

Coaxial -

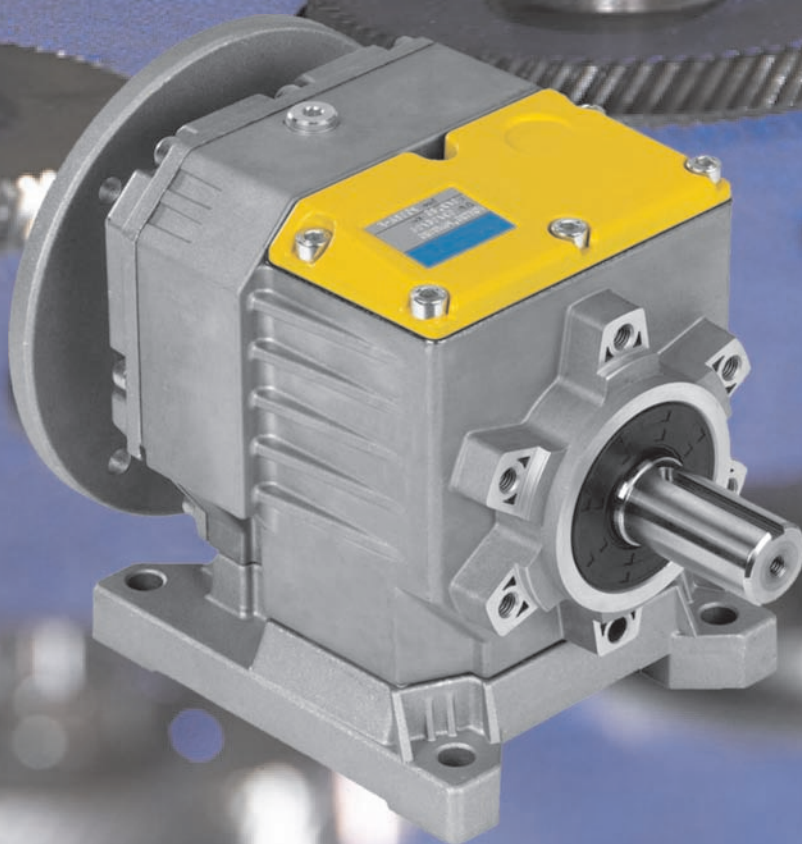
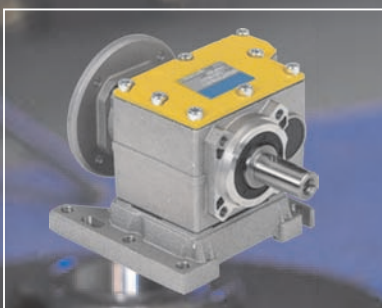
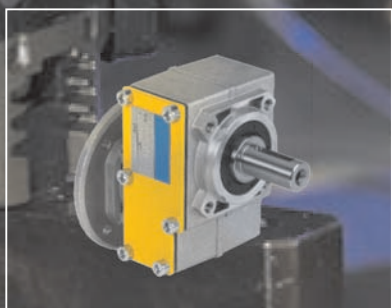
Gears



Cat.: CT-RCM-WO-HM010

Coaxial gearboxes

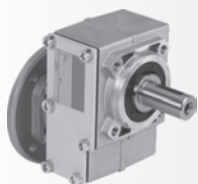
Riduttori Coassiali



Made in Italy

HYDRO · MEC

One Step-Gear



Compact aluminum in line gearboxes with one stage of reduction.

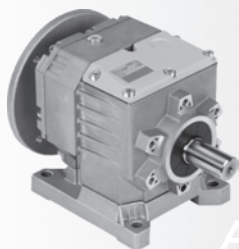
Riduttori coassiali in alluminio con uno stadio di riduzione.

See technical data table.

Vedi tabelle dati tecnici.

Paragraph 4

Coaxial-Gear



Compact aluminum in line gearboxes with two or three stages of reduction.

Riduttori coassiali in alluminio con due o tre stadi di riduzione.

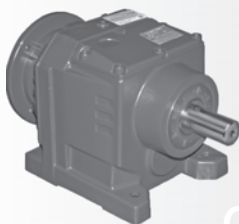
See technical data table.

Vedi tabelle dati tecnici.

Paragraph 5

Aluminum

Coaxial-Gear



Cast iron in line gearboxes with two or three stages of reduction.

Riduttori coassiali in ghisa con due o tre stadi di riduzione.

See technical data table.

Vedi tabelle dati tecnici.

Paragraph 6

Cast iron

Compact-Gear



Aluminum and cast iron shaft mounted gearboxes with two or three stages of reduction.

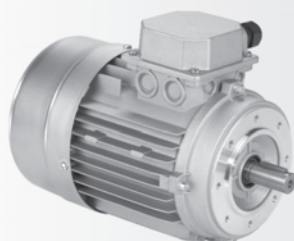
Riduttori pendolari in alluminio e ghisa con due e tre stadi di riduzione.

See technical data table.

Vedi tabelle dati tecnici.

Paragraph 7

Aluminum electric motors



Metric electric motors are in aluminum. On request they can be supplied with different Level of protection and painted with 2 or 3 level of anticorrosive paint.

I motori metrici sono in alluminio, su richiesta possono essere forniti con differenti livelli di protezione e verniciati con vernice anticorrosiva.

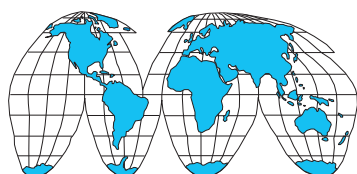
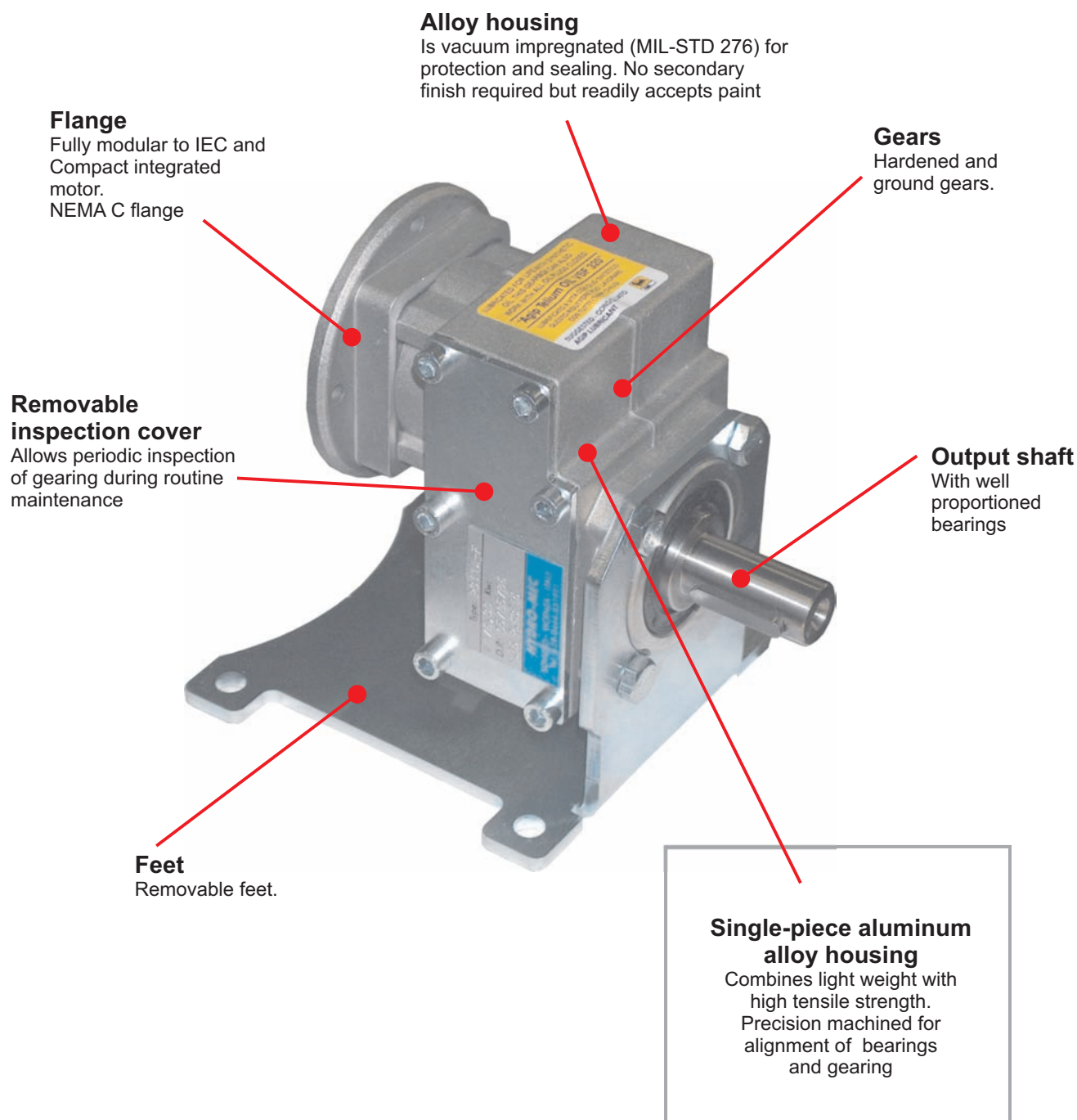
See technical data table.

Vedi tabelle dati tecnici.

Pag. M-1 ÷ M-2

Aluminum one step gearboxes

A modular and compact product

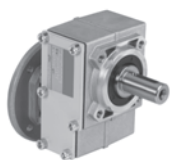


World wide sales network.

Lubricated for life with synthetic oil with operative range from -15° to $+130^{\circ}\text{C}$

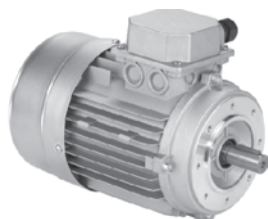


On page / A pagina / Auf Seite / En la página


Types / Tipi /
Arten / Tipos


4-5	4-7	4-9	4-11
211A 20Nm	311A 30Nm	411A 38Nm	511A 110Nm

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


Types / Tipi /
Arten / Tipos


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

For : / Per : / Für : / Para :

Selection guide - fs
Guida alla selezione

Mounting pos. - Lubrication
Pos. di montaggio - lubrificazione

2 - 6 poles selection
Selezione 2 - 6 poli

Radial - axial loads
Carichi radiali e assiali

Reversibility
Reversibilità

Thermal limit
Limite termico

Atex certification
Certificazione Atex

Accessories
Accessori

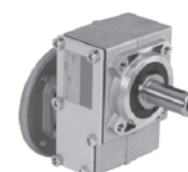
Download 3D drawings
Download disegni 3D

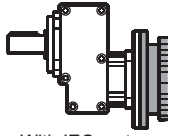
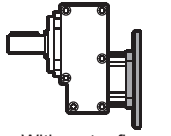
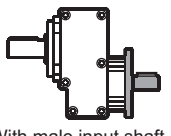
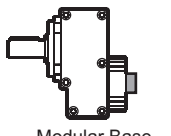
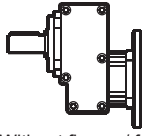
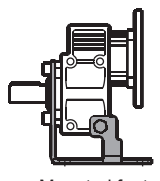
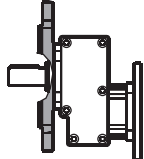
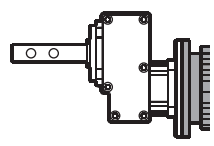
Interchangeability
Intercambiabilità

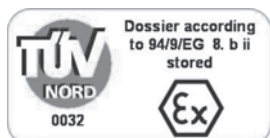
Installation and maintenance
Installazione, uso e manutenzione

Spare parts list
Liste parti di ricambio

Use our web database to
get detailed informations,
always updated on
each type/size.

Features
Selection


Type - Tipo - Typ - Tipo	Size - Grandezza Grösse - Tomaño	Mounting - Montaggio - Montage - Tipo de montaje
P	311A	H1
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	1 Stages Riduzioni Stufen Etapas 211A 311A 411A 511A	 Without flange / feet -N  Mounted feet H1  Output flange mounted -F
Special output shaft Albero uscita speciale  Only on request for Q.ty A richiesta per quantità		

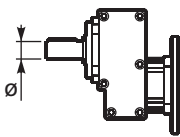
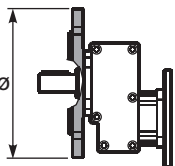
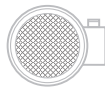
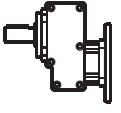
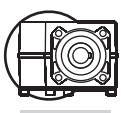
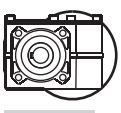
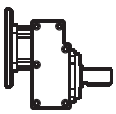
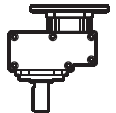
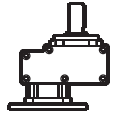


A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX

On request we can deliver our products according to the ATEX

Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern

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

Ratio - Rapporto Untersetzung Relación	Output shaft Albero uscita Abtriebswelle Eje en salida	Output flange Flangia uscita Ausgangsflansch Brida en salida	Motor size Grandezza motore Motor Grösse Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Posición de montaje
2.84	S	2	C	B	B3
See technical data table Vedi tabelle dati tecnici. Technisches Datenblatt beachten. Ver tabla datos técnicos	 → 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 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	Standard Flange Flangia Standard B5 A=56 (Ø120) B=63 (Ø140) C=71 (Ø160) D=80 (Ø200) E=90 (Ø200) F=100+112 (Ø250) 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 Without flange / Senza flangia 211A 311A Z → Ø9 (56B5) 0 → Ø11 (63B5) 1 → Ø14 (71B5) 511A 2 → Ø19 (80B5) 3 → Ø24 (90B5) 4 → Ø28 (100B5) → STANDARD	 A  B STANDARD  C  D	 B3 STANDARD  B6  B7  B8  V5  V6 Specify only for vertical positions Specificare solo per posizione verticale

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / elevación

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

Rotation / rotazione / drehung / rotation

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

Linear movement / traslazione / linearbewegung / translacion

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

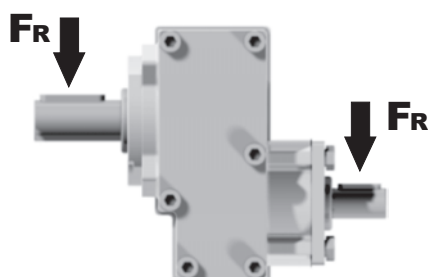
TORQUE / COPPIA / DREHMOMENT / PAR

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

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

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / 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.
- 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 / Par torsion		
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diámetro primitivo		
f _k	Coefficiente di trasformazione / Factor / Faktor / Coefficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / 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.
- 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 / Cómo seleccionar un reductor

B Output speed
Velocità in uscita
Abtriebsdrehzahl
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Potencia nominal

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

Flange code
Codice flangia
Flanschttype
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Velocidad de entrada

Gear size
Grandezza riduttore
Getriebegröße
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Potencia motor

311A One step
30Nm

Rating - Alluminum 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		
493	2.84	0.37	7.0	3.3	1.21	23			C	C		1954		
426	3.29	0.37	8.1	3.2	1.18	26			C	C		1756		
362	3.87	0.37	9.6	2.9	1.08	28			C	C		1558		

C Ratio
Rapporto
Untersetzung
Relación

Transmitted torque
Momento torcente trasmesso
Mögliche Drehmomente
Par transmitido

Service factor
Fattore di servizio
Betriebsfaktor
Factor de servicio

Output shaft diam.
Diam. albero uscita
Durchmesser abtriebswelle
Diámetro eje de salida

Notes
Note
Anmerkungen
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
B)	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montaje con casquillo de reducción
C)	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Posición agujeros brida / base motor
B)	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible también 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	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	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	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)	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 
							B	C	D	E	O	P	Q	R			
682.1	2.05	0.37	5.1	2.0	0.73	10					C	C			1939	standard ø14	-
595.0	2.35	0.37	5.8	2.1	0.76	12					C	C			1740		
500.0	2.80	0.37	6.9	2.0	0.75	14					C	C			1542		
413.6	3.38	0.37	8.4	2.0	0.75	17					C	C			1344		
297.9	4.70	0.37	11.6	1.7	0.64	20					C	C			1047		
225.0	6.22	0.37	15.4	1.5	0.54	23					C	C			956		
169.0	8.28	0.37	20.5	1.0	0.37	20					C	C			758		
142.4	9.83	0.25	16.4	1.0	0.25	16					C	C			659		

The dynamic efficiency is 0.98 for all ratios

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **211A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.
For complete documentation please visit our web site.

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.
Per la documentazione completa consulta il nostro sito.

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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.
Para documentación completa, consultar nuestra Web.

LUBRICATION 211A Oil Quantity 0.05 Lt.

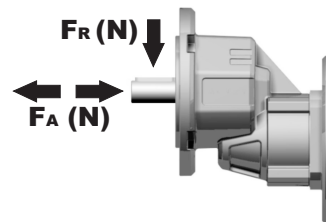
AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

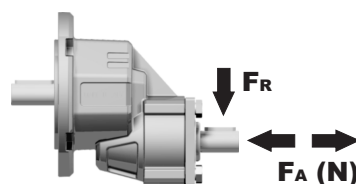
Albero di uscita



n_2	FA	FR
700	101	504
600	120	600
400	138	696
300	151	756
200	175	876
140	192	960

Input shaft

albero in entrata



n_2	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

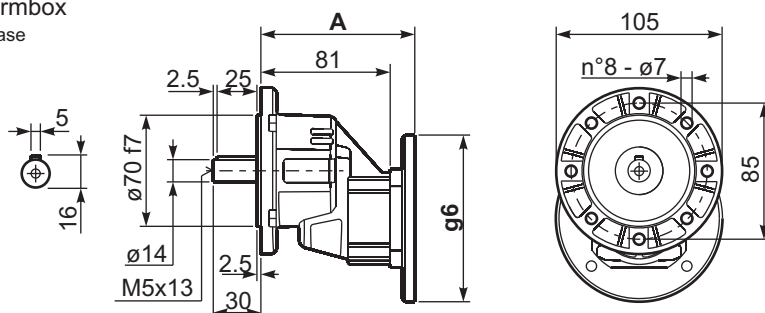
tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P211A-F...

Basic wormbox
Riduttore base

Gearbox weight peso riduttore	1.40 kg
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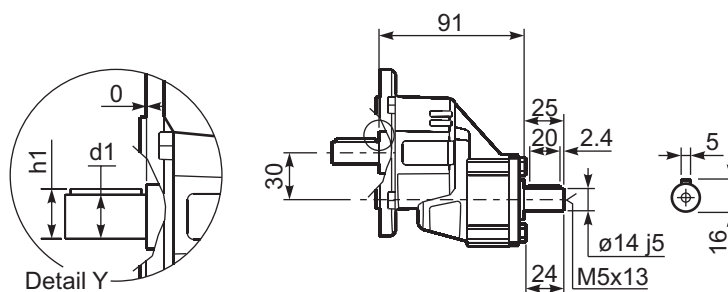


B5 Motor Flanges	A	g6	kit code
63 B5	97.5	138	K050.4.041
71 B5	95.5	160	K050.4.042

B14 Motor Flanges	A	g6	kit code
56 B14	97	80	KC40.4.049
63 B14	99	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 	Ratios code 
							B	C	O	P	Q		
892	1.57	0.37	3.9	3.3	1.24	13			C	C		2844	standard ø14 On request ø11 ø19
493	2.84	0.37	7.0	3.3	1.21	23			C	C		1954	
426	3.29	0.37	8.1	3.2	1.18	26			C	C		1756	
362	3.87	0.37	9.6	2.9	1.08	28			C	C		1558	
303	4.62	0.37	11.4	2.6	0.97	30			C	C		1360	
222	6.30	0.37	15.6	2.2	0.83	35			C	C		1063	
170	8.22	0.37	20.3	1.9	0.69	38			C	C		974	
130	10.86	0.37	26.8	1.0	0.38	28			C	C		776	

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

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **311A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.
For complete documentation please visit our web site.

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.
Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.
Para documentación completa, consultar nuestra Web.

LUBRICATION 311A Oil Quantity 0.10 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

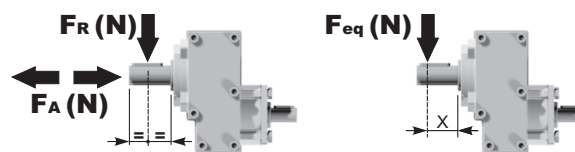
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

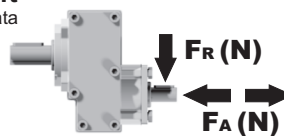
$$F_{eq} = F_R \cdot \frac{38.5}{X + 18.5}$$



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



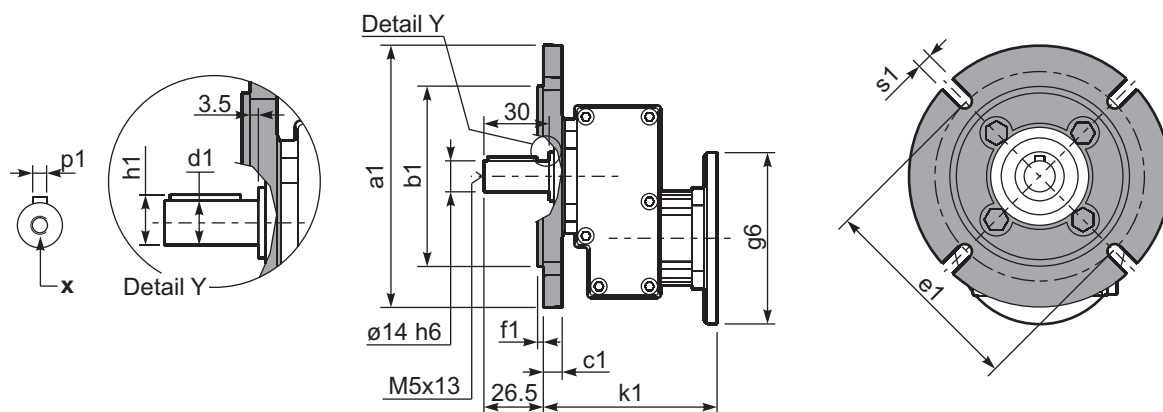
n_1	FA	FR
1400	180	860
900	200	980

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P311-F... Output flange
flange di uscita

Gearbox
weight
peso riduttore **2.50 kg**



***Available output shaft / Alberi di uscita**

	Shaft - d1	p1	h1	x
Standard	Ø 14x30	5	16	M5x13
On request A richiesta	Ø 19x40	6	21.5	M6x16
	Ø 24x40	8	27	M6x16

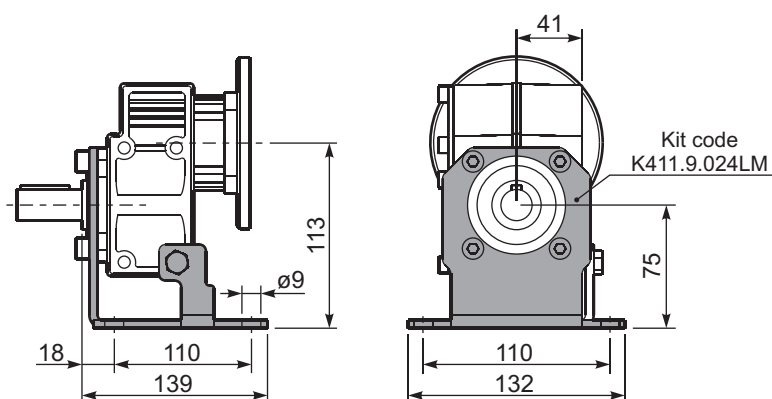
Available output flanges / flange di uscita

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

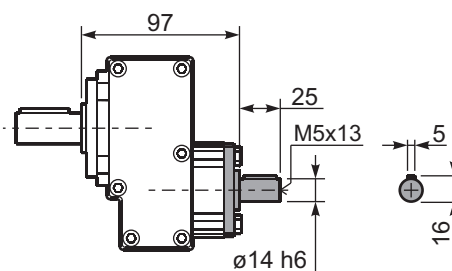
*Holes position
posizione fori



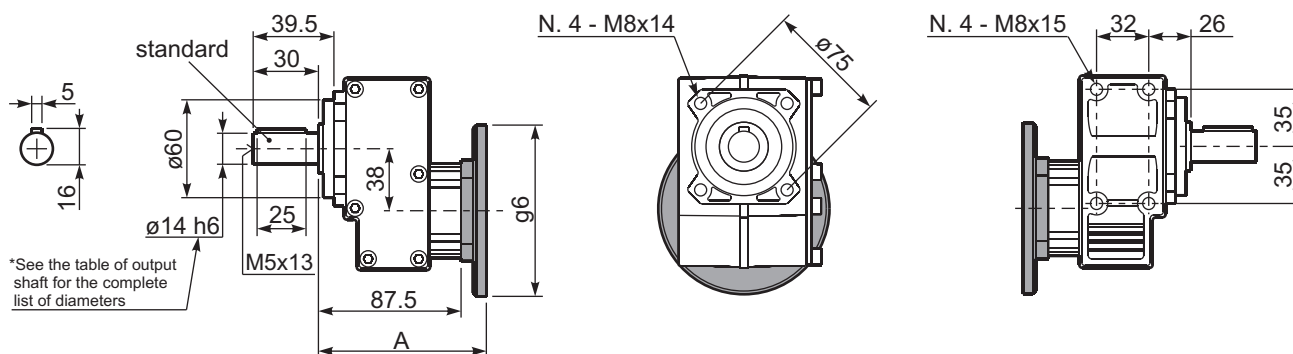
P311-H1... With feet
Con piedini



R311-N... Input Shaft
Albero in entrata



P311-N... Basic gearbox
Riduttore base



B14 Motor Flanges	A	g6	k1	kit code
56 B14	107.5	80	111	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	103.5	138	107	K050.4.041
71 B5	101.5	160	105	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			
892	1.57	1.5	15.7	1.3	1.90	20	B				C	C		2844	standard ø19 On request ø14 ø24	-
493	2.84	1.5	28.4	1.2	1.84	35	B				C	C		1954		
426	3.29	1.5	32.9	1.2	1.73	38	B				C	C		1756		
362	3.87	1.5	38.7	1.0	1.54	40	B				C	C		1558		
303	4.62	1.5	46.1	1.0	1.54	47	B				C	C		1360		
222	6.30	1.1	46.0	1.0	1.10	46	B				C	C		1063		
170	8.22	0.55	30.4	1.2	0.69	38	B				C	C		974		
130	10.86	0.37	26.8	1.0	0.38	28	B				C	C		776		

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

 **Motor Flanges Available**
Flange Motore Disponibili

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

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

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

EN Unit **411A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.
For complete documentation please visit our web site.

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.
Per la documentazione completa consulta il nostro sito.

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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.
Para documentación completa, consultar nuestra Web.

LUBRICATION 411A Oil Quantity 0.20 Lt.

AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

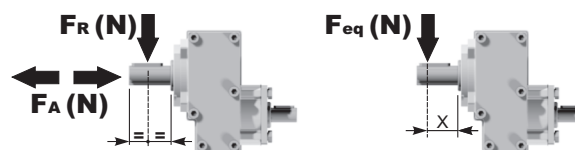
tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

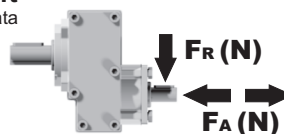
$$F_{eq} = F_R \cdot \frac{40}{X+20}$$



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

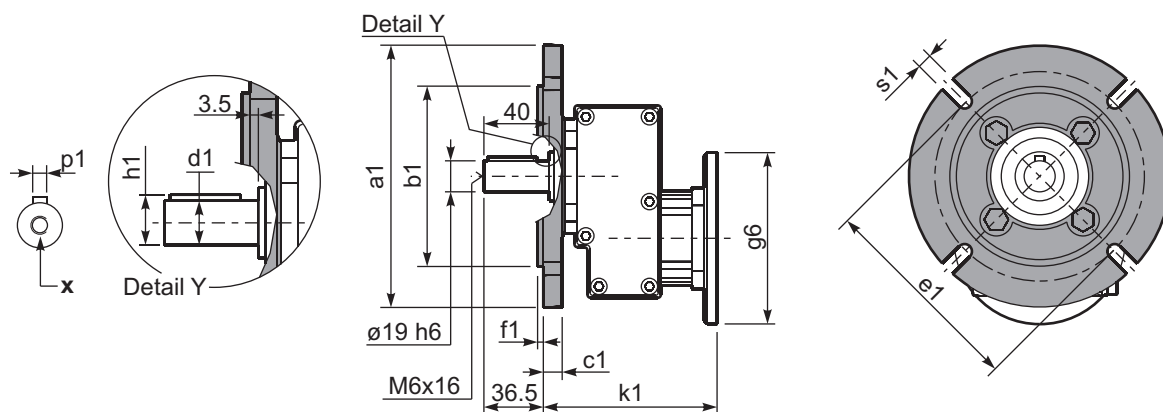
SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P411-F...

Output flange
flange di uscita

Gearbox weight
peso riduttore

3.20 kg



***Available output shaft** / Albero 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

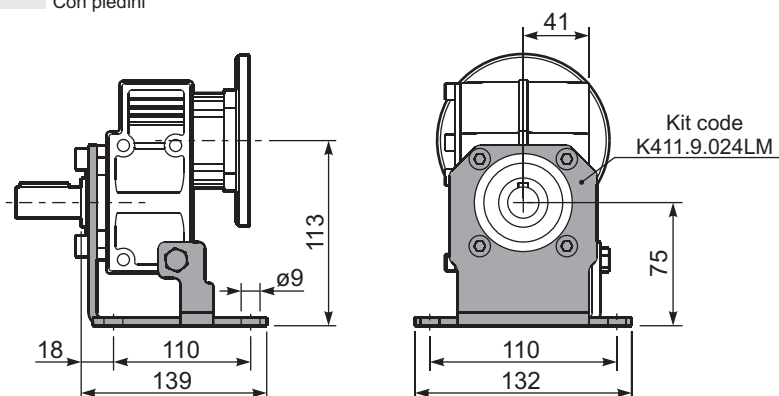
a1 Ø	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013

*Holes position
posizione fori



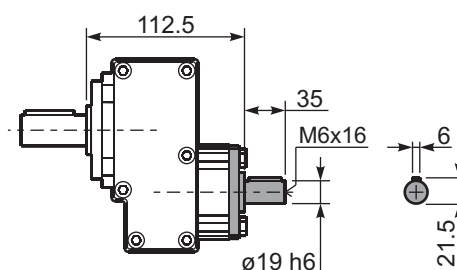
P411-H1...

With feet
Con piedini



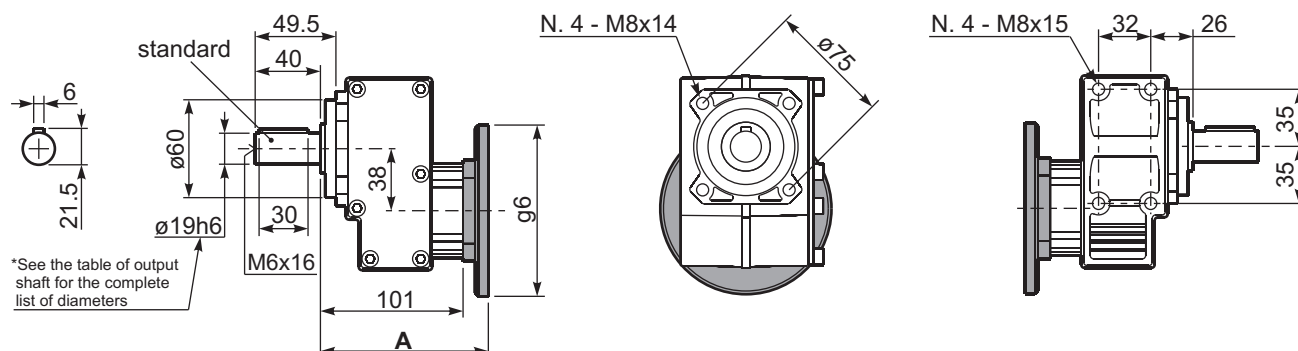
R411-N...

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	120.5	120	124	K063.4.046
90 B14	121.5	140	125	K063.4.041
100/112 B14	119.5	160	123	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 	On request $\phi 19$ $\phi 24$	Ratios code 
							C	D	E	F	R	T	U	V			
							71	80	90	100 112	80	90	100 112	132			
1077	1.30	4	34	1.2	4.6	40	B								3039	standard $\phi 28$	-
571	2.45	4	64	1.1	4.3	70	B								2049		
423	3.31	4	87	1.0	4.1	90	B								1653		
325	4.31	4	113	1.0	3.8	110	B								1356		
266	5.27	3	104	1.1	3.1	110	B								1158		
184	7.63	2.2	111	1.0	2.2	110	B								861		
133	10.50	1.1	77	1.0	1.1	80	B								663		

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. For complete documentation please visit our web site.

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. Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

LUBRICATION 511A Oil Quantity 0.29 Lt.

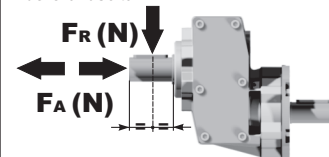
AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

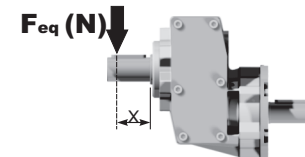
RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



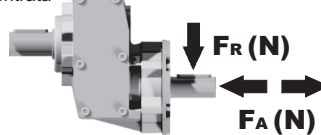
$$F_{eq} = F_R \cdot \frac{52.5}{X+22.5}$$



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

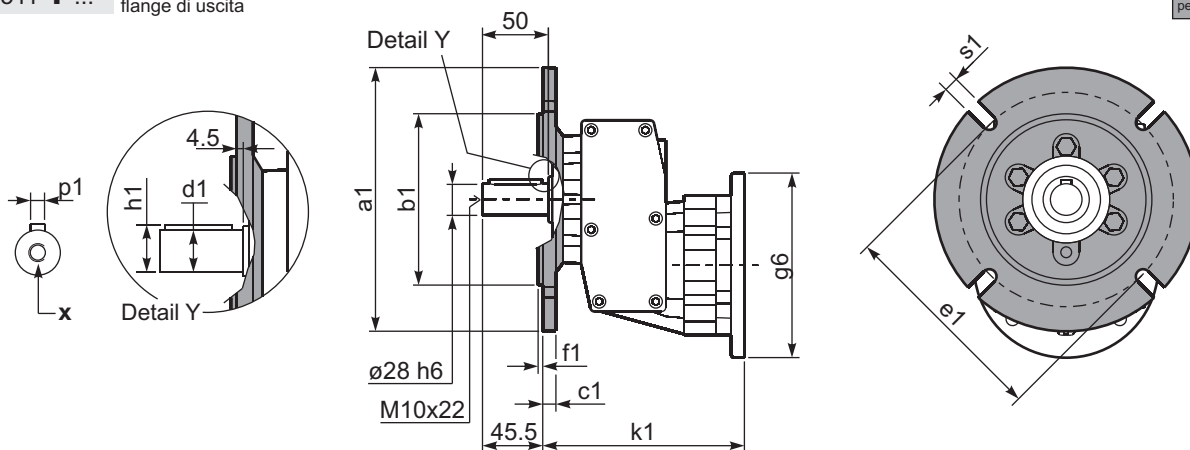
SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P511-F...

Output flanges
flange di uscita

Gearbox weight
peso riduttore

5.00 kg



***Available output shaft / Albero di uscita**

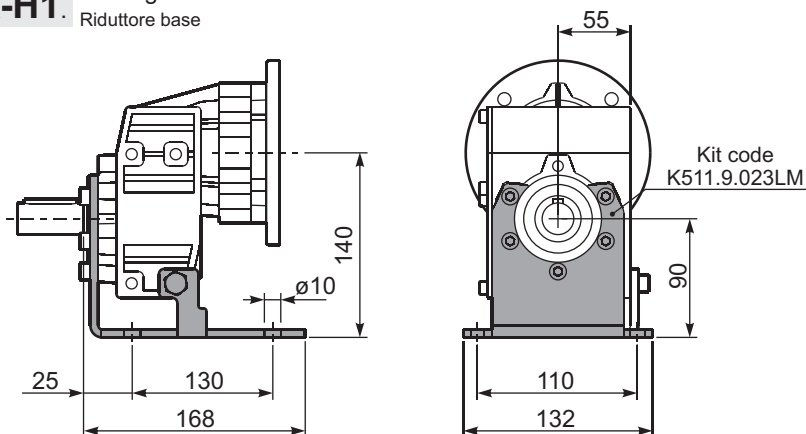
	Shaft - d1	p1	h1	x
Standard	ø 28x50	8	31	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 19x40	6	21.5	M6x16

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	9	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3	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

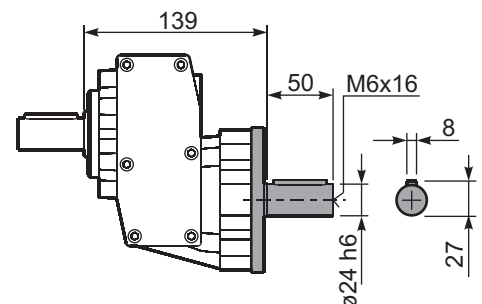
P511A-H1.

Basic gearbox
Riduttore base



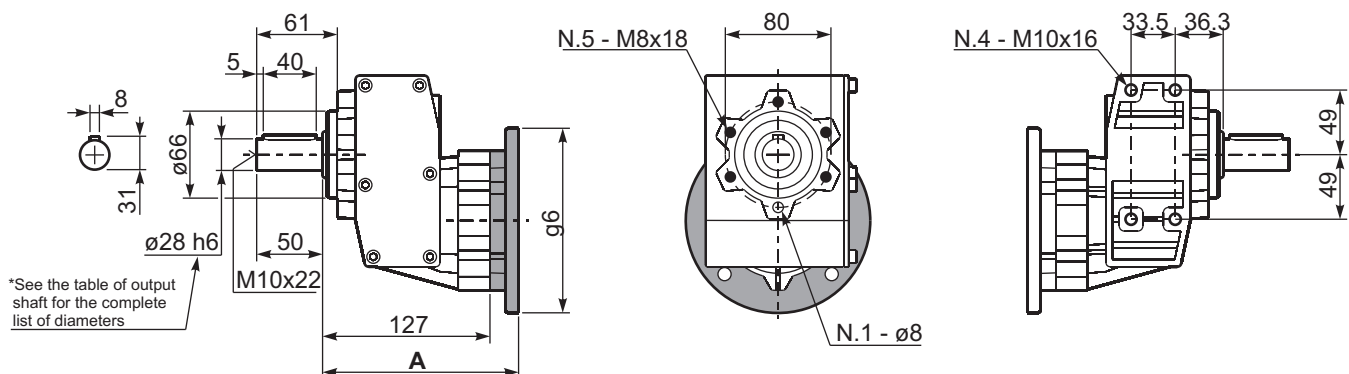
R511A-N..

Input Shaft
Albero in entrata



P511-N...

Basic gearbox
Riduttore base

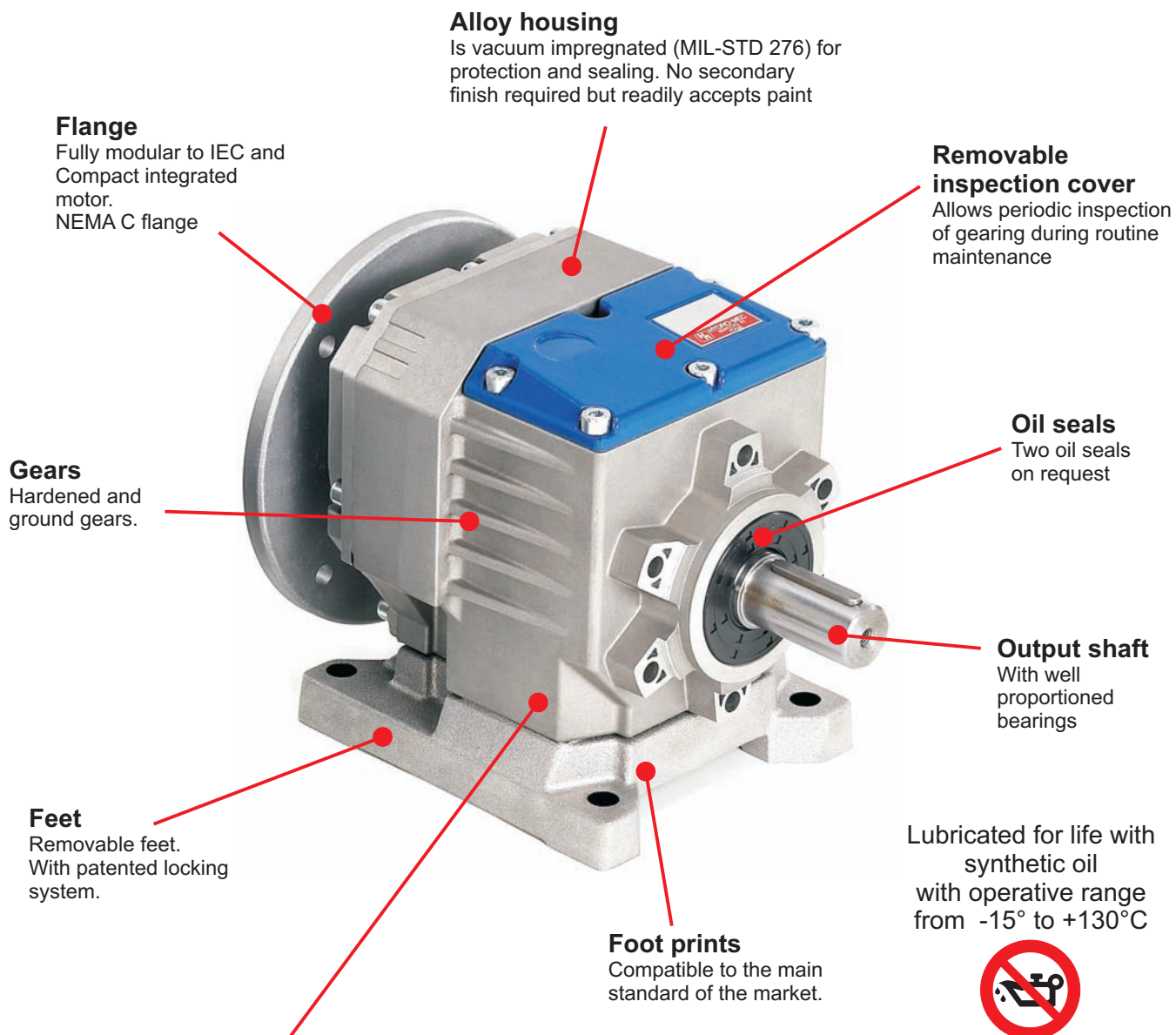


B5 Motor Flanges	A	g6	k1	kit code
71 B5	145	160	149.5	KC023.4.041
80/90 B5	147	200	151.5	KC023.4.042
100/112 B5	153	250	157.5	KC023.4.043

B14 Motor Flanges	A	g6	k1	kit code
80 B14	145	120	149.5	KC085.4.046
90 B14	145	140	149.5	KC085.4.045
100/112 B14	145	160	149.5	KC085.4.047
132 B14	175	200	188	KC50.4.041

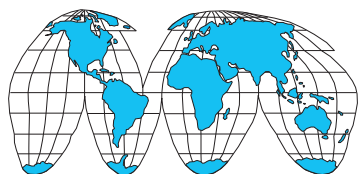
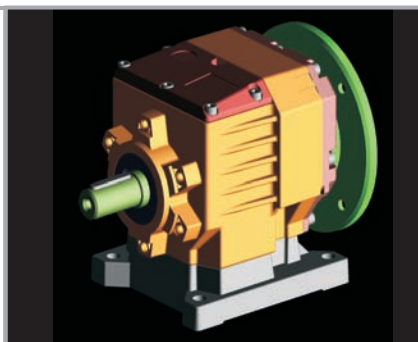
Aluminum in line gearboxes

A modular and compact product

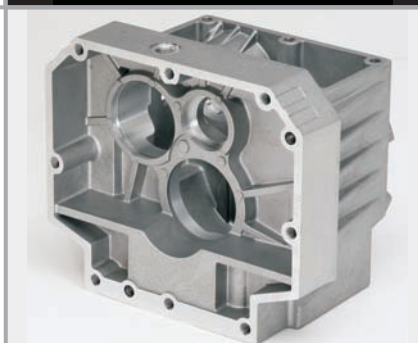


Single-piece aluminum alloy housing

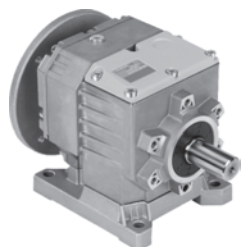
Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing



World wide sales network.



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Types / Tipi /
Arten / Tipos


5-5	5-7	5-9	5-11	5-13	5-15	5-17	5-19	5-21
202A 70Nm	302A 120Nm	402A 150Nm	403A 150Nm	452A 300Nm	502A 320Nm	503A 320Nm	602A 460Nm	603A 460Nm

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


Types / Tipi /
Arten / Tipos


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

For : / Per : / Für : / Para :

Selection guide - fs
Guida alla selezione

Mounting pos. - Lubrication
Pos. di montaggio - lubrificazione

2 - 6 poles selection
Selezione 2 - 6 poli

Radial - axial loads
Carichi radiali e assiali

Reversibility
Reversibilità

Thermal limit
Limite termico

Atex certification
Certificazione Atex

Accessories
Accessori

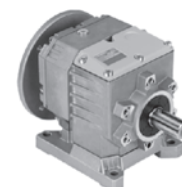
Download 3D drawings
Download disegni 3D

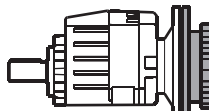
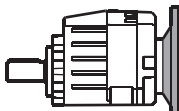
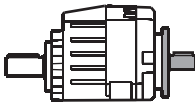
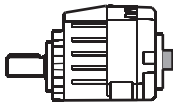
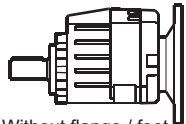
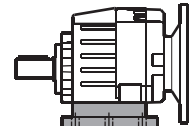
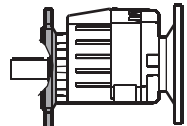
Interchangeability
Intercambiabilità

Installation and maintenance
Installazione, uso e manutenzione

Spare parts list
Liste parti di ricambio

Use our web database to
get detailed informations,
always updated on
each type/size.

Features
Selection


Type - Tipo - Typ - Tipo	Size - Grandezza Grösse - Tamaño	Mounting - Montaggio - Montage - Tipo de montaje																																																																
P	402A	B2																																																																
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 Etapas 202A 302A 402A 452A 502A 602A 3 Stages Riduzioni Stufen Etapas 403A 503A 603A	 Without flange / feet -N  Mounted feet B..  Output flange mounted -F Feet / piedini <table><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><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></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			
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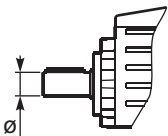
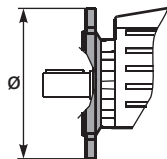
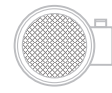
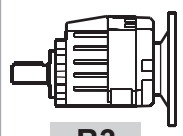
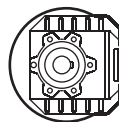
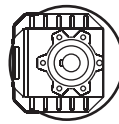
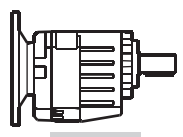
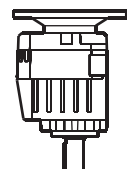
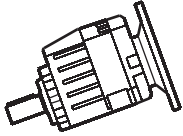


A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX

On request we can deliver our products according to the ATEX

Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern

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

Ratio - Rapporto Untersetzung Relación	Output shaft Albero lento Abtriebswelle Eje en solida	Output flange Flangia uscita Ausgangsflansch Brida en salida	Motor size Grandezza motore Motor Grösse Tamaño motor	Terminal box position Posizione morsettieria Klemmkastenlage Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage																																																																																
7.33	V	2	C	B	B3																																																																																
See technical data table Vedi tabelle dati tecnici. Technisches Datenblatt beachten. Ver tabla datos técnicos	 → STANDARD <table><tr><td>202A</td></tr><tr><td>S ⇒ Ø14</td></tr><tr><td>B ⇒ Ø16</td></tr><tr><td>D ⇒ Ø20</td></tr><tr><td>V ⇒ Ø25</td></tr></table> <table><tr><td>302A</td></tr><tr><td>S ⇒ Ø14</td></tr><tr><td>B ⇒ Ø16</td></tr><tr><td>C ⇒ Ø19</td></tr><tr><td>D ⇒ Ø20</td></tr><tr><td>E ⇒ Ø24</td></tr><tr><td>V ⇒ Ø25</td></tr><tr><td>G ⇒ Ø28</td></tr></table> <table><tr><td>402A 403A</td></tr><tr><td>S ⇒ Ø14</td></tr><tr><td>B ⇒ Ø16</td></tr><tr><td>C ⇒ Ø19</td></tr><tr><td>D ⇒ Ø20</td></tr><tr><td>E ⇒ Ø24</td></tr><tr><td>V ⇒ Ø25</td></tr></table> <table><tr><td>452A 502A 503A</td></tr><tr><td>E ⇒ Ø24</td></tr><tr><td>V ⇒ Ø25</td></tr><tr><td>G ⇒ Ø28</td></tr><tr><td>H ⇒ Ø30</td></tr><tr><td>I ⇒ Ø35</td></tr></table> <table><tr><td>602A 603A</td></tr><tr><td>G ⇒ Ø28</td></tr><tr><td>H ⇒ Ø30</td></tr><tr><td>I ⇒ Ø35</td></tr><tr><td>L ⇒ Ø38</td></tr><tr><td>M ⇒ Ø40</td></tr></table>	202A	S ⇒ Ø14	B ⇒ Ø16	D ⇒ Ø20	V ⇒ Ø25	302A	S ⇒ Ø14	B ⇒ Ø16	C ⇒ Ø19	D ⇒ Ø20	E ⇒ Ø24	V ⇒ Ø25	G ⇒ Ø28	402A 403A	S ⇒ Ø14	B ⇒ Ø16	C ⇒ Ø19	D ⇒ Ø20	E ⇒ Ø24	V ⇒ Ø25	452A 502A 503A	E ⇒ Ø24	V ⇒ Ø25	G ⇒ Ø28	H ⇒ Ø30	I ⇒ Ø35	602A 603A	G ⇒ Ø28	H ⇒ Ø30	I ⇒ Ø35	L ⇒ Ø38	M ⇒ Ø40	 N Senza flangia Without flange <table><tr><td>202A 302A 402A 403A</td></tr><tr><td>1 ⇒ Ø120</td></tr><tr><td>2 ⇒ Ø140</td></tr><tr><td>3 ⇒ Ø160</td></tr><tr><td>4 ⇒ Ø200</td></tr></table> <table><tr><td>452A 502A 503A</td></tr><tr><td>3 ⇒ Ø160</td></tr><tr><td>4 ⇒ Ø200</td></tr><tr><td>5 ⇒ Ø250</td></tr></table> <table><tr><td>602A 603A</td></tr><tr><td>3 ⇒ Ø160</td></tr><tr><td>4 ⇒ Ø200</td></tr><tr><td>5 ⇒ Ø250</td></tr></table>	202A 302A 402A 403A	1 ⇒ Ø120	2 ⇒ Ø140	3 ⇒ Ø160	4 ⇒ Ø200	452A 502A 503A	3 ⇒ Ø160	4 ⇒ Ø200	5 ⇒ Ø250	602A 603A	3 ⇒ Ø160	4 ⇒ Ø200	5 ⇒ Ø250	Standard Flange Flangia Standard <table><tr><td>B5</td></tr><tr><td>A=56 (Ø120)</td></tr><tr><td>B=63 (Ø140)</td></tr><tr><td>C=71 (Ø160)</td></tr><tr><td>D=80 (Ø200)</td></tr><tr><td>E=90 (Ø200)</td></tr><tr><td>F=100+112 (Ø250)</td></tr></table> <table><tr><td>B14</td></tr><tr><td>O=56 (Ø80)</td></tr><tr><td>P=63 (Ø90)</td></tr><tr><td>Q=71 (Ø105)</td></tr><tr><td>R=80 (Ø120)</td></tr><tr><td>T=90 (Ø140)</td></tr><tr><td>U=100+112 (Ø160)</td></tr><tr><td>V=132 (Ø200)</td></tr></table> <table><tr><td colspan="2">Type R / Tipo R</td></tr><tr><td>202A 403A</td><td>302A 402A 503A 603A</td></tr><tr><td>1 ⇒ Ø14</td><td>2 ⇒ Ø19</td></tr></table> <table><tr><td>452A 502A 602A</td></tr><tr><td>3 ⇒ Ø24</td></tr></table> Without flange / Senza flangia <table><tr><td>202A 403A</td></tr><tr><td>Z ⇒ Ø9 (56B5)</td></tr><tr><td>0 ⇒ Ø11 (63B5)</td></tr><tr><td>1 ⇒ Ø14 (71B5)</td></tr></table> <table><tr><td>302A 402A 503A 603A</td></tr><tr><td>1 ⇒ Ø14 (71B5)</td></tr><tr><td>2 ⇒ Ø19 (80B5)</td></tr><tr><td>3 ⇒ Ø24 (90B5)</td></tr></table> <table><tr><td>452A 502A 602A</td></tr><tr><td>2 ⇒ Ø19 (80B5)</td></tr><tr><td>3 ⇒ Ø24 (90B5)</td></tr><tr><td>4 ⇒ Ø28 (100B5)</td></tr></table> → STANDARD	B5	A=56 (Ø120)	B=63 (Ø140)	C=71 (Ø160)	D=80 (Ø200)	E=90 (Ø200)	F=100+112 (Ø250)	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		202A 403A	302A 402A 503A 603A	1 ⇒ Ø14	2 ⇒ Ø19	452A 502A 602A	3 ⇒ Ø24	202A 403A	Z ⇒ Ø9 (56B5)	0 ⇒ Ø11 (63B5)	1 ⇒ Ø14 (71B5)	302A 402A 503A 603A	1 ⇒ Ø14 (71B5)	2 ⇒ Ø19 (80B5)	3 ⇒ Ø24 (90B5)	452A 502A 602A	2 ⇒ Ø19 (80B5)	3 ⇒ Ø24 (90B5)	4 ⇒ Ø28 (100B5)	 A  B STANDARD  C  D	 B3 STANDARD  B6  B7  B8  V5  V6  V8 Specify only for vertical positions Specificare solo per posizione verticale
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POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / POTENCIA NECESARIA

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

Rotation / rotazione / drehung / rotation $P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$

Linear movement / traslazione / linearbewegung / translacion $P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$

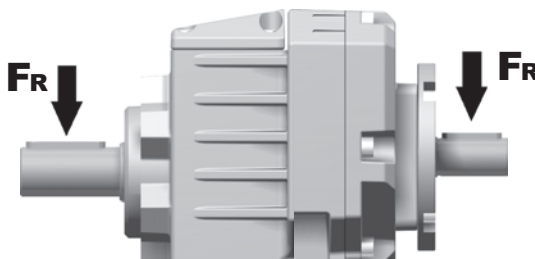
TORQUE / COPPIA / DREHMOMENT / PAR

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

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

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / 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.
- 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 / Par torsion		
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diámetro primitivo		
f_k	Coefficiente di trasformazione / Factor / Faktor / Coefficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / 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.
- 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 / Cómo seleccionar un reductor

B Output speed
Velocità in uscita
Abtriebsdrehzahl
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Potencia nominal

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

Flange code
Codice flangia
Flanschttype
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Velocidad de entrada

402A

Coaxial - Gear
150Nm

Rating - Alluminum 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
							B	C	D	E	Q	R	T	U			
398	3.52	3	69	1.2	3.5	80	B	71	80*	90*	71	80	90	100	2821		-
320	4.37	3	86	1.0	3.1	90	B				C	C			2818		
252	5.55	3	109	0.9	2.8	100	B				C	C			2813		
220	6.36	2.2	92	1.0	2.3	95	B				C	C			1921		
191	7.33	2.2	106	1.1	2.5	120	B				C	C			2812		

C Ratio
Rapporto
Untersetzung
Relación

Transmitted torque
Momento torcente trasmesso
Mögliche Drehmomente
Par transmitido

Service factor
Fattore di servizio
Betriebsfaktor
Factor de servicio

Output shaft diam.
Diam. albero uscita
Durchmesser abtriebswelle
Diámetro eje de salida

Notes
Note
Anmerkungen
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
B)	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montaje con casquillo de reducción
C)	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Posición agujeros brida / base motor
B)	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar 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	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	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	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)	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		
							B	C	O	P	Q			 Ratios code
							63	71*	56	63	71			
407	3.44	0.55**	12	2.0	1.11	25			C	C		2821	standard ø16 ø14 ø20 ø25 On request	-
327	4.28	0.55**	15	1.9	1.07	30			C	C		2818		
257	5.45	0.55**	20	2.0	1.12	40			C	C		2815		
225	6.23	0.55**	22	2.0	1.10	45			C	C		1921		
194	7.20	0.55**	26	1.9	1.06	50			C	C		2812		
181	7.74	0.55**	28	1.8	0.99	50			C	C		1918		
142	9.85	0.55**	35	1.7	0.93	60			C	C		1915		
123	11.42	0.55**	41	1.5	0.80	60			C	C		1715		
107	13.03	0.55**	47	1.3	0.70	60			C	C		1912		
93	15.10	0.37	37	1.6	0.61	60			C	C		1712		
86	16.20	0.37	39	1.5	0.57	60			C	C		1910		
75	18.78	0.37	46	1.3	0.49	60			C	C		1710		
66	21.15	0.37	51	1.2	0.43	60			C	C		1312		
64	21.84	0.37	53	1.1	0.42	60			C	C		1015		
53	26.31	0.37	64	0.9	0.35	60			C	C		1310		
48.5	28.88	0.37	70	1.0	0.37	70			C	C		1012		
39	35.91	0.37	87	0.8	0.30	70			C	C		1010		
37.1	37.69	0.25	62	1.1	0.28	70			C	C		912		
29.9	46.87	0.25	77	0.9	0.23	70			C	C		910		
28.1	49.76	0.25	81	0.9	0.21	70			C	C		712		
22.6	61.89	0.18	73	1.0	0.17	70			C	C		710		

** 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.
For complete documentation please visit our web site.

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.
Per la documentazione completa consulta il nostro sito.

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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.
Para documentación completa, consultar nuestra Web.

LUBRICATION 202A Oil Quantity 0.15 Lt.

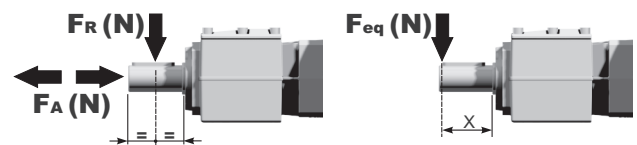
AGIP	BP	SHELL	KLUBER	MOBIL
Telium VSF 320	Energol SGXP220	Tivela Oil WB	Syntheso D220 EP	Glygoyle 30

tab. 1

RADIAL AND AXIAL LOADS

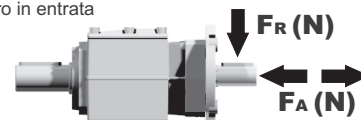
Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{35.7}{X+20.7}$$



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



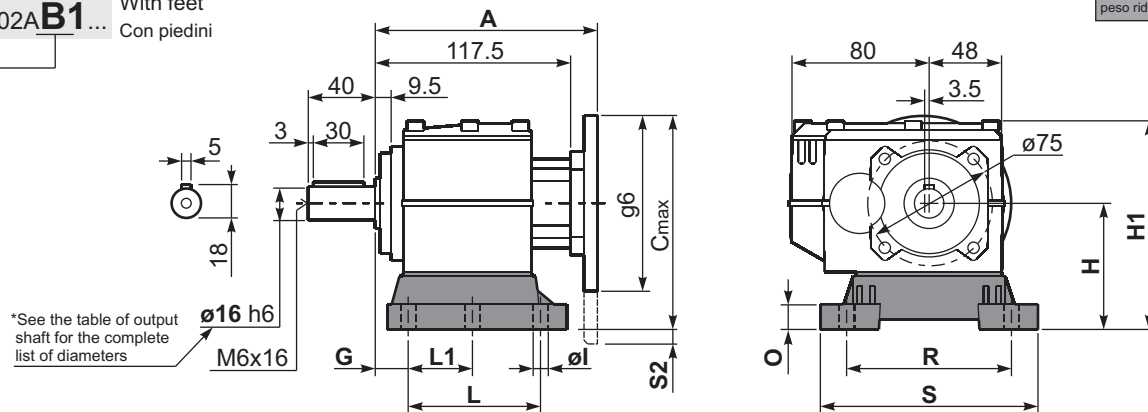
n_1	FA	FR
1400	140	700
900	160	800
500	190	950

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e grandezza specifica nel sito web per la documentazione completa.

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	125	15	9	5 71B5		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	115.5	15	9		63B5	KC30.9.024
L3	03	12.5	65	91	60	-	105	149	5	9	11.5 71B5		KC30.9.026LM
L4	04	13	80	105	76	-	132	165	5	9			KC30.9.027LM

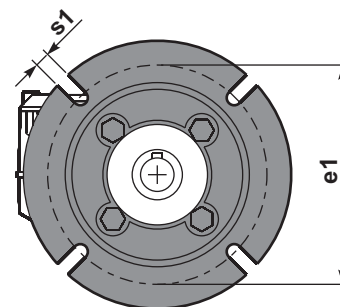
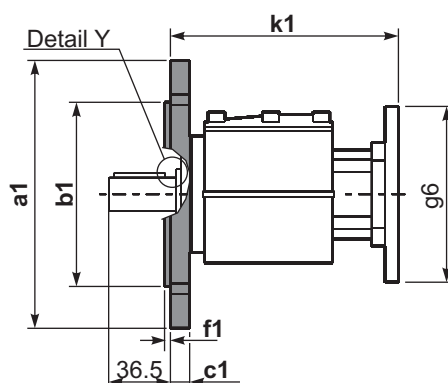
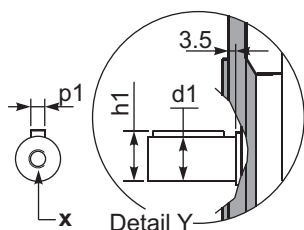
Other feet are available,
see our web site
Sono disponibili altri piedini,
consulta il nostro sito web

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	KC40.9.013



With flange an
feet only on
request.
Ask for
compatibility

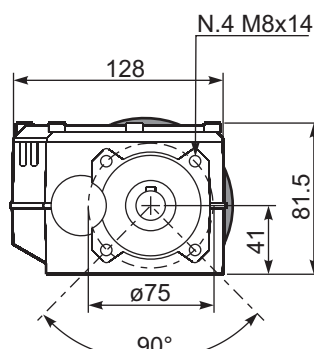
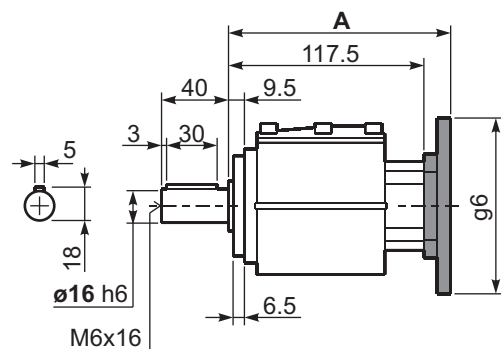
 * Holes position
Posizione fori



With flange and feet only on request. Ask for compatibility

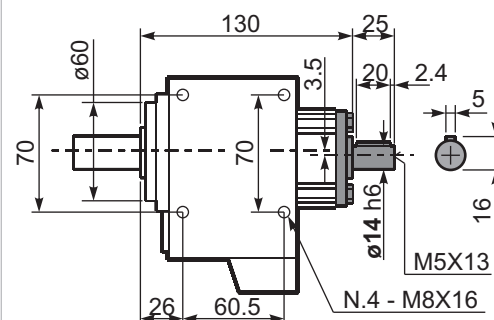
P202A-N...

Basic gearbox
Riduttore base



R202A-N..

Input Shaft
Albero in entrata



B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	133.2	170	140	136.7	K050.4.041
71 B5	131.2	180	160	134.7	K050.4.042

B14 Motor Flanges	A	C_{max}	g6	k1	kit code
56 B14	132.7	139	80	136.2	KC40.4.049
63 B14	135.2	146	90	138.7	K050.4.047
71 B14	132.7	152.5	105	136.2	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	1.5	35	B				C	C		2821		-
327	4.28	1.5	42	1.0	1.4	40	B				C	C		2818		
257	5.45	1.5	54	1.0	1.4	52	B				C	C		2815		
225	6.23	1.5	61	1.1	1.7	70	B				C	C		1921		
194	7.20	1.5	71	1.0	1.5	70	B				C	C		2812		
181	7.74	1.5	76	1.1	1.6	80	B				C	C		1918		
142	9.85	1.5	97	1.0	1.5	95	B				C	C		1915		
123	11.42	1.5	112	1.0	1.5	115	B				C	C		1715		
107	13.03	1.1	94	1.2	1.3	114	B				C	C		1912		
93	15.10	1.1	109	1.0	1.2	114	B				C	C		1712		
86	16.20	0.75	80	1.3	1.0	107	B				C	C		1910		
75	18.78	0.75	92	1.2	0.87	107	B				C	C		1710		
66	21.15	0.75	104	1.1	0.82	114	B				C	C		1312		
64	21.84	0.75	107	1.1	0.83	119	B				C	C		1015		
53	26.31	0.55	95	1.1	0.62	107	B				C	C		1310		
48.5	28.88	0.55	104	1.1	0.60	114	B				C	C		1012		
39	35.91	0.37	87	1.2	0.46	107	B				C	C		1010		
37.1	37.69	0.37	91	1.1	0.41	102	B				C	C		912		
29.9	46.87	0.37	114	0.9	0.35	107	B				C	C		910		
28.1	49.76	0.25	81	1.2	0.31	101	B				C	C		712		
22.6	61.89	0.25	101	1.1	0.26	107	B				C	C		710		

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

*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14
* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

Motor Flanges Available
Flange Motore Disponibili

B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

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

C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **302A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.
See table 1 for lubrication and recommended quantity.
In table 2 please see possible radial loads and axial loads on the gearbox.
For complete documentation please visit our web site.

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.
Per la documentazione completa consulta il nostro sito.

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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.
Para documentación completa, consultar nuestra Web.

LUBRICATION 302A Oil Quantity 0.15 Lt.

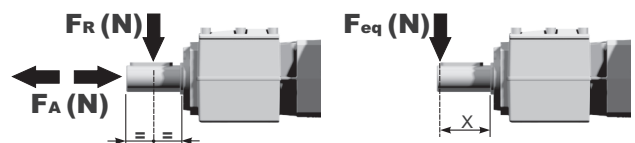
AGIP	BP	SHELL	KLUBER	MOBIL
Telium VSF 320	Energol SGXP220	Tivela Oil WB	Syntheso D220 EP	Glygoyle 30

tab. 1

RADIAL AND AXIAL LOADS

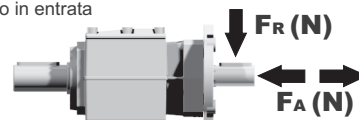
Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{35.7}{X+20.7}$$



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

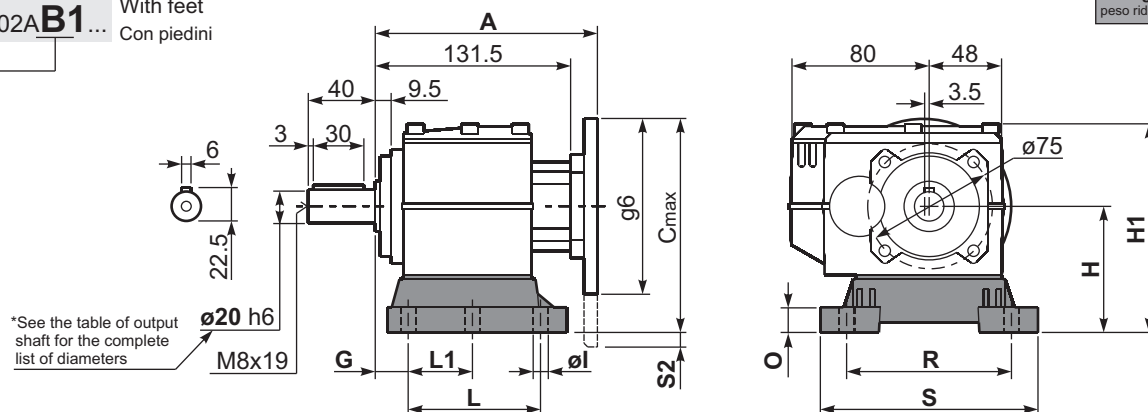
tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

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

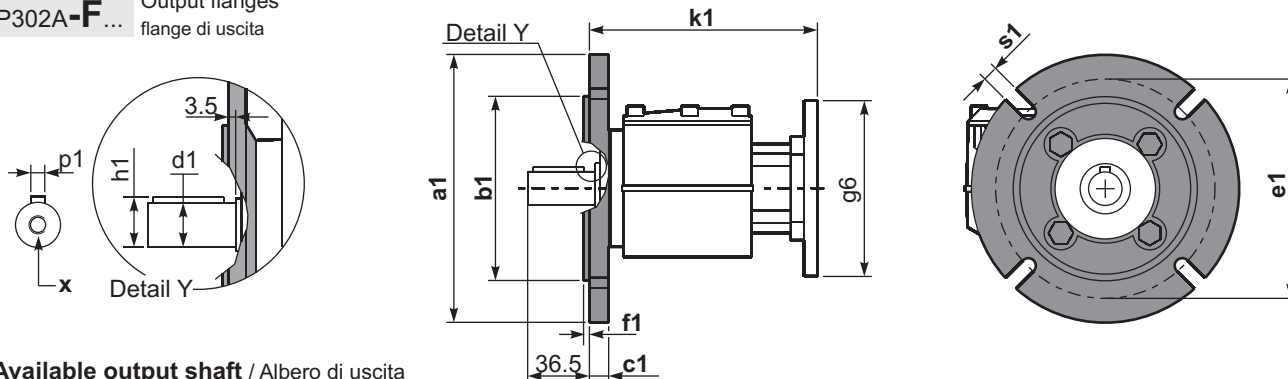
Feet Code	Market reference	G	H	R	L	L1	S	H1	O	ø1	S2 only with motor flange	B5 max. Flange	kit code
B1	112	18	85	110	87	50	130	125	15	9	15 80/90B5		KC30.9.022
B2	212/3	18	100	130	107.5	60	155	145	5	11	3.5 80/90B5		KC30.9.023LM
S1	17-32	18	75	110	110	50	130	115.5	15	9	5 71B5	71B5	KC30.9.024
S2	27	25	90	110	130	-	130	135	5	9			KC30.9.025LM
L3	03	12.5	65	91	60	-	105	149	5	9	31.5 80/90B5		KC30.9.026LM
L4	04	13	80	105	76	-	132	165	5	9	16.5 80/90B5		KC30.9.027LM

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
	ø 28x50	8	31	M8x19

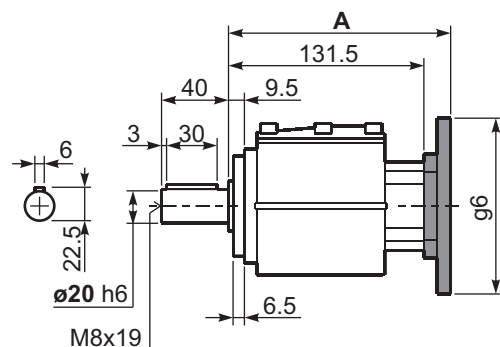
Available output flanges / flange di uscita

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	KC40.9.013

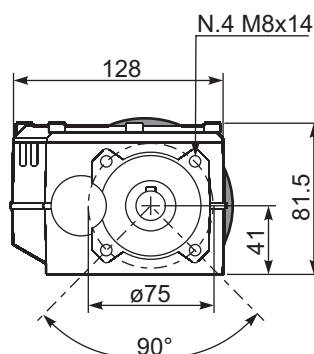
* Holes position
Posizione fori

With flange and feet only on request.
Ask for compatibility

P302A-N... Basic gearbox
Riduttore base

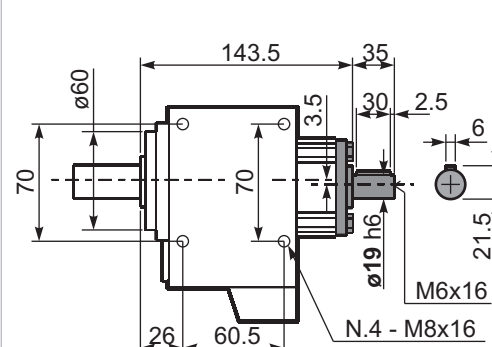


B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	151.7	170	140	155.2	K063.4.041
71 B5	152.2	180	160	155.7	K063.4.042
80/90 B5	151.2	200	200	154.7	K063.4.043



B14 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B14	149.7	152.5	105	153.2	K063.4.047
80 B14	150.7	160	120	154.2	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	Q	R	T	U			Ratios code
							63	71	80*	90*	71	80	90	100 112			
398	3.52	3	69	1.2	3.5	80	B				C	C			2821	standard ø25	-
320	4.37	3	86	1.0	3.1	90	B				C	C			2818		
252	5.55	3	109	0.9	2.8	100	B				C	C			2813		
220	6.36	2.2	92	1.0	2.3	95	B				C	C			1921		
191	7.33	2.2	106	1.1	2.5	120	B				C	C			2812		
177	7.89	2.2	114	1.1	2.3	120	B				C	C			1918		
139	10.06	2.2	145	1.0	2.3	150	B				C	C			1913		
120	11.66	1.5	114	1.5	2.3	174	B				C	C			1713		
106	13.26	1.5	130	1.2	1.8	160	B				C	C			1912		
102	13.68	1.5	134	1.1	1.6	144	B				C	C			1513		
91	15.37	1.5	151	1.1	1.6	160	B				C	C			1712		
86	16.20	1.5	159	0.9	1.3	138	B				C	C			1910		
78	18.04	1.5	177	0.9	1.4	160	B				C	C			1512		
74	18.80	1.1	135	1.0	1.1	138	B				C	C			1710		
65	21.54	1.1	155	1.0	1.1	160	B				C	C			1312		
63	22.29	1.1	161	1.0	1.1	167	B				C	C			1013		
53	26.30	0.75	129	1.1	0.80	138	B				C	C			1310		
47.6	29.40	0.75	144	1.1	0.83	160	B				C	C			1012		
39	35.91	0.55	129	1.1	0.59	138	B				C	C			1010		
36.5	38.37	0.55	138	1.2	0.64	160	B				C	C			912		
29.9	46.86	0.55	169	0.8	0.45	138	B				C	C			910		
27.6	50.67	0.37	123	1.1	0.40	132	B				C	C			712		
22.6	61.88	0.37	150	0.9	0.34	138	B				C	C			710		

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 **402A** 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.
For complete documentation please visit our web site.

I Il riduttore **402A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **402A** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **402A** 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.
Para documentación completa, consultar nuestra Web.

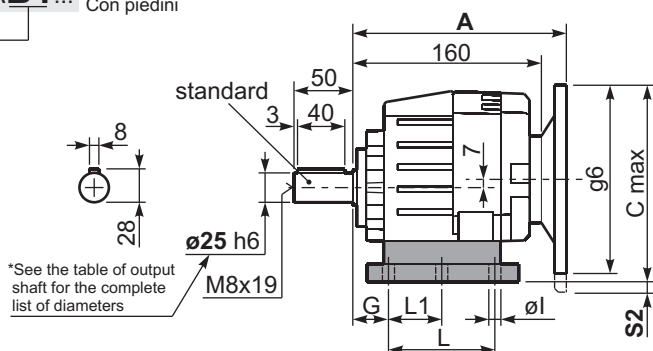
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.25 LT	0.30 LT	0.40 LT	0.40 LT	0.40 LT	0.50 LT	0.40 LT
AGIP Teliun VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

tab. 1

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{46}{X+21}$					
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

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P402A-B1... With feet
Con piediniGearbox weight
peso riduttore With flange **5.7 kg**
With feet **5.9 kg**

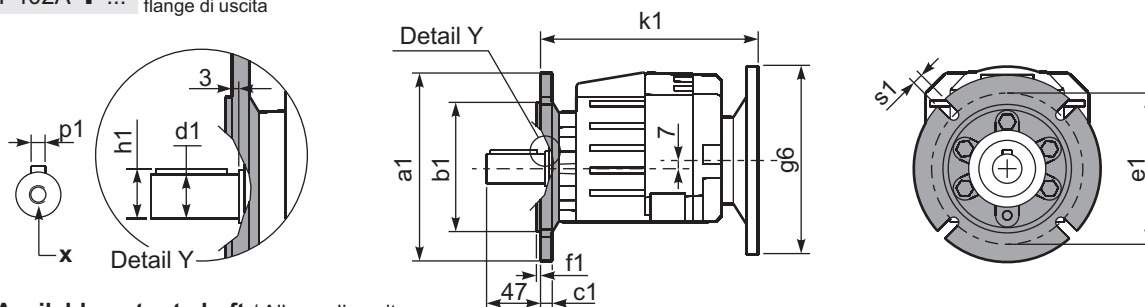
Feet / piedini

Feet Code	Market reference	G	H	R	L	L1	S	H1	O	Øl	S2 only with motor flange	B5 max. Flange	kit code
B1	112	18	85	110	87	50	130	167	15	-	8 80/90B5	-	KC35.9.021
B2	212/3	18	100	130	107.5	60	155	182	17	11	-	-	KC40.9.025
S1	17	18	75	110	90+110	50	145	155	15	9	18 80/90B5	-	KC40.9.022
S2	27	25	90	110	130	-	145	172	20	9	3 80/90B5	-	KC40.9.024
M1	42/3	25	80	110+120	85	-	145	162	15	9	13 80/90B5	-	KC40.9.023
L4	04	13	80	105	76	-	132	162	5	10	13 80/90B5	-	KC35.9.023LM
L5	05	16	100	125	90	-	150	182	6	12	-	-	KC40.9.027LM

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

P402A-F... Output flanges
flange di uscita

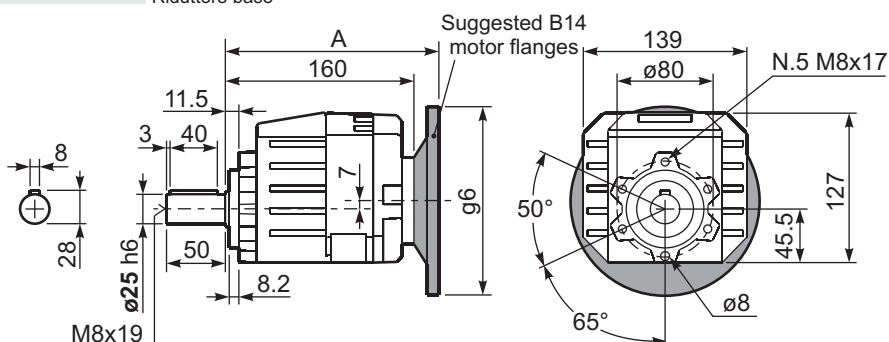
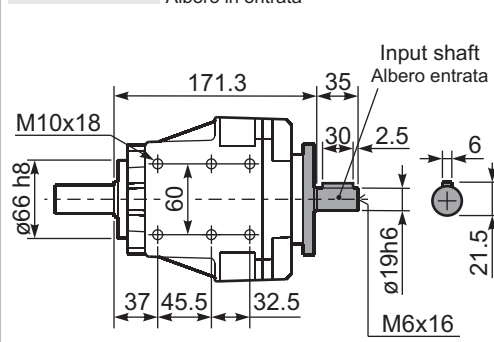
*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	Ø 25x50	8	28	M8x19
On request A richiesta	Ø 14x40	5	16	M5x13
	Ø 16x40	5	18	M6x16
	Ø 19x40	6	21.5	M6x16
	Ø 20x40	6	22.5	M8x19
	Ø 24x50	8	27	M8x19

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	9	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3	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

With flange and feet only on request. Ask for compatibility

P402A-N... Basic gearbox
Riduttore baseR402A-N... Input Shaft
Albero in entrata

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	180.5	162	140	183.5	K063.4.041
71 B5	178.5	170	160	181.5	K063.4.042
80/90 B5	180.5	190	200	183.5	K063.4.043

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B14	178.5	142.5	105	181.5	K063.4.047
80 B14	179.5	150	120	182.5	K063.4.046
90 B14	180.5	160	140	183.5	K063.4.041
100/112 B14	196.5	170	160	199.5	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	90	1.9	0.72	175			C	C		171713	standard ø25 ø14 ø16 ø19 ø20 ø22 ø24 On request
32.0	43.69	0.37	103	1.5	0.54	149			C	C		191712	
27.6	50.64	0.37	119	1.3	0.50	160			C	C		171712	
26.2	53.36	0.37	125	1.1	0.41	138			C	C		191710	
22.9	61.22	0.37	144	1.1	0.41	160			C	C		191312	
22.6	61.90	0.37	146	0.9	0.35	138			C	C		171710	
19.7	70.95	0.37	167	1.0	0.36	160			C	C		131712	
19.1	73.43	0.37	172	1.0	0.38	175			C	C		101713	
18.8	74.77	0.25	118	1.2	0.29	138			C	C		191310	
16.1	86.66	0.25	138	1.0	0.25	138			C	C		131710	
14.5	96.85	0.25	154	1.0	0.26	160			C	C		101712	
13.6	102.89	0.25	163	1.1	0.28	180			C	C		101313	
11.1	126.40	0.25	200	0.8	0.20	160			C	C		91712	
10.3	135.69	0.25	215	0.7	0.19	160			C	C		101312	
8.5	165.70	0.12	126	1.1	0.13	138			C	C		101310	
7.9	177.09	0.12	135	1.2	0.14	160			C	C		91312	
6.5	216.30	0.12	164	0.8	0.10	138			C	C		91310	

The dynamic efficiency is **0.93** 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 **403A** 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. For complete documentation please visit our web site.

I Il riduttore **403A** 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. Per la documentazione completa consulta il nostro sito.

D Das Getriebe **403A** 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **403A** 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. Para documentación completa, consultar nuestra Web.

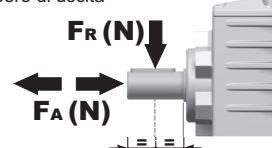
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
0.30 LT	0.35 LT	0.45 LT	0.45 LT	0.45 LT	0.55 LT	0.45 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

tab. 1

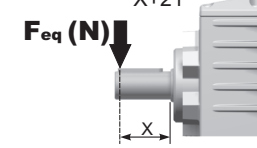
RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



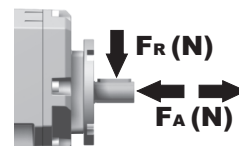
$$F_{eq} = F_R \cdot \frac{46}{X+21}$$



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

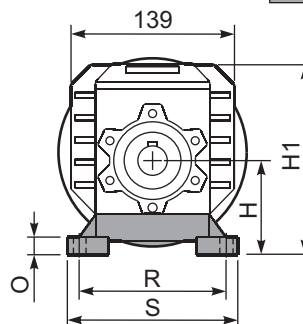
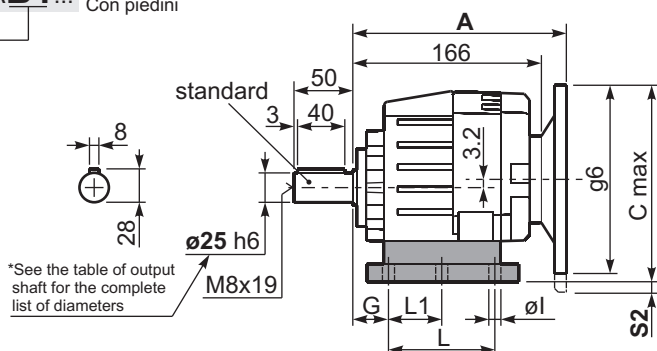
Albero in entrata



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

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P403A-B1... With feet
Con piediniGearbox weight
peso riduttore With flange **6.1 kg**
With feet **6.3 Kg**

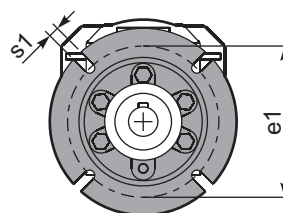
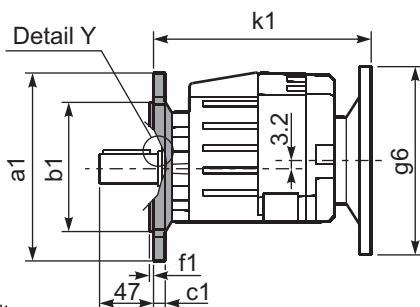
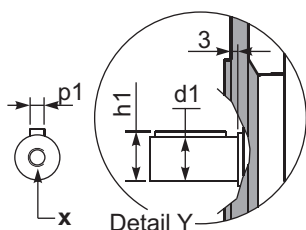
Feet / piedini

Feet Code	Market reference	G	H	R	L	L1	S	H1	O	øl	S2 only with motor flange	B5 max. Flange	kit code
B1	112	18	85	110	87	50	130	167	15	-	8 80/90B5	-	KC35.9.021
B2	212/3	18	100	130	107.5	60	155	182	17	11	-	-	KC40.9.025
S1	17	18	75	110	90+110	50	145	155	15	9	18 80/90B5	-	KC40.9.022
S2	27	25	90	110	130	-	145	172	20	9	3 80/90B5	-	KC40.9.024
M1	42/3	25	80	110+120	85	-	145	162	15	9	13 80/90B5	-	KC40.9.023
L4	04	13	80	105	76	-	132	162	5	10	13 80/90B5	-	KC35.9.023LM
L5	05	16	100	125	90	-	150	182	6	12	-	-	KC40.9.027LM

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

P403A-F... Output flanges
flange di uscita

*Available output shaft / Albero di uscita

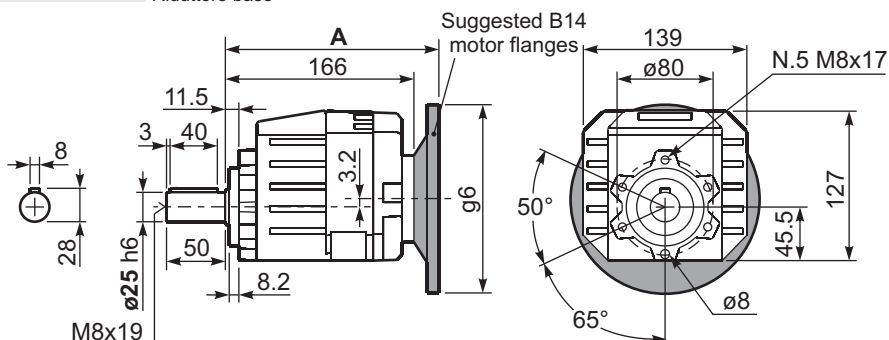
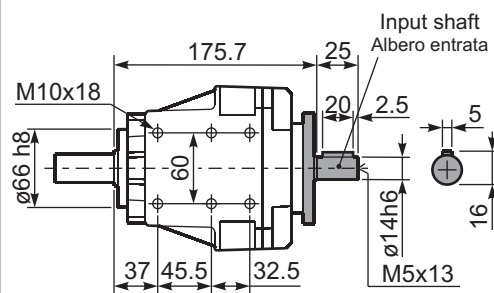
	Shaft - d1	p1	h1	x
Standard	ø 25x50	8	28	M8x19
On request A richiesta	ø 14x40	5	16	M5x13
	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 20x40	6	22.5	M8x19
	ø 24x50	8	27	M8x19

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	9	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3	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



With flange and feet only on request.
Ask for compatibility

P403A-N... Basic gearbox
Riduttore baseR403A-N... Input Shaft
Albero in entrata

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	182.5	201.2	140	185.5	K050.4.041
71 B5	180.5	211.2	160	183.5	K050.4.042

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
56 B14	186.5	170.2	80	189.5	KC40.4.049
63 B14	181.5	176.2	90	184.5	K050.4.047
71 B14	182	183.7	105	185	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 		Ratios code 
							C	D	E	F	R	T	U	V			
							71	80	90	100* 112	80	90	100 112	132			
388	3.61	4	95	1.6	6.3	150	B								3018		-
331	4.23	4	111	1.5	6.1	170	B								3016		
279	5.01	4	131	1.5	6.1	200	B								3014		
231	6.07	4	159	1.6	6.3	250	B								3012		
206	6.81	4	178	1.6	6.2	277	B								2018		
176	7.96	4	209	1.4	5.8	300	B								2016		
148	9.45	4	248	1.2	4.9	304	B								2014		
122	11.43	4	299	1.0	4.0	300	B								2012		
99	14.21	3	279	0.9	2.8	265	B								2010		
84	16.62	3	327	0.9	2.8	304	B								1314		
70	20.10	2.2	290	1.0	2.3	300	B								1312		
56	24.98	1.85	303	0.9	1.6	265	B								1310		
47.6	29.41	1.5	289	1.1	1.6	304	B								814		
39.3	35.58	1.5	349	0.9	1.3	300	B								812		
34.6	40.50	1.1	292	1.0	1.1	290	B								614		
31.7	44.22	1.1	319	0.8	0.92	265	B								810		
28.6	49.00	0.75	241	1.2	0.93	300	B								612		
23.0	60.90	0.75	299	0.9	0.66	265	B								610		

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.
For complete documentation please visit our web site.

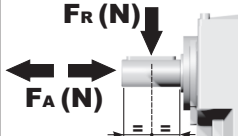
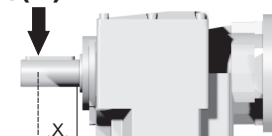
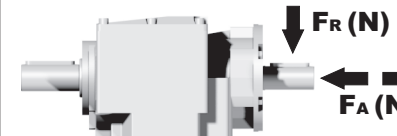
I Il riduttore **452A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

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.
Para documentación completa, consultar nuestra Web.

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
0.31 LT	0.31 LT	0.31 LT	0.31 LT	0.31 LT	0.31 LT	0.31 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

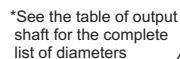
tab. 1

RADIAL AND AXIAL LOADS									
Output shaft / Albero di uscita					$F_{eq} = F_R \cdot \frac{51}{X+21}$				
									
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR	
300	415	2070	140	540	2700	70	700	3510	
250	430	2160	120	560	2790	40	810	4050	
200	470	2340	85	630	3150	15	900	4500	
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

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

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	162	20	11	15 100/112B5		KC50.9.024
B4	30/35	20	130	180	149.5	216	182	18	14			KC60.9.024
S4	47-57	30	115	135	165	170	167	24	13.5		80/90B5	KC50.9.022
H3	023-233	30	130	135	135	185	231.5	25	14			KC50.9.025
M2	52/3	30	110	135+150	100	190	162	18	11	15 100/112B5		KC50.9.023
L6	06	19	125	160	106	205	177	8	14			KC50.9.026LM
E2	2202/3	13	100	135	192	164	152	6	14		71B5	KC50.9.027LM
P4	142	35	142	130	145	160	194	8	14		80/90B5	KC50.9.028LM
J3	4100-05G	25	100	150	90	180	152	8	14	25 100/112B5		KC50.9.029LM

 Most popular types
Tipi più diffusi

Technical drawing of the KC50.9.011 pump head, showing side and front views with dimensions.

Side View Dimensions:

- $k1$: Overall length
- $a1$: Total height
- $b1$: Height of the main body
- $g6$: Height of the base flange
- $f1$: Flange thickness
- $c1$: Distance from base to center of the main body
- 51.5 with KC50.9.011**: Dimension for the main body diameter
- 57.5**: Dimension for the base flange outer diameter
- Detail Y**: Callout to a specific detail on the side view

Front View Dimensions:

- $s7$: Thickness of the base flange
- $e1$: Diameter of the base flange

	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	9	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	KC023.4.041	204.2
80/90 B5	197.7	242	200	200.2	KC023.4.042	206.2
100/112 B5	203.7	267	250	206.2	KC023.4.043	212.2

B14 Motor Flanges	A	C_{max}	g6	k1	kit code	k1 with KC50.9.011
80 B14	195.7	202	120	198.2	KC085.4.046	204.2
90 B14	195.7	212	140	198.2	KC085.4.045	204.2
100/112 B14	206.7	222	160	209.7	KC085.4.047	215.2
132 B14	225.2	242	200	227.7	KC50.4.041	233.7



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	R	T	U	V			
							71	80	90	100* 112	80	90	100 112	132			
388	3.61	5.5	130	1.2	6.3	150	B								3018		-
331	4.23	5.5	152	1.1	6.1	170	B								3016		
279	5.01	5.5	180	1.1	6.1	200	B								3014		
231	6.07	5.5	219	1.1	6.3	250	B								3012		
206	6.81	5.5	245	1.2	6.7	300	B								2018		
176	7.96	5.5	287	1.2	6.3	330	B								2016		
148	9.45	5.5	340	1.0	5.7	354	B								2014	standard ø30	
122	11.43	4	299	1.1	4.4	326	B								2012		
99	14.21	3	279	0.9	2.7	250	B								2010		
84	16.62	3	327	1.1	3.3	354	B								1314	ø24	
70	20.10	2.2	290	1.1	2.5	326	B								1312	ø25	
57	24.61	2.2	354	0.9	2.0	326	B								1112	ø28	
56	24.98	1.5	245	1.0	1.5	250	B								1310	ø35	
47.6	29.41	1.5	289	1.2	1.8	354	B								814	On request	
39.3	35.58	1.5	349	0.9	1.4	326	B								812		
34.6	40.50	1.1	292	1.0	1.1	295	B								614		
31.7	44.23	1.1	319	0.8	0.86	250	B								810		
28.6	49.00	1.1	353	0.9	1.0	326	B								612		
23.0	60.90	0.75	299	0.8	0.63	250	B								610		

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 **502A** 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.
For complete documentation please visit our web site.

I Il riduttore **502A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **502A** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **502A** 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.
Para documentación completa, consultar nuestra Web.

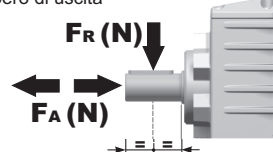
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
0.45 LT	0.55 LT	1.00 LT	1.10 LT	1.10 LT	1.15 LT	1.10 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

tab. 1

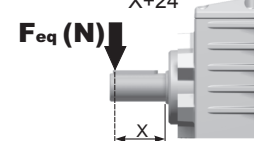
RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita



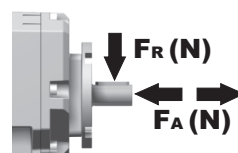
$$F_{eq} = F_R \cdot \frac{54}{X+24}$$



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

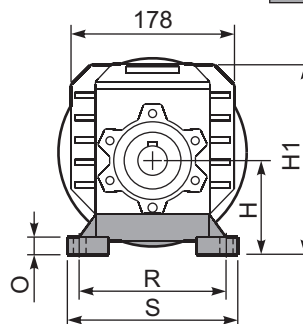
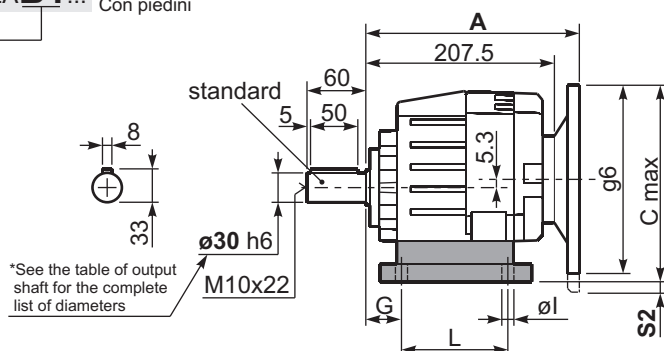
Albero in entrata



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

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P502A-B1... With feet
Con piediniGearbox weight
peso riduttore With flange 11.7 kg
With feet 11.9 Kg

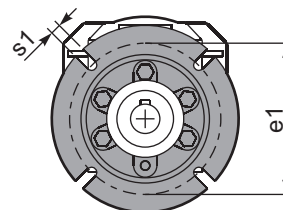
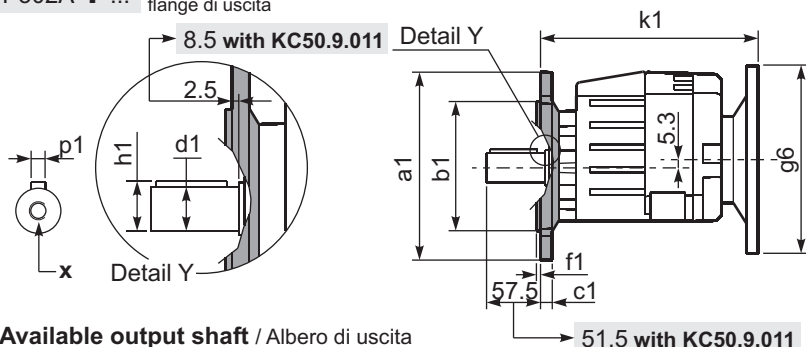
Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øl	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	211.5	20	11	10 100/112B5		KC50.9.024
B4	30/35	20	130	180	149.5	216	231.5	18	14			KC60.9.024
S4	47-57	30	115	135	165	170	216.5	24	13.5	5 100/112B5		KC50.9.022
H3	023-233	30	130	135	135	185	231.5	25	14			KC50.9.025
M2	52/3	30	110	135+150	100	190	226.5	18	11			KC50.9.023
L6	06	19	125	160	106	205	201.5	8	14		80/90B5	KC50.9.026LM
E2	2202/3	13	100	135	192	164	201.5	6	14	10 100/112B5		KC50.9.027LM
P4	142	35	142	130	145	160	243.5	8	14			KC50.9.028LM
J3	4100-05G	25	100	150	90	180	201.5	8	14	20 100/112B5		KC50.9.029LM

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

P502A-F... Output flanges
flange di uscita

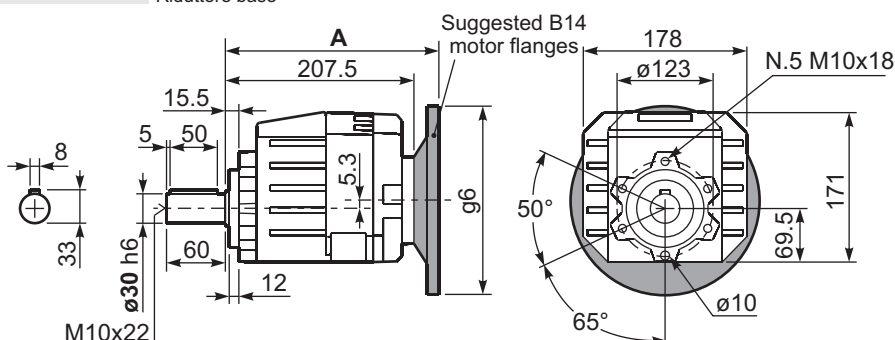
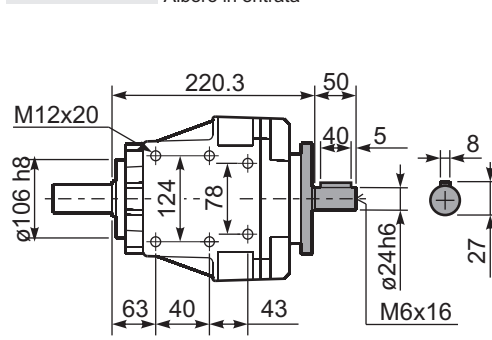
*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x60	8	31	M8x19
	ø 35x60	10	38	M10x22

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	9	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

P502A-N... Basic gearbox
Riduttore baseR502A-N... Input Shaft
Albero in entrata

B5 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
71 B5	226	227.3	160	228.5	KC023.4.041	234.5
80/90 B5	228	247.3	200	230.5	KC023.4.042	236.5
100/112 B5	234	272.3	250	236.5	KC023.4.043	242.5

B14 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
80 B14	226	207.3	120	228.5	KC085.4.046	234.5
90 B14	226	217.3	140	228.5	KC085.4.045	234.5
100/112 B14	240.7	227.3	160	243.2	KC085.4.047	249.2
132 B14	261.5	247	200	264	KC50.4.041	270



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	1.1	278	1.3	1.5	373	B				C	C		191316	standard ø30 ø24 ø25 ø28 ø35 On request
29.6	47.22	1.1	330	1.1	1.2	354	B				C	C		191314	
25.6	54.73	1.1	382	0.9	1.0	354	B				C	C		171314	
21.1	66.22	0.75	315	1.0	0.78	326	B				C	C		171312	
18.3	76.69	0.75	365	1.0	0.73	354	B				C	C		131314	
16.7	83.59	0.55	292	1.2	0.67	354	B				C	C		190814	
15.1	92.78	0.55	324	1.0	0.55	326	B				C	C		131312	
13.4	104.67	0.55	365	1.0	0.53	354	B				C	C		101314	
11.9	117.22	0.37	275	1.2	0.44	326	B				C	C		170812	
11.1	126.65	0.37	297	1.1	0.41	326	B				C	C		101312	
10.2	136.62	0.37	321	1.1	0.41	354	B				C	C		91314	
8.5	165.29	0.25	262	1.2	0.31	326	B				C	C		91312	
7.8	180.40	0.25	286	1.2	0.31	354	B				C	C		71314	
6.4	218.26	0.25	346	0.9	0.24	326	B				C	C		71312	
5.8	241.82	0.25	384	0.9	0.23	354	B				C	C		90814	
4.8	292.57	0.18	334	1.0	0.18	326	B				C	C		90812	
4.4	319.32	0.18	365	1.0	0.17	354	B				C	C		70814	
3.6	386.33	0.18	441	0.7	0.13	326	B				C	C		70812	
2.9	480.16	0.18	548	0.5	0.08	250	B				C	C		70810	

The dynamic efficiency is **0.93** 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 **503A** 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.
For complete documentation please visit our web site.

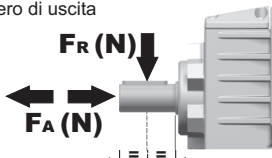
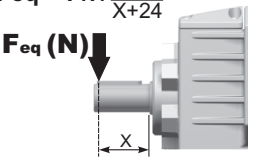
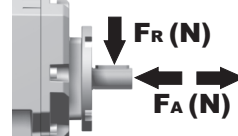
I Il riduttore **503A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **503A** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **503A** 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.
Para documentación completa, consultar nuestra Web.

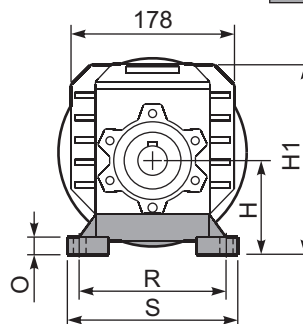
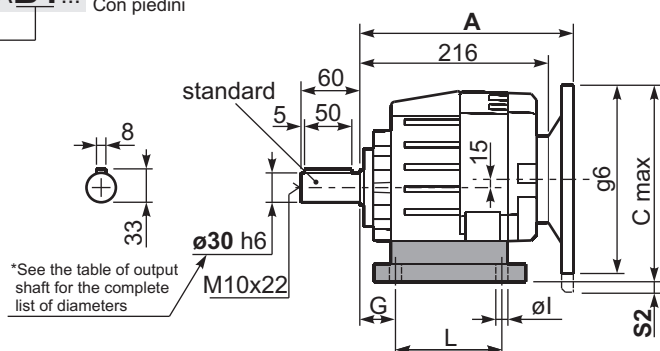
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
						
B3	B6	B7	B8	V5	V6	V8
0.75 LT	0.75 LT	1.05 LT	1.15 LT	1.20 LT	1.20 LT	1.20 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

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
300	460	2300	140	600	3000
250	480	2400	120	620	3100
200	520	2600	85	700	3500
n_2	FA	FR	n_2	FA	FR
70	780	3900	70	780	3900
40	900	4500	40	900	4500
15	1000	5000	15	1000	5000
Input shaft Albero in entrata					
n_1	FA	FR	n_1	FA	FR
1400	400	2000	1400	400	2000
900	440	2200	900	440	2200
500	440	2200	500	440	2200

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P503A-B1... With feet
Con piediniGearbox weight
peso riduttore With flange 11.9 kg
With feet 12.1 Kg

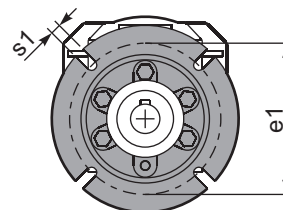
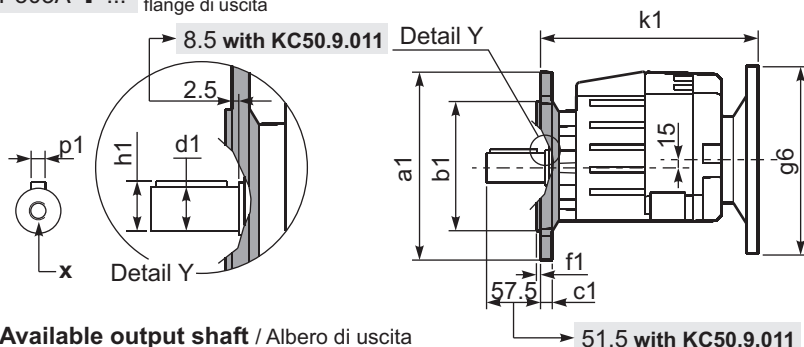
Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øl	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	211.5	20	11	10 100/112B5		KC50.9.024
B4	30/35	20	130	180	149.5	216	231.5	18	14			KC60.9.024
S4	47-57	30	115	135	165	170	216.5	24	13.5	5 100/112B5		KC50.9.022
H3	023-233	30	130	135	135	185	231.5	25	14			KC50.9.025
M2	52/3	30	110	135+150	100	190	226.5	18	11			KC50.9.023
L6	06	19	125	160	106	205	201.5	8	14		80/90B5	KC50.9.026LM
E2	2202/3	13	100	135	192	164	201.5	6	14	10 100/112B5		KC50.9.027LM
P4	142	35	142	130	145	160	243.5	8	14			KC50.9.028LM
J3	4100-05G	25	100	150	90	180	201.5	8	14	20 100/112B5		KC50.9.029LM

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

P503A-F... Output flanges
flange di uscita

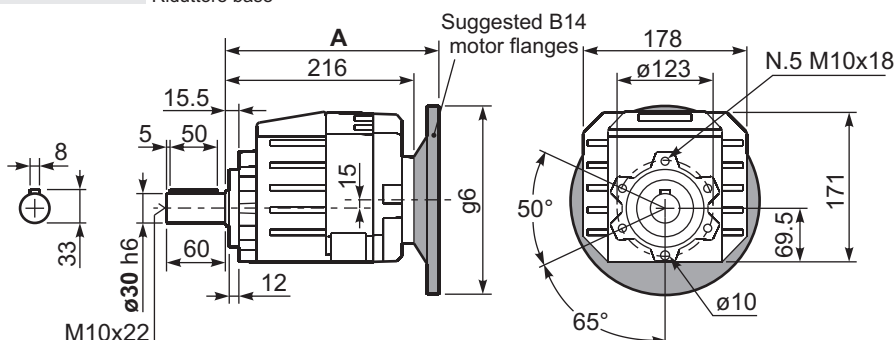
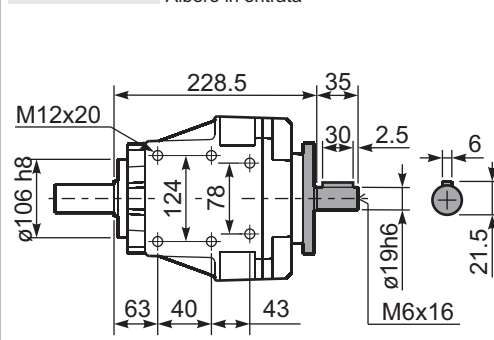
*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x60	8	31	M8x19
	ø 35x60	10	38	M10x22

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	9	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

P503A-N... Basic gearbox
Riduttore baseR503A-N... Input Shaft
Albero in entrata

B5 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
63 B5	236.5	227	140	239	K063.4.041	245
71 B5	234.5	237	160	237	K063.4.042	243
80/90 B5	236.5	257	200	239	K063.4.043	245

B14 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
71 B14	234.5	209.5	105	237	K063.4.047	243
80 B14	235.5	217	120	238	K063.4.046	244
90 B14	236.5	227	140	239	K063.4.041	245



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	R	T	U	V			Ratios code
							71	80	90	100 112	80	90	100 112	132			
388	3.61	7.5	177	0.9	7.0	165	B								3018	standard ø35	-
331	4.23	7.5	208	1.0	7.2	200	B								3016		
279	5.01	7.5	246	1.0	7.3	240	B								3014		
231	6.07	7.5	298	0.9	6.8	270	B								3012		
206	6.81	5.5	245	1.4	7.6	340	B								2018		
176	7.96	5.5	287	1.3	7.1	370	B								2016		
148	9.45	5.5	340	1.2	6.5	400	B								2014		
122	11.43	5.5	412	1.0	5.3	400	B								2012		
99	14.21	4	372	1.1	4.3	400	B								2010		
84	16.62	4	435	1.2	4.6	501	B								1314		
70	20.10	4	527	0.9	3.8	499	B								1112		
57	24.61	3	483	1.0	3.1	492	B								1312		
56	24.98	3	491	0.8	2.4	400	B								1310		
47.6	29.41	2.2	424	1.0	2.3	440	B								814		
39.3	35.58	1.85	431	1.2	2.1	499	B								812		
34.6	40.50	1.1	292	1.1	1.2	310	B								614		
31.7	44.23	1.5	434	0.9	1.4	400	B								810		
28.6	49.00	1.1	353	1.0	1.1	368	B								612		
23.0	60.90	1.1	439	0.9	1.0	400	B								610		

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 **602A** 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.
For complete documentation please visit our web site.

I Il riduttore **602A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **602A** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **602A** 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.
Para documentación completa, consultar nuestra Web.

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
0.55 LT	0.85 LT	1.10 LT	1.20 LT	1.20 LT	1.25 LT	1.20 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

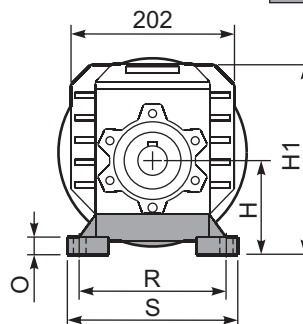
tab. 1

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

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

Gearbox weight	With flange 14.1 kg
peso riduttore	With feet 14.5 Kg



Feet Code	Market reference	G	H	R	L	S	H1	O	øI	S2 only with motor flange	B5 max. Flange	kit code
B4	412/3	20	130	180	149.5	216	233	18	14	-	100/112 B5	KC60.9.024
S4	47-57	30	115	135	165	170	218	24	13.5	-		KC50.9.022
M3	62/3	35	120	170÷185	110	230	223	20	14	-		KC60.9.023
S7	77	35	140	170	205	204	243	8	14	-		KC60.9.029LM
H4	024-243	35	155	170	150	225	258	30	14	-		KC60.9.025
L6	06	19	125	160	106	205	228	8	14	-		KC50.9.026LM
E3	2302/3	19.5	125	170	240	205	228	8	14	-		KC60.9.026LM
P6	162	40	162	160	205	200	265	8	14	-		KC60.9.027LM
J4	4110G	27	120	190	115	225	223	8	14	-		KC60.9.028LM

 Most popular types
Tipi più diffusi

flange di uscita

8.5 with KC50.9.011

2.5

h1

d1

Detail Y

Detail X

k1

a1

b1

21.8

g6

f1

c1

67.5

61.5 with KC50.9.011

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

a1 Ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	9	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

[illegible]

B14 Motor Flanges	A	C_{max}	g6	k1	kit code	k1 with KC50.9.011
80 B14	243.8	243.8	120	246.3	KC085.4.046	252.3
90 B14	243.8	253.8	140	246.3	KC085.4.045	252.3
100/112 B14	258.5	263.8	160	261	KC085.4.047	267
132 B14	279.5	283.8	200	282	KC50.4.041	288



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	379	1.1	1.7	434	B				C	C		191316	standard ø35 ø28 ø30 ø38 ø40 On request
29.6	47.22	1.5	449	1.1	1.7	501	B				C	C		191314	
25.6	54.73	1.5	521	1.0	1.4	501	B				C	C		171314	
24.5	57.13	1.1	399	1.3	1.4	500	B				C	C		191312	
21.1	66.22	1.1	462	1.1	1.2	500	B				C	C		171312	
19.7	71.01	1.1	496	0.9	0.97	435	B				C	C		191310	
18.3	76.69	1.1	535	0.9	1.0	501	B				C	C		131314	
17.0	82.30	0.75	392	1.1	0.83	435	B				C	C		171310	
16.7	83.59	0.75	398	1.1	0.83	441	B				C	C		190814	
15.1	92.78	0.75	441	1.1	0.85	500	B				C	C		131312	
13.4	104.68	0.75	498	1.0	0.75	501	B				C	C		101314	
11.9	117.22	0.55	409	1.2	0.67	500	B				C	C		170812	
11.1	126.65	0.55	442	1.1	0.62	500	B				C	C		101312	
10.3	135.74	0.37	319	1.4	0.51	441	B				C	C		130814	
9.6	145.68	0.37	342	1.3	0.47	435	B				C	C		170810	
8.9	157.40	0.37	369	1.2	0.44	435	B				C	C		101310	
8.5	165.29	0.37	388	1.3	0.48	500	B				C	C		91312	
7.6	185.29	0.37	435	1.0	0.38	441	B				C	C		100814	
6.8	205.43	0.37	482	0.9	0.33	435	B				C	C		91310	
6.2	224.18	0.37	526	1.0	0.35	500	B				C	C		100812	
5.8	241.82	0.25	384	1.1	0.29	441	B				C	C		90814	
5.0	278.62	0.25	442	1.0	0.25	435	B				C	C		100810	
4.8	292.57	0.25	464	1.1	0.27	500	B				C	C		90812	
3.9	363.63	0.18	415	1.0	0.19	435	B				C	C		90810	

The dynamic efficiency is 0.93 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 **603A** 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.

For complete documentation please visit our web site.

I Il riduttore **603A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **603A** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **603A** 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.
Para documentación completa, consultar nuestra Web.

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
0.75 LT	0.90 LT	1.15 LT	1.25 LT	1.30 LT	1.35 LT	1.30 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

tab. 1

RADIAL AND AXIAL LOADS

Output shaft

Albero di uscita

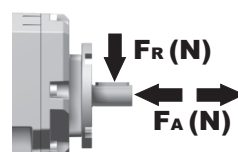


$$F_{eq} = F_R \cdot \frac{60.5}{X+25.5}$$

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

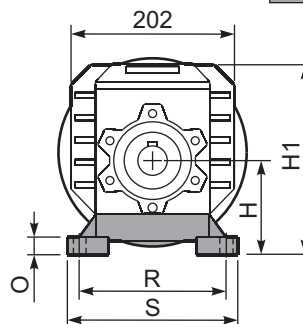
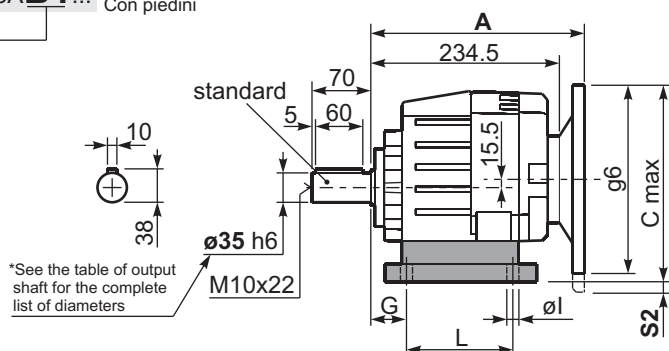
Albero in entrata



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

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P603A **B1** ...
With feet
Con piediniGearbox weight
peso riduttore
With flange 14.3 kg
With feet 14.7 kg

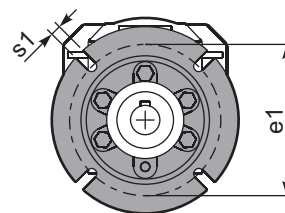
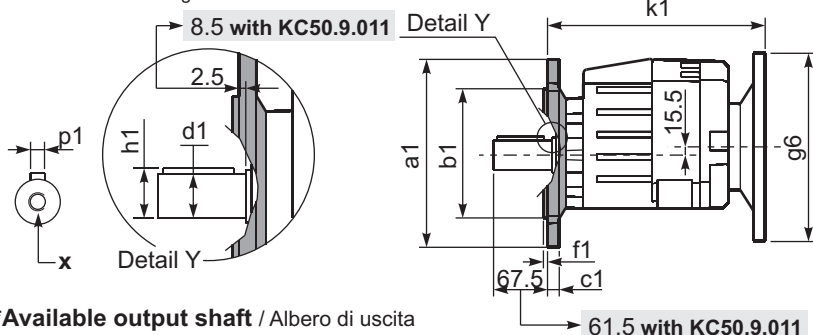
Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	ØI	S2 only with motor flange	B5 max. Flange	kit code
B4	412/3	20	130	180	149.5	216	233	18	14	-	100/112 B5	KC60.9.024
S4	47-57	30	115	135	165	170	218	24	13.5	-		KC50.9.022
M3	62/3	35	120	170-185	110	230	223	20	14	-		KC60.9.023
S7	77	35	140	170	205	204	243	8	14	-		KC60.9.029LM
H4	024-243	35	155	170	150	225	258	30	14	-		KC60.9.025
L6	06	19	125	160	106	205	228	8	14	-		KC50.9.026LM
E3	2302/3	19.5	125	170	240	205	228	8	14	-		KC60.9.026LM
P6	162	40	162	160	205	200	265	8	14	-		KC60.9.027LM
J4	4110G	27	120	190	115	225	223	8	14	-		KC60.9.028LM

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

P603A-**F** ...
Output flanges
flange di uscita

*Available output shaft / Alberi di uscita

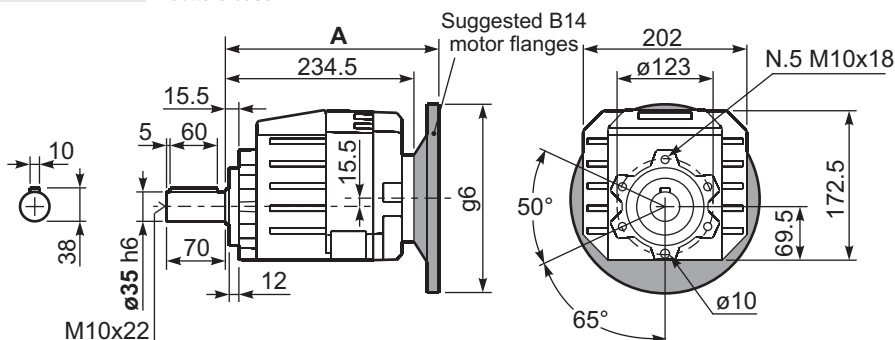
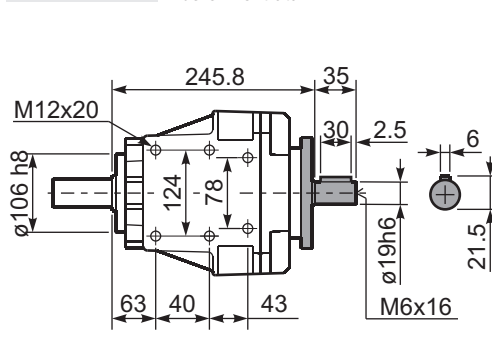
	Shaft - d1	p1	h1	x
Standard	Ø 35x70	10	38	M10x22
On request A richiesta	Ø 28x60	8	31	M8x20
	Ø 30x60	8	33	M10x22
	Ø 38x70	10	41	M10x25
	Ø 40x80	12	43	M12x28

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	9	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

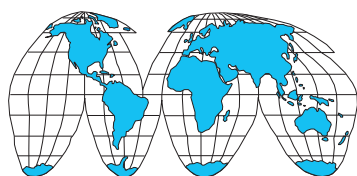
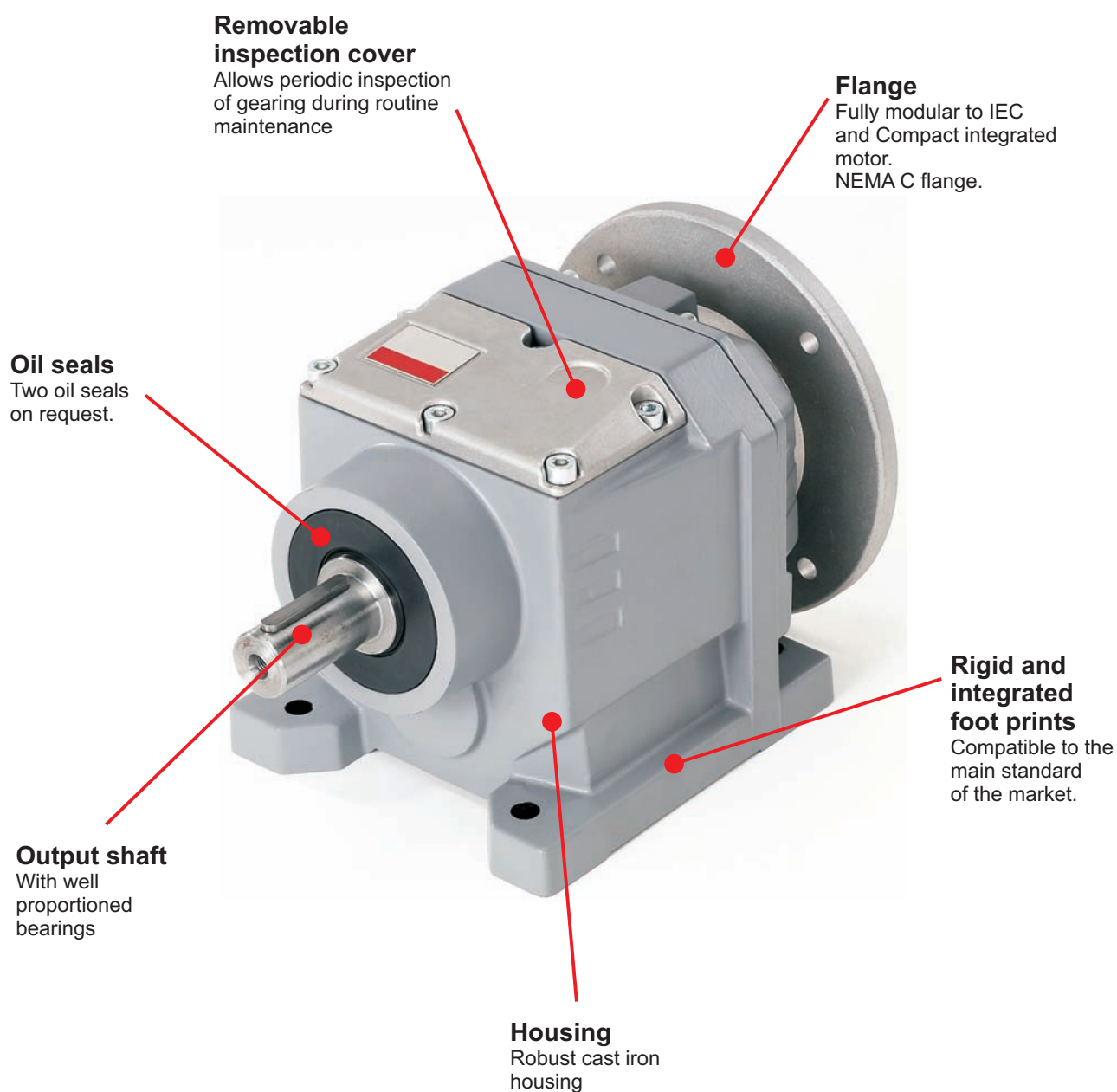
P603A-**N** ...
Basic gearbox
Riduttore baseR603A-**N** ...
Input Shaft
Albero in entrata

B5 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
63 B5	255	247.5	140	257.5	K063.4.041	263.5
71 B5	253	257.5	160	255.5	K063.4.042	261.5
80/90 B5	255	277.5	200	257.5	K063.4.043	263.5

B14 Motor Flanges	A	C _{max}	g6	k1	kit code	k1 with KC50.9.011
71 B14	253	230	105	255.5	K063.4.047	261.5
80 B14	254	237.5	120	256.5	K063.4.046	262.5
90 B14	255	247.5	140	257.5	K063.4.041	263.5

Cast iron in line gearboxes

A modular and compact product

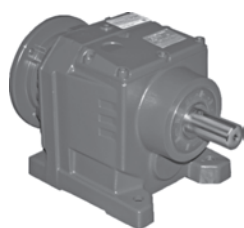


World wide sales network.

Lubricated for life with synthetic oil with operative range from -15° to $+130^{\circ}\text{C}$

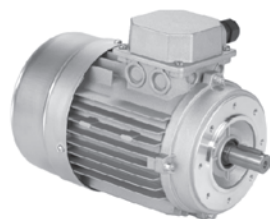


On page / A pagina / Auf Seite / En la página


Types / Tipi /
Arten / Tipos


6-5	6-7	6-9	6-11
402C 195Nm	403C 195Nm	602C 460Nm	603C 460Nm

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


Types / Tipi /
Arten / Tipos


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

For : / Per : / Für : / Para :

Selection guide - fs
Guida alla selezione

Mounting pos. - Lubrication
Pos. di montaggio - lubrificazione

2 - 6 poles selection
Selezione 2 - 6 poli

Radial - axial loads
Carichi radiali e assiali

Reversibility
Reversibilità

Thermal limit
Limite termico

Atex certification
Certificazione Atex

Accessories
Accessori

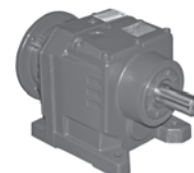
Download 3D drawings
Download disegni 3D

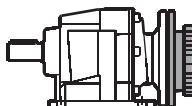
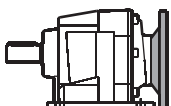
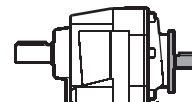
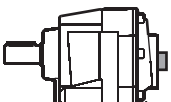
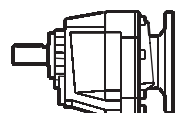
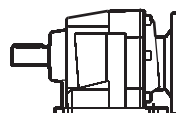
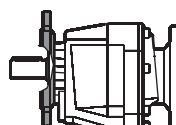
Interchangeability
Intercambiabilità

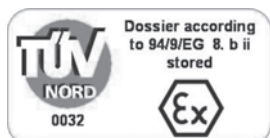
Installation and maintenance
Installazione, uso e manutenzione

Spare parts list
Liste parti di ricambio

Use our web database to
get detailed informations,
always updated on
each type/size.

Features
Selection


Type - Tipo - Typ - Tipo	Size - Grandezza Grösse - Tomaño	Mounting - Montaggio - Montage - Tipo de montaje
P	402C	-F
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	2 Stages Riduzioni Stufen Etapas 402C 602C 3 Stages Riduzioni Stufen Etapas 403C 603C	 Without flange/feet -N  Integral feet SP  Output flange mounted -F

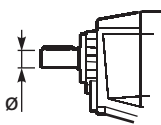
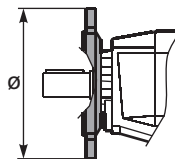
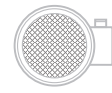
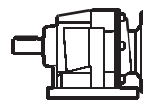
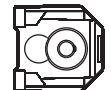
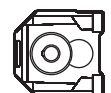
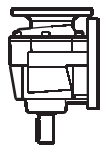
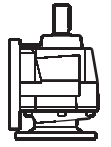
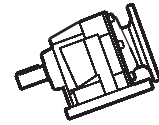


A richiesta
possiamo fornire i
nostri prodotti
secondo le
normative ATEX

On request we
can deliver our
products
according to the
ATEX

Auf Anfrage können
wir unsere Produkte
den Richtlinien
ATEX entsprechend
liefern

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

Ratio - Rapporto Untersetzung Relación	Output shaft Albero lento Abtriebswelle Eje en solida	Output flange Flangia uscita Ausgangsflansch Brida en salida	Motor size Grandezza motore Motor Grösse Tamaño motor	Terminal box position Posizione morsettieria Klemmkastenlage Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage																																																		
7.33	V	2	C	B	B3																																																		
See technical data table Vedi tabelle dati tecnici. Technisches Datenblatt beachten. Ver tabla datos técnicos	 → STANDARD <table><tr><td>402C 403C</td></tr><tr><td>S ⇒ Ø14</td></tr><tr><td>B ⇒ Ø16</td></tr><tr><td>C ⇒ Ø19</td></tr><tr><td>D ⇒ Ø20</td></tr><tr><td>E ⇒ Ø24</td></tr><tr><td>V ⇒ Ø25</td></tr></table> <table><tr><td>602C 603C</td></tr><tr><td>G ⇒ Ø28</td></tr><tr><td>H ⇒ Ø30</td></tr><tr><td>I ⇒ Ø35</td></tr><tr><td>L ⇒ Ø38</td></tr><tr><td>M ⇒ Ø40</td></tr></table>	402C 403C	S ⇒ Ø14	B ⇒ Ø16	C ⇒ Ø19	D ⇒ Ø20	E ⇒ Ø24	V ⇒ Ø25	602C 603C	G ⇒ Ø28	H ⇒ Ø30	I ⇒ Ø35	L ⇒ Ø38	M ⇒ Ø40	 N Senza flangia Without flange <table><tr><td>402C 403C</td></tr><tr><td>1 ⇒ Ø120</td></tr><tr><td>2 ⇒ Ø140</td></tr><tr><td>3 ⇒ Ø160</td></tr><tr><td>4 ⇒ Ø200</td></tr></table> <table><tr><td>602C 603C</td></tr><tr><td>3 ⇒ Ø160</td></tr><tr><td>4 ⇒ Ø200</td></tr><tr><td>5 ⇒ Ø250</td></tr></table>	402C 403C	1 ⇒ Ø120	2 ⇒ Ø140	3 ⇒ Ø160	4 ⇒ Ø200	602C 603C	3 ⇒ Ø160	4 ⇒ Ø200	5 ⇒ Ø250	Standard Flange Flangia Standard <table><tr><td>B5</td><td>B14</td></tr><tr><td>A=56 (Ø120)</td><td>O=56 (Ø80)</td></tr><tr><td>B=63 (Ø140)</td><td>P=63 (Ø90)</td></tr><tr><td>C=71 (Ø160)</td><td>Q=71 (Ø105)</td></tr><tr><td>D=80 (Ø200)</td><td>R=80 (Ø120)</td></tr><tr><td>E=90 (Ø200)</td><td>T=90 (Ø140)</td></tr><tr><td>F=100+112 (Ø250)</td><td>U=100+112 (Ø160)</td></tr><tr><td></td><td>V=132 (Ø200)</td></tr></table> <table><tr><td>402C 403C 603C</td></tr><tr><td>2 ⇒ Ø19</td></tr></table> <table><tr><td>602C</td></tr><tr><td>3 ⇒ Ø24</td></tr></table> Without flange / Senza flangia <table><tr><td>402C 403C 603C</td></tr><tr><td>1 ⇒ Ø14 (71B5)</td></tr><tr><td>2 ⇒ Ø19 (80B5)</td></tr><tr><td>3 ⇒ Ø24 (90B5)</td></tr></table> <table><tr><td>602C</td></tr><tr><td>2 ⇒ Ø19 (80B5)</td></tr><tr><td>3 ⇒ Ø24 (90B5)</td></tr><tr><td>4 ⇒ Ø28 (100B5)</td></tr></table> → STANDARD	B5	B14	A=56 (Ø120)	O=56 (Ø80)	B=63 (Ø140)	P=63 (Ø90)	C=71 (Ø160)	Q=71 (Ø105)	D=80 (Ø200)	R=80 (Ø120)	E=90 (Ø200)	T=90 (Ø140)	F=100+112 (Ø250)	U=100+112 (Ø160)		V=132 (Ø200)	402C 403C 603C	2 ⇒ Ø19	602C	3 ⇒ Ø24	402C 403C 603C	1 ⇒ Ø14 (71B5)	2 ⇒ Ø19 (80B5)	3 ⇒ Ø24 (90B5)	602C	2 ⇒ Ø19 (80B5)	3 ⇒ Ø24 (90B5)	4 ⇒ Ø28 (100B5)	 A  B STANDARD  C  D	 B3 STANDARD  B6  B7  B8  V5  V6  V8 Specify only for vertical positions Specificare solo per posizione verticale
402C 403C																																																							
S ⇒ Ø14																																																							
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4 ⇒ Ø28 (100B5)																																																							

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / elevación

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

Rotation / rotazione / drehung / rotation

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

Linear movement / traslazione / linearbewegung / translacion

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

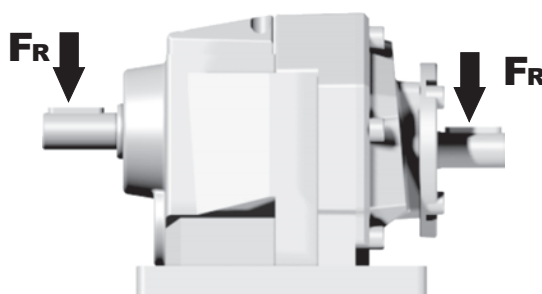
TORQUE / COPPIA / DREHMOMENT / PAR

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

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

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / 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.
- 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 / Par torsion		
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diámetro primitivo		
f _k	Coefficiente di trasformazione / Factor / Faktor / Coefficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / 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.
- 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 / Cómo seleccionar un reductor

B Output speed
Velocità in uscita
Abtriebsdrehzahl
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Potencia nominal

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

Flange code
Codice flangia
Flanschttype
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Velocidad de entrada

Gear size
Grandezza riduttore
Getriebegröße
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Potencia motor

402C Coaxial - Gear
195Nm

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
							B	C	D	E	Q	R	T	U			
398	5.55	3	109	1.1	3.5	120	63	71	80*	90*	71	80	90	100	2821		-
320	7.33	3	144	1.0	3.1	150								112	2812		
252	8.96	3	176	0.9	2.8	160									2810		
220	10.04	2.2	145	1.0	2.3	150									1915		
191	11.64	2.2	168	1.0	2.5	160									1715		

C Ratio
Rapporto
Untersetzung
Relación

Transmitted torque
Momento torcente trasmesso
Mögliche Drehmomente
Par transmitido

Service factor
Fattore di servizio
Betriebsfaktor
Factor de servicio

Output shaft diam.
Diam. albero uscita
Durchmesser abtriebswelle
Diámetro eje de salida

Notes
Note
Anmerkungen
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
B)	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montaje con casquillo de reducción
C)	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Posición agujeros brida / base motor
B)	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible también 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	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	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	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)	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		
							B	C	D	E	Q	R	T	U			Ratios code
							63	71	80*	90*	71	80	90	100 112			
252	5.55	3	109	1.1	3.3	120	B				C	C			2815		-
191	7.33	3	144	1.0	3.1	150	B				C	C			2812		
156	8.96	3	176	0.9	2.7	160	B				C	C			2810		
139	10.04	2.2	145	1.0	2.3	150	B				C	C			1915		
120	11.64	2.2	168	1.0	2.1	160	B				C	C			1715		
106	13.26	2.2	191	0.9	2.1	180	B				C	C			1912		standard ø25
91	15.37	1.5	151	1.3	1.9	196	B				C	C			1712		
86	16.20	1.5	159	1.1	1.6	170	B				C	C			1910	ø14	
75	18.78	1.5	184	0.9	1.4	170	B				C	C			1710	ø16	
65	21.54	1.1	155	1.3	1.4	196	B				C	C			1312	ø19	
63	22.26	1.1	160	1.0	1.1	155	B				C	C			1015	ø20	
53	26.31	0.75	129	1.3	1.0	170	B				C	C			1310	ø22	
47.6	29.40	0.75	144	1.4	1.0	196	B				C	C			1012	ø24	
39	35.91	0.75	176	1.0	0.72	170	B				C	C			1010	On request	
36.5	38.37	0.55	138	1.3	0.72	180	B				C	C			912		
29.9	46.87	0.55	169	1.0	0.55	170	B				C	C			910		
27.6	50.67	0.37	123	1.2	0.45	150	B				C	C			712		
22.6	61.89	0.37	150	1.1	0.42	170	B				C	C			710		

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

 *With "P" mounting, it's not possible to use these flanges; possibly, mount a B14 flange
 Nel montaggio P non è possibile utilizzare queste flange; eventualmente utilizzare la flangia 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 **402C** 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.
For complete documentation please visit our web site.

I Il riduttore **402C** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **402C** 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **402C** 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.
Para documentación completa, consultar nuestra Web.

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
0.50 LT	0.50 LT	0.50 LT	0.50 LT	0.65 LT	0.85 LT	0.65 LT
AGIP Teliun VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

tab. 1

RADIAL AND AXIAL LOADS

Output shaft / Albero di uscita			F _{eq} = F _R · $\frac{46}{X+21}$		
F_R (N)	F_A (N)				
n_2	FA	FR	n_2	FA	FR
300	400	2000	140	540	2700
250	440	2200	120	590	2900
200	470	2350	85	680	3400
70	760	3800	40	860	4300
40	860	4300	15	860	4300

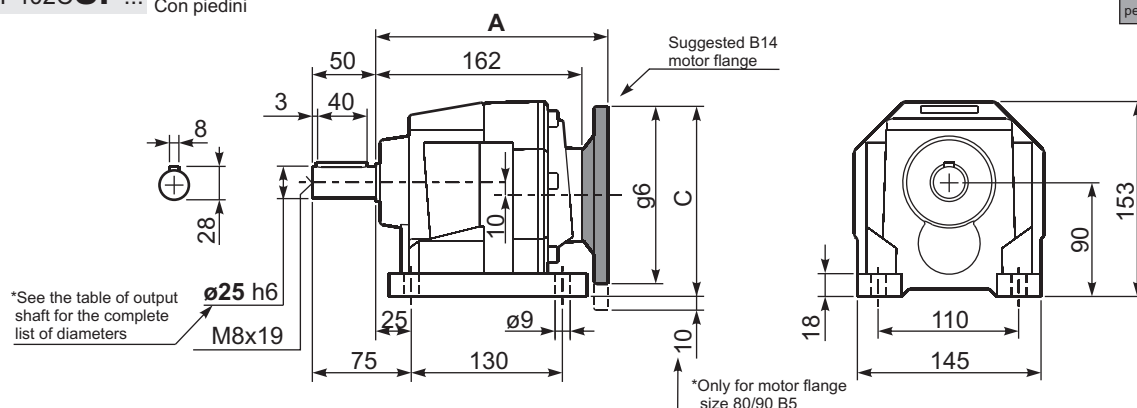
Input shaft / Albero in entrata		
F_R (N)	F_A (N)	
n_1	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
 Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P402C-SP... With feet
Con piedini

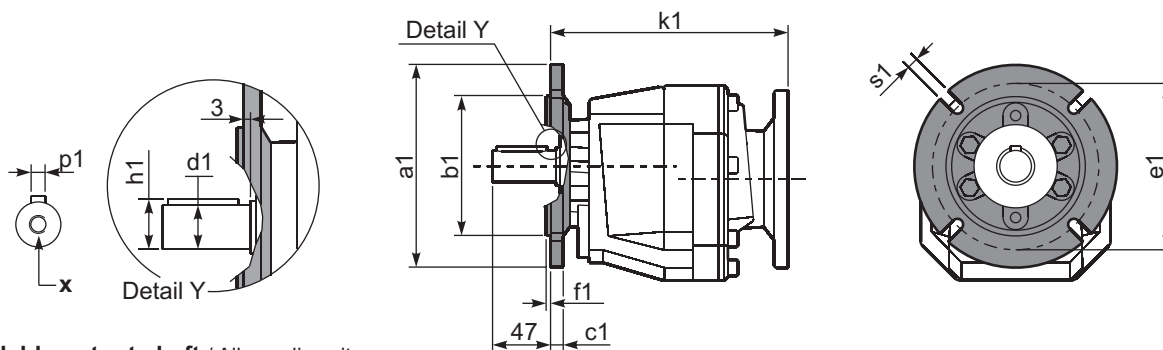
Gearbox weight With flange **8.2 kg**
peso riduttore With feet **9.5 Kg**



B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	182.5	150	140	185.5	K063.4.041
71 B5	180.5	160	160	183.5	K063.4.042
80/90 B5	182.5	190	200	185.5	K063.4.043

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B14	180.5	133	105	183.5	K063.4.047
80 B14	181.5	140	120	184.5	K063.4.046
90 B14	182.5	150	140	185.5	K063.4.041
100/112 B14	198.5	160	160	201.5	KC40.4.041

P402C-F... Output flanges
flange di uscita



***Available output shaft / Albero di uscita**

	Shaft - d1	p1	h1	x
Standard	ø 25x50	8	28	M8x19
On request A richiesta	ø 14x40	5	16	M5x13
	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 20x40	6	22.5	M8x19
	ø 22x40	6	24.5	M8x19
	ø 24x50	8	27	M8x19

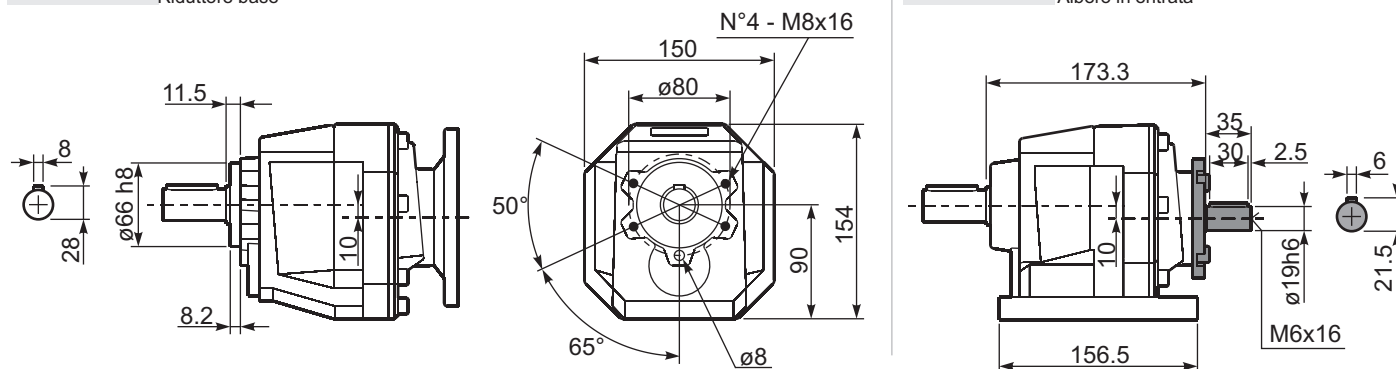
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	9	KC40.9.010C
140	95	10	115	3	9	KC40.9.011C
160	110	10	130	3	9	KC40.9.012C
200	130	11	165	3.5	11	KC40.9.013C

With flange and feet only on request. Ask for compatibility

P402C-N... Basic gearbox
Riduttore base

R402C SP... 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	Q	R	T			
							63	71	80*	90*	71	80	90			
36.5	38.34	0.75	182	1.0	0.72	175	B				C	C		171715	standard ø25 ø14 ø16 ø19 ø20 ø22 ø24 On request	-
32.0	43.69	0.75	208	0.9	0.70	195	B				C	C		191712		
27.6	50.64	0.37	119	1.6	0.61	195	B				C	C		171712		
22.5	62.22	0.37	146	1.3	0.49	195	B				C	C		191312		
19.7	70.95	0.37	167	1.2	0.43	195	B				C	C		131712		
18.7	74.77	0.37	176	1.0	0.37	175	B				C	C		191310		
16.2	86.66	0.37	203	0.9	0.32	175	B				C	C		131710		
14.5	96.85	0.25	154	1.3	0.32	195	B				C	C		101712		
11.8	118.29	0.25	188	0.9	0.23	175	B				C	C		101710		
10.3	135.69	0.18	155	1.3	0.23	195	B				C	C		101312		
8.4	165.74	0.18	189	0.9	0.17	175	B				C	C		101310		

 The dynamic efficiency is **0.93** for all ratios

 *With "P" mounting, it's not possible to use these flanges; possibly, mount a B14 flange
 Nel montaggio P non è possibile utilizzare queste flange; eventualmente utilizzare la flangia 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 **403C** 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.
For complete documentation please visit our web site.

I Il riduttore **403C** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **403C** 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **403C** 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.
Para documentación completa, consultar nuestra Web.

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
0.55 LT	0.55 LT	0.55 LT	0.55 LT	0.70 LT	0.90 LT	0.70 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30		

tab. 1

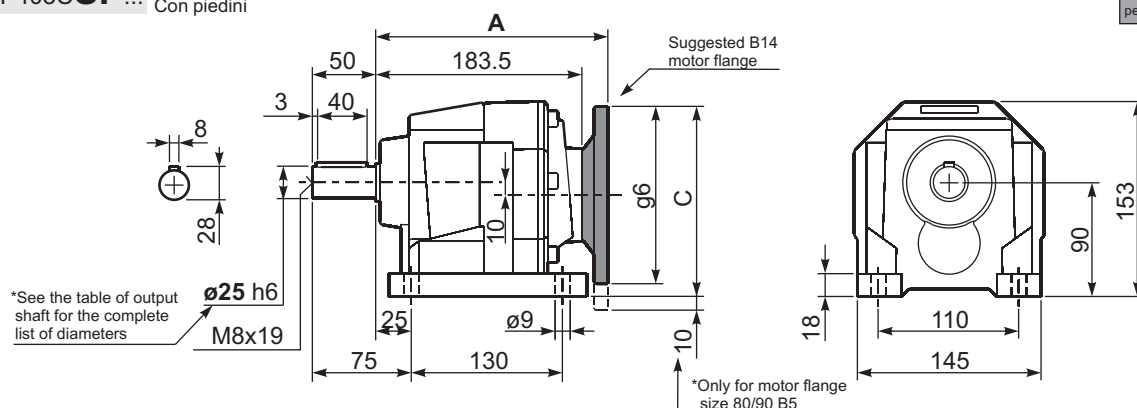
RADIAL AND AXIAL LOADS								
Output shaft / Albero di uscita			$F_{eq} = FR \cdot \frac{46}{X+21}$					
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	400	2000	140	540	2700	70	760	3800
250	440	2200	120	590	2900	40	860	4300
200	470	2350	85	680	3400	15	860	4300
Input shaft / Albero in entrata								
n_1	FA	FR						
1400	240	1200						
900	280	1400						
500	340	1700						

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
 Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P403C-**SP**... With feet
Con piedini

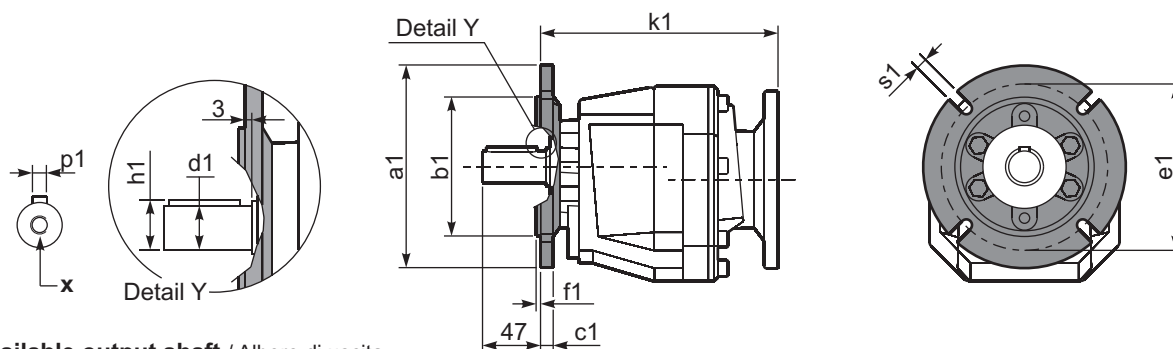
Gearbox weight
peso riduttore With flange **8.7 kg**
With feet **10.0 Kg**



B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	204	150	140	207	K063.4.041
71 B5	202	160	160	205	K063.4.042
80/90 B5	203	190	200	206	K063.4.043

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B14	202	133	105	205	K063.4.047
80 B14	203	140	120	206	K063.4.046
90 B14	204	150	140	207	K063.4.041

P403C-**F**... Output flanges
flange di uscita



*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 25x50	8	28	M8x19
On request A richiesta	ø 14x40	5	16	M5x13
	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 20x40	6	22.5	M8x19
	ø 22x40	6	24.5	M8x19
	ø 24x50	8	27	M8x19

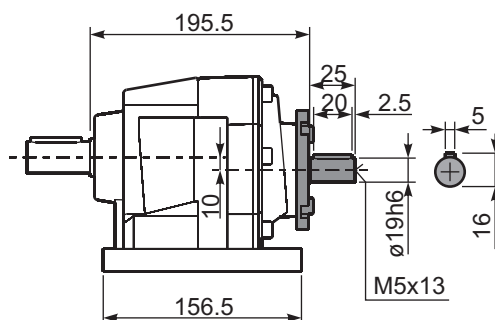
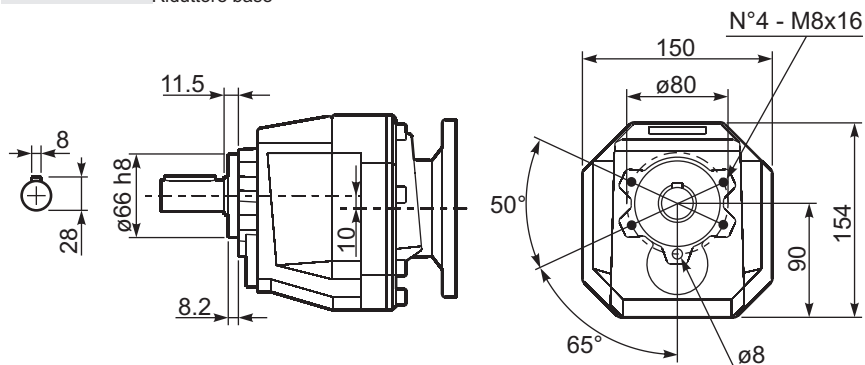
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	9	KC40.9.010C
140	95	10	115	3	9	KC40.9.011C
160	110	10	130	3	9	KC40.9.012C
200	130	11	165	3.5	11	KC40.9.013C

With flange and feet only on request. Ask for compatibility

P403C-**N**... Basic gearbox
Riduttore base

R403C SP... 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 	Output Shaft 	Ratios code 
							C	D	E	F	R	T	U	V			
							71	80	90	100 112	80	90	100 112	132			
388	3.61	7.5	177	0.9	7.0	165	B								3018	standard ø35	-
331	4.23	7.5	208	1.0	7.2	200	B								3016		
279	5.01	7.5	246	1.0	7.3	240	B								3014		
231	6.07	7.5	298	0.9	6.8	270	B								3012		
206	6.81	5.5	245	1.4	7.6	340	B								2018		
176	7.96	5.5	287	1.3	7.1	370	B								2016		
148	9.45	5.5	340	1.2	6.5	400	B								2014		
122	11.43	5.5	412	1.0	5.3	400	B								2012		
99	14.21	4	372	1.2	4.7	435	B								2010		
84	16.62	4	435	1.2	4.6	501	B								1314		
70	20.10	4	527	0.9	3.8	499	B								1312		
56	24.98	3	491	0.9	2.7	435	B								1310		
47.6	29.41	2.2	424	1.0	2.3	440	B								0814		
39.3	35.58	1.85	431	1.2	2.1	499	B								0812		
34.6	40.50	1.1	292	1.1	1.2	310	B								0614		
31.7	44.23	1.5	434	1.0	1.5	435	B								0810		
28.6	49.00	1.1	353	1.0	1.1	368	B								0612		
23.0	60.90	1.1	439	1.0	1.1	435	B								0610		

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

*With "P" mounting, it's not possible to use these flanges; possibly, mount a B14 flange
Nel montaggio P non è possibile utilizzare queste flange; eventualmente utilizzare la flangia 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 **602C** 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.
For complete documentation please visit our web site.

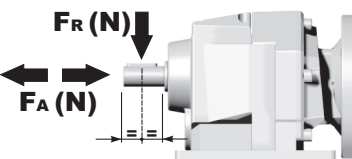
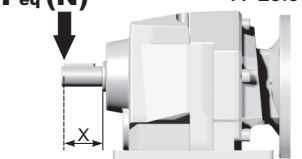
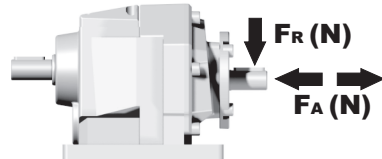
I Il riduttore **602C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **602C** 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **602C** 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.
Para documentación completa, consultar nuestra Web.

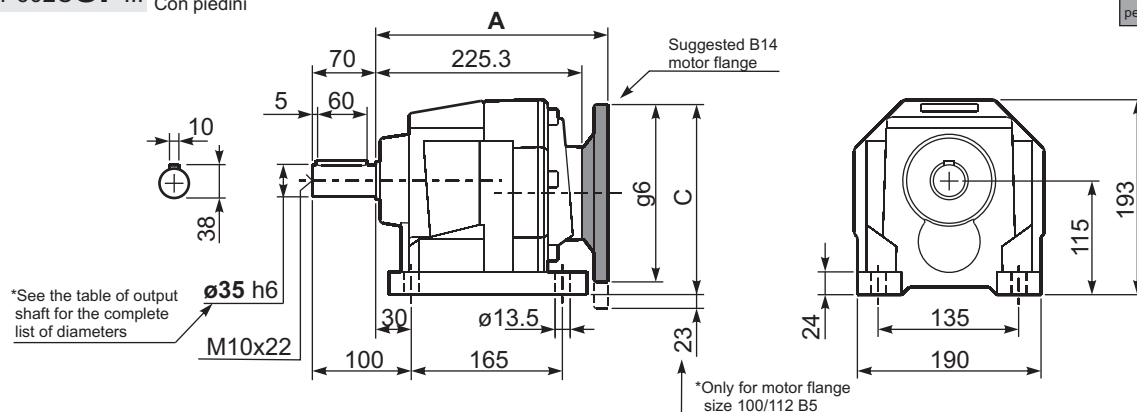
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
							
B3	B6	B7	B8	V5	V6	V8	
1.00 LT	1.50 LT	1.50 LT	1.50 LT	2.00 LT	2.00 LT	2.00 LT	
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30			

tab. 1

RADIAL AND AXIAL LOADS								
Output shaft / Albero di uscita								
						$Feq = FR \cdot \frac{60.5}{X+25.5}$		
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	580	2900	140	760	3800	70	1000	5000
250	620	3100	120	800	4000	40	1200	6000
200	660	3300	85	960	4800	15	1450	7260
Input shaft / Albero in entrata								
								
n_1	FA	FR						
1400	450	2250						
900	500	2500						
500	600	3000						

tab. 2

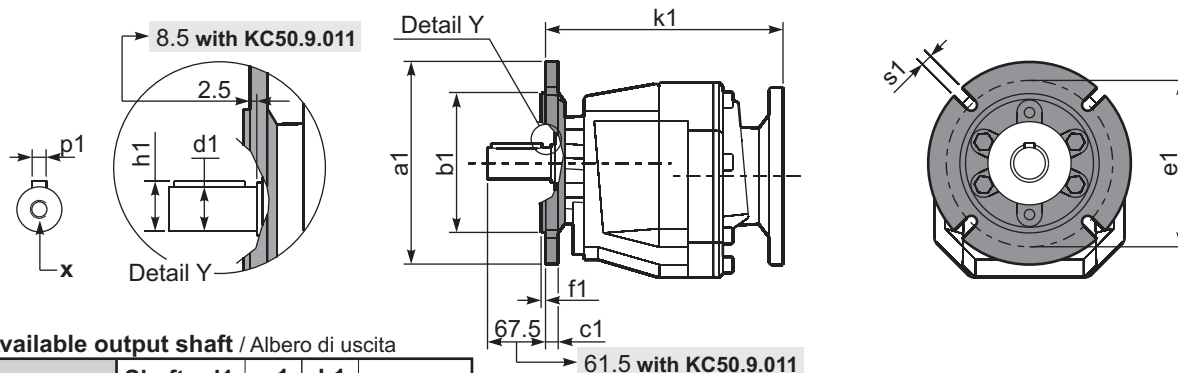
SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P602C-SP... With feet
Con piediniGearbox weight
peso riduttore With flange 21.4 kg
With feet 21.3 Kg

B5 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B5	243.5	182	160	246	K023.4.041
80/90 B5	245.5	202	200	248	K023.4.042
100/112 B5	251.5	227	250	254	K023.4.043

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
80 B14	243.5	162	120	246	K085.4.046
90 B14	243.5	172	140	246	K085.4.045
100/112 B14	258.2	182	160	260.7	K085.4.047
132 B14	279.5	215	200	282	KC50.4.041

k1 with KC50.9.011
252
252
266.7
288

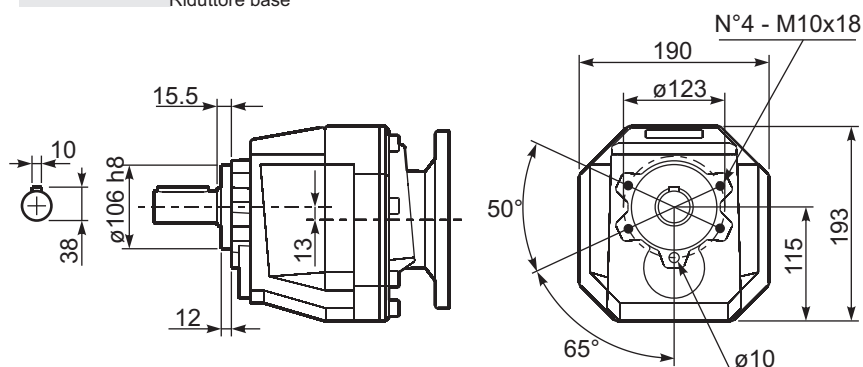
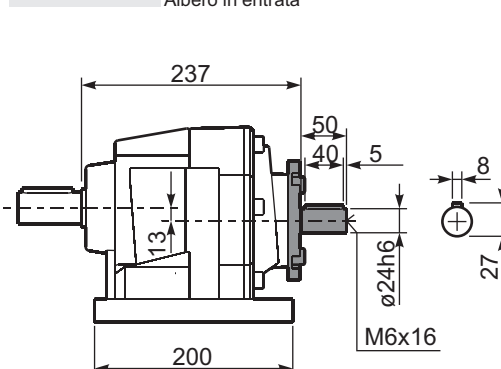
P602C-F... Output flanges
flange di uscita

*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	9	KC50.9.011	 With flange and feet only on request. Ask for compatibility
200	130	13	165	3.5	11	KC50.9.012	
250	180	15.5	215	4	14	KC50.9.013	

P602C-N... Basic gearbox
Riduttore baseR602C SP... Input Shaft
Albero in entrata



QUICK SELECTION / Selezione veloce

input speed (n_i) = 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	379	1.1	1.7	434	B				C	C		191318	standard ø35 ø28 ø30 ø38 ø40 On request	-
29.6	47.22	1.5	449	1.1	1.7	501	B				C	C		191316		
25.6	54.73	1.5	521	1.0	1.4	501	B				C	C		191314		
24.5	57.13	1.1	399	1.3	1.4	500	B				C	C		171314		
21.1	66.22	1.1	462	1.1	1.2	500	B				C	C		191312		
19.7	71.01	1.1	496	0.9	0.97	435	B				C	C		171312		
18.3	76.69	1.1	535	0.9	1.0	501	B				C	C		191312		
17.0	82.30	0.75	392	1.1	0.83	435	B				C	C		131314		
16.7	83.59	0.75	398	1.1	0.83	441	B				C	C		171310		
15.1	92.78	0.75	441	1.1	0.85	500	B				C	C		190814		
13.4	104.68	0.75	498	1.0	0.75	501	B				C	C		131312		
11.9	117.22	0.55	409	1.2	0.67	500	B				C	C		101314		
11.1	126.65	0.55	442	1.1	0.62	500	B				C	C		170812		
10.3	135.74	0.37	319	1.4	0.51	441	B				C	C		101312		
9.6	145.68	0.37	342	1.3	0.47	435	B				C	C		130814		
8.9	157.40	0.37	369	1.2	0.44	435	B				C	C		170810		
8.5	164.23	0.37	385	1.3	0.48	500	B				C	C		101310		
7.6	185.29	0.37	435	1.0	0.38	441	B				C	C		130812		
6.9	204.16	0.37	479	0.9	0.34	435	B				C	C		100814		
6.2	224.18	0.37	526	1.0	0.35	500	B				C	C		130810		
5.0	278.62	0.25	442	1.0	0.25	435	B				C	C		100812		

The dynamic efficiency is 0.93 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 603C 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.
For complete documentation please visit our web site.

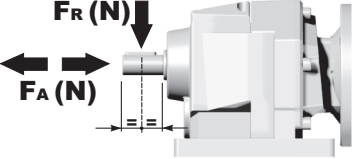
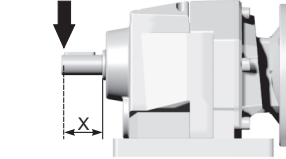
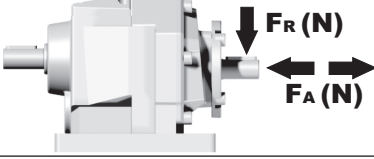
I Il riduttore 603C viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe 603C 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño 603C 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.
Para documentación completa, consultar nuestra Web.

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	1.50 LT	1.50 LT	1.50 LT	2.10 LT	2.00 LT	2.10 LT
AGIP Telium VSF 320	BP Energol SGXP220		SHELL Tivela Oil WB	KLUBER Syntheso D220 EP		MOBIL Glygoyle 30

tab. 1

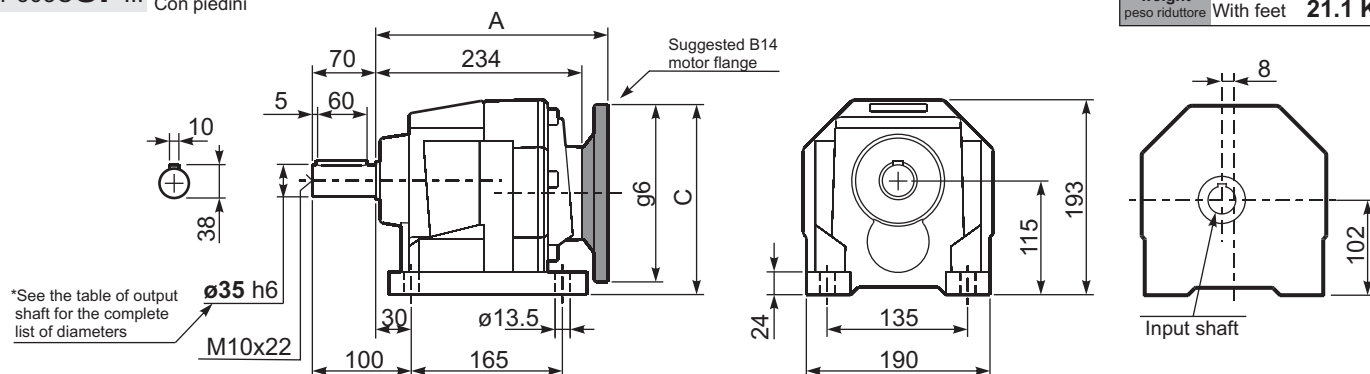
RADIAL AND AXIAL LOADS								
Output shaft / Albero di uscita			F _{eq} = F _R · $\frac{60.5}{X+25.5}$					
								
n ₂	FA	FR	n ₂	FA	FR	n ₂	FA	FR
300	580	2900	140	760	3800	70	1000	5000
250	620	3100	120	800	4000	40	1200	6000
200	660	3300	85	960	4800	15	1450	7260
Input shaft / Albero in entrata								
								
n ₁	FA	FR						
1400	400	2000						
900	440	2200						
500	440	2200						

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

P603C**SP** ... With feet
Con piedini

Gearbox weight
peso riduttore With flange **21.2 kg**
With feet **21.1 kg**

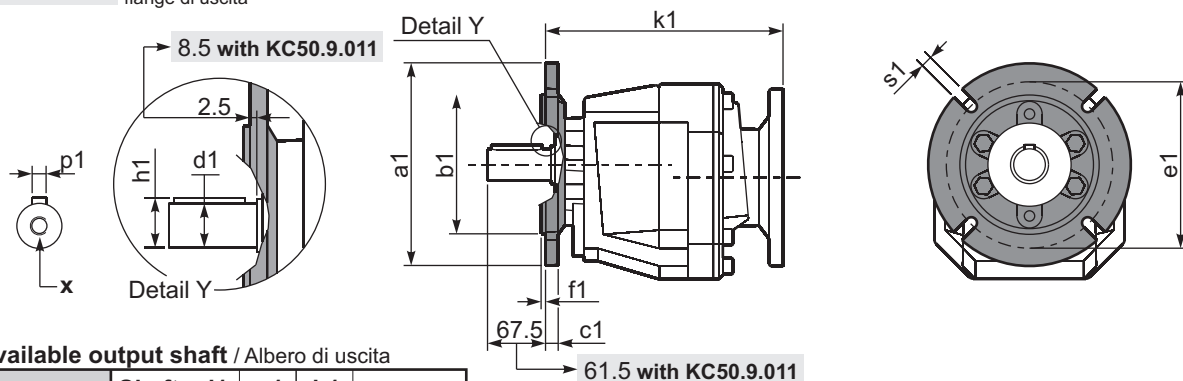


B5 Motor Flanges	A	C _{max}	g6	k1	kit code
63 B5	253.3	172	140	255.8	K063.4.041
71 B5	254.3	182	160	256.8	K063.4.042
80/90 B5	253.3	202	200	255.8	K063.4.043

B14 Motor Flanges	A	C _{max}	g6	k1	kit code
71 B14	251.3	156	105	253.8	K063.4.047
80 B14	252.3	162	120	254.8	K063.4.046
90 B14	253.3	172	140	255.8	K063.4.041

k1 with KC50.9.011
259.8
260.8
261.8

P603C-**F** ... Output flanges
flange di uscita



*Available output shaft / Albero di uscita

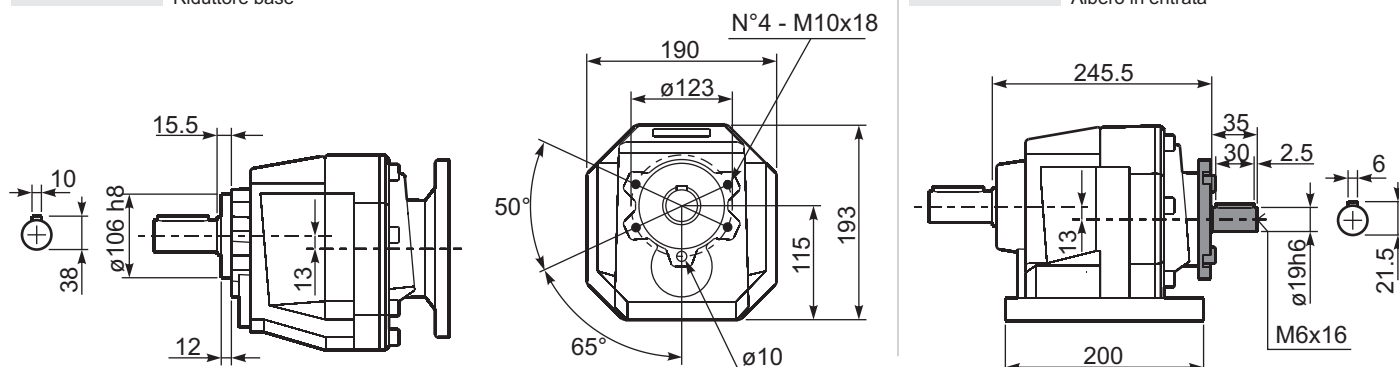
	Shaft - d1	p1	h1	x
Standard	ø 35x70	10	38	M10x22
On request A richiesta	ø 28x60	8	31	M8x20
	ø 30x60	8	33	M10x22
	ø 38x70	10	41	M10x25
	ø 40x80	12	43	M12x28

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code	
160	110	14	130	3.5	9	KC50.9.011	 With flange and feet only on request. Ask for compatibility.
200	130	13	165	3.5	11	KC50.9.012	
250	180	15.5	215	4	14	KC50.9.013	

P603C-**N** ... Basic gearbox
Riduttore base

R603C SP... Input Shaft
Albero in entrata



Aluminum & cast iron shaft mounted gearboxes

A modular and compact product

Gears

Hardened and ground gears

Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint.

Flange

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

Oil seals

Two oil seals on request

Removable inspection cover

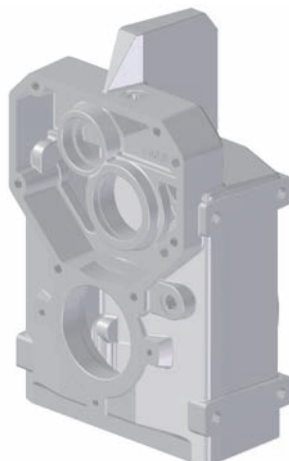
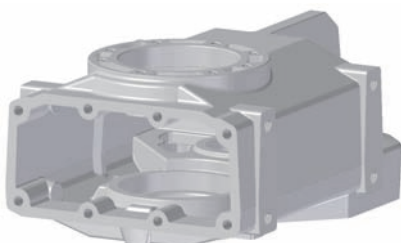
Allows periodic inspection of gearing during routine maintenance

Large center distance

On slow gears

Single-piece aluminum / Cast Iron housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

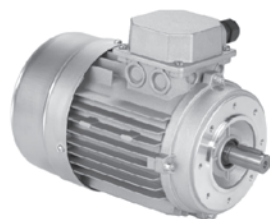


World wide sales network.



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Arten / Tipos** →

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7-5	7-7	7-9	7-11	7-13	7-15	7-17	7-19	7-21	7-23
F32A 200Nm	F33A 200Nm	F42A 350Nm	F43A 350Nm	F52A 510Nm	F53A 510Nm	F62C 670Nm	F63C 670Nm	FS20 90Nm	FS50 450Nm



**Types / Tipi /
Arten / Tipos** →

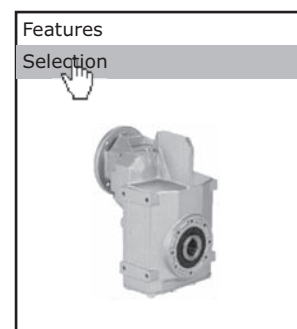
On page / A pagina / Auf Seite / En la página												
M-1												
56A	56B	63A	63B	71A	71B	80A	80B	90S	90L	100LA	100LB	112M

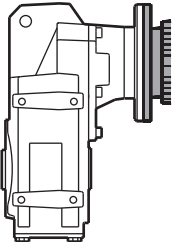
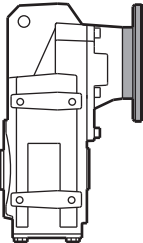
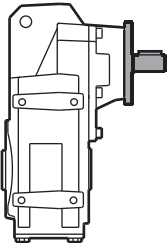
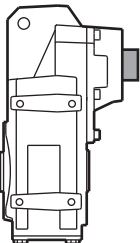
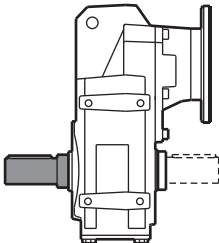
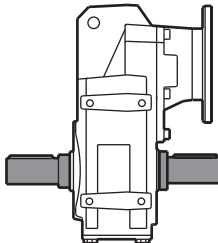
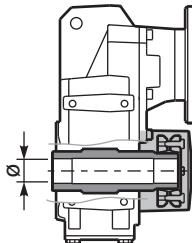
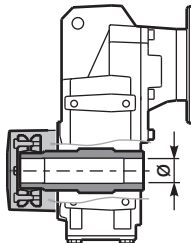
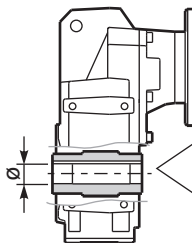
For : / Per : / Für : / Para :

Selection guide - fs Guida alla selezione
Mounting pos. - Lubrication Pos. di montaggio - lubrificazione
2 - 6 poles selection Selezione 2 - 6 poli
Radial - axial loads Carichi radiali e assiali
Reversibility Reversibilità
Thermal limit Limite termico

Atex certification Certificazione Atex
Accessories Accessori
Download 3D drawings Download disegni 3D
Interchangeability Intercambiabilità
Installation and maintenance Installazione, uso e manutenzione
Spare parts list Liste parti di ricambio

**Use our web database to
get detailed informations,
always updated on
each type/size.**



Type - Tipo - Typ - Tipo	Size - Grandezza Grösse - Tomaño	Mounting - Montaggio Montaje - Tipo de montaje	Rapporto - Ratio Untersetzung - Relacion
M	F32A	C	10.40
Shaft mounted helical Riduttori ad assi paralleli  With IEC motor M  With motor flange P  With male input shaft R  Modular base B	2 Stages Riduzioni Stufen Etapas 3 Stages Riduzioni Stufen Etapas Aluminum Alluminio Aluminium Aluminio FS20 F32A F42A F52A F33A F43A F53A Cast Iron Ghisa Grauguss Fundición F62C F63C Special Speciale Sonderausgabe especial FS50 pag. 7-23	Hollow output shaft C  Single output shaft A  Double output shaft B  Shrink Disk D  Shrink Disk S Only on request for Q.ty / A richiesta per quantità  Stainless steel hub I On request for q.ty Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Núcleo corona de acero Inox	See technical data table Vedi tabelle dati tecnic. Technisches Datenblatt beachten. Ver tabla datos técnicos

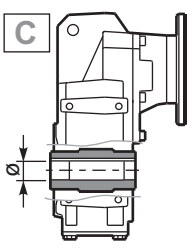
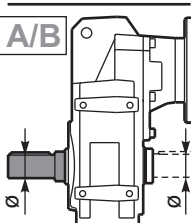
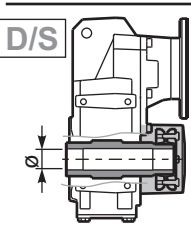
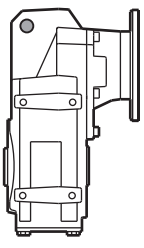
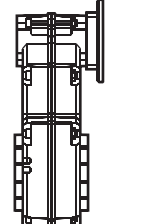
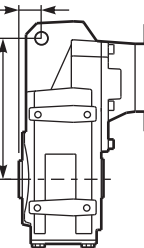
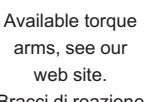
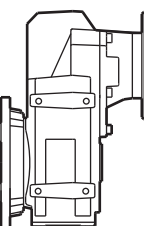
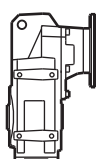
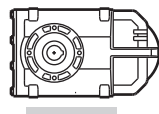
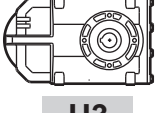
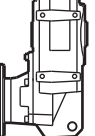
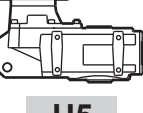


A richiesta
possiamo fornire i
nostri prodotti
secondo le
normative ATEX

On request we
can deliver our
products
according to the
ATEX

Auf Anfrage können
wir unsere Produkte
den Richtlinien
ATEX entsprechend
liefern

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

Output shaft Albero uscita Ausgangsflansch Brida en solida	Type - Tipo Typ - Tipo	Output flange Flangia di uscita Ausgangs Flansch Brida en salida	Motor size Grandezza motore Motor Grösse Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage
B	ST	N	C	B	H1
C  * Reduced Key ➔ STANDARD FS20 B ➔ $\varnothing 20$ F32A F33A B ➔ $\varnothing 20$ C ➔ $\varnothing 25$ D ➔ $\varnothing 30^*$ F42A F43A C ➔ $\varnothing 25$ D ➔ $\varnothing 30$ E ➔ $\varnothing 35^*$ F52A F53A D ➔ $\varnothing 30$ E ➔ $\varnothing 35$ F ➔ $\varnothing 40^*$ F62C F63C E ➔ $\varnothing 35$ F ➔ $\varnothing 40$ A/B  Single/Double output shaft L F32/3A ➔ $\varnothing 25$ M F42/3A ➔ $\varnothing 30$ N F52/3A ➔ $\varnothing 35$ O F62/3C ➔ $\varnothing 40$ D/S  Shrink disk P F32/3A ➔ $\varnothing 25$ Q F42/3A ➔ $\varnothing 30$ R F52/3A ➔ $\varnothing 35$ S F62/3C ➔ $\varnothing 40$	ST  Foro standard Standard bore ST  only for FS20 ST  Senza braccio di reazione Without reaction arm  Available torque arms, see our web site. Bracci di reazione disponibili, vedi il nostro sito web. S.. B.. N.. LZ.. -F  Whit output flange con flangia uscita	N Senza flangia Without flange FS20 1 ➔ $\varnothing 140$ F32A F33A 2 ➔ $\varnothing 160$ 3 ➔ $\varnothing 200$ F42A F43A 2 ➔ $\varnothing 160$ 3 ➔ $\varnothing 200$ F52A F53A 3 ➔ $\varnothing 200$ 4 ➔ $\varnothing 250$ F62C F63C 3 ➔ $\varnothing 200$ 4 ➔ $\varnothing 250$	Standard Flange Flangia Standard  B5 A=56 ($\varnothing 120$) B=63 ($\varnothing 140$) C=71 ($\varnothing 160$) D=80 ($\varnothing 200$) E=90 ($\varnothing 200$) F=100+112 ($\varnothing 250$) B14 O=56 ($\varnothing 80$) P=63 ($\varnothing 90$) Q=71 ($\varnothing 105$) R=80 ($\varnothing 120$) T=90 ($\varnothing 140$) U=100+112 ($\varnothing 160$) V=132 ($\varnothing 200$) Type R / Tipo R FS20 FS50 F33A F43A From 1/107.22 to 1/320.70 1 ➔ $\varnothing 14$ F52A F62C 3 ➔ $\varnothing 24$ F32A F43A F42A F53A F63C From 1/33.13 to 1/97.30 2 ➔ $\varnothing 19$ Without flange / Senza flangia FS20 F33A F43A From 1/107.22 to 1/320.70 Z ➔ $\varnothing 9$ (56B5) 0 ➔ $\varnothing 11$ (63B5) 1 ➔ $\varnothing 14$ (71B5) F52A F62C 2 ➔ $\varnothing 19$ (80B5) 3 ➔ $\varnothing 24$ (90B5) 4 ➔ $\varnothing 28$ (100B5) F32A F43A F42A F53A F63C From 1/33.13 to 1/97.30 1 ➔ $\varnothing 14$ (71B5) 2 ➔ $\varnothing 19$ (80B5) 3 ➔ $\varnothing 24$ (90B5) ➔ STANDARD	A  B  STANDARD C  D 	H1  H1 STANDARD H4  H4 H3  H3 H2  H2 H5  H5 H6  H6 Specify only for vertical positions Specificare solo per posizione verticale

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / elevación

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

Rotation / rotazione / drehung / rotation

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

Linear movement / traslazione / linearbewegung / translacion

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

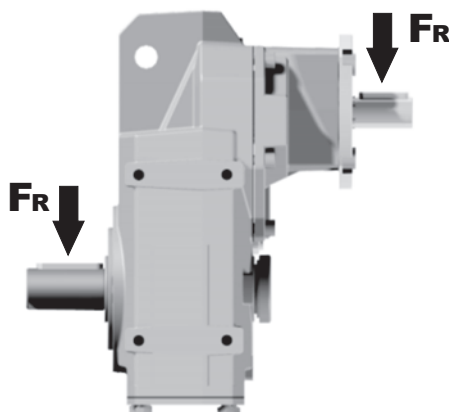
TORQUE / COPPIA / DREHMOMENT / PAR

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

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

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / 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.
- 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 / Par torsion		
d	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diámetro primitivo		
f_k	Coefficiente di trasformazione / Factor / Faktor / Coefficiente de transmisión 1.15 Ingranaggi / Gearwheels / Zahnrad / Engranaje 1.25 Catena / Chain sprockets / Antriebskette / Cadena 1.75 Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Correa trapezoidal 2.50 Cinghia piatta / Flat-belt pulley / Flachzahnriem. / 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.
- 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 / Cómo seleccionar un reductor

B Output speed
Velocità in uscita
Abtriebsdrehzahl
Velocidad de salida

Nominal power
Potenza nominale
Max. mögliche Leistung
Potencia nominal

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

Flange code
Codice flangia
Flanschttype
Código bridas

Input speed
Velocità in entrata
Eintriebsdrehzahl
Velocidad de entrada

Gear size
Grandezza riduttore
Getriebegröße
Tamaño reductor

Motor power
Potenza motore
Motorleistung
Potencia motor

F42A Compact- Gear
350Nm

Rating - Alluminum

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		Ratio code
							B	C	D	E	Q	R	T	U			
172	8.12	3.0	160	1.2	3.57	190	B				C	C			2818		-
139	10.06	3.0	198	1.0	3.04	200	B				C	C			2815		
82	17.02	2.2	245	1.0	2.24	250	B				C	C			1718		
77	18.19	2.2	262	1.0	2.18	260	B				C	C			1915		

C Ratio
Rapporto
Untersetzung
Relación

Transmitted torque
Momento torcente trasmesso
Mögliche Drehmomente
Par transmitido

Service factor
Fattore di servizio
Betriebsfaktor
Factor de servicio

Output shaft diam.
Diam. albero uscita
Durchmesser abtriebswelle
Diámetro eje de salida

Notes
Note
Anmerkungen
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
B)	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montaje con casquillo de reducción
C)	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-sockel Posición agujeros brida / base motor
B)	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar 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	Seleccionar el par deseado (incluyendo el factor de servicio)
B	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	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	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)	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 	 Ratios code
							B	C	D	E	Q	R	T			
174	8.03	1.5	79	2.2	3.2	170	B				C	C		2818	standard ø25 On request ø20 ø30	-
135	10.40	1.5	102	1.8	2.7	185	B				C	C		2813		
96	14.53	1.5	143	1.4	2.1	200	B				C	C		1918		
83	16.84	1.5	165	1.2	1.8	200	B				C	C		1718		
71	19.76	1.5	194	1.0	1.5	200	B				C	C		1518		
59	23.59	1.1	170	1.2	1.3	200	B				C	C		1318		
55	25.58	1.1	184	1.1	1.2	200	B				C	C		1513		
43.5	32.20	0.75	158	1.3	0.9	200	B				C	C		1018		
35.8	39.05	0.55	141	1.2	0.7	170	B				C	C		1510		
33.6	41.68	0.55	150	1.3	0.7	200	B				C	C		1013		
25.7	54.39	0.37	132	1.5	0.6	200	B				C	C		913		
19.5	71.82	0.37	174	1.0	0.38	180	B				C	C		713		
16.9	83.04	0.25	136	1.3	0.31	170	B				C	C		910		
12.8	109.66	0.25	180	0.9	0.24	170	B				C	C		710		

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

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 **F32A** 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.
For complete documentation please visit our web site.

I Il riduttore **F32A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **F32A** 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F32A** 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.
Para documentación completa, consultar nuestra Web.

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
1.00 LT	0.65 LT	0.50 LT	0.70 LT	1.00 LT	0.70 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

RADIAL AND AXIAL LOADS					
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{35.7}{X+30.15}$		
n_2	FA	FR	n_2	FA	FR
200	240	1200	85	312	1562
140	267	1335	70	327	1635
120	282	1410	40	401	2003
n_2	FA	FR	n_2	FA	FR
15	420	2100	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
Input shaft Albero in entrata					
n_1	FA	FR	n_1	FA	FR
1400	194	967	900	195	975
900	195	975	500	195	975
500	195	975			

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

Gearbox weight peso riduttore	7.2 kg
---	---------------

Motor Flange	E	L2
63 B5	161	253
71 B5	159	264
80/90 B5	161	284
71 B14	159	235.5
80 B14	160	243
90 B14	161	253

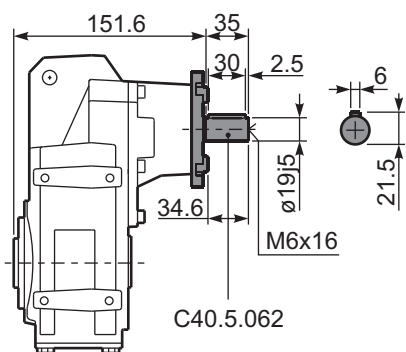
- [illegible]

On request
A richiesta

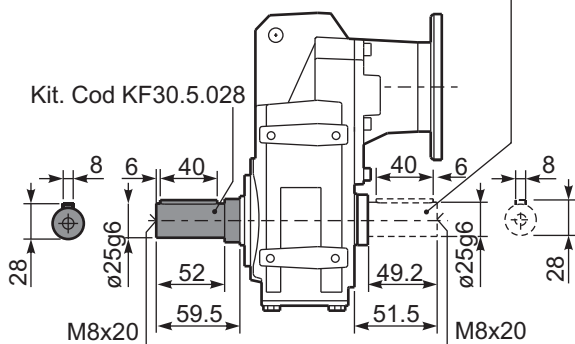
Motor Flange	k1
63 B5	181
71 B5	179
80/90 B5	181
71 B14	179
80 B14	180
90 B14	181

a1 Ø	b1	e1	s1	Kit code
160*	110	130	8.5	KF30.9.010
200	130	165	11	KF30.9.011

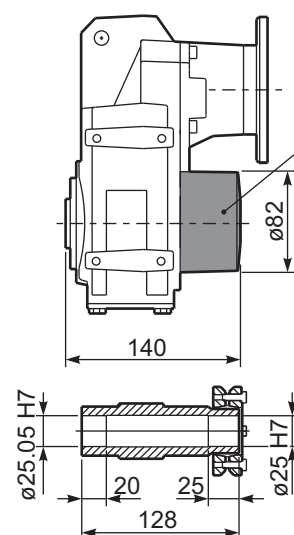
Input Shaft
Albero in entrata



Kit. Cod KF30.5.028



Kit. Cod KF30.0.210





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			
13.2	106.07	0.25	168	1.2	0.3	200			C	C		101718	standard ø25 On request ø20 ø30	-
11.9	118.06	0.25	187	1.1	0.3	200			C	C		151313		
10.1	138.43	0.25	220	0.9	0.2	200			C	C		91718		
9.9	140.92	0.18	161	1.2	0.2	200			C	C		131313		
7.7	182.80	0.18	209	1.0	0.2	200			C	C		71718		
7.3	192.36	0.18	220	0.9	0.2	200			C	C		101313		
5.5	256.12	0.12	195	1.0	0.1	200			C	C		71318		
4.2	331.50	0.12	252	0.8	0.1	200			C	C		71313		
3.9	361.22	0.12	275	0.5	0.1	140			C	C		71710		
2.8	506.11	0.12	385	0.4	0.1	170			C	C		71310		

The dynamic efficiency is **0.93** 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 **F33A** 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.
For complete documentation please visit our web site.

I Il riduttore **F33A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **F33A** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F33A** 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.
Para documentación completa, consultar nuestra Web.

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
1.05 LT	0.70 LT	0.55 LT	0.75 LT	1.05 LT	0.75 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

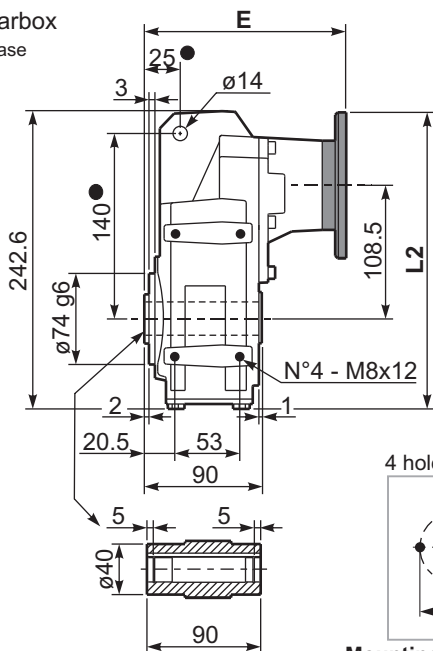
RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{35.7}{X+30.15}$					
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R
200	240	1200	85	312	1562	15	420	2100
140	267	1335	70	327	1635	-	-	-
120	282	1410	40	401	2003	-	-	-
Input shaft Albero in entrata								
n_1	F_A	F_R	n_1	F_A	F_R	n_1	F_A	F_R
1400	194	967	900	195	975	500	195	975

tab. 2

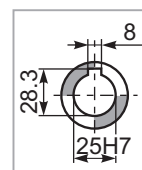
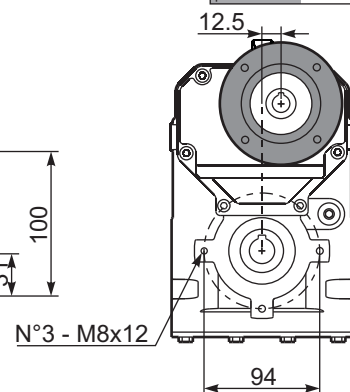
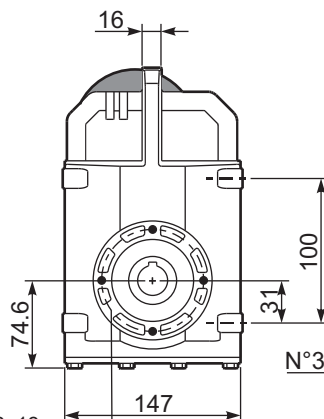
▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

Gearbox weight peso riduttore	7.6 kg
---	---------------

Motor Flange	E	L2
63 B5	163	253
71 B5	161	264
56B14	166.5	222
63B14	165.5	228
71B14	162.5	235.5

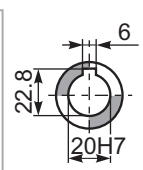


Mounting holes position
Posizione fori di montaggio

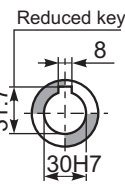


Standard

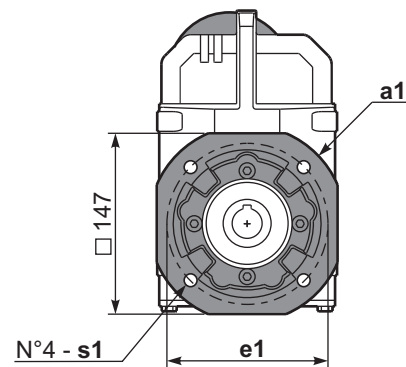
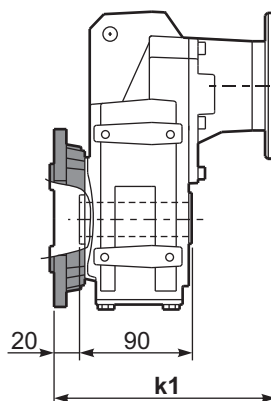
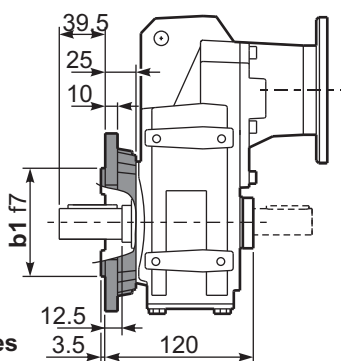
Hollow shaft



On request
A richiesta

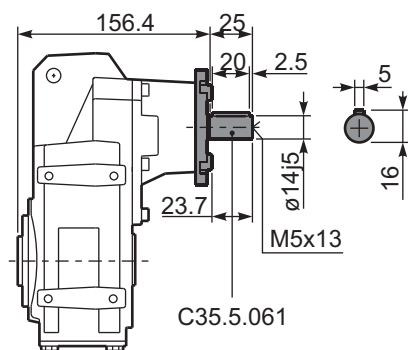


Motor Flange	k1
63 B5	183
71 B5	181
56B14	186.5
63B14	185.5
71B14	182.5



a1 Ø	b1	e1	s1	Kit code
160*	110	130	8.5	KF30.9.010
200	130	165	11	KF30.9.011

Shrink disk
Calettatore



Kit. Cod KF30.5.028

Technical drawing showing the side and front views of the KF30.5.028 kit. The side view (left) shows a mounting bracket with dimensions: 28 (height), 8 (width), 6 (thickness), 40 (length), 52 (length), 59.5 (length), and a hole diameter of $\varnothing 25g6$. The front view (right) shows a mounting bracket with dimensions: 28 (height), 8 (width), 6 (thickness), 40 (length), 49.2 (length), 51.5 (length), and a hole diameter of $\varnothing 25g6$. The central component is a vertical assembly with a handle and a base.

Technical drawing of the 1000 Series Hydraulic Cylinder, showing front and side views with dimensions.

Front View Dimensions:

- Overall width: 140
- Overall height: 140
- Mounting bracket width: 82

Side View Dimensions:

- Overall length: 128
- Stroke length: 25
- Mounting bracket length: 20
- Port diameter: $\varnothing 25$ H7
- Stroke diameter: $\varnothing 25$ H7



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 	Standard $\phi 30$ On request $\phi 25$ $\phi 35$	Ratios code 
							B	C	D	E	Q	R	T	U			
172	8.12	3.0	160	1.2	3.57	190	B				C	C			2818	standard $\phi 30$ On request $\phi 25$ $\phi 35$	-
139	10.06	3.0	198	1.0	3.04	200	B				C	C			2815		
82	17.02	2.2	245	1.0	2.24	250	B				C	C			1718		
77	18.19	2.2	262	1.0	2.18	260	B				C	C			1915		
66	21.08	1.5	207	1.5	2.29	316	B				C	C			1715		
57	24.75	1.5	243	1.2	1.83	297	B				C	C			1515		
47.4	29.54	1.5	290	1.1	1.60	310	B				C	C			1315		
43	32.55	1.1	234	1.0	1.14	244	B				C	C			1018		
34.7	40.32	1.1	290	1.0	1.14	300	B				C	C			1015		
33	42.48	0.75	209	1.0	0.72	200	B				C	C			918		
26.6	52.62	0.75	258	1.0	0.72	247	B				C	C			915		
20.1	69.49	0.37	168	1.1	0.42	190	B				C	C			715		

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 **F42A** 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. For complete documentation please visit our web site.

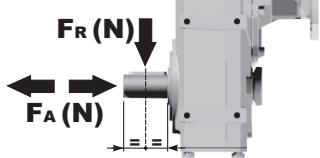
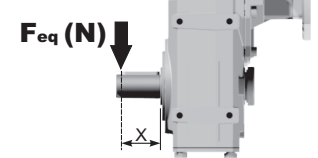
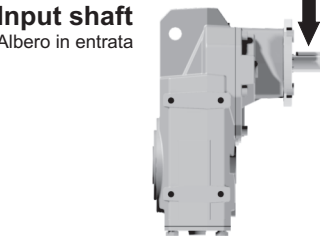
I Il riduttore **F42A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore. Per la documentazione completa consulta il nostro sito.

D Das Getriebe **F42A** 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. Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F42A** 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. Para documentación completa, consultar nuestra Web.

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
1.20 LT	0.80 LT	0.60 LT	0.80 LT	1.20 LT	0.85 LT
AGIP Tetrium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

RADIAL AND AXIAL LOADS									
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{68}{X+38}$						
									
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR	
200	384	1920	85	500	2498	15	672	3360	
140	427	2136	70	523	2616	-	-	-	
120	451	2256	40	641	3204	-	-	-	
Input shaft Albero in entrata									
n_1	FA	FR	n_1	FA	FR	n_1	FA	FR	
1400	310	1548	900	312	1560	500	312	1560	

tab. 2

SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

Gearbox weight peso riduttore	7.8 kg
---	---------------

Motor Flange	E	L2
63 B5	170	267.5
71 B5	168	277.5
80/90 B5	170	297.5
71 B14	168	250
80 B14	169	257.5
90 B14	170	267.5
100/112B14	186	277.5

- box
e

31.5

261.5

158

117

L2

16

80.6

115

31

158

94

2.5

22.5

57

100

5

5

45

100

N°4 - M8x14

5 holes M8x15

25°

12.5

94

Mounting holes position
Posizione fori di montaggio

Standard
Hollow shaft

On request
A richiesta

Reduced key

Gearbox weight
peso riduttore

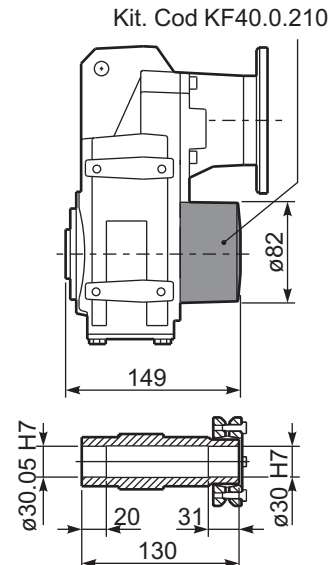
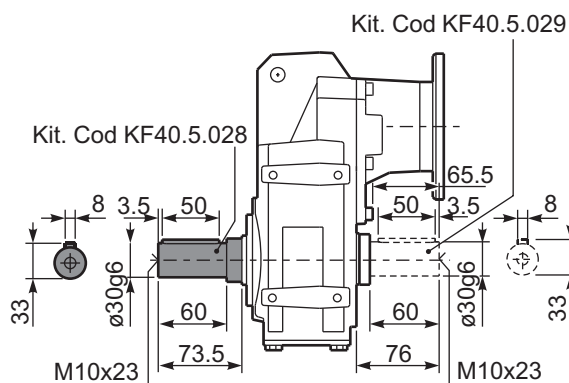
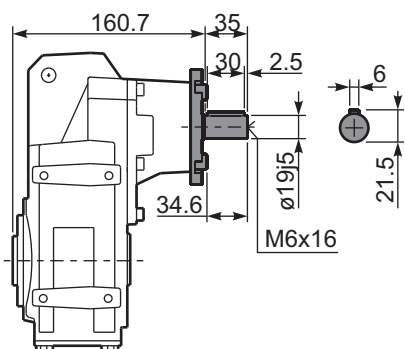
7.8 kg

Motor Flange	k1
63 B5	194
71 B5	192
80/90 B5	194
71 B14	194
80 B14	193
90 B14	194
100/112B14	210

a1 Ø	b1	c1	e1	s1	Kit code
160*	110	10	130	8.5	KF40.9.010
200	130	11	165	11	KF40.9.011

[illegible]

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
							B	C	D	E	O	P	Q	R	T	
							63	71	80	90	56	63	71	80	90	
42.3	33.13	1.5	315	1.1	1.6	337	B						C	C		281715
37.4	37.47	1.1	261	1.0	1.1	250	B						C	C		281318
28.9	48.37	0.75	230	1.2	0.9	272	B						C	C		191718
23.4	59.92	0.75	285	1.2	0.9	337	B						C	C		191715
21.3	65.81	0.75	313	0.9	0.7	272	B						C	C		151718
20.2	69.45	0.75	330	1.0	0.8	337	B						C	C		171715
17.2	81.52	0.55	284	1.2	0.7	337	B						C	C		151715
14.4	97.30	0.55	339	1.0	0.5	337	B						C	C		131715
13.1	107.22	0.37	252	1.1	0.4	272					C	C				101718
12.3	114.21	0.37	268	1.2	0.4	310					C	C				151315
10.3	136.33	0.37	320	1.0	0.4	310					C	C				131315
7.5	186.09	0.25	295	1.1	0.3	310					C	C				101315
6.1	228.89	0.25	363	0.9	0.23	337					C	C				71715
5.8	242.87	0.18	277	1.1	0.20	310					C	C				91315
4.4	320.70	0.18	366	0.8	0.15	310					C	C				71315

The dynamic efficiency is **0.93** 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 **F43A** 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.
For complete documentation please visit our web site.

I Il riduttore **F43A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **F43A** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F43A** 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.
Para documentación completa, consultar nuestra Web.

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
1.25 LT	0.85 LT	0.65 LT	0.85 LT	1.25 LT	0.90 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

RADIAL AND AXIAL LOADS					
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{68}{X+38}$		
n_2	F_A	F_R	n_2	F_A	F_R
200	384	1920	85	500	2498
140	427	2136	70	523	2616
120	451	2256	40	641	3204
Input shaft Albero in entrata					
n_1	F_A	F_R	n_1	F_A	F_R
1400	310	1548			
900	312	1560			
500	312	1560			

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

8.2 kg

input speed (n_1) = 1400 min⁻¹

Output Speed	Ratio	Motor power	Output torque	Service factor	Nominal power	Nominal torque	Available B5 motor flanges				Available B14 motor flanges					Output Shaft	 Ratios code
							C	D	E	F	R	T	U	V			
							71	80	90	100 112	80	90	100 112	132			
n ₂ [min ⁻¹]	i	P _{1M} [kW]	M _{2M} [Nm]	f.s.	P _{1R} [kW]	M _{2R} [Nm]											
213	6.57	5.5	237	1.2	6.74	290	B								3018	standard ø35 On request ø30 ø40	-
185	7.56	5.5	272	1.1	6.06	300	B								3016		
159	8.82	5.5	318	1.2	6.58	380	B								3014		
113	12.39	5.5	446	0.9	4.93	400	B								2018		
98	14.24	4	373	1.1	4.50	420	B								2016		
84	16.63	4	435	1.1	4.55	495	B								2014		
73	19.25	4	504	1.0	3.97	500	B								1616		
64	21.78	3	428	1.2	3.54	505	B								1318		
62	22.48	3	442	1.1	3.36	495	B								1614		
56	25.04	3	492	1.0	3.05	500	B								1316		
47.9	29.23	2.2	421	1.2	2.59	495	B								1314		
45.7	30.65	2.2	442	1.1	2.5	500	B								1116		
39.1	35.78	2.2	515	1.0	2.1	430	B								1114		
36.3	38.55	1.5	379	1.2	1.8	455	B								818		
31.6	44.32	1.5	435	1.1	1.7	500	B								816		
27.1	51.74	1.5	508	1.0	1.5	495	B								814		
22.9	61.03	1.1	440	1.0	1.1	420	B								616		
19.6	71.25	1.1	513	0.8	0.9	430	B								614		

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 **F52A** 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.
For complete documentation please visit our web site.

Il riduttore **F52A** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **F52A** 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.
Die komplette Dokumentation, Wartungs - und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F52A** 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.

Para documentación completa, consultar nuestra Web.

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	
1.80 LT	1.20 LT	0.90 LT	1.25 LT	1.80 LT	1.25 LT	
AGIP Telium VSF 320		BP Energol SGXP220		SHELL Tivela Oil WB		KLUBER Syntheso D220 EP
MOBIL Glygoyle 30						

tab. 1

Output shaft

Albero di uscita

$F_R(N)$

$F_A(N)$

X

n_2	F_A	F_R
200	420	2100
140	466	2328
120	554	2772

Eq

$F_{eq} = F_R \cdot \frac{69.1}{X+39.1}$

$F_{eq}(N)$

X

n_2	F_A	F_R
85	568	2376
70	590	2952
40	706	3528

Input shaft

Albero in entrata

$F_R(N)$

$F_A(N)$

n_1	F_A	F_R
1400	300	1500
900	377	1884
500	493	2466

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

PF52AC...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore

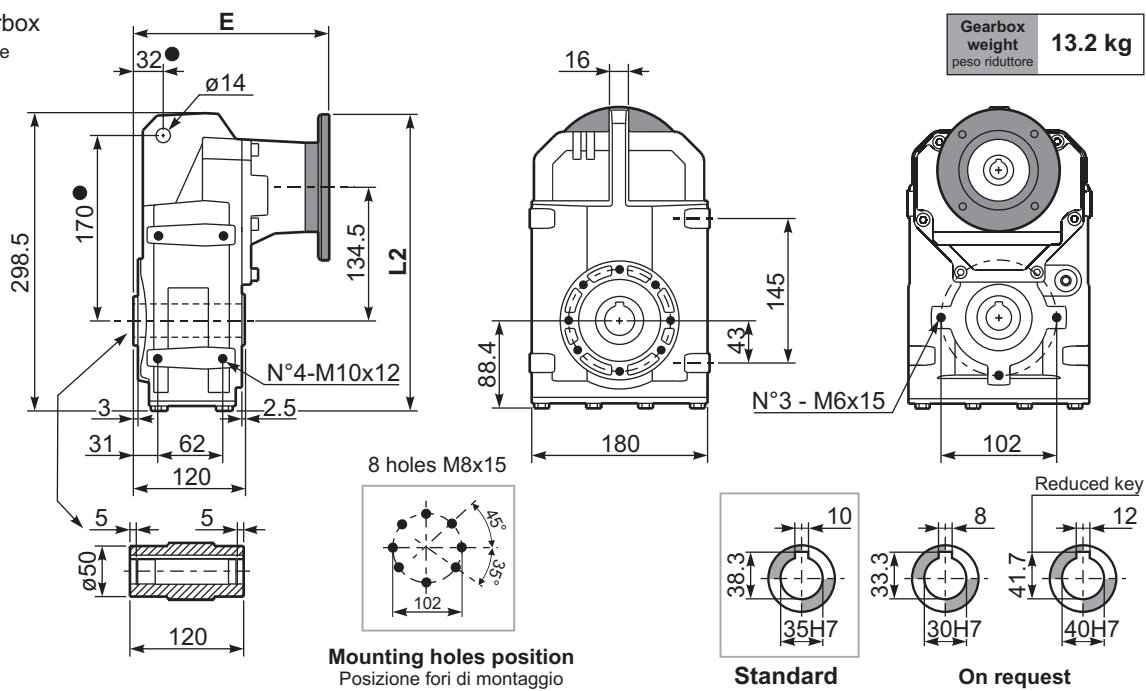
13.2 kg

Motor Flange

Motor Flange	E	L2
71 B5	201.5	303
80/90 B5	203.5	323
100/112B5	203.5	348
80 B14	202	283.5
90 B14	205	294
100/112B14	201.5	303
132B14	220	323

- Available torque arms,
see our web site

Bracci di reazione disponibili,
consulta il nostro sito web



PF52A...-F...

Output flange
Flangia uscita

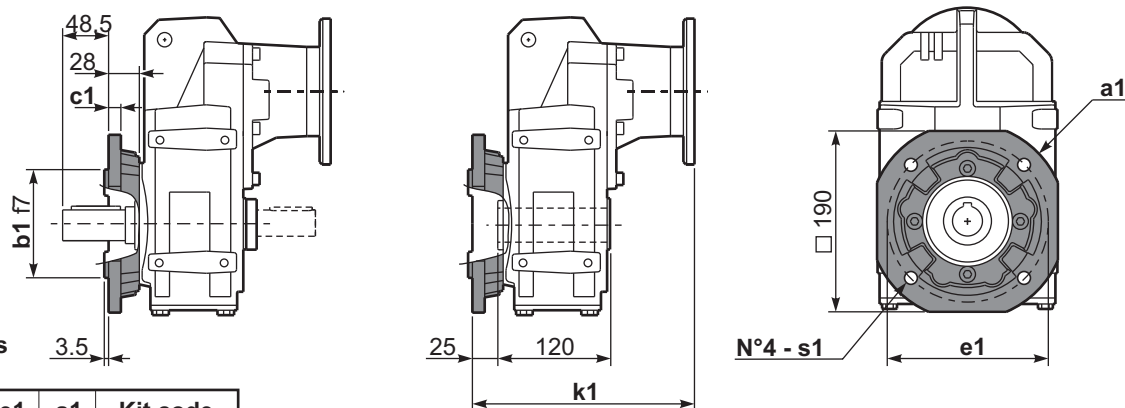
Motor Flange	E
71 B5	226.5
80/90 B5	228.5
100/112B5	228.5
80 B14	227
90 B14	230
100/112B14	226.5
132B14	245

Available output flanges

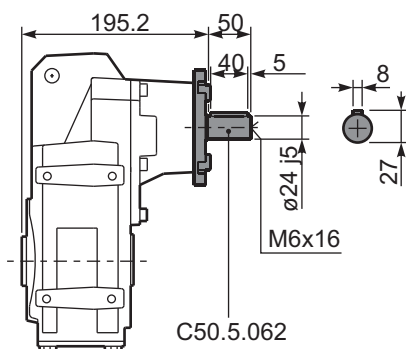
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
200*	130	10	165	11	KF50.9.010
250	180	15	215	13.5	KF50.9.011

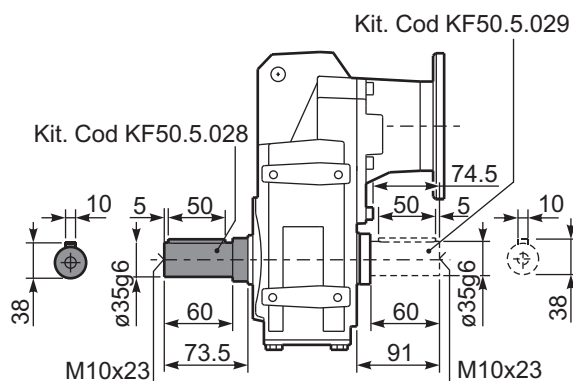
* Standard output flange / Flangia uscita standard



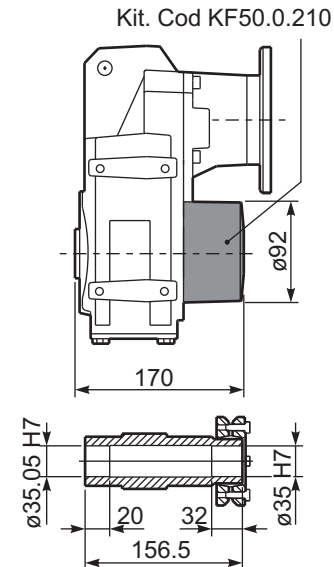
RF52AC...

Input Shaft
Albero in entrata

PF52AA/B...

Single and Double output shaft
Albero uscita semplice e doppio

PF52AD/S...

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 
							B	C	D	E	Q	R	T	U			
							63	71	80	90	71	80	90	100 112			
35.6	39.30	1.5	374	1.4	2.0	510	B				C	C			281316	standard ø35 On request ø30 ø40	-
30.5	45.93	1.5	437	1.1	1.7	500	B				C	C			281314		
22.6	61.89	1.1	432	1.2	1.3	530	B				C	C			191318		
19.7	71.16	1.1	497	1.0	1.1	510	B				C	C			191316		
17	82.48	0.75	392	1.3	1.0	510	B				C	C			171316		
14.5	96.82	0.75	461	1.1	0.8	510	B				C	C			151316		
12.1	115.56	0.55	403	1.3	0.7	510	B				C	C			131316		
10.2	137.20	0.55	479	1.1	0.6	530	B				C	C			101318		
8.9	157.74	0.55	550	0.9	0.5	510	B				C	C			101316		
7.8	179.06	0.37	420	1.3	0.5	530	B				C	C			91318		
7.6	184.15	0.37	432	1.2	0.4	500	B				C	C			101314		
6.8	205.87	0.37	483	1.1	0.4	510	B				C	C			91316		
5.8	240.34	0.25	381	1.3	0.3	500	B				C	C			91314		
5.1	271.85	0.25	431	1.2	0.3	510	B				C	C			71316		
4.4	317.36	0.25	503	1.0	0.2	500	B				C	C			71314		

The dynamic efficiency is **0.93** 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 **F53A** 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.
For complete documentation please visit our web site.

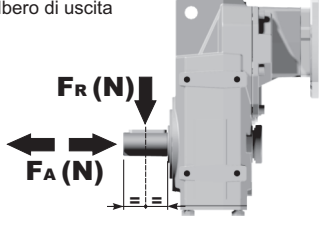
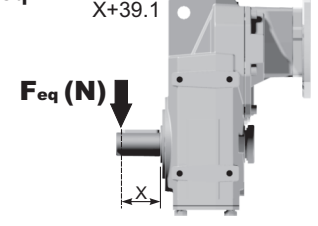
I Il riduttore **F53A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

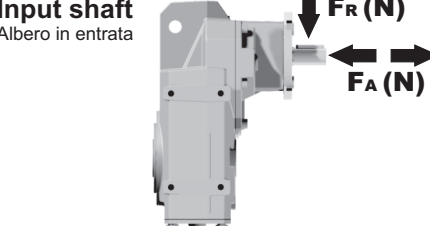
D Das Getriebe **F53A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F53A** 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.
Para documentación completa, consultar nuestra Web.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
					
1.90 LT	1.30 LT	1.00 LT	1.35 LT	1.90 LT	1.35 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{69.1}{X+39.1}$		
					
n_2	F_A	F_R	n_2	F_A	F_R
200	420	2100	85	568	2376
140	466	2328	70	590	2952
120	554	2772	40	706	3528
n_2	F_A	F_R	n_2	F_A	F_R
15	960	4800	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Input shaft Albero in entrata		
		
n_1	F_A	F_R
1400	300	1500
900	377	1884
500	493	2466

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

PF53AC...

Basic gearbox
Riduttore baseGearbox
weight
peso riduttore

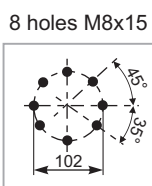
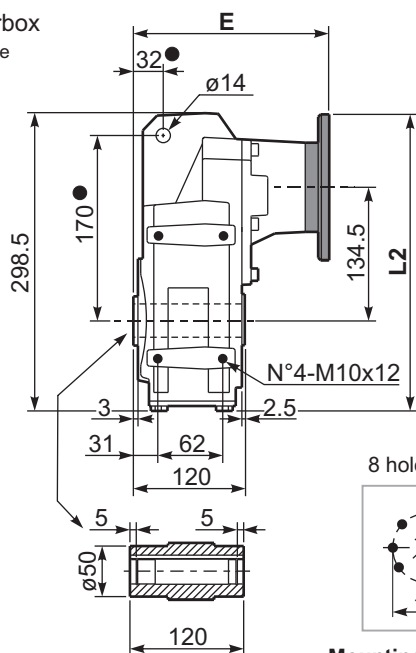
13.4 kg

Motor Flange

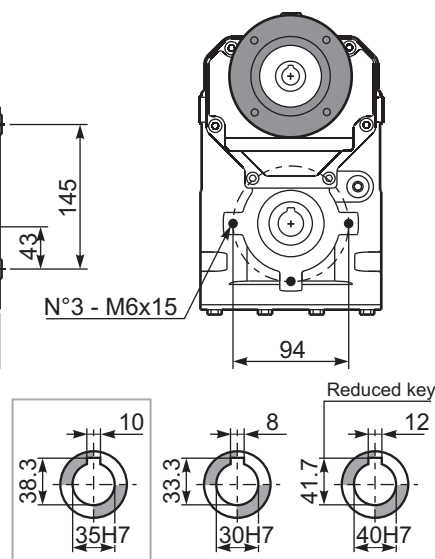
Motor Flange	E	L2
63 B5	211.5	293.5
71 B5	212.5	303.5
80/90 B5	211.5	323.5
71 B14	209.5	276
80 B14	210.5	283.5
90 B14	211.5	293.5
100/112B14	227.5	303.5

- Available torque arms,
see our web site

Bracci di reazione disponibili,
consulta il nostro sito web



Mounting holes position
Posizione fori di montaggio



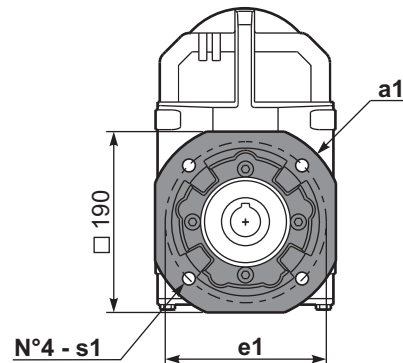
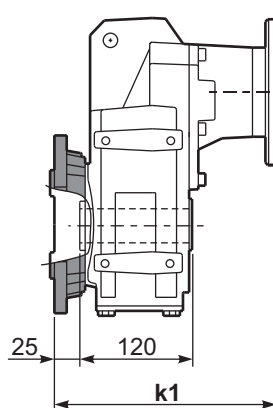
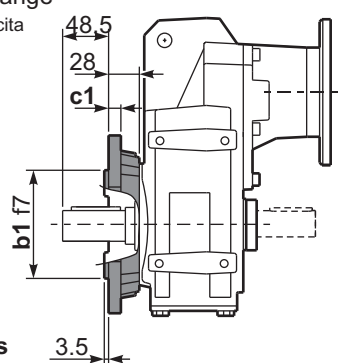
Standard
Hollow shaft

On request
A richiesta

PF53A...-F...

Output flange
Flangia uscita

Motor Flange	k1
63 B5	236.5
71 B5	237.5
80/90 B5	236.5
71 B14	234.5
80 B14	235.5
90 B14	236.5
100/112B14	252.5



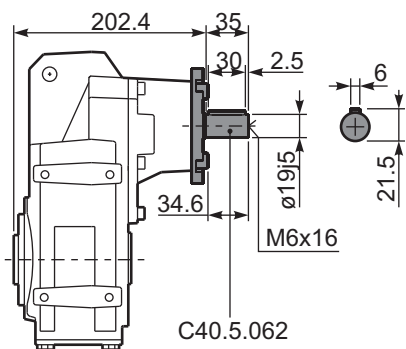
Available output flanges

Flange di uscita

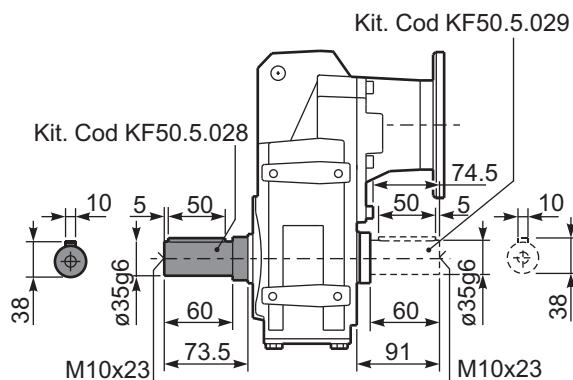
a1 ø	b1	c1	e1	s1	Kit code
200*	130	10	165	11	KF50.9.010
250	180	15	215	13.5	KF50.9.011

* Standard output flange / Flangia uscita standard

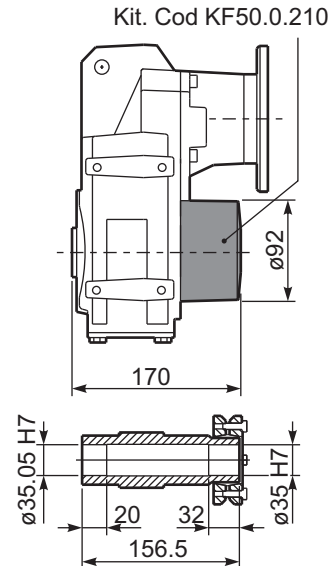
RF53AC...

Input Shaft
Albero in entrata

PF53A/B...

Single and Double output shaft
Albero uscita semplice e doppio

PF53AD/S...

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
							C	D	E	F	R	T	U	V					
							71	80	90	100 112	80	90	100 112	132					
225	6.21	7.5	305	1.0	7.9	320	B										3018		-
196	7.15	7.5	351	1.0	7.9	369	B										3016		
168	8.36	7.5	410	1.0	7.9	431	B										3014		
120	11.71	7.5	575	1.0	7.6	585	B										2018		
104	13.48	5.5	485	1.3	7.0	620	B										2016		
89	15.75	5.5	567	1.1	6.0	617	B										2014		
77	18.22	4	477	1.3	5.2	620	B										1616		
68	20.58	4	539	1.1	4.2	566	B										1318	standard ø40	
66	21.29	4	558	1.1	4.4	617	B										1614		
59	23.69	4	621	1.0	4.0	620	B										1316	On request ø35	
51	27.69	3	544	1.1	3.4	617	B										1314		
48.3	29.00	3	570	1.0	3.1	580	B										1116		
41.3	33.90	3	666	0.9	2.8	617	B										1114		
38.4	36.43	2.2	525	1.0	2.3	550	B										818		
33.4	41.94	1.5	412	1.5	2.3	620	B										816		
28.6	49.02	1.5	481	1.3	1.9	617	B										814		
24.2	57.75	1.1	416	1.1	1.2	440	B										616		
20.7	67.50	1.1	486	1.0	1.1	507	B										614		

The dynamic efficiency is **0.96** 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 **F62C** 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.
For complete documentation please visit our web site.

I Il riduttore **F62C** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **F62C** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F62C** 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.
Para documentación completa, consultar nuestra Web.

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
1.90 LT	1.40 LT	1.05 LT	1.50 LT	1.90 LT	1.40 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{71.5}{x + 41.5}$$

n_2	FA	FR
200	834	4169
140	937	4686
120	990	4950

n_2	FA	FR
85	1122	5610
70	1188	5940
40	1430	7150

n_2	FA	FR
15	1430	7150
-	-	-
-	-	-

Input shaft

Albero in entrata

n_1	FA	FR
1400	120	602
900	245	1227
500	385	1925

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

PF62CC...

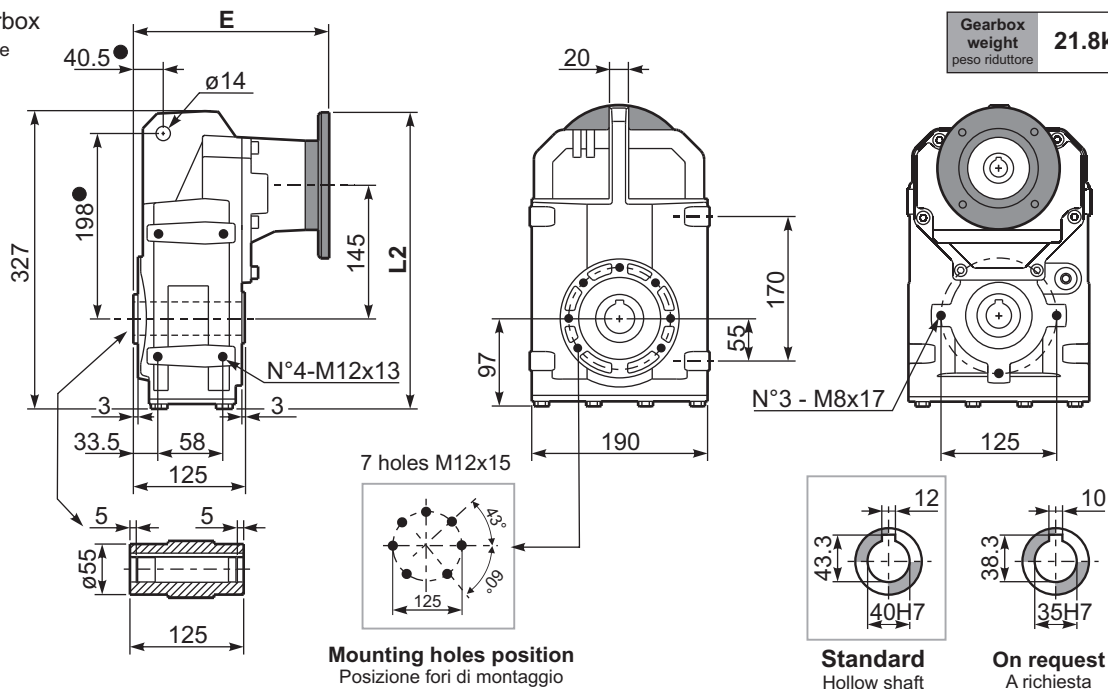
Basic gearbox
Riduttore baseGearbox weight
peso riduttore **21.8kg**

Motor Flange

Motor Flange	E	L2
71 B5	212.5	321
80/90 B5	214.5	341
100/112B5	214.5	366
80 B14	212.5	301
90 B14	215.5	311
100 B14	212	321
132 B14	245.5	341

- Available torque arms,
see our web site

Bracci di reazione disponibili,
consulta il nostro sito web



PF62C...-F...

Output flange
Flangia uscita

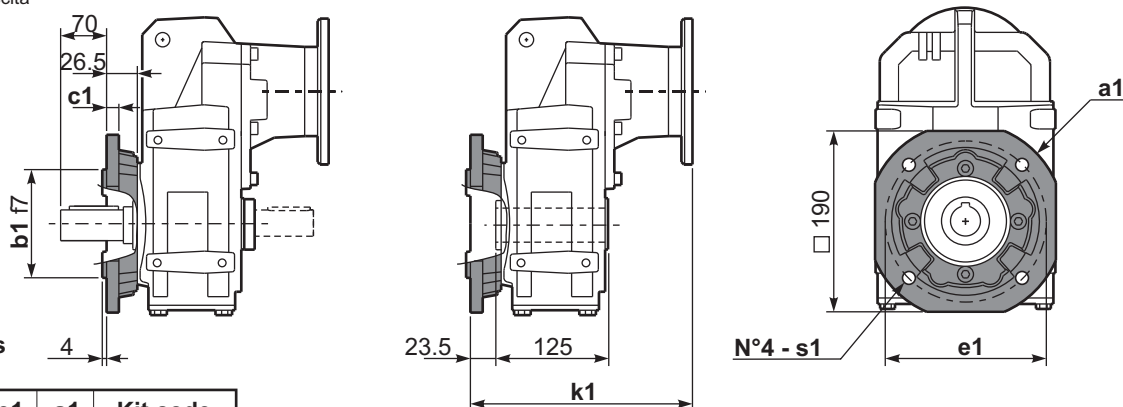
Motor Flange	K1
71 B5	236
80/90 B5	238
100/112B5	238
80 B14	236
90 B14	239
100/112B14	235.5
132B14	254

Available output flanges

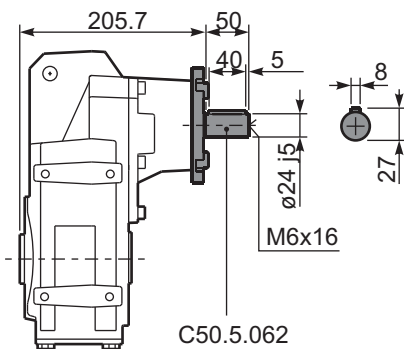
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
200	130	10	165	11	KF60.9.010
250*	180	15	215	13.5	KF60.9.011

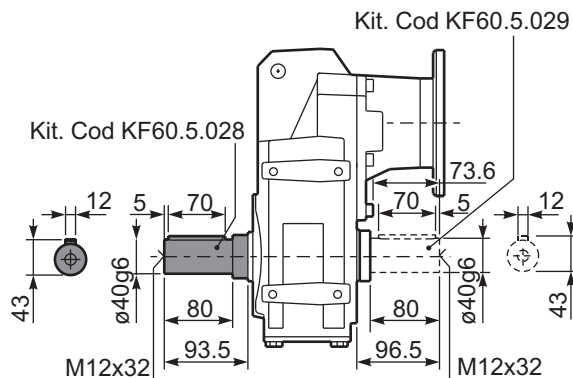
* Standard output flange / Flangia uscita standard



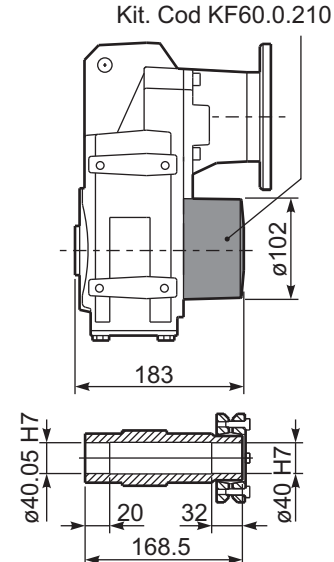
RF62CC...

Input Shaft
Albero in entrata

PF62C A/B...

Single and Double output shaft
Albero uscita semplice e doppio

PF62C D/S...

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 
							B	C	D	E	Q	R	T	U			
							63	71	80	90	71	80	90	100 112			
37.6	37.23	1.5	354	1.8	2.8	652	B				C	C			281316	standard ø40 On request ø35	-
32.2	43.52	1.5	414	1.6	2.3	648	B				C	C			281314		
23.9	58.49	1.5	557	1.0	1.6	576	B				C	C			191318		
20.8	67.34	1.5	641	1.0	1.53	652	B				C	C			191316		
17.9	78.05	1.1	545	1.2	1.32	652	B				C	C			171316		
15.3	91.61	1.1	639	1.0	1.12	652	B				C	C			151316		
12.8	109.35	0.75	520	1.3	0.94	652	B				C	C			131316		
10.8	129.66	0.75	617	0.9	0.70	576	B				C	C			101318		
9.4	149.26	0.55	521	1.3	0.69	652	B				C	C			101316		
8.3	169.22	0.55	590	1.0	0.54	576	B				C	C			91318		
8.0	174.46	0.55	609	1.1	0.59	648	B				C	C			101314		
7.2	194.80	0.55	680	1.0	0.53	652	B				C	C			91316		
6.1	227.69	0.37	534	1.2	0.45	648	B				C	C			91314		
5.4	257.23	0.37	604	1.1	0.40	652	B				C	C			71316		
4.7	300.66	0.25	477	1.4	0.34	648	B				C	C			71314		

The dynamic efficiency is **0.93** 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 **F63C** 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.
For complete documentation please visit our web site.

I Il riduttore **F63C** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **F63C** 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.
Die komplette Dokumentation, Wartungs- und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **F63C** 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.
Para documentación completa, consultar nuestra Web.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
					
2.00 LT	1.50 LT	1.15 LT	1.60 LT	2.00 LT	1.50 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{71.5}{x 41.5}$$

n_2	FA	FR
200	834	4169
140	937	4686
120	990	4950

n_2	FA	FR
85	1122	5610
70	1188	5940
40	1430	7150

n_2	FA	FR
15	1430	7150
-	-	-
-	-	-

Input shaft

Albero in entrata

n_1	FA	FR
1400	120	602
900	245	1227
500	385	1925

tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.



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			
							63	71	56	63	71			
24.2	57.9	0.25	98	0.9	0.24	90			C	C		2844	standard ø20	-
13.4	104.8	0.12	89	1.0	0.13	90			C	C		1954		
11.5	121.5	0.12	103	0.9	0.11	90			C	C		1756		
9.8	142.6	0.12	121	0.7	0.10	90			C	C		1558		
8.2	170.2	0.12	145	*	0.08	90			C	C		1360		
6.0	232.3	0.12	198	*	0.06	90			C	C		1063		
4.6	303.2	0.12	258	*	0.04	90			C	C		974		
3.5	400.4	0.12	341	*	0.03	90			C	C		776		
The dynamic efficiency is 0.93 for all ratios														

The dynamic efficiency is **0.93** 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

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

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. For complete documentation please visit our web site.

LUBRICATION FS20 Oil Quantity 0.50 Lt.

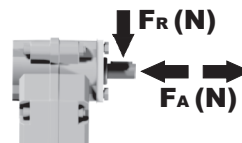
AGIP	KLUBER	SHELL	MOBIL
Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

tab. 1

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. Per la documentazione completa consulta il nostro sito.

RADIAL LOADS

Input shaft
Albero in entrata



n_1	FA	FR
1400	140	700
900	160	800

tab. 2

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. Die komplette Dokumentation, Wartungs - und Inbetriebnahmeanleitungen finden Sie unter.

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. Para documentación completa, consultar nuestra Web.

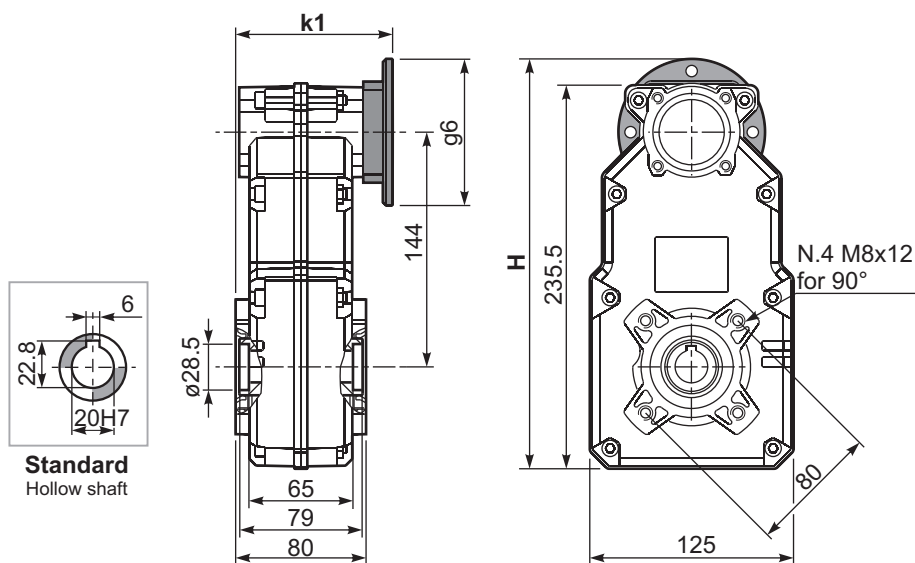
SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

PFS20...

Basic gearbox
Riduttore base

Gearbox weight
peso riduttore

4.3 kg

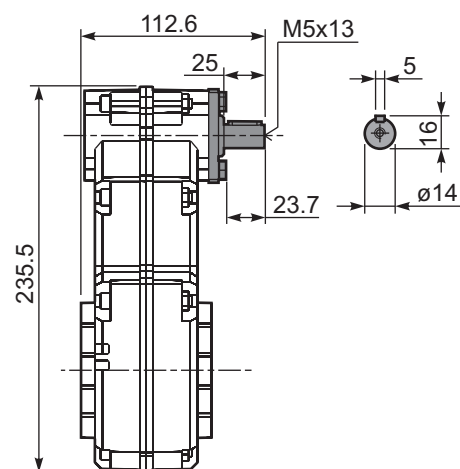


B14 Motor Flanges	H	g6	k1	kit code
56 B14	245.5	80	94.2	KC40.4.049
63 B14	251.5	90	96.7	K050.4.047
71 B14	259	105	94.2	K050.4.045

B5 Motor Flanges	H	g6	k1	kit code
63 B5	276.5	138	94.7	K050.4.041
71 B5	286.5	160	92.7	K050.4.042

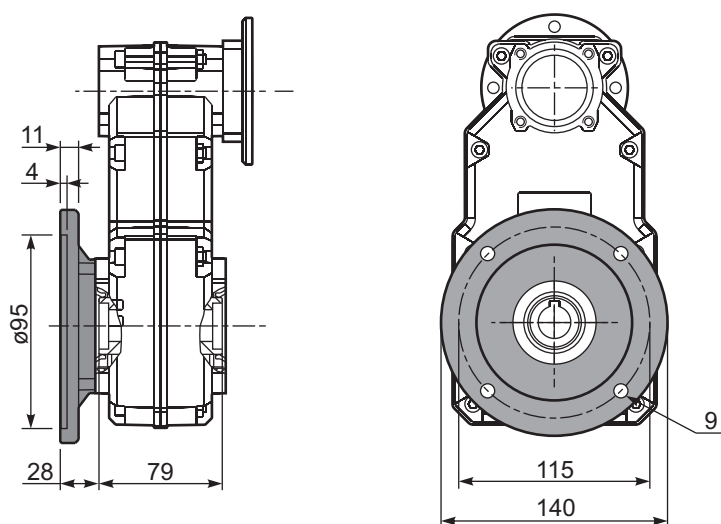
RFS20...

Input Shaft
Albero in entrata



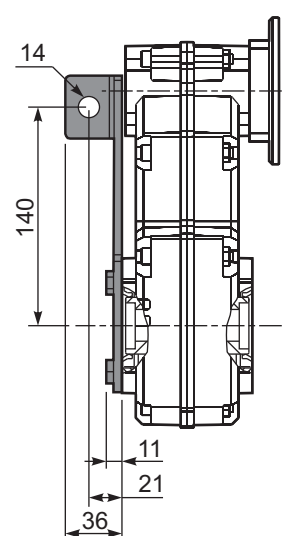
PFS20-F

Output flange
flangia di uscita



PFS20BR

Reaction arm
Braccio di reazione



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			
							63	71	56	63	71			
29.3	47.7	1.10	333	1.4	1.48	450			C	C		-		-
16.2	86.3	0.75	409	1.1	0.82	450			C	C		standard ø30		
14.0	100.0	0.75	474	1.0	0.70	450			C	C				
11.9	117.4	0.55	415	1.1	0.60	450			C	C				
10.0	140.1	0.37	339	1.3	0.50	450			C	C				
7.3	191.2	0.37	462	1.0	0.37	450			C	C				
5.6	249.6	0.25	404	1.1	0.28	450			C	C		On request ø35		
4.2	329.6	0.25	533	0.8	0.21	450			C	C				
The dynamic efficiency is 0.93 for all ratios														

The dynamic efficiency is **0.93** 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 **FS50** 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. For complete documentation please visit our web site.

Il riduttore **FS50** 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.
Per la documentazione completa consulta il nostro sito.

D Das Getriebe **FS50** 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.
Die komplette Dokumentation, Wartungs - und Inbetriebnahmeanleitungen finden Sie unter.

E El reductor tamaño **FS50** 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.

Para documentación completa, consultar nuestra Web.

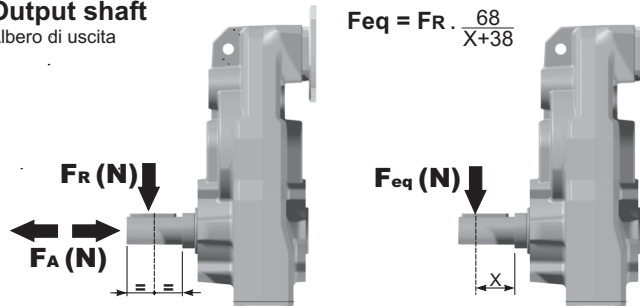
Standard supplied		For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio			
					
H1	H4	H3	H2	H5	H6
0.95 LT	0.50 LT	0.50 LT	0.70 LT	0.95 LT	0.95 LT
AGIP Telium VSF 320	BP Energol SGXP220	SHELL Tivela Oil WB	KLUBER Syntheso D220 EP	MOBIL Glygoyle 30	

tab. 1

RADIAL AND AXIAL LOADS

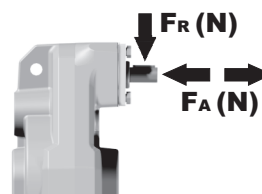
Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{68}{X+38}$$



n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
200	384	1920	85	500	2498	15	672	3360
140	427	2136	70	523	2616	-	-	-
120	451	2256	40	641	3204	-	-	-

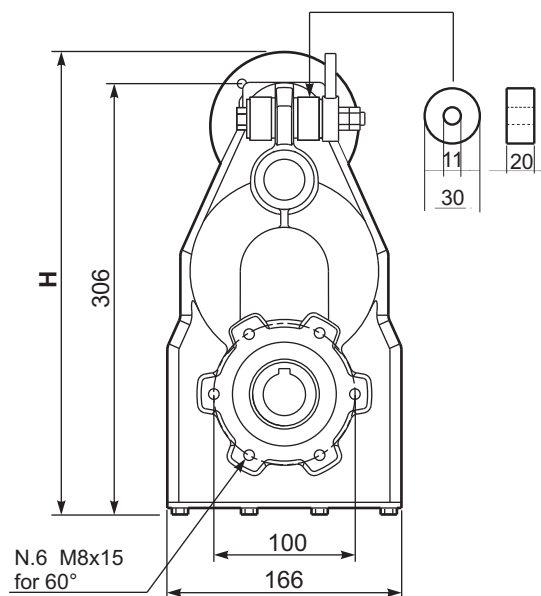
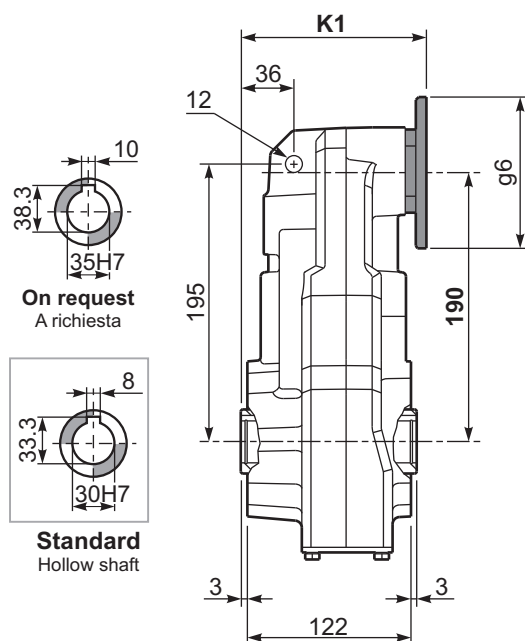
Input shaft
Albero in entrata



n_1	FA	FR
1400	140	700
900	160	800

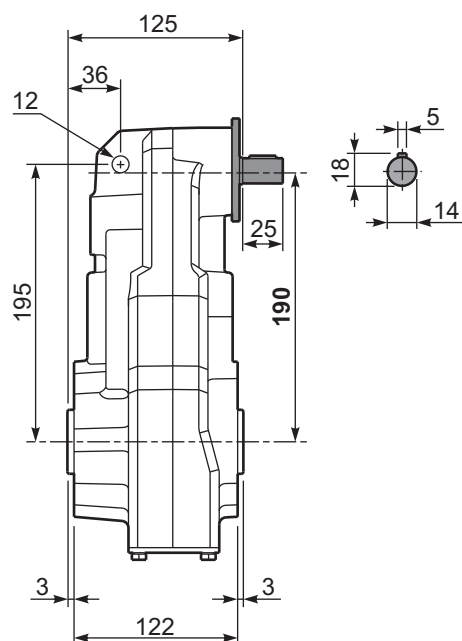
tab. 2

▪ **SELECT THIS TYPE AND THIS SPECIFIC SIZE ON THE WEB PAGES TO GET COMPLETE TECHNICAL DATA.**
Selezionare tipo e gandezza specifica nel sito web per la documentazione completa.

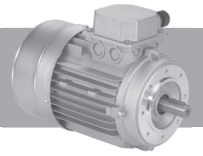
PFS50C...Basic gearbox
Riduttore baseGearbox
weight
peso riduttore**11.5 kg**

B14 Motor Flanges	H	g6	k1	kit code
56 B14	314	80	130.5	KC40.4.049
63 B14	320	90	133	K050.4.047
71 B14	328	105	130.5	K050.4.045

B5 Motor Flanges	H	g6	k1	kit code
63 B5	345	140	131	K050.4.041
71 B5	355	160	129	K050.4.042

RFS50C...Input shaft
Albero in entrata

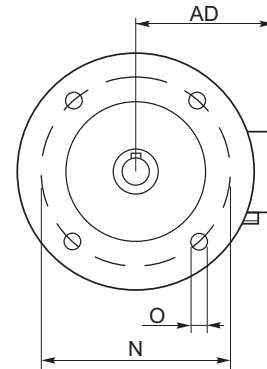
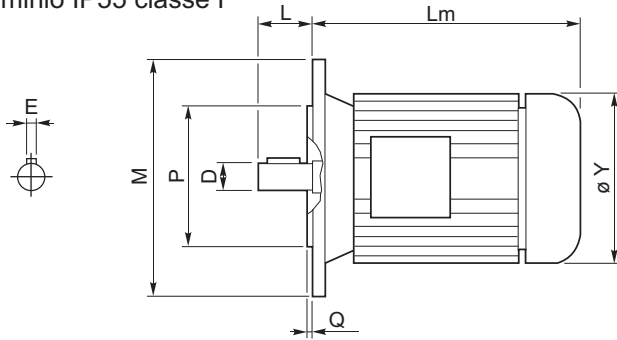
Aluminum IEC motors



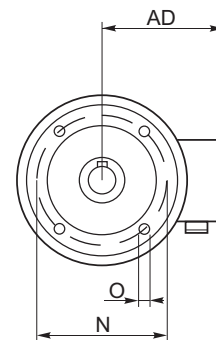
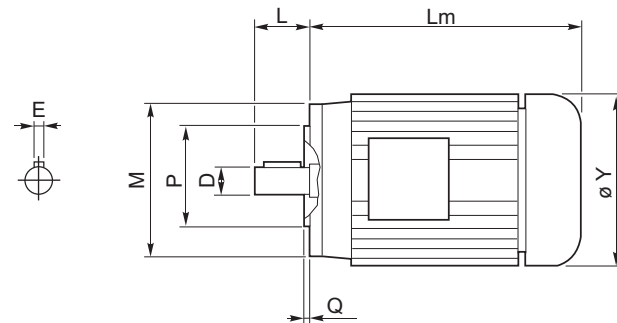
Aluminum motor IP55 class F

Motori solo in alluminio IP55 classe F

B5



B14



Outside dimensions may be different according to manufacturers.

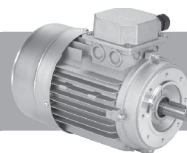
Le dimensioni esterne sono indicative, possono variare tra i vari costruttori.

	2 poli / poles			4 poli / poles			6 poli / poles			B5-B14						B5					B14					Kg
	kW	Nm	A (400V)	kW	Nm	A (400V)	kW	Nm	A (400V)	D	E	L	Lm	Y	AD	P	N	M	O	Q	P	N	M	O	Q	
56 A	0.09	0.32	0.38	0.06	0.44	0.27	—	—	—	9	3	20	179	108	96	80	100	120	7	2.5	50	65	80	M5	2.5	2.7
56 B	0.12	0.42	0.46	0.09	0.67	0.37	—	—	—																	2.9
63 A	0.18	0.63	0.60	0.12	0.84	0.50	0.09	0.99	0.57	11	4	23	185	120	99	95	115	140	9.5	3	60	75	90	M5	2.5	3.8
63 B	0.25	0.87	0.76	0.18	1.30	0.69	0.12	1.32	0.74																	4.2
71 A	0.37	1.30	1.00	0.25	1.70	0.91	0.18	1.90	0.80	14	5	30	-	130	104	110	130	160	9.5	3.5	70	85	105	M6	2.5	5.9
71 B	0.55	1.90	1.54	0.37	2.52	1.14	0.25	2.72	1.10				225	141	107											6.5
80 A	0.75	2.60	1.85	0.55	3.77	1.51	0.37	3.84	1.18	19	6	40	256	159	127	130	165	200	11.5	3.5	80	100	120	M6	3	8.5
80 B	1.1	3.90	2.64	0.75	5.11	2.57	0.55	5.84	1.80																	10
90 S	1.5	5.00	3.31	1.1	7.45	2.78	0.75	7.92	2.32	24	8	50	-	170	135	130	165	200	11.5	3.5	95	115	140	M8	3	12.5
90 L	2.2	7.50	4.46	1.5	10.2	3.61	1.1	11.6	3.45				15													
100 LA	3.0	10.0	6.28	2.2	14.8	5.07	1.5	15.4	3.88	28	8	60	-	190	148	180	215	250	13	4	110	130	160	M8	3.5	20
100 LB	—	—	—	3.0	20.1	6.66	—	—	—				-	22												
112 M	4.0	13.4	8.10	4.0	26.7	8.55	2.2	22.6	5.30				321	210	164											35
132 S	5.5	18.3	11.2	5.5	36.5	11.4	3.0	30.2	7.20	38	10	80	375	244	180	230	265	300	14	4	130	165	200	M10	4	41
		7.5	24.9																							15.3
132 M	—	—	—	7.5	49.4	15.0	4.0	40.0	9.13				420	51												
				9.2	61.4	18.5																				
160 M	—	—	—	11	72	21.5	—	—	—				42	12	110											503
160 L	—	—	—	15	98	29	—	—	—	547	97.5															
180 M	—	—	—	18.5	121	35.5	—	—	—	48	14	110	602	366	266	250	300	350	19	5	—	—	—	—	—	170
180 L	—	—	—	22	144	42	—	—	—																	



Metric electric motors are in aluminum.
On request they can be supplied with different
Level of protection and painted with 2 or 3
level of anticorrosive paint.

*I motori metrici sono in alluminio,
su richiesta possono essere forniti
con differenti livelli di protezione e
verniciati con vernice
anticorrosiva.*



Protection

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

Grado di protezione

IP55 Standard
Specificare in sede di ordinazione per IP superiore.

Schutzart

IP55 Standard.
Höheren IP Grad bitte im Auftrag angeben.

Grado de protección

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

Insulation

Standard Cl.F
To be specified upon placing the order if different insulation is required.

Isolamento

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

Isolierung

Cl.F Standard.
Davon abweichende Isolierungsklas se im Auftrag angeben

Aislamiento

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

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

Connections

Threephase asynchronous single polarity
Asincrono trifase singola polarità
Asynchronmotor 3-ph eine Drehzahl
Asincrono trifasico de una velocidad

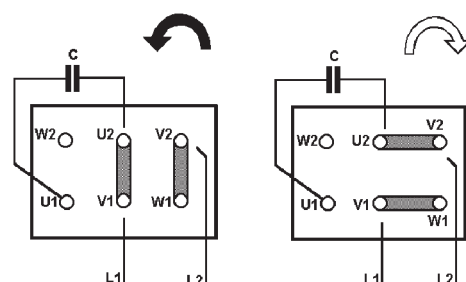
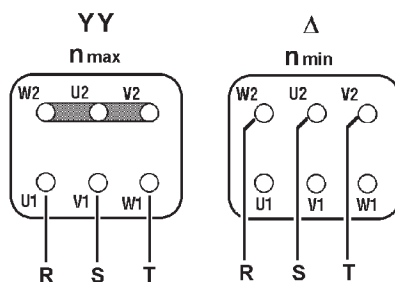
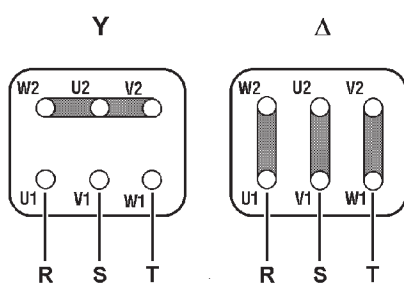
Collegamenti

Threephase asynchronous double polarity
Asincrono trifase doppia polarità
Asynchronmotor 3-ph doppelte Drehzahl
Asincrono trifasico de dos velocidades

Verbindungselemente

Conexiones

Single phase asynchronous
Asincrono monofase
Einphasen-Asynchronmotor
Asincrono monofasico



Please Read Carefully

The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your product.

Read ALL instructions prior to operating reducer. Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.

WARNING:

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

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

Leggere attentamente

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

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

ATTENZIONE!

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

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

[illegible]

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

HYDRO-MEC *A modern production of Modular products*



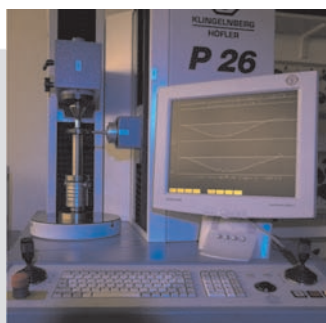
Worm gearboxes
Rid. a vite senza fine



Square worm gearboxes
Rid. a vite senza fine quadro



Stainless steel worm gearboxes
Rid. a vite senza fine Inox



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Fax : +39 0444 536139

hydromec@hydromec.com



* CT- RCM- WD- HM010 *