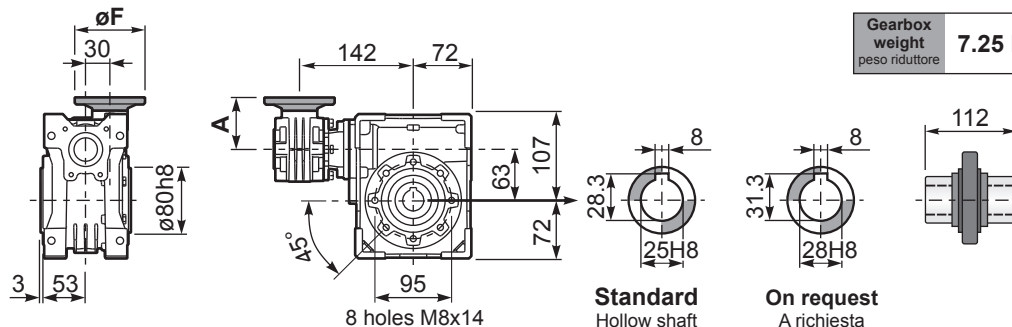
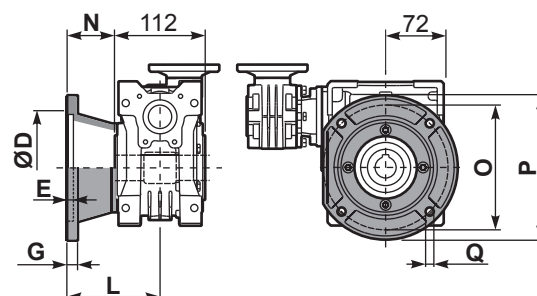
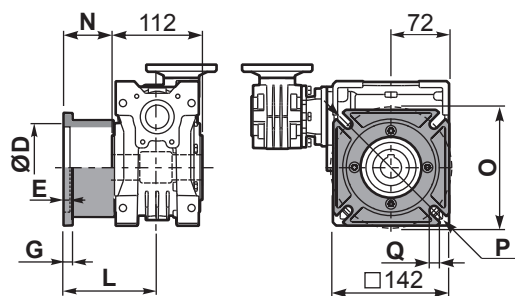
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	20	100

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

tab. 2

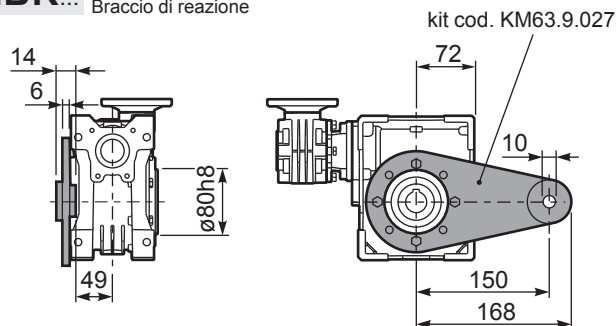
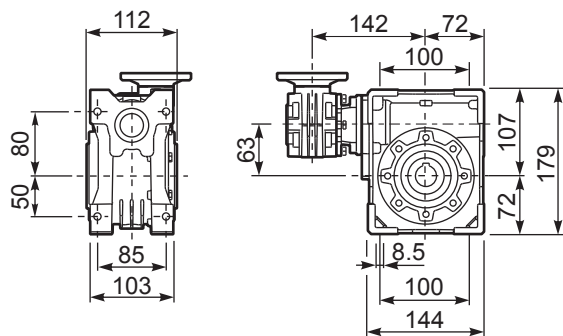
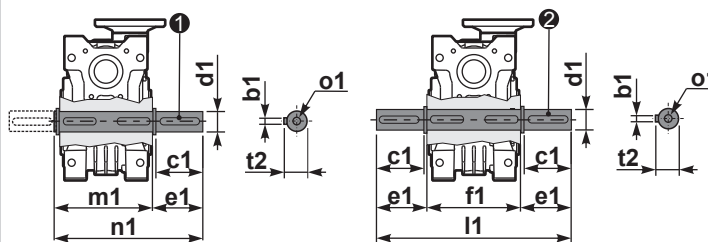
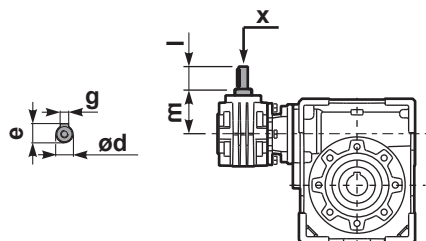
P63MFB...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore**7.25 kg**

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

**P63MFC...**Square flange
Flangia quadrata**P63MF1...**Round flange
Flangia rotonda

type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 H8	6	10	82	26	150	180	11	KM63.9.010
FL	115 H8	6	10	112	56	150	180	11	KM63.9.011

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H8	5	10	98	42	165	200	11	KM60.9.012
F2	130 H8	5	10	107	51	165	200	11	KM63.9.013
F3	110 H8	5	16.5	80.5	24.5	130	160	11	KM63.9.014

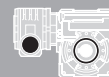
P63MFB...Feet
Piedini**P63MBR...**Reaction arm
Braccio di reazione**R63MFB...**Input shaft
Albero in entrata**P63M.....S...**Single Shaft
Albero lento semplice**P63M.....D...**Double Shaft
Albero lento bisp.

① kit cod. KM63.5.028 type B

② kit cod. KM63.5.029 type B

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

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	50	25h6	53.5	112	219	119.5	173	28	M10x23
type S	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency	Tooth Module  [mm]	Ratios code 
							-B	-C	-O	-P	-Q	RD		
							63	71	56	63	71			
5.6	252	0.25	198	1.5	0.37	290	B		B-C	B-C		46	2.7	01
3.9	360	0.25	258	1.1	0.28	290	B		B-C	B-C		42	2.7	02
2.8	504	0.18	241	1.2	0.22	290	B		B-C	B-C		39	2.7	03
1.9	756	0.18	306	0.9	0.17	290	B		B-C	B-C		33	2.7	04
1.4	1008	0.12	256	1.1	0.14	290	B		B-C	B-C		31	2.7	05
1.1	1332	0.12	327	0.9	0.11	290	B		B-C	B-C		30	2.7	06
0.8	1656	0.09	285	1.0	0.09	290	B		B-C	B-C		28	2.7	07
0.6	2160	0.06	230	1.3	0.08	290	B		B-C	B-C		26	2.7	08
0.6	2520	0.06	258	1.1	0.07	290	B		B-C	B-C		25	2.7	09

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **64M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

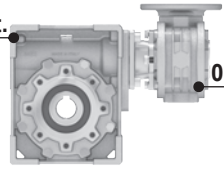
I Il riduttore tipo **64M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **64M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **64M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **64M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 64M Oil
Quantity 0.30/0.09 Lt.



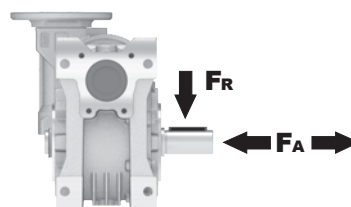
SHELL Omala S4 WE 320	ENI Telium VSF 320
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For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

RADIAL AND AXIAL LOADS

Output shaft

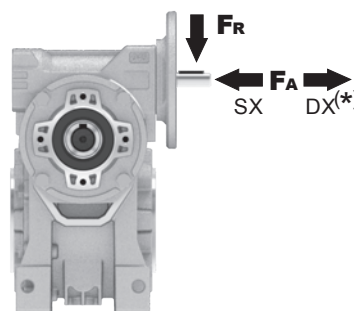
Albero di uscita



n_2 [min ⁻¹]	F_A [N]	F_R [N]
25	700	3800
15	800	4000

Input shaft

albero in entrata



n_1 [min ⁻¹]	F_A [N]	F_R [N]
1400	42	210

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

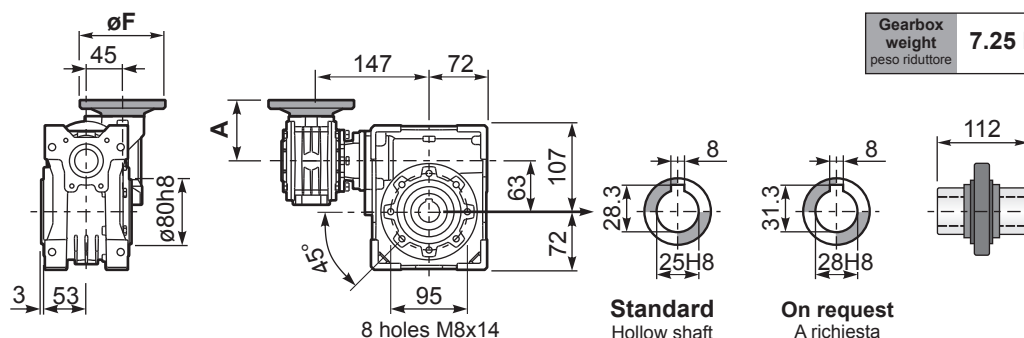
tab. 2

P64MFB...

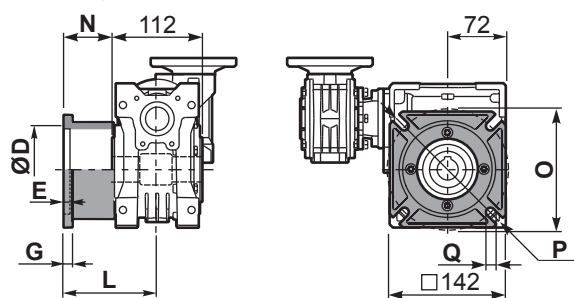
Basic wormbox
Riduttore base

Gearbox weight peso riduttore	7.25 kg
---	----------------

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

P64M**FC**...

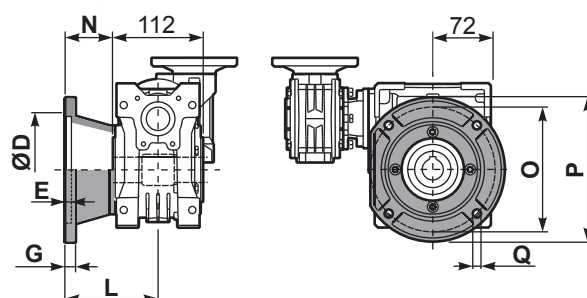
Square flange
Flangia quadrata



type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 H8	6	10	82	26	150	180	11	KM63.9.010
FL	115 H8	6	10	112	56	150	180	11	KM63.9.011

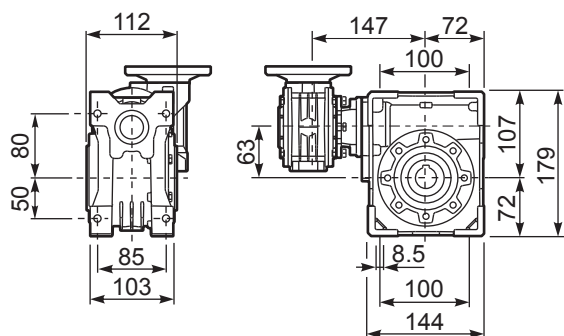
P64M**F1**...

Round flange
Flangia rotonda

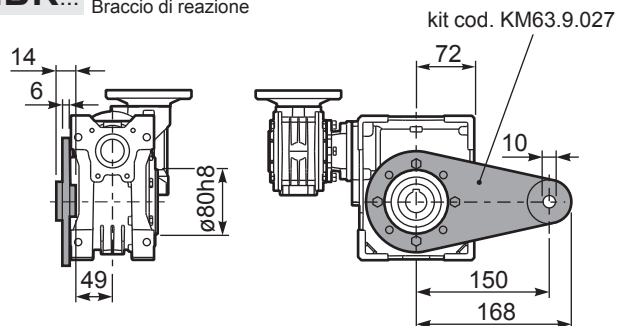


type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H8	5	10	98	42	165	200	11	KM60.9.012
F2	130 H8	5	10	107	51	165	200	11	KM63.9.013
F3	110 H8	5	16.5	80.5	24.5	130	160	11	KM63.9.014

P64MFB...

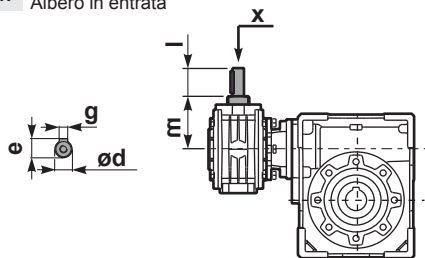
Feet
PiediniP64M **BR...**

Reaction arm
Braccio di reazione



R64MFB...

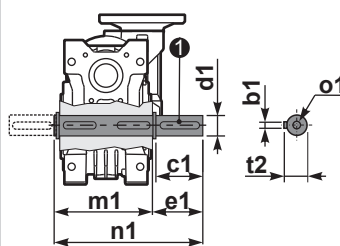
Input shaft
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	K045.5.006 PAM71
type S	-	-	-	-	-	-	-

P64M.....S...

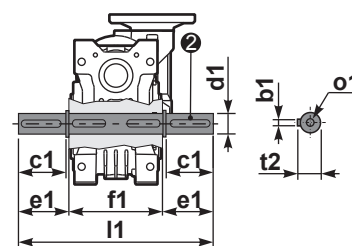
Single Shaft
Albero lento semplice



① kit cod. KM63.5.028 type B

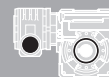
P64M.....**D**...

Double Shaft
Albero lento bisp.



② kit cod. KM63.5.029 type B

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module  [mm]	 Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5	280	0.37	403	1.0	0.39	420	B		B-C	B-C		57	3.10	01
3.5	400	0.25	314	1.3	0.33	420	B		B-C	B-C		46	3.10	02
2.5	560	0.25	420	1.0	0.25	420	B		B-C	B-C		44	3.10	03
1.7	840	0.18	423	1.0	0.18	420	B		B-C	B-C		41	3.10	04
1.3	1120	0.12	339	1.2	0.15	420	B		B-C	B-C		37	3.10	05
0.9	1480	0.09	336	1.2	0.11	420	B		B-C	B-C		37	3.10	06
0.8	1840	0.09	373	1.1	0.10	420	B		B-C	B-C		33	3.10	07
0.6	2400	0.09	413	1.0	0.09	420	B		B-C	B-C		28	3.10	08
0.5	2800	0.06	298	1.4	0.08	420	B		B-C	B-C		26	3.10	09
0.3	4080	0.06	250	1.4	0.09	359	B		B-C	B-C		15	3.10	10

 Motor Flanges Available
Flange Motore Disponibili

 B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

 C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit 74M is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo 74M viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

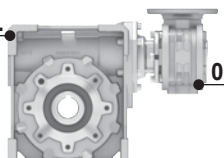
D Für die Lebensdauerschmierung ist das Getriebe der Größe 74M mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type 74M est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño 74M se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

0.40 Lt.

LUBRICATION 74M Oil
Quantity 0.40/0.09 Lt.



0.09 Lt.

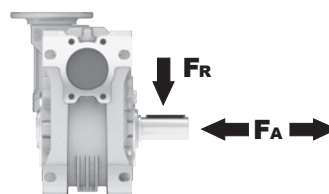
SHELL Omala S4 WE 320

ENI Telium VSF 320

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

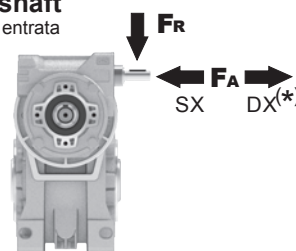
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



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

Input shaft
albero in entrata



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

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

tab. 2

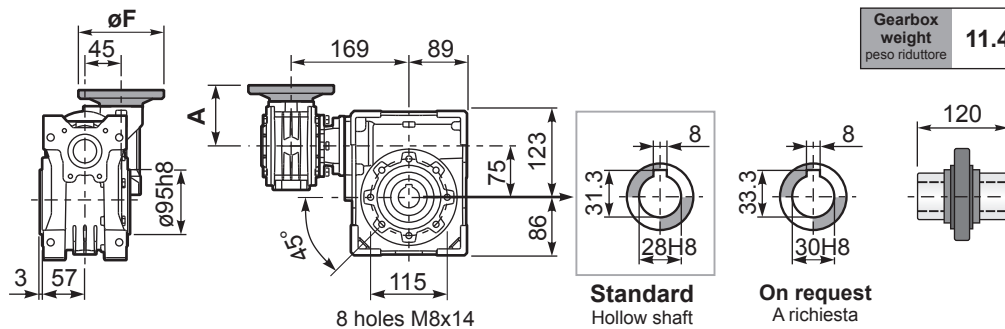
P74MFB...

Basic wormbox
Riduttore base

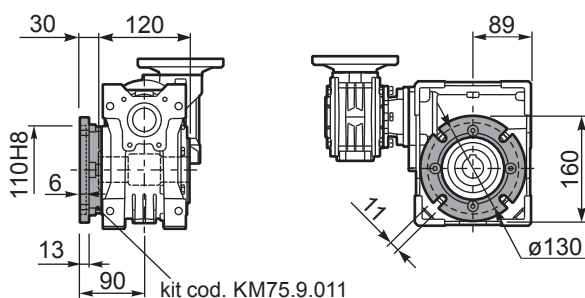
Gearbox weight
peso riduttore

11.4 kg

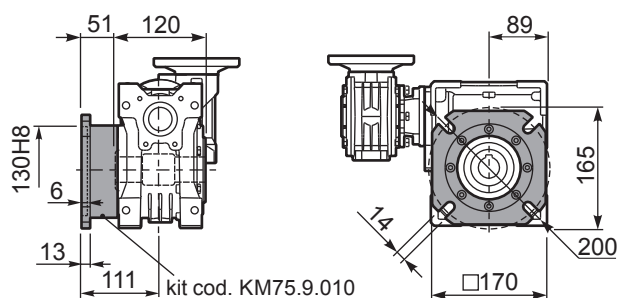
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	74
71B5	K050.4.042	160	71.5
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5

P74M**FC**...

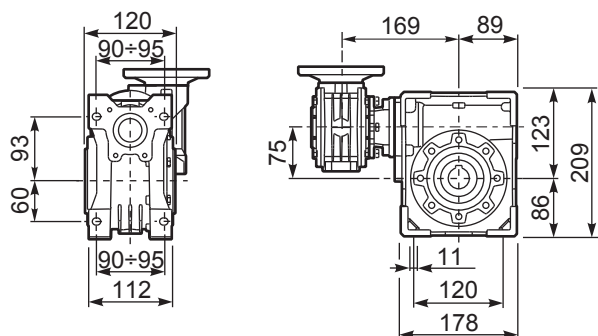
Round flange
Flangia rotonda

P74M**FL**...

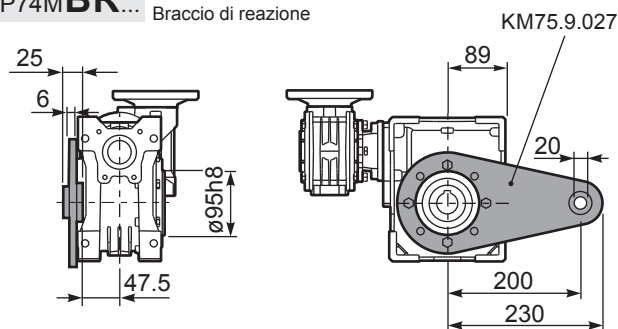
Square flange
Flangia quadrata



P74M**FB**...

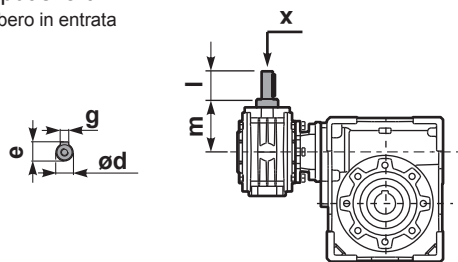
Feet
PiediniP74M**BR**...

Reaction arm
Braccio di reazione



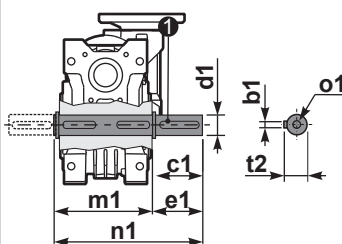
R74MFB...

Input shaft
Albero in entrata

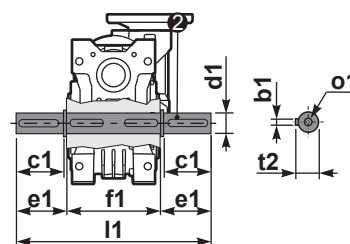


P74M.....**S**...

Single Shaft
Albero lento semplice

P74M....**D**...

Double Shaft
Albero lento bisp.

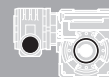


① kit cod. KM75.5.028 Standard

② kit cod. KM75.5.029 Standard

	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	K045.5.006 PAM71

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module $[mm]$	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
10	140	0.37	205	2.1	0.76	423	B		B-C	B-C		58	4.5	01
7.1	196	0.37	257	1.6	0.61	423	B		B-C	B-C		52	4.7	02
5.0	280	0.37	332	1.8	0.66	596	B		B-C	B-C		47	4.7	03
3.6	392	0.37	435	1.4	0.51	596	B		B-C	B-C		44	4.7	04
2.4	588	0.37	549	1.1	0.40	596	B		B-C	B-C		37	4.7	05
1.8	784	0.25	455	1.3	0.33	596	B		B-C	B-C		34	4.7	06
1.4	1036	0.25	583	1.0	0.26	596	B		B-C	B-C		33	4.7	07
1.1	1288	0.18	474	1.2	0.22	580	B		B-C	B-C		30	4.7	08
0.7	1960	0.12	449	1.2	0.14	518	B		B-C	B-C		28	4.7	09
0.5	2856	0.12	584	0.9	0.11	518	B		B-C	B-C		25	4.7	10

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 **84M** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **84M** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **84M** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **84M** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **84M** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 84M Oil
Quantity 1.20/0.09 Lt.

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

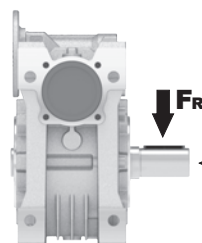
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

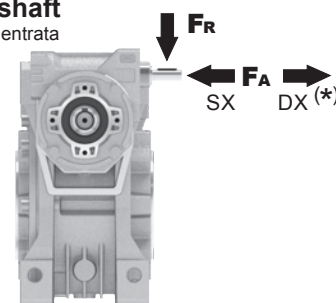
Albero di uscita



n [min ⁻¹]	F_A [N]	F_R [N]
25	1000	5000
15	1160	5800

Input shaft

albero in entrata



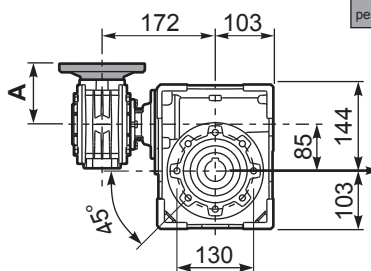
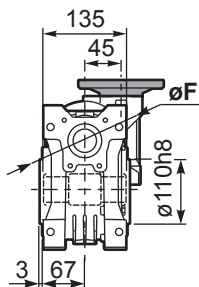
n [min ⁻¹]	F_A [N]	F_R [N]
1400	42	210

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

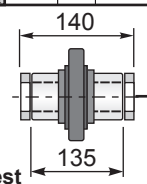
tab. 2

P84MFB... Basic wormbox
Riduttore base

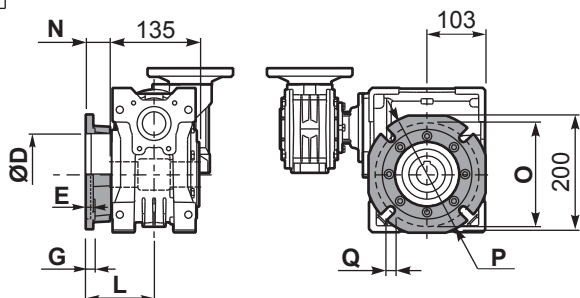
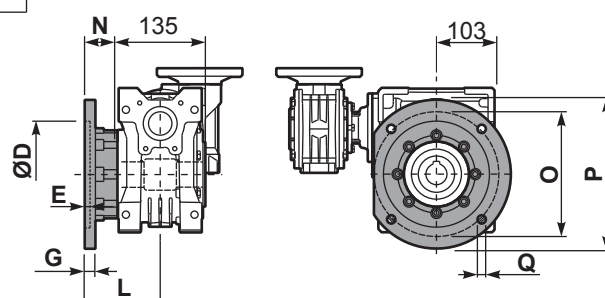
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	74
71B5	K050.4.042	160	71.5
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5

Gearbox weight
peso riduttore **16.2 kg**

ø H8	B	C	*Spacer code
35 Standard	38.3	10	KM85.3.035
38 on request	41.3	10	KM85.3.038

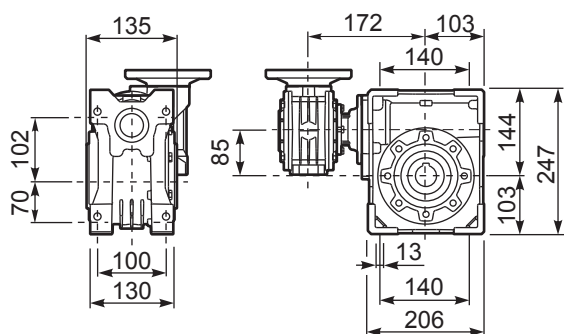
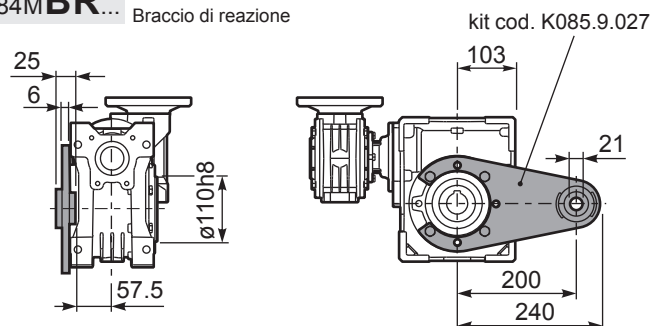
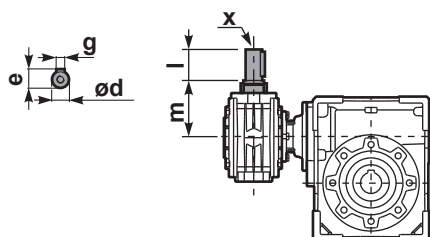
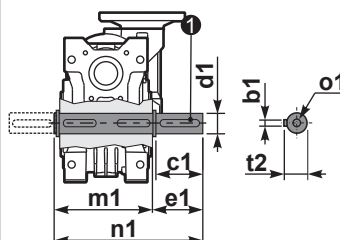
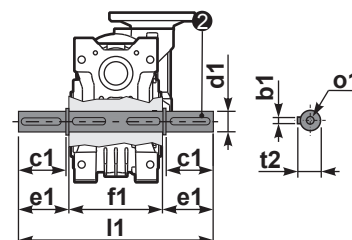
*On Request
output shaft with spacers

8 holes M10x18

P84MFC... Output flange
Flangia uscita**P84MF1...** Output flange
Flangia uscita

type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 H8	5	16	111	43.5	176	205	13	K085.9.010
FL	180 H8	6	18	122	54.5	215	250	14	KM85.9.011

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 H8	5	13	109.5	42	165	200	13	KS085.9.015
F2	152 H8	5	16	151.5	84	176	205	13	K085.9.010 K085.0.201

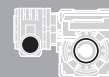
P84MFB... Feet
Piedini**P84MBR...** Reaction arm
Braccio di reazione**R84MFB...** Input shaft
Albero in entrata**P84M.....S...** Single Shaft
Albero lento semplice**P84M.....D...** Double Shaft
Albero lento bisp.

① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	③ - ④ -

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency	Tooth Module  [mm]	Ratio code 
							-B	-C	-D	-O	-P	-Q	-R	RD		
6.7	210	0.75	591	1.8	1.3	1036	B	B			B-C	B		55	5.6	01
4.7	300	0.75	752	1.6	1.2	1174	B	B			B-C	B		49	5.6	02
3.3	420	0.75	1010	1.2	0.87	1174	B	B			B-C	B		47	5.6	03
2.6	540	0.55	851	1.4	0.76	1174	B	B			B-C	B		42	5.6	04
1.8	780	0.55	1112	1.1	0.58	1174	B	B			B-C	B		38	5.6	05
1.3	1080	0.37	1009	1.2	0.43	1174	B			B-C	B-C			37	5.6	06
1.1	1290	0.37	1140	1.0	0.38	1174	B			B-C	B-C			35	5.6	07
0.8	1800	0.25	921	1.3	0.32	1174	B			B-C	B-C			30	5.6	08
0.7	2040	0.25	1044	1.1	0.28	1174	B			B-C	B-C			30	5.6	09
0.6	2400	0.25	1228	1.0	0.26	1174	B			B-C	B-C			28	5.6	10
0.5	3000	0.18	958	1.0	0.18	978	B			B-C	B-C			26	5.6	11

Motor Flanges Available
Flange Motore Disponibili

 B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

 C) Motor Flange Holes Position
Posizione Fori Flangia Motore

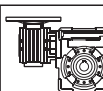
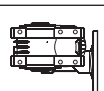
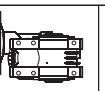
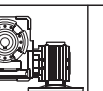
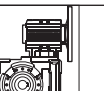
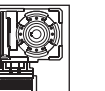
EN Unit **15M** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a type that are closed. Gearbox **050** is supplied lubricated for life. See tab.1 for oils and recommended quantity. In tab.2 there are radial loads and axial loads applicable to the gearbox.

I Il riduttore tipo **15M** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Il riduttore **050** è fornito lubrificato a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **15M** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Das Getriebe der Baugröße **050** ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **15M** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le réducteur de type **050** est fourni lubrifié à vie avec de l'huile synthétique. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño **15M** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. El reductor **050** se suministra lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

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

For all details on lubrication and plugs check our website

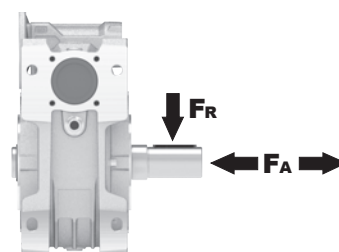
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

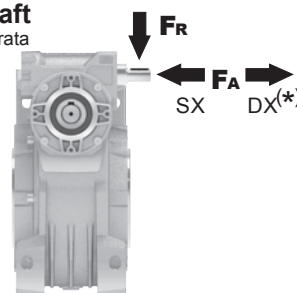
Albero di uscita



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

Input shaft

albero in entrata



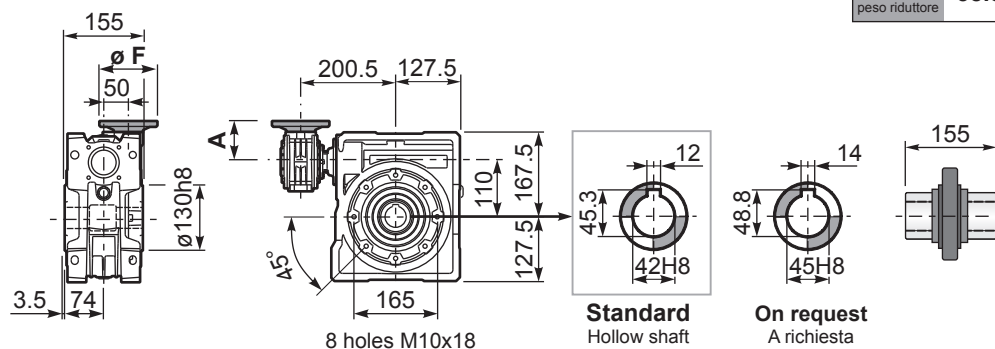
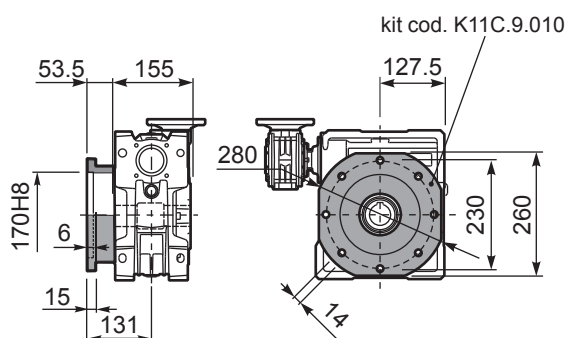
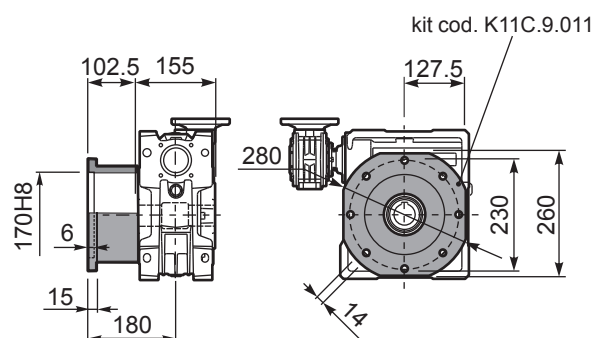
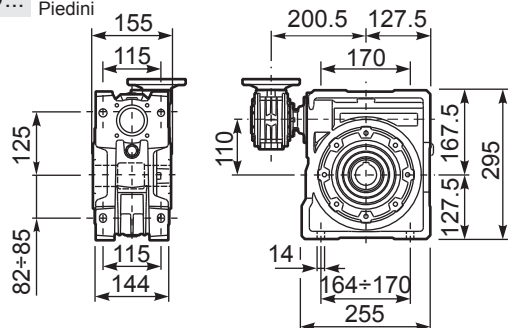
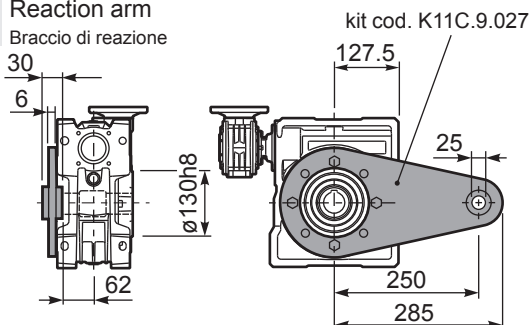
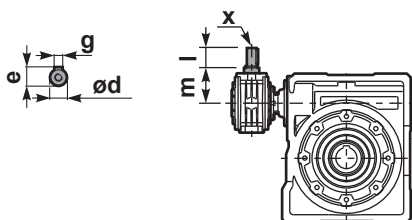
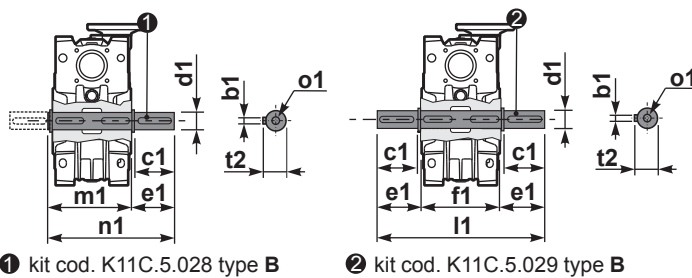
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	76	380

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

tab. 2

P15MFB...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **38.8 kg**

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

**P15MFC...**Output flange
Flangia uscita**P15MFL...**Output flange
Flangia uscita**P15MFB...**Feet
Piedini**P15MBR...**Reaction arm
Braccio di reazione**R15MFB...**Input shaft
Albero in entrata**P15M.....S...**Single Shaft
Albero lento semplice**P15M.....D...**Double Shaft
Albero lento bisp.

	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	79.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	79.5	M5x10	③ KS050.5.008 PAM71 ④ KS050.5.009 PAM80

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	80	42h6	84.5	155	324	164.5	249	45	M16x28
type S	-	-	-	-	-	-	-	-	-	-

Réducteurs roue et vis de forme carrée Q

Q square worm gearboxes

Un produit compact et modulaire
A modular and compact product

Carcasse aluminium usinée en une seule pièce

Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing.

No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

Arbre d'entrée et vis sans fin en acier

Single piece alloy steel input shaft and worm shaft.

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

Roulements sur-dimensionnés

Oversized bearings

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

Bride modulaire Flange

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

Jointes en Nitrile haute température

Premium, high temperature

Nitrile® output seals

Roue bronze

Bronze alloy worm gears.

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

Roulements sur-dimensionnés

Over-size bearing

For radial load capability and maximum hollow output shaft diameter.

Arbre creux standard

Standard hollow output shaft mounting

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

Flasques latérales avec portées de roulements usinées et impregnées

Impregnated and machined bearing caps

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

Painting

Cast iron gearboxes are painted RAL 7046

Vent Free Design.

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

oil free



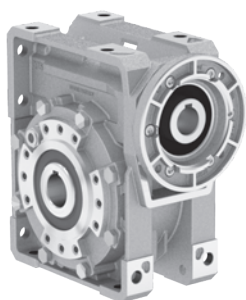
vent free



World wide sales network.

Fiche technique spécifique en page

Specific type datasheet on page

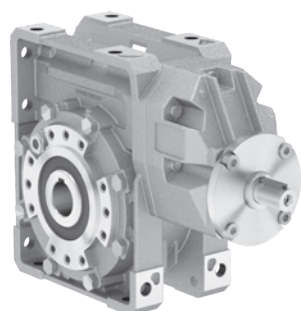


Types / Tipi /
Tipen / Types /
Tipos

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

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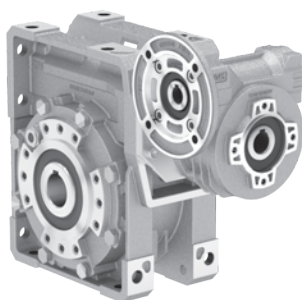
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Types / Tipi /
Tipen / Types /
Tipos

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

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



Types / Tipi /
Tipen / Types /
Tipos

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

Type - Tipo - Typ
Type - Tipo

Size - Grandezza
Größe - Taille
Tamaño

Mounting - Montaggio - Montage Fixation
Fixation - Tipo de montaje

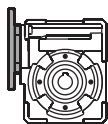
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Q63

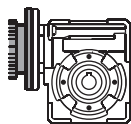
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Worm gearboxes

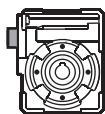
Riduttori a vite senza fine
Schneckengetriebe
Reducteurs a vis sans fin
Reductores de corona sin fin



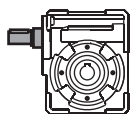
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M

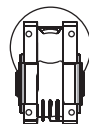


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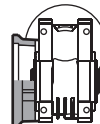


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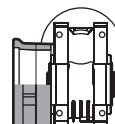
**Q63
Q75
Q85
Q11**



FB

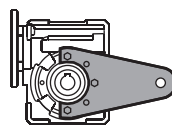


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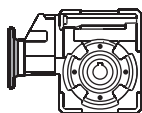
**F1
F2
F3
F4**



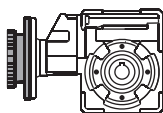
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Worm gearboxes with primary reduction

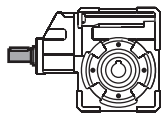
Riduttori a vite senza fine con precoppia
Schneckengetriebe mit Stirradstufe am Eintrieb
Reducteurs a vis sans fin avec pré-réduction
Reductores corona sin fin con prereductora de engranajes



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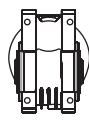


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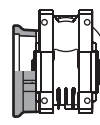


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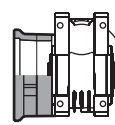
**P6Q
P7Q
P8Q
P1Q**



FB

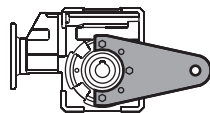


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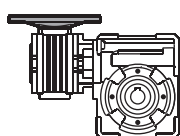
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F2
F3
F4**



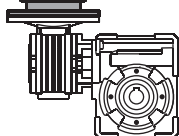
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Combined worm gearboxes

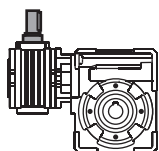
Riduttori a vite senza fine combinati
Schneckengetriebekombinationen
Reducteurs a double train de vis sans fin
Reductores combinados corona sin fin



P

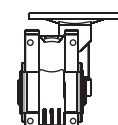


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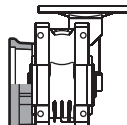


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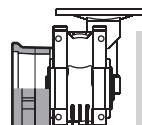
**63Q
64Q
74Q
84Q
15Q**



FB

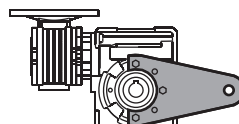


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FL

**F1
F2
F3
F4**

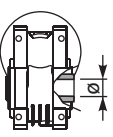
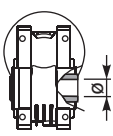
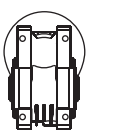
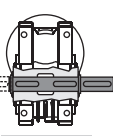
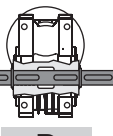
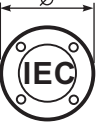
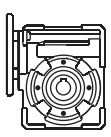
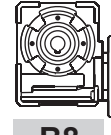
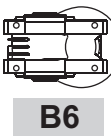
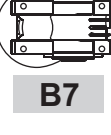
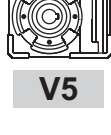
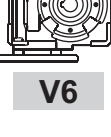
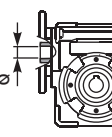
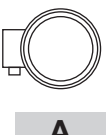
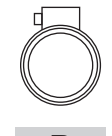
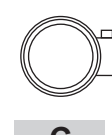
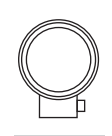


BR



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

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Ratio Rapporto Untersetzung Reduction Relación	Hub Mozzo corona Hohlwelle Arbre creux Nucleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje salida	Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje	Terminal box position Posizione morsetti Klemmkastenlage Position boîte a bornes Posición caja de bornes
10	C	Ø	-Q	B3	ST	---	
See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos	 STANDARD C Q63 ⇨ Ø25 Q75 ⇨ Ø30 Q85 ⇨ Ø35 Q11 ⇨ Ø42 I Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox  INCH U Q63 ⇨ Ø1.125" Q85 ⇨ Ø1.500" Z Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox	 Ø  S  D	 Ø -M without flange Senza 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) 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 -0=Type R -S=Type R S series	 B3  B8  B6  B7  V5  V6	 ST Standard bore * Kit R standard Foro standard * Kit R standard Input bore without Reduction Bushing -O = 9mm -P = 11mm -Q = 14mm -R = 19mm -T = 24mm -U = 28mm -V = 38mm COUPLING STANDARD (IEC) -A = 9mm -B = 11mm -C = 14mm -D = 19mm -E = 24mm -F = 28mm BRUSHLESS * -3 = 14mm -4 = 19mm -5 = 22mm -6 = 24mm Ready for input coupling Predisposto per giunto  -0 Type B Tipo B  -0 Type R Tipo R	Only for combined units See technical data table Solo per i riduttori combinati Vedi tabella dati tecnici. Ausführungen für Getriebekombinationen it Uniquement pour combinés. Voir tableau données techniques Sólo para combinados ver tabla datos técnicos	With Type M specify terminal box position Con tipo M specificare posizione morsetti  A  B STANDARD  C  D

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

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotation

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

3

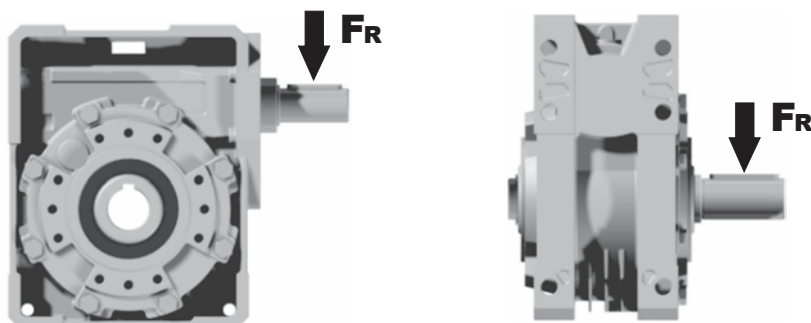
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

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



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

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

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

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 Flanschttype Code bride Código bridas
		Dynamic efficiency Rendimento dinamico Dynamischer Rendement dynamique Rendimiento dinámico
		Input speed Velocità in entrata Eintriebsdrehzahl Vitesse en entrée Velocidad de entrada

Q63 Q Square - Gear
147Nm

Rating - Aluminum WORM 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				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratio code
							-B	-C	-D	-E	-Q	-R	-T			
200	7	1.8	71	1.8	3.2	125		B	B		B-C	B-C		83	3.1	01
140	10	1.8	99	1.4	2.4	134		B	B		B-C	B-C		81	3.1	02
93	15	1.5	121	1.1	1.7	138		B	B		B-C	B-C		79	3.1	03

C	Ratio Rapporto Untersetzung Rapport de réduction Relación	Transmitted torque Momento torcente trasmesso Mögliche Drehmomente Couple de sortie Par transmitido	Service factor Fattore di servizio Betriebsfaktor Facteur de service Factor de servicio	Nominal module Modulo nominale Nenn modul Module nominale Módulo nominal	Notes Note Anmerkungen Note Notas
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fs		Oper. hours per day Ore di funz. giorn.		
Type of load and starts per hour Tipo di carico e avviamenti per ora		<2 h	2 - 8 h	8 - 16 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.9	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1.25	1.5	1.75
	Moderate / Moderato	1.5	1.75	2
	Heavy / Forte	1.75	2	2.25

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION Q63 Oil Quantity 0.30 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

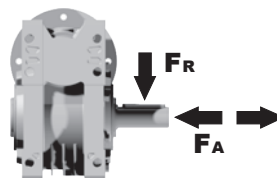
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

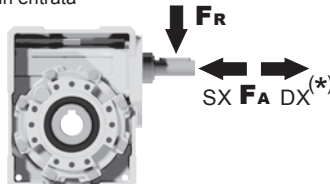
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	90	450

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

Non sono consentiti forti carichi assiali con direzione DX

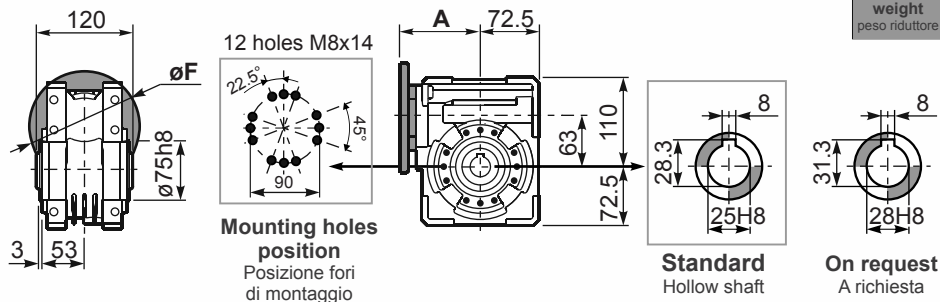
tab. 2

PQ63FB...

Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

6.00 kg

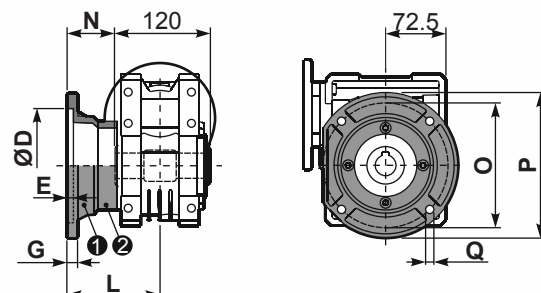
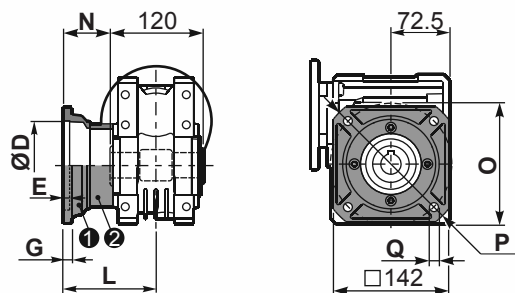
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	99.5
71B5	K063.4.042	160	97.5
80/90B5	K063.4.043	200	99.5
71B14	K063.4.047	105	97.5
80B14	K063.4.046	120	99.5
90B14	K063.4.041	140	99.5



PQ63FC...

Square flange
Flangia quadrata

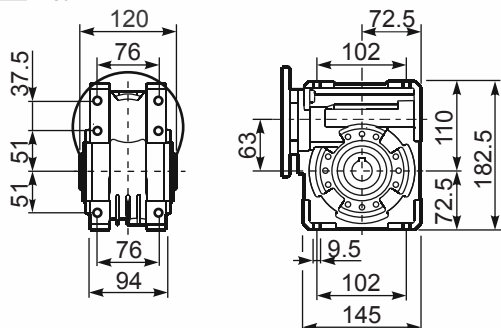
PQ63F1...

Round flange
Flangia rotonda

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

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

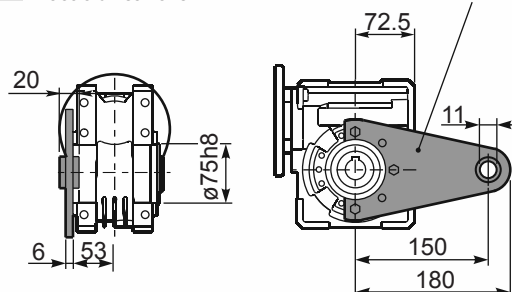
PQ63FB...

Feet
Piedini

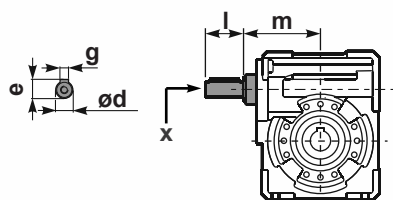
PQ63BR...

Reaction arm
Braccio di reazione

kit cod. K063.9.027



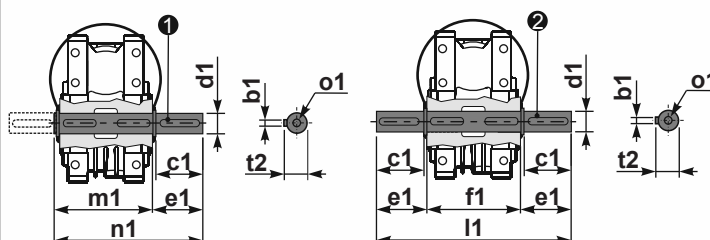
RQ63FB...

Input shaft
Albero in entrata

PQ63.....S...

Single Shaft
Albero lento semplice

PQ63.....D...

Double Shaft
Albero lento bisp.

1 kit cod. K063.5.028 type B

2 kit cod. K063.5.029 type B

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION Q75 Oil Quantity 0.40 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

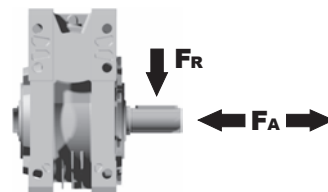
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

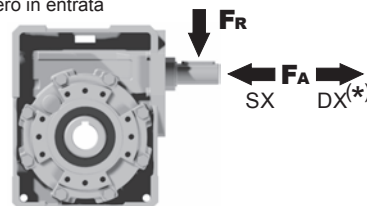
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	460	2300
150	520	2600
100	560	2800
75	620	3100
50	720	3600
25	880	4400
15	1000	5000

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	125	630

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

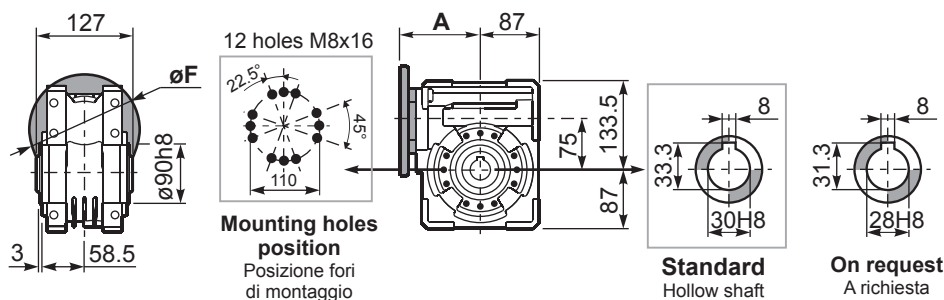
tab. 2

PQ75FB...

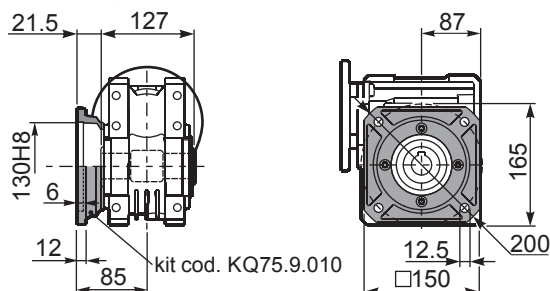
Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

8.70 kg

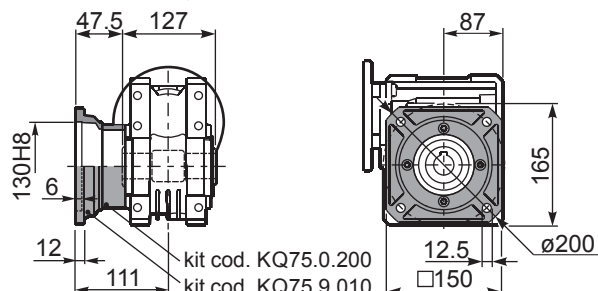
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	114
80/90B5	K023.4.042	200	116
100/112B5	K023.4.043	250	125
80B14	K085.4.046	120	116
90B14	K085.4.045	140	116
100/112B14	K085.4.047	160	125



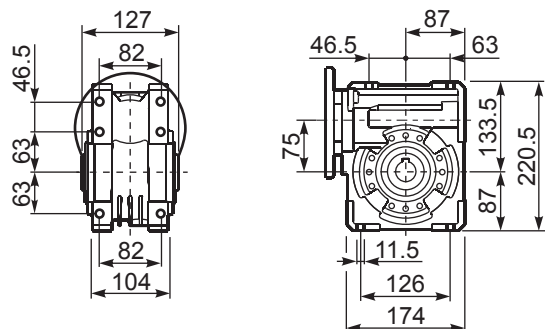
PQ75FC...

Square flange
Flangia quadrata

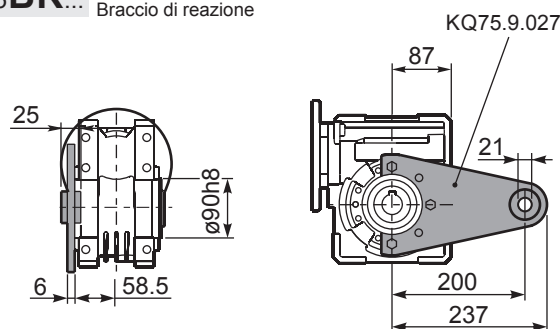
PQ75FL...

Square flange
Flangia quadrata

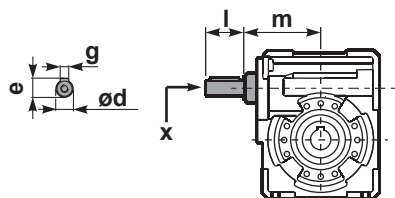
PQ75FB...

Feet
Piedini

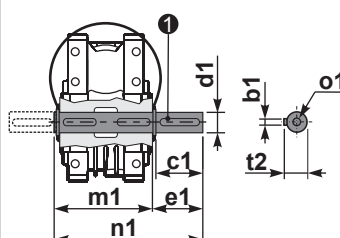
PQ75BR...

Reaction arm
Braccio di reazione

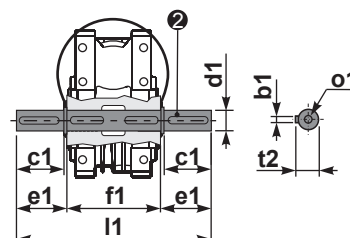
RQ75FB...

Input shaft
Albero in entrata

PQ75.....S...

Single Shaft
Albero lento semplice

PQ75.....D...

Double Shaft
Albero lento bisp.

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

② kit cod. KQ75.5.029 Standard

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

LUBRICATION Q85 Oil Quantity 1.20 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

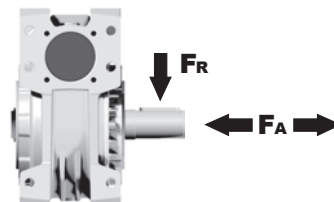
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

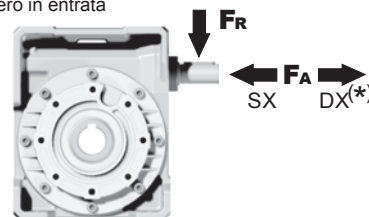
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	500	2500
150	580	2900
100	600	3000
75	700	3500
50	800	4000
25	1000	5000
15	1160	5800

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	130	650

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

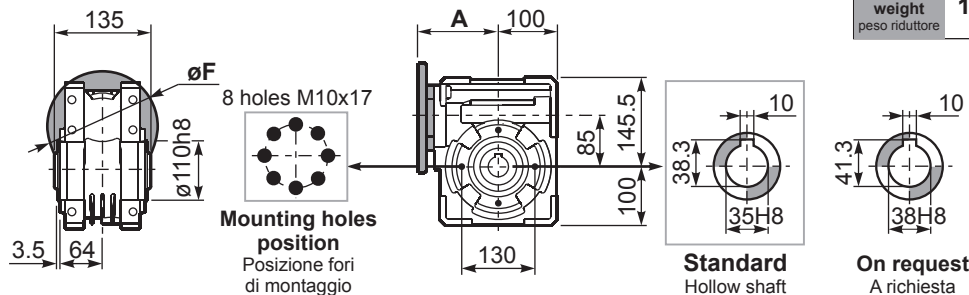
tab. 2

PQ85FB...

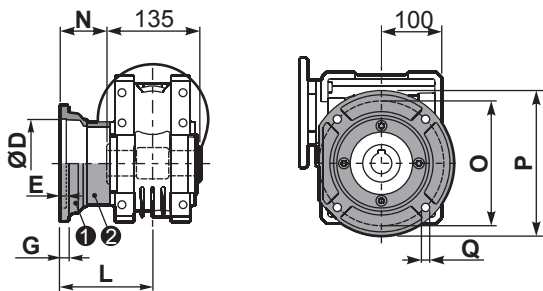
Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

12.1 kg

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

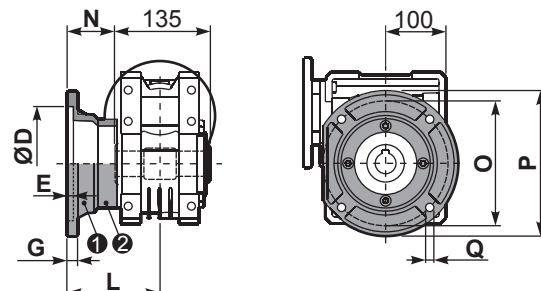


PQ85FC...

Output flange
Flangia uscita

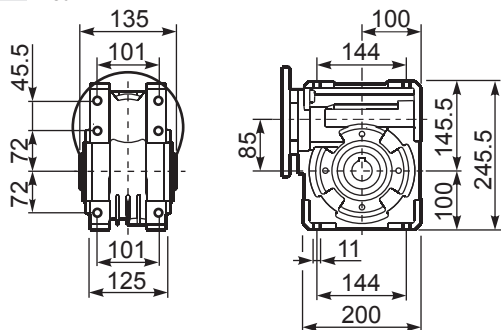
type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 ^{+0.06} _{+0.00}	5	16	108	40.5	176	205	13	① K085.9.010 ② -
FL	152 ^{+0.06} _{+0.00}	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201

PQ85F1...

Output flange
Flangia uscita

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

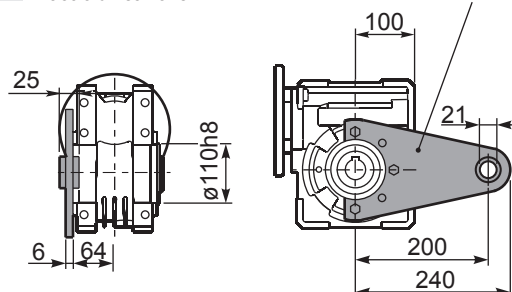
PQ85FB...

Feet
Piedini

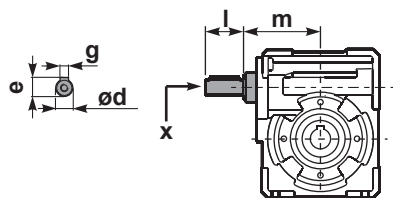
PQ85BR...

Reaction arm
Braccio di reazione

kit cod. K085.9.027



RQ85FB...

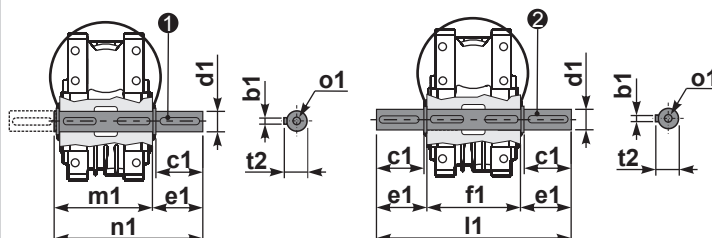
Input shaft
Albero in entrata

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

PQ85.....S...

Single Shaft
Albero lento semplice

PQ85.....D...

Double Shaft
Albero lento bisp.

① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

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



• QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

B3	B6	B7	B8	V5	V6
1.90 LT	1.35 LT	1.35 LT	2.00LT	2.00 LT	2.00LT
SHELL Omala S2 GX 460			ENI Blasias 460		

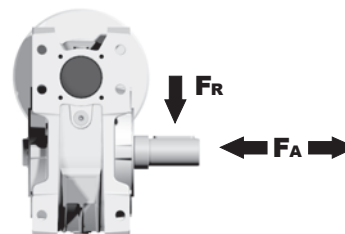
For all details on lubrication and plugs check our website

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

tab. 1

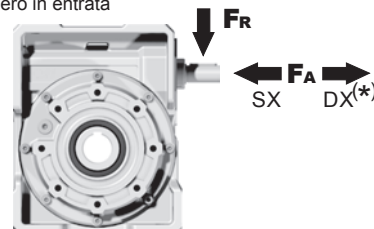
• RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n_2 [min ⁻¹]	FA [N]	FR [N]
200	600	2900
150	700	3300
100	750	3600
75	800	4000
50	920	4600
25	1200	6000
15	1400	7000

Input shaft
albero in entrata



n_1 [min ⁻¹]	FA [N]	FR [N]
1400	228	1140

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

Non sono consentiti forti carichi assiali con direzione DX

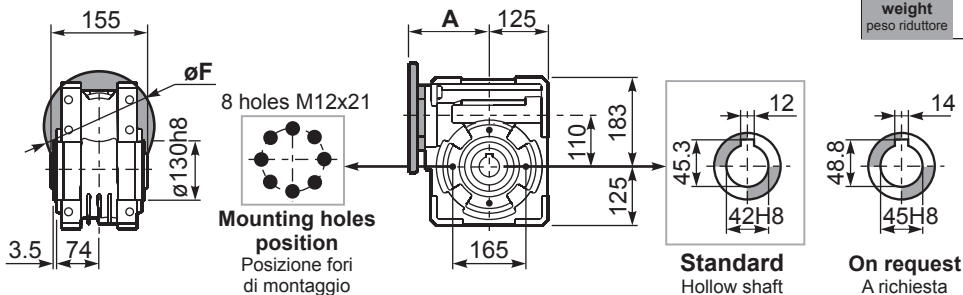
tab. 2

PQ11FB...

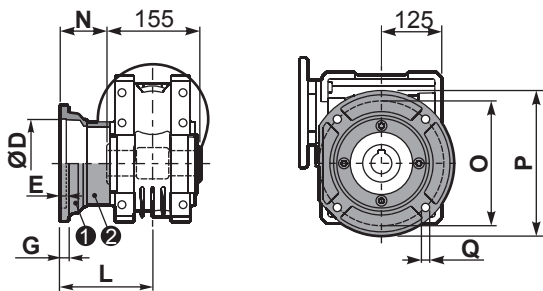
Basic wormbox
Riduttore baseGearbox
weight
peso riduttore

35.0 kg

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

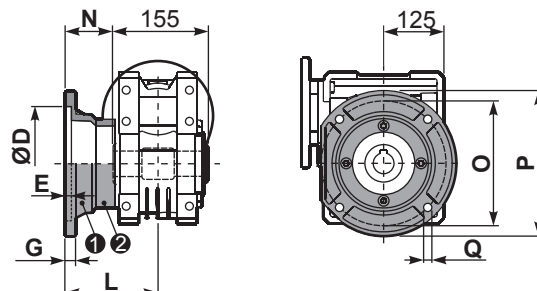


PQ11FC...

Output flange
Flangia uscita

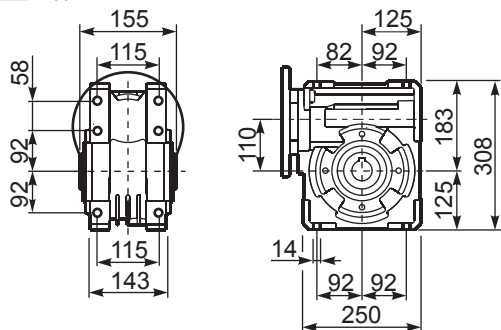
type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 ^{+0.083} _{+0.043}	11	16.5	131.5	54	230	270	13	① K110.9.010 ② -
FL	170 ^{+0.083} _{+0.043}	11	16.5	179.5	102	230	270	13	① K110.9.011 ② -

PQ11F1...

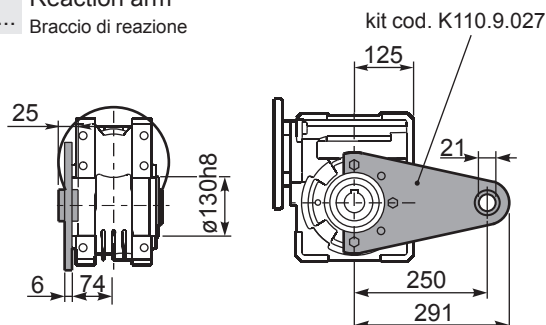
Output flange
Flangia uscita

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

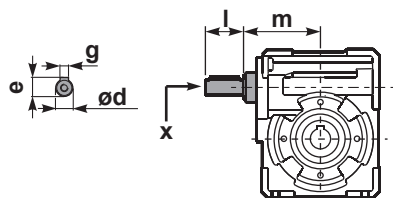
PQ11FB...

Feet
Piedini

PQ11BR...

Reaction arm
Braccio di reazione

RQ11FB...

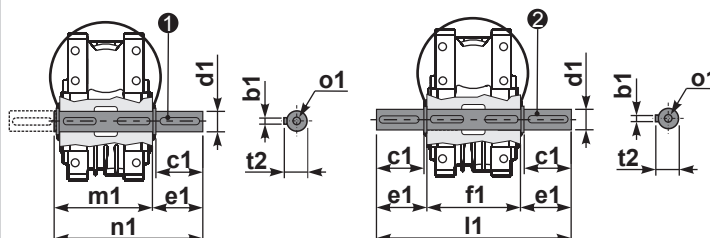
Input shaft
Albero in entrata

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

PQ11.....S...

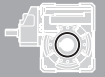
Single Shaft
Albero lento semplice

PQ11.....D...

Double Shaft
Albero lento bisp.

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **P6Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

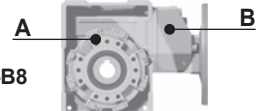
I Il riduttore tipo **P6Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **P6Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P6Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **P6Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION P6Q Oil
For B3-V5-V6 separate lubrication for A (0.30 l) B (0.08 l), for B6-B7-B8 common lubrication 0.35 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

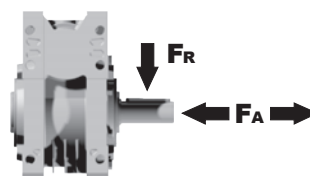
For all details on lubrication and plugs check our website

tab. 1

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

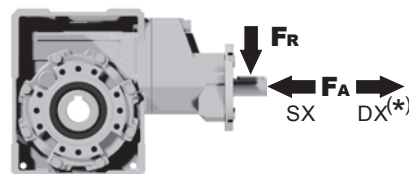
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



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

Input shaft
albero in entrata



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

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

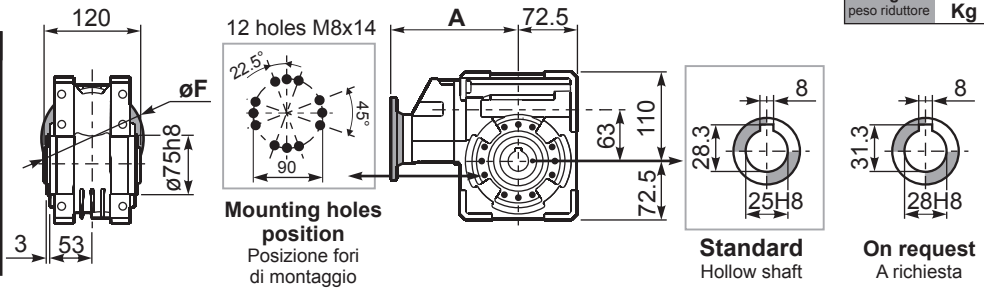
tab. 2

PP6QFB...

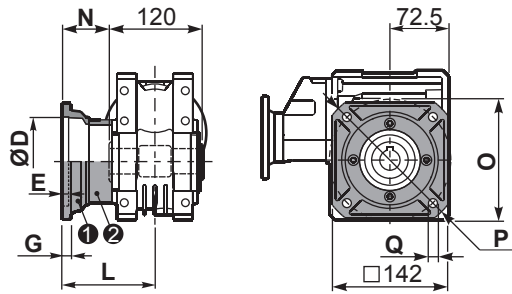
Basic wormbox
Riduttore base

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

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

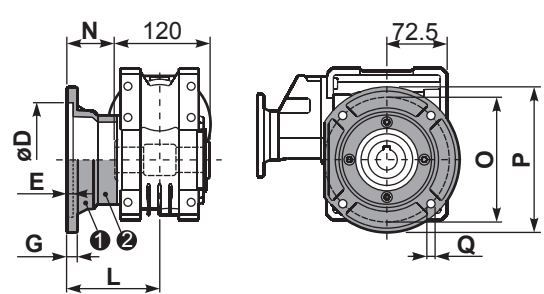


PP6QFC...

Output flange
Flangia uscita

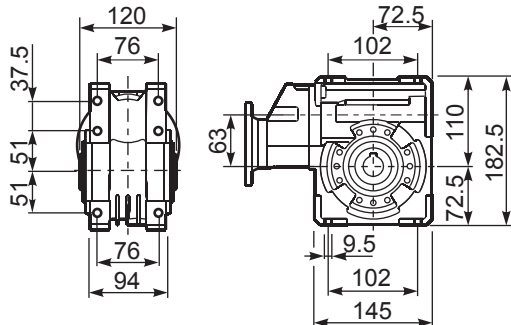
type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 ^{+0.20} _{+0.15}	6	12	86	26	150	180	11	1 KQ63.9.010 2 -
FL	115 ^{+0.20} _{+0.15}	6	12	116	56	150	180	11	1 KQ63.9.010 2 K063.0.200

PP6QF1...

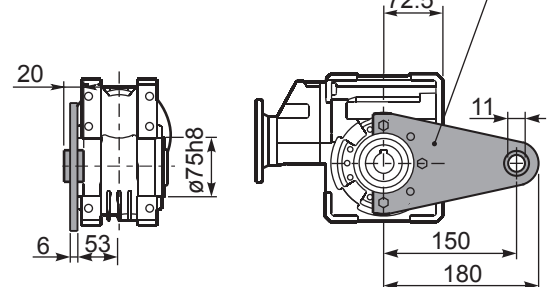
Output flange
Flangia uscita

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

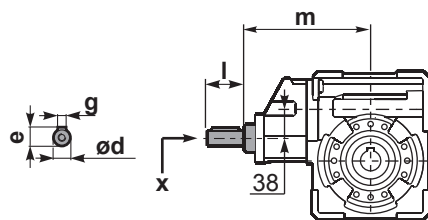
PP6QFB...

Feet
Piedini

PP6QBR...

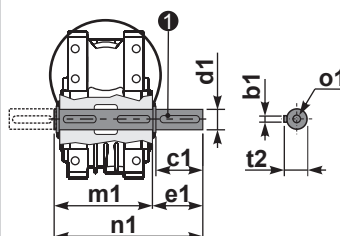
Reaction arm
Braccio di reazione

RP6QFB...

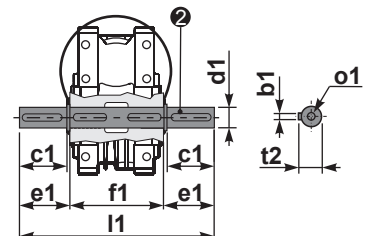
Input shaft
Albero in entrata

	ød	e	g	l	m	x	
29.9÷111	19 h6	21.5	6	35	169	M6x16	C40.5.062
139÷434	14 h6	16	5	25	154	M5x13	C35.5.061

PP6Q.....S...

Single Shaft
Albero lento semplice

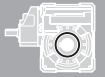
PP6Q.....D...

Double Shaft
Albero lento bisp.

1 kit cod. K063.5.028 type B

2 kit cod. K063.5.029 type B

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
22	62.9	0.75	248	1.2	0.87	286					C	C		77	3.10	01
18	78.5	0.75	293	1.0	0.73	286					C	C		73	2.41	02
15	94.2	0.75	333	0.9	0.70	310					C	C		69	2.10	03
11	126	0.55	297	1.0	0.55	296	B				C	C		63	1.53	04
9	157	0.37	230	1.1	0.41	252	B				C	C		58	1.23	05
8	185	0.37	257	1.2	0.43	296	B				C	C		55	3.10	06
6	231	0.25	193	1.5	0.38	296	B				C	C		49	2.41	07
5	277	0.25	222	1.3	0.33	296	B				C	C		47	2.10	08
4	378	0.18	200	1.5	0.27	296	B				C	C		43	2.10	09

A Motor Flanges Available
Flange Motore Disponibili

B Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit P7Q is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo P7Q viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

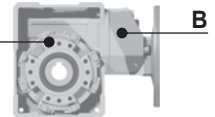
D Für die Lebensdauerschmierung ist das Getriebe der Größe P7Q mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type P7Q est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño P7Q se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION P7Q Oil

For B3-V5-V6 separate lubrication for A (0.40 l) B (0.14 l), for B6-B7-B8 common lubrication 0.65 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

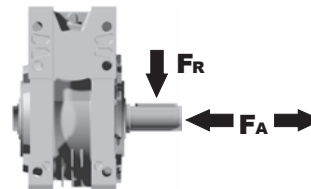
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

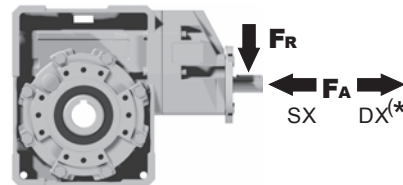
Albero di uscita



n_2 [min ⁻¹]	F_A [N]	F_R [N]
75	620	3100
50	720	3600
25	880	4400
15-6	1000	5000

Input shaft

albero in entrata



n [min ⁻¹]	F_A [N]	F_R [N]
1400	108	540

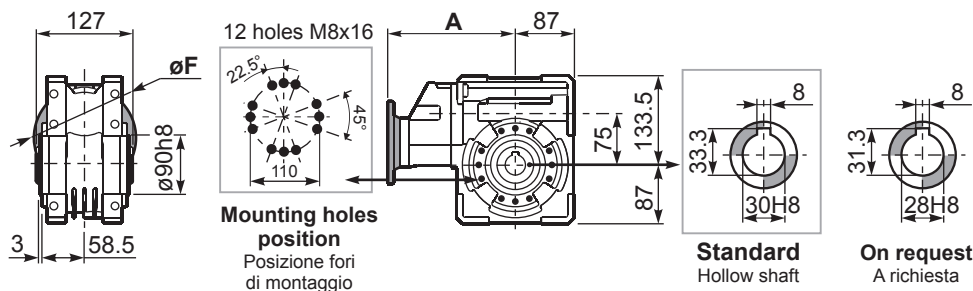
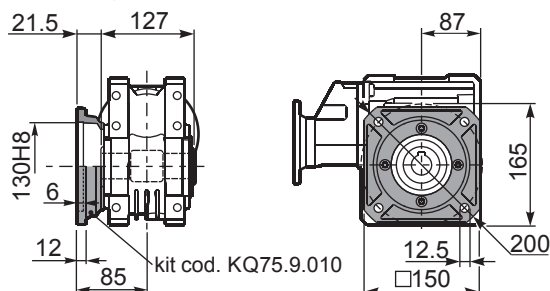
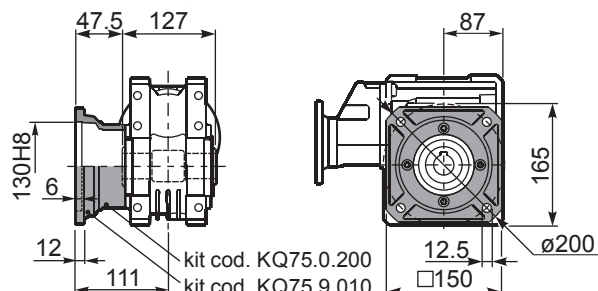
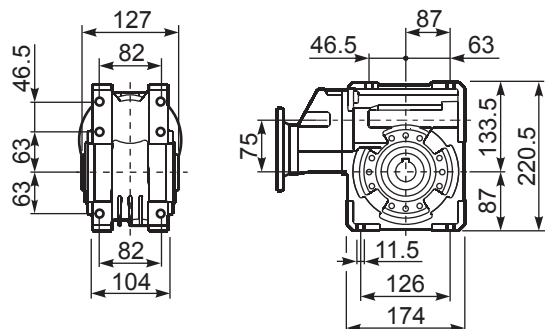
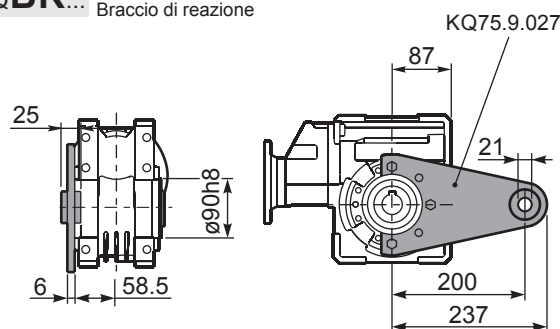
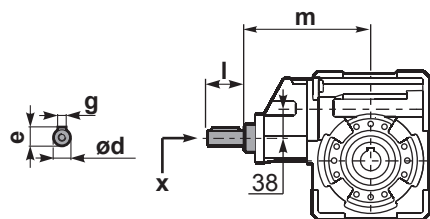
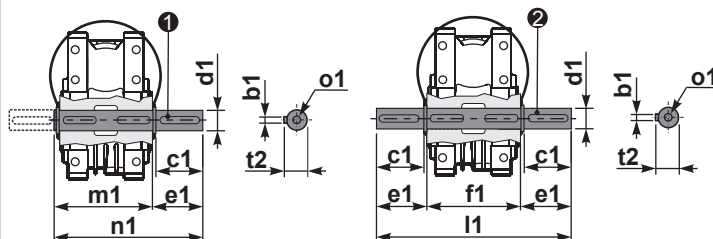
*Strong axial loads in the DX direction are not allowed.

Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP7QFB...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore**9.90 kg**

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

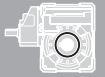
**PP7QFC...**Square flange
Flangia quadrata**PP7QFL...**Square flange
Flangia quadrata**PP7QFB...**Feet
Piedini**PP7QBR...**Reaction arm
Braccio di reazione**RP7QFB...**Input shaft
Albero in entrata**PP7Q.....S...**Single Shaft
Albero lento semplice**PP7Q.....D...**Double Shaft
Albero lento bisp.

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

② kit cod. KQ75.5.029 Standard

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

 Motor Flanges Available
Flange Motore Disponibili

 B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

 C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **P8Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **P8Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

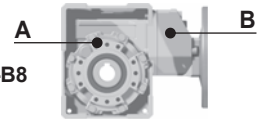
D Für die Lebensdauerschmierung ist das Getriebe der Größe **P8Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes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

F Le réducteur de type **P8Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **P8Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION P8Q Oil

For B3-V5-V6 separate lubrication for A (1.20 l) B (0.14 l) , for B6-B7-B8 common lubrication 1.00 l (A + B).



SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

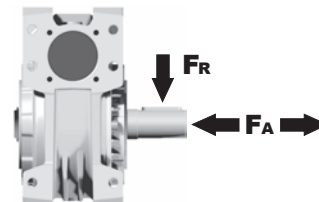
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

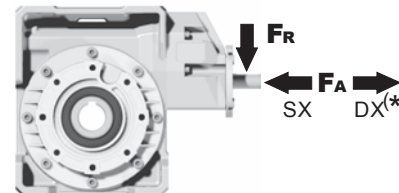
Albero di uscita



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

Input shaft

albero in entrata



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

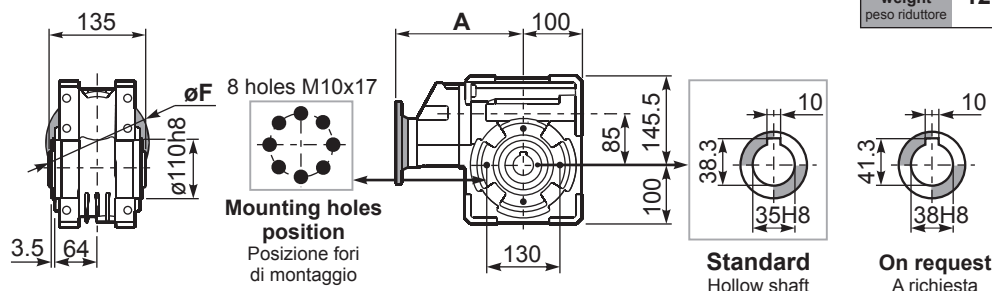
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

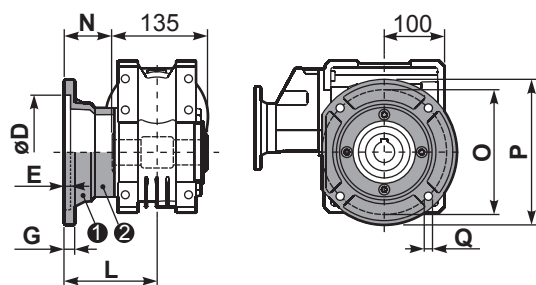
PP8Q**FB**... Basic wormbox
Riduttore base

Gearbox weight	12.3 kg
----------------	---------

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

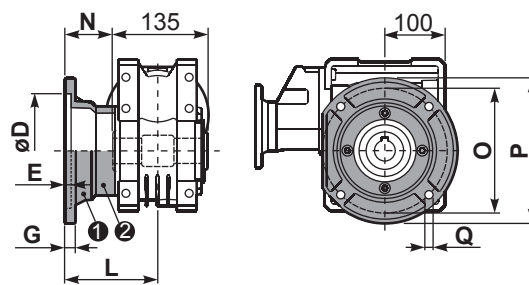


PP8Q**FC**... Output flange
Flangia uscita



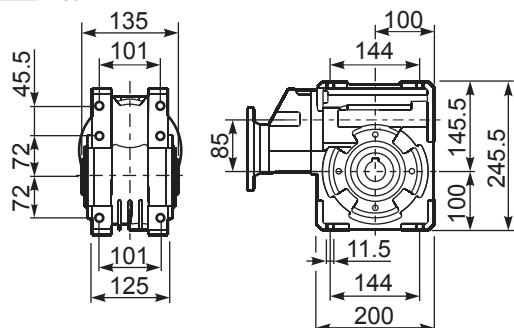
type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 ^{+0.06 +0.00}	5	16	108	40.5	176	205	13	① K085.9.010 ② -
FL	152 ^{+0.06 +0.00}	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201

PP8Q**F1**... Output flange
Flangia uscita

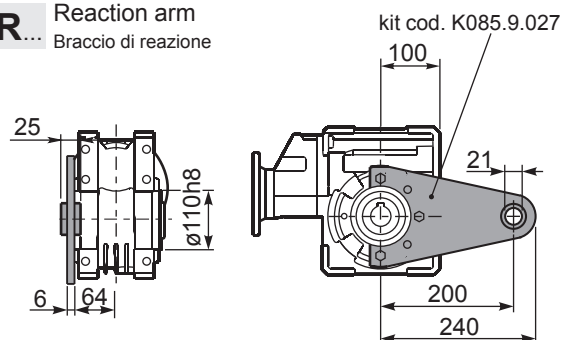


type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 ^{+0.04} _{+0.00}	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
F2	152 ^{+0.06} _{+0.00}	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
F4	130 ^{+0.04} _{+0.00}	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

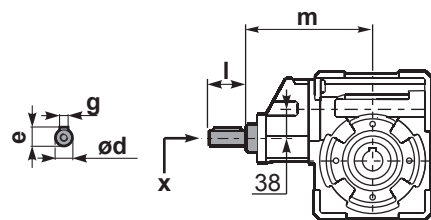
PP8Q**FB**... Feet
Piedini



PP8Q BR ...	Reaction arm Braccio di reazione
--------------------	-------------------------------------

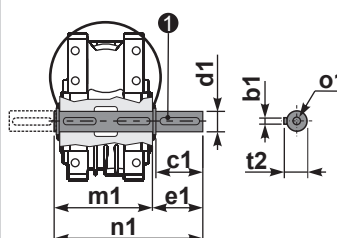


RP8QFB... Input shaft
Albero in entrata

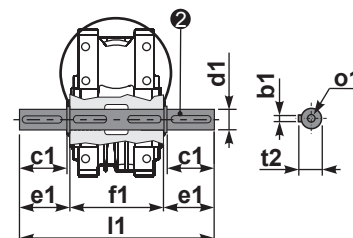


	ød	e	g	l	m	x	
type B	19 h6	21.5	6	35	186	M6x16	C40.5.062
type S	-	-	-	-	-	-	

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



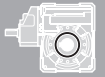
PP8Q.....**D**... Double Shaft
Albero lento bisp.



① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

[illegible]



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

 **Motor Flanges Available**
Flange Motore Disponibili

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

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

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

EN Unit **P1Q** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. Primary reduction unit is supplied with closed plugs and lubricated for life with synthetic oil. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **P1Q** è fornito privo di lubrificazione con tappi di sfogo, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. La precoppia è fornita con tappi chiusi e lubrificata a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **P1Q** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Die Stirnradvorstufe ist Lebensdauergeschmiert und wird mit synthetischem Öl geliefert. Die Stirnradvorstufe ist komplett geschlossen ohne Füllschrauben. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **P1Q** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le pré couple est fourni lubrifié à vie avec de l'huile synthétique et avec des bouchons fermés. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño **P1Q** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

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

For all details on lubrication and plugs check our website

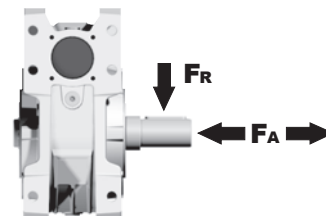
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

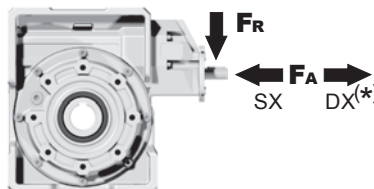
Albero di uscita



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

Input shaft

albero in entrata



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

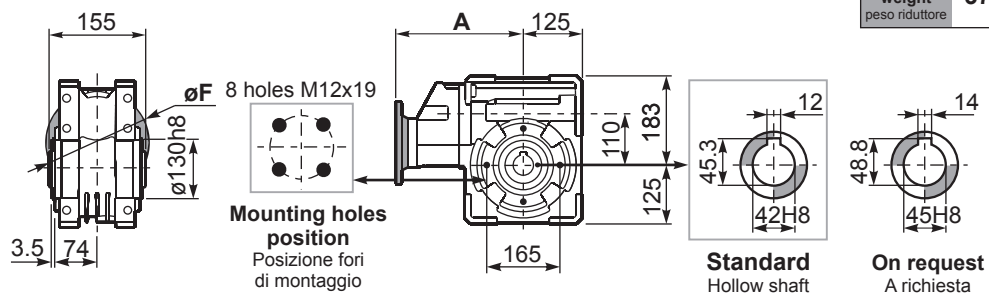
***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

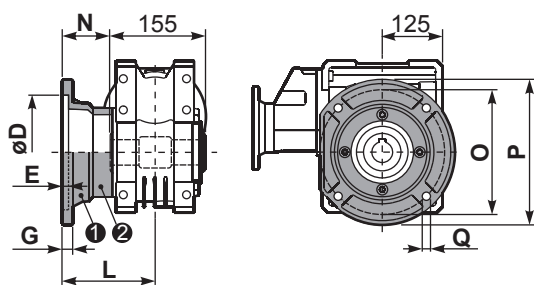
PP1QFB...

Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **37.3 kg**

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

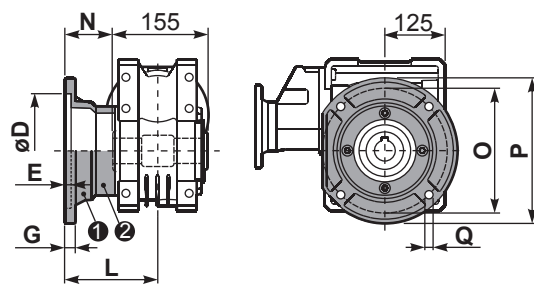


PP1QFC...

Output flange
Flangia uscita

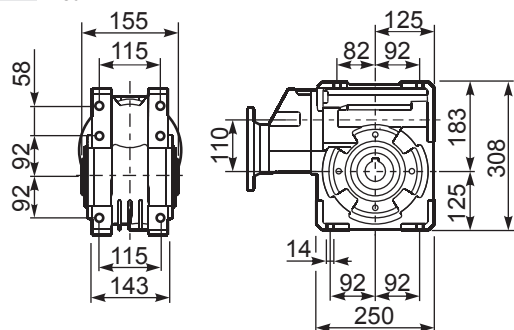
type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 ^{+0.083} _{+0.043}	11	16.5	131.5	54	230	270	13	1 K110.9.010 2 -
FL	170 ^{+0.083} _{+0.043}	11	16.5	179.5	102	230	270	13	1 K110.9.011 2 -

PP1QF1...

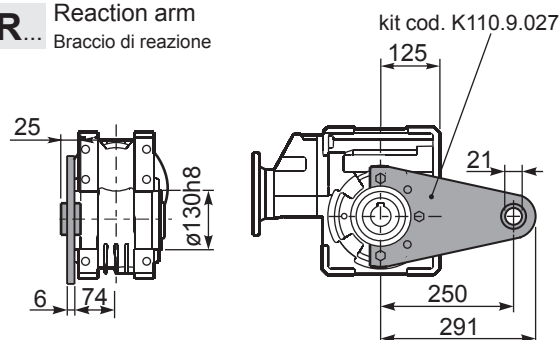
Output flange
Flangia uscita

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

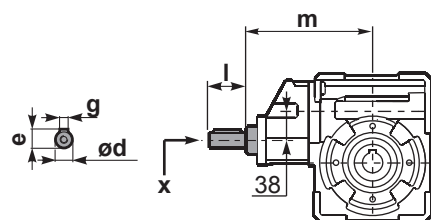
PP1QFB...

Feet
Piedini

PP1QBR...

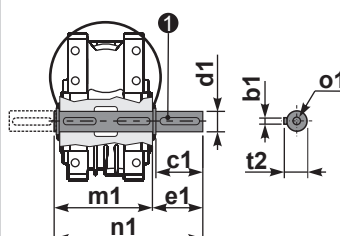
Reaction arm
Braccio di reazione

RP1QFB...

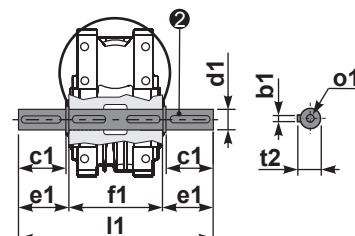
Input shaft
Albero in entrata

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

PP1Q.....S...

Single Shaft
Albero lento semplice

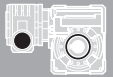
PP1Q.....D...

Double Shaft
Albero lento bisp.

① kit cod. K110.5.028 type B

② kit cod. K110.5.029 type B

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

A) Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

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

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

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

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

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

0.30 Lt.

0.03 Lt.

LUBRICATION 63Q Oil
Quantity 0.30/0.03 Lt.

SHELL Omala S4 WE 320

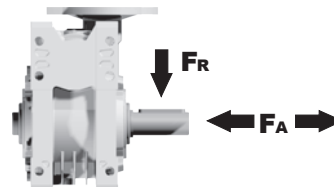
ENI Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

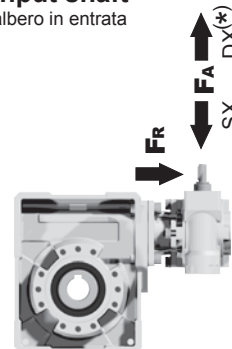
Albero di uscita



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

Input shaft

albero in entrata



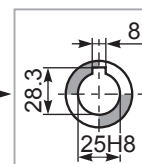
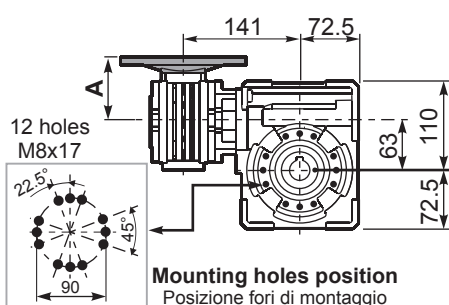
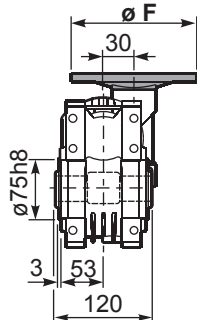
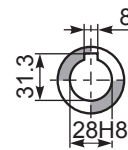
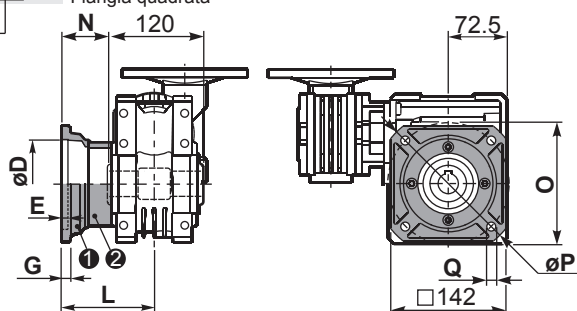
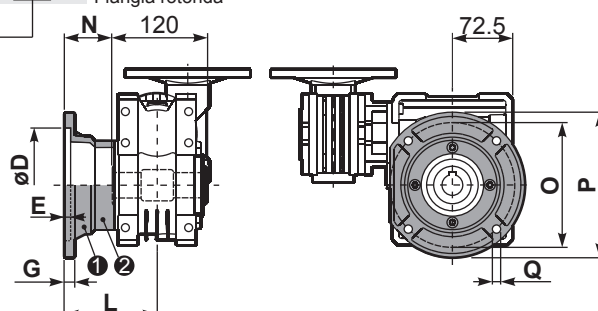
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	20	100

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

tab. 2

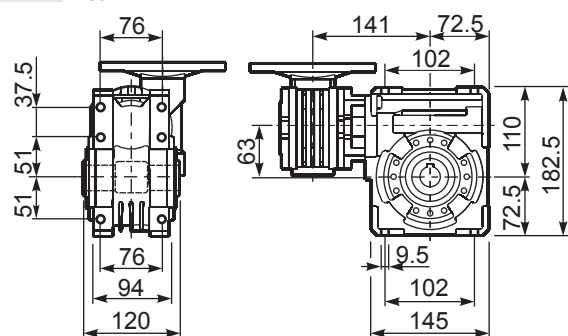
P63QFB... Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **7.25 kg**

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

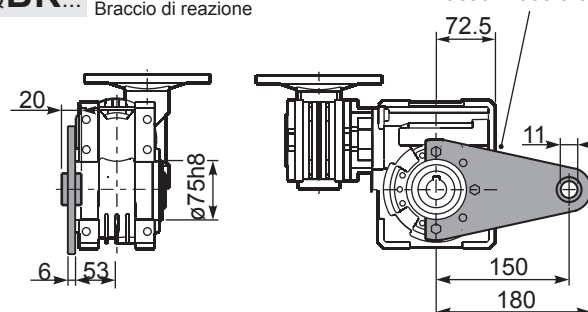
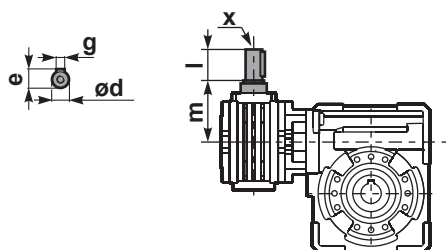
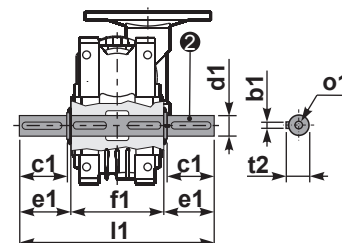
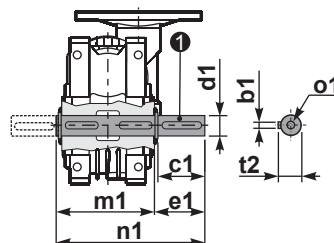
**Standard**
Hollow shaft**On Request**
A richiesta**Mounting holes position**
Posizione fori di montaggio**P63QFC...** Square flange
Flangia quadrata**P63QF1...** Round flange
Flangia rotonda

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

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

P63QFB... Feet
Piedini**P63QBR...** Reaction arm
Braccio di reazione

kit cod. K063.9.027

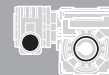
**R63QFB...** Input shaft
Albero in entrata**P63Q.....S** Single Shaft
Albero lento semplice**P63Q.....D** Double Shaft
Albero lento bisp.

1 kit cod. K063.5.028 type B

2 kit cod. K063.5.029 type B

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

A) Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

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

EN Unit **64Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **64Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **64Q** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **64Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **64Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 64Q Oil
Quantity 0.30/0.09 Lt.

0.30 Lt.  0.09 Lt.

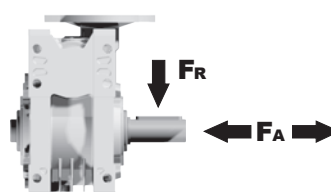
SHELL Omala S4 WE 320 **ENI** Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

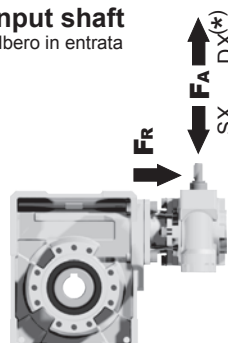
Albero di uscita



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

Input shaft

albero in entrata



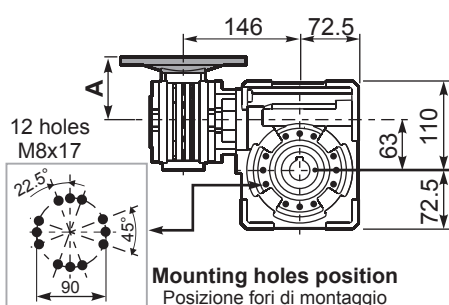
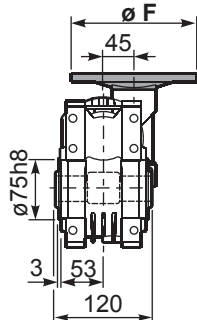
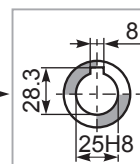
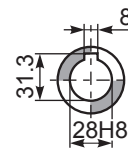
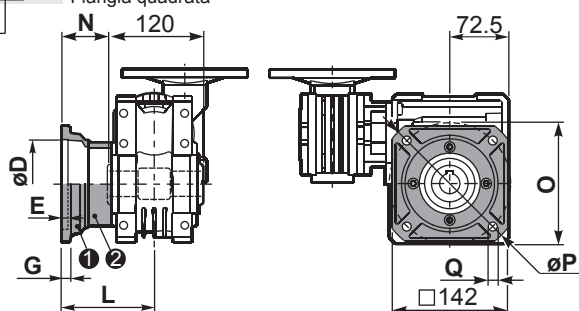
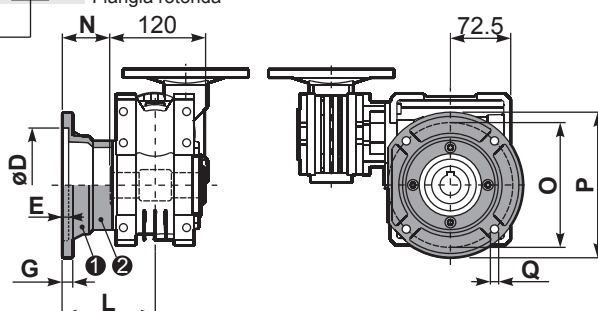
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	42	210

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

tab. 2

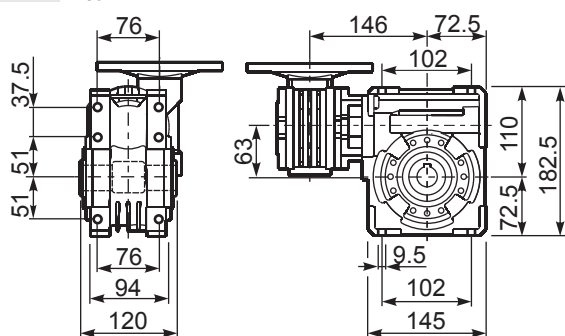
P64QFB...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **7.25 kg**

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

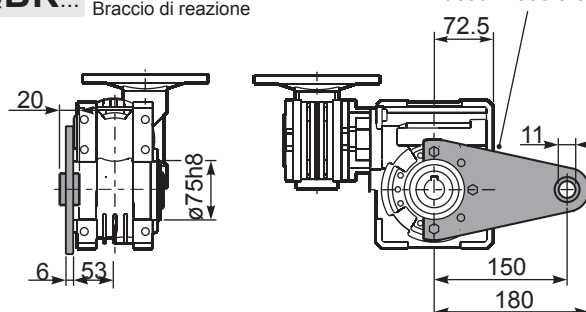
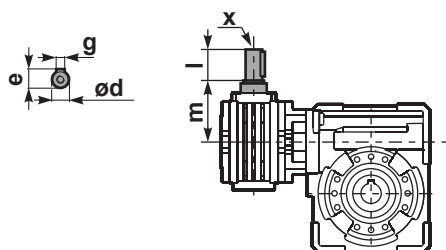
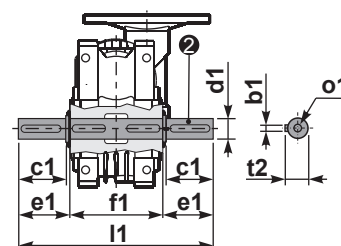
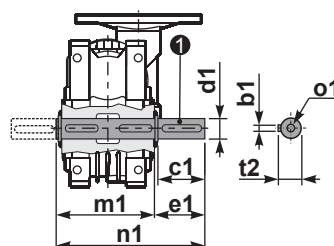
Mounting holes position
Posizione fori di montaggioStandard
Hollow shaftOn Request
A richiesta**P64QFC...**Square flange
Flangia quadrata**P64QF1...**Round flange
Flangia rotonda

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

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

P64QFB...Feet
Piedini**P64QBR...**Reaction arm
Braccio di reazione

kit cod. K063.9.027

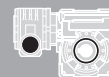
**R64QFB...**Input shaft
Albero in entrata**P64Q.....S...**Single Shaft
Albero lento semplice**P64Q.....D...**Double Shaft
Albero lento bisp.

① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module $[mm]$	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5	280	0.37	403	0.9	0.33	359	B		B-C	B-C		57	3.10	01
3.5	400	0.25	314	1.1	0.29	359	B		B-C	B-C		46	3.10	02
2.5	560	0.25	420	0.9	0.21	359	B		B-C	B-C		44	3.10	03
1.7	840	0.18	423	0.8	0.15	359	B		B-C	B-C		41	3.10	04
1.3	1120	0.12	339	1.1	0.13	359	B		B-C	B-C		37	3.10	05
0.9	1480	0.09	336	1.1	0.10	359	B		B-C	B-C		37	3.10	06
0.8	1840	0.09	373	1.0	0.09	359	B		B-C	B-C		33	3.10	07
0.6	2400	0.06	275	1.3	0.08	359	B		B-C	B-C		28	3.10	08
0.5	2800	0.06	298	1.2	0.07	359	B		B-C	B-C		26	3.10	09
0.3	4080	0.06	250	1.4	0.09	359	B		B-C	B-C		15	3.10	10

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

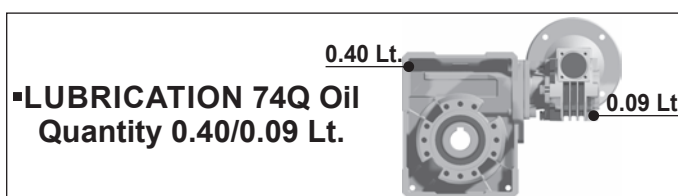
EN Unit **74Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **74Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **74Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **74Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **74Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.



LUBRICATION 74Q Oil
Quantity 0.40/0.09 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

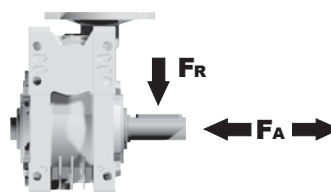
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

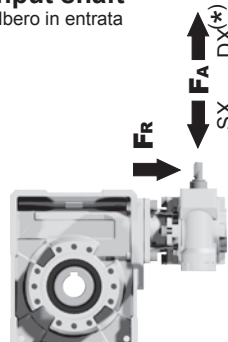
Albero di uscita



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

Input shaft

albero in entrata



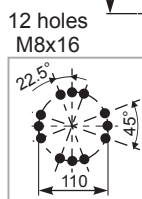
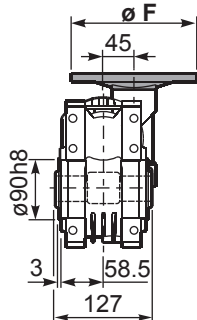
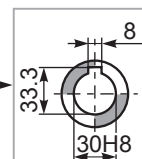
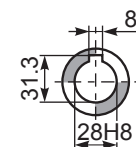
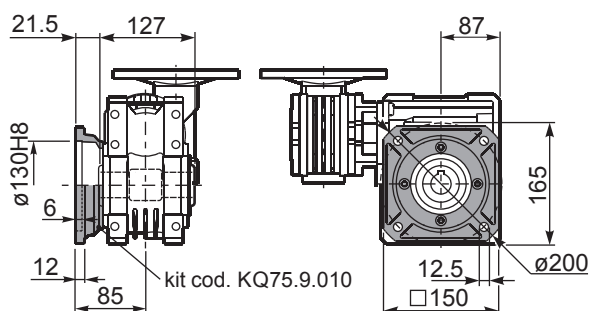
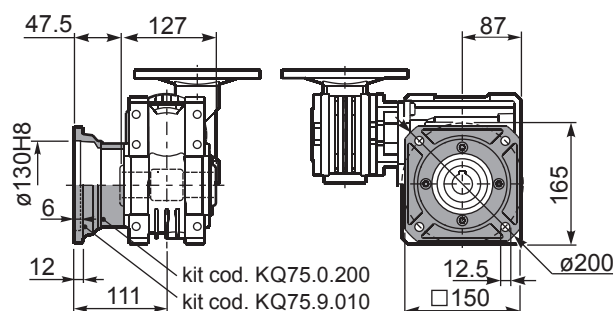
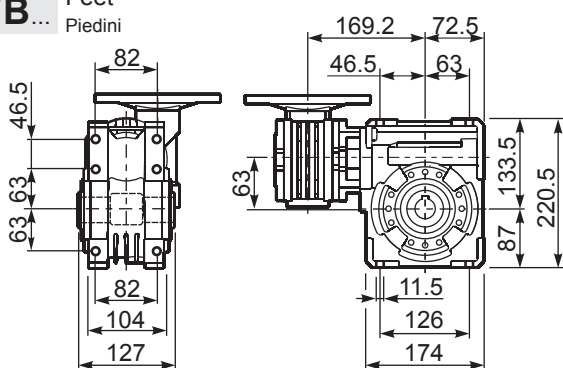
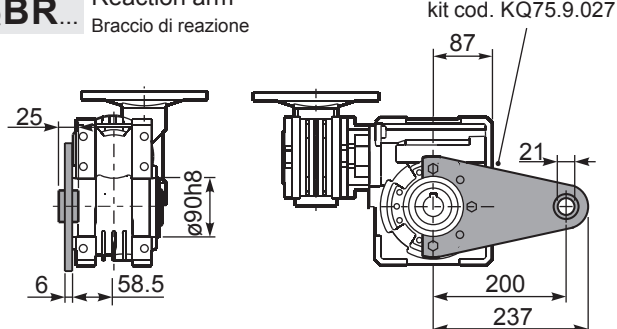
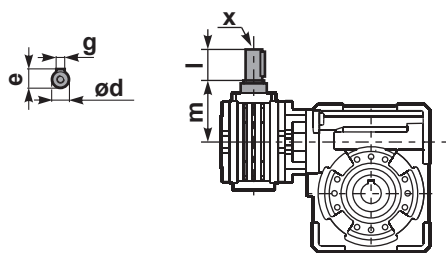
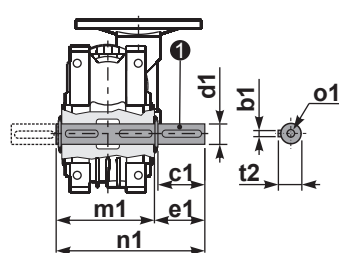
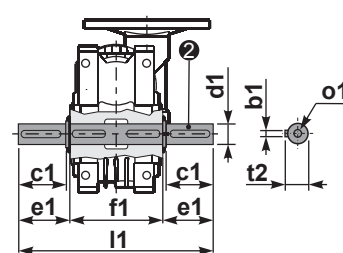
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	42	210

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

tab. 2

P74QFB... Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **11.4 kg**

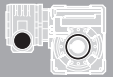
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	74
71B5	K050.4.042	160	71.5
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5

**Mounting holes position**
Posizione fori di montaggio**Standard**
Hollow shaft**On request**
A richiesta**P74QFC...** Square flange
Flangia quadrata**P74QFL...** Square flange
Flangia quadrata**P74QFB...** Feet
Piedini**P74QBR...** Reaction arm
Braccio di reazione**R74QFB...** Input shaft
Albero in entrata**P74Q.....S...** Single Shaft
Albero lento semplice**P74Q.....D...** Double Shaft
Albero lento bisp.

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

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **84Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **84Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Für die Lebensdauerschmierung ist das Getriebe der Größe **84Q** mit synthetischem Öl befüllt.
Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **84Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **84Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 84Q Oil
Quantity 1.20/0.09 Lt.

1.20 Lt. 0.09 Lt.

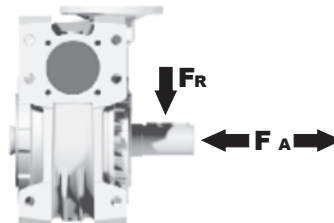
SHELL Omala S4 WE 320 **ENI** Telium VSF 320

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

RADIAL AND AXIAL LOADS

Output shaft

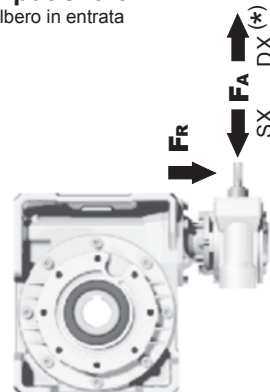
Albero di uscita



n [min ⁻¹]	F_A [N]	F_R [N]
25	1000	5000
15	1160	5800

Input shaft

albero in entrata



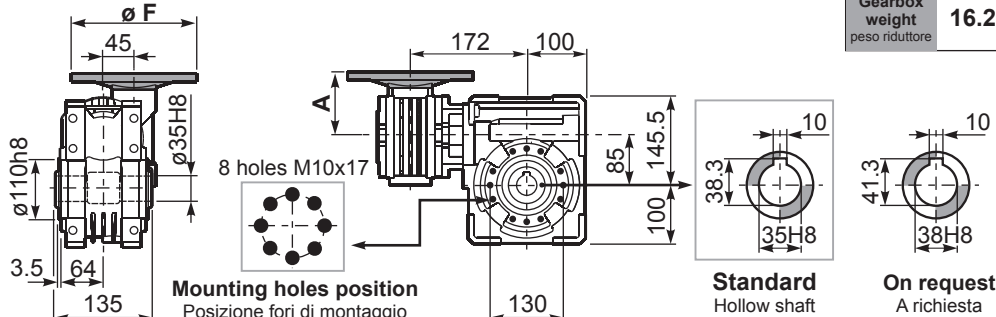
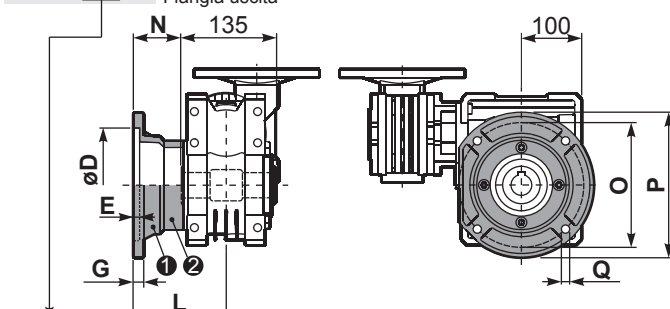
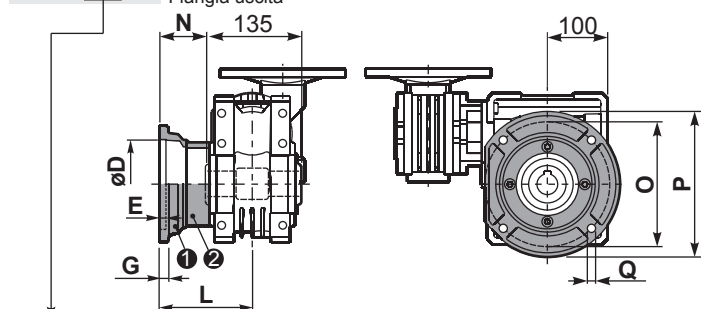
n [min ⁻¹]	F_A [N]	F_R [N]
1400	42	210

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

tab. 2

P84QFB...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **16.2 kg**

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

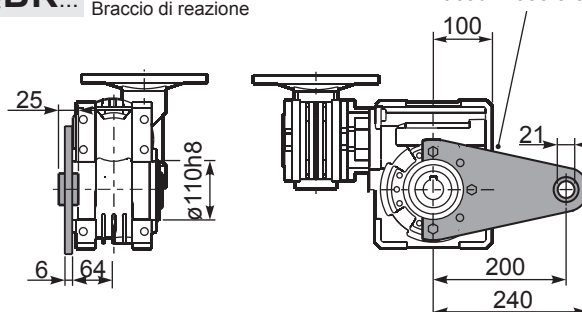
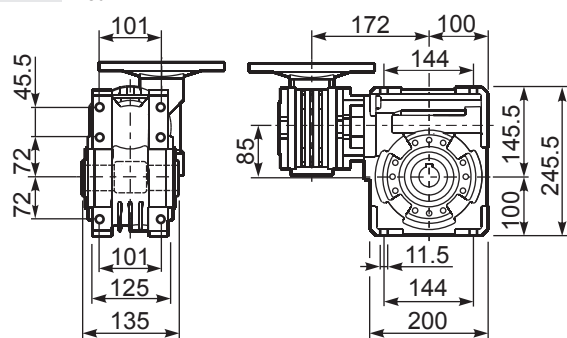
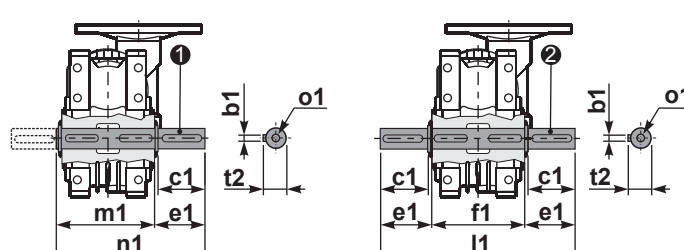
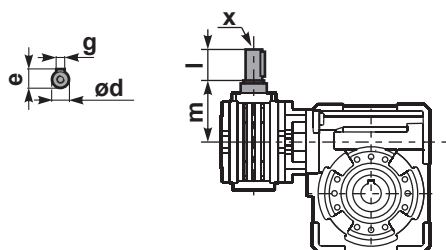
**P84QFC...**Output flange
Flangia uscita**P84QF1...**Output flange
Flangia uscita

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

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

P84QFB...Feet
Piedini**P84QBR...**Reaction arm
Braccio di reazione

kit cod. K085.9.027

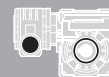
**R84QFB...**Input shaft
Albero in entrata**P84Q.....S...**Single Shaft
Albero lento semplice**P84Q.....D...**Double Shaft
Albero lento bisp.

1 kit cod. K085.5.028 type B

2 kit cod. K085.5.029 type B

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

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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit 15Q is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a type that are closed.
Gearbox 050 is supplied lubricated for life.
See tab.1 for oils and recommended quantity.
In tab.2 there are radial loads and axial loads applicable to the gearbox.

I Il riduttore tipo 15Q è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Il riduttore 050 è fornito lubrificato a vita con olio sintetico.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße 15Q wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
Das Getriebe der Baugröße 050 ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type 15Q est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Le réducteur de type 050 est fourni lubrifié à vie avec de l'huile synthétique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño 15Q se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiriere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos.
El reductor 050 se suministra lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

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

For all details on lubrication and plugs check our website

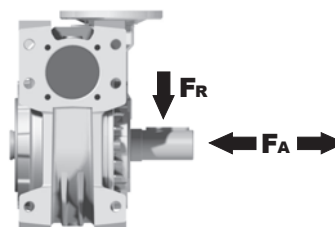
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

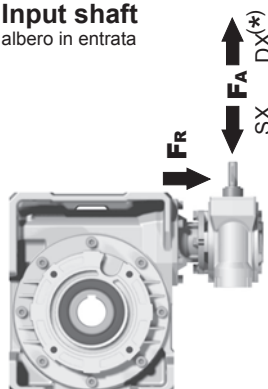
Albero di uscita



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

Input shaft

albero in entrata



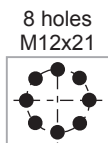
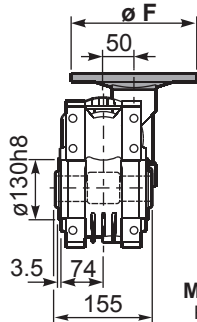
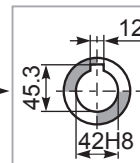
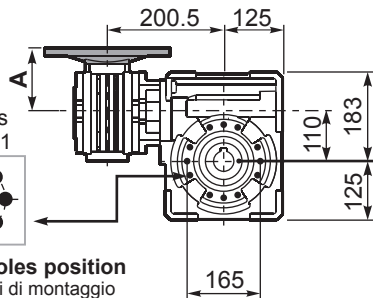
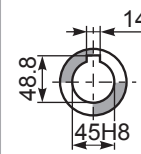
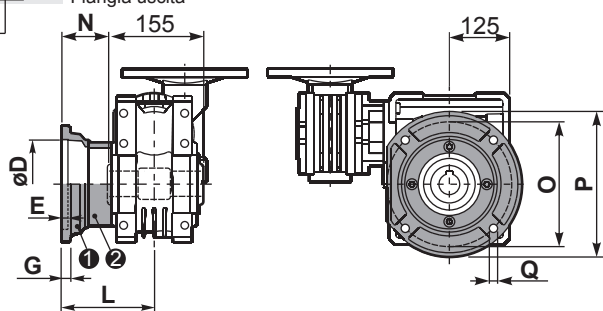
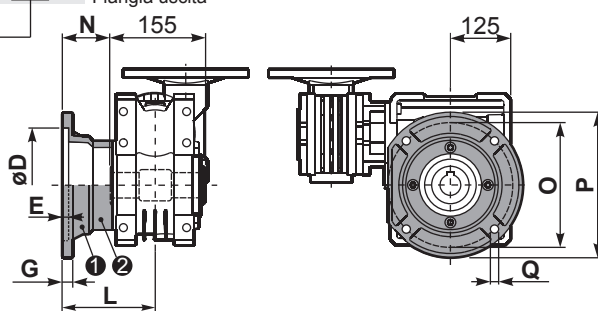
n_1 [min ⁻¹]	FA [N]	FR [N]
1400	76	380

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

tab. 2

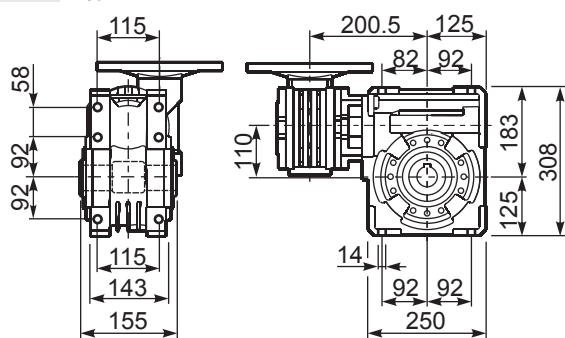
P15QFB...Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **38.8 kg**

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

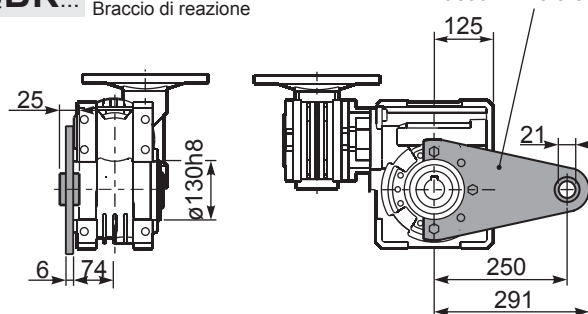
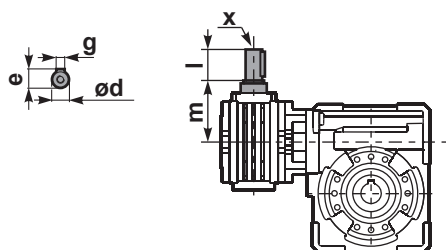
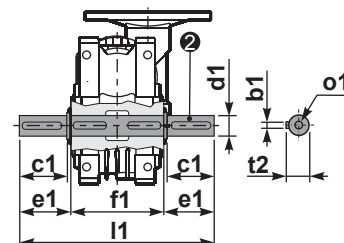
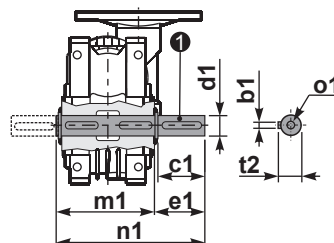
Mounting holes position
Posizione fori di montaggioStandard
Hollow shaftOn request
A richiesta**P15QFC...**Output flange
Flangia uscita**P15QF1...**Output flange
Flangia uscita

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

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

P15QFB...Feet
Piedini**P15QBR...**Reaction arm
Braccio di reazione

kit cod. K110.9.027

**R15QFB...**Input shaft
Albero in entrata**P15Q.....S...**Single Shaft
Albero lento semplice**P15Q.....D...**Double Shaft
Albero lento bisp.

1 kit cod. K110.5.028 type B

2 kit cod. K110.5.029 type B

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

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

Pré-couples de réduction

Aluminium one stage gearboxes

Un produit compact et modulaire
A modular and compact product

Bride modulaire

Flange

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

Couvercle d'inspection amovible

Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

Patte amovible

Feet

Removable feet.

Carcasse aluminium

Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint

Engrenage en acier trempé et rectifiés

Gears

Hardened and ground gears.

Arbre de sortie avec roulement

Output shaft

With well proportioned bearings

Pour combinaison avec réducteurs roue et vis

Ideal for use as first step with wormgearboxes.

Carcasse aluminium en une seule pièce légère et robuste

Single-piece aluminum alloy housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

Lubrification à vie avec huile synthétique -15° à +130°

Lubricated for life with synthetic oil with operative range from -15° to +130°C



World wide sales network.

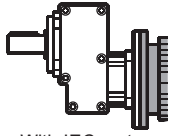
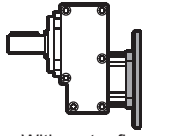
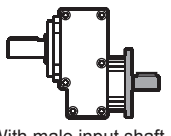
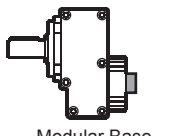
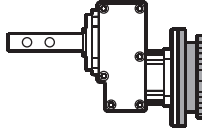
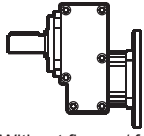
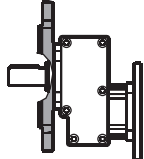
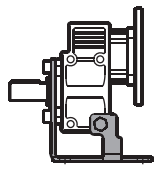




Types / Tipi
Tipen / Types
Tipos

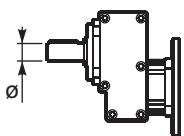
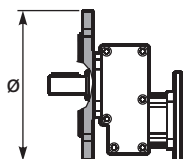
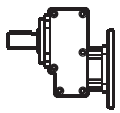
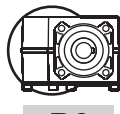
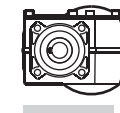
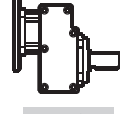
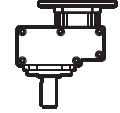
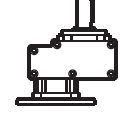


On page / A pagina / Auf Seite / À la page / En la página			
4-5	4-7	4-9	4-11
211A 20Nm	311A 30Nm	411A 38Nm	511A 110Nm

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Grösse Taille - Tamaño	Mounting - Montaggio Montage - Fixation Tipo de montaje	Ratio - Rapporto Untersetzung Reduction Relación
P	311A	-F	2.84
Aluminum one step gear Riduttori in alluminio a uno stadio  With IEC motor M  With motor flange P  With male input shaft R  Modular Base B Special output shaft Albero uscita speciale  Only on request for Q.ty A richiesta per quantità	1 Stages Riduzioni Stufen Trains Etapas 211A 311A 411A 511A	 Without flange / feet -N  Output flange mounted -F  Mounted feet H1	See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir Tableau données techniques Ver tabla datos técnicos



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

Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Position de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Terminal box position Posizione morsetteria Klemmkastenlage Position boîte à bornes Posición caja de bornes
S	2	-C	B3	ST	
 → STANDARD 211A S → ø14 311A S → ø14 C → ø19 E → ø24 411A S → ø14 C → ø19 E → ø24 511A C → ø19 E → ø24 G → ø28	 N Senza flangia Without flange 211A I → ø105 Flangia integrata Integrated flange 311A 1 → ø120 2 → ø140 3 → ø160 4 → ø200 411A 1 → ø120 2 → ø140 3 → ø160 4 → ø200 511A 1 → ø120 2 → ø140 3 → ø160 4 → ø200 5 → ø250	Flange Flangia  B5 -A=56 (ø120) -B=63 (ø140) -C=71 (ø160) -D=80 (ø200) -E=90 (ø200) -F=100+112 (ø250) -G=132 (ø300) B14 -O=56 (ø80) -P=63 (ø90) -Q=71 (ø105) -R=80 (ø120) -T=90 (ø140) -U=100+112 (ø160) -V=132 (ø200)	Type R Tipo R  211A 311A -1 → ø14 411A -2 → ø19 511A -3 → ø24 Without flange Senza flangia  211A 311A -Z → ø9 (56B5) -0 → ø11 (63B5) -1 → ø14 (71B5) 411A -1 → ø14 (71B5) -2 → ø19 (80B5) -3 → ø24 (90B5) 511A -2 → ø19 (80B5) -3 → ø24 (90B5) -4 → ø28 (100B5)	 B3 STANDARD  B6  B7  B8  V5  V6	ST standard bore foro standard With Type M specify terminal box position Con tipo M specificare posizione morsettieria  A  B STANDARD  C  D

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotation

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

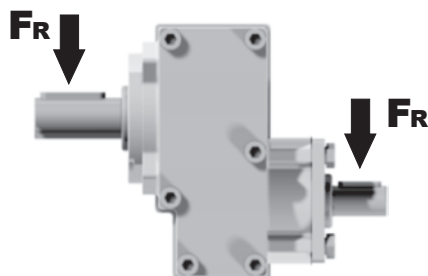
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

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



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

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

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

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

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

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

Flange code
Codice flangia
Flanschtype
Code bride
Código bridas

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

Gear size
Grandezza riduttore
Getriebegröße
Taille réducteur
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Puissance moteur
Potencia motor

311A

One step
30Nm

Rating - Aluminum ONE STEP 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		Available B14 motor flanges			Output Shaft 	Notes
							-B	-C	-O	-P	-Q		
892	1.57	0.37	3.9	3.3	1.24	13			C	C		2844	01
493	2.84	0.37	7.0	3.3	1.21	23			C	C		1954	02
426	3.29	0.37	8.1	3.2	1.18	26			C	C		1756	03
362	3.87	0.37	9.6	2.9	1.08	28			C	C		1558	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		Oper. hours per day Ore di funz. giorn.		
Type of load and starts per hour Tipo di carico e avviamenti per ora		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

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

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



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft	Ratio code
							-B	-C	-O	-P	-Q		
682	2.05	0.37	5	2.0	0.73	10	63	71	56	63	71	1939	01
595	2.35	0.37	6	2.1	0.76	12			C	C		1740	02
500	2.80	0.37	7	2.0	0.75	14			C	C		1542	03
414	3.38	0.37	8	2.0	0.75	17			C	C		1344	04
298	4.70	0.37	12	1.7	0.64	20			C	C		1047	05
225	6.22	0.37	15	1.5	0.55	23			C	C		956	06
169	8.29	0.37	20	1.0	0.36	20			C	C		758	07
142	9.83	0.25	16	1.0	0.24	16			C	C		659	08

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

4

EN Unit **211A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **211A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **211A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **211A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **211A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 211A Oil Quantity 0.05 Lt.

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

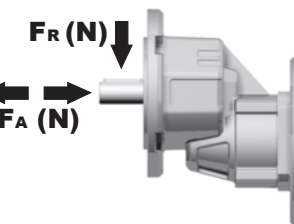
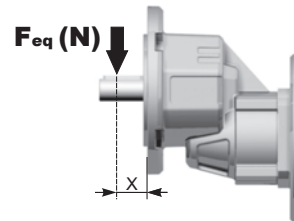
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

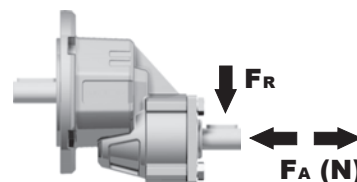
$$F_{eq} = F_R \cdot \frac{34.5}{X+19.5}$$



n ₂	FA	FR
700	101	504
600	120	600
400	138	696
300	151	756
200	175	876
140	192	960

Input shaft

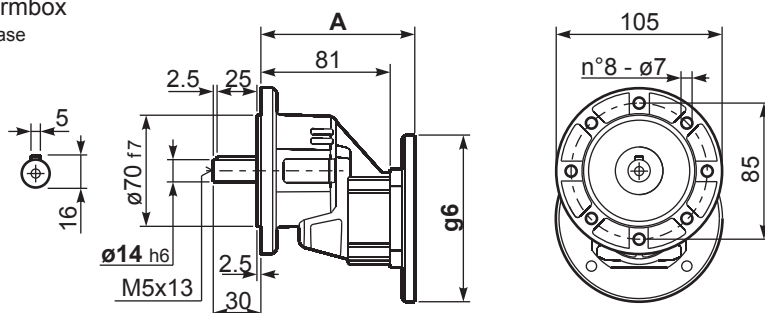
albero in entrata



n ₁	FA	FR
1400	168	840
900	192	960

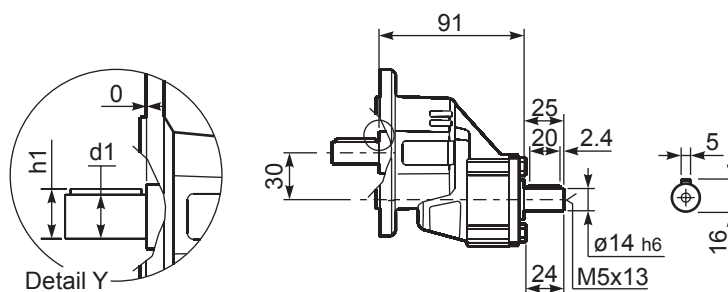
***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

P211A-F... Basic wormbox
Riduttore baseGearbox
weight
peso riduttore **1.40 kg**

B5 Motor Flanges	A	g6	kit code
63 B5	99.5	138	K050.4.041
71 B5	97	160	K050.4.042

B14 Motor Flanges	A	g6	kit code
56 B14	97	80	KC40.4.049
63 B14	99.5	90	K050.4.047
71 B14	97	105	K050.4.045

R211A-F... Basic wormbox
Riduttore base

*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	Ø 14x30	5	16	M5x13



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft	Ratio code
							-B	-C	-O	-P	-Q		
891	1.57	0.37	4	3.3	1.2	13	63	71	56	63	71	2844	01
493	2.84	0.37	7	3.3	1.2	23			C	C		1954	02
425	3.29	0.37	8	3.2	1.2	26			C	C		1756	03
362	3.87	0.37	10	2.9	1.1	28			C	C		1558	04
303	4.62	0.37	11	2.6	0.97	30			C	C		1360	05
222	6.30	0.37	16	2.2	0.83	35			C	C		1063	06
170	8.22	0.37	20	1.9	0.69	38			C	C		974	07
129	10.86	0.37	27	1.0	0.39	28			C	C		776	08

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

4

EN Unit **311A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **311A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **311A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **311A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **311A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 311A Oil Quantity 0.10 Lt.

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

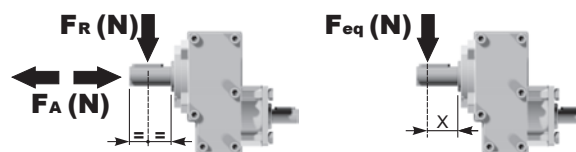
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

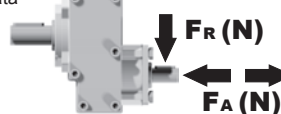
$$F_{eq} = F_R \cdot \frac{38.5}{X+18.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
700	120	640	400	160	800	200	200	1020
600	140	700	300	175	880	140	225	1120

Input shaft

Albero in entrata



n_1	FA	FR
1400	180	860
900	200	980

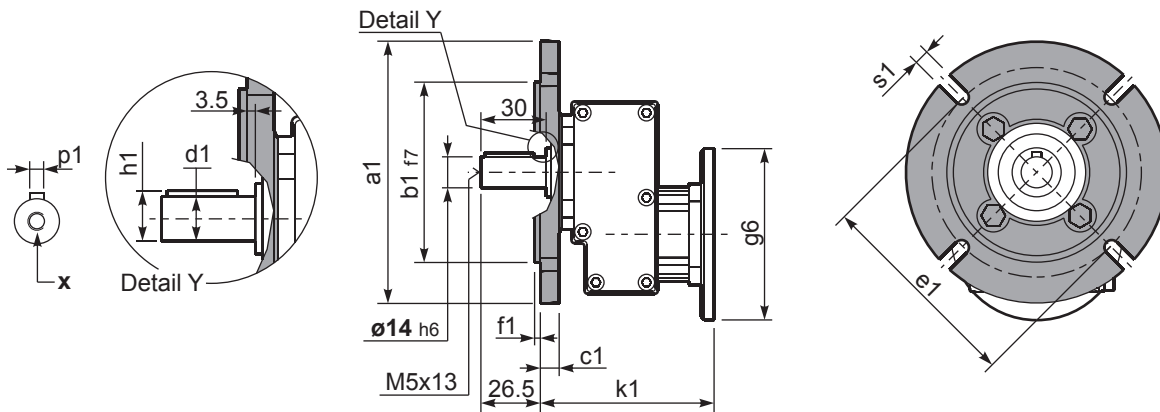
tab. 2

P311-F...

Output flange
flange di uscita

Gearbox weight
peso riduttore

2.50 kg



***Available output shaft** / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 14x30	5	16	M5x13
On request A richiesta	ø 19x40	6	21.5	M6x16
	ø 24x40	8	27	M6x16

Available output flanges / flange di uscita

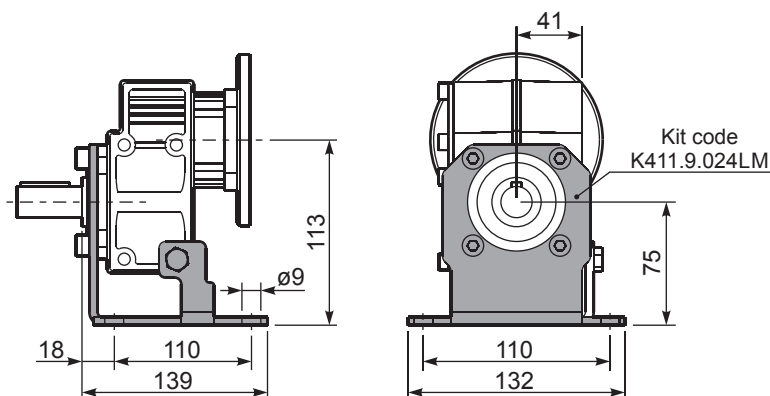
a1 ø	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013

*Holes position
posizione fori



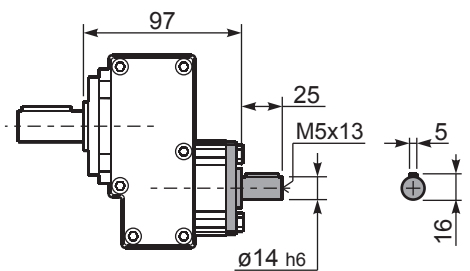
P311-H1...

With feet
Con piedini



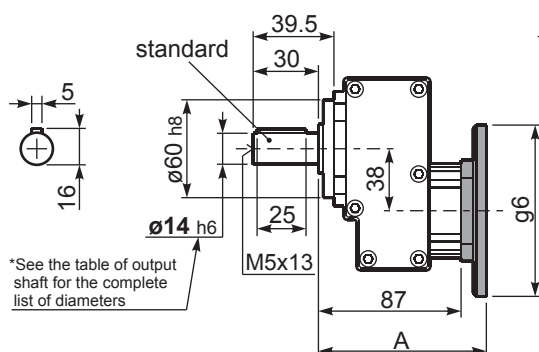
R311-N...

Input Shaft
Albero in entrata

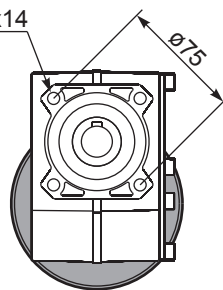


P311-N...

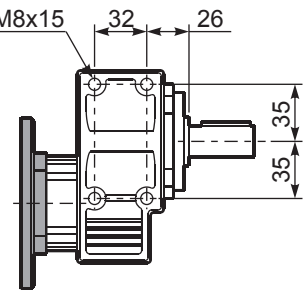
Basic gearbox
Riduttore base



N. 4 - M8x14



N. 4 - M8x15



B14 Motor Flanges	A	g6	k1	kit code
56 B14	103	80	106.5	KC40.4.049
63 B14	105.5	90	109	K050.4.047
71 B14	103	105	106.5	K050.4.045

B5 Motor Flanges	A	g6	k1	kit code
63 B5	105.5	138	109	K050.4.041
71 B5	103	160	106.5	K050.4.042



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Output Shaft 	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T			
891	1.57	1.5	16	1.3	1.9	20	B				C	C		2844	standard ø19 On request ø14 ø24	01
493	2.84	1.5	28	1.2	1.8	35	B				C	C		1954		02
425	3.29	1.5	33	1.2	1.7	38	B				C	C		1756		03
362	3.87	1.5	39	1.0	1.5	40	B				C	C		1558		04
303	4.62	1.5	46	1.0	1.5	47	B				C	C		1360		05
222	6.30	1.1	46	1.0	1.1	46	B				C	C		1063		06
170	8.22	0.55	30	1.3	0.69	38	B				C	C		974		07
129	10.86	0.37	27	1.0	0.39	28	B				C	C		776		08

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

 **Motor Flanges Available**
Flange Motore Disponibili

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

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

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

4

EN Unit **411A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **411A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **411A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **411A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **411A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 411A Oil Quantity 0.10 Lt.

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

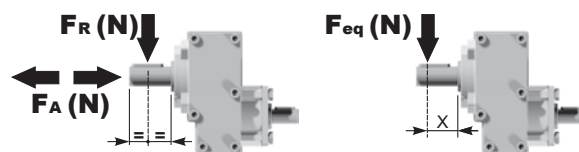
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

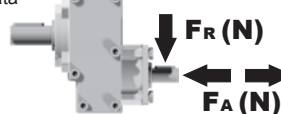
$$F_{eq} = F_R \cdot \frac{40}{X+20}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
700	182	910	400	230	1150	200	290	1450
600	200	1000	300	250	1250	140	320	1600

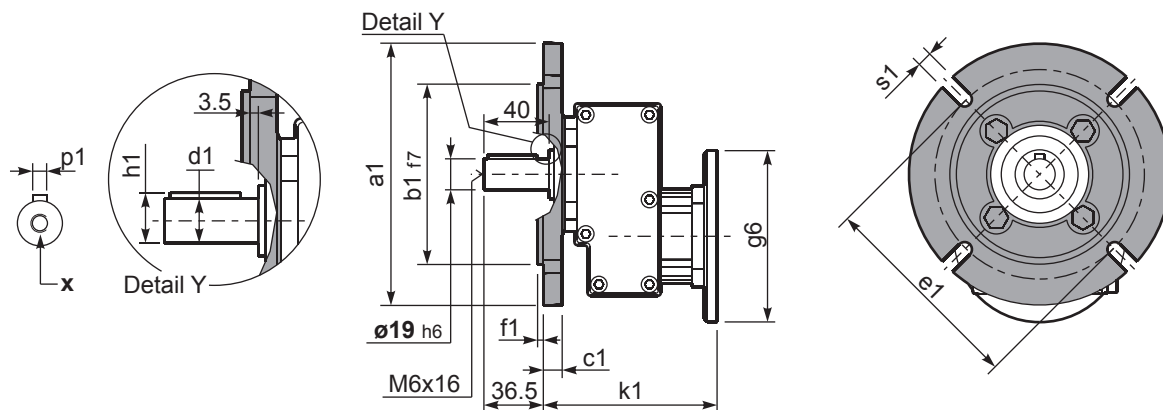
Input shaft

Albero in entrata



n_1	FA	FR
1400	240	1200
900	280	1400

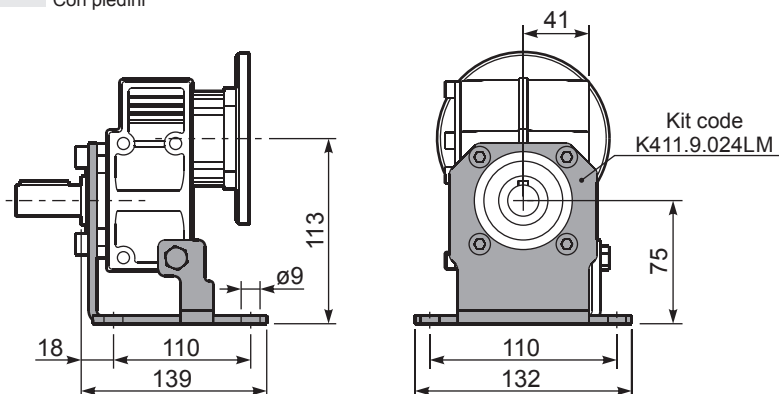
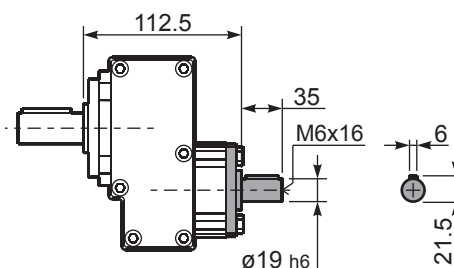
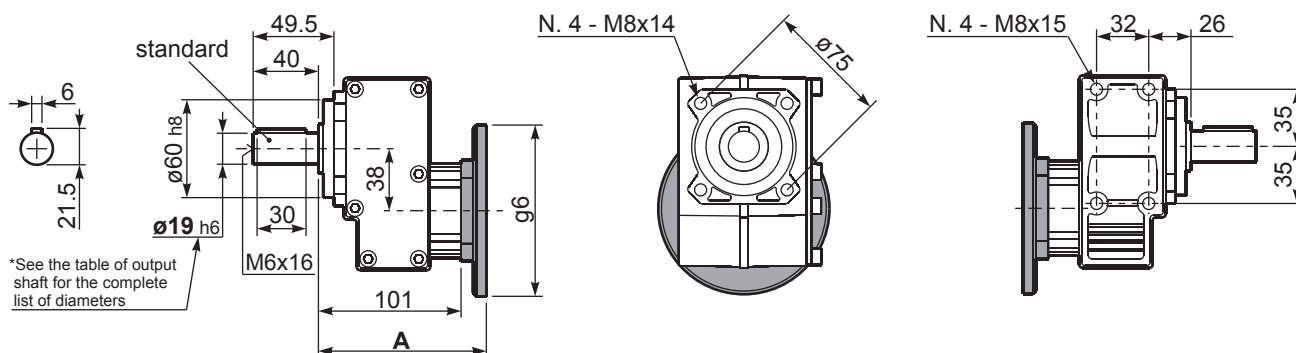
tab. 2

P411-F... Output flange
flange di uscitaGearbox
weight
peso riduttore **3.20 kg*****Available output shaft / Alberi di uscita**

	Shaft - d1	p1	h1	x
Standard	Ø 19x40	6	21.5	M6x16
On request A richiesta	Ø 14x30	5	16	M5x13
	Ø 24x40	8	27	M6x16

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013

*Holes position
posizione fori**P411-H1...** With feet
Con piedini**R411-N...** Input Shaft
Albero in entrata**P411-N...** Basic gearbox
Riduttore base

B5 Motor Flanges	A	g6	k1	kit code
63 B5	121.5	140	125	K063.4.041
71 B5	119.5	160	123	K063.4.042
80/90 B5	121.5	200	125	K063.4.043

B14 Motor Flanges	A	g6	k1	kit code
71 B14	119.5	105	123	K063.4.047
80 B14	121.5	120	125	K063.4.046
90 B14	121.5	140	125	K063.4.041



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft		
							-C	-D	-E	-F	-G	-R	-T	-U	-V			Ratios code
							71	80	90	100 112	132	80	90	100 112	132			
1077	1.30	4	34	1.2	4.6	40	B									3039	standard ø28 On request ø24	01
571	2.45	4	64	1.1	4.3	70	B									2049		02
423	3.31	4	87	1.0	4.1	90	B									1653		03
325	4.31	4	113	1.0	3.8	110	B									1356		04
266	5.27	3	104	1.1	3.1	110	B									1158		05
184	7.63	2.2	111	1.0	2.2	110	B									861		06
133	10.50	1.1	77	1.0	1.1	80	B									663		07

The dynamic efficiency is 0.98 for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **511A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **511A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **511A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **511A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **511A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 511A Oil Quantity 0.29 Lt.

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

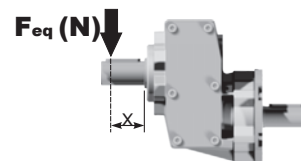
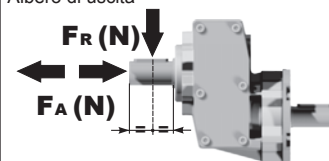
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

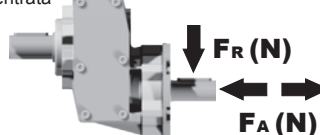
$$F_{eq} = F_R \cdot \frac{47.5}{X+22.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
700	294	1470	400	370	1850	200	460	2300
600	320	1600	300	400	2000	140	510	2550

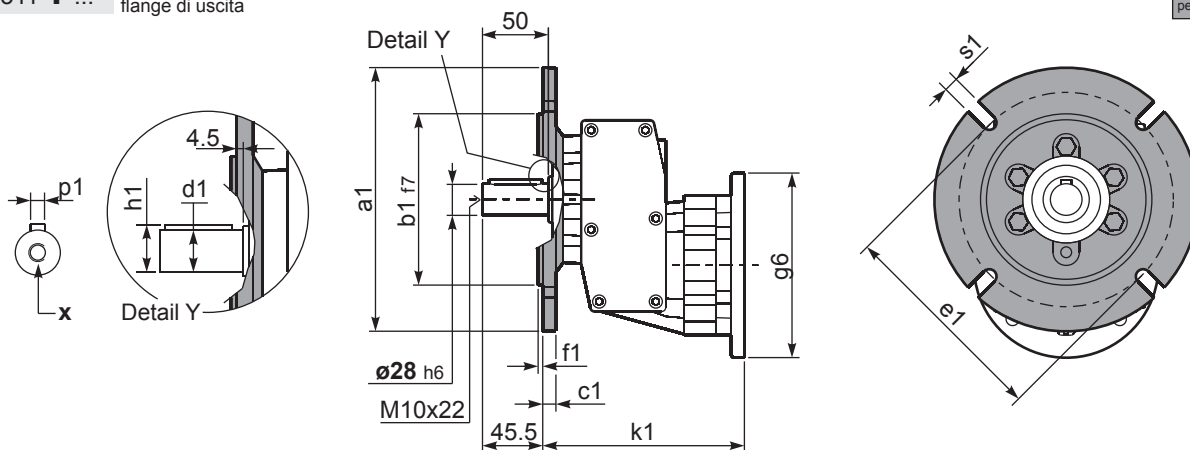
Input shaft

Albero in entrata



n_1	FA	FR
1400	400	2000
900	440	2200

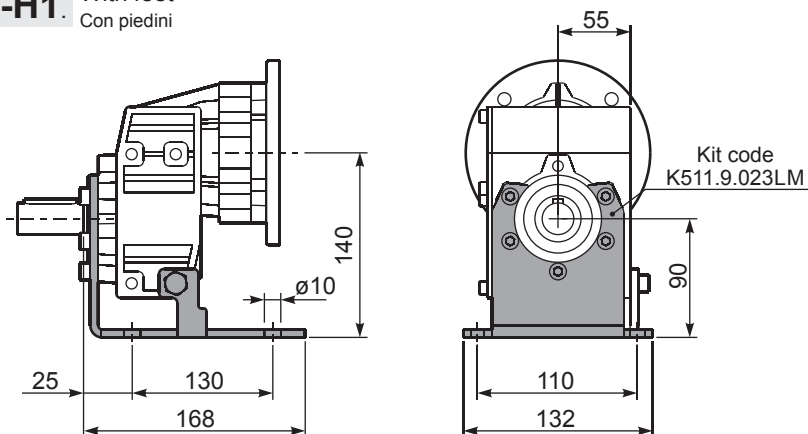
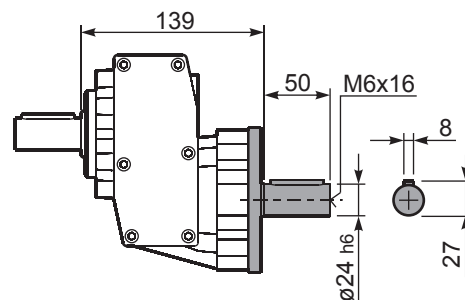
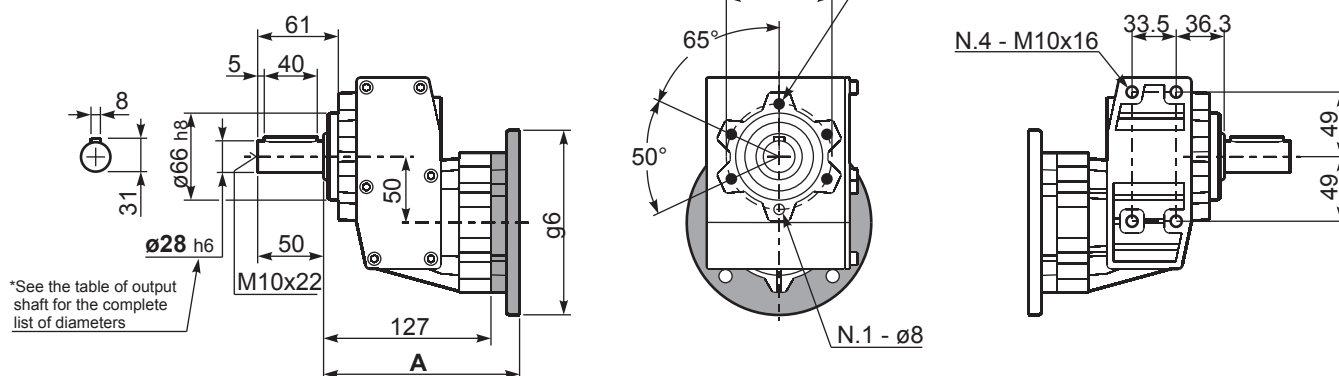
tab. 2

P511-F... Output flanges
flange di uscitaGearbox
weight
peso riduttore **5.00 kg*****Available output shaft** / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 28x50	8	31	M10x22
On request A richiesta	ø 24x50	8	27	M8x19

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	7	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3.5	9	KC40.9.012
200	130	11	165	3.5	11	KC40.9.013
250	180	11.5	215	3.5	14	KC40.9.014

P511A-H1. With feet
Con piedini**R511A-N...** Input Shaft
Albero in entrata**P511-N...** Basic gearbox
Riduttore base

B5 Motor Flanges	A	g6	k1	kit code
71 B5	145.5	160	150	K023.4.041
80/90 B5	147.5	200	152	K023.4.042
100/112 B5	156.5	250	161	K023.4.043
132 B5	177.5	300	179	KC51.4.043

B14 Motor Flanges	A	g6	k1	kit code
80 B14	147.5	120	152	K085.4.046
90 B14	147.5	140	152	K085.4.045
100/112 B14	156.5	160	161	K085.4.047
132 B14	177.5	200	179	KC51.4.041

Réducteurs coaxiaux en aluminium

Aluminium in line gearboxes

Un produit compact et modulaire
A modular and compact product

Bride modulaire

Flange

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

Carcasse aluminium

Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint

Couvercle d'inspection amovible

Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

Engrenage en acier trempé et rectifiés

Gears

Hardened and ground gears.

Possibilité de monter en double joint

Oil seals

Two oil seals on request

Arbre de sortie avec roulement

Output shaft

With well proportioned bearings

Lubrification à vie avec huile synthétique -15° à +130°

Lubricated for life with synthetic oil with operative range from -15° to +130°C



Dimensions inter-changeables avec les principaux standards du marché

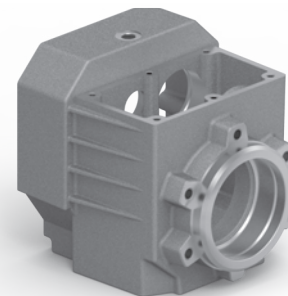
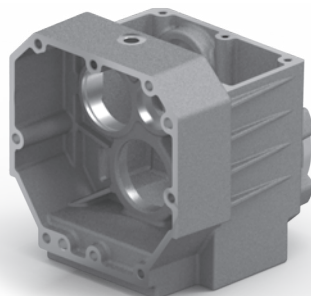
Foot prints

Compatible to the main standard of the market.

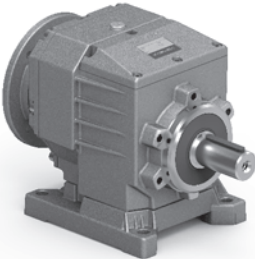
Carcasse aluminium en une seule pièce légère et robuste

Single-piece aluminum alloy housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing



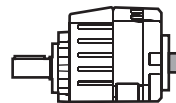
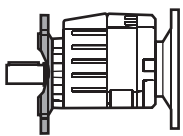
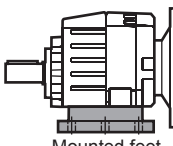
World wide sales network.



Types / Tipi
Tipen / Types
Tipos

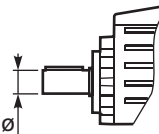
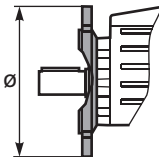
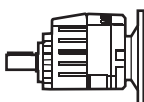
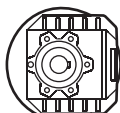
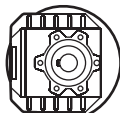
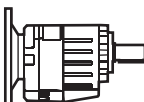
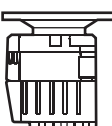
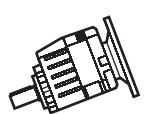
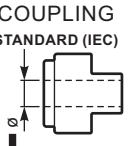
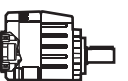


On page / A pagina / Auf Seite / À la page / En la página								
5-5	5-7	5-9	5-11	5-13	5-15	5-17	5-19	5-21
202A 70Nm	302A 120Nm	412A 175Nm	413A 175Nm	452A 300Nm	512A 360Nm	513A 360Nm	612A 530Nm	613A 530Nm

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Grösse Taille - Tamaño	Mounting - Montaggio Montage - Fixation Tipo de montaje	Ratio - Rapporto Untersetzung - Reduction Relación																																																																
P	412A	-F	7.33																																																																
Aluminum coaxial gear boxes Riduttori coassiali in alluminio  With IEC motor M  With motor flange P  With male input shaft R  Modular base B	2 Stages Riduzioni Stufen Trains Etapas 3 Stages Riduzioni Stufen Trains Etapas 202A 302A 412A 452A 512A 612A 413A 513A 613A	 Without flange / feet -N  Output flange mounted -F  Mounted feet B.. Feet / piedini <table><thead><tr><th>Feet Code</th><th>Market reference</th><th>G</th><th>H</th><th>R</th><th>L</th><th>L1</th><th>S</th></tr></thead><tbody><tr><td>B1</td><td>112</td><td>18</td><td>85</td><td>110</td><td>87</td><td>50</td><td></td></tr><tr><td>B2</td><td>212/3</td><td>18</td><td>100</td><td>130</td><td>107.5</td><td></td><td></td></tr><tr><td>S1</td><td>17</td><td>18</td><td>75</td><td>110</td><td>90+20</td><td></td><td></td></tr><tr><td>S2</td><td>27</td><td>25</td><td>90</td><td>110</td><td>130</td><td></td><td></td></tr><tr><td>M1</td><td>42/3</td><td>25</td><td>80</td><td>110+120</td><td>85</td><td></td><td></td></tr><tr><td>L4</td><td>04</td><td>13</td><td>80</td><td>105</td><td></td><td></td><td></td></tr><tr><td>L5</td><td>05</td><td>16</td><td>100</td><td>125</td><td></td><td></td><td></td></tr></tbody></table> You see feet code in the chart of the dimensions Vedi codice piede nella tabella delle dimensioni	Feet Code	Market reference	G	H	R	L	L1	S	B1	112	18	85	110	87	50		B2	212/3	18	100	130	107.5			S1	17	18	75	110	90+20			S2	27	25	90	110	130			M1	42/3	25	80	110+120	85			L4	04	13	80	105				L5	05	16	100	125				See technical data table Vedi tabelle dati tecnici Ver tabla datos técnicos
Feet Code	Market reference	G	H	R	L	L1	S																																																												
B1	112	18	85	110	87	50																																																													
B2	212/3	18	100	130	107.5																																																														
S1	17	18	75	110	90+20																																																														
S2	27	25	90	110	130																																																														
M1	42/3	25	80	110+120	85																																																														
L4	04	13	80	105																																																															
L5	05	16	100	125																																																															



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

Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Position de montage	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Terminal box position Posizione morsettieria Klemmkastenlage Position boîte à bornes Posición caja de bornes	
V	2	-C	B3	ST		
 → STANDARD 202A S ⇒ Ø14 B ⇒ Ø16 D ⇒ Ø20 V ⇒ Ø25 302A S ⇒ Ø14 B ⇒ Ø16 C ⇒ Ø19 D ⇒ Ø20 E ⇒ Ø24 V ⇒ Ø25 412A 413A B ⇒ Ø16 C ⇒ Ø19 D ⇒ Ø20 E ⇒ Ø24 V ⇒ Ø25 452A 512A 513A E ⇒ Ø24 V ⇒ Ø25 G ⇒ Ø28 H ⇒ Ø30 I ⇒ Ø35 612A 613A G ⇒ Ø28 H ⇒ Ø30 I ⇒ Ø35 L ⇒ Ø38 M ⇒ Ø40	 N Senza flangia Without flange 202A 302A 1 ⇒ Ø120 2 ⇒ Ø140 3 ⇒ Ø160 4 ⇒ Ø200 412A 413A 1 ⇒ Ø120 2 ⇒ Ø140 3 ⇒ Ø160 4 ⇒ Ø200 5 ⇒ Ø250 452A 512A 513A 3 ⇒ Ø160 4 ⇒ Ø200 5 ⇒ Ø250 612A 613A 3 ⇒ Ø160 4 ⇒ Ø200 5 ⇒ Ø250	 Flange Flangia B5 -A=56 (Ø120) -B=63 (Ø140) -C=71 (Ø160) -D=80 (Ø200) -E=90 (Ø200) -F=100 (Ø250) -G=132 (Ø300) 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 202A 413A -1 ⇒ Ø14 302A 412A 513A 613A -2 ⇒ Ø19 452A 512A 612A -3 ⇒ Ø24 Without flange Senza flangia -M ⇒ With coupling 202A 413A -Z ⇒ Ø9 (56B5) -0 ⇒ Ø11 (63B5) -1 ⇒ Ø14 (71B5) -2 ⇒ Ø19 (80B5) -3 ⇒ Ø24 (90B5) -4 ⇒ Ø28 (100B5) 302A 412A 513A 613A -1 ⇒ Ø14 (71B5) -2 ⇒ Ø19 (80B5) -3 ⇒ Ø24 (90B5) -4 ⇒ Ø28 (100B5) 452A 512A 612A -2 ⇒ Ø19 (80B5) -3 ⇒ Ø24 (90B5) -4 ⇒ Ø28 (100B5)	 B3 STANDARD  B6  B7  B8  V5  V6  V8	 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	 A  B STANDARD  C  D

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotation

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

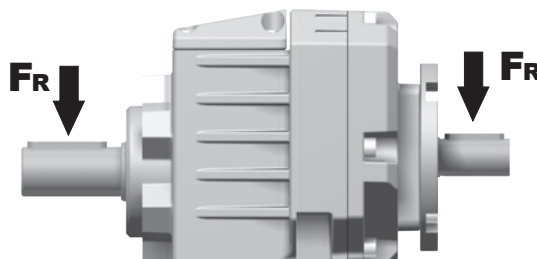
$$M [Nm] = \frac{9550 \cdot P [KW]}{n [rpm]}$$

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

5

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

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



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

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

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

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

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

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

Flange code
Codice flangia
Flanschtype
Code bride
Código bridas

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

Gear size
Grandezza riduttore
Getriebegröße
Taille réducteur
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Puissance moteur
Potencia motor

412A

Coaxial - Gear
160Nm

Rating - Aluminum COAXIAL 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				Available B14 motor flanges				Output Shaft		
							-B	-C	-D	-E	-Q	-R	-T	-U			
							63	71	80*	90*	71	80	90	100 112			
398	3.52	3	69	1.2	3.5	80	B			C	C			2821		01	
320	4.37	3	86	1.0	3.1	90	B			C	C			2818		02	
252	5.55	3	109	0.9	2.8	100	B			C	C			2813		03	
220	6.36	2.2	92	1.0	2.3	95	B			C	C			1921		04	
191	7.33	2.2	106	1.1	2.5	120	B			C	C			2812		05	

C Ratio
Rapporto
Untersetzung
Rapport de réduction
Relación

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

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

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

Notes
Note
Anmerkungen
Note
Notas

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

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

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


QUICK SELECTION / Selezione veloce The dynamic efficiency is **0.96** for all ratios
input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71*	56	63	71		
407	3.44	0.55**	12	2.0	1.1	25			C	C		2821	01
327	4.28	0.55**	15	1.9	1.1	30			C	C		2818	02
257	5.45	0.55**	20	2.0	1.1	40			C	C		2815	03
225	6.23	0.55**	23	2.0	1.1	45			C	C		1921	04
194	7.20	0.55**	26	1.9	1.1	50			C	C		2812	05
181	7.74	0.55**	28	1.8	0.99	50			C	C		1918	06
142	9.85	0.55**	36	1.7	0.93	60			C	C		1915	07
123	11.42	0.55**	41	1.5	0.80	60			C	C		1715	08
107	13.03	0.55**	47	1.3	0.70	60			C	C		1912	09
93	15.10	0.37	37	1.6	0.61	60			C	C		1712	10
86	16.20	0.37	39	1.5	0.57	60			C	C		1910	11
75	18.78	0.37	45	1.3	0.49	60			C	C		1710	12
66	21.15	0.37	51	1.2	0.43	60			C	C		1312	13
64	21.84	0.37	53	1.1	0.42	60			C	C		1015	14
53	26.31	0.37	64	0.9	0.35	60			C	C		1310	15
48.5	28.88	0.37	70	1.0	0.37	70			C	C		1012	16
39	35.91	0.37	87	0.8	0.30	70			C	C		1010	17
37.1	37.69	0.25	62	1.1	0.28	70			C	C		912	18
29.9	46.87	0.25	77	0.9	0.23	70			C	C		910	19
28.1	49.76	0.25	81	0.9	0.21	70			C	C		712	20
22.6	61.89	0.18	77	0.9	0.17	70			C	C		710	21

** Concerning a reduced dimensions electric motor.
Riferito a motore con grandezza ridotta

* Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14
* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

Motor Flanges Available
Flangia Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **202A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **202A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **202A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **202A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **202A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 202A Oil Quantity 0.15 Lt.

SHELL Omala S4 WE 320

AGIP Telium VSF 320

For all details on lubrication and plugs check our website

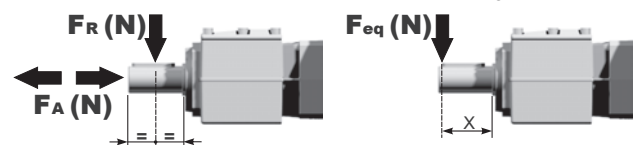
tab. 1

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

RADIAL AND AXIAL LOADS
Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{35.7}{X+20.7}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	140	700	140	246	1320	70	340	1700
250	151	756	120	270	1350	40	380	1900
200	185	924	85	300	1500	15	-	-

Input shaft

Albero in entrata

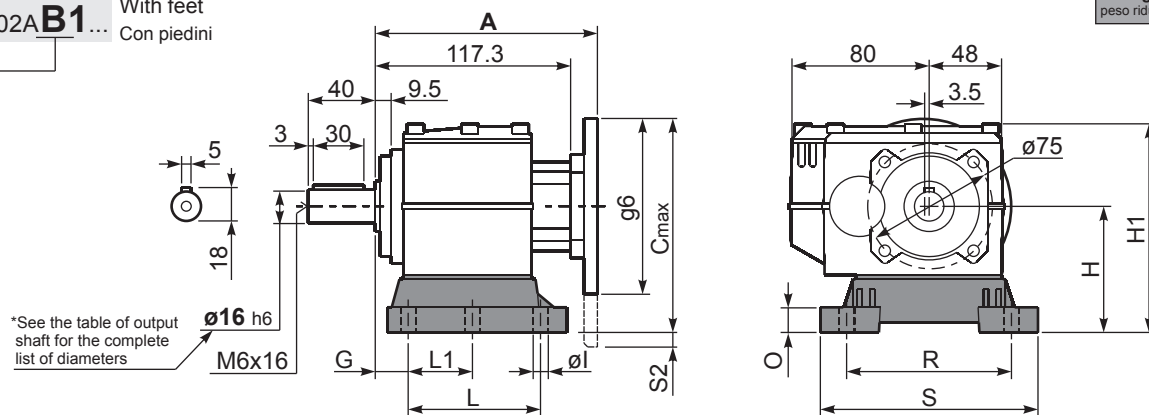


n_1	FA	FR
1400	140	700
900	160	800
500	190	950

tab. 2

P202A**B1**...

With feet
Con piedini



*See the table of output shaft for the complete list of diameters

Feet Code	Market reference	G	H	R	L	L1	S	H1	O	øI	S2 only with motor flange	B5 max. Flange	kit code
B1	112	18	85	110	87	50	130	133	15	9	-	-	KC30.9.022
B2	212/3	18	100	130	107.5	60	155	145	5	11	-	-	KC30.9.023LM
S1	17-32	18	75	110	110	50	130	123	15	9	-	63B5	KC30.9.024

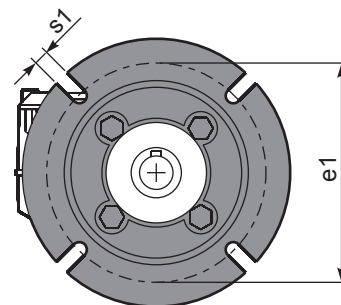
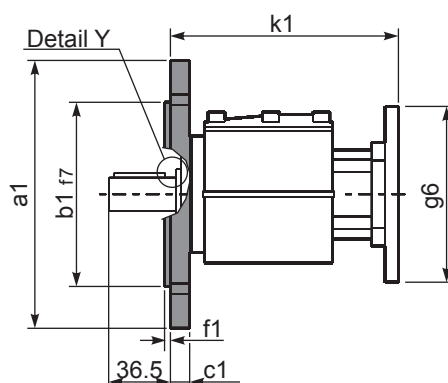
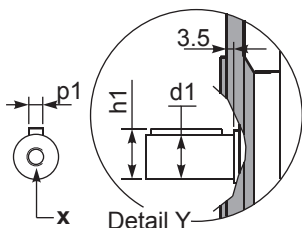
Other feet are available,
see our web site
Sono disponibili altri piedini,
consulta il nostro sito web

A see on page bottom

 Most popular types
Tipi più diffusi

P202A-F...

Output flanges
flange di uscita



***Available output shaft** / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	Ø 16x40	5	18	M6x16
On request A richiesta	Ø 14x30	5	16	M6x16
	Ø 20x40	6	22.5	M8x19
	Ø 25x50	8	28	M8x19

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013



With flange an
feet only on
request.
Ask for
compatibility

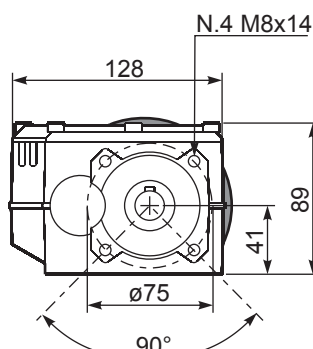
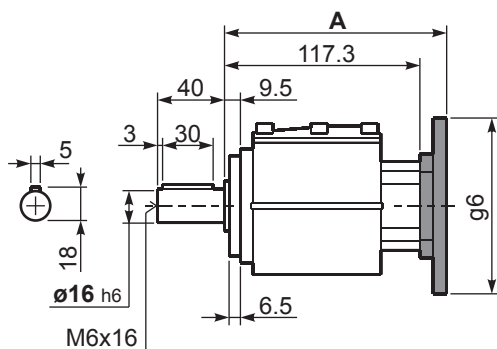
 * Holes position
Posizione fori



With flange and feet only on request. Ask for compatibility

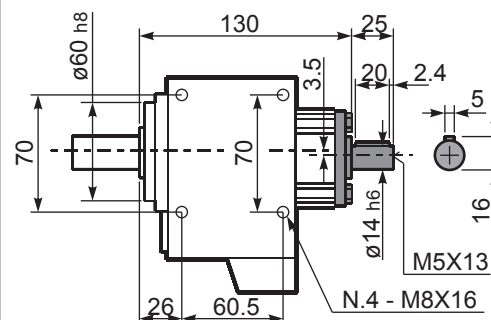
P202A-N...

Basic gearbox
Riduttore base



R202A-N..

Input Shaft
Albero in entrata



B5 Motor Flanges	A	C_{max}	g6	k1	kit code
63 B5	135.8	170	140	139.3	K050.4.041
71 B5	133.3	180	160	136.8	K050.4.042

B14 Motor Flanges	A	C_{max}	g6	k1	kit code
56 B14	133.3	139	80	136.8	KC40.4.049
63 B14	135.8	146	90	139.3	K050.4.047
71 B14	133.3	152.5	105	136.8	K050.4.045



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Output Shaft 	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T			
							63	71*	80*	90*	71	80	90			
407	3.44	1.5	34	1.0	1.6	35	B				C	C		2821		01
327	4.28	1.5	42	1.0	1.4	40	B				C	C		2818		02
257	5.45	1.5	53	1.0	1.5	52	B				C	C		2815		03
225	6.23	1.5	61	1.1	1.7	70	B				C	C		1921		04
194	7.20	1.5	71	1.0	1.5	70	B				C	C		2812		05
181	7.74	1.5	76	1.1	1.6	80	B				C	C		1918	standard ø20	06
142	9.85	1.5	97	1.0	1.5	95	B				C	C		1915		07
123	11.42	1.5	112	1.0	1.5	115	B				C	C		1715		08
107	13.03	1.1	93	1.2	1.3	114	B				C	C		1912	ø14	09
93	15.10	1.1	108	1.1	1.2	114	B				C	C		1712	ø16	10
86	16.20	0.75	80	1.3	1.0	107	B				C	C		1910	ø19	11
75	18.78	0.75	92	1.2	0.87	107	B				C	C		1710	ø24	12
66	21.15	0.75	104	1.1	0.82	114	B				C	C		1312	ø25	13
64	21.84	0.75	107	1.1	0.83	119	B				C	C		1015	On request	14
53	26.31	0.55	95	1.1	0.62	107	B				C	C		1310		15
48.5	28.88	0.55	105	1.1	0.60	114	B				C	C		1012		16
39	35.91	0.37	87	1.2	0.46	107	B				C	C		1010		17
37.1	37.69	0.37	91	1.1	0.41	102	B				C	C		912		18
29.9	46.87	0.37	113	0.9	0.35	107	B				C	C		910		19
28.1	49.76	0.25	81	1.2	0.31	101	B				C	C		712		20
22.6	61.89	0.25	101	1.1	0.26	107	B				C	C		710		21

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

*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14
* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bussing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **302A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **302A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **302A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **302A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **302A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION 302A Oil Quantity 0.15 Lt.

SHELL Omala S4 WE 320

AGIP Telium VSF 320

For all details on lubrication and plugs check our website

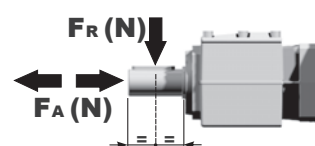
tab. 1

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

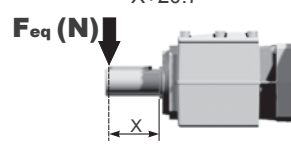
RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



$$F_{eq} = F_R \cdot \frac{35.7}{X+20.7}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	140	700	140	246	1320	70	340	1700
250	151	756	120	270	1350	40	380	1900
200	185	924	85	300	1500	15	-	-

Input shaft

Albero in entrata



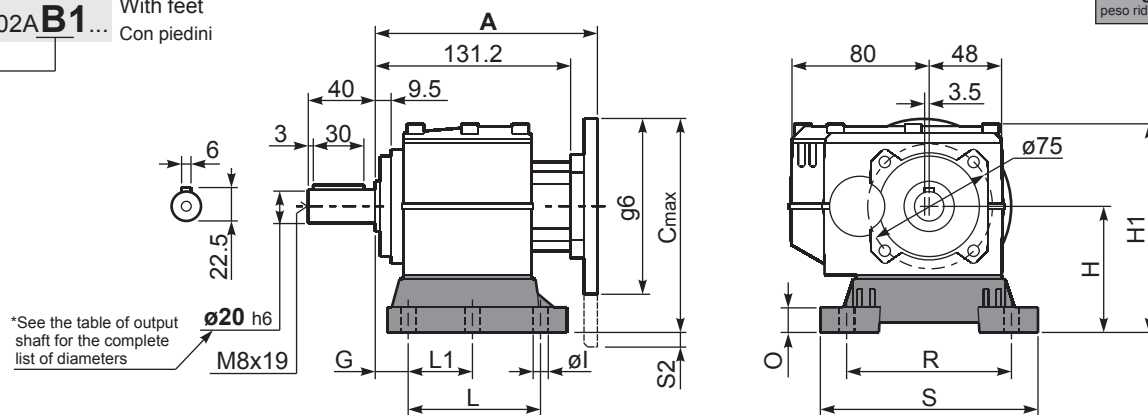
n_1	FA	FR
1400	226	1130
900	264	1320
500	322	1610

tab. 2

Gearbox weight
peso riduttore

With flange **3.5 kg**
With feet **4.0 Kg**

P302A-B1... With feet
Con piedini



*See the table of output shaft for the complete list of diameters

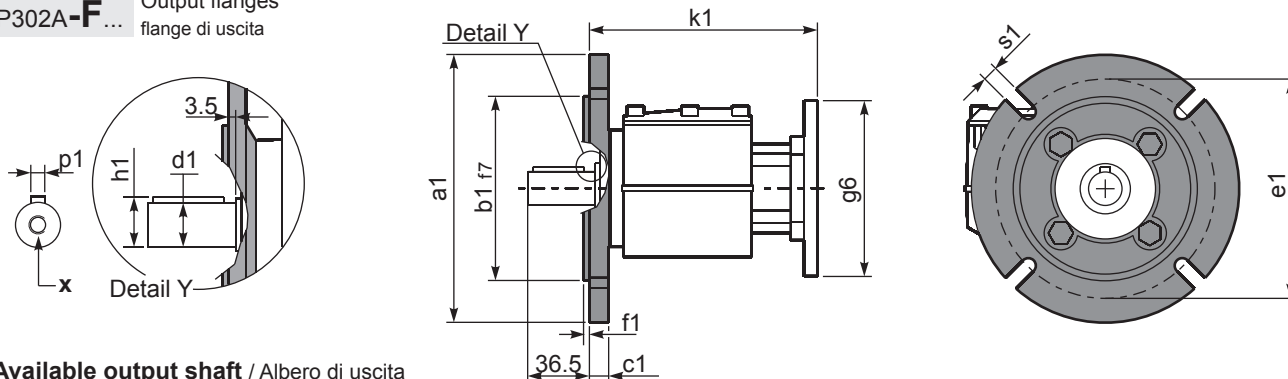
Feet Code	Market reference	G	H	R	L	L1	S	H1	O	Ø	S2 only with motor flange	B5 max. Flange	kit code
B1	112	18	85	110	87	50	130	133	15	9	15 80/90B5	-	KC30.9.022
B2	212/3	18	100	130	107.5	60	155	145	5	11	3.5 80/90B5	-	KC30.9.023LM
S1	17-32	18	75	110	110	50	130	123	15	9	5 71B5	71B5	KC30.9.024

Other feet are available, see our web site
Sono disponibili altri piedini, consulta il nostro sito web

A see on page bottom

Most popular types
Tipi più diffusi

P302A-F... Output flanges
flange di uscita



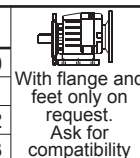
*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	Ø 20x40	6	22.5	M8x19
On request A richiesta	Ø 14x30	5	16	M6x16
	Ø 16x40	5	18	M6x16
	Ø 19x40	6	21.5	M6x16
	Ø 24x50	8	27	M8x19
	Ø 25x50	8	28	M8x19

Available output flanges / flange di uscita

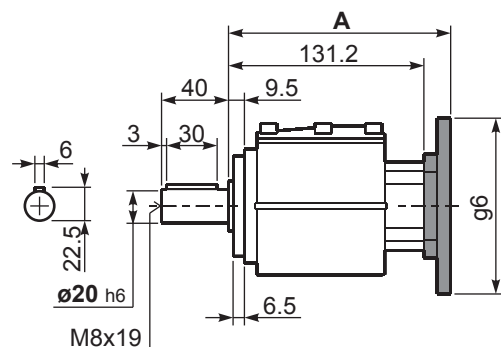
a1 Ø	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013

* Holes position
Posizione fori

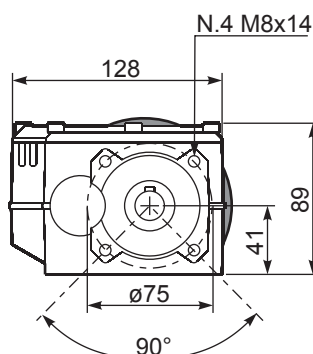


With flange and feet only on request.
Ask for compatibility

P302A-N... Basic gearbox
Riduttore base

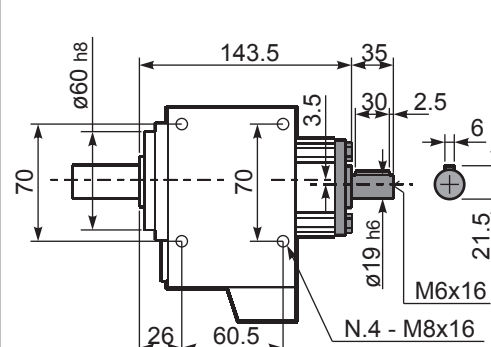


B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	151.7	170	140	155.2	K063.4.041
71 B5	149.7	180	160	153.2	K063.4.042
80/90 B5	151.7	200	200	155.2	K063.4.043



B14 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B14	149.7	152.5	105	153.2	K063.4.047
80 B14	151.7	160	120	155.2	K063.4.046
90 B14	151.7	170	140	155.2	K063.4.041

R302A-N... 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					Available B14 motor flanges				Output Shaft		
							-B	-C	-D	-E	-F	-Q	-R	-T	-U			Ratios code
							63	71	80*	90*	100*	71	80	90	100			
398	3.52	3	68	1.2	3.5	80	B					C	C			2821		01
321	4.37	3	84	1.1	3.1	90	B					C	C			2818		02
252	5.56	3	107	0.9	2.7	100	B					C	C			2813		03
220	6.36	2.2	90	1.2	2.5	105	B					C	C			1921		04
191	7.33	2.2	104	1.2	2.5	120	B					C	C			2812		05
177	7.89	2.2	112	1.2	2.5	130	B					C	C			1918		06
139	10.06	2.2	143	1.2	2.5	165	B					C	C			1913		08
120	11.66	2.2	166	1.0	2.2	165	B					C	C			1713	standard	09
106	13.26	1.5	130	1.3	1.9	165	B					C	C			1912	ø25	10
102	13.68	1.5	134	1.2	1.8	165	B					C	C			1513		25
91	15.37	1.5	151	1.1	1.6	165	B					C	C			1712	ø16	11
86	16.33	1.5	160	1.0	1.5	165	B					C	C			1313	ø19	26
78	18.04	1.5	177	0.9	1.4	165	B					C	C			1512	ø20	23
65	21.54	1.1	154	1.1	1.2	165	B					C	C			1312	ø24	14
63	22.29	1.1	160	1.0	1.1	165	B					C	C			1013	On request	15
53	26.31	0.75	129	1.2	0.90	155	B					C	C			1310		16
47.6	29.40	0.75	144	1.1	0.86	165	B					C	C			1012		17
39	35.91	0.55	130	1.2	0.66	155	B					C	C			1010		18
36.5	38.37	0.55	139	1.2	0.66	165	B					C	C			912		19
29.9	46.87	0.55	170	0.9	0.51	155	B					C	C			910		20
27.6	50.67	0.37	123	1.1	0.41	137	B					C	C			712		21
22.6	61.89	0.37	150	1.0	0.38	155	B					C	C			710		22

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

*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14
* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

Motor Flanges Available
Flange Motore 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 **412A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **412A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **412A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **412A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **412A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
B3	B6	B7	B8	V5	V6	V8	
0.25 LT	0.35 LT	0.40 LT	0.45 LT	0.40 LT	0.50 LT	Ask	
SHELL Omala S4 WE 320				ENI Telium VSF 320			

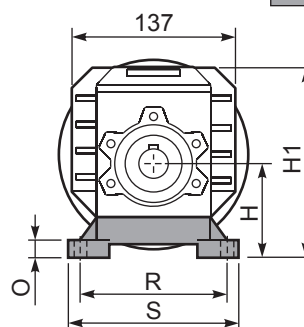
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tab. 1

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita					F _{eq} = F _R · $\frac{46}{X+21}$				
n ₂	FA	FR	n ₂	FA	FR	n ₂	FA	FR	
300	310	1550	140	406	2030	70	540	2700	
250	330	1650	120	448	2240	40	600	3000	
200	360	1800	85	480	2400	15	600	3000	
Input shaft Albero in entrata									
n ₁	FA	FR	n ₁	FA	FR	n ₁	FA	FR	
1400	240	1200	900	280	1400	500	340	1700	

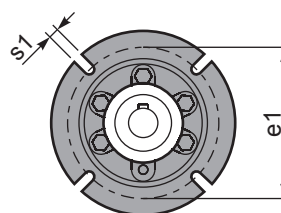
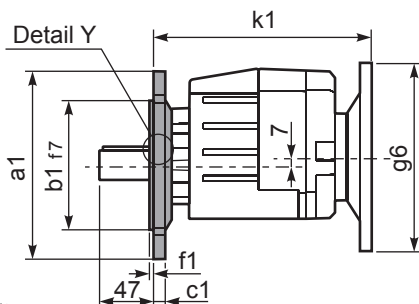
tab. 2

Gearbox weight peso riduttore	With flange	5.7 kg
	With feet	5.9 Kg



Feet Code	Market reference	G	H	R	L	L1	S	H1	O	øI	S2 only with motor flange	B5 max. Flange	kit code	
B1	112	18	85	110	87	50	130	167.5	15	-	8 33	80/90B5 100/112B5	-	KC35.9.021
B2	212/3	18	100	130	107.5	60	155	182.5	17	11	18	100/112B5	-	KC40.9.025
S1	17	18	75	110	90÷110	50	145	155.5	15	9	18 43	80/90B5 100/112B5	-	KC40.9.022
S2	27	25	90	110	130	-	145	172.5	20	9	3 28	80/90B5 100/112B5	-	KC40.9.024
H2	022-223	25	100	110	115	-	145	182.5	20	9	18	100/112B5	-	KC40.9.026
M1	42/3	25	80	110÷120	85	-	145	162.5	15	9	13 38	80/90B5 100/112B5	-	KC40.9.023

 Most popular types
Tipi più diffusi

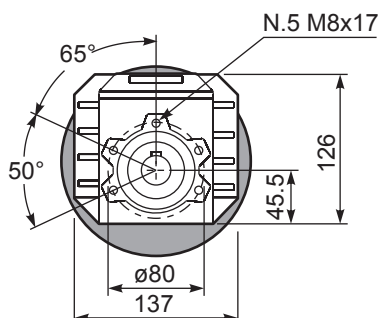
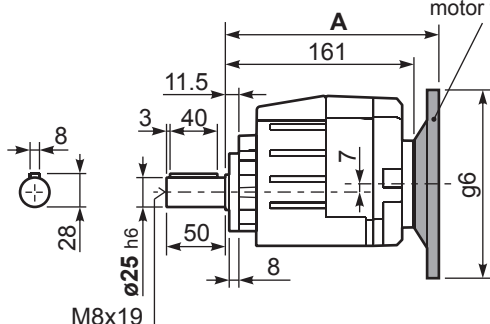


	Shaft - d1	p1	h1	x
Standard	ø 25x50	8	28	M8x19
On request A richiesta	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 20x40	6	22.5	M8x19
	ø 24x50	8	27	M8x19

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	7	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3.5	9	KC40.9.012
200	130	10	165	3.5	11	KC40.9.013
250	180	11.5	215	3.5	14	KC40.9.014

With flange an feet only on request. Ask for compatibility

Suggested B14
motor flanges



Technical drawing of a shaft-hub assembly. The drawing shows a shaft with a diameter of $\varnothing 66$ h8 and a length of 172. The shaft is connected to a hub with a bore diameter of 60. The hub has a total length of 172, with a section of 37 and another of 78. The shaft has a section of 35 and a section of 30. The hub has a section of 2.5 and a section of 6. The shaft is labeled "Input shaft" and "Albero entrata". The hub is labeled "M10x18" and "M6x16". The shaft has a diameter of $\varnothing 19$ h6 at the end. The hub has a diameter of 21.5 at the end.

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	181.5	177	140	185.5	K063.4.041
71 B5	179.5	187	160	183.5	K063.4.042
80/90 B5	181.5	207	200	185.5	K063.4.043
100/112 B5	196.5	232	250	200.5	KC40.4.043

B14 Motor Flanges	A	C_{max}	g6	k1	kit code
71 B14	179.5	159.5	105	183.5	K063.4.047
80 B14	181.5	167	120	185.5	K063.4.046
90 B14	181.5	177	140	185.5	K063.4.041
100/112 B14	196.5	187	160	200.5	KC40.4.041



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code 
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
36.5	38.40	0.37	91	1.8	0.67	165			C	C		171713	02
32.0	43.69	0.37	104	1.6	0.59	165			C	C		191712	03
27.6	50.64	0.37	120	1.4	0.51	165			C	C		171712	04
26.2	53.36	0.37	127	1.3	0.47	160			C	C		191710	05
22.9	61.21	0.37	145	1.2	0.43	170			C	C		191312	06
22.6	61.85	0.37	147	1.1	0.40	160			C	C		171710	07
19.7	70.95	0.37	168	1.0	0.37	170			C	C		131712	08
19.1	73.43	0.37	174	1.0	0.37	175			C	C		101713	09
18.7	74.77	0.37	177	0.9	0.33	160			C	C		191310	10
16.2	86.66	0.25	139	1.2	0.29	160			C	C		131710	11
14.5	96.85	0.25	155	1.1	0.27	170			C	C		101712	12
13.6	102.89	0.25	165	1.1	0.27	175			C	C		101313	13
11.1	126.40	0.18	155	1.1	0.21	170			C	C		91712	17
10.3	135.69	0.18	166	1.0	0.20	170			C	C		101312	15
8.4	165.74	0.12	131	1.2	0.15	160			C	C		101310	16
7.9	177.09	0.12	140	1.2	0.15	170			C	C		91312	18
6.5	216.31	0.09	136	1.2	0.12	160			C	C		91310	19

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

A Motor Flanges Available
Flange Motore Disponibili

B Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **413A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **413A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **413A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

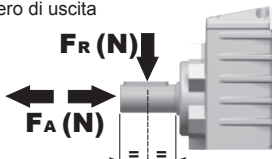
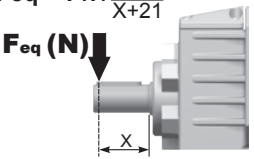
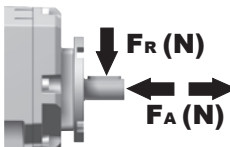
F Le réducteur **413A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **413A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
							
B3	B6	B7	B8	V5	V6	V8	
0.30 LT	0.35 LT	0.45 LT	0.45 LT	0.45 LT	0.55 LT	Ask	
SHELL Omala S4 WE 320				ENI Telium VSF 320			

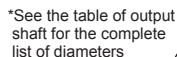
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tab. 1

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita					$F_{eq} = F_R \cdot \frac{46}{X+21}$				
									
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R	
300	310	1550	140	406	2030	70	540	2700	
250	330	1650	120	448	2240	40	600	3000	
200	360	1800	85	480	2400	15	600	3000	
Input shaft Albero in entrata									
n_1	F_A	F_R	n_1	F_A	F_R	n_1	F_A	F_R	
1400	140	700	900	160	800	500	190	950	

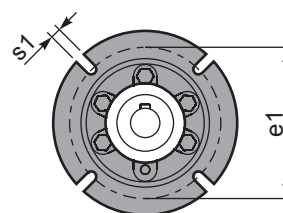
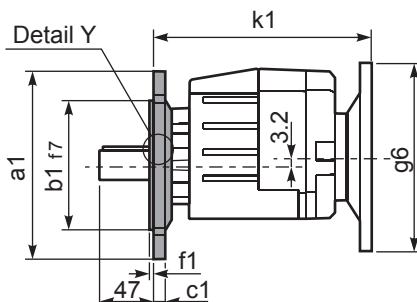
tab. 2

Gearbox weight peso riduttore	With flange	6.1 kg
	With feet	6.3 Kg



Feet Code	Market reference	G	H	R	L	L1	S	H1	O	øI	S2 only with motor flange	B5 max. Flange	kit code
B1	112	18	85	110	87	50	130	167.5	15	-	-	-	KC35.9.021
B2	212/3	18	100	130	107.5	60	155	182.5	17	11	-	-	KC40.9.025
S1	17	18	75	110	90÷110	50	145	155.5	15	9	2 80/90B5	-	KC40.9.022
S2	27	25	90	110	130	-	145	172.5	20	9	-	-	KC40.9.024
H2	022-223	25	100	110	115	-	145	182.5	20	9	-	-	KC40.9.026
M1	42/3	25	80	110÷120	85	-	145	162.5	15	9	-	-	KC40.9.023

 Most popular types
Tipi più diffusi

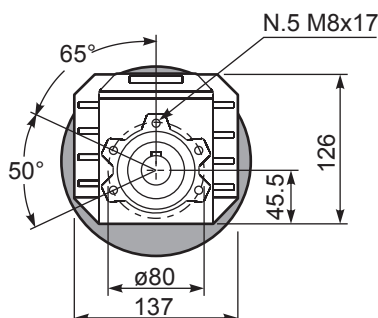
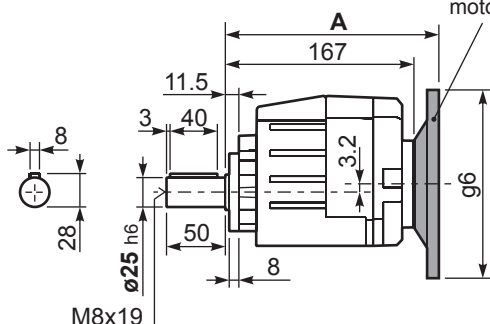


	Shaft - d1	p1	h1	x
Standard	ø 25x50	8	28	M8x19
On request A richiesta	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 20x40	6	22.5	M8x19
	ø 24x50	8	27	M8x19

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	7	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3.5	9	KC40.9.012
200	130	10	165	3.5	11	KC40.9.013
250	180	11.5	215	3.5	14	KC40.9.014

With flange and feet only on request. Ask for compatibility

Suggested B14
motor flanges



Technical drawing of a shaft-hub assembly. The drawing shows a side view of the assembly with the following dimensions and labels:

- Input shaft / Albero entrata:** The shaft on the right, with a diameter of $\varnothing 14$ h6.
- M10x18:** A screw or bolt on the left side of the hub.
- 60:** The inner diameter of the hub.
- 177:** The total length of the assembly.
- 25:** The length of the input shaft.
- 20:** The length of the hub.
- 2.5:** The thickness of the input shaft's end flange.
- 5:** The radius of the input shaft's end flange.
- 16:** The radius of the input shaft's end flange.
- M5x13:** A screw or bolt on the right side of the hub.
- 37:** The distance from the left end of the assembly to the center of the input shaft.
- 78:** The distance from the center of the input shaft to the right end of the assembly.

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	185.5	173.2	140	189.5	K050.4.041
71 B5	183	183.2	160	187	K050.4.042

B14 Motor Flanges	A	C_{max}	g6	k1	kit code
56 B14	183	143.2	80	187	KC40.4.049
63 B14	185.5	148.2	90	189.5	K050.4.047
71 B14	183	155.7	105	187	K050.4.045



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft		
							-C	-D	-E	-F	-G	-R	-T	-U	-V			Ratios code
							71	80	90	100	112	132	80	90	100	112		
388	3.61	4	93	1.6	6.3	150	B									3018		01
331	4.23	4	108	1.6	6.1	170	B									3016		02
279	5.01	4	129	1.6	6.1	200	B									3014		03
231	6.07	4	156	1.6	6.3	250	B									3012		04
206	6.81	4	175	1.6	6.2	277	B									2018		05
176	7.96	4	204	1.5	5.8	300	B									2016	standard ø30	06
148	9.45	4	242	1.3	4.9	304	B									2014		07
122	11.43	4	293	1.0	4.0	300	B									2012		08
99	14.21	3	274	1.0	2.8	265	B									2010	ø24	09
84	16.62	3	321	0.9	2.8	304	B									1314		10
70	20.10	2.2	286	1.0	2.3	300	B									1312		11
56	24.98	1.85	302	0.9	1.6	265	B									1310	ø35	12
47.6	29.41	1.5	288	1.1	1.6	304	B									814	On request	13
39.3	35.58	1.5	349	0.9	1.3	300	B									812		14
34.6	40.50	1.1	290	1.0	1.1	290	B									614		15
31.7	44.23	1.1	316	0.8	0.92	265	B									810		16
28.6	49.00	0.75	240	1.2	0.93	300	B									612		17
23.0	60.90	0.75	299	0.9	0.66	265	B									610		18

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

*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14

* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **452A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **452A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **452A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **452A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **452A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil					
B3	B6	B7	B8	V5	V6	V8
0.31 LT	0.31 LT	0.31 LT	0.31 LT	0.31 LT	0.31 LT	Ask
SHELL Omala S4 WE 320			AGIP Telium VSF 320			

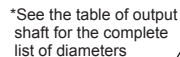
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tab. 1

RADIAL AND AXIAL LOADS		
Output shaft / Albero di uscita		
		$Feq = FR \cdot \frac{51}{X+21}$
FR (N)	FA (N)	
Feq (N)		
n_2	FA	FR
300	415	2070
250	430	2160
200	470	2340
n_2	FA	FR
140	540	2700
120	560	2790
85	630	3150
n_2	FA	FR
70	700	3510
40	810	4050
15	900	4500
Input shaft / Albero in entrata		
FR (N)	FA (N)	
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

Gearbox weight peso riduttore	With flange	8.7 kg
	With feet	8.9 Kg



Feet Code	Market reference	G	H	R	L	S	H1	O	Øl	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	173	20	11	15 100/112B5 40 132B5	-	KC50.9.024
B4	30/35	20	130	180	149.5	216	193	18	14	20 132B5	-	KC60.9.024
S4	47-57	30	115	135	165	170	178	24	13.5	-	80/90B5	KC50.9.022
H3	023-233	30	130	135	135	185	193	25	14	20 132B5	-	KC50.9.025
M2	52/3	30	110	135-150	100	190	173	18	11	15 100/112B5 40 132B5	-	KC50.9.023

 Most popular types
Tipi più diffusi

	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x60	8	31	M8x19
	ø 35x60	10	38	M10x22

a1 Ø	b1	c1	e1	f1	s1	kit code	 With flange and feet only on request. Ask for compatibility
160	110	14	130	3.5	11	KC50.9.011	
200	130	13	165	3.5	11	KC50.9.012	
250	180	15.5	215	4	14	KC50.9.013	

B5 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
71 B5	195.7	222	160	198.2	K023.4.041	204.2
80/90 B5	197.7	242	200	200.2	K023.4.042	206.2
100/112 B5	206.7	267	250	209.2	K023.4.043	215.2
132 B5	227.7	292	300	227.2	KC51.4.043	233.2



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Output Shaft 	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	80	90	100	112			
388	3.61	5.5	127	1.2	6.6	155	B									3018		01
331	4.23	5.5	148	1.2	6.5	180	B									3016		02
279	5.01	5.5	176	1.2	6.4	210	B									3014		03
231	6.07	5.5	213	1.2	6.4	255	B									3012		04
206	6.81	5.5	239	1.3	6.7	300	B									2018		05
176	7.96	5.5	279	1.2	6.4	335	B									2016		07
148	9.45	5.5	331	1.1	5.8	360	B									2014	standard	08
122	11.43	4	293	1.1	4.4	330	B									2012	ø30	09
100	14.00	3	270	1.3	3.9	360	B									1316		21
84	16.62	3	321	1.1	3.3	360	B									1314	ø24	11
70	20.10	2.2	286	1.2	2.5	330	B									1312	ø25	12
57	24.61	2.2	350	0.9	2.0	330	B									1112	ø28	20
47.6	29.41	1.5	288	1.2	1.9	360	B									814	ø35	14
39.3	35.58	1.5	349	0.9	1.4	330	B									812	On request	15
34.6	40.50	1.1	290	1.1	1.2	320	B									614		16
31.7	44.23	1.1	316	0.8	0.88	255	B									810		17
28.6	49.00	1.1	351	0.9	1.0	330	B									612		18
23.0	60.90	0.75	299	0.8	0.64	255	B									610		19

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

*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14

* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **512A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **512A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **512A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **512A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **512A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
0.70 LT	0.80 LT	1.15 LT	1.20 LT	1.15 LT	1.25 LT	Ask

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

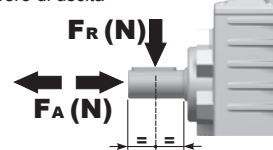
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

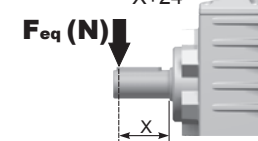
RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



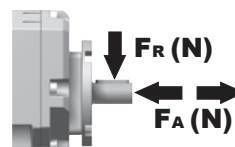
$$F_{eq} = F_R \cdot \frac{54}{X+24}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	460	2300	140	600	3000	70	780	3900
250	480	2400	120	620	3100	40	900	4500
200	520	2600	85	700	3500	15	1000	5000

Input shaft

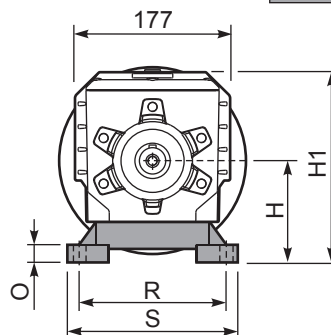
Albero in entrata



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

tab. 2

Gearbox weight	With flange 11.7 kg
peso riduttore	With feet 11.9 Kg



Feet Code	Market reference	G	H	R	L	S	H1	O	Øl	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	211	20	11	10 100/112B5 35 132B5	-	KC50.9.024
B4	30/35	20	130	180	149.5	216	231	18	14	15 132B5	-	KC60.9.024
S4	47-57	30	115	135	165	170	216	25	14	5 100/112B5 30 132B5	-	KC50.9.022
H3	023-233	30	130	135	135	185	231	25	14	15 132B5	-	KC50.9.025
M2	52/3	30	110	135-150	100	190	211	18	11	10 100/112B5 35 132B5	-	KC50.9.023

 Most popular types
Tipi più diffusi

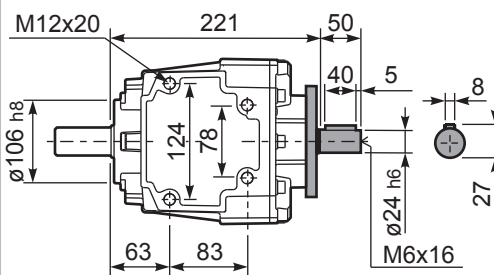
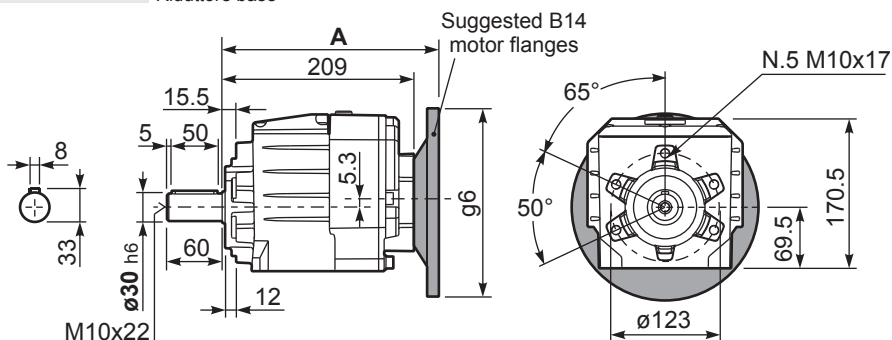
Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x60	8	31	M8x19
	ø 35x60	10	38	M10x22

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request. Ask for compatibility

R512A-N... Input Shaft
Albero in entrata



B5 Motor Flanges	A	C_{max}	g6	k1	kit code	k1 with KC50.9.011	B14 Motor Flanges	A	C_{max}	g6	k1	kit code	k1 with KC50.9.011
71 B5	227.5	215.3	160	230	K023.4.041	236	80 B14	229.5	195.3	120	232	K085.4.046	238
80/90 B5	229.5	235.3	200	232	K023.4.042	238	90 B14	229.5	205.3	140	232	K085.4.045	238
100/112 B5	238.5	260.3	250	241	K023.4.043	247	100/112 B14	238.5	215.3	160	241	K085.4.047	247
132 B5	259.5	285.3	300	259	KC51.4.043	265	132 B14	259.5	235.3	200	259	KC51.4.041	265



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
35.2	39.79	1.5	382	0.9	1.4	360	B				C	C		191316	01
29.6	47.22	1.1	331	1.1	1.2	360	B				C	C		191314	02
25.6	54.73	1.1	384	0.9	1.0	360	B				C	C		171314	03
21.1	66.22	0.75	318	1.0	0.78	330	B				C	C		171312	04
18.3	76.69	0.75	369	1.0	0.73	360	B				C	C		131314	05
16.7	83.59	0.55	297	1.2	0.67	360	B				C	C		190814	06
15.1	92.78	0.55	329	1.0	0.55	330	B				C	C		131312	07
13.4	104.68	0.55	371	1.0	0.54	360	B				C	C		101314	08
11.9	117.22	0.37	278	1.2	0.44	330	B				C	C		170812	09
11.1	126.65	0.37	300	1.1	0.41	330	B				C	C		101312	10
10.2	136.62	0.37	324	1.1	0.41	360	B				C	C		91314	11
8.5	165.29	0.25	264	1.2	0.31	330	B				C	C		91312	12
7.8	180.40	0.25	289	1.2	0.31	360	B				C	C		71314	13
6.4	218.26	0.25	349	0.9	0.24	330	B				C	C		71312	14
5.8	241.82	0.25	387	0.9	0.23	360	B				C	C		90814	15
4.8	292.57	0.18	358	0.9	0.18	330	B				C	C		90812	16
4.4	319.32	0.18	391	0.9	0.18	360	B				C	C		70814	17
3.6	386.33	0.12	305	1.1	0.13	330	B				C	C		70812	18
2.9	480.16	0.12	380	0.7	0.08	255	B				C	C		70810	19

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **513A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **513A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **513A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

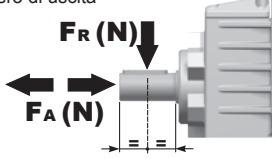
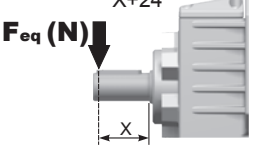
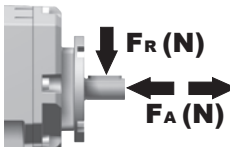
F Le réducteur **513A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **513A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
							
B3	B6	B7	B8	V5	V6	V8	
1.00 LT	0.90 LT	1.25 LT	1.15 LT	1.45 LT	1.40 LT	Ask	
SHELL Omala S4 WE 320				ENI Telium VSF 320			

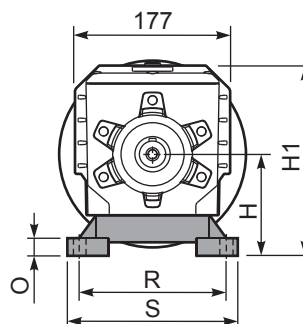
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita					$F_{eq} = F_R \cdot \frac{54}{X+24}$				
									
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR	
300	460	2300	140	600	3000	70	780	3900	
250	480	2400	120	620	3100	40	900	4500	
200	520	2600	85	700	3500	15	1000	5000	
Input shaft Albero in entrata									
n_1	FA	FR	n_1	FA	FR	n_1	FA	FR	
1400	400	2000	900	440	2200	500	440	2200	

tab. 2

Gearbox weight	With flange 11.9 kg
peso riduttore	With feet 12.1 Kg



Feet Code	Market reference	G	H	R	L	S	H1	O	øI	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	211	20	11	-	-	KC50.9.024
B4	30/35	20	130	180	149.5	216	231	18	14	-	-	KC60.9.024
S4	47-57	30	115	135	165	170	216	25	14	-	-	KC50.9.022
H3	023-233	30	130	135	135	185	231	25	14	-	-	KC50.9.025
M2	52/3	30	110	135+150	100	190	211	18	11	-	-	KC50.9.023

 Most popular types
Tipi più diffusi

flange di uscita

8.5 with KC50.9.011

2.5

h1

d1

p1

x

Detail Y

k1

g6

15

a1

b1

f1

c1

57.5

51.5 with KC50.9.011

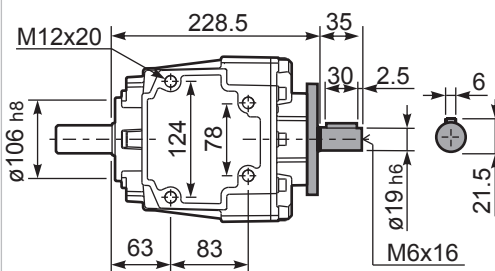
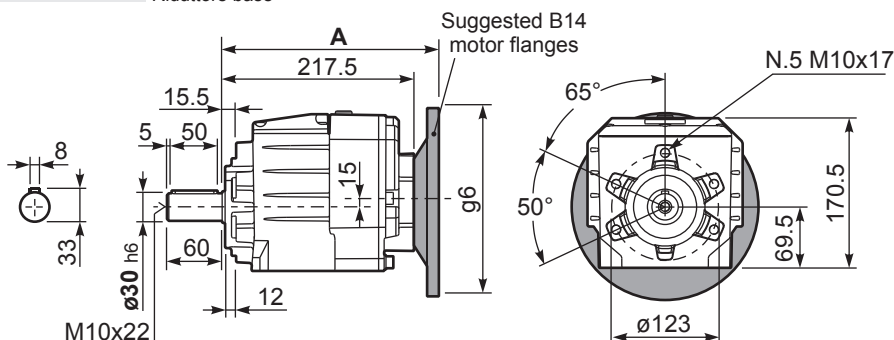
Available output shaft / **Albero di uscita**

	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x60	8	31	M8x19
	ø 35x60	10	38	M10x22

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request. Ask for compatibility

R513A-N... Input Shaft
Albero in entrata



B5 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
63 B5	238	215	140	240.5	K063.4.041	246.5
71 B5	236	225	160	238.5	K063.4.042	244.5
80/90 B5	238	245	200	240.5	K063.4.043	246.5

B14 Motor Flanges	A	C_{max}	g6	k1	kit code	k1 with KC50.9.011
71 B14	236	197.5	105	238.5	K063.4.047	244.5
80 B14	238	205	120	240.5	K063.4.046	246.5
90 B14	238	215	140	240.5	K063.4.041	246.5



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft		
							-C	-D	-E	-F	-G	-R	-T	-U	-V			Ratios code
							71	80	90	100	112	132	80	90	100	112		
388	3.61	7.5	171	1.1	8.0	190	B									3018		01
331	4.23	7.5	200	1.1	8.3	230	B									3016		02
279	5.01	7.5	238	1.1	7.9	260	B									3014		03
231	6.07	7.5	288	1.1	7.8	310	B									3012		04
206	6.81	7.5	323	1.1	7.9	350	B									2018		05
176	7.96	7.5	378	1.0	7.1	370	B									2016		07
148	9.45	5.5	331	1.2	6.6	410	B									2014	standard	08
122	11.43	5.5	401	1.1	5.7	425	B									2012	ø35	09
100	14.00	4	359	1.2	4.7	435	B									1316		10
84	16.62	4	426	1.2	4.7	515	B									1314	ø28	11
70	20.10	4	515	1.0	4.0	530	B									1312	ø30	12
57	24.61	3	475	1.1	3.3	530	B									1112	ø38	20
47.6	29.41	2.2	418	1.1	2.3	450	B									814	ø40	14
39.3	35.58	2.2	506	1.0	2.3	530	B									812	On request	15
34.6	40.50	1.1	290	1.1	1.2	320	B									614		16
31.7	44.23	1.5	433	0.9	1.4	410	B									810		17
28.6	49.00	1.1	351	1.1	1.2	400	B									612		18
23.0	60.90	1.1	436	0.9	1.0	410	B									610		19

The dynamic efficiency is **0.96** for all ratios

*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14
* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

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 **612A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **612A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **612A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **612A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **612A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.80 LT	1.00 LT	1.20 LT	1.20 LT	1.30 LT	1.35 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

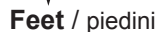
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita					$F_{eq} = F_R \cdot \frac{60.5}{X+25.5}$				
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR	
300	560	2800	140	740	3700	70	890	4200	
250	600	3000	120	760	3800	40	1160	5800	
200	640	3200	85	840	4000	15	1300	6500	
Input shaft Albero in entrata									
n_1	FA	FR	n_1	FA	FR	n_1	FA	FR	
1400	450	2250	900	500	2500	500	600	3000	

tab. 2

Gearbox weight peso riduttore	With flange	14.1 kg
	With feet	14.5 kg



Feet Code	Market reference	G	H	R	L	S	H1	O	Øl	S2 only with motor flange	B5 max. Flange	kit code
B4	412/3	20	130	180	149.5	216	242	18	14	-	-	KC60.9.024
S4	47-57	30	115	135	165	170	227	25	14	13 132B5	-	KC50.9.022
M3	62/3	35	120	170+185	110	230	232	20	14	8 132B5	-	KC60.9.023
S7	77	35	140	170	205	204	252	8	14	-	-	KC60.9.029LM
H4	024-243	35	155	170	150	225	267	30	14	-	-	KC60.9.025

 Most popular types
Tipi più diffusi

Technical drawing of the output shaft assembly. The drawing includes a front view on the left showing a circular shaft with a central hole, dimensions $p1$ and x , and a circular detail callout labeled "Detail Y". The detail callout shows a cross-section of the shaft with dimensions $h1$, $d1$, and 2.5 . The main shaft has a diameter of 8.5 with KC50.9.011. The side view on the right shows the shaft with dimensions $a1$, $b1$, $f7$, $f1$, $c1$, 67.5 , 61.5 with KC50.9.011, 16.3 , 96 , and $R1$. The shaft is labeled "Available output shaft / Albero di uscita".

***Available output shaft** / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 35x70	10	38	M10x22
On request A richiesta	ø 28x60	8	31	M8x20
	ø 30x60	8	33	M10x22
	ø 38x70	10	41	M10x25
	ø 40x80	12	43	M12x28

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request. Ask for compatibility

With flange and feet
only on request.
Ask for compatibility

B14

Riduttore base

Suggested B14 motor flanges

N.5 M10x17

65°

50°

181.5

69.5

Ø123

A

219

15.5

5

60

163

11

70

12.5

96

Ø35 h6

M10x22

10

38

[illegible]

B5 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011	B14 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
71 B5	237.5	251.3	160	240	K023.4.041	246	80 B14	239.5	231.3	120	242	K085.4.046	248
80/90 B5	239.5	271.3	200	242	K023.4.042	248	90 B14	239.5	241.3	140	242	K085.4.045	248
100/112 B5	248.5	296.3	250	251	K023.4.043	257	100/112 B14	248.5	251.3	160	251	K085.4.047	257
132 B5	269.5	321.3	300	269	KC51.4.043	275	132 B14	269.5	271.3	200	269	KC51.4.041	275



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Output Shaft 	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
35.2	39.79	1.5	382	1.1	1.7	434	B				C	C		191316		05
29.6	47.22	1.5	453	1.1	1.7	515	B				C	C		191314		06
25.6	54.73	1.5	525	1.0	1.5	515	B				C	C		171314		07
24.5	57.13	1.5	548	1.0	1.4	530	B				C	C		191312		08
21.1	66.22	1.1	464	1.1	1.2	530	B				C	C		171312		09
19.7	71.01	1.1	498	0.9	0.96	435	B				C	C		191310		10
18.3	76.69	1.1	538	1.0	1.0	515	B				C	C		131314		11
17.0	82.30	0.75	396	1.1	0.82	435	B				C	C		171310		12
16.7	83.59	0.75	402	1.1	0.82	440	B				C	C		190814		13
15.1	92.78	0.75	446	1.2	0.89	530	B				C	C		131312		14
13.4	104.68	0.75	503	1.0	0.77	515	B				C	C		101314		15
11.9	117.22	0.75	564	0.9	0.71	530	B				C	C		170812	ø28	16
11.1	126.65	0.55	449	1.2	0.65	530	B				C	C		101312	ø30	17
10.3	135.74	0.55	482	0.9	0.51	440	B				C	C		130814	ø38	18
9.6	145.68	0.37	346	1.3	0.47	435	B				C	C		170810	ø40	19
8.9	157.40	0.37	373	1.2	0.43	435	B				C	C		101310	On request	20
8.5	165.29	0.37	392	1.3	0.50	525	B				C	C		91312		21
7.6	185.29	0.37	439	1.0	0.37	440	B				C	C		100814		22
6.8	205.43	0.37	487	0.9	0.33	435	B				C	C		91310		23
6.2	224.18	0.37	532	1.0	0.37	530	B				C	C		100812		24
5.8	241.82	0.25	387	1.1	0.28	440	B				C	C		90814		25
5.0	278.62	0.25	446	1.0	0.24	435	B				C	C		100810		26
4.8	292.57	0.25	468	1.1	0.28	530	B				C	C		90812		27
3.9	363.63	0.18	445	1.0	0.19	435	B				C	C		90810		28

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **613A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **613A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **613A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **613A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **613A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
1.05 LT	1.10 LT	1.25 LT	1.25 LT	1.35 LT	1.50 LT	Ask

SHELL Omala S4 WE 320

ENI Telium VSF 320

For all details on lubrication and plugs check our website

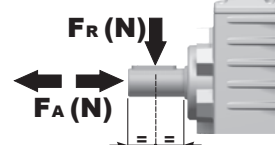
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

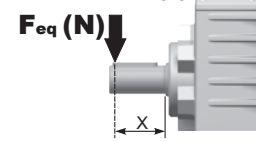
RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



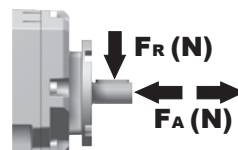
$$F_{eq} = F_R \cdot \frac{60.5}{X+25.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	560	2800	140	740	3700	70	890	4200
250	600	3000	120	760	3800	40	1160	5800
200	640	3200	85	840	4000	15	1300	6500

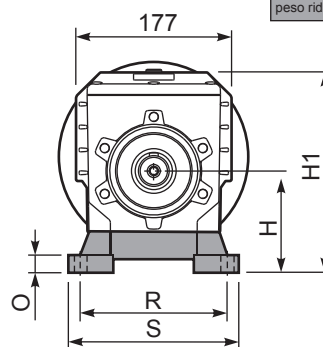
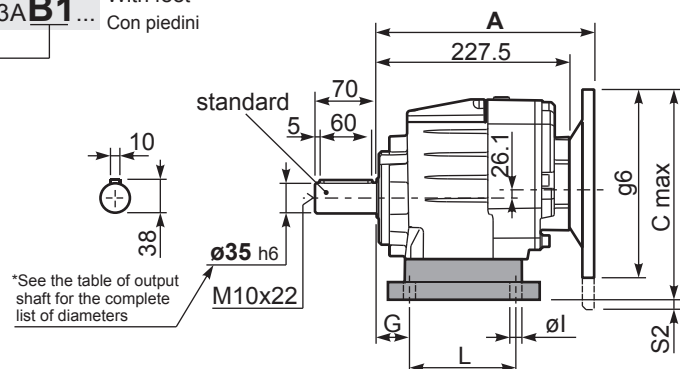
Input shaft

Albero in entrata



n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

P613A-B1... With feet
Con piediniGearbox weight
peso riduttore With flange 14.3 kg
With feet 14.7 Kg

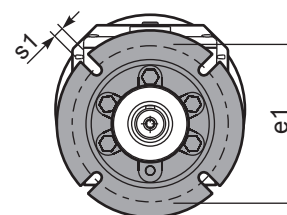
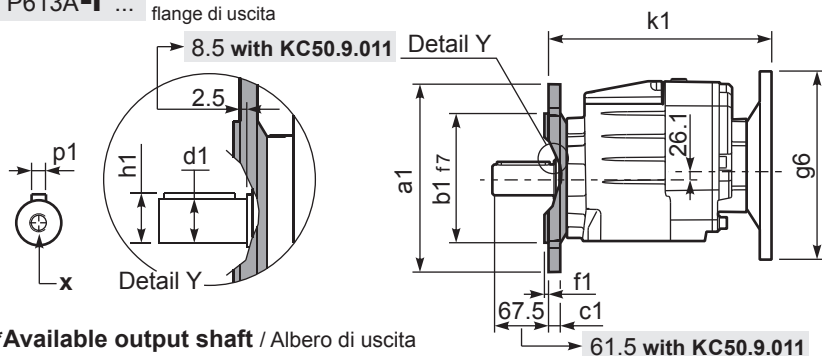
Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øl	S2 only with motor flange	B5 max. Flange	kit code
B4	412/3	20	130	180	149.5	216	242	18	14	-	-	KC60.9.024
S4	47-57	30	115	135	165	170	227	25	14	13 132B5	-	KC50.9.022
M3	62/3	35	120	170-185	110	230	232	20	14	8 132B5	-	KC60.9.023
S7	77	35	140	170	205	204	252	8	14	-	-	KC60.9.029LM
H4	024-243	35	155	170	150	225	267	30	14	-	-	KC60.9.025

Other feet are available, see our web site
Sono disponibili altri piedini, consulta il nostro sito web

A see on page bottom

Most popular types
Tipi più diffusi

P613A-F... Output flanges
flange di uscita

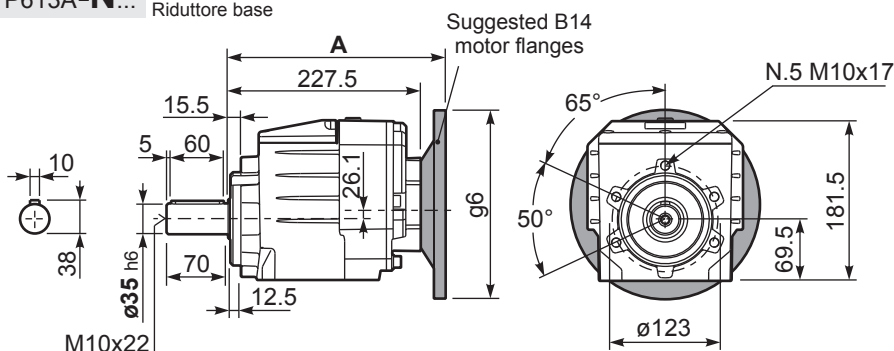
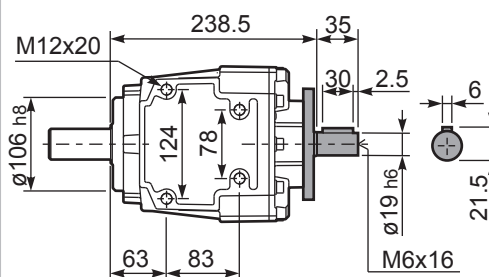
*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 35x70	10	38	M10x22
On request A richiesta	ø 28x60	8	31	M8x20
	ø 30x60	8	33	M10x22
	ø 38x70	10	41	M10x25
	ø 40x80	12	43	M12x28

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request.
Ask for compatibility

P613A-N... Basic gearbox
Riduttore baseR613A-N... Input Shaft
Albero in entrata

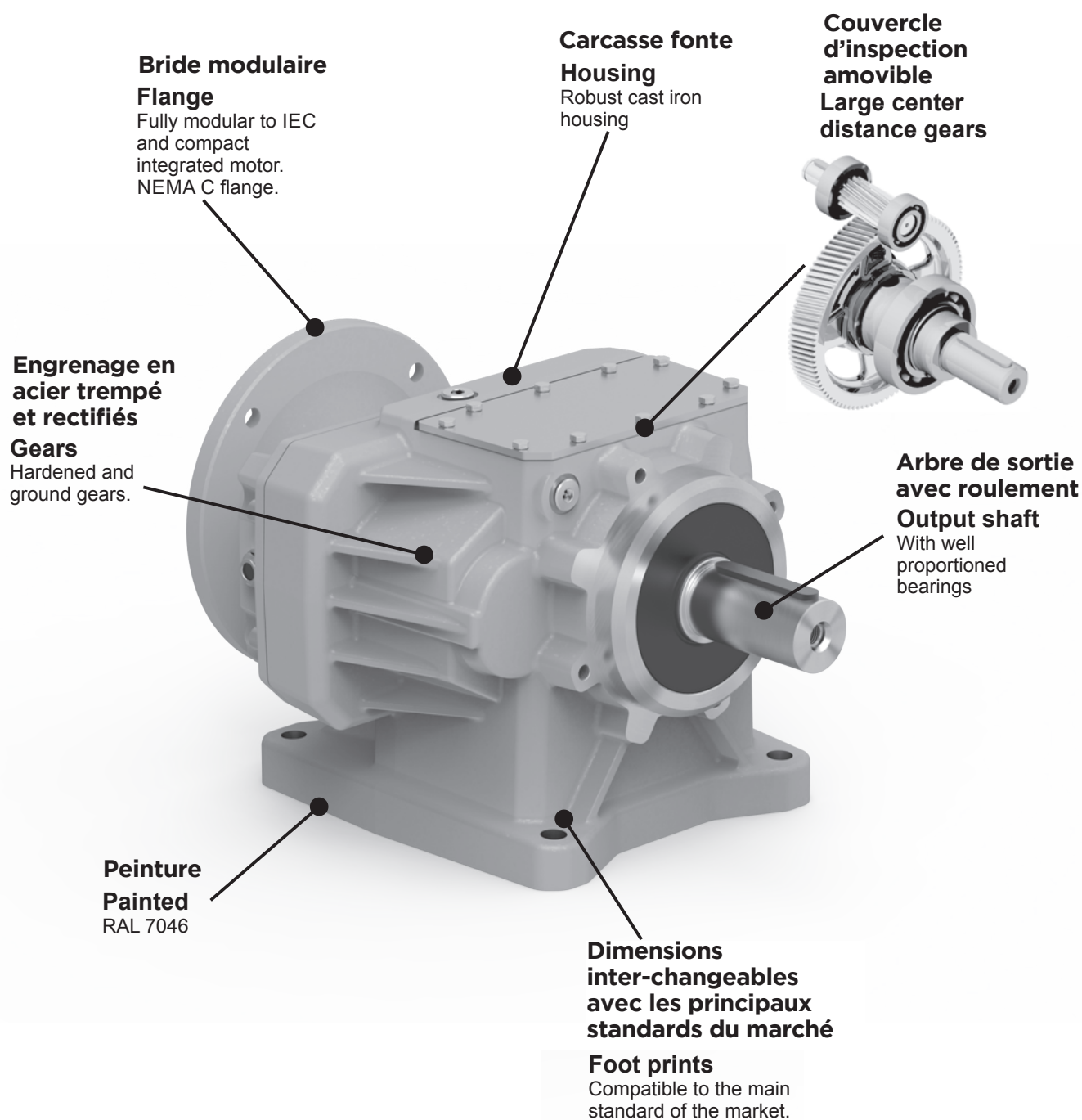
B5 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
63 B5	248	251.1	140	250.5	K063.4.041	256.5
71 B5	246	261.1	160	248.5	K063.4.042	254.5
80/90 B5	248	281.1	200	250.5	K063.4.043	256.5

B14 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
71 B14	246	233.6	105	248.5	K063.4.047	254.5
80 B14	248	241.1	120	250.5	K063.4.046	256.5
90 B14	248	251.1	140	250.5	K063.4.041	256.5

Réducteurs coaxiaux en fonte

Cast iron in line gearboxes

Un produit compact et modulaire
A modular and compact product

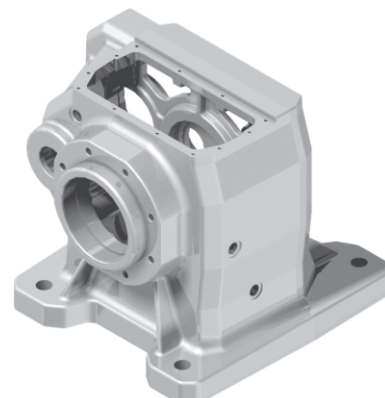


World wide sales network.

Carcasse fonte en une seule pièce légère et robuste

Single-piece Cast Iron housing

with high tensile strength.
Precision machined for alignment of bearings and gearing

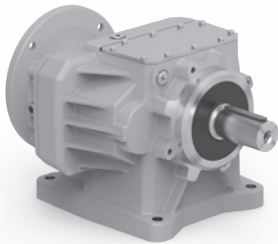


Fiche technique spécifique en page

Specific type datasheet on page

On page / A pagina / Auf Seite / À la page / En la página

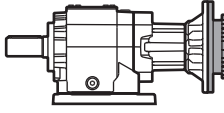
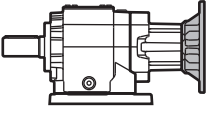
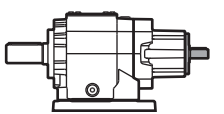
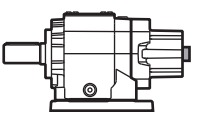
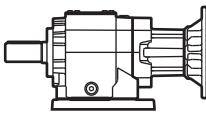
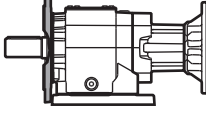
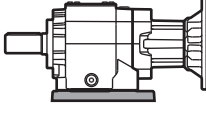
2 and 3 Stages



Types / Tipi
Tipen / Types
Tipos



6-5	6-7	6-9	6-11	6-13	6-15	6-17	6-19	6-21	6-23
712C 675Nm	713C 675Nm	812C 900Nm	813C 900Nm	862C 1600Nm	863C 1800Nm	1002 2900Nm	1003 3000Nm	1102 4500Nm	1103 4600Nm

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Grösse Taille - Tamaño	Mounting - Montaggio Montage - Fixation Tipo de montaje	Ratio - Rapporto Untersetzung Reduction Relación
P	712C	-F	6.57
Cast iron coaxial gear boxes Riduttori coassiali in Ghisa  With IEC motor M  With motor flange P  With male input shaft R  Modular base B Not available for: 862C, 1002, 1102, 1003, 1103.	2 Stages Riduzioni Stufen Trains Etapas 712C 812C 862C 1002 1102 3 Stages Riduzioni Stufen Trains Etapas 713C 813C 863C 1003 1103	 Without flange / feet -N  Output flange mounted -F  Mounted feet B..	See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir Tableau données techniques Ver tabla datos técnicos

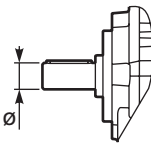
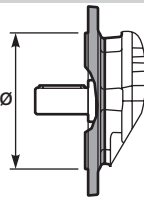
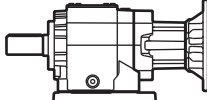
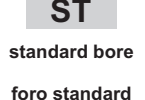
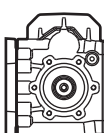
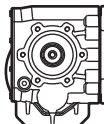
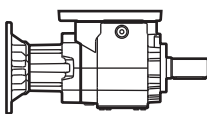
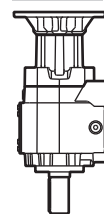
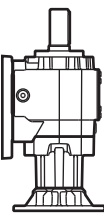
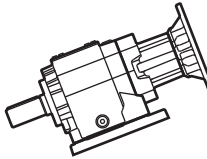
Feet / piedini

Feet Code	Market reference	G	H	R	L
B1	112	18	85	110	
B2	212/3	18	100	130	
S4	17	18	75	110	
S2	27	25	90		
M1	42/3	25	80		
L4	04	13	80		
L5	05	16	100		

You see feet code in the chart of the dimensions
Vedi codice piede nella tabella delle dimensioni



On request we can deliver our products according to the ATEX
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern
Sur demande nos produits peuvent se conformer à la réglementation ATEX
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Position de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Terminal box position Posizione morsettiera Klemmkastenlage Position boîte à bornes Posición caja de bornes
I	4	-F	B3	ST	
					
→ STANDARD	→ STANDARD			ST standard bore foro standard	With Type M specify terminal box position Con tipo M specificare posizione morsettiera
712C 713C	712C 713C	B5	B3		
I → ø35 L → ø38	4 → ø200 5 → ø250	-A=56 (ø120) -B=63 (ø140) -C=71 (ø160) -D=80 (ø200) -E=90 (ø200) -F=100+112 (ø250) -G=132 (ø300) -H=160 (ø350) -I=180 (ø350) -L=200 (ø400) CA=225 (ø450)	713C 813C -2 → ø19 712C 812C 863C -3 → ø24 862C 1003 1103 -4 → ø28 1002 1102 -6 → ø42		
812C 813C	812C 813C		STANDARD		
M → ø40 N → ø45	5 → ø250 6 → ø300				
862C 863C	862C 863C		B6		A
P → ø50 J → ø60	6 → ø300 7 → ø350				
1002 1003	1002 1003		B7		B
J → ø60	6 → ø300 7 → ø350 8 → ø450				STANDARD
1102 1103	1102 1103		B8		
A → ø70	7 → ø350 8 → ø450				
			V5		
					
			V6		
					
			V8		

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

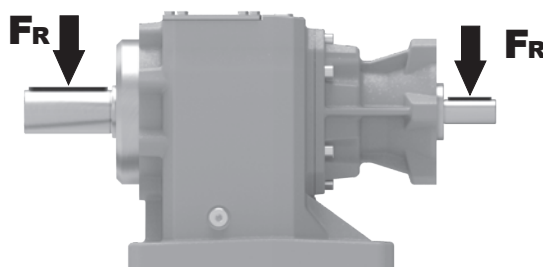
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P [KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P [HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



	$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$	$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$
M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
f_k	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe
Comment sélectionner un réducteur / Cómo seleccionar un reductor

B Output speed
Velocità in uscita
Abtriebsdrehzahl
Vitesse de sortie
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Puissance nominale
Potencia nominal

A Nominal torque
Momento torcente nominale
Nenn Drehmoment
Couple nominal
Par de torsión nominal

Flange code
Codice flangia
Flanschtype
Code bride
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Vitesse en entrée
Velocidad de entrada

Gear size
Grandezza riduttore
Getriebegröße
Taille réducteur
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Puissance moteur
Potencia motor

712C

Coaxial - Gear
675Nm

Rating - Cast Iron **COAXIAL 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				Available B14 motor flanges				Output Shaft	Notes
							-D	-E	-F	-G	-R	-T	-U	-V		
364.3	3.84	9	227	1.5	13.91	350	80	90	100	132	80	90	100	132	3317	01
257.5	5.44	9	321	1.1	10.11	360									3313	02
233.3	6.00	9	354	1.1	9.67	380									3312	03
187.5	7.47	9	440	1.0	8.59	420									3310	04
165.1	8.48	9	500	1.0	8.64	480									2513	05

C Ratio
Rapporto
Untersetzung
Rapport de réduction
Relación

Transmitted torque
Momento torcente trasmesso
Mögliche Drehmomente
Couple de sortie
Par transmitido

Service factor
Fattore di servizio
Betriebsfaktor
Facteur de service
Factor de servicio

Output shaft diam.
Diam. albero uscita
Durchmesser abtriebswelle
Diametre arbre lent
Diametro eje de salida

Notes
Note
Anmerkungen
Note
Notas

fs		Oper. hours per day Ore di funz. giorn.		
Type of load and starts per hour Tipo di carico e avviamenti per ora		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

D	Motor flange available Flange disponibili Erhältliche Motorflansche Bridas disponibles Bridas disponibles
B)	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción
C)	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor
B)	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft 	Output Shaft 	Ratios code 
							-D	-E	-F	-G	-R	-T	-U	-V			
							80	90	100 112	132	80	90	100 112	132			
364.3	3.84	9	227	1.5	13.91	350									3317		01
257.5	5.44	9	321	1.1	10.11	360									3313		02
233.3	6.00	9	354	1.1	9.67	380									3312		03
187.5	7.47	9	440	1.0	8.59	420									3310		04
165.1	8.48	9	500	1.0	8.64	480									2513		05
149.6	9.36	7.5	444	1.1	8.16	500									2512	standard ø35	06
120.2	11.65	7.5	553	1.1	8.00	610									2510		07
97.3	14.39	5.5	504	1.2	6.69	630									1713		08
88.1	15.88	5.5	557	1.2	6.35	660									1712	ø38 On request	09
70.8	19.76	5.5	693	1.0	5.22	675									1710		10
63.4	22.08	4	566	1.2	4.67	675									1213		11
57.4	24.38	4	625	1.1	4.23	675									1212		12
46.2	30.33	3	586	1.2	3.40	675									1210		13
41.2	34.00	3	656	1.0	3.03	675									912		14
36.1	38.81	2.2	552	1.2	2.66	675									812		15
33.1	42.31	2.2	601	1.1	2.44	675									910		16
29.0	48.30	2.2	687	1.0	2.13	675									810		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

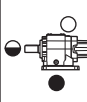
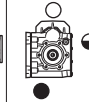
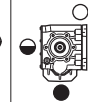
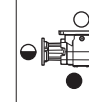
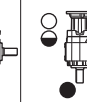
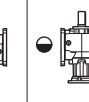
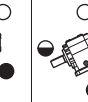
EN Unit **712C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **712C** 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 **712C** 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 **712C** 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 **712C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

						
B3	B6	B7	B8	V5	V6	V8
1.50 LT	2.30 LT	1.90 LT	1.70 LT	2.60 LT	2.00 LT	Ask
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

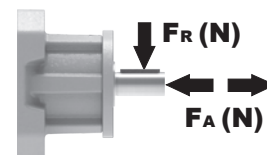
RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{78}{X+38}$$

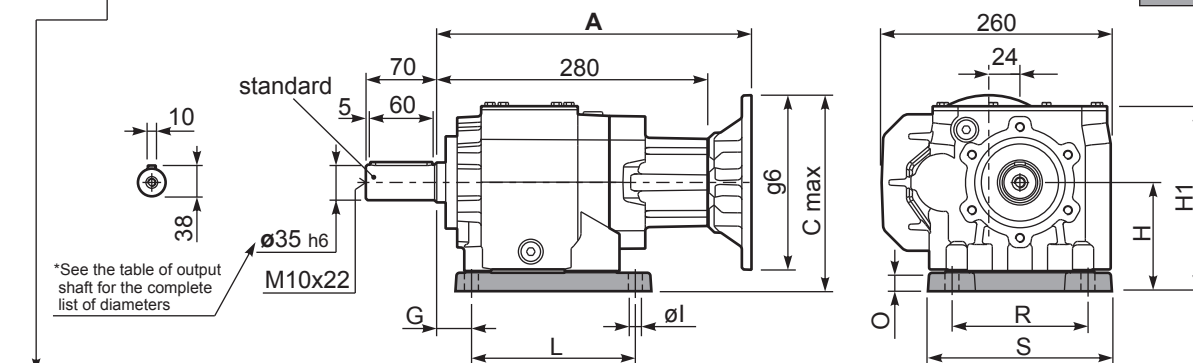


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	680	3400	140	960	4800	70	1300	6500
250	760	3800	120	1040	5200	40	1460	7300
200	900	4500	85	1120	5600	15	1800	9000

Input shaft
Albero in entrata


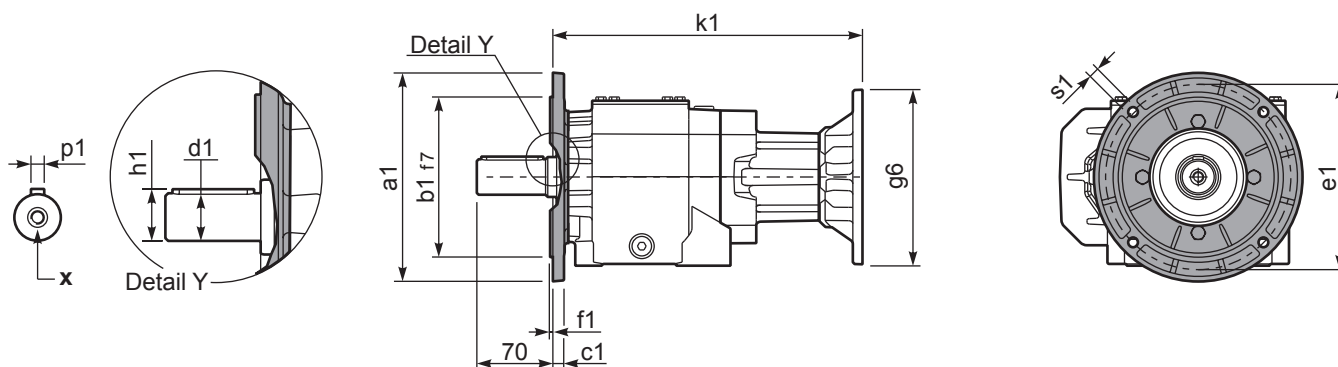
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

P712C **S6**...With feet
Con piediniGearbox weight
peso riduttore With flange **33.3 kg**
With feet **35.0 kg**

Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øI	B5 max. Flange	kit code
B4	412/3	19.5	130	180	149.5	220	220	25	14	-	KC71.9.022
S6	67	30	130	150	195	210	220	25	14	-	KC71.9.024

P712C-**F**...Output flanges
flange di uscita

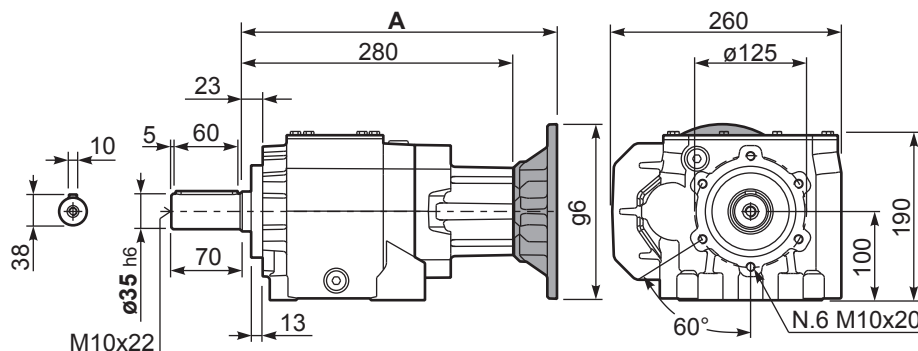
*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 35x70	10	38	M10x22
On request A richiesta	ø 38x70	10	41	M10x25

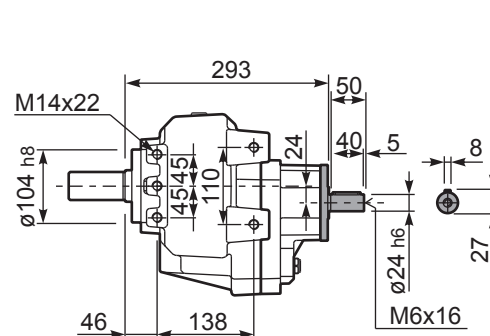
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
200	130	11	165	3.5	11	KC71.9.012
250	180	13	215	4	14	KC81.9.013
-	-	-	-	-	-	-

With flange and feet only on request. Ask for compatibility

P712C-**N**...Basic gearbox
Riduttore base

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
80/90 B5	300.5	230	200	300.5	K023.4.042
100/112 B5	309.5	255	250	309.5	K023.4.043
132 B5	331	280	300	331	KC51.4.043C

R712C-**N**...Input Shaft
Albero in entrata

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
80 B14	300.5	190	120	300.5	K085.4.046
90 B14	300.5	200	140	300.5	K085.4.045
100/112 B14	309.5	210	160	309.5	K085.4.047
132 B14	331	230	200	331	KC51.4.041C



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
22.3	62.76	1.5	603	1.1	1.68	675	B				C	C		191213	01
20.2	69.28	1.5	665	1.0	1.52	675	B				C	C		191212	02
19.2	72.75	1.5	698	1.0	1.45	675	B				C	C		171213	03
17.4	80.29	1.5	771	0.9	1.31	675	B				C	C		171212	04
16.4	85.39	1.1	599	1.1	1.23	675	B				C	C		151213	05
14.9	94.25	1.1	661	1.0	1.12	675	B				C	C		151212	06
13.7	101.92	1.1	715	0.9	1.03	675	B				C	C		131213	07
12.4	112.50	0.75	541	1.2	0.94	675	B				C	C		131212	08
11.9	117.29	0.75	564	1.2	0.90	675	B				C	C		151210	09
10.1	139.13	0.75	669	1.0	0.76	675	B				C	C		101213	10
9.1	153.56	0.75	739	0.9	0.69	675	B				C	C		101212	11
7.7	181.57	0.55	644	1.0	0.58	675	B				C	C		91213	12
7.0	200.42	0.55	711	0.9	0.53	675	B				C	C		91212	13
5.6	249.41	0.37	592	1.1	0.42	675	B				C	C		91210	14
4.3	329.33	0.37	781	0.9	0.32	675	B				C	C		71210	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

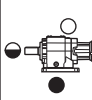
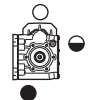
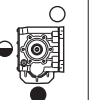
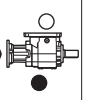
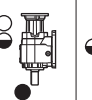
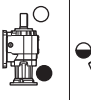
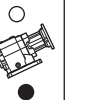
EN Unit **713C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **713C** 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 **713C** 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.

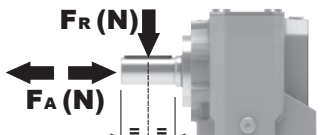
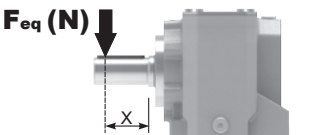
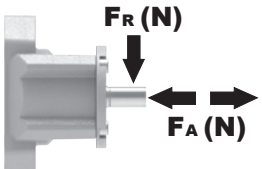
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E El reductor tamaño **713C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

						
B3	B6	B7	B8	V5	V6	V8
1.60 LT	2.20 LT	1.80 LT	1.70 LT	2.80 LT	1.90 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

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tab. 1

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{78}{X+38}$						
									
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R	
300	680	3400	140	960	4800	70	1300	6500	
250	760	3800	120	1040	5200	40	1460	7300	
200	900	4500	85	1120	5600	15	1800	9000	
Input shaft Albero in entrata									
n_1	F_A	F_R	n_1	F_A	F_R	n_1	F_A	F_R	
1400	400	2000	900	440	2200	500	440	2200	

tab. 2

Gearbox weight	With flange	34.5 kg
peso riduttore	With feet	36.2 kg

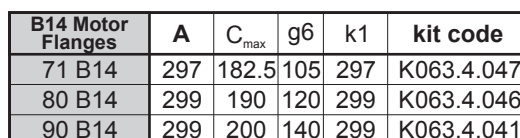
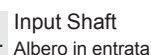


Output flanges
flange di uscita



Available output flanges / flange di uscita

Basic gearbox
Riduttore base





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft 	Output Shaft 	Ratios code 
							-D	-E	-F	-G	-R	-T	-U	-V			
							80	90	100 112	132	80	90	100 112	132			
364.3	3.84	9	227	2.2	19.47	490									3317		01
257.5	5.44	9	321	1.6	14.61	520									3313		02
233.3	6.00	9	354	1.6	14.00	550									3312		03
187.5	7.47	9	440	1.4	12.27	600									3310		04
165.1	8.48	9	500	1.3	11.43	635									2513		05
149.6	9.36	9	552	1.2	10.44	640									2512	standard	06
120.2	11.65	9	687	1.0	8.65	660									2510	ø40	07
97.3	14.39	7.5	683	1.1	7.64	720									1713		08
88.1	15.88	7.5	754	1.0	7.21	750									1712		09
70.8	19.76	7.5	938	0.9	6.34	820									1710	On request	10
63.4	22.08	5.5	774	1.1	5.98	865									1213		11
57.4	24.38	5.5	854	1.0	5.42	865									1212		12
46.2	30.33	4	778	1.1	4.35	865									1210		13
41.2	34.00	4	872	1.0	3.88	865									912		14
36.1	38.81	3	749	1.1	3.33	846									812		15
33.1	42.31	3	817	1.1	3.12	865									910		16
29.0	48.30	3	932	0.9	2.73	865									810		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 **812C** 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 **812C** 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 **812C** 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 **812C** 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 **812C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

						
B3	B6	B7	B8	V5	V6	V8
1.50 LT	2.30 LT	1.90 LT	1.70 LT	2.60 LT	2.00 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

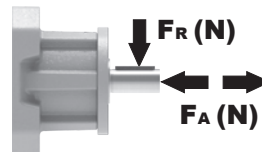
$$F_{eq} = F_R \cdot \frac{78}{X+38}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1300	6500	140	1780	8900	70	2200	11000
250	1420	7100	120	1900	9500	40	2360	11800
200	1600	8000	85	2040	10200	15	2400	12000

Input shaft

Albero in entrata



n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

Gearbox weight peso riduttore	With flange	33.7 kg
	With feet	39.2 kg



Feet Code	Market reference	G	H	R	L	S	H1	O	øI	B5 max. Flange	kit code
B5	512/3	25	155	225	156	270	245.5	30	18	-	KC81.9.022
S7	77	35	140	170	205	230	230.5	30	17.5	-	KC81.9.024

	Shaft - d1	p1	h1	x
Standard	ø 40x80	12	43	M12x28
On request A richiesta	ø 45x90	14	48.5	M14x34

a1 Ø	b1	c1	e1	f1	s1	kit code
250	180	13	215	4	14	KC81.9.013
300	230	16	265	4	14	KC81.9.014
-	-	-	-	-	-	-

With flange and feet only on request.
Ask for compatibility

Technical drawing of the M12x28 motor showing side and front views with dimensions:

- Side View Dimensions:**
 - Total length: 280
 - Distance from mounting flange to end face: 23
 - End face thickness: 5
 - Distance from end face to start of mounting flange: 70
 - Mounting flange diameter: $\varnothing 40$ h6
 - Mounting flange width: 12
 - Mounting flange hole diameter: 43
 - Distance from mounting flange to start of mounting flange: 80
 - Distance from mounting flange to start of mounting flange: 13
- Front View Dimensions:**
 - Motor body diameter: 260
 - Motor body hole diameter: $\varnothing 125$
 - Motor body height: 96
 - Motor body mounting flange diameter: 190
 - Motor body mounting flange hole diameter: 100
 - Motor body mounting flange hole angle: 60°
 - Motor body mounting flange hole pitch: N.6 M10x20

[illegible]

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
80/90 B5	300.5	255	200	300.5	K023.4.042
100/112 B5	309.5	280	250	309.5	K023.4.043
132 B5	331	305	300	331	KC51.4.043C

B14 Motor Flanges	A	C_{max}	g6	k1	kit code
80 B14	300.5	215	120	300.5	K085.4.046
90 B14	300.5	225	140	300.5	K085.4.045
100/112 B14	309.5	235	160	309.5	K085.4.047
132 B14	331	255	200	331	KC51.4.041C



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100 112	71	80	90	100 112		
22.3	62.76	2.2	874	1.0	2.15	865	B					C	C			191213	01
20.2	69.28	2.2	965	0.9	1.95	865	B					C	C			191212	02
19.2	72.75	1.5	698	1.2	1.85	865	B					C	C			171213	03
17.4	80.29	1.5	771	1.1	1.68	865	B					C	C			171212	04
16.4	85.39	1.5	820	1.1	1.58	865	B					C	C			151213	05
14.9	94.25	1.5	905	1.0	1.43	865	B					C	C			151212	06
13.7	101.92	1.1	715	1.2	1.32	865	B					C	C			131213	07
12.4	112.50	1.1	789	1.1	1.20	865	B					C	C			131212	08
11.9	117.29	1.1	822	1.1	1.15	865	B					C	C			151210	09
10.1	139.13	1.1	976	0.9	0.97	865	B					C	C			101213	10
9.1	153.56	0.75	739	1.2	0.88	865	B					C	C			101212	11
7.7	181.57	0.75	873	1.0	0.74	865	B					C	C			91213	12
7.0	200.42	0.55	711	1.2	0.67	865	B					C	C			91212	13
5.6	249.41	0.55	885	1.0	0.54	865	B					C	C			91210	14
4.3	329.33	0.37	781	1.1	0.41	865	B					C	C			71210	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 **813C** 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 **813C** 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 **813C** 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 **813C** 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 **813C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

						
B3	B6	B7	B8	V5	V6	V8
1.60 LT	2.20 LT	1.80 LT	1.70 LT	2.80 LT	1.90 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

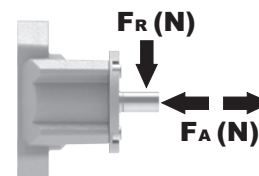
$$F_{eq} = F_R \cdot \frac{78}{X+38}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1300	6500	140	1780	8900	70	2200	11000
250	1420	7100	120	1900	9500	40	2360	11800
200	1600	8000	85	2040	10200	15	2400	12000

Input shaft

Albero in entrata



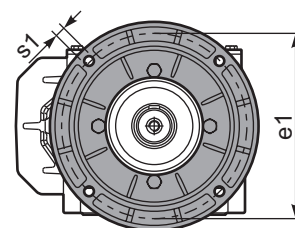
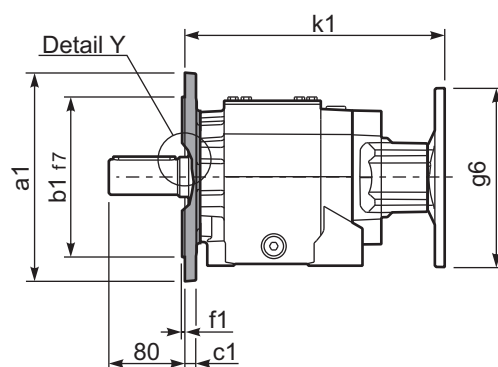
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

Gearbox weight peso riduttore	With flange 34.8 kg
	With feet 40.3 kg

P813C-F...

Technical drawing showing a bolt head and a detail view. The bolt head is shown with dimensions $p1$ (width) and x (height). A circular detail view labeled "Detail Y" shows a cross-section of the bolt head with dimensions $h1$ (height) and $d1$ (diameter).



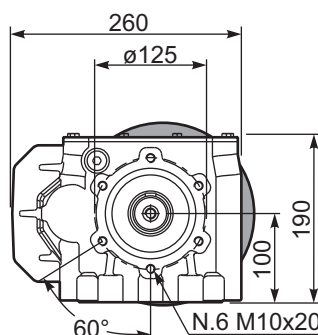
	Shaft - d1	p1	h1	x
Standard	ø 40x80	12	43	M12x28
On request A richiesta	ø 45x90	14	48.5	M14x34

a1 Ø	b1	c1	e1	f1	s1	kit code
250	180	13	215	4	14	KC81.9.013
300	230	16	265	4	14	KC81.9.014
-	-	-	-	-	-	-



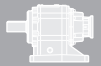
With flange and feet
only on request.
Ask for compatibility

P813C-N...

[illegible]

R813C-N...

B14 Motor Flanges	A	C_{max}	g6	k1	kit code
71 B14	297	207.5	105	297	K063.4.047
80 B14	299	215	120	299	K063.4.046
90 B14	299	225	140	299	K063.4.041
100/112 B14	314	235	160	314	KC40.4.041



■ 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				B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-H	-I	-U	-V			
							100 112	132	160	180	100 112	132			
317	4.42	22	611	1.1	24.2	700								3015	01
264	5.30	22	733	1.0	20.2	700								3013	02
219	6.38	18.5	742	1.1	19.1	800								3011	03
168	8.33	15	784	1.0	14.7	800								2015	04
140	9.99	15	940	1.0	13.8	900								2013	05
124	11.26	15	1060	1.0	14.9	1100								1615	06
116	12.03	15	1132	1.1	15.2	1200								2011	07
104	13.50	15	1271	1.1	15.8	1400								1613	08
96	14.65	15	1378	1.1	15.6	1500								1315	09
86	16.26	15	1531	1.0	14.1	1500								1611	10
80	17.56	11	1214	1.2	13.0	1500								1313	11
65	21.50	11	1486	1.1	11.4	1600								1113	12
54	25.88	9	1526	1.0	9.4	1600								1111	13
45.0	31.09	7.5	1475	1.0	7.2	1460								813	14
37.4	37.43	5.5	1312	1.2	6.5	1600								811	15

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **862C** 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 **862C** 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 **862C** 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 **862C** 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 **862C** 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
3.10 LT	4.50 LT	2.50 LT	3.10 LT	4.90 LT	4.20 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					Feq = FR · $\frac{88.5}{X+38.5}$				
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR	
300	1800	9000	140	2400	12000	70	3000	15000	
250	2000	10000	120	2600	13000	40	3200	16000	
200	2200	11000	85	2800	14000	15	4000	20000	
On request reinforced bearings to increase loads. A richiesta cuscinetti rinforzati per aumentare i carichi.									
Input shaft Albero in entrata									
n_1	FA	FR	n_1	FA	FR	n_1	FA	FR	
1400	700	3500							
900	840	4200							
500	900	4500							

tab. 2

Gearbox weight peso riduttore	With flange	84.0 kg
	With feet	74.5 kg





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\varnothing$	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
32.5	43.03	5.5	1478	1.1	5.8	1600	B									201313	01
28.9	48.52	5.5	1667	0.9	5.0	1550	B									161315	02
27.0	51.81	4	1302	1.2	4.8	1600	B									201311	03
24.1	58.17	4	1462	1.1	4.3	1600	B									161313	04
22.2	63.09	4	1585	1.0	3.8	1550	B									131315	05
20.0	70.05	4	1760	1.0	4.0	1800	B									161311	06
18.5	75.65	4	1901	0.9	3.7	1800	B									131313	07
15.4	91.09	3	1723	1.0	3.1	1800	B									131311	08
12.6	111.50	2.2	1553	1.2	2.5	1800	B									111311	09
10.5	133.91	2.2	1865	1.0	2.1	1800	B									81313	10
8.7	161.24	1.5	1548	1.2	1.7	1800	B									81311	11
7.6	184.40	1.1	1293	1.1	1.2	1450	B									61313	12
6.3	222.04	1.1	1557	1.1	1.2	1750	B									61311	13

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **863C** 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 **863C** 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 **863C** 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 **863C** 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 **863C** 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
3.10 LT	4.60 LT	2.60 LT	3.10 LT	5.60 LT	4.30 LT	Ask

SHELL Omala S2 GX 460

ENI Blasias 460

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$$

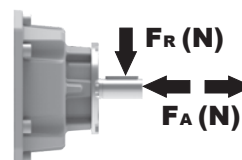


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1800	9000	140	2400	12000	70	3000	15000
250	2000	10000	120	2600	13000	40	3200	16000
200	2200	11000	85	2800	14000	15	4000	20000

On request reinforced bearings to increase loads.

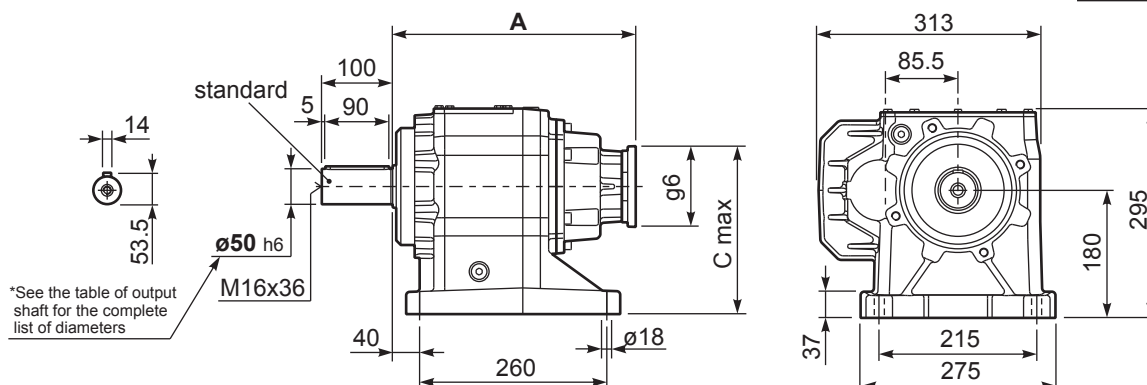
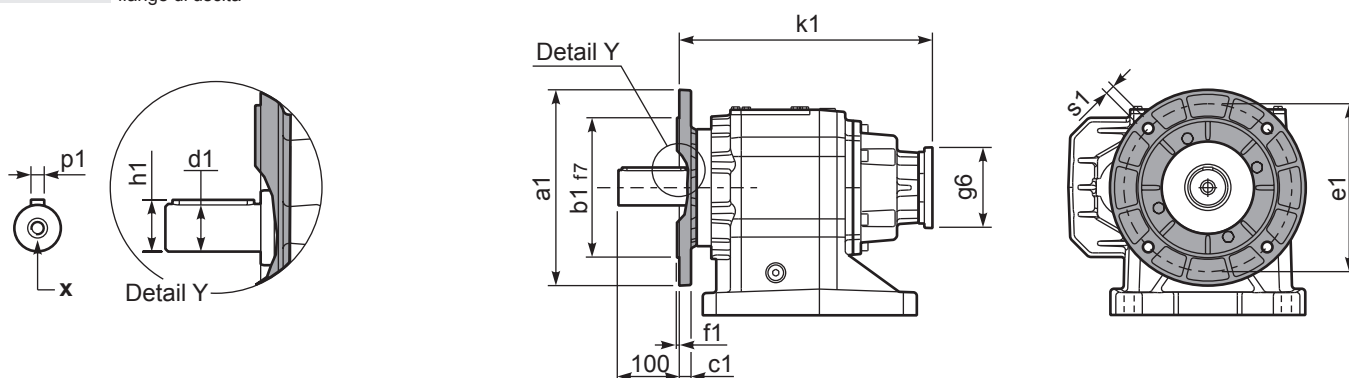
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

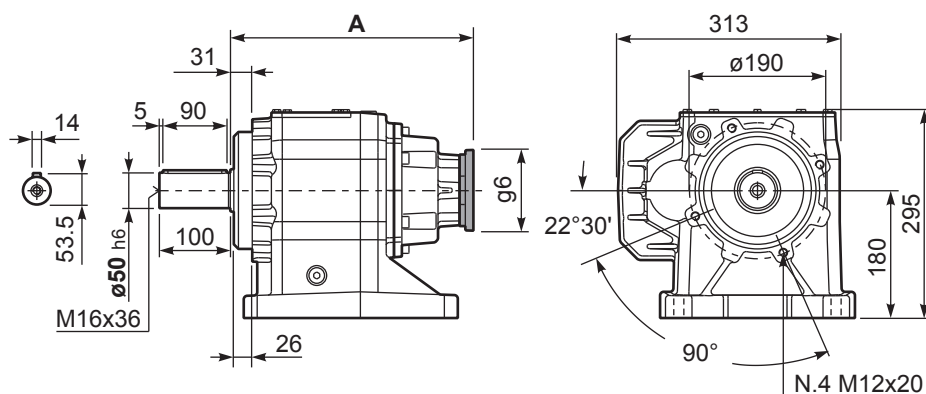
P863C**S8**...With foot
Con piedinoGearbox
weight
peso riduttoreWith flange **78.5 kg**
With feet **69.0 kg**P863C-**F**...Output flanges
flange di uscita

*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	Ø 50x100	14	53.5	M16x36
On request A richiesta	Ø 60x120	18	64	M20x42

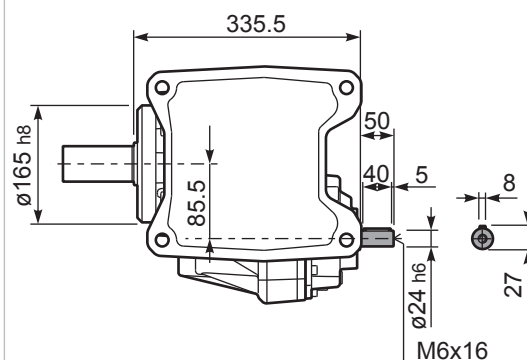
Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
-	-	-	-	-	-	-

All flanges are
compatible
with the footP863C**S8**...Basic gearbox
Riduttore base

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B5	342	260	160	342	K023.4.041
80/90 B5	344	280	200	344	K023.4.042
100/112 B5	353	305	250	353	K023.4.043
132 B5	374	330	300	374	KC51.4.043

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
80 B14	344	240	120	344	K085.4.046
90 B14	344	250	140	344	K085.4.045
100/112 B14	353	260	160	353	K085.4.047
132 B14	374	280	200	374	KC51.4.041

R863C**S8**...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]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code 
							-G	-H	-I	-L	-	-	-	-		
							132	160	180	200	-	-	-	-		
294	4.75	30	895	1.8	53.0	1650									3914	01
269	5.21	30	980	1.8	51.3	1750									3913	02
220	6.36	30	1197	1.6	45.6	1900									3911	03
188	7.45	30	1401	1.5	43.1	2100									3014	04
172	8.15	30	1535	1.4	39.3	2100									3013	05
141	9.96	30	1874	1.2	33.7	2200									3011	06
120	11.69	30	2200	1.0	30.1	2300									2214	07
109	12.80	30	2409	1.0	27.4	2300									2213	08
90	15.63	22	2161	1.1	23.5	2400									2211	09
79	17.65	22	2441	1.1	22.5	2600									1614	10
72	19.33	22	2673	1.1	22.9	2900									1613	11
67	20.77	22	2872	1.0	21.3	2900									1414	12
62	22.75	18.5	2643	1.1	19.5	2900									1413	13
59	23.60	18.5	2743	1.1	18.8	2900									1611	14
50	27.78	15	2615	1.1	15.9	2900									1411	15
45.5	30.76	15	2896	1.0	14.4	2900									1014	16
41.6	33.69	11	2330	1.2	13.1	2900									1013	17
34.0	41.15	11	2845	1.0	10.8	2900									1011	18

not available
**standard
ø60**

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **1002** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **1002** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **1002** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **1002** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **1002** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

						
B3	B6	B7	B8	V5	V6	V8
4.50 LT	8.00 LT	5.50 LT	6.00 LT	10.00 LT	7.50 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

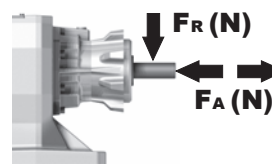
$$F_{eq} = F_R \cdot \frac{117}{X+57}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	2300	11500	140	2980	14900	70	3660	18300
250	2480	12400	120	3180	15900	40	4220	21100
200	2680	13400	85	3440	17200	15	4820	24100

Input shaft

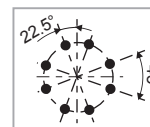
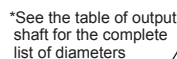
Albero in entrata



n_1	FA	FR
1400	1120	5600
900	1220	6100
500	1300	6500

tab. 2

Gearbox weight peso riduttore	120.0 kg
---	-----------------



**n° 8 holes
only for
Kit KC909016**
Solo per il
kit KC909016

	Shaft - d1	p1	h1	x
Standard	Ø 60x120	18	64	M20x42
On request A richiesta	-	-	-	-

a1 Ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
450	350	22	400	5	18	KC90.9.016

All flanges are compatible with the foot

[illegible]

B5 Motor Flanges	A	C_{max}	g6	k1	kit code
132 B5	435	375	300	435	KC110.9.052
160 B5	460	400	350	460	KC110.9.053
180 B5	460	400	350	460	KC110.9.053_B
200 B5	460	425	400	460	KC110.9.054



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			B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-H	-U	-V			
							100 112	132	160	100 112	132			
38.8	36.11	11	2447	1.2	12.5	2900						301411	standard ø60	01
27.5	50.89	9	2941	1.0	9.2	3000						201414		02
25.1	55.73	7.5	2591	1.2	8.4	3000						201413		03
20.3	68.80	7.5	3199	0.9	6.8	3000						161414		04
18.6	75.35	5.5	2589	1.2	6.2	3000						161413		05
15.6	89.47	5.5	3074	1.0	5.2	3000						131414		06
15.2	92.02	5.5	3161	0.9	5.1	3000						161411		07
14.3	97.99	4	2462	1.2	4.8	3000						131413		08
12.8	109.52	4	2752	1.1	4.3	3000						111414		09
11.7	119.94	4	3014	1.0	3.9	3000						111413		10
9.6	146.47	3	2771	1.1	3.2	3000						111411		11
8.8	158.37	3	2996	1.0	3.0	3000						81414		12
8.1	173.45	2.2	2416	1.2	2.7	3000						81413		13
6.6	211.82	2.2	2951	1.0	2.2	3000						81411		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **1003** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **1003** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **1003** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **1003** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **1003** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.00 LT	9.00 LT	6.50 LT	6.50 LT	11.00 LT	9.00 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

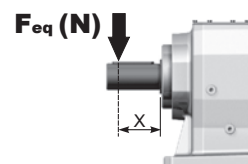
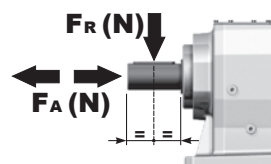
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

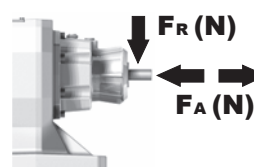
$$F_{eq} = F_R \cdot \frac{117}{X+57}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	2300	11500	140	2980	14900	70	3660	18300
250	2480	12400	120	3180	15900	40	4220	21100
200	2680	13400	85	3440	17200	15	4820	24100

Input shaft

Albero in entrata



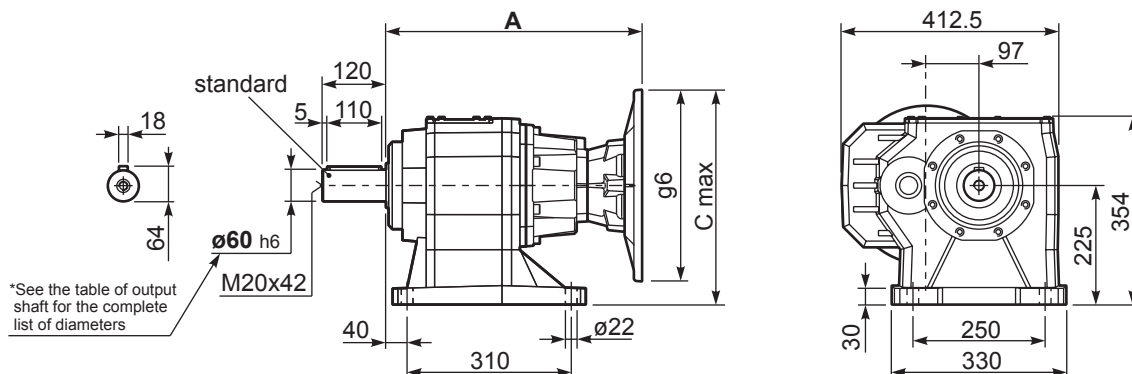
n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

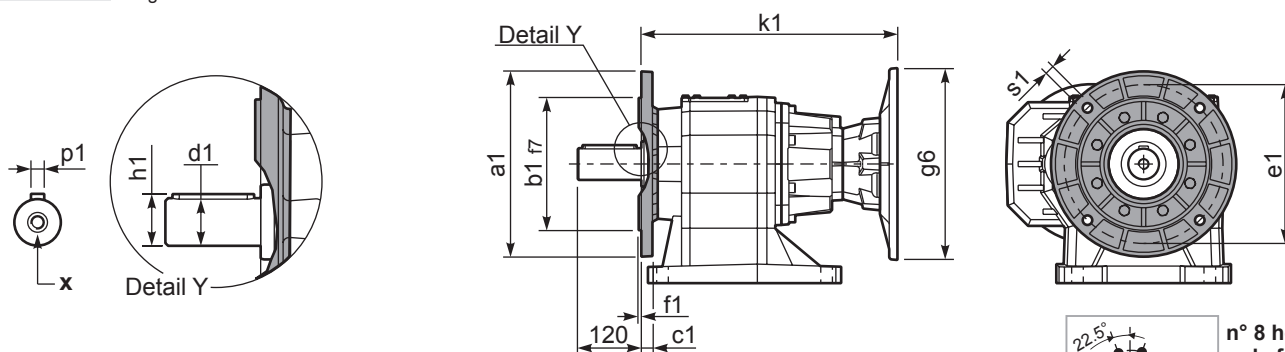
P1003S9...

With foot
Con piedinoGearbox
weight
peso riduttore

116 kg



P1003-F...

Output flanges
flange di uscita

*Available output shaft / Albero di uscita

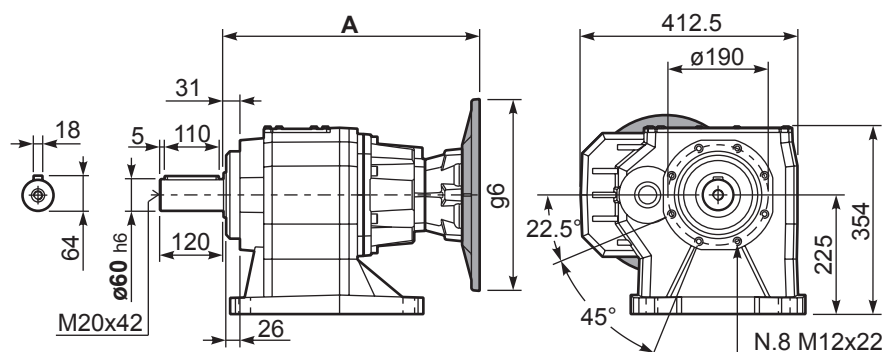
	Shaft - d1	p1	h1	x
Standard	Ø 60x120	18	64	M20x42
On request A richiesta	-	-	-	-

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
450	350	22	400	5	18	KC90.9.016

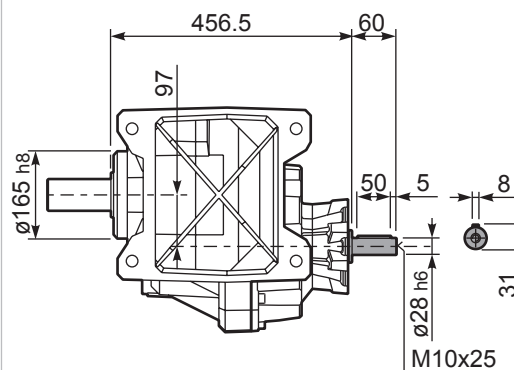
All flanges are compatible with the foot

P1003S9...

Basic gearbox
Riduttore base

Motor Flanges	A	C _{max}	g6	k1	kit code
100/112 B5	427.5	350	250	427.5	K023.4.043
132 B5	448.5	375	300	449	KC51.4.043C
160 B5	481	400	350	481	KC86.4.043
100/112B14	427.5	305	160	427.5	K085.4.047
132B14	448.5	325	200	449	KC51.4.041C

R1003S9...

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]	B5 motor flanges					B14 motor flanges			Output Shaft		
							-G	-H	-I	-L	CA	-	-	-			Ratios code
							132	160	180	200	225	-	-	-			
294	4.75	45	1333	2.0	86.7	2700									3914		01
269	5.21	45	1460	1.9	82.1	2800									3913		02
220	6.36	45	1783	1.7	72.0	3000									3911		03
188	7.45	45	2088	1.6	67.7	3300									3014		04
172	8.15	45	2287	1.5	63.7	3400									3013		05
141	9.96	45	2792	1.3	55.2	3600									3011		06
120	11.69	45	3277	1.2	49.7	3800									2214		07
109	12.80	45	3589	1.1	47.7	4000									2213		08
90	15.63	45	4383	1.0	42.0	4300									2211	standard Ø70	09
79	17.65	37	4068	1.1	38.9	4500									1614		10
72	19.33	37	4455	1.0	35.6	4500									1613		11
67	20.77	30	3910	1.2	33.1	4500									1414		12
62	22.75	30	4282	1.1	30.2	4500									1413		13
59	23.60	30	4443	1.0	29.1	4500									1611		14
50	27.78	22	3842	1.2	24.7	4500									1411		15
45.5	30.76	22	4255	1.1	22.3	4500									1014		16
41.6	33.69	22	4660	1.0	20.4	4500									1013		17
34.0	41.15	18.5	4781	0.9	16.7	4500									1011		18

 The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **1102** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **1102** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **1102** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **1102** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **1102** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
6.50 LT	12.50 LT	7.50 LT	8.50 LT	14.50 LT	11.50 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

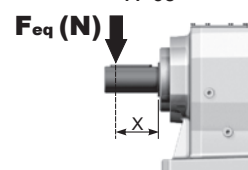
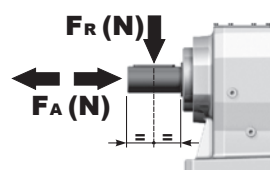
 For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS
Output shaft

Albero di uscita

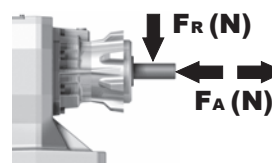
$$F_{eq} = F_R \cdot \frac{138}{X+68}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	2600	13000	140	3300	16500	70	4300	21500
250	2700	13500	120	3500	17500	40	5000	25000
200	3000	15000	85	3900	19500	15	5900	29500

Input shaft

Albero in entrata



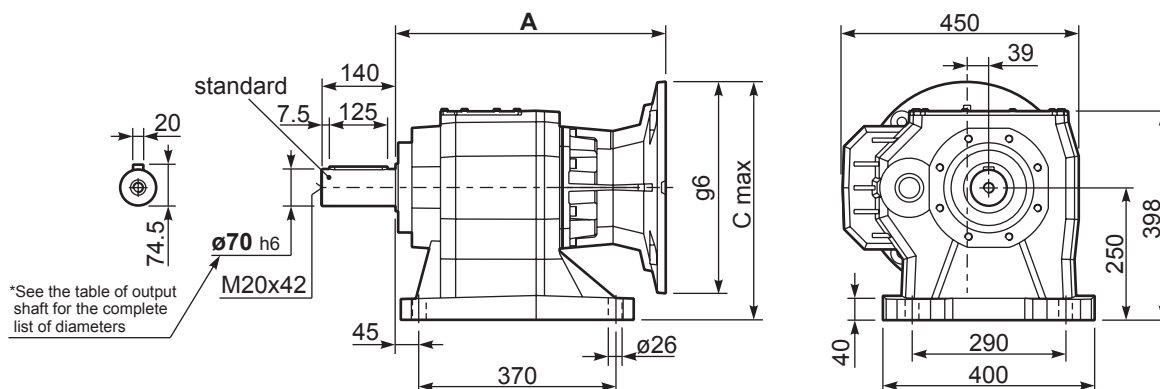
n_1	FA	FR
1400	1120	5600
900	1220	6100
500	1300	6500

tab. 2

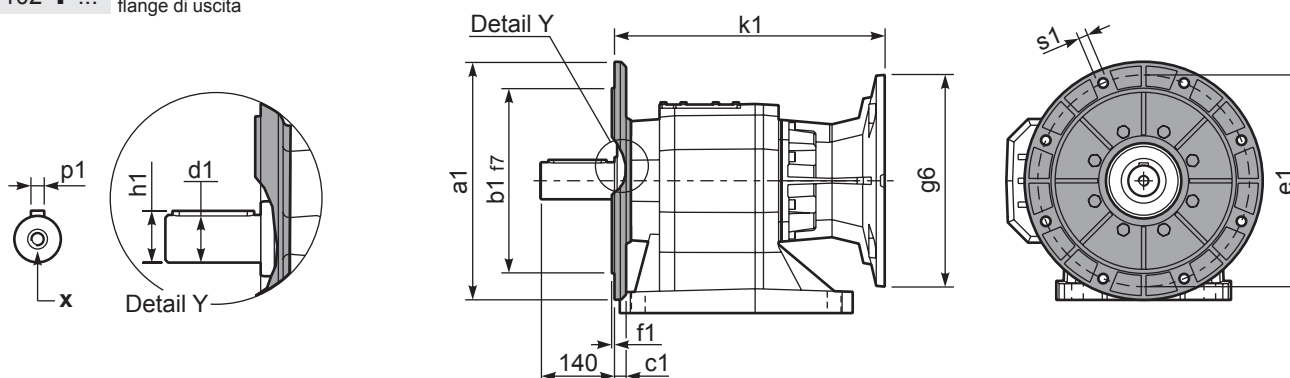
P1102S0...

With foot
Con piedinoGearbox
weight
peso riduttore

165 kg



P1102-F...

Output flanges
flange di uscita

*Available output shaft / Albero di uscita

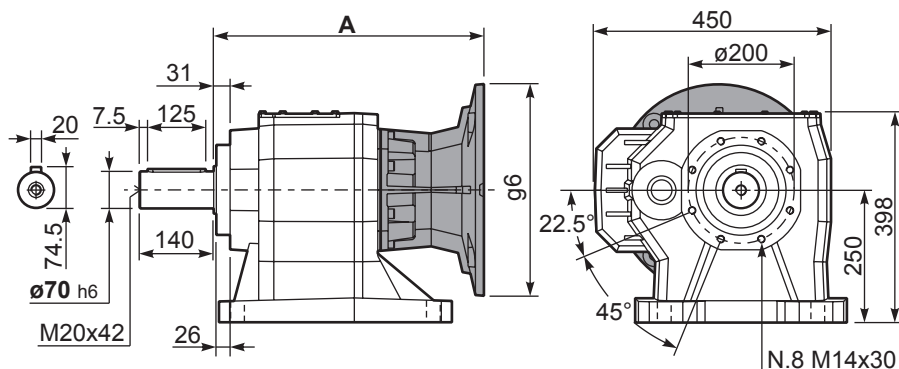
	Shaft - d1	p1	h1	x
Standard	Ø 70x140	20	74.5	M20x42
On request A richiesta	-	-	-	-

Available output flanges / flange di uscita

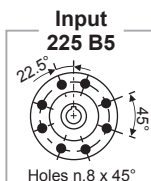
a1 Ø	b1	c1	e1	f1	s1	kit code
350	250	21	300	5	18	KC110.9.015
450	350	22	400	5	18	KC110.9.016
-	-	-	-	-	-	-

All flanges are compatible with the foot

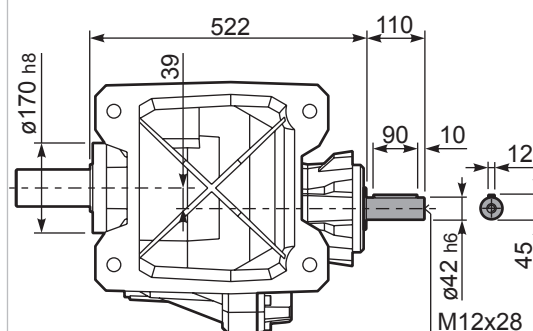
P1102S0...

Basic gearbox
Riduttore base

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
132 B5	485.5	400	300	485.5	KC110.9.052
160 B5	510.5	425	350	510.5	KC110.9.053
180 B5	510.5	425	350	510.5	KC110.9.053_B
200 B5	510.5	450	400	510.5	KC110.9.054
225 B5	537.5	475	450	537.5	KC110.9.055



R1102S0...

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				B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-H	-I	-U	-V			
							100 112	132	160	180	100 112	132			
38.8	36.11	18.5	4113	1.1	19.4	4500							301411	standard ø70	01
27.5	50.89	15	4694	1.0	14.1	4600							201414		02
25.1	55.73	11	3777	1.2	12.9	4600							201413		03
20.3	68.80	11	4662	1.0	10.4	4600							161414		04
18.6	75.35	9	4354	1.1	9.5	4600							161413		05
15.6	89.47	7.5	4160	1.1	8.0	4600							131414		06
15.2	92.02	7.5	4278	1.1	7.6	4500							161411		07
14.3	97.99	7.5	4556	1.0	7.3	4600							131413		08
12.8	109.52	5.5	3762	1.2	6.6	4600							111414		09
11.7	119.94	5.5	4120	1.1	6.0	4600							111413		10
9.6	146.47	4	3681	1.2	4.8	4500							111411		11
8.8	158.37	4	3980	1.2	4.5	4600							81414		12
8.1	173.45	4	4359	1.1	4.1	4600							81413		13
6.6	211.82	3	4007	1.1	3.3	4500							81411		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **1103** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **1103** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **1103** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **1103** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **1103** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
7.00 LT	13.00 LT	8.00 LT	9.00 LT	16.00 LT	13.50 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

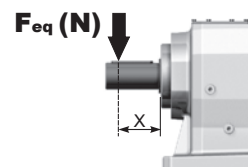
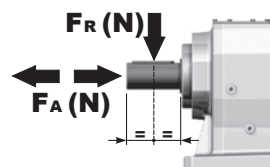
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

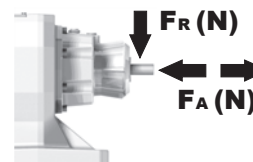
$$F_{eq} = F_R \cdot \frac{138}{X+68}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	2600	13000	140	3300	16500	70	4300	21500
250	2700	13500	120	3500	17500	40	5000	25000
200	3000	15000	85	3900	19500	15	5900	29500

Input shaft

Albero in entrata



n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

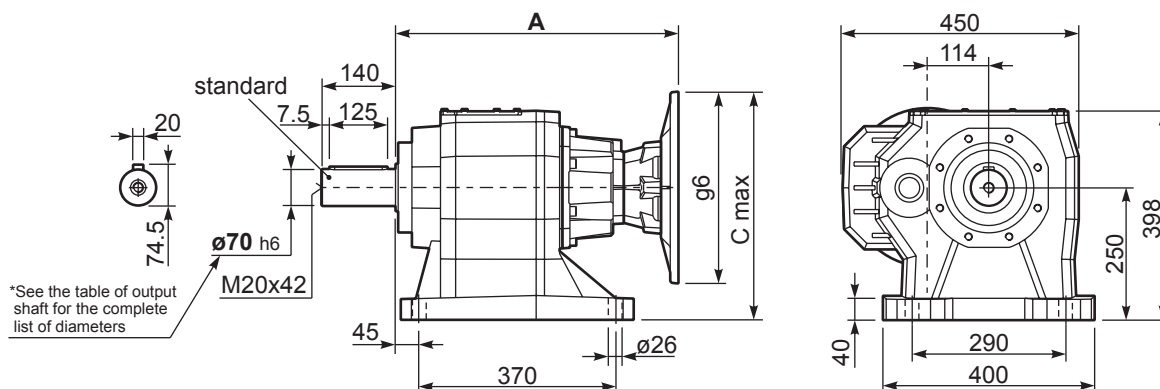
tab. 2

P1103**S0**...

With foot
Con piedino

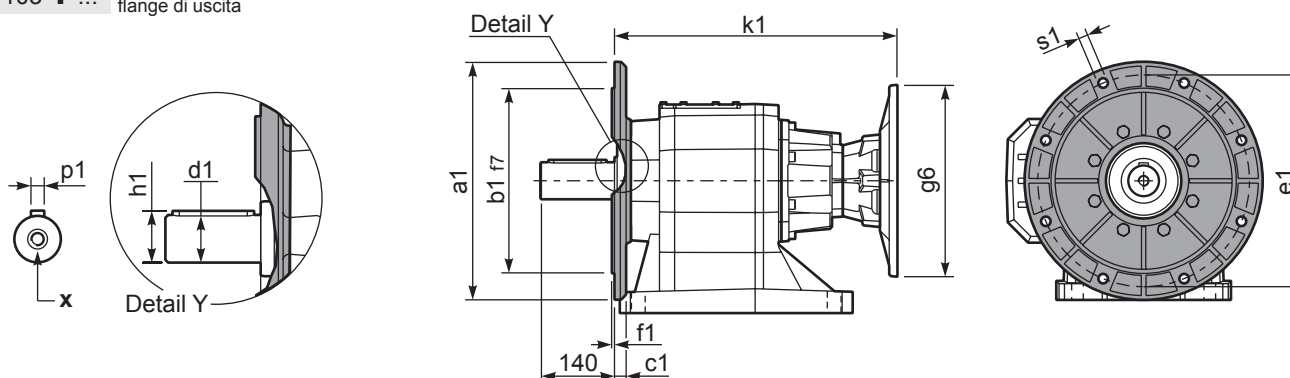
Gearbox weight
peso riduttore

156 kg



P1103-F..

Output flanges
flange di uscita



***Available output shaft** / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 70x140	20	74.5	M20x42
On request A richiesta	-	-	-	-

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
350	250	21	300	5	18	KC110.9.015
450	350	22	400	5	18	KC110.9.016
-	-	-	-	-	-	-

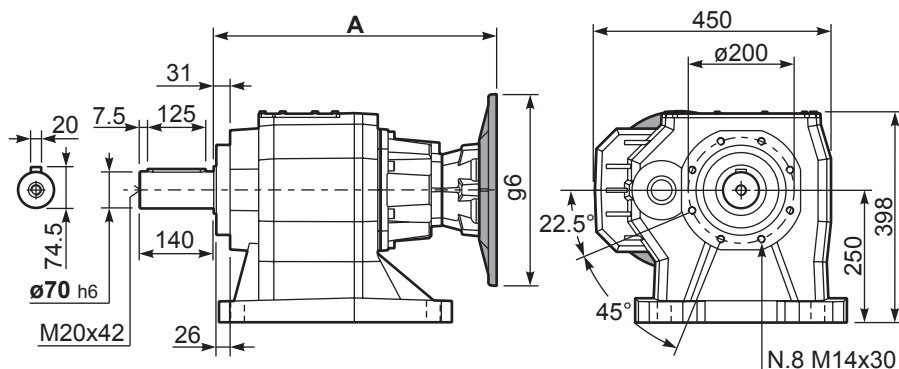


All flanges are compatible with the foot

 All flanges are compatible with the foot

P1103**S0.**

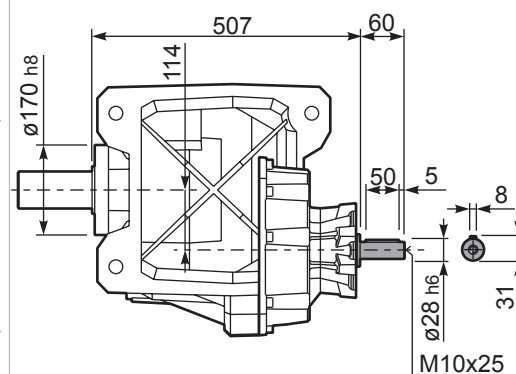
Basic gearbox
Riduttore base



Motor Flanges	A	C _{max}	g6	k1	kit code
100/112 B5	478	375	250	478	K023.4.043
132 B5	499.5	400	300	499.5	KC51.4.043C
160-180 B5	531.5	425	350	531.5	KC864.043
100/112B14	478	330	160	478	K085.4.047
132B14	499.5	350	200	499.5	KC51.4.041C

R₁₁₀₃S0..

Input Shaft
Albero in entrata



Réducteurs à axes parallèles, en aluminium et en fonte

Aluminium & cast iron shaft mounted gearboxes

Un produit compact et modulaire
A modular and compact product

Engrenage en acier trempé et rectifiés

Gears
Hardened and ground gears

Carcasse aluminium imprégnée à vide

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.

Bride modulaire

Flange

Fully modular to IEC and Compact integrated motor.
NEMA C flange

Distance déportée large
Large center distance



Couvercle d'inspection amovible

Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

Distance déportée pour une meilleure transmission du couple
Large center distance

On slow gears for safe torque transmission.

Carcasse fonte d'une seule pièce

Single-piece aluminum / Cast Iron housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

Peinture

Painting

Cast iron gearboxes are painted RAL 7046



World wide sales network.

Fiche technique spécifique en page

Specific type datasheet on page

On page / A pagina / Auf Seite / À la page / En la página

3 Stage

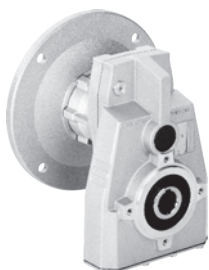


7-5	7-7
FS10 60Nm	FS20 90Nm

Types / Tipi /
Tipen / Types /
Tipos

On page / A pagina / Auf Seite / À la page / En la página

1 Stage



7-13	7-23	7-29	7-35
FA41 225Nm	FC61 380Nm	FC71 670Nm	FC81 1175Nm

Types / Tipi /
Tipen / Types /
Tipos

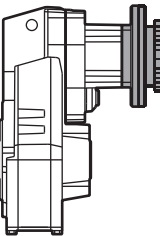
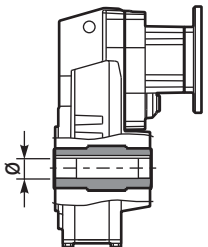
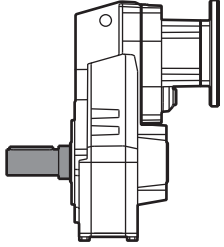
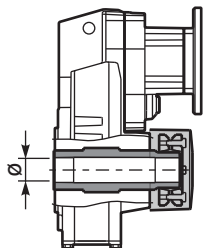
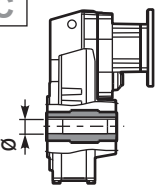
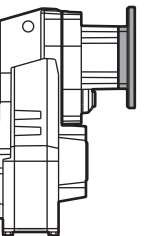
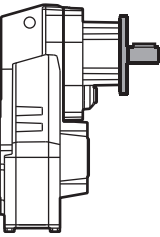
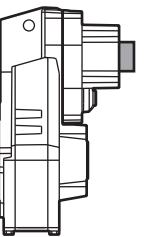
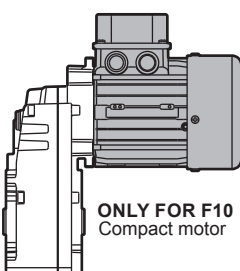
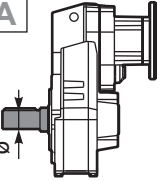
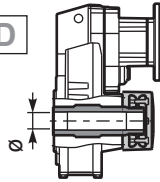
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2 and 3 Stage



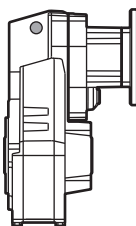
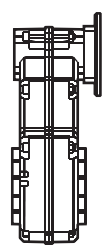
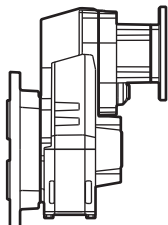
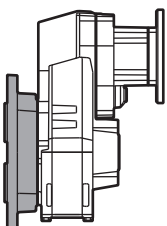
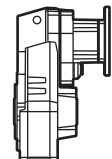
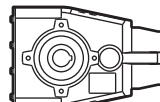
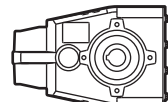
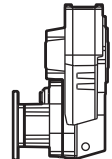
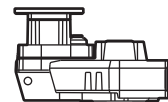
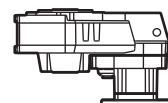
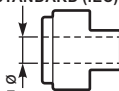
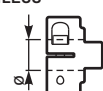
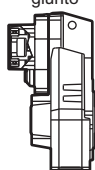
7-9	7-11	7-15	7-17	7-19	7-21	7-25	7-27	7-31	7-33	7-37	7-39
FA32 150Nm	FA33 150Nm	FA42 320Nm	FA43 320Nm	FA52 490Nm	FA53 510Nm	FC62 675Nm	FC63 675Nm	FC72 900Nm	FC73 900Nm	FC82 2100Nm	FC83 2100Nm

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 - Relation	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	1 Stage Riduzione Stufe Trains Etapas 2 Stages Riduzioni Stufen Trains Etapas 3 Stages Riduzioni Stufen Trains Etapas Aluminum/Alluminio/Aluminium/Aluminio FA41 FA32 FA42 FA52 FA33 FA43 FA53	 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
7  With motor flange P				
 With male input shaft R	Cast Iron/Ghisa/Grauguss/Fonte/Fundicion FC61 FC71 FC81			
 Modular base B Not available for: FC61, FC71, FC81, FC82.	FC62 FC72 FC82			
 ONLY FOR F10 Compact motor C	FC63 FC73 FC83			A  Single output shaft -L FA32/3 → Ø25 -M FA41/2/3 → Ø30 FA52/3 -N 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.

Type - Tipo - Typ Types - Tipo	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Input bore Foro entrada Eingangshohlwelle Trou d'entree Eje hueco de entrada	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte à bornes Posición caja de bornes
ST	N	-C	H1	ST	
 ST Foro standard Standard bore  ST Senza braccio di reazione Without reaction arm  -F Whit output flange con flangia uscita	 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	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)	 H1 STANDARD  H4  H3  H2  H5  H6	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	With Type M specify terminal box position Con tipo M specificare posizione morsettiere  A  B STANDARD  C  D

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

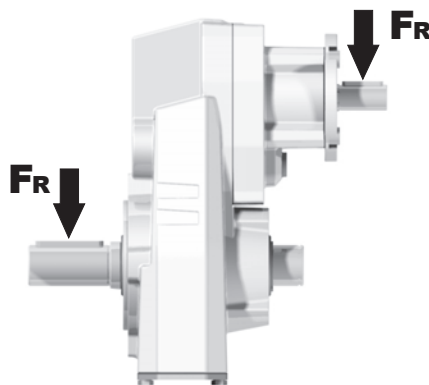
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P [KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P [HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$		$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$	
M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion		
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo		
f _k	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana		

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe
Comment sélectionner un réducteur / Cómo seleccionar un reductor

B

Output speed
Velocità in uscita
Abtriebsdrehzahl
Vitesse de sortie
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Poissance nominale
Potencia nominal

A

Nominal torque
Momento torcente nominale
Nenn Drehmoment
Couple nominal
Par de torsión nominal

Flange code
Codice flangia
Flanschtype
Code bride
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Vitesse en entrée
Velocidad de entrada

Gear size
Grandezza riduttore
Getriebegröße
Taille réducteur
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Puissance moteur
Potencia motor

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					Available B14 motor flanges				Output Shaft 	Notes
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
167	8.38	4	215	1.0	4.1	225	B									2821	01
139	10.04	3	194	1.2	3.7	240	B									2818	02
114	12.33	3	238	1.1	3.2	260	B									2813	03
92	15.16	2.2	216	1.2	2.6	260	B									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	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	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 boccia di riduzione
Reduzierhülsen
Montage avec douille de réduction
Montaje con casquillo de reducción

C) Motor flangeholes position/terminal box position
Posizione fori flangia/basetta motore
Bohrungsposition am Motorflansch/-sockel
Position trous bride/barrette à bornes moteur
Posición agujeros brida / base motor

B) Available without reduction bushes
Disponibile anche senza boccia
Auch ohne Reduzierbuchse verfügbar
Disponible aussi sans douille de réduction
Disponible tambien sin casquillo

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		Available B14 motor flanges			Hollow Shaft 	Ratios code 
							-B	-C	-O	-P	-Q		
72	19.42	0.37	46	1.3	0.48	60			C	C		281713	01
51	27.21	0.37	65	0.9	0.34	60			C	C		281313	02
36.4	38.49	0.25	62	1.0	0.24	60			C	C		191713	03
31.7	44.12	0.18	54	1.1	0.21	60			C	C		171713	04
26.7	52.50	0.18	64	0.9	0.18	60			C	C		151713	05
22.6	61.82	0.12	49	1.2	0.15	60			C	C		171313	06
19.0	73.56	0.12	58	1.0	0.13	60			C	C		151313	07
15.9	88.13	0.09	56	1.1	0.11	60			C	C		101713	08
12.0	116.67	0.06	48	1.2	0.08	60			C	C		91713	09
11.3	123.48	0.06	51	1.2	0.08	60			C	C		101313	10
9.0	155.37	0.06	64	0.9	0.06	60			C	C		71713	11
8.6	163.47	0.06	68	0.9	0.06	60			C	C		91313	12
7.6	184.39	0.06	76	0.8	0.05	60			C	C		61713	13
6.4	217.68	0.06*	90	0.7	0.04	60			C	C		71313	14
5.4	258.34	0.06*	107	0.6	0.04	60			C	C		61313	15

The dynamic efficiency is **0.94** for all ratios

* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M_{2R}
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2R}

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FS10** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

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

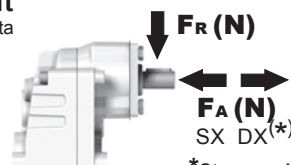
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

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.

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.

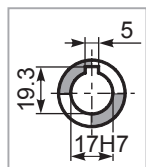
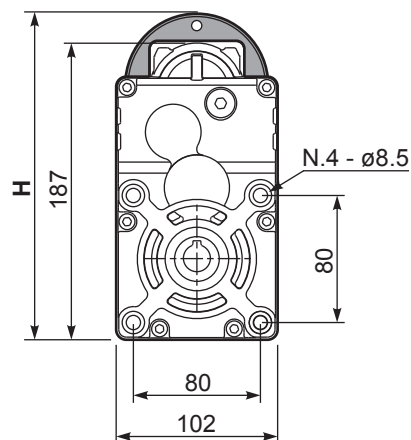
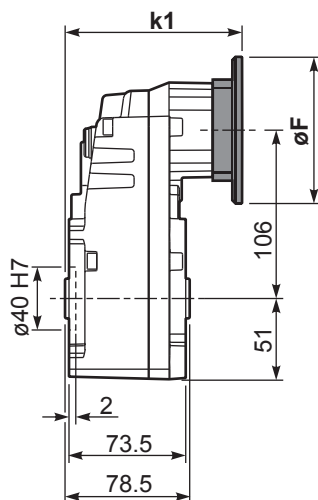
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

D Das Getriebe **FS10** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

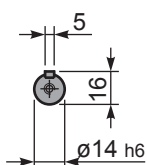
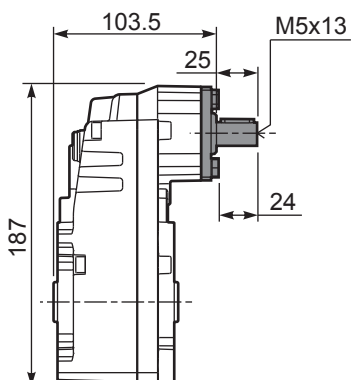
F Le réducteur **FS10** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FS10** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

PFS10...Basic gearbox
Riduttore baseGearbox
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		Available B14 motor flanges			Hollow Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
24.2	57.95	0.25	93	1.0	0.24	90			C	C		2844	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 requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

LUBRICATION FS20 Oil Quantity 0.50 Lt.

SHELL Omala S4 WE 320

ENI Telium VSF 320

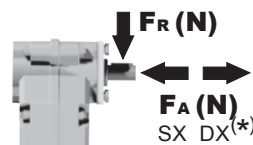
For all details on lubrication and plugs check our website

tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL LOADS

Input shaft
Albero in entrata

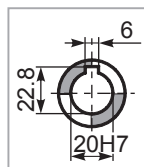
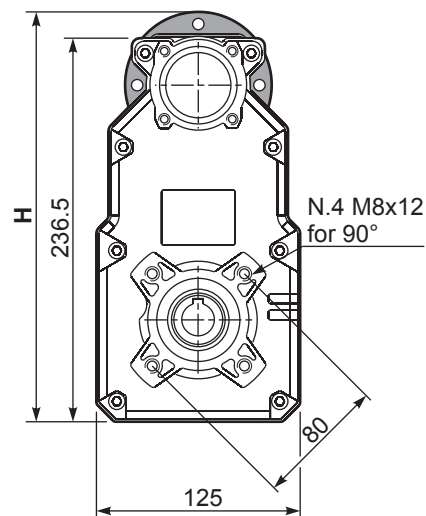
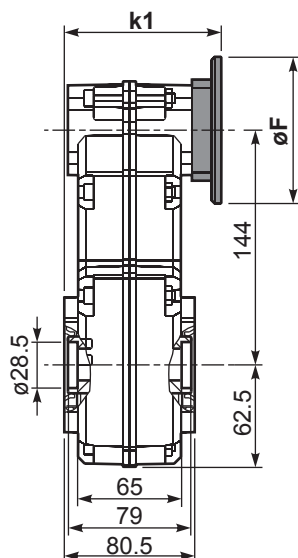


n_1	FA	FR
1400	140	700
900	160	800

***Strong axial loads in the DX direction are not allowed.**

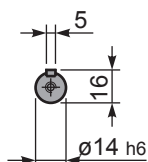
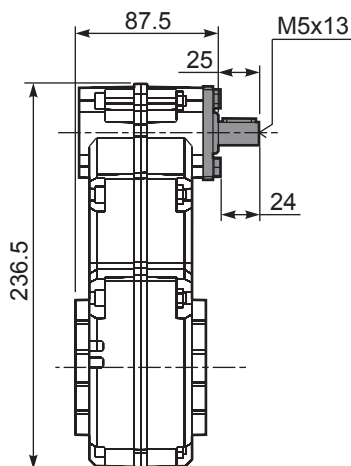
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PFS20...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore**4.3 kg****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					Available B14 motor flanges				Output Shaft  $\emptyset$	Ratios code 
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100 112	71	80	90	100 112		
231	6.06	2.2	86	0.9	2.02	80	B					C	C			2821	01
150	9.31	1.5	91	1.0	1.48	90	B					C	C			2813	02
128	10.96	1.5	107	1.0	1.53	110	B					C	C			1921	03
110	12.71	1.5	124	1.0	1.50	125	B					C	C			1721	04
94	14.91	1.5	146	1.0	1.45	142	B					C	C			1521	05
83	16.83	1.5	165	0.9	1.36	150	B					C	C			1913	06
79	17.80	1.1	127	1.2	1.29	150	B					C	C			1321	07
72	19.51	1.1	140	1.1	1.17	150	B					C	C			1713	08
61	22.90	1.1	164	0.9	1.00	150	B					C	C			1513	09
58	24.30	1.1	174	0.9	0.94	150	B					C	C			1021	10
54	26.15	0.75	128	1.2	0.88	150	B					C	C			1910	11
51	27.34	0.75	134	1.1	0.84	150	B					C	C			1313	12
46.2	30.31	0.75	149	1.0	0.76	150	B					C	C			1710	13
44.1	31.71	0.75	156	1.0	0.72	150	B					C	C			921	14
39.4	35.57	0.75	175	0.9	0.64	150	B					C	C			1510	15
37.5	37.32	0.55	135	1.1	0.61	150	B					C	C			1013	16
33.0	42.46	0.55	154	1.0	0.54	150	B					C	C			1310	17
28.7	48.70	0.55	176	0.9	0.47	150	B					C	C			913	18
24.2	57.96	0.37	140	1.1	0.40	150	B					C	C			1010	19
21.8	64.31	0.37	156	1.0	0.36	150	B					C	C			713	20
18.5	75.64	0.25	124	1.2	0.30	150	B					C	C			910	21
14.0	99.89	0.25	163	0.9	0.23	150	B					C	C			710	22

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FA32** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA32** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA32** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA32** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA32** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
					
H1	H4	H3	H2	H5	H6
0.65 LT	0.50 LT	0.50 LT	0.60 LT	0.80 LT	0.65 LT
SHELL Omala S4 WE 320			ENI Telium VSF 320		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

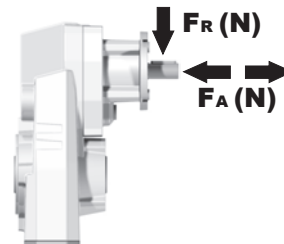


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
300	250	1250	140	360	1800	70	470	2350
250	270	1350	120	380	1900	40	550	2750
200	320	1600	85	440	2200	15	560	2800

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

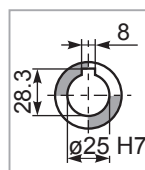
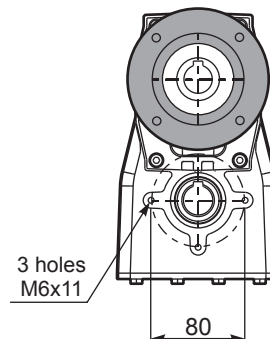
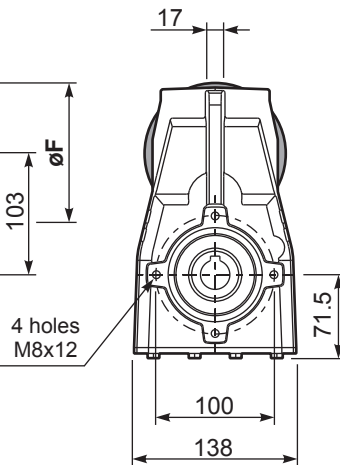
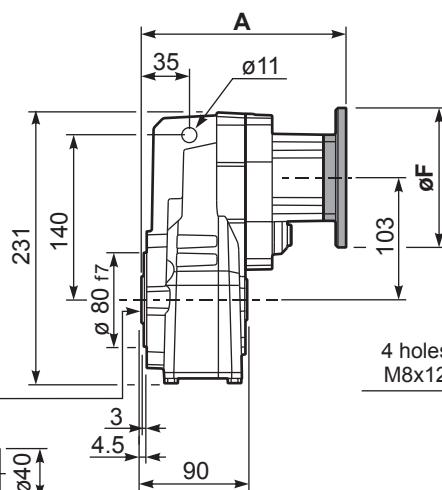
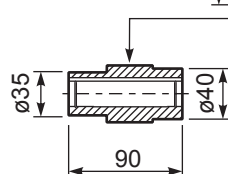
tab. 2

PFA32C...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore

7.0 kg

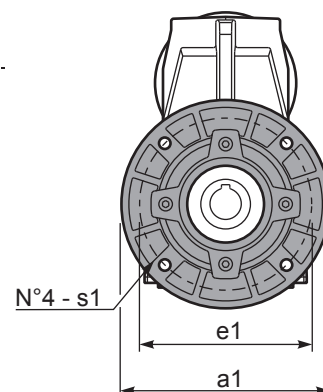
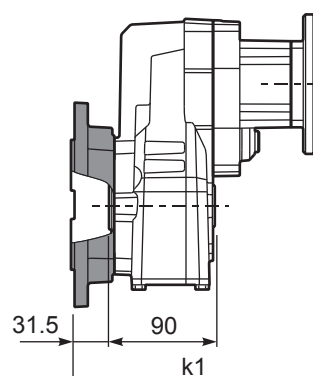
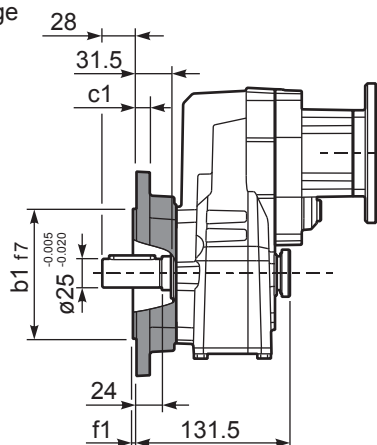
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	176.5
71B5	K063.4.042	160	174.5
80/90B5	K063.4.043	200	176.5
100/112B5	KC40.4.043	250	191.5
71B14	K063.4.047	105	174.5
80B14	K063.4.046	120	176.5
90B14	K063.4.041	140	176.5
100/112B14	KC40.4.041	160	191.5

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

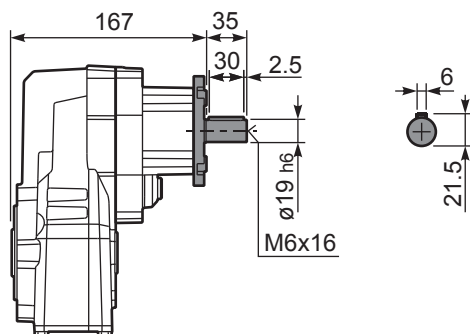


Available output flanges

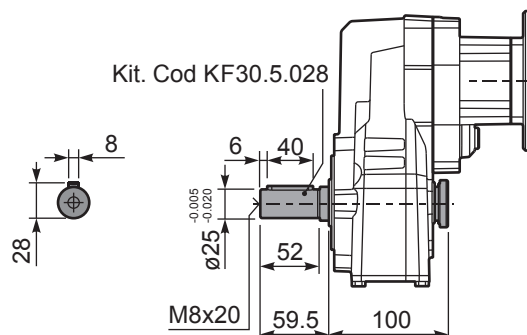
Flange di uscita

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		Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-O	-P	-Q		
63							63	71	56	63	71		
13.6	102.57	0.25	164	0.9	0.23	150			C	C		131710	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.

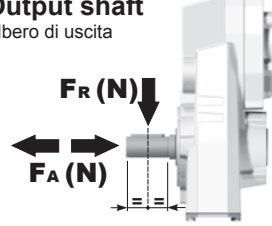
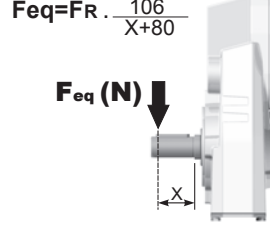
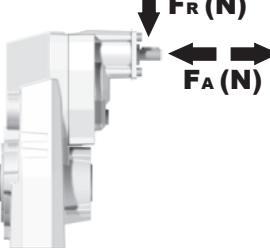
F Le réducteur **FA33** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA33** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
					
H1	H4	H3	H2	H5	H6
0.90 LT	0.55 LT	0.55 LT	0.65 LT	0.95 LT	0.70 LT
SHELL Omala S4 WE 320			ENI Telium VSF 320		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS					
Output shaft Albero di uscita			F _{eq} = F _R · $\frac{106}{X+80}$		
					
n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
300	250	1250	140	360	1800
250	270	1350	120	380	1900
200	320	1600	85	440	2200
n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
70	470	2350	70	470	2350
40	550	2750	40	550	2750
15	560	2800	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	n_1	FA	FR
1400	140	700	1400	140	700
900	160	800	900	160	800
500	190	950	500	190	950

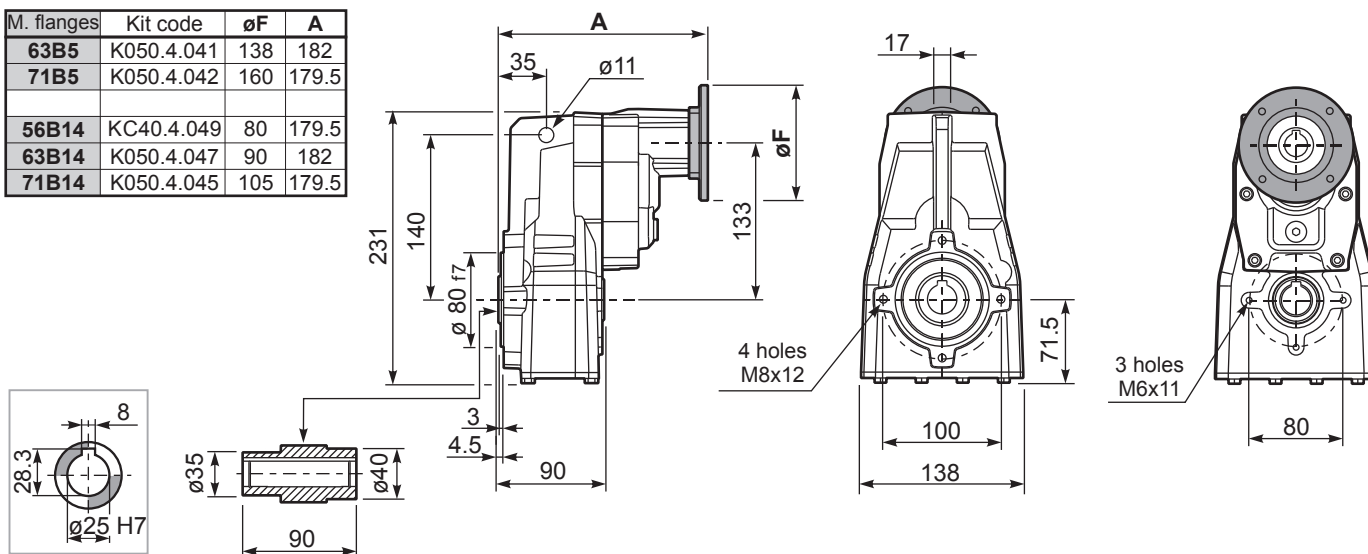
tab. 2

PFA33C...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore

7.0 kg

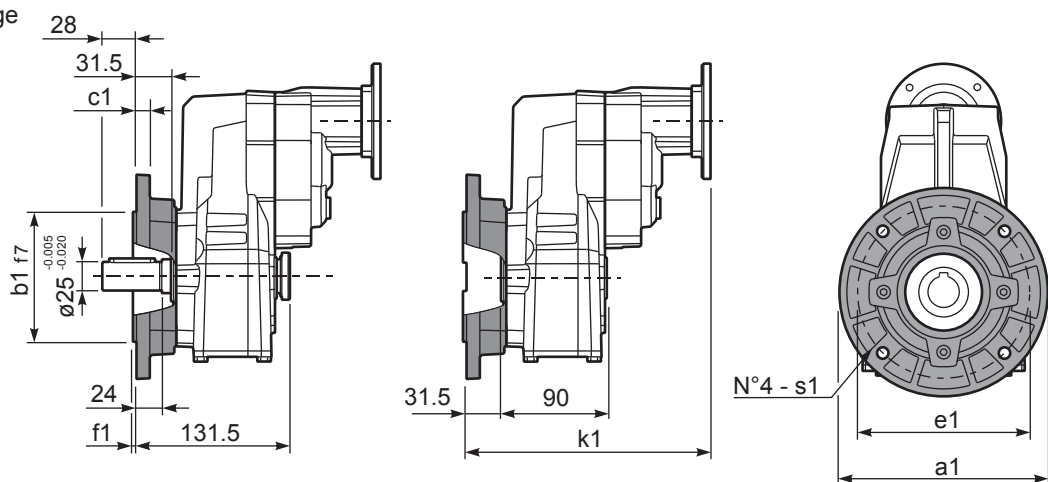
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	182
71B5	K050.4.042	160	179.5
56B14	KC40.4.049	80	179.5
63B14	K050.4.047	90	182
71B14	K050.4.045	105	179.5

Standard
Hollow shaft

PFA33...-F...

Output flange
Flangia uscita

Motor Flange	k1
63B5	213.5
71B5	211
56B14	211
63B14	213.5
71B14	211

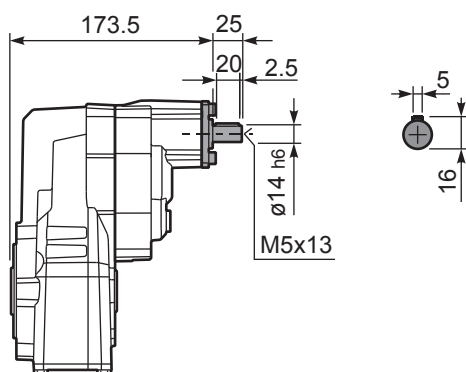


Available output flanges

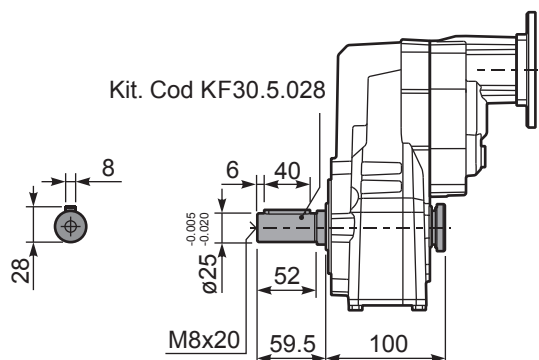
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX4A.9.010
200	130	11	165	3.5	11	KX4A.9.011
-	-	-	-	-	-	-

RFA33C...

Input Shaft
Albero in entrata

PFA33 A...

Single output shaft
Albero uscita semplice

Kit. Cod KF30.5.028



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges			Available B14 motor flanges			Output Shaft 	Ratios code
							-D	-E	-F	-R	-T	-U		
							80	90	100 112	80	90	100 112		
481	2.91	4	76	1.8	7.2	140	B	B		B	B		3499	01
373	3.75	4	98	1.6	6.4	160	B	B		B	B		28105	02
263	5.33	4	140	1.2	4.8	170	B	B		B	B		21112	03
219	6.39	4	167	1.0	4.0	170	B	B		B	B		18115	04
178	7.85	4	205	1.1	4.3	225	B	B		B	B		13102	05

The dynamic efficiency is **0.98** for all ratios

On request

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FA41** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA41** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA41** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA41** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA41** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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		

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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

$$F_{eq} = F_R \cdot \frac{127.5}{X + 97.5}$$

F_R (N)
 F_A (N)

F_{eq} (N)

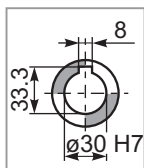
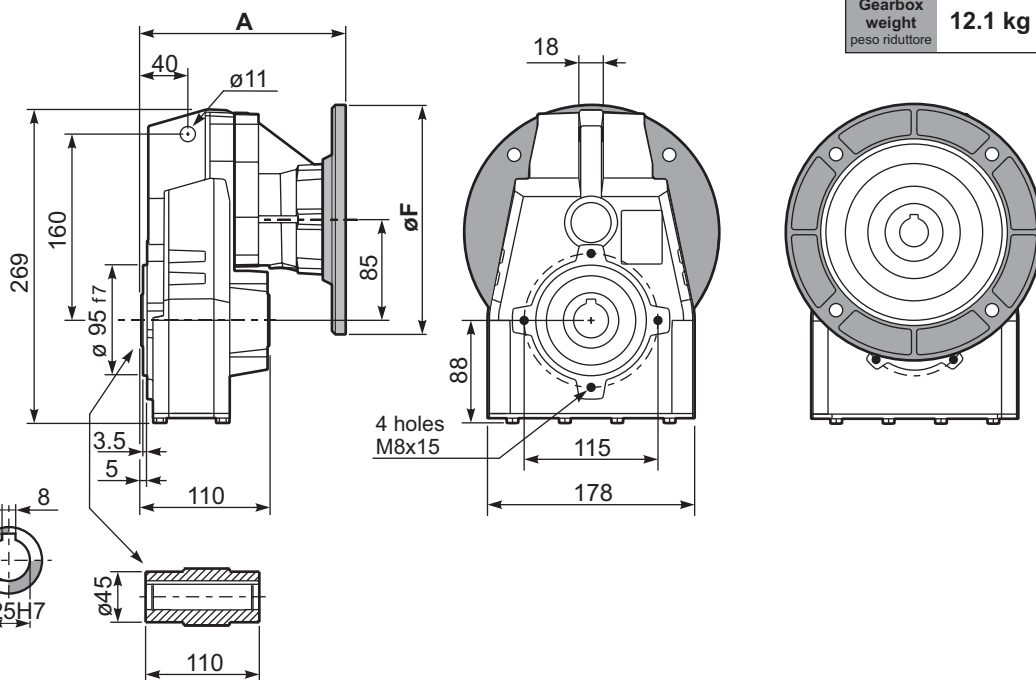
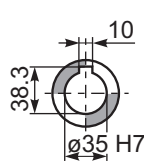
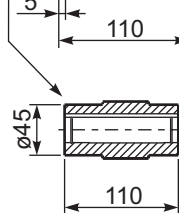
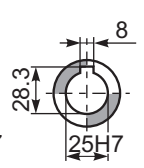
n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
300	300	1500	140	390	1950	70	490	2450
250	320	1600	120	410	2050	40	590	2950
200	350	1750	85	460	2300	15	800	4000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

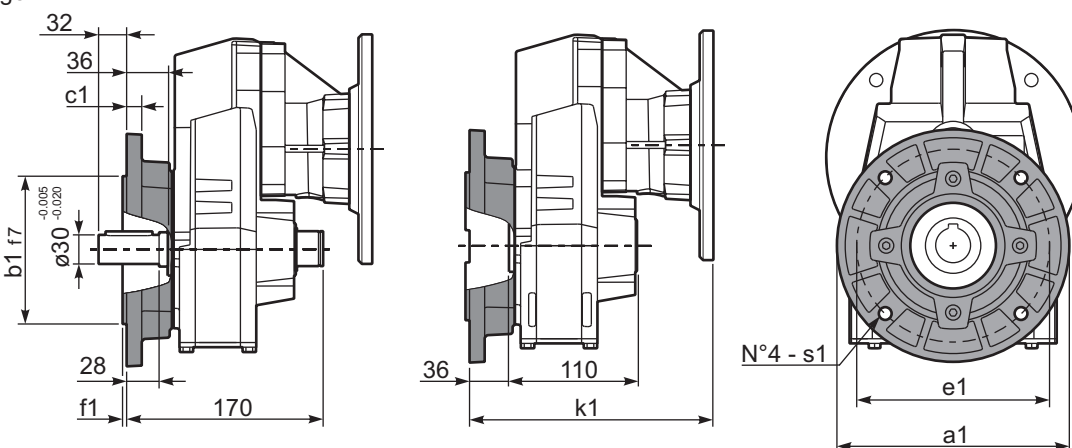
tab. 2

PFA41C...Basic gearbox
Riduttore baseGearbox
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

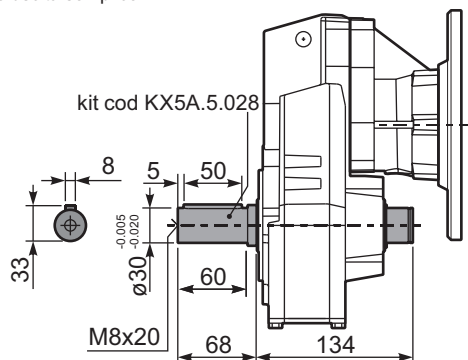
**Standard**
Hollow shaft**On request**
A richiesta**PFA41...-F...**Output flange
Flangia uscita

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					Available B14 motor flanges					Output Shaft 	Ratios code
							-B	-C	-D	-E	-F	-Q	-R	-T	-U			
							63	71	80	90	100 112	71	80	90	100 112			
167	8.38	4	215	1.0	4.1	225	B					C	C			2821		01
139	10.04	3	194	1.2	3.7	240	B					C	C			2818		02
114	12.33	3	238	1.1	3.2	260	B					C	C			2813		03
92	15.16	2.2	215	1.2	2.6	260	B					C	C			1921		04
80	17.57	2.2	250	1.1	2.3	270	B					C	C			1721		05
77	18.16	2.2	258	1.1	2.4	290	B					C	C			1918		06
67	21.05	2.2	299	1.1	2.3	320	B					C	C			1718		07
63	22.30	2.2	317	1.0	2.2	320	B					C	C			1913	standard ø30	08
57	24.70	1.5	242	1.3	2.0	320	B					C	C			1518		09
54	25.85	1.5	253	1.3	1.9	320	B					C	C			1713		10
47.5	29.49	1.5	289	1.1	1.7	320	B					C	C			1318	ø25	11
46.1	30.34	1.5	297	1.1	1.6	320	B					C	C			1513	ø35	12
41.7	33.60	1.1	240	1.0	1.1	250	B					C	C			1021	On request	13
38.7	36.21	1.1	259	1.2	1.3	320	B					C	C			1313		14
34.8	40.25	1.1	288	1.0	1.1	300	B					C	C			1018		15
28.3	49.43	1.1	354	0.9	0.99	320	B					C	C			1013		16
26.7	52.53	0.75	258	1.0	0.76	260	B					C	C			918		17
21.7	64.51	0.75	317	1.0	0.75	315	B					C	C			913		18
20.2	69.37	0.37	168	1.1	0.42	190	B					C	C			718		19
16.4	85.19	0.37	206	1.1	0.41	230	B					C	C			713		20

The dynamic efficiency is 0.96 for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FA42** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA42** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA42** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA42** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA42** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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		

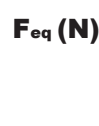
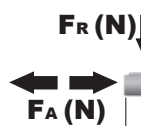
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tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{127.5}{X + 97.5}$$

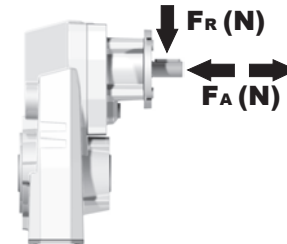


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
300	300	1500	140	390	1950	70	490	2450
250	320	1600	120	410	2050	40	590	2950
200	350	1750	85	460	2300	15	800	4000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



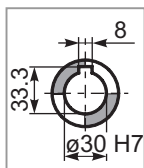
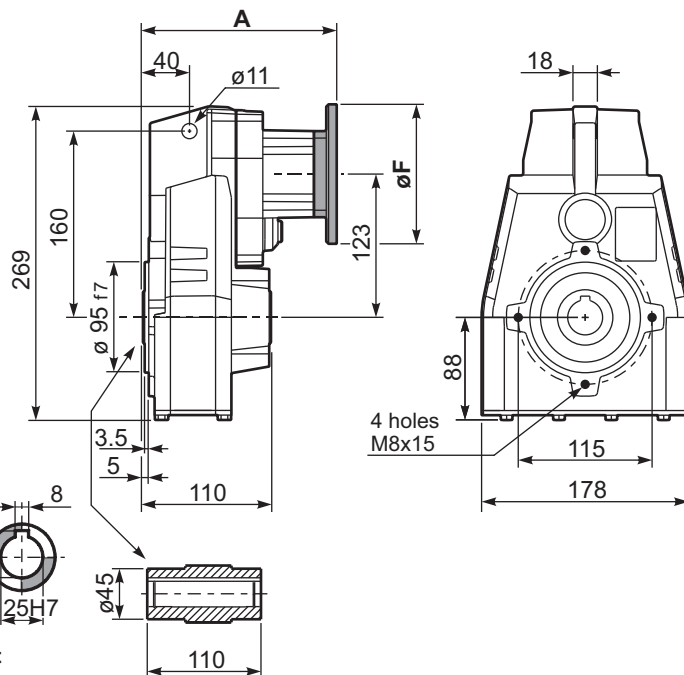
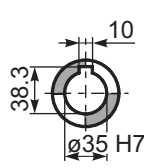
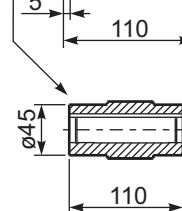
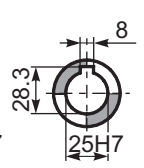
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

PFA42C...

Basic gearbox
Riduttore baseGearbox weight
peso riduttore **9.0 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	169.5
71B5	K063.4.042	160	167.5
80/90B5	K063.4.043	200	169.5
100/112B5	KC40.4.043	250	184.5
71B14	K063.4.047	105	167.5
80B14	K063.4.046	120	169.5
90B14	K063.4.041	140	169.5
100/112B14	KC40.4.041	160	184.5

Standard
Hollow shaftOn request
A richiesta

PFA42...-F...

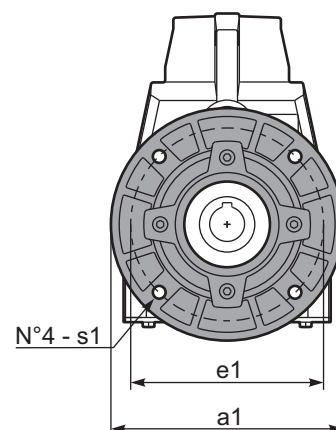
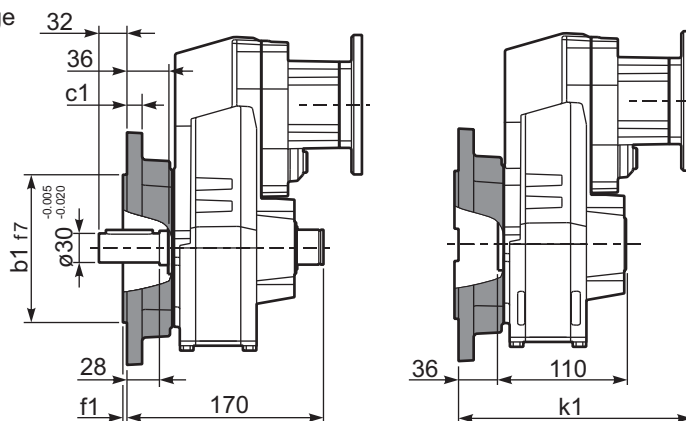
Output flange
Flangia uscita

Motor Flange	k1
63B5	205.5
71B5	203.5
80/90B5	205.5
100/112B5	220.5
71B14	203.5
80B14	205.5
90B14	205.5
100/112B14	220.5

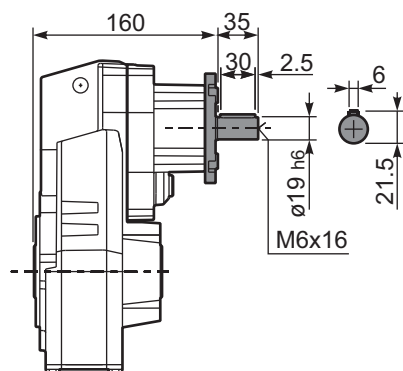
Available output flanges

Flange di uscita

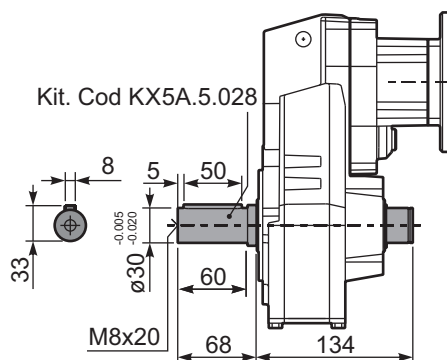
a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012



RFA42C...

Input Shaft
Albero in entrata

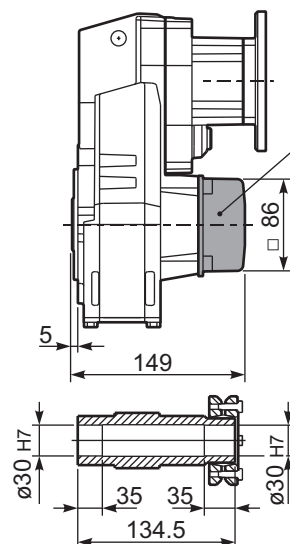
PFA42 A...

Single output shaft
Albero uscita semplice

PFA42D...

Shrink disk
Calettatore

Kit. Cod KF40.0.210LM





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
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	06
8.7	160.82	0.25	257	1.2	0.31	320			C	C		91713	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	09
6.5	214.15	0.18	262	1.2	0.23	320			C	C		71713	10
6.2	225.33	0.18	276	1.2	0.22	320			C	C		91313	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 requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
					
H1	H4	H3	H2	H5	H6
1.30 LT	0.70 LT	0.70 LT	0.70 LT	1.35 LT	0.90 LT
SHELL Omala S4 WE 320			ENI Telium VSF 320		

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

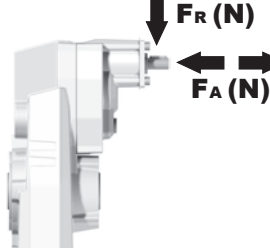
RADIAL AND AXIAL LOADS



n_2 [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.

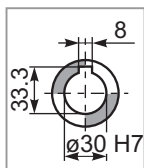
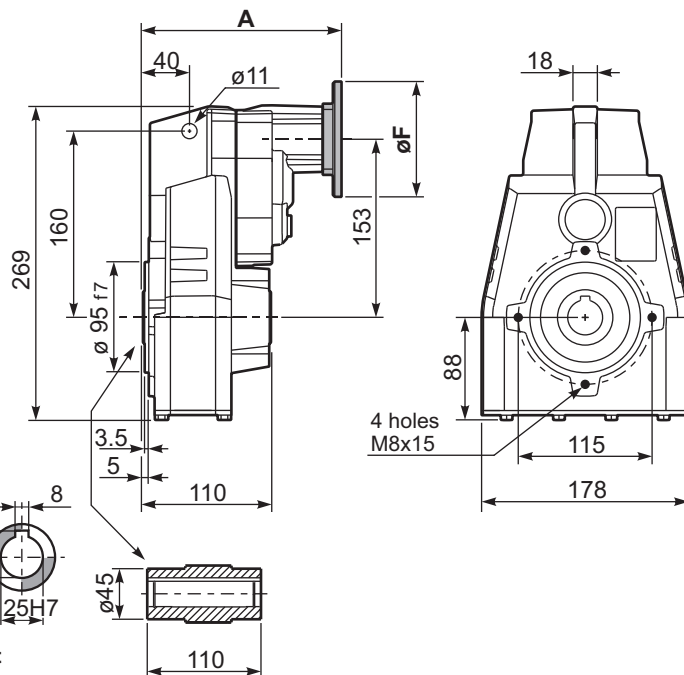
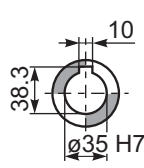
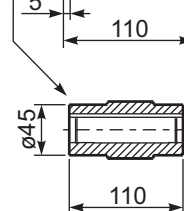
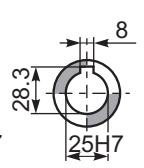
Input shaft Albero in entrata			n_1	FA	FR
			1400	140	700
			900	160	800
			500	190	950

tab. 2

PFA43C...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **8.9 kg**

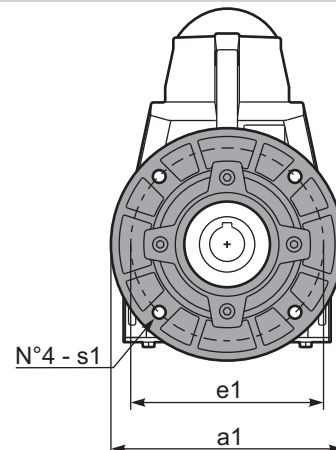
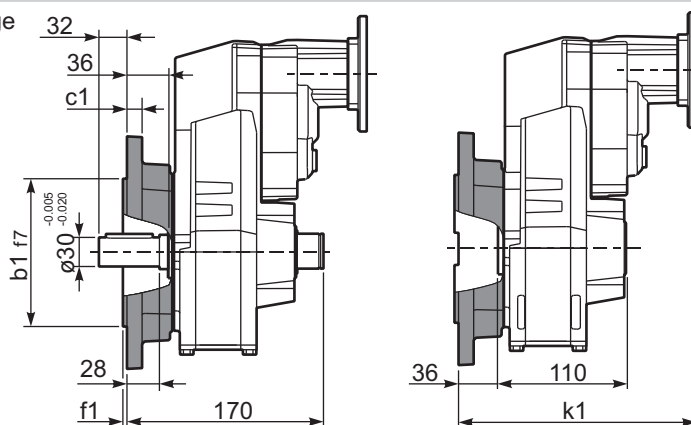
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	175
71B5	K050.4.042	160	172.5
56B14	KC40.4.049	80	172.5
63B14	K050.4.047	90	175
71B14	K050.4.045	105	172.5

Standard
Hollow shaftOn 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

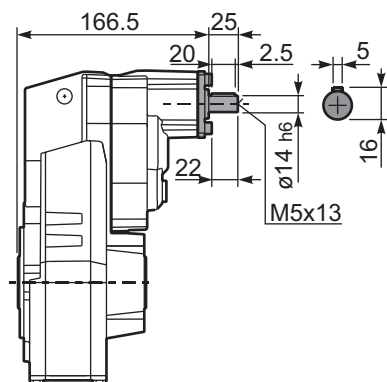


Available output flanges

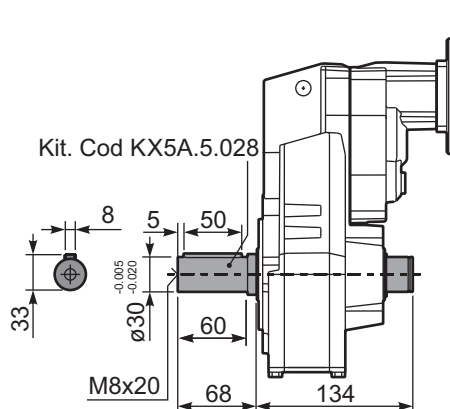
Flange di uscita

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

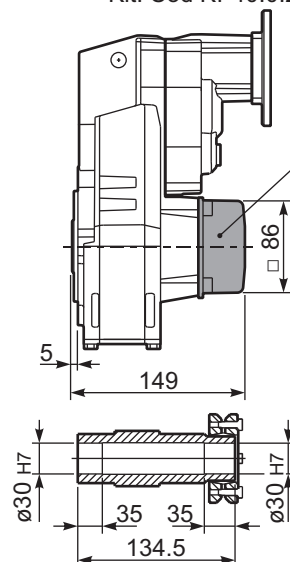
PFA43 A...

Single output shaft
Albero uscita semplice

PFA43D...

Shrink disk
Calettatore

Kit. Cod KF40.0.210LM





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
213	6.57	5.5	230	1.2	6.5	280	B									3018	01
185	7.56	5.5	265	1.1	5.9	290	B									3016	02
159	8.82	5.5	309	1.0	5.5	320	B									3014	03
113	12.39	5.5	434	1.0	5.5	450	B									2018	04
98	14.24	5.5	499	0.9	4.8	450	B									2016	05
84	16.75	4	429	1.1	4.3	470	B									1618	06
73	19.25	4	494	1.0	3.9	490	B									1616	07
64	21.78	4	558	0.9	3.4	490	B									1318	08
56	25.04	3	483	1.0	3.0	490	B									1316	09
47.9	29.23	3	564	0.9	2.6	490	B									1314	10
45.7	30.65	2.2	436	1.1	2.4	490	B									1116	11
39.1	35.78	2.2	509	1.0	2.1	490	B									1114	12
36.3	38.55	2.2	548	0.9	1.9	490	B									818	13
31.6	44.32	1.5	434	1.1	1.7	490	B									816	14
27.1	51.74	1.5	507	1.0	1.4	490	B									814	15
22.9	61.03	1.1	437	1.1	1.2	480	B									616	16
19.6	71.25	1.1	510	1.0	1.1	490	B									614	17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FA52** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FA52** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FA52** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FA52** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FA52** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

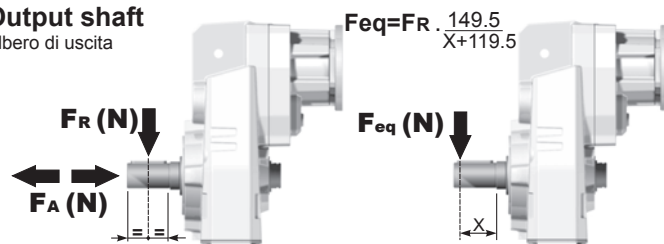
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
					
1.85 LT	1.15 LT	1.15 LT	1.30 LT	2.10 LT	1.30 LT
SHELL Omala S4 WE 320			ENI Telium VSF 320		

For all details on lubrication and plugs check our website
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tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

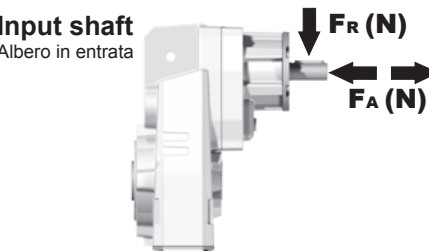


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	400	2000	140	460	2300	70	580	2900
250	420	2100	120	500	2500	40	780	3900
200	440	2200	85	550	2750	15	1140	5700

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



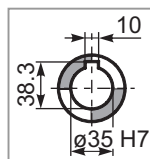
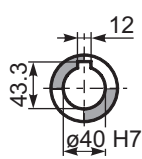
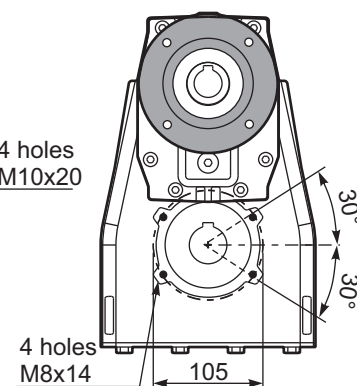
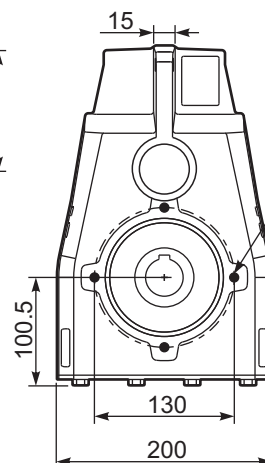
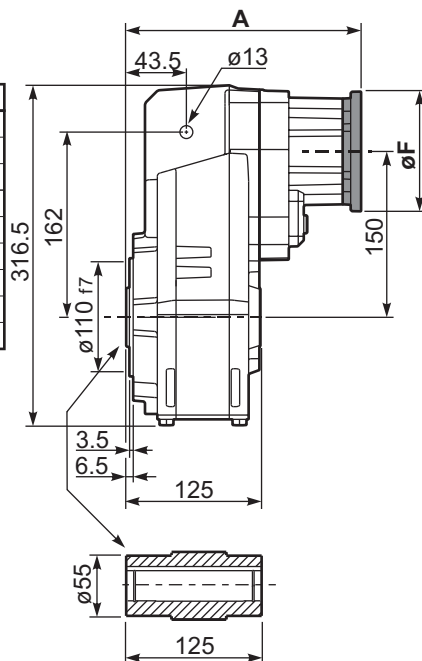
n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

PFA52C...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **15.5 kg**

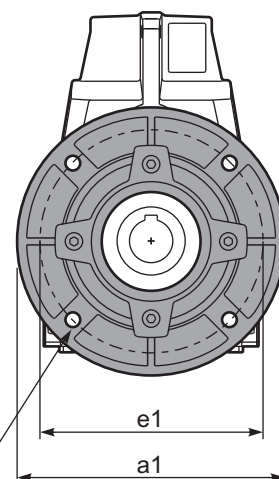
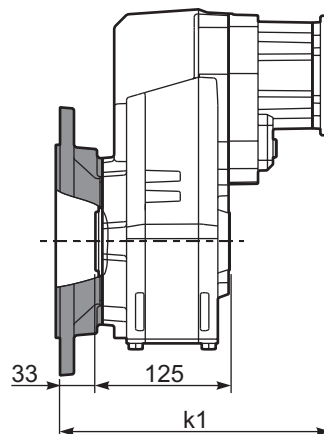
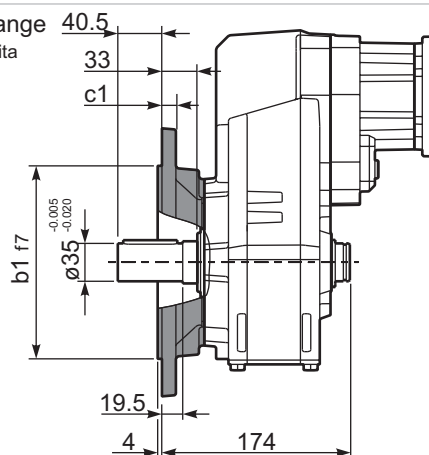
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

Standard
Hollow shaftOn 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

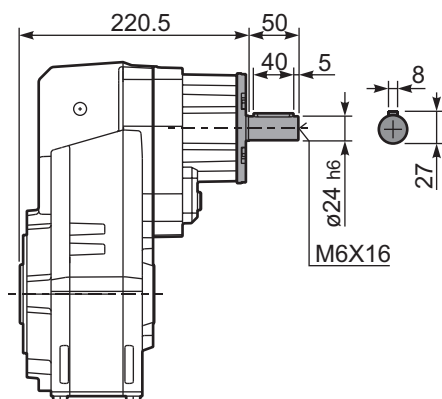


Available output flanges

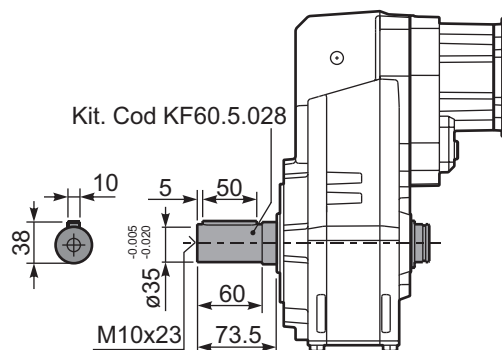
Flangia di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

RFA52C...

Input Shaft
Albero in entrata

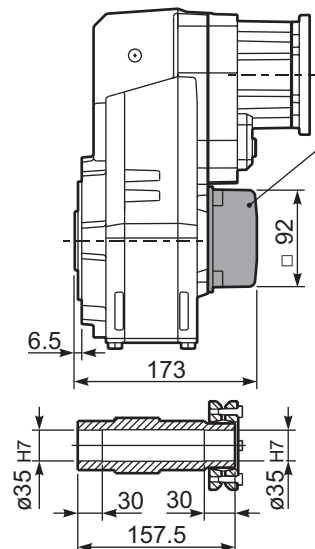
PFA52 A...

Single output shaft
Albero uscita semplice

PFA52D...

Shrink disk
Calettatore

Kit. Cod KF60.0.210LM





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
22.6	61.89	1.1	434	1.2	1.3	510	B				C	C		191318	standard ø35 ø40 On request	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		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		11
6.8	205.87	0.37	488	1.0	0.39	510	B				C	C		91316		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 requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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		

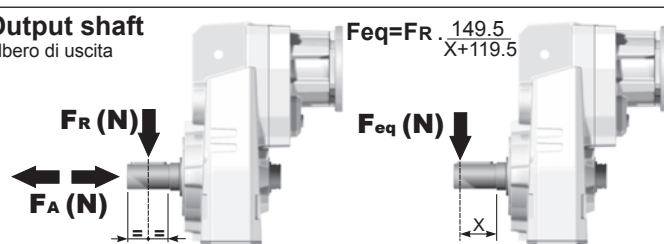
For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



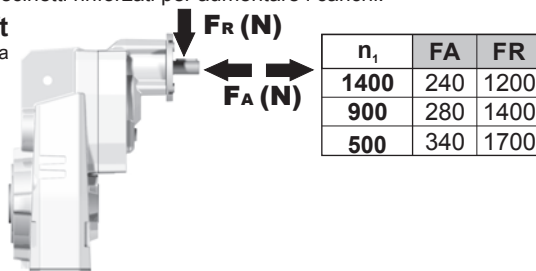
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	400	2000	140	460	2300	70	580	2900
250	420	2100	120	500	2500	40	780	3900
200	440	2200	85	550	2750	15	1140	5700

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

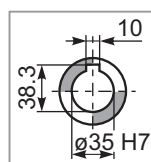
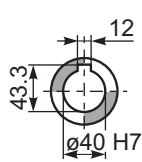
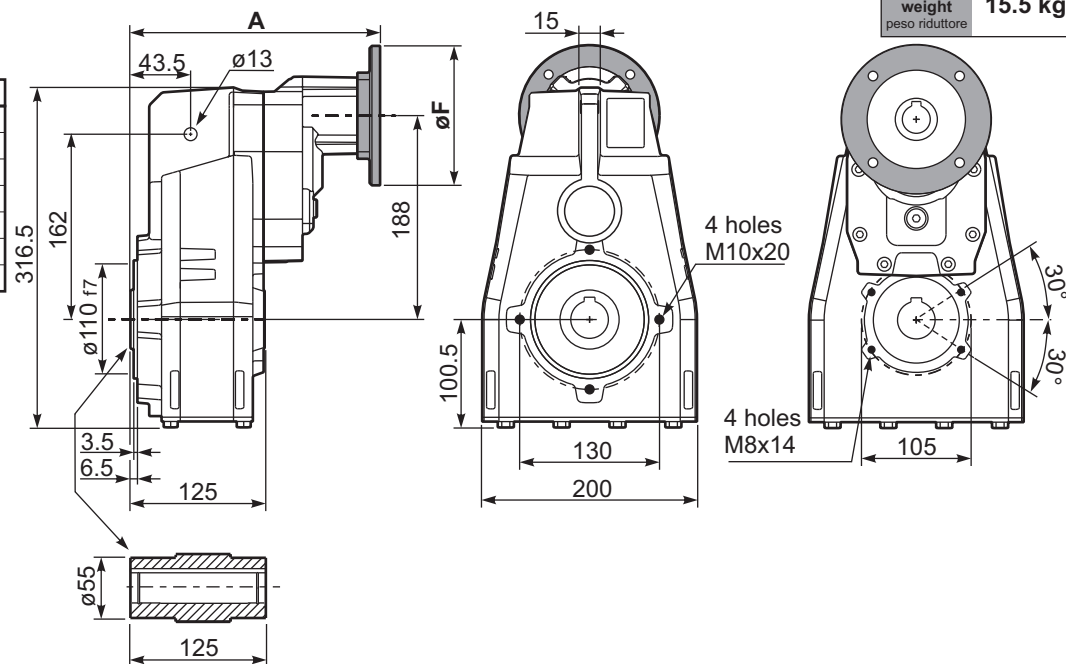
tab. 2

PFA53C...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore

15.5 kg

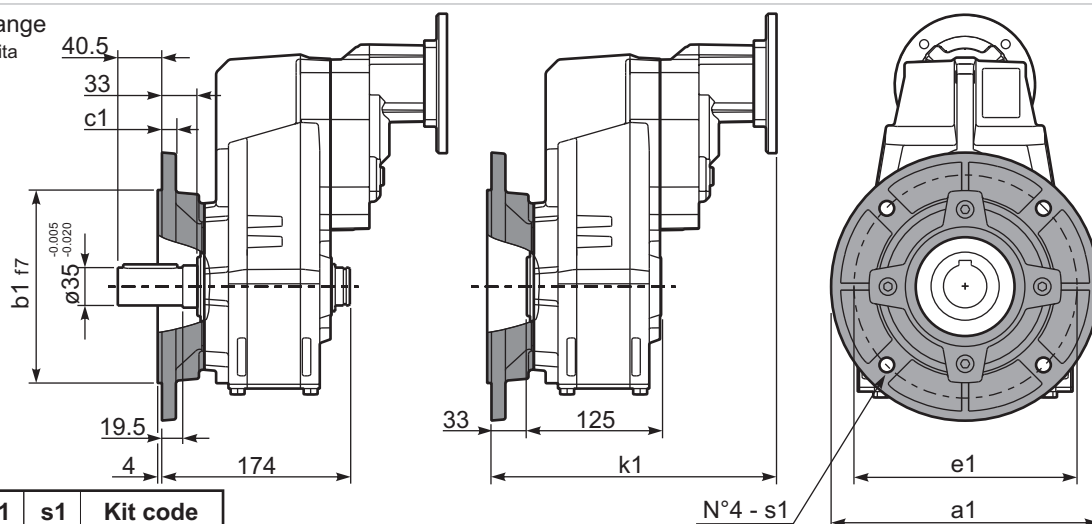
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239

Standard
Hollow shaftOn 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

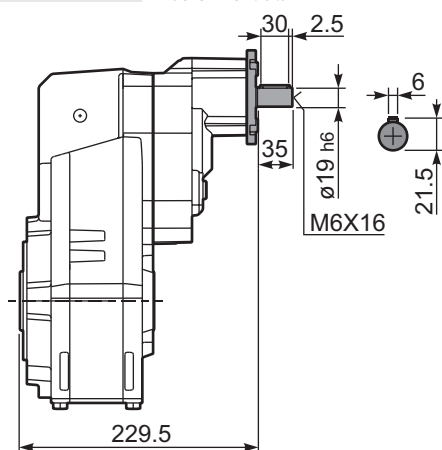


Available output flanges

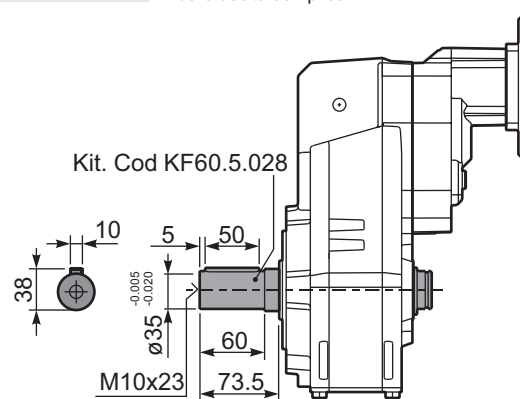
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

RFA53C...

Input Shaft
Albero in entrata

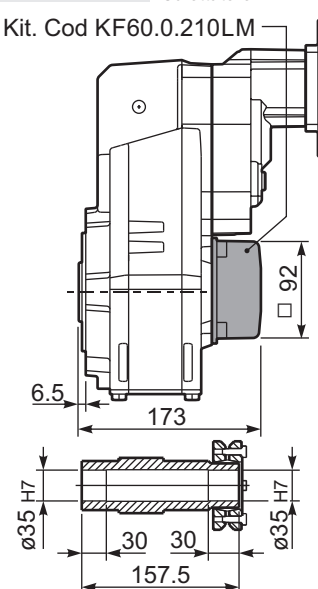
PFA53 A...

Single output shaft
Albero uscita semplice

PFA53D...

Shrink disk
Calettatore

Kit. Cod KF60.0.210LM





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 132	B14 motor flanges - - - - - - - -	Output Shaft  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 ø40 03
241	5.81	7.5	281	1.2	8.5	330			1693 On request 04
206	6.79	7.5	329	1.2	8.4	380			1495 On request 05

The dynamic efficiency is **0.98** for all ratios

A) Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FC61** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC61** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC61** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC61** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FC61** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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		

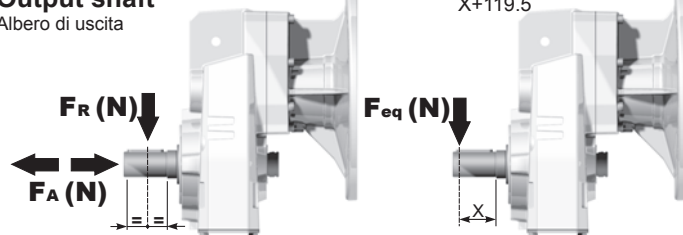
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tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

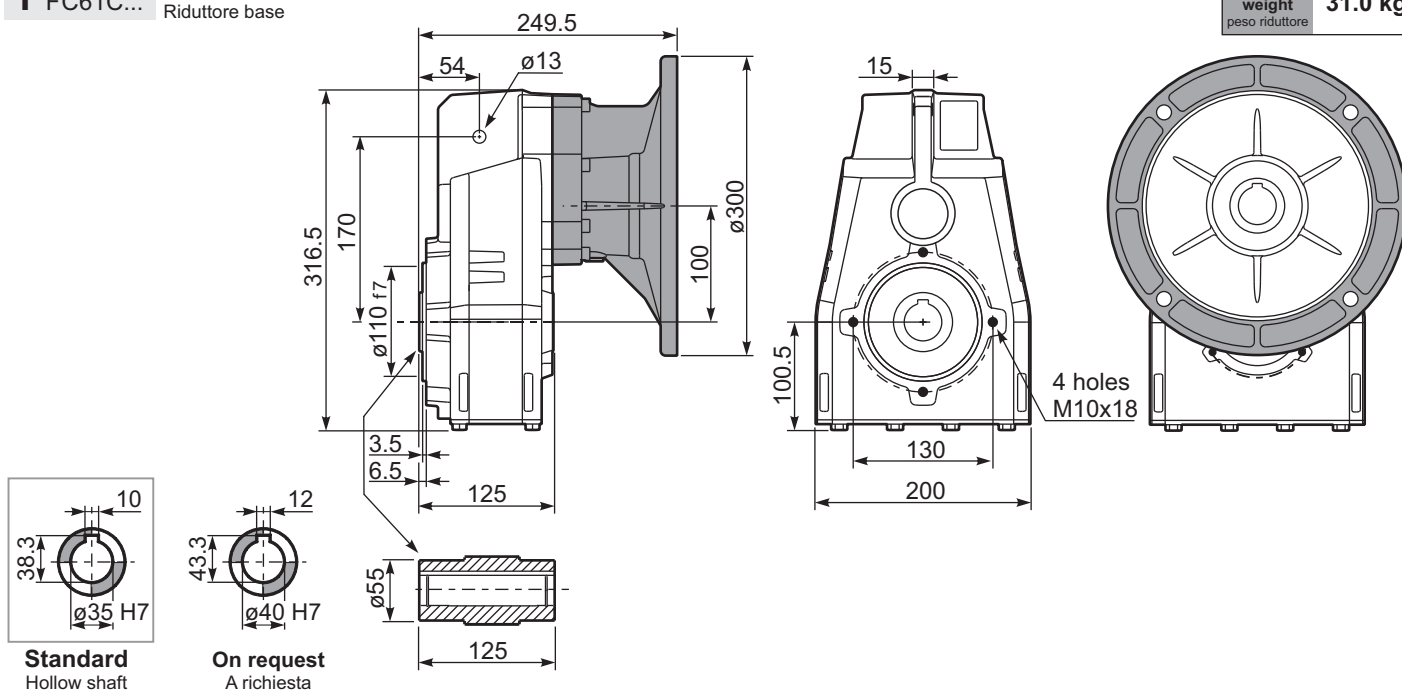
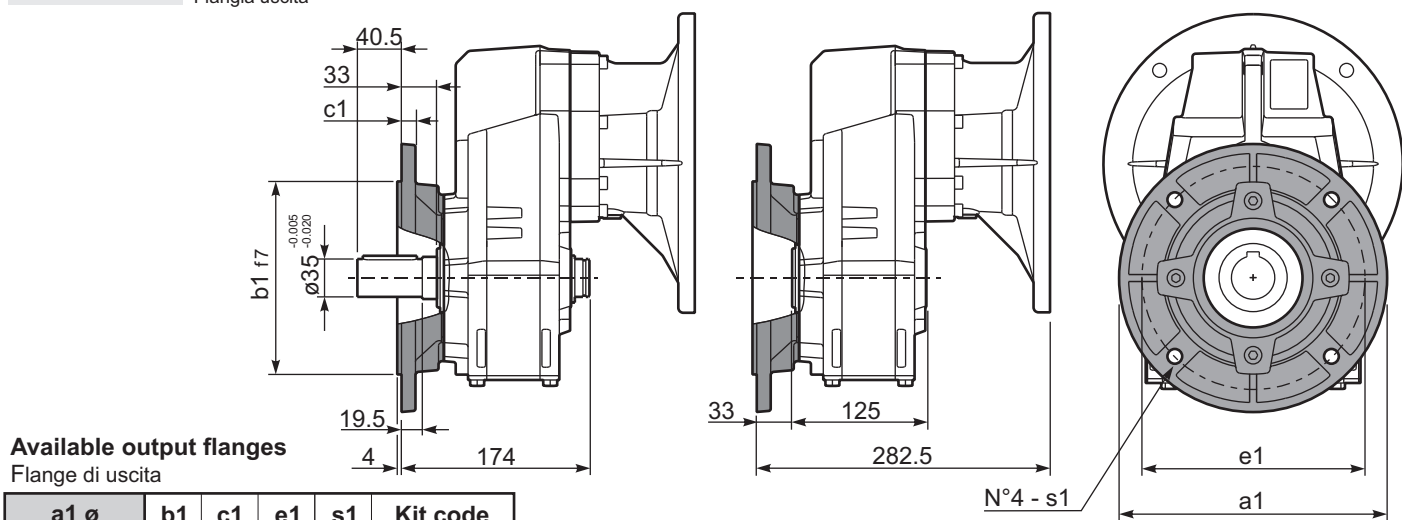
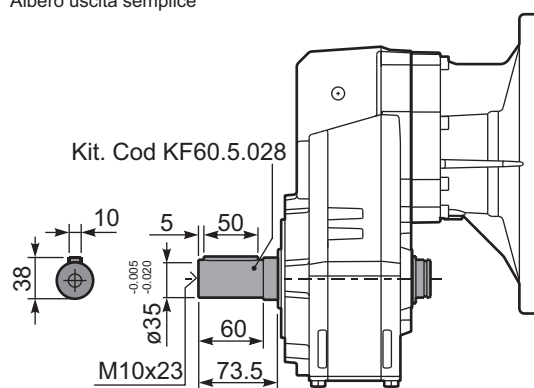
$$F_{eq} = F_R \cdot \frac{149.5}{X + 119.5}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

PFC61C...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore**31.0 kg****PFC61...-F...**Output flange
Flangia uscita**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					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
213	6.57	7.5	312	1.2	8.8	380	B									3018	standard ø35 ø40 On request	01
185	7.56	7.5	358	1.1	7.9	390	B									3016		02
159	8.82	7.5	419	1.0	7.1	410	B									3014		03
113	12.39	7.5	588	1.0	7.2	580	B									2018		04
98	14.24	5.5	499	1.2	6.4	600	B									2016		05
84	16.75	5.5	587	1.1	6.1	665	B									1618		06
73	19.25	5.5	675	1.0	5.4	675	B									1616		07
64	21.78	4	558	1.2	4.7	675	B									1318		08
56	25.04	4	642	1.1	4.1	675	B									1316		09
47.9	29.23	4	750	0.9	3.5	675	B									1314		10
45.7	30.65	3	592	1.1	3.4	675	B									1116		11
39.1	35.78	3	691	1.0	2.9	675	B									1114		12
36.3	38.55	2.2	548	1.1	2.3	580	B									818		13
31.6	44.32	2.2	630	1.1	2.3	665	B									816		14
27.1	51.74	2.2	735	0.9	2.0	675	B									814		15
22.9	61.03	1.1	437	1.1	1.2	480	B									616		16
19.6	71.25	1.1	510	1.1	1.2	560	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FC62** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC62** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC62** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC62** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FC62** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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		

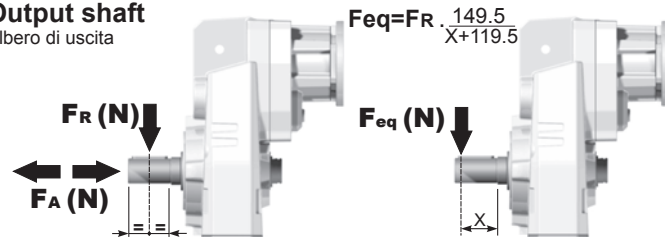
For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

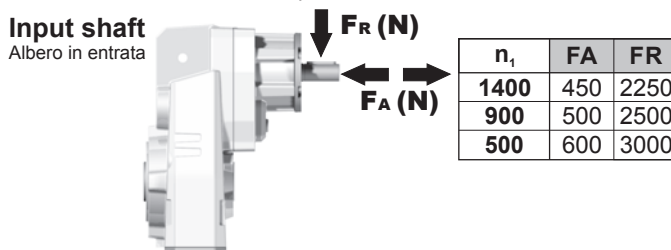


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata



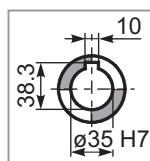
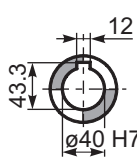
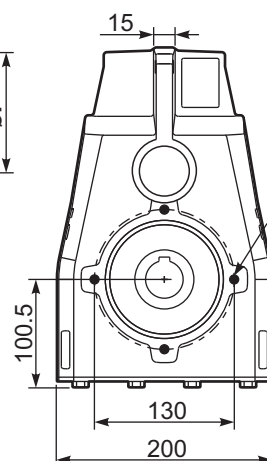
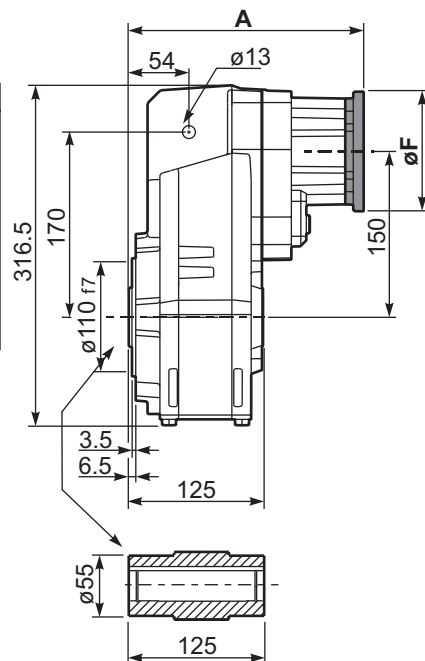
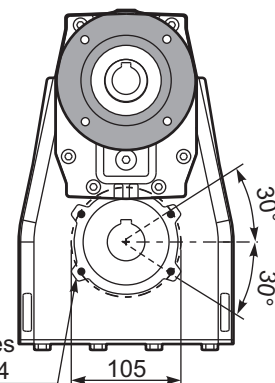
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

PFC62C...

Basic gearbox
Riduttore baseGearbox weight
peso riduttore 20.8 kg

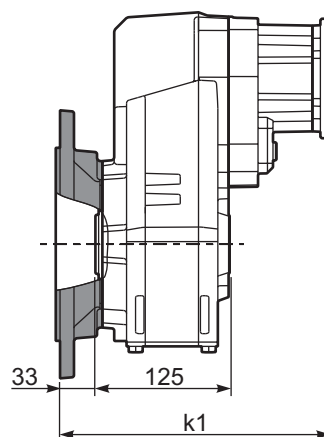
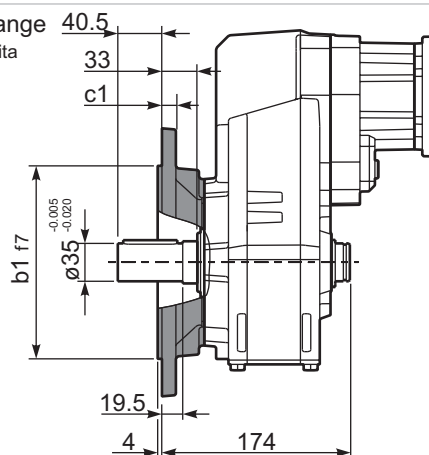
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

Standard
Hollow shaftOn request
A richiesta4 holes
M10x184 holes
M8x14

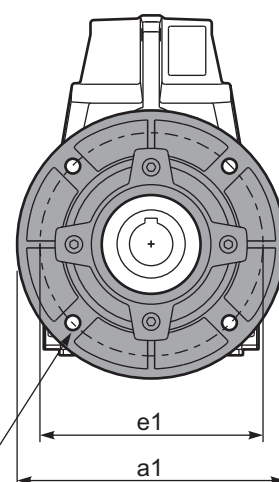
PFC62...-F...

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



N°4 - s1

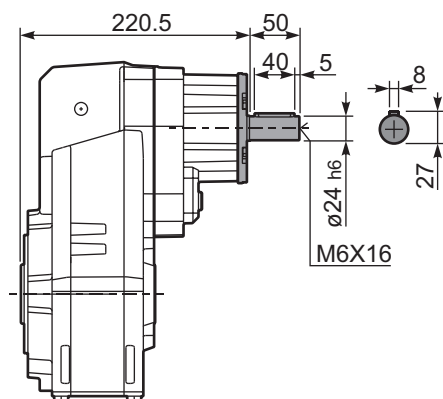


Available output flanges

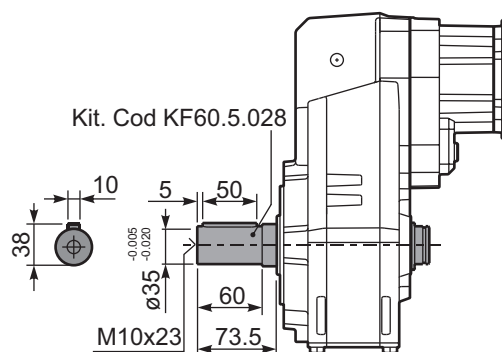
Flangia di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
-	-	-	-	-	-

RFC62C...

Input Shaft
Albero in entrata

PFC62 A...

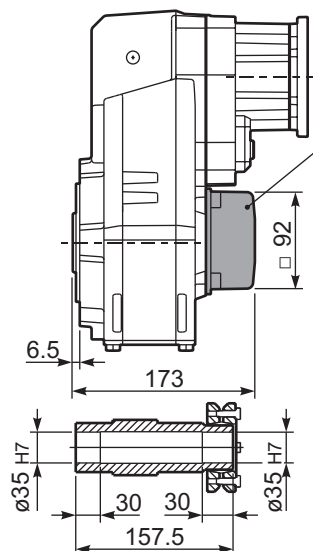
Single output shaft
Albero uscita semplice

Kit. Cod KF60.5.028

PFC62D...

Shrink disk
Calettatore

Kit. Cod KF60.0.210LM





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft $\varnothing$	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
22.6	61.89	1.5	594	1.1	1.7	675	B				C	C		191318	standard $\varnothing 35$	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	$\varnothing 40$ 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 **FC63** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **FC63** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **FC63** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **FC63** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **FC63** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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

$F_{eq} = F_R \cdot \frac{149.5}{X + 119.5}$

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

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

n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

Gearbox weight peso riduttore	20.8 kg
---	----------------

On request
A richiesta



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 132	B14 motor flanges - - - - - - - -	Output Shaft  Ø	Ratios code 01 02 03
227	6.17	9	371	1.2	10.9	450		not available	18111	standard
198	7.06	9	425	1.4	12.7	600			16113	Ø40
170	8.21	9	494	1.4	12.2	670			14115	Ø45
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 **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 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.

					
3.30 LT	1.90 LT	1.90 LT	1.80 LT	3.30 LT	1.90 LT
SHELL Omala S2 GX 460			ENI Blasias 460		

For all details on lubrication and plugs check our website

tab. 1

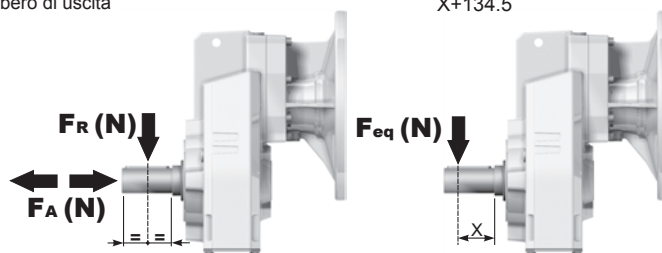
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$



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



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	 Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
175	8.02	9	473	1.1	9.9	520	B								3018	standard ø40 ø45 On request	01	
152	9.18	9	541	1.1	9.8	590	B								3016		02	
131	10.68	9	630	1.1	9.7	680	B								3014		03	
93	15.11	7.5	717	1.1	7.8	775	B								2018		04	
81	17.30	7.5	821	1.1	7.8	885	B								2016		05	
70	20.13	7.5	955	0.9	6.8	900	B								2014		06	
60	23.39	5.5	820	1.1	5.9	900	B								1616		07	
51	27.21	5.5	954	0.9	5.1	900	B								1614		08	
46.0	30.42	4	780	1.2	4.5	900	B								1316		09	
39.6	35.38	4	907	1.0	3.9	900	B								1314		10	
37.6	37.24	3	719	1.2	3.7	895	B								1116		11	
32.3	43.31	3	836	1.1	3.2	900	B								1114		12	
29.8	47.02	2.2	668	1.1	2.3	705	B								818		13	
26.0	53.85	2.2	765	1.1	2.3	810	B								816		14	
22.4	62.63	2.2	890	1.0	2.2	900	B								814		15	
18.9	74.16	1.1	531	1.1	1.2	585	B								616		16	
16.2	86.25	1.1	617	1.1	1.2	680	B								614		17	

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FC72** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC72** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC72** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC72** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC72** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

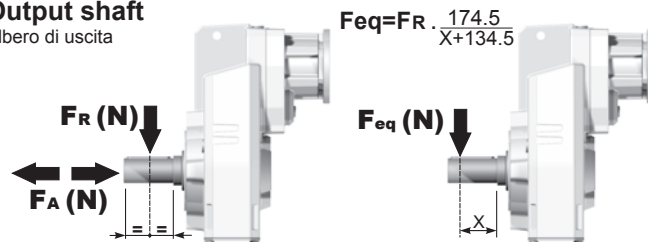
H1	H4	H3	H2	H5	H6
3.50 LT	1.90 LT	1.90 LT	1.80 LT	3.60 LT	1.90 LT
SHELL Omala S2 GX 460			ENI Blasla 460		

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



$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$

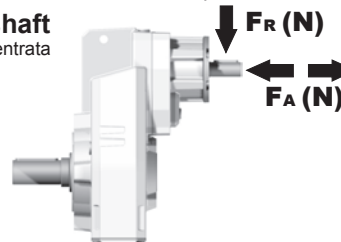
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	140	860	4300	70	1020	5100
250	800	4000	120	900	4500	40	1300	6500
200	830	4150	85	970	4850	15	1700	8500

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

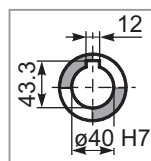
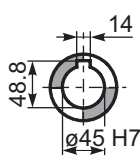
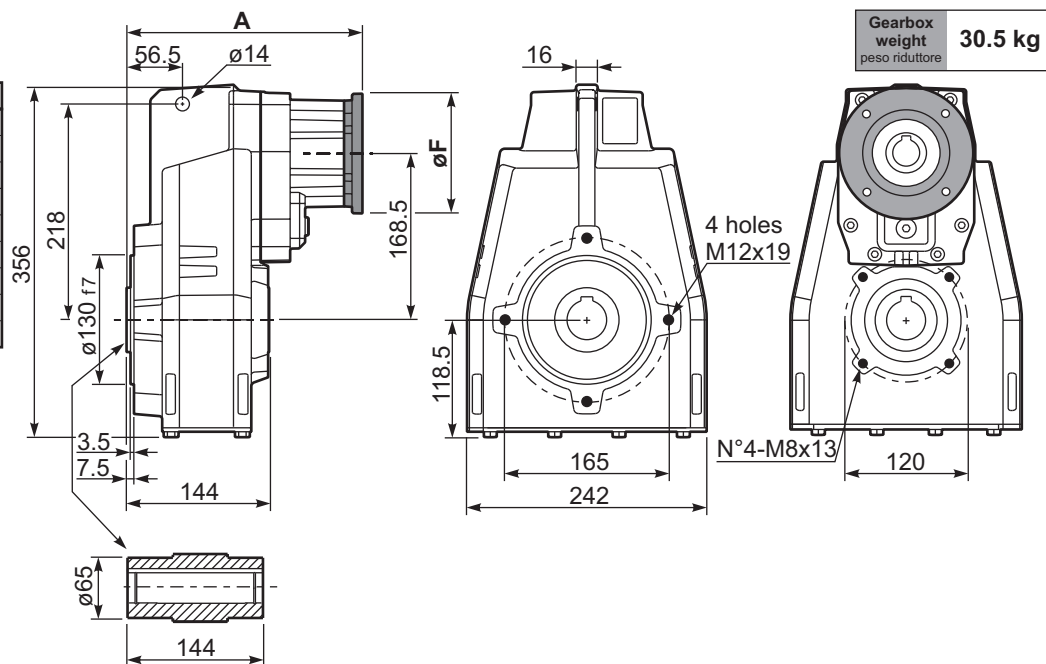


n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

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

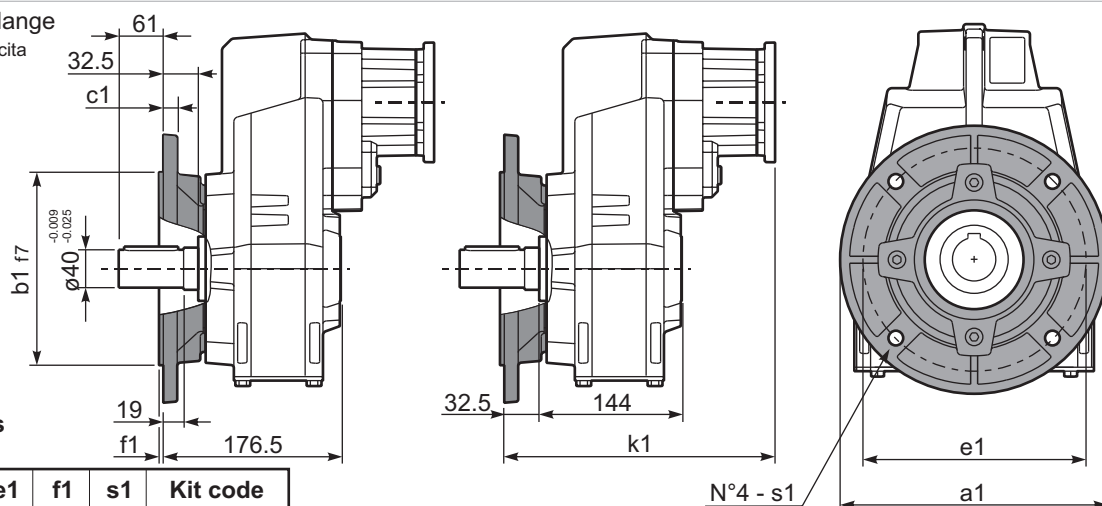
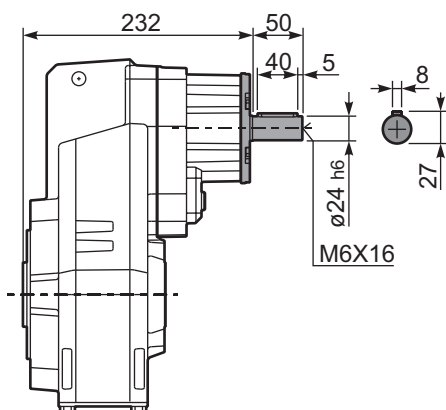
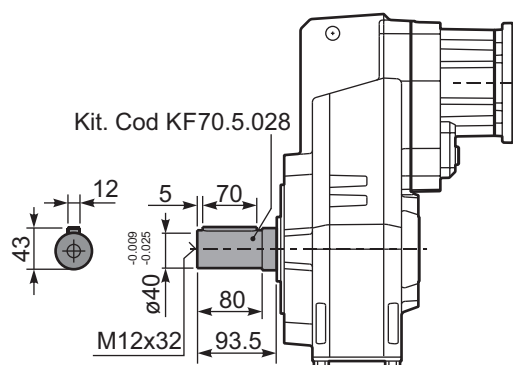
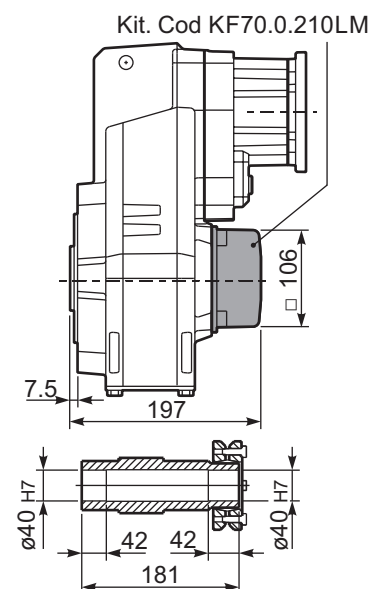
**Standard**
Hollow shaft**On request**
A richiestaGearbox weight
peso riduttore **30.5 kg****PFC72...-F...** Output flange
Flangia uscita

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				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.5	75.50	1.5	725	1.1	1.7	825	B				C	C		191318	01
16.2	86.47	1.5	830	1.1	1.6	900	B				C	C		191316	02
14.0	100.22	1.5	962	0.9	1.4	900	B				C	C		171316	03
12.0	116.56	1.1	817	1.1	1.2	900	B				C	C		171314	04
10.2	136.82	1.1	959	0.9	1.0	900	B				C	C		151314	05
9.1	153.05	0.75	736	1.1	0.83	810	B				C	C		190816	06
8.6	163.31	0.75	785	1.1	0.86	900	B				C	C		131314	07
7.9	178.01	0.75	856	1.1	0.79	900	B				C	C		190814	08
7.3	191.67	0.75	922	1.0	0.73	900	B				C	C		101316	09
6.8	206.32	0.75	992	0.9	0.68	900	B				C	C		170814	10
6.3	222.92	0.55	791	1.1	0.63	900	B				C	C		101314	11
5.8	242.18	0.55	859	1.0	0.58	900	B				C	C		150814	12
5.6	250.15	0.55	888	1.0	0.56	900	B				C	C		91316	13
4.8	289.08	0.55	1026	0.9	0.49	900	B				C	C		130814	14
4.2	330.31	0.37	783	1.1	0.42	890	B				C	C		71316	15
3.5	394.59	0.37	936	1.0	0.36	900	B				C	C		100814	16
2.7	514.99	0.25	824	1.1	0.27	900	B				C	C		90814	17
2.1	680.03	0.18	832	1.1	0.21	900	B				C	C		70814	18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **FC73** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **FC73** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **FC73** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **FC73** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **FC73** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

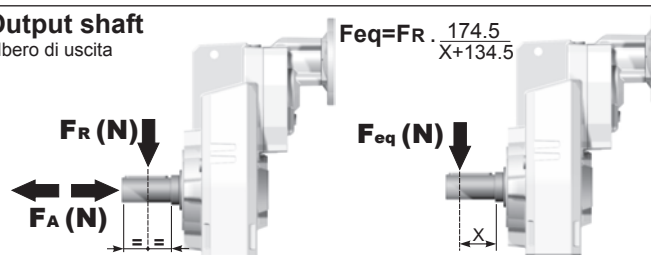
					
3.55 LT	1.95 LT	1.95 LT	1.95 LT	3.75 LT	2.00 LT
SHELL Omala S2 GX 460			ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



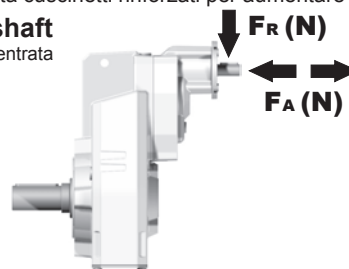
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	140	860	4300	70	1020	5100
250	800	4000	120	900	4500	40	1300	6500
200	830	4150	85	970	4850	15	1700	8500

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2



■ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻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		B14 motor flanges					Output Shaft 	 Ratios code
							-H	-I	-	-	-	-			
							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.

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In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
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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 Blasias 460		

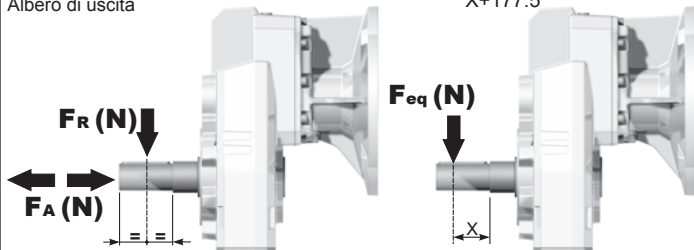
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{227.5}{X + 177.5}$$

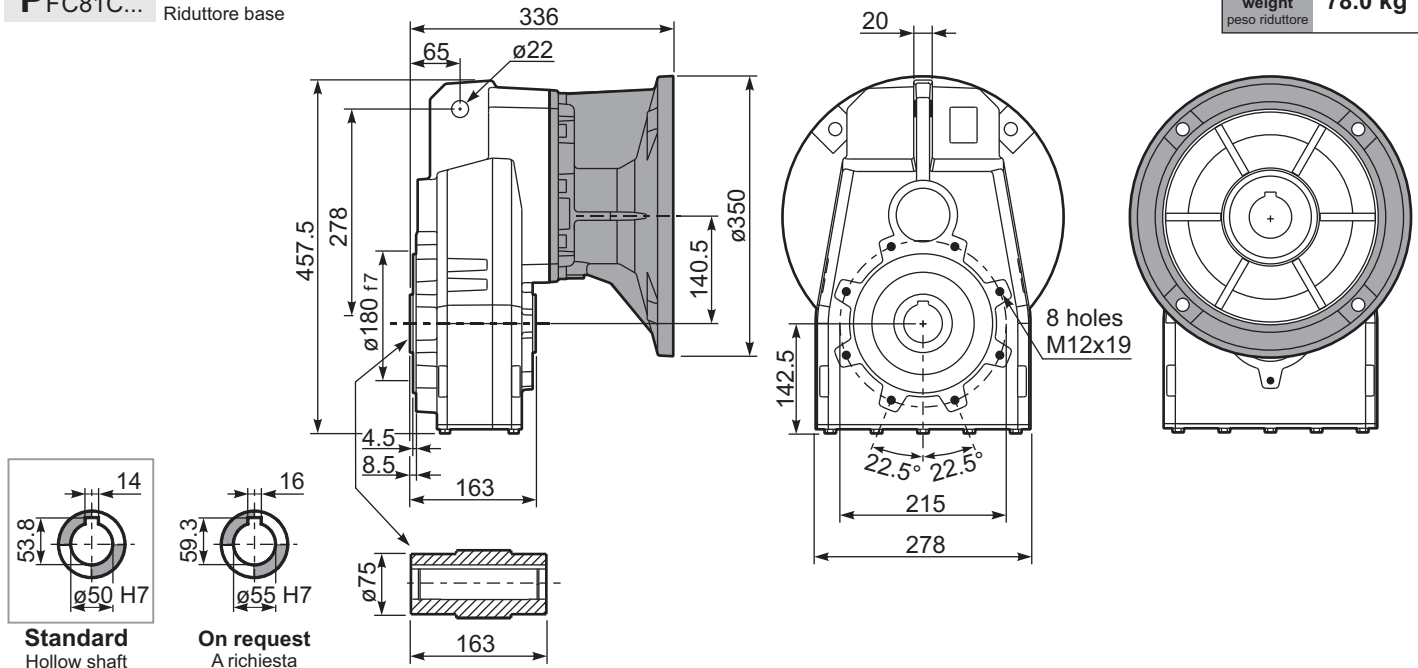


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

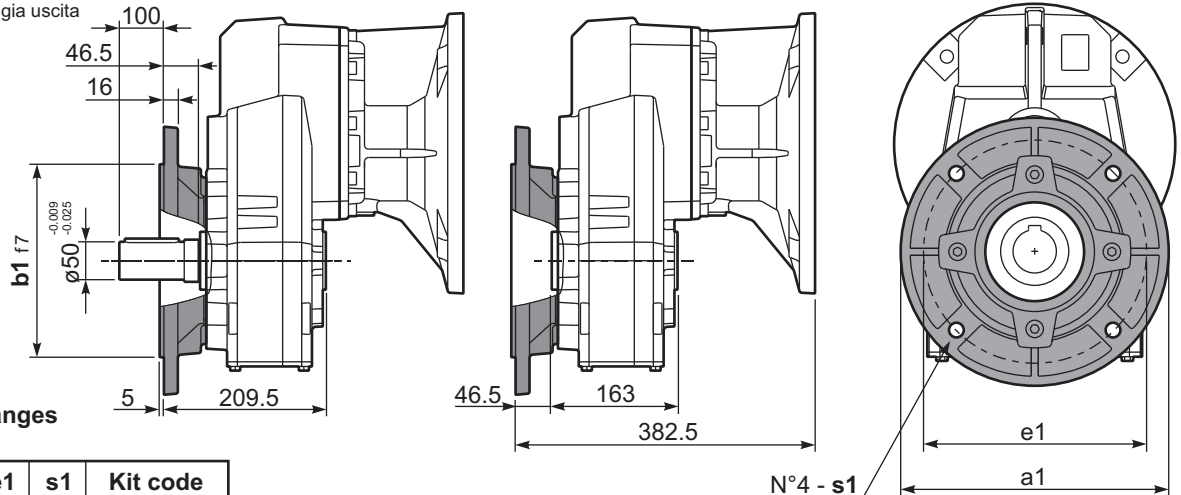
On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

PFC81C...

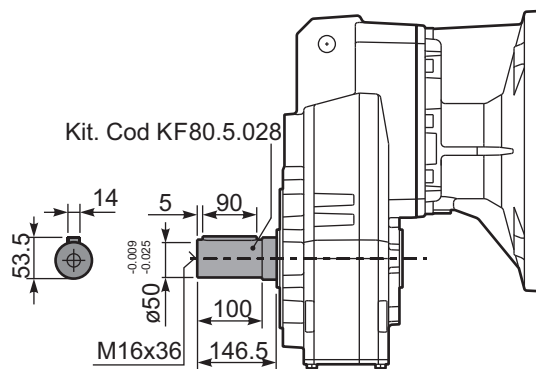
Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **78.0 kg**

PFC81...-F...

Output flange
Flangia uscita

a1 Ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PFC81A...

Single output shaft
Albero uscita semplice



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻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				B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-H	-I	-U	-V			
							100 112	132	160	180	100 112	132			
234	5.98	22	827	1.2	25.5	1000							3015	standard ø50 ø55 On request	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		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.

5.70 LT	3.60 LT	3.60 LT	3.60 LT	6.60 LT	4.50 LT
SHELL Omala S2 GX 460			ENI Blasias 460		

For all details on lubrication and plugs check our website

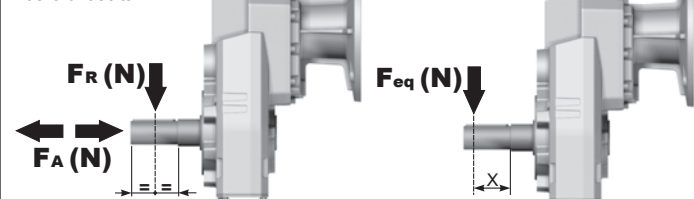
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{227.5}{X + 177.5}$$



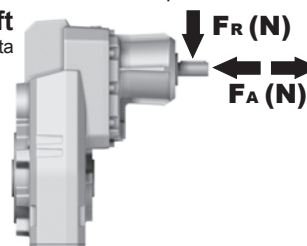
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



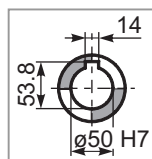
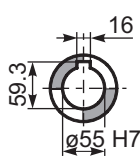
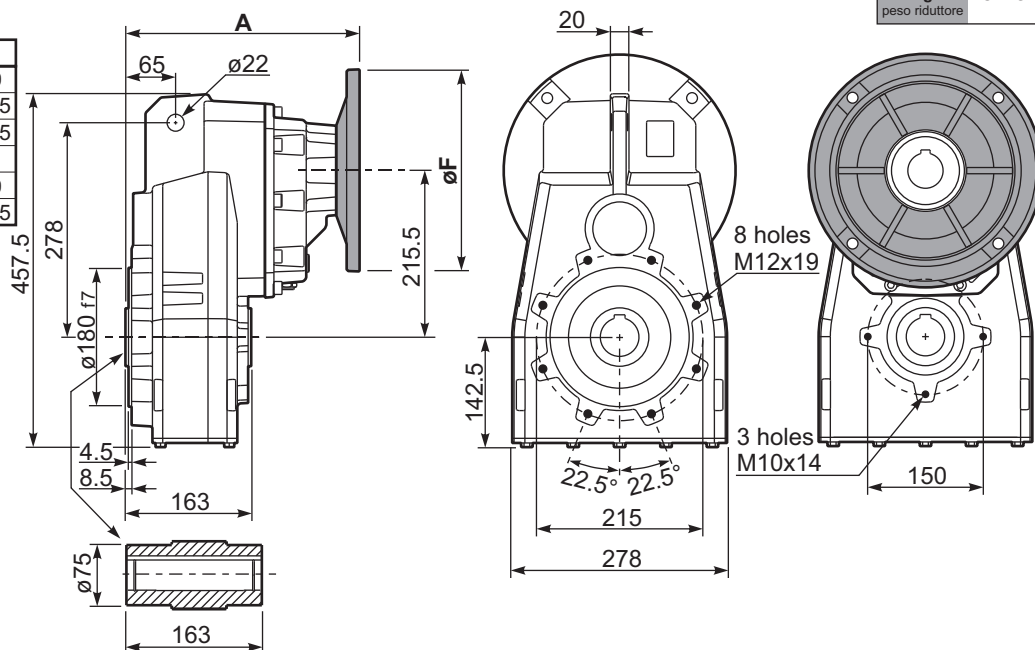
n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

PFC82C...

Basic gearbox
Riduttore baseGearbox weight
peso riduttore **82.5 kg**

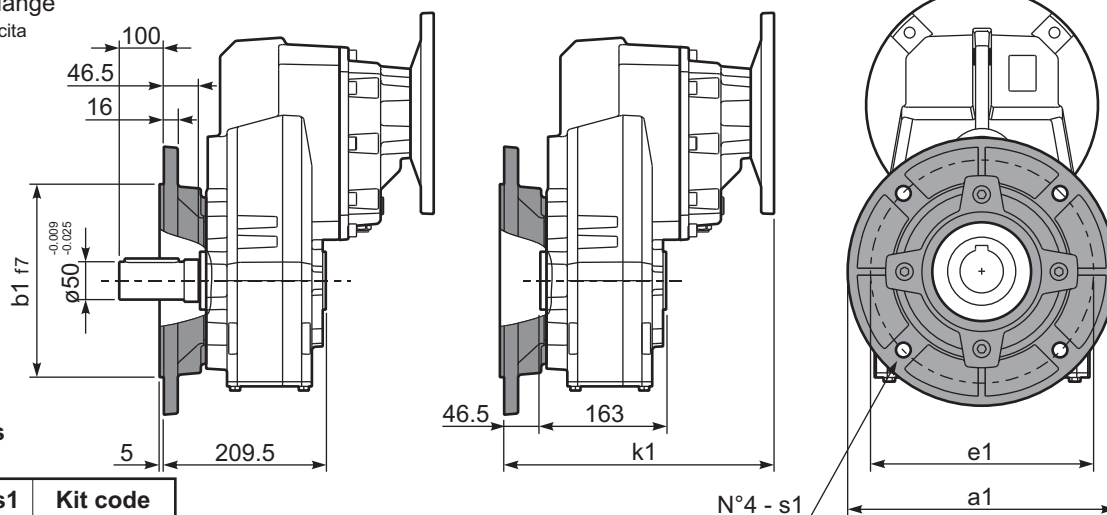
M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	299
132B5	KC51.4.043C	300	320.5
160/180B5	KC86.4.0.43	350	352.5
100/112B14	K085.4.047	160	299
132B14	KC51.4.041C	200	320.5

Standard
Hollow shaftOn 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

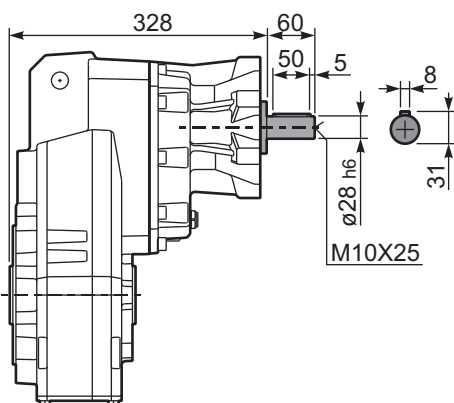


Available output flanges

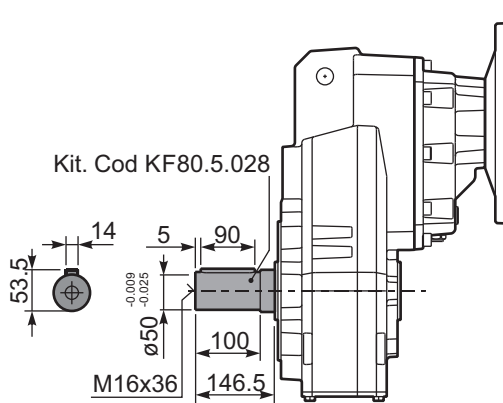
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

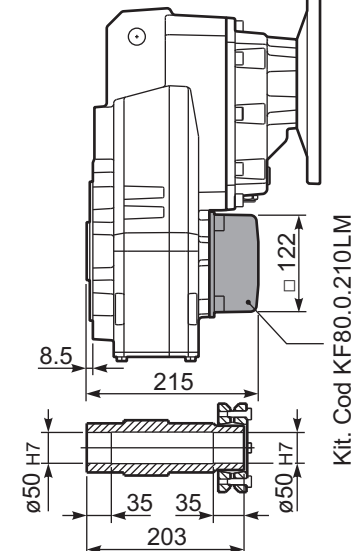
RFC82C...

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					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	132	80	90	100	112		
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	06
14.8	94.70	4	2380	0.9	3.5	2100	B										161311	07
13.8	101.35	3	1917	1.1	3.2	2100	B										131313	08
11.4	123.15	3	2330	0.9	2.7	2100	B										131311	09
9.3	150.73	2.2	2100	1.0	2.2	2100	B										111311	10
7.8	179.39	1.5	1722	1.2	1.8	2100	B										81313	11
6.4	217.98	1.5	2093	1.0	1.5	2100	B										81311	12
5.7	247.03	1.1	1732	1.1	1.2	1950	B										61313	13
4.7	300.17	1.1	2105	1.0	1.1	2100	B										61311	14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **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 Blasias 460		

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$$

F_R (N)
 F_A (N)

F_{eq} (N)
 X

n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

F_R (N)
 F_A (N)

n_1	F_A	F_R
1400	450	2250
900	500	2500
500	600	3000

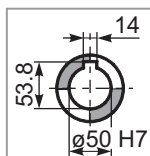
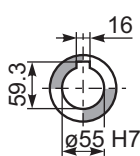
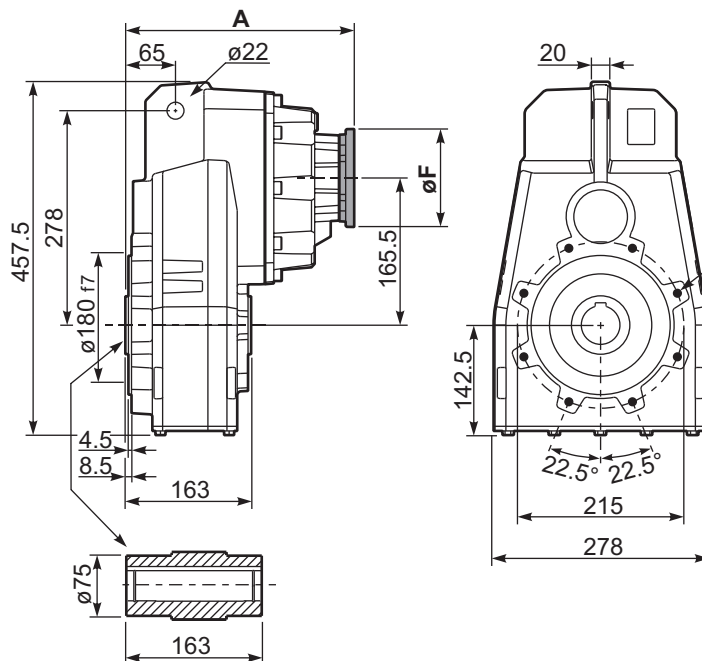
tab. 2

PFC83C...

Basic gearbox
Riduttore baseGearbox
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 shaftOn request
A richiesta

PFC83...-F...

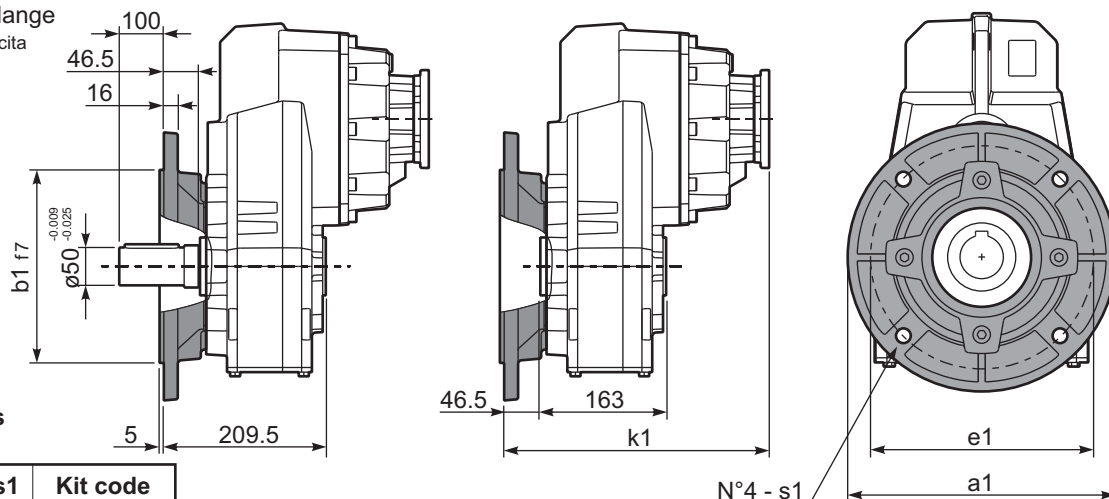
Output flange
Flangia uscita

M. flanges	k1
71B5	339
80/90B5	341
100/112B5	350
132B5	368
80B14	341
90B14	341
100/112B14	350
132B14	368

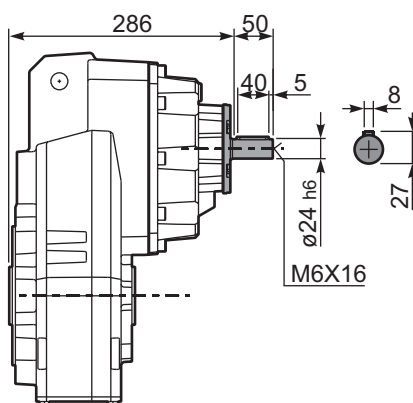
Available output flanges

Flange di uscita

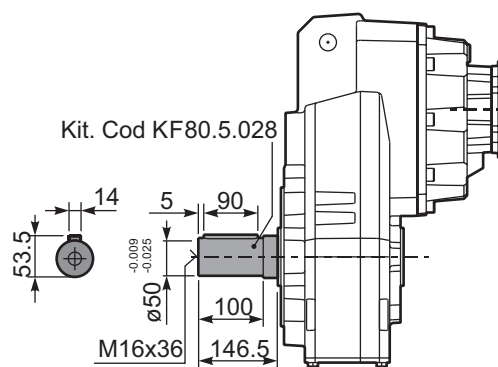
a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012



RFC83C...

Input Shaft
Albero in entrata

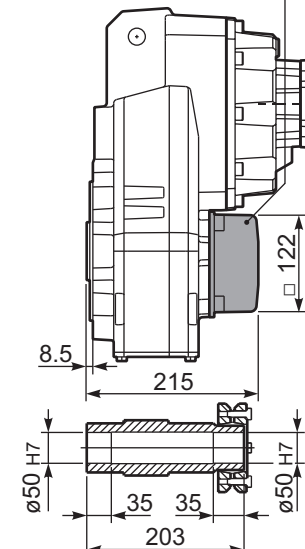
PFC83 A...

Single output shaft
Albero uscita semplice

PFC83D...

Shrink disk
Calettatore

Kit. Cod KF80.0.210LM



Réducteurs à axes parallèles en fonte

Cast iron parallel shaft gearboxes

Un produit compact et modulaire
A modular and compact product

Engrenage en acier trempé et rectifiés

Gears
Hardened and ground gears

Carcasse en fonte
Housing
Robust cast iron housing

Couvercle d'inspection amovible

Removable inspection cover
Allows periodic inspection of gearing during routine maintenance

Bride moteur IEC ou NEMA
Flange

Fully modular to IEC and Compact integrated motor.
NEMA C flange

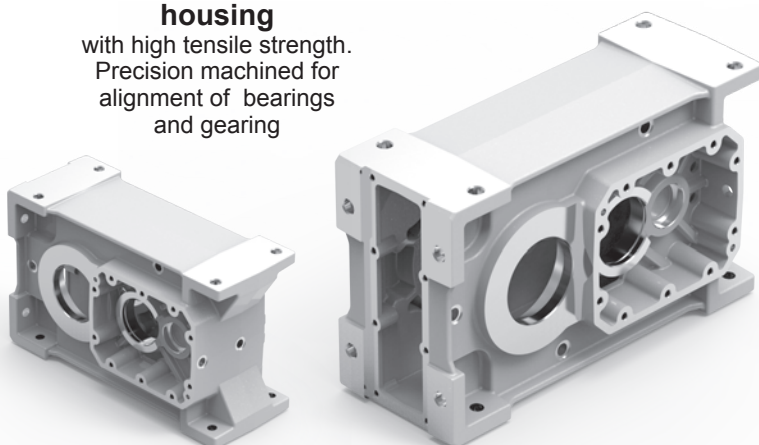
Peinture
Painted
RAL 7046

Distance déportée large
Large center distance

Carcasse fonte d'une seule pièce

Single-piece Cast Iron housing

with high tensile strength.
Precision machined for alignment of bearings and gearing



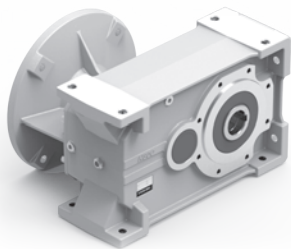
World wide sales network.

Fiche technique spécifique en page

Specific type datasheet on page

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1 Stage

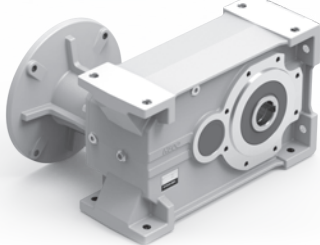


Types / Tipi /
Tipen / Types /
Tipos

8-5	8-11	8-17
H61C 380Nm	H71C 670Nm	H81C 1175Nm

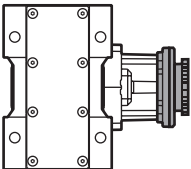
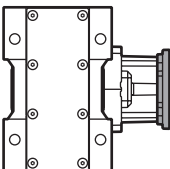
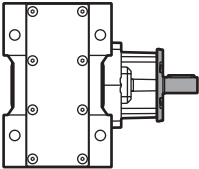
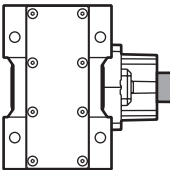
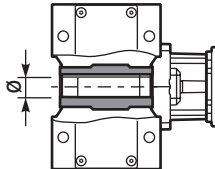
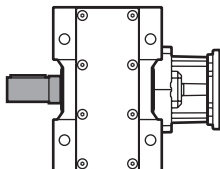
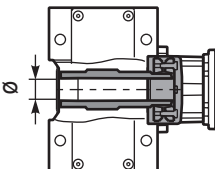
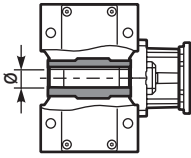
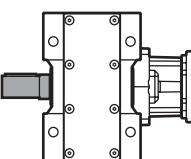
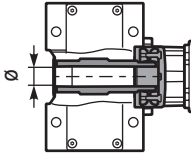
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2 and 3 Stage



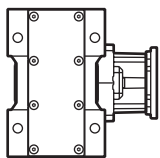
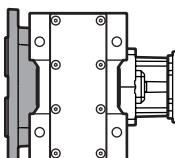
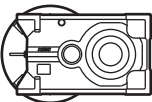
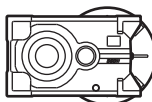
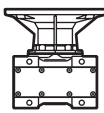
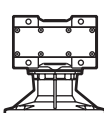
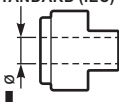
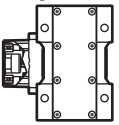
Types / Tipi /
Tipen / Types /
Tipos

8-7	8-9	8-13	8-15	8-19	8-21
H62C 675Nm	H63C 675Nm	H72C 900Nm	H73C 900Nm	H82C 2100Nm	H83C 2100Nm

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 Etapas 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 tabella 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 ⇒ $\varnothing 35$ -F ⇒ $\varnothing 40$ H71C H72C H73C -F ⇒ $\varnothing 40$ -G ⇒ $\varnothing 45$ H81C H82C H83C -H ⇒ $\varnothing 50$ -I ⇒ $\varnothing 55$ A  Single output shaft -N H61/2/3C ⇒ $\varnothing 35$ -O H71/2/3C ⇒ $\varnothing 40$ -K H81/2/3C ⇒ $\varnothing 50$ D  Shrink disk -T H62/3C ⇒ $\varnothing 35$ -U H72/3C ⇒ $\varnothing 40$ -V H82/3C ⇒ $\varnothing 50$



On request we can deliver our products according to the ATEX
 A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX
 Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern
 Sur demande nos produits peuvent se conformer à la réglementation ATEX
 A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Type - Tipo - Typ Types - Tipo	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Terminal box position Posizione morsettiera Klemmkastenlage Position boîte à bornes Posición caja de bornes
-N	N	-C	B3	ST	
 -N Senza flangia Without flange	 N Senza flangia Without flange H61C H62C H63C 4 → ø250 H71C H72C H73C 4 → ø250 5 → ø300 H81C H82C H83C 5 → ø300 6 → ø350	 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)  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) 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	 B3 STANDARD  B6  B7  B8  V5  V6  V8	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	With Type M specify terminal box position Con tipo M specificare posizione morsettiera  A  B STANDARD  C  D

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

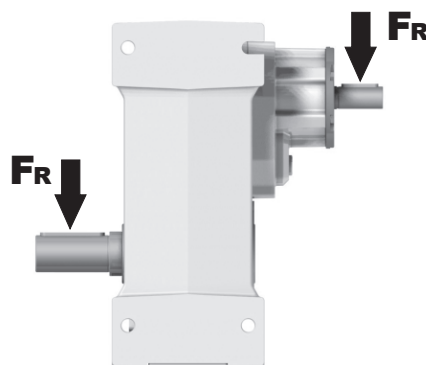
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$$

$$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$$

M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo
f_k	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe
Comment sélectionner un réducteur / Cómo seleccionar un reductor

B Output speed
Velocità in uscita
Abtriebsdrehzahl
Vitesse de sortie
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Poissance nominale
Potencia nominal

A Nominal torque
Momento torcente nominale
Nenn Drehmoment
Couple nominal
Par de torsión nominal

Flange code
Codice flangia
Flanschtype
Code bride
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Vitesse en entrée
Velocidad de entrada

Gear size
Grandezza riduttore
Getriebegröße
Taille réducteur
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Puissance moteur
Potencia motor

C Ratio
Rapporto
Untersetzung
Rapport de réduction
Relación

Transmitted torque
Momento torcente trasmesso
Mögliche Drehmomente
Couple de sortie
Par transmitido

Service factor
Fattore di servizio
Betriebsfaktor
Facteur de service
Factor de servicio

H62C Cube gear **675Nm**

Rating - Cast Iron
PARALLEL SHAFT GEARBOXES

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Notes
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100	112	132	80	90	100		
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

D Motor flange available
Flange disponibili
Erhältliche Motorflansche
Bridas disponibles
Bridas disponibles

Output shaft diam.
Diam. albero uscita
Durchmesser abtriebswelle
Diametre arbre lent
Diametro eje de salida

Notes
Note
Anmerkungen
Note
Notas

fs

Type of load and starts per hour 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	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	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

B) Mounting with reduction ring
Montaggio con boccia di riduzione
Reduzierhülsen
Montage avec douille de réduction
Montaje con casquillo de reducción

C) Motor flangeholes position/terminal box position
Posizione fori flangia/basetta motore
Bohrungsposition am Motorflansch/-sockel
Position trous bride/barrette à bornes moteur
Posición agujeros brida / base motor

B) Available without reduction bushes
Disponibile anche senza boccia
Auch ohne Reduzierbuchse verfügbar
Disponible aussi sans douille de réduction
Disponible tambien sin casquillo

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges -G 132	B14 motor flanges - - - - - - - -	Output Shaft $\emptyset$	Ratios code
507	2.76	9	166	1.6	14.4	265		not available	2980	01
395	3.54	9	213	1.3	11.6	275			2485	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	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 requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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

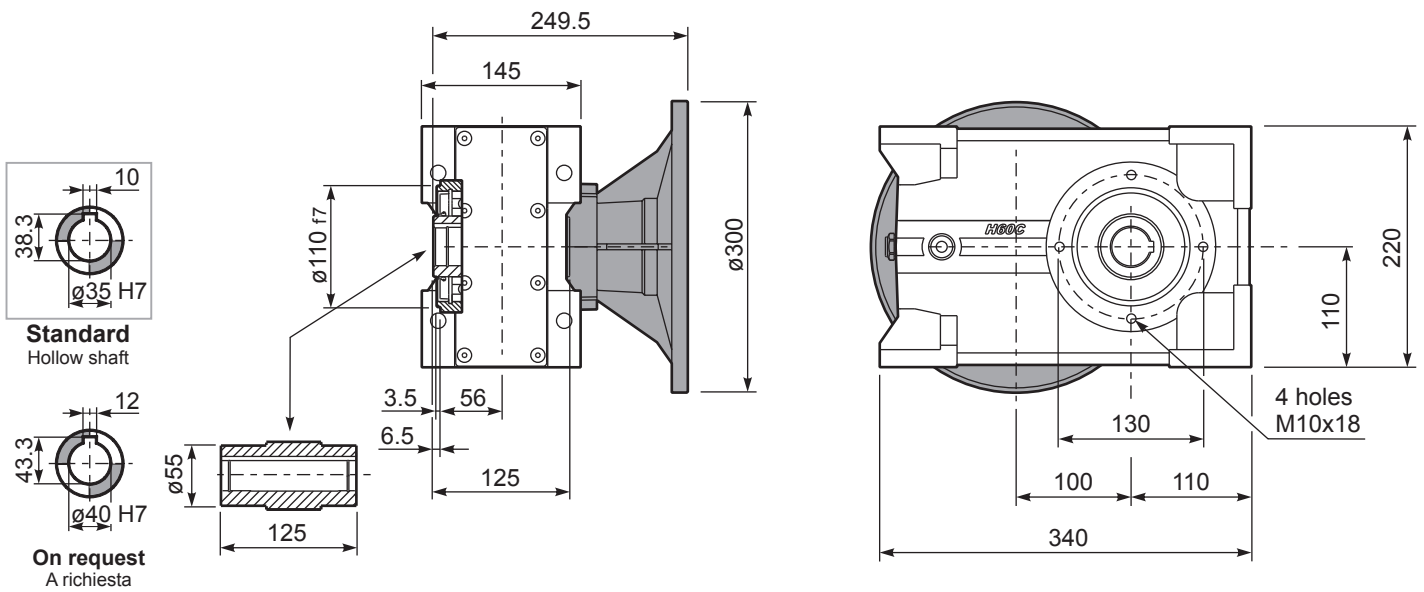
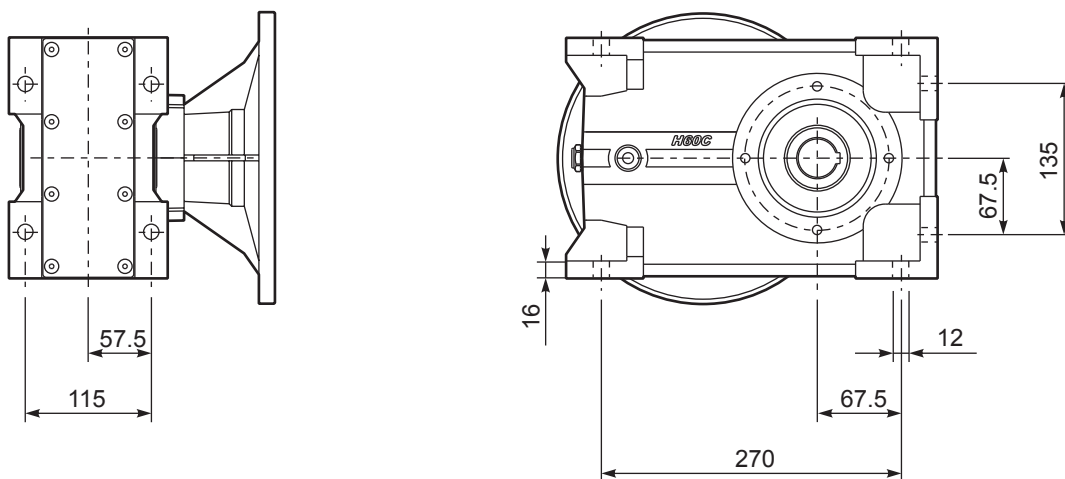
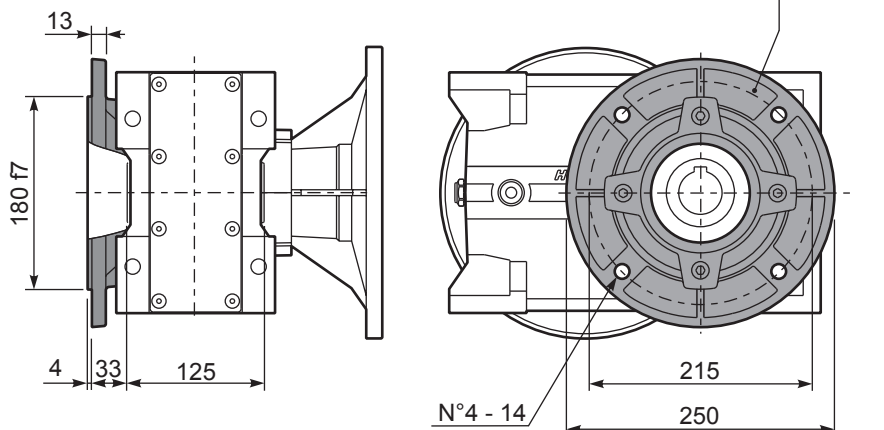
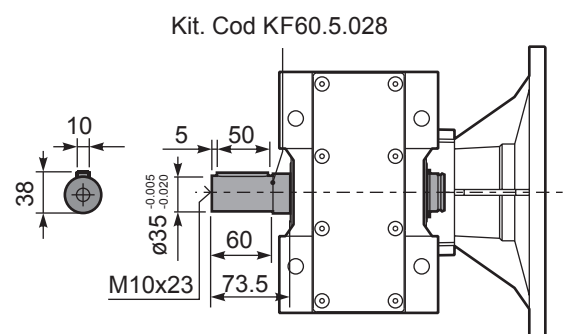
RADIAL AND AXIAL LOADS

Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$		
F_R (N)	F_A (N)		F_{eq} (N)		
n_2	FA	FR	n_2	FA	FR
300	600	3000	140	720	3600
250	640	3200	120	740	3700
200	690	3460	85	860	4300
n_2	FA	FR	n_2	FA	FR
70	940	4700	40	1220	6100
15	1300	6500			

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

P H61C...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore**40.0 kg****PH61C...-N**Feet
Piedini**PH61C...-F**Output flange
Flangia uscita**PH61C A...**Single output shaft
Albero uscita semplice



■ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
213	6.57	7.5	312	1.2	8.8	380	B									3018	standard ø35 ø40 On request	01
185	7.56	7.5	358	1.1	7.9	390	B									3016		02
159	8.82	7.5	419	1.0	7.1	410	B									3014		03
113	12.39	7.5	588	1.0	7.2	580	B									2018		04
98	14.24	5.5	499	1.2	6.4	600	B									2016		05
84	16.75	5.5	587	1.1	6.1	665	B									1618		06
73	19.25	5.5	675	1.0	5.4	675	B									1616		07
64	21.78	4	558	1.2	4.7	675	B									1318		08
56	25.04	4	642	1.1	4.1	675	B									1316		09
47.9	29.23	4	750	0.9	3.5	675	B									1314		10
45.7	30.65	3	592	1.1	3.4	675	B									1116		11
39.1	35.78	3	691	1.0	2.9	675	B									1114		12
36.3	38.55	2.2	548	1.1	2.3	580	B									818		13
31.6	44.32	2.2	630	1.1	2.3	665	B									816		14
27.1	51.74	2.2	735	0.9	2.0	675	B									814		15
22.9	61.03	1.1	437	1.1	1.2	480	B									616		16
19.6	71.25	1.1	510	1.1	1.2	560	B									614		17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **H62C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **H62C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **H62C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **H62C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H62C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil 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		

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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

$$F_{eq} = F_R \cdot \frac{149.5}{X + 119.5}$$

F_R (N)
 F_A (N)

F_{eq} (N)

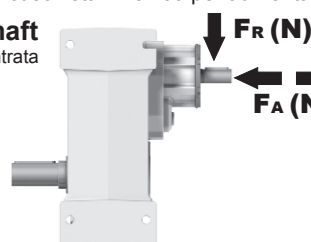
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



n_1	F_A	F_R
1400	450	2250
900	500	2500
500	600	3000

tab. 2

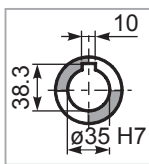
PH62C...

Basic gearbox
Riduttore base

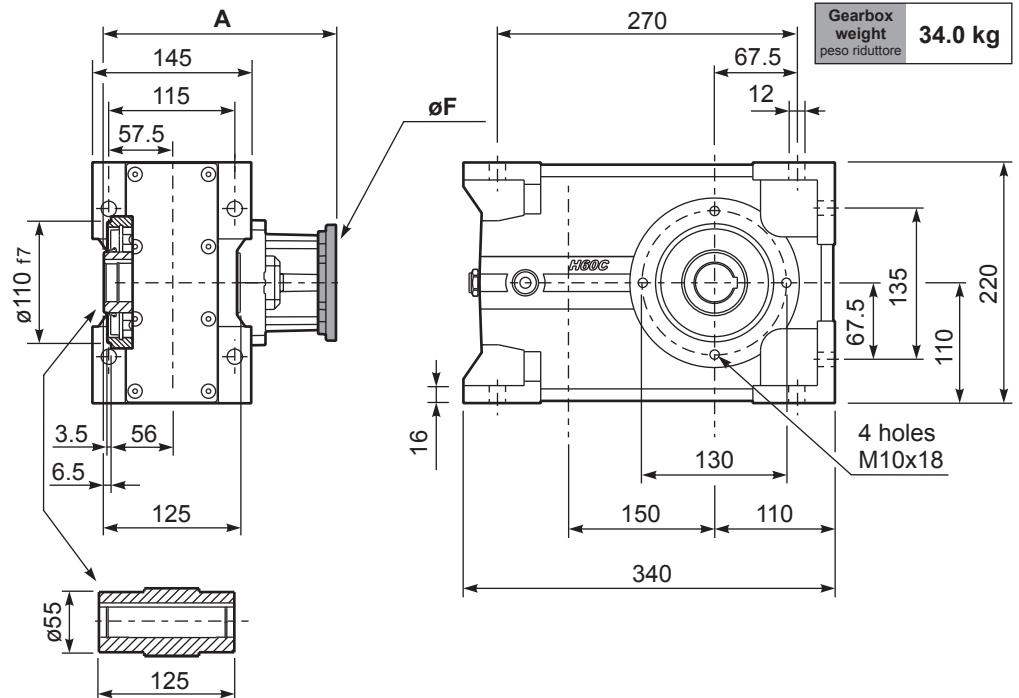
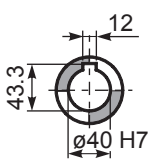
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC51.4.043	300	259
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC51.4.041	200	259

Standard

Hollow shaft

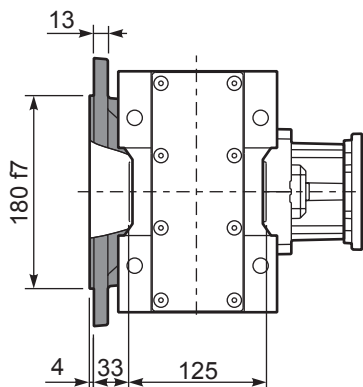


On request
A richiesta

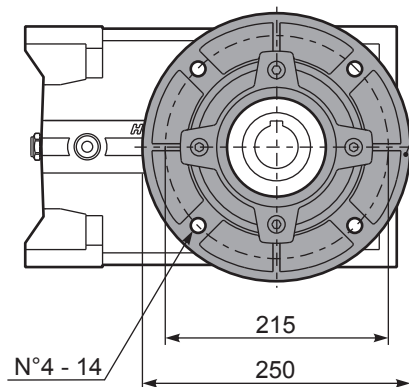


PH62C...-F

Output flange
Flangia uscita



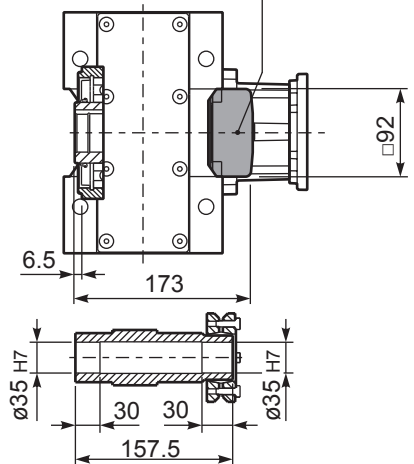
Kit. Cod KF60.9.011



PH62C D...

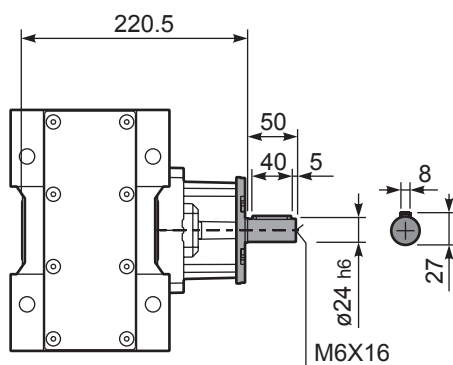
Shrink disk
Calettatore

Kit. Cod KF60.0.210LM



RH62C...

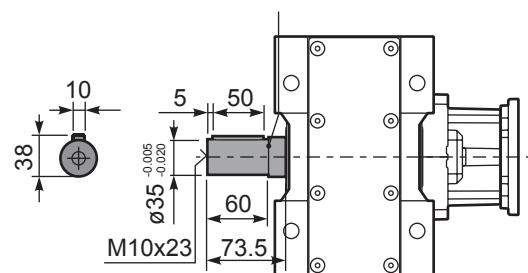
Input Shaft
Albero in entrata



PH62C A...

Single output shaft
Albero uscita semplice

Kit. Cod KF60.5.028





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
22.6	61.89	1.5	594	1.1	1.7	675	B				C	C		191318	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 **H63C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **H63C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **H63C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **H63C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **H63C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied For these mounting position specify in the order or add oil
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
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$$



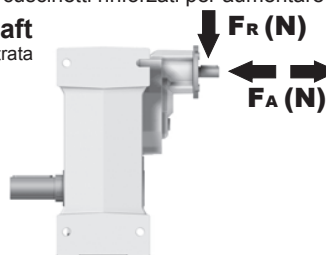
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

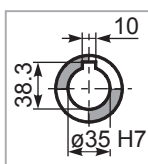
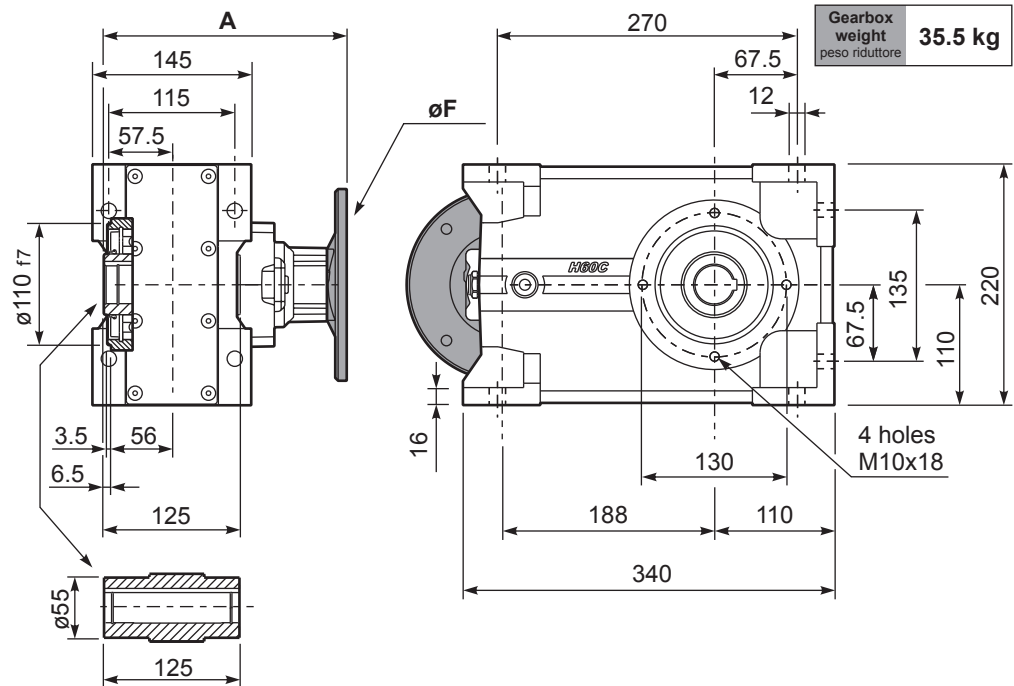
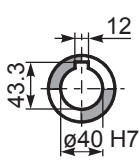
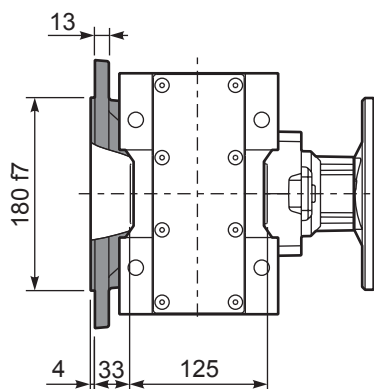


n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

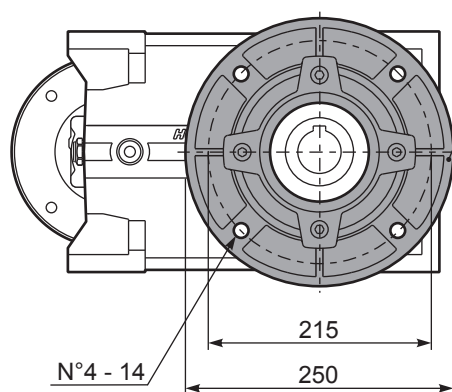
tab. 2

P H63C...Basic gearbox
Riduttore base

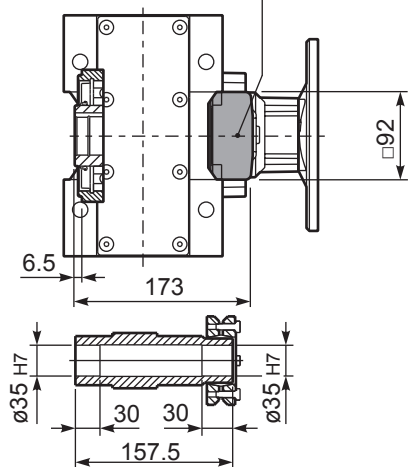
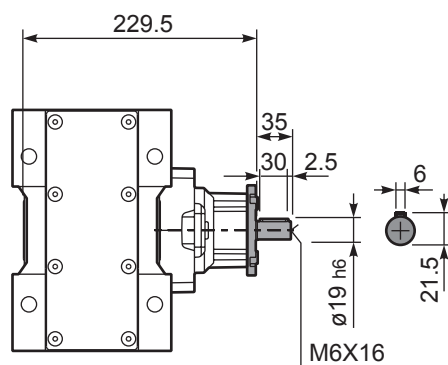
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239

Standard
Hollow shaft**On request**
A richiestaGearbox weight
peso riduttore **35.5 kg****PH63C...-F**Output flange
Flangia uscita

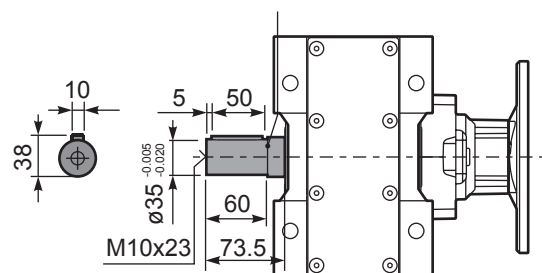
Kit. Cod KF60.9.011

**PH63C D...**Shrink disk
Calettatore

Kit. Cod KF60.0.210LM

**R** H63C...Input Shaft
Albero in entrata**PH63C A...**Single output shaft
Albero uscita semplice

Kit. Cod KF60.5.028





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻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 132	B14 motor flanges - - - - - - - -	Output Shaft $\emptyset$	Ratios code
227	6.17	9	371	1.2	10.9	450			18111	01
198	7.06	9	425	1.4	12.7	600			16113	02
170	8.21	9	494	1.4	12.2	670		not available	14115	03

The dynamic efficiency is **0.98** for all ratios

On request

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **H71C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H71C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H71C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H71C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H71C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

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 Blasias 460		

For all details on lubrication and plugs check our website

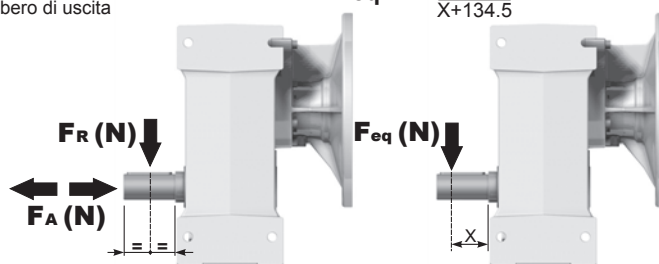
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$$

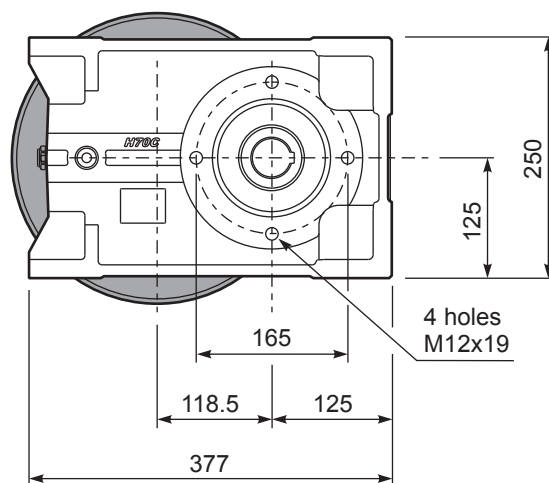
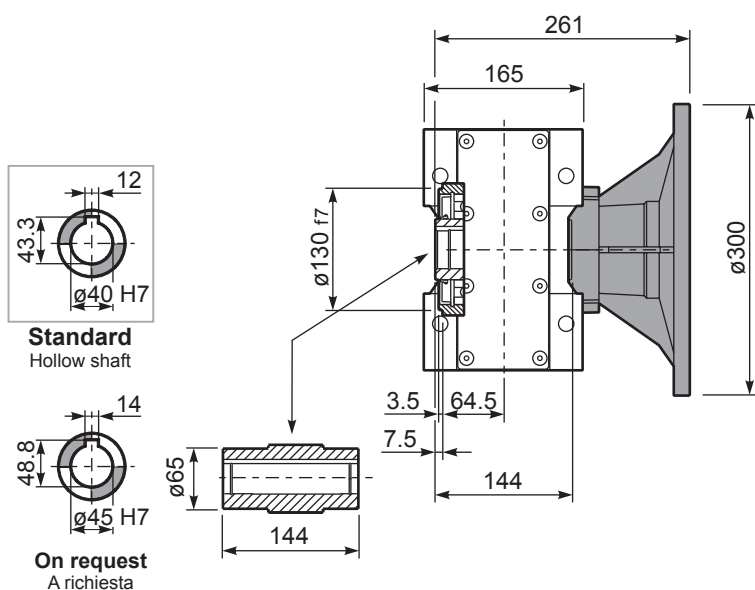
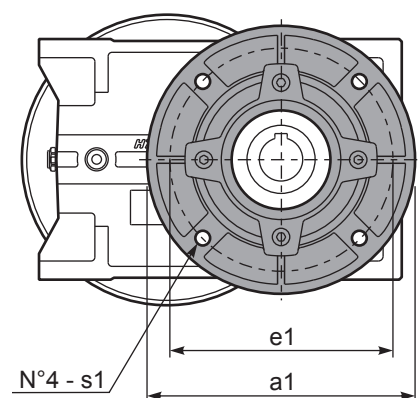
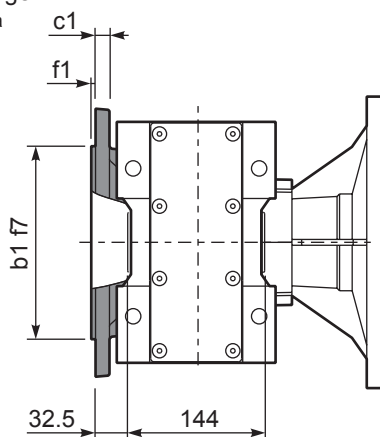


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	740	3700	140	860	4300	70	1020	5100
250	800	4000	120	900	4500	40	1300	6500
200	830	4150	85	970	4850	15	1700	8500

On request reinforced bearings to increase loads.

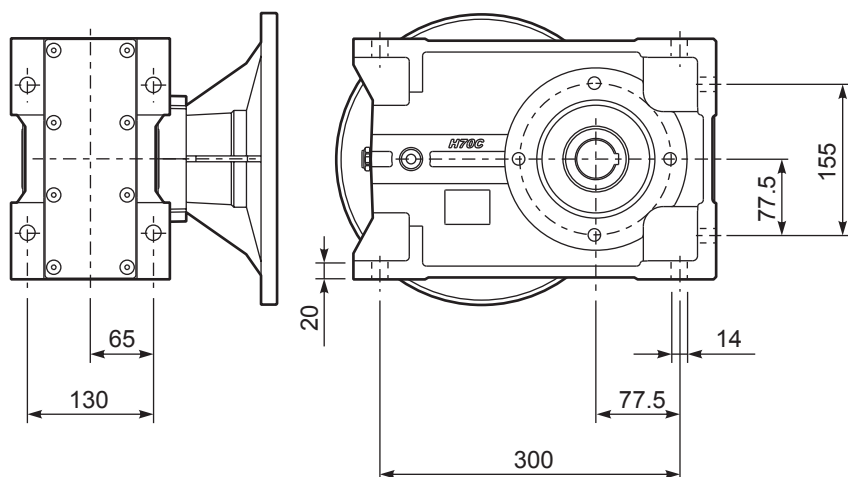
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

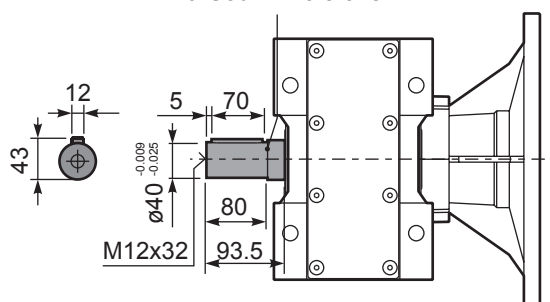
PH71C...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore**51.0 kg****PH71C...-F**Output flange
Flangia uscita**Available output flanges**

Flange di uscita

a1 $\varnothing$	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

PH71C...-NFeet
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					Available B14 motor flanges				Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
175	8.02	9	473	1.1	9.9	520	B									3018	01
152	9.18	9	541	1.1	9.8	590	B									3016	02
131	10.68	9	630	1.1	9.7	680	B									3014	03
93	15.11	7.5	717	1.1	7.8	775	B									2018	04
81	17.30	7.5	821	1.1	7.8	885	B									2016	05
70	20.13	7.5	955	0.9	6.8	900	B									2014	06
60	23.39	5.5	820	1.1	5.9	900	B									1616	07
51	27.21	5.5	954	0.9	5.1	900	B									1614	08
46.0	30.42	4	780	1.2	4.5	900	B									1316	09
39.6	35.38	4	907	1.0	3.9	900	B									1314	10
37.6	37.24	3	719	1.2	3.7	895	B									1116	11
32.3	43.31	3	836	1.1	3.2	900	B									1114	12
29.8	47.02	2.2	668	1.1	2.3	705	B									818	13
26.0	53.85	2.2	765	1.1	2.3	810	B									816	14
22.4	62.63	2.2	890	1.0	2.2	900	B									814	15
18.9	74.16	1.1	531	1.1	1.2	585	B									616	16
16.2	86.25	1.1	617	1.1	1.2	680	B									614	17

The dynamic efficiency is **0.96** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **H72C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H72C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H72C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H72C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H72C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	4.65 LT	4.00 LT	3.20 LT	6.20 LT	3.10 LT	Ask
SHELL Omala S2 GX 460				ENI Blasla 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			Feq=FR · 174.5 X+134.5		
	F_R (N)	F_A (N)		F_{eq} (N)	X
n_2	FA	FR	n_2	FA	FR
300	740	3700	140	860	4300
250	800	4000	120	900	4500
200	830	4150	85	970	4850
n_2	FA	FR	n_2	FA	FR
70	1020	5100	40	1300	6500
40	1300	6500	15	1700	8500

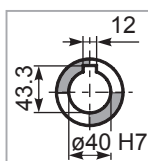
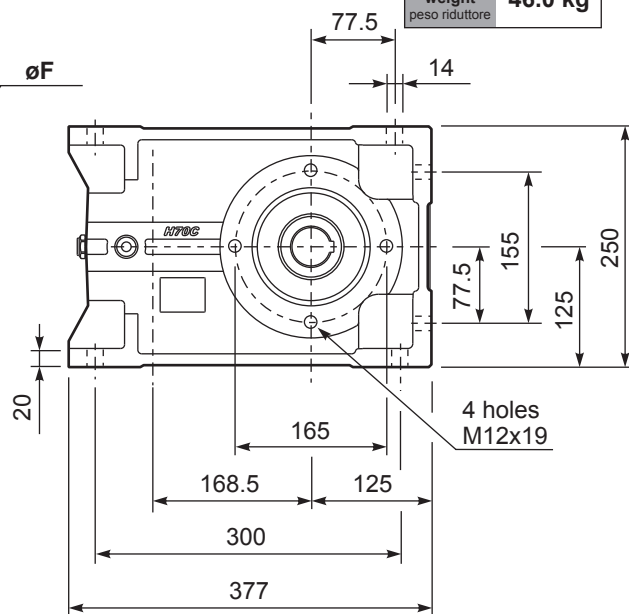
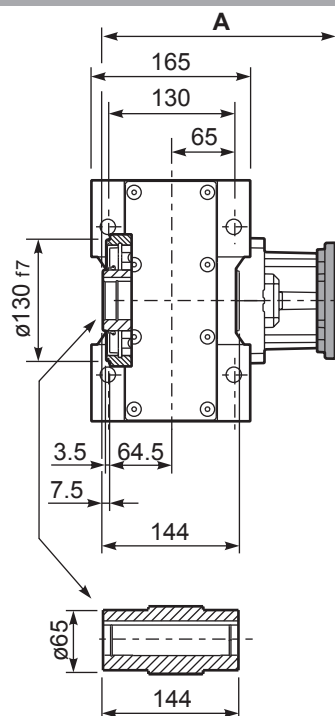
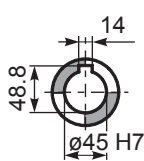
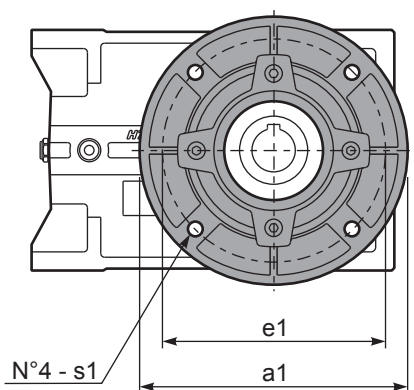
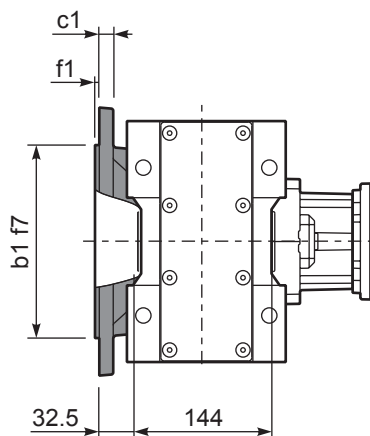
On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft Albero in entrata			F_R (N)		
	F_R (N)	F_A (N)	n_1	FA	FR
			1400	450	2250
			900	500	2500
			500	600	3000

tab. 2

P_{H72C}...Basic gearbox
Riduttore base

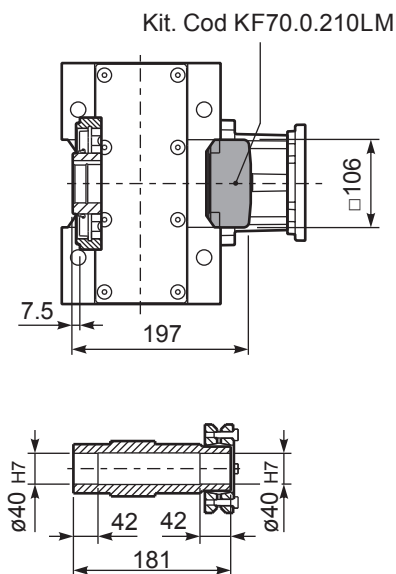
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	238.5
80/90B5	K023.4.042	200	240.5
100/112B5	K023.4.043	250	249.5
132B5	KC51.4.043	300	270.5
80B14	K085.4.046	120	240.5
90B14	K085.4.045	140	240.5
100/112B14	K085.4.047	160	249.5
132B14	KC51.4.041	200	270.5

Standard
Hollow shaftOn request
A richiestaGearbox
weight
peso riduttore **46.0 kg****PH72C...-F**Output flange
Flangia uscita

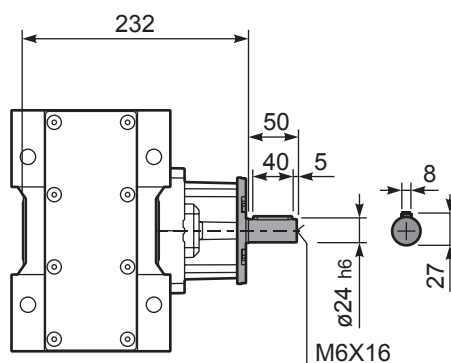
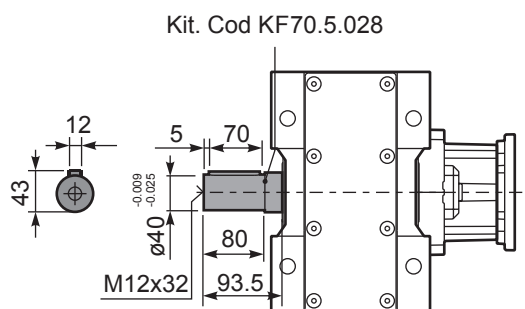
Available output flanges

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

Kit. Cod KF70.0.210LM

R_{H72C}...Input Shaft
Albero in entrata**PH72C 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				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.5	75.50	1.5	725	1.1	1.7	825	B				C	C		191318	01
16.2	86.47	1.5	830	1.1	1.6	900	B				C	C		191316	02
14.0	100.22	1.5	962	0.9	1.4	900	B				C	C		171316	03
12.0	116.56	1.1	817	1.1	1.2	900	B				C	C		171314	04
10.2	136.82	1.1	959	0.9	1.0	900	B				C	C		151314	05
9.1	153.05	0.75	736	1.1	0.83	810	B				C	C		190816	06
8.6	163.31	0.75	785	1.1	0.86	900	B				C	C		131314	07
7.9	178.01	0.75	856	1.1	0.79	900	B				C	C		190814	08
7.3	191.67	0.75	922	1.0	0.73	900	B				C	C		101316	09
6.8	206.32	0.75	992	0.9	0.68	900	B				C	C		170814	10
6.3	222.92	0.55	791	1.1	0.63	900	B				C	C		101314	11
5.8	242.18	0.55	859	1.0	0.58	900	B				C	C		150814	12
5.6	250.15	0.55	888	1.0	0.56	900	B				C	C		91316	13
4.8	289.08	0.55	1026	0.9	0.49	900	B				C	C		130814	14
4.2	330.31	0.37	783	1.1	0.42	890	B				C	C		71316	15
3.5	394.59	0.37	936	1.0	0.36	900	B				C	C		100814	16
2.7	514.99	0.25	824	1.1	0.27	900	B				C	C		90814	17
2.1	680.03	0.18	832	1.1	0.21	900	B				C	C		70814	18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **H73C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H73C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H73C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H73C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

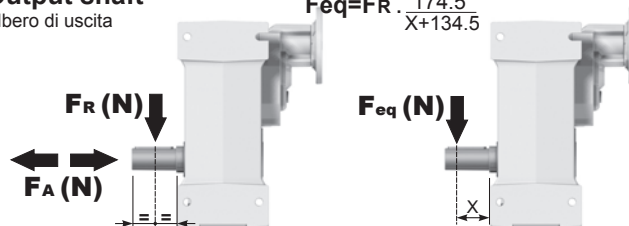
E El reductor tamaño **H73C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

						
B3	B6	B7	B8	V5	V6	V8
3.30 LT	5.70 LT	4.15 LT	3.30 LT	6.40 LT	3.25 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

RADIAL AND AXIAL LOADS

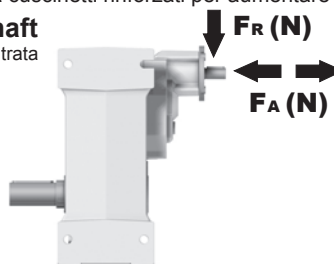
Output shaft
Albero di uscita



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	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

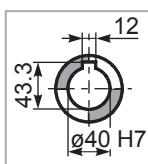
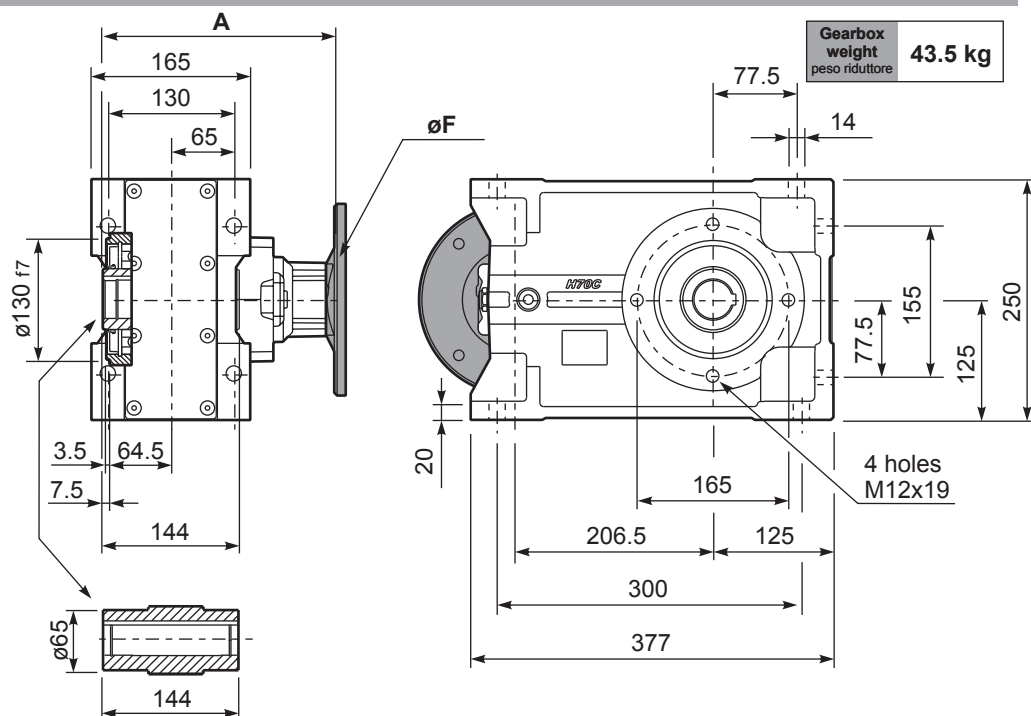
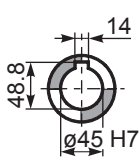
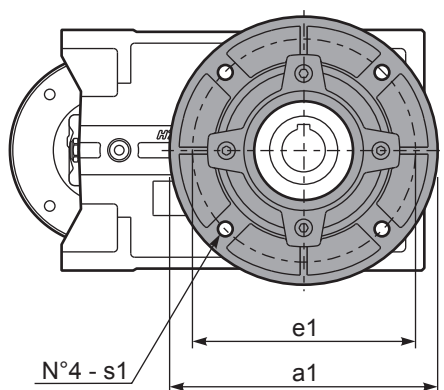
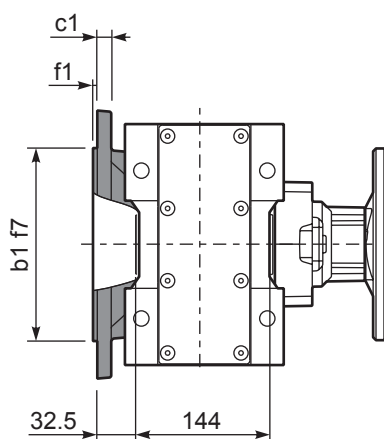


n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

P H73C...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

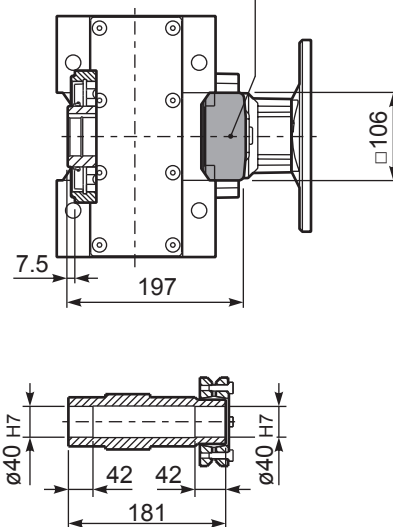
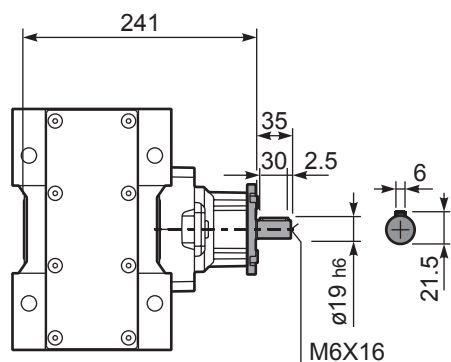
Standard
Hollow shaft**On request**
A richiesta**PH73C...-F**Output flange
Flangia uscita**Available output flanges**

Flange di uscita

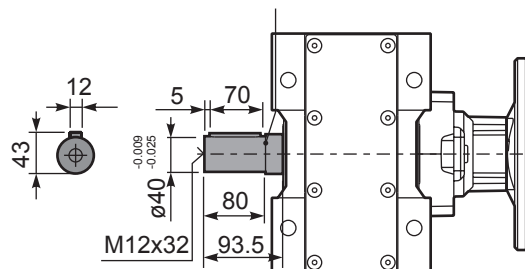
a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

PH73C D...Shrink disk
Calettatore

Kit. Cod KF70.0.210LM

**R** H73C...Input Shaft
Albero in entrata**PH73C 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		B14 motor flanges				Output Shaft		
							-H	-I	-	-	-	-			Ratios code
							160	180	-	-	-	-			
528	2.65	22	374	1.7	36.7	650			not available				2361	standard	01
409	3.42	22	483	1.6	32.8	750							1965	ø50	02
304	4.60	22	649	1.5	30.9	950							1569		03
256	5.46	22	771	1.3	27.4	1000							1371	ø55	04
211	6.64	22	937	1.3	26.5	1175							1173	On request	05

The dynamic efficiency is **0.98** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

E Unit **H81C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H81C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H81C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H81C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño **H81C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.70 LT	7.00 LT	7.90 LT	5.70 LT	10.20 LT	5.60 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

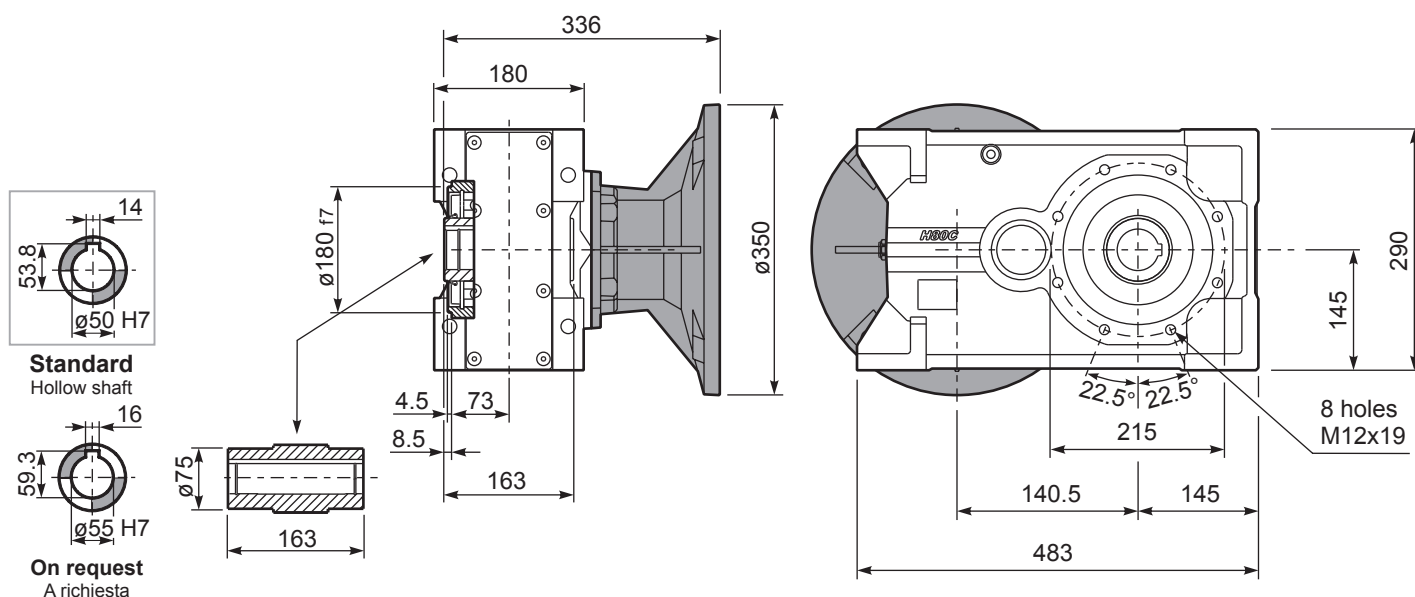
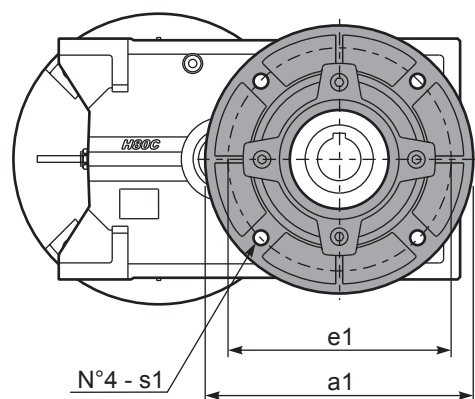
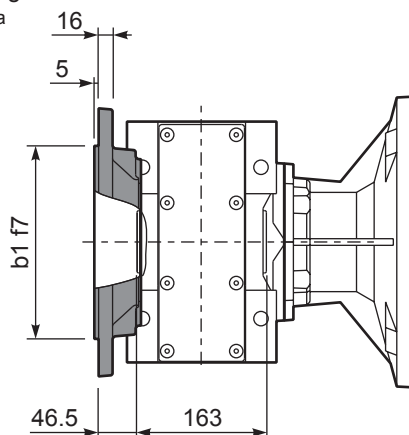
RADIAL AND AXIAL LOADS

Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$		
n_2	FA	FR	n_2	FA	FR
300	920	4600	140	1120	5600
250	1000	5000	120	1140	5700
200	1060	5300	85	1300	6500
			70	1400	7000
			40	1800	9000
			15	2400	12000

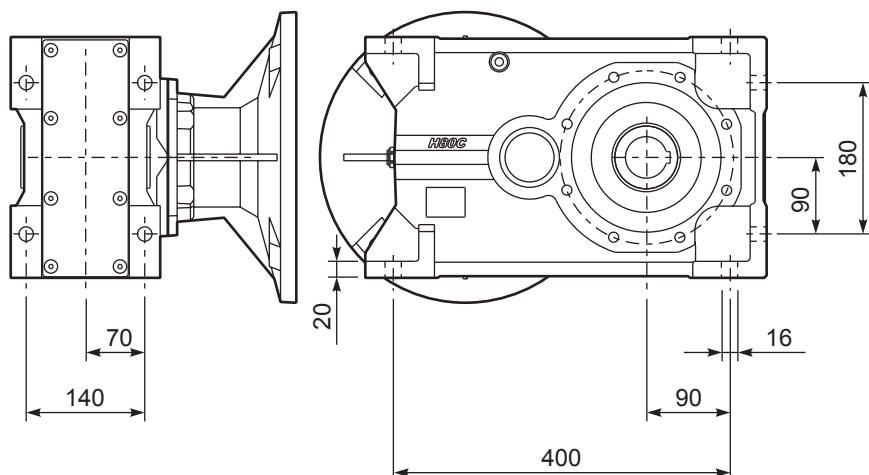
On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

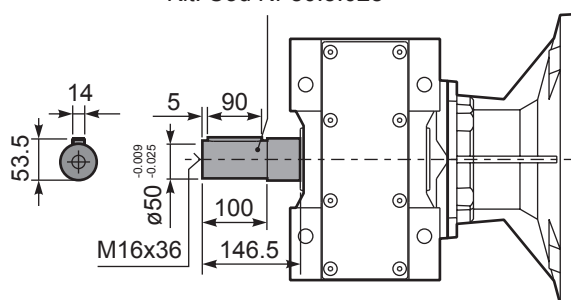
tab. 2

P H81C...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore**89.0 kg****PH81C...-F**Output flange
Flangia uscitaAvailable output flanges
Flange di uscita

a1 $\varnothing$	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

PH81C...-NFeet
Piedini**PH81C 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]	B5 motor flanges				B14 motor flanges		Output Shaft 	Ratios code
							-F	-G	-H	-I	-U	-V		
							100 112	132	160	180	100 112	132		
234	5.98	22	827	1.2	25.5	1000							3015	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	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 **H82C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **H82C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **H82C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **H82C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **H82C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

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 Blasias 460		

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$

n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

On request reinforced bearings to increase loads.
A richiesta cuscinetti rinforzati per aumentare i carichi.

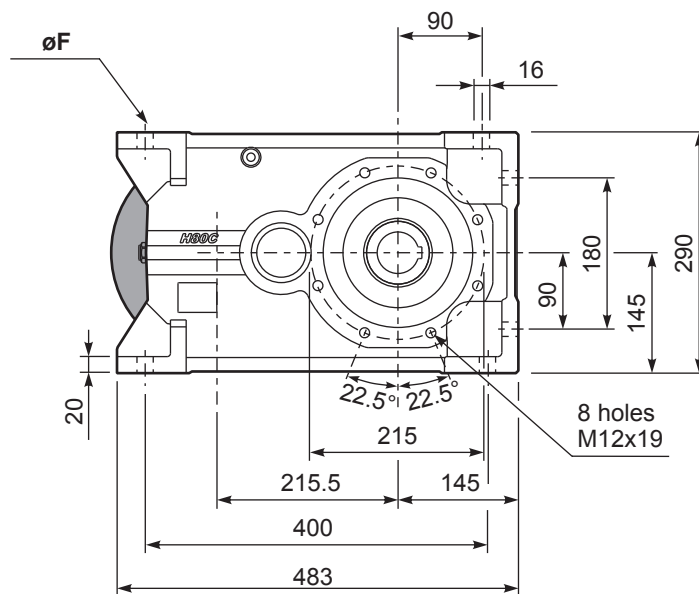
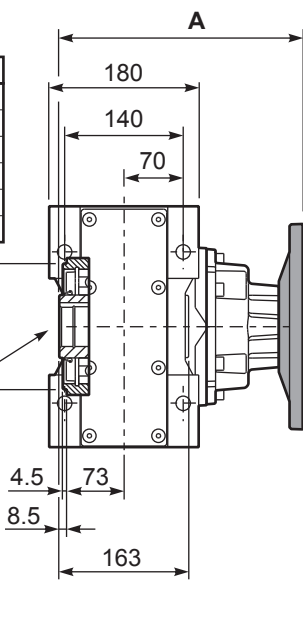
Input shaft
Albero in entrata

n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

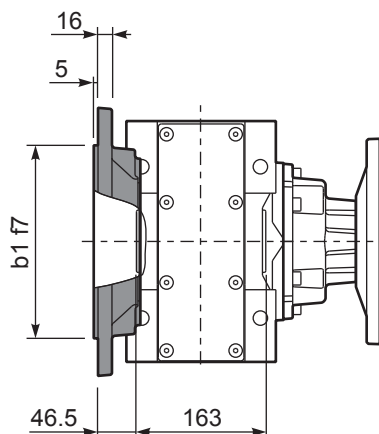
Gearbox weight peso riduttore	86.0 kg
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On request
A richiesta



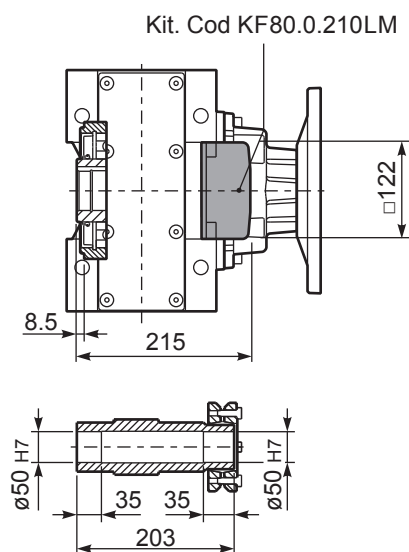
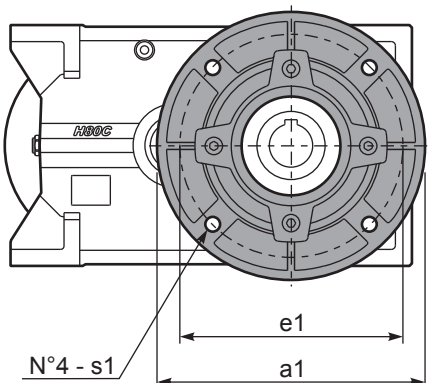
Shrink disk

Calettatore

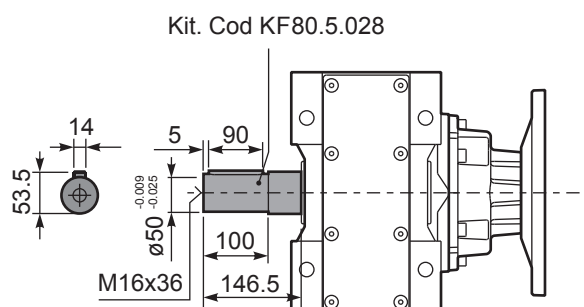
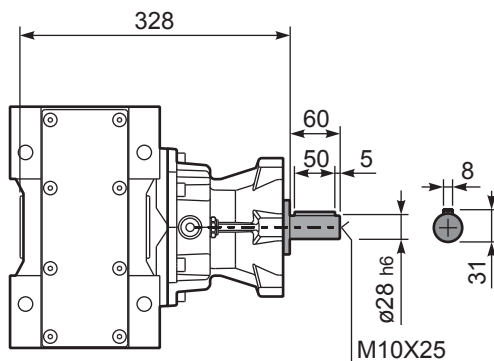


Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012



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					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	132	80	90	100	112		
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	06
14.8	94.70	4	2380	0.9	3.5	2100	B										161311	07
13.8	101.35	3	1917	1.1	3.2	2100	B										131313	08
11.4	123.15	3	2330	0.9	2.7	2100	B										131311	09
9.3	150.73	2.2	2100	1.0	2.2	2100	B										111311	10
7.8	179.39	1.5	1722	1.2	1.8	2100	B										81313	11
6.4	217.98	1.5	2093	1.0	1.5	2100	B										81311	12
5.7	247.03	1.1	1732	1.1	1.2	1950	B										61313	13
4.7	300.17	1.1	2105	1.0	1.1	2100	B										61311	14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **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 Blasias 460		

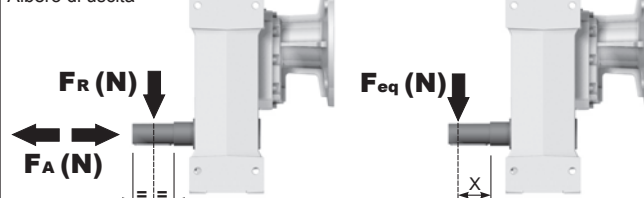
For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

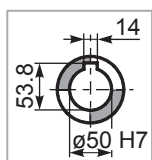
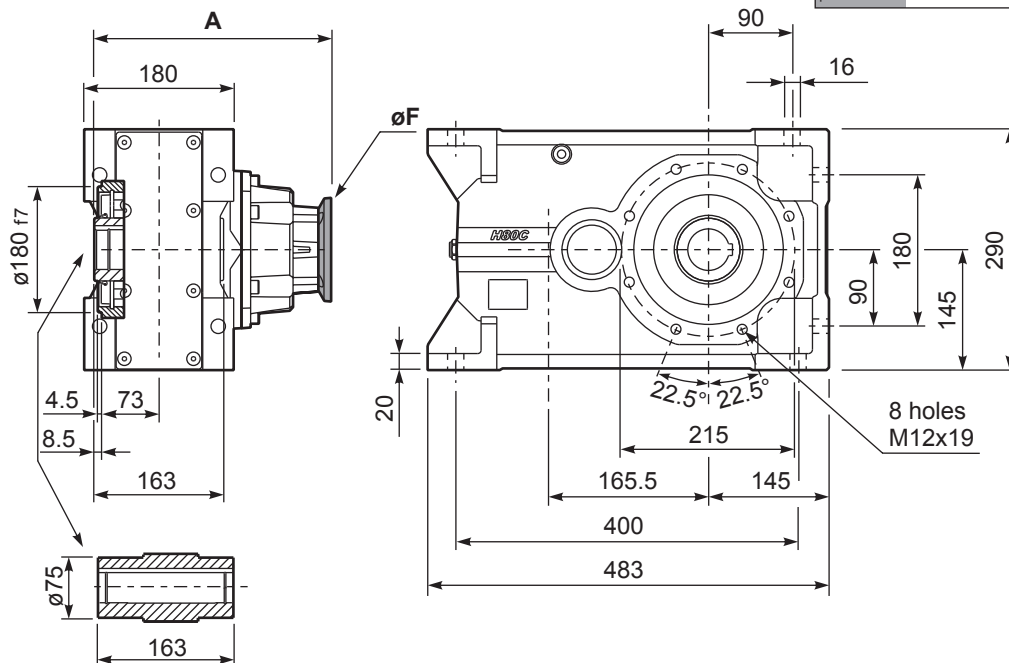
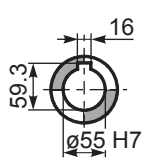
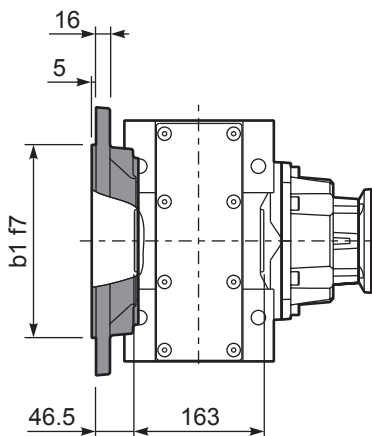
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000



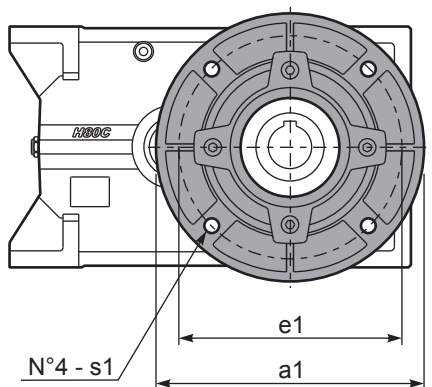
tab. 2

P H83C...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **81.0 kg**

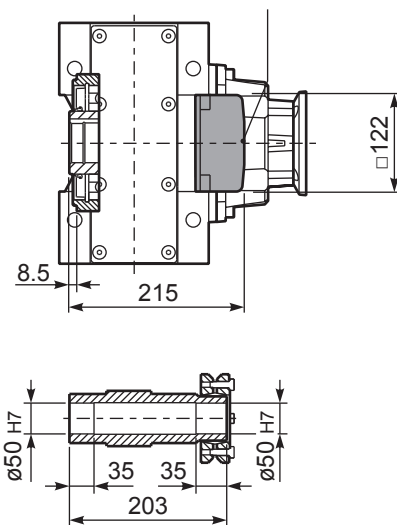
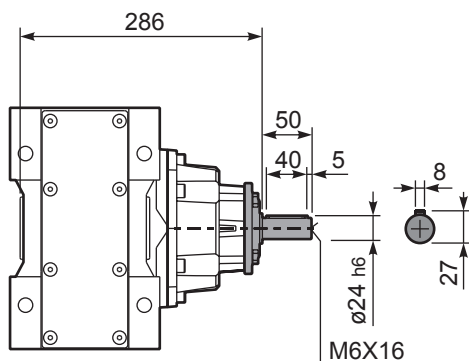
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	292.5
80/90B5	K023.4.042	200	294.5
100/112B5	K023.4.043	250	303.5
132B5	KC51.4.043	300	324.5
80B14	K085.4.046	120	294.5
90B14	K085.4.045	140	294.5
100/112B14	K085.4.047	160	303.5
132B14	KC51.4.041	200	324.5

Standard
Hollow shaft**On request**
A richiesta**PH83C...-F**Output flange
Flangia uscita**Available output flanges**
Flange di uscita

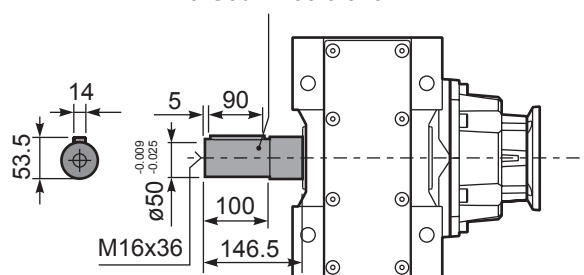
a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012

**PH83C D...**Shrink disk
Calettatore

Kit. Cod KF80.0.210LM

**R** H83C...Input Shaft
Albero in entrata**PH83C A...**Single output shaft
Albero uscita semplice

Kit. Cod KF80.5.028



Réducteurs à axes parallèles en fonte

Cast iron parallel shaft gearboxes

Un produit compact et modulaire
A modular and compact product

Couvercle d'inspection amovible

Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

Engrenage en acier trempé et rectifiés

Gears

Hardened and ground gears

Carcasse aluminium imprégnée à vide

Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint.

Joint d'étanchéité

Oil seals

Two oil seals on request

Carcasse en aluminium d'une seule pièce

Single-piece aluminum

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

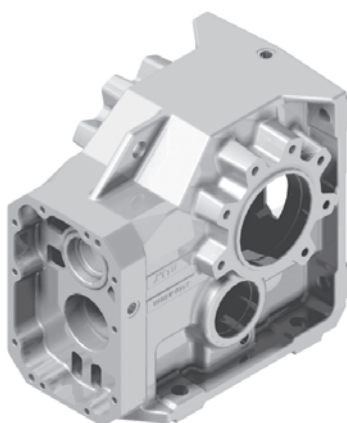
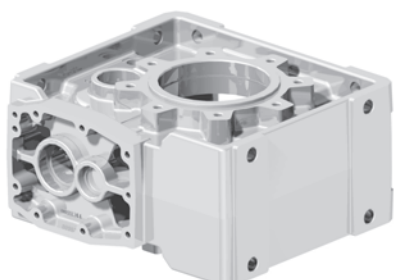
Bride modulaire

Flange

Fully modular to IEC and Compact integrated motor. NEMA C flange

Cast Iron housing

With high tensile strength. Precision machined for alignment of bearings and gearing



Peinture

Painting

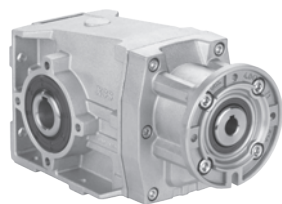
Cast iron gearboxes are painted RAL 7046



World wide sales network.

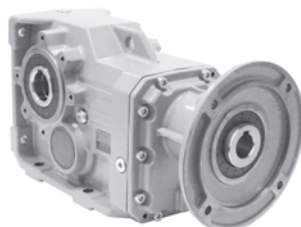
Fiche technique spécifique en page

Specific type datasheet on page



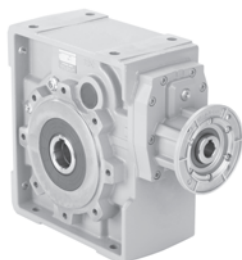
Types / Tipi
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X22S 50Nm	X32S 90Nm	X33S 100Nm	X42A 150Nm	X43A 160Nm	X52A 250Nm	X53A 250Nm	X62A 410Nm	X63A 410Nm



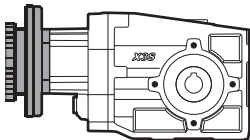
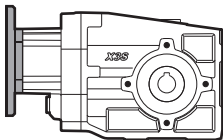
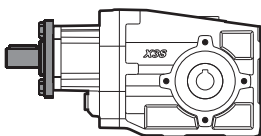
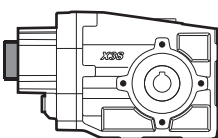
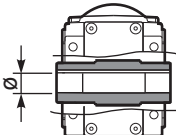
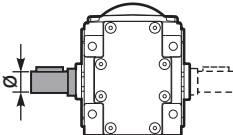
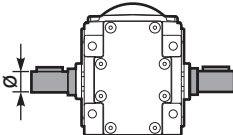
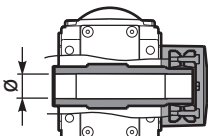
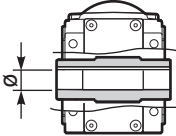
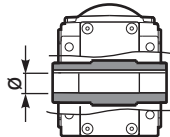
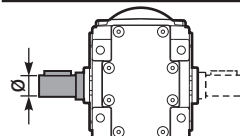
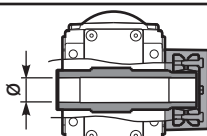
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X73C 675Nm	X74C 675Nm	X83C 1000Nm	X84C 1000Nm	X93C 1600Nm	X94C 1650Nm	X103 3000Nm	X104 3000Nm	X113 4500Nm	X114 4600Nm



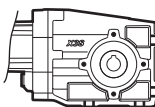
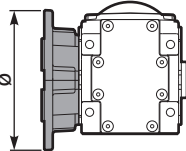
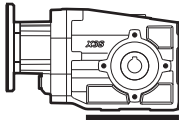
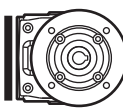
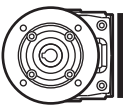
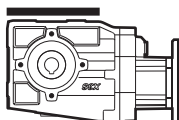
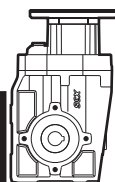
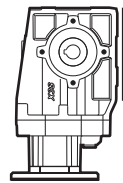
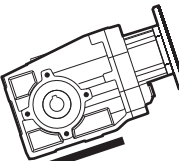
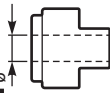
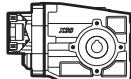
Types / Tipi
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Tipos

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9-43	9-45	9-47	9-49
113C 675Nm	114C 675Nm	133C 1000Nm	134C 1000Nm

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Grösse Taille - Tamaño	Hub - Mozzo corona Hohlwelle Arbre creux Nucleo corona	Rapporto - Ratio Untersetzung Reduction Relacion	Output shaft - Albero uscita Ausgangsflansch Arbre de sortie Brida en salida																																																																		
M	X22S	C	4.83	-A																																																																		
Helical-bevel gear Riduttori ortogonali  With IEC motor M  With motor flange P  With male input shaft R  Modular base B Not available for: X93C , X103 , X104 , X113 , X114 .	2 Stages Riduzioni Stufen Trains Etapas 3 Stages Riduzioni Stufen Trains Etapas Aluminum Alluminio Aluminium Aluminio X22S X32S X42A X52A X62A X33S X43A X53A X63A 3 Stages Riduzioni Stufen Trains Etapas 4 Stages Riduzioni Stufen Trains Etapas Cast Iron Ghisa Grauguss Fonte Fundicion 113C 133C X73C X83C X93C X103 X113 114C 134C X74C X84C X94C X104 X114	 Hollow outpu shaft C  Single output shaft A  Double output shaft only for 113/4C, 133/4C, X73/4C, X83/4C, X93/4C, X103/4 and X113/4 B  Shrink Disk (only on the DX side) D Only on request for Q.ty A richiesta per quantità  Stainless steel hub I Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox 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	 → STANDARD Hollow output shaft <table><tr><td>X22S</td><td>X73/4C X83/4C</td></tr><tr><td>-A ⇒ Ø18</td><td>-F ⇒ Ø40</td></tr><tr><td>-B ⇒ Ø20</td><td>-H ⇒ Ø45</td></tr><tr><td></td><td>113C 114C</td></tr><tr><td>X32S X33S</td><td>-F ⇒ Ø40</td></tr><tr><td>-B ⇒ Ø20</td><td>-G ⇒ Ø42</td></tr><tr><td>-C ⇒ Ø25</td><td>133C 134C</td></tr><tr><td>X42A X43A</td><td>-F ⇒ Ø40</td></tr><tr><td>-C ⇒ Ø25</td><td>-H ⇒ Ø45</td></tr><tr><td>-D ⇒ Ø30</td><td>X93C X94C</td></tr><tr><td>X52A X53A</td><td>-H ⇒ Ø45</td></tr><tr><td>-D ⇒ Ø30</td><td>-J ⇒ Ø50</td></tr><tr><td>-E ⇒ Ø35</td><td>X103 X104</td></tr><tr><td>X62A X63A</td><td>-K ⇒ Ø60</td></tr><tr><td>-E ⇒ Ø35</td><td>X113 X114</td></tr><tr><td>-F ⇒ Ø40</td><td>-T ⇒ Ø70</td></tr></table>  Single and double output shaft <table><tr><td>-I</td><td>X22S X32/3S ⇒ Ø20</td></tr><tr><td>-L</td><td>X32/3S X42/3A ⇒ Ø25</td></tr><tr><td>-M</td><td>X52/3A ⇒ Ø30</td></tr><tr><td>-N</td><td>X52/3A X62/3A X73/4A* ⇒ Ø35</td></tr><tr><td>-V</td><td>X83/4A 113/4C ⇒ Ø40*</td></tr><tr><td>-P</td><td>133/4C ⇒ Ø45*</td></tr><tr><td>-1</td><td>X93/4C ⇒ Ø50*</td></tr><tr><td>-3</td><td>X103/4 ⇒ Ø60*</td></tr><tr><td>-5</td><td>X113/4 ⇒ Ø70*</td></tr></table> * Also available double output shaft  Shrink Disk <table><tr><td>-U</td><td>X22S X32/3S ⇒ Ø20</td></tr><tr><td>-Q</td><td>X42/3A ⇒ Ø30</td></tr><tr><td>-R</td><td>X52/3A ⇒ Ø35</td></tr><tr><td>-S</td><td>X62/3A X73/4A X83/4A 113/4C ⇒ Ø40</td></tr><tr><td>-6</td><td>133/4C ⇒ Ø45</td></tr><tr><td>-7</td><td>X93/4C ⇒ Ø50</td></tr><tr><td>-8</td><td>X103/4 ⇒ Ø65</td></tr><tr><td>-9</td><td>X113/4 ⇒ Ø75</td></tr></table>	X22S	X73/4C X83/4C	-A ⇒ Ø18	-F ⇒ Ø40	-B ⇒ Ø20	-H ⇒ Ø45		113C 114C	X32S X33S	-F ⇒ Ø40	-B ⇒ Ø20	-G ⇒ Ø42	-C ⇒ Ø25	133C 134C	X42A X43A	-F ⇒ Ø40	-C ⇒ Ø25	-H ⇒ Ø45	-D ⇒ Ø30	X93C X94C	X52A X53A	-H ⇒ Ø45	-D ⇒ Ø30	-J ⇒ Ø50	-E ⇒ Ø35	X103 X104	X62A X63A	-K ⇒ Ø60	-E ⇒ Ø35	X113 X114	-F ⇒ Ø40	-T ⇒ Ø70	-I	X22S X32/3S ⇒ Ø20	-L	X32/3S X42/3A ⇒ Ø25	-M	X52/3A ⇒ Ø30	-N	X52/3A X62/3A X73/4A* ⇒ Ø35	-V	X83/4A 113/4C ⇒ Ø40*	-P	133/4C ⇒ Ø45*	-1	X93/4C ⇒ Ø50*	-3	X103/4 ⇒ Ø60*	-5	X113/4 ⇒ Ø70*	-U	X22S X32/3S ⇒ Ø20	-Q	X42/3A ⇒ Ø30	-R	X52/3A ⇒ Ø35	-S	X62/3A X73/4A X83/4A 113/4C ⇒ Ø40	-6	133/4C ⇒ Ø45	-7	X93/4C ⇒ Ø50	-8	X103/4 ⇒ Ø65	-9	X113/4 ⇒ Ø75
X22S	X73/4C X83/4C																																																																					
-A ⇒ Ø18	-F ⇒ Ø40																																																																					
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-D ⇒ Ø30	X93C X94C																																																																					
X52A X53A	-H ⇒ Ø45																																																																					
-D ⇒ Ø30	-J ⇒ Ø50																																																																					
-E ⇒ Ø35	X103 X104																																																																					
X62A X63A	-K ⇒ Ø60																																																																					
-E ⇒ Ø35	X113 X114																																																																					
-F ⇒ Ø40	-T ⇒ Ø70																																																																					
-I	X22S X32/3S ⇒ Ø20																																																																					
-L	X32/3S X42/3A ⇒ Ø25																																																																					
-M	X52/3A ⇒ Ø30																																																																					
-N	X52/3A X62/3A X73/4A* ⇒ Ø35																																																																					
-V	X83/4A 113/4C ⇒ Ø40*																																																																					
-P	133/4C ⇒ Ø45*																																																																					
-1	X93/4C ⇒ Ø50*																																																																					
-3	X103/4 ⇒ Ø60*																																																																					
-5	X113/4 ⇒ Ø70*																																																																					
-U	X22S X32/3S ⇒ Ø20																																																																					
-Q	X42/3A ⇒ Ø30																																																																					
-R	X52/3A ⇒ Ø35																																																																					
-S	X62/3A X73/4A X83/4A 113/4C ⇒ Ø40																																																																					
-6	133/4C ⇒ Ø45																																																																					
-7	X93/4C ⇒ Ø50																																																																					
-8	X103/4 ⇒ Ø65																																																																					
-9	X113/4 ⇒ Ø75																																																																					



On request we can deliver our products according to the ATEX
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern
Sur demande nos produits peuvent se conformer à la réglementation ATEX
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Type - Tipo - Typ Type - Tipo	Output flange Flangia di uscita Ausgangs Flansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Mounting position Posizione montaggio Einbaulage Position de montage Position de montaje	Input bore Foro entrata Eingangshohlwelle Trou d'entree Eje hueco de entrada	Terminal box position Posizione morsettiera Klemmkastenlage Position boîte à bornes Posición caja de bornes	
BR	N	-O	B3	ST		
 FB Forma base Universal	 N Senza flangia Without flange X22S 1 ⇒ Ø120 X32S X33S 1 ⇒ Ø120 2 ⇒ Ø160 X42-3A X52-3A X62-3A 2 ⇒ Ø160 3 ⇒ Ø200 X73C X74C X83C X84C 4 ⇒ Ø250 113C 114C X93C X94C C ⇒ Ø280 L ⇒ Ø280 133C 134C C ⇒ Ø320 X103 X104 6 ⇒ Ø350 X113 X114 7 ⇒ Ø450	 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) -L =200 (Ø400) CA =225 (Ø450) 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 X22S X33S X43A -1 ⇒ Ø14 X32S X42A X53A X63A X74C X84C 114C 134C -2 ⇒ Ø19 X52A X62A 113C 133C X73C X83C X94C -3 ⇒ Ø24 X93C X104 X114 -4 ⇒ Ø28 X103 X113 -6 ⇒ Ø42  Without flange Senza flangia -M ⇒ With coupling X22S X33S X43A -Z ⇒ Ø9 (56B5) -0 ⇒ Ø11 (63B5) -1 ⇒ Ø14 (71B5) X32S X42A X53A X63A X74C X84C 114C 134C -1 ⇒ Ø14 (71B5) -2 ⇒ Ø19 (80B5) -3 ⇒ Ø24 (90B5) X52A X62A 113C 133C X73C X83C X94C -2 ⇒ Ø19 (80B5) -3 ⇒ Ø24 (90B5) -4 ⇒ Ø28 (100B5)	 B3 STANDARD  B6  B7  B8  V5  V6  V8	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	With Type M specify terminal box position Con tipo M specificare posizione morsettiera  A  B STANDARD  C  D

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

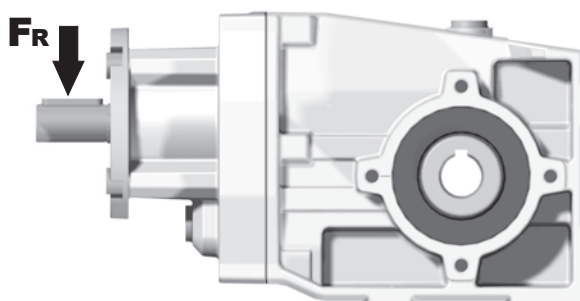
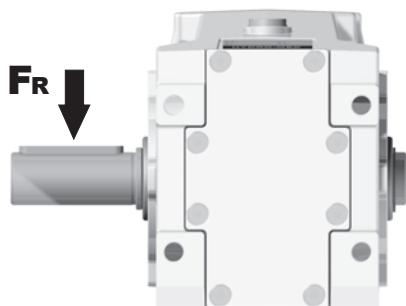
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P [KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P [HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



9

	$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$	$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$
M	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
f_k	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Chaîne / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe
Comment sélectionner un réducteur / Cómo seleccionar un reductor

B Output speed
Velocità in uscita
Abtriebsdrehzahl
Vitesse de sortie
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Puissance nominale
Potencia nominal

A Nominal torque
Momento torcente nominale
Nenn Drehmoment
Couple nominal
Par de torsión nominal

Flange code
Codice flangia
Flanschtype
Code bride
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Vitesse en entrée
Velocidad de entrada

Gear size
Grandezza riduttore
Getriebegröße
Taille réducteur
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Puissance moteur
Potencia motor

X22S

Angletech Gear 50Nm

Rating - Aluminum

HELICAL-BEVEL GEARBOXES

QUICK SELECTION / Selezione veloce The dynamic efficiency is **0.96** for all ratios input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
289.7	4.83	0.37	11.7	2.6	0.95	30			C	C		289	01
189.2	7.40	0.37	17.9	1.7	0.62	30			C	C		287	02
146.2	9.58	0.37	23.2	1.7	0.64	40			C	C		199	03
127.5	10.98	0.37	26.6	1.7	0.63	45			C	C		179	04

C Ratio
Rapporto
Untersetzung
Rapport de réduction
Relación

Transmitted torque
Momento torcente trasmesso
Mögliche Drehmomente
Couple de sortie
Par transmitido

Service factor
Fattore di servizio
Betriebsfaktor
Facteur de service
Factor de servicio

Output shaft diam.
Diam. albero uscita
Durchmesser abtriebswelle
Diametre arbre lent
Diametro eje de salida

Notes
Note
Anmerkungen
Note
Notas

fs		Oper. hours per day Ore di funz. giorn.		
Type of load and starts per hour Tipo di carico e avviamenti per ora		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

D		Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles
B)	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción	
C)	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor	
B)	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo	

A	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
C	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
D	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



■ **QUICK SELECTION** / Selezione veloce The dynamic efficiency is **0.96** for all ratios **input speed (n_1) = 1400 min⁻¹**

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
290	4.83	0.37	12	2.6	0.95	30			C	C		289	01
189	7.40	0.37	18	1.7	0.62	30			C	C		287	02
146	9.58	0.37	23	1.7	0.64	40			C	C		199	03
128	10.98	0.37	27	1.7	0.63	45			C	C		179	04
107	13.07	0.37	32	1.4	0.53	45			C	C		159	05
95	14.66	0.37	35	1.3	0.47	45			C	C		197	06
89	15.79	0.37	38	1.2	0.44	45			C	C		139	07
83	16.81	0.37	41	1.1	0.41	45			C	C		177	08
70	20.00	0.37	48	1.0	0.37	48			C	C		157	09
64	21.93	0.37	53	0.9	0.35	50			C	C		109	10
58	24.18	0.25	39	1.3	0.32	50			C	C		137	11
48.2	29.04	0.25	47	1.1	0.26	50			C	C		99	12
41.7	33.57	0.18	42	1.2	0.23	50			C	C		107	13
36.2	38.67	0.18	48	1.0	0.20	50			C	C		79	14
31.5	44.44	0.18	55	0.9	0.17	50			C	C		97	15
23.7	59.18	0.12	48	1.0	0.13	50			C	C		77	16
19.9	70.24	0.09	45	1.1	0.11	50			C	C		67	17

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X22S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X22S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X22S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X22S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X22S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.25 LT	0.25 LT	0.25 LT	0.25 LT	0.43 LT	0.31 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

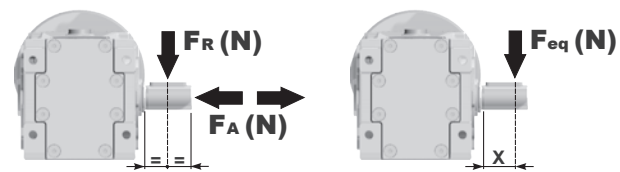
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

■ RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{101}{X+82}$$

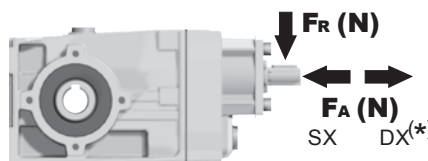


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
400	360	1800	100	440	2200	25	440	2200
250	380	1900	75	440	2200	15	440	2200
150	420	2100	50	440	2200			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA	FR
1400	140	700
900	160	800
500	190	950

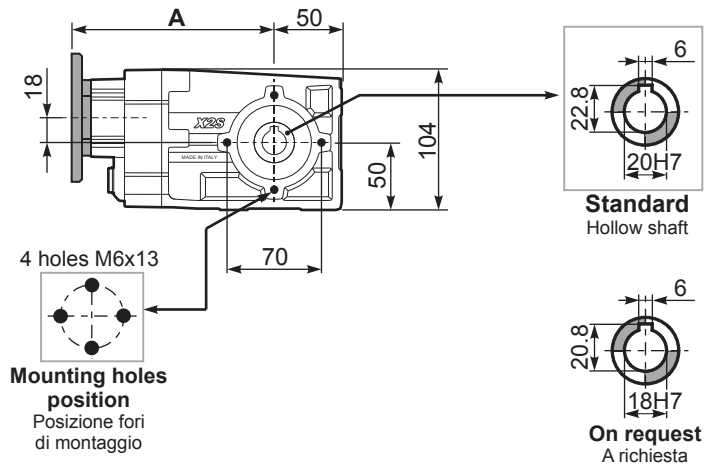
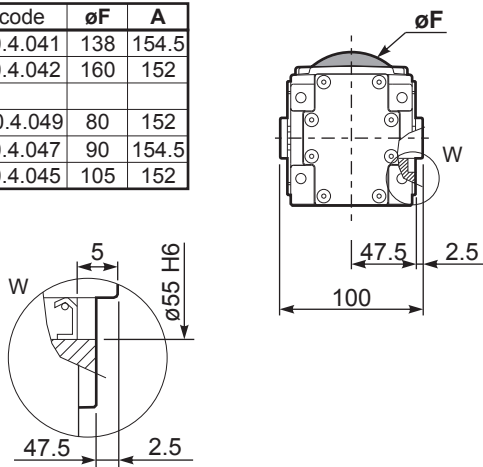
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

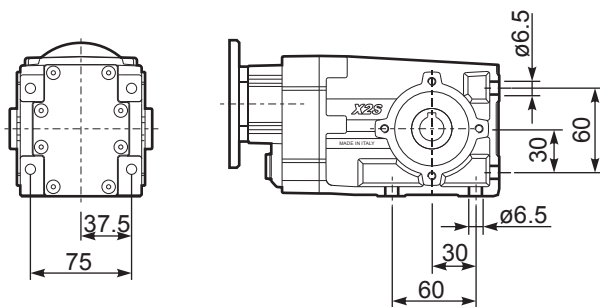
P X22SC...	Basic Gearbox Riduttore base
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Gearbox weight peso riduttore	3.70 kg
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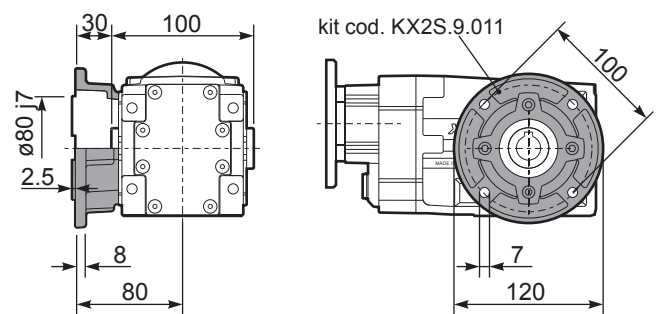
M. flanges	Kit code	$\varnothing F$	A
63B5	K050.4.041	138	154.5
71B5	K050.4.042	160	152
56B14	KC40.4.049	80	152
63B14	K050.4.047	90	154.5
71B14	K050.4.045	105	152



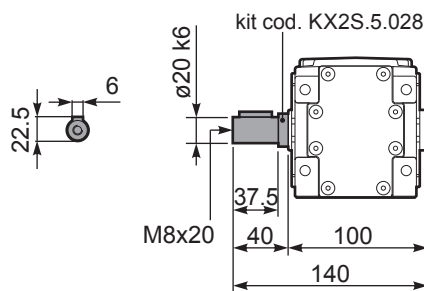
PX22S...**FB**.. Feet
Piedini



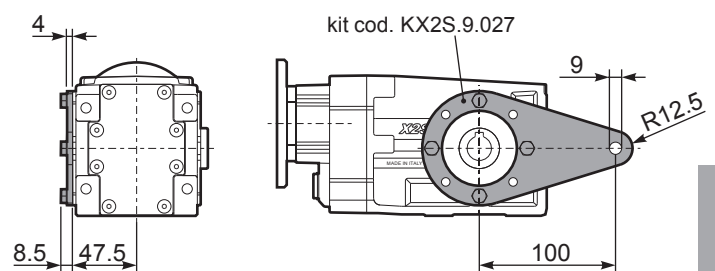
PX22S...-F1.. Output flange
Flangia uscita



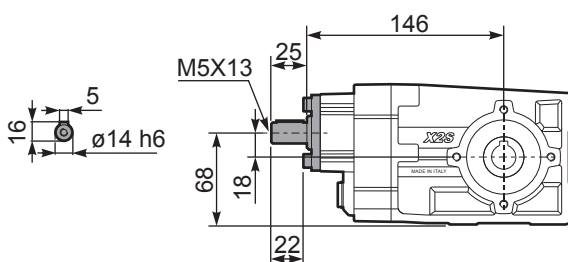
PX22SA.. Single output shaft
Albero semplice in uscita



PX22S... BR ...	Reaction Arm Braccio di reazione
------------------------	-------------------------------------



RX22S.. Input shaft
Albero in entrata





QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
191	7.33	1.5	72	1.0	1.5	70	B				C	C		289	01
125	11.22	1.1	80	1.1	1.2	85	B				C	C		287	02
106	13.26	1.1	95	0.9	0.98	85	B				C	C		199	03
91	15.37	1.1	110	0.8	0.89	90	B				C	C		179	04
78	18.04	0.75	89	1.0	0.76	90	B				C	C		159	05
69	20.30	0.75	100	0.9	0.68	90	B				C	C		197	06
65	21.54	0.75	106	0.9	0.64	90	B				C	C		139	07
59	23.53	0.55	85	1.1	0.58	90	B				C	C		177	08
51	27.62	0.55	100	0.9	0.50	90	B				C	C		157	09
47.6	29.40	0.55	106	0.8	0.47	90	B				C	C		109	10
42.5	32.97	0.37	80	1.1	0.42	90	B				C	C		137	11
36.5	38.37	0.37	93	1.0	0.36	90	B				C	C		99	12
31.1	45.00	0.25	73	1.2	0.31	90	B				C	C		107	13
27.6	50.67	0.25	83	1.1	0.27	90	B				C	C		79	14
23.8	58.73	0.18	73	1.2	0.23	90	B				C	C		97	15
18.1	77.55	0.18	97	0.9	0.18	90	B				C	C		77	16

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X32S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X32S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X32S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X32S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X32S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.40 LT	0.60 LT	0.40 LT	0.60 LT	0.85 LT	0.60 LT	Ask
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

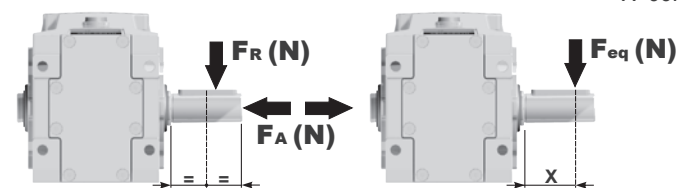
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{115.5}{X+96.5}$$

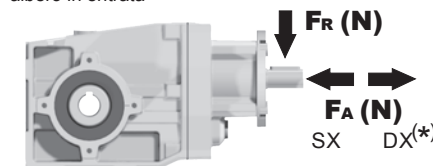


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	400	2000	75	560	2800	15	560	2800
150	450	2250	50	560	2800			
100	500	2500	25	560	2800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



n_1 [min ⁻¹]	FA	FR
1400	240	1200
900	280	1400
500	340	1700

***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

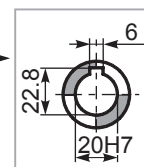
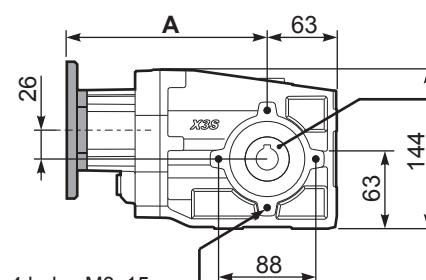
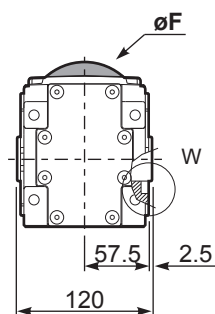
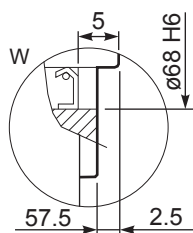
Px32SC...

Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore

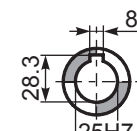
6.30 kg

M. flanges	Kit code	ØF	A
63B5	K063.4.041	140	184
71B5	K063.4.042	160	182
80/90B5	K063.4.043	200	184
71B14	K063.4.047	105	182
80B14	K063.4.046	120	184
90B14	K063.4.041	140	184



Standard

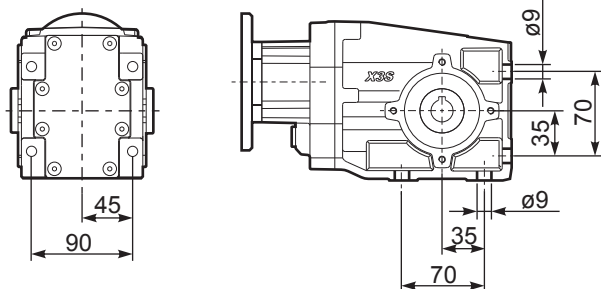
Hollow shaft



 On request
A richiesta

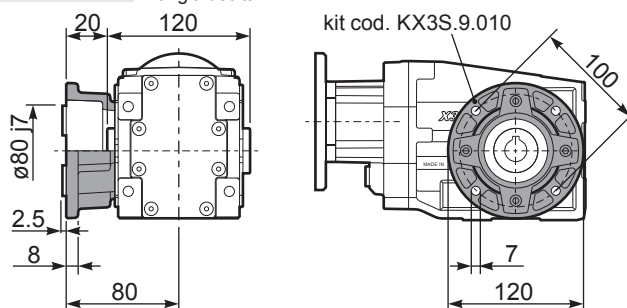
4 holes M8x15

Mounting holes position
Posizione fori di montaggio

PX32S...**FB..**Feet
Piedini

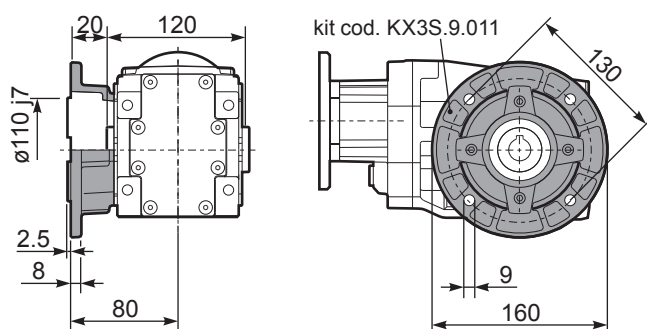
PX32S...**-F1**.. Output flange
Flangia uscita

Flangia uscita



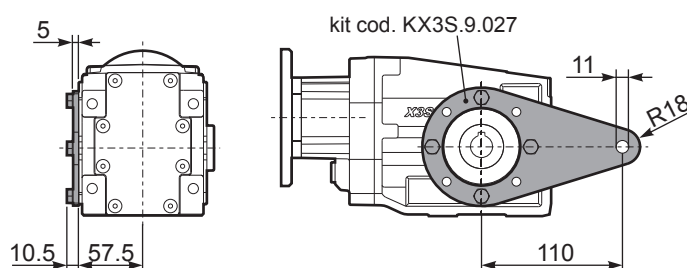
PX32S...**-F2..** Output flange
Flangia uscita

Flangia uscita



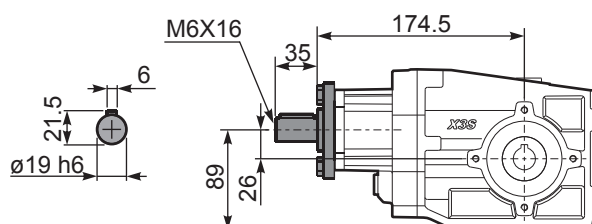
PX32S...**BR**.. Reaction Arm
Braccio di reazione

- Braccio di reazione



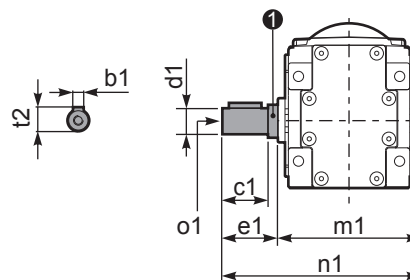
Rx32S...

Input shaft
Albero in entrata

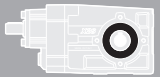


PX32SA.. Single output shaft
Albero semplice in uscita

Albero semplice in uscita



d1	b1	c1	e1	m1	n1	t2	o1	① kit code
ø20 k6	6	37.5	40	120	160	22.5	M8x20	KX2S.5.028
ø25 ^{-0.005 -0.020}	8	60	63.2	126.8	190	28	M8x20	K063.5.028



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
38.7	36.17	0.37	86	1.2	0.43	100			C	C		17179	02
31.7	44.21	0.37	105	1.0	0.35	100			C	C		19139	03
27.6	50.68	0.25	81	1.2	0.31	100			C	C		17139	04
25.3	55.36	0.25	89	1.1	0.28	100			C	C		17177	05
23.2	60.31	0.25	96	1.0	0.26	100			C	C		15139	06
21.2	65.88	0.25	105	0.9	0.24	100			C	C		15177	07
19.4	72.25	0.18	88	1.1	0.22	100			C	C		10179	08
17.6	79.64	0.18	97	1.0	0.20	100			C	C		13177	09
15.2	92.31	0.18	113	0.9	0.17	100			C	C		15137	10
14.6	95.65	0.18	117	0.9	0.16	100			C	C		9179	11
13.8	101.23	0.12	80	1.2	0.15	100			C	C		10139	12
11.0	127.37	0.12	101	1.0	0.12	100			C	C		7179	13
9.3	151.16	0.09	95	1.0	0.10	100			C	C		6179	14
7.8	178.46	0.09	113	0.9	0.09	100			C	C		7139	15
6.6	211.79	0.06	88	1.1	0.07	100			C	C		6139	16
6.1	231.37	0.06	96	1.0	0.07	100			C	C		6177	17
5.1	273.16	0.06	113	0.9	0.06	100			C	C		7137	18
4.3	324.18	0.06	134	0.7	0.05	100			C	C		6137	19

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X33S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X33S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X33S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X33S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X33S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.70 LT	0.65 LT	0.40 LT	0.65 LT	0.95 LT	0.65 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

For all details on lubrication and plugs check our website

tab. 1

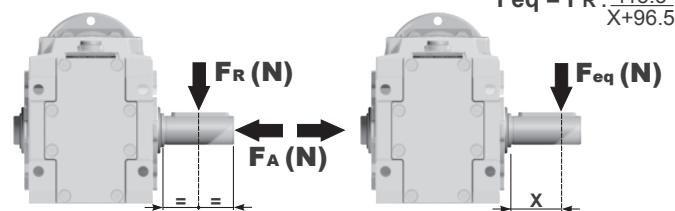
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{115.5}{X+96.5}$$

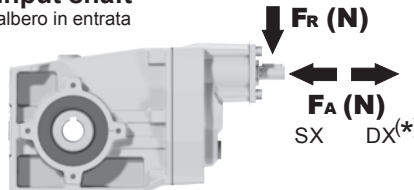


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	400	2000	75	560	2800	15	560	2800
150	450	2250	50	560	2800			
100	500	2500	25	560	2800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



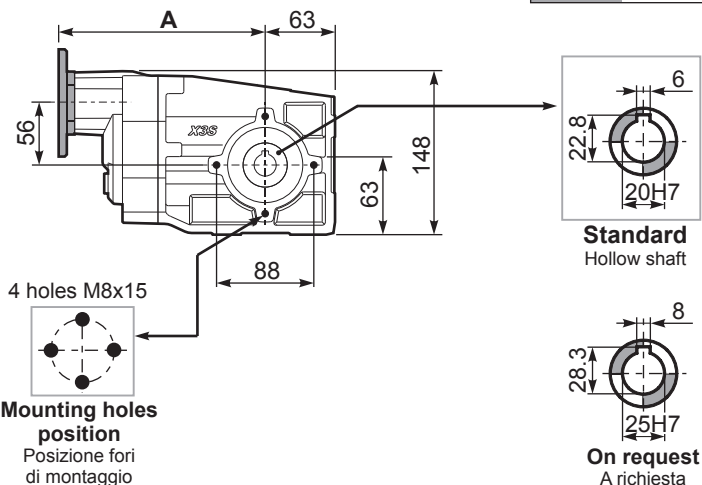
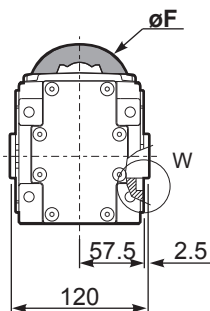
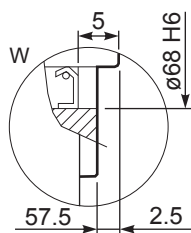
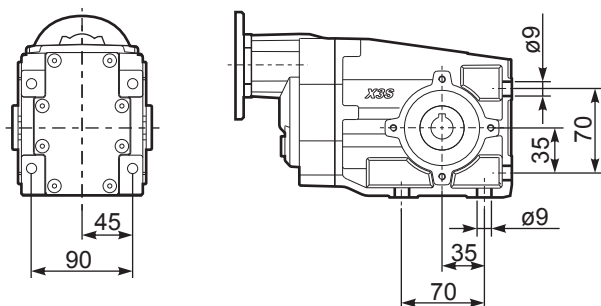
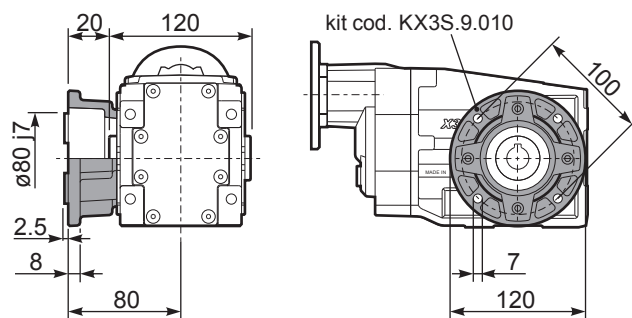
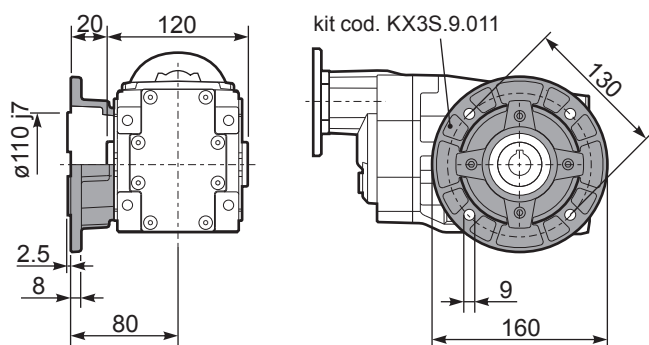
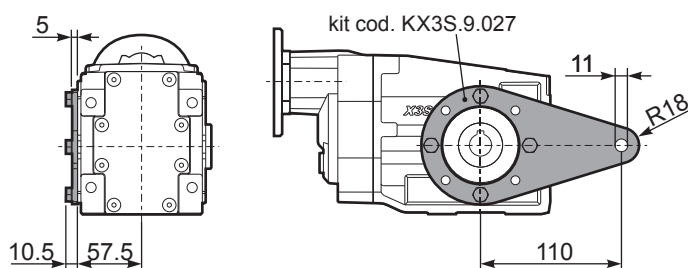
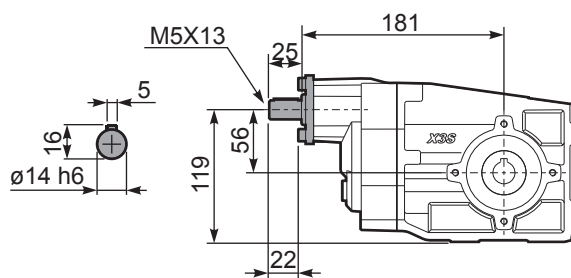
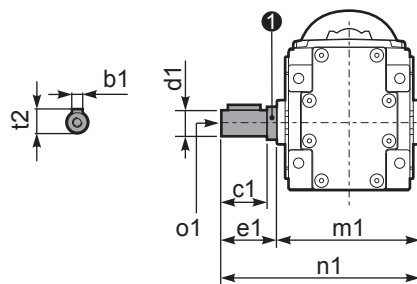
n_1 [min ⁻¹]	FA	FR
1400	140	700
900	160	800
500	190	950

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PX33SC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore **6.55 kg**

M. flanges	Kit code	øF	A
63B5	K050.4.041	138	189.5
71B5	K050.4.042	160	187
56B14	KC40.4.049	80	187
63B14	K050.4.047	90	189.5
71B14	K050.4.045	105	187

**PX33S...FB..**Feet
Piedini**PX33S...-F1..**Output flange
Flangia uscita**PX33S...-F2..**Output flange
Flangia uscita**PX33S...BR..**Reaction Arm
Braccio di reazione**RX33S...**Input shaft
Albero in entrata**PX33SA..**Single output shaft
Albero semplice in uscita

d1	b1	c1	e1	m1	n1	t2	o1	1	kit code
ø20 k6	6	37.5	40	120	160	22.5	M8x20		KX2S.5.028
ø25 ^{-0.005/-0.020}	8	60	63.2	126.8	190	28	M8x20		K063.5.028



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100 112	71	80	90	100 112		
192	7.29	2.2	104	0.9	2.0	95	B					C	C			2811	01
125	11.20	2.2	159	0.9	2.0	150	B					C	C			288	02
106	13.18	1.5	129	1.2	1.7	150	B					C	C			1911	03
92	15.27	1.1	109	1.4	1.5	150	B					C	C			1711	04
78	17.93	1.1	128	1.2	1.3	150	B					C	C			1511	05
69	20.25	1.1	145	1.0	1.1	150	B					C	C			198	06
65	21.40	1.1	153	1.0	1.1	150	B					C	C			1311	07
60	23.47	0.75	115	1.3	0.98	150	B					C	C			178	08
51	27.55	0.75	135	1.1	0.83	150	B					C	C			158	09
47.9	29.21	0.75	143	1.0	0.78	150	B					C	C			1011	10
42.6	32.88	0.75	161	0.9	0.70	150	B					C	C			138	11
36.7	38.12	0.55	138	1.1	0.60	150	B					C	C			911	12
31.2	44.89	0.55	163	0.9	0.51	150	B					C	C			108	13
27.8	50.34	0.37	122	1.1	0.40	131	B					C	C			711	14
23.9	58.58	0.37	142	1.1	0.39	150	B					C	C			98	15
18.1	77.36	0.25	126	1.2	0.30	150	B					C	C			78	16

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X42A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X42A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X42A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X42A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X42A** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.60 LT	0.75 LT	0.50 LT	0.70 LT	1.10 LT	0.60 LT	Ask
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

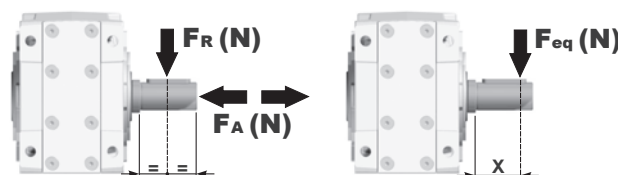
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{123}{X+97}$$

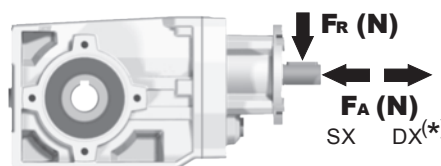


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	500	2500	75	800	4000	15	960	4800
150	600	3000	50	960	4800			
100	700	3500	25	960	4800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



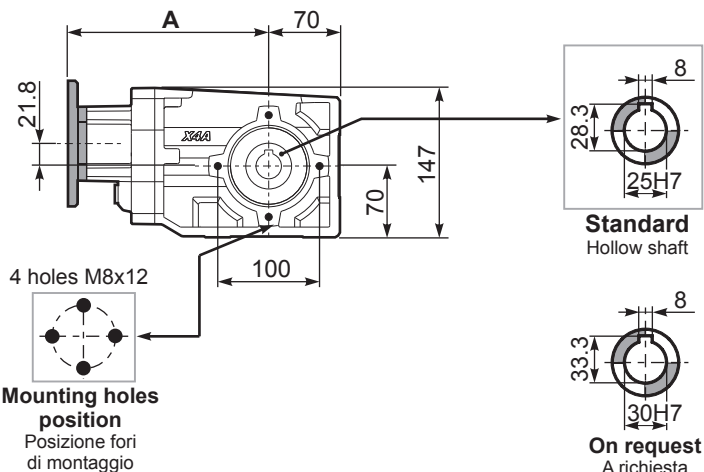
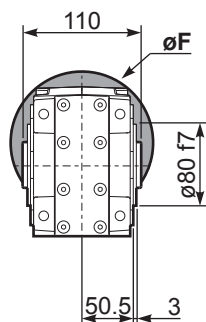
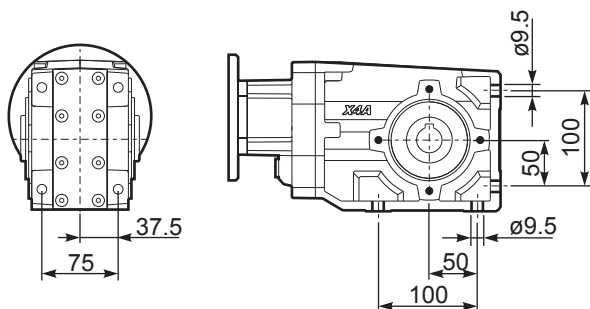
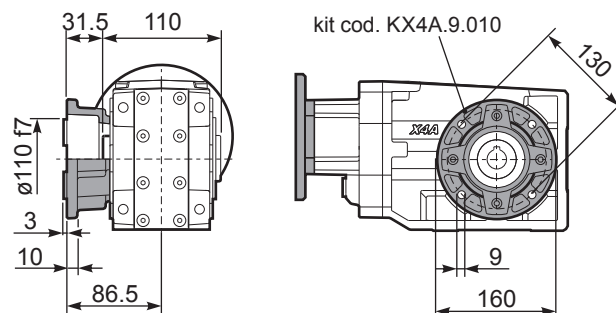
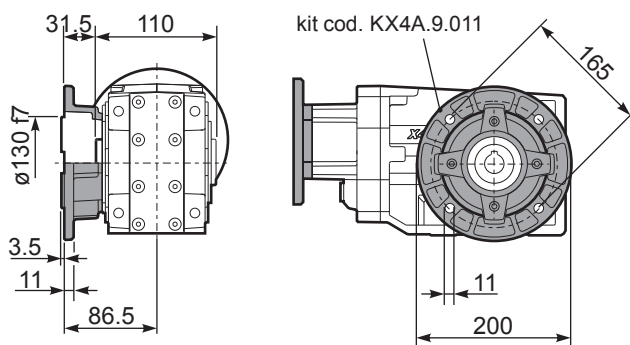
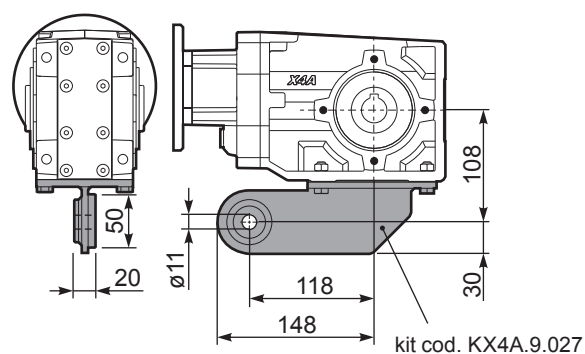
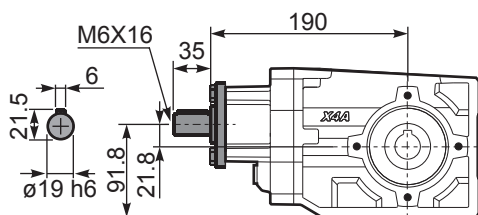
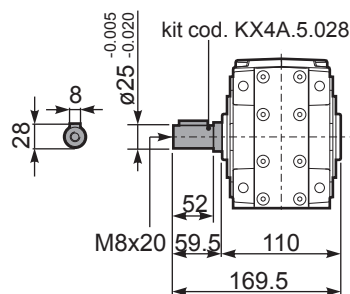
n_1 [min ⁻¹]	FA	FR
1400	240	1200
900	280	1400
500	340	1700

***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PX42AC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore**7.82 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	199.5
71B5	K063.4.042	160	197.5
80/90B5	K063.4.043	200	199.5
100/112B5	KC40.4.043	250	214.3
71B14	K063.4.047	105	197.5
80B14	K063.4.046	120	199.5
90B14	K063.4.041	140	199.5
100/112B14	KC40.4.041	160	214.5

**PX42A...FB..**Feet
Piedini**PX42A...-F2..**Output flange
Flangia uscita**PX42A...-F3..**Output flange
Flangia uscita**PX42A...BR..**Reaction Arm
Braccio di reazione**RX42A...**Input shaft
Albero in entrata**PX42AA..**Single output shaft
Albero semplice in uscita



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
27.8	50.35	0.37	119	1.3	0.46	150			C	C		171311	01
25.4	55.22	0.37	131	1.1	0.42	150			C	C		17178	02
23.4	59.92	0.37	142	1.1	0.39	150			C	C		151311	03
21.3	65.72	0.37	156	1.0	0.36	150			C	C		15178	04
19.5	71.78	0.25	115	1.3	0.33	150			C	C		101711	05
17.6	79.44	0.25	127	1.2	0.29	150			C	C		13178	06
15.2	92.08	0.25	147	1.0	0.25	150			C	C		15138	07
14.7	95.03	0.25	152	1.0	0.25	150			C	C		91711	08
11.1	126.55	0.18	155	1.0	0.20	160			C	C		71711	09
10.5	133.15	0.18	163	1.0	0.19	160			C	C		91311	10
9.3	150.18	0.12	119	1.3	0.17	160			C	C		61711	11
7.9	177.30	0.12	140	1.1	0.14	160			C	C		71311	12
6.7	210.42	0.09	133	1.2	0.12	160			C	C		61311	13
6.1	230.79	0.09	146	1.1	0.11	160			C	C		6178	14
5.1	272.47	0.06	113	1.4	0.09	160			C	C		7138	15
4.3	323.37	0.06	134	1.2	0.08	160			C	C		6138	16

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X43A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X43A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X43A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X43A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X43A** se suministra, lubricado de por vida con aceite sintético y no requiren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
0.80 LT	0.80 LT	0.60 LT	0.80 LT	1.20 LT	0.70 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

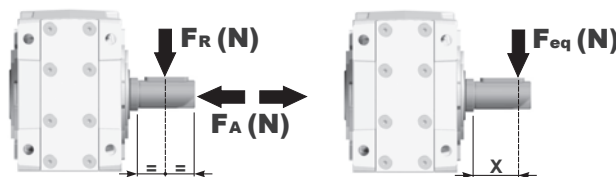
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{123}{X+97}$$

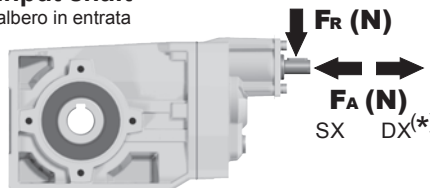


n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	500	2500	75	800	4000	15	960	4800
150	600	3000	50	960	4800			
100	700	3500	25	960	4800			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata

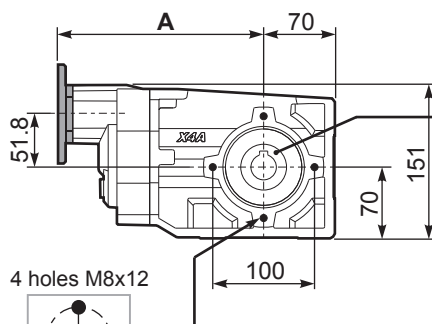
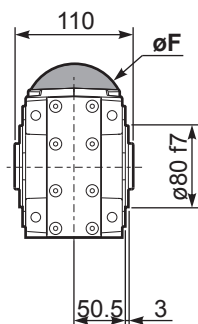


n_1 [min ⁻¹]	FA [N]	FR [N]
1400	140	700
900	160	800
500	190	950

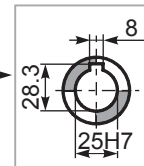
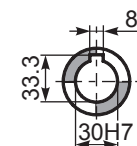
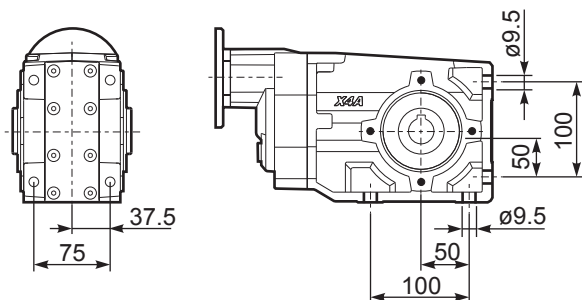
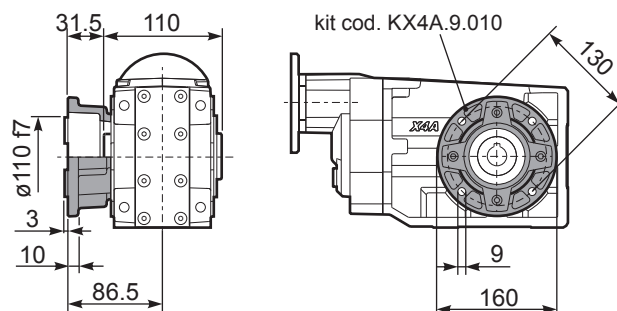
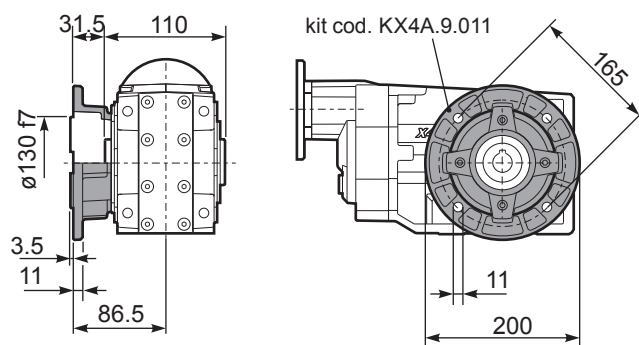
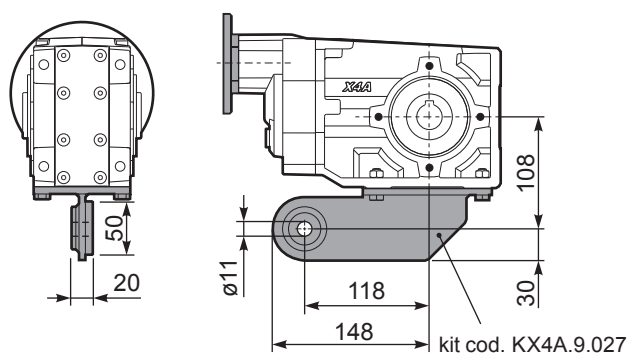
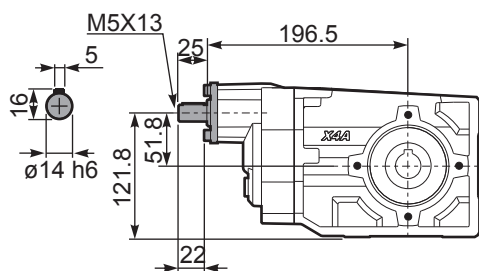
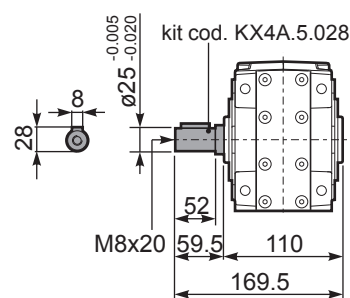
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

PX43AC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore**7.93 kg**

M. flanges	Kit code	øF	A
63B5	K050.4.041	138	205
71B5	K050.4.042	160	202.5
56B14	KC40.4.049	80	202.5
63B14	K050.4.047	90	205
71B14	K050.4.045	105	202.5



4 holes M8x12

Mounting holes
positionPosizione fori
di montaggio**Standard**
Hollow shaft**On request**
A richiesta**PX43A...FB..**Feet
Piedini**PX43A...-F2..**Output flange
Flangia uscita**PX43A...-F3..**Output flange
Flangia uscita**PX43A...BR..**Reaction Arm
Braccio di reazione**RX43A...**Input shaft
Albero in entrata**PX43AA..**Single output shaft
Albero semplice in uscita



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft 	 Ratios code
							-C	-D	-E	-F	-R	-T	-U			
							71	80	90	100 112	80	90	100 112			
232	6.03	3	116	1.2	3.4	135	B							3011	standard ø30	01
151	9.26	3	179	0.9	2.6	155	B							308		02
123	11.36	3	219	1.0	3.1	230	B							2011		03
91	15.36	2.2	218	1.1	2.5	250	B							1611		04
80	17.46	2.2	248	1.0	2.2	250	B							208		05
70	19.97	2.2	284	0.9	1.9	250	B							1311		06
59	23.60	1.5	231	1.1	1.6	250	B							168		07
57	24.45	1.5	239	1.0	1.6	250	B							1111	08	
45.6	30.69	1.1	220	1.1	1.2	250	B							138	ø35	09
39.6	35.35	1.1	253	1.0	1.1	250	B							811	On request	10
37.3	37.57	1.1	269	0.9	1.0	250	B							118		11
28.8	48.68	0.75	239	1.0	0.78	250	B							611		12
25.8	54.33	0.75	267	0.9	0.70	250	B							88		13
18.7	74.81	0.37	181	1.2	0.43	210	B							68		14

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X52A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X52A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X52A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X52A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X52A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
B3	B6	B7	B8	V5	V6	V8	
0.90 LT	1.50LT	0.75 LT	1.40 LT	1.95 LT	1.15 LT	Ask	
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

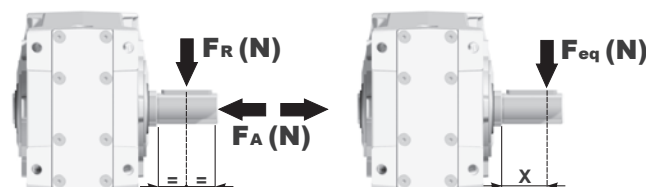
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{144.5}{X+114.5}$$



n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	600	3000	75	820	4100	15	1660	8300
150	700	3500	50	960	4800			
100	800	4000	25	1350	6750			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata

n_1 [min ⁻¹]	FA	FR
1400	450	2250
900	500	2500
500	600	3000

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

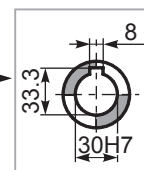
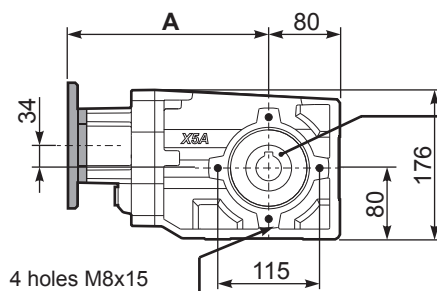
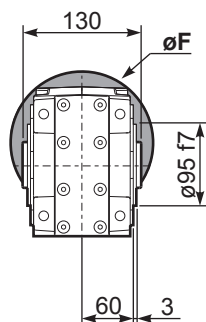
PX52AC...

Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore

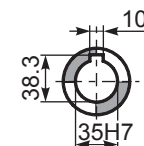
12.80 kg

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	234
80/90B5	K023.4.042	200	236
100/112B5	K023.4.043	250	245
80B14	K085.4.046	120	236
90B14	K085.4.045	140	236
100/112B14	K085.4.047	160	245



Standard

Hollow shaft

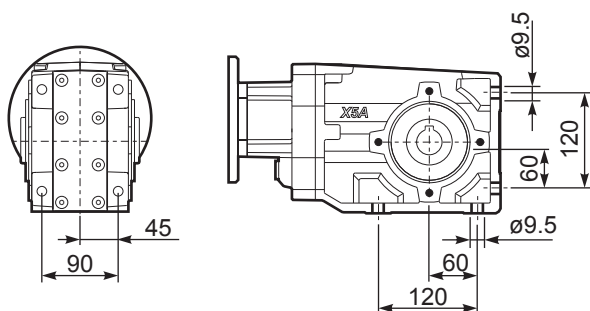


On request
A richiesta

4 holes M8x15

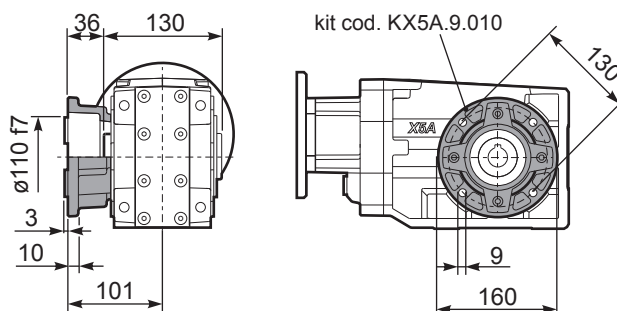
Mounting holes

Posizione fori di montaggio

PX52A...**FB..**Feet
Piedini

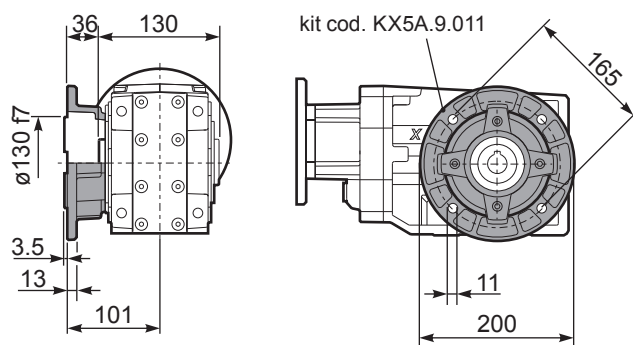
PX52A...-F2...

Output flange
Flangia uscita



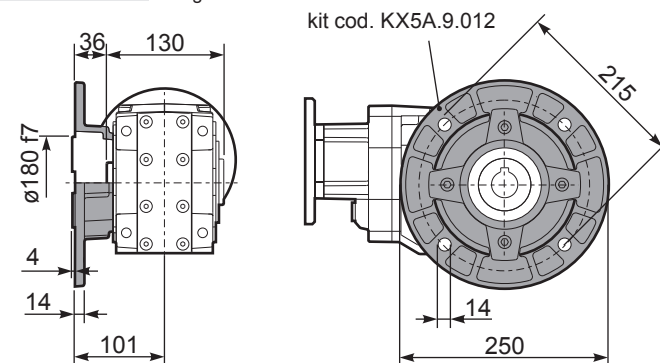
PX52A...-F3.

Output flange
Flangia uscita

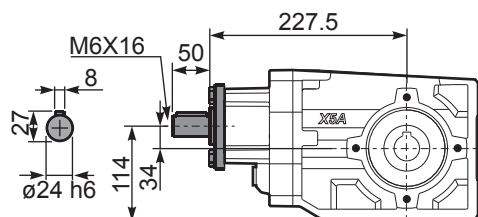


PX52A...-F4..

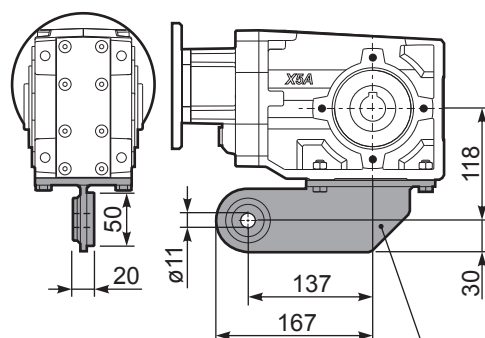
Output flange
Flangia uscita

**RX52A...**

Input shaft
Albero in entrata

PX52A...**BR..**

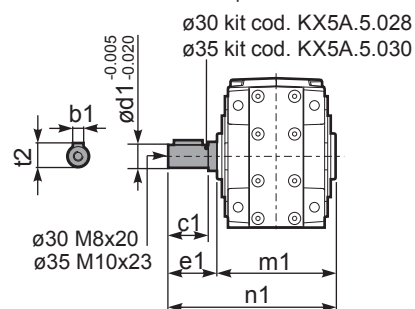
Reaction Arm	Braccio di reazione
--------------	---------------------



kit cod. KX5A.9.027

PX52A**A**..

Single output shaft
Albero semplice in uscita



	b1	c1	d1	e1	m1	n1	t2
ø30	8	60	30	68	134	202	33
ø35	10	60	35	73.5	141	214.5	38



QUICK SELECTION / Selezione veloce The dynamic efficiency is 0.94 for all ratios input speed (n₁) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
24.7	56.76	0.55	201	1.2	0.69	250	B				C	C		191311	01
21.3	65.79	0.55	233	1.1	0.59	250	B				C	C		171311	02
18.1	77.23	0.55	274	0.9	0.50	250	B				C	C		151311	03
16.0	87.23	0.37	207	1.2	0.45	250	B				C	C		19138	04
15.2	92.18	0.37	219	1.1	0.42	250	B				C	C		131311	05
13.9	100.47	0.37	238	1.0	0.39	250	B				C	C		19811	06
12.0	116.45	0.37	276	0.9	0.33	250	B				C	C		17811	07
11.1	125.82	0.25	201	1.2	0.31	250	B				C	C		101311	08
9.9	141.66	0.25	227	1.1	0.28	250	B				C	C		13138	09
8.6	163.16	0.25	261	1.0	0.24	250	B				C	C		13811	10
7.8	178.96	0.18	219	1.1	0.22	250	B				C	C		1788	11
7.2	193.36	0.18	237	1.1	0.20	250	B				C	C		10138	12
6.5	216.84	0.18	265	0.9	0.18	250	B				C	C		71311	13
5.5	252.36	0.12	200	1.3	0.15	250	B				C	C		9138	14
4.8	290.67	0.12	230	1.1	0.13	250	B				C	C		9811	15
4.2	333.23	0.12	263	0.9	0.12	250	B				C	C		7138	16
3.6	383.82	0.12	303	0.8	0.10	250	B				C	C		7811	17
3.1	446.70	0.12*	353	0.7	0.09	250	B				C	C		988	18
2.4	589.85	0.12*	466	0.5	0.07	250	B				C	C		788	19

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M_{2R}
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M_{2R}

EN Unit **X53A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X53A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X53A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X53A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X53A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
1.30 LT	1.55 LT	0.85 LT	1.45 LT	2.10 LT	1.25 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

For all details on lubrication and plugs check our website
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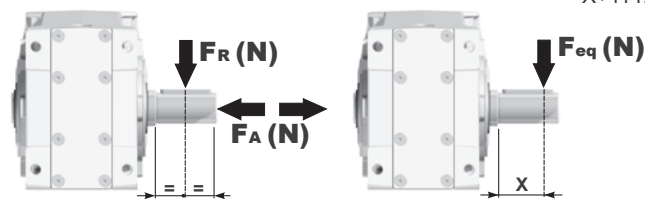
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{144.5}{X+114.5}$$

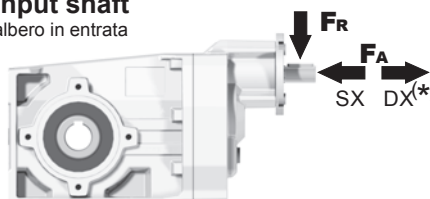


n ₂ [min ⁻¹]	FA	FR	n ₂ [min ⁻¹]	FA	FR	n ₂ [min ⁻¹]	FA	FR
250	600	3000	75	820	4100	15	1660	8300
150	700	3500	50	960	4800			
100	800	4000	25	1350	6750			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata



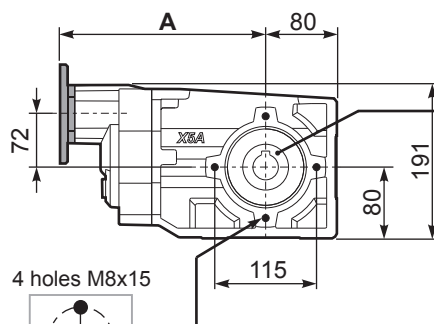
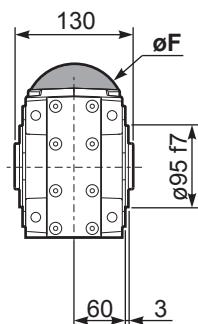
n ₁ [min ⁻¹]	FA [N]	FR [N]
1400	400	2000
900	440	2200
500	440	2200

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

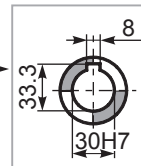
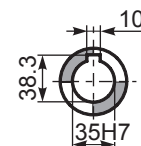
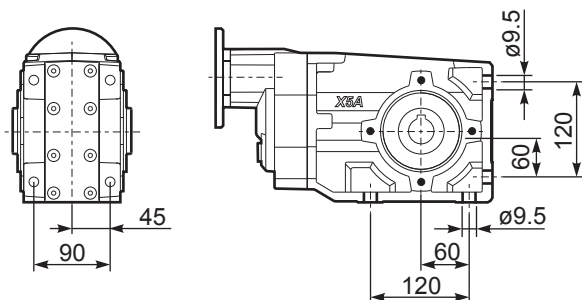
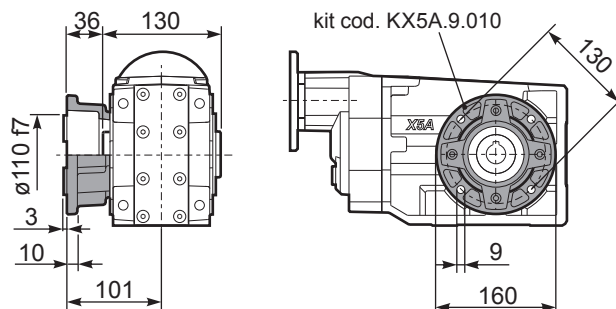
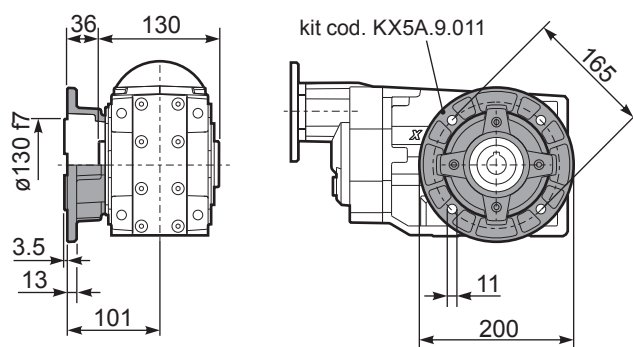
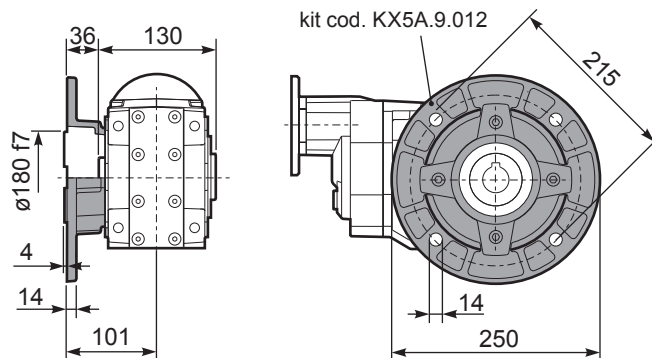
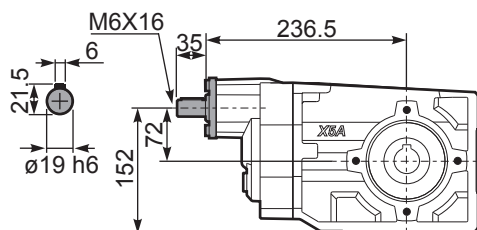
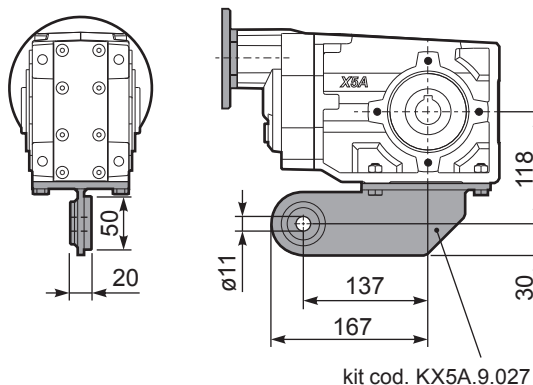
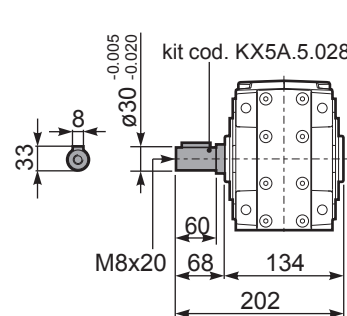
tab. 2

PX53AC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore **12.65 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	246
71B5	K063.4.042	160	244
80/90B5	K063.4.043	200	246
71B14	K063.4.047	105	244
80B14	K063.4.046	120	246
90B14	K063.4.041	140	246



4 holes M8x15

Mounting holes
positionPosizione fori
di montaggio**Standard**
Hollow shaft**On request**
A richiesta**PX53A...FB..**Feet
Piedini**PX53A...-F2..**Output flange
Flangia uscita**PX53A...-F3..**Output flange
Flangia uscita**PX53A...-F4..**Output flange
Flangia uscita**RX53A...**Input shaft
Albero in entrata**PX53A...BR..**Reaction Arm
Braccio di reazione**PX53AA..**Single output shaft
Albero semplice in uscita



QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.96** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	 Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
232	6.03	5.5	211	1.1	6.1	240	B								3011	standard ø35	01	
151	9.26	4	238	1.1	4.5	270	B								308		02	
123	11.36	4	291	1.2	4.7	350	B								2011		03	
91	15.36	4	394	1.0	3.8	385	B								1611		04	
80	17.46	4	448	0.9	3.5	400	B								208		05	
70	19.97	3	386	1.1	3.1	410	B								1311		06	
59	23.60	3	456	0.9	2.7	410	B								168		07	
57	24.45	3	472	0.9	2.6	410	B								1111		08	
45.6	30.69	2.2	436	0.9	2.0	410	B								138	ø40	09	
39.6	35.35	1.5	346	1.2	1.8	410	B								811	On request	10	
37.3	37.57	1.5	368	1.1	1.7	410	B								118		11	
28.8	48.68	1.1	348	1.0	1.1	365	B								611		12	
25.8	54.33	1.1	389	1.1	1.2	410	B								88		13	
18.7	74.81	0.75	367	1.0	0.73	360	B								68		14	

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X62A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X62A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X62A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X62A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X62A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
B3	B6	B7	B8	V5	V6	V8	
1.25 LT	1.70 LT	0.95 LT	1.60 LT	2.45 LT	1.50 LT	Ask	
SHELL Omala S4 WE 320				ENI Telium VSF 320			

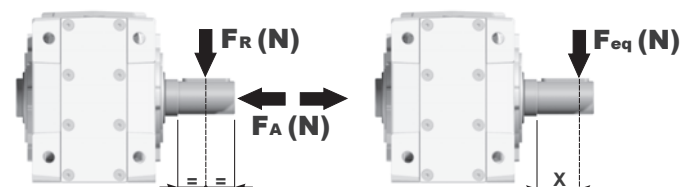
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{168}{X+138}$$



n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	600	3000	75	890	4450	15	1660	8300
150	700	3500	50	1140	5700			
100	780	3900	25	1330	6650			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft

albero in entrata

n_1 [min ⁻¹]	FA	FR
1400	450	2250
900	500	2500
500	600	3000

***Strong axial loads in the DX direction are not allowed.**
Non sono consentiti forti carichi assiali con direzione DX

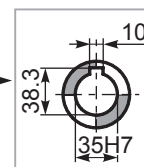
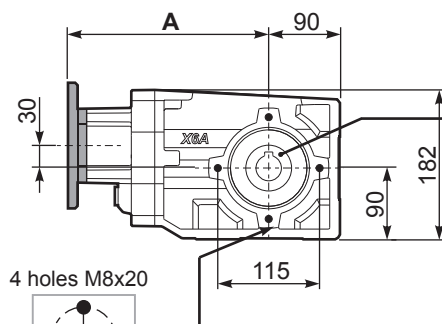
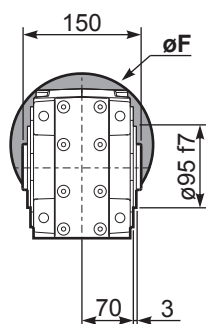
tab. 2

PX62AC...

Basic Gearbox
Riduttore base

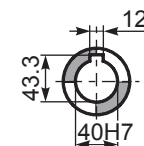
Gearbox weight peso riduttore	15.80 kg
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M. flanges	Kit code	øF	A
71B5	K023.4.041	160	253
80/90B5	K023.4.042	200	255
100/112B5	K023.4.043	250	264
132B5	KC51.4.043	300	285
80B14	K085.4.046	120	255
90B14	K085.4.045	140	255
100/112B14	K085.4.047	160	264
132B14	KC51.4.041	200	285



Standard

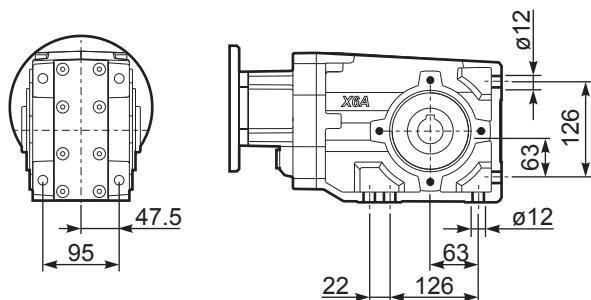
Hollow shaft



On request
A richiesta

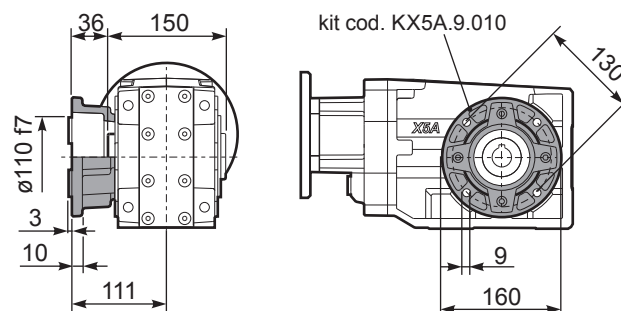
4 holes M8x20

**Mounting holes
position**
Posizione fori
di montaggio

PX62A...**FB..**Feet
Piedini

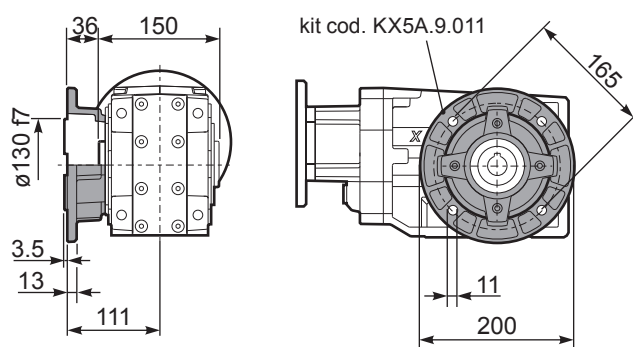
PX62A...-F2...

Output flange
Flangia uscita



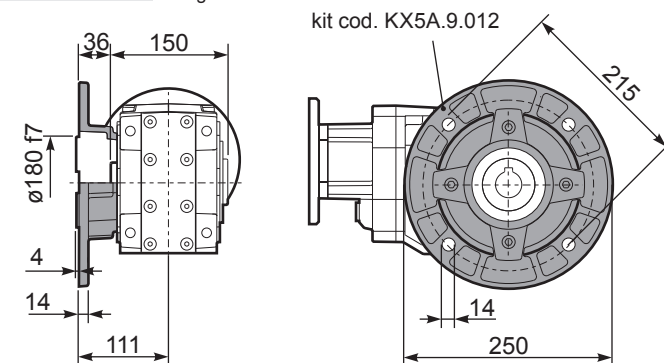
PX62A...-F3.

Output flange
Flangia uscita



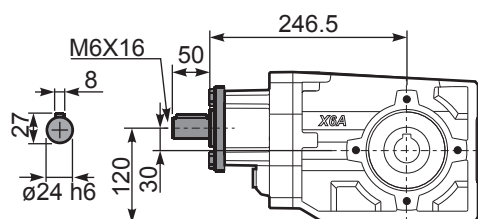
PX62A...-F4...

Output flange
Flangia uscita

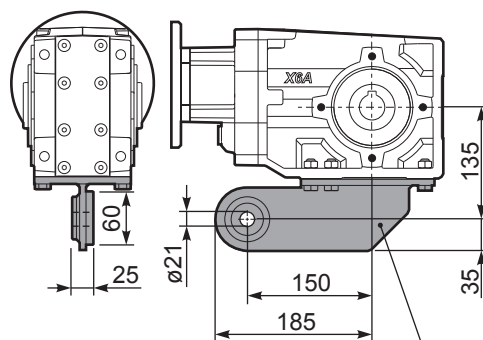


RX62A...

Input shaft
Albero in entrata

PX62A...**BR..**

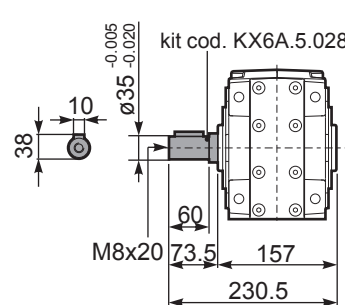
Reaction Arm
Braccio di reazione

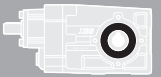


kit cod. KX6A.9.027

PX62A..

Single output shaft
Albero semplice in uscita





QUICK SELECTION / Selezione veloce

The dynamic efficiency is **0.94** for all ratios

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
24.7	56.76	1.1	398	1.0	1.1	410	B				C	C		191311	01
21.3	65.79	0.75	316	1.3	0.97	410	B				C	C		171311	02
18.1	77.23	0.75	371	1.1	0.83	410	B				C	C		151311	03
16.0	87.23	0.75	420	1.0	0.73	410	B				C	C		19138	04
15.2	92.18	0.75	443	0.9	0.69	410	B				C	C		131311	05
13.9	100.47	0.55	357	1.2	0.64	410	B				C	C		19811	06
12.0	116.45	0.55	413	1.0	0.55	410	B				C	C		17811	07
11.1	125.82	0.55	446	0.9	0.51	410	B				C	C		101311	08
9.9	141.66	0.37	336	1.2	0.45	410	B				C	C		13138	09
8.6	163.16	0.37	387	1.1	0.39	410	B				C	C		13811	10
7.8	178.96	0.37	424	1.0	0.36	410	B				C	C		1788	11
7.2	193.36	0.37	459	0.9	0.33	410	B				C	C		10138	12
6.5	216.84	0.25	347	1.2	0.29	410	B				C	C		71311	13
5.5	252.36	0.25	404	1.0	0.25	410	B				C	C		9138	14
4.8	290.67	0.25	465	0.9	0.22	410	B				C	C		9811	15
4.2	333.23	0.18	408	1.0	0.19	410	B				C	C		7138	16
3.6	383.82	0.18	470	0.9	0.17	410	B				C	C		7811	17
3.1	446.70	0.12	353	1.2	0.14	410	B				C	C		988	18
2.4	589.85	0.12	466	0.9	0.11	410	B				C	C		788	19

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X63A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X63A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X63A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X63A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X63A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
1.80 LT	1.80 LT	1.05 LT	1.70 LT	2.60 LT	1.65 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

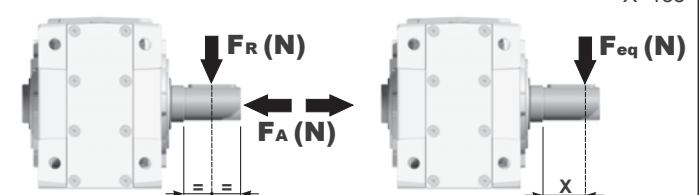
For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{168}{X+138}$$



n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR	n_2 [min ⁻¹]	FA	FR
250	600	3000	75	890	4450	15	1660	8300
150	700	3500	50	1140	5700			
100	780	3900	25	1330	6650			

FR On request taper roller bearings to increase radial loads.
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

Input shaft
albero in entrata

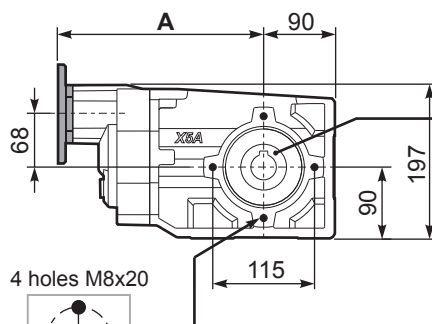
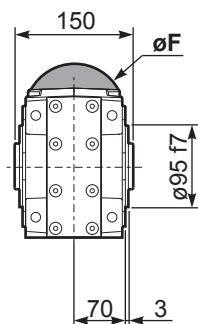
n_1 [min ⁻¹]	FA	FR
1400	400	2000
900	440	2200
500	440	2200

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

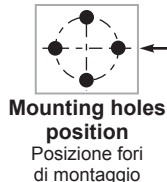
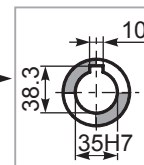
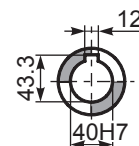
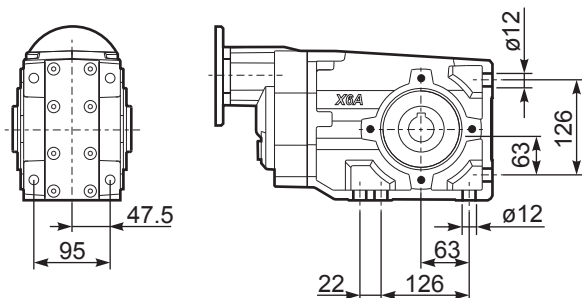
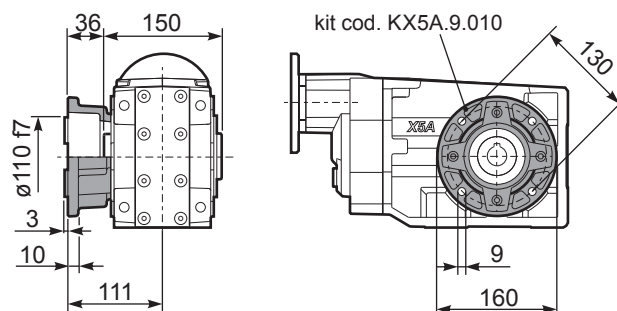
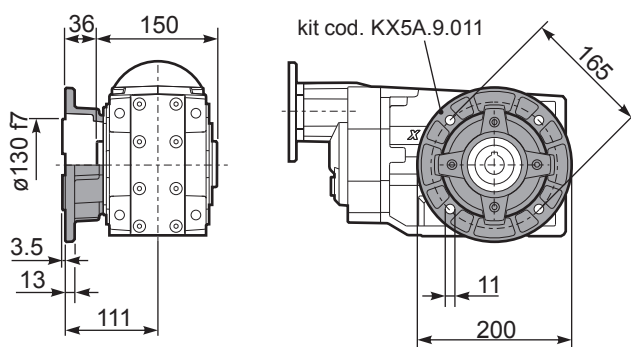
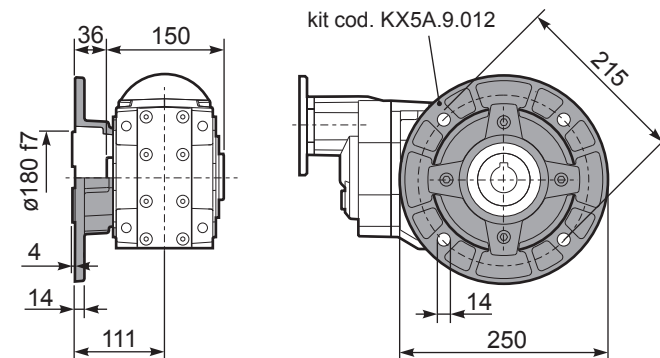
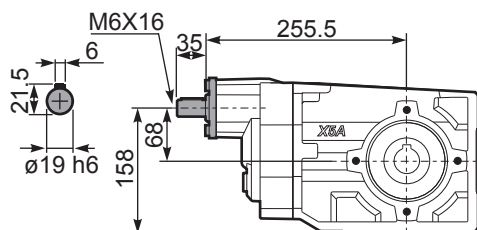
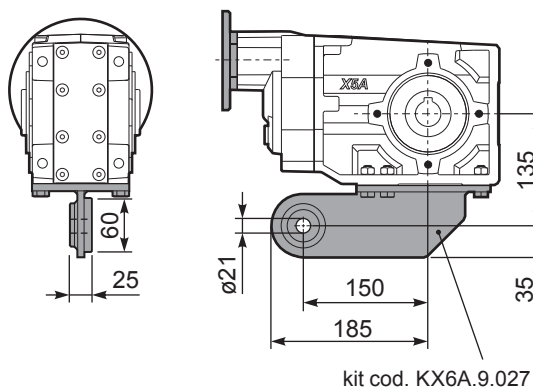
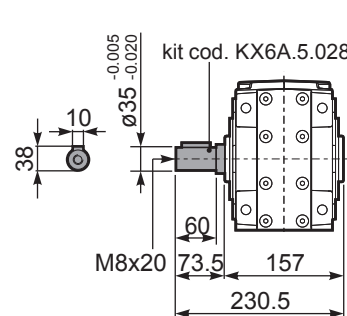
tab. 2

PX63AC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore **15.98 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	265
71B5	K063.4.042	160	263
80/90B5	K063.4.043	200	265
71B14	K063.4.047	105	263
80B14	K063.4.046	120	265
90B14	K063.4.041	140	265



4 holes M8x20

Mounting holes
position
Posizione fori
di montaggio**Standard**
Hollow shaft**On request**
A richiesta**PX63A...FB..**Feet
Piedini**PX63A...-F2..**Output flange
Flangia uscita**PX63A...-F3..**Output flange
Flangia uscita**PX63A...-F4..**Output flange
Flangia uscita**RX63A...**Input shaft
Albero in entrata**PX63A...BR..**Reaction Arm
Braccio di reazione**PX63AA..**Single output shaft
Albero semplice in uscita



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft $\varnothing$	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	132	80	90	100	112		
176	7.94	7.5	369	1.0	7.5	380	B										302418	01
153	9.13	7.5	425	0.9	6.7	390	B										302416	02
131	10.66	5.5	366	1.1	6.0	410	B										302414	03
94	14.97	5.5	514	1.1	6.0	580	B										202418	04
81	17.21	5.5	591	1.0	5.4	600	B										202416	05
69	20.24	5.5	695	1.0	5.2	675	B										162418	06
60	23.27	4	585	1.2	4.5	675	B										162416	07
53	26.31	4	661	1.0	4.0	675	B										132418	08
46.3	30.25	4	760	0.9	3.5	675	B										132416	09
39.6	35.32	3	668	1.0	3.0	675	B										132414	10
37.8	37.03	3	701	1.0	2.8	675	B										112416	11
32.4	43.23	2.2	602	1.1	2.4	675	B										112414	12
30.1	46.58	2.2	649	1.0	2.3	675	B										82418	13
26.1	53.55	2.2	746	0.9	2.0	675	B										82416	14
22.4	62.52	1.5	600	1.1	1.7	675	B										82414	15
19.0	73.75	1.1	517	1.1	1.2	580	B										62416	16
16.3	86.09	1.1	604	1.1	1.2	675	B										62414	17

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X73C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X73C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X73C** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **X73C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X73C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
2.45 LT	2.55 LT	1.80 LT	1.95 LT	4.05 LT	2.55 LT	Ask
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

$$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$$



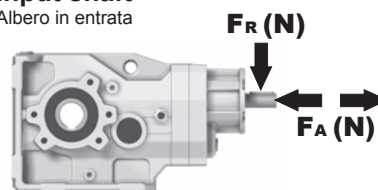
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1360	6800	140	1480	7400	70	1720	8600
250	1400	7000	120	1520	7600	40	1840	9200
200	1440	7200	85	1560	7800	15	1920	9600

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

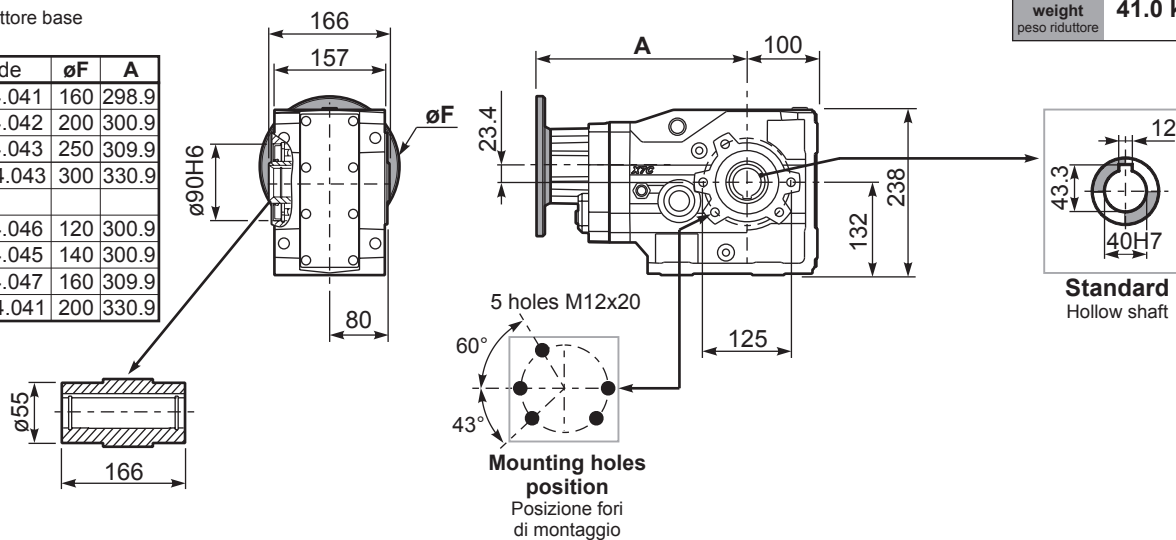
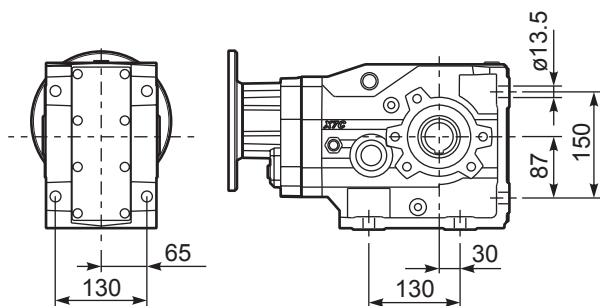
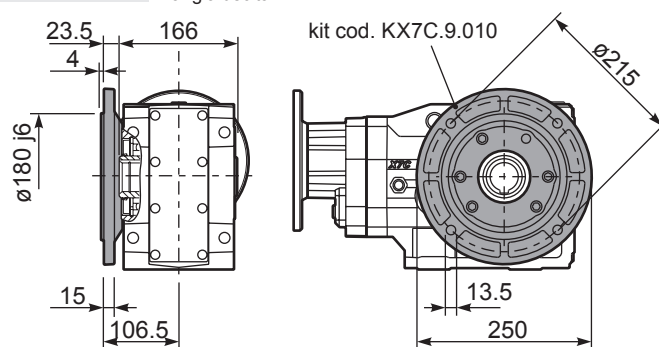
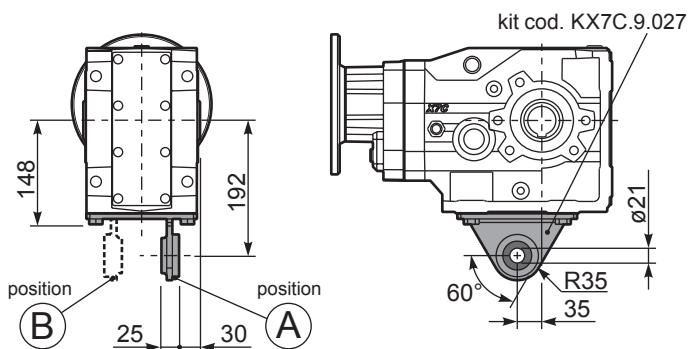
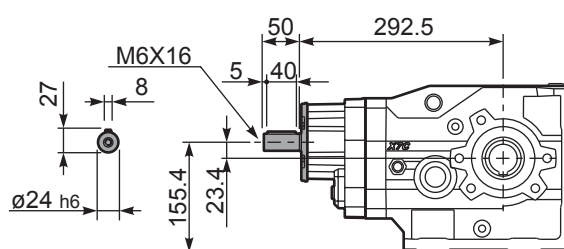
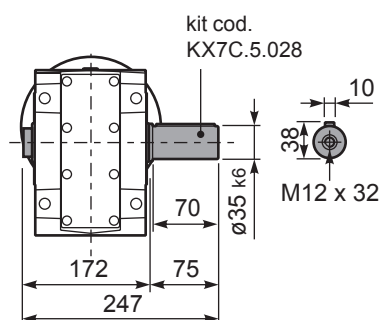
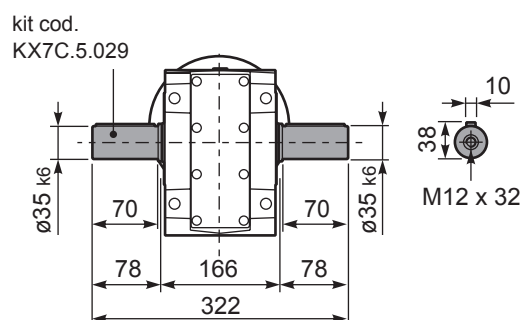


n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

PX73CC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore **41.0 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	298.9
80/90B5	K023.4.042	200	300.9
100/112B5	K023.4.043	250	309.9
132B5	KC51.4.043	300	330.9
80B14	K085.4.046	120	300.9
90B14	K085.4.045	140	300.9
100/112B14	K085.4.047	160	309.9
132B14	KC51.4.041	200	330.9

**PX73C...FB..**Feet
Piedini**PX73C...-F4..**Output flange
Flangia uscita**PX73C...BR..**Reaction Arm
Braccio di reazione**RX73C...**Input shaft
Albero in entrata**PX73CA...**Single shaft
Albero lento semplice**PX73CB...**Double shaft
Albero lento bisp.



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.7	74.79	1.5	704	1.0	1.4	675	B				C	C		19132418	01
16.3	85.99	1.1	591	1.1	1.3	675	B				C	C		19132416	02
14.0	99.66	1.1	685	1.0	1.1	675	B				C	C		17132416	03
12.0	116.35	0.75	548	1.2	0.92	675	B				C	C		17132414	04
11.5	121.45	0.75	572	1.2	0.89	675	B				C	C		13132418	05
10.0	139.64	0.75	658	1.0	0.77	675	B				C	C		13132416	06
9.2	152.21	0.75	717	0.9	0.71	675	B				C	C		19082416	07
8.6	163.02	0.55	567	1.2	0.66	675	B				C	C		13132414	08
7.9	177.69	0.55	618	1.1	0.61	675	B				C	C		19082414	09
6.8	205.95	0.55	716	0.9	0.52	675	B				C	C		17082414	10
6.3	222.52	0.55	774	0.9	0.48	675	B				C	C		10132414	11
5.6	248.76	0.37	578	1.2	0.43	675	B				C	C		9132416	12
4.8	290.41	0.37	675	1.0	0.37	675	B				C	C		9132414	13
4.1	337.39	0.37	784	0.9	0.32	675	B				C	C		10082416	14
3.6	393.88	0.25	618	1.1	0.27	675	B				C	C		10082414	15
3.2	440.33	0.25	690	1.0	0.24	675	B				C	C		9082416	16
2.7	514.06	0.18	616	1.1	0.21	675	B				C	C		9082414	17
2.4	581.44	0.18	697	1.0	0.18	675	B				C	C		7082416	18
2.1	678.79	0.12	526	1.3	0.16	675	B				C	C		7082414	19

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X74C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **X74C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **X74C** ist mit synthetischem Öl gefüllt und ist 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 **X74C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **X74C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
3.55 LT	2.65 LT	1.90 LT	2.05 LT	4.25 LT	2.65 LT	Ask
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

$$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$$



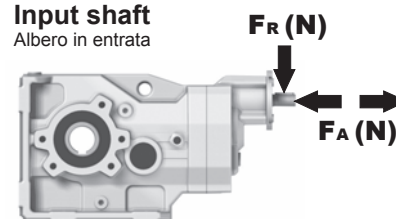
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1360	6800	140	1480	7400	70	1720	8600
250	1400	7000	120	1520	7600	40	1840	9200
200	1440	7200	85	1560	7800	15	1920	9600

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata



n_1	FA	FR
1400	240	1200
900	280	1400
500	310	1700

tab. 2

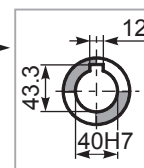
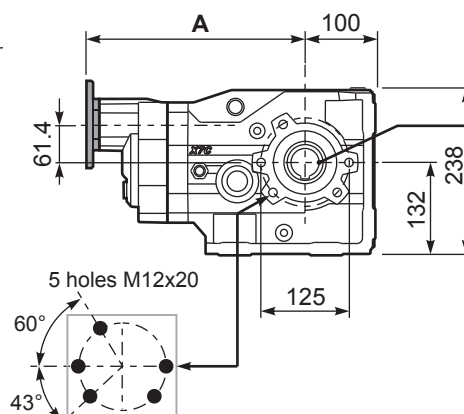
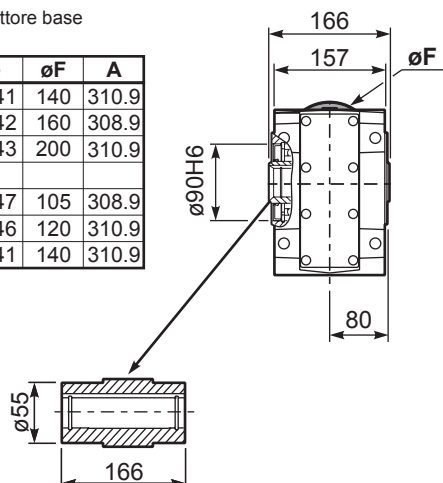
PX74CC...

Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore

39.0 kg

M. flanges	Kit code	ØF	A
63B5	K063.4.041	140	310.9
71B5	K063.4.042	160	308.9
80/90B5	K063.4.043	200	310.9
71B14	K063.4.047	105	308.9
80B14	K063.4.046	120	310.9
90B14	K063.4.041	140	310.9

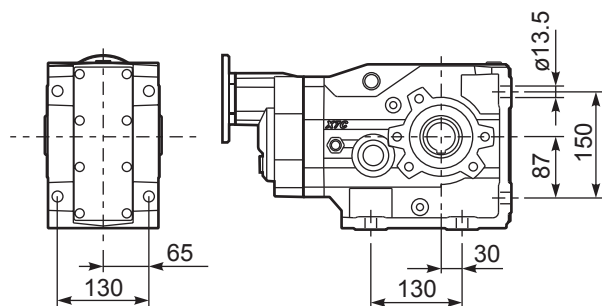


Standard

Hollow shaft

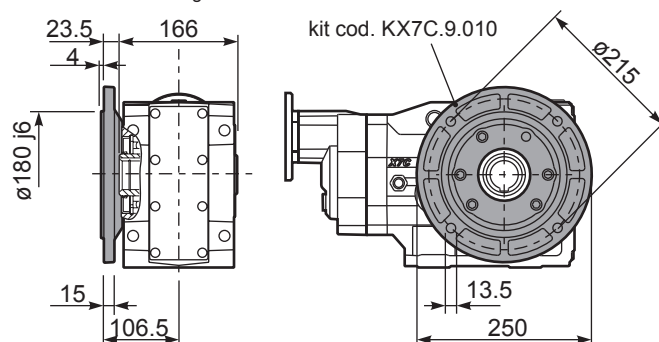
Mounting holes

position
Posizione fori
di montaggio

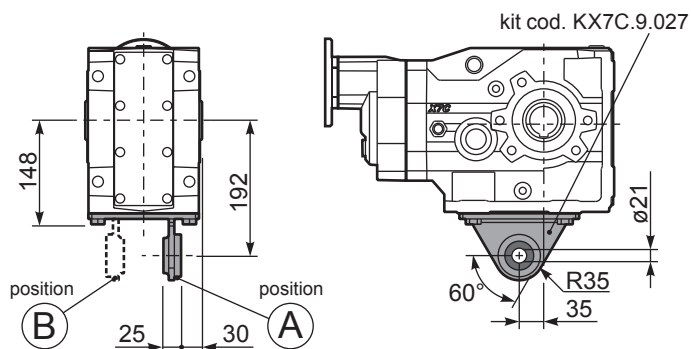
PX74C...**FB.**Feet
Piedini

PX74C...-F4..

Output flange
Flangia uscita

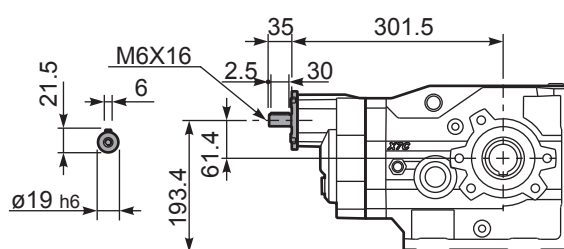
PX74C...**BR..**

Reaction Arm
Braccio di reazione



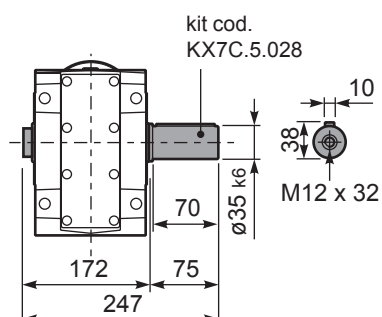
Rx74C...

Input shaft
Albero in entrata

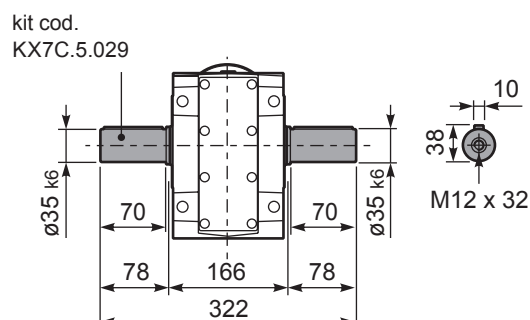


PX74CA...

Single shaft
Albero lento semplice

PX74C**B**...

Double shaft
Albero lento bisp.





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [kW]	Output torque M _{2M} [Nm]	Service factor f.s.	Nominal power P _{1R} [kW]	Nominal torque M _{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	 Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
145	9.69	9	560	1.3	12.2	755	B								302418	standard ø40	01	
126	11.09	9	641	1.1	9.6	680	B								302416		02	
108	12.90	9	746	1.1	9.6	790	B								302414		03	
77	18.26	7.5	849	1.1	8.0	935	B								202418		04	
67	20.91	7.5	972	1.0	7.5	1000	B								202416		05	
58	24.32	5.5	835	1.2	6.4	1000	B								202414		06	
49.5	28.27	5.5	971	1.0	5.5	1000	B								162416		07	
42.6	32.88	4	826	1.2	4.7	1000	B								162414		08	
38.1	36.76	4	924	1.1	4.2	1000	B								132416		09	
32.7	42.76	3	809	1.2	3.6	1000	B								132414		10	
31.1	45.00	3	851	1.2	3.5	1000	B								112416		11	
26.8	52.33	3	990	1.0	3.0	1000	B								112414		12	
24.6	56.82	2.2	791	1.1	2.3	850	B								82418		13	
21.5	65.07	2.2	906	1.1	2.3	975	B								82416		14	
18.5	75.68	2.2	1054	0.9	2.1	1000	B								82414		15	
15.6	89.61	1.1	628	1.1	1.2	710	B								62416		16	
13.4	104.22	1.1	731	1.1	1.2	820	B								62414		17	

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

E El reductor tamaño **X83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

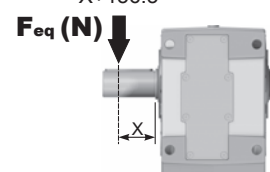
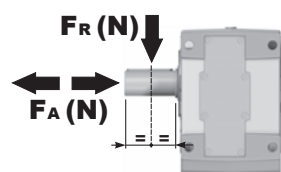
						
B3	B6	B7	B8	V5	V6	V8
2.80 LT	3.10 LT	2.00 LT	2.50 LT	4.95 LT	2.80 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{196.5}{X + 156.5}$$

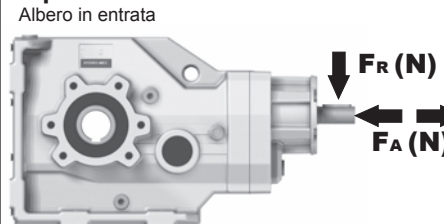


n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1700	8500	140	1860	9300	70	2160	10800
250	1760	8800	120	1900	9500	40	2300	11500
200	1800	9000	85	1960	9800	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft
Albero in entrata

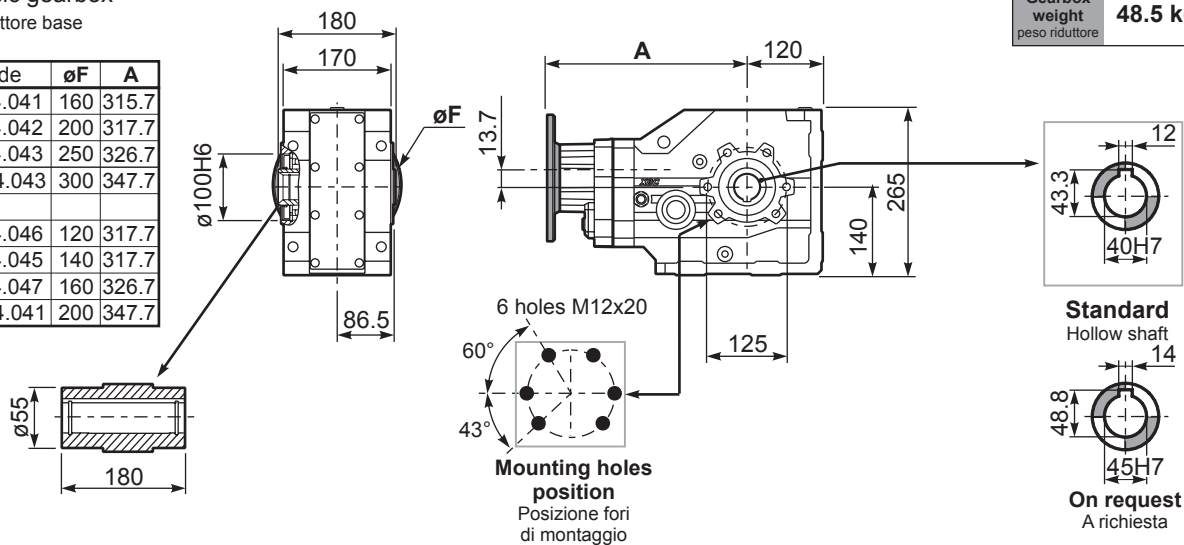
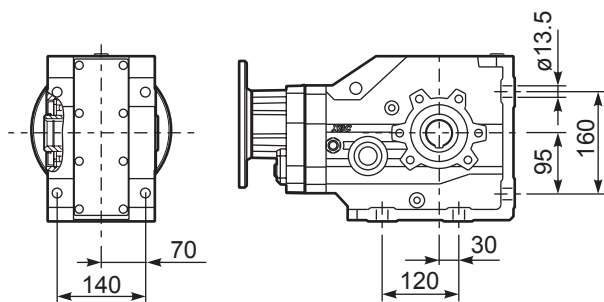
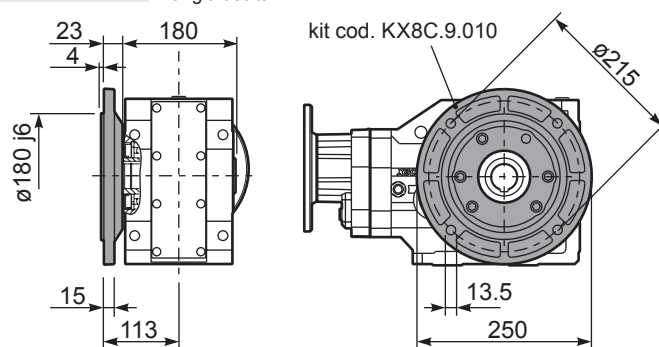
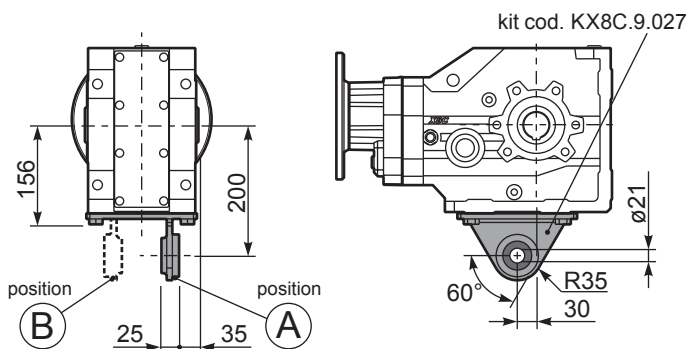
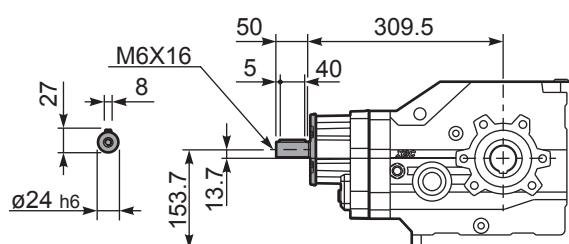
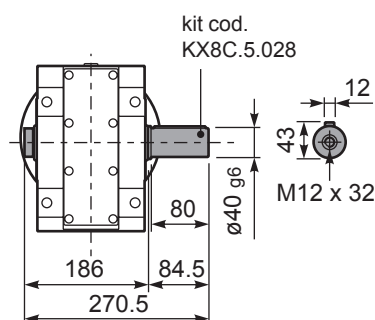
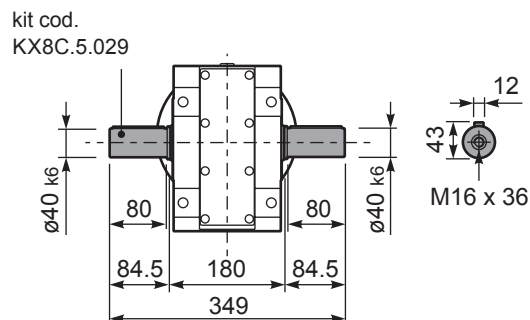


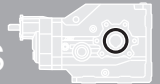
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

PX83CC...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **48.5 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	315.7
80/90B5	K023.4.042	200	317.7
100/112B5	K023.4.043	250	326.7
132B5	KC51.4.043	300	347.7
80B14	K085.4.046	120	317.7
90B14	K085.4.045	140	317.7
100/112B14	K085.4.047	160	326.7
132B14	KC51.4.041	200	347.7

**PX83C...FB..**Feet
Piedini**PX83C...-F4..**Output flange
Flangia uscita**PX83C...BR..**Reaction Arm
Braccio di reazione**RX83C...**Input shaft
Albero in entrata**PX83CA...**Single shaft
Albero lento semplice**PX83CB...**Double shaft
Albero lento bisp.



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
15.3	91.23	1.5	858	1.2	1.7	1000	B				C	C		19132418	01
13.4	104.48	1.5	983	1.0	1.5	1000	B				C	C		19132416	02
11.6	121.10	1.5	1139	0.9	1.3	1000	B				C	C		17132416	03
9.9	140.84	1.1	968	1.0	1.1	1000	B				C	C		17132414	04
8.5	165.32	1.1	1136	0.9	0.96	1000	B				C	C		15132414	05
7.6	184.94	0.75	872	1.1	0.86	1000	B				C	C		19082416	06
7.1	197.34	0.75	930	1.1	0.81	1000	B				C	C		13132414	07
6.5	215.10	0.75	1014	1.0	0.74	1000	B				C	C		19082414	08
6.0	231.60	0.55	805	1.2	0.69	1000	B				C	C		10132416	09
5.6	249.31	0.55	867	1.2	0.64	1000	B				C	C		17082414	10
5.2	269.37	0.55	937	1.1	0.59	1000	B				C	C		10132414	11
4.8	292.64	0.55	1018	1.0	0.54	1000	B				C	C		15082414	12
4.6	302.26	0.55	1051	1.0	0.53	1000	B				C	C		9132416	13
4.0	349.30	0.37	812	1.2	0.46	1000	B				C	C		13082414	14
3.5	399.12	0.37	928	1.1	0.40	1000	B				C	C		7132416	15
2.9	476.80	0.37	1108	0.9	0.33	1000	B				C	C		10082414	16
2.2	622.28	0.25	976	1.0	0.26	1000	B				C	C		9082414	17
1.7	821.70	0.18	985	1.0	0.19	1000	B				C	C		7082414	18

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X84C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X84C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X84C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

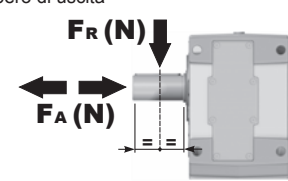
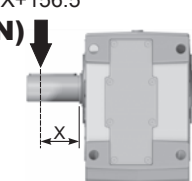
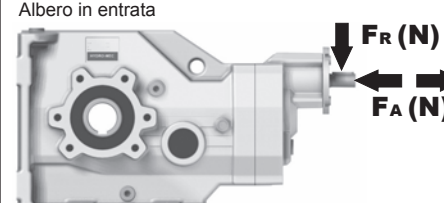
F Le réducteur de type **X84C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X84C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
4.25 LT	3.20 LT	2.10 LT	2.60 LT	5.20 LT	2.90 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

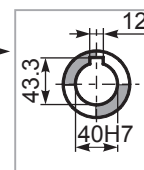
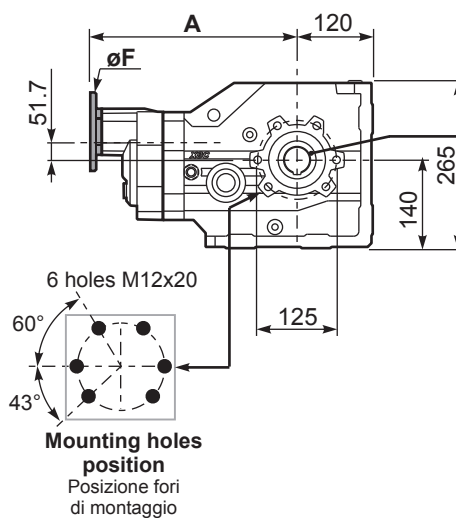
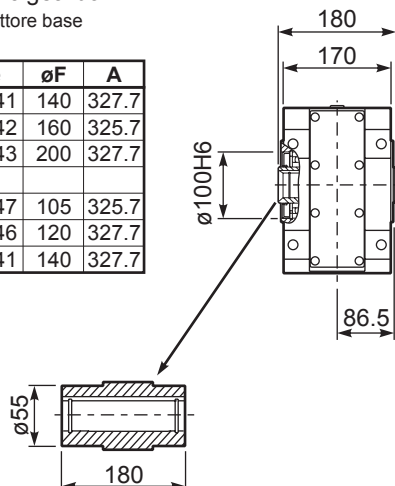
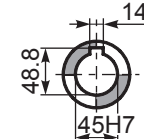
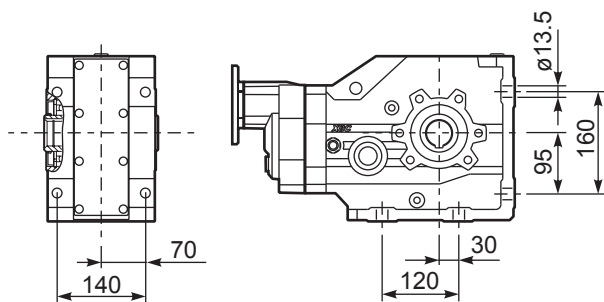
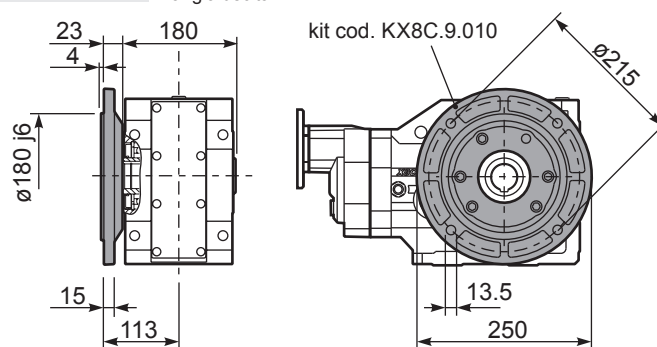
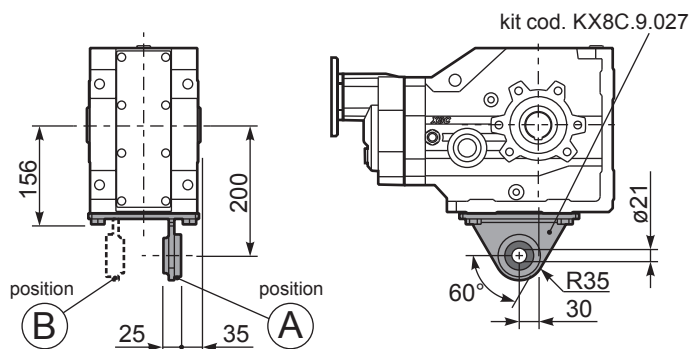
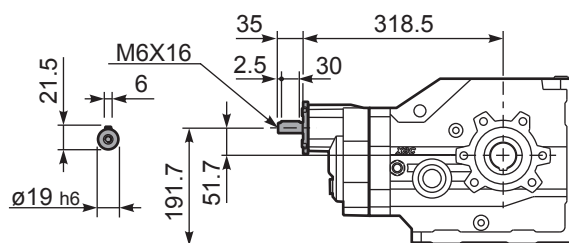
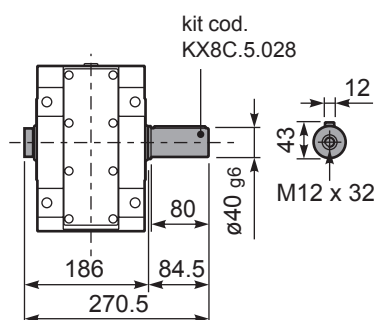
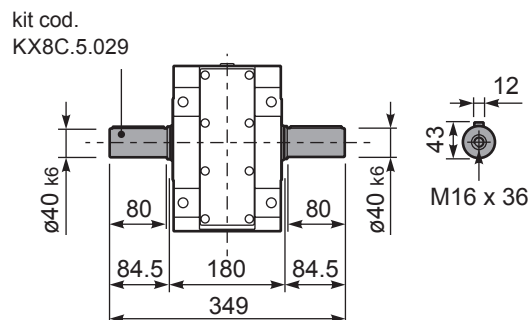
tab. 1

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = FR \cdot \frac{196.5}{X+156.5}$					
								
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1700	8500	140	1860	9300	70	2160	10800
250	1760	8800	120	1900	9500	40	2300	11500
200	1800	9000	85	1960	9800	15	2400	12000
On request reinforced bearings to increase loads. A richiesta cuscinetti rinforzati per aumentare i carichi.								
Input shaft Albero in entrata								
n_1	FA	FR	n_1	FA	FR	n_1	FA	FR
1400	400	2000	900	440	2200	500	440	2200

tab. 2

PX84CC...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **46.5 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	327.7
71B5	K063.4.042	160	325.7
80/90B5	K063.4.043	200	327.7
71B14	K063.4.047	105	325.7
80B14	K063.4.046	120	327.7
90B14	K063.4.041	140	327.7

**Standard**
Hollow shaft**On request**
A richiesta**PX84C...FB..**Feet
Piedini**PX84C...-F4..**Output flange
Flangia uscita**PX84C...BR..**Reaction Arm
Braccio di reazione**RX84C...**Input shaft
Albero in entrata**PX84CA...**Single shaft
Albero lento semplice**PX84CB...**Double shaft
Albero lento bisp.



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻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				B14 motor flanges		Output Shaft  $\varnothing$	Ratios code 
							-F	-G	-H	-I	-U	-V		
							100 112	132	160	180	100 112	132		
236	5.94	22	806	1.0	21.0	800							302915	01
196	7.13	18.5	812	1.0	17.9	820							302913	02
163	8.58	18.5	977	1.0	17.3	950							302911	03
125	11.20	15	1033	1.0	13.9	1000							202915	04
104	13.43	15	1239	1.1	15.7	1350							202913	05
92	15.15	15	1397	1.0	14.4	1400							162915	06
87	16.17	15	1492	1.0	14.0	1450							202911	07
77	18.16	15	1675	0.9	13.3	1550							162913	08
71	19.70	11	1335	1.2	12.3	1550							132915	09
64	21.87	11	1482	1.1	11.4	1600							162911	10
59	23.62	11	1600	1.0	10.6	1600							132913	11
48.4	28.91	9	1671	1.0	8.6	1600							112913	12
40.2	34.81	7.5	1618	1.0	7.2	1600							112911	13
33.5	41.81	5.5	1436	1.1	6.0	1600							82913	14
27.8	50.34	5.5	1729	0.9	5.0	1600							82911	15

The dynamic efficiency is **0.94** for all ratios

 **Motor Flanges Available**
Flange Motore Disponibili

 **B) Supplied with Reduction Bushing**
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

 **C) Motor Flange Holes Position**
Posizione Fori Flangia Motore

EN Unit **X93C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X93C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X93C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X93C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X93C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
4.20 LT	3.60 LT	4.40 LT	5.10 LT	6.90 LT	5.00 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

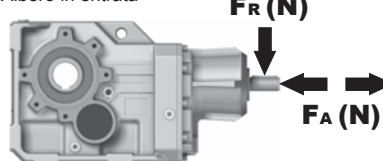
$$F_{eq} = F_R \cdot \frac{218}{X+168}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1800	9000	140	2700	13500	70	3020	15100
250	2400	12000	120	2800	14000	40	3200	16000
200	2600	13000	85	2900	14500	15	3500	17500

Input shaft

Albero in entrata

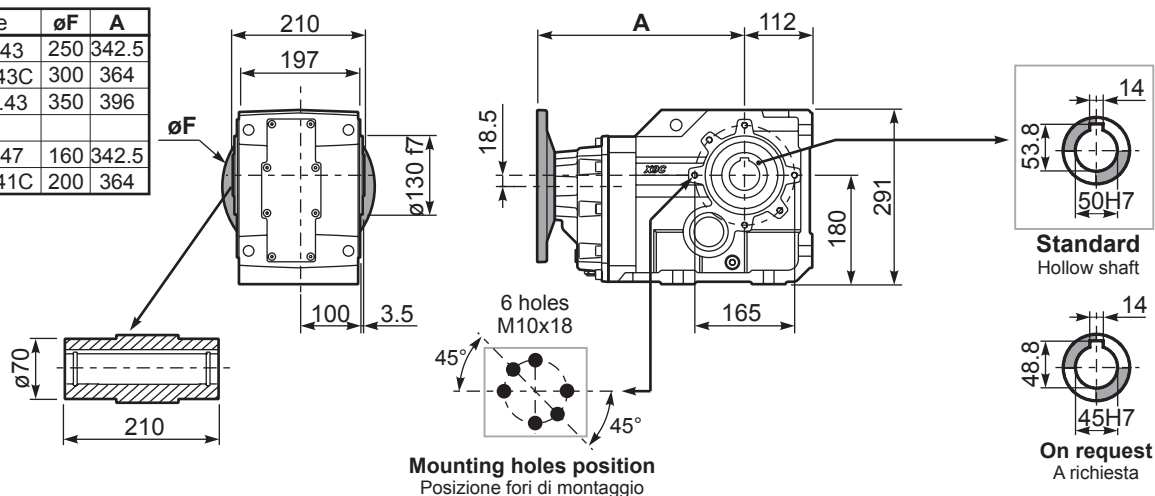
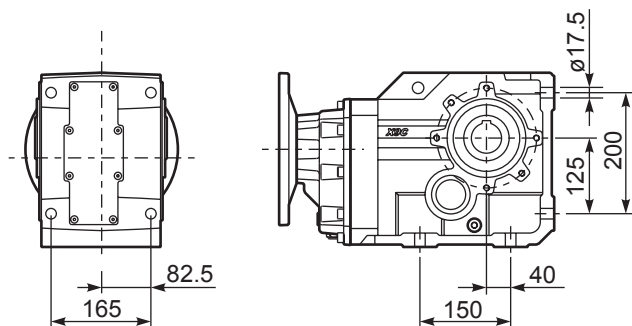
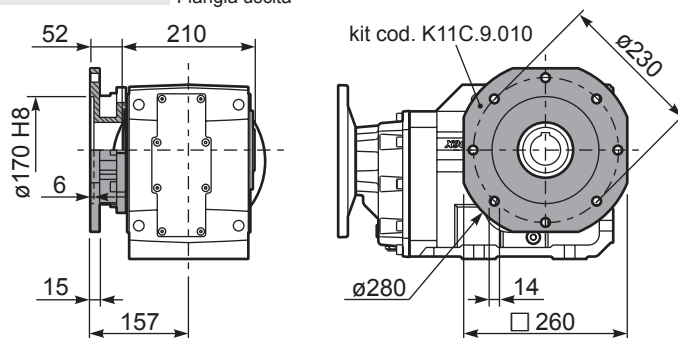
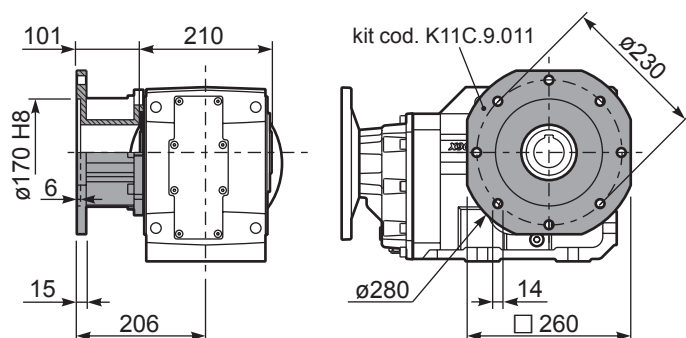
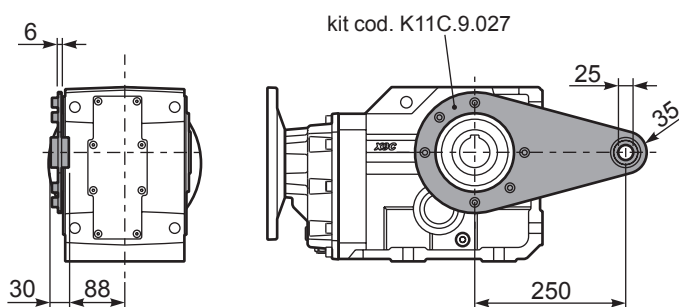
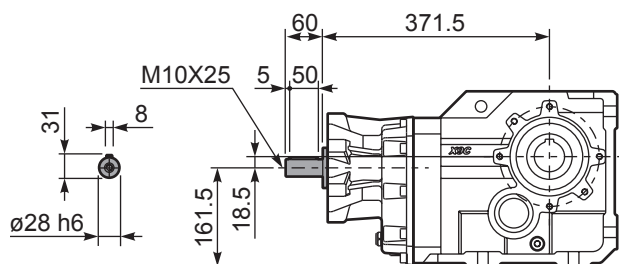
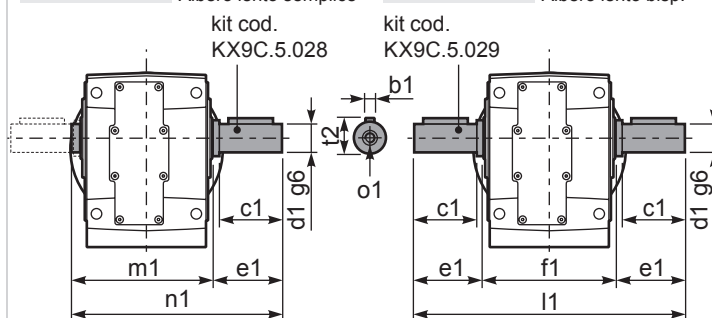


n_1	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

PX93CC... Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore **75.0 kg**

M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	342.5
132B5	KC51.4.043C	300	364
160/180B5	KC86.4.0.43	350	396
100/112B14	K085.4.047	160	342.5
132B14	KC51.4.041C	200	364

**PX93C...FB..** Feet
Piedini**PX93C...-FC..** Output flange
Flangia uscita**PX93C...-FL..** Output flange
Flangia uscita**PX93C...BR..** Reaction Arm
Braccio di reazione**RX93C...** Input shaft
Albero in entrata**PX93CA...** Single shaft
Albero lento semplice**PX93CB...** Double shaft
Albero lento bisp.

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
Standard	14	100	50	105	210	420	218	323	53.5	M16
-	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100	112	132	80	90	100	112		
45.6	30.70	7.5	1399	1.1	8.3	1600	B										30132913	01
37.9	36.97	7.5	1685	0.9	6.9	1600	B										30132911	02
29.0	48.26	5.5	1625	1.0	5.3	1600	B										20132915	03
24.2	57.86	4	1425	1.1	4.4	1600	B										20132913	04
21.5	65.24	4	1607	1.0	3.9	1600	B										16132915	05
20.1	69.68	4	1716	1.0	3.8	1650	B										20132911	06
17.9	78.23	3	1450	1.1	3.4	1650	B										16132913	07
16.5	84.85	3	1573	1.0	3.0	1600	B										13132915	08
14.9	94.20	3	1747	0.9	2.8	1650	B										16132911	09
13.8	101.74	3	1886	0.9	2.6	1650	B										13132913	10
11.4	122.51	2.2	1672	1.0	2.1	1650	B										13132911	11
9.3	149.95	1.5	1411	1.2	1.8	1650	B										11132911	12
7.8	180.09	1.5	1694	1.0	1.5	1650	B										8132913	13
6.8	206.81	1.1	1421	1.1	1.2	1600	B										6132915	14
6.5	216.85	1.1	1490	1.1	1.2	1650	B										8132911	15
5.6	247.99	1.1	1704	1.0	1.1	1650	B										6132913	16
4.7	298.61	0.75	1407	1.2	0.88	1650	B										6132911	17

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X94C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X94C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X94C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X94C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
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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
4.50 LT	3.80 LT	4.50 LT	5.30 LT	7.60 LT	5.30 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

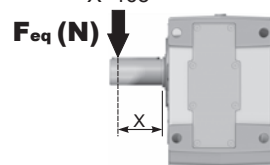
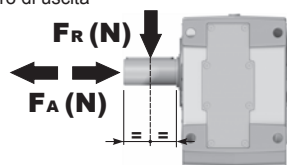
For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

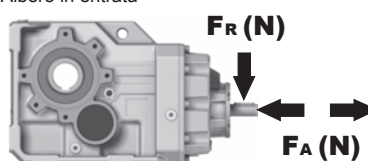
$$F_{eq} = F_R \cdot \frac{218}{X+168}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	1800	9000	140	2700	13500	70	3020	15100
250	2400	12000	120	2800	14000	40	3200	16000
200	2600	13000	85	2900	14500	15	3500	17500

Input shaft

Albero in entrata

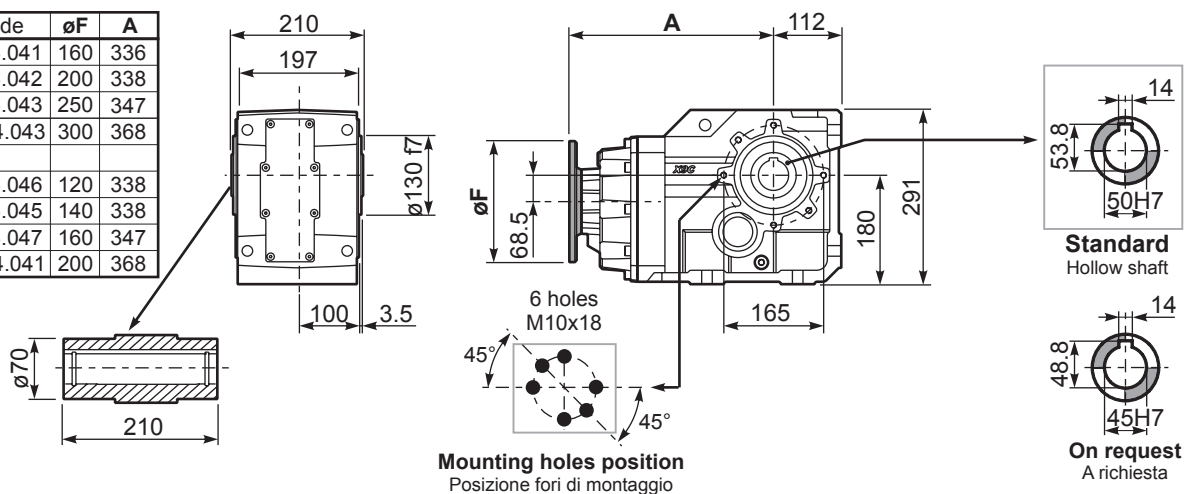
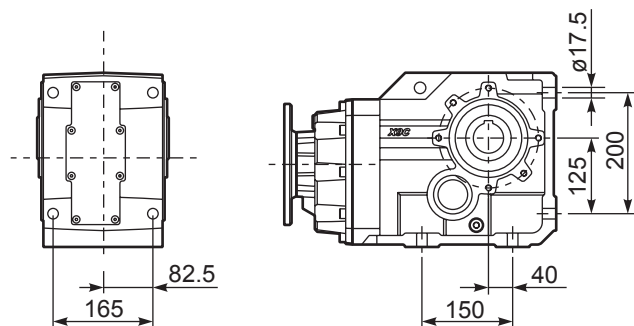
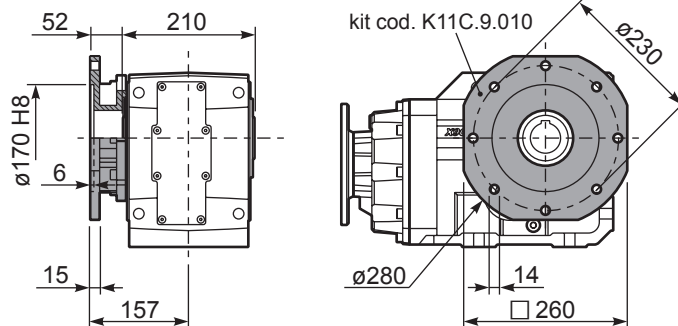
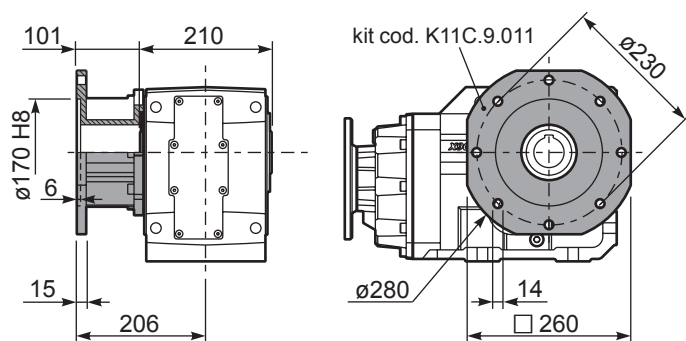
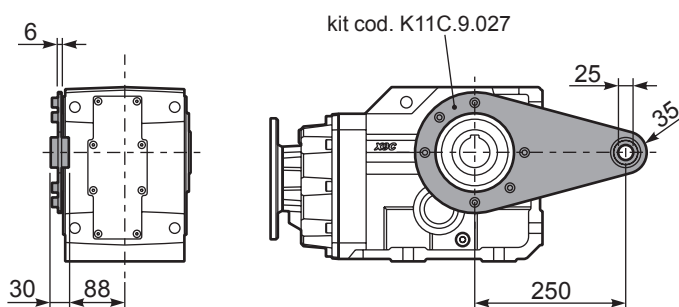
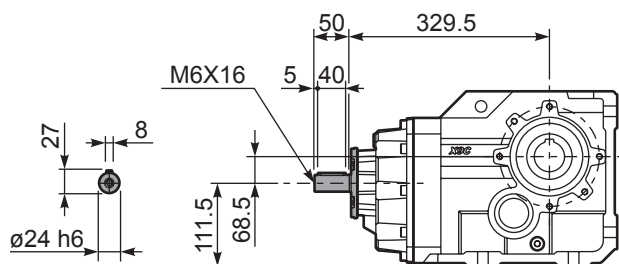
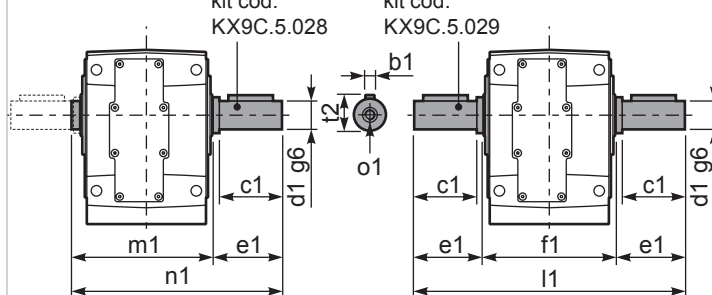


n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

PX94CC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore**68.5 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	336
80/90B5	K023.4.042	200	338
100/112B5	K023.4.043	250	347
132B5	KC51.4.043	300	368
80B14	K085.4.046	120	338
90B14	K085.4.045	140	338
100/112B14	K085.4.047	160	347
132B14	KC51.4.041	200	368

**PX94C...FB..**Feet
Piedini**PX94C...-FC..**Output flange
Flangia uscita**PX94C...-FL..**Output flange
Flangia uscita**PX94C...BR..**Reaction Arm
Braccio di reazione**RX94C...**Input shaft
Albero in entrata**PX94CA...**Single shaft
Albero lento semplicekit cod.
KX9C.5.028**PX94CB...**Double shaft
Albero lento bisp.kit cod.
KX9C.5.029

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
Standard	14	100	50	105	210	420	218	323	53.5	M16
-	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻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				B14 motor flanges					Output Shaft $\varnothing$	Ratios code
							-G	-H	-I	-L	-	-	-	-			
							132	160	180	200	-	-	-	-			
219	6.39	30	1180	1.1	31.7	1300										392914	01
200	7.00	30	1292	1.1	31.2	1400										392913	02
164	8.55	30	1578	1.0	27.4	1500										392911	03
140	10.01	22	1357	1.2	24.9	1600										302914	04
128	10.97	22	1486	1.1	24.2	1700										302913	05
105	13.39	22	1815	1.2	24.5	2100										302911	06
89	15.71	22	2130	1.0	21.8	2200										222914	07
81	17.21	22	2333	1.0	20.8	2300										222913	08
67	21.02	18.5	2394	1.0	17.8	2400										222911	09
59	23.73	18.5	2703	1.0	17.1	2600										162914	10
54	25.99	18.5	2960	0.9	16.8	2800										162913	11
50	27.93	15	2576	1.1	16.2	2900										142914	12
45.8	30.59	15	2822	1.0	14.8	2900										142913	13
44.1	31.74	15	2928	1.0	14.2	2900										162911	14
37.5	37.36	11	2532	1.1	12.1	2900										142911	15
33.8	41.37	11	2804	1.0	10.9	2900										102914	16
30.9	45.31	9	2618	1.1	10.0	2900										102913	17
25.3	55.33	7.5	2573	1.2	8.5	3000										102911	18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X103** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X103** è fornito privo di lubrificazione con tappi di sfatio, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X103** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X103** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X103** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
11.50 LT	5.50 LT	10.50 LT	7.50 LT	13.50 LT	9.50 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

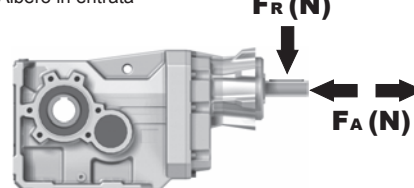


$$F_{eq} = F_R \cdot \frac{253}{X+193}$$

n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	2000	10000	140	2800	14000	70	3500	17500
250	2500	12500	120	3000	15000	40	4200	21000
200	2700	13500	85	3200	16000	15	5400	27000

Input shaft

Albero in entrata



n_1	FA	FR
1400	1120	5600
900	1220	6100
500	1300	6500

tab. 2

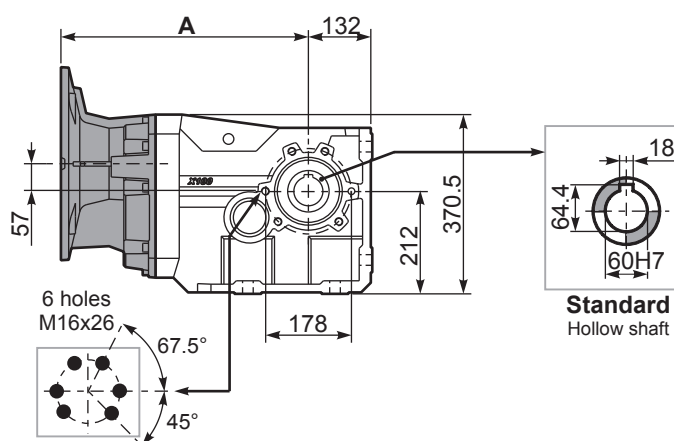
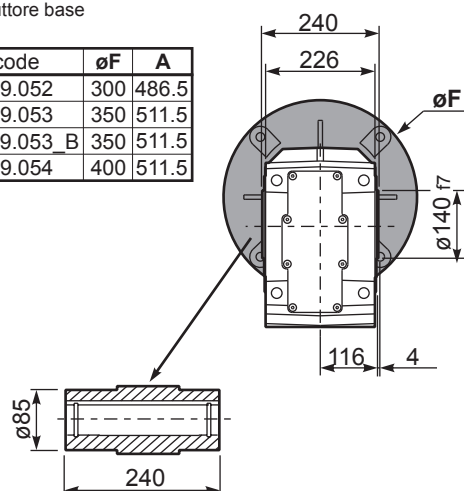
PX103C...

Basic Gearbox
Riduttore base

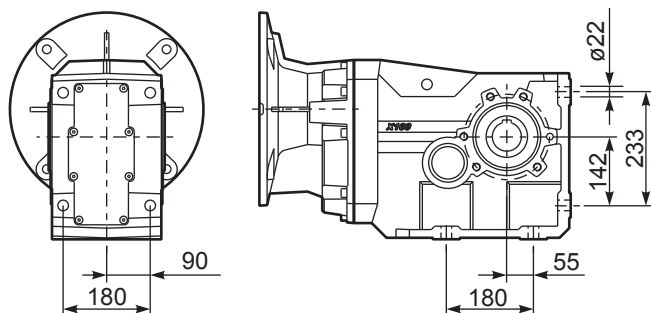
Gearbox weight
peso riduttore

125 kg

M. flanges	Kit code	øF	A
132B5	KC110.9.052	300	486.5
160B5	KC110.9.053	350	511.5
180B5	KC110.9.053_B	350	511.5
200B5	KC110.9.054	400	511.5

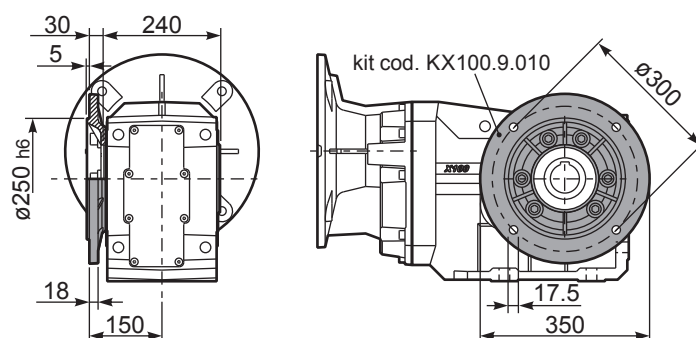


Mounting holes position
Posizione fori di montaggio

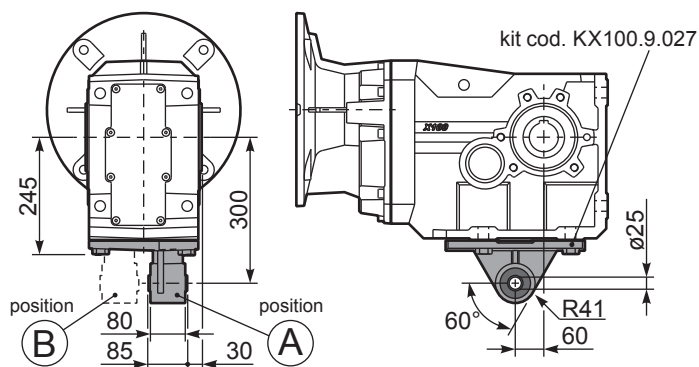
PX103...**FB..**Feet
Piedini

PX103...-F6..

Output flange
Flangia uscita

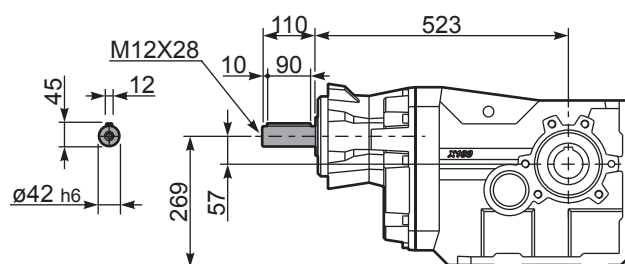
PX103...**BR.**

Reaction Arm
Braccio di reazione



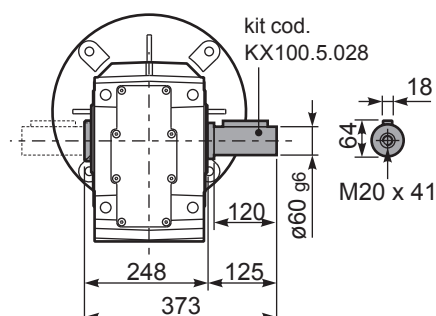
Rx103...

Input shaft
Albero in entrata



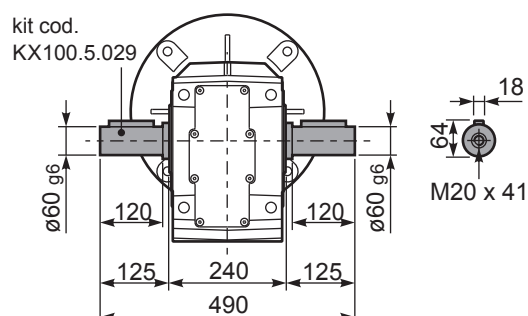
PX103A...

Single shaft
Albero lento semplice



PX103B...

Double shaft
Albero lento bisp.





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		B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-U	-V			
28.8	48.57	9	2750	1.1	9.5	2900							01
20.5	68.43	7.5	3118	1.0	7.0	3000							02
18.7	74.95	5.5	2523	1.2	6.4	3000							03
15.1	92.53	5.5	3115	1.0	5.2	3000							04
13.8	101.33	4	2496	1.2	4.7	3000							05
11.6	120.33	4	2963	1.0	4.0	3000							06
11.3	123.75	4	3048	1.0	3.9	3000							07
10.6	131.78	4	3245	0.9	3.6	3000							08
9.5	147.28	3	2731	1.1	3.2	3000							09
8.7	161.30	3	2990	1.0	3.0	3000							10
7.1	196.98	2.2	2689	1.1	2.4	3000							11
6.6	212.99	2.2	2907	1.0	2.2	3000							12
6.0	233.26	2.2	3184	0.9	2.0	3000							13
4.9	284.86	2.2	3889	0.8	1.7	3000							14

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X104** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X104** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X104** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X104** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X104** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
12.00 LT	6.00 LT	11.50 LT	8.00 LT	14.50 LT	11.00 LT	Ask
SHELL Omala S2 GX 460				ENI Blasla 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{253}{X+193}$					
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R
300	2000	10000	140	2800	14000	70	3500	17500
250	2500	12500	120	3000	15000	40	4200	21000
200	2700	13500	85	3200	16000	15	5400	27000
Input shaft Albero in entrata								
n_1	F_A	F_R						
1400	700	3500						
900	840	4200						
500	900	4500						

tab. 2

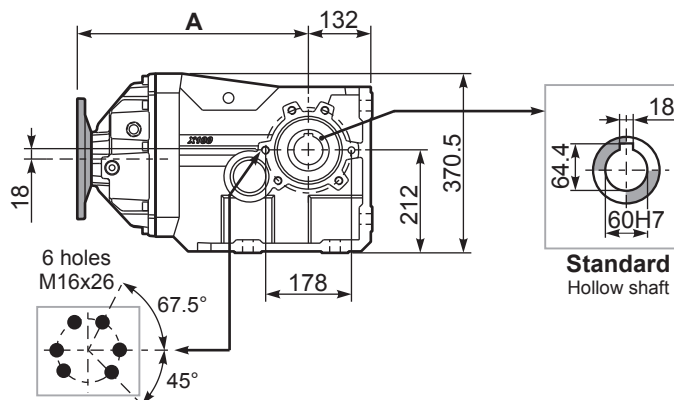
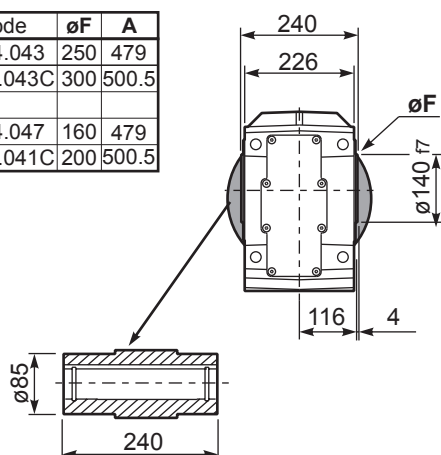
PX104C...

Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore

118 kg

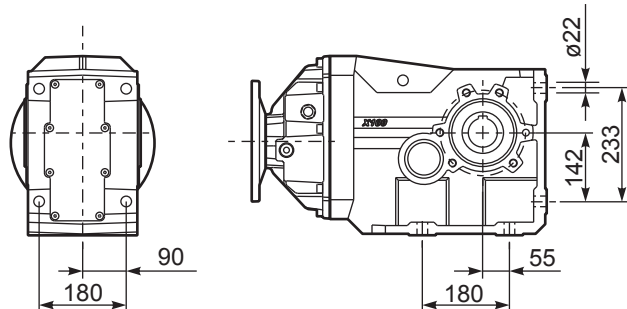
M. flanges	Kit code	ØF	A
100/112B5	K023.4.043	250	479
132B5	KC51.4.043C	300	500.5
100/112B14	K085.4.047	160	479
132B14	KC51.4.041C	200	500.5



Standard

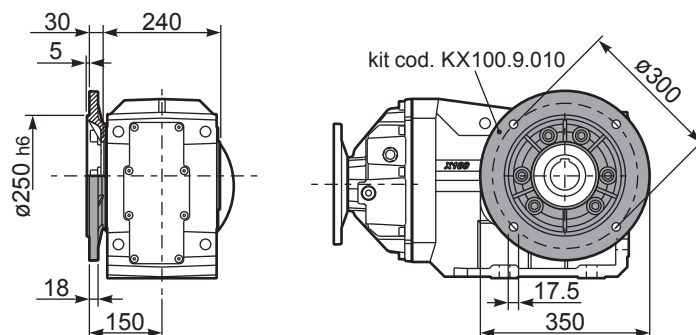
Hollow shaft

Mounting holes position
Posizione fori di montaggio

PX104...**FB..**Feet
Piedini

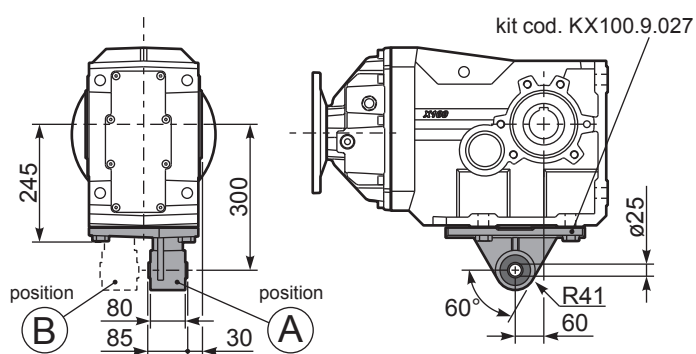
PX104...-F6..

Output flange
Flangia uscita



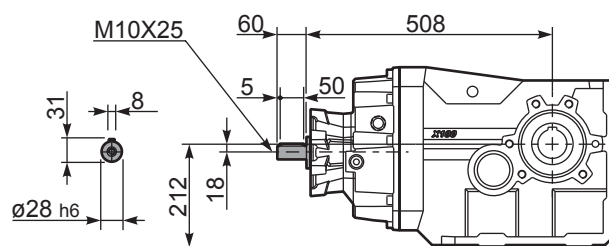
PX104...**BR..**

Reaction Arm
Braccio di reazione

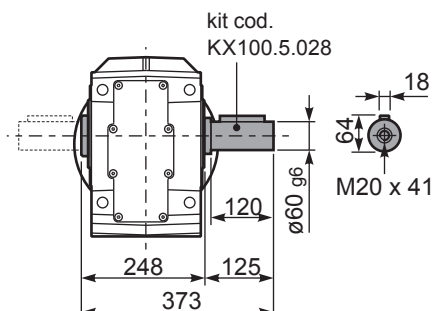


Rx104...

Input shaft
Albero in entrata

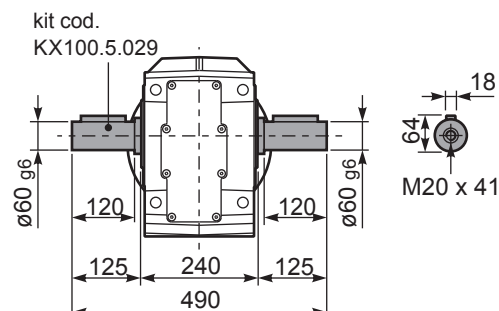
PX104**A**...

Single shaft
Albero lento semplice



PX104B...

Double shaft
Albero lento bisp.





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻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					B14 motor flanges			Output Shaft standard ø70	Ratios code
							-G	-H	-I	-L	CA	-	-	-		
							132	160	180	200	225	-	-	-		
219	6.39	45	1757	1.4	61.0	2500									392914	01
200	7.00	45	1925	1.4	59.0	2650									392913	02
164	8.55	45	2350	1.2	51.1	2800									392911	03
140	10.01	45	2752	1.2	49.8	3200									302914	04
128	10.97	45	3014	1.1	45.5	3200									302913	05
105	13.39	37	3025	1.1	39.6	3400									302911	06
89	15.71	37	3550	1.0	34.7	3500									222914	07
81	17.21	37	3888	1.0	33.5	3700									222913	08
67	21.02	30	3877	1.0	29.7	4000									222911	09
59	23.73	30	4378	0.9	26.9	4100									162914	10
54	25.99	22	3523	1.2	25.8	4300									162913	11
50	27.93	22	3786	1.1	24.0	4300									142914	12
45.8	30.59	22	4146	1.1	22.9	4500									142913	13
44.1	31.74	22	4302	1.0	22.1	4500									162911	14
37.5	37.36	18.5	4255	1.1	18.8	4500									142911	15
33.8	41.37	18.5	4712	1.0	17.0	4500									102914	16
30.9	45.31	15	4179	1.1	15.5	4500									102913	17
25.3	55.33	11	3750	1.2	12.7	4500									102911	18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X113** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X113** è fornito privo di lubrificazione con tappi di sfatio, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X113** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X113** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X113** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
13.50 LT	8.00 LT	15.50 LT	14.50 LT	22.00 LT	13.00 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website **tab. 1**
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

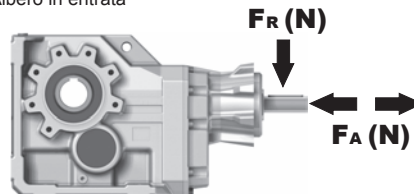


$$F_{eq} = F_R \cdot \frac{325.5}{X + 255.5}$$

n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	2100	10500	140	3100	15500	70	4200	21000
250	2600	13000	120	3240	16200	40	5600	28000
200	3000	15000	85	3600	18000	15	8000	40000

Input shaft

Albero in entrata



n_1	FA	FR
1400	1120	5600
900	1220	6100
500	1300	6500

tab. 2

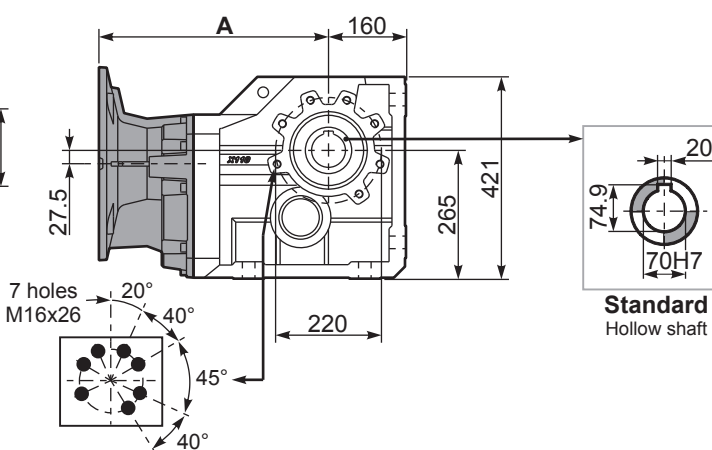
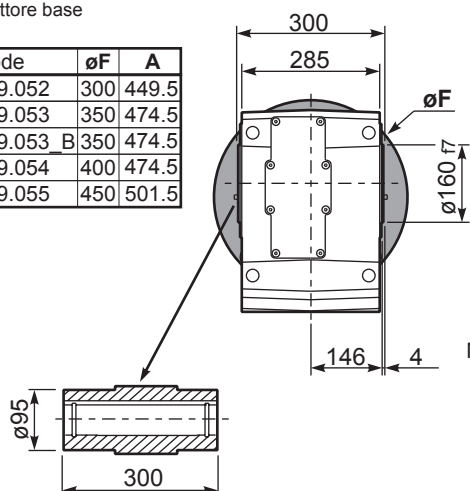
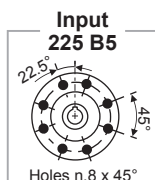
PX113C...

Basic Gearbox
Riduttore base

Gearbox weight
peso riduttore

170 kg

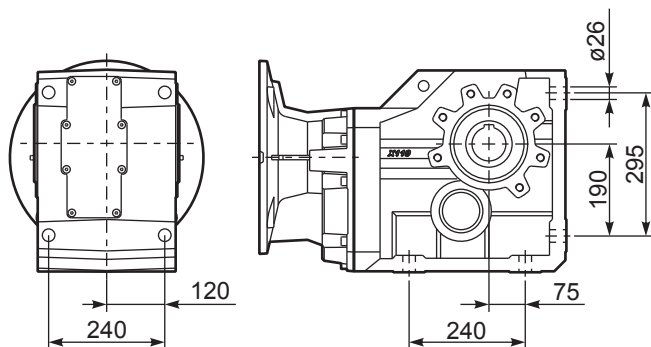
M. flanges	Kit code	øF	A
132B5	KC110.9.052	300	449.5
160B5	KC110.9.053	350	474.5
180B5	KC110.9.053 B	350	474.5
200B5	KC110.9.054	400	474.5
225B5	KC110.9.055	450	501.5



Standard

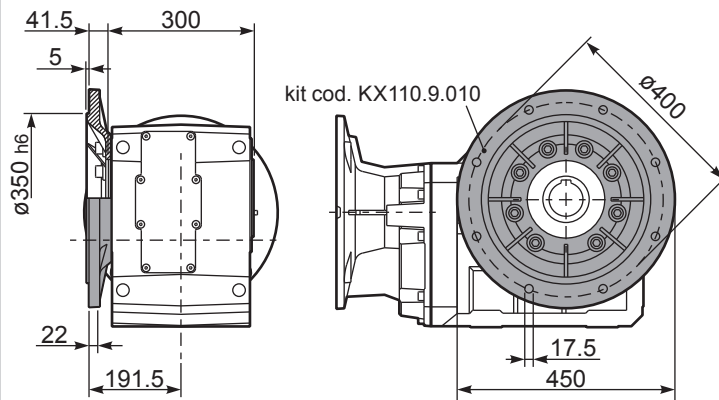
Hollow shaft

Mounting holes position
Posizione fori di montaggio

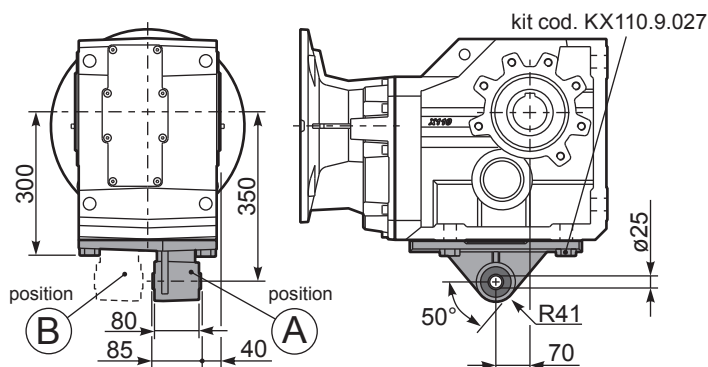
PX113...**FB..**Feet
Piedini

PX113...-F7...

Output flange
Flangia uscita

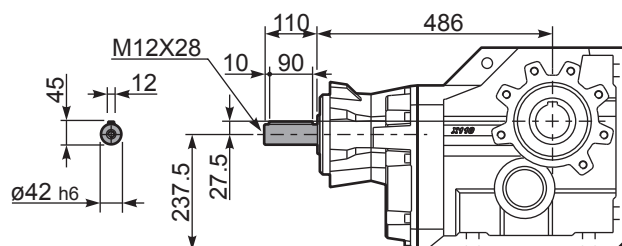
PX113...**BR..**

Reaction Arm
Braccio di reazione



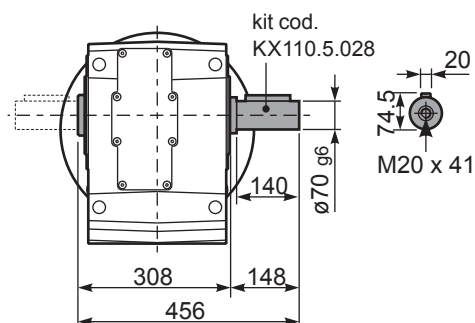
Rx113...

Input shaft
Albero in entrata



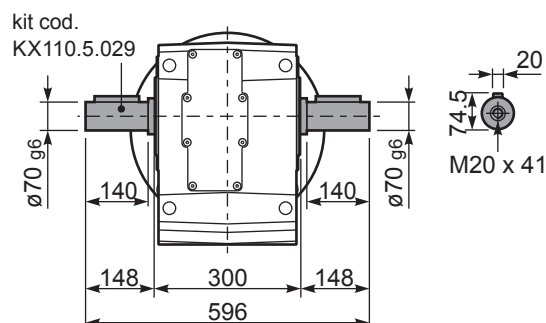
PX113**A**...

Single shaft
Albero lento semplice



PX113B...

Double shaft
Albero lento bisp.





QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻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			B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-H	-U	-V			
							100 112	132	160	100 112	132			
28.8	48.57	15	4390	1.0	14.8	4500						30142911	standard ø70	01
20.5	68.43	11	4545	1.0	10.7	4600						20142914		02
18.7	74.95	11	4977	0.9	9.8	4600						20142913		03
15.1	92.53	7.5	4216	1.1	7.9	4600						16142914		04
13.8	101.33	7.5	4617	1.0	7.2	4600						16142913		05
11.6	120.33	5.5	4051	1.1	6.1	4600						13142914		06
11.3	123.75	5.5	4166	1.1	5.8	4500						16142911		07
10.6	131.78	5.5	4436	1.0	5.6	4600						13142913		08
9.5	147.28	5.5	4958	0.9	5.0	4600						11142914		09
8.7	161.30	4	3972	1.2	4.5	4600						11142913		10
7.1	196.98	3	3652	1.2	3.6	4500						11142911		11
6.6	212.99	3	3949	1.2	3.4	4600						8142914		12
6.0	233.26	3	4324	1.1	3.1	4600						8142913		13
4.9	284.86	2.2	3889	1.2	2.5	4500						8142911		14

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **X114** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **X114** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **X114** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **X114** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **X114** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
14.50 LT	8.50 LT	16.50 LT	16.00 LT	23.00 LT	14.50 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

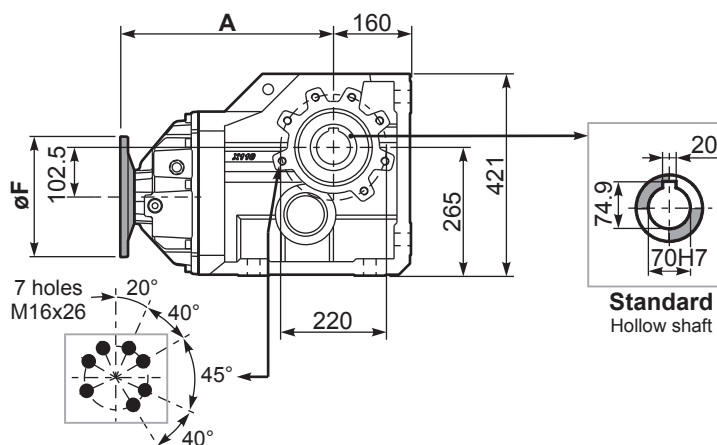
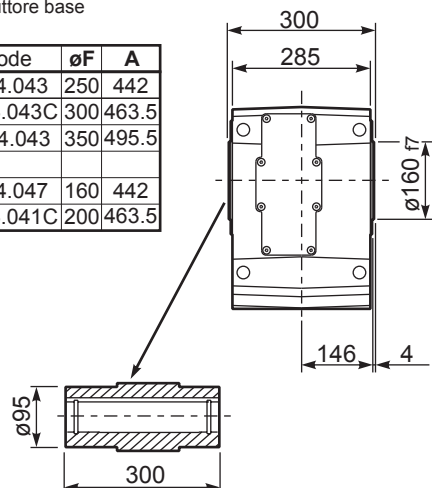
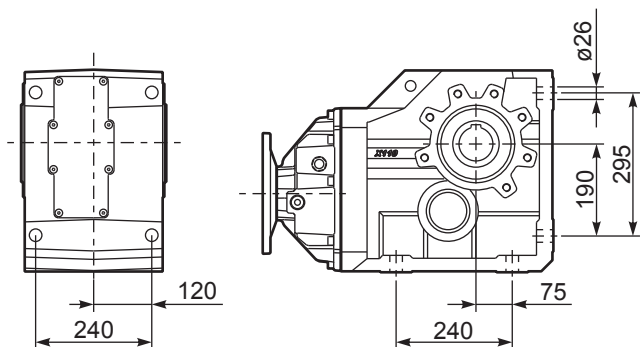
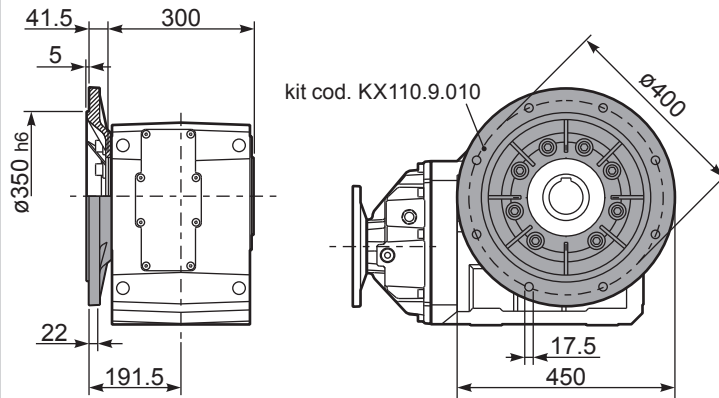
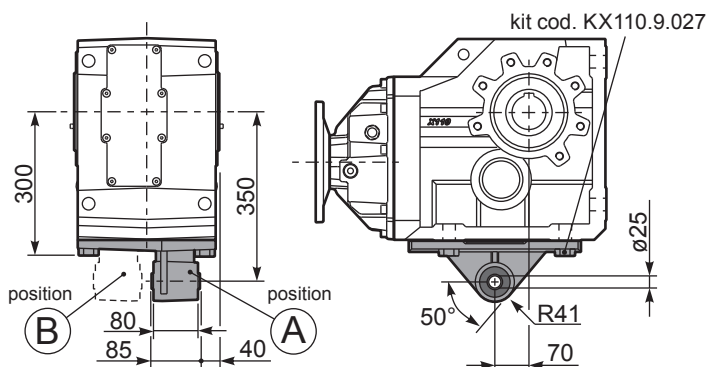
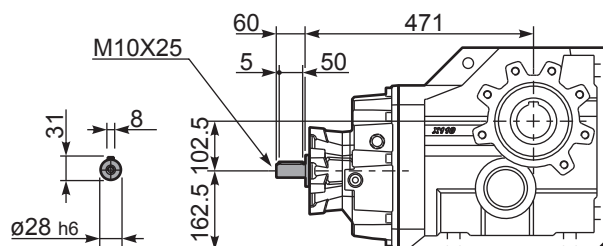
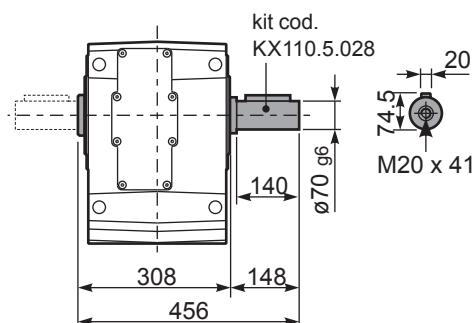
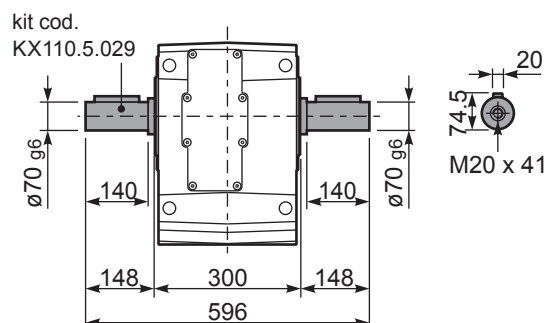
tab. 1

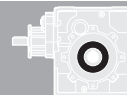
RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{325.5}{X+255.5}$					
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R
300	2100	10500	140	3100	15500	70	4200	21000
250	2600	13000	120	3240	16200	40	5600	28000
200	3000	15000	85	3600	18000	15	8000	40000
Input shaft Albero in entrata								
n_1	F_A	F_R						
1400	700	3500						
900	840	4200						
500	900	4500						

tab. 2

PX114C...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore**161 kg**

M. flanges	Kit code	øF	A
100/112B5	K023.4.043	250	442
132B5	KC51.4.043C	300	463.5
160B5	KC86.4.043	350	495.5
100/112B14	K085.4.047	160	442
132B14	KC51.4.041C	200	463.5

Mounting holes position
Posizione fori di montaggio**Standard**
Hollow shaft**PX114...FB..**Feet
Piedini**PX114...-F7..**Output flange
Flangia uscita**PX114...BR..**Reaction Arm
Braccio di reazione**RX114...**Input shaft
Albero in entrata**PX114A...**Single shaft
Albero lento semplice**PX114B...**Double shaft
Albero lento bisp.



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
176	7.94	7.5	369	1.0	7.5	380	B									302418	standard ø40 ø42 On request	01
153	9.13	7.5	425	0.9	6.7	390	B									302416		02
131	10.66	5.5	366	1.1	6.0	410	B									302414		03
94	14.97	5.5	514	1.1	6.0	580	B									202418		04
81	17.21	5.5	591	1.0	5.4	600	B									202416		05
69	20.24	5.5	695	1.0	5.2	675	B									162418		06
60	23.27	4	585	1.2	4.5	675	B									162416		07
53	26.31	4	661	1.0	4.0	675	B									132418		08
46.3	30.25	4	760	0.9	3.5	675	B									132416		09
39.6	35.32	3	668	1.0	3.0	675	B									132414		10
37.8	37.03	3	701	1.0	2.8	675	B									112416		11
32.4	43.23	2.2	602	1.1	2.4	675	B									112414		12
30.1	46.58	2.2	649	1.0	2.3	675	B									82418		13
26.1	53.55	2.2	746	0.9	2.0	675	B									82416		14
22.4	62.52	1.5	600	1.1	1.7	675	B									82414		15
19.0	73.75	1.1	517	1.1	1.2	580	B									62416		16
16.3	86.09	1.1	604	1.1	1.2	675	B									62414		17

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **113C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **113C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **113C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **113C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

E El reductor tamaño **113C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
4.00 LT	2.60 LT	2.60 LT	2.60 LT	5.15 LT	2.20 LT	Ask
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_R (N)
 F_A (N)

$$F_{eq} = F_R \cdot \frac{171}{X+131}$$

F_{eq} (N)
 X

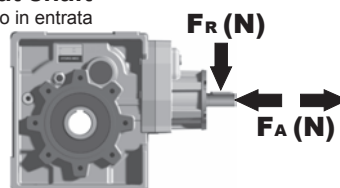
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	640	3200	140	860	4300	70	1080	5400
250	700	3500	120	900	4500	40	1300	6500
200	740	3700	85	1000	5000	15	1840	9200

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

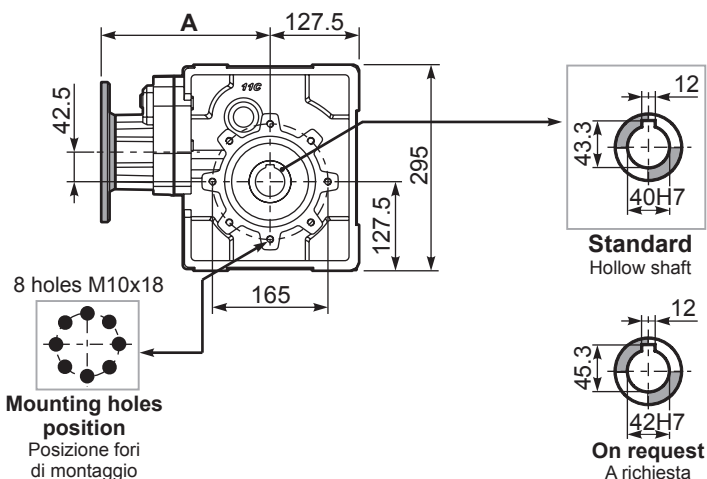
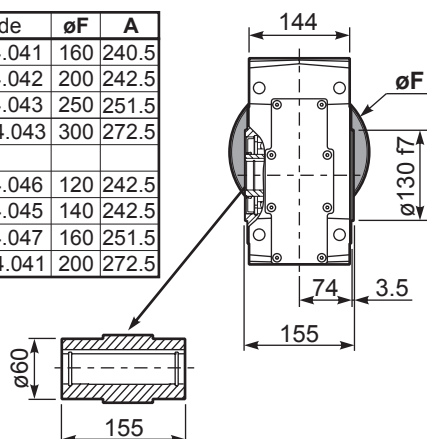
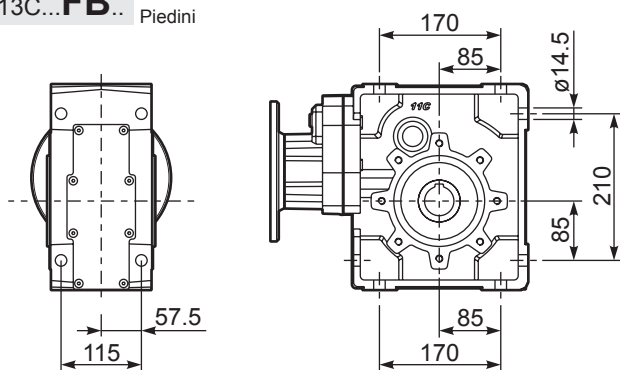
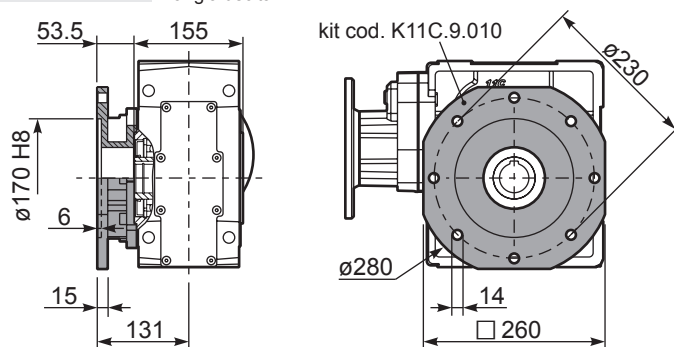
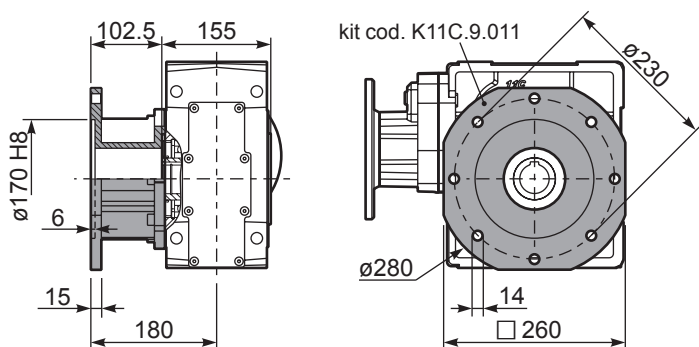
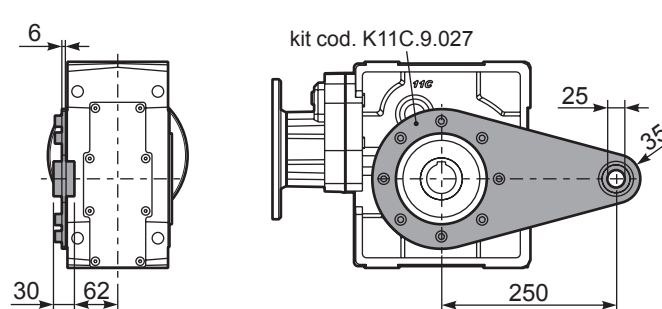
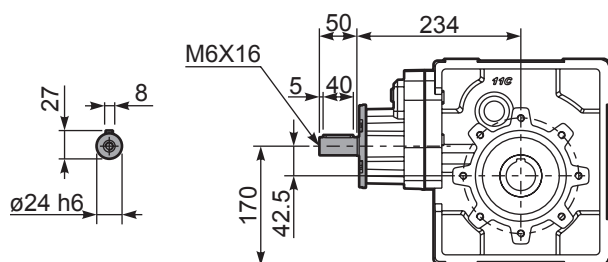
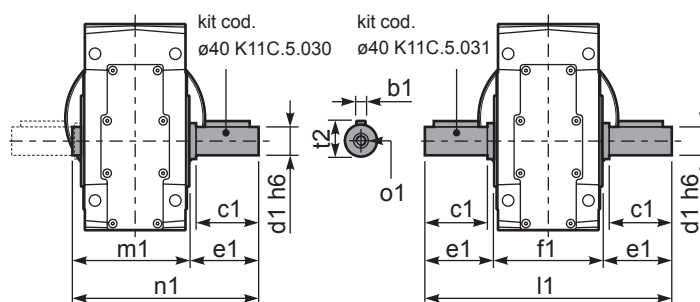


n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

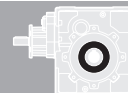
tab. 2

P113CC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore**38.0 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	240.5
80/90B5	K023.4.042	200	242.5
100/112B5	K023.4.043	250	251.5
132B5	KC51.4.043	300	272.5
80B14	K085.4.046	120	242.5
90B14	K085.4.045	140	242.5
100/112B14	K085.4.047	160	251.5
132B14	KC51.4.041	200	272.5

**P113C...FB..**Feet
Piedini**P113C...-FC..**Output flange
Flangia uscita**P113C...-FL..**Output flange
Flangia uscita**P113C...BR..**Reaction Arm
Braccio di reazione**R113C...**Input shaft
Albero in entrata**P113CA...**Single shaft
Albero lento semplice**P113CB...**Double shaft
Albero lento bisp.

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
ø40 Standard	12	80	40	84.5	155	324	164.5	249	43	M12
On request	-	-	-	-	-	-	-	-	-	-



■ QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
18.7	74.79	1.5	704	1.0	1.4	675	B				C	C		19132418	standard ø40	01
16.3	85.99	1.1	591	1.1	1.3	675	B				C	C		19132416		02
14.0	99.66	1.1	685	1.0	1.1	675	B				C	C		17132416		03
12.0	116.35	0.75	548	1.2	0.92	675	B				C	C		17132414		04
11.5	121.45	0.75	572	1.2	0.89	675	B				C	C		13132418		05
10.0	139.64	0.75	658	1.0	0.77	675	B				C	C		13132416		06
9.2	152.21	0.75	717	0.9	0.71	675	B				C	C		19082416		07
8.6	163.02	0.55	567	1.2	0.66	675	B				C	C		13132414		08
7.9	177.69	0.55	618	1.1	0.61	675	B				C	C		19082414		09
6.8	205.95	0.55	716	0.9	0.52	675	B				C	C		17082414		10
6.3	222.52	0.55	774	0.9	0.48	675	B				C	C		10132414	On request ø42	11
5.6	248.76	0.37	578	1.2	0.43	675	B				C	C		9132416		12
4.8	290.41	0.37	675	1.0	0.37	675	B				C	C		9132414		13
4.1	337.39	0.37	784	0.9	0.32	675	B				C	C		10082416		14
3.6	393.88	0.25	618	1.1	0.27	675	B				C	C		10082414		15
3.2	440.33	0.25	690	1.0	0.24	675	B				C	C		9082416		16
2.7	514.06	0.18	616	1.1	0.21	675	B				C	C		9082414		17
2.4	581.44	0.18	697	1.0	0.18	675	B				C	C		7082416		18
2.1	678.79	0.12	526	1.3	0.16	675	B				C	C		7082414		19

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **114C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore **114C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

D Das Getriebe **114C** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur **114C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

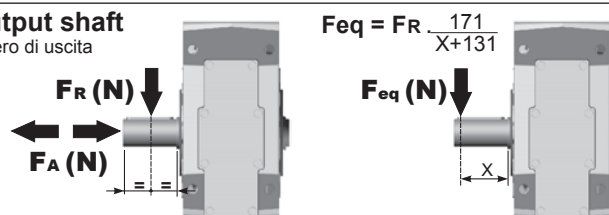
E El reductor tamaño **114C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
4.10 LT	2.70 LT	2.70 LT	2.70 LT	5.30 LT	2.35 LT	Ask
SHELL Omala S4 WE 320				ENI Telium VSF 320		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

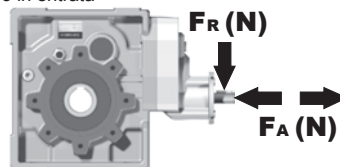
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	640	3200	140	860	4300	70	1080	5400
250	700	3500	120	900	4500	40	1300	6500
200	740	3700	85	1000	5000	15	1840	9200

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

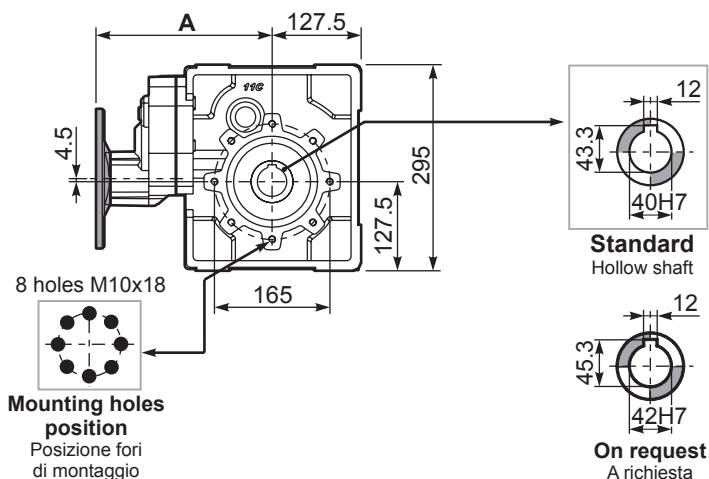
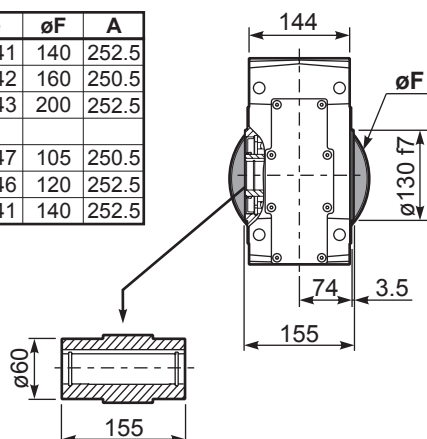
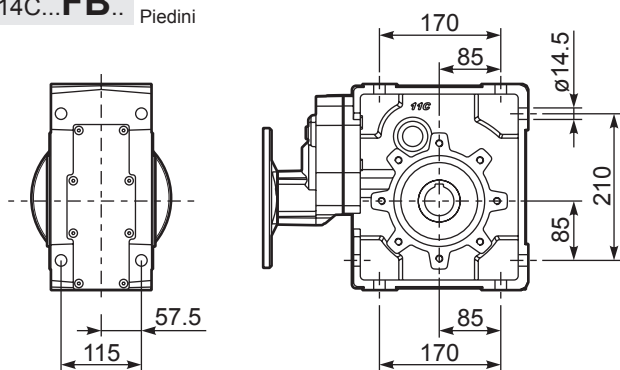
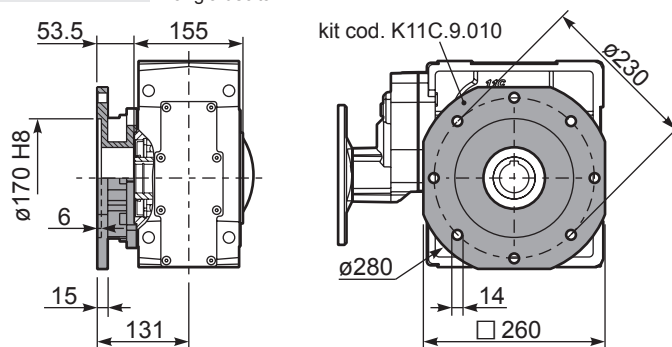
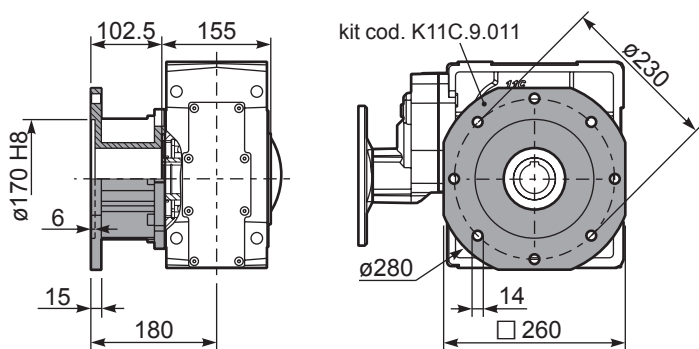
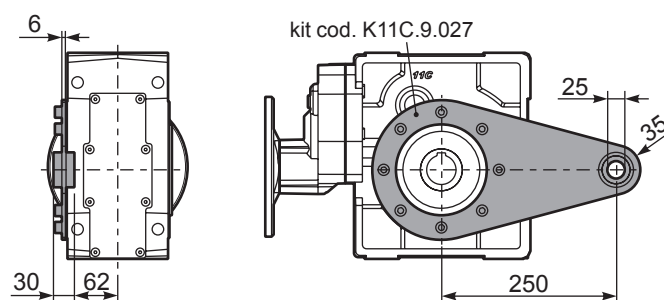
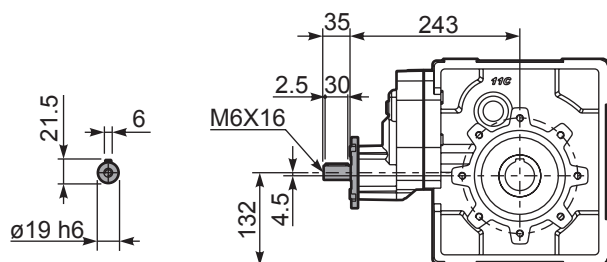
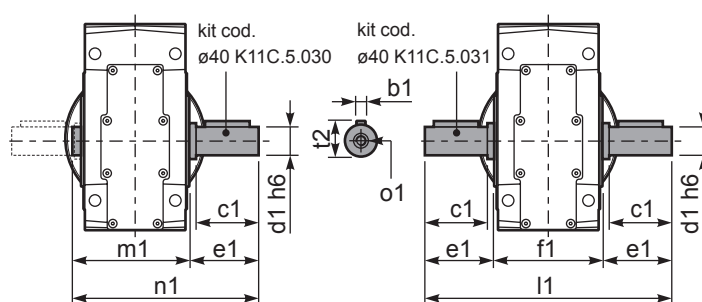


n_1	FA	FR
1400	240	1200
900	280	1400
500	310	1700

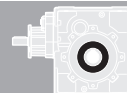
tab. 2

P114CC...Basic Gearbox
Riduttore baseGearbox
weight
peso riduttore**38.0 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	252.5
71B5	K063.4.042	160	250.5
80/90B5	K063.4.043	200	252.5
71B14	K063.4.047	105	250.5
80B14	K063.4.046	120	252.5
90B14	K063.4.041	140	252.5

**P114C...FB..**Feet
Piedini**P114C...-FC..**Output flange
Flangia uscita**P114C...-FL..**Output flange
Flangia uscita**P114C...BR..**Reaction Arm
Braccio di reazione**R114C...**Input shaft
Albero in entrata**P114CA...**Single shaft
Albero lento semplice**P114CB...**Double shaft
Albero lento bisp.

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
ø40 Standard	12	80	40	84.5	155	324	164.5	249	43	M12
On request	-	-	-	-	-	-	-	-	-	-



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges					Available B14 motor flanges					Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
145	9.69	9	560	1.3	12.2	755	B									302418	standard ø45	01
126	11.09	9	641	1.1	9.6	680	B									302416		02
108	12.90	9	746	1.1	9.6	790	B									302414		03
77	18.26	7.5	849	1.1	8.0	935	B									202418		04
67	20.91	7.5	972	1.0	7.5	1000	B									202416		05
58	24.32	5.5	835	1.2	6.4	1000	B									202414		06
49.5	28.27	5.5	971	1.0	5.5	1000	B									162416		07
42.6	32.88	4	826	1.2	4.7	1000	B									162414		08
38.1	36.76	4	924	1.1	4.2	1000	B									132416		09
32.7	42.76	3	809	1.2	3.6	1000	B									132414	ø40 on request	10
31.1	45.00	3	851	1.2	3.5	1000	B									112416		11
26.8	52.33	3	990	1.0	3.0	1000	B									112414		12
24.6	56.82	2.2	791	1.1	2.3	850	B									82418		13
21.5	65.07	2.2	906	1.1	2.3	975	B									82416		14
18.5	75.68	2.2	1054	0.9	2.1	1000	B									82414		15
15.6	89.61	1.1	628	1.1	1.2	710	B									62416		16
13.4	104.22	1.1	731	1.1	1.2	820	B									62414		17

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **133C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **133C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **133C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **133C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

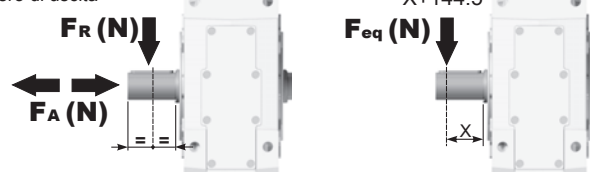
E El reductor tamaño **133C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
6.00 LT	4.30 LT	4.30 LT	3.30 LT	7.20 LT	3.10 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita



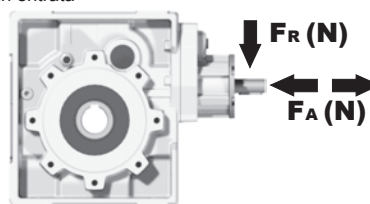
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	800	4000	140	1120	5600	70	1400	7000
250	900	4500	120	1200	6000	40	1700	8500
200	960	4800	85	1300	6500	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

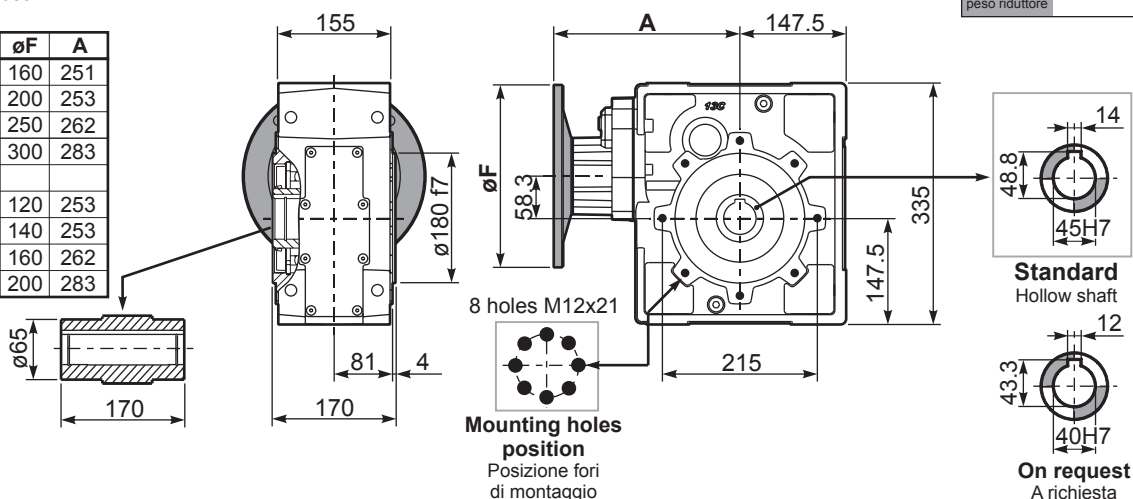
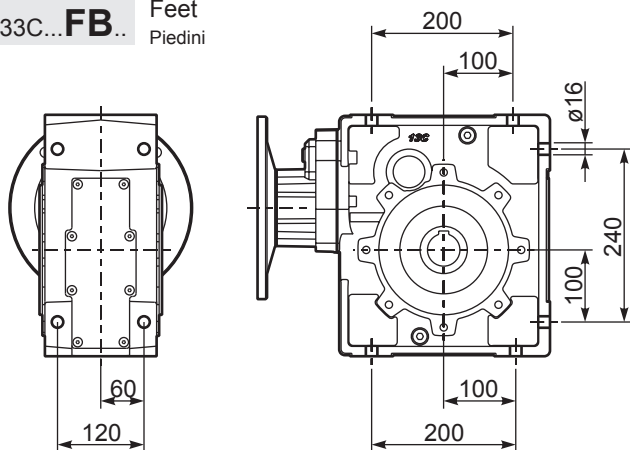
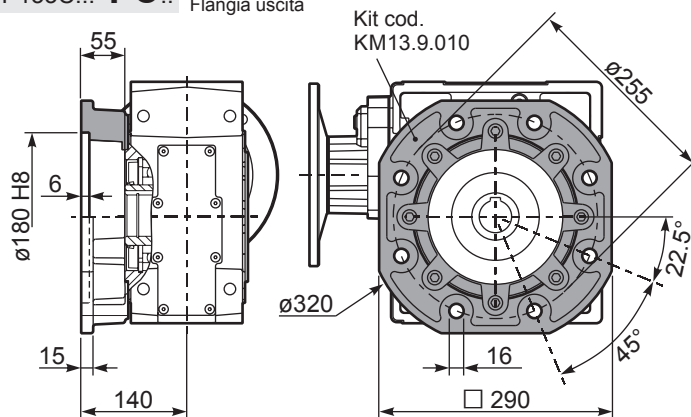
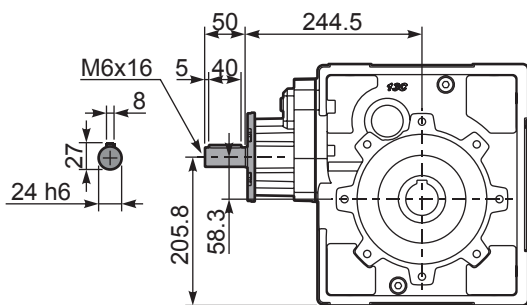
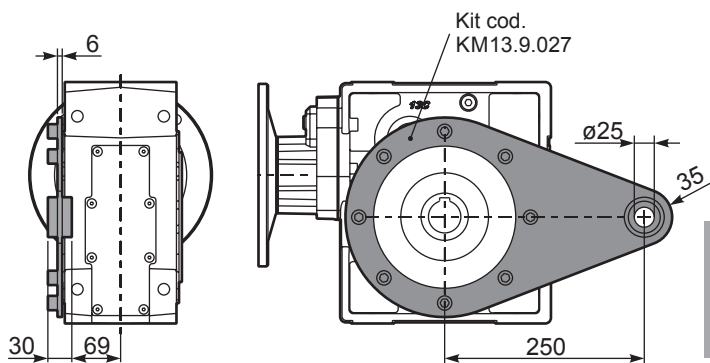
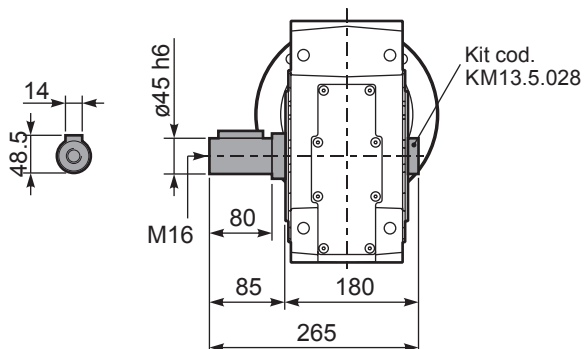
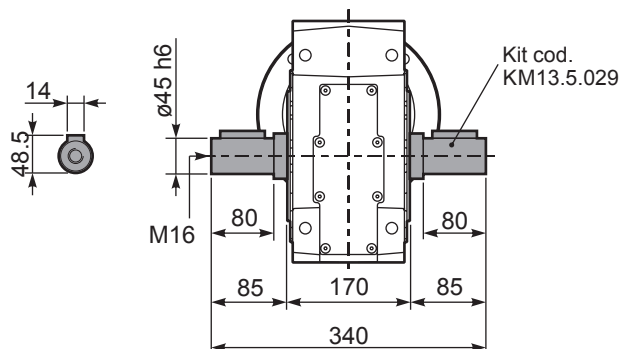


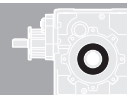
n_1	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

P133CC...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **53.5 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	251
80/90B5	K023.4.042	200	253
100/112B5	K023.4.043	250	262
132B5	KC51.4.043	300	283
80B14	K085.4.046	120	253
90B14	K085.4.045	140	253
100/112B14	K085.4.047	160	262
132B14	KC51.4.041	200	283

**P133C...FB..**Feet
Piedini**P133C...-FC..**Output flange
Flangia uscita**R133C...**Input Shaft
Albero in entrata**P133C...BR..**Reaction arm
Braccio di reazione**P133CA..**Single output Shaft
Albero lento semplice**P133CB..**Double Input Shaft
Albero lento bisporgente



QUICK SELECTION / Selezione veloce

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
15.3	91.23	1.5	858	1.2	1.7	1000	B				C	C		19132418	01
13.4	104.48	1.5	983	1.0	1.5	1000	B				C	C		19132416	02
11.6	121.10	1.5	1139	0.9	1.3	1000	B				C	C		17132416	03
9.9	140.84	1.1	968	1.0	1.1	1000	B				C	C		17132414	04
8.5	165.32	1.1	1136	0.9	0.96	1000	B				C	C		15132414	05
7.6	184.94	0.75	872	1.1	0.86	1000	B				C	C		19082416	06
7.1	197.34	0.75	930	1.1	0.81	1000	B				C	C		13132414	07
6.5	215.10	0.75	1014	1.0	0.74	1000	B				C	C		19082414	08
6.0	231.60	0.55	805	1.2	0.69	1000	B				C	C		10132416	09
5.6	249.31	0.55	867	1.2	0.64	1000	B				C	C		17082414	10
5.2	269.37	0.55	937	1.1	0.59	1000	B				C	C		10132414	11
4.8	292.64	0.55	1018	1.0	0.54	1000	B				C	C		15082414	12
4.6	302.26	0.55	1051	1.0	0.53	1000	B				C	C		9132416	13
4.0	349.30	0.37	812	1.2	0.46	1000	B				C	C		13082414	14
3.5	399.12	0.37	928	1.1	0.40	1000	B				C	C		7132416	15
2.9	476.80	0.37	1108	0.9	0.33	1000	B				C	C		10082414	16
2.2	622.28	0.25	976	1.0	0.26	1000	B				C	C		9082414	17
1.7	821.70	0.18	985	1.0	0.19	1000	B				C	C		7082414	18

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **134C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.

I Il riduttore tipo **134C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.
Tab.1 per oli e quantità consigliati.
Tab.2 carichi radiali e assiali applicabili al riduttore.

D Das Getriebe der Baugröße **134C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

F Le réducteur de type **134C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

E El reductor tamaño **134C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
6.10 LT	4.40 LT	4.40 LT	3.40 LT	7.50 LT	3.20 LT	Ask
SHELL Omala S2 GX 460				ENI Blasias 460		

For all details on lubrication and plugs check our website

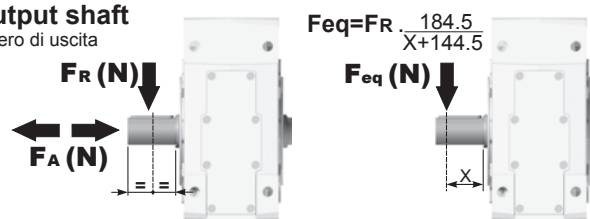
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



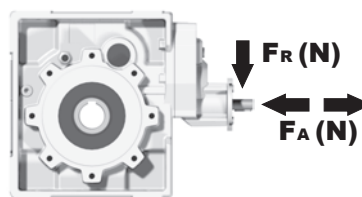
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	800	4000	140	1120	5600	70	1400	7000
250	900	4500	120	1200	6000	40	1700	8500
200	960	4800	85	1300	6500	15	2400	12000

On request reinforced bearings to increase loads.

A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft

Albero in entrata

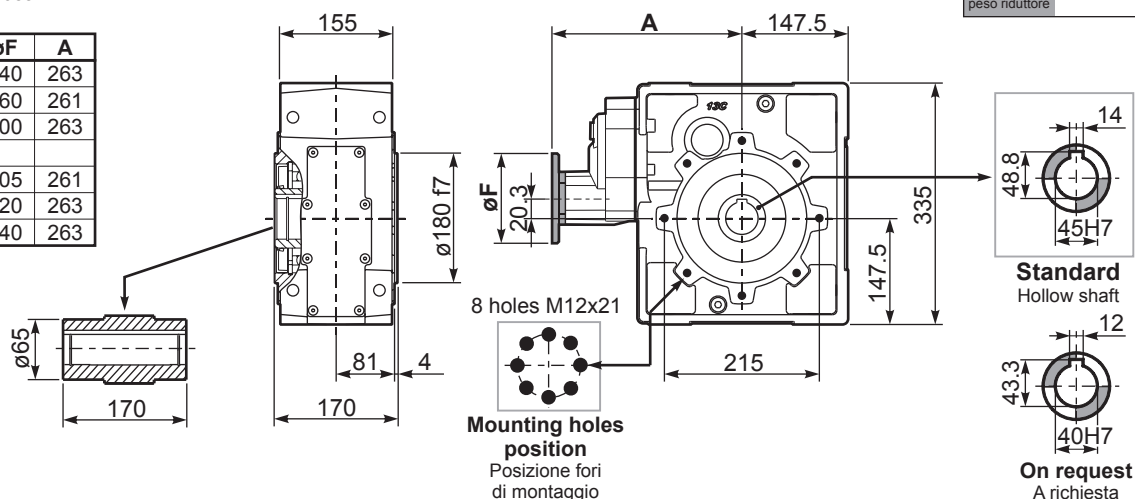
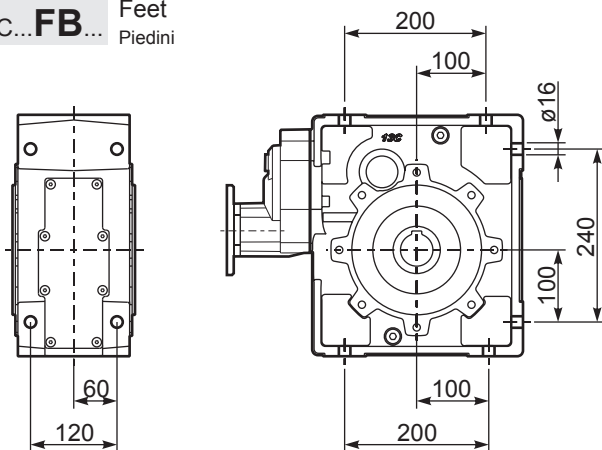
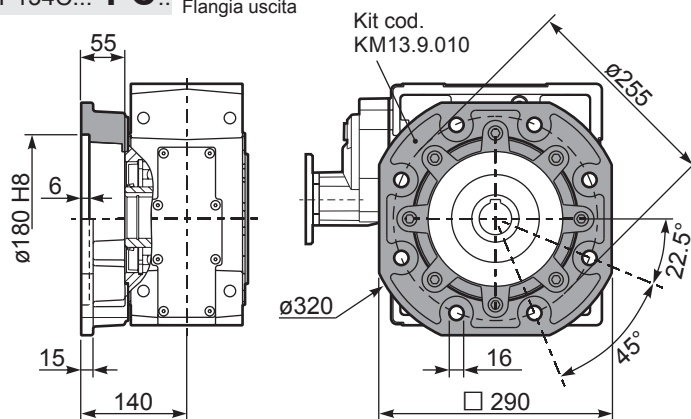
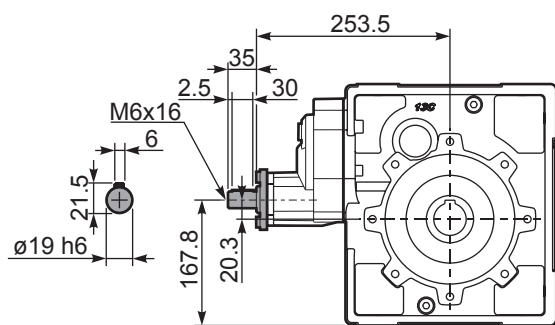
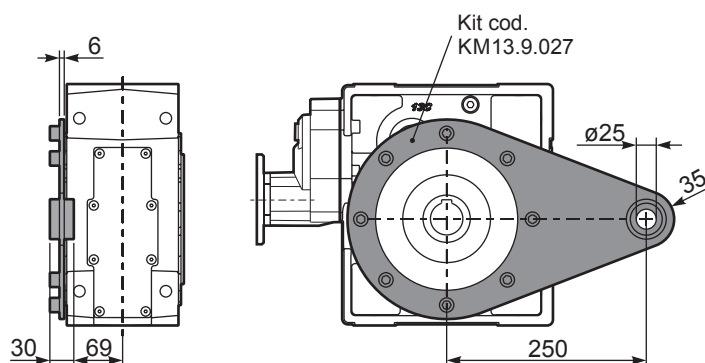
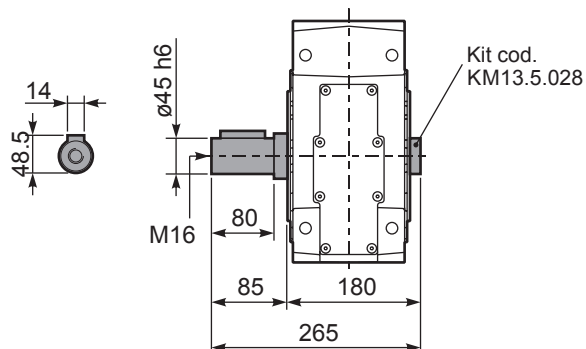
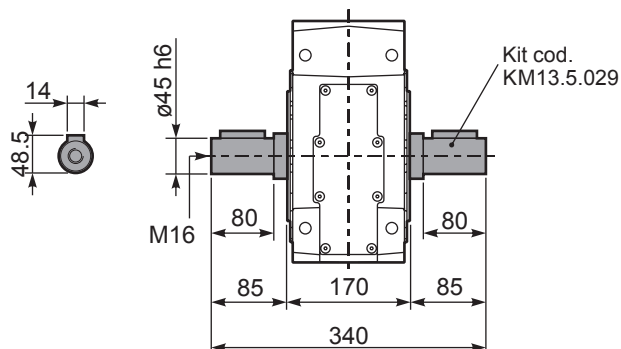


n_1	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

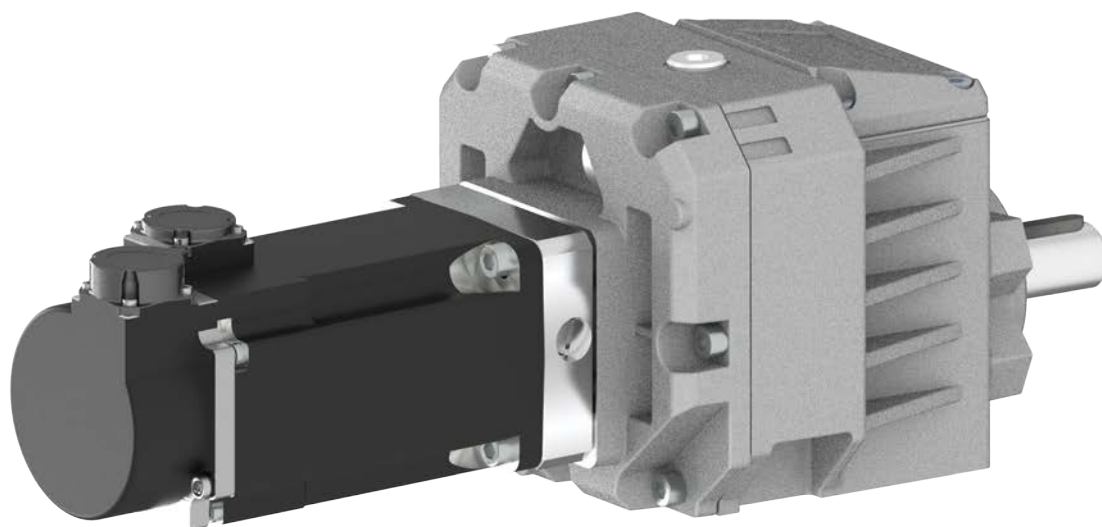
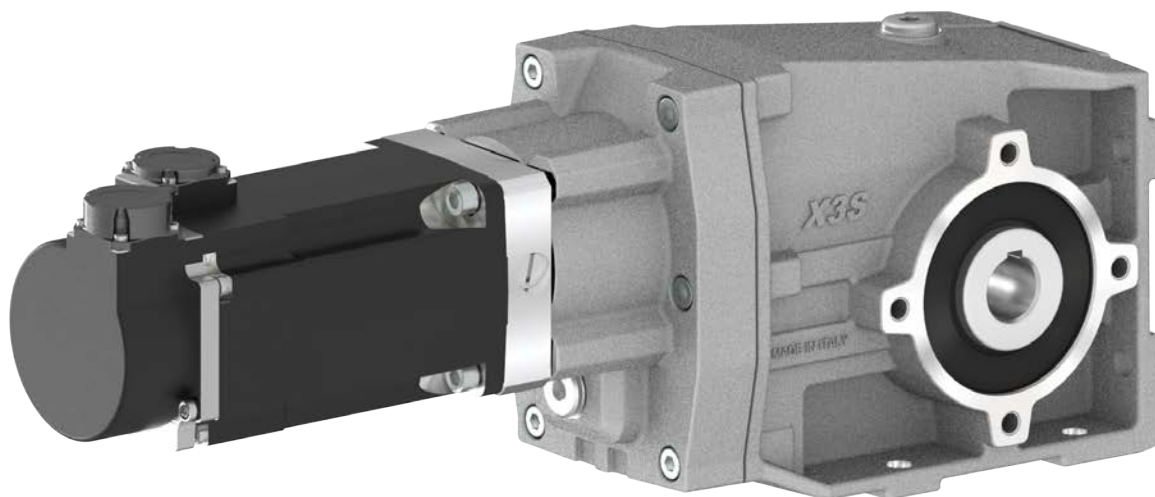
P134CC...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore **53.5 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	263
71B5	K063.4.042	160	261
80/90B5	K063.4.043	200	263
71B14	K063.4.047	105	261
80B14	K063.4.046	120	263
90B14	K063.4.041	140	263

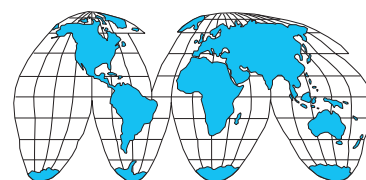
**P134C...FB...**Feet
Piedini**P134C...-FC...**Output flange
Flangia uscita**R134C...**Input Shaft
Albero in entrata**P134C...BR...**Reaction arm
Braccio di reazione**P134CA..**Single output Shaft
Albero lento semplice**P134CB..**Double Input Shaft
Albero lento bisporgente

Brides moteurs Brushless

Brushless motor flanges



B



World wide sales network.

UNIQUE FEATURES

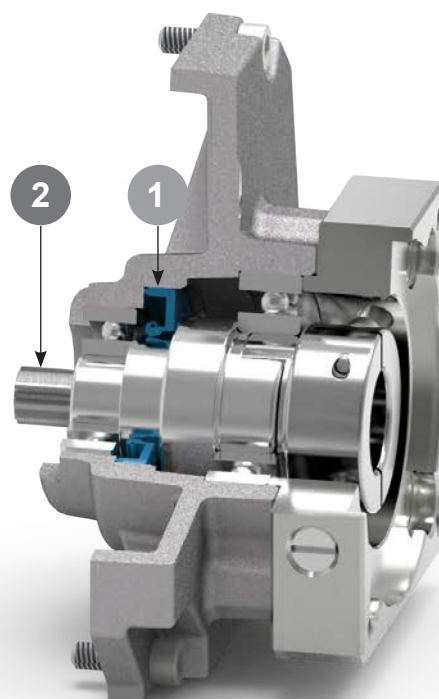
Special input shaft design with internal seal for Brushless applications.

Design speciale dell'albero di entrata con guarnizione interna per applicazioni Brushless.

1 Quality oil seals.
Anelli di tenuta di qualità.

2 All grounded gears.
Tutti gli ingranaggi rettificati.

On request FKM oil seals.
A richiesta anelli di tenuta FKM.



All couplings on stock.
Giunti disponibili a magazzino.

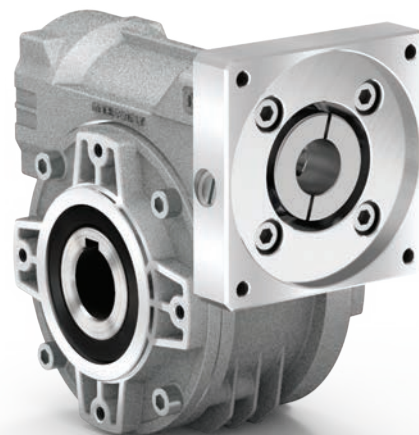
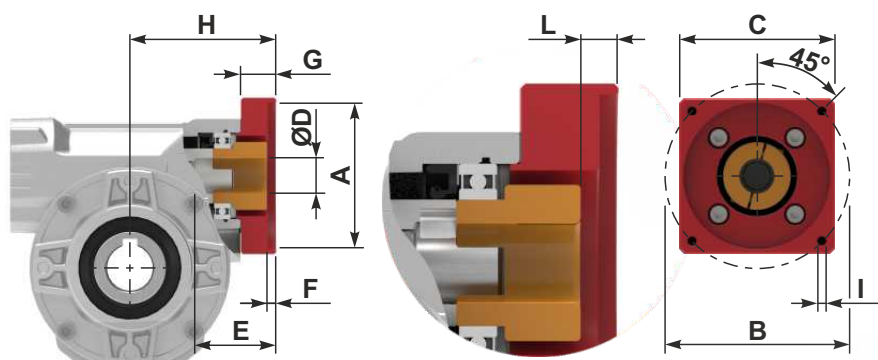


Flanges available for quantity.
Drawings available to download on the web site for a quick production of small quantity.
Flange disponibili per quantità.
Disegni scaricabili dal sito web per una rapida produzione di piccole quantità.

WORM GEARBOXES

Flanges for servomotors - Flange per servomotori

Rightangle-Gear

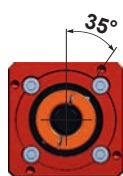


Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H
030 21Nm	BA	K0304071	KBR09/14G	K0305190L	Ø9	40	63	58	Ø14	30	4	20	4.7	M5x12	68
	BC	K0304072	KBR11/14G	K0305190L	Ø11	60	75	70	Ø14	30	4.5	20	4.7	M5x12	68
	BB	K0304073	-	K0305190L	Ø14	50	70	60	Ø14	32	4.5	28.5	13.2	M5x12	76.5
045 41Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	44	4.5	23	9	M5x12	79
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	44	4.5	23	9	M5x12	79
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	44	4.5	23	9	M6x12	79
050 72Nm	BC	K0504072	KBR11/19G	K0505190L	Ø11	60	75	70	Ø19	48	4.5	23	9	M5x12	83.5
	BC	K0504072	KBR14/19G	K0505190L	Ø14	60	75	70	Ø19	48	4.5	23	9	M5x12	83.5
	BB	K0504073	KBR14/19G	K0505190L	Ø14	50	70	70	Ø19	48	4.5	23	9	M5x12	83.5
	BE	K0504074	KBR14/19G	K0505190L	Ø14	80	100	85	Ø19	48	4.5	23	9	M6x12	83.5
	BF	K0504075	-	K0505190L	Ø19	95	115	100	Ø19	48	4.5	23	9	M8x12	83.5
	BD	K0504078	-	K0505190L	Ø19	70	90	80	Ø19	48	4.5	23	9	M6x12	83.5
063 147Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	58	4.5	25	9	M5x12	104.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	58	4.5	25	9	M5x12	104.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	58	4.5	25	9	M6x12	104.5
63A 191Nm	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	58	4.5	25	9	M8x12	104.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	63	4.5	30	14	M8x14	109.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	58	4.5	25	9	M6x12	104.5
085 347Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	124.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	128.5
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	124.5
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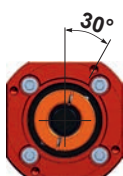


Supplied with
reduction bushing
Fornito con
bussola di riduzione

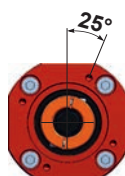
Coupling
Giunto



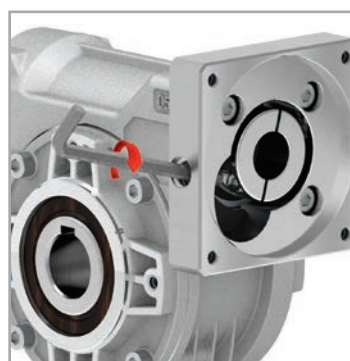
K0504072
Fixing holes
shifted by 35°
Fori fissaggio
motore ruotati a 35°



K0504073
K0634078
Fixing holes
shifted by 30°
Fori fissaggio
motore ruotati a 30°



K0634072
K0634073
Fixing holes
shifted by 25°
Fori fissaggio
motore ruotati a 25°

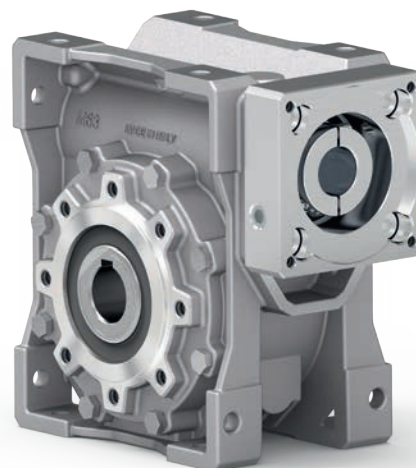
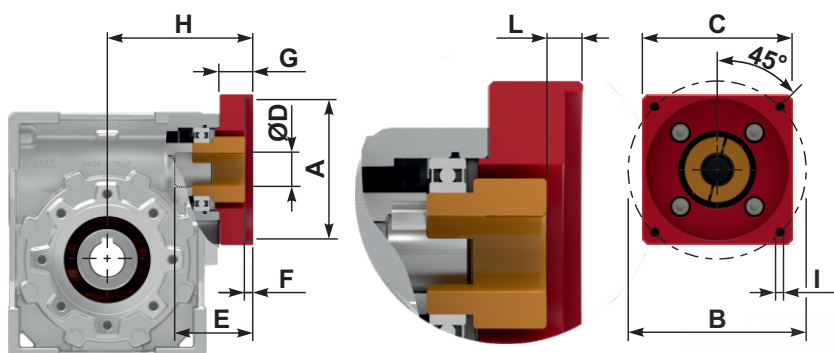


Coupling
tightening
Serraggio
del giunto

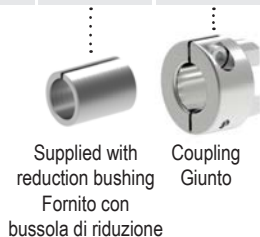
WORM GEARBOXES

Flanges for servomotors - Flange per servomotori

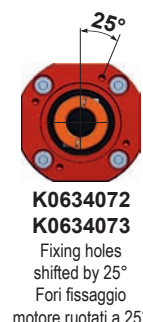
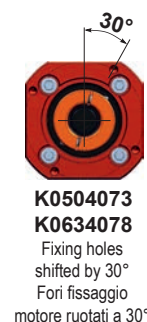
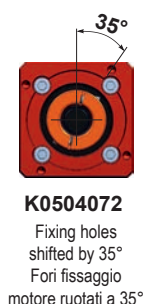
M-Square-Gear



Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H
M30 21Nm	BA	K0304071	KBR09/14G	K0305190L	Ø9	40	63	58	Ø14	30	4	20	4.7	M5x12	68
	BC	K0304072	KBR11/14G	K0305190L	Ø11	60	75	70	Ø14	30	4.5	20	4.7	M5x12	68
	BB	K0304073	-	K0305190L	Ø14	50	70	60	Ø14	32	4.5	28.5	13.2	M5x12	76.5
M45 41Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	44	4.5	23	9	M5x12	85
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	44	4.5	23	9	M5x12	85
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	44	4.5	23	9	M6x12	85
M50 72Nm	BC	K0504072	KBR11/19G	K0505190L	Ø11	60	75	70	Ø19	48	4.5	23	9	M5x12	88.5
	BC	K0504072	KBR14/19G	K0505190L	Ø14	60	75	70	Ø19	48	4.5	23	9	M5x12	88.5
	BB	K0504073	KBR14/19G	K0505190L	Ø14	50	70	70	Ø19	48	4.5	23	9	M5x12	88.5
	BE	K0504074	KBR14/19G	K0505190L	Ø14	80	100	85	Ø19	48	4.5	23	9	M6x12	88.5
	BF	K0504075	-	K0505190L	Ø19	95	115	100	Ø19	48	4.5	23	9	M8x12	88.5
	BD	K0504078	-	K0505190L	Ø19	70	90	80	Ø19	48	4.5	23	9	M6x12	88.5
M63 147Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	58	4.5	25	9	M5x12	105.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	58	4.5	25	9	M5x12	105.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	58	4.5	25	9	M6x12	105.5
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	58	4.5	25	9	M8x12	105.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	63	4.5	30	14	M8x14	105.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	58	4.5	25	9	M6x12	105.5
M85 347Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	124.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	128.5
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	124.5
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	60	4.5	26	9.5	M6x14	124.5



Coupling
Giunto



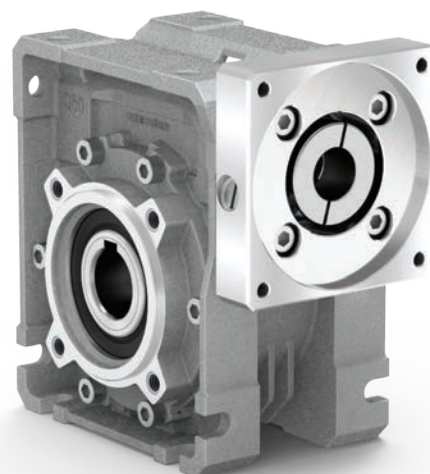
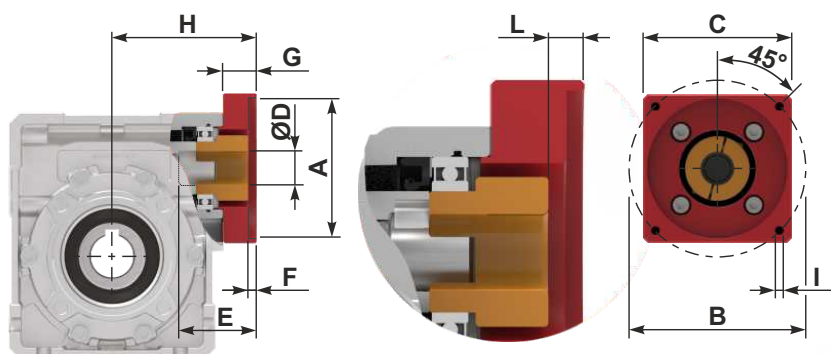
B

sofic
motori riduttori a ingranaggi

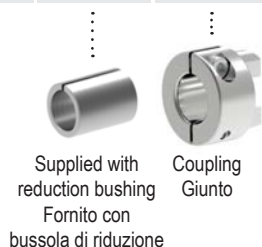
WORM GEARBOXES

Flanges for servomotors - Flange per servomotori

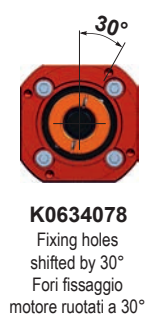
Q-Square-Gear



Type	Catalog Flange Code	Input Flanges Kit Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H
Q63 147Nm	BC	K0634072	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	58	4.5	25	9	M5x12	104.5
	BB	K0634073	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	58	4.5	25	9	M5x12	104.5
	BE	K0634074	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	58	4.5	25	9	M6x12	104.5
	BF	K0634075	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	58	4.5	25	9	M8x12	104.5
	BG	K0634076	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	63	4.5	30	14	M8x14	109.5
	BD	K0634078	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	58	4.5	25	9	M6x12	104.5
Q75 270Nm	BF	K0854075	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	124.5
	BG	K0854076	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	128.5
Q85 347Nm	BH	K0854077	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	124.5
	BD	K0854078	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	60	4.5	26	9.5	M6x14	124.5



B

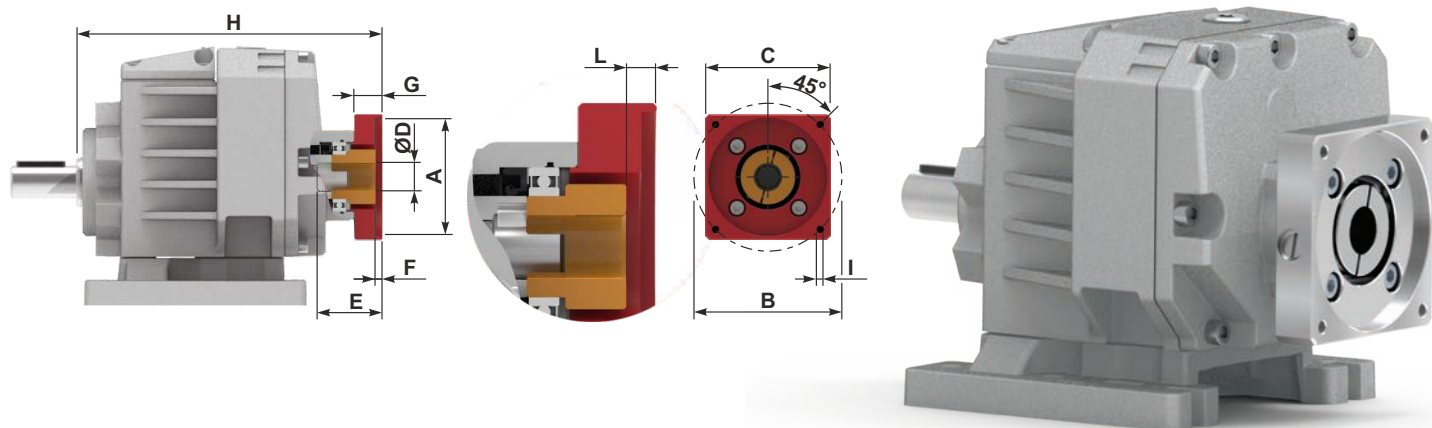


Reduction Bushing
Bussola di riduzione

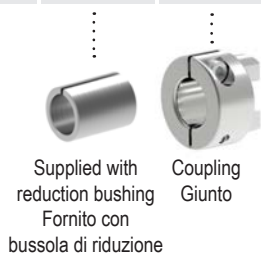
COAXIAL GEARBOXES

Flanges for servomotors - Flange per servomotori

Aluminum Coaxial-Gear

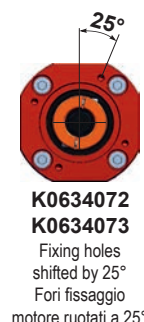
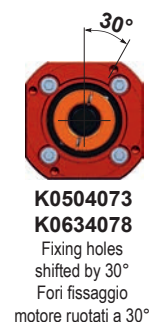
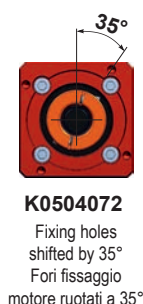


Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H			
413A 175Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	38	4.5	23	9	M5x12	190.5			
	BC	K0504072	-	KC355190L	Ø14	60	75	70	Ø14	38	4.5	23	9	M5x12	190.5			
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	38	4.5	23	9	M5x12	190.5			
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	38	4.5	23	9	M6x12	190.5			
412A 175Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	186.5	412A	513A	613A
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M5x12	186.5	243	260	
513A 360Nm	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	186.5	243	260	
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	186.5	243	260	
613A 530Nm	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	191.5	248	265	
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	186.5	243	260	
512A 360Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	9.5	M8x14	235.5	512A	612A	
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	13.5	M8x14	239.5	256		
612A 530Nm	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	9.5	M8x14	235.5	252		
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	4.5	26	9.5	M6x14	235.5	252		



Flanges for servomotors

Flange per servomotori



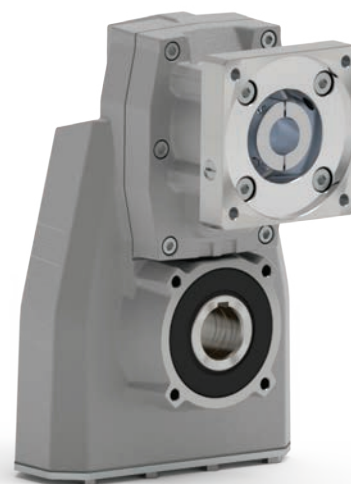
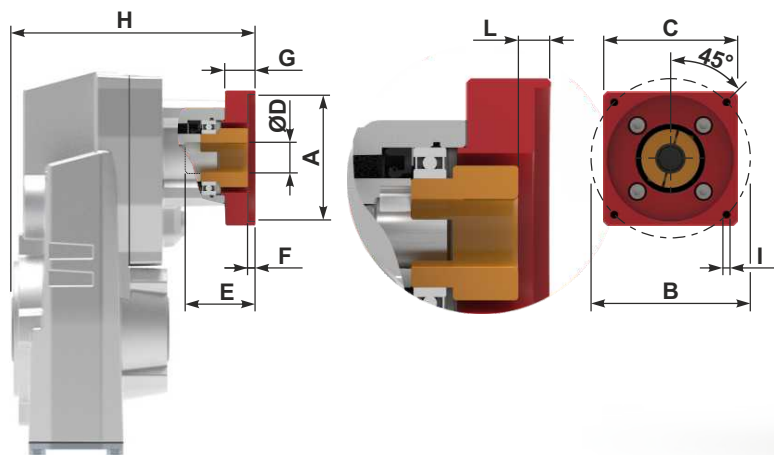
B

sotic
motor reduction gearbox

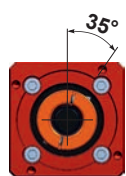
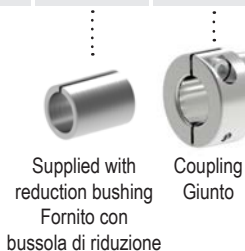
SHAFT MOUNTED GEARBOXES

Flanges for servomotors - Flange per servomotori

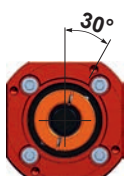
Aluminum **Compact-Gear**



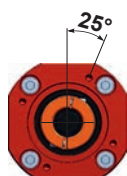
Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H		
															FA33	FA43	
FA33 150Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	38	4.5	23	9	M5x12	180	180	
	BC	K0504072	-	KC355190L	Ø14	60	75	70	Ø14	38	4.5	23	9	M5x12	180	180	
FA43 320Nm	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	38	4.5	23	9	M5x12	180	180	
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	38	4.5	23	9	M6x12	180	180	
FA32 150Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	FA32 174.5	FA42 174.5	FA53 244
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M5x12	174.5	174.5	244
FA42 320Nm	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	174.5	174.5	244
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	174.5	174.5	244
FA53 490Nm	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	179.5	179.5	249
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	174.5	174.5	244
FA52 490Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	9.5	M8x14	FA52 235		
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	13.5	M8x14	239		
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	9.5	M8x14	235		
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	4.5	26	9.5	M6x14	235		



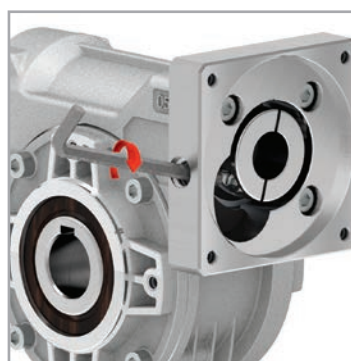
K0504072
Fixing holes shifted by 35°
Fori fissaggio motore ruotati a 35°



K0504073
K0634078
Fixing holes shifted by 30°
Fori fissaggio motore ruotati a 30°



K0634072
K0634073
Fixing holes shifted by 25°
Fori fissaggio motore ruotati a 25°

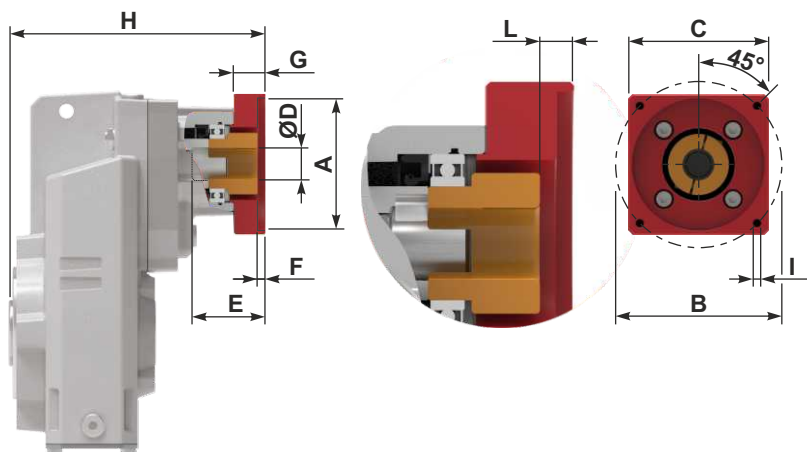


Coupling tightening
Serraggio del giunto

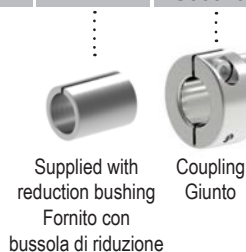
SHAFT MOUNTED GEARBOXES

Flanges for servomotors - Flange per servomotori

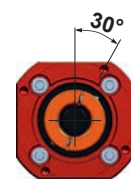
Cast Iron **Compact-Gear**



Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H	
FC63 675Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	51.5	4.5	21	9	M5x12	FC63 244	FC73 255.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	51.5	4.5	21	9	M5x12	244	255.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	51.5	4.5	21	9	M6x12	244	255.5
FC73 900Nm	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	51.5	4.5	21	9	M8x12	244	255.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	56.5	4.5	26	14	M8x14	249	260.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	51.5	4.5	21	9	M6x12	244	255.5
FC62 675Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	54	4.5	22	9.5	M8x14	FC62 235	FC72 246.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	58	5	26	13.5	M8x14	239	251.5
FC72 900Nm	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	54	5	22	9.5	M8x14	235	246.5
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	54	4.5	22	9.5	M6x14	235	246.5



Reduction
Bushing
Bussola di
riduzione



K0634078
Fixing holes
shifted by 30°
Fori fissaggio
motore ruotati a 30°



K0634072
K0634073
Fixing holes
shifted by 25°
Fori fissaggio
motore ruotati a 25°

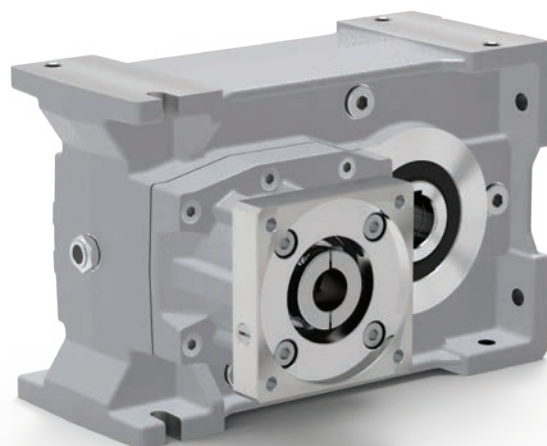
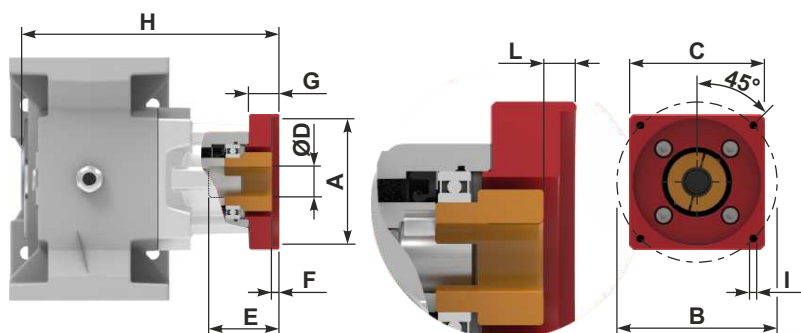
B

sotic
motor reduction gearbox

PARALLEL SHAFT GEARBOXES

Flanges for servomotors - Flange per servomotori

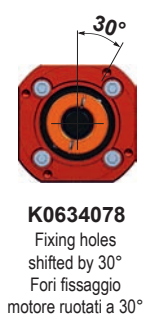
Cast Iron **Cube-Gear**



Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H	
H63C 675Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	H63C 244	H73C 255.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M5x12	244	255.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	244	255.5
H73C 900Nm	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	244	255.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	249	260.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	244	255.5
H62C 675Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	22	M8x14	H62C 235	H72C 246.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	26	M8x14	239	250.5
H72C 900Nm	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	22	M8x14	235	246.5
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	4.5	26	22	M6x14	235	246.5



B

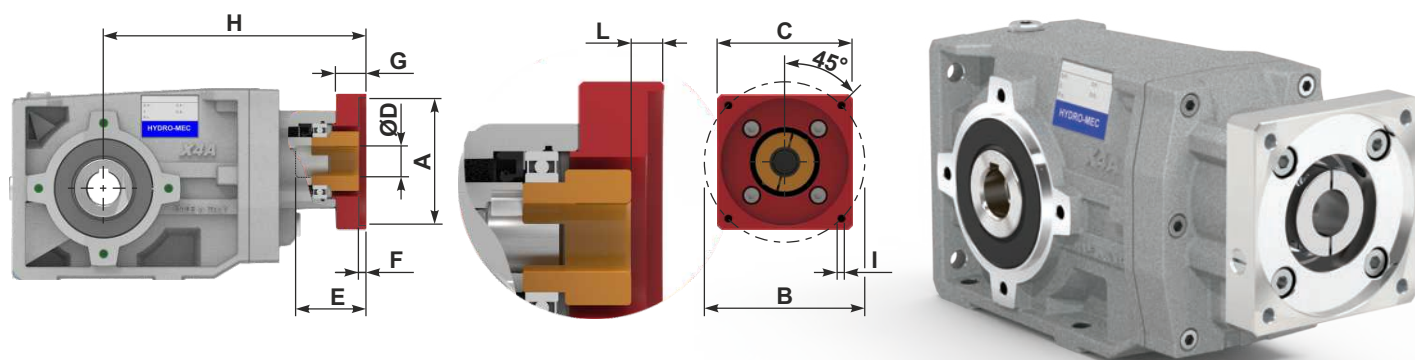


Flanges for servomotors
Flange per servomotori

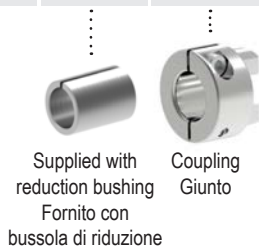
HELICAL-BEVEL GEARBOXES

Flanges for servomotors - Flange per servomotori

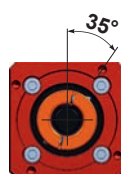
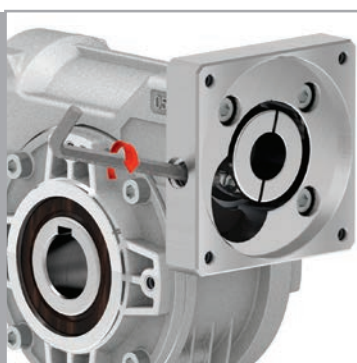
Aluminum Angletech-Gear



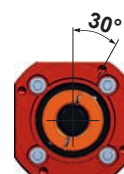
Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft ϕ	A	B	C	ϕD	E	F	G	L	I	H			
															X22S	X33S	X43A	
X22S 50Nm	BC	K0504072	KBR11/14G	KC355190L	$\phi 11$	60	75	70	$\phi 14$	38	4.5	23	9	M5x12	159.5	194.5	210	
X33S 100Nm	BC	K0504072	-	KC355190L	$\phi 14$	60	75	70	$\phi 14$	38	4.5	23	9	M5x12	159.5	194.5	210	
X43A 160Nm	BB	K0504073	-	KC355190L	$\phi 14$	50	70	70	$\phi 14$	38	4.5	23	9	M5x12	159.5	194.5	210	
	BE	K0504074	-	KC355190L	$\phi 14$	80	100	85	$\phi 14$	38	4.5	23	9	M6x12	159.5	194.5	210	
															X32S	X42A	X53A	X63A
X32S 90Nm	BC	K0634072	KBR14/22G	KC405190L	$\phi 14$	60	75	90	$\phi 22$	55.5	4.5	25	9	M5x12	189	204.5	251	270
X42A 150Nm	BB	K0634073	KBR14/22G	KC405190L	$\phi 14$	50	70	80	$\phi 22$	55.5	4.5	25	9	M5x12	189	204.5	251	270
X53A 250Nm	BE	K0634074	KBR14/22G	KC405190L	$\phi 14$	80	100	85	$\phi 22$	55.5	4.5	25	9	M6x12	189	204.5	251	270
X63A 410Nm	BF	K0634075	KBR19/22G	KC405190L	$\phi 19$	95	115	100	$\phi 22$	55.5	4.5	25	9	M8x12	189	204.5	251	270
	BG	K0634076	-	KC405190L	$\phi 22$	110	145	130	$\phi 22$	60.5	4.5	30	14	M8x14	194	209.5	256	275
	BD	K0634078	KBR19/22G	KC405190L	$\phi 19$	70	90	90	$\phi 22$	55.5	4.5	25	9	M6x12	189	204.5	251	270
															X52A	X62A		
X52A 250Nm	BF	K0854075	KBR19/24G	KC505190L	$\phi 19$	95	115	100	$\phi 24$	58	4.5	26	9.5	M8x14	242		261	
	BG	K0854076	KBR22/24G	KC505190L	$\phi 22$	110	145	130	$\phi 24$	62	5	30	13.5	M8x14	242		265	
X62A 410Nm	BH	K0854077	-	KC505190L	$\phi 24$	130	165	140	$\phi 24$	58	5	26	9.5	M8x14	242		261	
	BD	K0854078	KBR19/24G	KC505190L	$\phi 19$	70	90	95	$\phi 24$	58	4.5	26	9.5	M6x14	242		261	



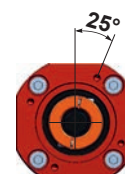
Coupling tightening
Serraggio del giunto



K0504072
Fixing holes shifted by 35°
Fori fissaggio motore ruotati a 35°



K0504073
K0634078
Fixing holes shifted by 30°
Fori fissaggio motore ruotati a 30°



K0634072
K0634073
Fixing holes shifted by 25°
Fori fissaggio motore ruotati a 25°

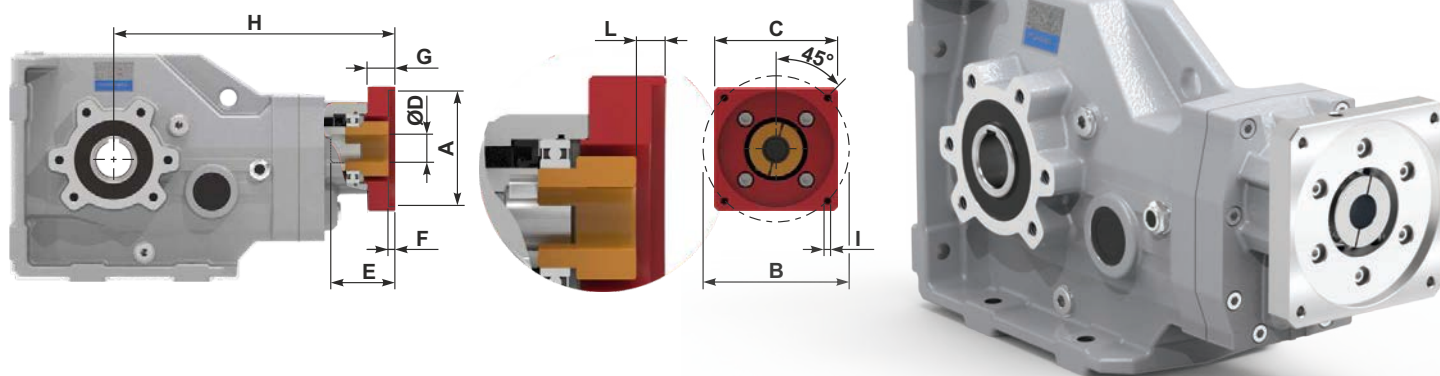
B

sohic
socio-robotica s.p.a. 1970/2002

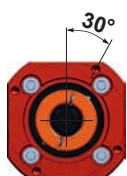
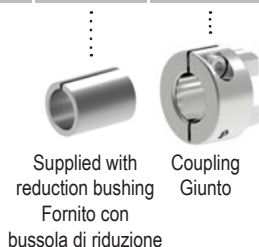
HELICAL-BEVEL GEARBOXES

Flanges for servomotors - Flange per servomotori

Cast Iron Angletech-Gear

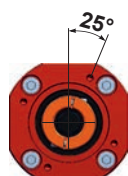


Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H			
X74C 100Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	X74C	X84C	114C	134C
X84C 160Nm	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M6x12	316	333	257.5	268
114C 250Nm	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	316	333	257.5	268
134C 410Nm	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	316	333	257.5	268
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	321	338	262.5	273
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	316	333	257.5	268
X73C 90Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	9.5	M8x14	X73C	X83C	113C	133C
X83C 150Nm	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	13.5	M8x14	307	324	244.5	259
113C 250Nm	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	9.5	M8x14	311	328	248.5	263
133C 410Nm	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	5	26	9.5	M6x14	307	324	248.5	259



K0504073
K0634078

Fixing holes shifted by 30°
Fori fissaggio motore ruotati a 30°



K0634072

Fixing holes shifted by 25°
Fori fissaggio motore ruotati a 25°



Coupling
Giunto

Available kits

Kit disponibili

Reduction bushings

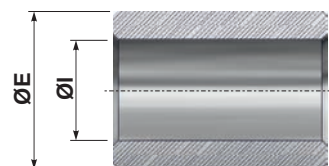
Bussole di riduzione



Reduction bushing dimensions

Dimensioni bussola di riduzione

ØI	ØE	Code
Ø9	Ø14	KBR09/14G
Ø11	Ø14	KBR11/14G
Ø11	Ø19	KBR11/19G
Ø14	Ø19	KBR14/19G
Ø14	Ø22	KBR14/22G
Ø19	Ø22	KBR19/22G
Ø19	Ø24	KBR19/24G
Ø22	Ø24	KBR22/24G



Couplings

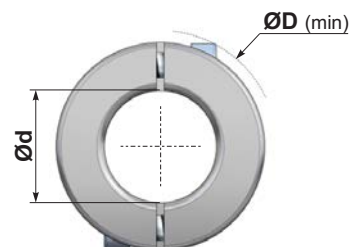
Giunti



Coupling dimensions

Dimensioni giunto

Ød	ØD (min)	Code
Ø9	Ø34	K0305190L
Ø14	Ø40	KC355190L
Ø19	Ø42	K0505190L
Ø22	Ø48	KC405190L
Ø24	Ø57	KC505190L



Flanges for servomotor

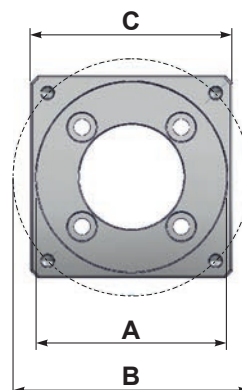
Flange per servomotore



Flange dimensions

Dimensioni flangia

Code Kit flange	A	B	C
K0304071	40	63	58
K0304072	60	75	70
K0304073	50	70	60
K0504072	60	75	70
K0504073	50	70	70
K0504074	80	100	85
K0504075	95	115	100
K0504078	70	90	80
K0634072	60	75	90
K0634073	50	70	80
K0634074	80	100	85
K0634075	95	115	100
K0634076	110	145	130
K0634078	70	90	90
K0854075	95	115	100
K0854076	110	145	130
K0854077	130	165	140
K0854078	70	90	95



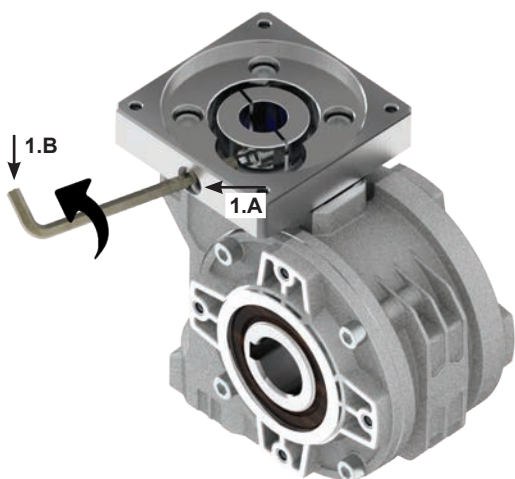
B

sotic
motor reduction system

Instructions for motor assembly

Istruzioni per il montaggio del motore

1



Remove the protection screws on the input flange.

Rimuovere le viti di protezione sulla flangia motore.

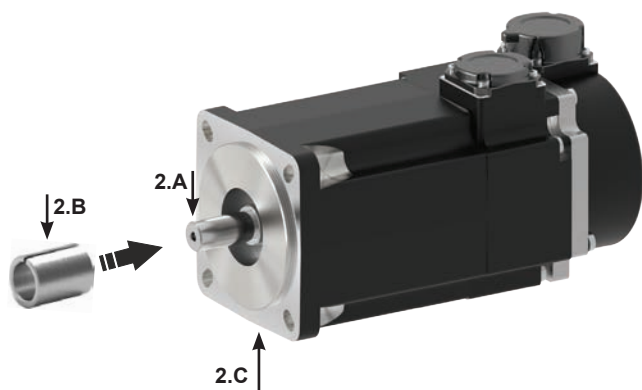


Loosen the fastening screws of the coupling.

Allentare le viti di serraggio del giunto.



2



Motor shaft without key.

Albero motore senza linguetta.



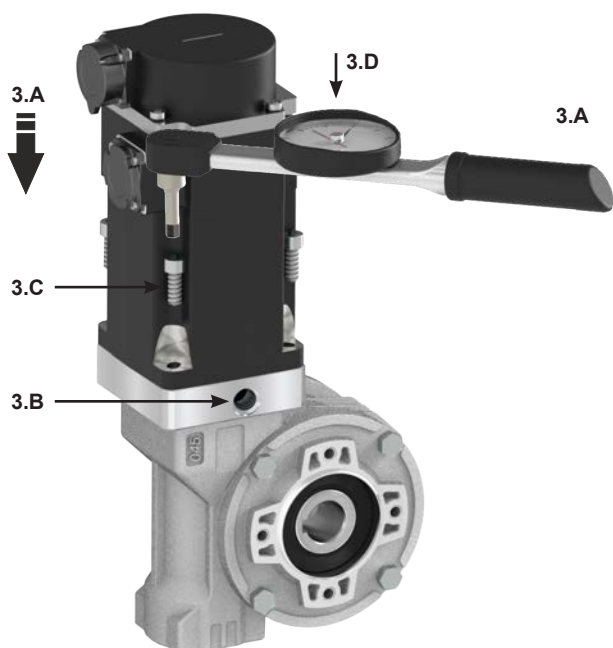
Only if used with reduction bushing.

Mount the reduction bushing with the rubber hammer.

Se prevista la bussola di riduzione. Utilizzare un martello di gomma per il montaggio.



3



Before mounting the motor, check aligned the screw is with the hole on the input motor flange.

Prima di montare il motore, assicurarsi che le viti del giunto sia allineata con il foro sulla flangia riduttore.



For fixing the motor, apply anti-loosening paste on screw thread, employ Arexons 52A70 strong thread lock or similar.

Per il fissaggio del motore, applicare un prodotto anti-svitamento sui filetti delle viti, utilizzare un frena filetto forte tipo Arexons 52A70 o similare.



Tighten the screws according to table torque values. Recommended the class screws 8.8.

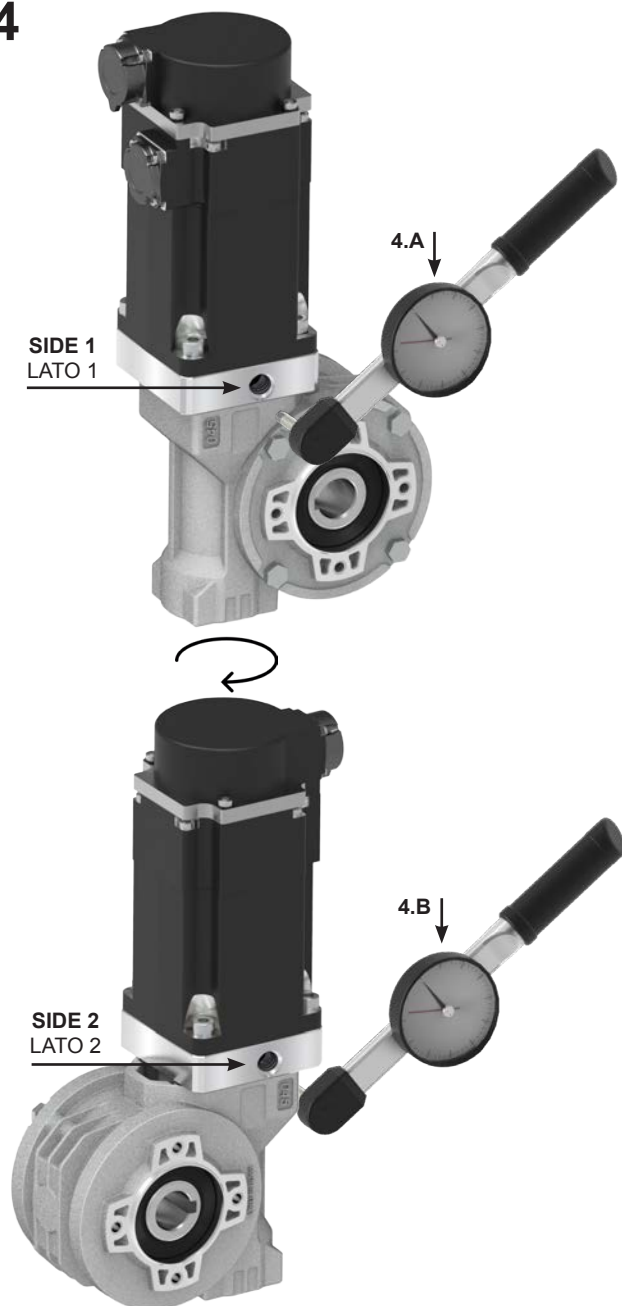
Serrare le viti in base ai valori in tabella. Consigliato le viti di classe 8.8.

Screw Vite	TS [Nm]
M4	3
M5	6
M6	10
M8	25
M10	45

Instructions for motor assembly

Istruzioni per il montaggio del motore

4



4.A

Tighten the screws (SC) according to the torque (TS) reported in the table.

(SC) Socked-head screw (Allen screw), class screws 8.8 .

Stringere le viti (SC) del giunto in base alla coppia di serraggio (TS) riportata nella tabella.

(SC) Vite a testa cilindrica esagono incassato (Brogola), classe 8.8 .

Coupling kit code	SC	TS [Nm]
K0305190L	M4x14	3.5
KC355190L	M4x14	3.5
K0505190L	M5x16	6
KC405190L	M5x16	6
KC505190L	M6x20	10



4.B

First tighten on side 1 and side 2, repeat the tightening a second round on both sides.

Stringere una prima volta sul lato 1 e sul lato 2, ripetere il serraggio una seconda volta su entrambi i lati.



CHECK

Exceeding the torque to fix the locking bolt can damage the coupling.

Il superamento della coppia di serraggio della vite di bloccaggio può danneggiare il dispositivo di accoppiamento



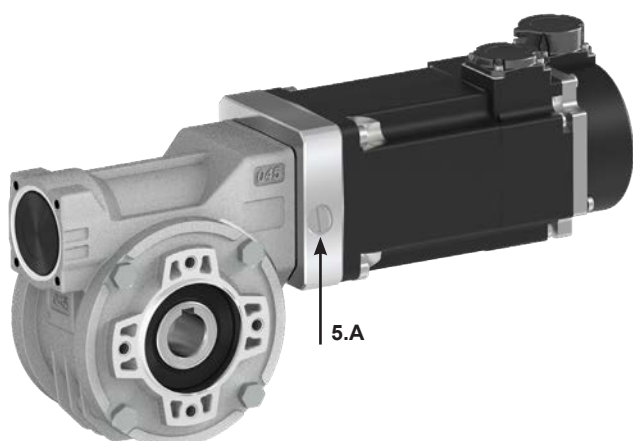
CHECK

5.A

Reset the protection screws.

Riposizionare le viti di protezione.

5



B

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