



REDUCTOR SINFIN CORONA INOX

Suministros Industriales del Tajo S.A.

C/ del Río Jarama 52 - 45007, Toledo - Spain

Tel.: 925 23 22 00 - Fax: 925 23 21 47

Email: sitasa@sitasa.com

www.sitasa.com

Stainless steel worm gearboxes

STANDARD FEATURES

Full Stainless Steel Housing

Special housing designed to keep adequate lubrication with low Oil q.ty to avoid internal pressures.

Flange

Fully modular to IEC B14 and Compact integrated motor. NEMA C flange

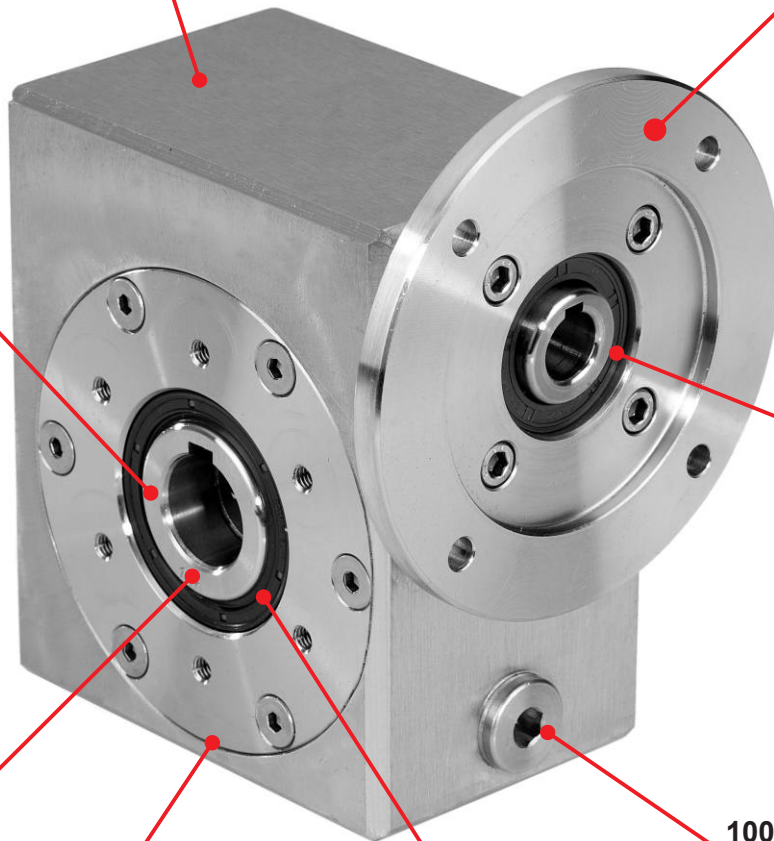
Options

Protective seals cup to stand high pressure cleaning for hollow or extended shaft version.

Output shaft interchangeable right or left hand output shafts available.

Second bearing

Standard second bearing on motor flange side and two oil seals with vertical motor position.



Stainless Steel Hollow shaft.

100 % Factory pressure leak test.

O-rings on all closing covers.

Output seals (FPM-fkm) with external dust protection lips.

Vent Free Design.

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

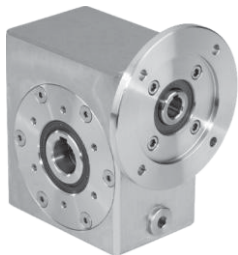
oil free



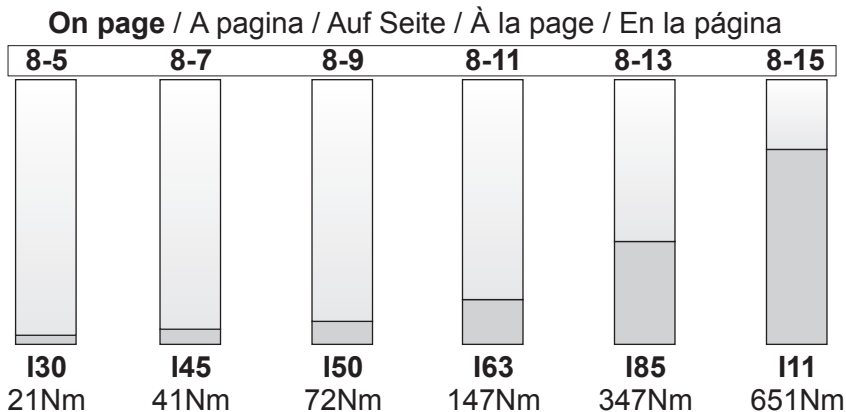
vent free



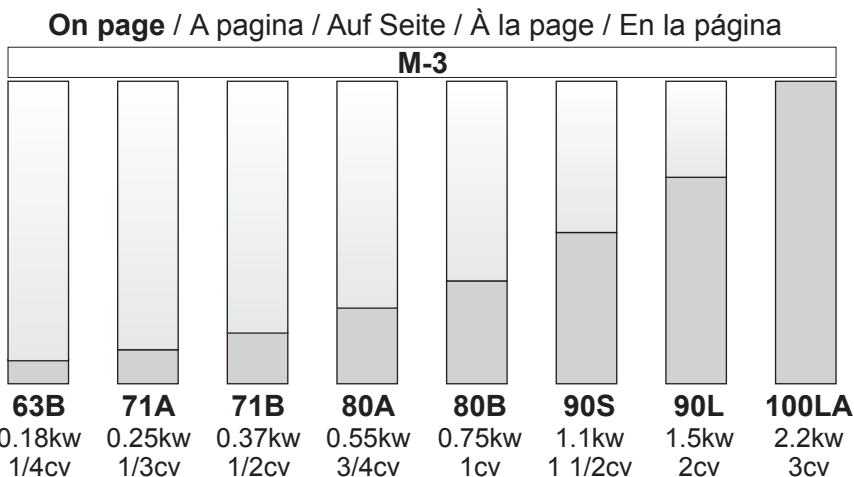
Specific type datasheet on page...




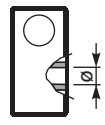
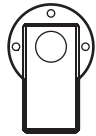
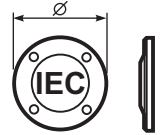
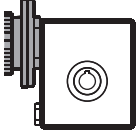
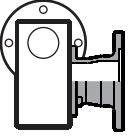

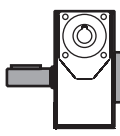
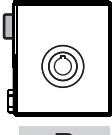
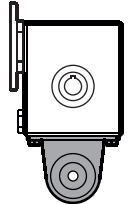
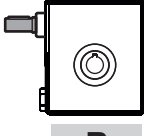
Types / Tipi /
Tipen / Types /
Tipos →



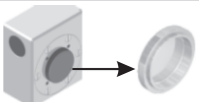
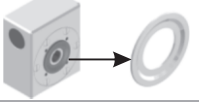
Types / Tipi /
Tipen / Types /
Tipos →



CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

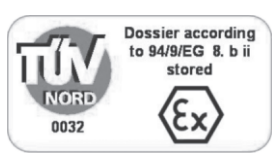
Type - Tipo - Typ Type - Tipo	Size - Grandezza Grösse - Taille Tamaño	Mounting - Montaggio Montage - Fixation Tipo de montaje	Ratio - Rapporto Untersetzung Reduction - Relación	Hub - Mozzo corona Hohlwelle - Arbre creux Nucleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje solida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor																																												
P	I45 130 145 150 163 185 111	 UN	<p>See technical data table</p> <p>Vedi tabella dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p>	 I STANDARD I30 ⇔ ø14 I45 ⇔ ø18 I50 ⇔ ø25 I63 ⇔ ø25 I85 ⇔ ø35 I11 ⇔ ø42	 S																																													
 M		 FL					 Z INCH I45 ⇔ ø0.750" I50 ⇔ ø1.000" I63 ⇔ ø1.125" I85 ⇔ ø1.500" I11 ⇔ ø2.000"	 S																																										
 B		 BR Full stainless steel Torque arm																																																
 R																																																		
						<table border="1"> <tr> <td>I30</td> <td>-O 56B14 (ø80)</td> <td>-P 63B14 (ø90)</td> <td>-W 56C (ø6.5")</td> </tr> <tr> <td>I45</td> <td>-P 63B14 (ø90)</td> <td>-Q 71B14 (ø105)</td> <td>-W 56C (ø6.5")</td> </tr> <tr> <td>I50</td> <td>-P 63B14 (ø90)</td> <td>-Q 71B14 (ø105)</td> <td>-R 80B14 (ø120)</td> </tr> <tr> <td></td> <td>-W 56C (ø6.5")</td> <td></td> <td></td> </tr> <tr> <td>I63</td> <td>-Q 71B14 (ø105)</td> <td>-R 80B14 (ø120)</td> <td>-T 90B14 (ø140)</td> </tr> <tr> <td></td> <td>-W 56C (ø6.5")</td> <td>-X 143/5TC (ø6.5")</td> <td></td> </tr> <tr> <td>I85</td> <td>-D 80B5 (ø200)</td> <td>-E 90B5 (ø200)</td> <td>-U 100-112B14 (ø160)</td> </tr> <tr> <td></td> <td>-W 56C (ø6.5")</td> <td>-X 143/5TC (ø6.5")</td> <td>-Y 182/4TC (ø8.88")</td> </tr> <tr> <td></td> <td></td> <td></td> <td>-Z 182/4TC (ø8.88")</td> </tr> <tr> <td>I11</td> <td>-D 80B5 (ø200)</td> <td>-E 90B5 (ø200)</td> <td>-U 100-112B14 (ø160)</td> </tr> <tr> <td></td> <td>-X 143/5TC (ø6.5")</td> <td>-Y 182/4TC (ø8.88")</td> <td>AA 213/5TC (ø8.88")</td> </tr> </table>	I30	-O 56B14 (ø80)	-P 63B14 (ø90)	-W 56C (ø6.5")	I45	-P 63B14 (ø90)	-Q 71B14 (ø105)	-W 56C (ø6.5")	I50	-P 63B14 (ø90)	-Q 71B14 (ø105)	-R 80B14 (ø120)		-W 56C (ø6.5")			I63	-Q 71B14 (ø105)	-R 80B14 (ø120)	-T 90B14 (ø140)		-W 56C (ø6.5")	-X 143/5TC (ø6.5")		I85	-D 80B5 (ø200)	-E 90B5 (ø200)	-U 100-112B14 (ø160)		-W 56C (ø6.5")	-X 143/5TC (ø6.5")	-Y 182/4TC (ø8.88")				-Z 182/4TC (ø8.88")	I11	-D 80B5 (ø200)	-E 90B5 (ø200)	-U 100-112B14 (ø160)		-X 143/5TC (ø6.5")	-Y 182/4TC (ø8.88")	AA 213/5TC (ø8.88")
I30	-O 56B14 (ø80)	-P 63B14 (ø90)	-W 56C (ø6.5")																																															
I45	-P 63B14 (ø90)	-Q 71B14 (ø105)	-W 56C (ø6.5")																																															
I50	-P 63B14 (ø90)	-Q 71B14 (ø105)	-R 80B14 (ø120)																																															
	-W 56C (ø6.5")																																																	
I63	-Q 71B14 (ø105)	-R 80B14 (ø120)	-T 90B14 (ø140)																																															
	-W 56C (ø6.5")	-X 143/5TC (ø6.5")																																																
I85	-D 80B5 (ø200)	-E 90B5 (ø200)	-U 100-112B14 (ø160)																																															
	-W 56C (ø6.5")	-X 143/5TC (ø6.5")	-Y 182/4TC (ø8.88")																																															
			-Z 182/4TC (ø8.88")																																															
I11	-D 80B5 (ø200)	-E 90B5 (ø200)	-U 100-112B14 (ø160)																																															
	-X 143/5TC (ø6.5")	-Y 182/4TC (ø8.88")	AA 213/5TC (ø8.88")																																															

On request

A	Protective seals cup CLOSE TYPE	
B	Protective seals cup OPEN TYPE	
C	Food lube	
D	Nema input flanges	

-M
without flange
Senza flangia

-O
Type R
Tipo R



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.

FORMULE UTILI / USEFUL FORMULAS / NÜTZLICHE FORMELIN / FORMULES UTILES / FÓRMULAS ÚTILES

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotation

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

Linear movement / traslazione / linearbewegung / translation / translacion

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

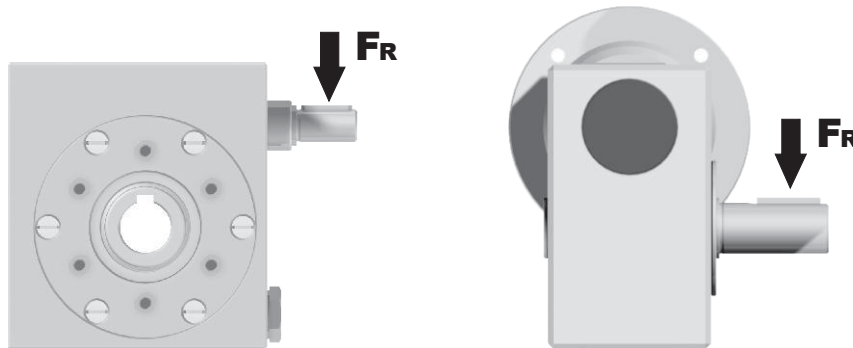
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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



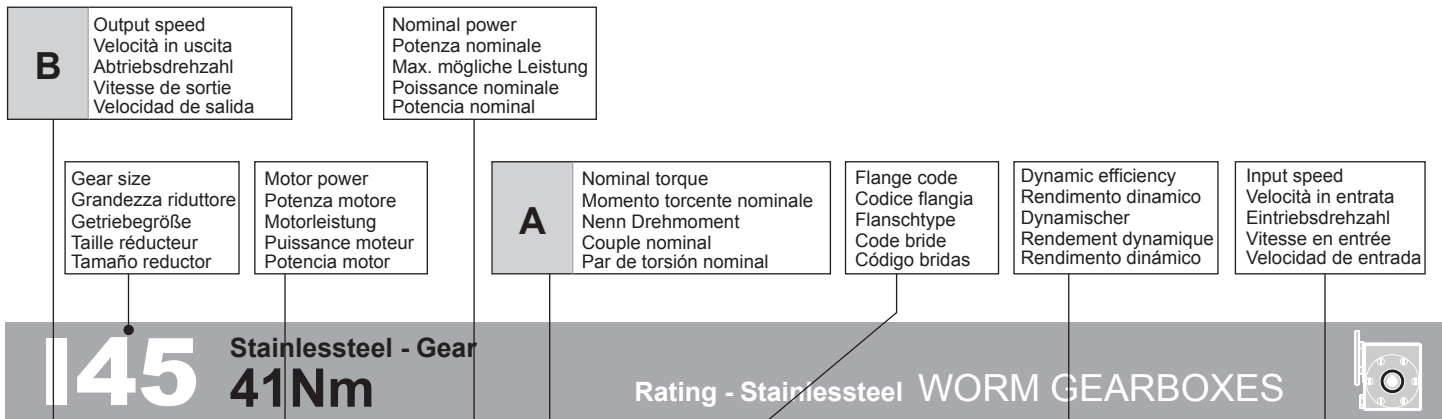
$$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$$

$$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$$

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 sprochets / Antriebskette / Chaîne / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana

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

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



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]	B5 motor flanges not available		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-P	-Q			
200	7	0.37	14	2.2	0.80	30	-	-	63	71	80	2.2	01
140	10	0.37	20	1.5	0.57	30	-	-	B-C	B-C	79	2.2	02
100	14	0.37	27	1.1	0.41	30	-	-	B-C	B-C	77	2.4	03



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

D	Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles	
B)	Mounting with reduction ring Montaggio con boccolla 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/-socket Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor	
B)	Available without reduction bushes Disponibile anche senza boccolla 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]	B5 motor flanges not available		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-O	-P			
280	5	0.18	5	3.3	0.60	17	-	-	56	63	82	1.26	01
200	7	0.18	7	2.4	0.44	17	-	-	B-C	B-C	80	1.44	02
140	10	0.18	10	1.8	0.32	17	-	-	B-C	B-C	78	1.44	03
93	15	0.18	13	1.4	0.25	19	-	-	B-C	B-C	73	1.44	04
70	20	0.18	17	1.1	0.20	19	-	-	B-C	B-C	70	1.09	05
47	30	0.12	15	1.4	0.17	21	-	-	B-C	B-C	62	1.44	06
35	40	0.12	19	1.1	0.13	20	-	-	B-C	B-C	57	1.09	07
23	61	0.09	19	1.1	0.10	20	-	-	B-C	B-C	50	0.72	08
17.5	80	0.09	16	1.0	0.06	16	-	-	B-C	B-C	48	0.56	09

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di 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 I30 is supplied with synthetic oil, providing "long life" lubrication.
See 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 I30 viene fornito lubrificato a vita con olio sintetico.
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 I30 mit synthetischem Öl befüllt.
In Tabelle 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 I30 est fourni lubrifié à vie avec de l'huile synthétique.
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 I30 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.

LUBRICATION I30 Oil Quantity 0.06 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website

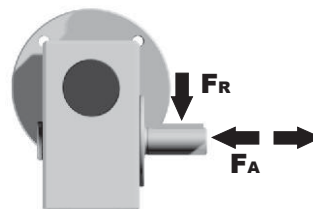
tab. 1

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

RADIAL AND AXIAL LOADS

Output shaft

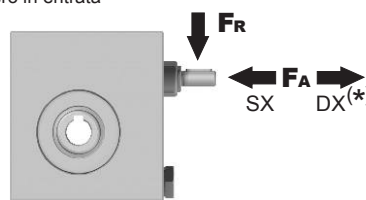
Albero di uscita



n_2 [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

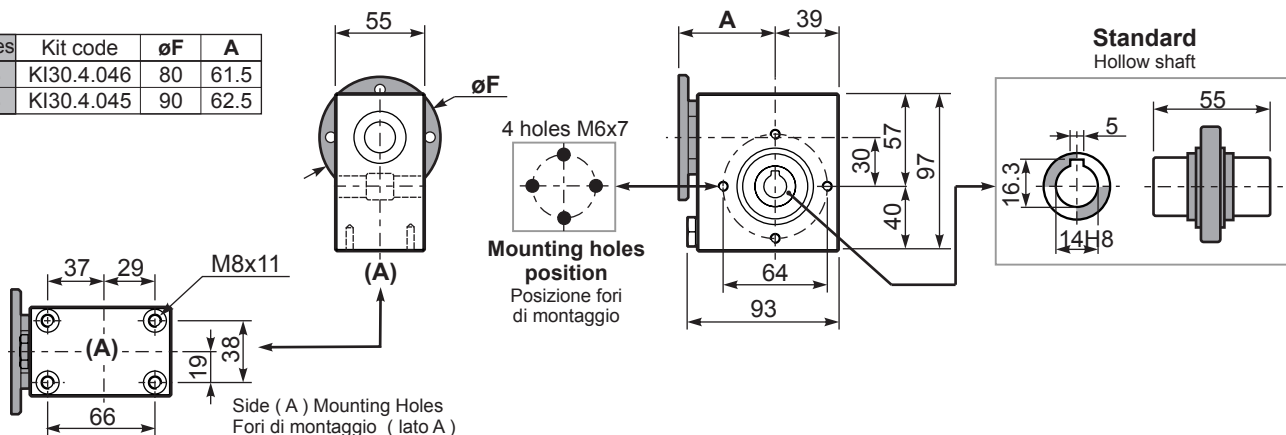
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

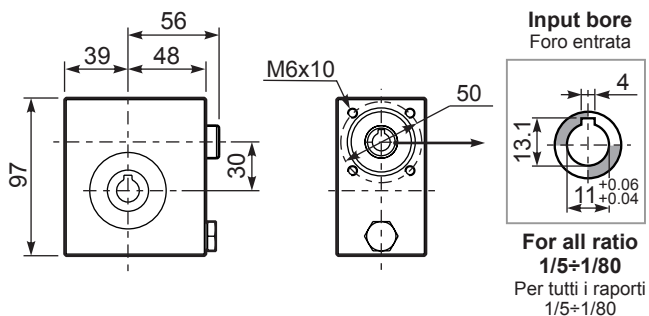
Gearbox weight
peso riduttore **2.5 kg**

PI30UN... Basic wormbox
Riduttore base

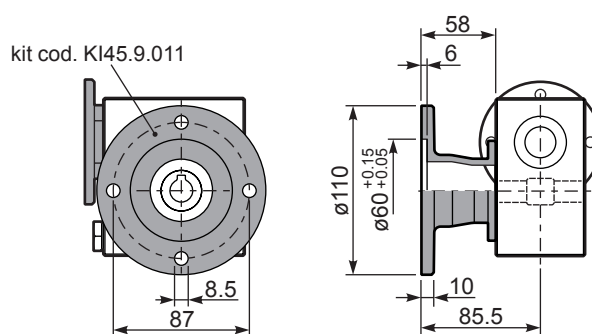
M. flanges	Kit code	øF	A
56B14	KI30.4.046	80	61.5
63B14	KI30.4.045	90	62.5



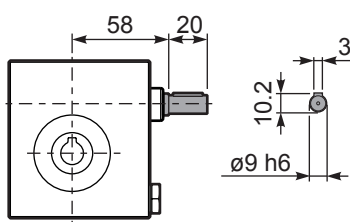
BI30UN... Modular base
Base modulare



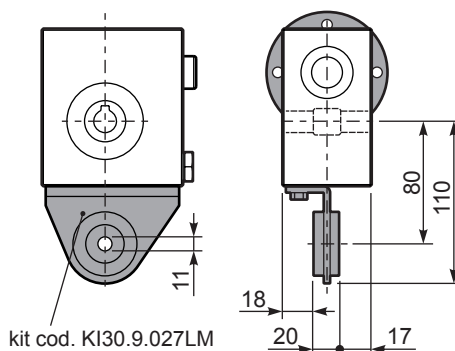
PI30FL... Output flange
Flangia uscita



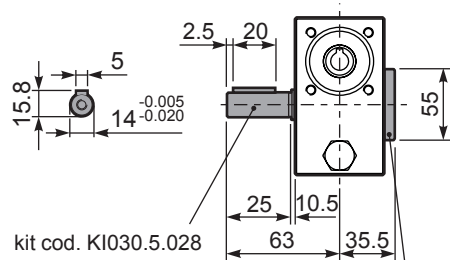
RI30UN... Input shaft
Albero in entrata



PI30BR... Reaction arm
Braccio di reazione



PI30.....S... Single Shaft
Albero lento semplice



kit cod. KI45.0.209
Protection cup (on request)
A richiesta coperchio di protezione


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 not available		Available B14 motor flanges		Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-P	-Q			
200	7	0.37	14	2.2	0.80	30	-	-	B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30	-	-	B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30	-	-	B-C		77	2.4	03
67	21	0.37	36	1.2	0.43	41	-	-	B-C		67	1.6	04
50	28	0.25	31	1.3	0.33	41	-	-	B-C		65	2.5	05
38	37	0.25	40	1.0	0.26	41	-	-	B-C		63	1.8	06
30	46	0.25	46	0.9	0.22	41	-	-	B-C		59	1.5	07
23	60	0.18	41	1.0	0.18	41	-	-	B-C		56	1.2	08
20	70	0.12	31	1.0	0.12	30	-	-	B-C		54	1.0	09
13.7	102	0.12	41	0.7	0.09	29	-	-	B-C		49	0.72	10

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available Flange Motore Disponibili
 B) Supplied with Reduction Bushing Fornito con Bussola di 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 I45 is supplied with synthetic oil, providing "long life" lubrication..
See 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 I45 viene fornito lubrificato a vita con olio sintetico.
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 I45 mit synthetischem Öl befüllt.
In Tabelle 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 I45 est fourni lubrifié à vie avec de l'huile synthétique.
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 I45 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.

Standard	On request				
0.15 LT	0.15 LT	0.20 LT	0.15 LT	0.15 LT	0.15 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

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

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

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 di entrata

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

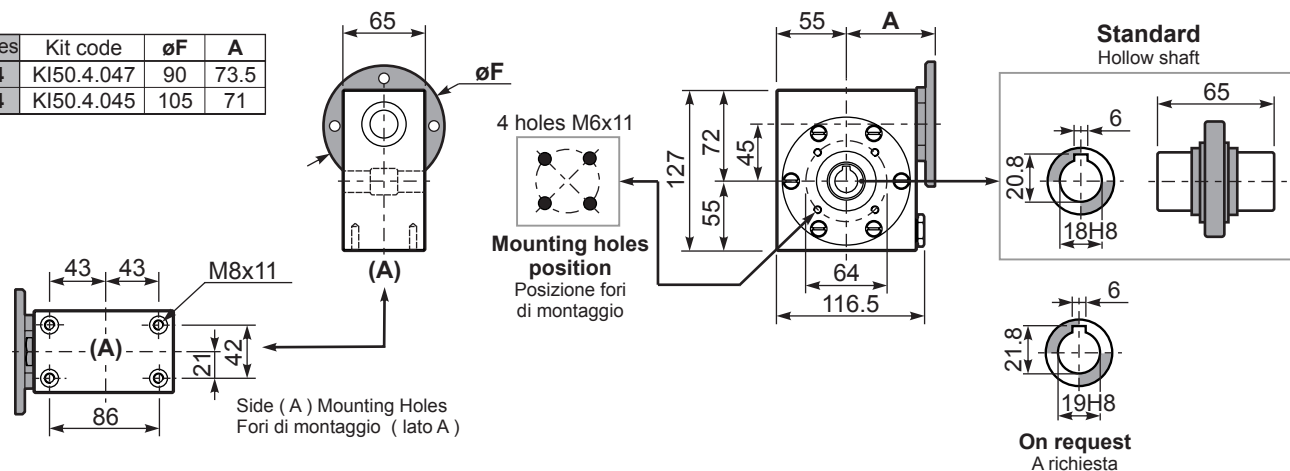
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

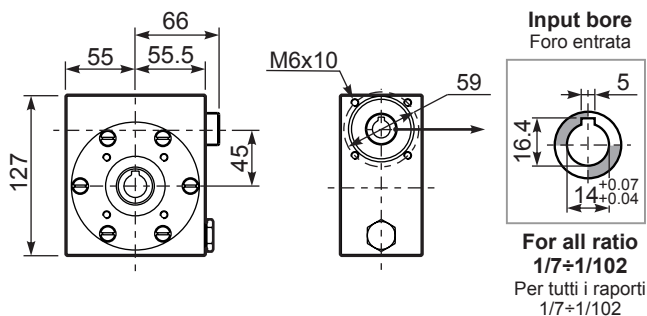
Gearbox weight
peso reductore **5.0 kg**

PI45**UN**... Basic wormbox
Riduttore base

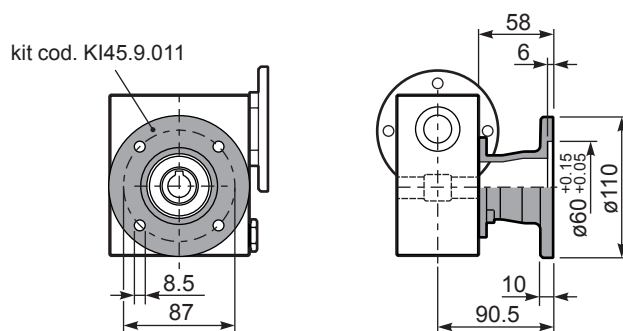
M. flanges	Kit code	øF	A
63B14	KI50.4.047	90	73.5
71B14	KI50.4.045	105	71



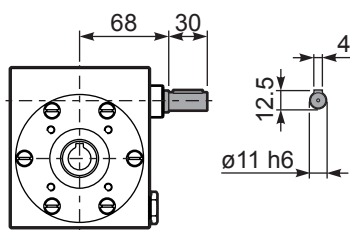
BI45UN... Modular base
Base modulare



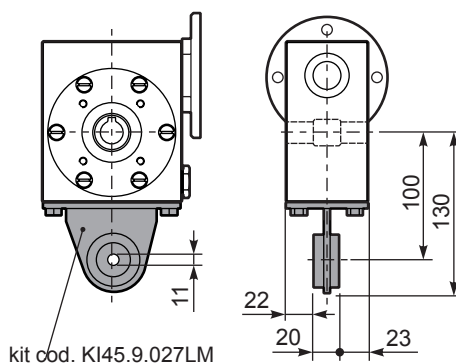
PI45FL... Output flange
Flangia uscita



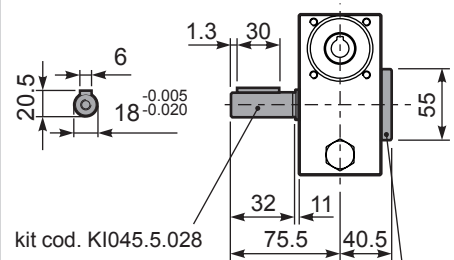
RI45UN... Input shaft
Albero in entrata



PI45BR... Reaction arm
Braccio di reazione



PI45....S... Single Shaft
Albero lento semplice



kit cod. KI45.0.209
Protection cup (on request)
A richiesta coperchio di protezione



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 not available		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-P	-Q	-R			
200	7	0.75	29	1.9	1.5	57	-	-	B-C	B		82	2.5	01
140	10	0.75	41	1.5	1.1	62	-	-	B-C	B		80	2.4	02
100	14	0.75	57	1.2	0.90	68	-	-	B-C	B		79	2.6	03
78	18	0.55	51	1.2	0.67	62	-	-	B-C	B		75	2.0	04
54	26	0.55	67	1.0	0.54	66	-	-	B-C	B		69	2.7	05
47	30	0.55	79	0.9	0.50	72	-	-	B-C	B		70	2.5	12
39	36	0.37	63	1.2	0.43	72	-	-	B-C	B		69	2.1	06
33	43	0.37	72	1.0	0.35	68	-	-	B-C	B		66	1.8	07
23	60	0.25	59	1.0	0.26	62	-	-	B-C	B		58	1.3	08
21	68	0.25	66	0.9	0.22	58	-	-	B-C	B		57	1.2	09
17.5	80	0.18	53	1.1	0.19	57	-	-	B-C	B		54	1.0	10
14	100	0.12	41	1.3	0.15	51	-	-	B-C	B		50	0.8	11

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di 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 **150** is supplied with synthetic oil, providing "long life" lubrication.
See 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 **150** viene fornito lubrificato a vita con olio sintetico.
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 **150** mit synthetischem Öl befüllt.
In Tabelle 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 **150** est fourni lubrifié à vie avec de l'huile synthétique.
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 **150** 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.

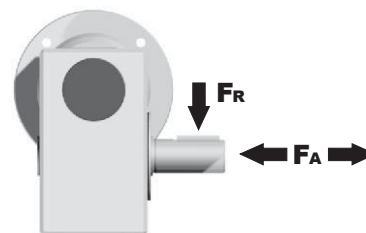
Standard	On request				
0.22 LT	0.22 LT	0.28 LT	0.22 LT	0.22 LT	0.22 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

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

RADIAL AND AXIAL LOADS

Output shaft

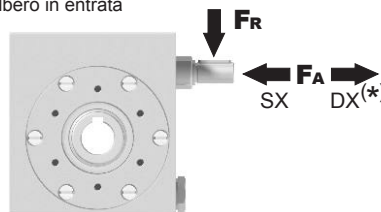
Albero di uscita



n_2 [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

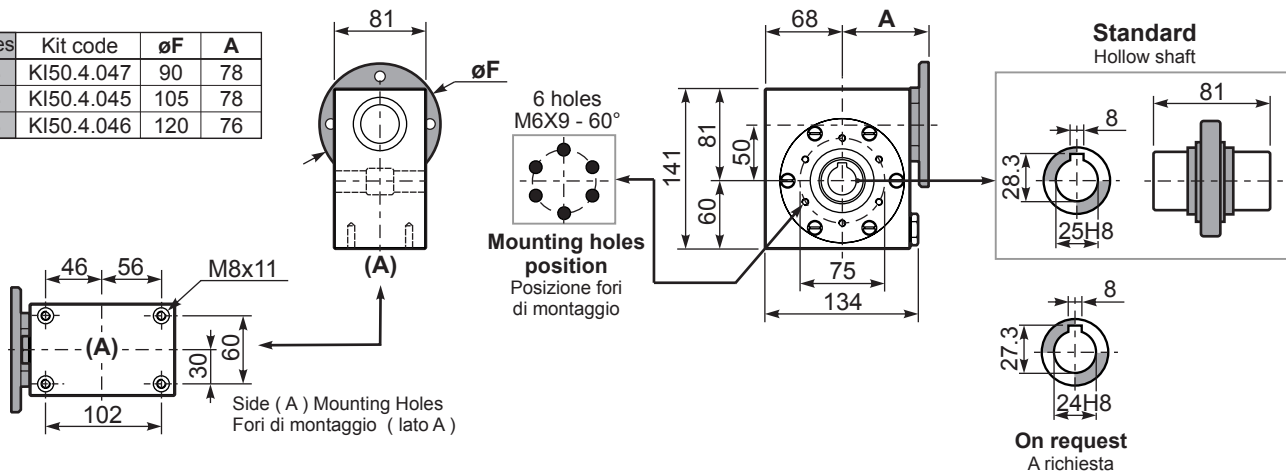
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

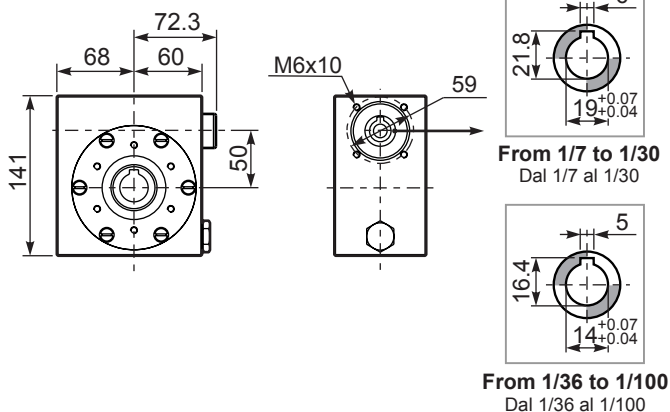
Gearbox weight
peso riduttore **7.3 kg**

PI50UN... Basic wormbox
Riduttore base

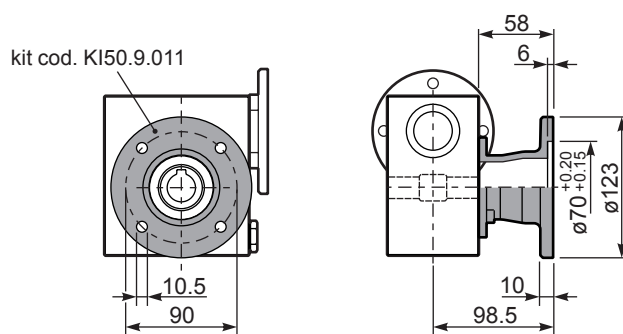
M. flanges	Kit code	øF	A
63B14	KI50.4.047	90	78
71B14	KI50.4.045	105	78
80B14	KI50.4.046	120	76



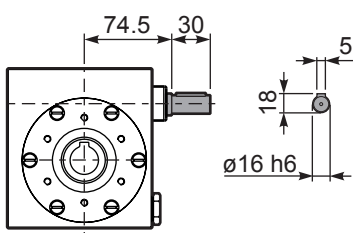
BI50UN... Modular base
Base modulare



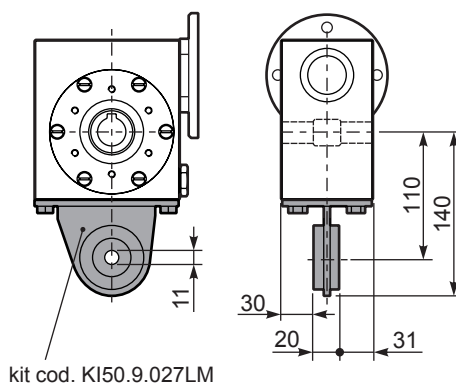
PI50FL... Output flange
Flangia uscita



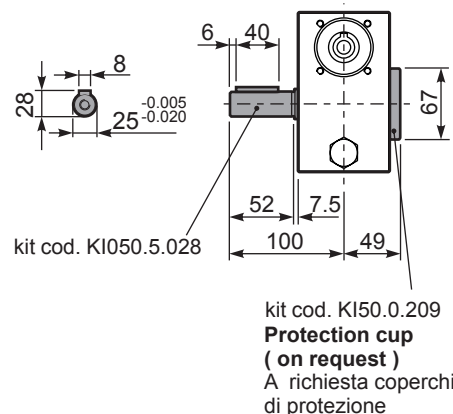
RI50UN... Input shaft
Albero in entrata



PI50BR... Reaction arm
Braccio di reazione



PI50.....S... Single Shaft
Albero lento semplice





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]	B5 motor flanges not available		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-	-	-Q	-R	-T			
200	7	1.8	71	1.8	3.2	125			B-C	B-C		83	3.1	01
140	10	1.8	99	1.4	2.4	134			B-C	B-C		81	3.1	02
93	15	1.5	121	1.1	1.7	138			B-C	B-C		79	3.1	03
74	19	1.1	111	1.2	1.4	138			B-C	B-C		78	2.6	04
58	24	1.1	135	1.0	1.2	142			B-C	B-C		75	2.0	05
47	30	1.1	167	0.9	0.96	146			B-C	B-C		74	3.2	06
39	36	0.75	125	1.2	0.88	147			B-C	B-C		68	2.7	07
31	45	0.55	111	1.2	0.67	135			B-C	C		66	2.1	08
23	60	0.55	140	0.9	0.51	130			B-C	C		62	1.6	12
21	67	0.55	151	0.8	0.45	124			B-C	C		60	1.5	09
17.5	80	0.37	115	1.0	0.38	119			B-C	C		57	1.3	10
14.9	94	0.37	123	1.0	0.36	119			B-C	C		52	1.1	11

* The nominal power should be reduced if the ambient temperature is ≥ 30°C, or when a cooler gearbox is required.
* Diminuire la potenza nominale in caso di temperatura ambiente ≥ 30°C o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available Flange Motore Disponibili
 B) Supplied with Reduction Bushing Fornito con Bussola di 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 I63 is supplied with synthetic oil, providing "long life" lubrication. See 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 I63 viene fornito lubrificato a vita con olio sintetico. 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 I63 mit synthetischem Öl befüllt. In Tabelle 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 I63 est fourni lubrifié à vie avec de l'huile synthétique. 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 I63 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.

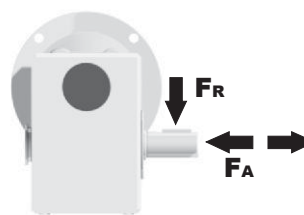
Standard	On request				
B3	B6	B7	B8	V5	V6
0.60 LT	0.60 LT	0.82 LT	0.60 LT	0.60 LT	0.60 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

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

RADIAL AND AXIAL LOADS

Output shaft

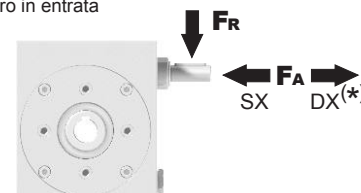
Albero di uscita



n ₂	FA	FR
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

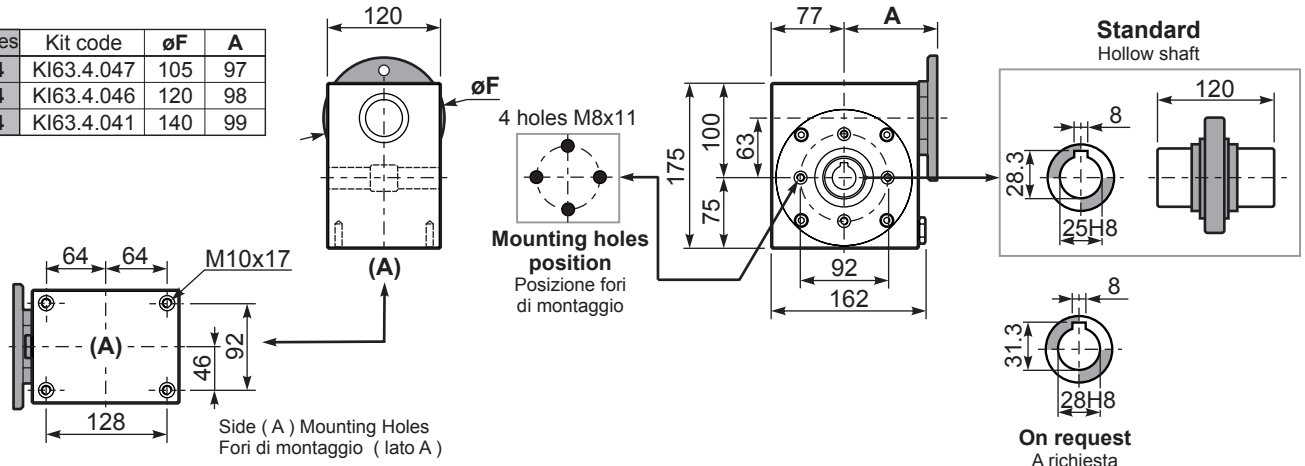
tab. 2

3D dimensions on the Web

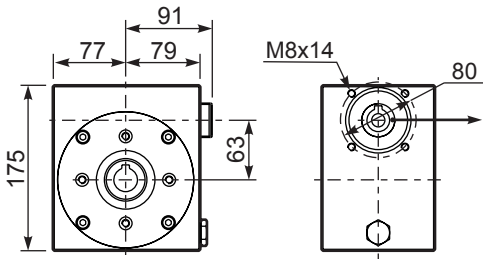
Gearbox weight
peso riduttore **14.6 kg**

PI63UN... Basic wormbox
Riduttore base

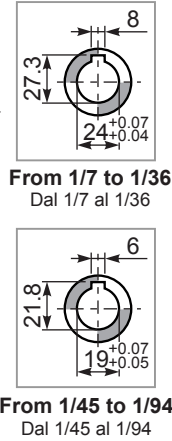
M. flanges	Kit code	øF	A
71B14	KI63.4.047	105	97
80B14	KI63.4.046	120	98
90B14	KI63.4.041	140	99



BI63UN... Modular base
Base modulare

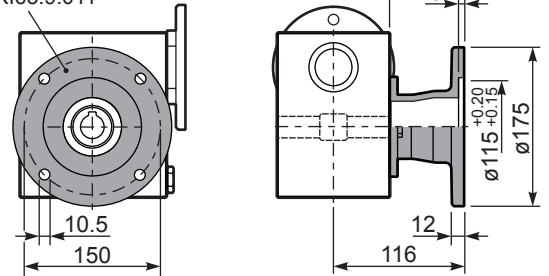


Input bore
Foro entrata

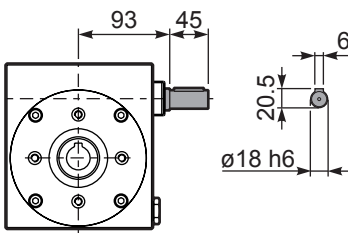


PI63FL... Output flange
Flangia uscita

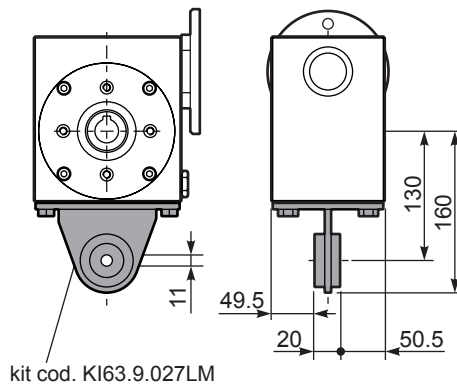
kit cod. KI63.9.011



RI63UN... Input shaft
Albero in entrata

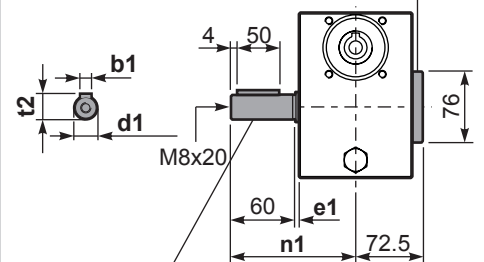


PI63BR... Reaction arm
Braccio di reazione



PI63...S... Single Shaft
Albero lento semplice

kit cod. KI63.0.209
Protection cup (on request)
A richiesta coperchio di protezione



kit cod. KI063.5.028
kit cod. KI070.5.028 On request

	b1	e1	d1	n1	t2
Standard	8	3.2	25 ^{-0.005/-0.020}	121.9	28
On request	8	3.5	28 ^{-0.005/-0.020}	122.2	31


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
							-D	-E	-U			
200	7	4.0	168	1.5	6.1	257	B	B		88	4.23	01
140	10	4.0	218	1.3	5.2	284	B	B		80	4.2	02
100	14	3.0	223	1.4	4.1	305	B	B		78	4.5	03
70	20	2.2	237	1.2	2.7	294	B	B		79	3.4	04
64	22	2.2	258	1.1	2.5	294	B	B		78	3.1	05
50	28	2.2	315	1.1	2.4	347	B	B		75	4.7	06
37	38	1.5	276	1.2	1.8	336	B	B		71	3.5	07
30	46	1.5	320	1.0	1.5	326	B	B		68	3.1	08
27	52	1.1	258	1.1	1.2	289	B	B		66	2.7	09
21	67	1.1	327	0.9	0.97	289	B	B		65	2.1	10
18.9	74	0.75	220	1.2	0.91	268	B	B		58	1.9	11
14.6	96	0.55	191	1.3	0.70	242	B	B		53	1.5	12

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di 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 **185** is supplied with synthetic oil, providing "long life" lubrication.
See 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 **185** viene fornito lubrificato a vita con olio sintetico.
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 **185** mit synthetischem Öl befüllt.
In Tabelle 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 **185** est fourni lubrifié à vie avec de l'huile synthétique.
Voir tableau 1 concernant les huiles et les quantités conseillées.
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

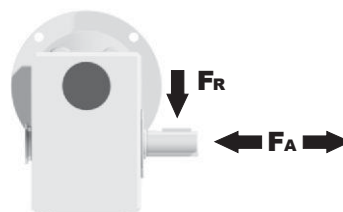
E El reductor tamaño **185** se suministra, lubricado de por vida con aceite sintético.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard			On request		
1.40 LT	1.40 LT	1.70LT	1.40 LT	1.40 LT	1.40 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

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

RADIAL AND AXIAL LOADS
Output shaft

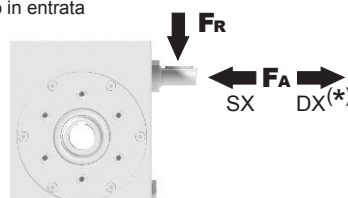
Albero di uscita



n_2 [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	160	809

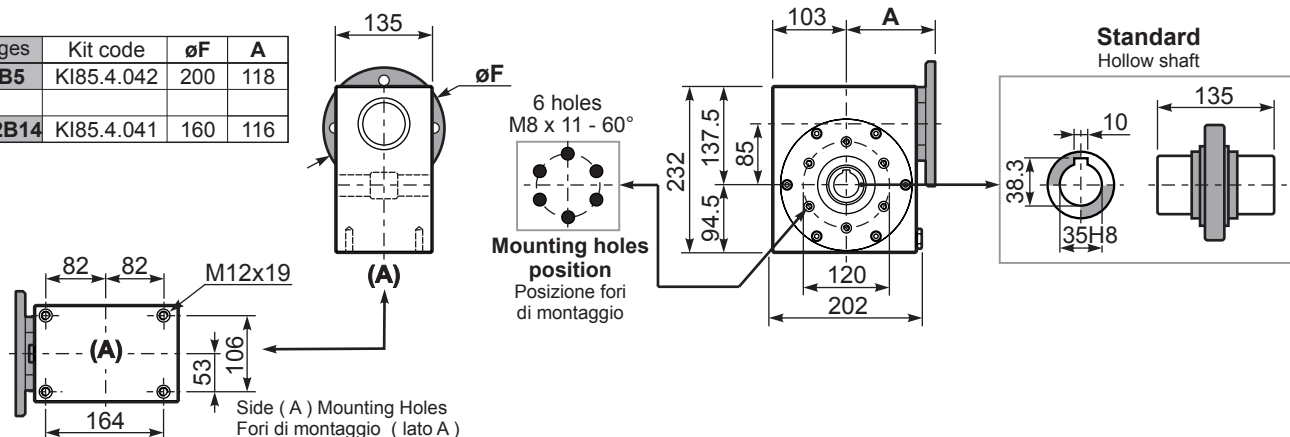
*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

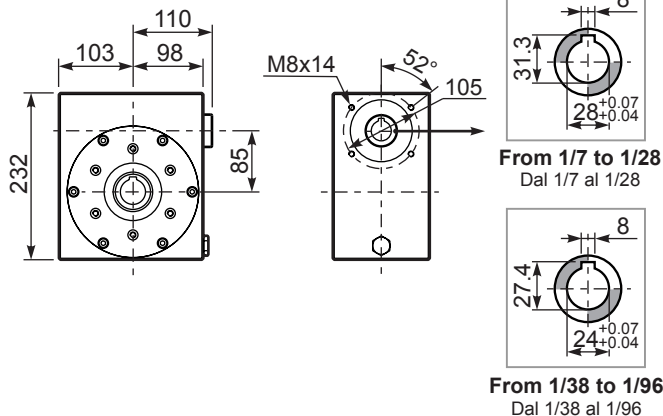
Gearbox weight
peso riduttore **23.3 kg**

PI85UN... Basic wormbox
Riduttore base

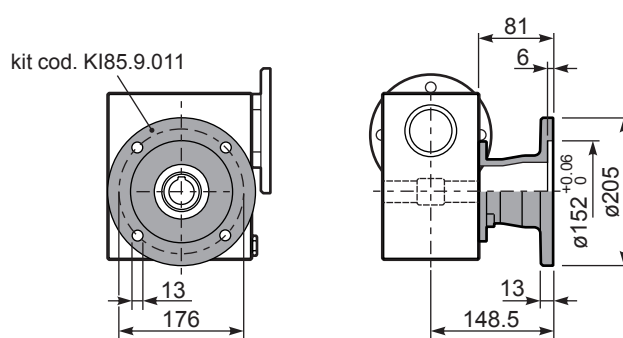
M. flanges	Kit code	øF	A
80-90B5	KI85.4.042	200	118
100-112B14	KI85.4.041	160	116



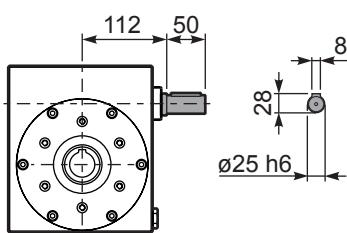
BI85UN... Modular base
Base modulare



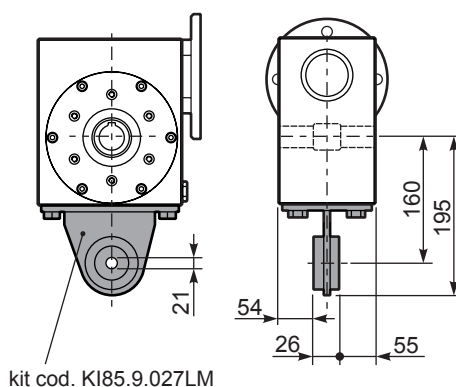
PI85FL... Output flange
Flangia uscita



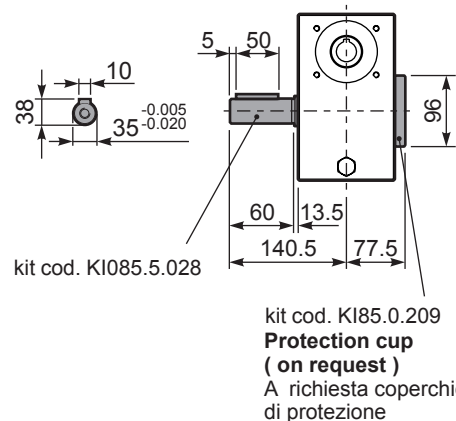
RI85UN... Input shaft
Albero in entrata



PI85BR... Reaction arm
Braccio di reazione



PI85.....S... Single Shaft
Albero lento 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	Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-D	-E	-U			
200	7	4.0	168	2.9	11.5	483	B	B		88	5.5	01
140	10	4.0	235	2.2	9.0	525	B	B		86	5.4	02
88	16	4.0	358	1.5	6.0	536	B	B		82	5.3	03
70	20	4.0	447	1.2	4.9	546	B	B		82	4.5	04
61	23	3.0	377	1.4	4.1	515	B	B		80	3.9	05
47	30	3.0	467	1.4	4.2	651	B	B		76	5.6	06
37	38	3.0	583	1.1	3.3	641	B	B		75	4.7	07
31	45	2.2	493	1.2	2.7	599	B	B		73	4.0	08
26	53	2.2	557	1.1	2.5	620	B	B		70	3.5	09
22	64	1.5	452	1.2	1.8	536	B			69	2.9	10
16.7	84	1.1	410	1.2	1.3	494	B			65	2.2	11
14.1	99	1.1	446	1.1	1.2	483	B			60	1.9	12

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

* Diminuire la potenza nominale in caso di temperatura ambiente $\geq 30^\circ\text{C}$ o se è richiesta una bassa temperatura di utilizzo del riduttore.

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di 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 I11 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 I11 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 I11 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 I11 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 I11 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.

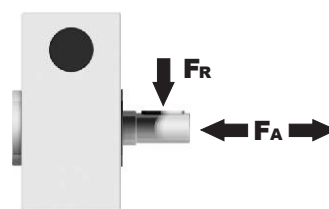
Standard	On request				
3.50 LT	2.50 LT	2.50 LT	2.10 LT	1.60 LT	1.60 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

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

RADIAL AND AXIAL LOADS

Output shaft

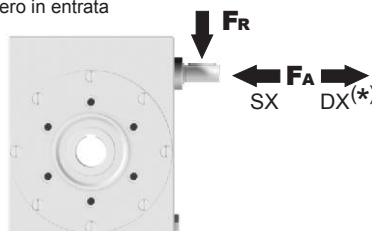
Albero di uscita



n_2 [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

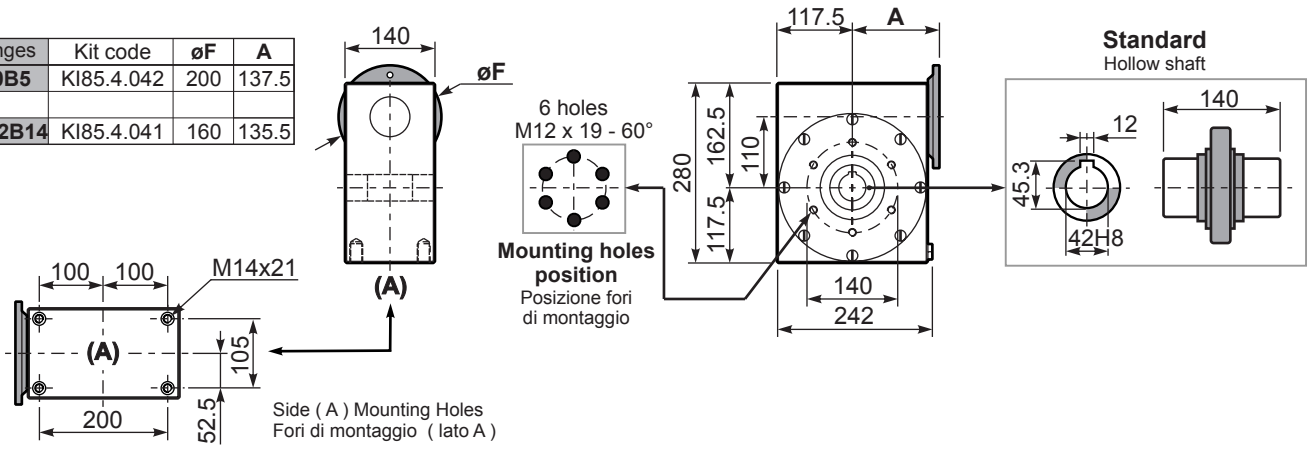
tab. 2

3D dimensions on the Web

Gearbox weight
peso reductore **38.5 kg**

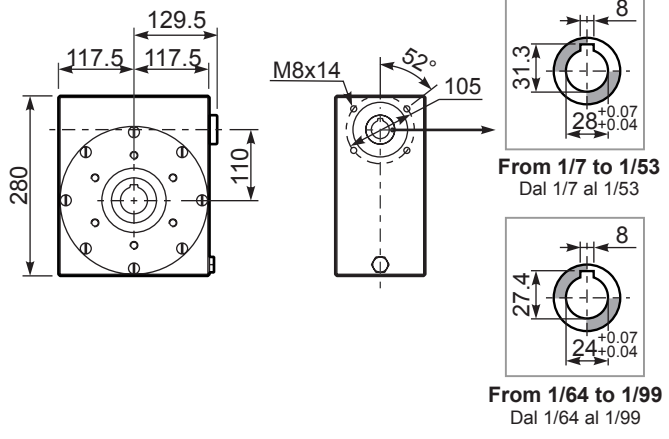
PI11UN... Basic wormbox
Reduttore base

M. flanges	Kit code	øF	A
80-90B5	KI85.4.042	200	137.5
100-112B14	KI85.4.041	160	135.5

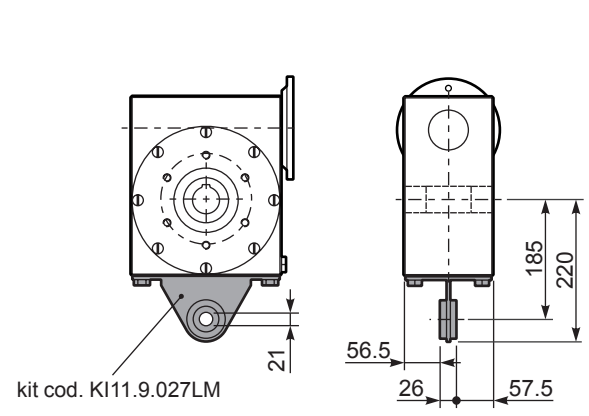


Side (A) Mounting Holes
Fori di montaggio (lato A)

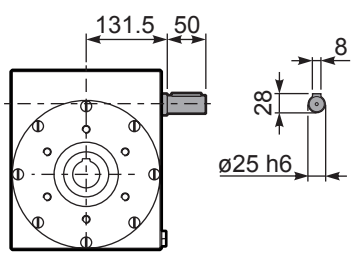
B111UN... Modular base
Base modulare



PI11BR... Reaction arm
Braccio di reazione

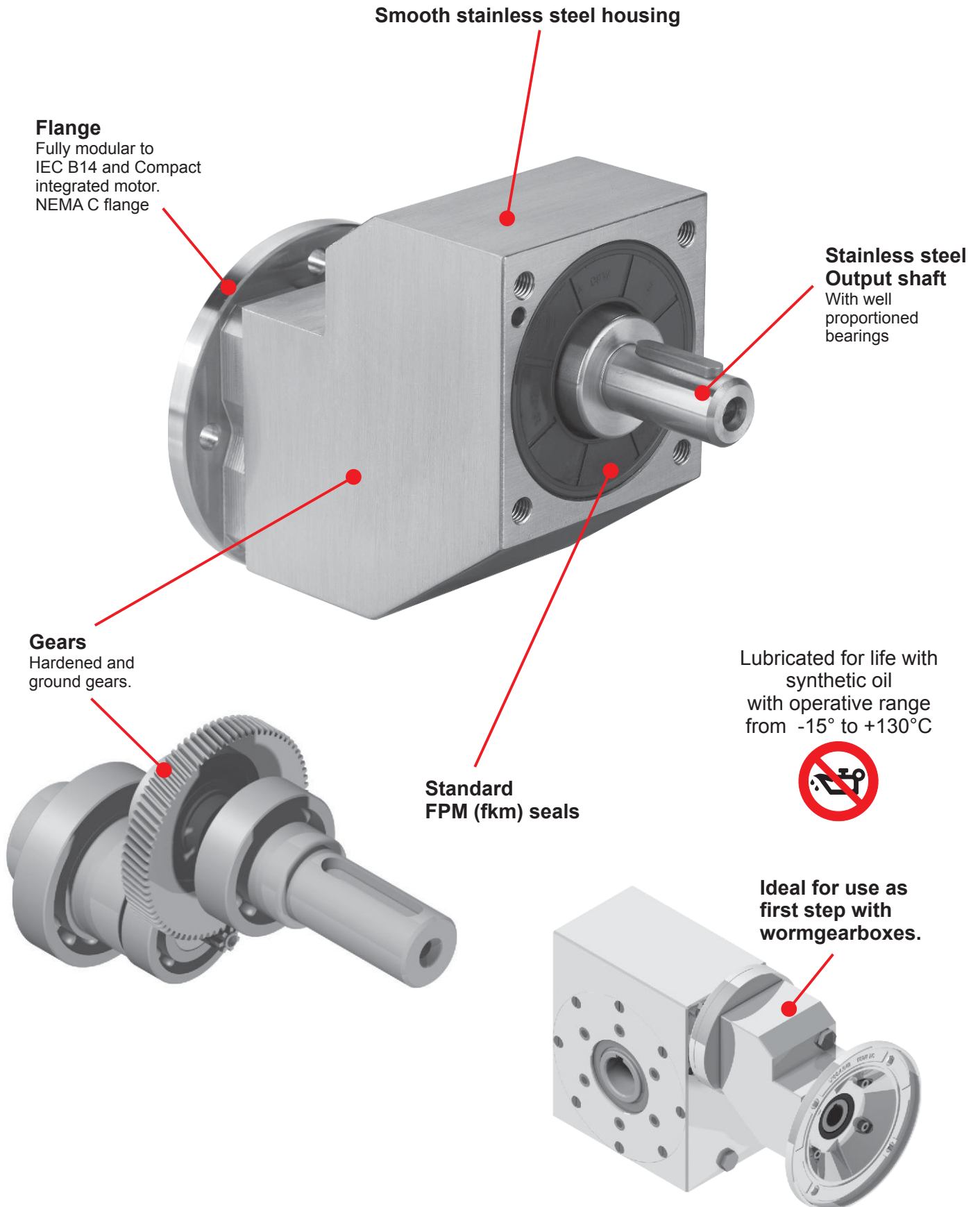


R111UN... Input shaft
Albero in entrata



Stainless steel one step gearboxes

A modular and compact product



Flange

Fully modular to IEC B14 and Compact integrated motor. NEMA C flange

Smooth stainless steel housing

Stainless steel Output shaft

With well proportioned bearings

Gears

Hardened and ground gears.

Standard FPM (fkm) seals

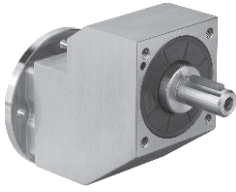
Lubricated for life with synthetic oil with operative range from -15° to +130°C



Ideal for use as first step with wormgearboxes.

Specific type datasheet on page...

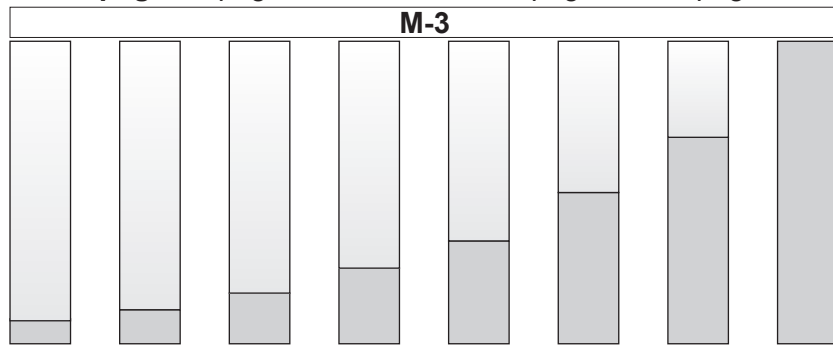
On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /
 Tipen / Types /
 Tipos →

411I
 38Nm

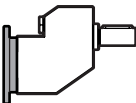
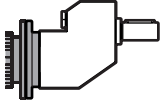
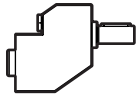
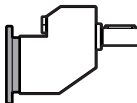
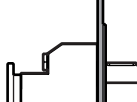
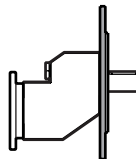
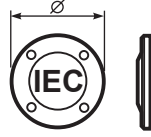
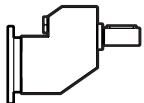
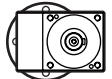
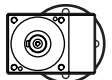
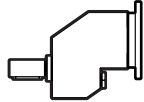
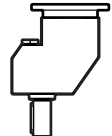
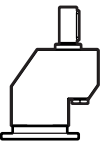
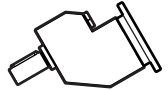
On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /
 Tipen / Types /
 Tipos →

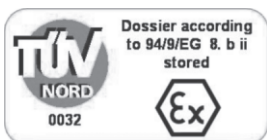
M-3							
63B	71A	71B	80A	80B	90S	90L	100LA
0.18kw 1/4cv	0.25kw 1/3cv	0.37kw 1/2cv	0.55kw 3/4cv	0.75kw 1cv	1.1kw 1 1/2cv	1.5kw 2cv	2.2kw 3cv

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Type - Tipo Typ Type - Tipo	Size - Grandezza Größe - Taille Tamaño	Mounting Montaggio Montage Fixation Tipo de montaje	Ratio - Rapporto Untersetzung Reduction Relación	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje solida	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
P	411I	-F	1.57	C	4	-Q	B3
 P  M  B	411I	 -N  -F	<p>See technical data table</p> <p>Vedi tabella dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p>	<p>→ STANDARD</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;">411I</div> C → ø19	 N Senza flangia Without flange <div style="border: 1px solid black; padding: 2px; display: inline-block;">411I</div> 4 → ø200	 <div style="border: 1px solid black; padding: 2px; display: inline-block;">411I</div> -Q 71B14 (ø105) -R 80B14 (ø120) -T 90B14 (ø140) <div style="border: 1px solid black; padding: 2px; display: inline-block;">Without flange Senza flangia</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">411I</div> -1 ⇒ ø14 (71B5) -2 ⇒ ø19 (80B5) -3 ⇒ ø24 (90B5)	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">  B3 STANDARD </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">  B6 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">  B7 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">  B8 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">  V5 </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">  V6 </div> <div style="border: 1px solid black; padding: 5px;">  V8 </div>

On request

B Food lube



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.

- B3 is supplied with standard oil quantity

- Please specify in the order if you required other mounting positions

FORMULE UTILI / USEFUL FORMULAS / NÜTZLICHE FORMELN / FORMULES UTILES / FÓRMULAS ÚTILES

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

Lifting / sollevamento / hubantriebe / levage / elevación

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

Rotation / rotazione / drehung / rotation / rotação

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

Linear movement / traslazione / linearbewegung / translation / translación

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

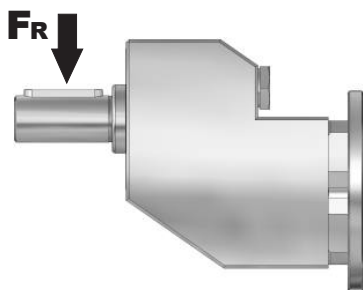
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

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

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

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

4111 **One step**
38Nm

Rating - Stainless ONE STEP GEARBOXES

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]	B5 motor flanges not available				Available B14 motor flanges			Output Shaft 	Ratios code	
							-	-	-	-	-Q	-R	-T			
892	1.57	1.5	15.7	1.3	1.90	20	-	-	-	-	C	C		2844	standard ø19	01
493	2.84	1.5	28.4	1.2	1.84	35	-	-	-	-	C	C		1954		02
426	3.29	1.5	32.9	1.2	1.73	38	-	-	-	-	C	C		1756		03
362	3.87	1.5	38.7	1.0	1.54	40	-	-	-	-	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

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 boccolla 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/-socket
Position trous bride/barrette à bornes moteur
Posición agujeros brida / base motor

B) Available without reduction bushes
Disponibile anche senza boccolla
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)

4111 One step 38Nm

Rating - Stainlesssteel ONE STEP GEARBOXES



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]	B5 motor flanges not available				Available B14 motor flanges			Output Shaft 	Ratios code	
							-	-	-	-	Q	R	T			
891	1.57	1.5	16	1.3	1.9	20	-	-	-	-	C	C		2844	standard ø19	01
493	2.84	1.5	28	1.2	1.8	35	-	-	-	-	C	C		1954		02
425	3.29	1.5	33	1.2	1.7	38	-	-	-	-	C	C		1756		03
362	3.87	1.5	39	1.0	1.5	40	-	-	-	-	C	C		1558		04
303	4.62	1.5	46	1.0	1.5	47	-	-	-	-	C	C		1360		05
222	6.30	1.1	46	1.0	1.1	46	-	-	-	-	C	C		1063		06
170	8.22	0.55	30	1.3	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
 * The nominal power should be reduced if the ambient temperature is ≥ 30°C, or when a cooler gearbox is required.
 * Diminuire la potenza nominale in caso di temperatura ambiente ≥ 30°C o se è richiesta una bassa temperatura di utilizzo del riduttore.

■ Motor Flanges Available
Flange Motore Disponibili
⊗ B) Supplied with Reduction Bushing
Fornito con Bussola di 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 4111 is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
- I** Il riduttore 4111 viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
- D** Das Getriebe 4111 ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
- F** Le réducteur 4111 est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.
- E** El reductor tamaño 4111 se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.

LUBRICATION 4111 Oil Quantity 0.14 Lt.

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

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

Output shaft / Albero di uscita

$F_{eq} = F_R \cdot \frac{48.5}{X+28.5}$

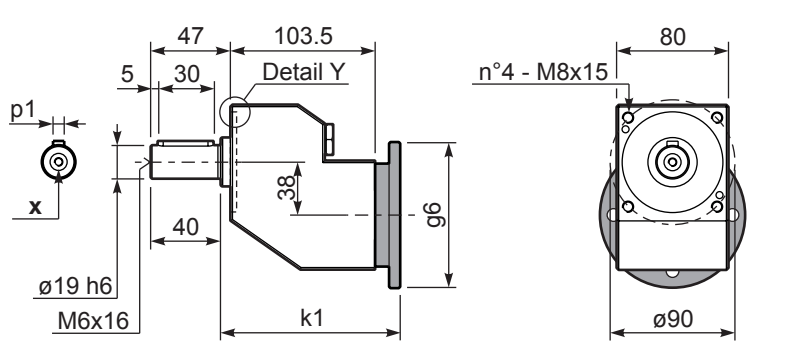
n ₂	FA	FR	n ₂	FA	FR	n ₂	FA	FR
700	182	910	400	230	1150	200	290	1450
600	200	1000	300	250	1250	140	320	1600

P4111-N... Basic gearbox
Riduttore base

Gearbox weight peso riduttore **5.5 kg**

Output shafts / albero di uscita

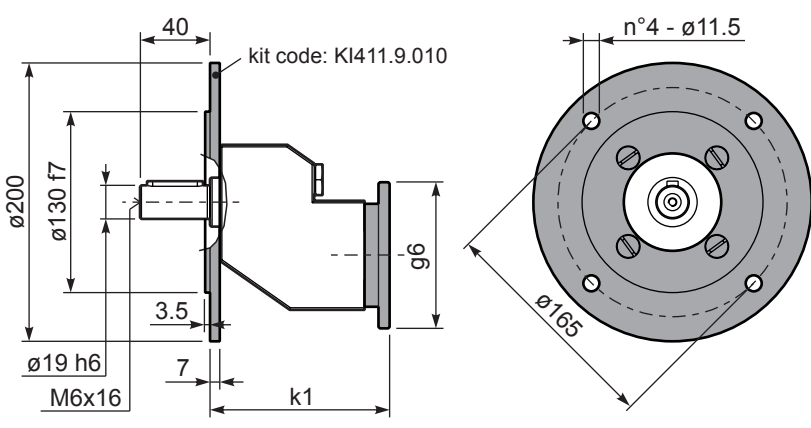
	Shaft - d1	p1	h1	x
Standard	ø 19x40	6	21.5	M6x16



P4111-F... Output flange
flangia di uscita

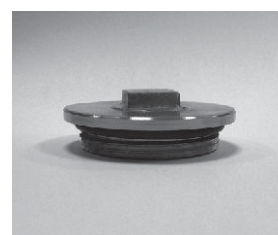
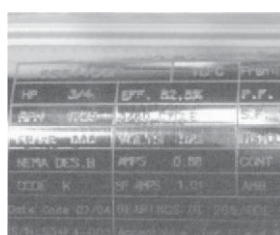
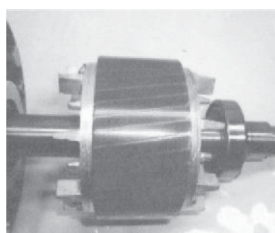
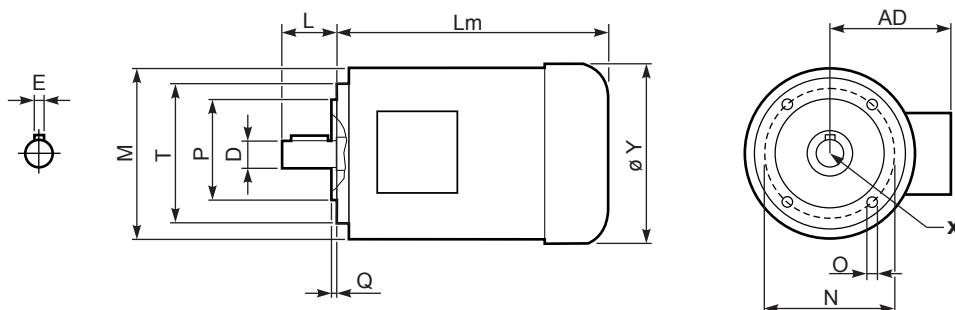
Input flanges / flange di entrata

	k1	g6	kit code
71 B14	128.5	105	KI63.4.047
80 B14	129.5	120	KI63.4.046
90 B14	130.5	140	KI63.4.041




Features

- 1) 300 Series Stainless Steel Construction.
- 2) Inverter duty
- 3) Washdown Duty Applications.
- 4) BISSC Certified.
- 5) Corrosion Resistant.
- 6) Laser Etched Nameplate.
- 7) Oversized Bearings on both ends c/w Locked Drive-end Bearing Construction.
- 8) Oversized Conduit Box c/w Lead Seal.
- 9) Drill & Tapped Drains.
- 10) T-Drain included.
- 11) Double Lip Contact Seals.


B14

Outside dimensions may be different according to manufacturers.

Le dimensioni esterne sono indicative, possono variare tra i vari costruttori.

	4 poli / poles			D	E	L	Lm	Y	AD	P	N	M	T	O	Q	X	Kg
	kW	Nm	A _(400V)														
63	0.18	1.30	0.69	11	4	23.5	252	128	106	60	75	114	90	M5	2.5	-	8.2
71	0.25	1.70	0.91	14	5	30.5	228	146	115	70	85	134	105	M6	2.5	M5x20	8.3
	0.37	2.52	1.14				252										10.4
80	0.55	3.77	1.51	19	6	40	300	158	115	80	100	144	120	M6	3	M6x25	17.5
	0.75	5.11	2.57														17.5
90	1.1	7.45	2.78	24	8	50	321	174	135	95	115	165	140	M8	3	M8x25	22.4
	1.5	10.2	3.61				367										27.6
100	2.2	14.8	5.07	28	8	60	374	203	150	110	130	190	160	M8	3.5	M10x25	33.5

Tecnical data
- Voltage: 230 / 400V
- Phase: 3
- Frequency: 50Hz
- Poles: 4
- International protections : IP 65
- Insulation class: F
- Duty: S1



Suministros Industriales del Tajo, S.A.

C/ Jarama 52, Polígono Industrial, 45007 Toledo (Spain)

Telf: (34) 925 23 22 00

Fax: (34) 925 23 21 47

sitasa@sitasa.com

www.sitasa.com

