

TRANSTECNO[®]
the modular gearmotor

The gearmotors
for outdoor applications

Washdown Tecno





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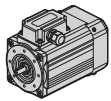
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Introduzione

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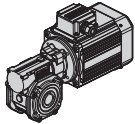


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Motori elettrici CA
SM

AC Electric motors
SM

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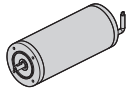


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Motoriduttori CA a vite senza fine
CLOD

AC Wormgearmotors
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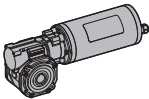


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Generalità

Per avere una migliore comprensione degli argomenti e dei dati esposti in questo catalogo proponiamo la simbologia utilizzata corredandola delle informazioni di base per giungere ad una corretta selezione dei motoriduttori e variatori.

Information in this manual is provided with symbols in order to understand the subject matter and data. These symbols are intended to aid the user in selecting the right gearmotors and variators.

General information

Velocità entrata

n_1 [min⁻¹]

Input speed

Rappresenta la velocità riferita al tipo di motorizzazione prescelta ed è applicata in entrata al riduttore.

This is the input speed at the gearbox related to the type of drive unit selected.

Per selezioni a velocità diverse da quelle riportate consultare il ns. Servizio Tecnico.

When different speeds are required, contact our Technical Service.

Rapporto di riduzione

i

Gear ratio

È una grandezza adimensionale ed è in funzione del numero dei denti degli ingranaggi interni al riduttore.

This value is strictly related to the size and number of teeth gears inside the gearbox.

Nei riduttori a vite senza fine si ottiene dividendo il numero di denti della corona per il numero dei filetti (Z) della vite senza fine.

This value is obtained in wormgearboxes by dividing the number of wheel teeth by the number of starts (Z) of the worm.

Dai dati di catalogo si può ottenere con la relazione:

From the data given in the catalogue, the value can be calculated using the following formula:

$$i = \frac{n_1}{n_2}$$

Velocità in uscita

n_2 [min⁻¹]

Output speed

È la velocità risultante sull' asse di uscita del riduttore e viene ricavata dalla relazione precedente:

This is the gearbox output speed calculated using the formula given above:

$$n_2 = \frac{n_1}{i}$$

Coppia richiesta

Mr_2 [Nm]

Requested torque

È la coppia richiesta dall'applicazione ed è indispensabile per la selezione di una motorizzazione.

This is the torque needed for the application and must be known when selecting a drive system. It can either be provided by the user or calculated according to the application data (if provided).

Essa può essere comunicata dall'utente oppure calcolata in base ai dati di applicazione (se forniti).



Coppia nominale

Mn_2 [Nm]

Nominal torque

Rappresenta la coppia in uscita trasmissibile dal riduttore in base alla velocità in entrata n_1 e al rapporto di riduzione i . Essa è calcolata in base ad un servizio con carico continuo uniforme corrispondente ad un fattore di servizio uguale a 1. Questo valore non è riportato nel presente catalogo ma può essere ricavato approssimativamente con la seguente relazione fra M_2 (coppia trasmessa) e sf (fattore di servizio):

This is the output torque that can be transmitted by the gearbox according to input speed n_1 and gear ratio i . It is calculated based on service with a continuous steady load corresponding to a service factor equal to 1. This value is not given in the catalogue but can be calculated approximately with the following formula between M_2 (output torque) and sf (service factor):

$$Mn_2 = M_2 \cdot sf$$

Coppia trasmessa

M_2 [Nm]

Output torque

È la coppia trasmessa in uscita al riduttore. Dipende dalla potenza P_1 del motore installato, dal numero di giri in uscita n_2 e dal rendimento dinamico Rd e può essere calcolata con la relazione:

This is the gearbox's output torque. It is strictly related to power P_1 of the motor installed, output rpm n_2 and dynamic efficiency Rd . It can be calculated with the following formula:

$$M_2 = \frac{9550 \cdot P_1 \cdot Rd}{n_2}$$

oppure:
or:

$$M_2 = \frac{9550 \cdot P_2}{n_2}$$

dove:
where:

$$P_2 = P_1 \cdot Rd$$

Rendimento del riduttore a vite senza fine

$Rd; Rs$

Worm gearbox efficiency

I calcoli delle prestazioni sono stati effettuati in base al rendimento dinamico Rd dei riduttori (valore ottimale che si raggiunge nel funzionamento a regime dopo rodaggio).

Efficiency is calculated based on dynamic efficiency Rd of the gearboxes (optimal value reached when running at normal speed after the break in period).

Nei riduttori combinati, il rendimento complessivo è dato dal prodotto dei rendimenti dei due riduttori, considerando però che nel secondo riduttore il rendimento dovrà essere valutato in base alla ridotta velocità in entrata ottenuta dividendo n_1 per il rapporto i del primo riduttore.

In combination gearboxes, overall efficiency is obtained from the combined efficiency of the two gearboxes. However, keep in mind that efficiency of the second gearbox should be determined according to the reduced input speed obtained by dividing n_1 by ratio i of the first gearbox.

È opportuno considerare che nei riduttori a vite senza fine si ha anche un valore di rendimento statico Rs , presente in fase di avviamento, che declassa sensibilmente la coppia risultante per cui influenza in modo determinante la scelta di motorizzazioni destinate ad applicazioni intermittenti (es. sollevamenti).

It is important to remember that wormgearboxes also have static efficiency value Rs present at start-up. This value notably reduces the resulting torque. As a result, it must be taken into consideration when selecting drive systems for intermittent operations (e.g. lifting) as it is a determinant factor.

Il valore dei rendimenti dinamico e statico dei riduttori a vite senza fine sono riportati nella tabella a pag. N4.

Dynamic and static efficiency of wormgearboxes are given in the table on page N4.

Nei riduttori ad ingranaggi CMG e CMB il rendimento medio è del 94%.

On helical gearboxes CMG and CMB the average efficiency is 94%.

Nei motovariatori il rendimento assume un valore di 0.85 alla velocità massima e decresce fino a 0.7 alla velocità minima.

Efficiency is 0.85 at the highest speed decreasing to 0.7 at the lowest speed in motovariators.



Reversibilità e irreversibilità

Reversibility and irreversibility

La diretta conseguenza del rendimento (statico e dinamico) è la reversibilità del riduttore a vite senza fine che consiste nella possibilità di fare ruotare l'albero entrata tramite l'applicazione di una torsione più o meno accentuata sull'albero uscita.

L'impossibilità o la difficoltà ad effettuare l'azione sopra descritta, determina il grado di reversibilità (o irreversibilità) di un riduttore.

Questa caratteristica, molto significativa nei riduttori a vite senza fine, è influenzata da molteplici fattori quali angolo d'elica (quindi rapporto di trasmissione), lubrificazione, temperatura, finitura superficiale della vite senza fine, presenza di vibrazioni, ecc.

In applicazioni dove sono presenti delle traslazioni è necessario garantire una elevata reversibilità onde evitare che le inerzie delle masse in movimento possano determinare punte di carico inammissibili sugli organi di trasmissione.

In applicazioni dove è richiesto un non ritorno del carico (es. sollevamenti o nastri trasportatori inclinati) in assenza di un freno motore è necessario scegliere un riduttore caratterizzato da un elevato grado di irreversibilità.

Desideriamo comunque evidenziare che la garanzia assoluta di non ritorno è data esclusivamente dall'installazione di un motore autofrenante o di un altro dispositivo frenante esterno.

La tabella sottostante riporta a titolo puramente indicativo i vari gradi di reversibilità/irreversibilità nei riduttori a vite senza fine in funzione del rendimento dinamico R_d e statico R_s .

Reversibility of the wormgearbox is the direct consequence of efficiency (static and dynamic). This determines whether or not the input shaft can be rotated by applying a certain torque on the output shaft.

Whether or not this can be done and how difficult it actually is to do determine the degree of reversibility (or irreversibility) of a gearbox.

This feature, quite significant in wormgearboxes, is affected by numerous factors including the helix angle (therefore drive ratio), lubrication, temperature, surface finish of the worm, vibrations, etc...

In applications that include translations, high reversibility must be guaranteed to prevent inertia of the moving parts from creating unacceptable load peaks on the drive parts.

In applications that require non-return of the load (e.g. lifting or inclined conveyor belts) a gearbox with high irreversibility must be chosen when a motor-brake unit is not present.

However, we would like to point out that non-return can be totally assured only by installing a self-braking motor or other external braking device.

The table below is provided for reference purposes only. It contains the various degrees of reversibility/irreversibility of wormgearboxes in relation to dynamic R_d and static R_s efficiency.

Rd	Reversibilità e irreversibilità dinamica	Dynamic reversibility and irreversibility
> 0.6	Reversibilità dinamica	Dynamic reversibility
0.5 - 0.6	Reversibilità dinamica incerta	Uncertain dynamic reversibility
0.4 - 0.5	Buona irreversibilità dinamica	Good dynamic irreversibility
<0.4	Irreversibilità dinamica	Dynamic irreversibility
Rs	Reversibilità e irreversibilità statica	Static reversibility and irreversibility
> 0.55	Reversibilità statica	Static reversibility
0.5 - 0.55	Reversibilità statica incerta	Uncertain static reversibility
<0.5	Irreversibilità statica	Static irreversibility

Potenza in entrata

P_1 [kW]

Input power

È la potenza motore applicata in entrata al riduttore e riferita alla velocità n_1 .

Può essere calcolata come segue:

This is the power applied by the motor at the gearbox input in reference to speed n_1 .

It can be calculated with the following formula:

$$P_1 = \frac{M_2 \cdot n_2}{9550 \cdot R_d}$$



Fattore di servizio

sf

Service factor

È una grandezza adimensionale che indica il sovradimensionamento da applicare ad una determinata motorizzazione per garantire la resistenza agli urti e la durata richiesta.

Le tabelle di catalogo offrono una vasta scelta di motorizzazioni con fattori di servizio differenziati che possono soddisfare la maggior parte delle applicazioni più o meno gravose.

Per una corretta interpretazione dei valori del fattore di servizio sf riportati a fianco di ogni selezione proposta, riportiamo nelle tabelle seguenti i valori indicativi attribuiti alle classi di carico A, B, C e alla durata di funzionamento giornaliero h/d e al numero di avviamenti/ora.

Definendo la classe di carico a cui riferire l'applicazione, si ricercherà nella tabella il corrispondente valore di sf da utilizzare nella scelta della motorizzazione più idonea.

This value indicates how a certain drive system is to be over-sized in order to assure the requested service and stand up to shocks.

The tables given in the catalogue offer a wide range of drive systems with different service factors able to satisfy most types of applications. To correctly understand service factor values sf given for each item, approximate values for load classes A, B and C along with the number of hours of daily operation h/d and number of start-ups/hours need to be known.

Once the load class required for the application has been determined, locate corresponding value sf to be used when selecting the most suitable drive system.

A - Uniforme	$fa \leq 0.3$
B - Medio	$fa \leq 3$
C - Forte	$fa \leq 10$

A - Uniform	$fa \leq 0.3$
B - Moderate shocks	$fa \leq 3$
C - Heavy shocks	$fa \leq 10$

$fa = \frac{Je}{Jm}$

- Je (kgm²) momento d'inerzia esterno ridotto all'albero motore.
- Jm (kgm²) momento d'inerzia motore.

Se $fa > 10$ interpellare il ns. Servizio Tecnico.

$fa = \frac{Je}{Jm}$

- Je (kgm²) moment of reduced external inertia at the drive-shaft.
- Jm (kgm²) moment of inertia of motor.

If $fa > 10$ call our Technical Service.

A Classe di carico / Load class
Carico uniforme / Uniform load

		sf								
		n. avviamenti/ora / n. start-up/hour								
h/d	2	4	8	16	32	63	125	250	500	
4	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	
8	1.0	1.0	1.1	1.1	1.3	1.3	1.3	1.3	1.3	
16	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5	
24	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	

B Classe di carico / Load class
Carico con urti moderati / Moderate shock load

		sf								
		n. avviamenti/ora / n. start-up/hour								
h/d	2	4	8	16	32	63	125	250	500	
4	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	
8	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5	
16	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	
24	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2	

C Classe di carico / Load class
Carico con urti forti / Heavy shock load

		sf								
		n. avviamenti/ora / n. start-up/hour								
h/d	2	4	8	16	32	63	125	250	500	
4	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5	
8	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	
16	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2	
24	2.2	2.2	2.2	2.2	2.5	2.5	2.5	2.5	2.5	

Esempio applicazione:

Nastro trasportatore attribuibile alla classe di carico B (**carico con urti moderati**) e previsto per una durata di funzionamento giornaliero (h/d) di **16** ore e con **8** avviamenti/ora. Dalla tabella rileviamo **sf = 1.5**

Application example:

Conveyor belt assigned to load class B (**moderate shock load**), to be run **16** hours a day (h/d) with **8** start-ups/hour. The following value is obtained from the table **sf = 1.5**



Scelta dei motoriduttori

Selecting the gearmotors

Per la scelta di un motoriduttore è necessario seguire la seguente procedura.

To select the required gearmotor perform the procedure below:

1. Per l'applicazione desiderata ricavare il fattore di servizio sf dalle tabelle a pag. A5 in base alla classe di carico, alle ore di funzionamento giornaliere e al numero di avviamenti orari.
2. Se si conosce la potenza motore P_1 [kW] richiesta, passare al punto 3); se è nota la coppia in uscita M_2 richiesta è necessario calcolare la potenza motore P_1 con la formula:

$$P_1 = \frac{M_2 \cdot n_2}{9550 \cdot Rd}$$

dove Rd è il rendimento dinamico e n_2 il numero di giri richiesti in uscita al motoriduttore.

1. Determine the service factor sf for the desired application by referring to the charts given on page A5. This is to be done by considering the class of load, the operational hours/day and the number of start-ups/ hour.
2. If the required motor power output P_1 [kW] is known, go to item 3); if the required output torque M_2 is known, determine motor output P_1 by using the following formula:

where Rd stands for the dynamic efficiency and n_2 indicates the required output rpm of the gearmotor.

3. Nelle tabelle dei dati tecnici ricercare la motorizzazione in cui sia P_1 maggiore o uguale a P e con riferimento ad una velocità n_2/n_{2max} prossima a quella desiderata, scegliere la motorizzazione in cui il fattore di servizio sf indicato risulti uguale o superiore a quello ricavato al punto 1).

3. Use the specification chart to search for the power unit where P_1 is greater than or equal to P with a speed n_2/n_{2max} that approximates the desired one. Choose a power unit where the indicated service factor sf is equal to or greater than that calculated at point 1).

CL - SM

P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i	
---------------	-------------------------------	---------------	------	-----	--

0.25 - IEC 63

SMT6334	70	27	2.7	20	CL050
SMM6334	56	32	2.2	25	
(1400 min ⁻¹)	47	37	2.4	30	
	35	46	1.7	40	
	28	54	1.3	50	
	23	61	1.1	60	
	18	74	0.8	80	

Esempio / Example:

Applicazione / Application:

Nastro trasportatore / Conveyor belt

P_1 : 0.25 W
 sf : 2.0
 n_2 : 70 min⁻¹

Motorizzazione scelta / Power unit selected:

CL050, i = 20, SMT6334

ECL

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i	
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350

(3000 min ⁻¹)	600	5.0	2.6	5	ECL250/030
	400	7.4	2.0	7.5	
	300	10	1.7	10	
	200	14	1.1	15	
	150	18	0.8	20	
	120	22	0.7	25	
	100	25	0.7	30	
	75	22	0.7	40	
	60	21	0.7	50	

Esempio / Example:

Applicazione / Application:

Nastro trasportatore / Conveyor belt

P_1 : 300 W
 sf : 1.5
 n_2 : 300 min⁻¹

Motorizzazione scelta / Power unit selected:

ECL 250/030, i=10



Installazione e verifiche

Installation and inspection

In fase di installazione del motoriduttore è opportuno verificare che:

- i dati riportati in targhetta corrispondano al prodotto che è stato ordinato;
- le superfici di accoppiamento e gli alberi siano accuratamente puliti e privi di ammaccature;
- le superfici su cui verrà installato il riduttore siano perfettamente piane e sufficientemente rigide;
- l'albero macchina e quello del riduttore siano correttamente allineati;
- siano stati installati sistemi di limitazione della coppia se si prevedono urti o blocchi della macchina durante il funzionamento;
- siano state predisposte le necessarie protezioni antinfortunistiche agli organi rotanti;
- siano state create delle opportune coperture a protezione dagli agenti atmosferici se l'installazione è effettuata all'aperto ed è soggetta alle intemperie;
- l'ambiente di lavoro non sia corrosivo (a meno che tale specifica non sia stata dichiarata in fase di ordine al fine di predisporre il riduttore per questo utilizzo);
- gli eventuali pignoni o pulegge montati sull'albero uscita o entrata del riduttore, siano calettati correttamente in modo tale da non generare carichi radiali e/o assiali superiori a quelli ammissibili;
- su tutti gli accoppiamenti sia stato applicato un adeguato protettivo antiossidante per prevenire eventuali ossidazioni da contatto;
- tutte le viti di fissaggio siano state serrate correttamente.

While installing the gearmotor always make sure that:

- *the specifications stamped on the rating plate match those indicated for the unit actually ordered;*
- *the mating surfaces and the shafts are thoroughly clean and free of dents;*
- *the surfaces where the gearbox are to be mounted on are flat and strong enough;*
- *the machine drive shaft and the gearbox shaft are perfectly aligned;*
- *the required torque limiters have been installed if the machine is likely to produce shocks or blockages during operation;*
- *the rotary parts have been provided with the required safety guards;*
- *adequate weatherproof covering has been provided if the machine is to be installed outdoor;*
- *the working environment is not exposed to corrosive agents (unless this has been indicated while placing the order so that the gearbox assembly can be adequately set up);*
- *the pinions or pulleys on the gearbox input/output shafts are properly fitted in order not to produce radial and/or axial loads that exceed the maximum allowable limits;*
- *all the couplings have been treated with adequate rust preventative in order to avoid oxidation provoked by contact;*
- *all the mounting screws have been securely tightened.*

Applicazioni critiche

Critical applications

In tutti questi casi consultare il Servizio Tecnico

In these cases please contact the Technical Service

- utilizzo come organo di sollevamento;
- utilizzo in posizioni non previste a catalogo;
- utilizzo in ambiente con pressione diversa da quella atmosferica;
- utilizzo in ambiente con temperature $<0^{\circ}\text{C}$ o $>+40^{\circ}\text{C}$
- utilizzo in ambienti esterni
- servizio continuo o altamente intermittente per motoriduttori in corrente continua o brushless
- utilizzo in applicazioni con forti inerzia

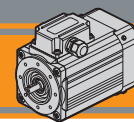
- *used as a hoist;*
- *used in mounting positions not shown in the catalogue;*
- *used in environment pressure other than atmospheric pressure;*
- *used in places with temperature $<0^{\circ}\text{C}$ or $>+40^{\circ}\text{C}$*
- *when used outdoors*
- *continuous or highly intermittent duty for DC or brushless gearmotors*
- *used in applications with high inertia*



Washdown Tecno

Motori elettrici asincroni CA
AC asynchronous electric motors

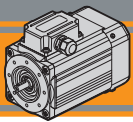




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Targhetta	<i>Nameplate</i>	B20

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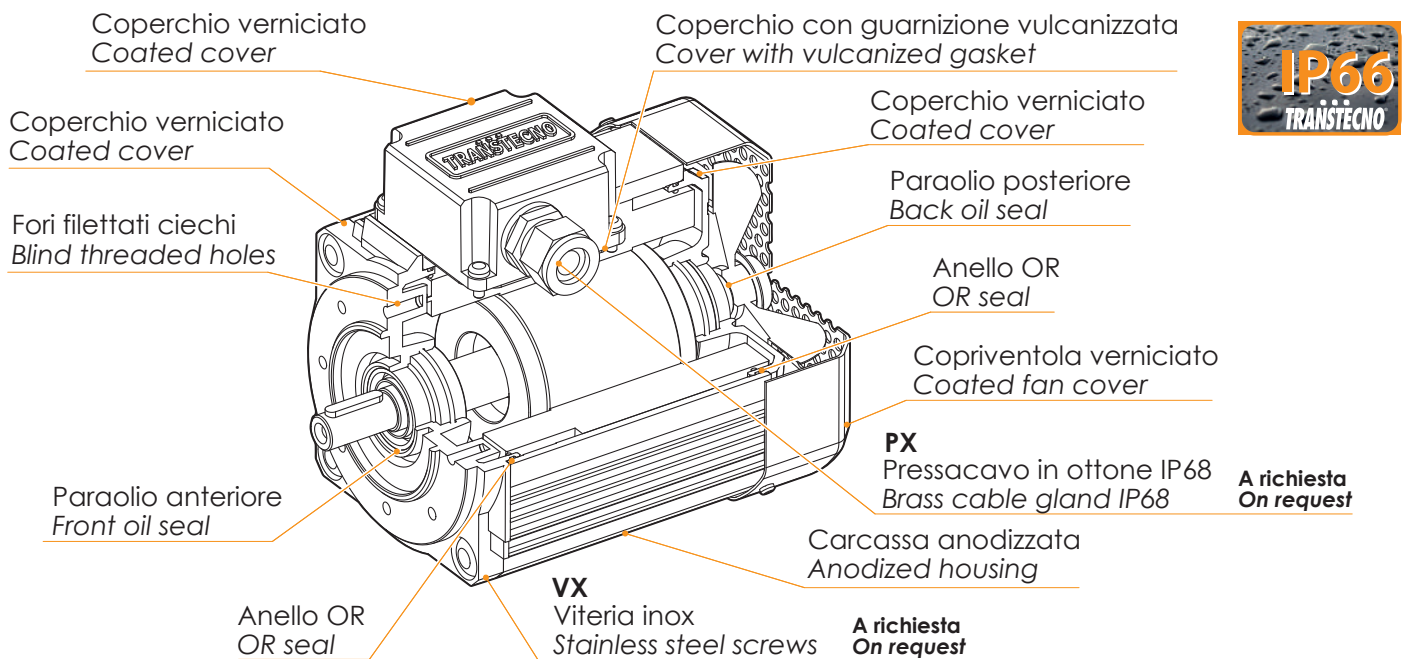
Caratteristiche tecniche

Technical characteristics

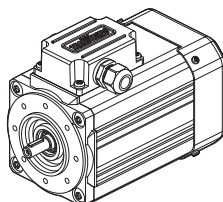
I motori delle serie SMT ed SMM hanno le seguenti caratteristiche principali:

SMT and SMM motor range has the following main features:

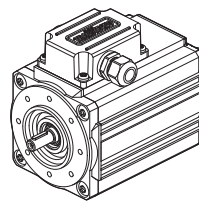
- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcasa estrusa in alluminio anodizzato nero
- Motore elettrico CA con grado di protezione IP66 eccetto il condensatore.
- Rumorosità e vibrazioni contenute
- Isolamento termico di classe F
- Flangia motore IEC B14
- Temperatura ambiente: -20°C / +40°C
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezioni termiche PTO 150°C per le taglie 56, 63, 71, 80 e 90.
- SMT56, SMT63, SMT71, SMT80 e SMT90 adatti al funzionamento con alimentazione da inverter.
- SMT80 e SMT90 conformi alla classe di rendimento IE3.
- Cava esagonale su albero motore lato NDE.
- Condensatore di marcia sempre cablato ad esclusione della taglia SMM50.
- La tolleranza di tensione è $\pm 10\%$ per tutti i motori ad esclusione della taglia 50 ($\pm 5\%$).
- Viteria inox e pressacavo in ottone disponibili a richiesta.
- Disponibili nelle versioni autofrenante, servoventilata e con certificazione 
- Compact design
- AC single phase and three phase motors available
- Black anodized extruded aluminium housing
- AC electric motor in IP66 protection Standard, except capacitor
- Low noise and vibrations
- Class F insulation Standard
- Motor flange IEC B14
- Ambient temperature: -20°C / +40°C
- Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available
- PTO 150°C thermal protection for motor sizes 56, 63, 71, 80 and 90.
- SMT56, SMT63, SMT71, SMT80 and SMT90 are suitable to be driven by inverter.
- SMT80 and SMT90 in compliance to the Standard efficiency class IE3
- Motor shaft hexagon socket on the NDE side.
- Running capacitor always connected, except for SMM50.
- The voltage tolerance is $\pm 10\%$ for all motors, except for size 50 ($\pm 5\%$).
- Stainless steel screws and brass cable gland available upon request
- Brake motors, forced ventilation motors and  compliance versions available.

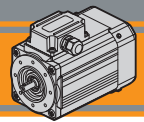


SM .. TEFC



SM .. TENV









Designazione

Classification

SM

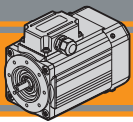
MOTORE TRIFASE / THREE PHASE MOTOR									
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	VX
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options
SMT  	Vedi tabelle See tables	1-2-3-4-5	4	0.04 kW ... 2.2 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV	VX Viteria inox Stainless steel screws PX Pressacavo in ottone Brass cable gland

MOTORE MONOFASE / SINGLE PHASE MOTOR									
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	VX
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options
SMM  	Vedi tabelle See tables	1-2-3-4	4	0.04 kW ... 0.75 kW	B14	230V 115V (UL-CSA)	50Hz	TEFC TENV	VX Viteria inox Stainless steel screws PX Pressacavo in ottone Brass cable gland

Simbologia e formule

Symbols and formulas

P_n	[kW]	Potenza nominale	<i>Rated power</i>
I_n	[A]	Corrente nominale (a 400V)	<i>Rated current (at 400V)</i>
M_n	[Nm]	Coppia nominale	<i>Rated torque</i>
n_n	[rpm]	Velocità nominale	<i>Rated speed</i>
M_s / M_n		Rapporto coppia spunto / coppia nominale	<i>Ratio start torque / rated torque</i>
M_k / M_n		Rapporto coppia massima / coppia nominale	<i>Ratio max torque / rated torque</i>
I_s / I_n		Rapporto corrente di spunto / corrente nominale	<i>Ratio start current / rated current</i>
$\cos\varphi$		Fattore di potenza al carico nominale	<i>Power factor at rated torque load</i>
η		Rendimento al carico nominale	<i>Efficiency at rated torque load</i>
Potenza Power	[HP]	Potenza [kW] x 1.341	<i>Power [kW] x 1.341</i>
Potenza resa P_n <i>P_n output power</i>	[kW]	Potenza assorbita x η	<i>Absorbed power x η</i>
Pot. assorbita <i>Absorbed power</i>	[kW]	$\frac{V \times I \times \cos\varphi}{1000}$ (monofase)	$\frac{V \times I \times \cos\varphi}{1000}$ (singlephase)
		$\frac{V \times I \times \sqrt{3} \times \cos\varphi}{1000}$ (trifase)	$\frac{V \times I \times \sqrt{3} \times \cos\varphi}{1000}$ (threephase)
I_n (230 V)		I_n (400 V) x $\sqrt{3}$	I_n (400 V) x $\sqrt{3}$



Dati tecnici motori trifase

Three phase motors technical data

SMT Motori trifase / SMT Three phase motors

(230-400 V / 50 Hz) poli / poles **4**

TAGLIA SIZE	P _n [kW]	M _n [Nm]	n _n [min ⁻¹]	I _n (400V) [A]	η %	cosφ	M _s /M _n	I _s /I _n	M _k /M _n	PTO [°C]	Servizio Duty TEFC	Servizio Duty TENV
5014	0.04	0.30	1290	0.25	34.0	0.68	1.65	1.75	1.70	-	S1	S3 30%
5024	0.06	0.44	1300	0.35	35.7	0.69	1.55	1.80	1.60			
5034	0.09	0.65	1315	0.54	38.0	0.64	1.80	2.00	1.85			
5044	0.12	0.87	1315	0.64	43.0	0.63	1.80	2.00	1.80		S3 75%	
5624	0.09	0.64	1345	0.45	46.5	0.62	2.50	2.40	2.70		S1	S3 50%
5634	0.12	0.89	1300	0.45	52.0	0.74	1.90	2.40	1.90		S3 75%	
IE2 5634 IE2	0.12	0.84	1360	0.48	59.1	0.61	2.70	2.90	2.70		S1	-
5644	0.18	1.26	1360	0.69	59.0	0.65	2.50	3.00	2.60		S3 75%	S3 50%
5654	0.25	1.80	1330	0.93	59.0	0.66	2.50	2.80	2.60			
6324	0.18	1.26	1360	0.69	57.0	0.66	2.50	2.90	2.50			
IE2 6324 IE2	0.18	1.27	1360	0.65	64.7	0.62	2.50	2.90	2.50		S1	-
6334	0.25	1.74	1375	0.94	62.0	0.64	2.80	3.00	2.80		S3 75%	S3 50%
IE2 6334 IE2	0.25	1.72	1390	0.88	68.5	0.60	3.20	3.50	3.20	S1	-	
6344	0.37	2.60	1360	1.24	65.3	0.66	2.70	3.00	2.70	PTO 150°	S3 50%	S3 45%
7124	0.37	2.52	1400	1.10	67.9	0.72	2.75	4.20	2.75		S3 75%	
IE2 7124 IE2	0.37	2.48	1425	1.05	72.7	0.70	2.80	4.90	2.90	S1	-	
7134	0.55	3.76	1395	1.55	70.2	0.73	2.90	4.40	2.90	S3 75%	S3 45%	
IE2 7134 IE2	0.55	3.70	1420	1.56	77.1	0.66	3.40	5.20	3.40	S1	-	
7144	0.75	5.09	1405	2.00	74.0	0.73	2.90	5.00	2.90	S3 75%	S3 45%	
IE3	8024 IE3	0.75	4.96	1440	1.94	82.5	0.68	3.60	6.00	3.70	S1	S3 70%
	8034 IE3	1.1	7.25	1450	2.91	84.1	0.65	4.00	6.80	4.40		
	9024 IE3	1.5	10.0	1430	3.48	85.3	0.73	3.20	6.30	3.50		
	9034 IE3	2.2	14.9	1410	4.68	86.7	0.79	3.00	6.20	3.30		S3 75%

I motori SMT sono disponibili anche nelle versioni autofrenante, servoventilata e con certificazione **UL** US.

Brake motors, forced ventilation motors and **UL** US compliance versions available. Please contact our Technical Service.

Dati tecnici motori monofase

Single phase motors technical data

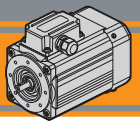
SMM Motori monofase / SMM Single phase motors

(230 V / 50 Hz) poli / poles **4**

TAGLIA SIZE	P _n [kW]	M _n [Nm]	n _n [min ⁻¹]	I _n (230V) [A]	η %	cosφ	M _s /M _n	I _s /I _n	M _k /M _n	Cond/cap [μF]	PTO [°C]	Servizio Duty TEFC	Servizio Duty TENV
5014	0.04	0.27	1390	0.60	33.4	0.88	0.74	1.60	1.55	8.0	-	S1	S3 30%
5024	0.06	0.42	1380	0.89	34.3	0.85	0.76	1.70	1.50	12.0			
5034	0.09	0.63	1375	1.10	40.0	0.89	0.80	1.70	1.45	16.0			
5624	0.09	0.63	1370	0.82	48.6	0.98	0.72	1.70	1.45	6.3	PTO 150°	S1	S3 50%
5634	0.12	0.83	1380	1.06	50.3	0.98	0.75	2.10	1.65	9.0			
5644	0.18	1.25	1375	1.50	53.8	0.97	0.70	2.20	1.58	12.5			
6324	0.18	1.33	1290	1.50	54.5	0.97	1.00	1.80	1.45	12.0			
6334	0.25	1.85	1290	1.95	56.8	0.98	0.93	1.90	1.50	16.0			
7124	0.37	2.72	1300	2.78	58.6	0.99	0.77	2.00	1.35	20.0			
7134	0.55	3.95	1330	3.54	68.9	0.98	0.66	2.40	1.40	25.0			
8024	0.75	5.31	1350	4.93	67.4	0.98	0.67	2.50	1.54	35.0			S3 45%
													S3 40%

I motori SMM sono disponibili con certificazione **UL** US.

Motors with **UL** US compliance available. Please contact our Technical Service.



Dichiarazione di conformità IP66

IP66 Decalartion of conformity

Il superamento dei test definiti dalla normativa:

Passing the tests defined by the standard:

EN 60034 -5: 2001

EN 60034 -5: 2001

Certifica i motori elettrici CA delle gamme SMT ed SMM conformi al grado di protezione IP66.
Di seguito la dichiarazione di conformità.

Certifies the AC electric motor ranges SMT and SMM as compliant with the IP66 protection standards.
Below the declaration of conformity.



Dichiarazione di conformità alla norma EN60034-5:2021
Declaration of conformity to standard EN60034-5:2021

Noi: *Transtecno Srl*
We: *Transtecno srl*

Indirizzo/Address: *Via Caduti di Sabbiuono, 11/D-E - 40011 Anzola Emilia (BO) - ITALY*

dichiariamo che l'oggetto della dichiarazione è il prodotto: *Motori asincroni in corrente alternata trifase 230/400V50Hz, 460V60Hz e monofase 230V 50/60Hz*
declare that the object of the declaration is the product: *Asynchronous AC motors, threephase 230/400V50Hz, 460V60Hz and singlephase 230V 50/60Hz*

Modello/model:
SMT50-SMT56 -SMT63-SMT71-SMT80-SMT90
SMM50- SMM56-SMM63-SMM71-SMM80

sono stati sottoposti ai test in laboratorio notificato per il **grado di protezione IP66** secondo la norma EN600034-5:2021, con le seguenti limitazioni:

- esclusi i condensatori di marcia (motori SMM)
- scatola morsettiera standard secondo ciascuna taglia

have been tested in a notified laboratory for the IP66 degree according to the standard EN600034-5:2021, with the following limitations:

- *excluding run capacitors (SMM motors)*
- *standard terminal box according to each size*

IP		Definizione / Description	IP		Definizione / Description
6	○	Totalmente protetto contro la polvere. <i>Fully dust tight.</i>	6		Protetto dalle ondate. <i>Waveproof.</i>

Per la definizione esatta si rimanda alla norma.
For the exact definition, please refer to the standar.

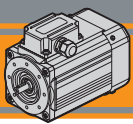
Anzola Emilia, 10/06/2024

TRANSTECNO SRL

Direzione e coordinamento di Interpump Group

Via Caduti di Sabbiuono 11 D/E, 40011 Anzola dell'Emilia (BO) - Italy - Tel +39 051 6425811 - Fax +39 051 734943

sales@transtecno.com - www.transtecno.com • C.F. 02394560375 • P.IVA 00575261201 • Cap.Soc. Euro 100.000,00 I.V. • R.E.A 278977/BO • R.I. BO N. 02394560375

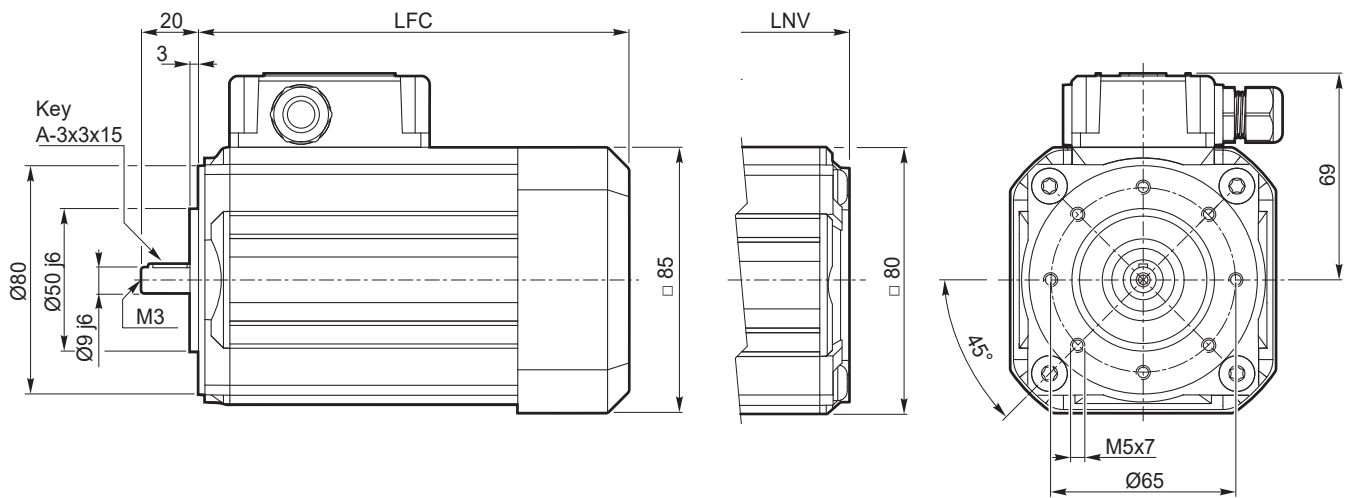


Dimensioni motori trifase

Three phase motors dimensions

3~

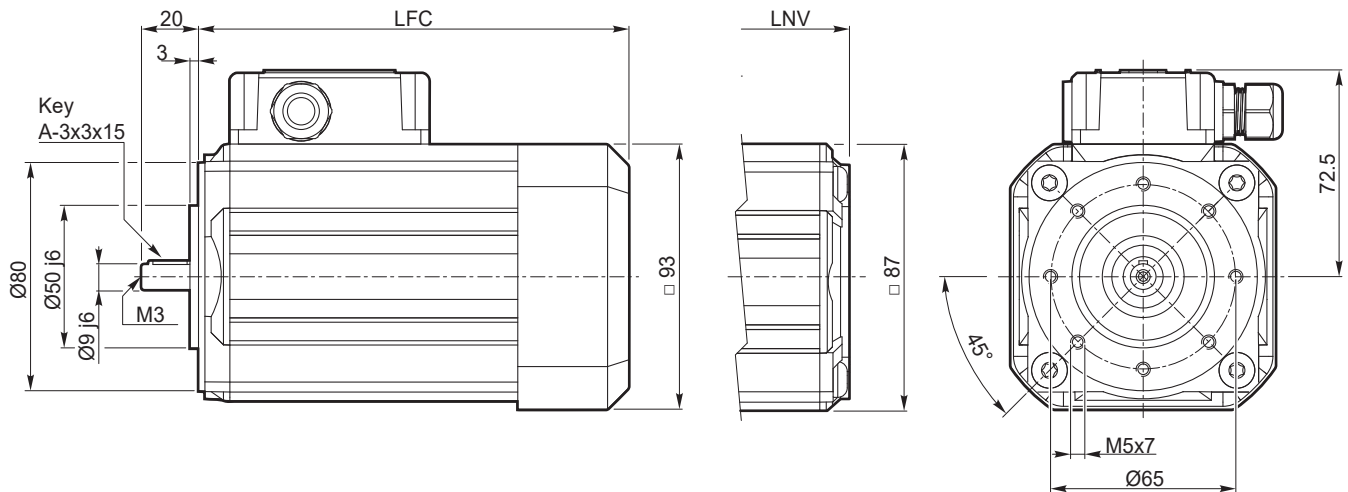
SMT50.. - B14 - TEFC / TENV



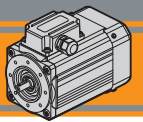
SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
5014	135.5	2.3	108.5	2.2
5024	150.5	2.7	123.5	2.6
5034	175.5	3.5	148.5	3.4
5044	200.5	4.2	173.5	4.1

3~

SMT56.. - B14 - TEFC / TENV



SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
5624	141	2.9	117	2.8
5634	151	3.2	127	3.1
5634 IE2	171	3.8	-	-
5644	186	4.4	162	4.3
5654	206	5.1	182	5.0



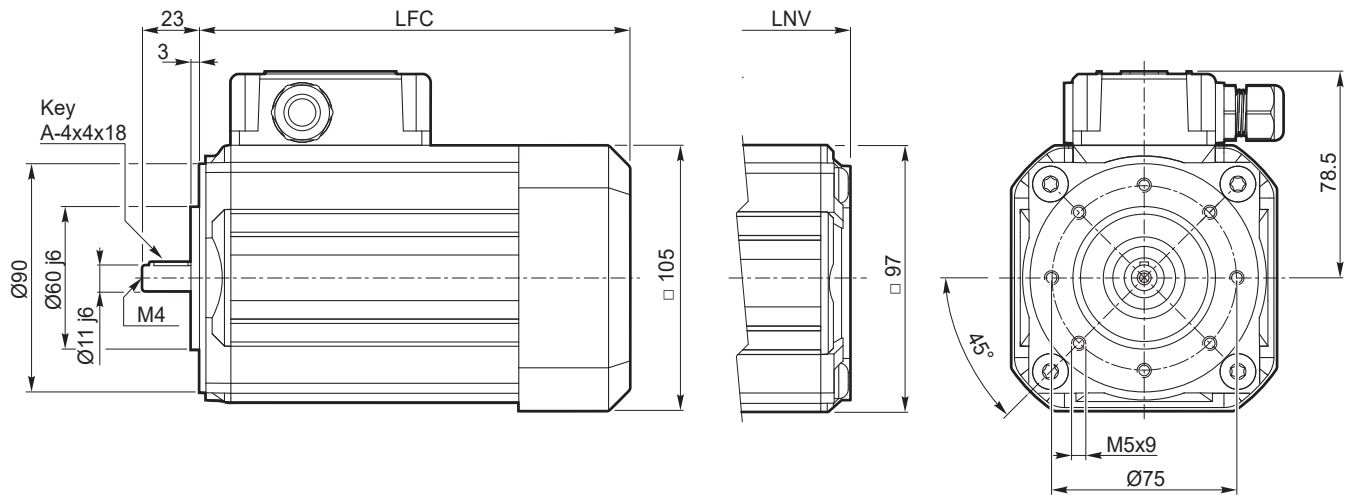
Dimensioni motori trifase

Three phase motors dimensions

SM

3~

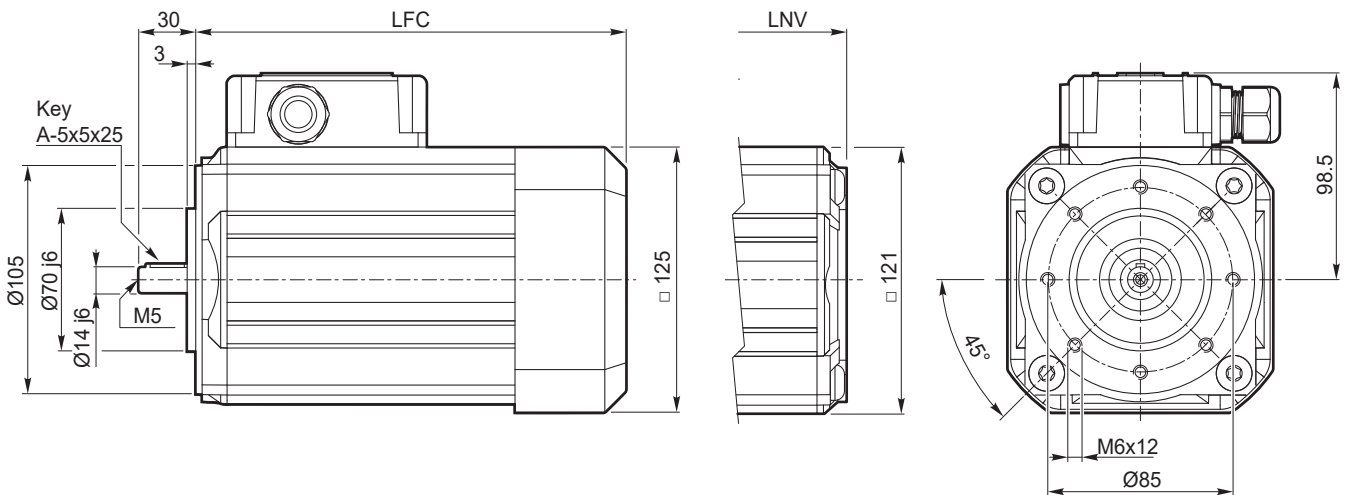
SMT63.. - B14 - TEFC / TENV



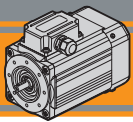
SMT	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
6324	165.5	4.3	138.5	4.2
6324 IE2	180.5	4.9	-	-
6334	180.5	5.0	153.5	4.9
6334 IE2	205.5	6.1	-	-
6344	205.5	6.2	178.5	6.1

3~

SMT71.. - B14 - TEFC / TENV



SMT	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
7124	174	6.6	145.5	6.4
7124 IE2	189	7.5	-	-
7134	189	7.7	160.5	7.5
7134 IE2	214	9.2	-	-
7144	214	9.4	185.5	9.2

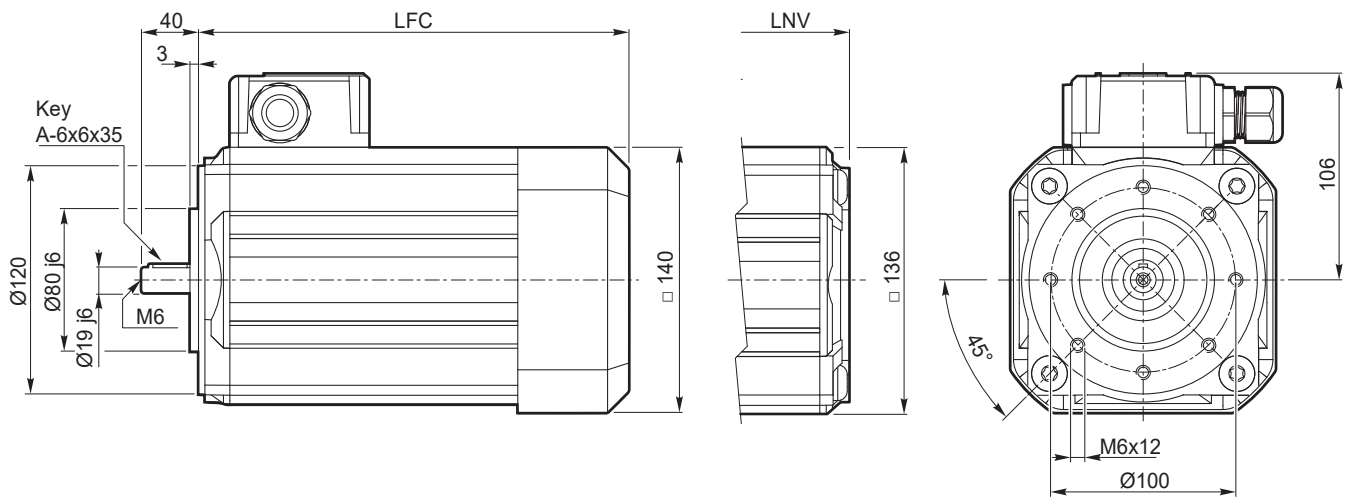


Dimensioni motori trifase

Three phase motors dimensions

3~

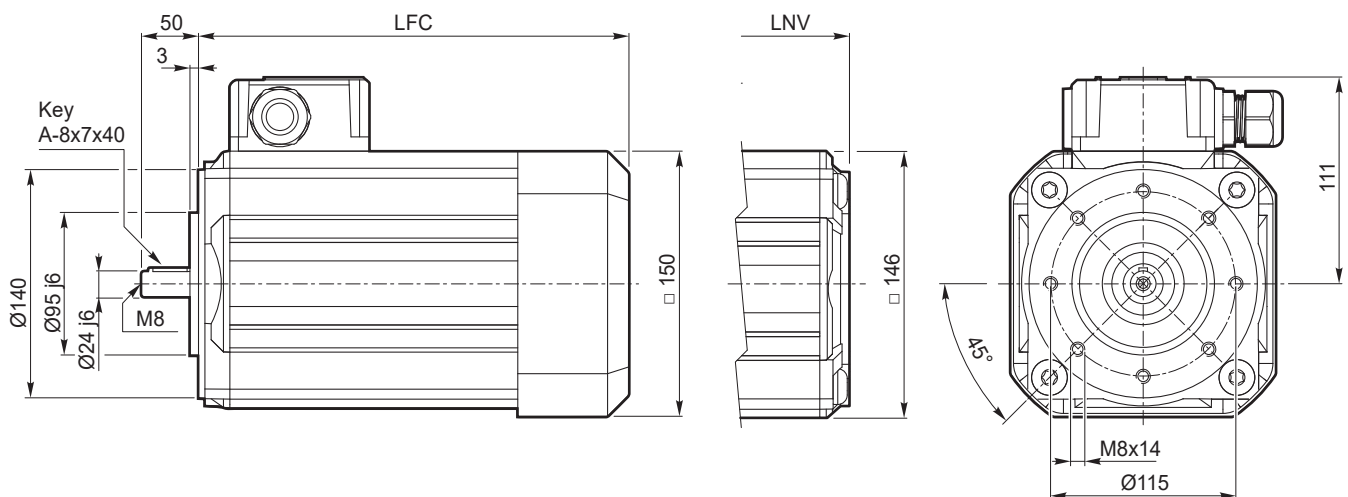
SMT80.. - B14 - TEFC / TENV



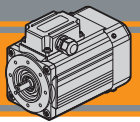
SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
8024 IE3	233	11.8	196	11.5
8034 IE3	283	16.8	246	16.5

3~

SMT90.. - B14 - TEFC / TENV



SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
9024 IE3	283	18.2	246	17.9
9034 IE3	313	21.5	276	21.2



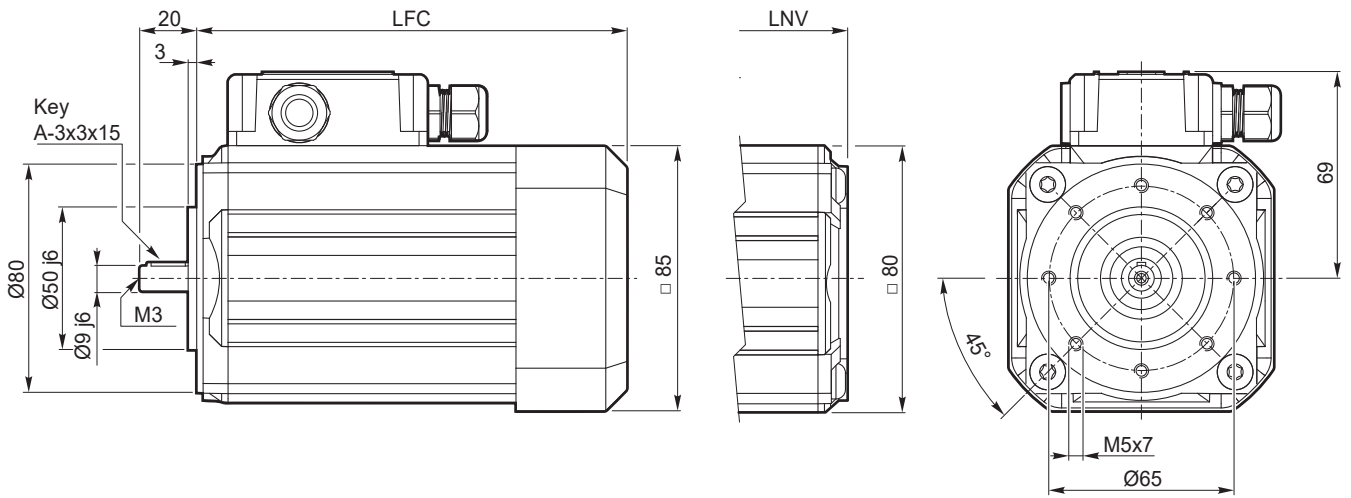
Dimensioni motori monofase

Single phase motors dimensions

SM

1 ~

SMM50.. - B14 - TEFC / TENV



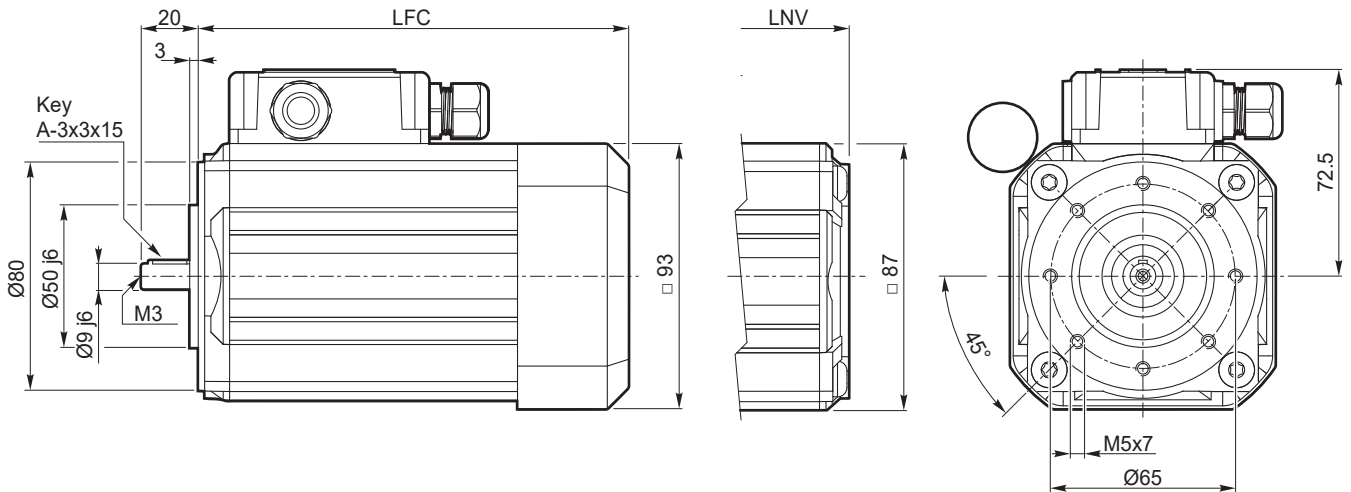
SMM	... TEFC		... TENV	
	LFC	kg	LNV	kg
5014	150.5	2.7	123.5	2.6
5024	175.5	3.5	148.5	3.4
5034	200.5	4.2	173.5	4.1

Nota:
il condensatore sarà fornito a corredo

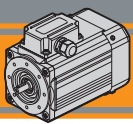
Note:
the capacitor will be supplied separately

1 ~

SMM56.. - B14 - TEFC / TENV



SMM	... TEFC		... TENV	
	LFC	kg	LNV	kg
5624	151	3.3	127	3.2
5634	171	3.9	147	3.8
5644	206	5.0	182	4.9

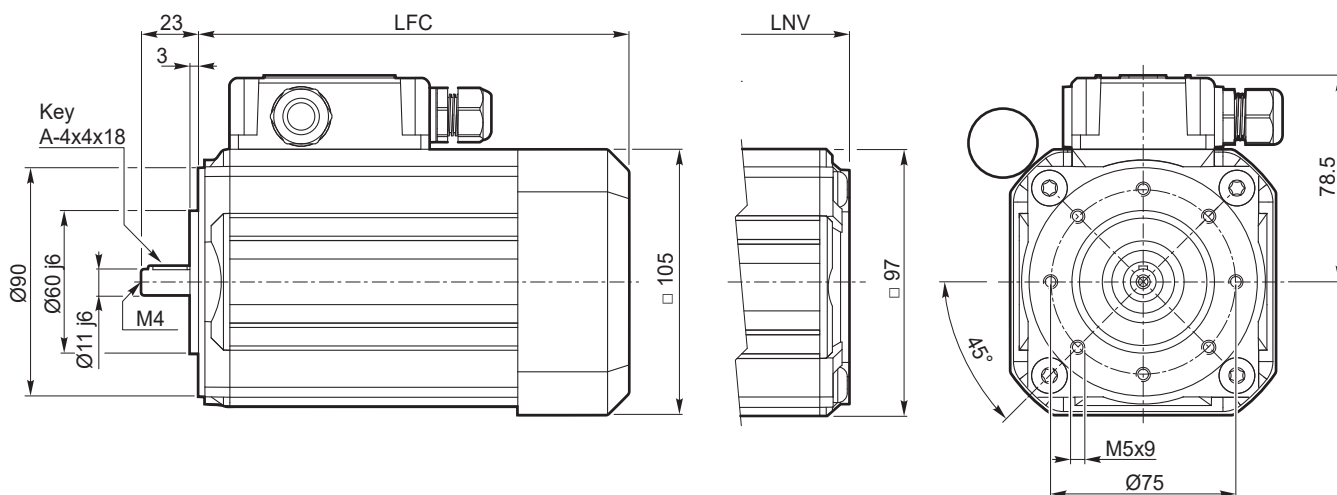


Dimensioni motori monofase

Single phase motors dimensions

1 ~

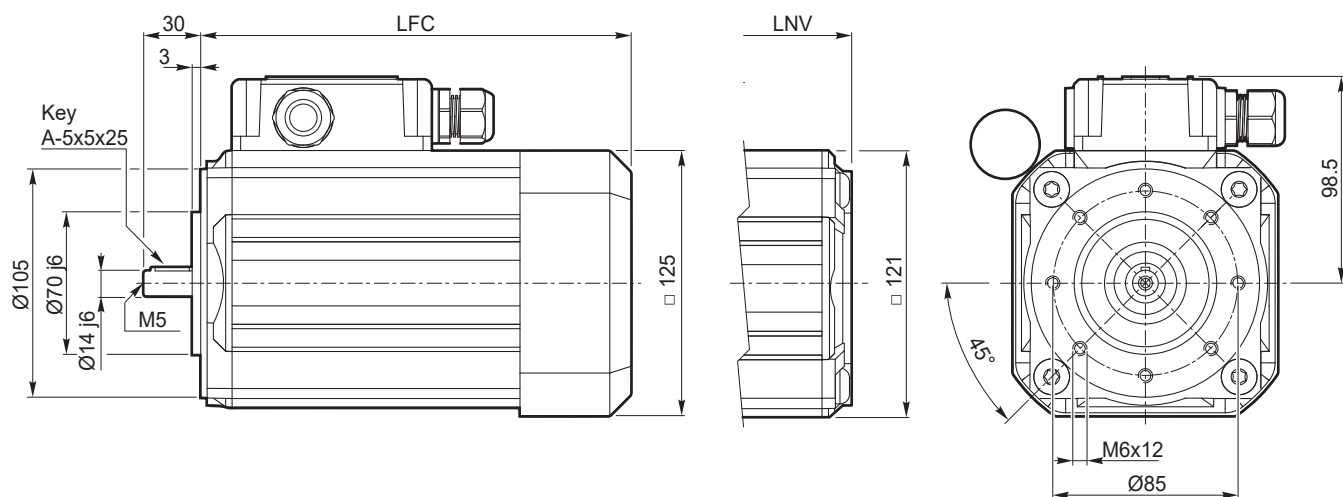
SMM63.. - B14 - TEFC / TENV



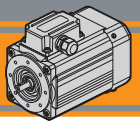
SMM	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
6324	180.5	5.1	153.5	5.0
6334	205.5	6.2	178.5	6.1

1 ~

SMM71.. - B14 - TEFC / TENV



SMM	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
7124	189	7.3	160.5	7.1
7134	214	9.2	185.5	9.0



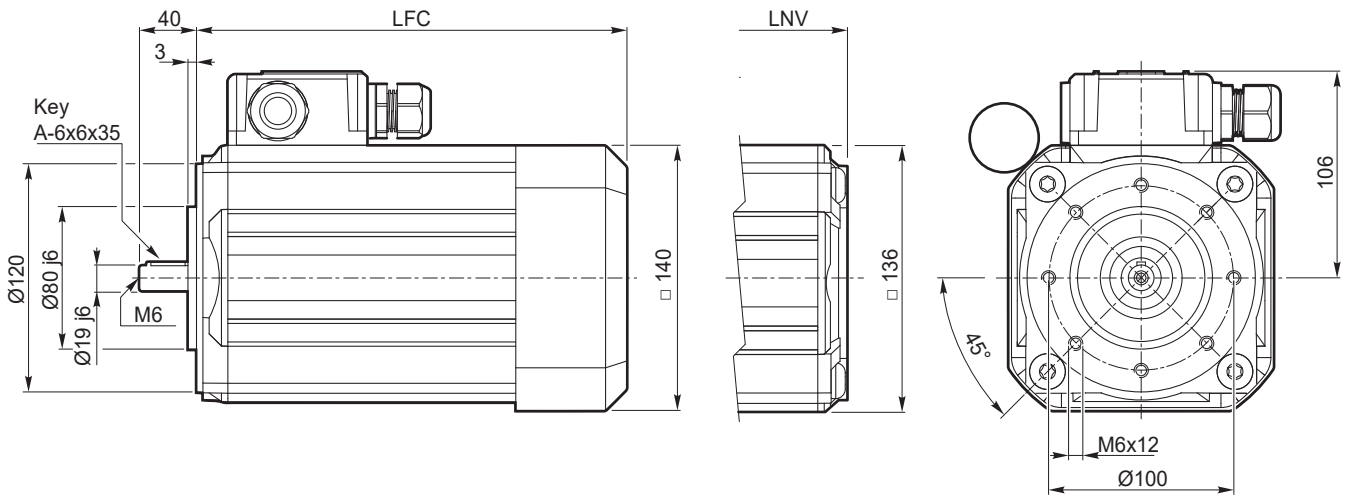
Dimensioni motori monofase

Single phase motors dimensions

SM

1 ~

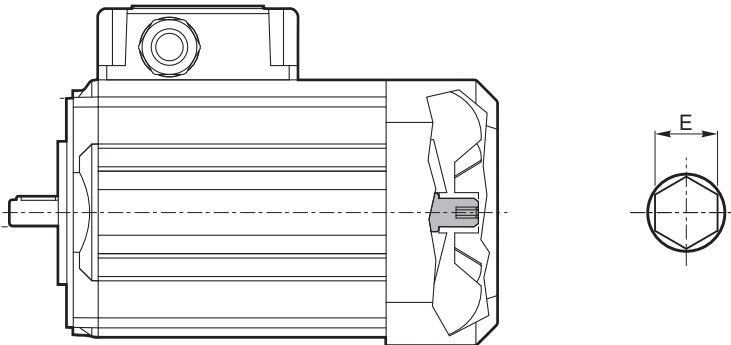
SMM80.. - B14 - TEFC / TENV



SMM	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
8024	233	11.8	196	11.5

Cava esagonale

Hexagonal socket



Esagono / Hexagon

SM..	E
50	4
56	
63	
71	6
80	
90	

Nota:

Installare a monte dell'alimentazione un dispositivo che assicuri la disconnessione della rete omipolare, durante le operazioni di rotazione manuale è obbligatorio l'utilizzo di tale sezionatore.

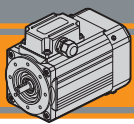
Il quadro elettrico del motore deve essere lucchettabile al fine di evitare il riarmo non previsto alla rete elettrica.

E' severamente vietata la messa in servizio del motore elettrico senza copriventola opportunamente montata.

Note:

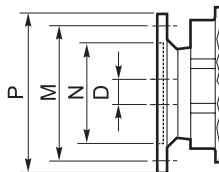
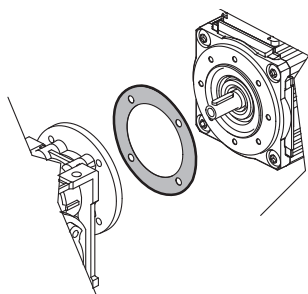
An omnipolar cut-off device must be fitted upstream of the power supply; the use of this device is mandatory during manual rotation operations.

The switchgear for the motor must be padlockable in order to prevent the power supply from being accidentally reset. It is strictly prohibited to put the electric motor into service if the fan cover is not fitted.



Opzione guarnizione CA

Rubber gasket option



Dimensioni IEC / IEC Dimensions					
	56 B14	63 B14	71 B14	80 B14	90 B14
N	50	60	70	80	95
M	65	75	85	100	115
P	80	90	105	120	140
D	9	11	14	19	24

Grado di protezione IP

IP protection rating

Indica il grado di isolamento meccanico del corpo motore.

1^a cifra protezione alla penetrazione di corpi solidi.

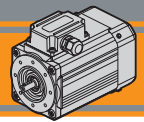
2^a cifra protezione contro la penetrazione d'acqua.

IP protection rating indicates the degree of mechanical insulation of the motor casing.

The 1st figure indicates the level of protection against the intrusion of solid matter.

The 2nd figure indicates to which degree the motor is waterproof.

IP		Definizione / Description	IP		Definizione / Description
0		Non protetto / No protection	0		Non protetto / No protection
1		Protetto da corpi solidi superiori a Ø 50 mm. Protected against solid matter (over Ø 50 mm).	1		Protetto contro la caduta verticale di gocce d'acqua. Protected against drops of water falling vertically.
2		Protetto da corpi solidi superiori a Ø 12 mm. Protected against solid matter (over Ø 12 mm).	2		Protetto contro la caduta verticale di gocce d'acqua con inclinazione max di 15°. Protected against drops of water falling up to 15°.
3		Protetto da corpi solidi superiori a Ø 2.5 mm. Protected against solid matter (over Ø 2.5 mm).	3		Protetto contro la pioggia. Rain proof.
4		Protetto da corpi solidi superiori a Ø1 mm. Protected against solid matter (over Ø1 mm).	4		Protetto contro gli spruzzi. Splash proof.
5		Protetto contro la polvere. Dust protected.	5		Protetto contro getti d'acqua. Water jet proof.
6		Totalmente protetto contro la polvere. Fully dust tight.	6		Protetto dalle ondate. Waveproof.
7		N.A.	7		Protetto contro immersione. Immersion up to 1 metre.
8		N.A.	8		Protetto contro immersione/sommersione prolungata. Immersion beyond 1 metre.



Normative di riferimento

Reference Standards

	Europe EN	World IEC	Italy CEI
Requisiti generali per macchine elettriche <i>General requirements electrical machines</i>	EN 60034-1:2010	IEC 60034-1:2010	CEI EN 60034-1:2010
Classificazione del grado di protezione <i>Classification degree of protection provided by enclosures</i>	EN 60034-5:2001	IEC 60034-5:2001	CEI EN 60034-5:2001
Sistema di raffreddamento <i>Cooling system</i>	EN 60034-6:1993	IEC 60034-6:1993	CEI EN 60034-6:1993
Modalità di montaggio <i>Mounting arrangements</i>	EN 60034-7:1993	IEC 60034-7:1993	CEI EN 60034-7:1993

Tipi di servizi IEC

IEC duty cycles

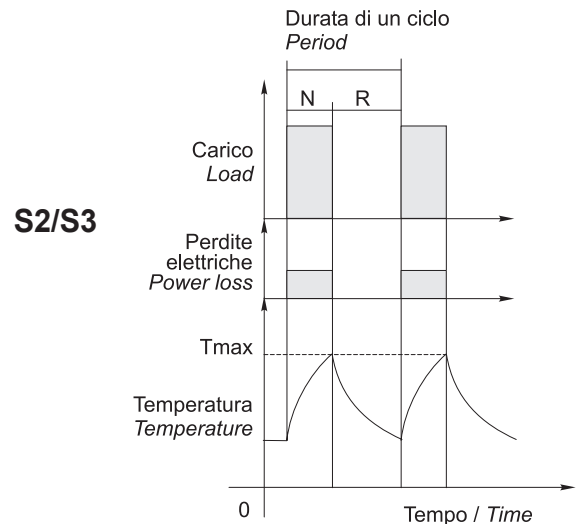
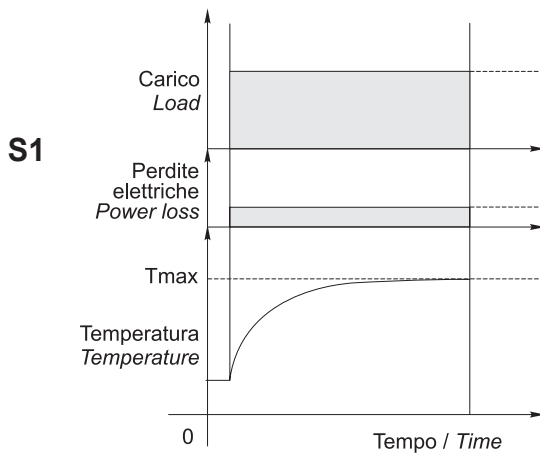
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

The duty cycle of a motor indicates its use and running cycle.

Grafico servizi più comuni

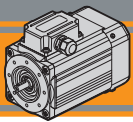
Most common duty cycles diagram

N = funzionamento / run
R = riposo / rest



NOTA: Lo stesso motore può essere usato per cicli e servizi diversi, con l'unica limitazione che la temperatura interna non superi mai la Tmax stabilita dalla classe di isolamento termico del motore.

NOTE: The same motor can run under all duty services, limitation is due to internal temperature that must not override Tmax stated by motor thermal class.



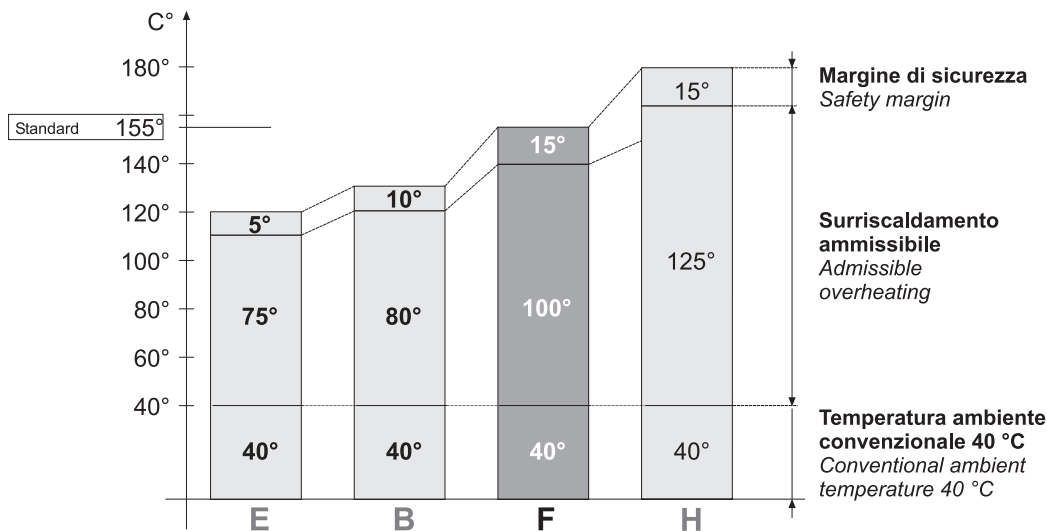
Classe di isolamento termico

Insulation class

La classe termica indica il grado di resistenza alla temperatura interna, nel punto più caldo (avvolgimenti).
Isolamento termico classe F.

*Thermal insulation class indicates the level of thermal protection measured at the hottest point inside the motor (windings).
Thermal insulation class F.*

Classe Class	Massima temperatura interna Max. windings temp.
E	120°C
B	130°C
F	155°C
H	180°C



Serie SM - Funzionamento in ambiente 60 Hz

Series SM - 60 Hz line power supply

Velocità, coppia e potenza nominale nel funzionamento a 60 Hz varieranno come da tabella:

Speed, torque and rated power in 60 Hz operation is shown in the following table:


	50 Hz	60 Hz
400 V	Vedi dati tecnici / see technical data 	Velocità / speed ≈ + 20% Coppia / torque ≈ -20% Potenza / power ≈ invariata / the same
480 V	Non permesso / not allowed	Velocità / speed ≈ + 20% Coppia / torque ≈ invariata / the same Potenza / power ≈ + 20%

Tabella pressacavi

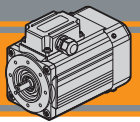
Table of cable glands data

Serie SMT / SMT Series

TAGLIA SIZE	Pressacavo Cable gland
50 / 56 / 63	M16x1.5
71 / 80 / 90	M20x1.5

Serie SMM / SMM Series

TAGLIA SIZE	Pressacavo Cable gland
50 / 56 / 63	2 x M16x1.5
71 / 80	M20x1.5 + M16x1.5

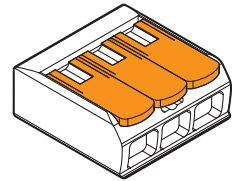
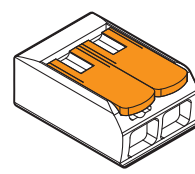
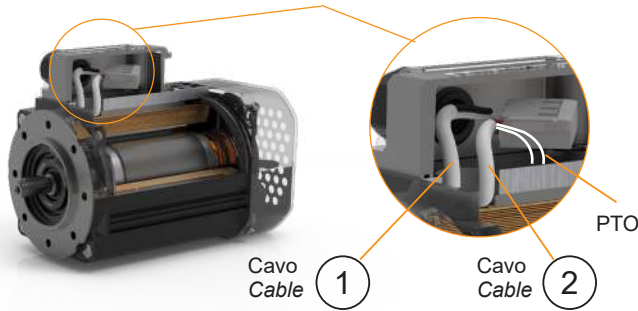


Connessioni e collegamenti

Connection diagram

Riferimenti

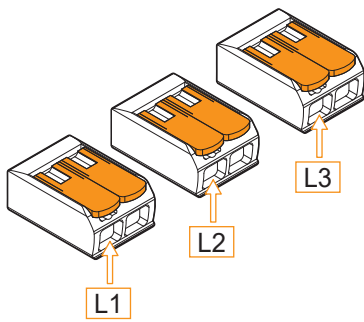
References



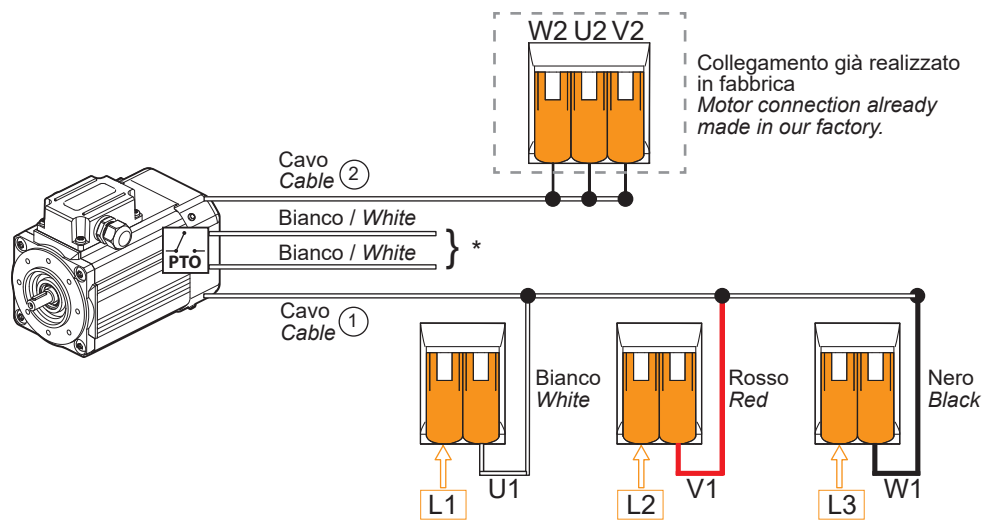
Morsetto di collegamento a leva a 2 e 3 poli
Splicing connector with lever 2 - and 3 - pin.

400/460 V - Trifase / three phase

Collegamento a stella / Star connection



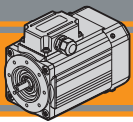
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source



Collegamento già realizzato in fabbrica
Motor connection already made in our factory.

*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71,80,90.

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80, 90.

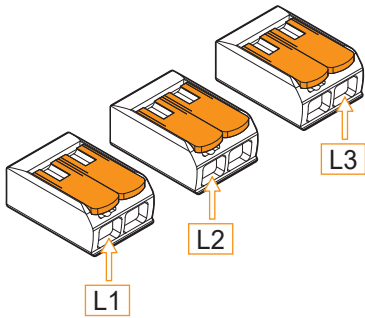


Connessioni e collegamenti

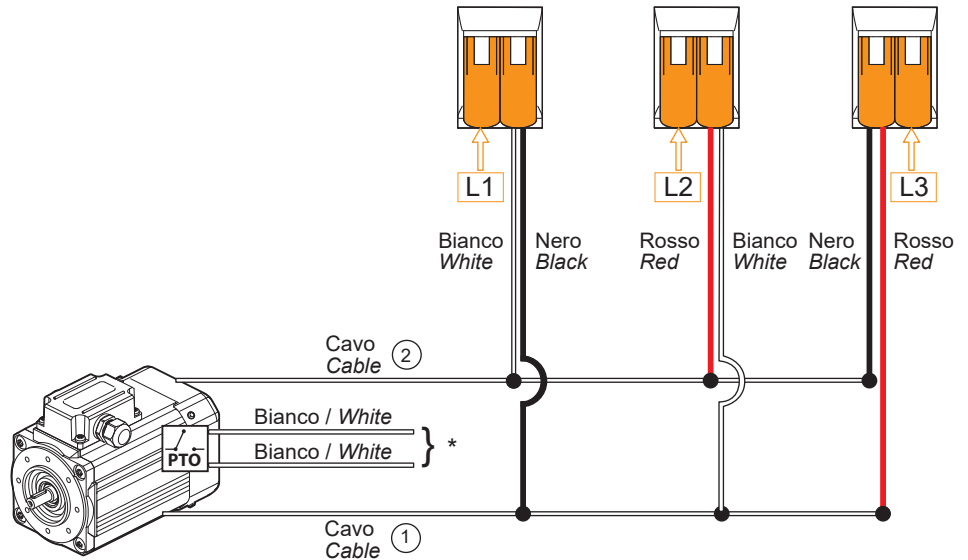
Connection diagram

230 V - Trifase / Three phase

Collegamento a triangolo / Delta connection



Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source



*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80, 90.

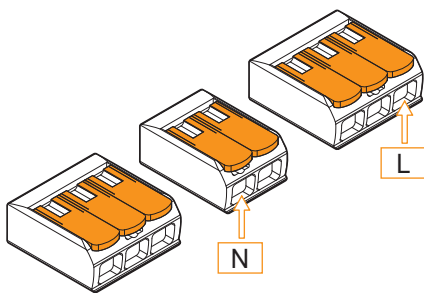
*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80, 90.

I motori della serie SM sono forniti in collegamento a stella, lo schema di collegamento a triangolo sopra riportato fornisce una chiara indicazione delle modifiche che il cliente può apportare in autonomia. Se necessario contattare il Servizio Tecnico Transtecno.

The SM series is supplied in star connection, the delta connection diagram shown above provides a clear indication of the modification that the customer can make independently. If needed, contact Transtecno Technical Service.

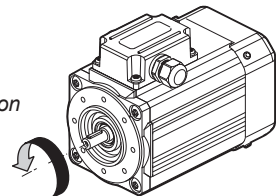
230 V - Monofase / Single phase

Monofase SMM 50... / Single phase SMM 50...

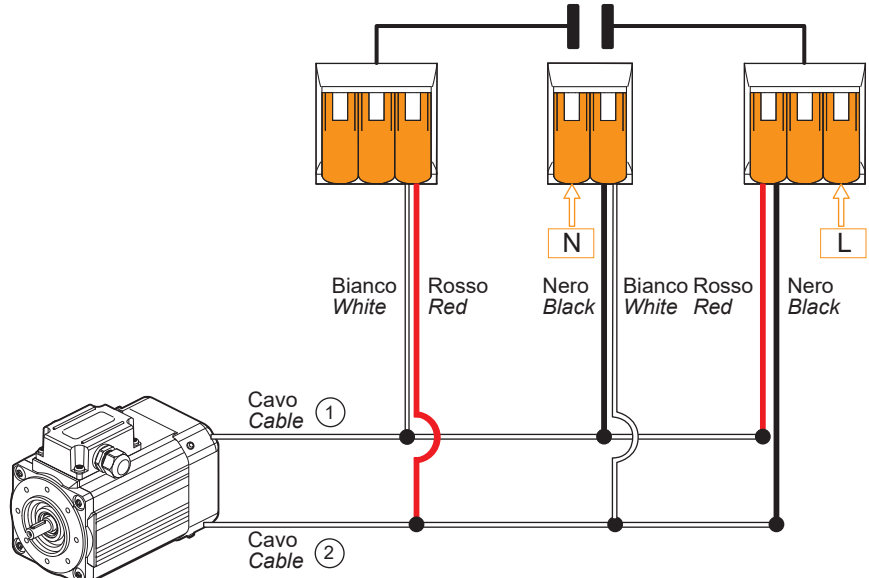


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

Senso di rotazione antiorario
Counter-clockwise direction of rotation

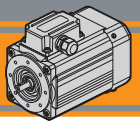


CONDENSATORE (1)
CAPACITOR (1)



(1): il condensatore sarà fornito a corredo.

(1): the capacitor will be supplied separately.

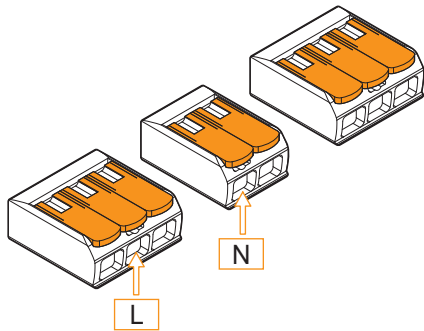


Connessioni e collegamenti

Connection diagram

230 V - Monofase / Single phase

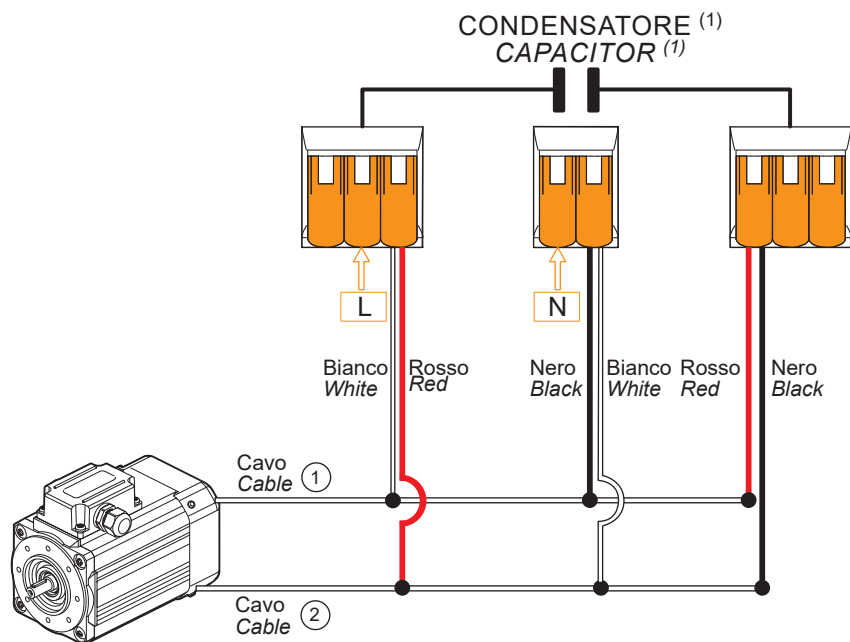
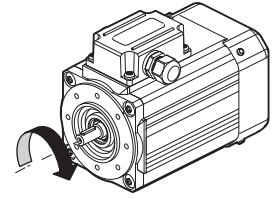
Monofase SMM 50... / Single phase SMM 50...

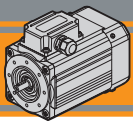


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

(1): il condensatore sarà fornito a corredo.
(1): the capacitor will be supplied separately.

Senso di rotazione orario
Clockwise direction of rotation



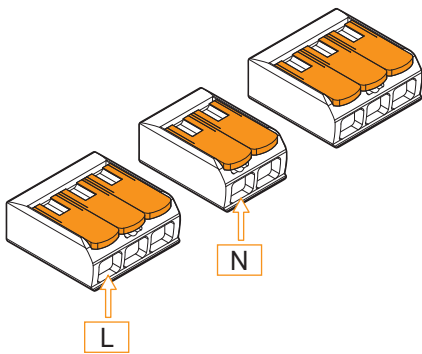


Connessioni e collegamenti

Connection diagram

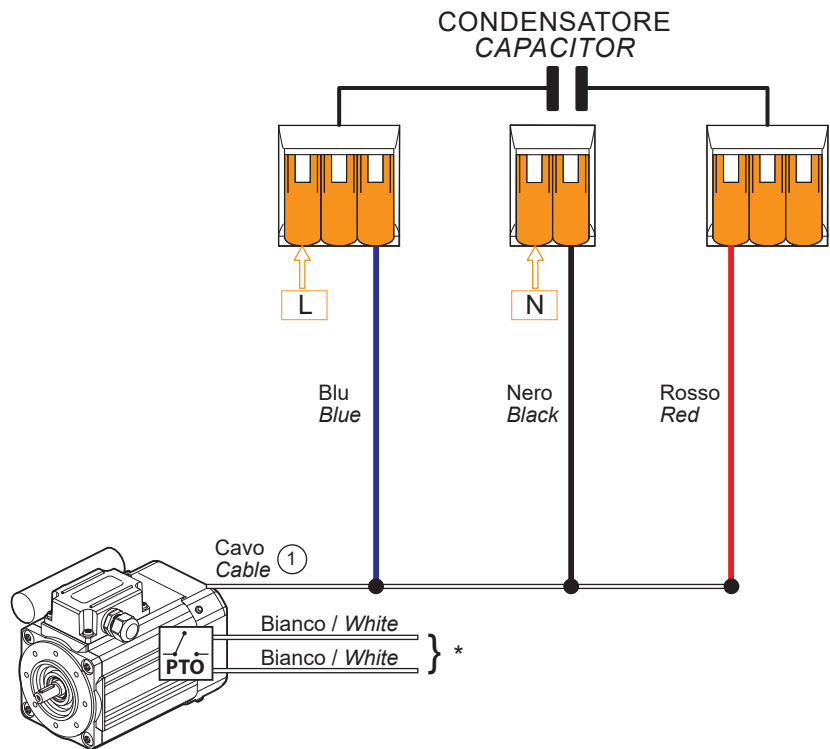
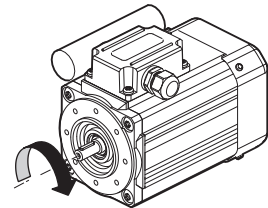
230 V - Monofase / Single phase

Monofase da SMM 56... a SMM 80... / Single phase from SMM 56... to SMM 80...



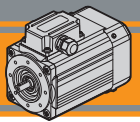
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

Senso di rotazione orario
Clockwise direction of rotation



*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80.

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80.

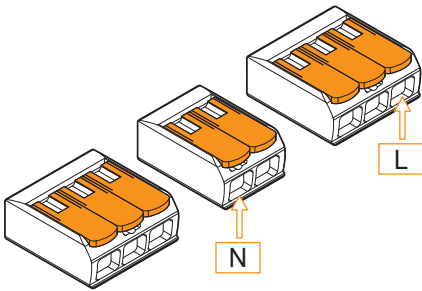


Connessioni e collegamenti

Connection diagram

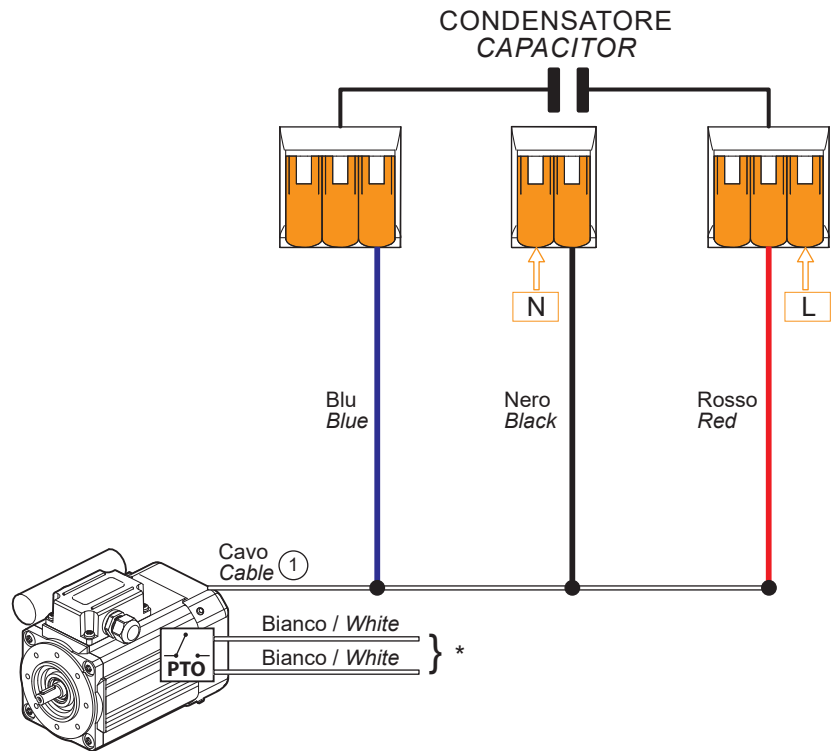
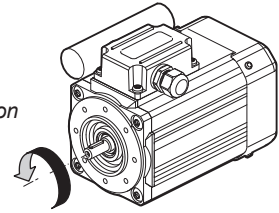
230 V - Monofase / Single phase

Monofase da SMM 56... a SMM 80... / Single phase from SMM 56... to SMM 80...



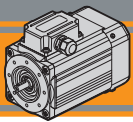
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

Senso di rotazione antiorario
Counter-clockwise direction of rotation



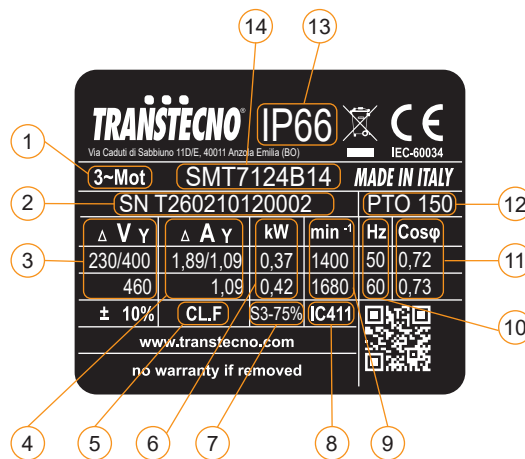
*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80.

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80.



Targhetta

Nameplate



Pos.	Descrizione	Description
1	Tipo di alimentazione	Power supply
2	Numero di serie	Serial number
3	Tensione di alimentazione	Supply voltage
4	Corrente nominale	Rated current
5	Classe di isolamento	Insulation class
6	Potenza nominale	Rated power
7	Servizio	Duty
8	Ventilazione	Fan cooling
9	Velocità nominale	Rated speed
10	Frequenza nominale	Rated frequency
11	Fattore di potenza	Power factor
12	Protezione termica PTO 150°C	PTO 150°C Thermal protection
13	Grado di protezione IP	IP protection rating
14	Tipo motore	Motor type

TRANSTECNO[®]
the modular gearmotor

CLOD

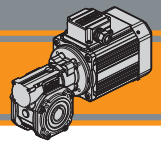
CLOD



Washdown  Tecno

Motoriduttori a vite senza fine
Wormgearmotors

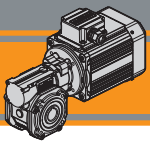




Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	C2
Designazione	<i>Classification</i>	C3
Sensi di rotazione	<i>Direction of rotation</i>	C3
Simbologia	<i>Symbols</i>	C4
Lubrificazione	<i>Lubrication</i>	C4
Dati di dentatura	<i>Toothing data</i>	C4
Rendimento	<i>Efficiency</i>	C4
Dati tecnici	<i>Technical data</i>	C5
Dimensioni	<i>Dimensions</i>	C8
Accessori	<i>Accessories</i>	C19

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Caratteristiche tecniche

Technical features

I motoriduttori a vite senza fine CA della serie CLOD nascono per le applicazioni in esterno. Sono progettati per resistere a condizioni ambientali avverse, come umidità, polvere e getti d'acqua. Altra caratteristica è l'elevata modularità: i diversi kit entrata ed uscita li rendono estremamente versatili.

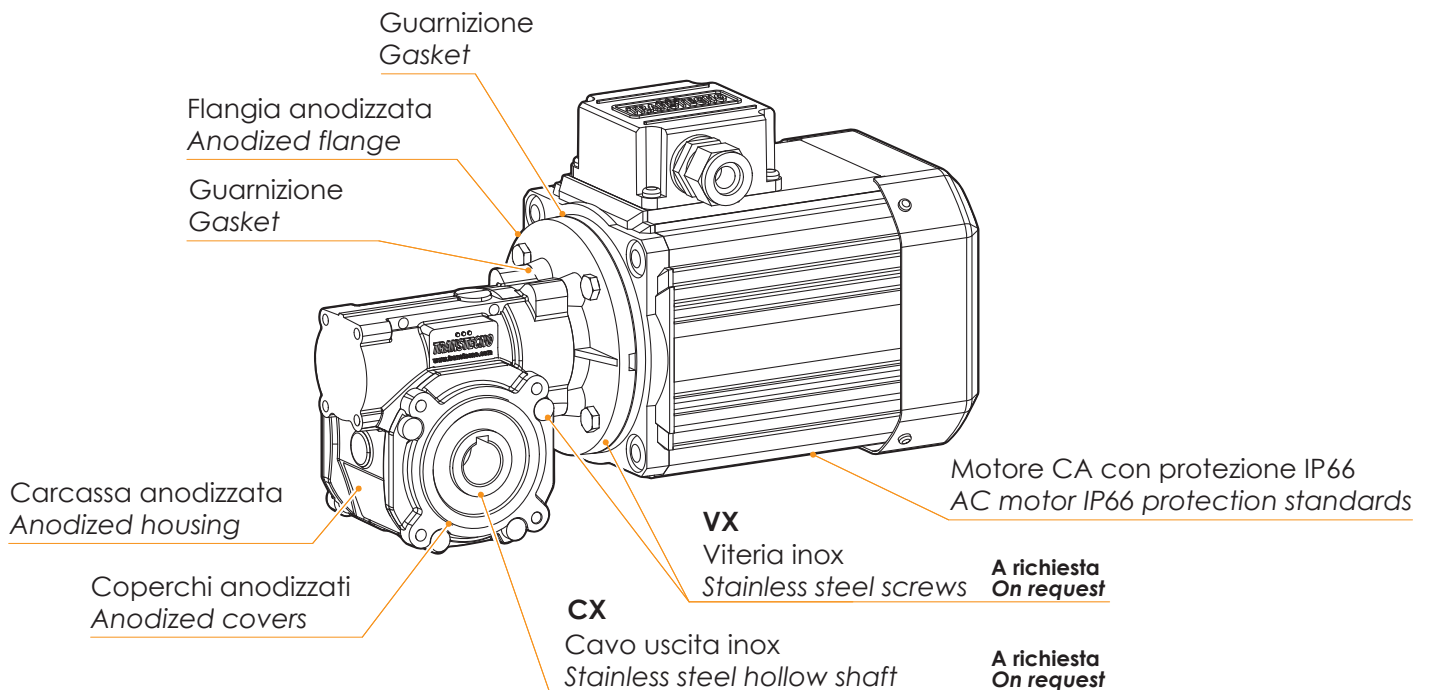
CLOD AC wormgearmotors for outdoor applications are designed to withstand adverse environmental conditions, such as humidity, dust and water jets. High modularity is another key feature: the different input and output kits make them extremely versatile.

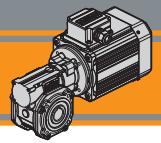
Ecco le caratteristiche principali dei motoriduttori a vite senza fine CA serie CLOD:

Here the main features of the AC wormgearmotors CLOD series:

- Motoriduttori CA con protezione IP66
- Carcassa in alluminio anodizzato nera nelle grandezze 030, 040, 050 e 063.
- Viteria Inox disponibile a richiesta
- Albero cavo uscita Inox AISI 316 disponibile a richiesta

- AC wormgearmotors IP66 protection standards
- Black anodized die-cast aluminium housing on sizes 030, 040, 050 and 063.
- Stainless steel screws available upon request
- Hollow output shaft made by stainless steel AISI 316 available upon request





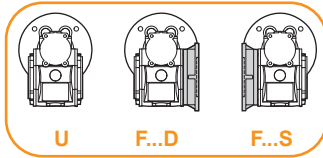
Designazione

Classification

RIDUTTORE / GEARBOX								
CLOD	040	U	10	D18	63	B14	CX	WD
Tipo Type	Grandezza Size	Versione riduttore Gearbox Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft	IEC 	Forma costruttiva Version	Opzioni Options	Accessorio Accessories
	030 040 050 063	U STEV F	Vedere tabella See tables	vedi tabelle see tables	50.. — 90	B14	VX Viteria inox Stainless steel screws CX albero cavo uscita AISI316 AISI316 hollow output shaft	WD Kit Wash down cover

CLOD SM IP66

Versione Riduttore
Gearbox Version



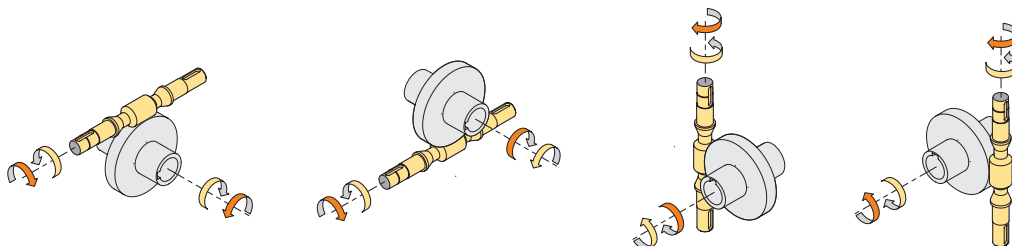
MOTORE TRIFASE / THREE PHASE MOTOR										
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	T1	VX
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Pos. Morsettiera Terminal box pos.	Opzioni Options
		1-2-3-4-5	4	0.04 kW ... 2.2 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV		VX Viteria inox Stainless steel screws PX Pressacavo in ottone Brass cable gland

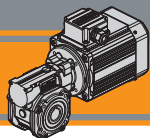
MOTORE MONOFASE / SINGLE PHASE MOTOR										
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	T1	VX
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Pos. Morsettiera Terminal box pos.	Opzioni Options
		1-2-3-4	4	0.04 kW ... 0.75 kW	B14	230V	50Hz	TEFC TENV		VX Viteria inox Stainless steel screws PX Pressacavo in ottone Brass cable gland

Sensi di rotazione

Direction of rotation


CLOD





Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	sf	Fattore di servizio / <i>Service factor</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	Rd %	Rendimento dinamico / <i>Dynamic efficiency</i>
i	Rapporto di riduzione / <i>Ratio</i>	Rs %	Rendimento statico / <i>Static efficiency</i>
P_1 [kW]	Potenza in entrata / <i>Nominal input power</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
P_{n1} [kW]	Potenza nominale in entrata / <i>Nominal input power</i>	Z	Numero di principi della vite / <i>Worm starts</i>
M_{n2} [Nm]	Coppia nominale in uscita in funzione di P_{n1} / <i>Nominal output torque referred to P_{n1}</i>	β	Angolo d'elica / <i>Helix angle</i>
 [kg]	Peso del solo riduttore / <i>Weight of the gearbox only</i>		

Lubrificazione

Lubrication

Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

Dati di dentatura

Toothing data

	Dati della coppia vite-corona <i>Worm wheel data</i>	Rapporto / <i>Ratio</i>											
		5	7.5	10	15	20	25	30	40	50	60	80	100
CLOD030	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	27° 4'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CLOD040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CLOD050	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	33° 37'	23° 54'	18° 23'	12° 29'	10° 6'	8° 28'	6° 19'	5° 5'	4° 15'	3° 39'	2° 51'	2° 20'
CLOD063	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 23'	24° 31'	18° 53'	12° 50'	10° 24'	8° 44'	6° 30'	5° 14'	4° 23'	3° 47'	2° 57'	2° 25'

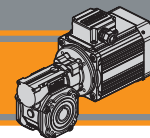
Rendimento

Efficiency

	n_1 [min ⁻¹]	Rendimento <i>Efficiency</i>	Rapporto / <i>Ratio</i>												
			5	7.5	10	15	20	25	30	40	50	60	80	100	
CLOD030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	52	
			1400	86	85	84	79	75	72	67	62	58	55	48	43
			900	84	83	81	75	71	68	62	58	53	49	43	39
			Rs	72	67	63	55	50	43	39	35	31	27	23	21
CLOD040	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56	
			1400	88	86	84	81	78	74	70	65	60	58	52	46
			900	86	84	82	77	74	70	66	60	57	53	46	41
			Rs	74	71	67	60	55	51	45	40	36	32	28	24
CLOD050	2800	Rd	91	90	88	86	84	82	78	74	71	68	62	58	
			1400	89	87	85	82	79	76	72	67	63	60	54	49
			900	87	85	84	79	75	72	68	62	59	55	48	43
			Rs	73	70	66	59	55	51	44	39	35	32	27	23
CLOD063	2800	Rd	91	90	88	86	84	83	79	76	73	70	65	60	
			1400	90	88	86	84	81	78	75	70	66	63	57	52
			900	89	86	84	81	78	75	70	65	61	58	52	47
			Rs	73	71	67	60	55	51	45	40	36	33	28	24





Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period




Dati tecnici

Technical data


P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
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P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
------------------------	--	------------------------	----	---	---


SMT7124					
SMT5014	280	1	15.3	5	CLOD030
SMM5014	187	2	11.5	7.5	
(1400 min ⁻¹)	140	2	9.2	10	
	93	3	6.5	15	
	70	4	4.6	20	
	56	5	4.1	25	
	47	5	4.0	30	
	35	7	3.0	40	
	28	8	2.4	50	
	23	9	1.9	60	
	18	10	1.4	80	
	14	12	1.2	100	
	28	8	4.8	50	
	23	9	3.8	60	
	18	11	2.9	80	
	14	13	2.5	100	


0.09 - IEC 56					
SMT5034	35	16	2.6	40	CLOD040
SMM5034	28	18	2.1	50	
SMT5624	23	21	1.7	60	
SMM5624	18	26	1.3	80	
(1400 min ⁻¹)	14	28	1.1	100	

					
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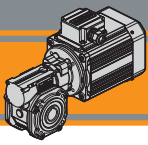
0.06 - IEC 56					
SMT5024	280	2	10.2	5	CLOD030
SMM5024	187	3	7.7	7.5	
(1400 min ⁻¹)	140	3	6.1	10	
	93	5	4.3	15	
	70	6	3.1	20	
	56	7	2.7	25	
	47	8	2.7	30	
	35	10	2.0	40	
	28	12	1.6	50	
	23	14	1.3	60	
	18	16	1.0	80	
	14	18	0.8	100	
	28	12	3.2	50	
	23	14	2.5	60	
	18	17	1.9	80	
	14	19	1.6	100	

0.12 - IEC 56						
SMT5044	280	4	5.1	5	CLOD030	
SMT5634	187	5	3.8	7.5		
SMM5634	140	7	3.1	10		
SMM5634IE2	93	10	2.2	15		
(1400 min ⁻¹)	70	12	1.5	20		
	56	15	1.4	25		
	47	16	1.3	30		
	35	20	1.0	40		
	28	24	0.8	50		
	280	4	11.4	5		CLOD040
	187	5	8.3	7.5		
	140	7	6.5	10		
	93	10	4.5	15		
	70	13	3.1	20		
	56	15	2.5	25		
	47	17	2.8	30		
	35	21	2.0	40		
	28	25	1.6	50		
	23	28	1.3	60		
	18	34	1.0	80		
	14	38	0.8	100		

0.09 - IEC 56					
SMT5034	280	3	6.8	5	CLOD030
SMM5034	187	4	5.1	7.5	
SMT5624	140	5	4.1	10	
SMM5624	93	7	2.9	15	
(1400 min ⁻¹)	70	9	2.1	20	
	56	11	1.8	25	
	47	12	1.8	30	
	35	15	1.3	40	
	28	18	1.1	50	
	23	20	0.8	60	


0.18 - IEC 56					
SMT5644	280	5	3.4	5	CLOD030
SMM5644	187	8	2.6	7.5	
(1400 min ⁻¹)	140	10	2.0	10	
	93	15	1.4	15	
	70	18	1.0	20	
	56	22	0.9	25	CLOD040
	47	25	0.9	30	
	280	5	7.6	5	
	187	8	5.6	7.5	
	140	10	4.4	10	
	93	15	3.0	15	
	70	19	2.1	20	
	56	23	1.7	25	
	47	26	1.9	30	
	35	32	1.3	40	
	28	37	1.1	50	
	23	43	0.8	60	


CLOD SM IP66




Dati tecnici

Technical data


P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
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P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
------------------------	--	------------------------	----	---	---


0.18 - IEC 63

SMT6324	280	5	3.4	5	CLOD030	
SMT6324IE2	187	8	2.6	7.5		
SMM6324	140	10	2.0	10		
(1400 min ⁻¹)	93	15	1.4	15		
	70	18	1.0	20		
	56	22	0.9	25		
	47	25	0.9	30		
	280	5	7.6	5		CLOD040
	187	8	5.6	7.5		
	140	10	4.4	10		
	93	15	3.0	15		
	70	19	2.1	20		
	56	23	1.7	25		
	47	26	1.9	30		
	35	32	1.3	40		
	28	37	1.1	50		
	23	43	0.8	60		
	35	33	2.3	40	CLOD050	
	28	39	1.9	50		
	23	44	1.6	60		
	18	53	1.1	80		
	14	60	0.9	100		
	23	46	2.7	60	CLOD063	
	18	56	2.1	80		
	14	64	1.8	100		


0.25 - IEC 63

SMT6334	70	27	2.7	20	CLOD050
SMT6334IE2	56	32	2.2	25	
SMM6334	47	37	2.4	30	
(1400 min ⁻¹)	35	46	1.7	40	
	28	54	1.3	50	
	23	61	1.1	60	
	18	74	0.8	80	


0.37 - IEC 63

SMT6344	280	11	1.7	5	CLOD030
(1400 min ⁻¹)	187	16	1.2	7.5	
	140	21	1.0	10	
	280	11	3.7	5	CLOD040
	187	16	2.7	7.5	
	140	21	2.1	10	
	93	31	1.5	15	
	70	39	1.0	20	
	56	47	0.8	25	
	47	53	0.9	30	
	93	31	2.6	15	
	70	40	1.8	20	
	56	48	1.5	25	
	47	55	1.6	30	
	35	68	1.1	40	
	28	80	0.9	50	
	23	91	0.8	60	


0.25 - IEC 56

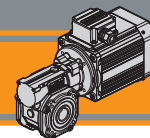
SMT5654	280	7.3	2.5	5	CLOD030
(1400 min ⁻¹)	187	11	1.8	7.5	
	140	14	1.5	10	
	93	20	1.0	15	
	280	8	5.5	5	CLOD040
	187	11	4.0	7.5	
	140	14	3.1	10	
	93	21	2.2	15	
	70	27	1.5	20	
	56	32	1.2	25	
	47	36	1.3	30	
	35	44	0.9	40	
	28	51	0.8	50	

0.37 - IEC 71

SMT7124	280	11	3.7	5	CLOD040
SMT7124IE2	187	16	2.7	7.5	
SMM7124	140	21	2.1	10	
(1400 min ⁻¹)	93	31	1.5	15	
	70	39	1.0	20	
	56	47	0.8	25	
	47	53	0.9	30	
	93	31	2.6	15	
	70	40	1.8	20	
	56	48	1.5	25	
	47	55	1.6	30	
	35	68	1.1	40	
	28	80	0.9	50	
	23	91	0.8	60	
	35	71	2.0	40	CLOD063
	28	83	1.6	50	
	23	95	1.3	60	
	18	115	1.0	80	
	14	131	0.9	100	


0.25 - IEC 63


SMT6334	280	7.3	2.5	5	CLOD030
SMT6334IE2	187	11	1.8	7.5	
SMM6334	140	14	1.5	10	
(1400 min ⁻¹)	93	20	1.0	15	
	280	7.5	5.5	5	CLOD040
	187	11	4.0	7.5	
	140	14	3.1	10	
	93	21	2.2	15	
	70	27	1.5	20	
	56	32	1.2	25	
	47	36	1.3	30	
	35	44	0.9	40	
	28	51	0.8	50	




Dati tecnici

Technical data


P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
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P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
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0.55 - IEC 71

SMT7134	280	17	2.5	5	CLOD040
SMT7134IE2	187	24	1.8	7.5	
SMM7134 (1400 min ⁻¹)	140	32	1.4	10	
	93	46	1.0	15	
	140	32	2.6	10	CLOD050
	93	46	1.8	15	
	70	59	1.2	20	
	56	71	1.0	25	
	47	81	1.1	30	
	35	101	0.8	40	
	70	61	2.2	20	
	56	73	1.8	25	CLOD063
	47	84	2.0	30	
	35	105	1.4	40	
	28	124	1.1	50	
	23	142	0.9	60	


1.1 - IEC 80

SMT8034 IE3 (1400 min ⁻¹)	280	33	2.2	5	CLOD050
	187	49	1.6	7.5	
	140	64	1.3	10	
	93	92	0.9	15	
	280	34	4.0	5	CLOD063
	187	50	2.9	7.5	
	140	65	2.3	10	
	93	95	1.6	15	
	70	122	1.1	20	
	56	146	0.9	25	
	47	169	1.0	30	


1.5 - IEC 90

SMT9024 IE3 (1400 min ⁻¹)	280	46	2.9	5	CLOD063
	187	68	2.1	7.5	
	140	88	1.7	10	
	93	129	1.2	15	
	70	166	0.8	20	


0.75 - IEC 71

SMT7144 (1400 min ⁻¹)	280	23	1.8	5	CLOD040
	187	33	1.3	7.5	
	140	43	1.0	10	
	280	23	3.3	5	CLOD050
	187	33	2.4	7.5	
	140	43	1.9	10	
	93	63	1.3	15	
	70	81	0.9	20	
	47	111	0.8	30	
	93	64	2.4	15	
	70	83	1.6	20	
	56	100	1.4	25	
	47	115	1.4	30	
	35	143	1.0	40	
	28	169	0.8	50	

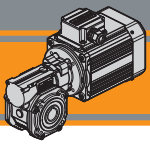
2.2 - IEC 90

SMT9034 IE3 (1400 min ⁻¹)	280	68	2.0	5	CLOD063
	187	99	1.5	7.5	
	140	129	1.1	10	
	93	189	0.8	15	

0.75 - IEC 80

SMT8024 IE3	280	23	3.3	5	CLOD050
SMM8024 (1400 min ⁻¹)	187	33	2.4	7.5	
	140	43	1.9	10	
	93	63	1.3	15	
	70	81	0.9	20	CLOD063
	47	111	0.8	30	
	93	64	2.4	15	
	70	83	1.6	20	
	56	100	1.4	25	
	47	115	1.4	30	
	35	143	1.0	40	
	28	169	0.8	50	

CLOD SM IP66



Dimensioni

Dimensions

CLOD 030 U

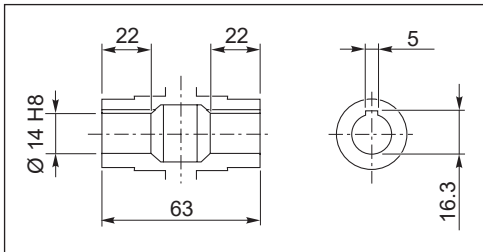
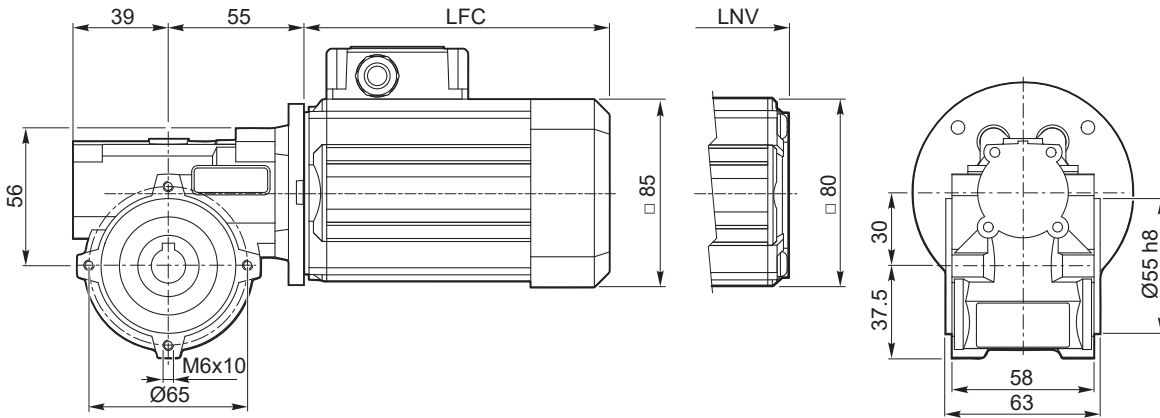
SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5



Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
5014	135.5	108.5	3.5	
5024	150.5	123.5	3.9	
5034	175.5	148.5	4.7	
5044	200.5	173.5	5.4	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	3.9	
5024	175.5	148.5	4.7	
5034	200.5	173.5	5.4	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CLOD 030 U

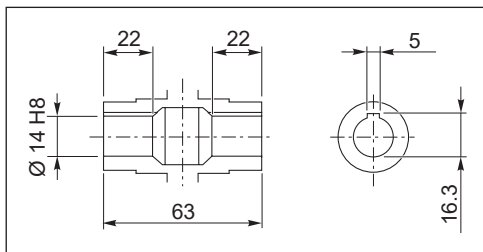
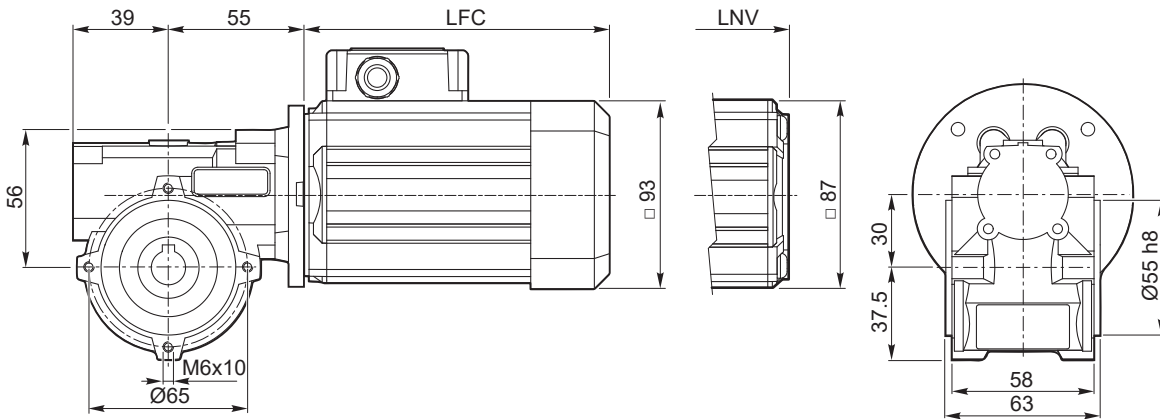
SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5

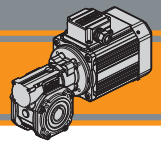


Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
5624	141	117	4	
5634	151	127	4.4	
5634IE2	171	-	5.0	
5644	186	162	5.6	
5654	206	182	6.3	

SMM	LFC	LNV	Kg	
5014	151	127	4.3	
5024	171	147	4.9	
5034	206	182	6.2	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

Dimensions

CLOD 030 U

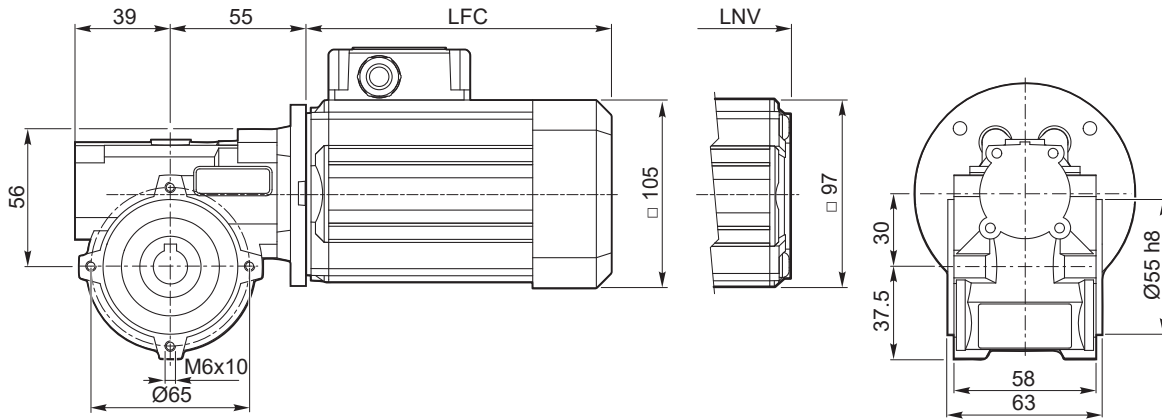
SMT63...TEFC
SMM63... TEFC

SMT63...TENV
SMM63... TENV

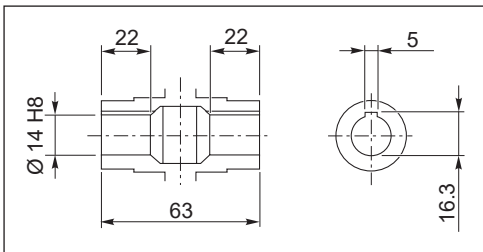
S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5



CLOD SM IP66



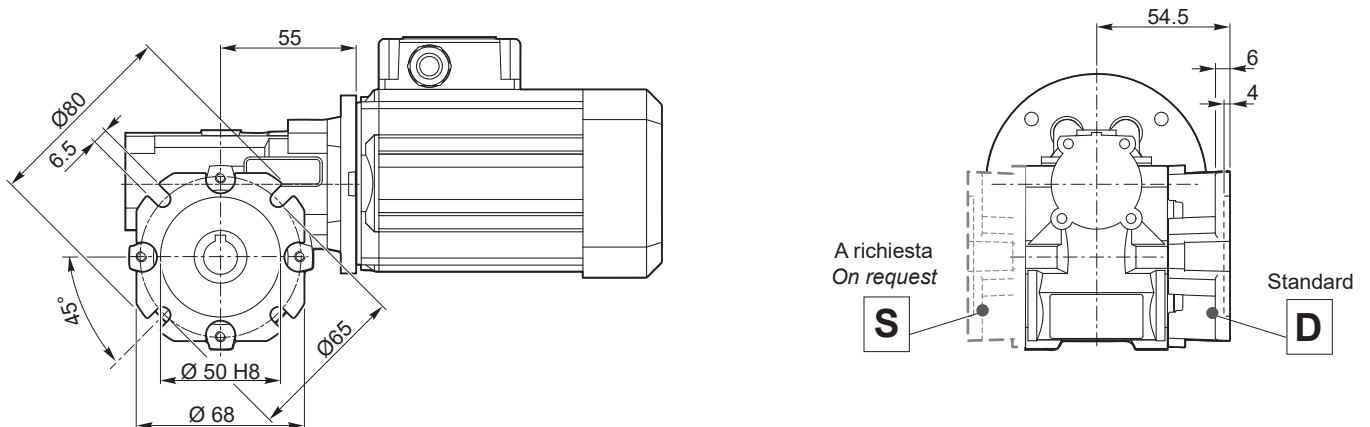
Albero lento cavo / Hollow output shaft

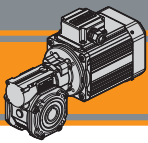
SMT	LFC	LNV	Kg	
6324	165.5	138.5	5.5	
6324IE2	180.5	-	6.1	
6334	180.5	153.5	6.2	
6334IE2	205.5	-	7.3	
6344	205.5	178.5	7.4	

SMM	LFC	LNV	Kg	
6324	180.5	153.5	6.3	
6334	205.5	178.5	7.5	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CLOD 030 ... - F





Dimensioni

Dimensions

CLOD 040 U
CLOD 040 STEV

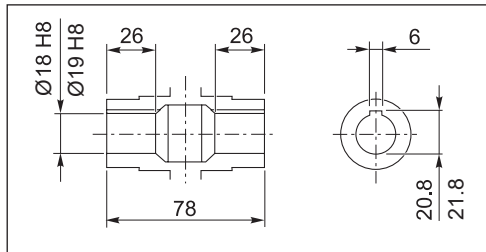
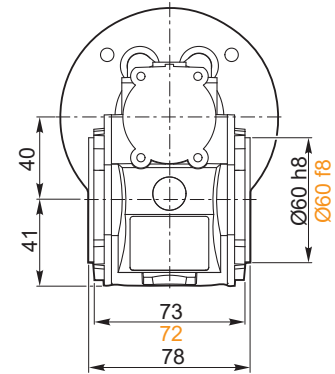
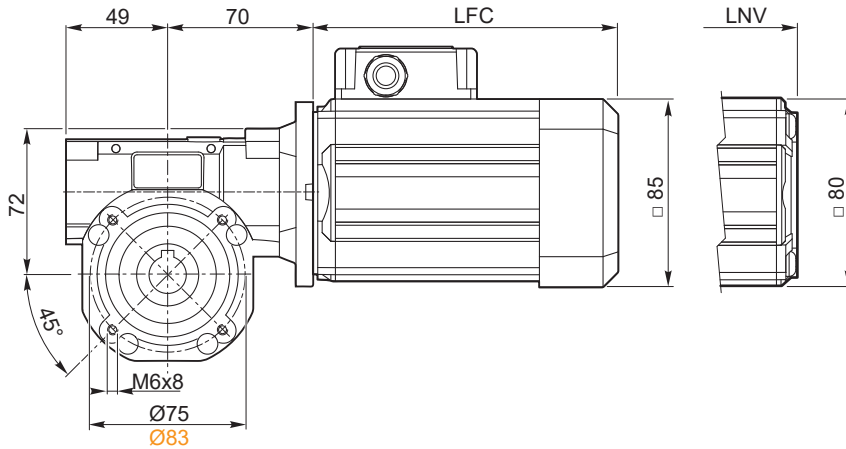
SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5



Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg
5014	135.5	108.5	4.6
5024	150.5	123.5	5
5034	175.5	148.5	5.8
5044	200.5	173.5	6.5

SMM	LFC	LNV	Kg
5014	150.5	123.5	5
5024	175.5	148.5	5.8
5034	200.5	173.5	6.5

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CLOD 040 U
CLOD 040 STEV

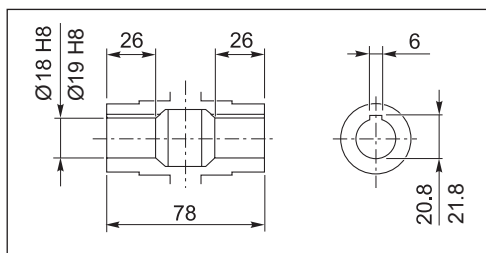
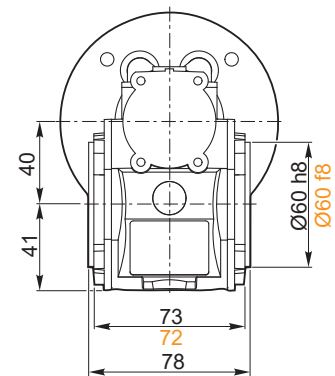
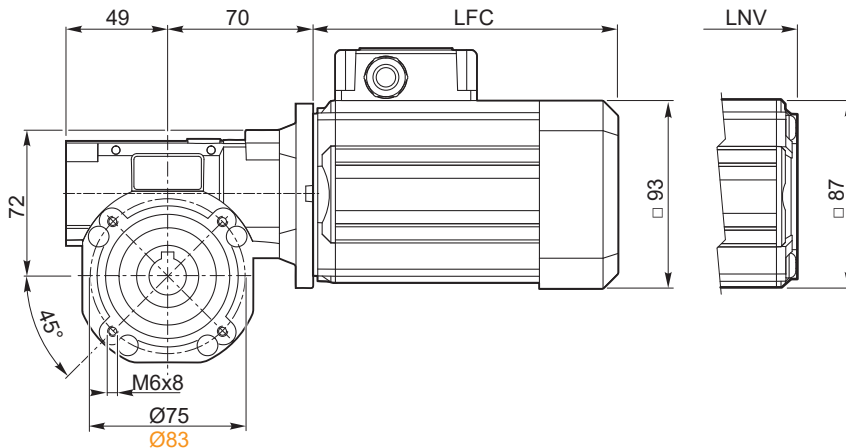
SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5

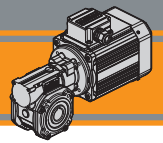


Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg
5624	141	117	5.1
5634	151	127	5.5
5634IE2	171	-	6.1
5644	186	162	6.7
5654	206	182	7.4

SMM	LFC	LNV	Kg
5624	151	127	5.4
5634	171	147	6
5644	206	182	7.3

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

Dimensions

CLOD 040 U
CLOD 040 STEV

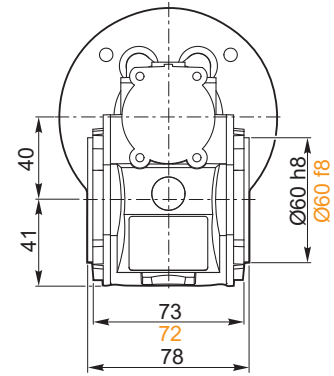
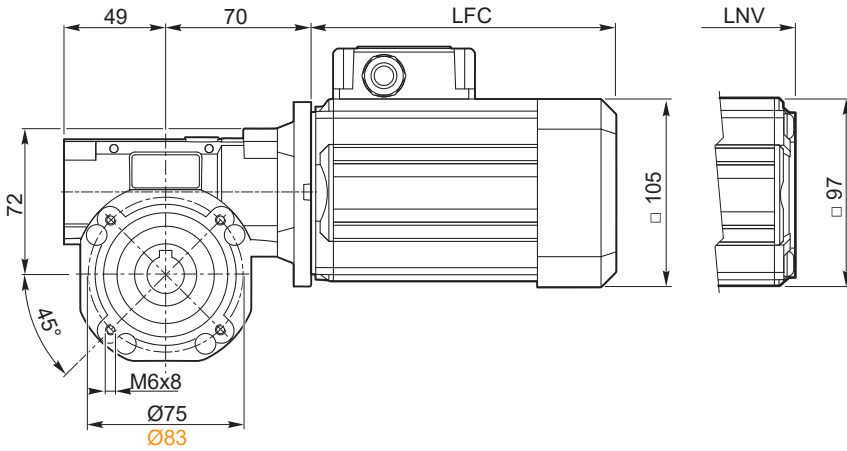
SMT63...TEFC
SMM63... TEFC

SMT63...TENV
SMM63... TENV

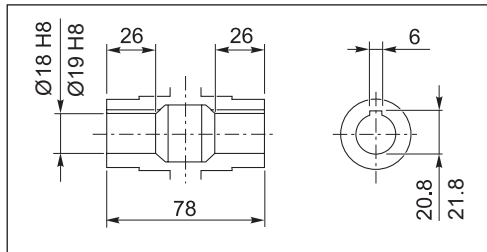
S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5



CLOD SM IP66



Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
6324	165.5	138.5	6.6	
6324IE2	180.5	-	7.2	
6334	180.5	153.5	7.3	
6334IE2	205.5	-	8.4	
6344	205.5	178.5	8.5	

SMM	LFC	LNV	Kg	
6324	180.5	153.5	7.4	
6334	205.5	178.5	8.6	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CLOD 040 U
CLOD 040 STEV

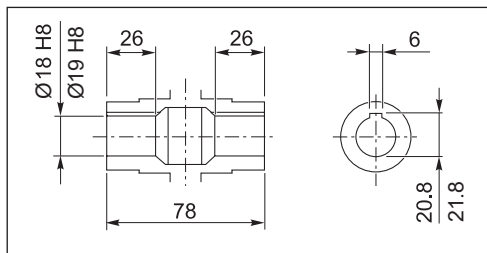
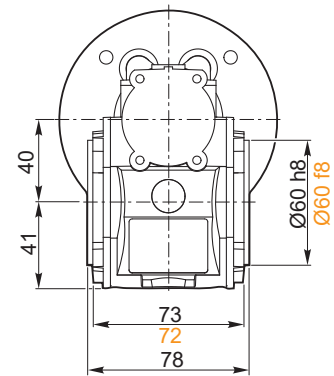
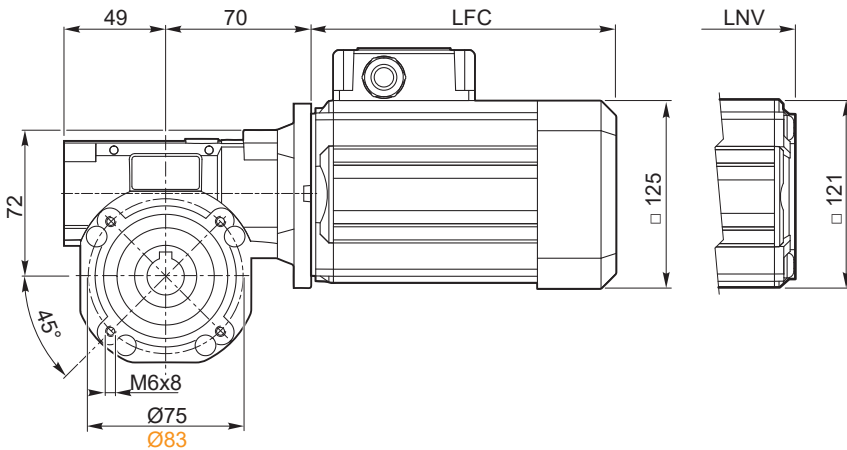
SMT71...TEFC
SMM71... TEFC

SMT71...TENV
SMM71... TENV

S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5

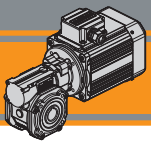


Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
7124	174	145.5	8.8	
7124IE2	189	-	9.7	
7134	189	160.5	9.9	
7134IE2	214	-	11.4	
7144	214	185.5	11.6	

SMM	LFC	LNV	Kg	
7124	189	160.5	9.5	
7134	214	185.5	11.5	

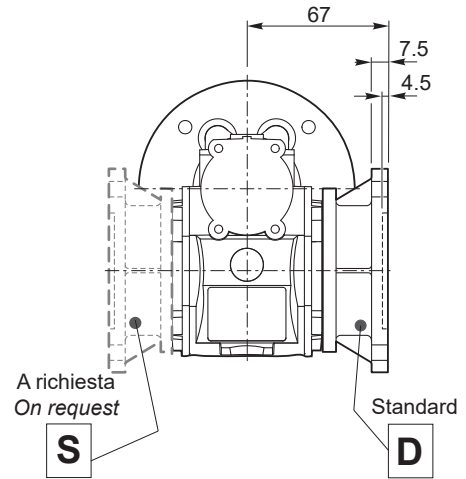
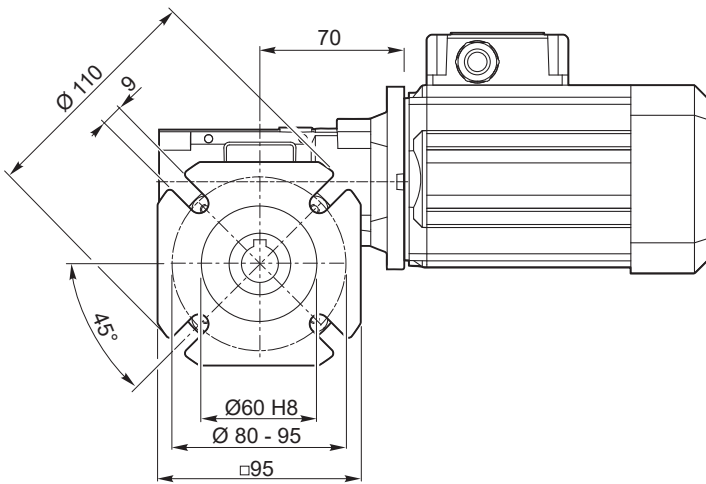
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



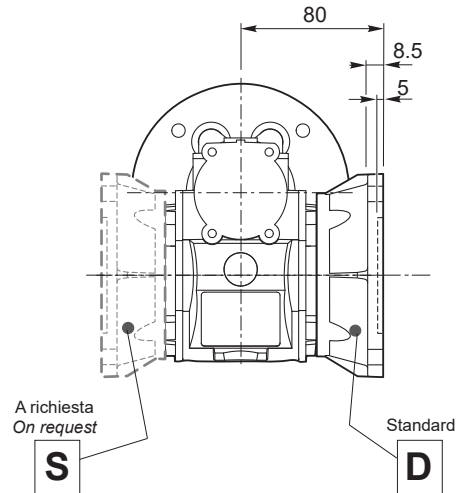
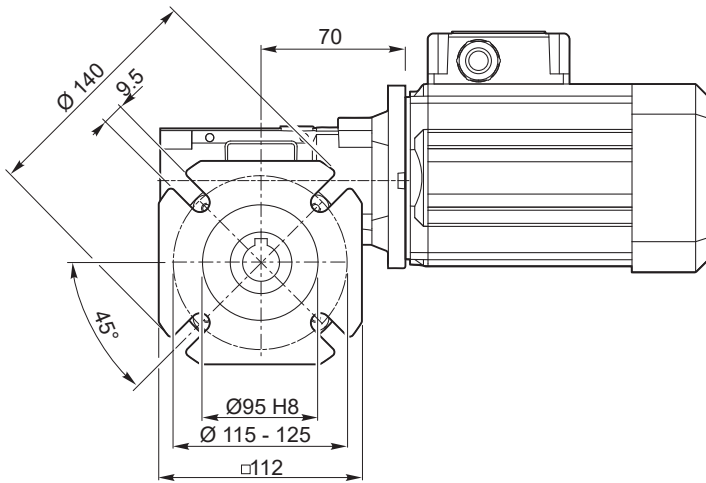
Dimensioni

Dimensions

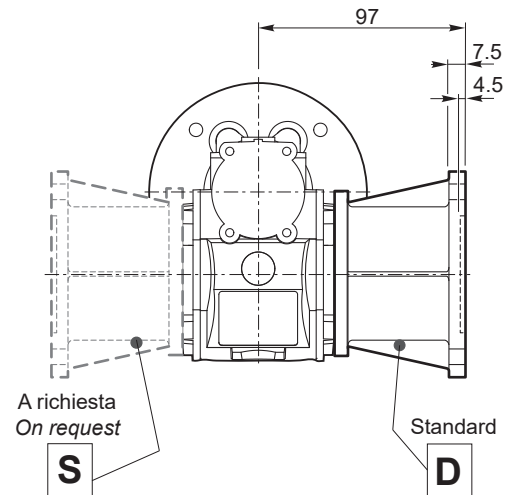
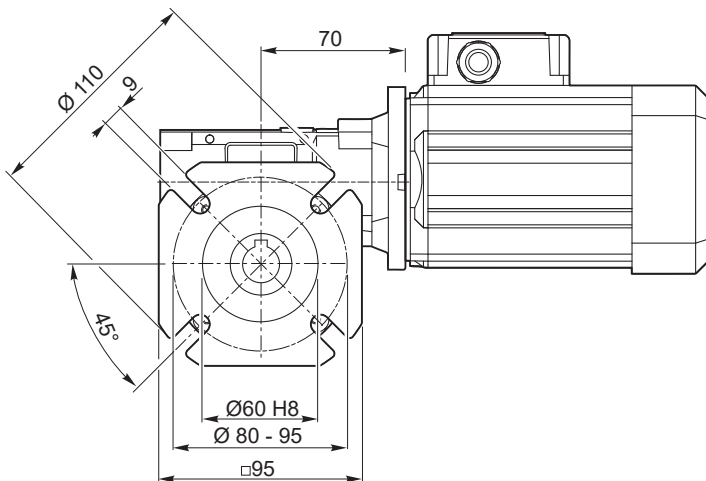
CLOD 040 F

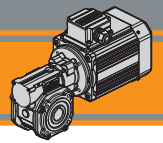


CLOD 040 FB



CLOD 040 FL





Dimensioni

Dimensions

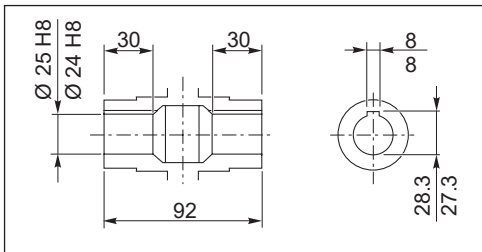
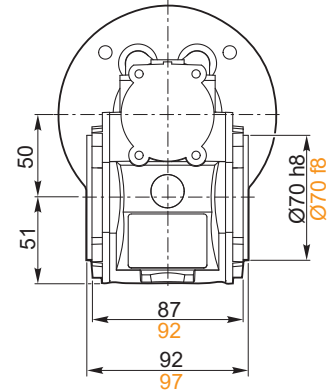
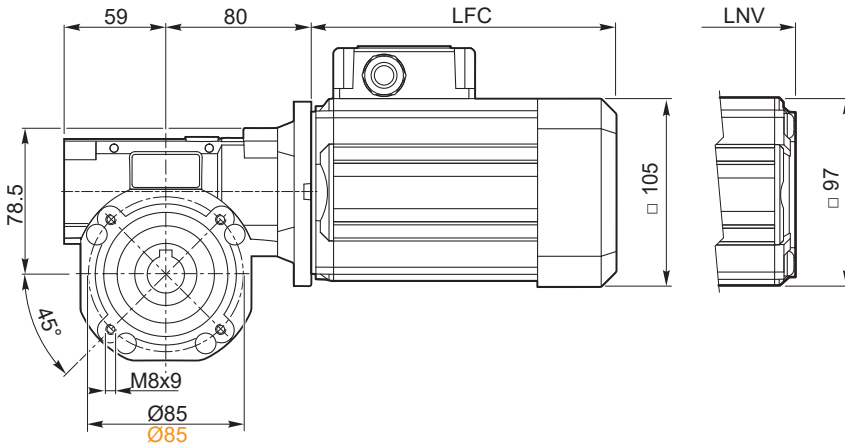
CLOD 050 U
CLOD 050 STEV

SMT63...TEFC
SMM63... TEFC

SMT63...TENV
SMM63... TENV **S3** servizio **30%**
duty

SM...TEFC
Servizio I duty

B4
B5



Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
6324	165.5	138.5	7.6	
6324IE2	180.5	-	8.2	
6334	180.5	153.5	8.3	
6334IE2	205.5	-	9.4	
6344	205.5	178.5	9.5	

SMM	LFC	LNV	Kg	
6324	180.5	153.5	8.4	
6334	205.5	178.5	9.5	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CLOD SM IP66

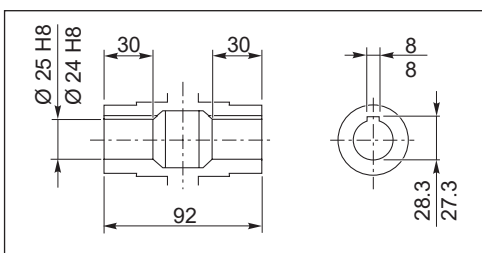
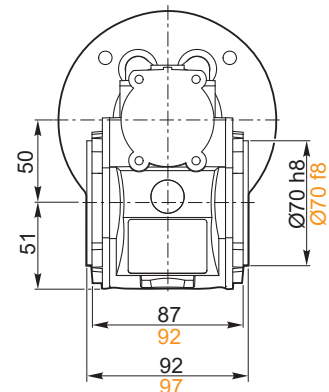
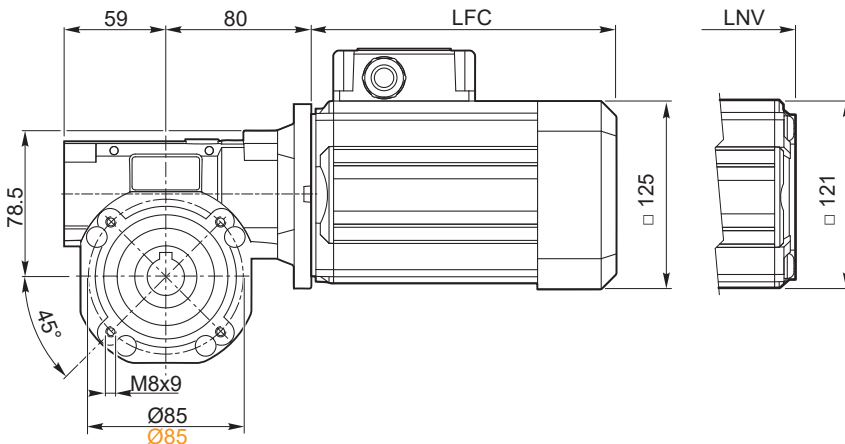
CLOD 050 U
CLOD 050 STEV

SMT71...TEFC
SMM71... TEFC

SMT71...TENV
SMM71... TENV **S3** servizio **30%**
duty

SM...TEFC
Servizio I duty

B4
B5

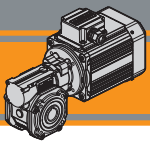


Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
7124	174	145.5	9.9	
7124IE2	189	-	10.8	
7134	189	160.5	11.0	
7134IE2	214	-	12.5	
7144	214	185.5	12.7	

SMM	LFC	LNV	Kg	
7124	189	160.5	10.6	
7134	214	185.5	12.5	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

Dimensions

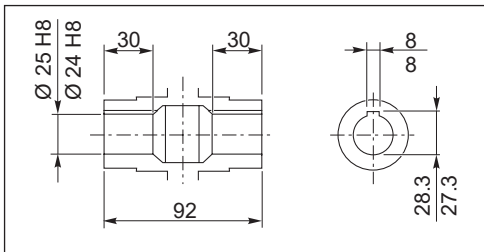
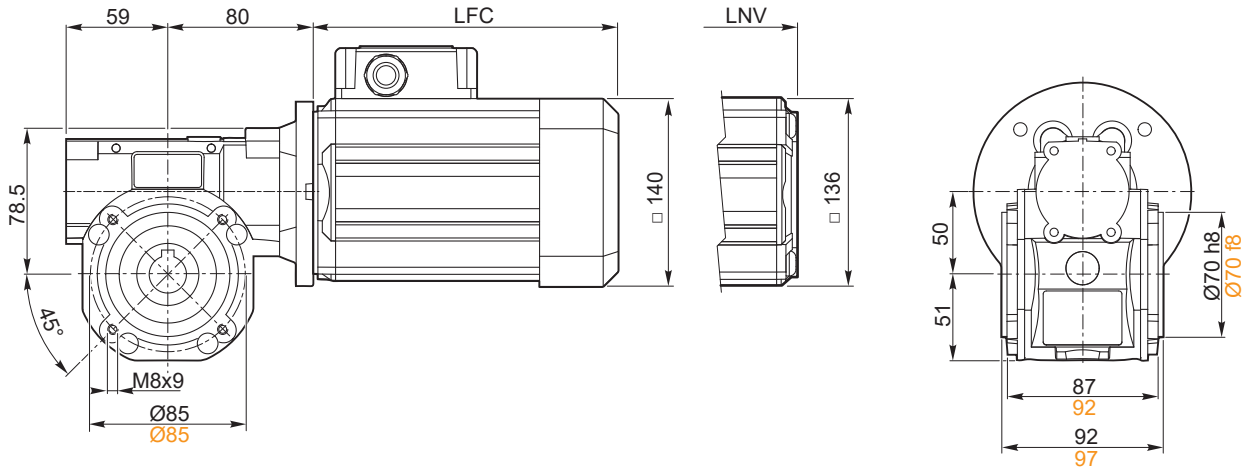
CLOD 050 U
CLOD 050 STEV

SMT80...TEFC
SMM80... TEFC

SMT80...TENV
SMM80... TENV **S3** servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5



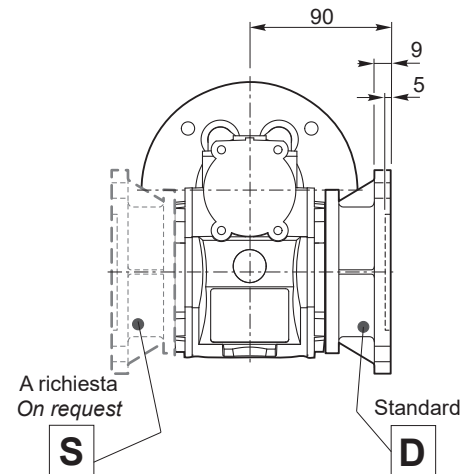
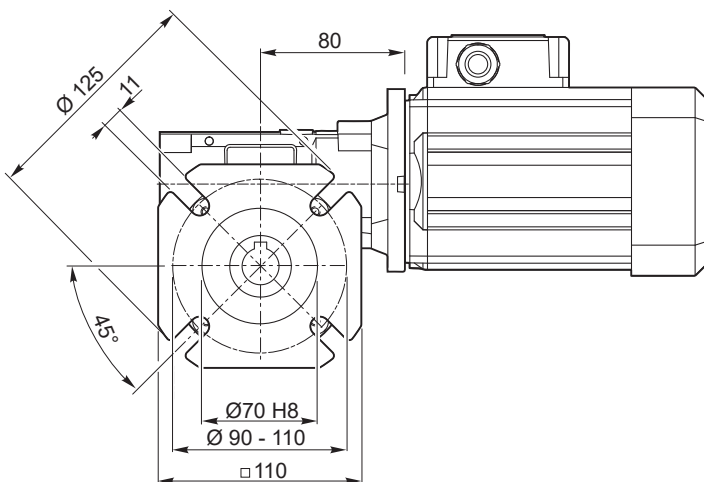
Albero lento cavo / Hollow output shaft

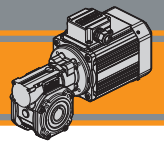
SMT	LFC	LNV	Kg	
8024IE3	233	196	15.1	
8034IE3	283	246	20.1	

SMM	LFC	LNV	Kg	
8024	233	196	15.1	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CLOD 050 F

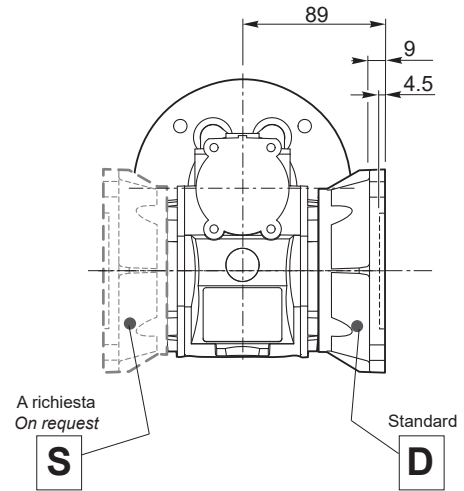
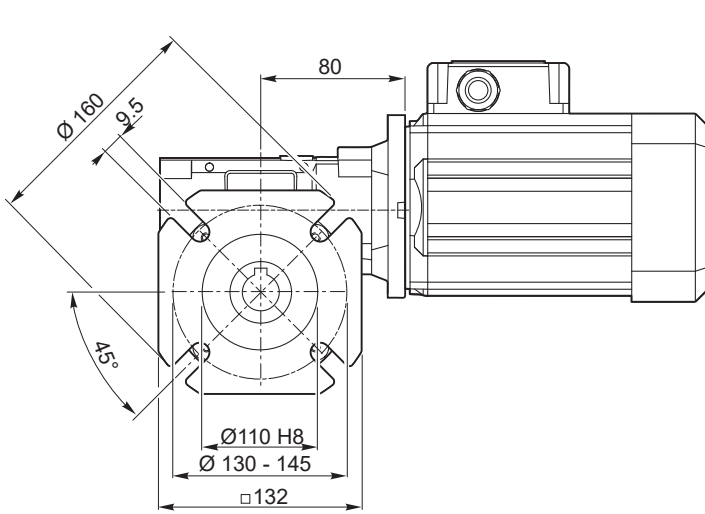




Dimensioni

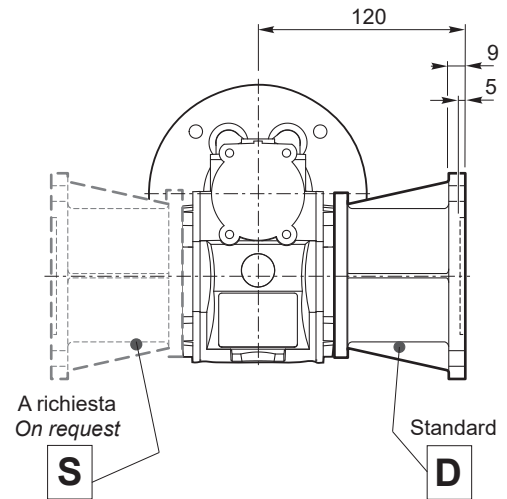
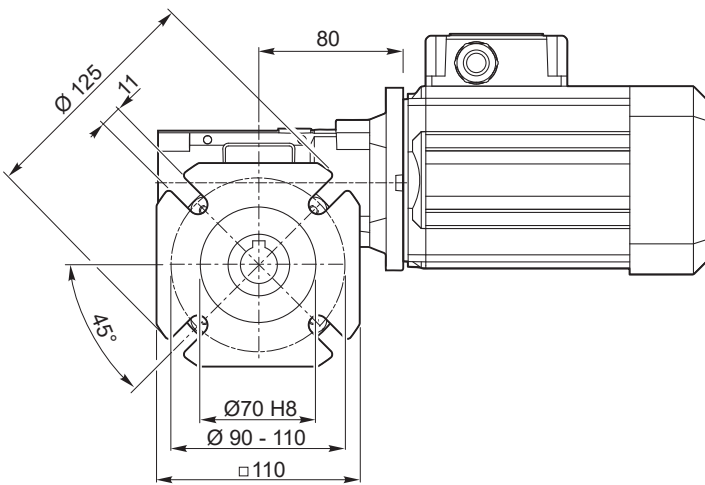
Dimensions

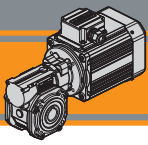
CLOD 050 FB



CLOD SM IP66

CLOD 050 FL





Dimensioni

Dimensions

CLOD 063 U
CLOD 063 STEV

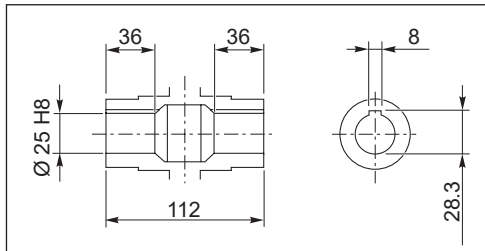
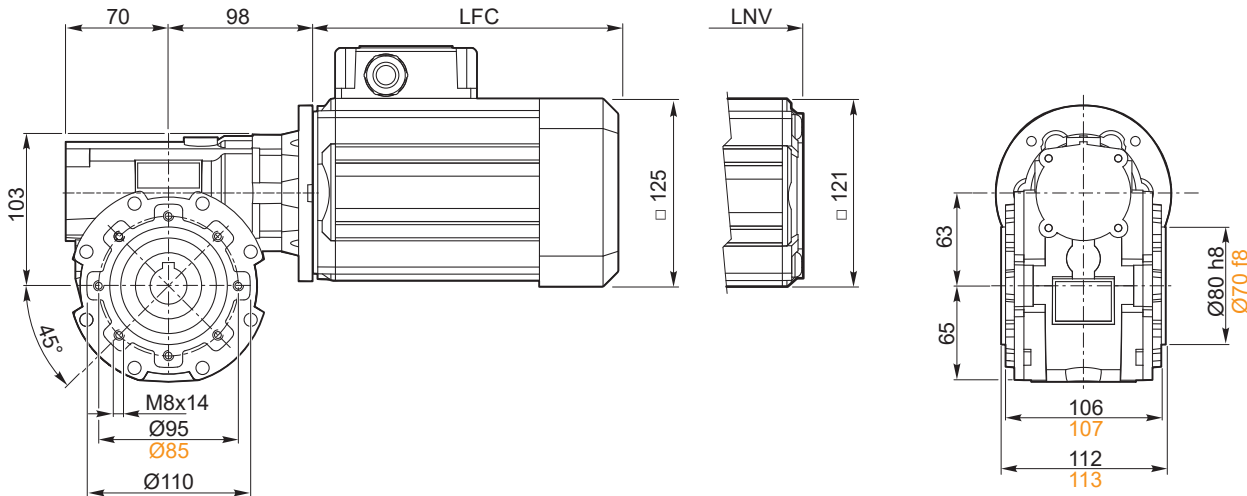
SMT71...TEFC
SMM71... TEFC

SMT71...TENV
SMM71... TENV

S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5



Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
7124IE2	174	145.5	12.6	
7124	189	-	13.5	
7134	189	160.5	13.7	
7134IE2	214	-	15.2	
7144	214	185.5	15.4	

SMM	LFC	LNV	Kg	
7124	189	160.5	13.3	
7134	214	185.5	15.2	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CLOD 063 U
CLOD 063 STEV

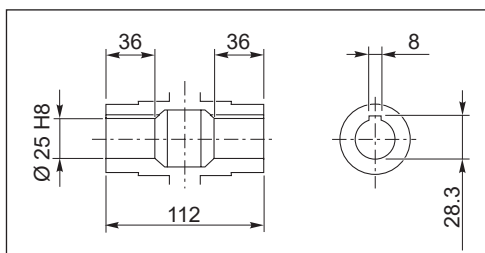
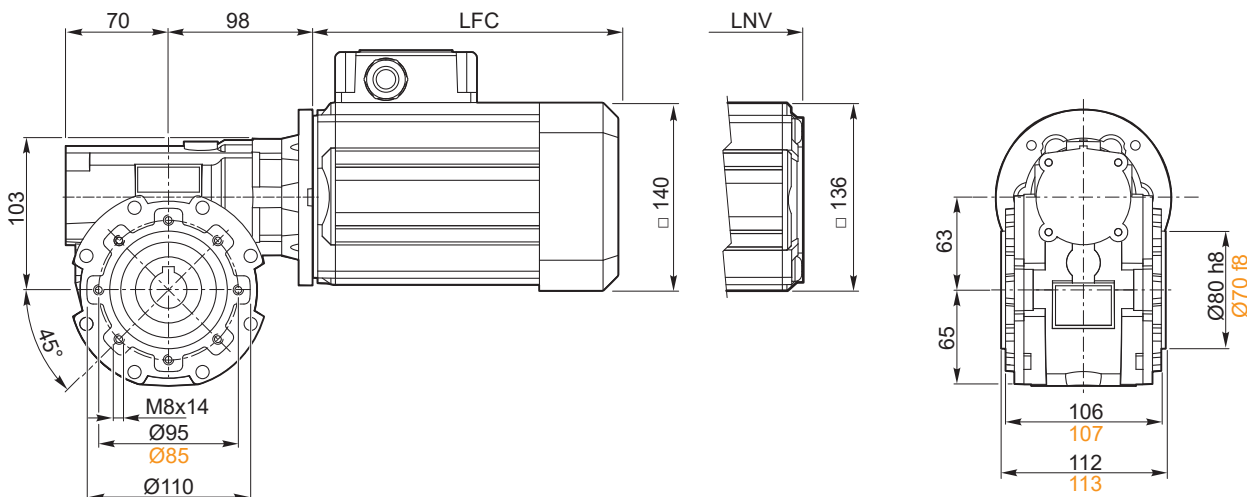
SMT80...TEFC
SMM80... TEFC

SMT80...TENV
SMM80... TENV

S3 servizio 30%
duty

SM...TEFC
Servizio I duty

B4
B5

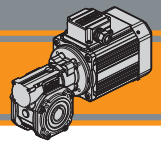


Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
8024IE3	233	196	17.8	
8034IE3	283	246	22.8	

SMM	LFC	LNV	Kg	
8024	233	196	17.8	

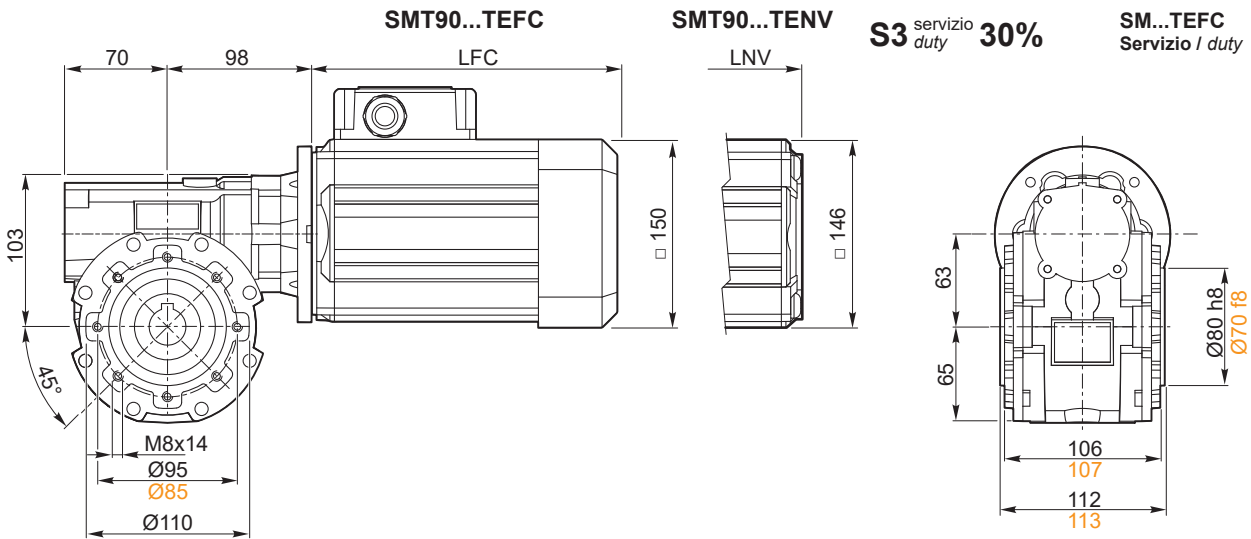
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

Dimensions

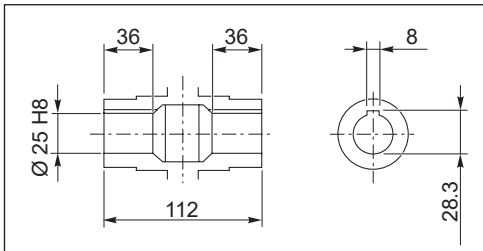
CLOD 063 U
CLOD 063 STEV



S3 servizio duty **30%**

SM...TEFC
Servizio I duty

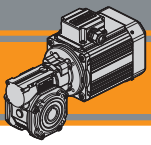
B4
B5



Albero lento cavo / Hollow output shaft

SMT	LFC	LNV	Kg	
9024IE3	283	246	24.2	
9034IE3	313	276	27.5	

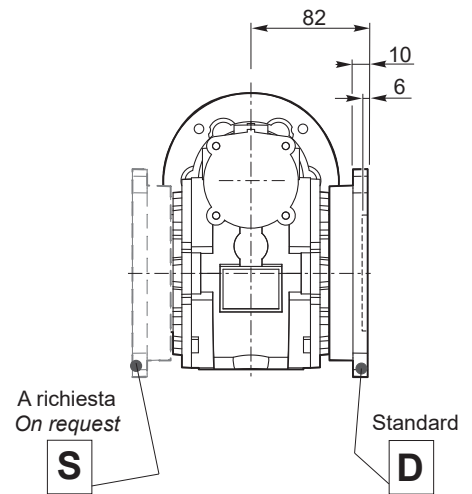
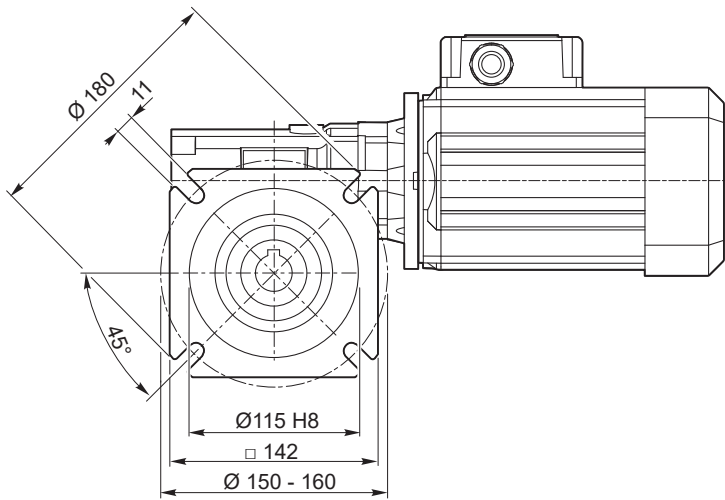
CLOD SM IP66



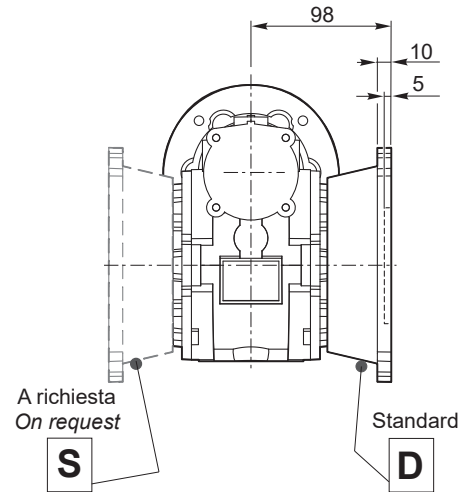
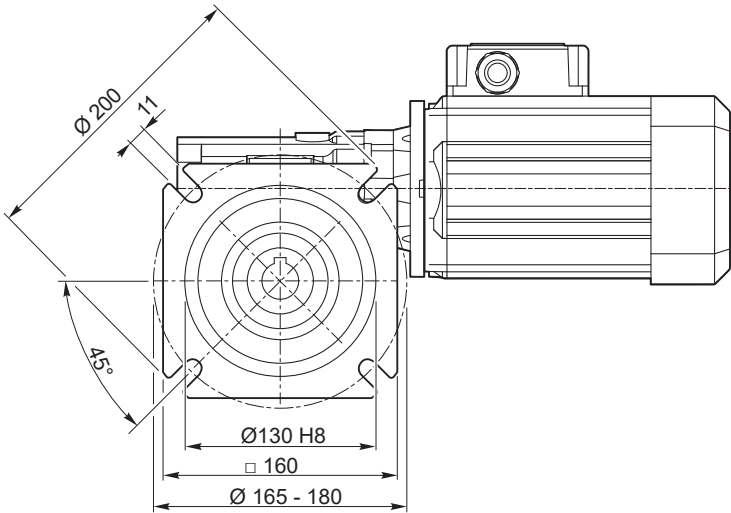
Dimensioni

Dimensions

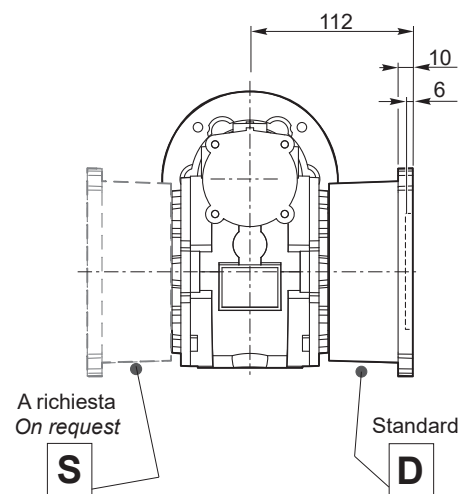
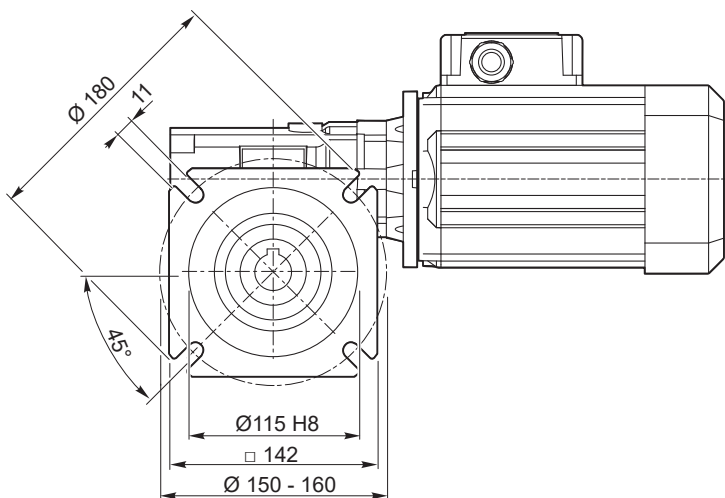
CLOD 063 F

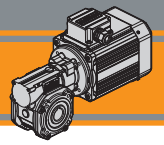


CLOD 063 FB



CLOD 063 FL



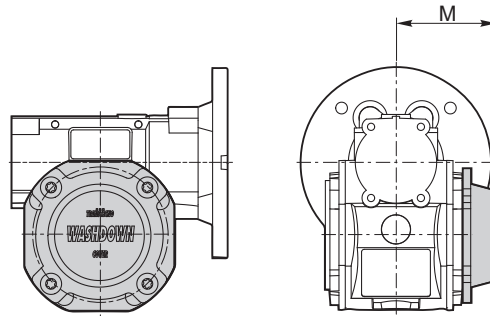


Accessori

Accessories

WD - Kit washdown cover

CLOD	M
030	48
040	55.5
050	63.5
063	71.5



CLOD SM IP66

TRANSTECNO[®]
the modular gearmotor

EC IP66

EC IP66



Washdown  **Tecno**

Motori elettrici CC
DC Electric motors

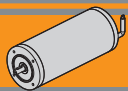




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	Simbologia	<i>Symbols</i>	D2
	Grado di protezione IP	<i>IP enclosures protection indexes</i>	D2
	Classe di isolamento termico	<i>Insulation class</i>	D2
	Tipi di servizio IEC	<i>IEC duty cycle ratings</i>	D3
	Dichiarazione di conformità IP66	<i>IP66 Decalartion of conformity</i>	D3
EC070.120.66	Caratteristiche	<i>Features</i>	D4
EC070.240.66	Dimensioni	<i>Dimensions</i>	D4
	Prestazioni	<i>Performances</i>	D5
EC100.120.66	Caratteristiche	<i>Features</i>	D6
EC100.240.66	Dimensioni	<i>Dimensions</i>	D6
	Prestazioni	<i>Performances</i>	D7
EC180.120.66	Caratteristiche	<i>Features</i>	D8
EC180.240.66	Dimensioni	<i>Dimensions</i>	D8
	Prestazioni	<i>Performances</i>	D9
EC250.120.66	Caratteristiche	<i>Features</i>	D10
EC250.240.66	Dimensioni	<i>Dimensions</i>	D10
	Prestazioni	<i>Performances</i>	D11
EC350.120.66	Caratteristiche	<i>Features</i>	D12
EC350.240.66	Dimensioni	<i>Dimensions</i>	D12
	Prestazioni	<i>Performances</i>	D13
EC600.120.66	Caratteristiche	<i>Features</i>	D14
EC600.240.66	Dimensioni	<i>Dimensions</i>	D14
	Prestazioni	<i>Performances</i>	D15

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Caratteristiche tecniche

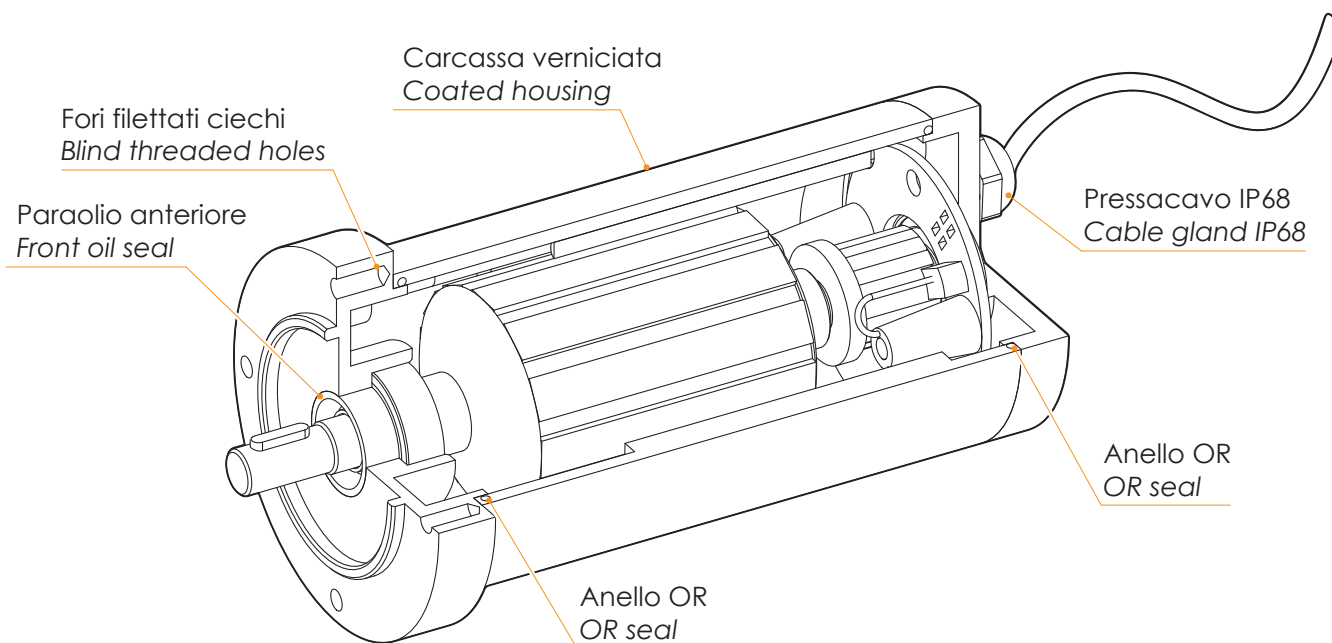
Technical features

Le caratteristiche principali dei motori elettrici CC a magneti permanenti in ferrite EC IP66 sono:

- Campo magnetico generato da magneti permanenti in ferrite
- Costruzione tubolare, senza ventilazione
- Alimentazione a bassa tensione, 12 o 24 Vcc
- Elevate coppie di spunto
- Elevate coppie e potenze in dimensioni compatte

The main features of EC IP66 ferrite permanent magnets DC electric motors range are:

- Magnetic field generated by permanent ferrite magnets
- Tubular construction, without fan
- Low voltage power supply, 12 or 24 Vdc
- High starting torque
- High torque and output power with compact package



Simbologia

Symbols

S	—	Servizio / Duty	M_{Br}	[Nm]	Coppia nominale del freno / Brake motor torque
P_n	[W]	Potenza in uscita / Rated power	n_{1 max}	[min ⁻¹]	Velocità massima / Max speed
P_a	[W]	Potenza assorbita / Absorbed power	T_r	[ms]	Tempo di inserzione / Engaging time
M_n	[Nm]	Coppia nominale / Rated torque	T_f	[ms]	Tempo di disimpegno / Disengaging time
V	[V]	Tensione / Voltage	IC	—	Classe d'isolamento termico / Thermal insulation class
I	[A]	Corrente assorbita / Absorbed current	FF	—	Fattore di forma / Form factor
n₁	[min ⁻¹]	Numero giri motore / Motor speed	IP	—	Classe di protezione / Protection class
S_v	[rad/s]	Velocità angolare / Angular speed	η	—	Rendimento / Efficiency
P_e	[W]	Potenza elettrica del freno / Brake electric power	Kg	—	Peso / Weight

Grado di protezione IP

IP enclosures protection indexes

Indica il grado di isolamento meccanico del corpo motore.
1^a cifra protezione alla penetrazione di corpi solidi.

Indicates the degree of mechanical insulation of the motor body.
1st figure indicating level of protection against the penetration of solid bodies.

2^a cifra protezione contro la penetrazione d'acqua.

2nd figure: indicating degree to which the motor is waterproof.

6	Totalmente protetto contro la polvere Fully dust proof	6	Protetto dalle ondate Wave proof
----------	---	----------	-------------------------------------

Classe di isolamento termico

Insulation class

Classe / Class	Δ t °C Temp. ambiente: 40°C Ambient temperature: 40°C
F	115°C



Tipi di servizio IEC

IEC duty cycle ratings

S1	Servizio continuo. Funzionamento a carico costante per una durata sufficiente al raggiungimento dell' equilibrio termico.	Continuous duty. The motor works at a constant load for enough time to reach temperature equilibrium
S2	Servizio di durata limitata. Funzionamento a carico costante per una durata inferiore a quella necessaria al raggiungimento dell' equilibrio termico, seguito da un periodo di riposo tale da riportare il motore alla temperatura ambiente.	Short time duty. The motor works at a constant load, but not long enough to reach temperature equilibrium, and the rest periods are long enough for the motor to reach ambient temperature.

Dichiarazione di conformità IP66

IP66 Declaration of conformity

Il superamento dei test definiti dalla normativa:

Passing the tests defined by the standard:


EN 60034 –5: 2001

EN 60034 –5: 2001



Certifica i motori elettrici CC delle gamma EC sono conformi al grado di protezione IP66.
Di seguito la dichiarazione di conformità.

Certifies the DC electric motor range EC as compliant with the IP66 protection standards.
Below the declaration of conformity.

EC IP66



the modular gearmotor

Dichiarazione di conformità alla norma/ Declaration of conformity to standard
EN60529:1991/A1:2000/A2:2013

Noi: *Transtecno Srl*
We: *Transtecno srl*

Indirizzo/Address: *Via Caduti di Sabbiuino, 11/D-E - 40011 Anzola Emilia (BO) - ITALY*

dichiariamo che l'oggetto della dichiarazione è il prodotto: **Motori elettrici in corrente continua a magneti permanenti 12-24 Vcc**
declare that the object of the declaration is the product: *Permant magnets DC electric motors, 12-24 Vdc*

Modello/model:
EC070.120.66; EC070.240.66; EC100.120.66; EC100.240.66; EC180.120.66; EC180.240.66; EC250.120.66; EC250.240.66; EC350.120.66; EC350.240.66; EC600.120.66; EC600.240.66

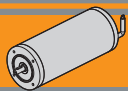
sono stati sottoposti ai test in laboratorio notificato per il **grado di protezione IP66** secondo la norma EN60529.
have been tested in a notified laboratory for the IP66 degree according to the standard EN60529.

IP		Definizione / Description	IP		Definizione / Description
6	○	Totalmente protetto contro la polvere. <i>Fully dust tight.</i>	6		Protetto dalle ondate. <i>Waveproof.</i>

Per la definizione esatta si rimanda alla norma.
For the exact definition, please refer to the standar.

Anzola Emilia, 01/10/2024

TRANSTECNO SRL
Direzione e coordinamento di Interpump Group
Via Caduti di Sabbiuino 11 D/E, 40011 Anzola dell'Emilia (BO) - Italy - Tel +39 051 6425811 - Fax +39 051 734943
sales@transtecno.com - www.transtecno.com - C.F. 02394560375 - P.IVA 00575261201 - Cap.Soc. Euro 100.000,00 I.V. - R.E.A 278977/BO - R.I. BO N. 02394560375



EC070.120.66 - EC070.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	100 W S2 (70 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 interne di composto grafite-rame
Cavo di alimentazione	Lunghezza: 1000 mm

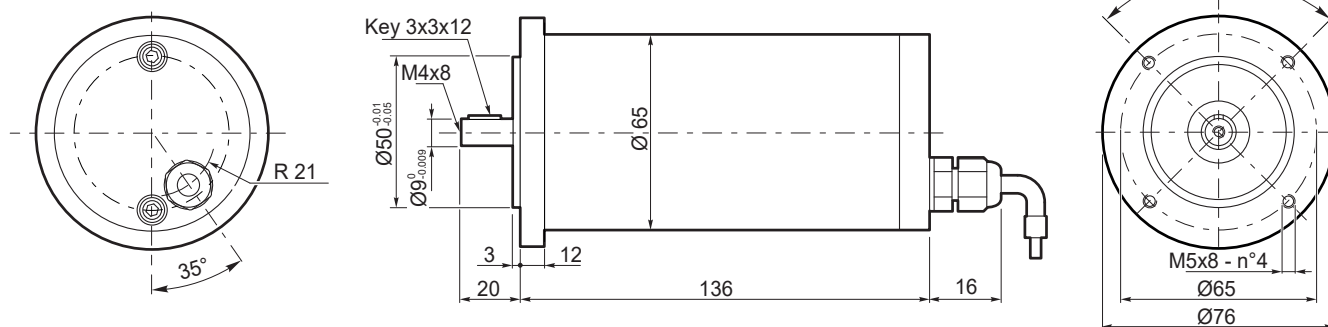
Construction	Tubular, without fan
Size	Ø 65 mm
Power	100 W S2 (70 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Electric cable	Length: 1000 mm

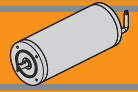
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC070.120.66	S1	70	12	8.4	F	1	0.22	3000	66	1.7
	S2 30'	100		11.8			0.31			
EC070.240.66	S1	70	24	4.2						
	S2 30'	100		5.9			0.31			

Dimensioni

Dimensions

EC070.120.66 EC070.240.66



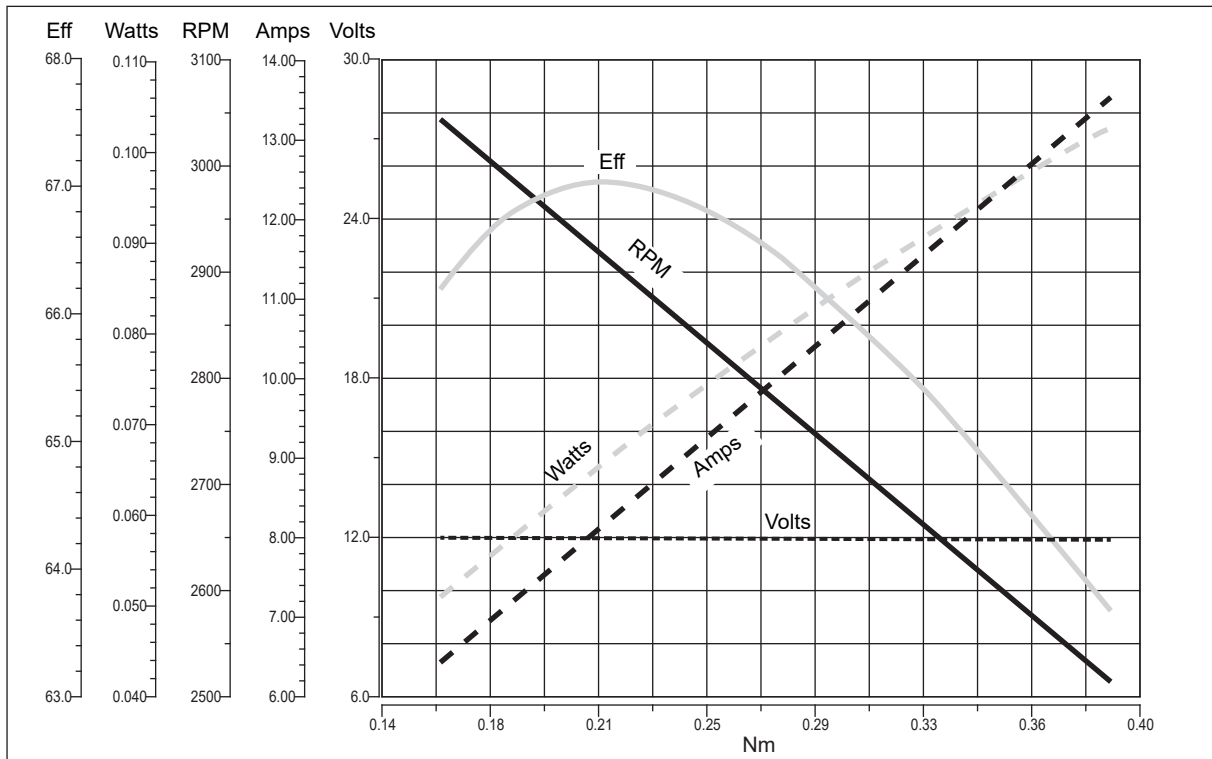


EC070.120.66 - EC070.240.66

Prestazioni

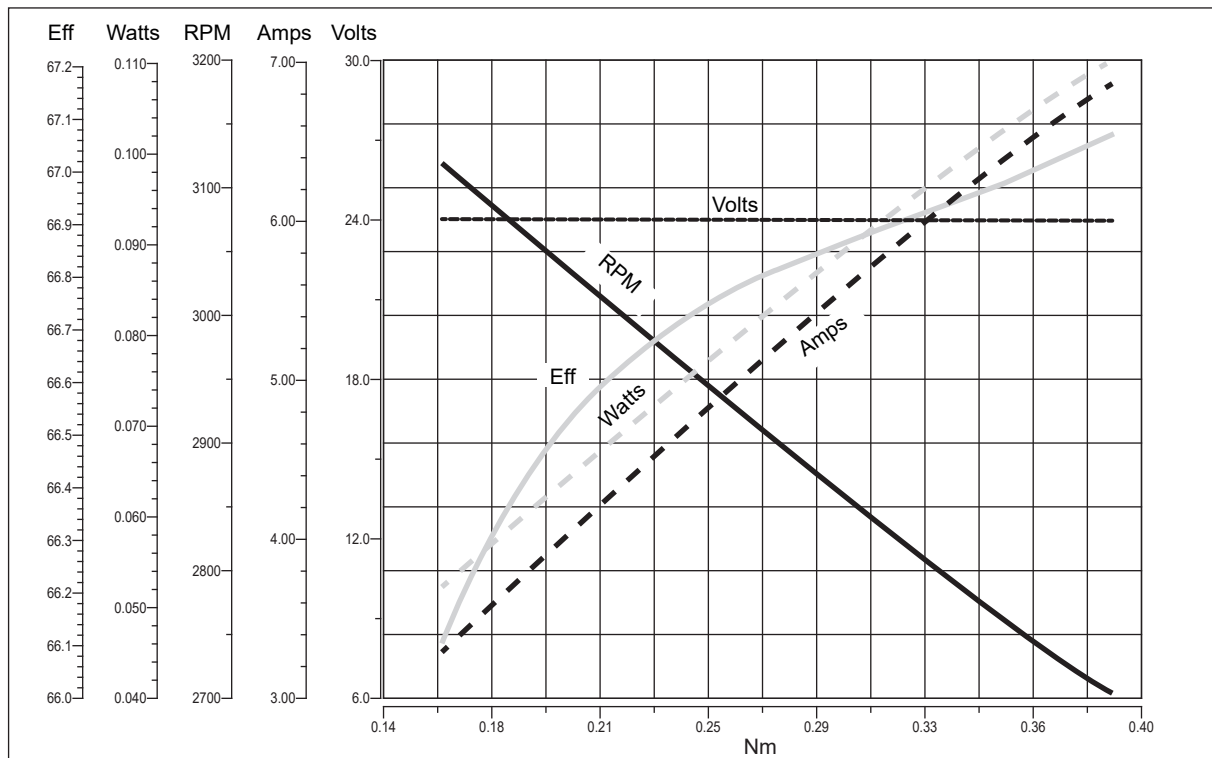
Performances

EC070.120.66



EC IP66

EC070.240.66





EC100.120.66 - EC100.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 80 mm
Potenza	140 W S2 (100 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Cavo di alimentazione	Lunghezza: 1000 mm

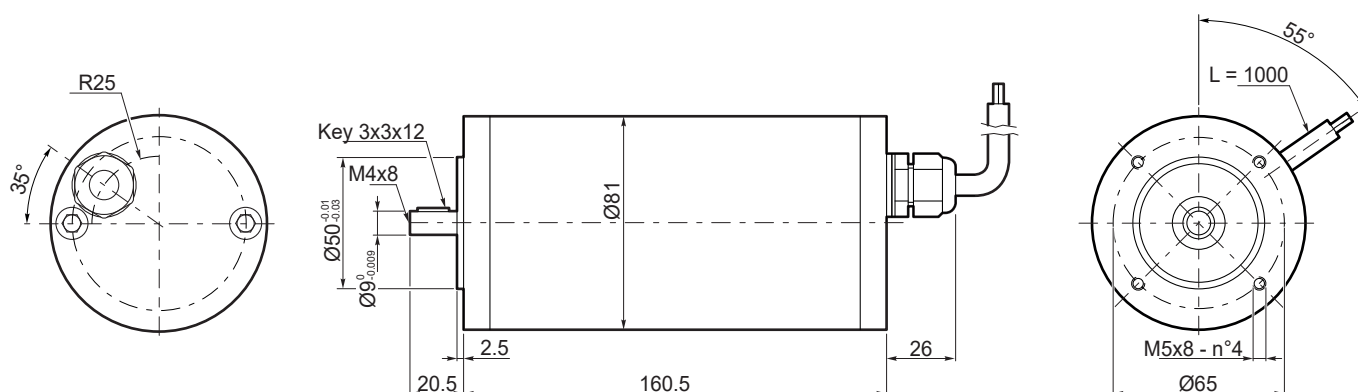
Construction	Tubular, without fan
Size	Ø 80 mm
Power	140 W S2 (100 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Electric cable	Length: 1000 mm

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC100.120.66	S1	100	12	12	F	1	0.31	3000	66	2.7
	S2 25'	140		16.8			0.43			
EC100.240.66	S1	100	24	6			0.31			
	S2 25'	140		8.4			0.43			

Dimensioni

Dimensions

EC100.120.66 EC100.240.66

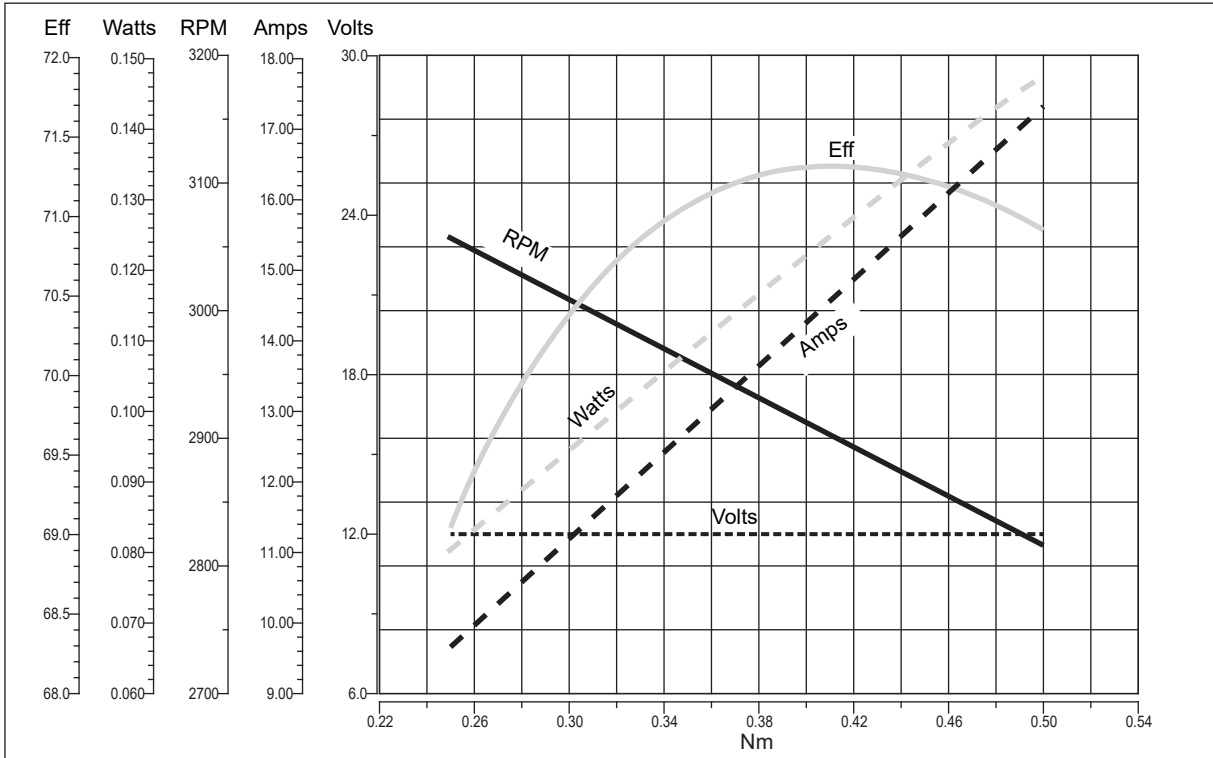




Prestazioni

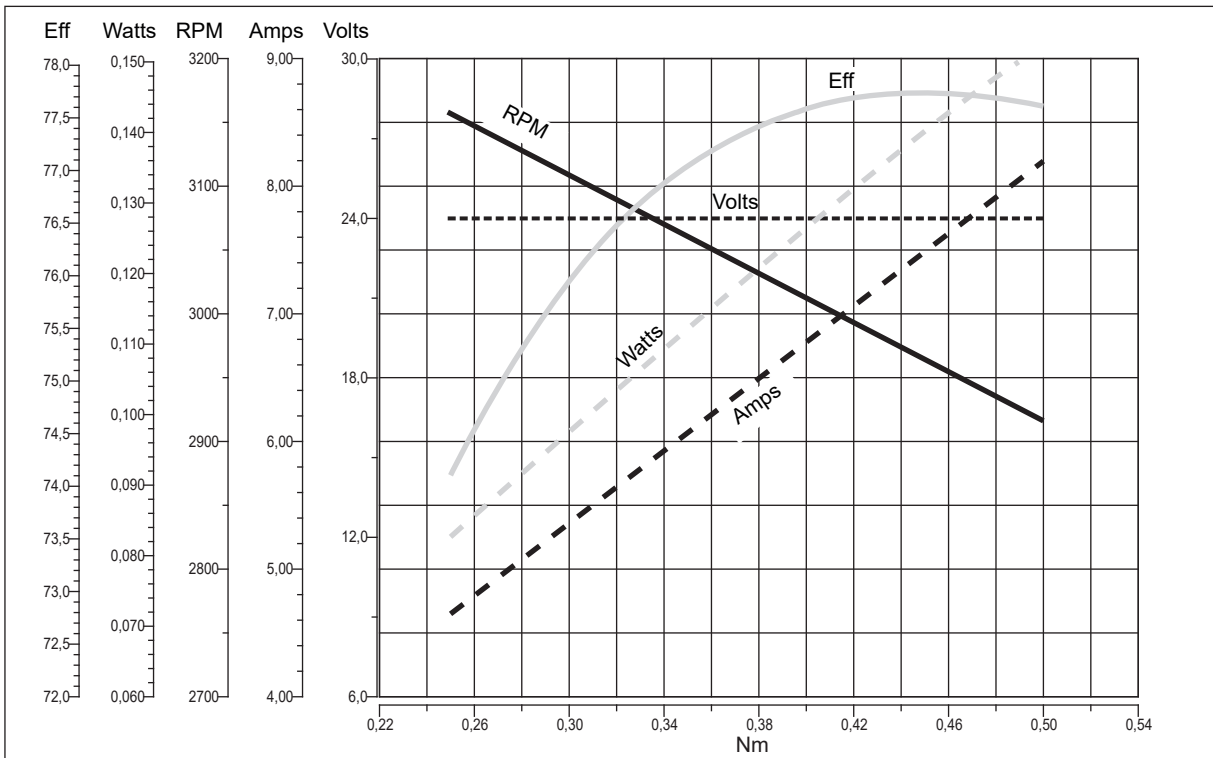
Performances

EC100.120.66



EC IP66

EC100.240.66





EC180.120.66 - EC180.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 80 mm
Potenza	250 W S2 (180 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Cavo di alimentazione	Lunghezza: 1000 mm

Construction	Tubular, without fan
Size	Ø 80 mm
Power	250 W S2 (180 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Electric cable	Length: 1000 mm

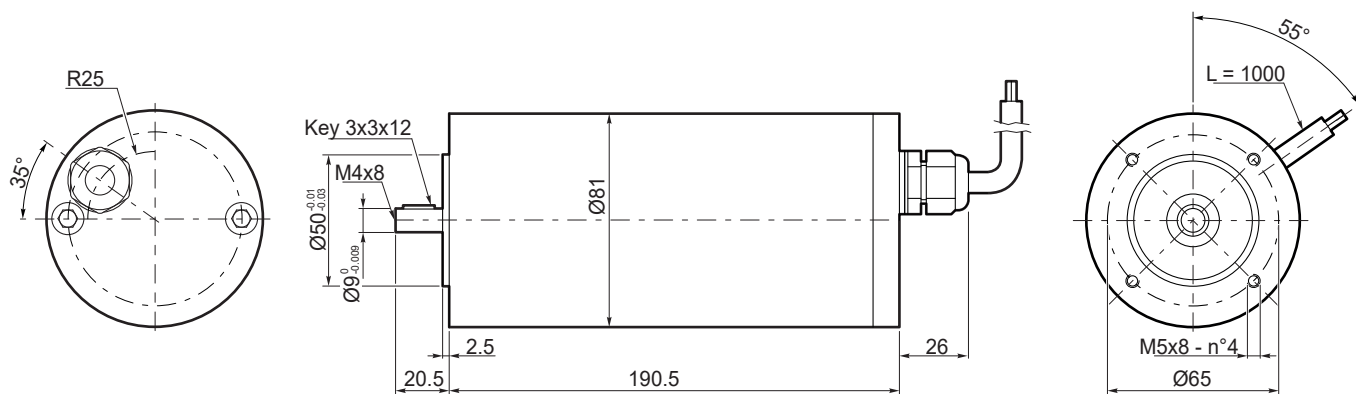
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC180.120.66	S1	180	12	21.5	F	1	0.57	3000	66	3.4
	S2 25'	250		30			0.8			
EC180.240.66	S1	180	24	10.8						
	S2 25'	250		15			0.8			

Dimensioni

Dimensions

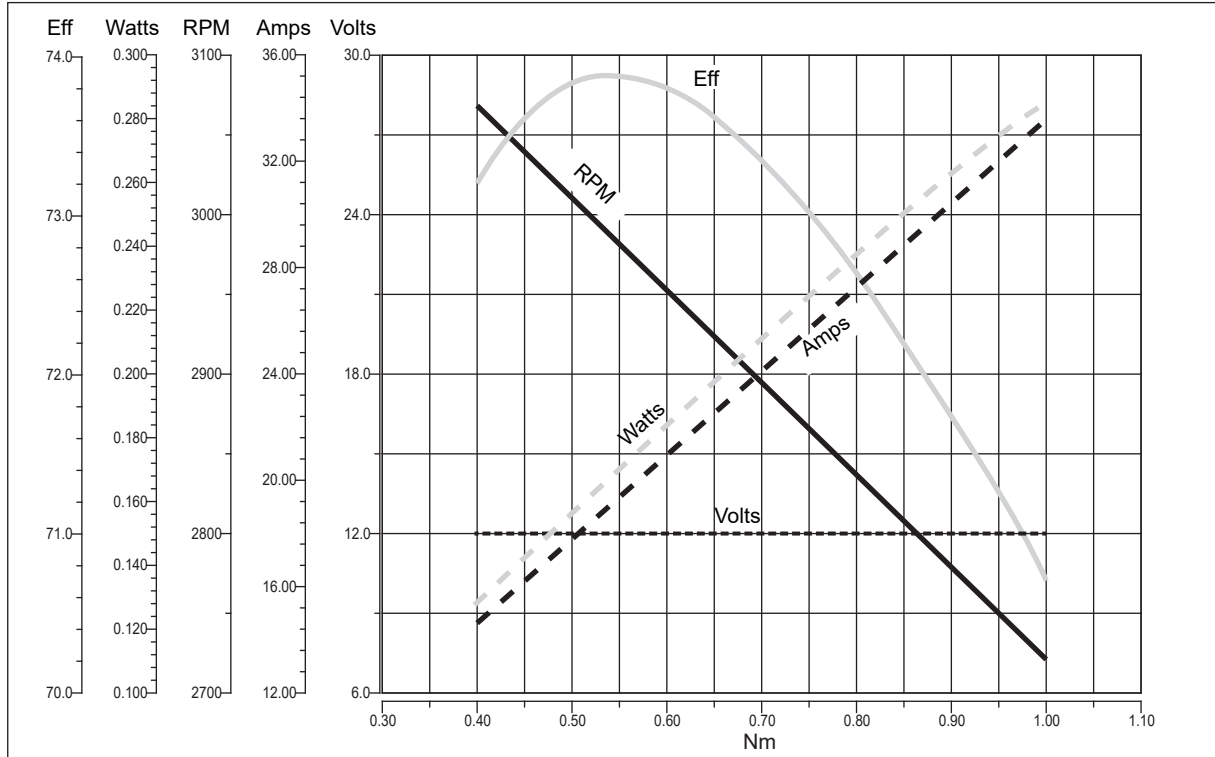
EC180.120.66

EC180.240.66



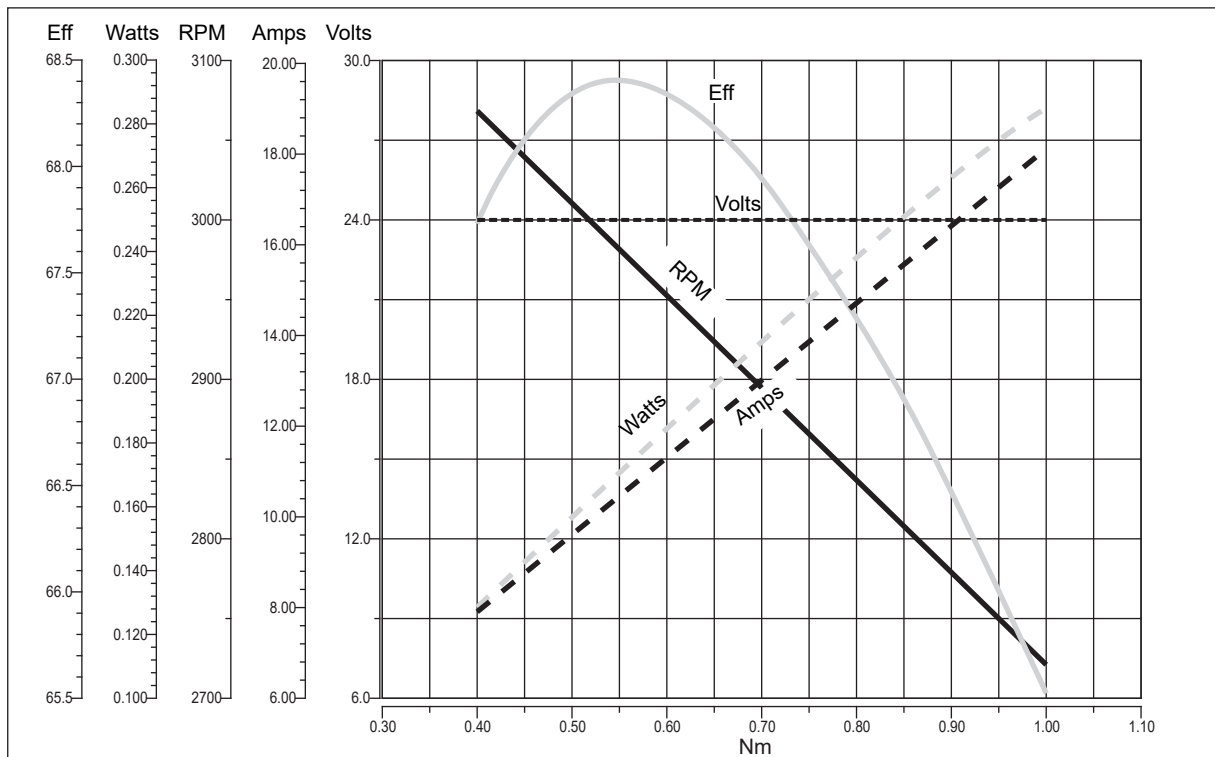


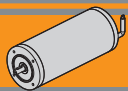
EC180.120.66



EC IP66

EC180.240.66





EC250.120.66 - EC250.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 104 mm
Potenza	350 W S2 (250 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Terminali	2 con doppio dado di fissaggio

Construction	Tubular, without fan
Size	Ø 104 mm
Power	350 W S2 (250 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Leads terminals	2, with double nut

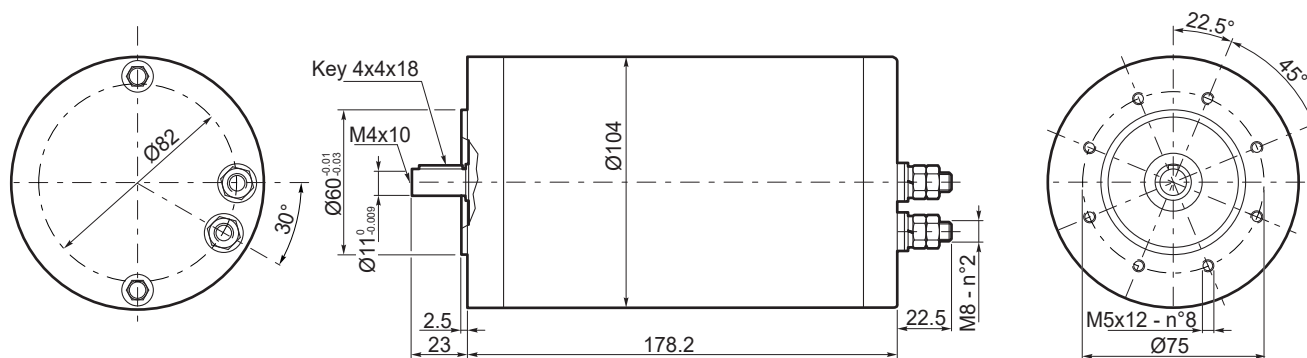
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC250.120.66	S1	250	12	30	F	1	0.8	3000	66	4.15
	S2 25'	350		38.5			1.12			
EC250.240.66	S1	250	24	15			0.8			
	S2 25'	350		20.5			1.12			

Dimensioni

Dimensions

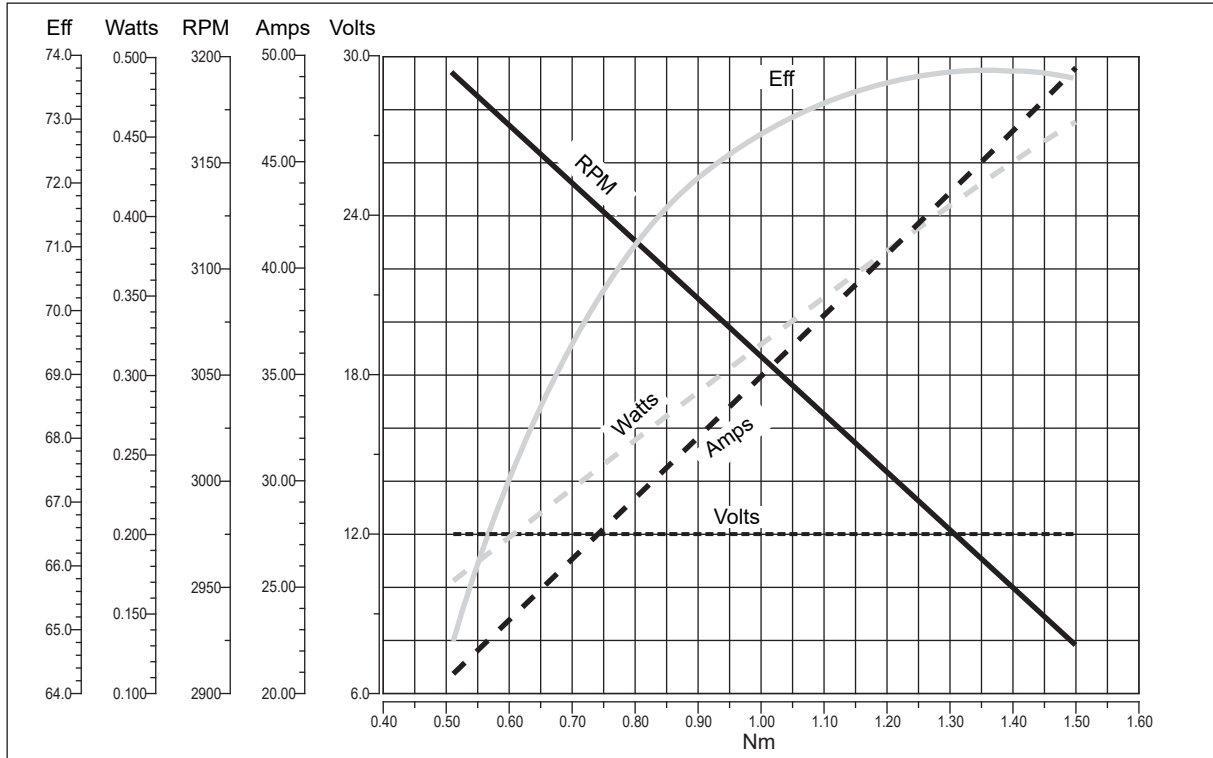
EC250.120.66

EC250.240.66

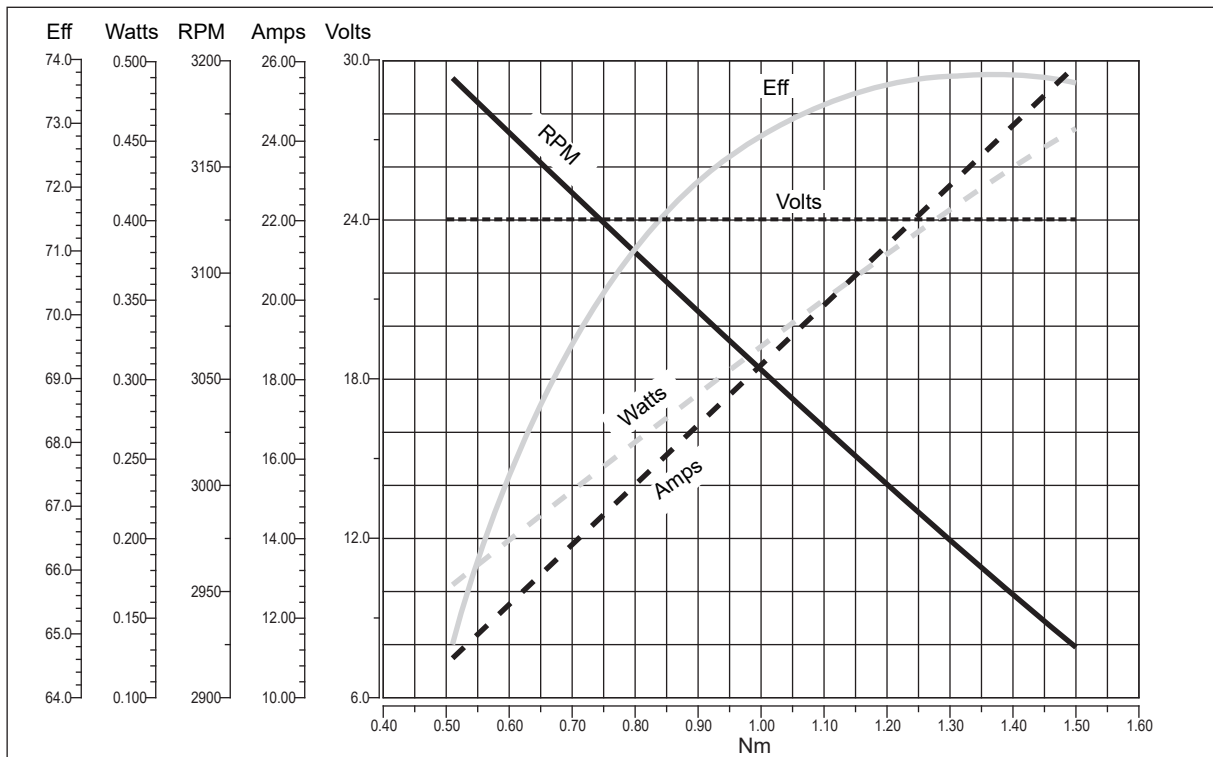




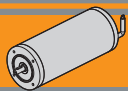
EC250.120.66



EC250.240.66



EC IP66



EC350.120.66 - EC350.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 110 mm
Potenza	500 W S2 (350 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Terminali	2 con dadi di fissaggio

Construction	Tubular, without fan
Size	Ø 110 mm
Power	500 W S2 (350 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Leads terminals	2, with double nut

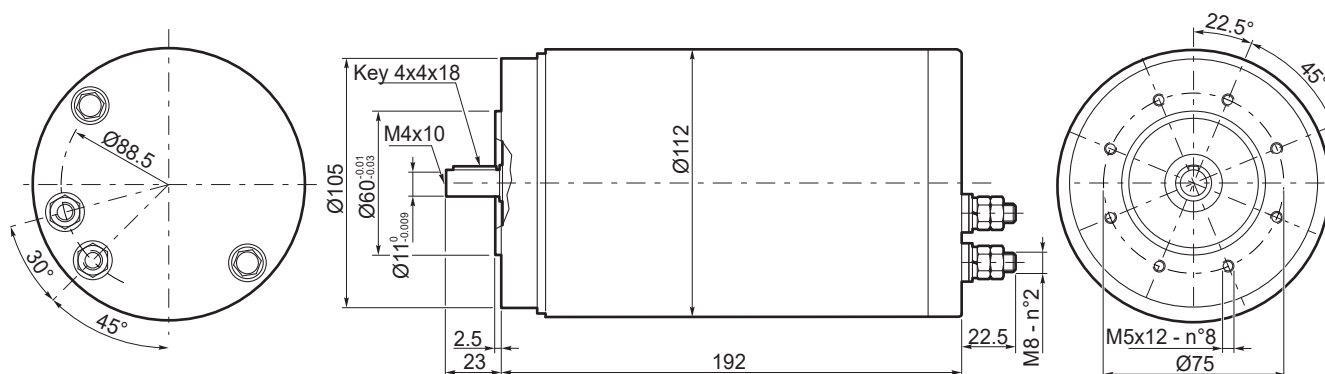
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC350.120.66	S1	350	12	42	F	1	1.12	3000	66	5.1
	S2 30'	500		58.8			1.57			
EC350.240.66	S1	350	24	21			1.12			5.3
	S2 30'	500		29.4			1.57			

Dimensioni

Dimensions

EC350.120.66

EC350.240.66

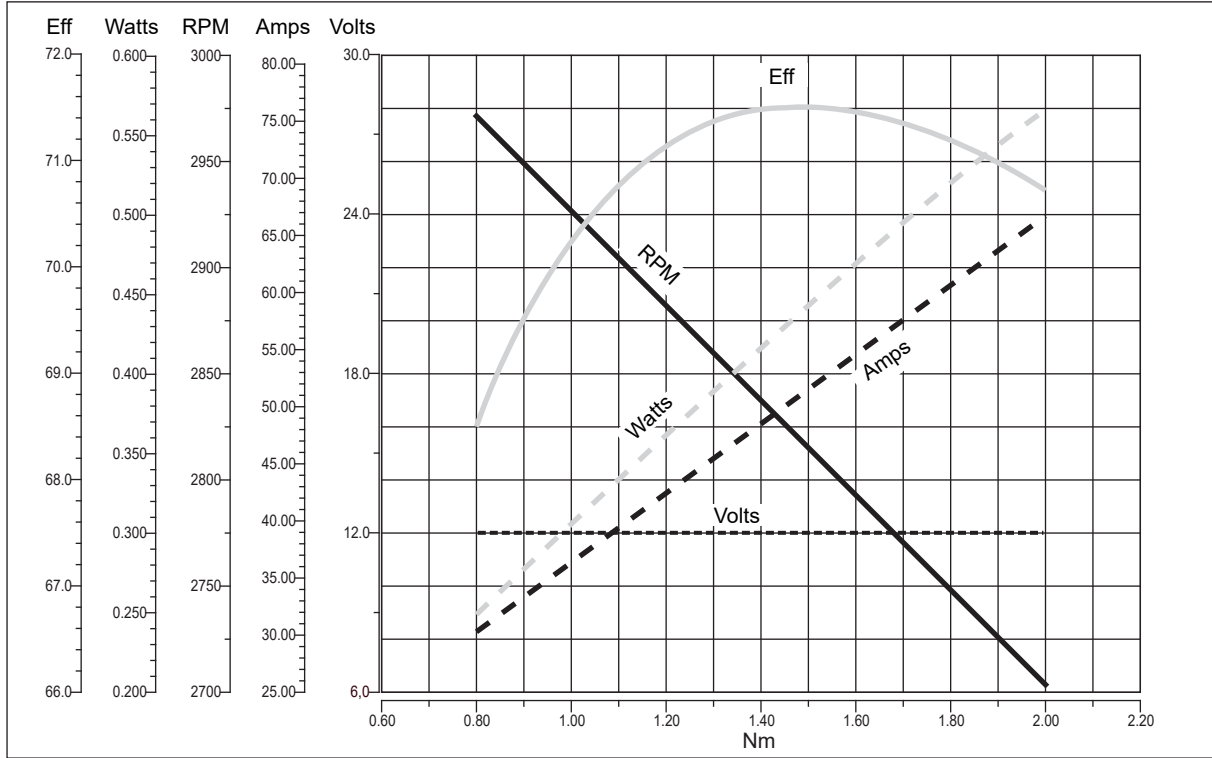




Prestazioni

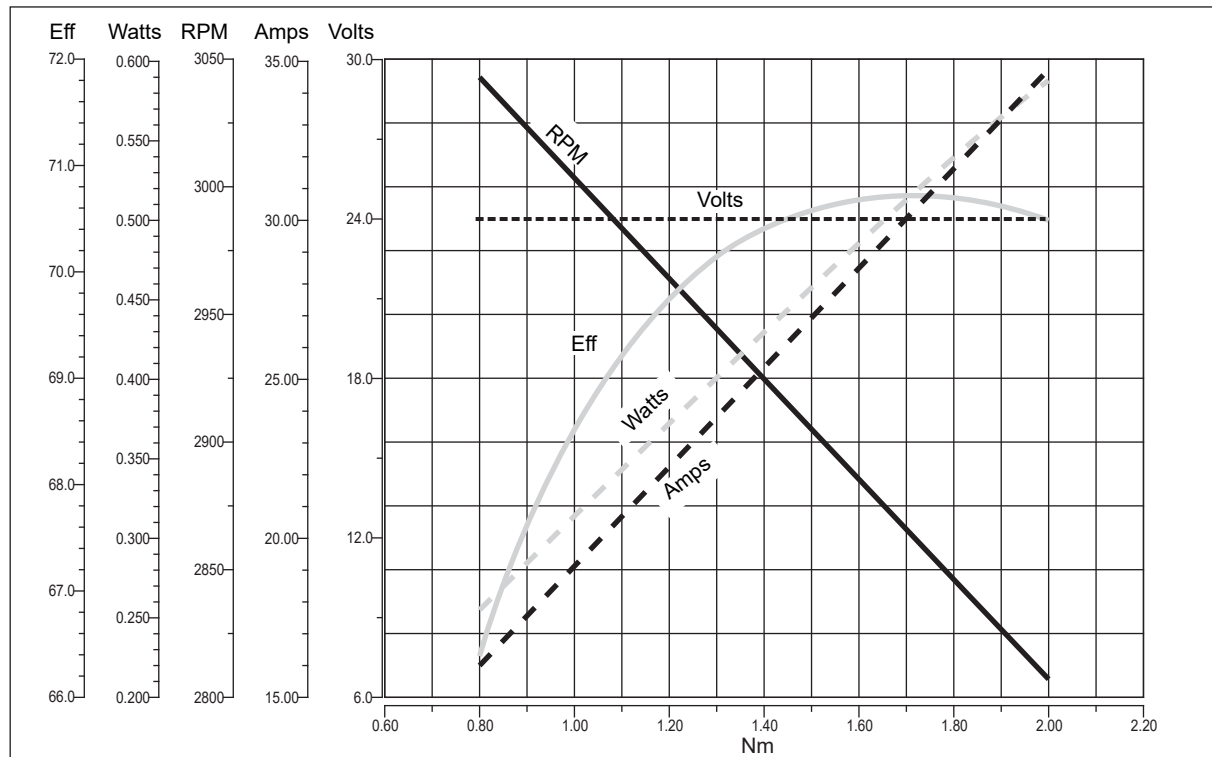
Performances

EC350.120.66



EC IP66

EC350.240.66





EC600.120.66 - EC600.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 110 mm
Potenza	800 W S2 (600 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Terminali	2 con doppio dado di fissaggio

Construction	Tubular, without fan
Size	Ø 110 mm
Power	800 W S2 (600 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Leads terminals	2, with double nut

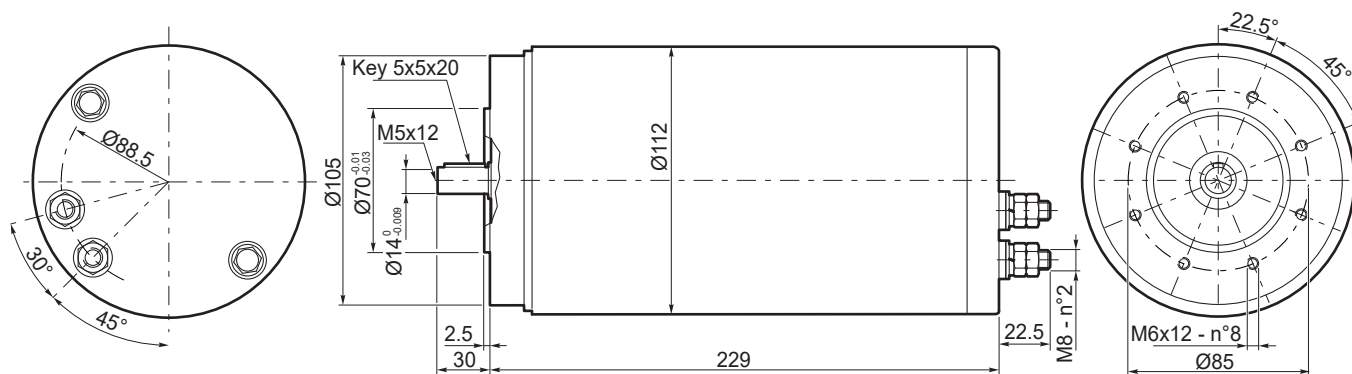
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC600.120.66	S1	600	12	71	F	1	1.91	3000	66	6.6
	S2 30'	800		94.4			2.54			
EC600.240.66	S1	600	24	35.5			1.91			7.1
	S2 30'	800		47.2			2.54			

Dimensioni

Dimensions

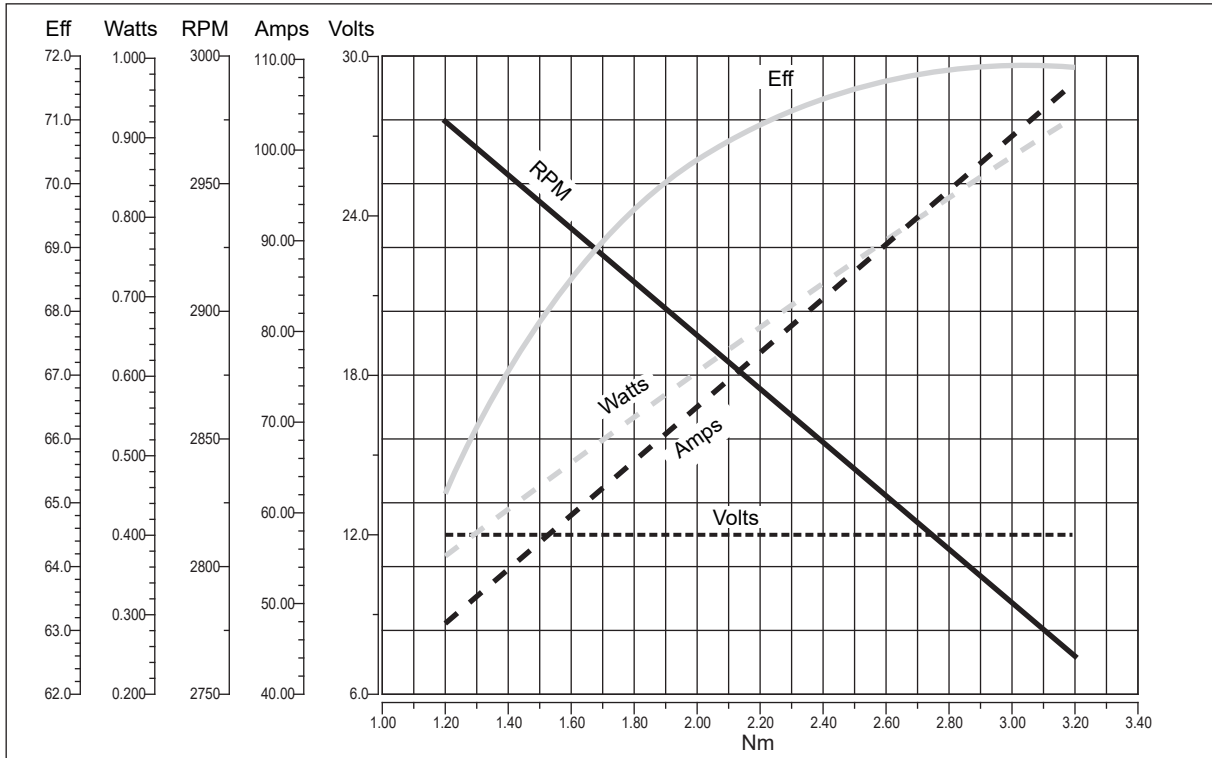
EC600.120.66

EC600.240.66



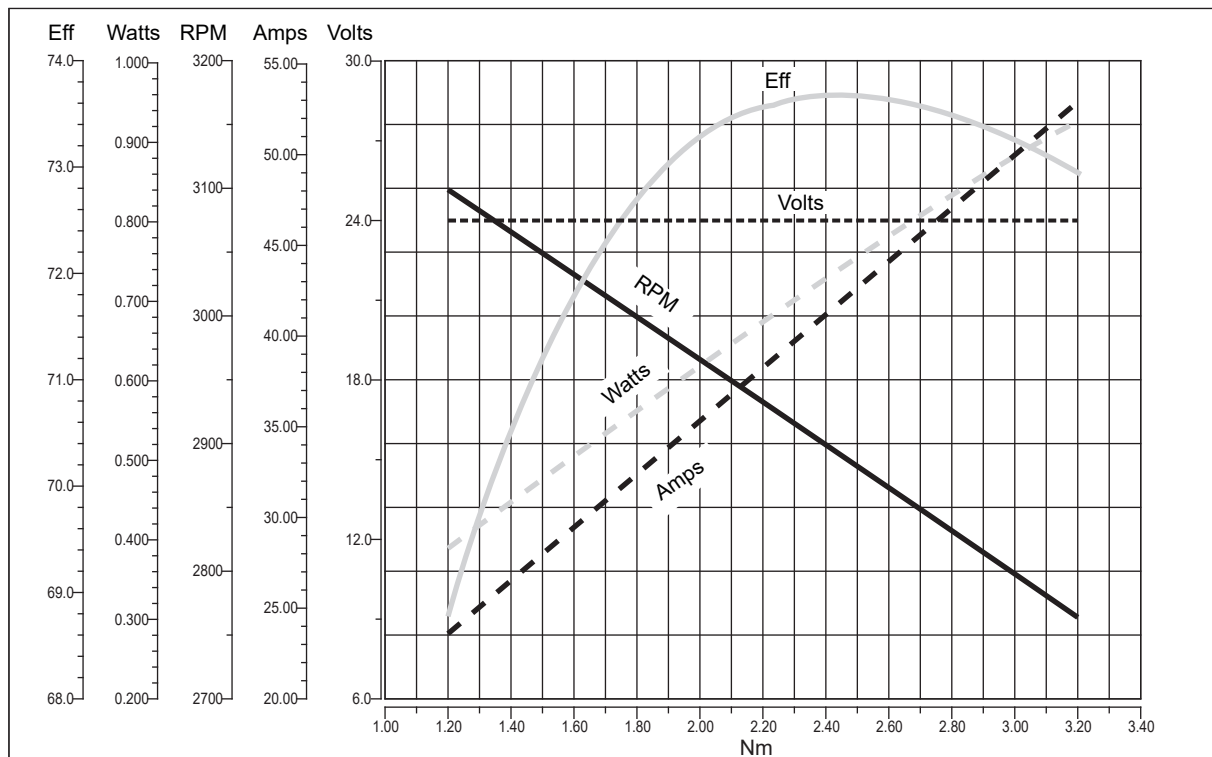


EC600.120.66



EC IP66

EC600.240.66

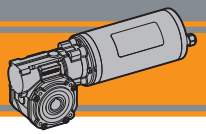




Washdown Tecno

Motoriduttori CC a vite senza fine
DC wormgearmotors

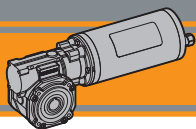




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Simbologia	<i>Symbols</i>	E3
Lubrificazione	<i>Lubrication</i>	E3
Dati di dentatura	<i>Toothing data</i>	E3
Rendimento	<i>Efficiency</i>	E3
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	E4
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Caratteristiche tecniche

I motoriduttori a vite senza fine CC della serie ECLOD nascono per le applicazioni in esterno. Sono progettati per resistere a condizioni ambientali avverse, come umidità, polvere e getti d'acqua. Altra caratteristica è l'elevata modularità: i diversi kit entrata ed uscita li rendono estremamente versatili.

Ecco le caratteristiche principali dei motoriduttori CC a vite senza fine a magneti permanenti in ferrite serie ECLOD:

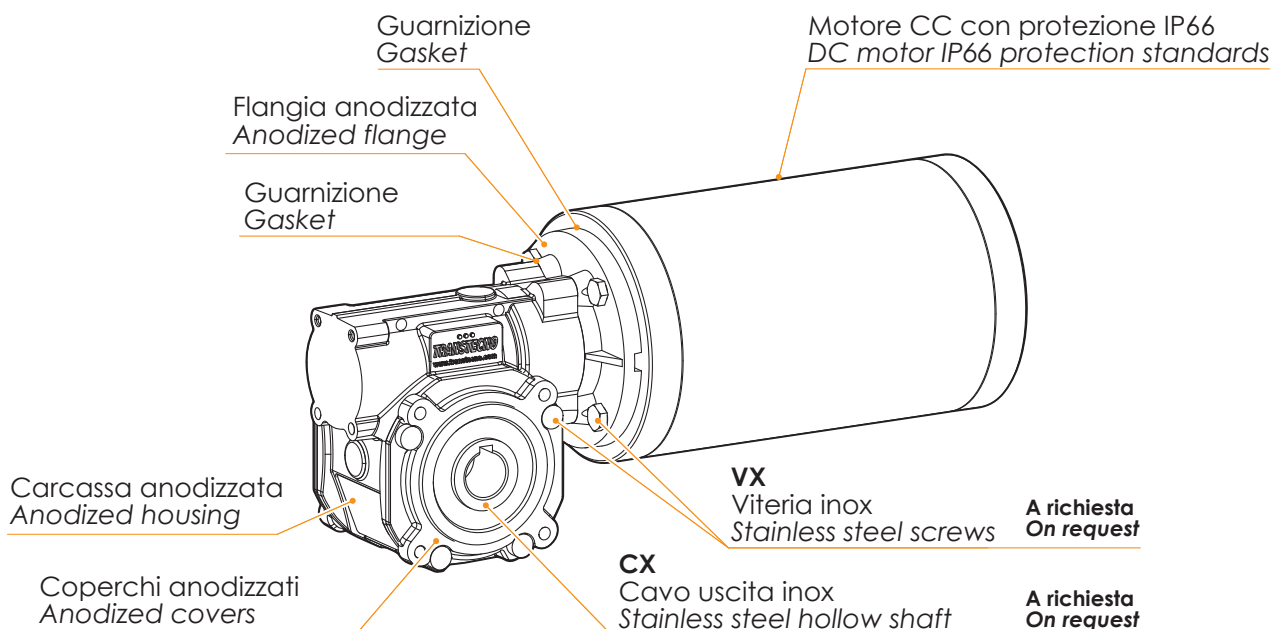
- Motoriduttori CC con protezione IP66
- Alimentazione in bassa tensione 12/24 Vdc
- Potenze motore disponibili da 100 a 800W S2
- Magneti in ferrite
- Carcasse dei riduttori in pressofusione di alluminio anodizzate nere
- Lubrificazione permanente con olio sintetico
- Viteria Inox disponibile a richiesta
- Albero cavo uscita Inox AISI 316 disponibile a richiesta

Technical features

ECLOD DC wormgearmotors for outdoor applications are designed to withstand adverse environmental conditions, such as humidity, dust and water jets. High modularity is another key feature: the different input and output kits make them extremely versatile.

Here the main features of the DC wormgearmotors CLOD series:

- DC wormgearmotors IP66 protection standards
- Low voltage power supply 12/24 Vdc
- Motor power ratings available from 100 to 800W S2
- Ferrite magnets
- Black anodized die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Stainless steel screws available upon request
- Hollow output shaft made by stainless steel AISI 316 available upon request

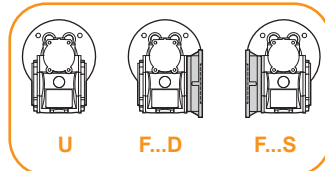


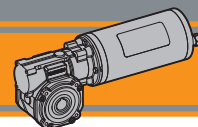
Designazione

Classification

MOTORIDUTTORE / GEARMOTOR												
ECLOD	070/030						U	10	D14	240	CX	WD
Tipo Type	Grandezza Size						Versione Riduttore Gearbox Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft	Versione Motore Motor Version	Opzioni Options	Accessorio Accessories
	070/030	100/030	180/030	250/030	350/030	600/040	U STEV F...	Vedere tabella See tables	vedi tabelle see tables	120 240	VX Viteria inox Stainless steel screws	WD Kit Wash down cover
	070/040	100/040	180/040	250/040	350/040	600/050						
		100/050	180/050	250/050	350/050	600/063						

Versione Riduttore Gearbox Version





Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	R_d %	Rendimento dinamico / <i>Dynamic efficiency</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
i	Rapporto di riduzione / <i>Ratio</i>	R_s %	Rendimento statico / <i>Static efficiency</i>
P_1 [kW]	Potenza in entrata / <i>Input power</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>	Z	Numero di principi della vite / <i>Worm starts</i>
sf	Fattore di servizio / <i>Service factor</i>	β	Angolo d'elica / <i>Helix angle</i>

Lubrificazione

Lubrication

Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

Dati di dentatura

Toothing data

	Dati della coppia vite-corona <i>Worm wheel data</i>	Rapporto / <i>Ratio</i>											
		5	7.5	10	15	20	25	30	40	50	60	80	100
CLOD030	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	27° 4'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CLOD040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CLOD050	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	33° 37'	23° 54'	18° 23'	12° 29'	10° 6'	8° 28'	6° 19'	5° 5'	4° 15'	3° 39'	2° 51'	2° 20'
CLOD063	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 23'	24° 31'	18° 53'	12° 50'	10° 24'	8° 44'	6° 30'	5° 14'	4° 23'	3° 47'	2° 57'	2° 25'

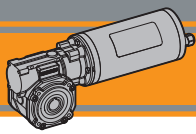
Rendimento

Efficiency

	n_1 [min ⁻¹]	Rendimento <i>Efficiency</i>	Rapporto / <i>Ratio</i>												
			5	7.5	10	15	20	25	30	40	50	60	80	100	
CLOD030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	52	
			1400	86	85	84	79	75	72	67	62	58	55	48	43
			900	84	83	81	75	71	68	62	58	53	49	43	39
			Rs	72	67	63	55	50	43	39	35	31	27	23	21
CLOD040	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56	
			1400	88	86	84	81	78	74	70	65	60	58	52	46
			900	86	84	82	77	74	70	66	60	57	53	46	41
			Rs	74	71	67	60	55	51	45	40	36	32	28	24
CLOD050	2800	Rd	91	90	88	86	84	82	78	74	71	68	62	58	
			1400	89	87	85	82	79	76	72	67	63	60	54	49
			900	87	85	84	79	75	72	68	62	59	55	48	43
			Rs	73	70	66	59	55	51	44	39	35	32	27	23
CLOD063	2800	Rd	91	90	88	86	84	83	79	76	73	70	65	60	
			1400	90	88	86	84	81	78	75	70	66	63	57	52
			900	89	86	84	81	78	75	70	65	61	58	52	47
			Rs	73	71	67	60	55	51	45	40	36	33	28	24

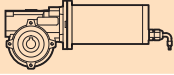
Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period

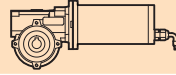
ECLOD IP66

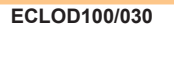



Dati tecnici per servizio S2


Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
100						
(3000 min ⁻¹)	150	5.2	2.7	20	ECLOD070/030	
	120	6.2	2.4	25		
	100	7.1	2.5	30		
	75	8.9	1.8	40		
	60	10	1.4	50		
	50	12	1.2	60		
	38	15	0.8	80		
	30	17	0.7	100		
	50	13	2.3	60		ECLOD070/040
	38	15	1.8	80		
	30	18	1.4	100		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
350						
(3000 min ⁻¹)	600	5.0	2.6	5	ECLOD250/030	
	400	7.4	2.0	7.5		
	300	10	1.7	10		
	200	14	1.1	15		
	150	18	0.8	20		
	120	22	0.7	25		
	100	25	0.7	30		
	75	22	0.7	40		
	60	21	0.7	50		
	200	14	2.5	15		ECLOD250/040
	150	18	1.7	20		
	120	22	1.3	25		
	100	26	1.5	30		
	75	33	1.0	40		
	60	38	0.8	50		
	50	44	0.7	60	ECLOD250/050	
	38	38	0.7	80		
	30	35	0.7	100		
	150	19	2.9	20		
	120	23	2.2	25		
	100	26	2.6	30		
	75	33	1.8	40	ECLOD250/063	
	60	40	1.4	50		
	50	45	1.1	60		
	38	55	0.8	80		
	30	65	0.7	100		
	75	34	3.3	40		
	60	41	2.5	50		
	50	47	2.1	60		
	38	58	1.5	80		
	30	67	1.2	100		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
140					
(3000 min ⁻¹)	200	5.6	2.8	15	ECLOD100/030
	150	7.2	1.9	20	
	120	8.7	1.7	25	
	100	10	1.8	30	
	75	12	1.3	40	
	60	14	1.0	50	
	50	17	0.8	60	
	38	17	0.7	80	
	30	16	0.7	100	
	100	10	3.7	30	
	75	13	2.6	40	
	60	15	2.1	50	
	50	18	1.6	60	
	38	21	1.3	80	
	30	25	1.0	100	
	50	18	2.9	60	ECLOD100/050
	38	22	2.1	80	
	30	26	1.7	100	

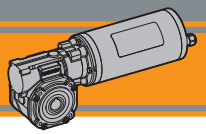
P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
250						
(3000 min ⁻¹)	600	3.5	3.7	5	ECLOD180/030	
	400	5.3	2.9	7.5		
	300	6.8	2.3	10		
	200	10	1.6	15		
	150	13	1.1	20		
	120	16	1.0	25		
	100	18	1.0	30		
	75	22	0.7	40		
	60	21	0.7	50		
	50	20	0.7	60		
	38	17	0.7	80		
	30	16	0.7	100		
	200	10	3.5	15		ECLOD180/040
	150	13	2.3	20		
	120	16	1.8	25		
	100	18	2.1	30		
	75	23	1.5	40		
	60	27	1.2	50		
	50	32	0.9	60		
	38	38	0.7	80		
	30	34	0.7	100		
	75	24	2.5	40	ECLOD180/050	
	60	28	2.0	50		
	50	32	1.6	60		
	38	39	1.2	80		
	30	46	0.9	100		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
500					
(3000 min ⁻¹)	600	7.1	1.8	5	ECLOD350/030
	400	11	1.4	7.5	
	300	14	1.2	10	
	200	20	0.8	15	
	150	20	0.7	20	
	120	21	0.7	25	
	100	26	0.7	30	
	75	23	0.7	40	
	60	21	0.7	50	

N.B.
Verificare sempre che la coppia M₂ utilizzata non ecceda il valore indicato nelle caselle in grigio
N.B.
Please check that the output torque M₂ does not exceed the value in the grey areas

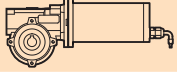
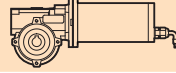
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service



Dati tecnici per servizio S2

Technical data for S2 duty

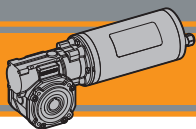
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		
500						800						
(3000 min ⁻¹)	600	7.2	4.0	5	ECLOD350/040	(3000 min ⁻¹)	600	11	2.5	5	ECLOD600/040	
	400	11	2.9	7.5			400	17	1.8	7.5		
	300	14	2.4	10			300	22	1.5	10		
	200	20	1.7	15			200	32	1.1	15		
	150	26	1.2	20			150	42	0.7	20		
	120	32	0.9	25			120	40	0.7	25		
	100	37	1.0	30			100	54	0.7	30		
	75	46	0.7	40			75	49	0.7	40		
	60	46	0.7	50								
	50	41	0.7	60			600	12	4.7	5		ECLOD600/050
	38	39	0.7	80	ECLOD350/050	400	17	3.3	7.5			
	30	34	0.7	100		300	22	2.7	10			
	200	21	3.0	15		200	33	1.9	15			
	150	27	2.1	20		150	43	1.3	20			
	120	33	1.6	25		120	52	1.0	25			
	100	37	1.8	30		100	60	1.1	30			
	75	47	1.3	40		75	75	0.8	40			
	60	57	1.0	50		60	81	0.7	50			
	50	65	0.8	60		50	74	0.7	60			
	38	66	0.7	80		38	66	0.7	80			
	30	61	0.7	100		200	33	3.5	15	ECLOD600/063		
	75	48	2.3	40	ECLOD350/063	150	43	2.4	20			
	60	58	1.8	50		120	53	1.8	25			
	50	67	1.5	60		100	60	2.1	30			
	38	83	1.1	80		75	77	1.4	40			
	30	96	0.8	100		60	93	1.1	50			
						50	107	0.9	60			
						38	132	0.7	80			
						30	114	0.7	100			

ECLOD IP66

N.B.
Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio
N.B.
Please check that the output torque M2 does not exceed the value in the grey areas

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

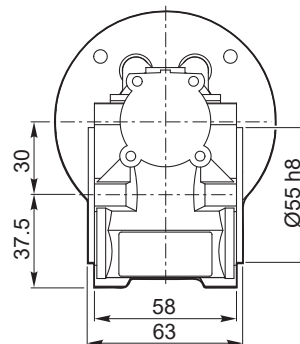
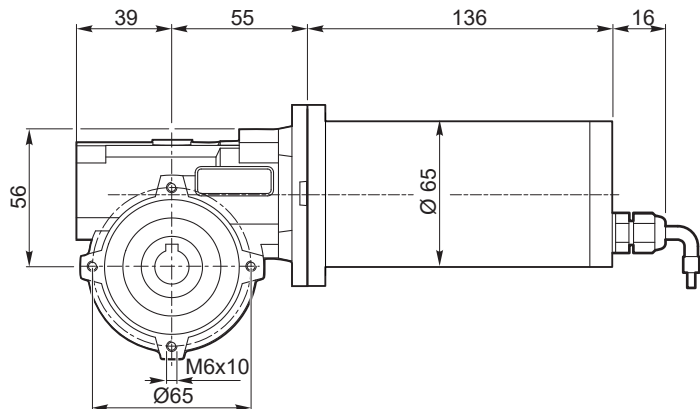
NOTE: for continuous or highly intermittent duty, please contact our technical service



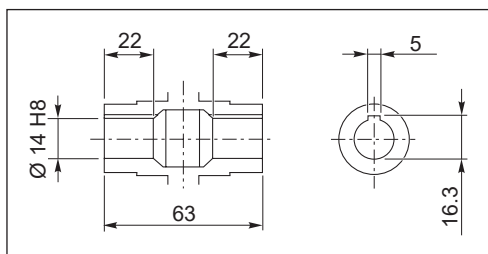
Dimensioni

Dimensions

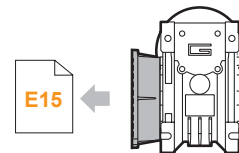
ECLOD070/030 U



Kg
2.9

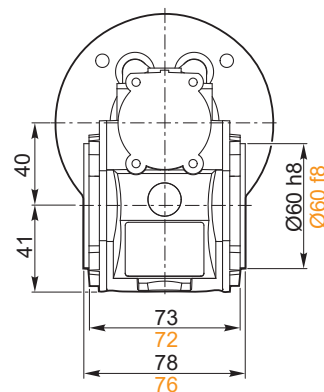
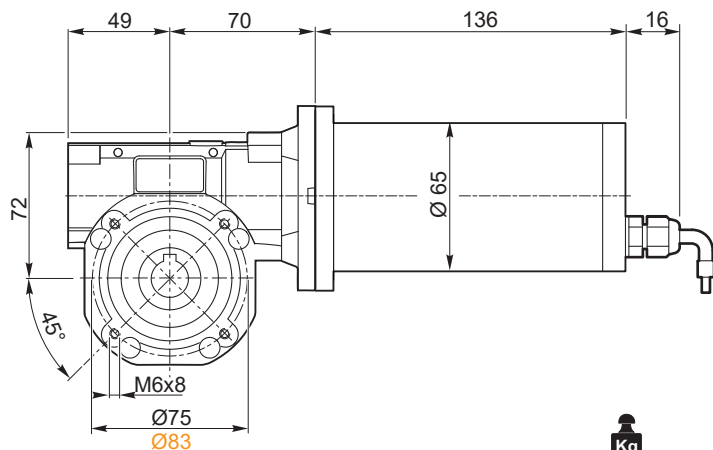


Albero lento cavo / Hollow output shaft

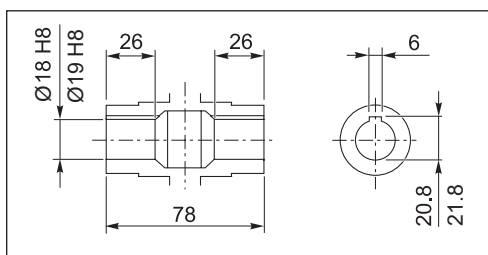


ECLOD070/030 F

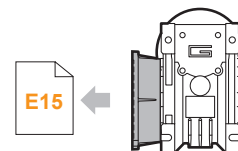
ECLOD070/040 U
ECLOD070/040 STEV



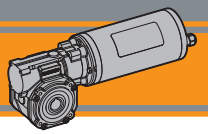
Kg
5.0



Albero lento cavo / Hollow output shaft



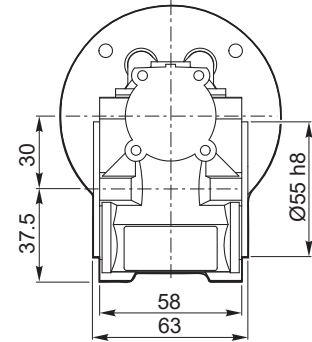
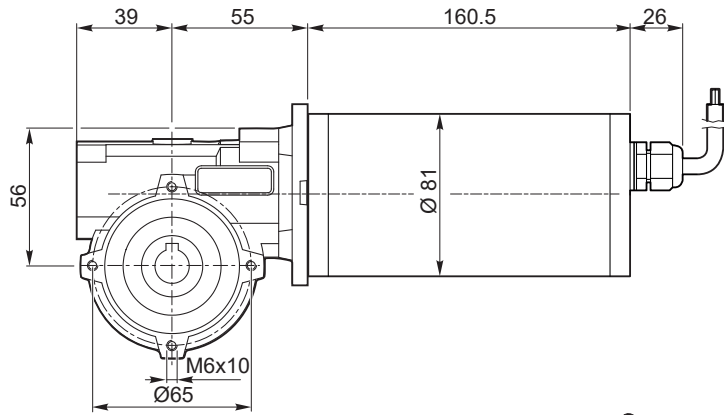
ECLOD070/040 F...



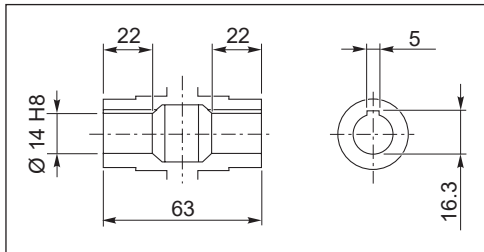
Dimensioni

Dimensions

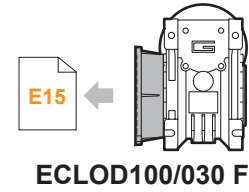
ECLOD100/030 U



Kg
3.9

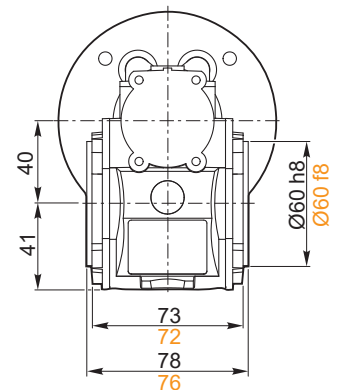
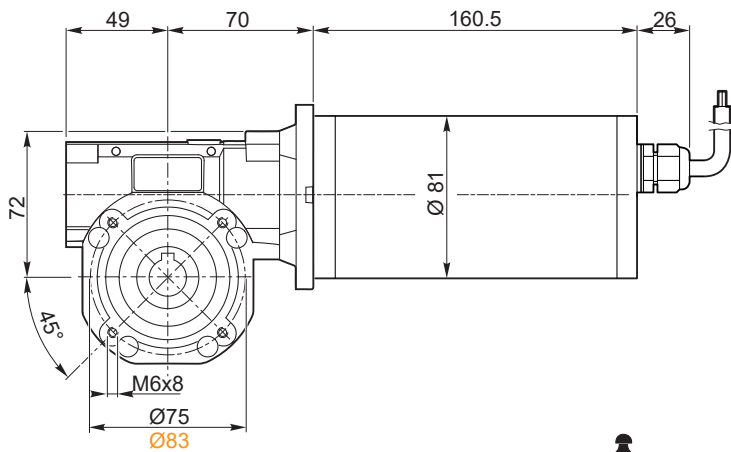


Albero lento cavo / Hollow output shaft

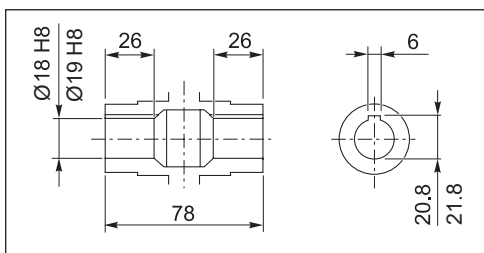


ECLOD IP66

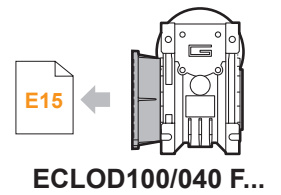
ECLOD100/040 U
ECLOD100/040 STEV

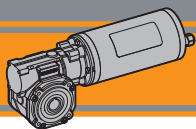


Kg
5.0



Albero lento cavo / Hollow output shaft

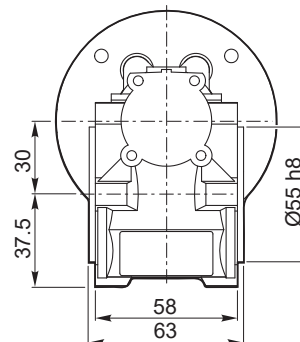
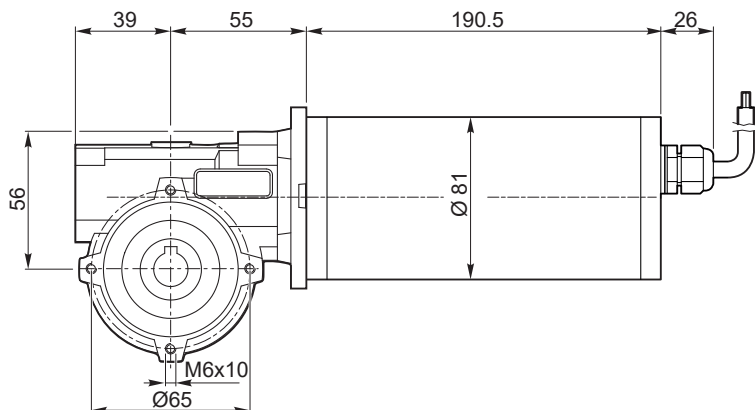




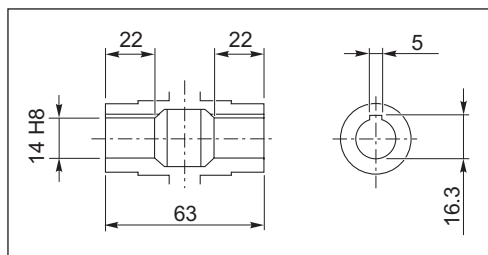
Dimensioni

Dimensions

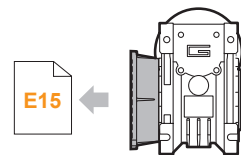
ECLOD180/030 U



Kg
3.9

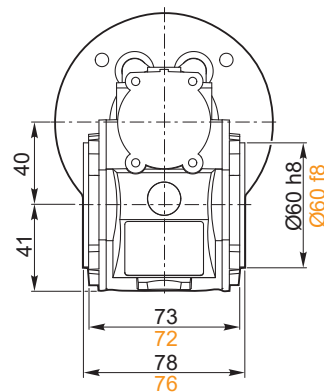
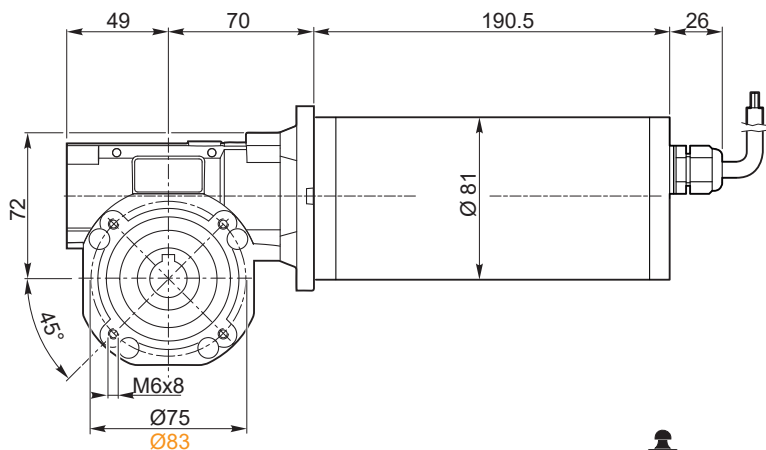


Albero lento cavo / Hollow output shaft

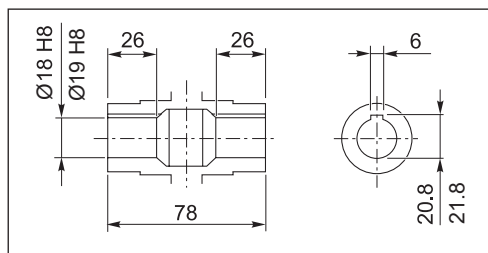


E15
ECLOD180/030 F

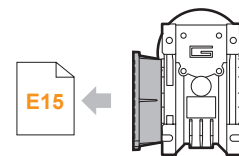
ECLOD180/040 U
ECLOD180/040 STEV



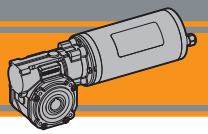
Kg
5.7



Albero lento cavo / Hollow output shaft



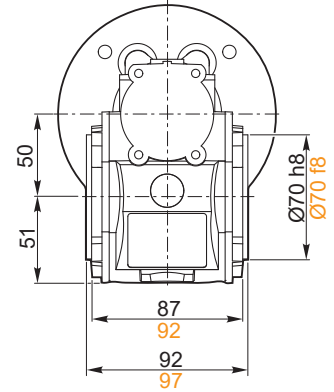
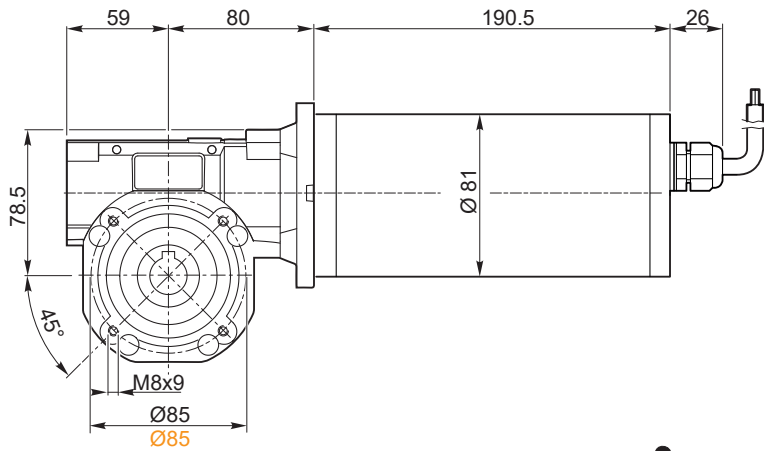
E15
ECLOD180/040 F..



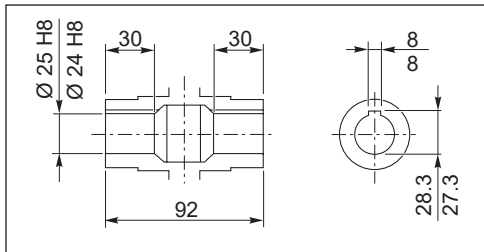
Dimensioni

Dimensions

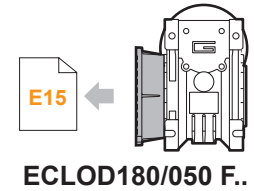
ECLOD180/050 U
ECLOD180/050 STEV



Kg
6.9

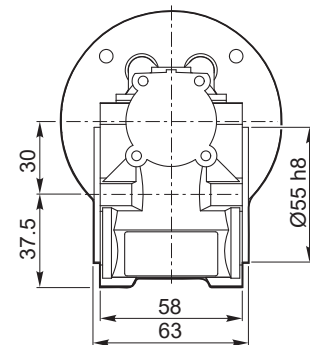
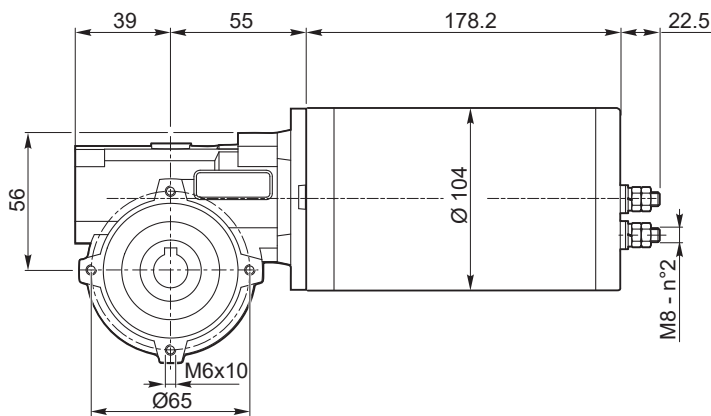


Albero lento cavo / Hollow output shaft

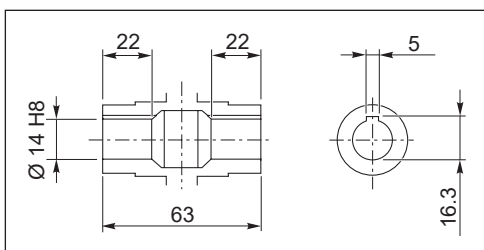


ECLOD IP66

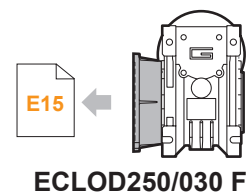
ECLOD250/030 U

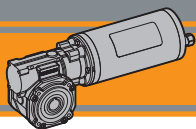


Kg
5.4



Albero lento cavo / Hollow output shaft

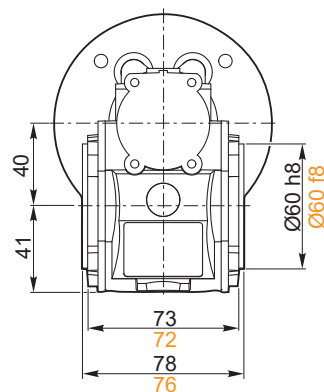
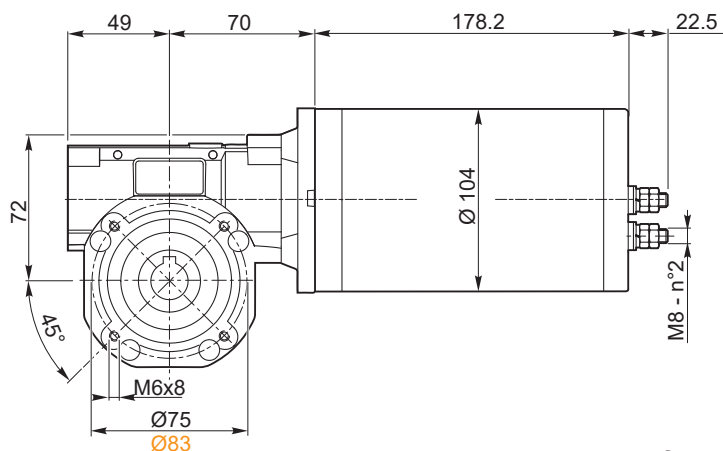




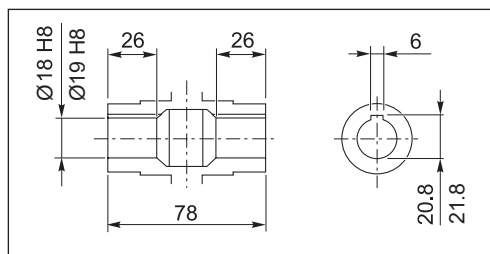
Dimensioni

Dimensions

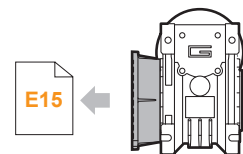
ECLOD250/040 U
ECLOD250/040 STEV



Kg
6.5

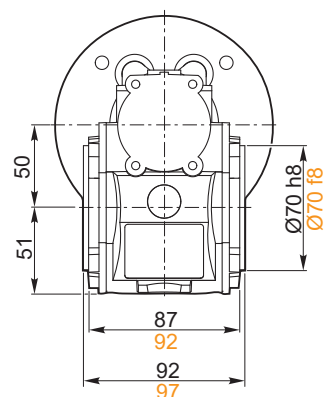
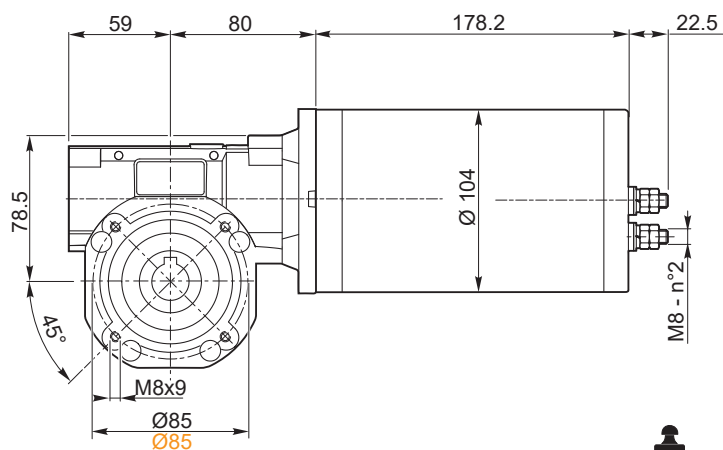


Albero lento cavo / Hollow output shaft

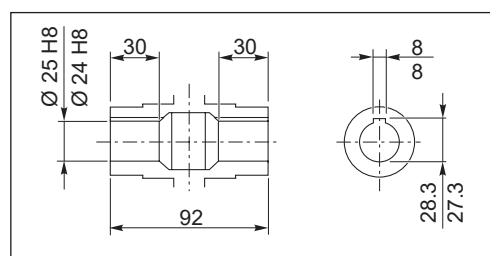


ECLOD250/040 F..

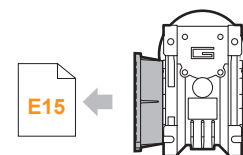
ECLOD250/050 U
ECLOD250/050 STEV



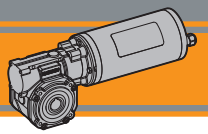
Kg
7.9



Albero lento cavo / Hollow output shaft



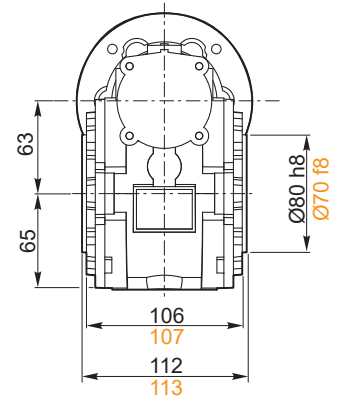
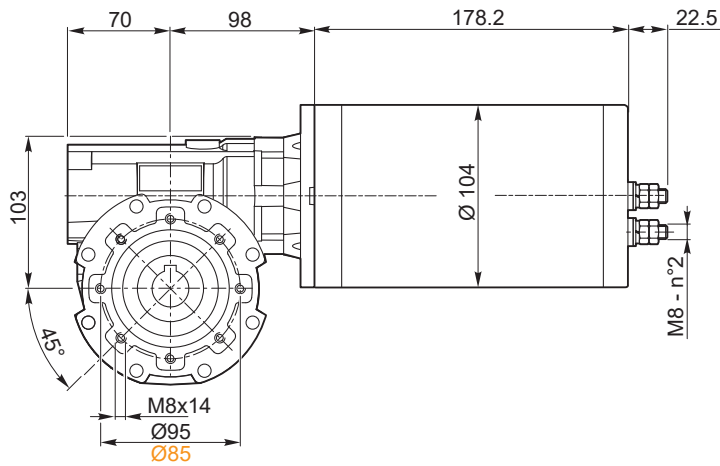
ECLOD250/050 F..



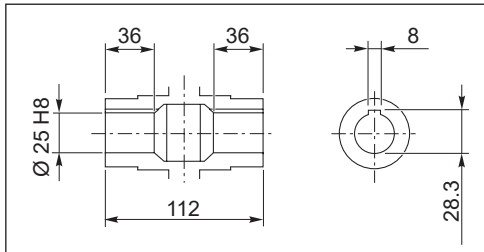
Dimensioni

Dimensions

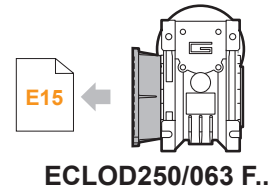
ECLOD250/063 U
ECLOD250/063 STEV



Kg
11.5

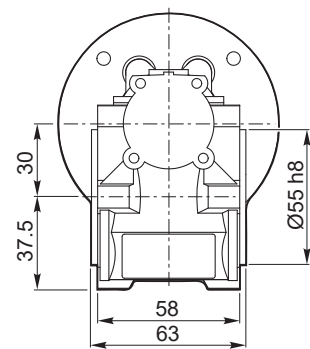
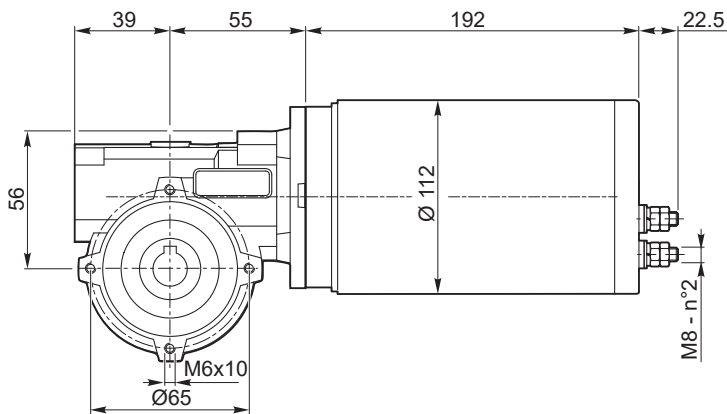


Albero lento cavo / Hollow output shaft

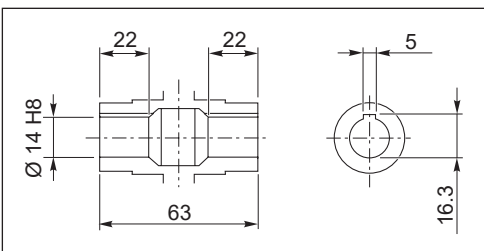


ECLOD IP66

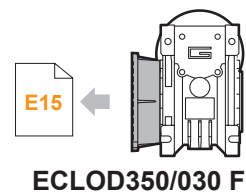
ECLOD350/030 U

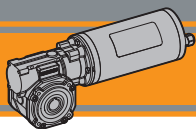


Kg
6.5



Albero lento cavo / Hollow output shaft

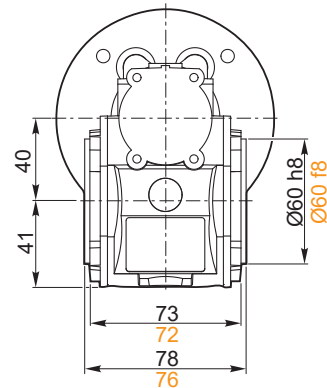
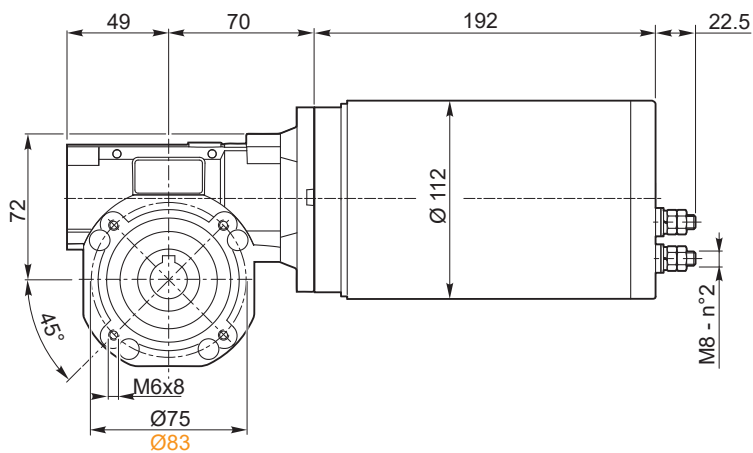




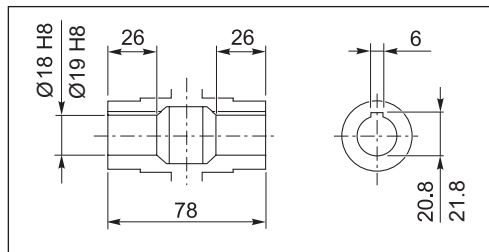
Dimensioni

Dimensions

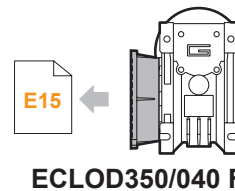
ECLOD350/040 U
ECLOD350/040 STEV



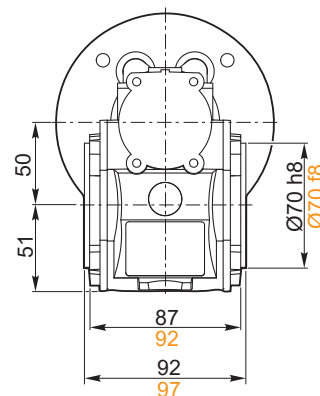
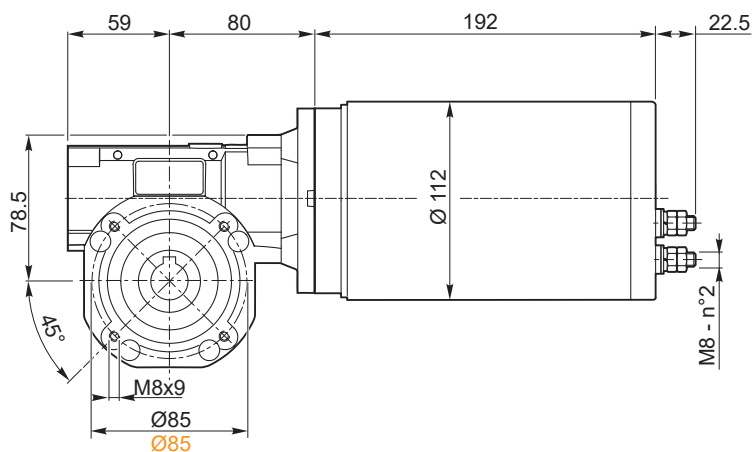
Kg
7.6



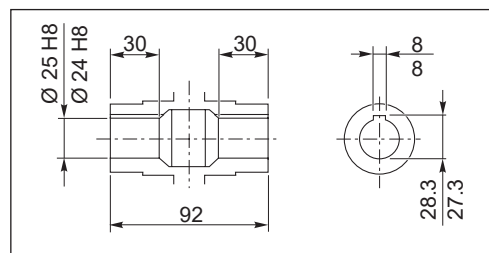
Albero lento cavo / Hollow output shaft



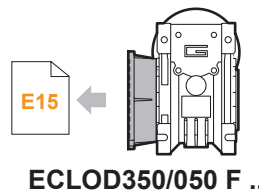
ECLOD350/050 U
ECLOD350/050 STEV

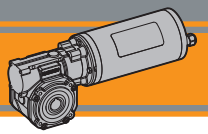


Kg
8.8



Albero lento cavo / Hollow output shaft

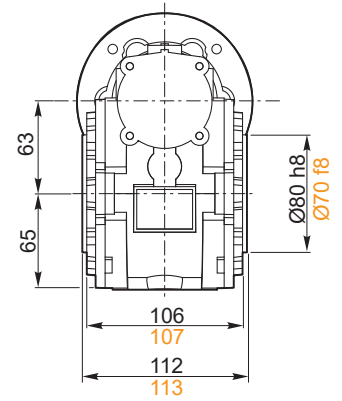
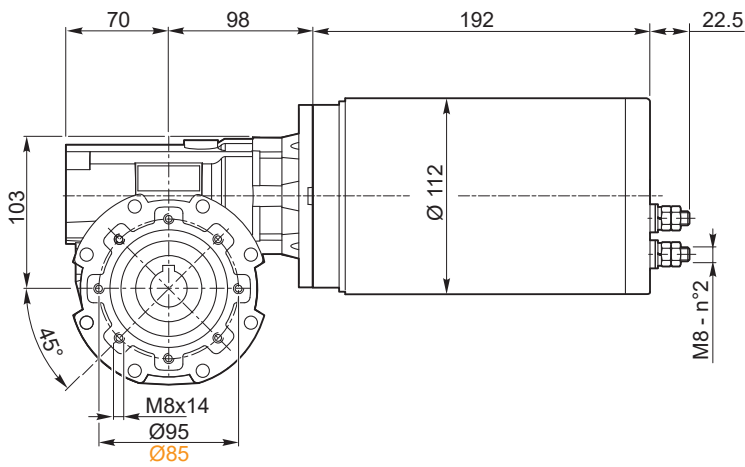




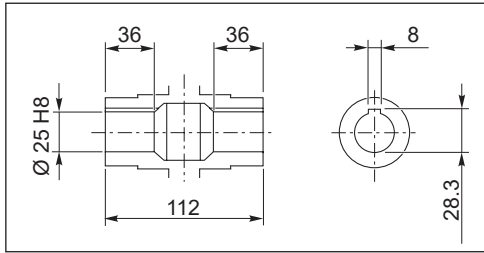
Dimensioni

Dimensions

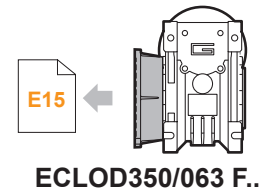
ECLOD350/063 U
ECLOD350/063 STEV



Kg
11.5

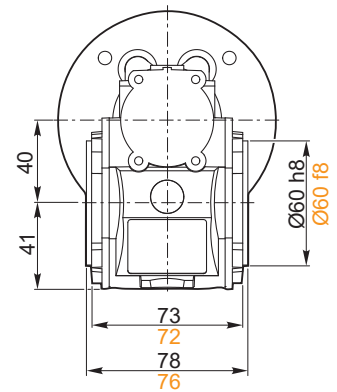
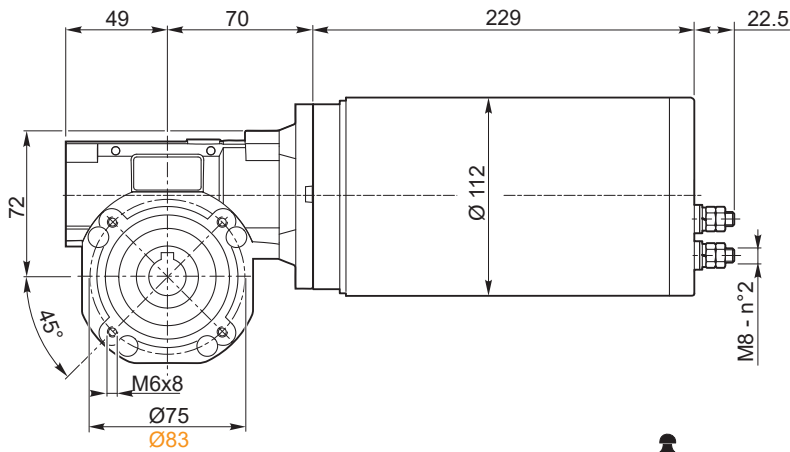


Albero lento cavo / Hollow output shaft

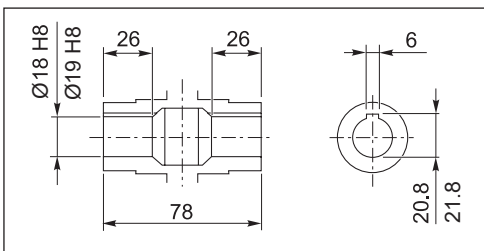


ECLOD IP66

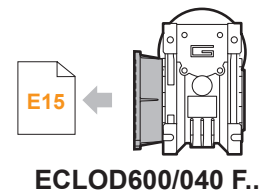
ECLOD600/040 U
ECLOD600/040 STEV

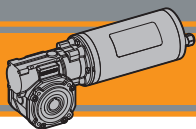


Kg
9.4



Albero lento cavo / Hollow output shaft

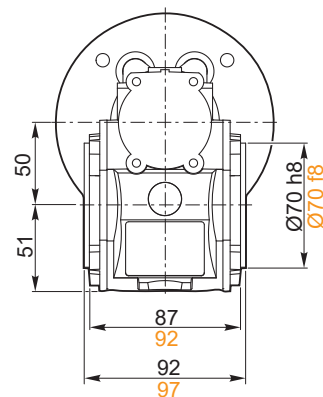
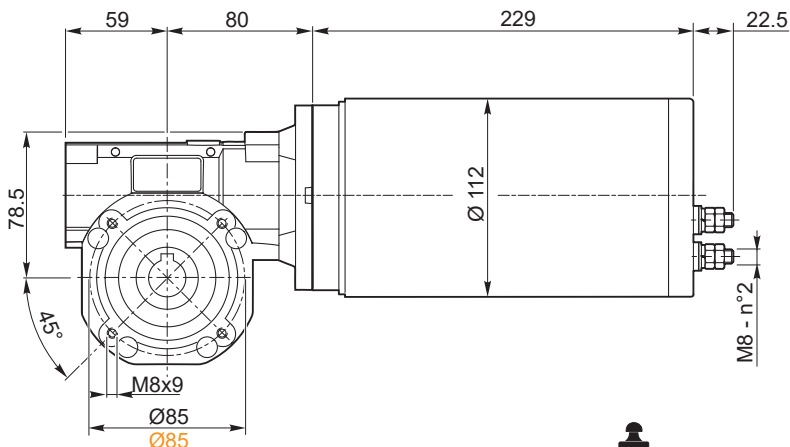




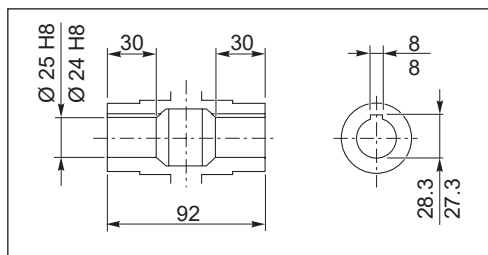
Dimensioni

Dimensions

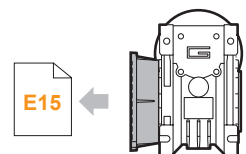
ECLOD600/050 U
ECLOD600/050 STEV



Kg
10.6

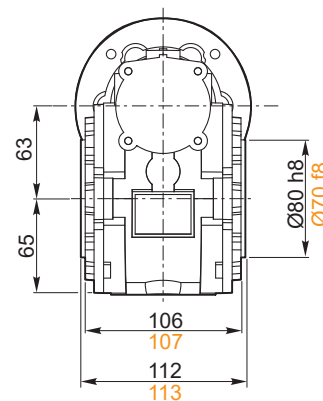
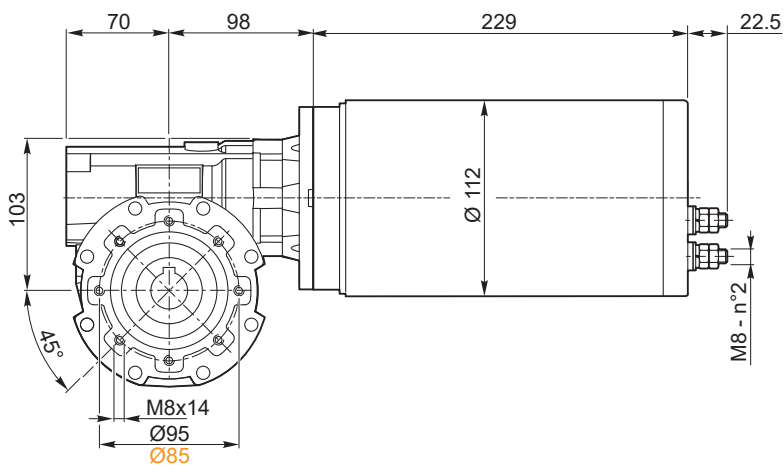


Albero lento cavo / Hollow output shaft

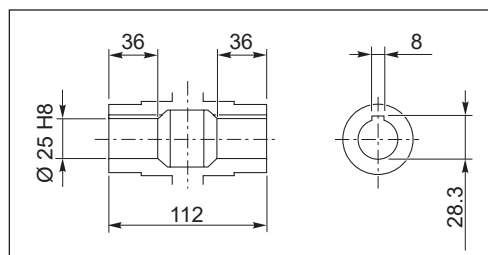


ECLOD600/050 F..

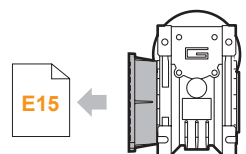
ECLOD600/063 U
ECLOD600/063 STEV



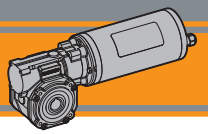
Kg
13.3



Albero lento cavo / Hollow output shaft



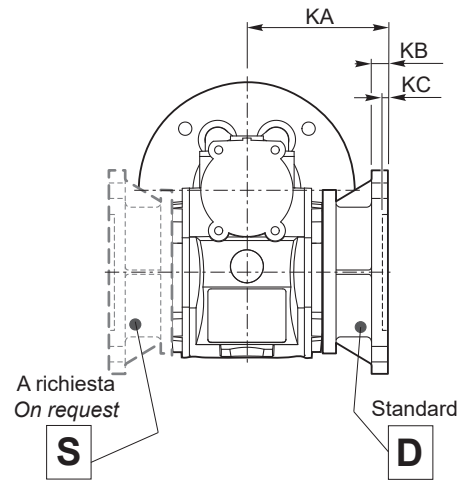
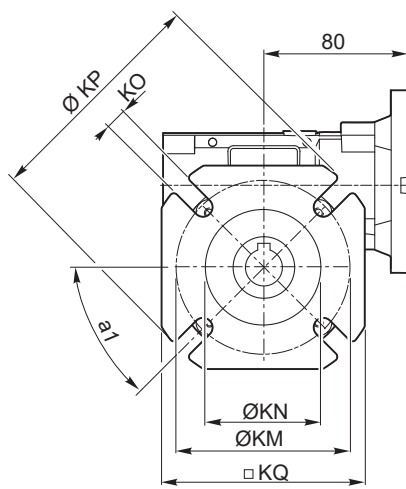
ECLOD600/063 F..



Dimensioni

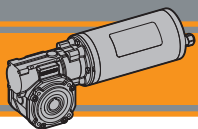
Dimensions

ECLOD.../... F... Flange uscita / Output flanges



CLOD	CLOD..F									CLOD..FB							CLOD..FL								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9(n.4)	110	95
050	45°	90	9	5	90-110	70	11(n.4)	125	110	89	9	5	130-145	110	9.5(n.4)	160	132	120	9	5	90-110	70	11(n.4)	125	110
063	45°	82	10	6	150-160	115	11(n.4)	180	142	98	10	5	165-180	130	11(n.4)	200	160	112	10	6	150-160	115	11(n.4)	180	142

ECLOD IP66

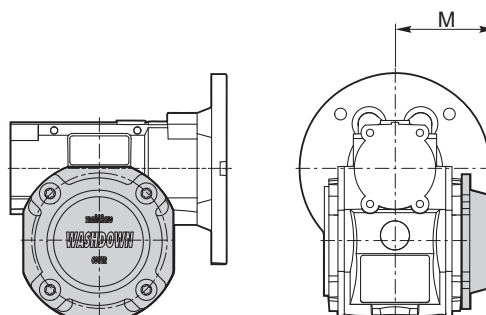


Accessori

Accessories

WD - Kit washdown cover

CLOD	M
030	48
040	55.5
050	63.5
063	71.5

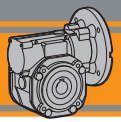




Washdown Tecno

Riduttori a vite senza fine
Wormgearboxes

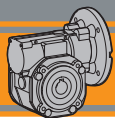




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Designazione	<i>Classification</i>	F2
Sensi di rotazione	<i>Direction of rotation</i>	F3
Simbologia	<i>Symbols</i>	F3
Lubrificazione	<i>Lubrication</i>	F3
Dati di dentatura	<i>Toothing data</i>	F3
Rendimento	<i>Efficiency</i>	F3
Dati tecnici	<i>Technical data</i>	F4
Motori applicabili	<i>IEC Motor adapters</i>	F5
Dimensioni	<i>Dimensions</i>	F6
Opzione guarnizione CA	<i>Rubber gasket option</i>	F10
Accessori	<i>Accessories</i>	F10

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Caratteristiche tecniche

Technical features

I riduttori a vite senza fine della serie CLOD nascono per le applicazioni in esterno. Sono progettati per resistere a condizioni ambientali avverse, come umidità, polvere e getti d'acqua. Altra caratteristica è l'elevata modularità: i diversi kit entrata ed uscita li rendono estremamente versatili.

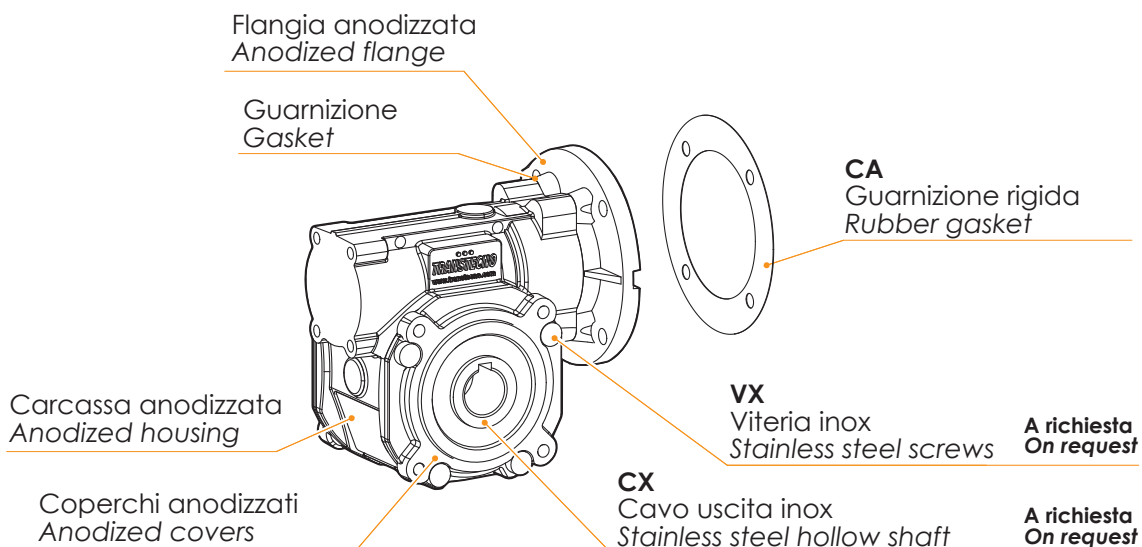
CLOD gearboxes for outdoor applications are designed to withstand adverse environmental conditions, such as humidity, dust and water jets. High modularity is another key feature: the different input and output kits make them extremely versatile.

Le caratteristiche principali della serie di riduttori CLOD sono:

- Carcassa in alluminio anodizzata nera nelle grandezze 030, 040, 050 e 063.
- Viteria Inox disponibile a richiesta
- Albero cavo uscita Inox AISI 316 disponibile a richiesta

Here the main features of the wormgearboxes CLOD series:

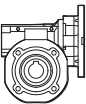

- Black anodized die-cast aluminium housing on sizes 030, 040, 050 and 063.
- Stainless steel screws available upon request
- Hollow output shaft made by stainless steel AISI 316 available upon request



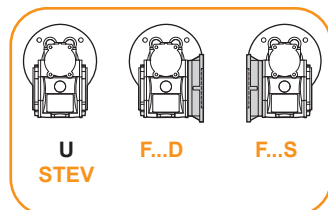
Designazione

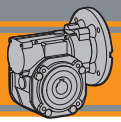
Classification

RIDUTTORI A VITE SENZA FINE / WORMGEARBOXES

RIDUTTORE / GEARBOX								
CLOD	030	U	10	D14	63	B14	VX	WD
Tipo Type	Grandezza Size	Versione riduttore Gearbox Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft	IEC	Forma costruttiva Version	Opzioni Options	Accessorio Accessories
CLOD 	030 040 050 063	U STEV F...	Vedere tabella See tables	vedi tabelle see tables	 56.. — 90	B5 B14	VX Viteria inox Stainless steel screws CX albero cavo uscita AISI316 AISI316 hollow output shaft	WD Kit Wash down cover

Versione Riduttore
Gearbox Version

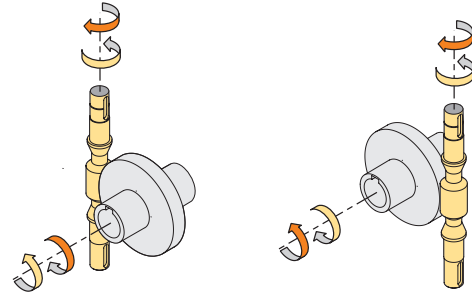
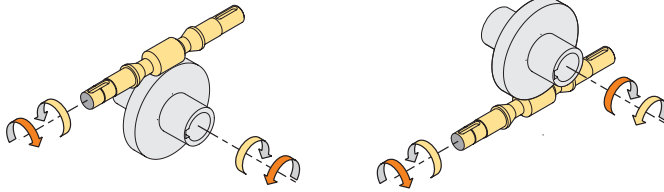




Sensi di rotazione

Direction of rotation

CLOD



Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	sf	Fattore di servizio / <i>Service factor</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	Rd %	Rendimento dinamico / <i>Dynamic efficiency</i>
i	Rapporto di riduzione / <i>Ratio</i>	Rs %	Rendimento statico / <i>Static efficiency</i>
P_1 [kW]	Potenza in entrata / <i>Nominal input power</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
P_{n1} [kW]	Potenza nominale in entrata / <i>Nominal input power</i>	Z	Numero di principi della vite / <i>Worm starts</i>
M_{n2} [Nm]	Coppia nominale in uscita in funzione di P_{n1} / <i>Nominal output torque referred to P_{n1}</i>	β	Angolo d'elica / <i>Helix angle</i>

Lubrificazione

Lubrication

Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

Dati di dentatura

Toothing data

	Dati della coppia vite-corona Worm wheel data	Rapporto / Ratio											
		5	7.5	10	15	20	25	30	40	50	60	80	100
CLOD030	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	27° 4'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CLOD040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CLOD050	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	33° 37'	23° 54'	18° 23'	12° 29'	10° 6'	8° 28'	6° 19'	5° 5'	4° 15'	3° 39'	2° 51'	2° 20'
CLOD063	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 23'	24° 31'	18° 53'	12° 50'	10° 24'	8° 44'	6° 30'	5° 14'	4° 23'	3° 47'	2° 57'	2° 25'

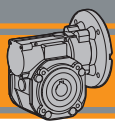
Rendimento

Efficiency

	n_1 [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio											
			5	7.5	10	15	20	25	30	40	50	60	80	100
CLOD030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	52
			1400	86	85	84	79	75	72	67	62	58	55	48
	900	Rs	84	83	81	75	71	68	62	58	53	49	43	39
			72	67	63	55	50	43	39	35	31	27	23	21
CLOD040	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56
			1400	88	86	84	81	78	74	70	65	60	58	52
	900	Rs	86	84	82	77	74	70	66	60	57	53	46	41
			74	71	67	60	55	51	45	40	36	32	28	24
CLOD050	2800	Rd	91	90	88	86	84	82	78	74	71	68	62	58
			1400	89	87	85	82	79	76	72	67	63	60	54
	900	Rs	87	85	84	79	75	72	68	62	59	55	48	43
			73	70	66	59	55	51	44	39	35	32	27	23
CLOD063	2800	Rd	91	90	88	86	84	83	79	76	73	70	65	60
			1400	90	88	86	84	81	78	75	70	66	63	57
	900	Rs	89	86	84	81	78	75	70	65	61	58	52	47
			73	71	67	60	55	51	45	40	36	33	28	24





Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period





Dati tecnici


Technical data


	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD030				
$n_1 = 1400$ rpm	280	18	0.61	5
	187	20	0.46	7.5
	140	21	0.37	10
	93	21	0.26	15
	70	19	0.19	20
	56	20	0.16	25
	47	22	0.16	30
	35	20	0.12	40
	28	19	0.10	50
	23	17	0.08	60
	18	15	0.06	80
	14	14	0.05	100


	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD040				
$n_1 = 1400$ rpm	280	41	1.37	5
	187	44	1.00	7.5
	140	45	0.79	10
	93	45	0.54	15
	70	40	0.38	20
	56	38	0.30	25
	47	48	0.34	30
	35	42	0.24	40
	28	39	0.19	50
	23	36	0.15	60
	18	33	0.12	80
	14	31	0.10	100


	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD050				
$n_1 = 1400$ rpm	280	75	2.5	5
	187	79	1.8	7.5
	140	82	1.4	10
	93	82	0.98	15
	70	72	0.67	20
	56	70	0.54	25
	47	88	0.60	30
	35	76	0.42	40
	28	72	0.34	50
	23	69	0.28	60
	18	60	0.20	80
	14	56	0.17	100

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD063				
$n_1 = 1400$ rpm	280	134	4.4	5
	187	144	3.2	7.5
	140	148	2.5	10
	93	154	1.8	15
	70	136	1.23	20
	56	135	1.0	25
	47	166	1.1	30
	35	142	0.74	40
	28	136	0.60	50
	23	126	0.49	60
	18	118	0.38	80
	14	116	0.33	100

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD030				
$n_1 = 3000$ rpm	600	13	0.92	5
	400	15	0.71	7.5
	300	16	0.58	10
	200	16	0.40	15
	150	14	0.27	20
	120	15	0.24	25
	100	18	0.25	30
	75	16	0.18	40
	60	15	0.14	50
	50	14	0.12	60
	37.5	12	0.08	80
	30	11	0.07	100

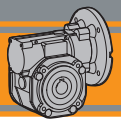
	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD040				
$n_1 = 3000$ rpm	600	29	2.02	5
	400	31	1.46	7.5
	300	33	1.19	10
	200	35	0.87	15
	150	31	0.59	20
	120	28	0.44	25
	100	38	0.52	30
	75	34	0.37	40
	60	32	0.29	50
	50	29	0.23	60
	37.5	27	0.18	80
	30	24	0.13	100

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD050				
$n_1 = 3000$ rpm	600	54	3.73	5
	400	57	2.65	7.5
	300	60	2.14	10
	200	62	1.51	15
	150	55	1.03	20
	120	51	0.78	25
	100	67	0.90	30
	75	59	0.63	40
	60	57	0.50	50
	50	52	0.40	60
	37.5	46	0.29	80
	30	43	0.23	100

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CLOD063				
$n_1 = 3000$ rpm	600	97	6.70	5
	400	103	4.79	7.5
	300	110	3.93	10
	200	115	2.80	15
	150	102	1.91	20
	120	94	1.42	25
	100	127	1.68	30
	75	112	1.16	40
	60	103	0.89	50
	50	97	0.73	60
	37.5	87	0.53	80
	30	80	0.42	100

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

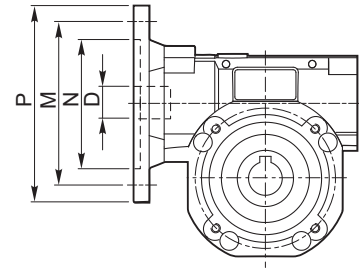
NOTE: for continuous or highly intermittent duty, please contact our technical service



Motori applicabili

IEC Motor adapters

	IEC	N	M	P	D	i													
						5	7.5	10	15	20	25	30	40	50	60	80	100		
CLOD030	63B5	95	115	140	11														
	63B14	60	75	90															
	56B5	80	100	120	9	B	B	B	B	B	B	B	B	B					
	56B14	50	65	80															
CLOD040	71B5	110	130	160	14														
	71B14	70	85	105															
	63B5	95	115	140	11	B	B	B	B	B	B	B	B						
	63B14	60	75	90															
	56B5	80	100	120	9	BS	BS	BS	BS	BS	BS	BS	BS	B	B	B	B		
	56B14	50	65	80															
CLOD050	80B5	130	165	200	19														
	80B14	80	100	120															
	71B5	110	130	160	14	B	B	B	B	B	B	B							
	71B14	70	85	105															
	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	BS	B	B	B	B			
	63B14	60	75	90															
CLOD063	90B5	130	165	200	24														
	90B14	95	115	140															
	80B5	130	165	200	19	B	B	B	B	B	B	B							
	80B14	80	100	120															
	71B5	110	130	160	14	BS	BS	BS	BS	BS	BS	BS	B	B	B				
	71B14	70	85	105															
	63B5	95	115	140	11								BS	BS	BS	B	B		



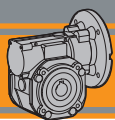
N.B.

Le aree evidenziate in grigio indicano l'applicabilità della corrispondente grandezza motore.

N.B. Grey areas indicate motor inputs available on each size of unit.

B/BS = Boccola di riduzione in acciaio

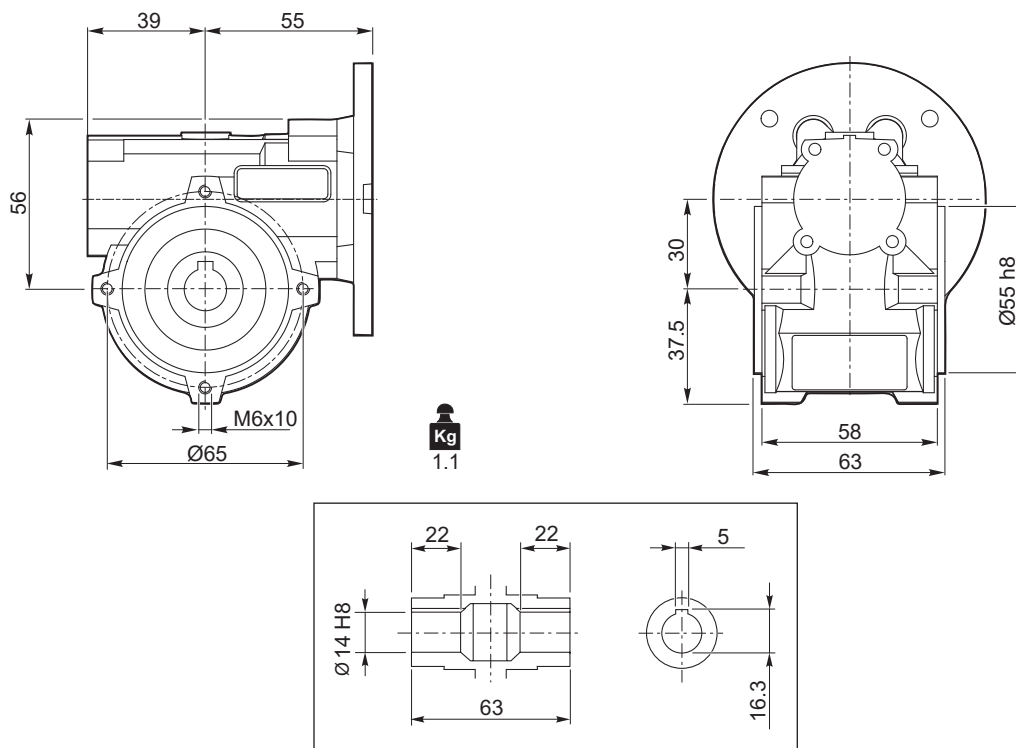
B/BS = Metal shaft sleeve



Dimensioni

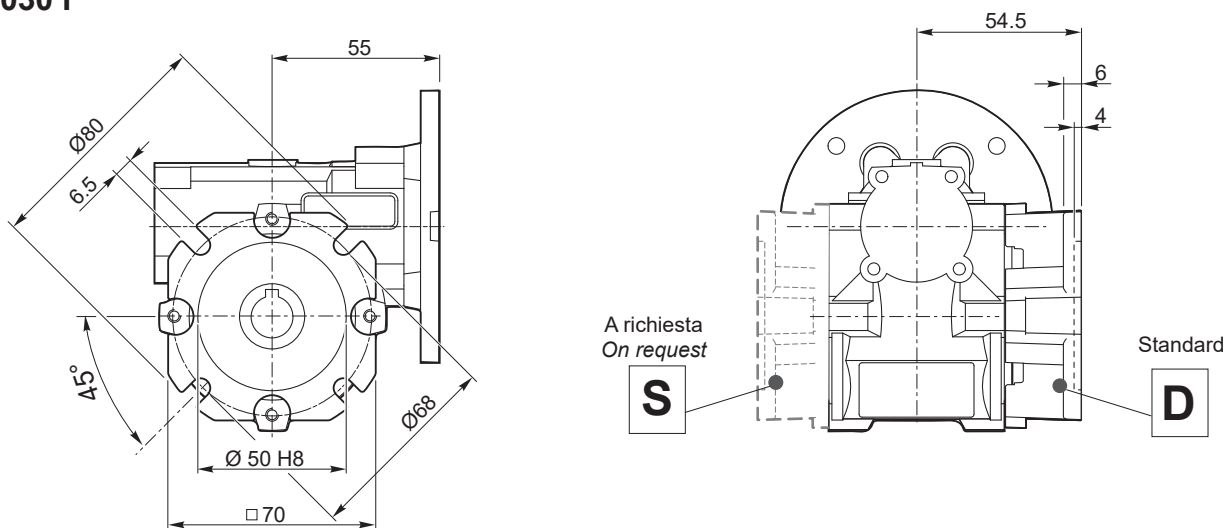
Dimensions

CLOD 030 U



Kg
1.1

CLOD 030 F

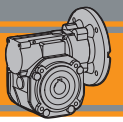


A richiesta
On request

S

Standard

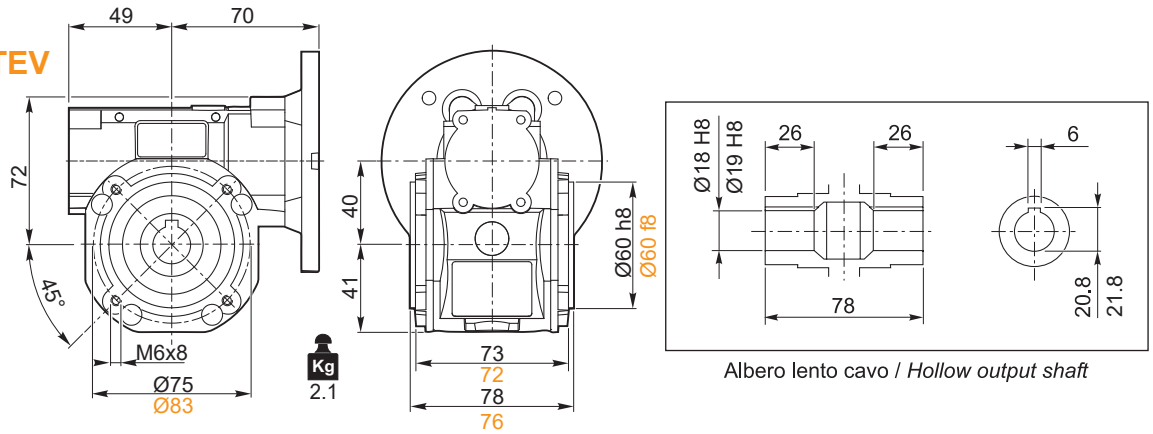
D



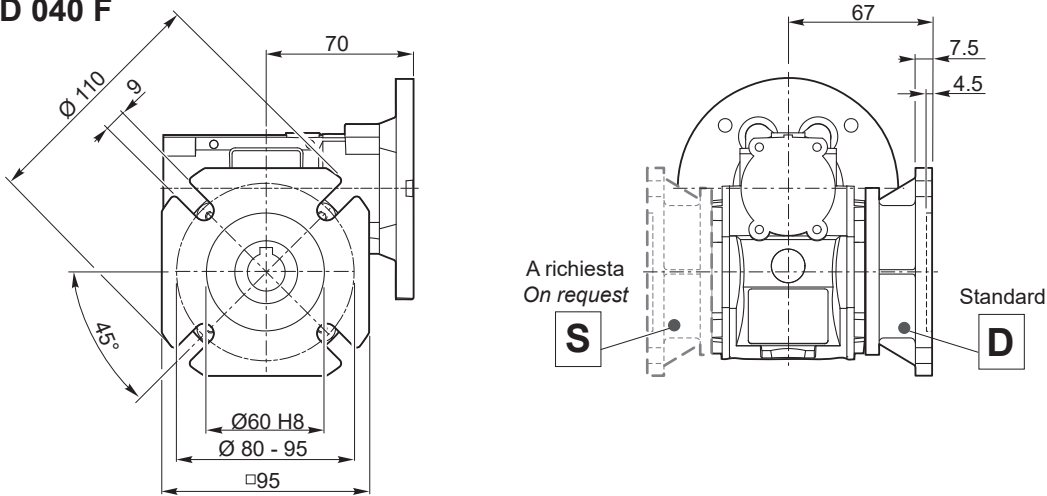
Dimensioni

Dimensions

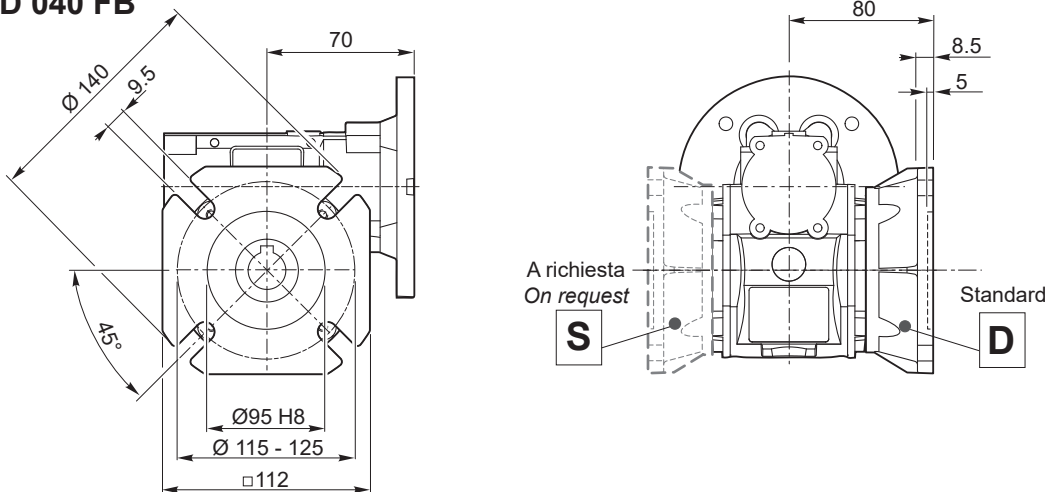
CLOD 040 U
CLOD 040 U STEV



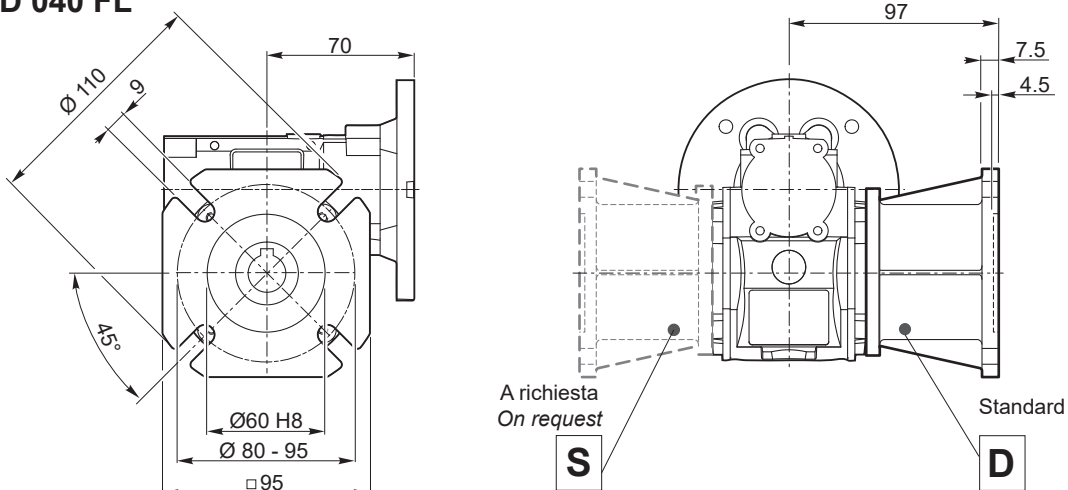
CLOD 040 F

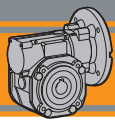


CLOD 040 FB



CLOD 040 FL

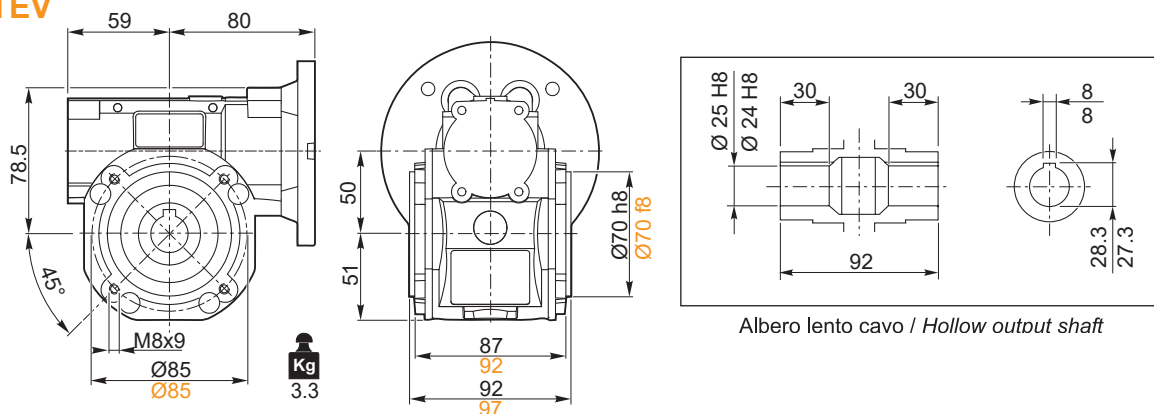




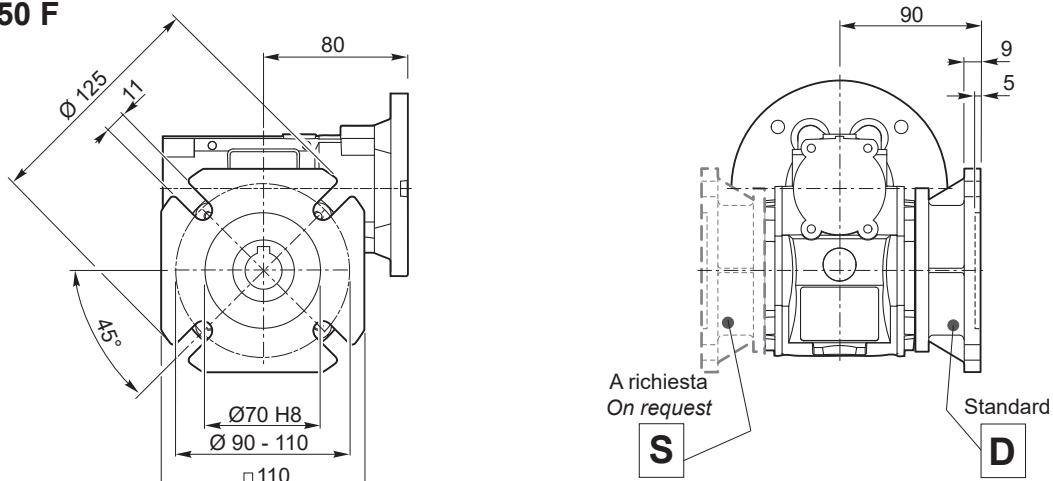
Dimensioni

Dimensions

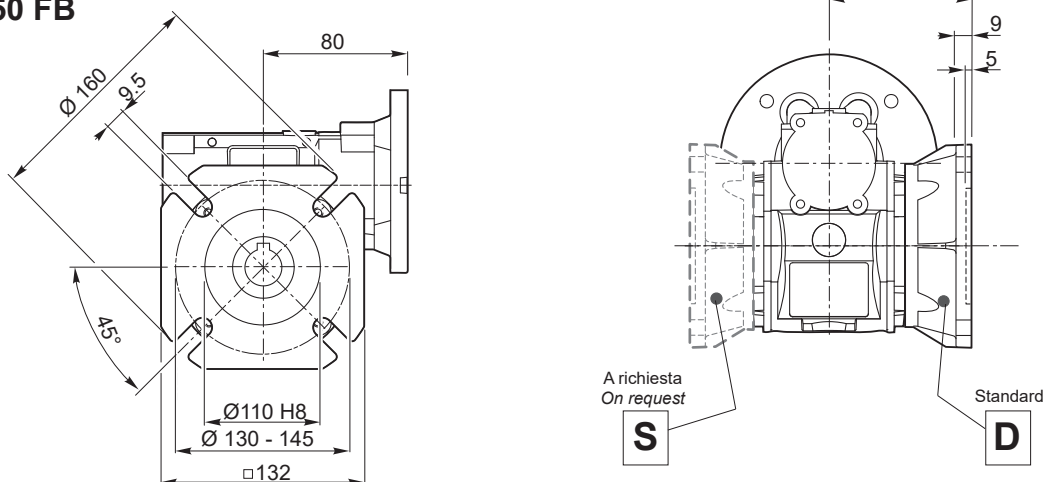
CLOD 050 U
CLOD 050 STEV



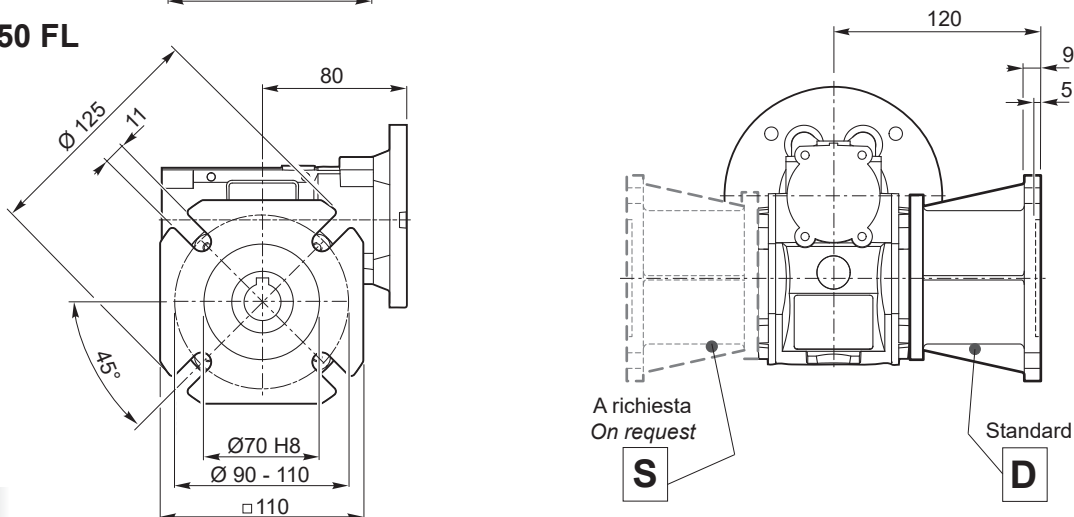
CLOD 050 F

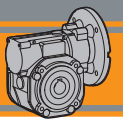


CLOD 050 FB



CLOD 050 FL

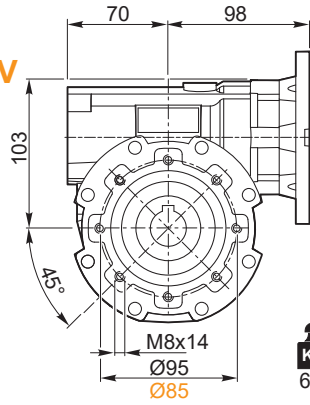




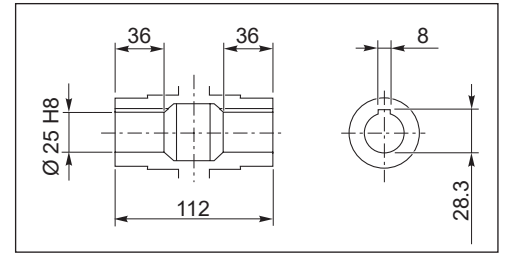
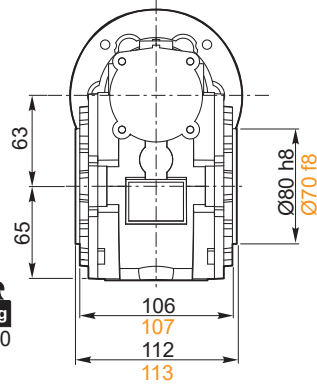
Dimensioni

Dimensions

CLOD 063 U
CLOD 063 STEV

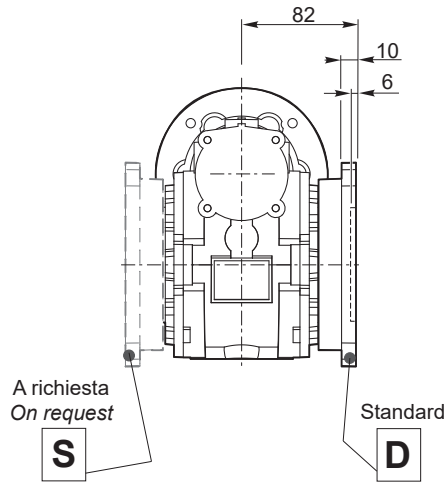
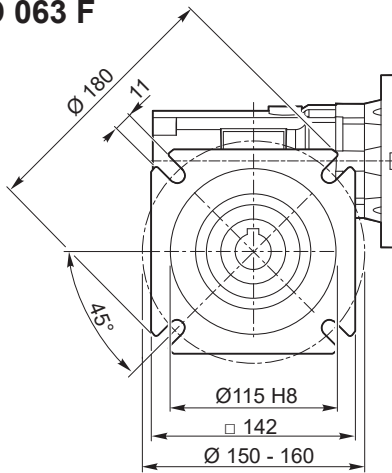


Kg
6.0

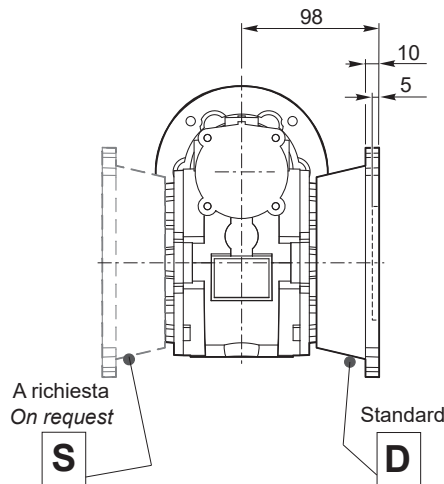
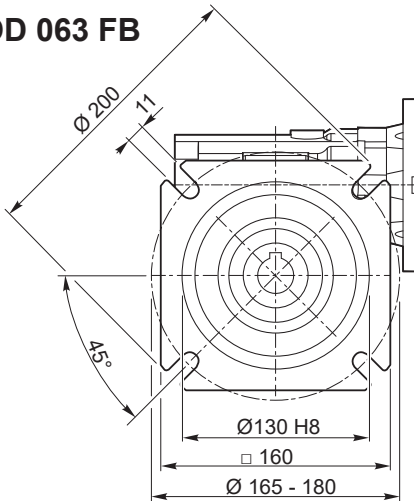


Albero lento cavo / Hollow output shaft

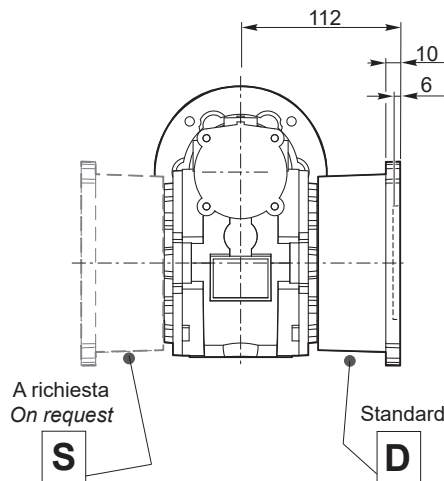
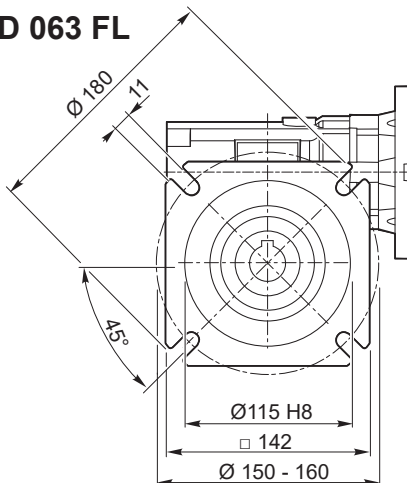
CLOD 063 F

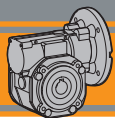


CLOD 063 FB



CLOD 063 FL



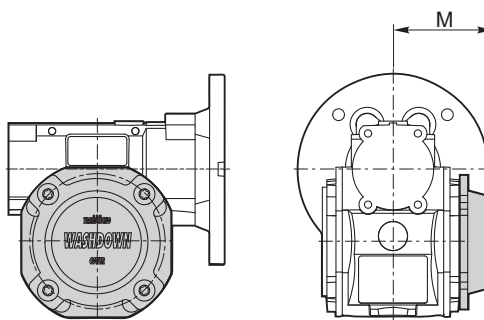


Accessori

Accessories

WD - Kit washdown cover

CLOD	M
030	48
040	55.5
050	63.5
063	71.5



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