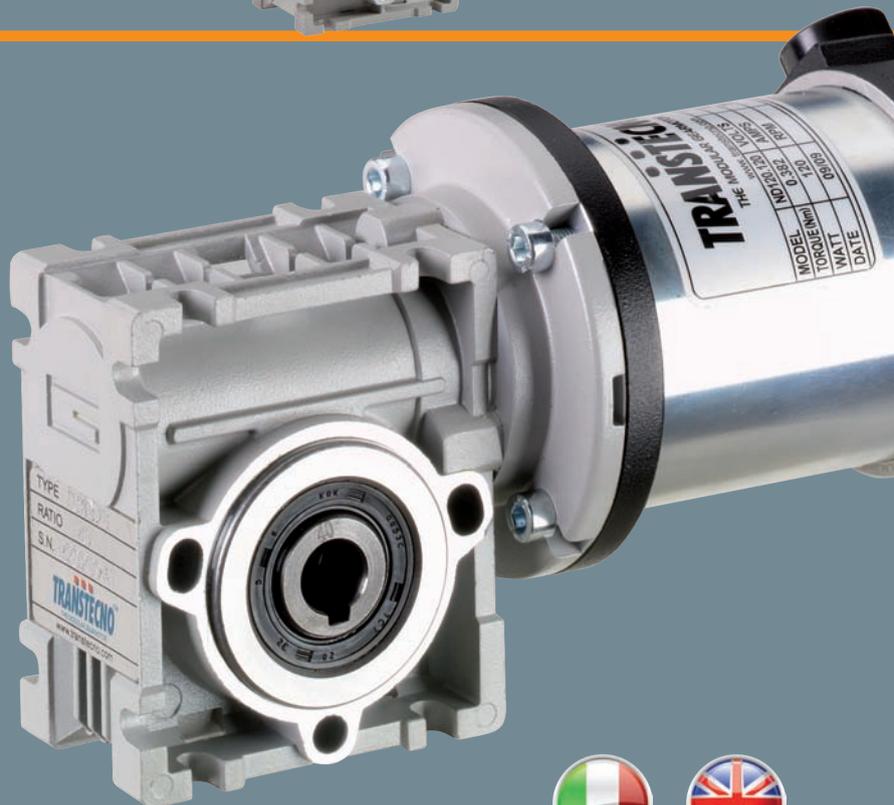


TRANSTECNOTM
THE MODULAR GEARMOTOR

DC



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Questo catalogo annulla e sostituisce ogni precedente edizione o revisione. Ci riserviamo inoltre il diritto di apportare modifiche senza preavviso.

This catalogue supersedes any previous edition and revision. We reserve the right to implement modifications without notice.

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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.

General information

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.

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

Mn₂ [Nm]

Nominal torque

Rappresenta la coppia in uscita trasmissibile dal riduttore in base alla velocità in entrata n₁ 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 M₂ (coppia trasmessa) e sf (fattore di servizio):

This is the output torque that can be transmitted by the gearbox according to input speed n₁ 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 M₂ (output torque) and sf (service factor):

$$Mn_2 = M_2 \cdot sf$$

Coppia trasmessa

M₂ [Nm]

Output torque

È la coppia trasmessa in uscita al riduttore. Dipende dalla potenza P₁ del motore installato, dal numero di giri in uscita n₂ 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 P₁ of the motor installed, output rpm n₂ 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 n₁ 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 n₁ 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.

Reversibilità e irreversibilità

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 Rd e statico Rs.

Reversibility and irreversibility

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 Rd and static Rs 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

P₁ [kW]

Input power

È la potenza motore applicata in entrata al riduttore e riferita alla velocità n₁.

Può essere calcolata come segue:

This is the power applied by the motor at the gearbox input in reference to speed n₁.

It can be calculated with the following formula:

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

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										
h/d	n. avviamenti/ora / n. start-up/hour									
	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										
h/d	n. avviamenti/ora / n. start-up/hour									
	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										
h/d	n. avviamenti/ora / n. start-up/hour									
	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**

Carico radiale

R; R₂ [N]

Radial load

L'applicazione sull'albero in uscita del riduttore di pignoni, pulegge, ecc. determina delle forze radiali che debbono necessariamente essere considerate per evitare sollecitazioni eccessive con il rischio di danneggiamenti del riduttore stesso.

Pinions, pulleys, etc applied on the output shaft of the gearboxes create radial forces that must be taken into consideration to avoid excessive stress risking damage to the gearbox itself.

Il calcolo del carico radiale esterno R agente sull'albero del riduttore può essere determinato come segue:

External radial load R that acts on the gearbox shaft can be calculated as follows:

$$R = \frac{2000 \cdot M_2 \cdot kr}{d} \leq R_2$$

dove:

d [mm] diametro primitivo del pignone o della puleggia
kr coefficiente riferito al tipo di trasmissione:
kr = 1.4 ruota per catena
kr = 1.1 ingranaggio
kr = 1.5 - 2.5 puleggia per cinghia a V

where:

d [mm] diameter of the pinion or pulley
kr coefficient in relation to type of transmission:
kr = 1.4 sprocket wheel
kr = 1.1 gear
kr = 1.5 - 2.5 pulley for V belts

È opportuno evidenziare che i valori di R₂ sono riferiti a carichi agenti sulla mezzeria dell'albero lento (considerando l'albero sporgente) per cui il confronto dovrà essere effettuato nelle medesime condizioni.

Keep in mind that values R₂ refer to loads that act on the centerline of the output shaft (considering the shaft protrudes). As a result, the value should be compared under the same conditions.

Carico assiale

A; A₂ [N]

Axial load

A volte, unitamente al carico radiale, può essere presente anche una forza A che agisce assialmente sull'albero uscita; in questo caso considerare che il carico assiale ammissibile A₂ sull'albero è da considerare:

At times, along with the radial load, force A may be present that acts axially on the output shaft. In this case, keep in mind allowable axial load A₂ that can be applied on the shaft is:

$$A_2 = R_2 \cdot 0.2$$

Nel caso in cui il valore del carico assiale A agente sull'albero risultasse superiore ad A₂ contattate il ns. Servizio Tecnico.

If axial load A that acts on the shaft is greater than A₂, contact the Technical Service.

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 P₁ [kW] richiesta, passare al punto 3); se è nota la coppia in uscita M₂ richiesta è necessario calcolare la potenza motore P₁ con la formula:

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 P₁ [kW] is known, go to item 3); if the required output torque M₂ is known, determine motor output P₁ by using the following formula:

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

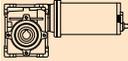
dove Rd è il rendimento dinamico e n₂ il numero di giri richiesti in uscita al motoriduttore.

where Rd stands for the dynamic efficiency and n₂ 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).

ECM

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
140						
(3000 min ⁻¹)	600	2.0	5.0	5	ECM100/026	120/240/24E
	400	2.9	3.8	7.5		
	300	3.8	2.9	10		
	200	5.5	2.0	15		
	150	7.1	1.5	20		
	100	10	1.2	30		
	75	12	0.9	40		
	60	14	0.7	50		
	50	13	0.7	60		

Esempio / Example:

Applicazione / Application:

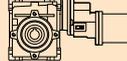
Carrello automatico / Automatic carriage

P_1 : 140 W
sf : 1.5
 n_2 : 150 min⁻¹

Motorizzazione scelta / Power unit selected:

ECM100/026, i = 20, P_1 = 140 W, sf = 1.5

ECMP

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
250						
(3000 min ⁻¹)	50	35	2.3	60	ECMP180/063/050	120/240/24E
	40	42	1.8	75		
	33	48	2.1	90		
	25	58	1.5	120		
	20	69	1.2	150		
	17	77	1.0	180		
	13	90	0.8	240		

Esempio / Example:

Applicazione / Application:

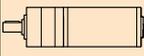
Carrello automatico / Automatic carriage

M_2 : 58 Nm
sf : 1.5
 n_2 : 25 min⁻¹

Motorizzazione scelta / Power unit selected:

ECMP180/063/050, i = 120, P_1 = 250 W, sf = 1.5

ECP

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione Version
500						
(3000 min ⁻¹)	218	16.2	1.5	13.73	ECP350/622	120/240
	189	18.7	1.3	15.88		
	163	21.6	1.2	18.36		
	156	22.6	1.1	19.20		
	135	26.1	1.0	22.20		
	120	29.4	0.8	25.01		
	112	31.6	0.8	26.85		
	104	34.1	0.7	28.93		
	86	35.7	0.7	34.97		
	66	35.7	0.7	45.56		

Esempio / Example:

Applicazione / Application:

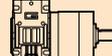
Carrello automatico / Automatic carriage

P_1 : 500 W
sf : 1.5
 n_2 : 218 min⁻¹

Motorizzazione scelta / Power unit selected:

ECP350/622, i = 13.73, P_1 = 500 W, sf = 1.5

ECWMP

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version		
140								
(3000 min ⁻¹)	44.4	20.0	4.0	67.5	100/030/811	120/240/24E		
	29.6	29.3	2.7	101.3				
	22.2	37.6	2.1	135.0				
	14.8	51.5	1.5	202.5				
	11.1	65.0	1.2	270.0				
	10.4	80.2	1.5	289.3				
	8.9	75.5	1.1	337.5				
	7.4	80.0	1.0	405.0				
							100/030/812	120/240/24E
							100/030/811	120/240/24E

Esempio / Example:

Applicazione / Application:

Carrello automatico / Automatic carriage

M_2 : 80 Nm
sf : 1.5
 n_2 : 10 min⁻¹

Motorizzazione scelta / Power unit selected:

ECWMP100/030/812, i = 289.3, P_1 = 140 W, sf = 1.5

Installazione e verifiche

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.

Installation and inspection

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

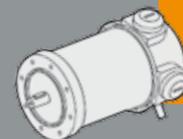
In tutti questi casi consultare il Servizio Tecnico

- 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°C o >+40°C

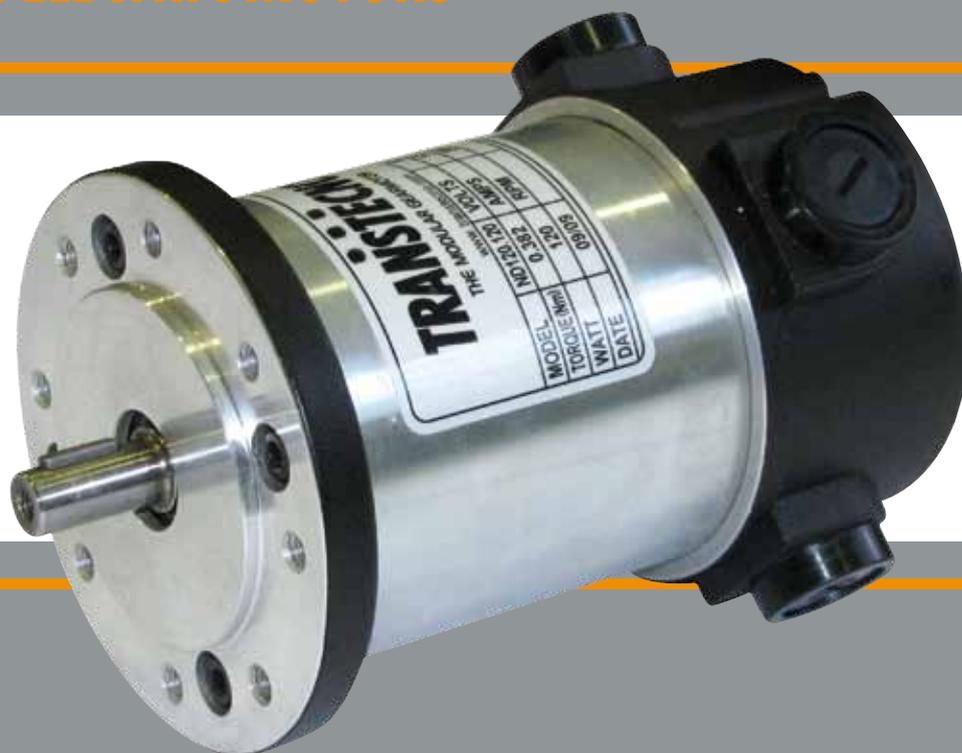
Critical applications

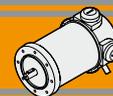
In these cases please contact the Technical Service

- *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°C or >+40°C*



MOTORI ELETTRICI C.C. A TERRE RARE
RARE EARTH D.C. ELECTRIC MOTORS





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	Classe di isolamento termico	<i>Insulation class</i>	B3
	Tipi di servizio IEC	<i>IEC duty cycle ratings</i>	B3
ND120.120	Caratteristiche	<i>Features</i>	B4
ND120.240	Dimensioni	<i>Dimensions</i>	B4
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ND180.240	Dimensioni	<i>Dimensions</i>	B6
	Prestazioni	<i>Performances</i>	B7
	Legenda / Glossario dei grafici	<i>Key / Diagram Glossary</i>	B8
	Formule utili	<i>Useful formulas</i>	B8

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Caratteristiche tecniche

I magneti in Neodimio (NdFeB) fanno parte dei magneti a terre rare e sono attualmente i magneti più potenti in produzione. Dotati di alta forza coercitiva (resistenza alla smagnetizzazione) ed alto valore di saturazione magnetica, sono in grado di immagazzinare moltissima energia magnetica. Pertanto, i motori CC dotati di magneti in Neodimio forniscono alti valori di coppia pur in dimensioni ridotte, grazie all'alta densità di flusso del campo magnetico.

Le caratteristiche principali dei motori a terre rare della serie ND sono:

- Campo magnetico generato da magneti permanenti in Neodimio (NdFeB)
- Costruzione tubolare senza ventilazione
- Disponibili in una grandezza diametro 65
- Alimentazione a bassa tensione 12 o 24 Vcc
- Potenza 160W e 250W S2
- Elevata coppia di spunto
- Maggiori coppie e potenze rispetto ai corrispettivi motori a magneti permanenti standard (a parità di dimensioni)
- Predisposizione encoder

Classe di isolamento termico

Gli avvolgimenti del rotore sono soggetti a surriscaldamento, come pure altre parti del motore. Il grado di isolamento indica la massima temperatura ammissibile oltre la quale l'isolante della matassa e l'isolante di tutte le parti soggette ad elevato riscaldamento perde le caratteristiche di buon isolante, con pericolo di danneggiamento del motore.

Servizio

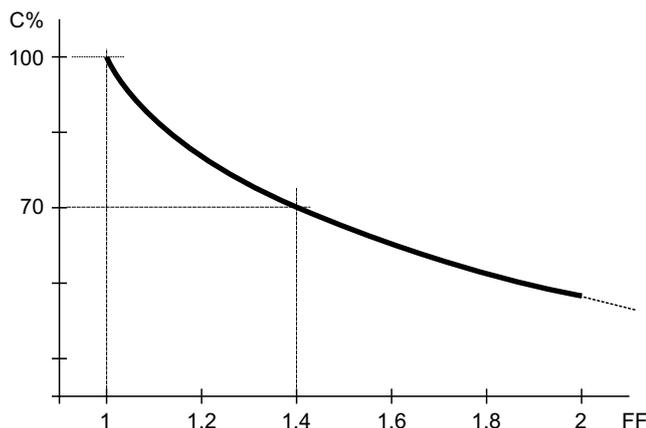
Rappresenta la relazione tra il tempo di lavoro ed il tempo di riposo del motore. Servizio continuo (S1) = funzionamento continuo del motore a pieno carico.

Servizio intermittente (S2, S3, etc...) = periodi alternati di lavoro e di riposo tali da raffreddare il motore. Dato un motore, la potenza espressa per servizio continuo è inferiore a quella per servizio intermittente.

Fattore di forma

Indica quanta componente spuria alternata è presente nella alimentazione CC del motore. Più alto è il fattore ed inferiore è l'efficienza del motore. Alimentatori ad SCR = F.F 1.40. Alimentazione pura da batteria = FF 1 Alimentazione da transistori (modulazione PWM) = FF 1.05.

Qualitativamente l'andamento della coppia (percentuale) rispetto al fattore di forma è indicato nel grafico seguente:



Technical features

Neodymium magnet (NdFeB) is a type of rare-earth magnet and is currently the strongest type of permanent magnets. Due to high coercivity resistance to being demagnetized and high saturation magnetization, they have potential for storing large amounts of magnetic energy. Therefore permanent Neodymium magnets DC motors can provide high torque in compact size due to the high density flux of magnet field.

The main features of ND rare earth permanent magnet motors are:

- *Magnetic field generated by Neodymium (NdFeB) permanent magnets*
- *Tubular construction without fan*
- *Available in one size diameter 65*
- *Low voltage power supply 12 or 24 Vdc*
- *Power ratings available 160W and 250W S2*
- *High starting torque*
- *Higher torque and higher power than standard permanent magnet D.C. motors.*
- *Suitable for encoder assembly*

Thermal insulation class

The windings of the rotor can overheat just like other parts of the motor too. The degree of insulation indicates the maximum allowable temperature above which the insulation of the windings, as well as that of all the parts which heat up to a high temperature, loses its insulating properties and the motor therefore risks being damaged.

Duty cycle

This represents the relationship between the time the motor operates and the time it remains stationary. Continuous operation (S1) = the motor operates non-stop under full load.

Intermittent operation (S2, S3, etc.) = alternating periods of work and rest so that the motor can cool down. The output power for continuous operation is lower than that for intermittent operation.

Form factor

It indicates how much spurious alternating current is present in the D.C. motor power supply. The higher the factor, the lower the motor's efficiency. SCR power supplies = F.F 1.40. Battery supply = FF 1 Transistor supply (PWM modulation) = FF 1.05.

The graph below indicates the torque trend (percentage) in relation to the form factor:



Grado di protezione IP

IP enclosures protection indexes

Indica il grado di isolamento meccanico del corpo motore.

Indicates the degree of mechanical insulation of the motor body.

1^a cifra: protezione alla penetrazione di corpi solidi.

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.

0	Non protetto / No protection	0	Non protetto / No protection
1	Protetto da corpi solidi superiori a Ø 50 mm. <i>Protected against solid matters (over Ø 50 mm)</i>	1	Protetto contro la caduta verticale di gocce d'acqua. <i>Protected against drops of water falling vertically</i>
2	Protetto da corpi solidi superiori a Ø 12 mm. <i>Protected against solid matters (over Ø 12 mm)</i>	2	Protetto contro la caduta verticale di gocce d'acqua con inclinazione max di 15° <i>Protected against drops of water falling up to 15°</i>
3	Protetto da corpi solidi superiori a Ø 2.5 mm. <i>Protected against solid matters (over Ø 2.5 mm)</i>	3	Protetto contro la pioggia. <i>Rain proof fixture</i>
4	Protetto da corpi solidi superiori a Ø 1 mm. <i>Protected against solid matters (over Ø 1 mm)</i>	4	Protetto contro gli spruzzi. <i>Splash proof fixture</i>
5	Protetto contro la polvere <i>Dust proof</i>	5	Protetto contro getti d'acqua <i>Water jet proof</i>
6	Totalmente protetto contro la polvere <i>Fully dust proof</i>	6	Protetto dalle ondate <i>Wave proof</i>
7	N.A.	7	Protetto contro immersione <i>Watertight immersion fixture.</i>
8	N.A.	8	Protetto contro immersione/sommersione prolungata <i>Watertight immersion fixture for a long time.</i>

Classe di isolamento termico

Insulation class

Classe / Class	Δ t °C Temp. ambiente: 40°C Ambient temperature: 40°C
A	65°C
B	90°C
F	115°C
H	140°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.
S3	Servizio periodico intermittente. Sequenze di cicli identici di marcia e di riposo a carico costante, senza raggiungimento dell'equilibrio termico. La corrente di spunto ha effetti trascurabili sul surriscaldamento del motore.	Intermittent periodic duty. Sequential, identical run and rest cycles with constant load. Temperature equilibrium is never reached. Starting current has little effect on temperature rise.
S4	Servizio periodico intermittente con avviamento. Sequenza di cicli di funzionamento identici di avviamento, marcia e riposo a carico costante, senza raggiungimento dell'equilibrio termico. La corrente di spunto ha effetti sul riscaldamento del motore.	Intermittent periodic duty with starting. Sequential identical start, run and rest cycles with constant load. Temperature equilibrium is not reached, but starting current affects temperature rise.
S5	Servizio periodico intermittente con frenatura elettrica. Sequenza di cicli di funzionamento identici di avviamento, marcia a carico costante, frenatura elettrica e riposo, senza raggiungimento dell'equilibrio termico.	Intermittent periodic duty with electric braking. Sequential, identical cycles of starting, running at constant load, electric braking and rest. Temperature equilibrium is not reached.
S6	Servizio periodico ininterrotto con carico intermittente. Sequenza di cicli di lavoro identici con carico costante e senza carico. Non ci sono periodi di riposo.	Continuous operation with intermittent load. Sequential, identical cycles of running with constant load and running with no load. No rest periods.
S7	Servizio periodico ininterrotto con frenatura elettrica. Sequenza di cicli di funzionamento identici di avviamento, marcia a carico costante e frenatura elettrica, senza periodi di riposo.	Continuous operation with electric braking. Sequential, identical cycles of starting, running at constant load and electric braking. No rest periods.
S8	Servizio periodico ininterrotto con variazioni di carico e di velocità. Sequenza di cicli identici di avviamento, marcia a carico costante e velocità definita, seguiti da marcia a carico costante differente e velocità differente dalla precedente. Non ci sono periodi di riposo.	Continuous operation with periodic changes in load and speed. Sequential, identical, duty cycles of start, run at constant load and given speed, then run at other constant loads and speeds. No rest periods.



ND120.120 - ND120.240

Caratteristiche

Features

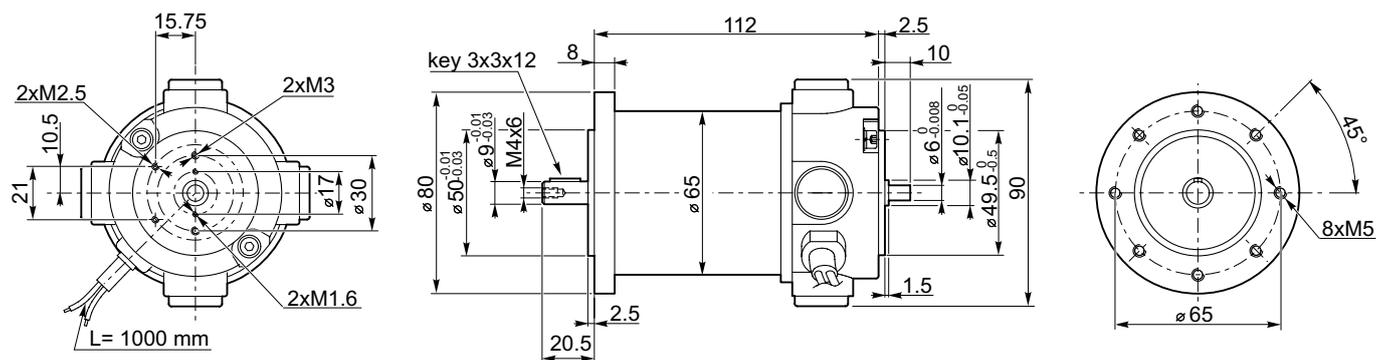
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	160 W S2 (120 W S1)
Magneti	4 magneti in terre rare
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 4 di composto grafite-rame
Cavo di alimentazione	Lunghezza: 1000 mm
Bisporgenza	Standard

Construction	Tubular, without fan
Size	Ø 65 mm
Power	160 W S2 (120 W S1)
Magnets	4 rare earth magnets
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 brushes made of graphite/copper composite
Electric cable	Length: 1000 mm
Rear Shaft	Standard

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
ND120.120	S1	120	12	13.9	F	1	0.38	3000	44	1.6
	S2 20'	160		19			0.51			
ND120.240	S1	120	24	6.9			0.38			
	S2 20'	160		9.0			0.51			

Dimensioni

Dimensions



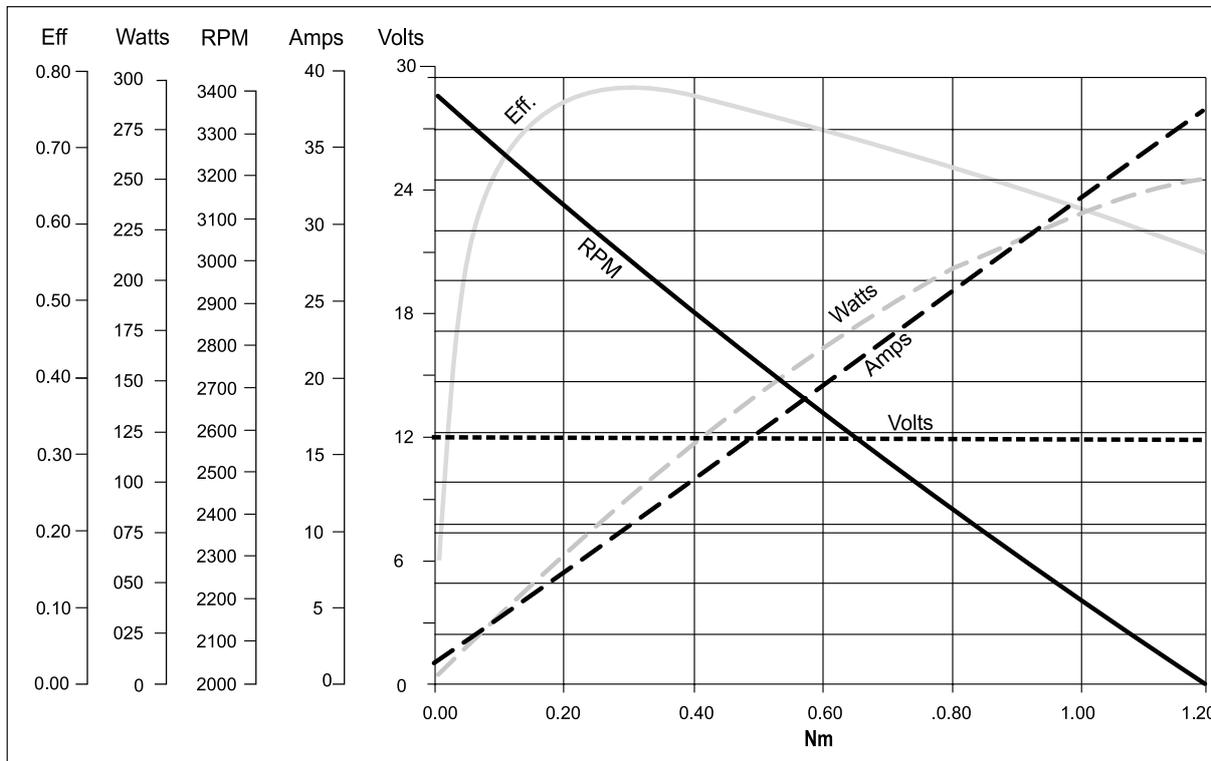


ND120.120 - ND120.240

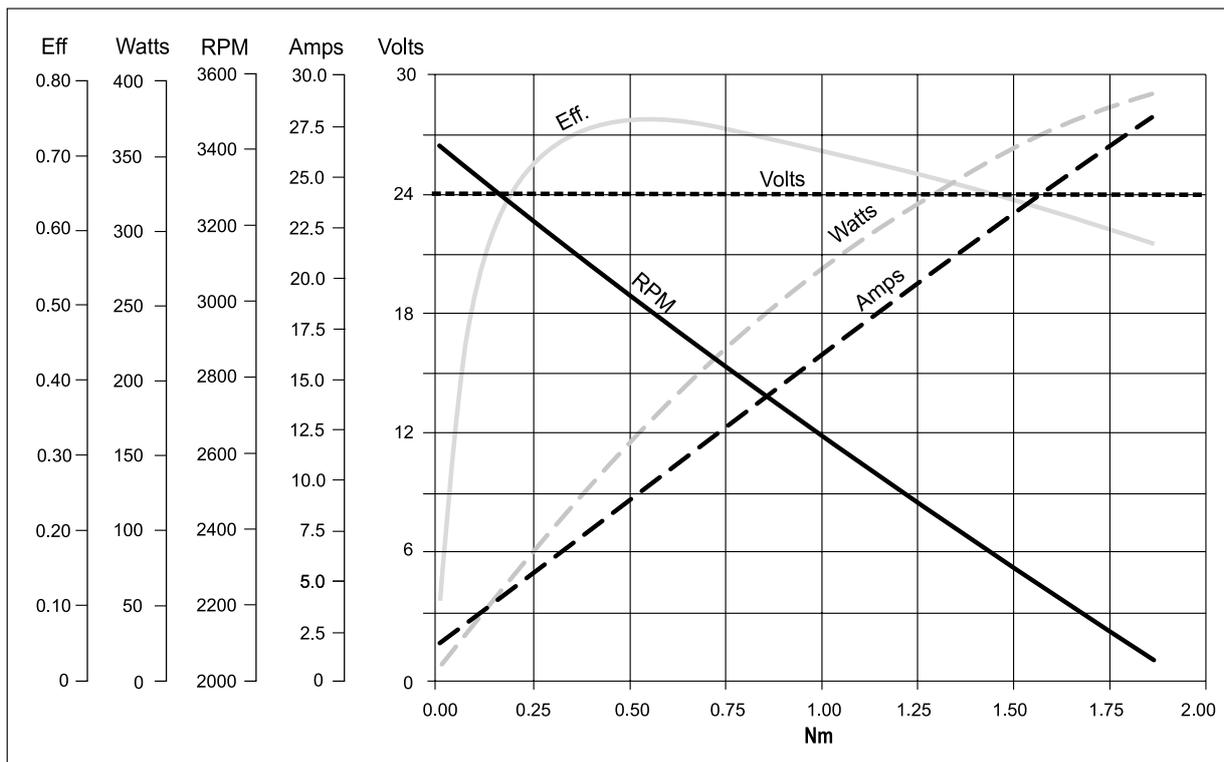
Prestazioni

Performances

ND120.120



ND120.240





ND180.120 - ND180.240

Caratteristiche

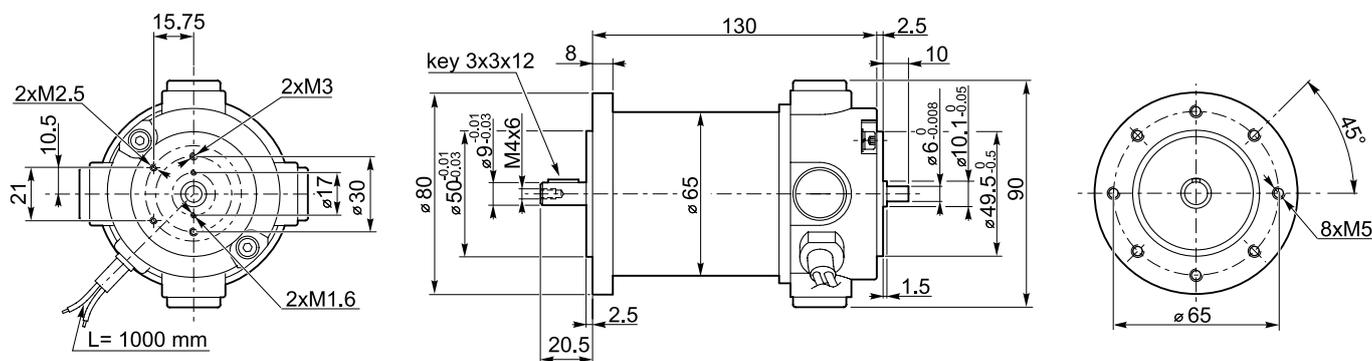
Features

Costruzione	Tubolare, senza ventilazione	Construction	Tubular, without fan
Grandezza	Ø 65 mm	Size	Ø 65 mm
Potenza	250 W S2 (180 W S1)	Power	250 W S2 (180 W S1)
Magneti	4 magneti in terre rare	Magnets	4 rare earth magnets
Supporti	Cuscinetti a sfera	Bearings	Ball bearings
Fori di montaggio	8	Mounting holes	8
Alimentazione	Bassa tensione, 12 o 24 Vcc	Power supply	Low voltage, 12 or 24 Vdc
Spazzole	N° 4 di composto grafite-rame	Brushes	4 brushes made of graphite/copper composite
Cavo di alimentazione	Lunghezza: 1000 mm	Electric cable	Length: 1000 mm
Bisporgenza	Standard	Rear Shaft	Standard

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
ND180.120	S1	180	12	20	F	1	0.57	3000	44	1.95
	S2 20'	250		30			0.80			
ND180.240	S1	180	24	10			0.57			
	S2 20'	250		14						

Dimensioni

Dimensions



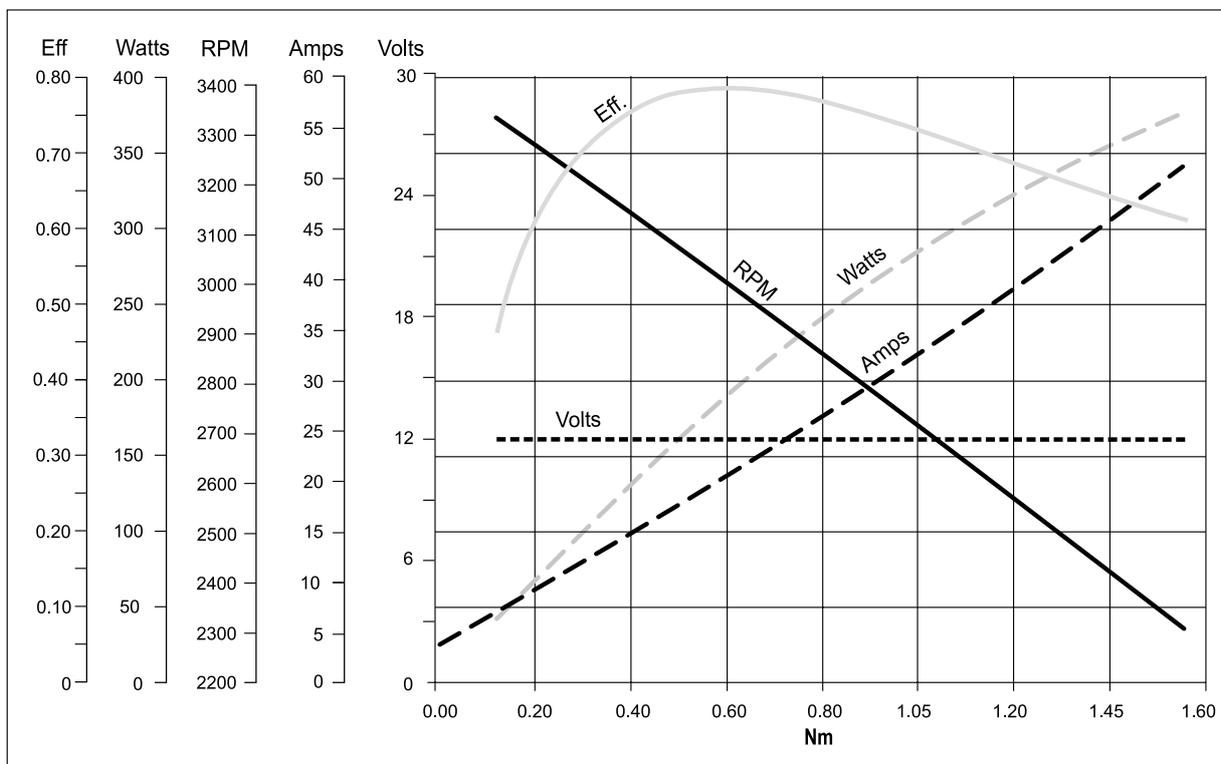


ND180.120 - ND180.240

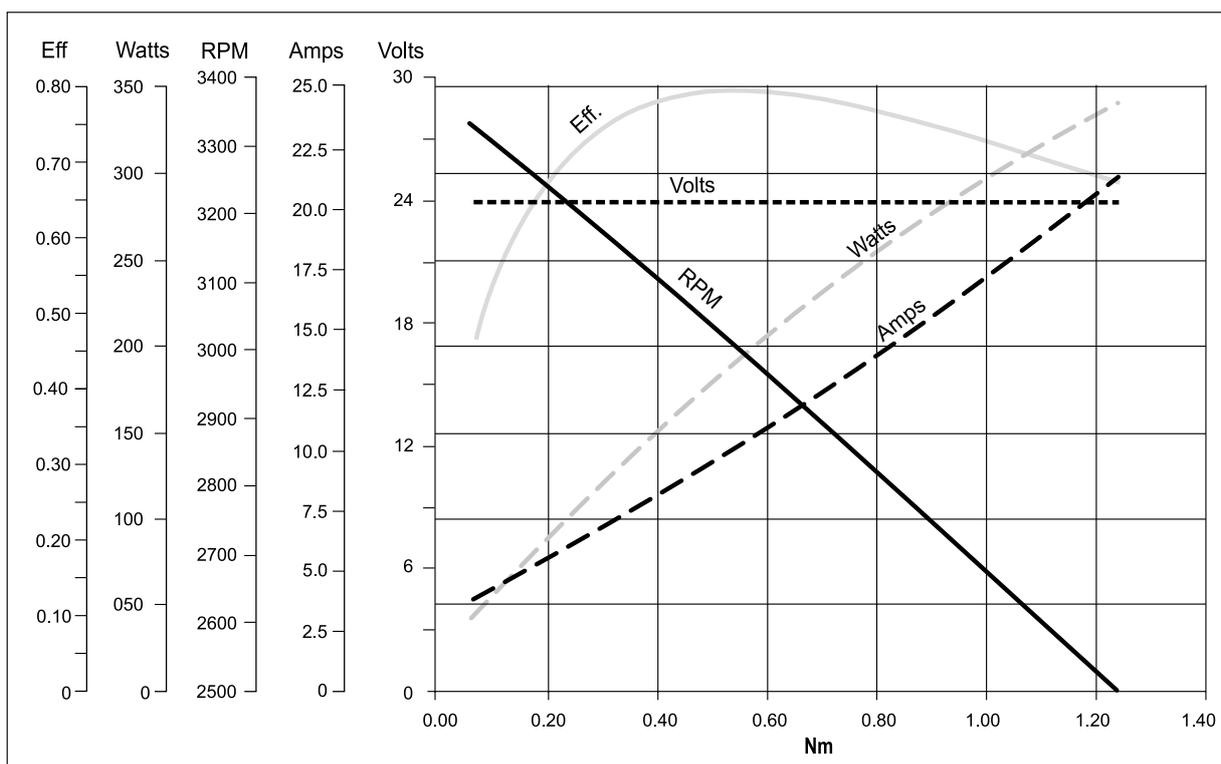
Prestazioni

Performances

ND180.120



ND180.240



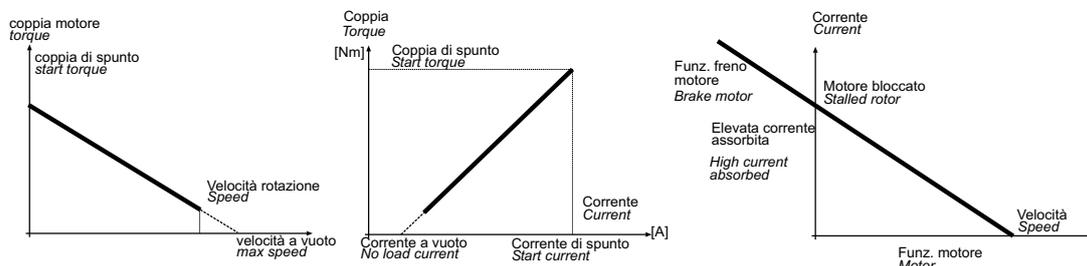


Legenda / Glossario dei grafici

Key / Diagram Glossary

Dato un motore in C.C., la velocità di rotazione è funzione lineare della coppia; così pure la corrente assorbita è una funzione lineare della coppia. Velocità e corrente variano in maniera sensibile al variare del carico.

With a D.C. motor, the rotational speed is a linear function of the torque. In the same way, the absorbed current is also a linear function of the torque. Speed and current change a lot against applied torque.

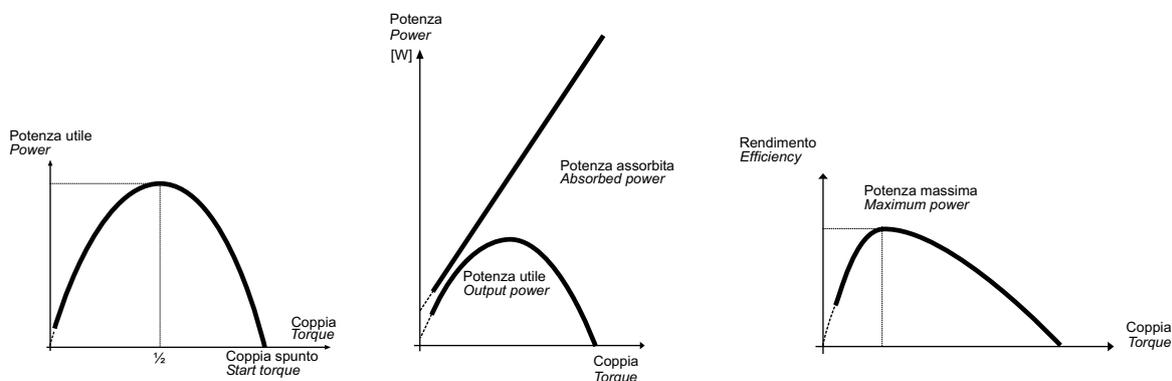


La potenza utile (potenza all'albero) si ricava dalla formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$

The output power is calculated using the formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$



Poiché la tensione di alimentazione è costante mentre la corrente è linearmente crescente al crescere della coppia, l'andamento della potenza assorbita è una retta crescente. Dal rapporto tra la potenza meccanica e la potenza assorbita si ottiene il grafico dell'efficienza.

Since the supply voltage is constant, whereas the current increases in a linear manner as the torque increases, the absorbed power trend is a straight line going up. Efficiency is shown from the ratio between the output power and the absorbed power.

Formule utili

Useful formulas

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

[HP] · 746 = [W].
 Esempio 2 HP = circa 1500 W.

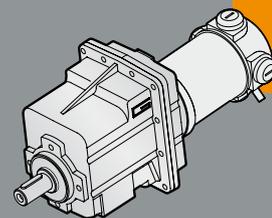
[HP] · 746 = [W].
 Example 2 HP = approx. 1500 W.

S	—	Servizio	<i>Duty</i>
P_n	[W]	Potenza in uscita	<i>Rated power</i>
P_a	[W]	Potenza assorbita	<i>Absorbed power</i>
M_n	[Nm]	Coppia nominale	<i>Rated torque</i>
V	[V]	Tensione	<i>Voltage</i>
I	[A]	Corrente assorbita	<i>Absorbed current</i>
n₁	[min ⁻¹]	Numero giri motore	<i>Motor speed</i>
S_v	[rad/s]	Velocità angolare	<i>Angular speed</i>
IC	—	Classe d'isolamento termico	<i>Thermal insulation class</i>
FF	—	Fattore di forma	<i>Form factor</i>
IP	—	Classe di protezione	<i>Protection class</i>
η	—	Rendimento	<i>Efficiency</i>
Kg	—	Peso	<i>Weight</i>

TRANSTECNOTM
THE MODULAR GEARMOTOR

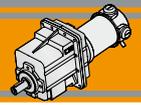
NDCMG

NDCMG



MOTORIDUTTORI C.C. AD INGRANAGGI CILINDRICI
RARE EARTH D.C. HELICAL GEARMOTORS

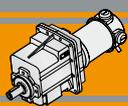




Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	C2
Designazione	<i>Classification</i>	C2
Sensi di rotazione	<i>Direction of rotation</i>	C3
Lubrificazione	<i>Lubrication</i>	C3
Simbologia	<i>Symbols</i>	C3
Carichi radiali	<i>Radial loads</i>	C4
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	C5
Motori applicabili	<i>IEC Motor adapters</i>	C5
Dimensioni	<i>Dimensions</i>	C6

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Caratteristiche tecniche

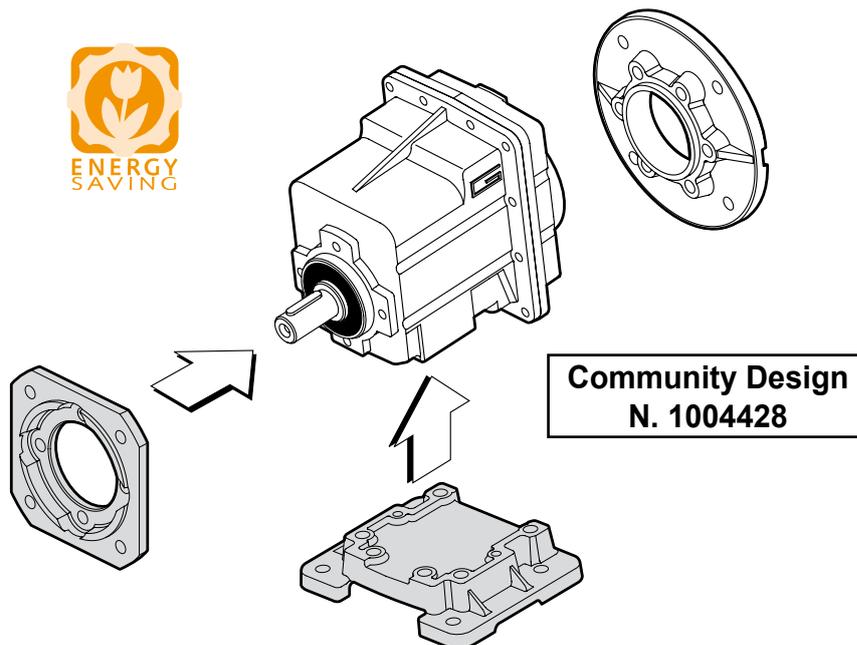
Technical features

Le caratteristiche principali dei motoriduttori a corrente continua della serie NDCMG sono:

The main features of NDCMG D.C. gearmotor range are:

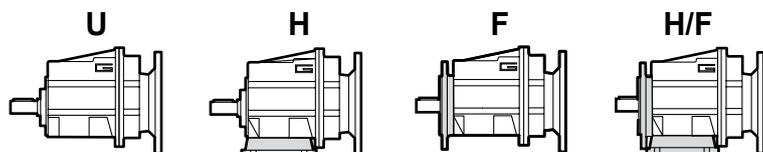
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 160 a 250W S2
- Magneti in terre rare
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi sempre rettificati

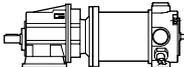
- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 160 to 250W S2
- Rare earth magnets
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground helical gears

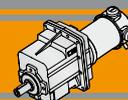


Designazione

Classification

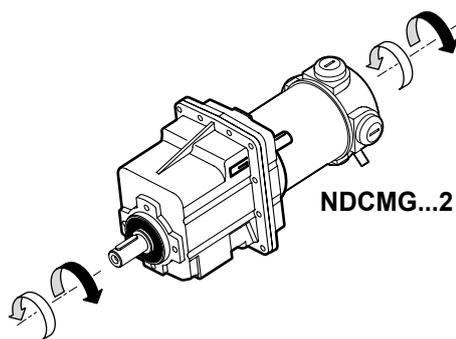


MOTORIDUTTORE / GEARBOX						
NDCMG	120/002		U	8.99	D20	240
Typo Type	Grandezza Size		Versione Version	Rapporto Ratio	Albero uscita Output shaft	Versione motore Motor version
	120/002	180/002	U... H... F... H.../F...	vedi tabelle see tables	vedi tabelle see tables	120 240



Sensi di rotazione

Direction of rotation



NDCMG

Lubrificazione

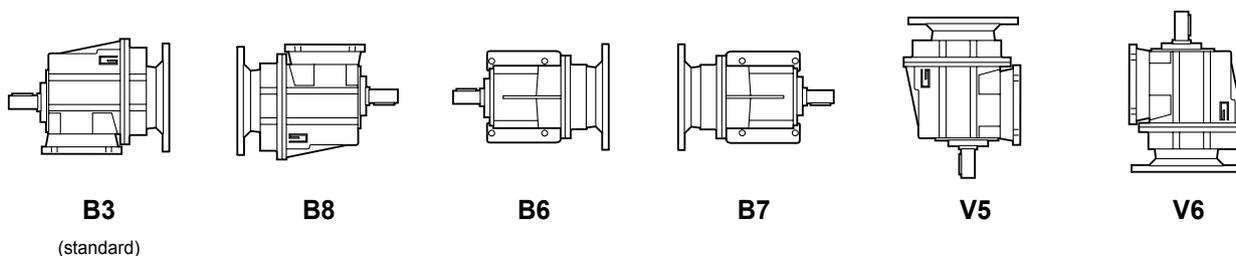
Lubrication

Tutti i riduttori nelle taglie 02 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 sizes 02 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

CMG	Quantità di olio (litri) / Oil quantity (litres)					
	B3	B8	B6	B7	V5	V6
002	0.18					
	Lubrificati a vita / Life lubrication					

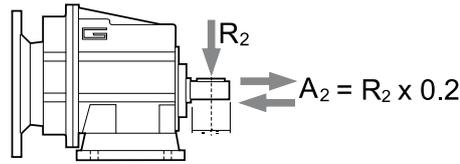
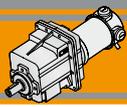
Posizioni di montaggio / Mounting positions



Simbologia

Symbols

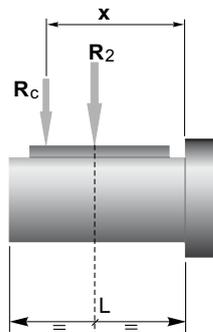
n_1	[min ⁻¹]	Velocità in ingresso / Input speed
n_2	[min ⁻¹]	Velocità in uscita / Output speed
i		Rapporto di riduzione / Ratio
P_1	[kW]	Potenza in entrata / Input power
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / Output torque referred to P_1
sf		Fattore di servizio / Service factor
R_2	[N]	Carico radiale ammissibile in uscita / Permitted output radial load
A_2	[N]	Carico assiale ammissibile in uscita / Permitted output axial load



		CMG 002												
n_2 [min ⁻¹]		700	600	500	400	250	180	150	120	100	80	60	40	10
R_2 [N]		416	437	465	501	586	653	748	806	958	1032	1136	1300	1300

Quando il carico radiale risultante non è applicato sulla mezza-
ria dell'albero occorre calcolare quello effettivo con la seguente
formula:

*When the resulting radial load is not applied on the centre line
of the shaft it is necessary to calculate the effective load with the
following formula:*

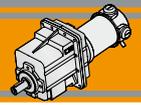


		CMG 002
a		73
b		53
R_{2MAX} [N]		1300

$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

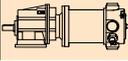
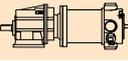
$$R \leq R_c$$

*a, b = valori riportati nella tabella
a, b = values given in the table*



Dati tecnici per servizio S2

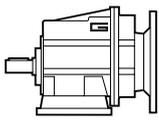
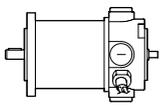
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	596	2.5	12.6	5.03	120/002	120/240	(3000 min ⁻¹)	596	3.8	8.1	5.03	180/002	120/240
	492	3.0	10.4	6.10				492	4.7	6.7	6.10		
	401	3.7	8.5	7.49				401	5.7	5.4	7.49		
	334	4.4	8.9	8.99				334	6.9	5.7	8.99		
	295	5.0	7.9	10.16				295	7.8	5.0	10.16		
	249	5.9	6.6	12.07				249	9.2	4.2	12.07		
	224	6.6	8.4	13.40				224	10.2	5.4	13.40		
	198	7.4	7.4	15.14				198	11.6	4.8	15.14		
	165	8.9	6.2	18.17				165	13.9	4.0	18.17		
	139	10.6	5.2	21.58				139	16.5	3.3	21.58		
	128	11.5	4.8	23.51				128	18.0	3.1	23.51		
	120	12.3	4.5	25.10				120	19.2	2.9	25.10		
	111	13.2	4.2	27.08				111	20.7	2.7	27.08		
	92	15.9	3.5	32.49				92	24.8	2.2	32.49		
	71	20.6	2.7	42.04				71	32.1	1.7	42.04		
	67	21.9	2.5	44.89				67	34.3	1.6	44.89		
	61	23.9	2.3	48.86				61	37.3	1.5	48.86		

NDCMG

Motori applicabili

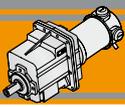
IEC Motor adapters

		ND	
		120.120 120.240	180.120 180.240
CMG	002	5.03 - 48.86	5.03 - 48.86

5.03 - 48.86

Rapporti di riduzione i
Ratio i

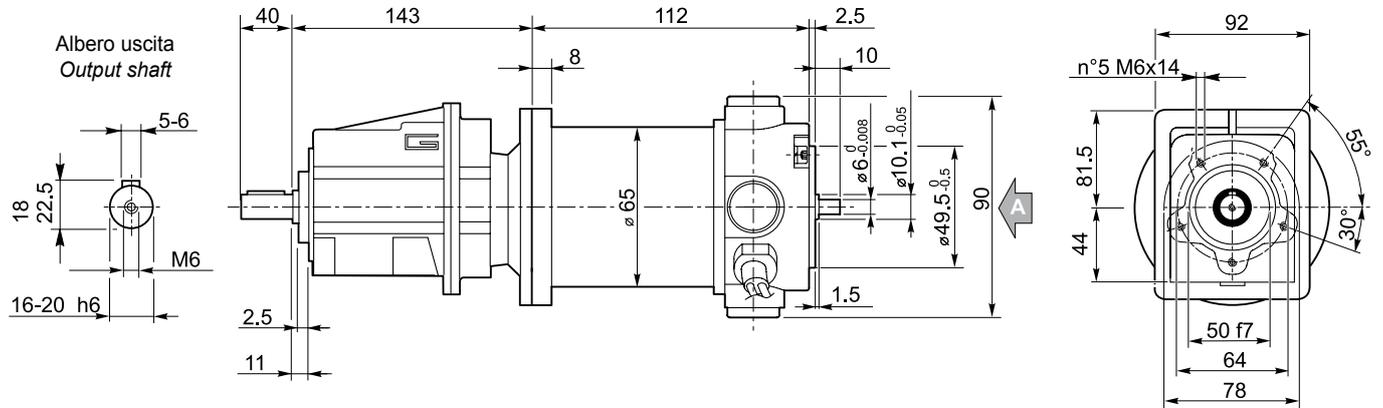


Dimensioni

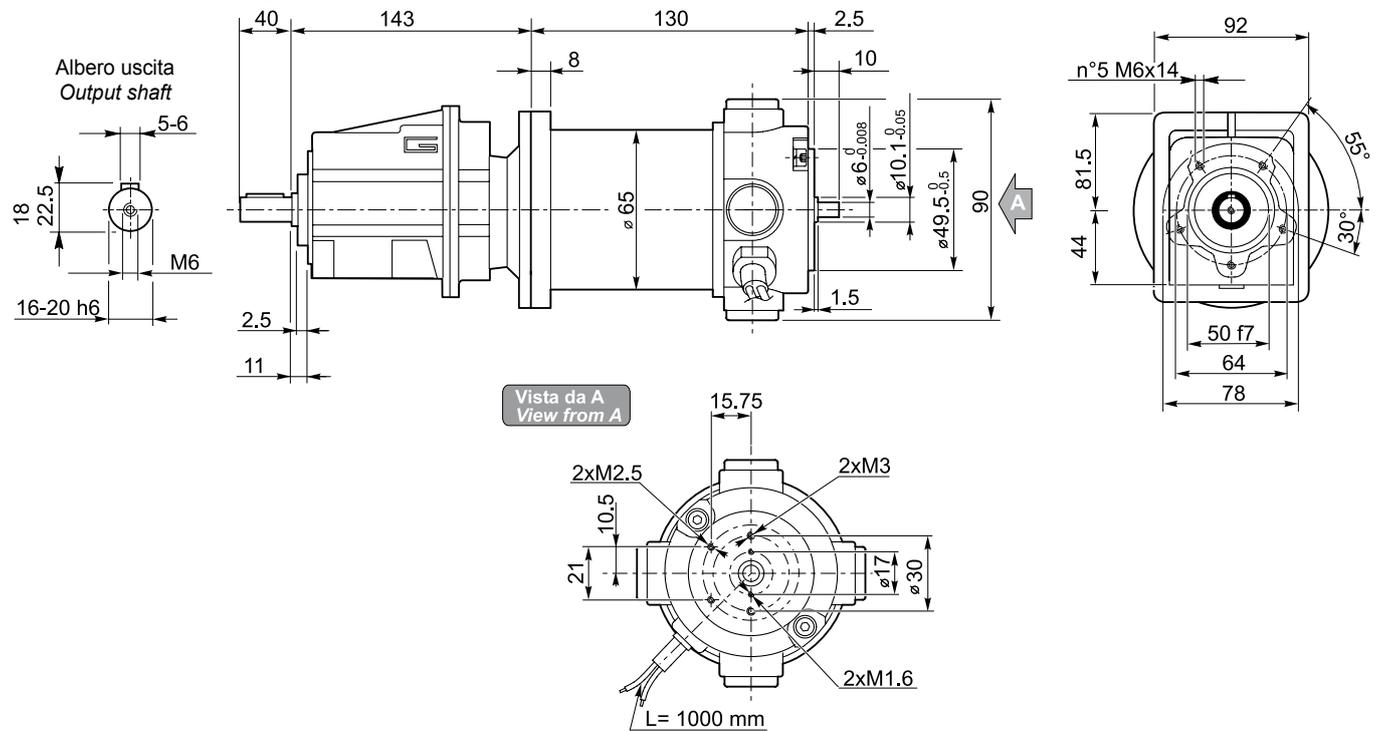
Dimensions

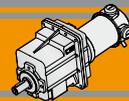
NDCMG..U

NDCMG120/002 U



NDCMG180/002 U



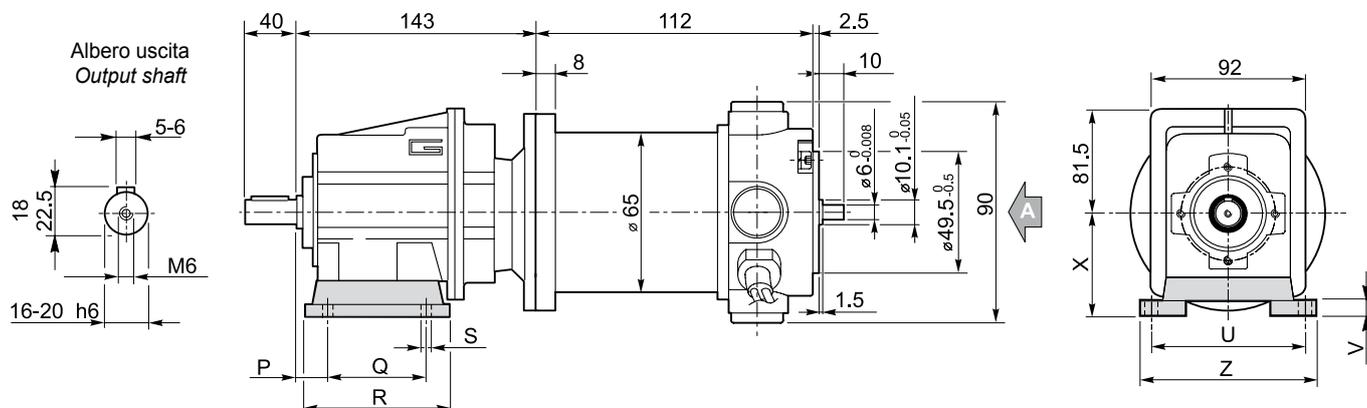


Dimensioni

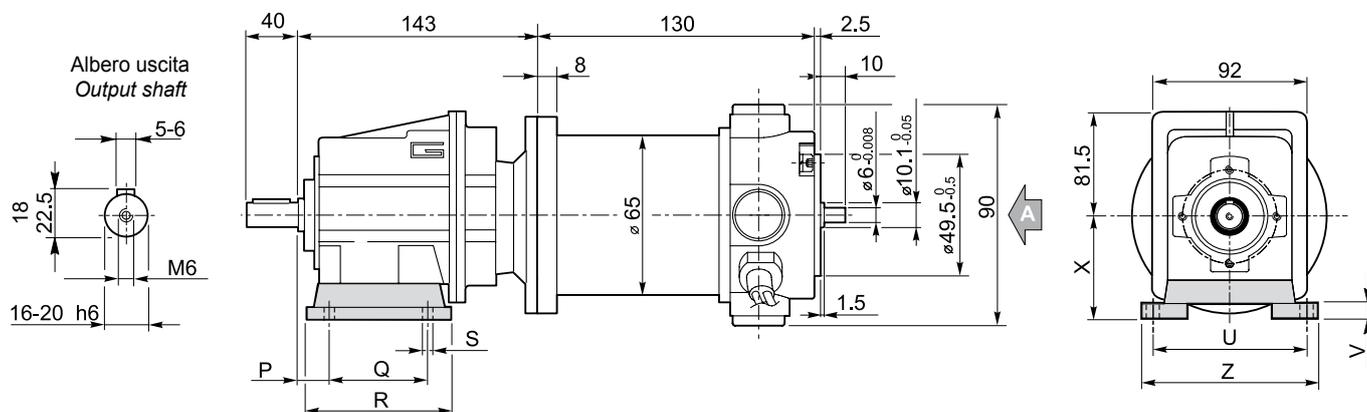
Dimensions

NDCMG..H

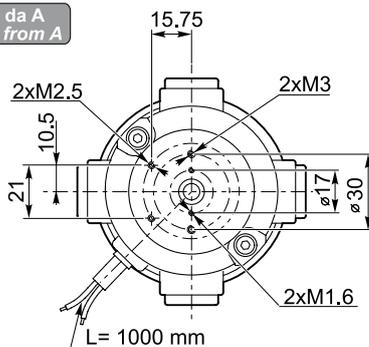
NDCMG120/002 H



NDCMG180/002 H

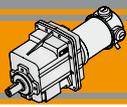


Vista da A
View from A



Versione H / H Version										
NDCMG	P	Q	R	S	U	V	X	Z	Piede / Foot	
									Tipo / Type	Peso / Weight [kg]
120/002	18	60	80	9	100	10	60	120	H60	0.2
180/002	18	80	104	9	110 - 120	10	75	145	H75	0.3
	18	50 - 87	110	9	110	10	85	135	H85	0.4

Preferenziale / Preferred

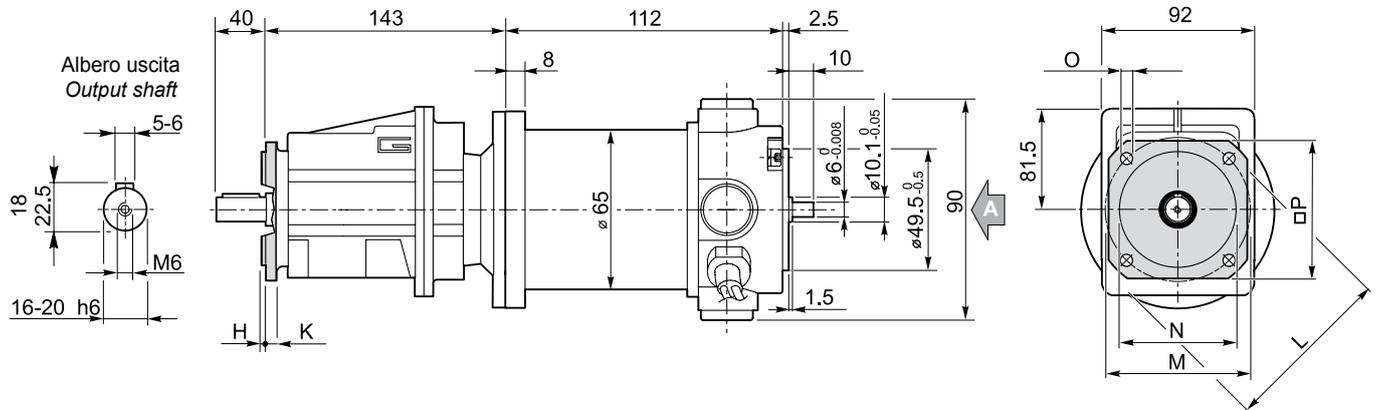


Dimensioni

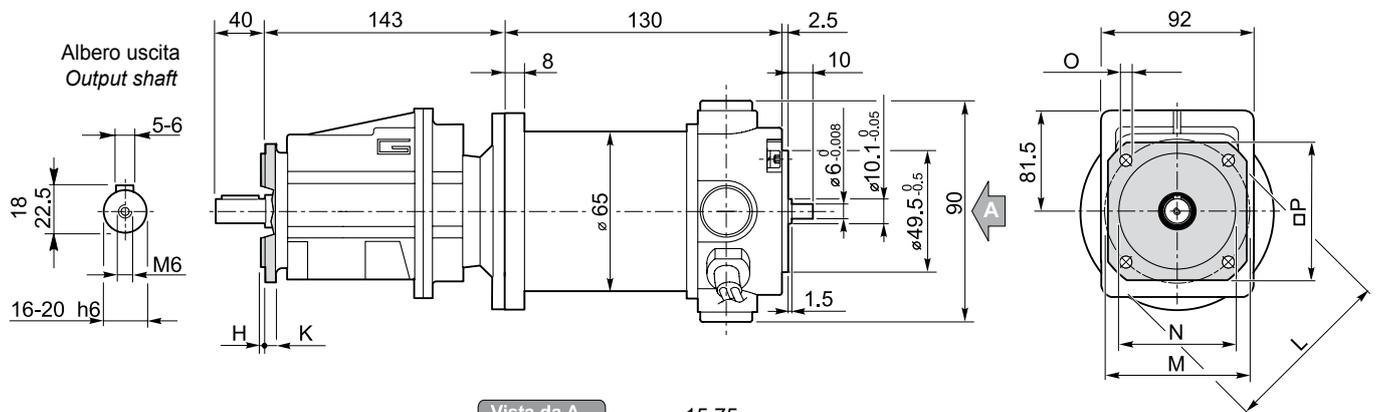
Dimensions

NDCMG..F

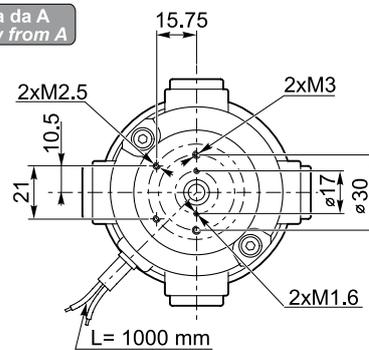
NDCMG120/002 F



NDCMG180/002 F

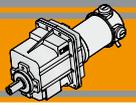


Vista da A
View from A



Versione F / F Version

NDCMG	H	K	L	M	N f7	O	P	Flangia / Flange	
								Tipo / Type	Peso / Weight [kg]
120/002	3.5	7	105	85	70	6.5	90	F105	0.1
180/002	3.5	8	120	100	80	7	100	F120	0.2
	3.5	8	140	115	95	9	115	F140	0.2

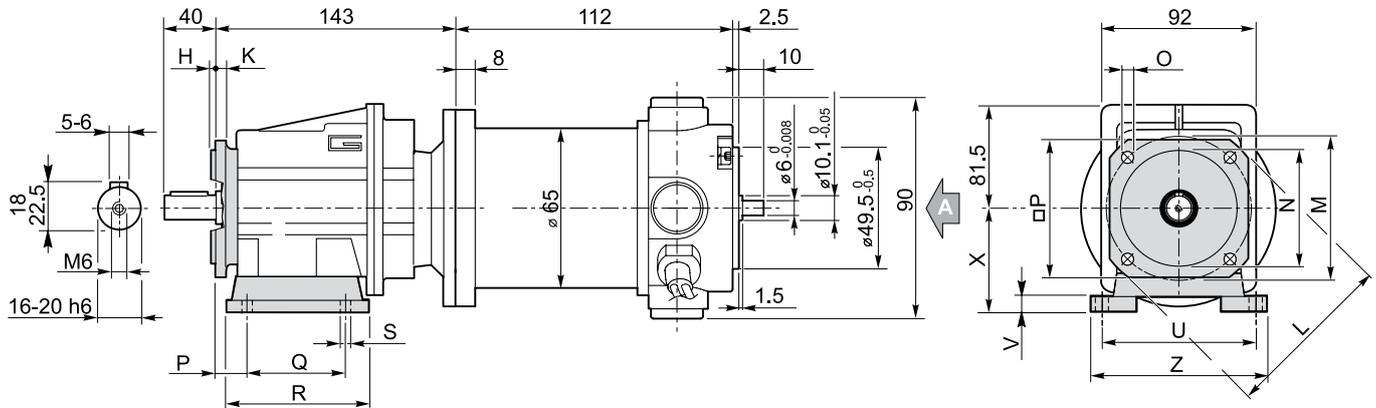


Dimensioni

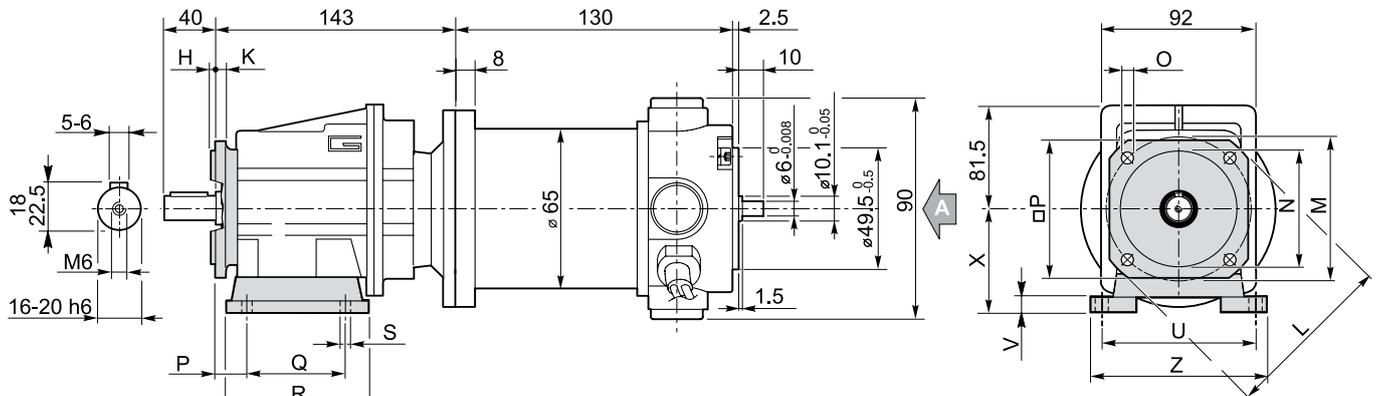
Dimensions

CMG..H../F..

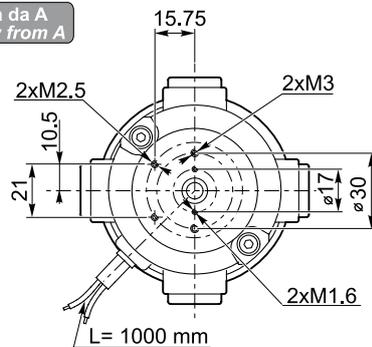
NDCMG120/002 H../F



NDCMG180/002 H../F



Vista da A
View from A



Versione H / H Version									Combinazioni possibili H/F Possible combinations H/F				
NDCMG	P	Q	R	S	U	V	X	Z	Piede / Foot		F105	F120	F140
									Tipo / Type	Peso / Weight [kg]			
120/002 180/002	18	60	80	9	100	10	60	120	H60	0.2	•	•	•
	18	80	104	9	110 - 120	10	75	145	H75	0.3	•	•	•
	18	50 - 87	110	9	110	10	85	135	H85	0.4	•	•	•

Preferenziale / Preferred

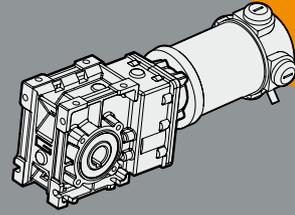
• Combinazioni possibili H/F / Possible combinations H/F

Versione F / F Version									Flangia / Flange	
NDCMG	H	K	L	M	N f7	O	P	Flangia / Flange		
								Tipo / Type	Peso / Weight [kg]	
120/002 180/002	3.5	7	105	85	70	6.5	90	F105	0.1	
	3.5	8	120	100	80	7	100	F120	0.2	
	3.5	8	140	115	95	9	115	F140	0.2	

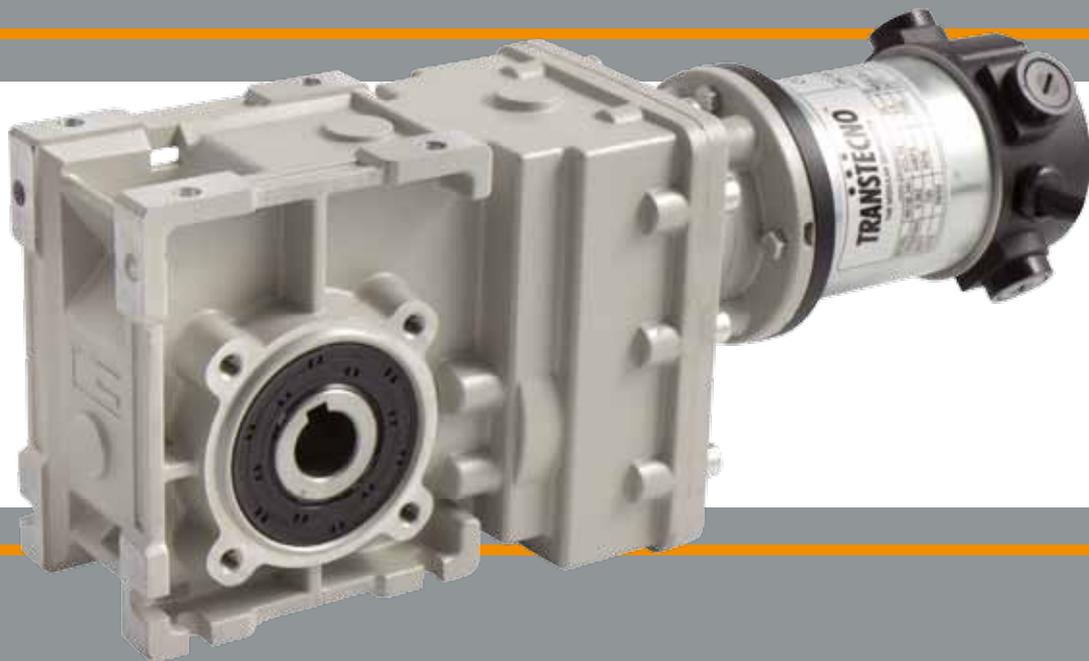
TRANSTECNOTM
THE MODULAR GEARMOTOR

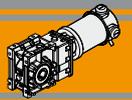
NDCMB

NDCMB



MOTORIDUTTORI C.C. AD ASSI ORTOGONALI
RARE EARTH D.C. BEVEL HELICAL GEARMOTORS

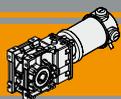




Indice	Index	Pag. Page
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Dati tecnici	<i>Technical data</i>	D4
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Accessori	<i>Accessories</i>	D8

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Caratteristiche tecniche

Technical features

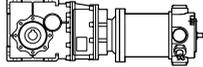
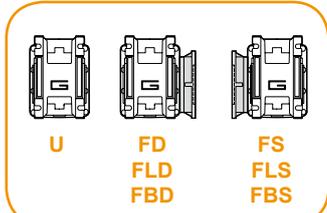
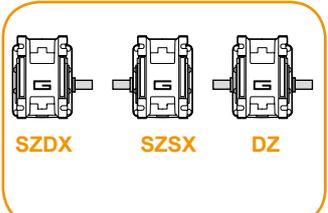
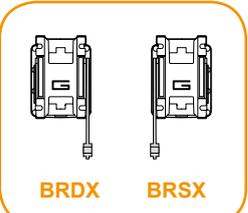
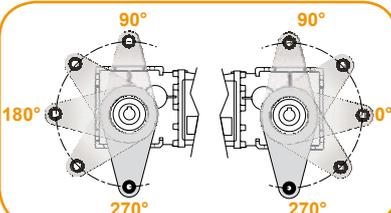
Le caratteristiche principali dei motoriduttori a corrente continua della serie NDCMB sono:

The main features of NDCMB D.C. gearmotor range are:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 160 a 250W S2
- Magneti in terre rare
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi sempre rettificati
- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 160 to 250W S2
- Rare earth magnets
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground helical gears

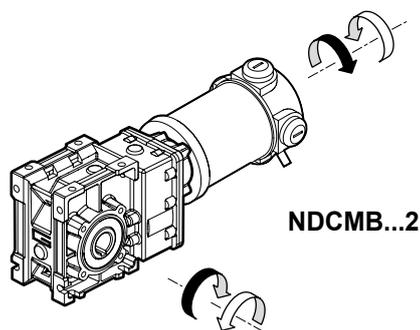
Designazione

Classification

MOTORIDUTTORE / GEARMOTOR									
NDCMB	120/402		U	9.2	D20	SZDX	BR SX	90	240
Tipo Type	Grandezza Size		Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version
	120/402 120/502	180/402 180/502	U FD FS FLD FLS FBD FBS	Vedere tabella See tables	Vedere tabella See tables	SZDX SZSX DZ	BRDX BR SX	0° 90° 180° 270°	120 240
Versione Riduttore Gearbox Version			Albero di uscita Output shaft		Braccio di reazione Torque arm		Angolo Angle		
									

Sensi di rotazione

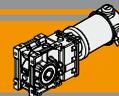
Direction of rotation



Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / Input speed	M_2 [Nm]	Coppia in uscita in funzione di P_1 / Output torque referred to P_1
n_2 [min ⁻¹]	Velocità in uscita / Output speed	sf	Fattore di servizio / Service factor
i	Rapporto di riduzione / Ratio	A_2 [N]	Carico assiale ammissibile in uscita / Permitted output axial load
P_1 [kW]	Potenza in entrata / Input power	R_2 [N]	Carico radiale ammissibile in uscita / Permitted output radial load



Lubrificazione

Lubrication

Tutti i riduttori nelle taglie 402 e 502 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

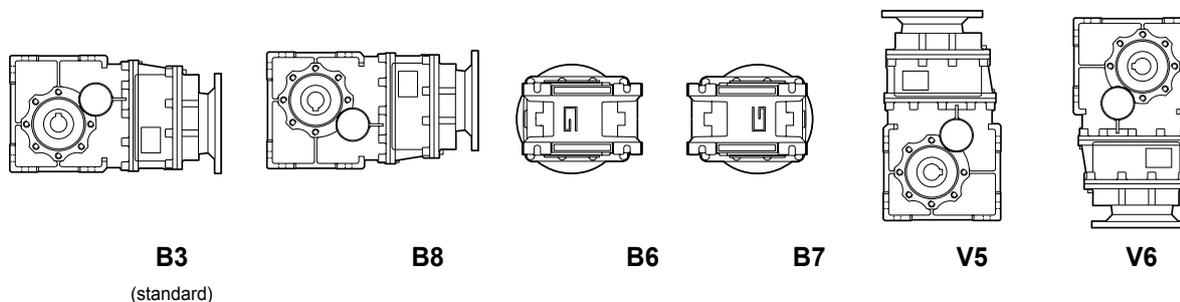
Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use sizes 402 and 502 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

CMB	Quantità di olio (litri) / Oil quantity (litres)					
	B3	B8	B6	B7	V5	V6
402	0.4					
502	0.52					
Lubrificati a vita / Life lubrication						

N.B.
 Le quantità di lubrificante sono indipendenti dalla posizione di montaggio per le taglie 402 e 502.
The oil quantity does not depend on mounting position for sizes 402 and 502.

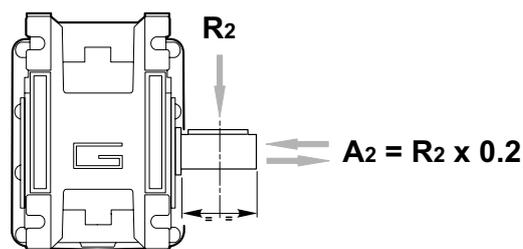
NDCMB

Posizioni di montaggio / Mounting positions



Carichi radiali

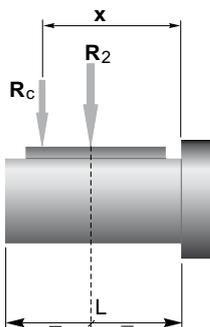
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]	
	CMB 402	CMB 502
400	905	1116
300	996	1228
200	1141	1406
170	1204	1484
140	1414	1743
100	1582	1949
90	1638	2019
60	2047	2490
40	2524	3029
30	2778	3334
20	3180	3816
15	3500	4200
10	3500	4200

Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

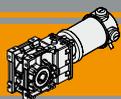


	CMB 402	CMB 502
a	86	104
b	66	79
R _{2MAX}	3500	4200

$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

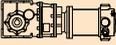
$$R \leq R_c$$

a, b = valori riportati nella tabella
 a, b = values given in the table



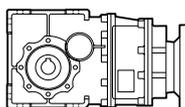
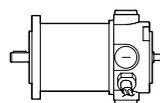
Dati tecnici per servizio S2

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	485	3.0	10.5	6.18	120/402	120/240	(3000 min ⁻¹)	485	4.6	6.7	6.18	180/402	120/240
	401	3.6	8.6	7.49									
	326	4.4	7.0	9.20									
	254	5.7	6.2	11.83									
	240	6.0	5.9	12.48									
	202	7.1	4.9	14.83									
	170	8.4	4.1	17.63									
	161	8.9	4.8	18.60									
	134	10.7	4.0	22.33									
	125	11.4	3.8	23.91									
	104	13.8	3.7	28.89									
	97	14.8	3.5	30.84									
	89	16.1	3.2	33.57									
	84	17.1	3.0	35.63									
	70	20.5	2.5	42.75									
	54	26.5	1.9	55.31									
	51	28.3	1.8	59.06									
	47	30.8	1.7	64.29									
	70	20.5	4.8	42.75	120/502	120/240		134	16.7	5.1	22.33	180/502	120/240
	54	26.5	3.7	55.31									
	51	28.3	3.5	59.06									
	47	30.8	3.2	64.29									
	125	17.9	4.8	23.91									
	104	21.6	4.5	28.89									
	97	23.1	4.2	30.84									
	89	25.1	3.9	33.57									
	84	26.7	3.7	35.63									
	70	32.0	3.1	42.75									
	54	41.4	2.4	55.31									
	51	44.2	2.2	59.06									
	47	48.1	2.0	64.29									

Motori applicabili

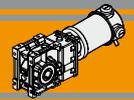
Motor adapters



		ND	
		120.120 120.240	180.120 180.240
CMB	402	6.18 - 64.29	6.18 - 64.29
	502	6.18 - 64.29	6.18 - 64.29

6.18 - 64.29

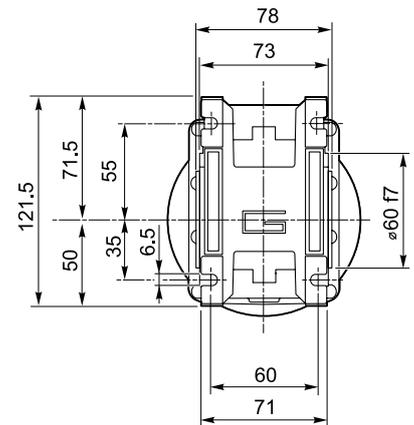
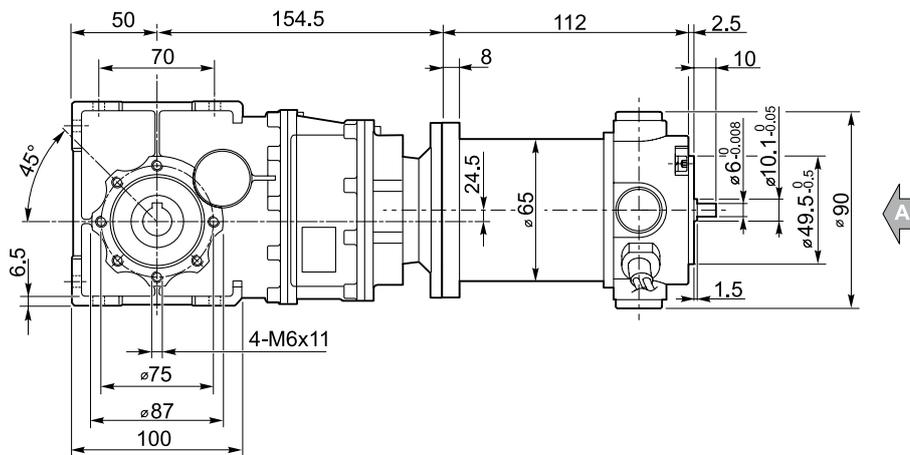
Rapporti di riduzione i
Ratio i



Dimensioni

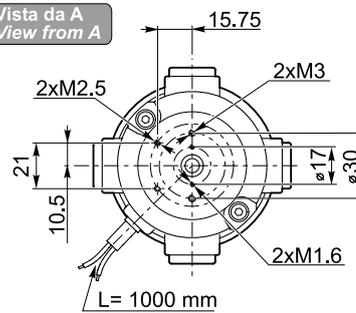
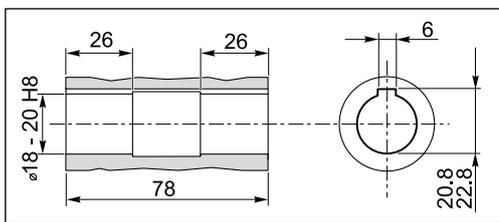
Dimensions

NDCMB120/402 U

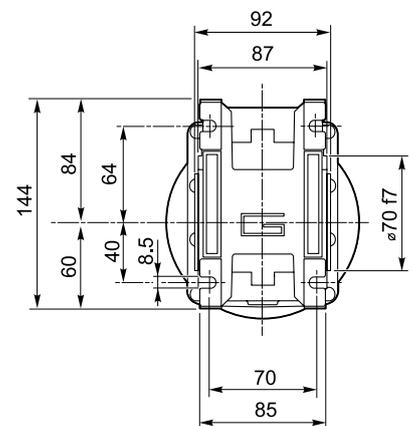
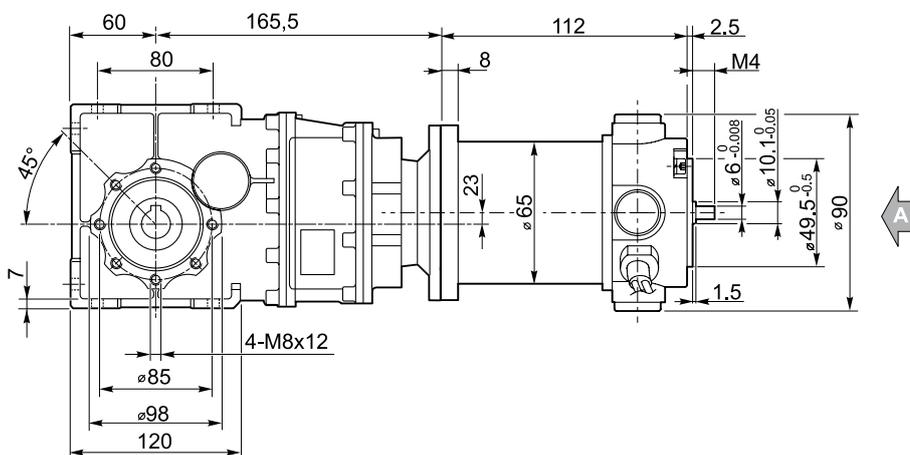


NDCMB

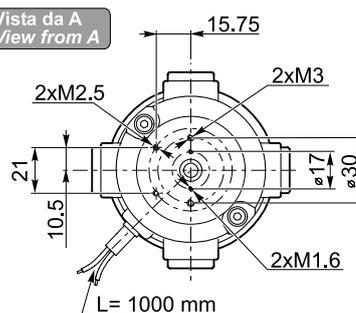
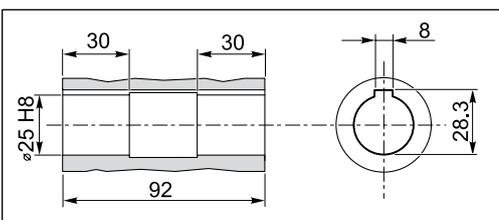
Vista da A
View from A

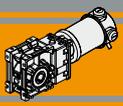


NDCMB120/502 U



Vista da A
View from A

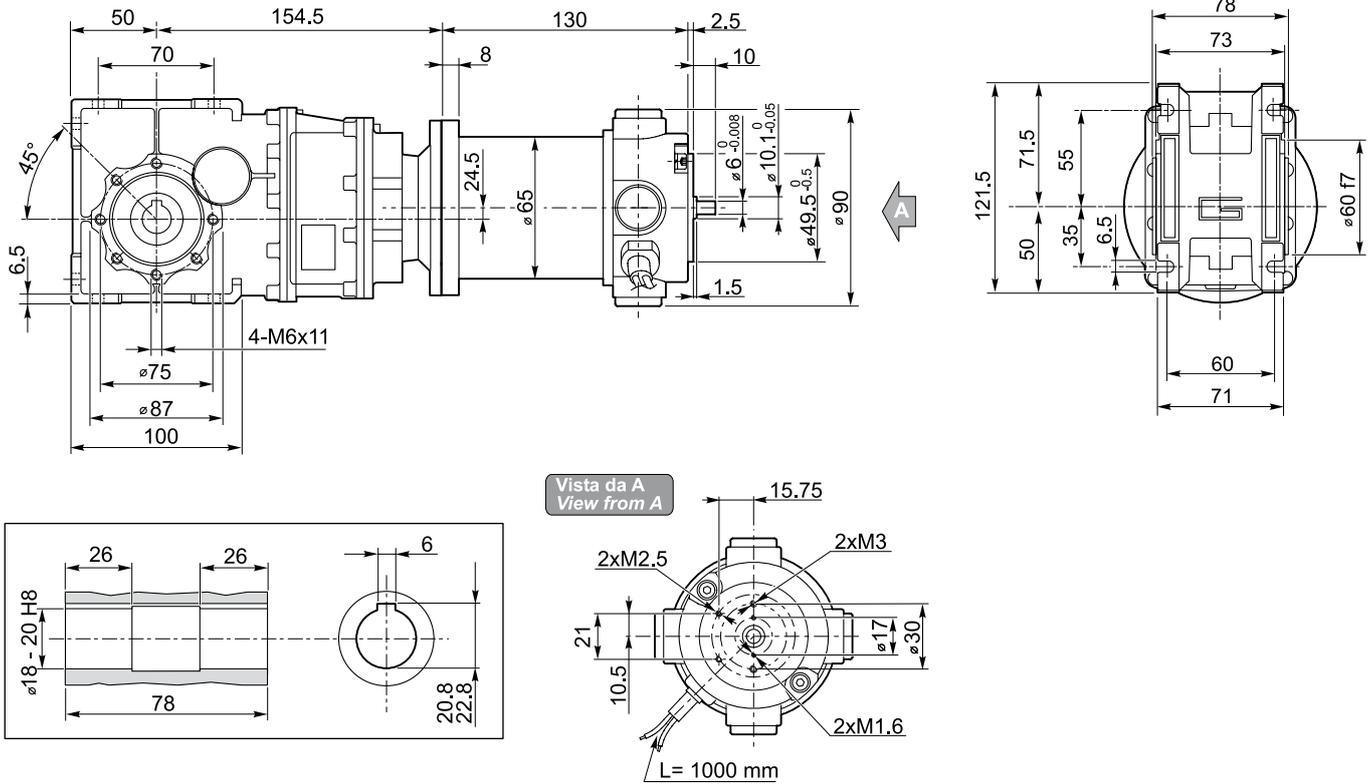




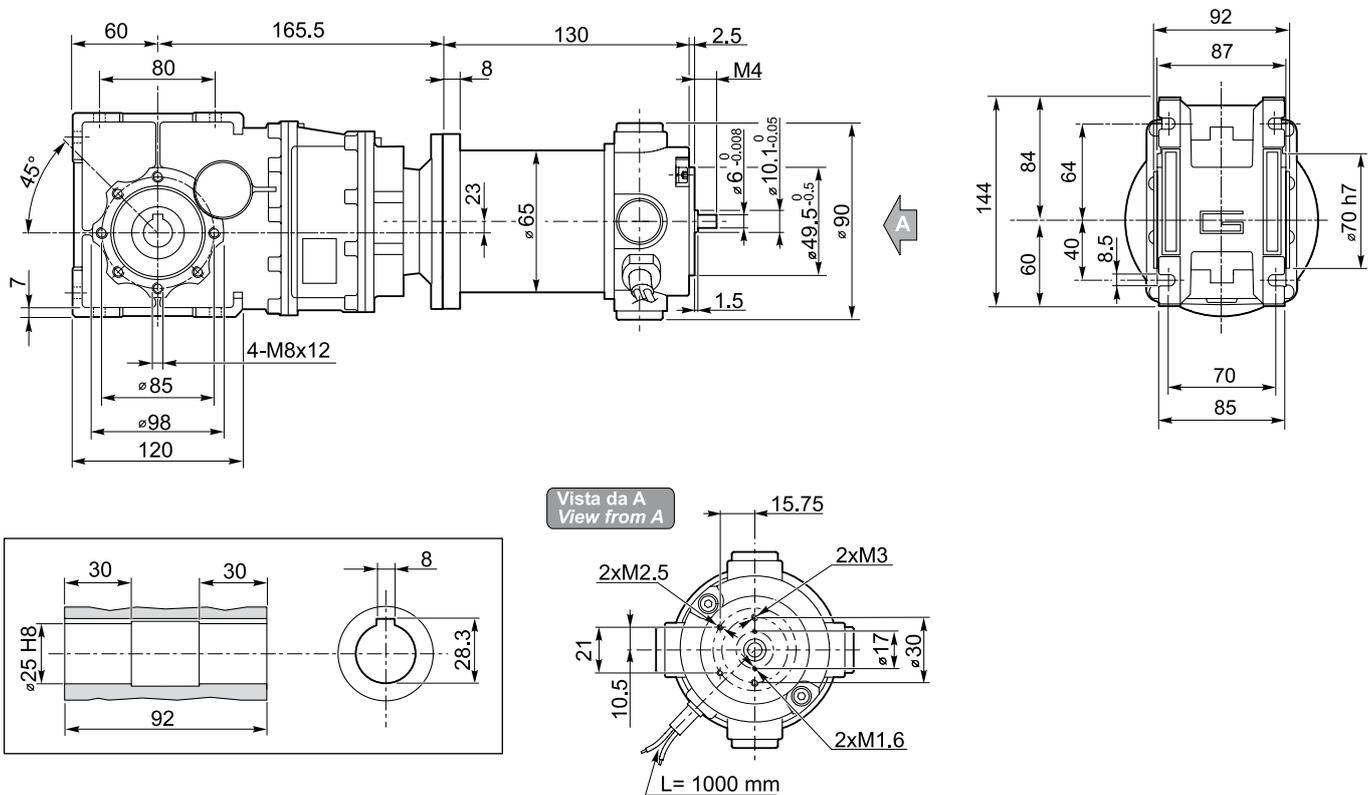
Dimensioni

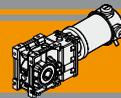
Dimensions

NDCMB180/402 U



NDCMB180/502 U

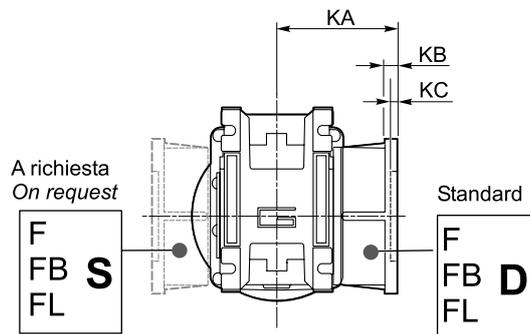
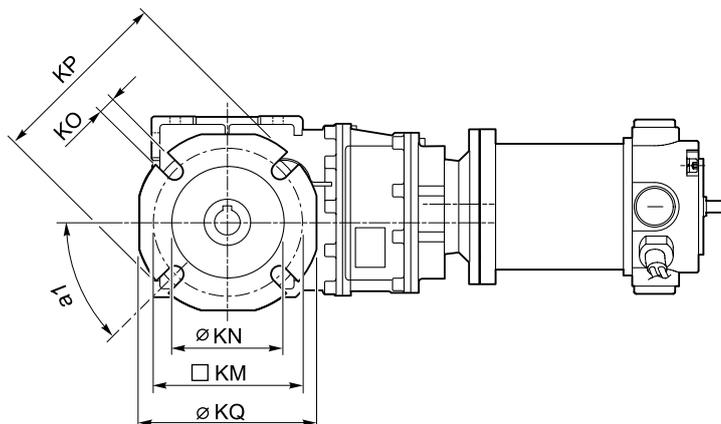




Dimensioni

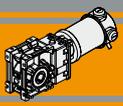
Dimensions

NDCMB.../... F... Flange uscita / Output flanges



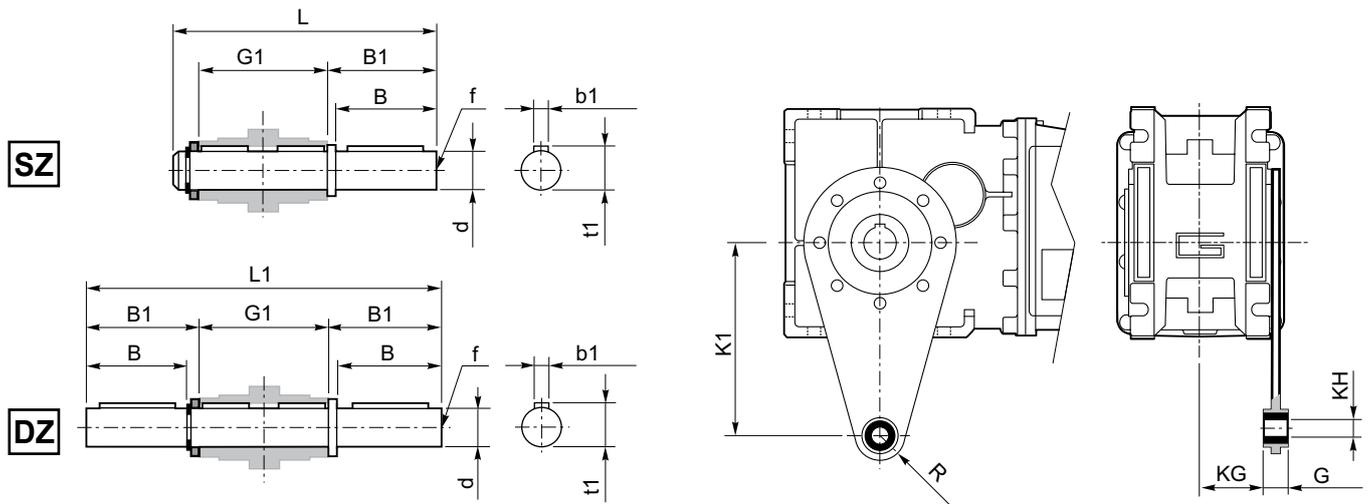
NDCMB

		Flange uscita / Output flanges																									
		F								FL								FB									
CMB	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ
402	45°	67	7.5	4.5	80-95	60	9	110	95	45°	97	7.5	4.5	80-95	60	9	110	95	45°	80	8.5	5	115-125	95	9.5	140	112
502	45°	90	9	5	90-110	70	11	125	110	45°	120	9	5	90-110	70	11	125	110	45°	89	9	5	130-145	110	9.5	160	132



Accessori

Accessories



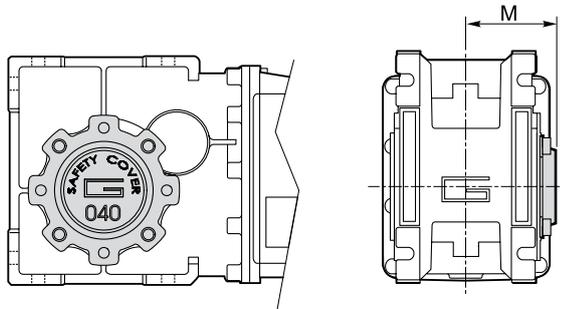
Albero lento / Output shaft

CMB	d h7	B	B1	G1	L	L1	f	b1	t1
402	18	40	43	78	128	164	M6	6	20.5
502	25	50	53.5	92	153	199	M10	8	28

Braccio di reazione / Torque arm

CMB	K1	G	KG	KH	R
402	100	14	31	10	18
502	100	14	38	10	18

SC - Safety cover

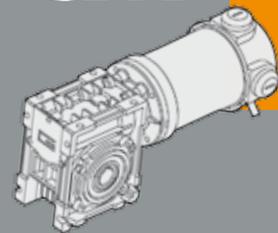


CMB	M
402	54.5
502	62.5

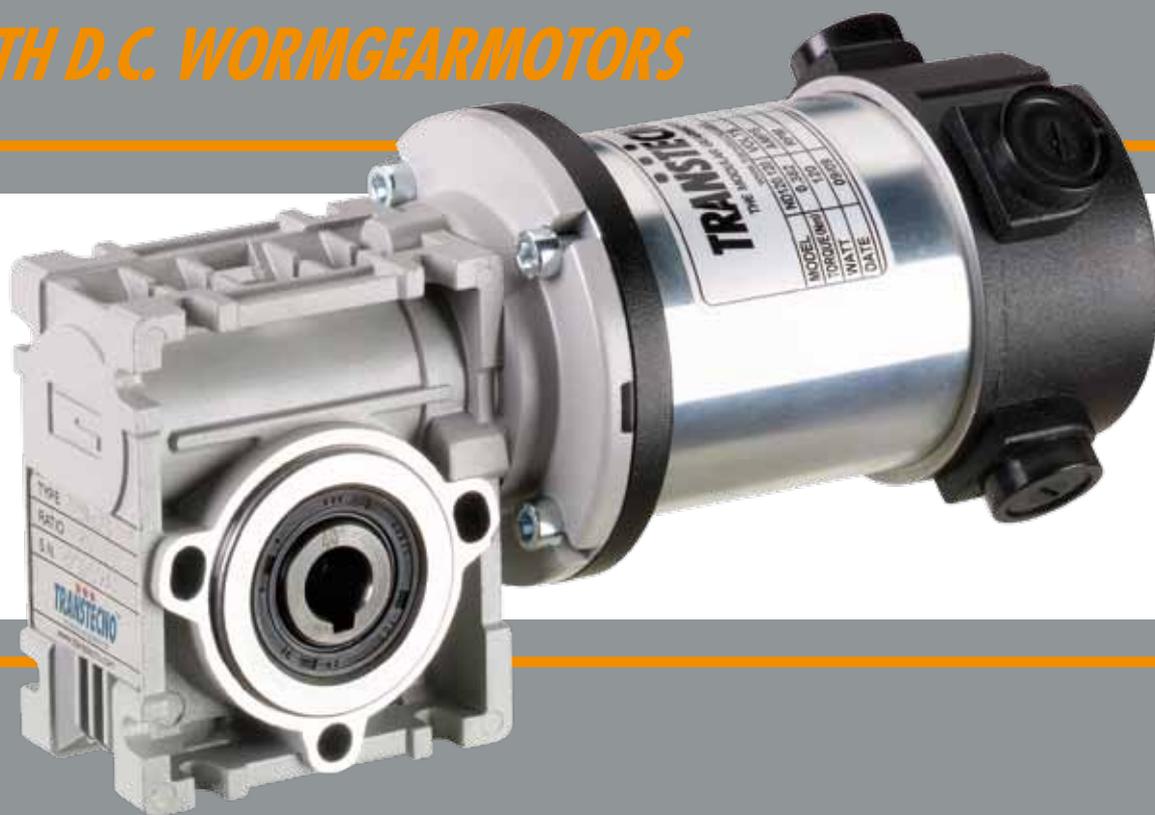
TRANSTECNOTM
THE MODULAR GEARMOTOR

NDCM

NDCM



MOTORIDUTTORI C.C. A VITE SENZA FINE
RARE EARTH D.C. WORMGEARMOTORS





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Caratteristiche tecniche	<i>Technical features</i>	E2
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Simbologia	<i>Symbols</i>	E2
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Carichi radiali	<i>Radial loads</i>	E3
Dati di dentatura	<i>Toothing data</i>	E4
Rendimento	<i>Efficiency</i>	E4
Dati tecnici	<i>Technical data</i>	E5
Motori applicabili	<i>IEC Motor adapters</i>	E5
Dimensioni	<i>Dimensions</i>	E6
Opzioni	<i>Options</i>	E10
Accessori	<i>Accessories</i>	E10

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Caratteristiche tecniche

Technical features

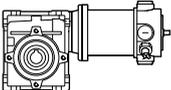
Le caratteristiche principali dei motoriduttori a corrente continua della serie NDCM sono:

The main features of NDCM D.C. gearmotor range are:

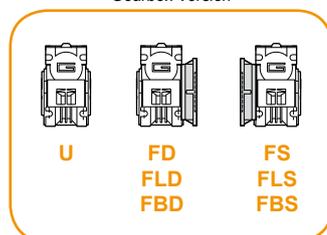
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 160 a 250 W S2
- Magneti in terre rare
- Carcasse dei riduttori a vite senza fine in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 160 to 250 W S2
- Rare earth magnets
- Die-cast aluminum housing on wormgearboxes
- Permanent synthetic oil long-life lubrication

Designazione

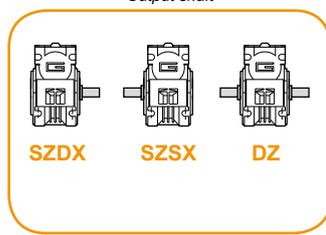
Classification

MOTORIDUTTORE / GEARMOTOR									
NDCM	120/030		U	10	SZDX	BR SX	90	240	VS
Tipo Type	Grandezza Size		Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version	Opzioni Options
	120/026	180/026	U	Vedere tabella See tables	SZDX SZSX DZ	BRDX BR SX	0° 90° 180° 270°	120 — 240	VS
	120/030	180/030	FD						
	120/040	180/040	FS FLD FLS FBD FBS						

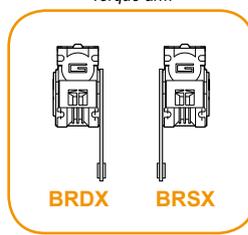
Versione Riduttore
Gearbox Version



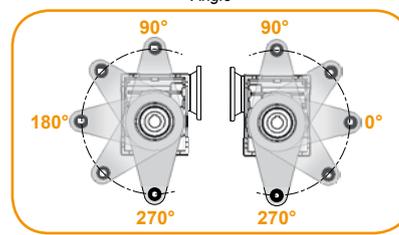
Albero di uscita
Output shaft



Braccio di reazione
Torque arm



Angolo
Angle



Simbologia

Symbols

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



Lubrificazione

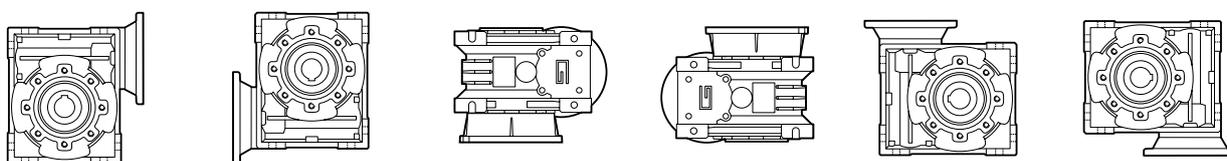
Lubrication

I riduttori a vite senza fine della serie CM sono lubrificati a vite con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

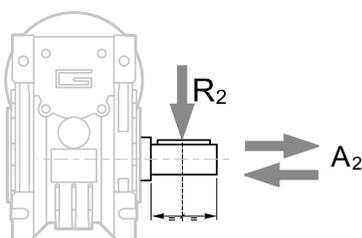
Quantità di olio (litri) / Oil quantity (litres)		Lubrificazione a vita / Life lubrication
Per tutte le posizioni di montaggio / For all mounting positions		
CM026	0.02	
CM030	0.03	
CM040	0.07	

Posizioni di montaggio / Mounting positions



Carichi radiali

Radial loads

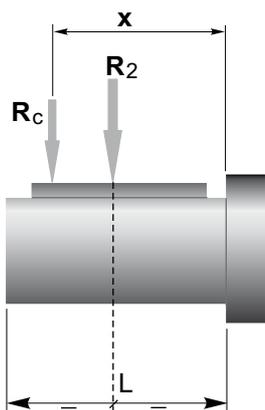


$$A_2 = R_2 \times 0.2$$

n ₂ [min ⁻¹]	R ₂ [N]		
	CM026	CM030	CM040
187	400	674	1264
140	490	743	1392
93	580	851	1596
70	610	936	1754
56	610	1008	1890
47	610	1069	2004
35	610	1179	2210
28	610	1270	2381
23	610	1356	2542
18	610	1471	2759
14	610	1600	3000

Quando il carico radiale risultante non è applicato sulla mezza-ria dell'albero occorre calcolare quello effettivo con la seguente formula:

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

a, b = valori riportati nella tabella
a, b = values given in the table

	CM		
	026	030	040
a	56	65	84
b	43	50	64
R _{2MAX}	610	1600	3000



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
CM026	Z	6	4	3	2	2		1	1	1	1		
	β	34° 35'	24° 41'	19° 1'	12° 57'	10° 30'		6° 33'	5° 17'	4° 26'	3° 49'		
CM030	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'
CM040	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'

Rendimento

Efficiency

	n_1 [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio											
			5	7.5	10	15	20	25	30	40	50	60	80	100
CM026	2800	Rd	89	87	85	83	80		73	68	64	60		
	1400		87	84	83	78	74		66	61	57	53		
	900		84	83	80	75	71		61	57	52	48		
		Rs	72	71	68	61	56		46	41	36	34		
CM030	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
CM040	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

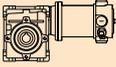
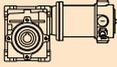


Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period



Dati tecnici per servizio S2

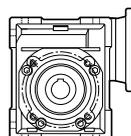
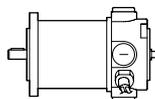
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	600	2	4.4	5	120/026		(3000 min ⁻¹)	600	4	2.8	5	180/026	
	400	3	3.3	7.5	120/026			400	5	2.1	7.5	180/026	
	300	4	2.5	10	120/026			300	7	1.6	10	180/026	
	200	6	1.7	15	120/026			200	10	1.1	15	180/026	
	150	8	1.3	20	120/026			150	13	0.9	20	180/026	
	100	11	1.1	30	120/026			100	17	0.7	30	180/026	
	75	14	0.8	40	120/026			75	16	0.7	40	180/026	
	60	14	0.7	50	120/026			60	14	0.7	50	180/026	
	50	13	0.7	60	120/026			50	13	0.7	60	180/026	
	600	2	5.7	5	120/030			600	4	3.7	5	180/030	
	400	3	4.5	7.5	120/030			400	5	2.9	7.5	180/030	
	300	4	3.7	10	120/030			300	7	2.3	10	180/030	
	200	6	2.5	15	120/030			200	10	1.6	15	180/030	
	150	8	1.7	20	120/030			150	13	1.1	20	180/030	
	120	10	1.5	25	120/030			120	16	1.0	25	180/030	
	100	11	1.6	30	120/030			100	18	1.0	30	180/030	
	75	14	1.1	40	120/030			75	22	0.7	40	180/030	
	60	17	0.9	50	120/030			60	21	0.7	50	180/030	
	50	20	0.7	60	120/030			50	20	0.7	60	180/030	
	38	17	0.7	80	120/030			38	17	0.7	80	180/030	
	30	16	0.7	100	120/030			30	16	0.7	100	180/030	
	150	8	3.7	20	120/040			600	4	8.1	5	180/040	
	120	10	2.7	25	120/040			400	5	5.8	7.5	180/040	
	100	12	3.2	30	120/040			300	7	4.8	10	180/040	
	75	15	2.3	40	120/040			200	10	3.5	15	180/040	
	60	18	1.8	50	120/040			150	13	2.3	20	180/040	
	50	20	1.4	60	120/040			120	16	1.8	25	180/040	
	38	24	1.1	80	120/040			100	18	2.1	30	180/040	
	30	29	0.8	100	120/040			75	23	1.5	40	180/040	
								60	27	1.2	50	180/040	
								50	32	0.9	60	180/040	
								38	38	0.7	80	180/040	
								30	34	0.7	100	180/040	

NDCM

Motori applicabili

IEC Motor adapters



		ND	
		120.120 120.240	180.120 180.240
CM	026	5 - 60	5 - 60
	030	5 - 100	5 - 100
	040	5 - 100	5 - 100

5-100

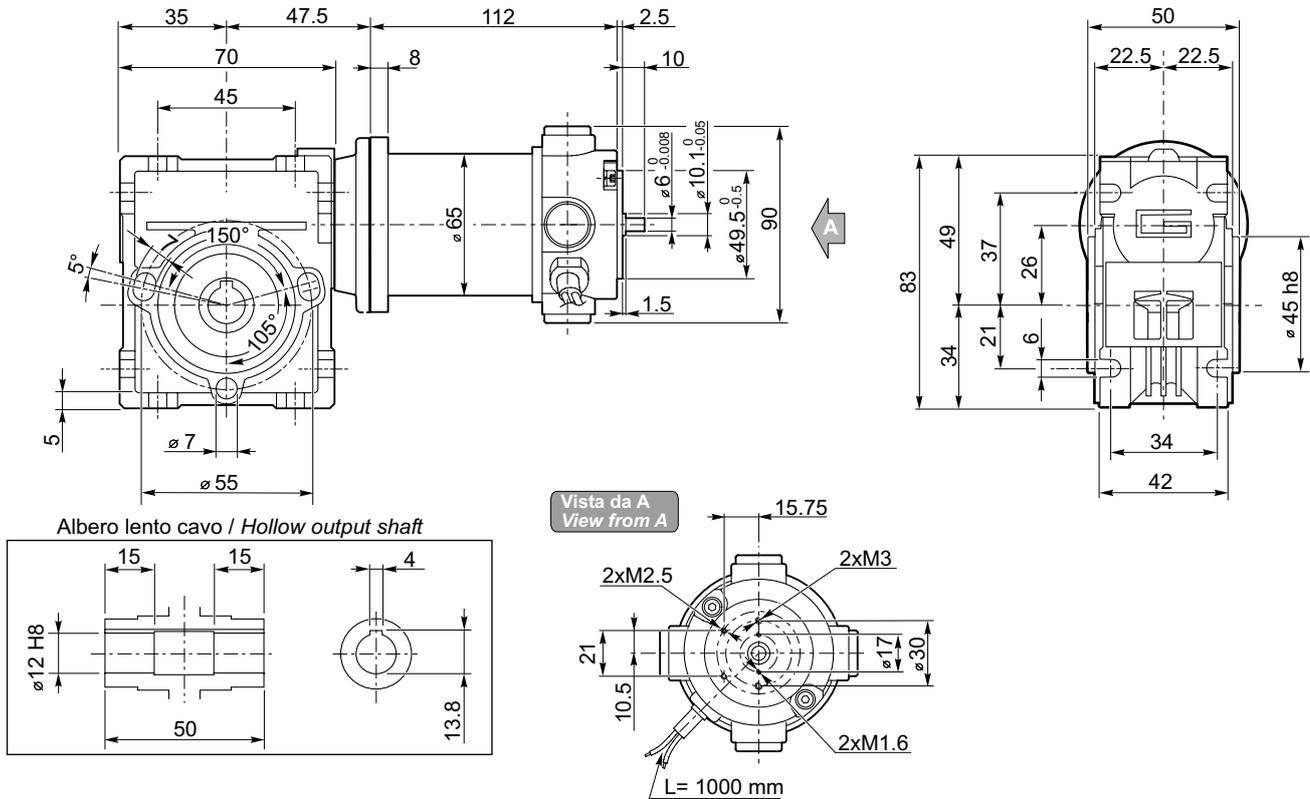
Rapporti di riduzione i
Ratio i



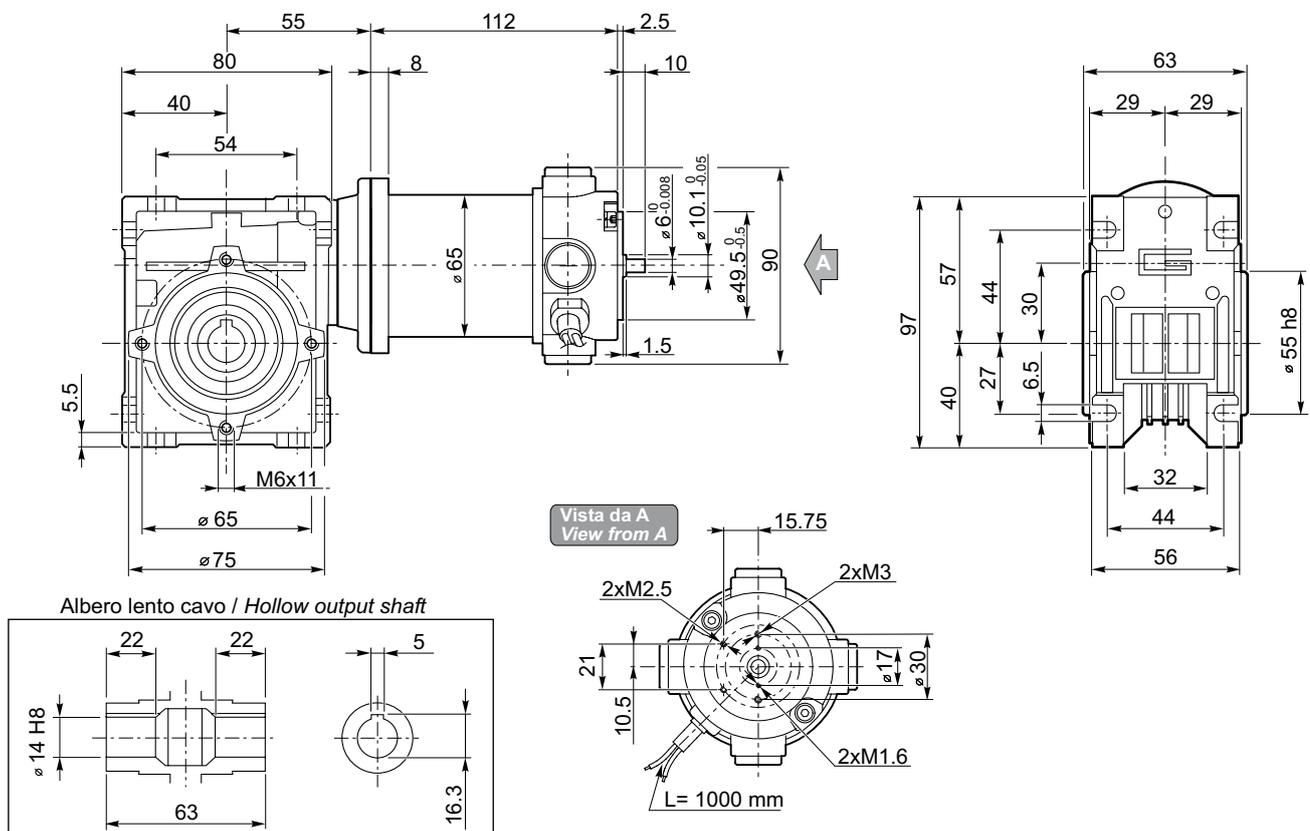
Dimensioni

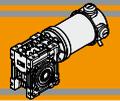
Dimensions

NDCM120/026 U



NDCM120/030 U

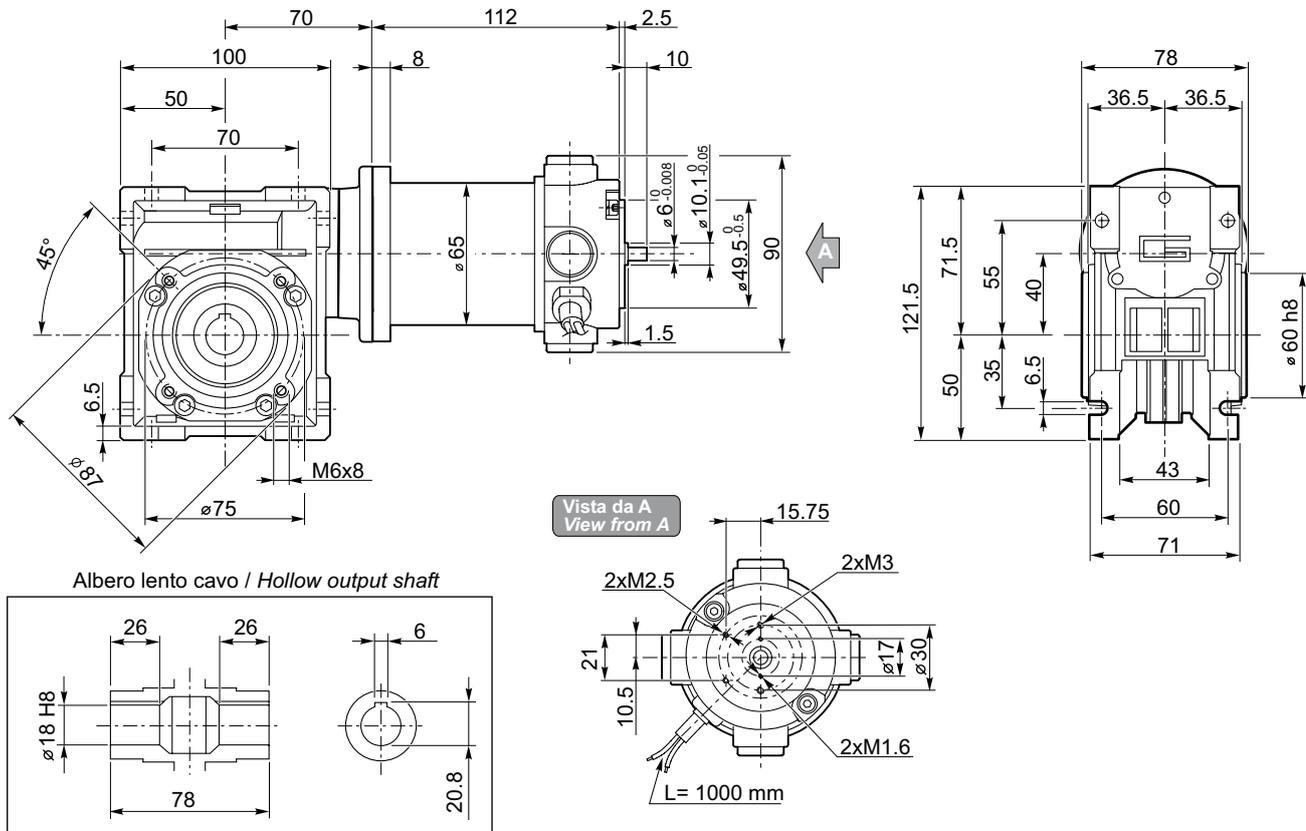




Dimensioni

Dimensions

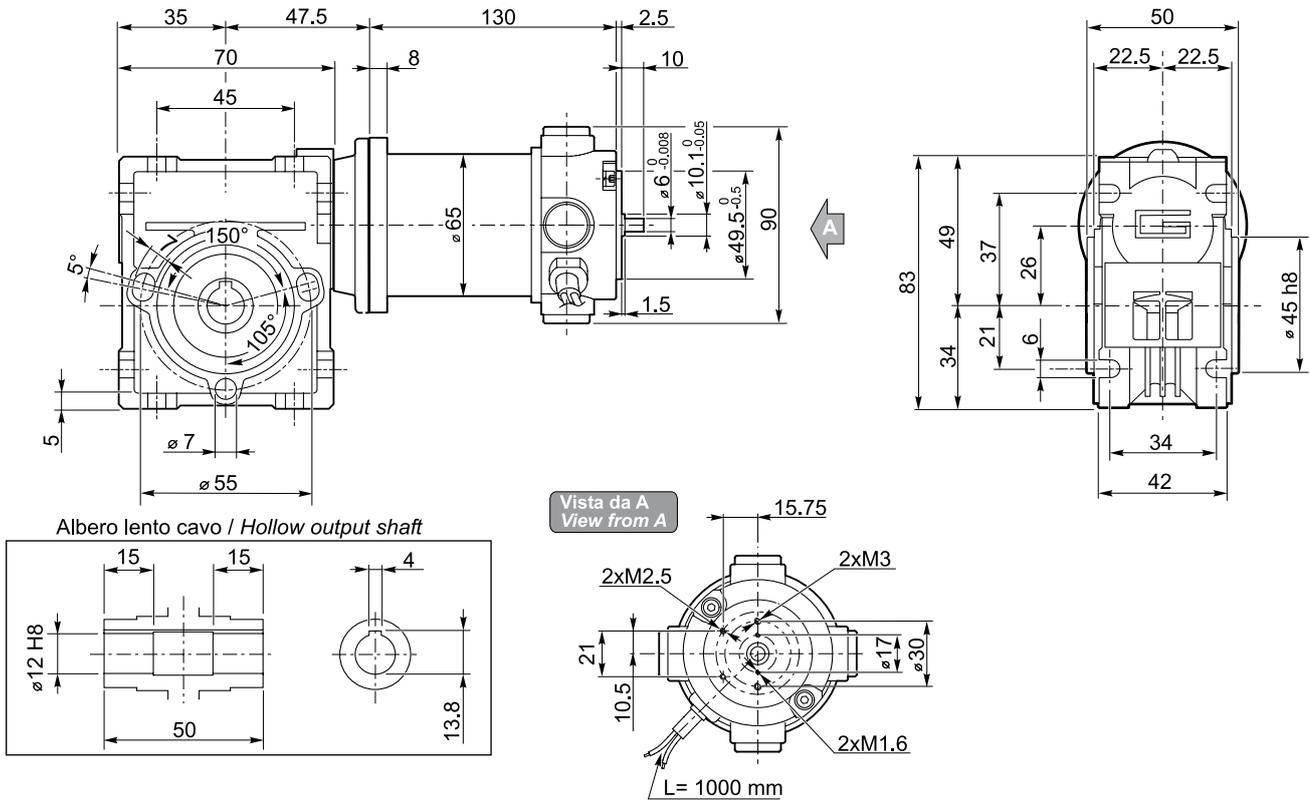
NDCM120/040 U



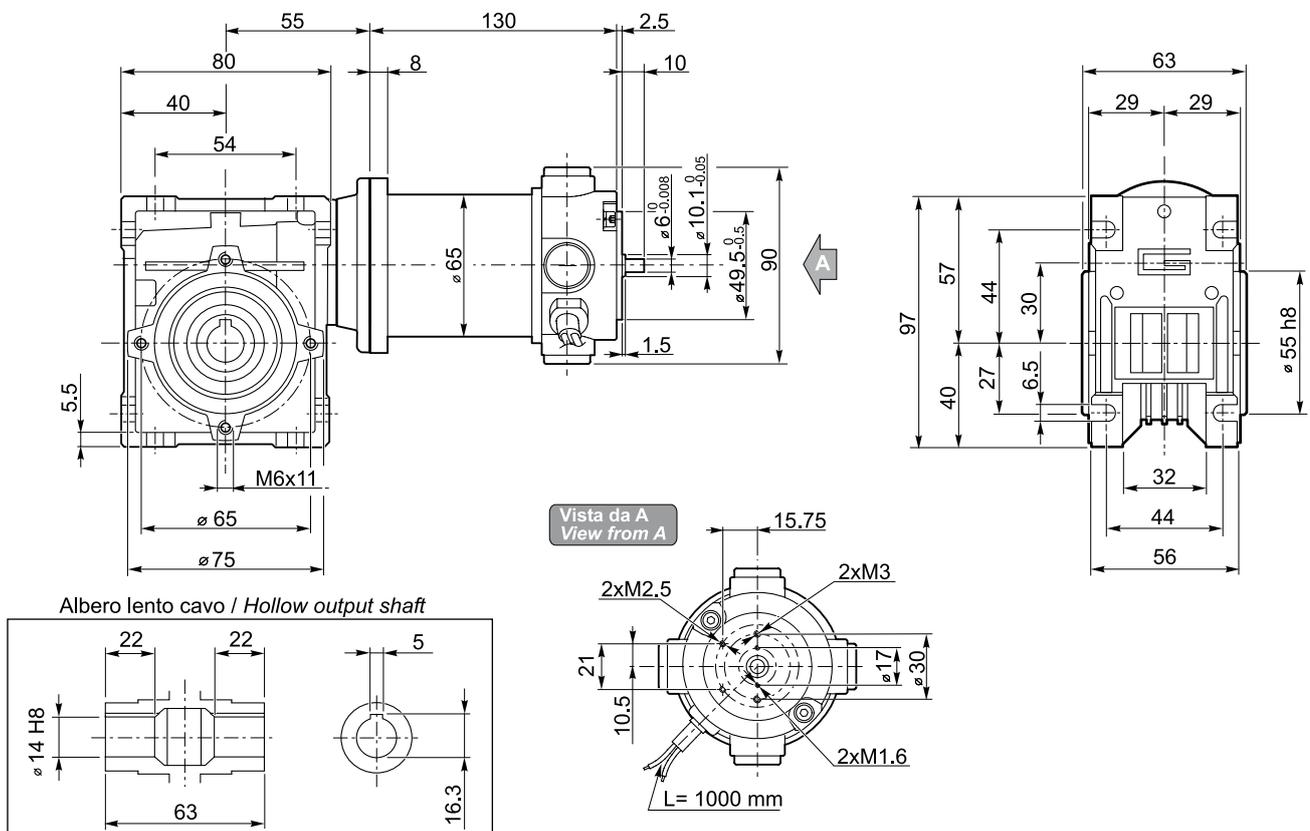
NDCM



NDCM180/026 U

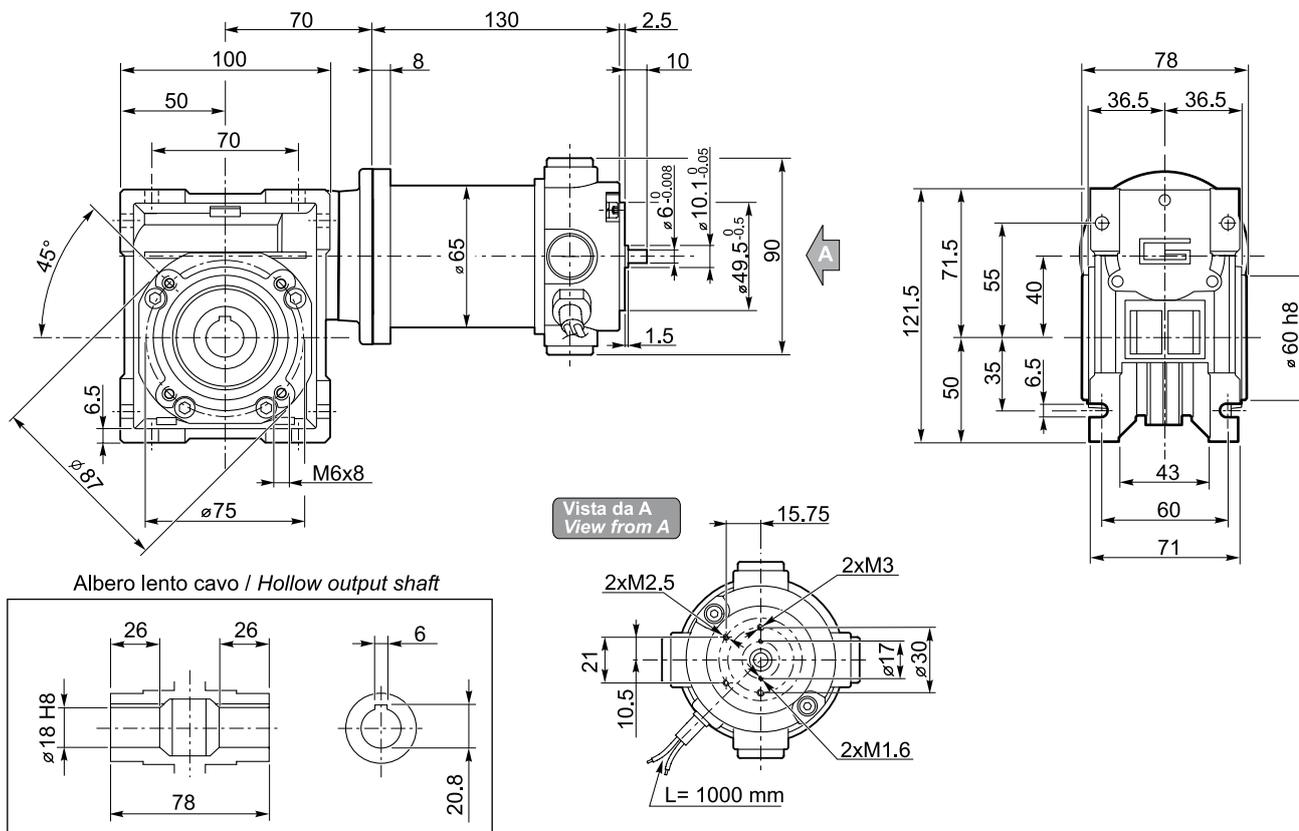


NDCM180/030 U



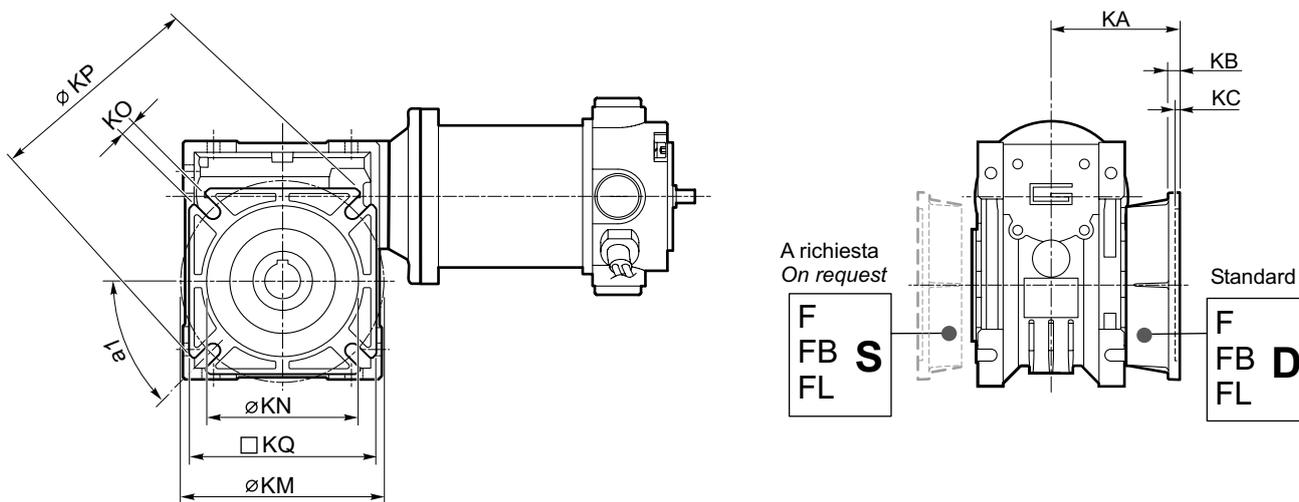


NDCM180/040 U



NDCM

NDCM.../... F... Flange uscita / Output flanges



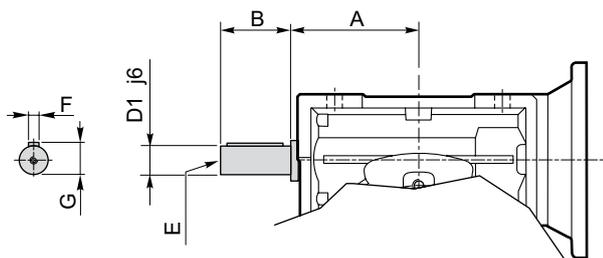
CM	CM..F									CM..FB							CM..FL								
	a1	KA	KB	KC	KM	KN H8	KO	KP	KQ	KA	KB	KC	KM	KN H8	KO	KP	KQ	KA	KB	KC	KM	KN H8	KO	KP	KQ
026	45°	45	6	4.5	55-69	40	6.5(n.4)	75	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040	45°	67	7.5	4.5	80-95	60	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	10(n.4)	110	95



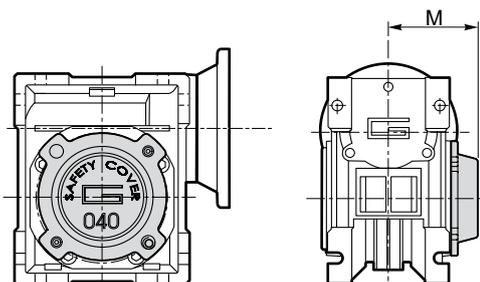
Opzioni

Options

VS - Vite sporgente / Extended input shaft



SC - Safety cover



	A	B	D ₁ j6	E	F	G
CM 030	45	20	9	M4	3	10.2
CM 040	53	23	11	M5	4	12.5

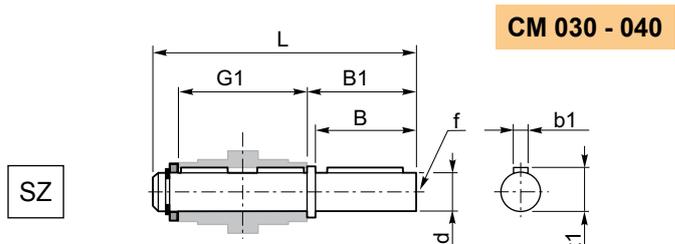
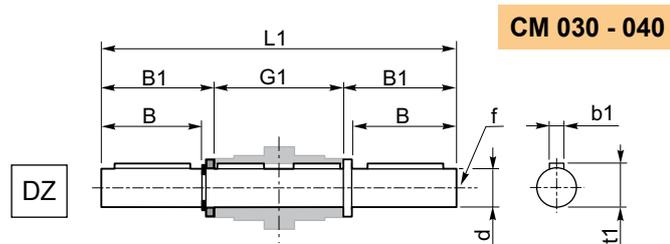
	M
CM 030	47
CM 040	54.5

Accessori

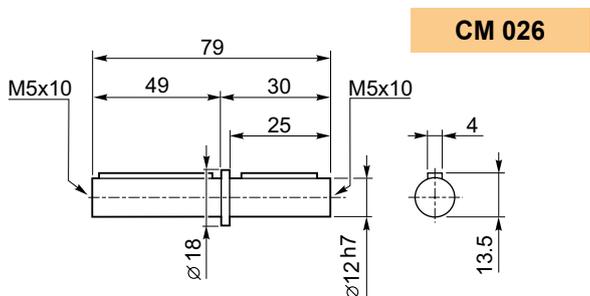
Accessories

Albero lento

Output shaft



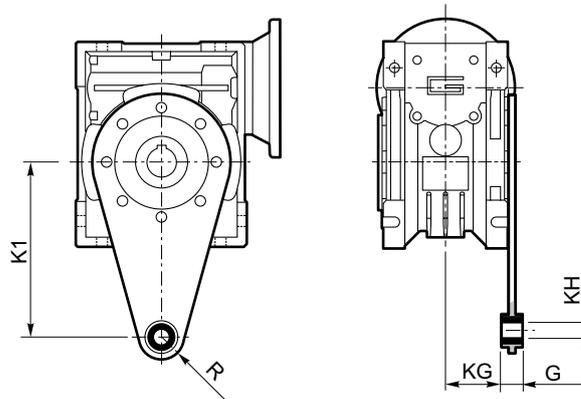
	d h7	B	B1	G1	L	L1	f	b1	t1
CM 030	14	30	32.5	63	102	128	M6	5	16
CM 040	18	40	43	78	128	164	M6	6	20.5



Braccio di reazione

Torque arm

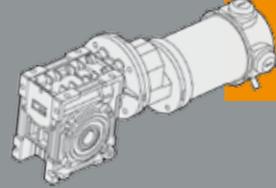
	K1	G	KG	KH	R
CM 030	85	14	23	8	15
CM 040	100	14	31	10	18



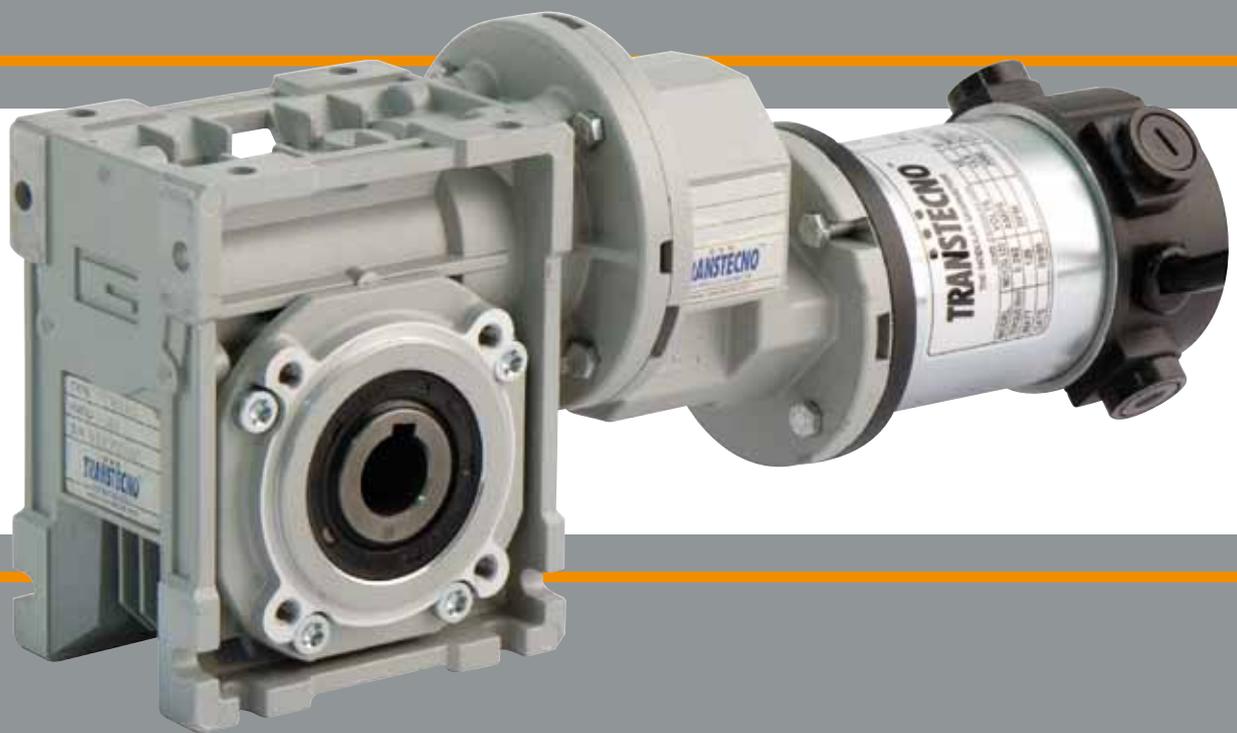
TRANSTECNOTM
THE MODULAR GEARMOTOR

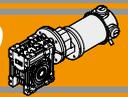
NDCMP

NDCMP



MOTORIDUTTORI C.C. CON PRECOPPIA
RARE EARTH D.C. PRE-STAGE GEARMOTORS



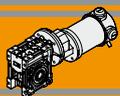


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Simbologia	<i>Symbols</i>	F3
Lubrificazione	<i>Lubrication</i>	F3
Carichi radiali	<i>Radial loads</i>	F4
Dati tecnici	<i>Technical data</i>	F5
Motori applicabili	<i>IEC Motor adapters</i>	F5
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Caratteristiche tecniche

Technical features

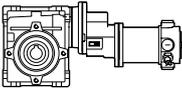
Le caratteristiche principali dei motoriduttori a corrente continua della serie NDCMP sono:

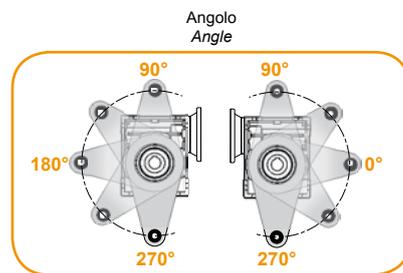
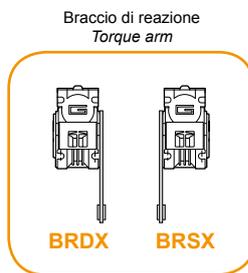
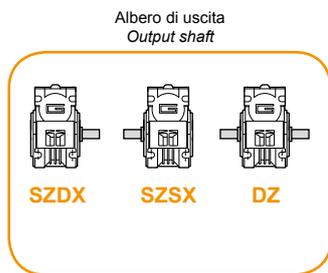
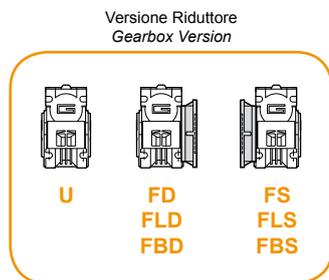
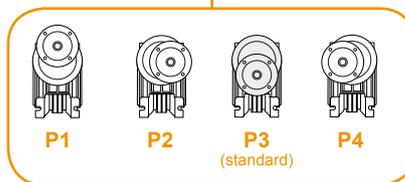
The main features of NDCMP D.C. gearmotor range are:

- Alimentazione in bassa tensione 12/24 Vcc
 - Possibilità di montaggio encoder
 - Potenze motore disponibili da 160 a 250 W S2
 - Magneti in terre rare
 - Sia le carcasse dei riduttori a vite senza fine che delle precoppie sono in pressofusione di alluminio
 - Lubrificazione permanente con olio sintetico.
- Low voltage power supply 12/24 Vdc
 - Suitable for encoder assembly
 - Motor power ratings available from 160 to 250 W S2
 - Rare earth magnets
 - Die-cast aluminum housing on pre-stage and wormgearboxes
 - Permanent synthetic oil long-life lubrication.

Designazione

Classification

MOTORIDUTTORE / GEARMOTOR											
NDCMP	120/056/030		U	90	SZDX	BR SX	90	P4	B3	240	VS
Tipo Type	Grandezza Size		Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montaggio precoppia Pre stage mounting position	Pos. di montaggio Mounting position	Versione Motore Motor Version	Opzioni Options
	120/056/030	180/056/030	U	Vedere tabella See tables	SZDX SZSX DZ	BRDX BR SX	0° 90° 180° 270°	P1 P2 P3 (standard) P4	B3 B8 B6 B7 V5 V6	120 — 240	VS
	120/056/040	180/056/040	FD FLD FLS FBD FBS								





Simbologia

Symbols

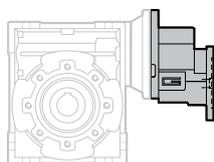
n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	sf	Fattore di servizio / <i>Service factor</i>
i	Rapporto di riduzione / <i>Ratio</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
P_1 [kW]	Potenza in entrata / <i>Input power</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>

Lubrificazione

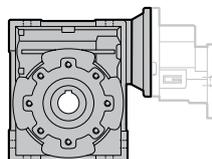
Lubrication

I riduttori a vite senza fine con precoppia della serie CMP sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CMP range in all mounting position.



CMP	
056/030 056/040	
Lubrificazione a vita <i>Life lubrication</i>	



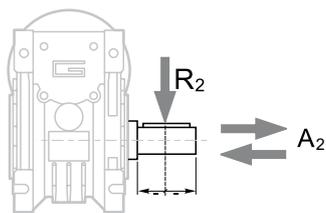
CMP	Quantità di olio (litri) / <i>Oil quantity (litres)</i>	
	Tutte le posizioni di montaggio / <i>For all mounting position</i>	
056/030	0.03	Lubrificazione a vita <i>Life lubrication</i>
056/040	0.07	

NDCMP



Carichi radiali

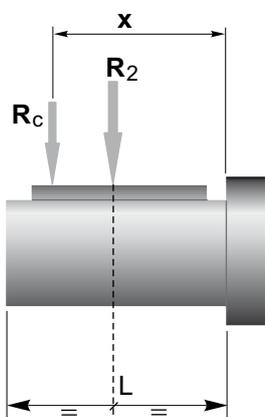
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]	
	CM030	CM040
35	1179	2210
28	1270	2381
23	1356	2542
18	1471	2759
14	1600	3000

Quando il carico radiale risultante non è applicato sulla mezza-
ria dell'albero occorre calcolare quello effettivo con la seguente
formula:

When the resulting radial load is not applied on the centre line
of the shaft it is necessary to calculate the effective load with the
following formula:



$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

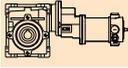
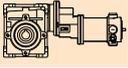
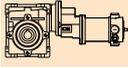
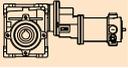
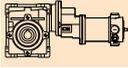
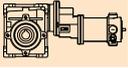
a, b = valori riportati nella tabella
a, b = values given in the table

	CMP	
	030	040
a	65	84
b	50	64
R _{2MAX}	1600	3000



Dati tecnici per servizio S2

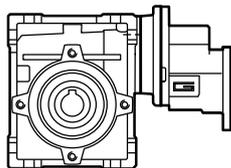
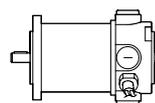
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	
160							250							
(3000 min ⁻¹)	50	21	1.0	60		120/056/030	(3000 min ⁻¹)	50	31	0.7	60		180/056/030	180/240
	40	25	0.9	75				40	31	0.7	75			
	33	28	1.0	90				33	39	0.7	90			
	25	35	0.7	120				25	33	0.7	120			
	20	31	0.7	150				20	31	0.7	150			
	50	22	2.0	60		120/056/040		50	35	1.3	60		180/056/040	180/240
	40	26	1.7	75			40	41	1.1	75				
	33	30	1.9	90			33	46	1.2	90				
	25	36	1.3	120			25	56	0.9	120				
	20	43	1.1	150			20	66	0.7	150				
	17	48	0.9	180			17	61	0.7	180				
	13	55	0.7	240			13	57	0.7	240				
	10	51	0.7	300	10	51	0.7	300						

NDCMP

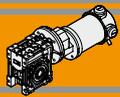
Motori applicabili

IEC Motor adapters



		ND	
		120.120 120.240	180.120 180.240
CMP	056/030	150	300
	056/040	150	300

150 Rapporto di riduzione massimo i_{max}
 Maximum ratio i_{max}



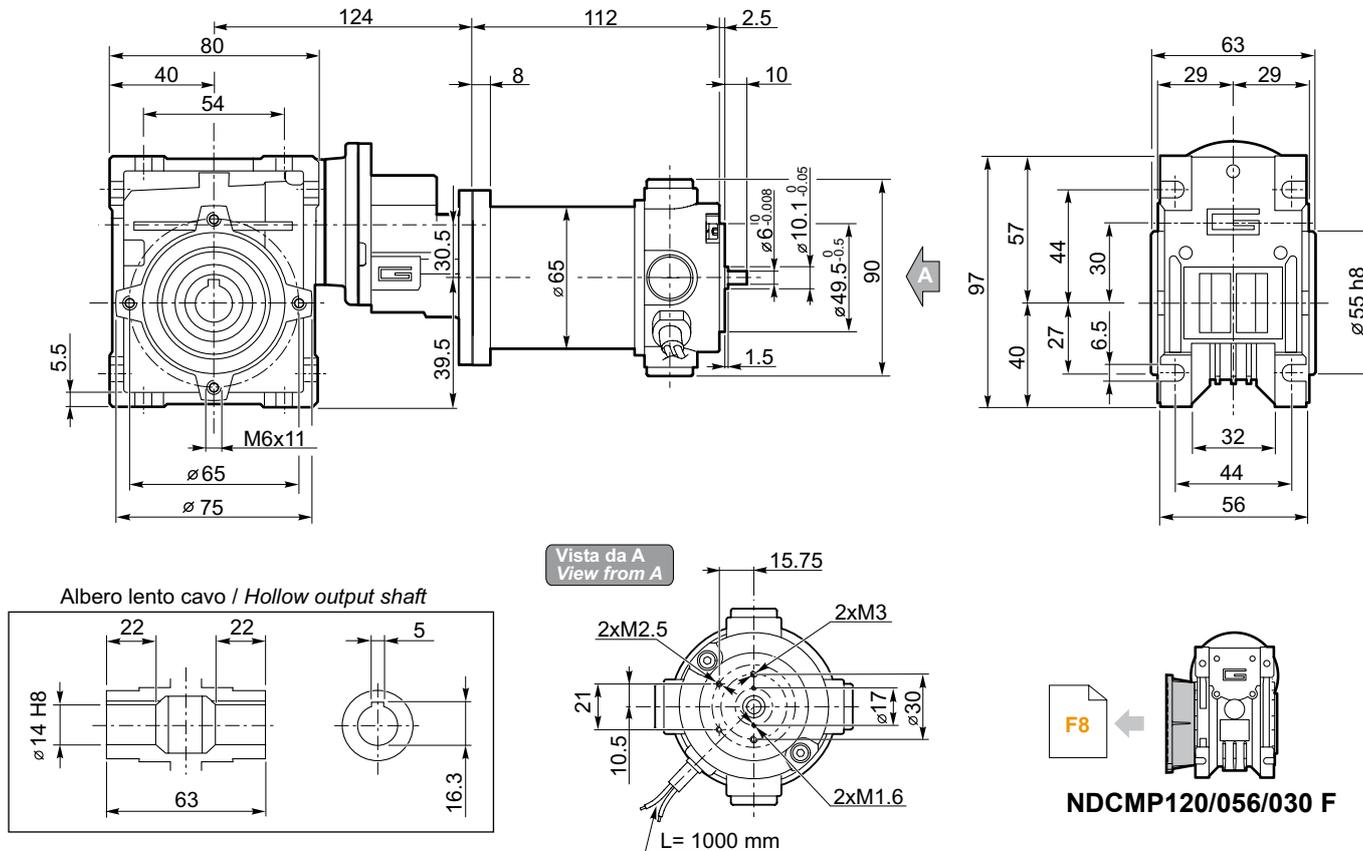
NDCMP

MOTORIDUTTORI C.C. CON PRECOPPIA RARE EARTH D.C. PRE-STAGE GEARMOTORS

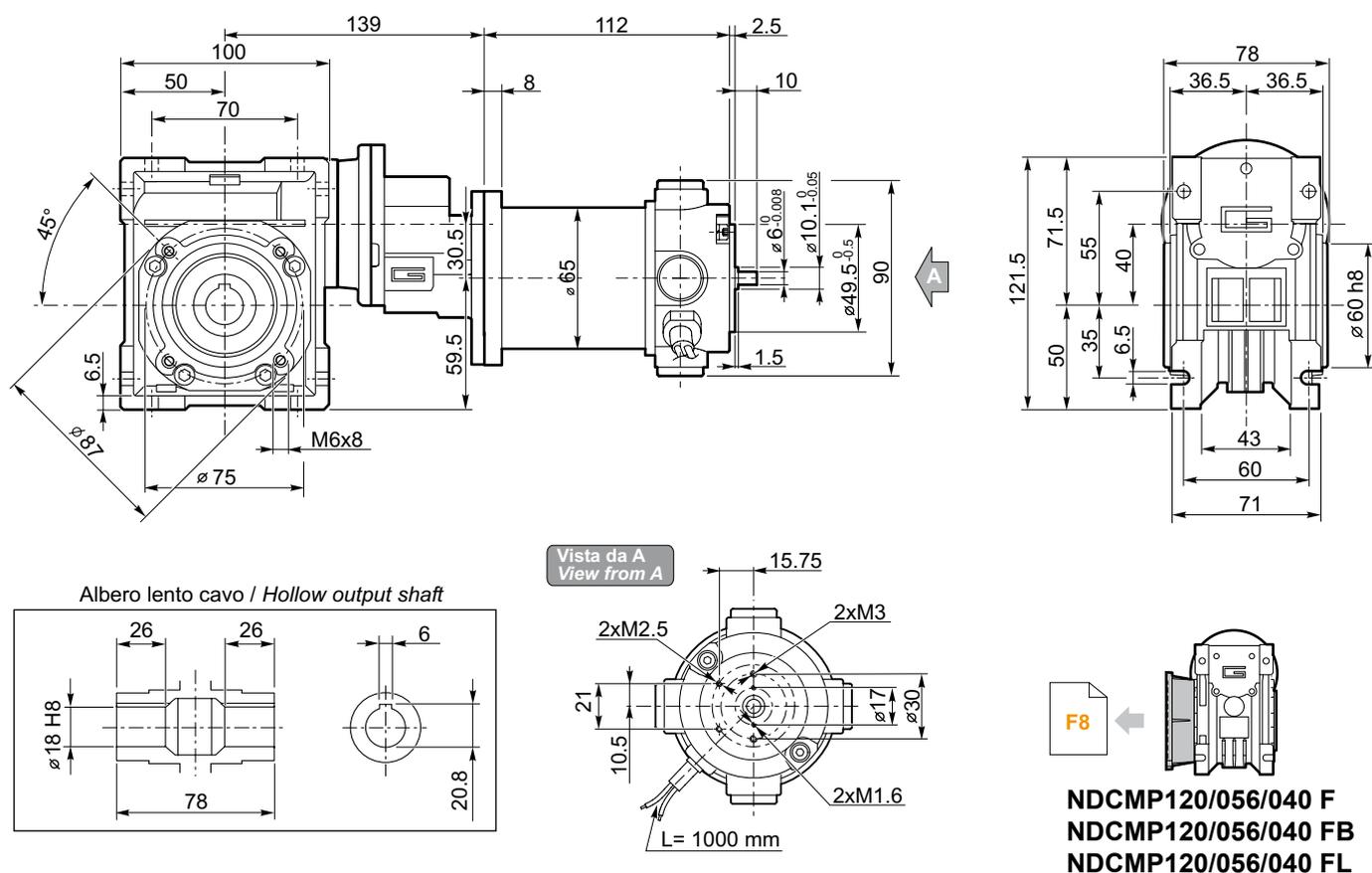
Dimensioni

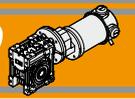
Dimensions

NDCMP120/056/030 U



NDCMP120/056/040 U

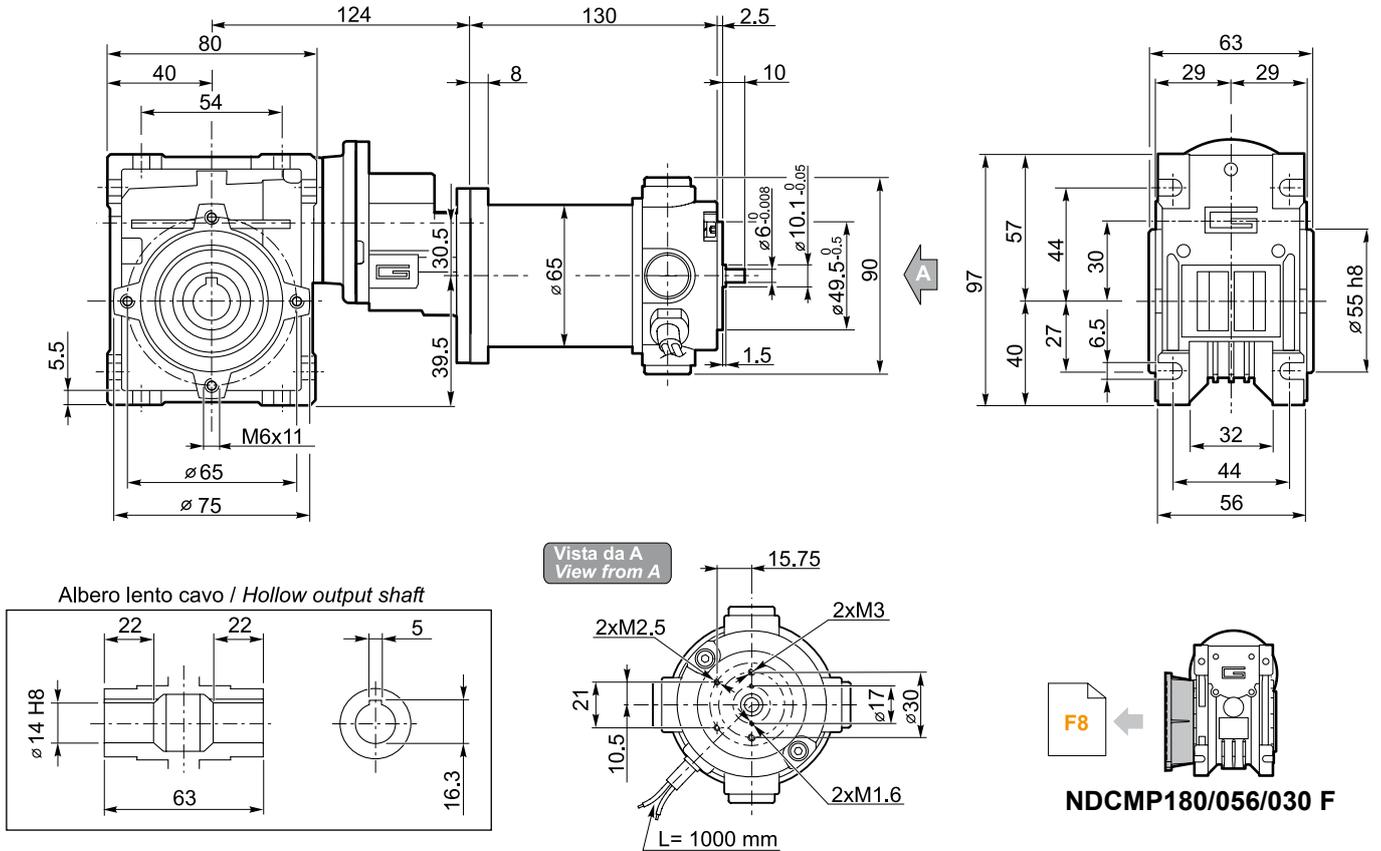




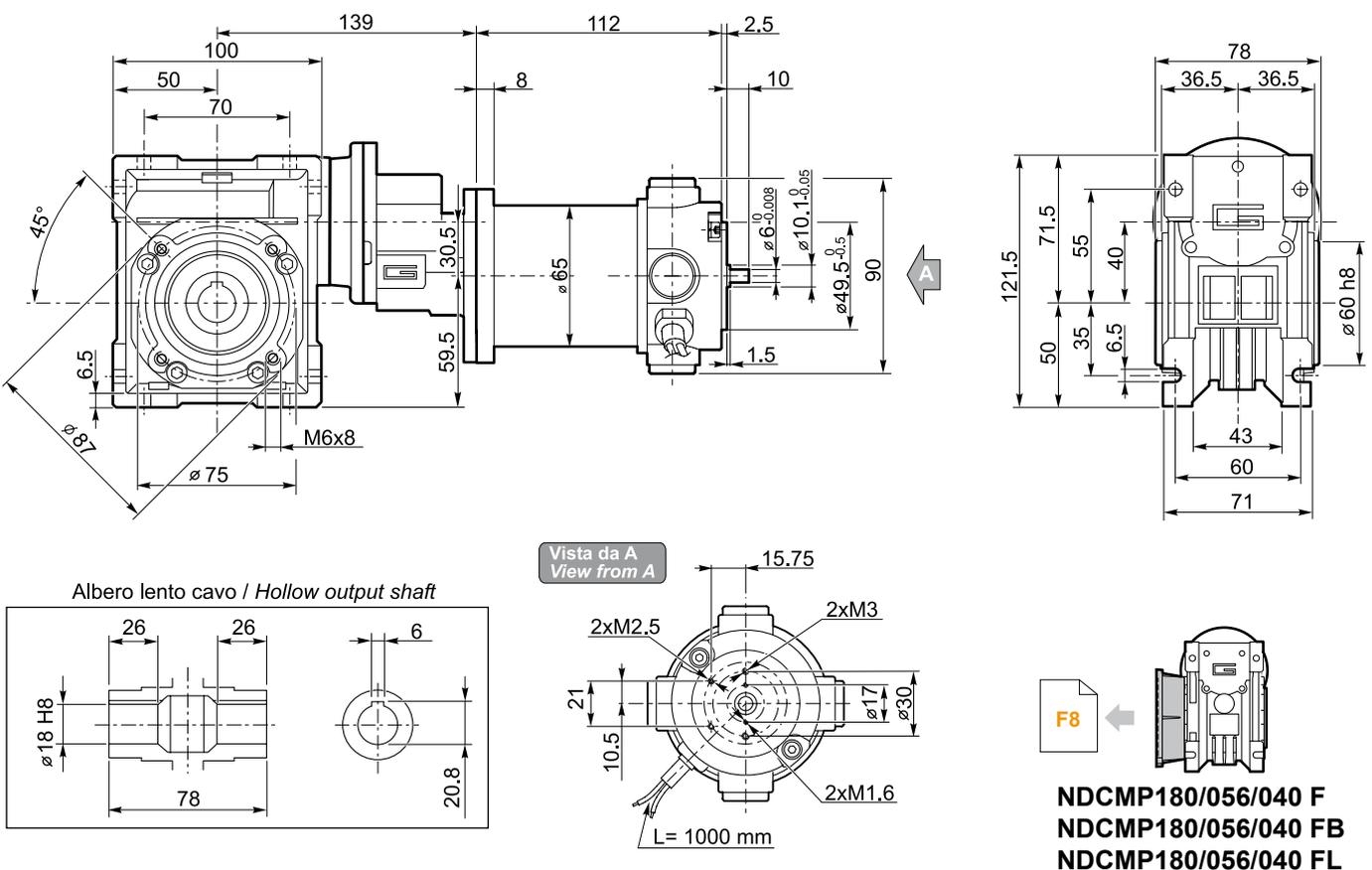
Dimensioni

Dimensions

NDCMP180/056/030 U



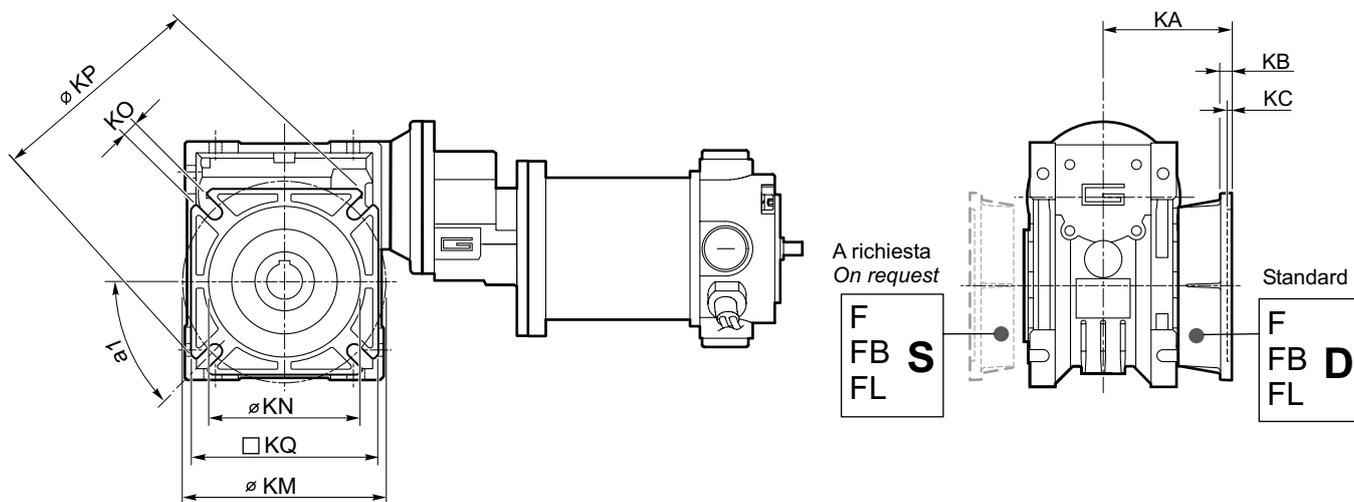
NDCMP180/056/040 U



NDCMP



NDCMP.../... F... Flange uscita / Output flanges

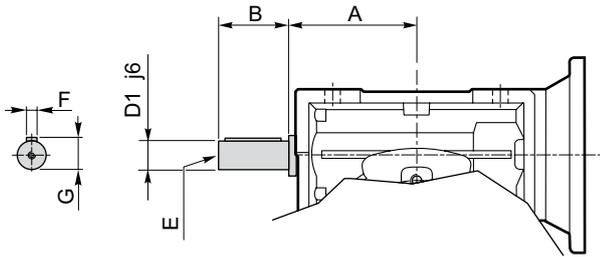


CMP	CMP.F									CMP.FB							CMP.FL								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
056/030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
056/040	45°	67	7.5	4.5	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	10(n.4)	110	95

Opzioni

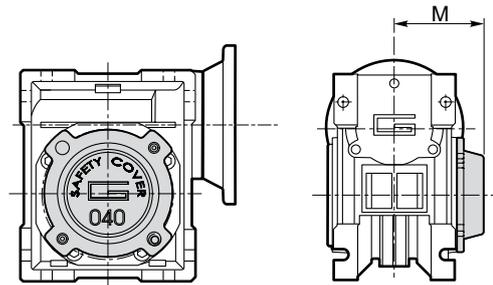
Options

VS - Vite sporgente / Extended input shaft



CMP	A	B	D ₁ j6	E	F	G
056/030	45	20	9	M4	3	10.2
056/040	53	23	11	M5	4	12.5

SC - Safety cover



	M
CM 030	47
CM 040	54.5

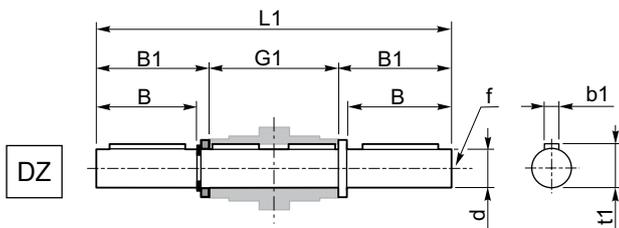
NDCMP

Accessori

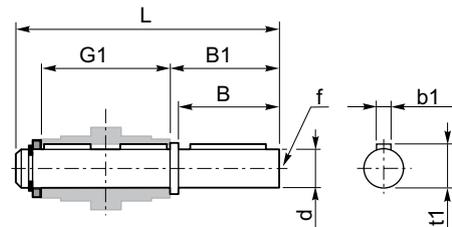
Accessories

Albero lento semplice e doppio

Single and double output shaft



SZ

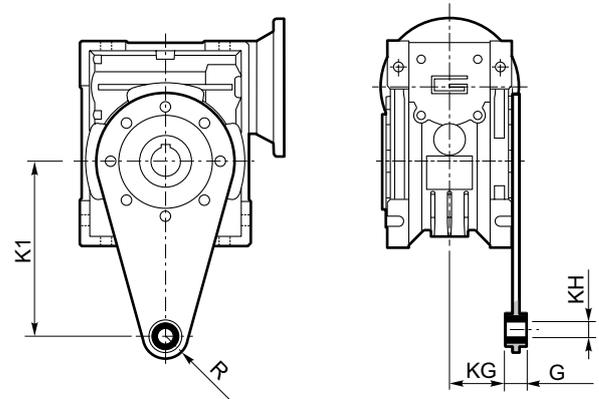


CMP	d h6	B	B1	G1	L	L1	f	b1	t1
056/030	14	30	32.5	63	102	128	M6	5	16
056/040	18	40	43	78	128	164	M6	6	20.5

Braccio di reazione

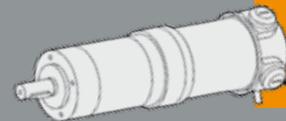
Torque arm

CMP	K1	G	KG	KH	R
056/030	85	14	23	8	15
056/040	100	14	31	10	18



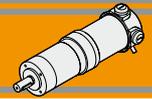
TRANSTECNOTM
THE MODULAR GEARMOTOR

NDP



MOTORIDUTTORI C.C. EPICICLOIDALI
RARE EARTH D.C. PLANETARY GEARMOTORS

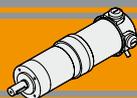




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Caratteristiche tecniche	<i>Technical features</i>	G2
Designazione	<i>Classification</i>	G2
Versioni	<i>Versions</i>	G2
Simbologia	<i>Symbols</i>	G2
Lubrificazione	<i>Lubrication</i>	G2
Carichi radiali	<i>Radial loads</i>	G3
Rapporti	<i>Ratios</i>	G3
Rendimento	<i>Efficiency</i>	G3
Dati tecnici	<i>Technical data</i>	G4
Dimensioni	<i>Dimensions</i>	G7

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Caratteristiche tecniche

Technical features

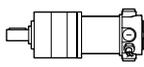
Le caratteristiche principali dei motoriduttori a corrente continua a terre rare della serie NDP sono:

The main features of NDP rare earth D.C. gearmotor range are:

- Alimentazione in bassa tensione 12/24 Vcc
 - Possibilità di montaggio encoder
 - Potenze motore disponibili da 160 a 250 W S2
 - Magneti in Neodimio
 - Entrata ed uscita coassiali
 - Design compatto
 - Lubrificazione permanente a grasso
 - Possono essere installati in qualunque posizione di montaggio.
- Low voltage power supply 12/24 Vdc
 - Suitable for encoder assembly
 - Motor power ratings available from 160 to 250 W S2
 - Neodymium magnets
 - Coaxial arrangement of the input and output
 - Compact design
 - Permanent grease oil long-life lubrication
 - Can be intalled in all mounting position.

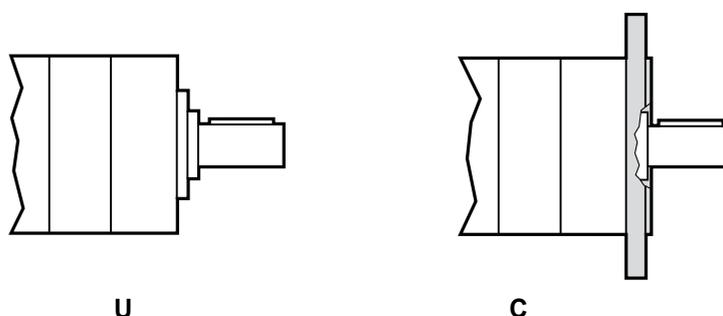
Designazione

Classification

MOTORIDUTTORE / GEARMOTOR							
NDP	120/62		2	C	90	34.97	120
Tipo Type	Grandezza Size		Stadi riduttore Gearbox stages	Versione riduttore Gearbox Version	Flangia uscita Output flange	Rapporto Ratio	Versione Motore Motor Version
	120/52	180/52	1	U	80	Vedere tabella See tables	120
	120/62	180/62	2	C	90		240
	120/72	180/72	3		105		
	120/81	180/81 180/105 180/120			120		

Versioni

Versions



Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / Input speed	sf	Fattore di servizio / Service factor
n_2 [min ⁻¹]	Velocità in uscita / Output speed	Rd %	Rendimento dinamico / Dynamic efficiency
i	Rapporto di riduzione / Ratio	A_2 [N]	Carico assiale ammissibile in uscita / Permitted output axial load
P_1 [kW]	Potenza in entrata / Input power	R_2 [N]	Carico radiale ammissibile in uscita / Permitted output radial load
M_2 [Nm]	Coppia in uscita in funzione di P_1 / Output torque referred to P_1		

Lubrificazione

Lubrication

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenance free.

Questo gli consente di essere installati praticamente ovunque.

They can be installed in any location.

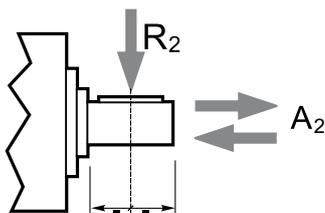
La temperatura di funzionamento consentita va da -30 °C a + 140 °C; per applicazioni particolari, possono essere adottate misure per raggiungere livelli di temperatura maggiori.

The temperature range is from -30 °C up to + 140 °C; for special applications, measures can be taken for higher temperature range.



Carichi radiali

Radial loads



Numero di stadi Stages number	Carichi Radiali R_2 [N] / Radial Load R_2 [N]			
	P52	P62	P72	P81
1	200	240	320	400
2	320	360	480	600
3	450	520	760	1000

Numero di stadi Stages number	Carichi Assiali A_2 [N] / Axial Load A_2 [N]			
	P52	P62	P72	P81
1	60	70	70	80
2	100	100	100	120
3	150	150	160	200

Rapporti

Ratios

Numero di stadi Stages number	Per tutte le grandezze di riduttori della serie P For all gearbox sizes of P range
	Rapporti / Ratios
1	3.70
	4.28
	5.18
	6.75
2	13.73
	15.88
	18.36
	19.20
	22.20
	25.01
	26.85
	28.93
	34.97
	45.56
3	50.89
	58.85
	68.06
	71.16
	78.71
	92.70
	95.17
	99.50
	107.20
	115.07
	123.97
	129.62
	139.13
	149.90
	168.84
	181.24
195.26	
236.09	
307.54	

Rapporti preferenziali
Preferred ratios

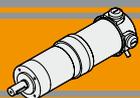
Disponibile a 4 stadi con rapporti fino a 2076
Available 4 stages with ratio up to 2076

Rendimento

Efficiency

Rendimento Efficiency	Per tutte le grandezze di riduttori della serie P For all gearbox sizes of P range		
	Numero di stadi / Stages number		
	1	2	3
Rd %	80	75	70

Rendimento medio per velocità nominale in ingresso 3000 rpm
Average efficiency with input rated speed 3000 rpm



Dati tecnici per servizio S2

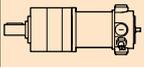
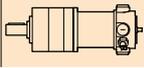
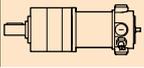
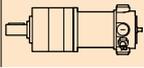
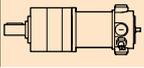
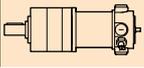
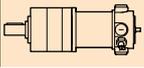
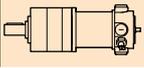
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
160							160						
(3000 min ⁻¹)	811	2	2.6	3,70	NDP120/521	120/240	(3000 min ⁻¹)	59	18	2.8	50,89	NDP120/623	120/240
	701	2	2.3	4,28			51	21	2.4	58,85			
	579	2	1.9	5,18			44	24	2.1	68,06			
	444	3	1.5	6,75			42	25	2.0	71,16			
	218	5	2.3	13,73	NDP120/522	120/240	38	28	1.8	78,71			
	189	6	2.0	15,88			32	33	1.5	92,70			
	163	7	1.7	18,36			32	34	1.5	95,17			
	156	7	1.6	19,20			30	36	1.4	99,50			
	135	8	1.4	22,20			28	38	1.3	107,20			
	120	10	1.3	25,01			26	41	1.2	115,07			
	112	10	1.2	26,85			24	44	1.1	123,97			
	104	11	1.1	28,93			23	46	1.1	129,62			
	86	13	0.9	34,97			22	50	1.0	139,13			
	66	17	0.7	45,56			20	54	0.9	149,90			
	59	18	1.4	50,89			NDP120/523	120/240	18	60	0.8	168,84	
	51	21	1.2	58,85					17	65	0.8	181,24	
	44	24	1.0	68,06					15	70	0.7	195,26	
	42	25	1.0	71,16					13	71	0.7	236,09	
	38	28	0.9	78,71	9.8	71			0.7	307,54			
	32	33	0.8	92,70	44	24			3.5	68,06	NDP120/723	120/240	
	32	34	0.7	95,17	42	25			3.3	71,16			
	30	36	0.7	99,50	38	28			3.0	78,71			
	28	36	0.7	107,20	32	33			2.5	92,70			
	26	36	0.7	115,07	32	34			2.5	95,17			
	24	36	0.7	123,97	30	36			2.4	99,50			
	23	36	0.7	129,62	28	38			2.2	107,20			
	22	36	0.7	139,13	26	41			2.0	115,07			
	20	36	0.7	149,90	24	44			1.9	123,97			
	18	36	0.7	168,84	23	46	1.8	129,62					
	17	36	0.7	181,24	22	50	1.7	139,13					
	15	36	0.7	195,26	20	54	1.6	149,90					
	13	36	0.7	236,09	18	60	1.4	168,84					
	9.8	36	0.7	307,54	17	65	1.3	181,24					
	579	2	3.8	5,18	NDP120/621	120/240	15	70	1.2	195,26			
	444	3	2.9	6,75			13	84	1.0	236,09			
	218	5	4.8	13,73	NDP120/622	120/240	9.8	110	0.8	307,54			
	189	6	4.1	15,88			32	33	3.6	92,70	NDP120/813	120/240	
	163	7	3.6	18,36			32	34	3.5	95,17			
	156	7	3.4	19,20			30	36	3.4	99,50			
	135	8	2.9	22,20			28	38	3.1	107,20			
	120	10	2.6	25,01			26	41	2.9	115,07			
	112	10	2.4	26,85			24	44	2.7	123,97			
	104	11	2.3	28,93			23	46	2.6	129,62			
	86	13	1.9	34,97			22	50	2.4	139,13			
	66	17	1.4	45,56			20	54	2.2	149,90			
							18	60	2.0	168,84			
							17	65	1.9	181,24			
							15	70	1.7	195,26			
							13	84	1.4	236,09			
					9.8	110	1.1	307,54					

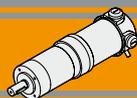


Dati tecnici per servizio S2

Technical data for S2 duty

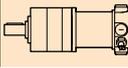
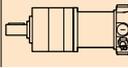
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version		
250							250								
(3000 min ⁻¹)	811	2	1.7	3,70		NDP180/521	120/240	(3000 min ⁻¹)	59	28	1.8	50,89		NDP180/623	120/240
	701	3	1.5	4,28			120/240	51	33	1.5	58,85	120/240			
	579	3	1.2	5,18			120/240	44	38	1.3	68,06	120/240			
	444	4	0.9	6,75			120/240	42	40	1.3	71,16	120/240			
							38	44	1.1	78,71	120/240				
	218	8	1.5	13,73		NDP180/522	120/240	32	52	1.0	92,70	120/240			
	189	10	1.3	15,88			120/240	32	53	0.9	95,17	120/240			
	163	11	1.1	18,36			120/240	30	56	0.9	99,50	120/240			
	156	12	1.0	19,20			120/240	28	60	0.8	107,20	120/240			
	135	13	0.9	22,20			120/240	26	64	0.8	115,07	120/240			
	120	15	0.8	25,01			120/240	24	69	0.7	123,97	120/240			
	112	16	0.7	26,85			120/240	23	71	0.7	129,62	120/240			
	104	17	0.7	28,93			120/240	22	71	0.7	139,13	120/240			
	86	17	0.7	34,97			120/240	20	71	0.7	149,90	120/240			
	66	17	0.7	45,56			120/240	18	71	0.7	168,84	120/240			
							17	71	0.7	181,24	120/240				
	59	28	0.9	50,89				NDP180/523	120/240	15	71	0.7	195,26	120/240	
	51	33	0.8	58,85					120/240	13	71	0.7	236,09	120/240	
	44	36	0.7	68,06					120/240	9.8	71	0.7	307,54	120/240	
	42	36	0.7	71,16					120/240						
	38	36	0.7	78,71	120/240	579			3	4.2	5,18	NDP180/721	120/240		
	32	36	0.7	92,70	120/240	444			4	3.2	6,75		120/240		
	32	36	0.7	95,17	120/240										
	30	36	0.7	99,50	120/240	156			12	3.6	19,20	NDP180/722	120/240		
	28	36	0.7	107,20	120/240	135			13	3.2	22,20		120/240		
	26	36	0.7	115,07	120/240	120			15	2.8	25,01		120/240		
	24	36	0.7	123,97	120/240	112			16	2.6	26,85		120/240		
	23	36	0.7	129,62	120/240	104			17	2.4	28,93		120/240		
	22	36	0.7	139,13	120/240	86			21	2.0	34,97		120/240		
	20	36	0.7	149,90	120/240	66			27	1.5	45,56		120/240		
	18	36	0.7	168,84	120/240										
	17	36	0.7	181,24	120/240	59	28	2.9	50,89	NDP180/723	120/240				
	15	36	0.7	195,26	120/240	51	33	2.5	58,85		120/240				
	13	36	0.7	236,09	120/240	44	38	2.2	68,06		120/240				
	9.8	36	0.7	307,54	120/240	42	40	2.1	71,16		120/240				
					38	44	1.9	78,71	120/240						
	811	2	3.4	3,70		NDP180/621	120/240	32	52		1.6	92,70	120/240		
	701	3	2.9	4,28			120/240	32	53		1.6	95,17	120/240		
	579	3	2.4	5,18			120/240	30	56		1.5	99,50	120/240		
	444	4	1.9	6,75			120/240	28	60	1.4	107,20	120/240			
							26	64	1.3	115,07	120/240				
	218	8	3.0	13,73		NDP180/622	120/240	24	69	1.2	123,97	120/240			
	189	10	2.6	15,88			120/240	23	73	1.2	129,62	120/240			
	163	11	2.3	18,36			120/240	22	78	1.1	139,13	120/240			
	156	12	2.2	19,20			120/240	20	84	1.0	149,90	120/240			
	135	13	1.9	22,20			120/240	18	95	0.9	168,84	120/240			
	120	15	1.7	25,01			120/240	17	101	0.8	181,24	120/240			
	112	16	1.6	26,85			120/240	15	109	0.8	195,26	120/240			
	104	17	1.4	28,93			120/240	13	120	0.7	236,09	120/240			
	86	21	1.2	34,97			120/240	9.8	120	0.7	307,54	120/240			
	66	27	0.9	45,56			120/240								
								86	21	2.9	34,97	NDP180/812	120/240		
							66	27	2.2	45,56	120/240				

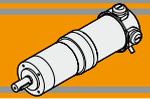
NDP



Dati tecnici per servizio S2

Technical data for S2 duty

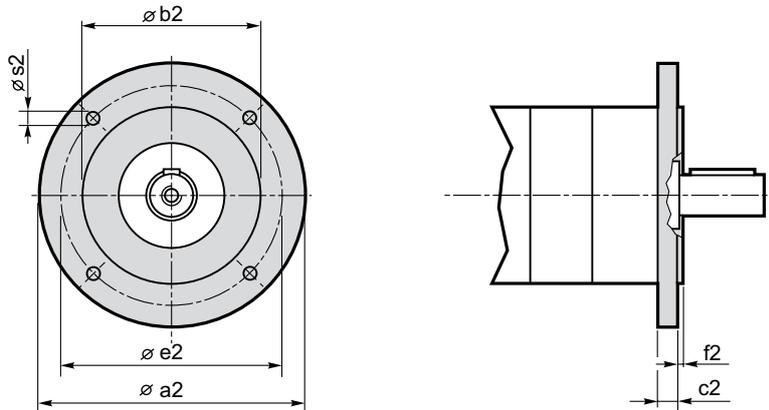
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
250							250						
(3000 min ⁻¹)	44	38	3.1	68,06	NDP180/813	120/240	(3000 min ⁻¹)	32	52	3.8	92,70	NDP180/1053	120/240
	42	40	3.0	71,16			120/240						
	38	44	2.7	78,71			120/240						
	32	52	2.3	92,70			120/240						
	32	53	2.3	95,17			120/240						
	30	56	2.2	99,50			120/240						
	28	60	2.0	107,20			120/240						
	26	64	1.9	115,07			120/240						
	24	69	1.7	123,97			120/240						
	23	73	1.7	129,62			120/240						
	22	78	1.5	139,13			120/240						
	20	84	1.4	149,90			120/240						
	18	95	1.3	168,84			120/240						
	17	101	1.2	181,24			120/240						
	15	109	1.1	195,26			120/240						
	13	132	0.9	236,09			120/240						
	9.8	172	0.7	307,54			120/240						
							18	95	3.2	168,84	NDP180/1203	120/240	
							17	101	3.0	181,24			
							15	109	2.7	195,26			
							13	132	2.3	236,09			
							9.8	172	1.7	307,54			



Dimensioni

Dimensions

NDP.../... C... Flange uscita / Output flanges



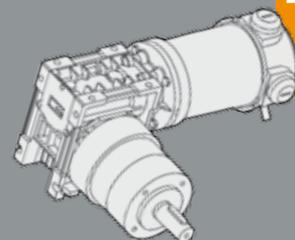
Dimensioni / Dimensions							
P	a2	b2	c2	e2	f2	s2	Flangia uscita Output flange
52	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
62	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
72	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	M5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
81	90	60 j7	9	75	2.5	M5	C90
	105	70 j7	9	85	2.5	M6	C105
	120	80 j7	9	100	3.0	6.5	C120
P105	120	80 j7	12	100	3	M6	C120
	140	95 j7	12	115	3.5	M8	C140
	160	110 j7	12	130	3.5	M8	C160
P120	140	95 j7	15	115	3	M8	C140
	160	110 j7	15	130	3.5	M8	C160

NDP

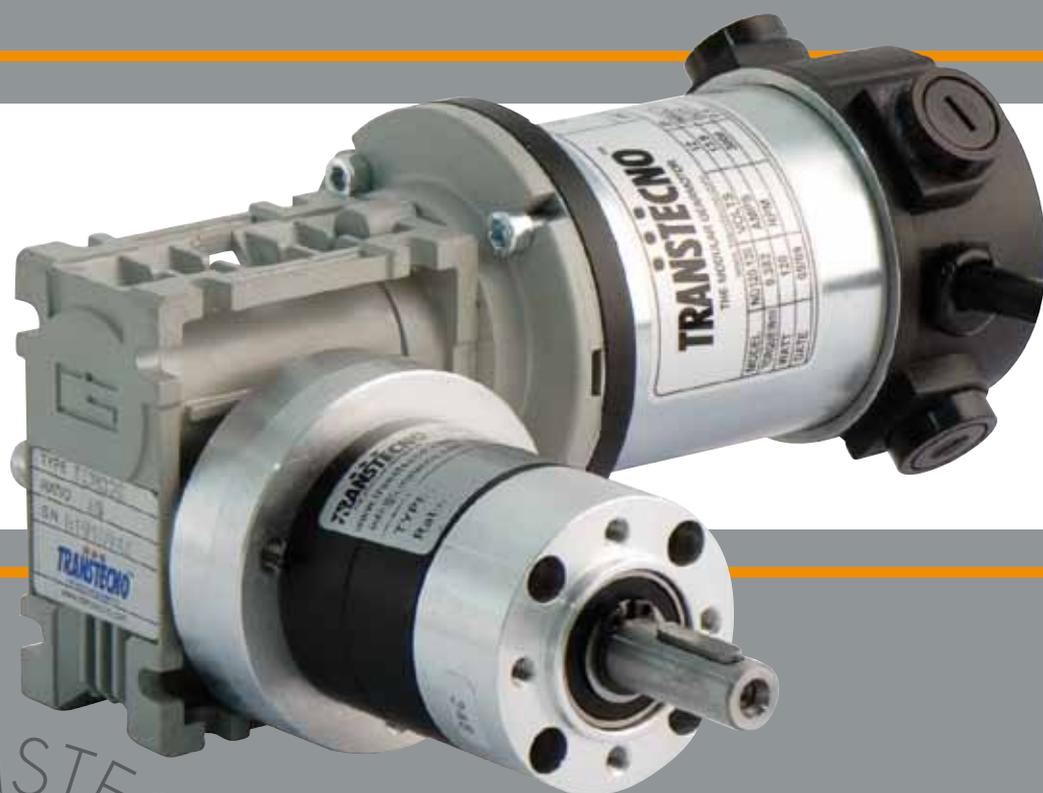
TRANSTECNOTM
THE MODULAR GEARMOTOR

NDWMP

NDWMP



MOTORIDUTTORI C.C. COMBINATI
RARE EARTH D.C. COMBINATION GEARMOTORS





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Versioni	<i>Versions</i>	H2
Simbologia	<i>Symbols</i>	H2
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Carichi radiali	<i>Radial loads</i>	H3
Rapporti	<i>Ratios</i>	H4
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Dimensioni	<i>Dimensions</i>	H6
Opzioni	<i>Options</i>	H9

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Caratteristiche tecniche

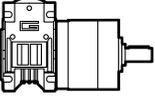
Technical features

L'accoppiamento di un riduttore a vite senza fine con un riduttore epicicloidale consente di ottenere elevati rapporti di riduzione ($i_{max} = 1/18452$) e di disporre di un gruppo autolubrificato compatto, silenzioso e con un'elevata affidabilità.

The coupling of a wormgearbox to a planetary gearbox allows to obtain high reduction ratios ($i_{max} = 1/18452$) and to get a compact, silent, self lubricated with high reliability group.

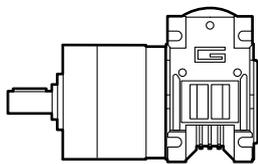
Designazione

Classification

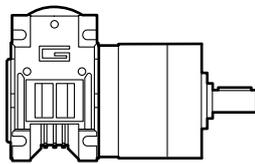
MOTORIDUTTORE / GEARMOTOR								
NDWMP	120/026/52		2	CD	90	405	240	VS
Tipo Type	Grandezza Size		Numero stadi epicicloidale Planetary stages number	Versione Riduttore Gearbox Version	Flangia Uscita Output flange	Rapporto Ratio	Versione Motore Motor Version	Opzioni Options
	120/026/52	180/026/62	1	US	80	Vedere tabella See tables	120	VS
	120/026/62	180/030/81	2	UD	90		240	
	120/030/81		3	CS CD	105 120			

Versioni

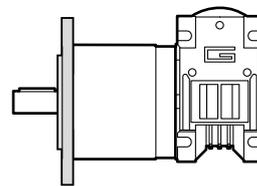
Versions



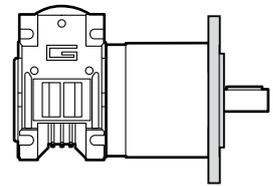
US



UD



CS



CD

Simbologia

Symbols

n_1	[min ⁻¹]	Velocità in ingresso / <i>Input speed</i>
n_2	[min ⁻¹]	Velocità in uscita / <i>Output speed</i>
i		Rapporto di riduzione / <i>Ratio</i>
P_1	[kW]	Potenza in entrata / <i>Input power</i>
M_n	[Nm]	Coppia nominale in uscita del riduttore / <i>Maximum output torque of the gearbox</i>
M_2	[Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
sf		Fattore di servizio / <i>Service factor</i>
R_d	%	Rendimento dinamico / <i>Dynamic efficiency</i>
A_2	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
R_2	[N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>



Lubrificazione

Lubrication

I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.

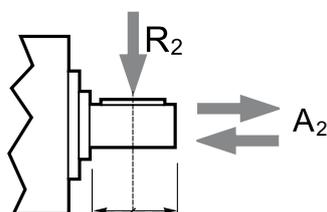
Planetary gearboxes are life-time lubricated with grease, therefore they are maintenance free.

Questo gli consente di essere installati praticamente ovunque. La temperatura di funzionamento consentita va da -30°C a +140°C; per applicazioni particolari possono essere adottate misure per raggiungere livelli di temperatura maggiori.

They can be installed in any location. The temperature range is from -30°C up to +140°C; for special applications, measures can be taken for higher temperature range.

Carichi radiali

Radial loads



Numero di stadi Stages number	Carichi Radiali R_2 [N] Radial Load R_2 [N]		
	P52	P62	P81
1	200	240	400
2	320	360	600
3	450	520	1000

Numero di stadi Stages number	Carichi Assiali A_2 [N] Axial Load A_2 [N]		
	P52	P62	P81
1	60	70	80
2	100	100	120
3	150	150	200

NDWMP

**Rapporti****Ratios**

Motoriduttore Gearmotor	Numero stadi epicicloidale Planetary stages number	Rapporto epicicloidale Planetary ratio	Rapporto vite senza fine Wormgearbox ratio	Rapporto finale Total ratio
.../026/52 .../026/62 .../030/81	1	6.75	10	67.5
			15	101.3
			20	135
			30	202.5
			40	270
			50	337.5
	2	28.93	10	289.3
			15	434.0
			20	578.6
			30	867.9
			40	1157
			50	1447
			60	1736
		34.97	60	2098
		45.56	60	2734

Rendimento**Efficiency**

Motoriduttore Gearmotor	n ₁ [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio															
			67.5	101.3	135	202.5	270	337.5	405	289.3	434.0	578.6	867.9	1157	1447	1736	2098	2734
.../026/52	2800	Rd %	68	66	64	58	54	51	48	64	62	60	54	51	48	45	45	45
.../026/62			68	66	64	58	54	51	48	64	62	60	54	51	48	45	45	45
.../030/81			68	67	64	59	56	52	49	64	63	60	55	52	48	46	46	46

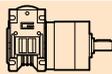


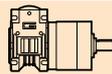
Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period



Dati tecnici per servizio S2

Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
160						
(3000 min ⁻¹)	44.4	23	1.1	67.5	120/026/521	120/240
	29.6	25	1.0	101.3		
	22.2	25	1.0	135.0		
	14.8	25	1.0	202.5		
	11.1	25	1.0	270.0		
	10.4	25	1.0	289.3	120/026/522	120/240
	8.9	25	1.0	337.5	120/026/521	120/240
	7.4	25	1.0	405.0		
	6.9	25	1.0	434.0	120/026/522	120/240
	5.2	25	1.0	578.6		
	3.5	25	1.0	867.9		
	2.6	25	1.0	1157.0		
	2.1	25	1.0	1447.0		
	1.7	25	1.0	1736.0		
	1.4	25	1.0	2098.0		
	1.1	25	1.0	2734.0		
	44.4	23	1.7	67.5	120/026/621	120/240
	29.6	34	1.2	101.3		
	22.2	40	1.0	135.0		
	14.8	40	1.0	202.5		
	11.1	40	1.0	270.0		
	10.4	50	1.0	289.3	120/026/622	120/240
	8.9	40	1.0	337.5	120/026/621	120/240
	7.4	40	1.0	405.0		
	6.9	50	1.0	434.0	120/026/622	120/240
	5.2	50	1.0	578.6		
	3.5	50	1.0	867.9		
	2.6	50	1.0	1157.0		
	2.1	50	1.0	1447.0		
	1.7	50	1.0	1736.0		
	1.4	50	1.0	2098.0		
	1.1	50	1.0	2734.0		

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version		
160								
(3000 min ⁻¹)	44.4	24	3.4	67.5	120/030/811	120/240		
	29.6	35	2.3	101.3				
	22.2	45	1.8	135.0				
	14.8	61	1.3	202.5				
	11.1	77	1.0	270.0				
	10.4	95	1.3	289.3	120/030/812	120/240		
	8.9	80	1.0	337.5	120/030/811	120/240		
	7.4	80	1.0	405.0				
	6.9	120	1.0	434.0	120/030/812	120/240		
	5.2	120	1.0	578.6				
	3.5	120	1.0	867.9				
	2.6	120	1.0	1157.0				
	2.1	120	1.0	1447.0				
	1.7	120	1.0	1736.0				
	1.4	120	1.0	2098.0				
	1.1	120	1.0	2734.0				
250								
(3000 min ⁻¹)	44.4	37	1.1	67.5	180/026/621	120/240		
	44.4	40	2.0	67.5			180/030/811	120/240
	29.6	54	1.5	101.3				
	22.2	70	1.1	135.0				
	14.8	80	1.0	202.5				
	10.4	120	1.0	289.3	180/030/812	120/240		

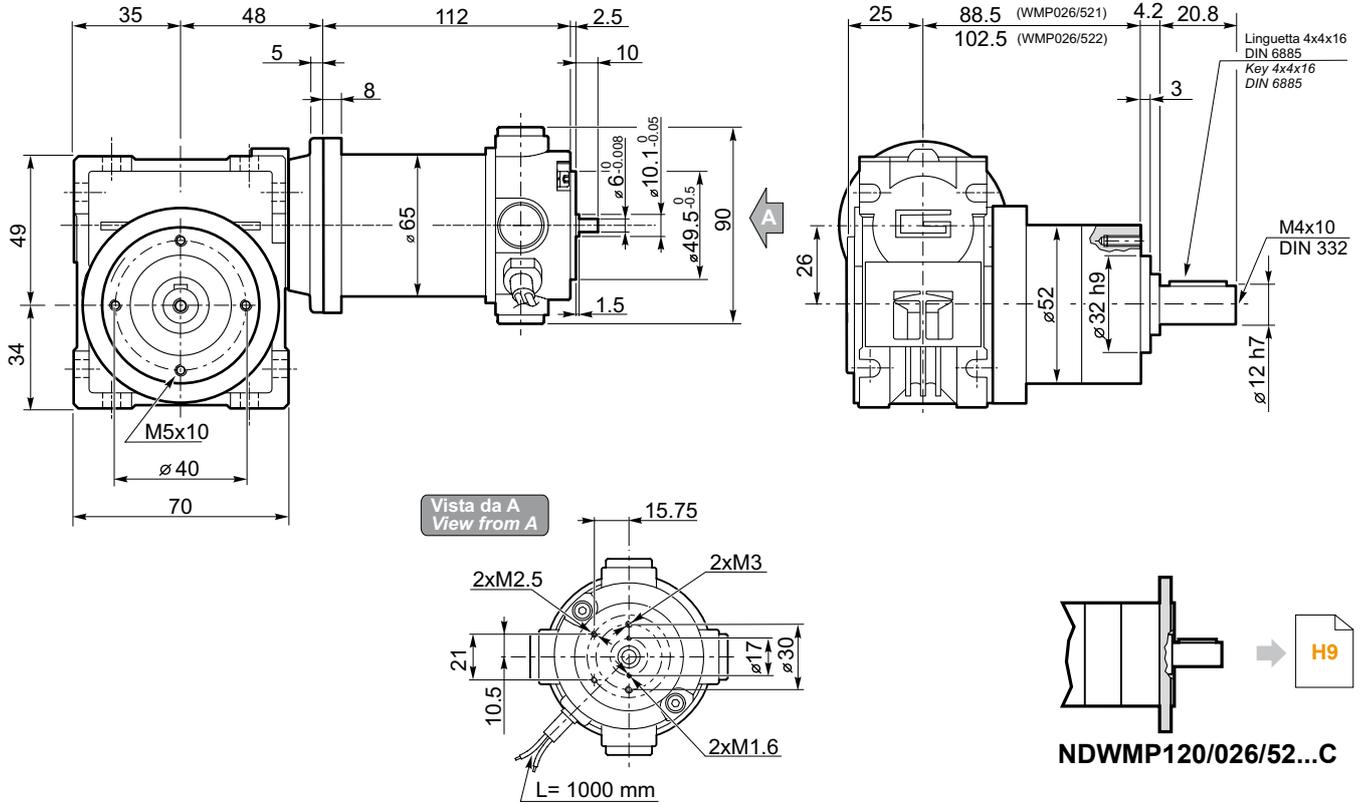
Nota: Verificare sempre che la coppia M_2 utilizzata non ecceda il valore indicato nelle caselle in grigio
Note: Please check that the output torque M_2 does not exceed the value into the grey areas



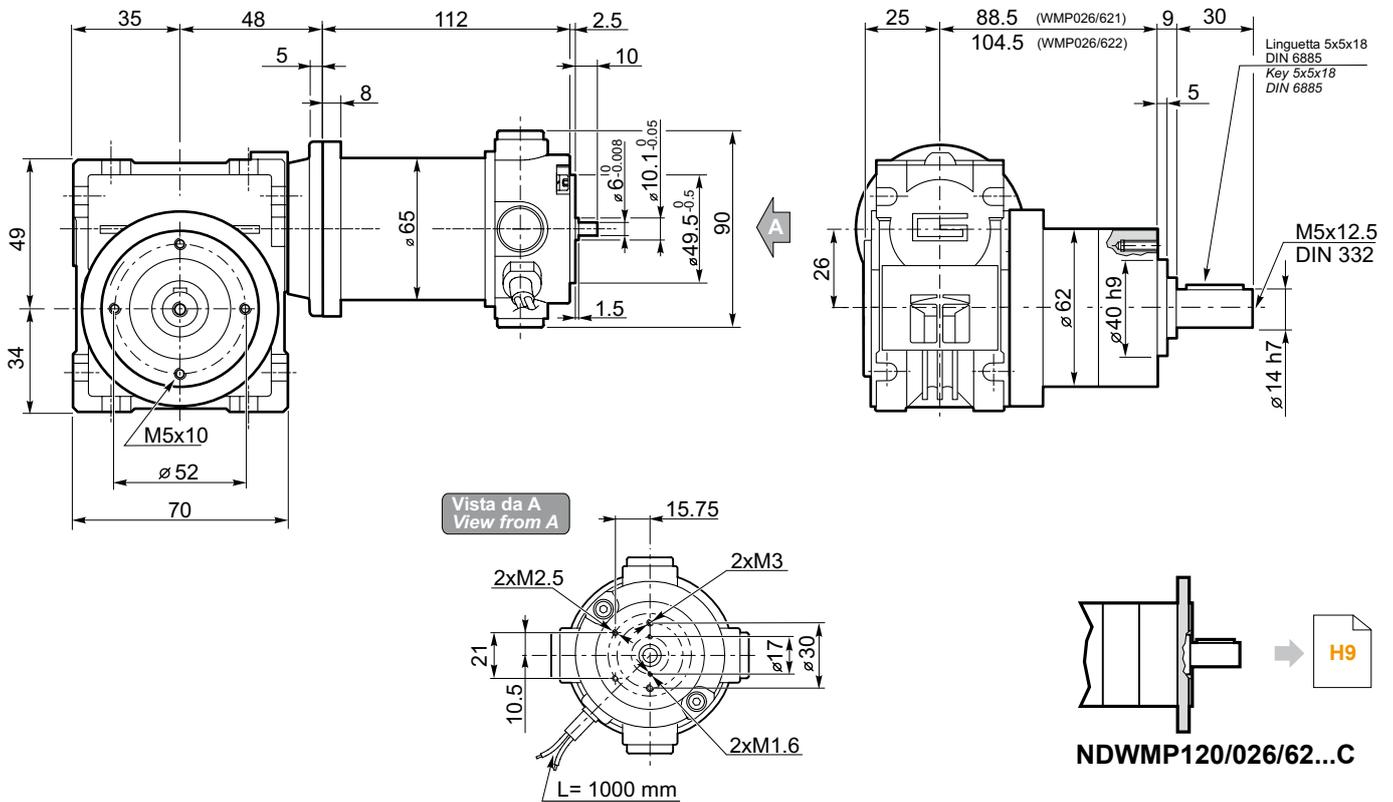
Dimensioni

Dimensions

NDWMP120/026/52...U



NDWMP120/026/62...U

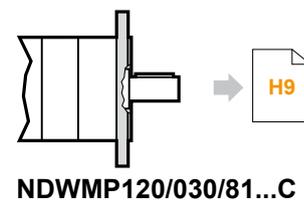
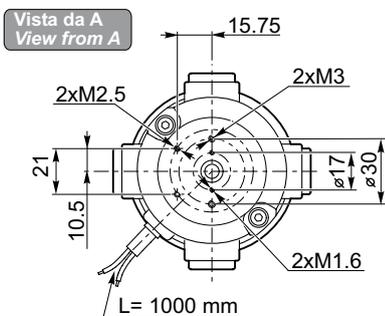
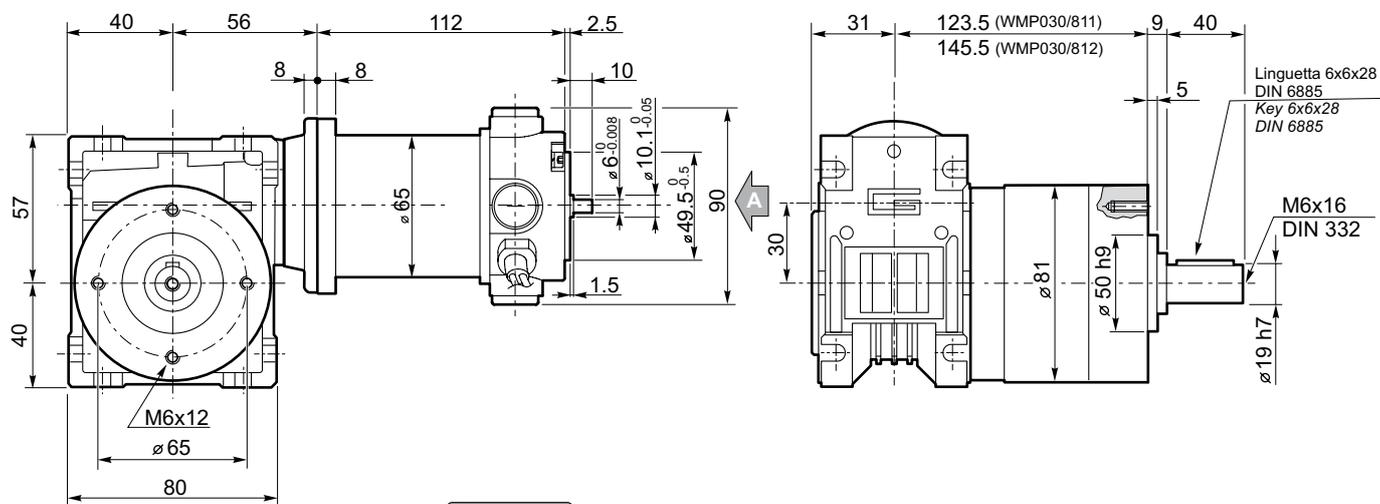




Dimensioni

Dimensions

NDWMP120/030/81...U



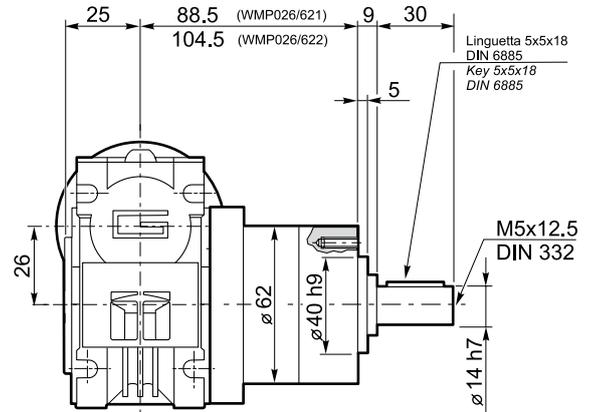
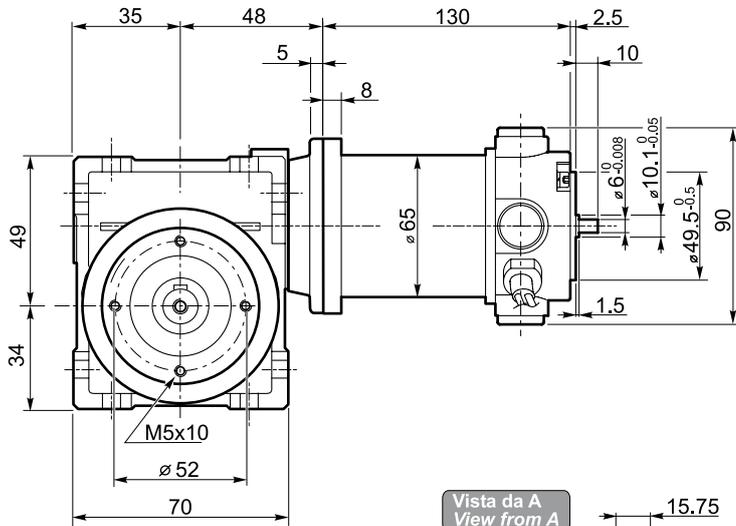
NDWMP



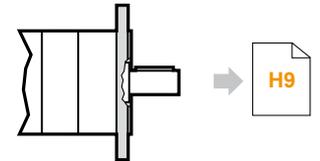
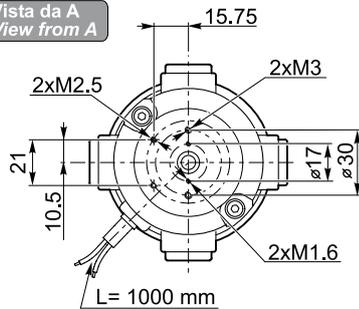
Dimensioni

Dimensions

NDWMP180/026/52...U

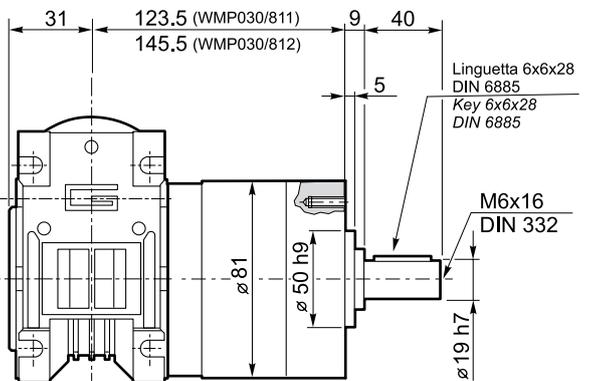
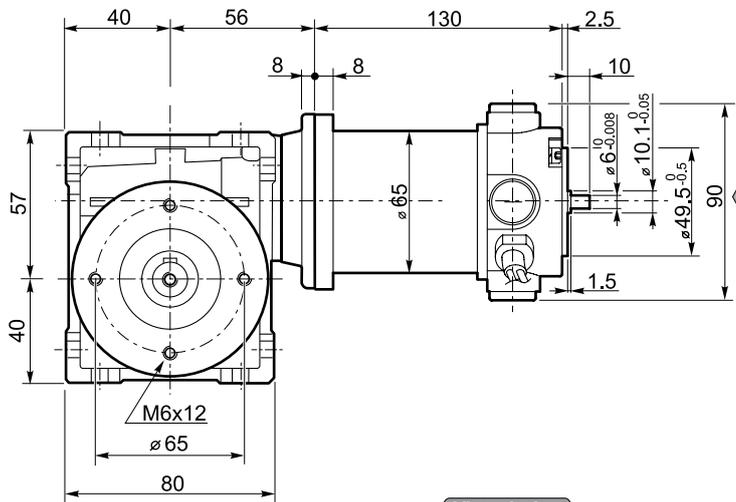


Vista da A
View from A

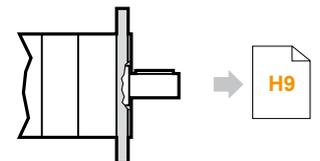
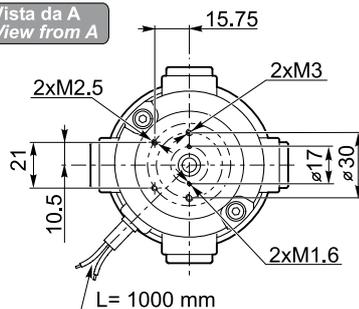


NDWMP180/026/52...C

NDWMP180/026/62...U



Vista da A
View from A



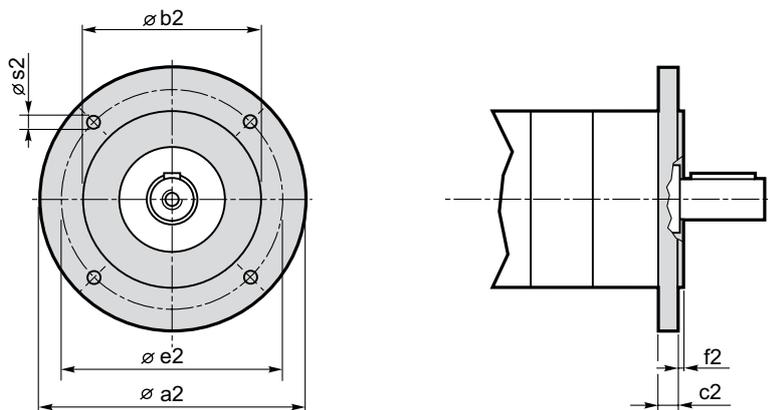
NDWMP180/026/62...C



Dimensioni

Dimensions

NDWMP.../.../... C... Flange uscita / Output flanges



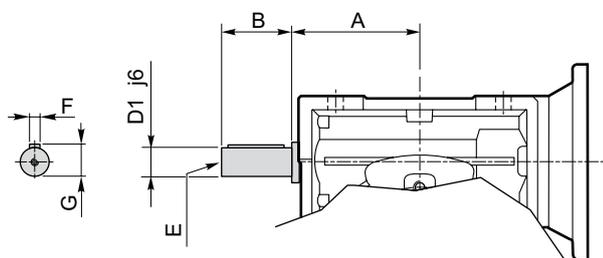
Dimensioni / Dimensions							
P	a2	b2	c2	e2	f2	s2	Flangia uscita Output flange
52	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
62	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
81	90	60 j7	9	75	2.5	M5	C90
	105	70 j7	9	85	2.5	M6	C105
	120	80 j7	9	100	3.0	6.5	C120

NDWMP

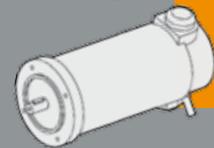
Opzioni

Options

VS - Vite sporgente / Extended input shaft



	A	B	D ₁ j6	E	F	G
CM 030	45	20	9	M4	3	10.2



MOTORI ELETTRICI C.C. A MAGNETI PERMANENTI
PERMANENT MAGNETS D.C. ELECTRIC MOTORS





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	Classe di isolamento termico	<i>Insulation class</i>	13
	Servizio	<i>Duty cycle</i>	13
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EC600.240BR			
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Caratteristiche tecniche

Le caratteristiche principali dei motori della serie EC sono:

- Campo magnetico generato da magneti permanenti
- Costruzione tubolare, senza ventilazione
- Disponibili in 5 grandezze: diametro 42, 52, 65, 81, 110 mm
- Alimentazione a bassa tensione, 12 o 24 Vcc
- Potenze disponibili da 30 a 800 W S2
- Elevate coppie di spunto
- Elevate coppie e potenze in dimensioni compatte

Classe di isolamento termico

Gli avvolgimenti del rotore sono soggetti a surriscaldamento, come pure altre parti del motore. Il grado di isolamento indica la massima temperatura ammissibile oltre la quale l'isolante della matassa e l'isolante di tutte le parti soggette ad elevato riscaldamento perde le caratteristiche di buon isolante, con pericolo di danneggiamento del motore.

Servizio

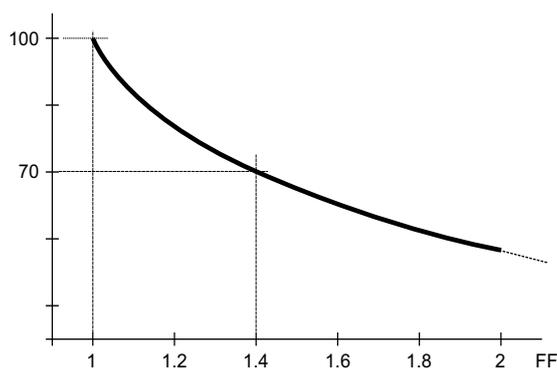
Rappresenta la relazione tra il tempo di lavoro ed il tempo di riposo del motore. Servizio continuo (S1) = funzionamento continuo del motore a pieno carico.

Servizio intermittente (S2, S3, etc...) = periodi alternati di lavoro e di riposo tali da raffreddare il motore. Dato un motore, la potenza espressa per servizio continuo è inferiore a quella per servizio intermittente.

Fattore di forma

Indica quanta componente spuria alternata è presente nella alimentazione CC del motore. Più alto è il fattore ed inferiore è l'efficienza del motore. Alimentatori ad SCR = F.F 1.40. Alimentazione pura da batteria = FF 1. Alimentazione da transistori (modulazione PWM) = FF 1.05.

Qualitativamente l'andamento della coppia (percentuale) rispetto al fattore di forma è indicato nel grafico seguente:



Technical features

The main features of EC motor range are:

- Magnetic field generated by permanent magnets
- Tubular construction, without fan
- Available in 5 sizes: diameter 42, 52, 65, 81, 110 mm
- Low voltage power supply, 12 or 24 Vdc
- Power ratings available from 30 to 800 W S2
- High starting torque
- High torque and output power with compact package

Thermal insulation class

The windings of the rotor can overheat just like other parts of the motor too. The degree of insulation indicates the maximum allowable temperature above which the insulation of the windings, as well as that of all the parts which heat up to a high temperature, loses its insulating properties and the motor therefore risks being damaged.

Duty cycle

This represents the relationship between the time the motor operates and the time it remains stationary. Continuous operation (S1) = the motor operates non-stop under full load.

Intermittent operation (S2, S3, etc.) = alternating periods of work and rest so that the motor can cool down. The output power for continuous operation is lower than that for intermittent operation.

Form factor

It indicates how much spurious alternating current is present in the D.C. motor power supply. The higher the factor, the lower the motor's efficiency. SCR power supplies = F.F 1.40. Battery supply = FF 1 Transistor supply (PWM modulation) = FF 1.05.

The graph below indicates the torque trend (percentage) in relation to the form factor.

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.

Indicates the degree of mechanical insulation of the motor body.

1^a cifra protezione alla penetrazione di corpi solidi.

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.

0	Non protetto / No protection	0	Non protetto / No protection
1	Protetto da corpi solidi superiori a Ø 50 mm. Protected against solid matters (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 matters (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 matters (over Ø 2,5 mm)	3	Protetto contro la pioggia. Rain proof fixture
4	Protetto da corpi solidi superiori a Ø1 mm. Protected against solid matters (over Ø1 mm)	4	Protetto contro gli spruzzi. Splash proof fixture
5	Protetto contro la polvere Dust proof	5	Protetto contro getti d'acqua Water jet proof
6	Totalmente protetto contro la polvere Fully dust proof	6	Protetto dalle ondate Wave proof
7	N.A.	7	Protetto contro immersione Watertight immersion fixture.
8	N.A.	8	Protetto contro immersione/sommersione prolungata Watertight immersion fixture for a long time.

Classe di isolamento termico

Insulation class

Classe / Class	Δ t °C Temp. ambiente: 40°C Ambient temperature: 40°C
A	65°C
B	90°C
F	115°C
H	140°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.
S3	Servizio periodico intermittente. Sequenze di cicli identici di marcia e di riposo a carico costante, senza raggiungimento dell' equilibrio termico. La corrente di spunto ha effetti trascurabili sul surriscaldamento del motore.	Intermittent periodic duty. Sequential, identical run and rest cycles with constant load. Temperature equilibrium is never reached. Starting current has little effect on temperature rise.
S4	Servizio periodico intermittente con avviamento. Sequenza di cicli di funzionamento identici di avviamento, marcia e riposo a carico costante, senza raggiungimento dell'equilibrio termico. La corrente di spunto ha effetti sul riscaldamento del motore.	Intermittent periodic duty with starting. Sequential identical start, run and rest cycles with constant load. Temperature equilibrium is not reached, but starting current affects temperature rise.
S5	Servizio periodico intermittente con frenatura elettrica. Sequenza di cicli di funzionamento identici di avviamento, marcia a carico costante, frenatura elettrica e riposo, senza raggiungimento dell'equilibrio termico.	Intermittent periodic duty with electric braking. Sequential, identical cycles of starting, running at constant load, electric braking and rest. Temperature equilibrium is not reached.
S6	Servizio periodico ininterrotto con carico intermittente. Sequenza di cicli di lavoro identici con carico costante e senza carico. Non ci sono periodi di riposo.	Continuous operation with intermittent load. Sequential, identical cycles of running with constant load and running with no load. No rest periods.
S7	Servizio periodico ininterrotto con frenatura elettrica. Sequenza di cicli di funzionamento identici di avviamento, marcia a carico costante e frenatura elettrica, senza periodi di riposo.	Continuous operation with electric braking. Sequential, identical cycles of starting, running at constant load and electric braking. No rest periods.
S8	Servizio periodico ininterrotto con variazioni di carico e di velocità. Sequenza di cicli identici di avviamento, marcia a carico costante e velocità definita, seguiti da marcia a carico costante differente e velocità differente dalla precedente. Non ci sono periodi di riposo.	Continuous operation with periodic changes in load and speed. Sequential, identical, duty cycles of start, run at constant load and given speed, then run at other constant loads and speeds. No rest periods.



EC020.120 - EC020.24E

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 42 mm
Potenza	30 W S2 (20 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 di composto grafite-rame
Cavo di alimentazione	Connettori faston (0.8 x 2.8 mm)
Opzioni	Filtro EMC
	Encoder magnetico max. 2 imp/giro, 2 canali Max.

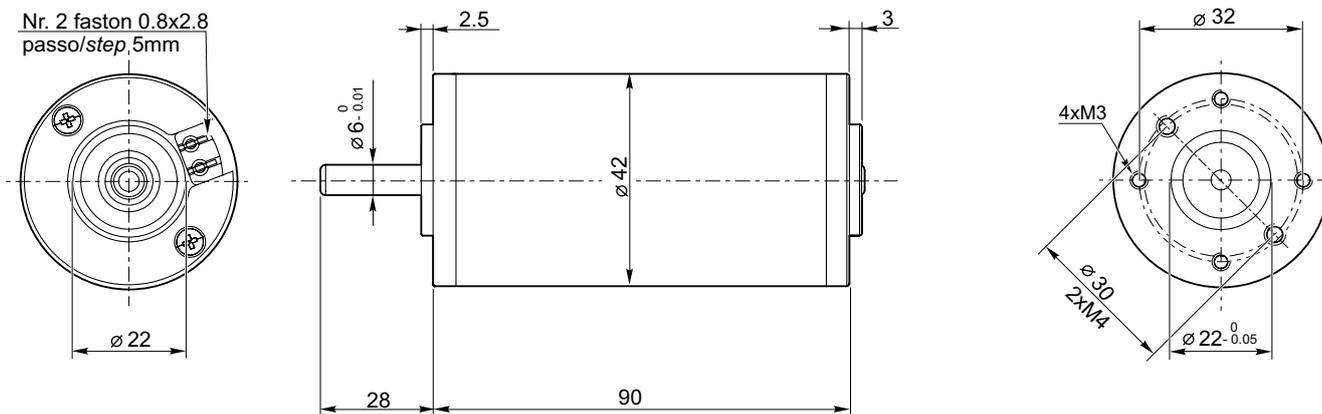
Construction	Tubular, without fan
Size	Ø 42 mm
Power	30 W S2 (20 W S1)
Magnets	2
Bearings	Ball bearing
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 brushes made of graphite/copper composite
Electric cable	Faston terminals (0.8 x 2.8 mm)
Options	EMC filter
	Magnetic encoder max 2 ppr, Max. 2 channels

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC020.120	S1	20	12	2.6	B	1	0.06	2850	20	0.4
	S2 6'	30		3.5			0.08			
EC020.24E	S1	20	24	1.4			0.06			
	S2 6'	30		1.9			0.08			

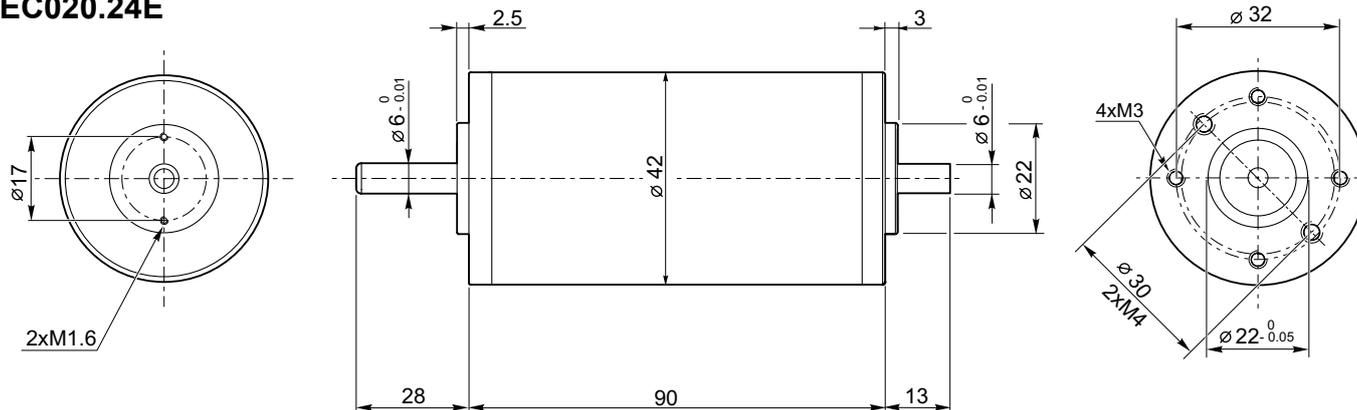
Dimensioni

Dimensions

EC020.120



EC020.24E



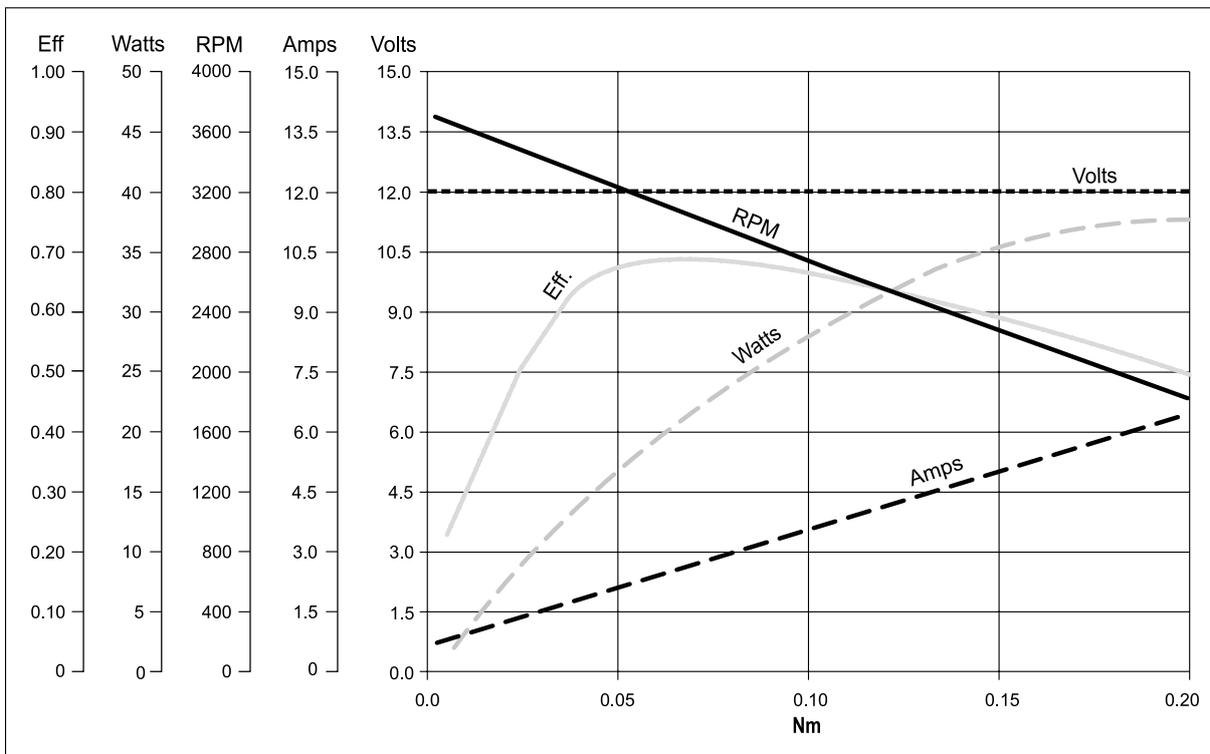


EC020.120 - EC020.24E

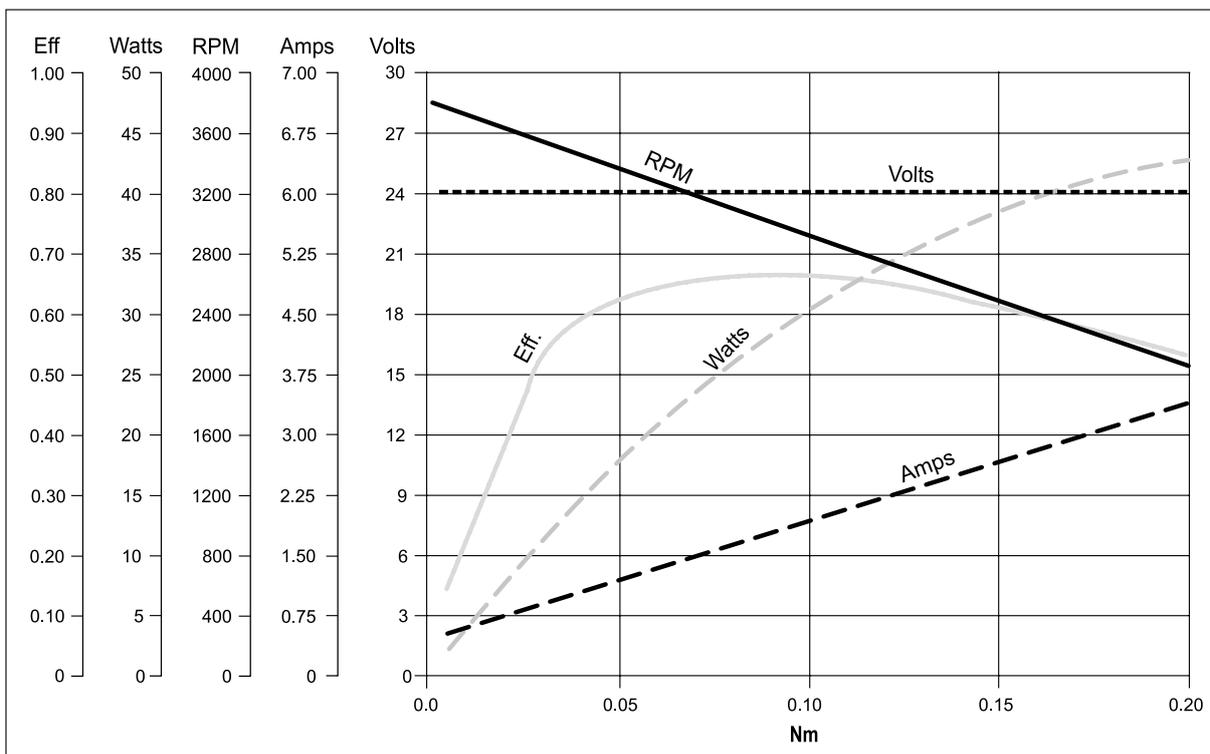
Prestazioni

Performances

EC020.120



EC020.24E



EC



EC

MOTORI ELETTRICI C.C. A MAGNETI PERMANENTI
PERMANENT MAGNETS D.C. ELECTRIC MOTORS

EC035.120 - EC035.240

Caratteristiche

Features

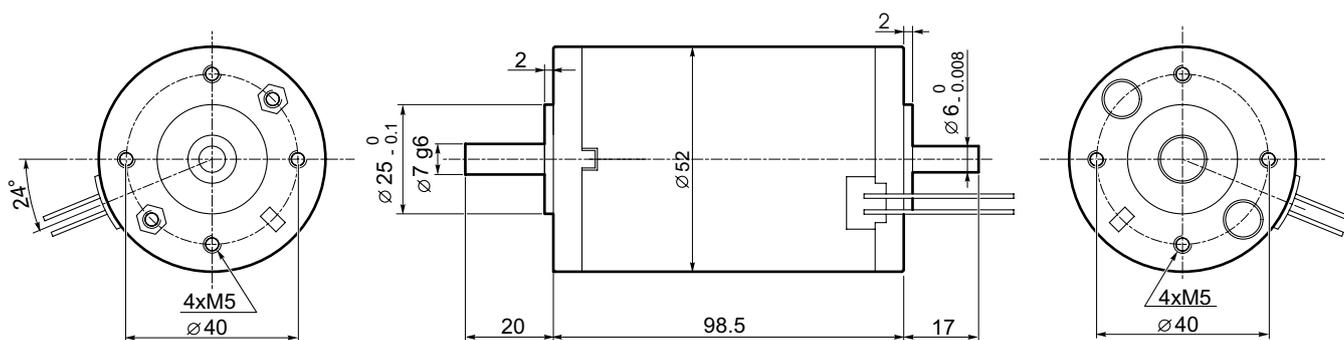
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 52 mm
Potenza	55 W S2 (35 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 interne di composto grafite-rame
Cavo di alimentazione	Lunghezza: 200 mm
Opzioni	Encoder magnetico max. 1 imp/giro, max.2 canali

Construction	Tubular, without fan
Size	Ø 52 mm
Power	55 W S2 (35 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: 200 mm
Options	Magnetic encoder max 1 ppr, Max. 2 channels

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC035.120	S1	35	12	5.2	F	1	0.11	3000	44	0.8
	S2 9'	55		8.0			0.18			
EC035.240	S1	35	24	2.6	F	1	0.11		44	0.8
	S2 9'	55		4.0			0.18			

Dimensioni

Dimensions



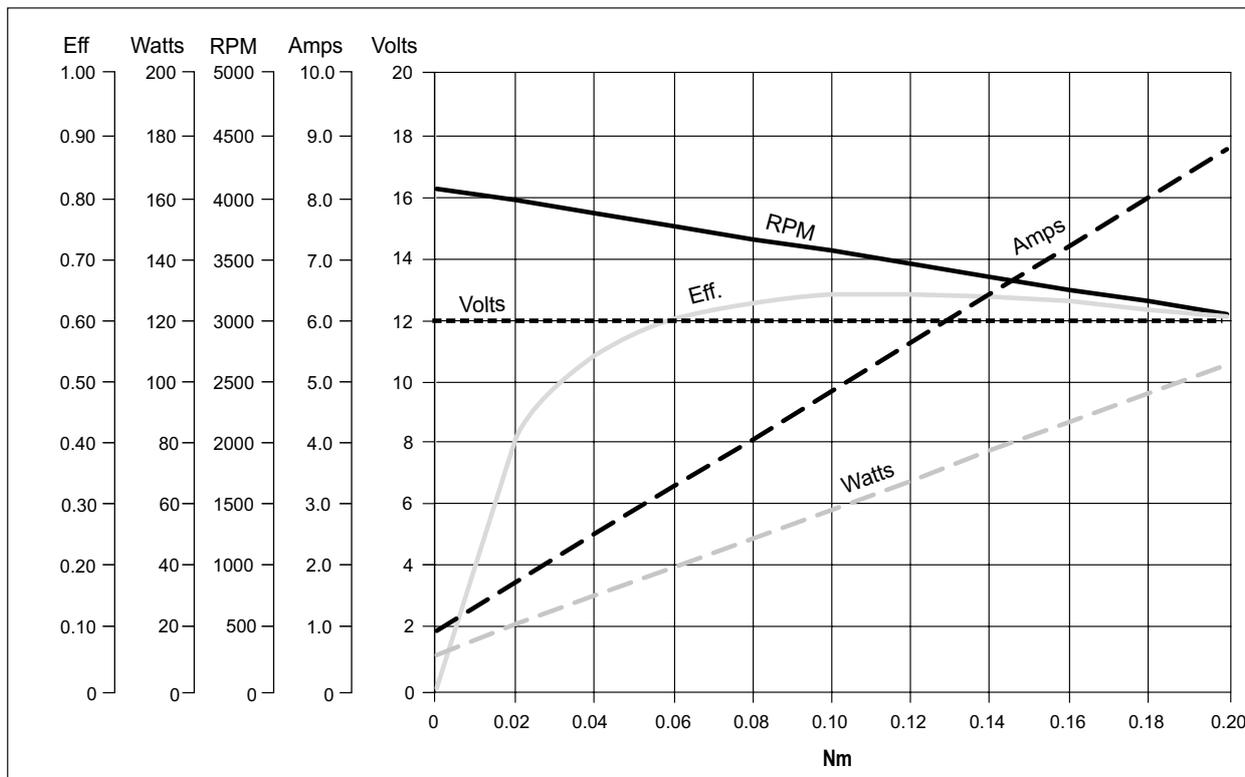


EC035.120 - EC035.240

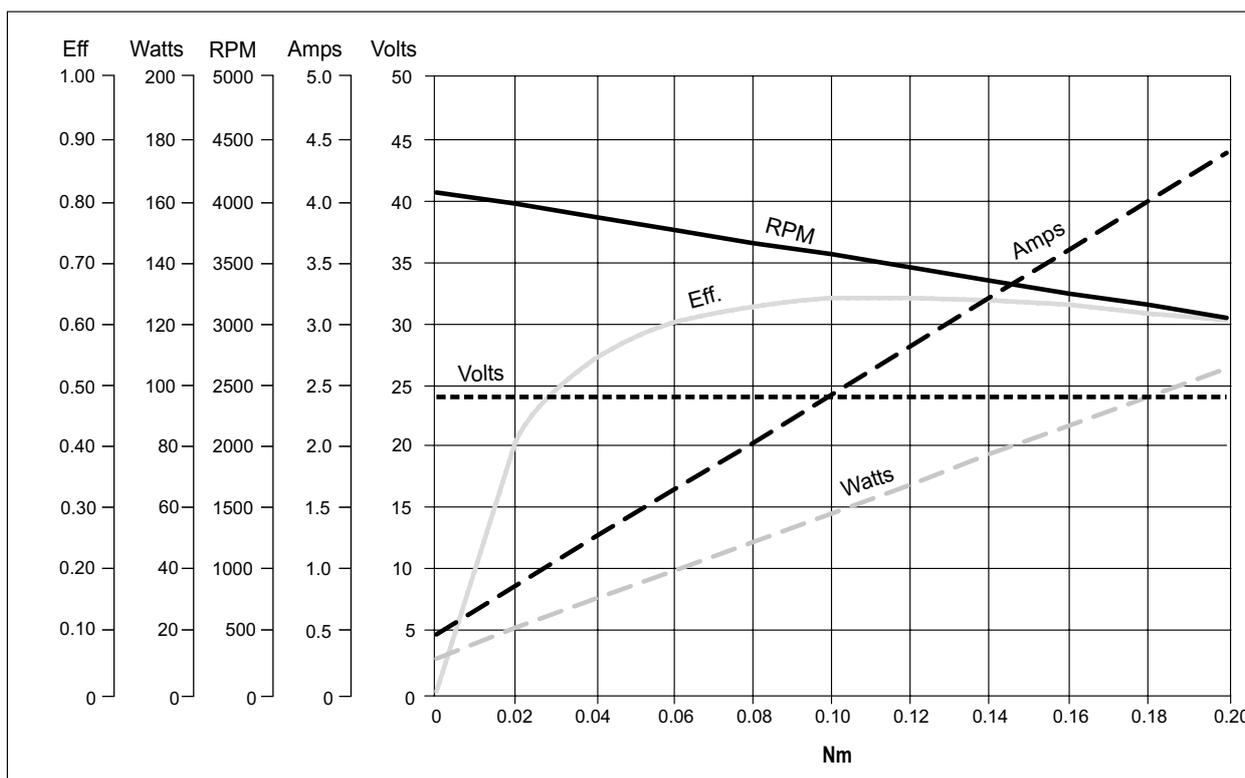
Prestazioni

Performances

EC035.120



EC035.240



EC



EC050.12E - EC050.24E

Caratteristiche

Features

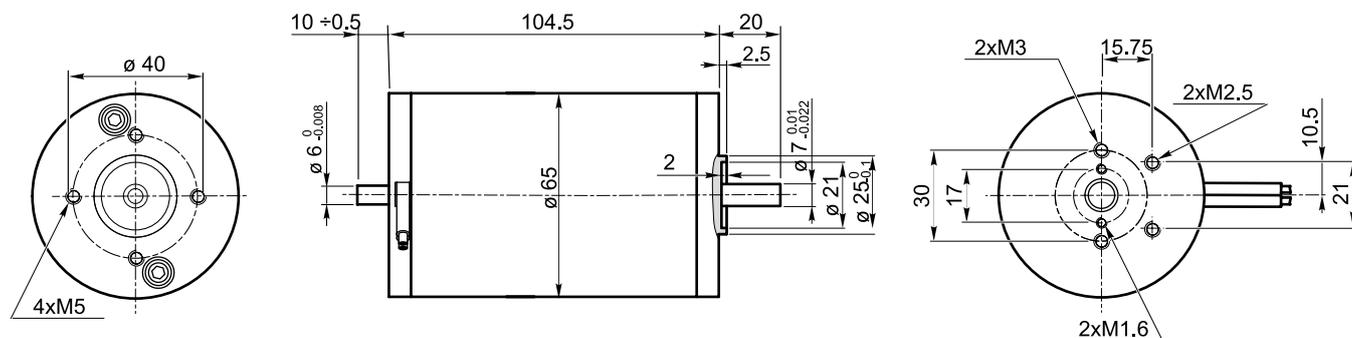
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	70 W S2 (50 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 interne di composto grafite-rame
Cavo di alimentazione	Lunghezza: 200 mm
Bisporgenza	Standard

Construction	Tubular, without fan
Size	Ø 65 mm
Power	70 W S2 (50 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: 200 mm
Rear Shaft	Standard

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC050.12E	S1	50	12	6.5	F	1	0.16	3000	44	1.2
	S2 15'	70		9.0			0.22			
EC050.24E	S1	50	24	3.2			0.16			
	S2 15'	70		4.5			0.22			

Dimensioni

Dimensions



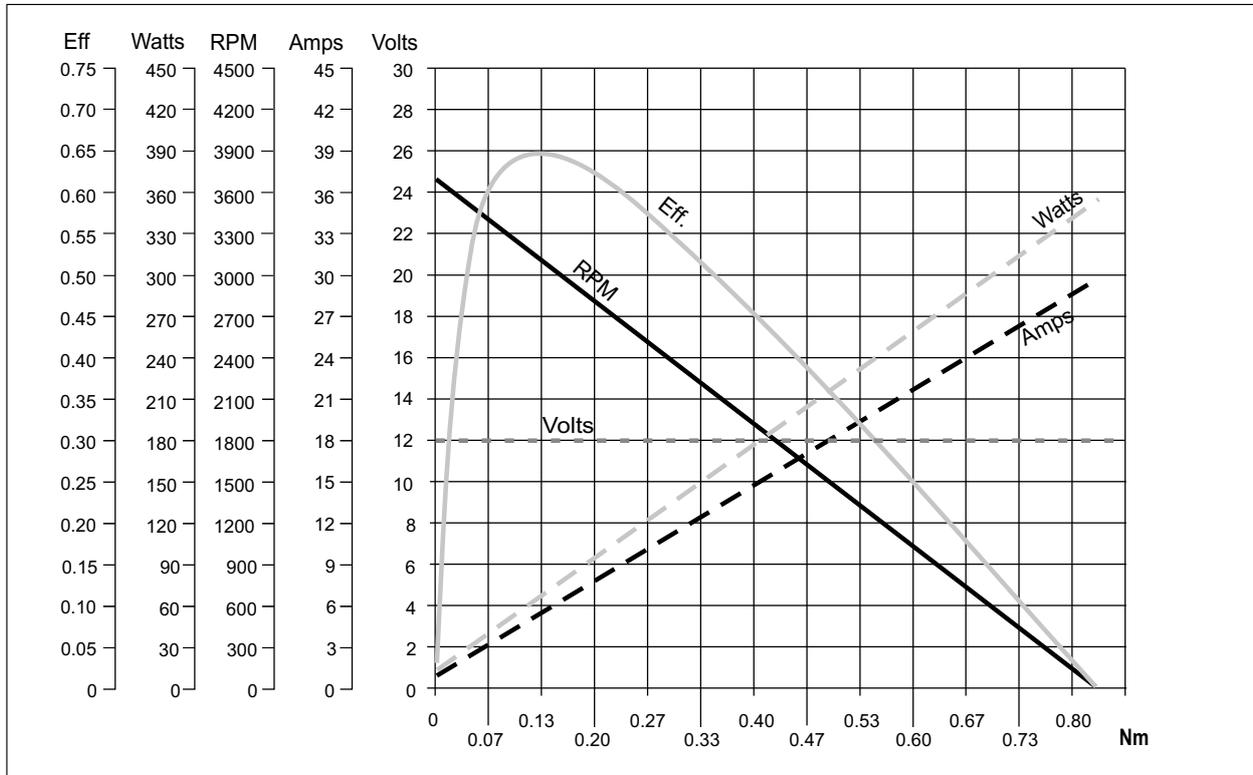


EC050.12E - EC050.24E

Prestazioni

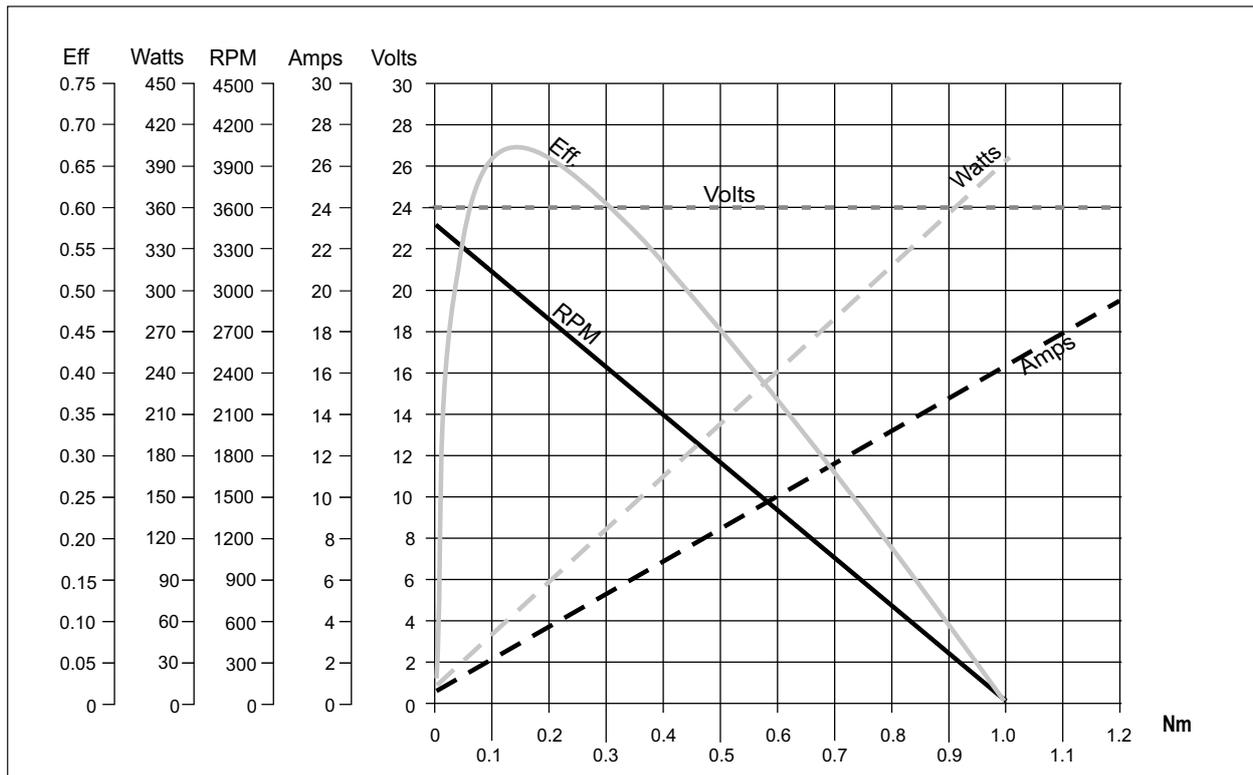
Performances

EC050.12E



EC

EC050.24E





EC070.120 - EC070.240

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	100 W S2
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

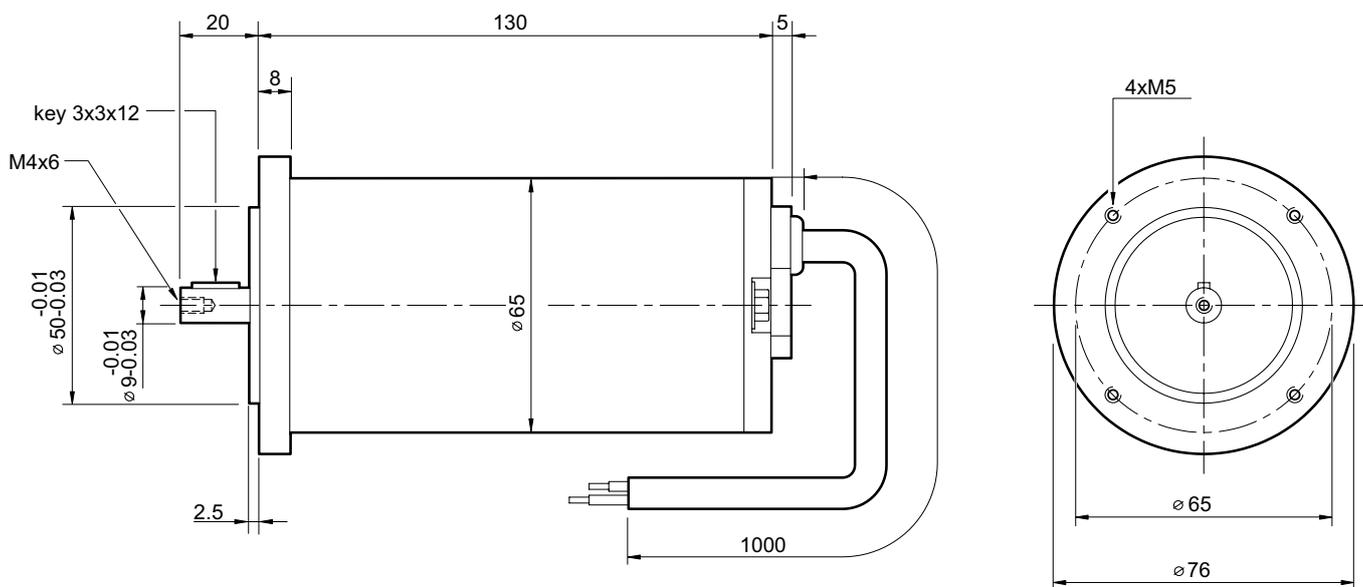
Construction	Tubular, without fan
Size	Ø 65 mm
Power	100 W S2
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Electric cable	Length: 1000 mm

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC070.120	S2 20'	100	12	11.8	F	1	0.31	3000	44	1.7
EC070.240	S2 20'	100	24	5.9			0.31			

Nota: Per servizio continuativo contattare il Servizio Tecnico.
 Note: For continuous duty please contact our Technical Service.

Dimensioni

Dimensions



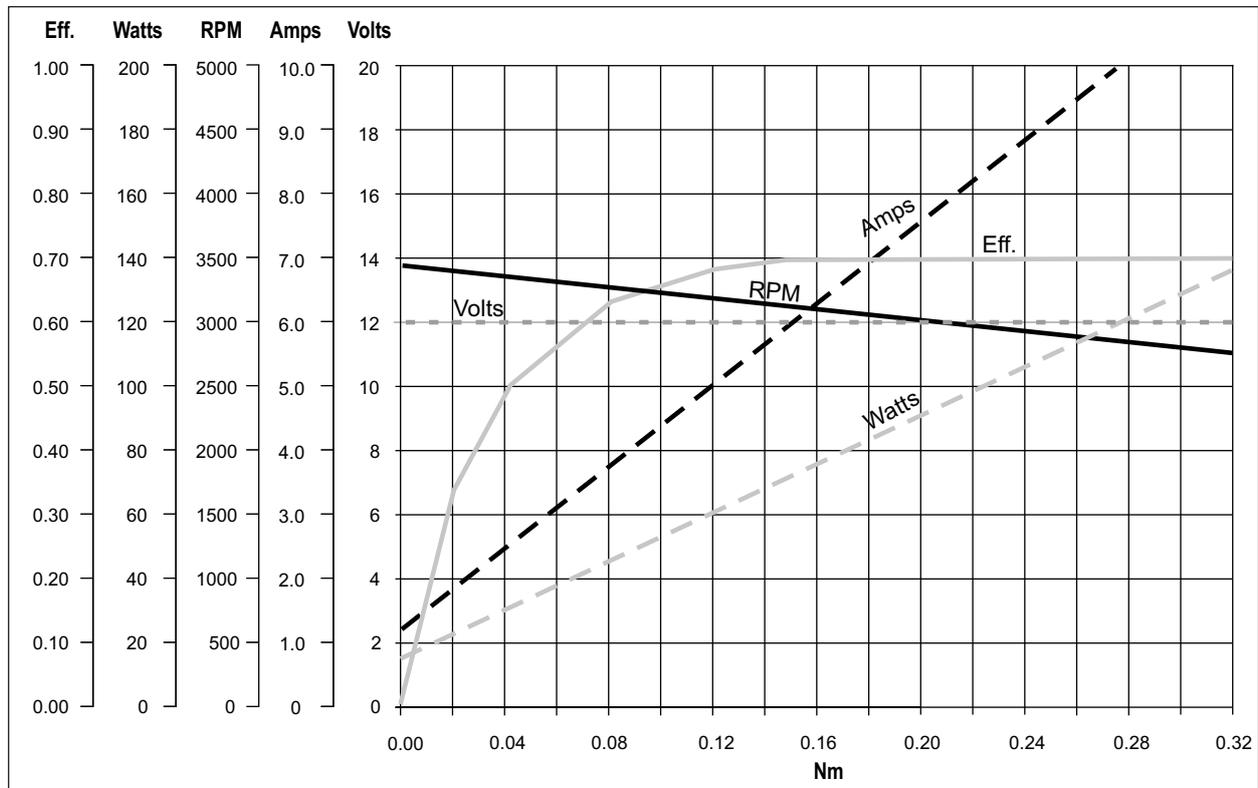


EC070.120 - EC070.240

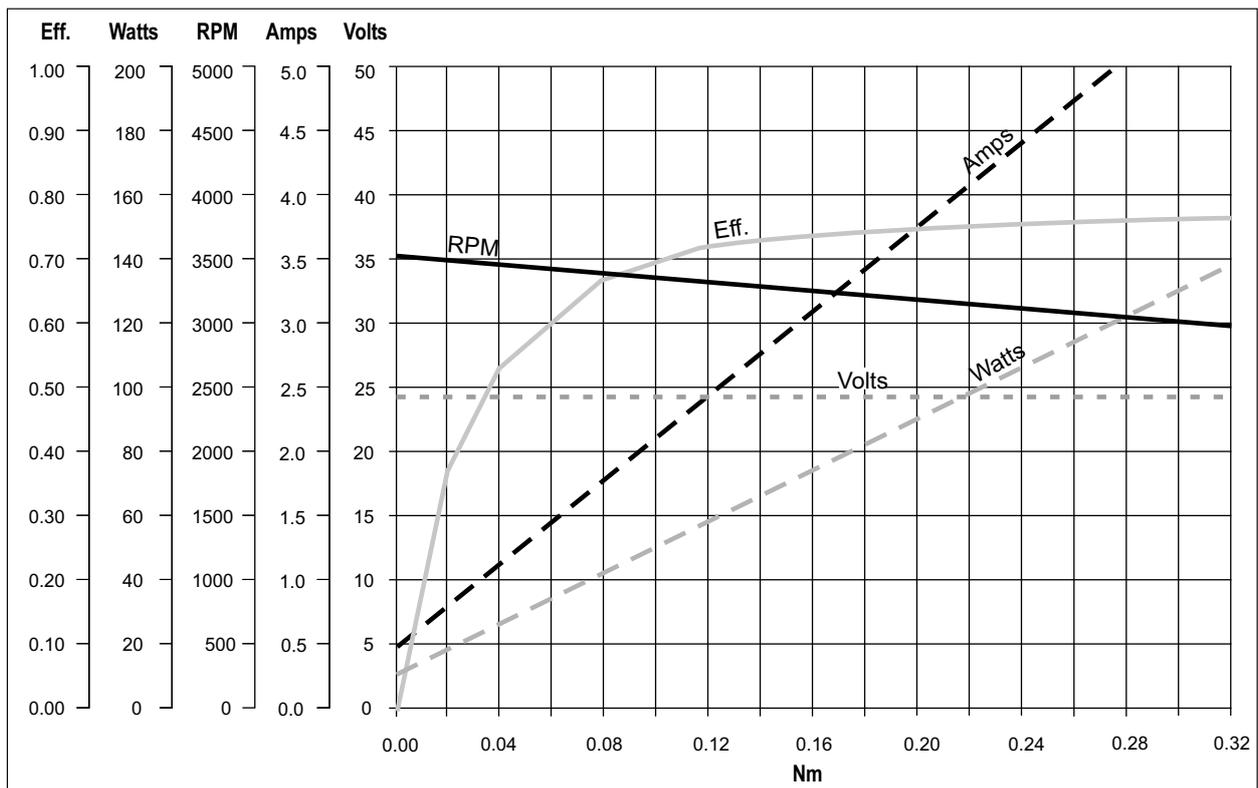
Prestazioni

Performances

EC070.120



EC070.240



EC



EC100.120 - EC100.240 - EC100.24E

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
Spazzole	N° 2 di composto grafite-rame
Dimensione spazzole	LxPxH = 17.1 x 6.5 x 16.7 mm
Cavo di alimentazione	Lunghezza: 1000 mm
Bisporgenza	Standard solo EC100.24E

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
Brushes	2 inside brushes made of graphite/copper composite
Brushes size	LxWxH = 17.1 x 6.5 x 16.7 mm
Electric cable	Length: 1000 mm
Rear shaft	Standard only EC100.24E

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC100.120	S1	100	12	12	F	1	0.31	3000	44	2.7
	S2 25'	140		16.8			0.43			
EC100.240	S1	100	24	6			0.31			
	S2 25'	140		8.4			0.43			
EC100.24E	S1	100		6			0.31			
	S2 25'	140		8.4			0.43			

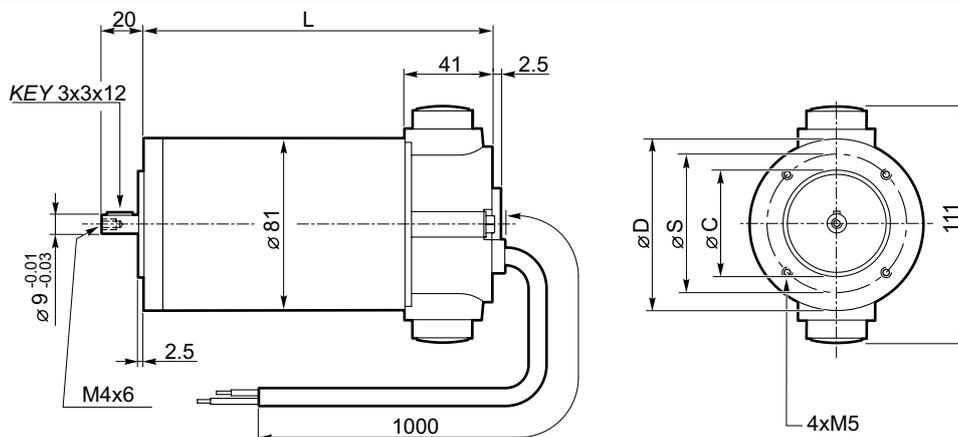
Dimensioni

Dimensions

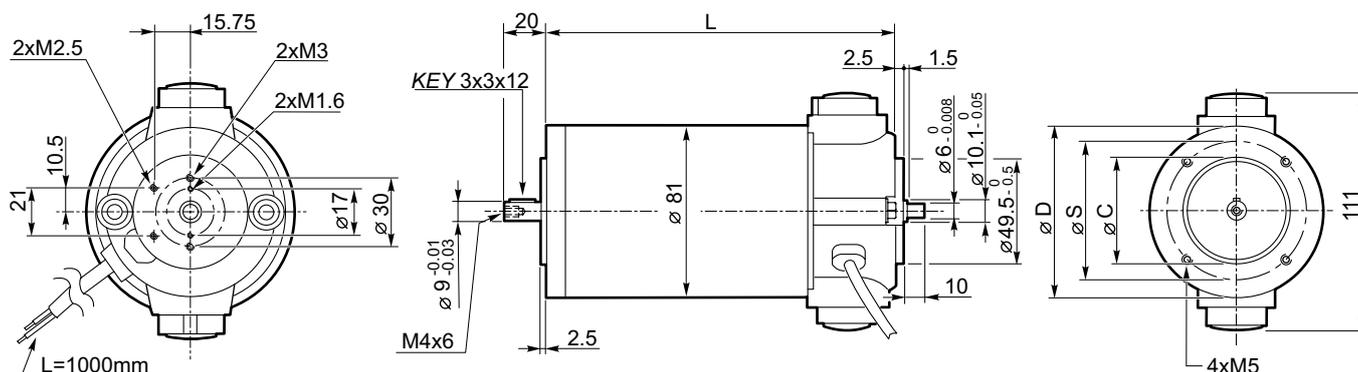
**EC100.120
EC100.240**

56 B14	
L	153
D	80
S	65
C (-0.03 / -0.01)	50
63B14*	
L	155
D	90
S	75
C (-0.03 / -0.01)	60

* Usare boccola 9/11
 * Use sleeve 9/11



EC100.24E



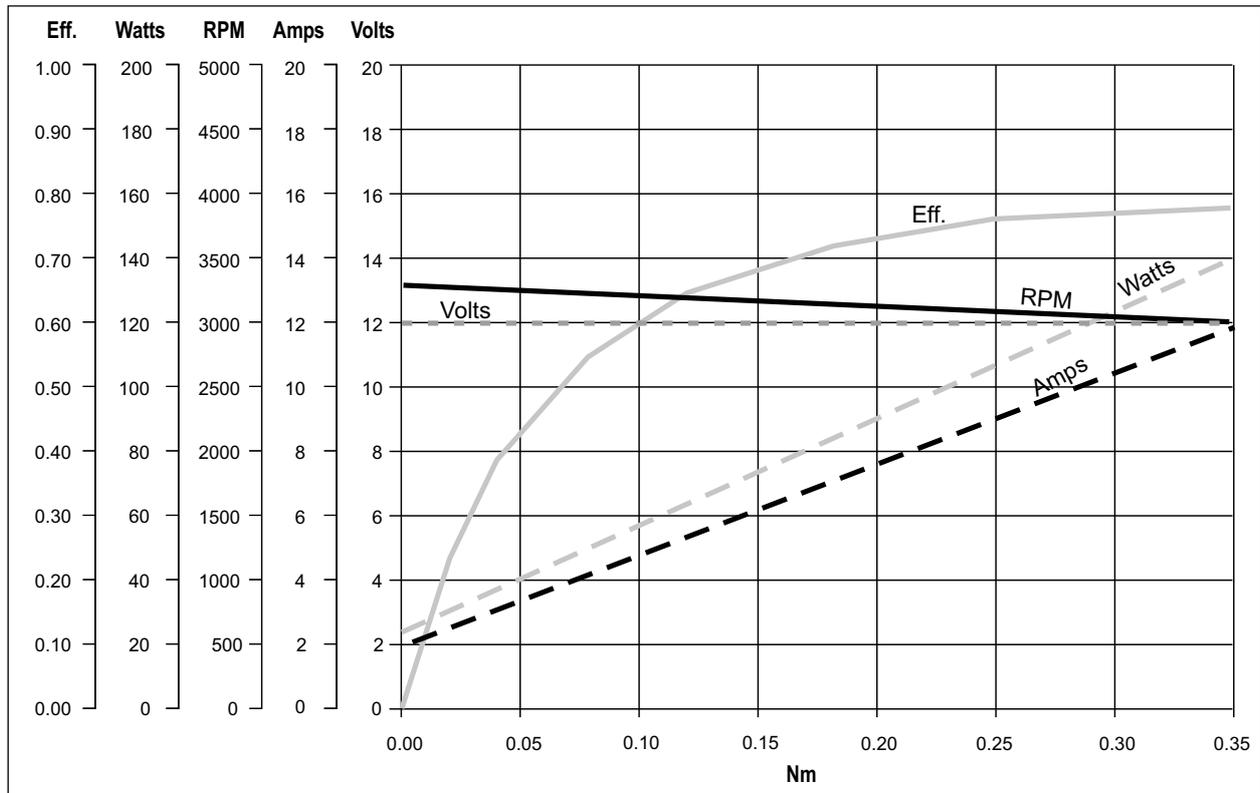


EC100.120 - EC100.240 - EC100.24E

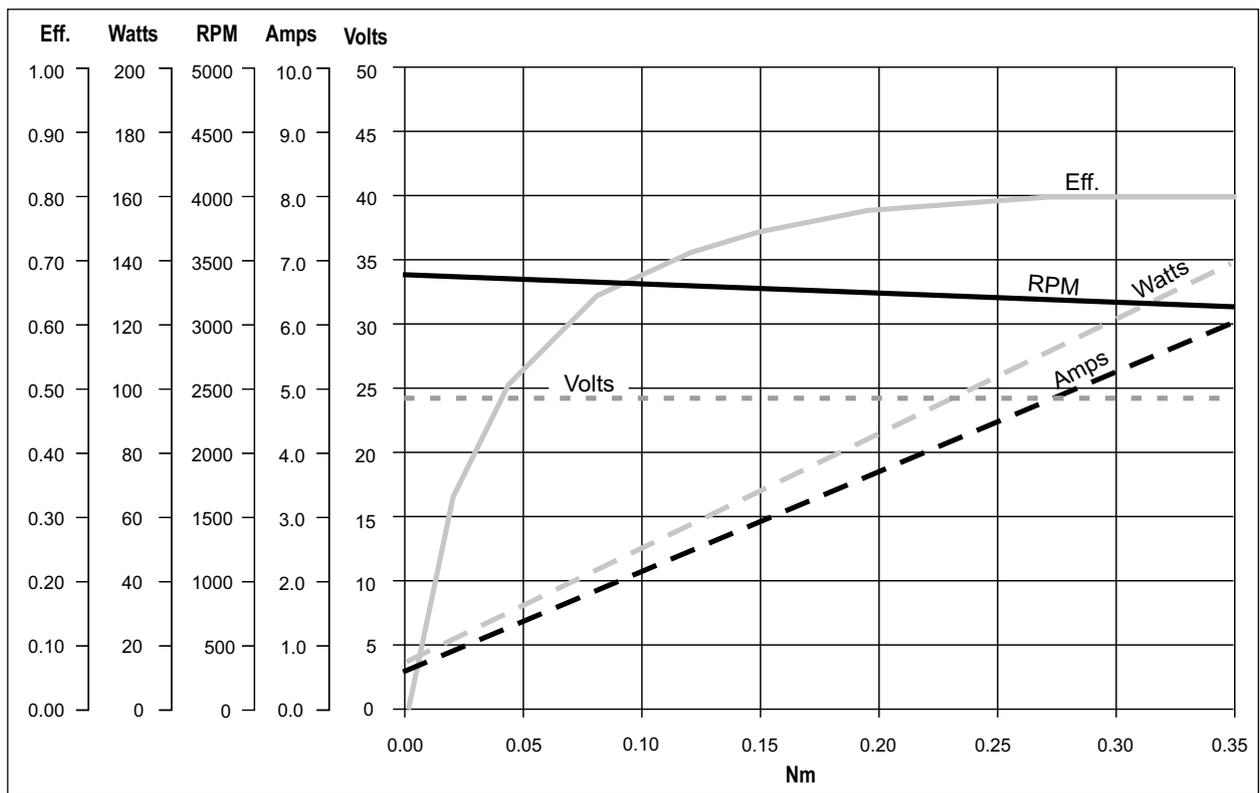
Prestazioni

Performances

EC100.120



EC100.240 - EC100.24E



EC



EC180.120 - EC180.240 - EC180.24E

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
Spazzole	N° 2 di composto grafite-rame
Dimensione spazzole	LxPxH = 17.1 x 6.5 x 16.7 mm
Cavo di alimentazione	Lunghezza: 1000 mm
Bisporgenza	Standard solo EC180.24E

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
Brushes	2 inside brushes made of graphite/copper composite
Brushes size	LxPxH = 17.1 x 6.5 x 16.7 mm
Electric cable	Length: 1000 mm
Rear shaft	Standard only EC180.24E

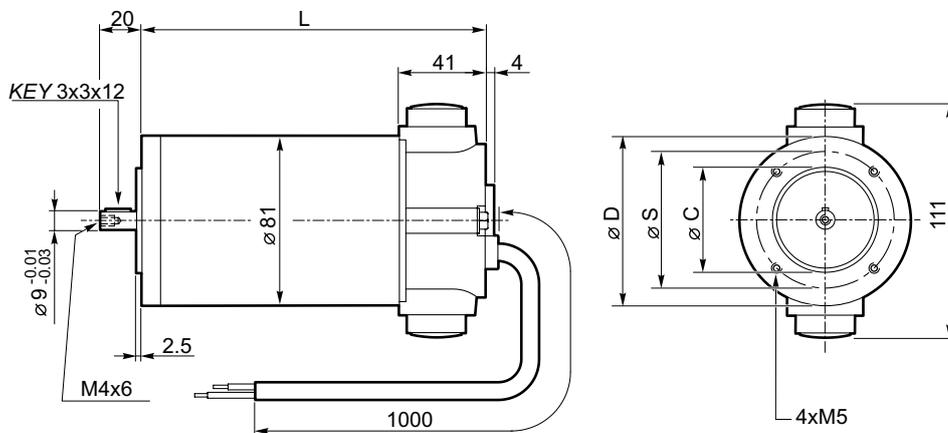
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg		
EC180.120	S1	180	12	21.5	F	1	0.57	3000	IP44	3.4		
	S2 25'	250		30			0.8					
EC180.240	S1	180	24	10.8			0.57				0.8	
	S2 25'	250		15								0.57
EC180.24E	S1	180		10.8								
	S2 25'	250		15								0.8

Dimensioni

Dimensions

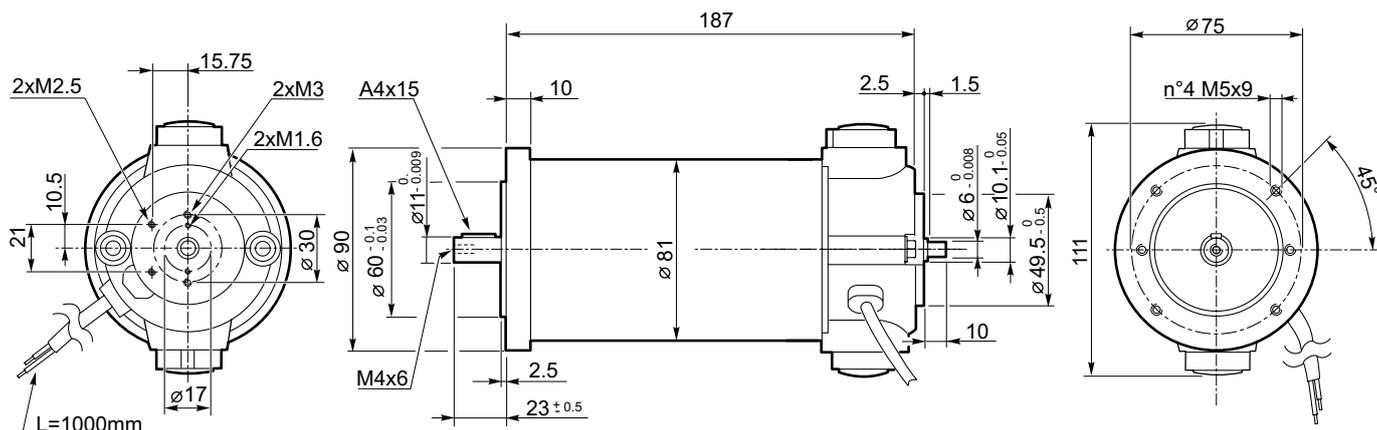
**EC180.120
EC180.240**

56 B14	
L	185
D	80
S	65
C (-0.03 / -0.01)	50
63B14*	
L	187
D	90
S	75
C (-0.03 / -0.01)	60



* Usare boccola 9/11
 * Use sleeve 9/11

EC180.24E



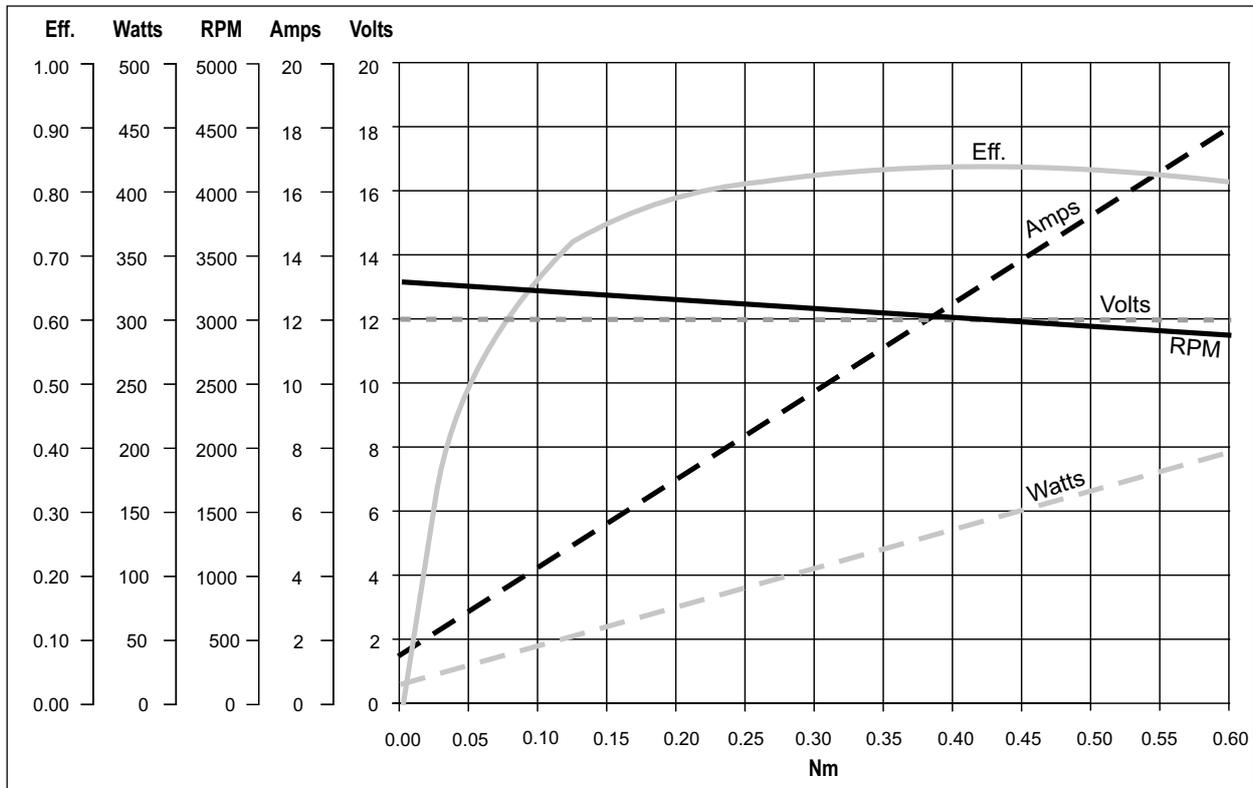


EC180.120 - EC180.240 - EC180.24E

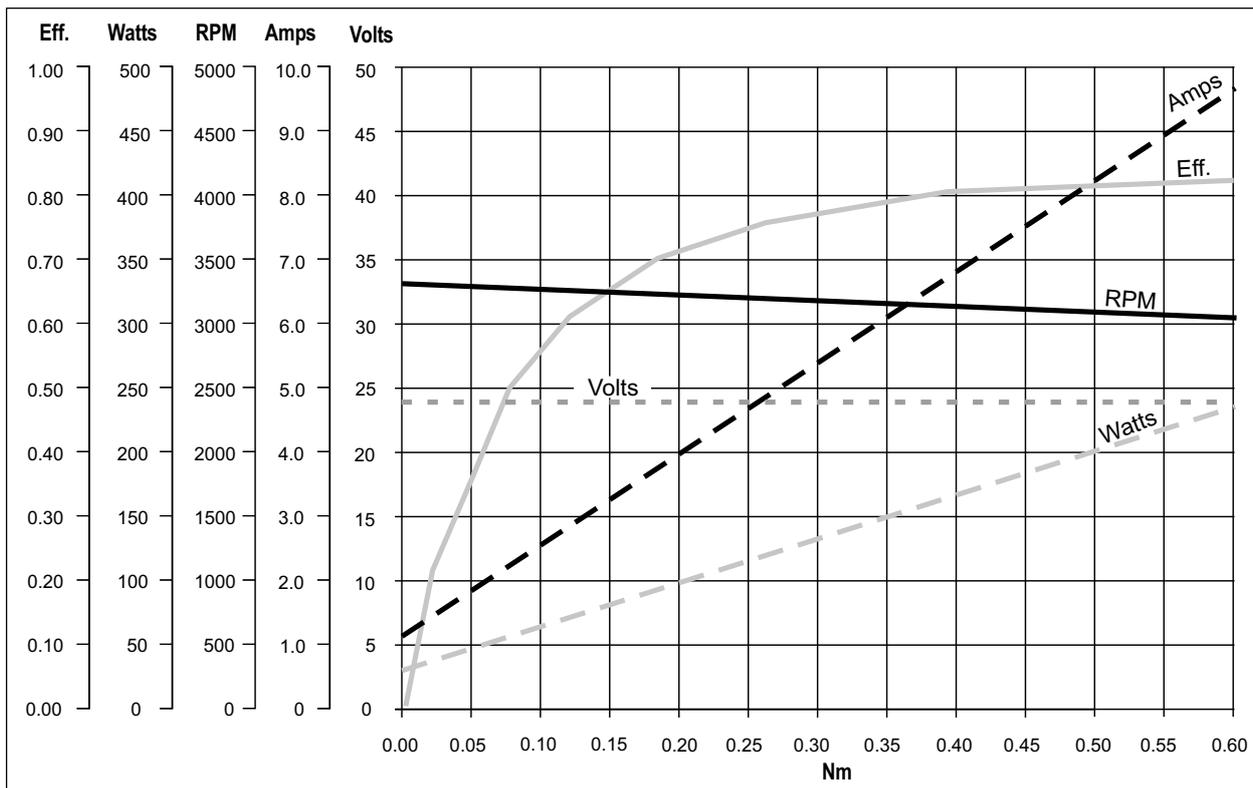
Prestazioni

Performances

EC180.120



EC180.240 - EC180.24E



EC



EC350.120 - EC350.120BR - EC350.240 - EC350.240BR

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
Spazzole	N° 4 di composto grafite-rame
Dimensione spazzole	LxPxH = 18.9 x 9.5 x 16.7 mm
Terminali	2 con dadi di fissaggio
Freno	Elettromagnetico

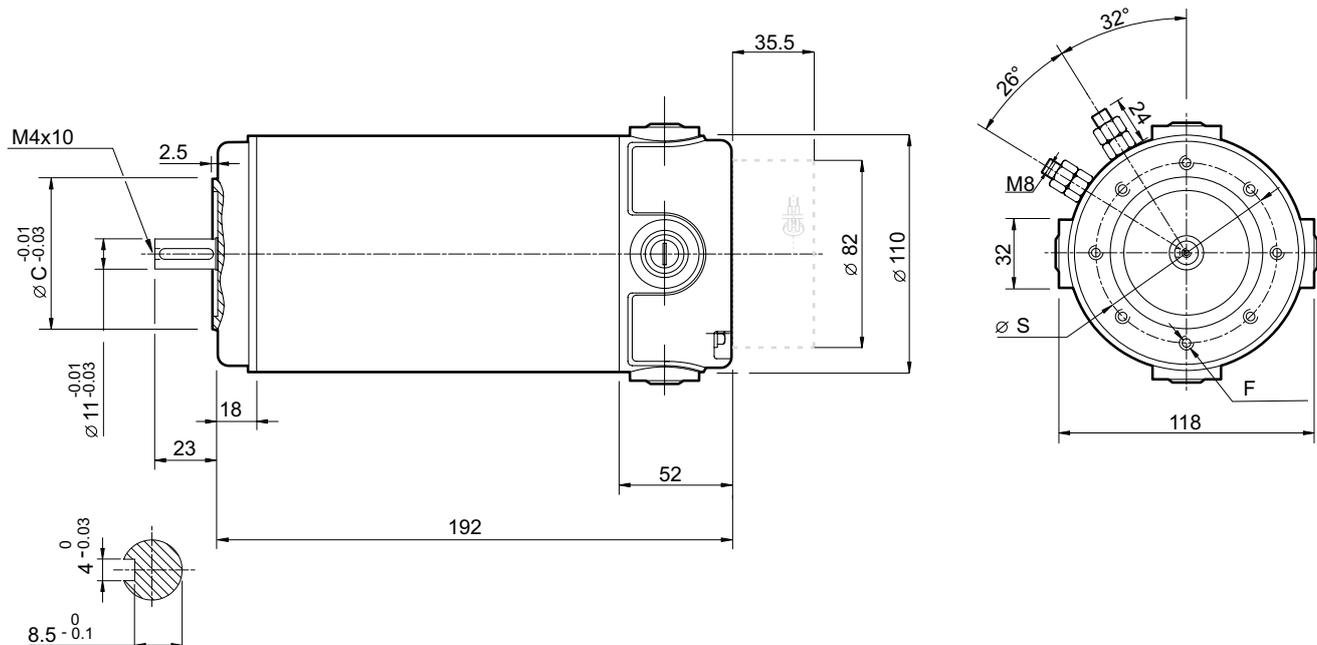
Construction	Tubular, without fan
Size	Ø 110 mm
Power	500 W S2 (350 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 brushes made of graphite/copper composite
Brushes size	LxPxH = 18.9 x 9.5 x 16.7 mm
Leads terminals	2, with double nut
Brake	Electromagnetic

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC350.120	S1	350	12	42	F	1	1.12	3000	44	5.1
EC350.120BR	S2 30'	500		58.8			1.57			
EC350.240	S1	350	24	21			1.12			5.3
EC350.240BR	S2 30'	500		29.4			1.57			

Freno Brake	M _{Br} [Nm]	Pe [W]	V [V]	T _r [≤ ms]	T _f [≤ ms]	n ₁ max [min ⁻¹]
EC350.120BR	5	25	12	75	65	3000
EC350.240BR			24			

Dimensioni

Dimensions



63 B14		71 B14*	
S	75	S	85
C (-0.03 / -0.01)	60	C (-0.03 / -0.01)	70
F	8 - M5	F	8 - M6

* Usare boccia 11/14
 * Use sleeve 11/14

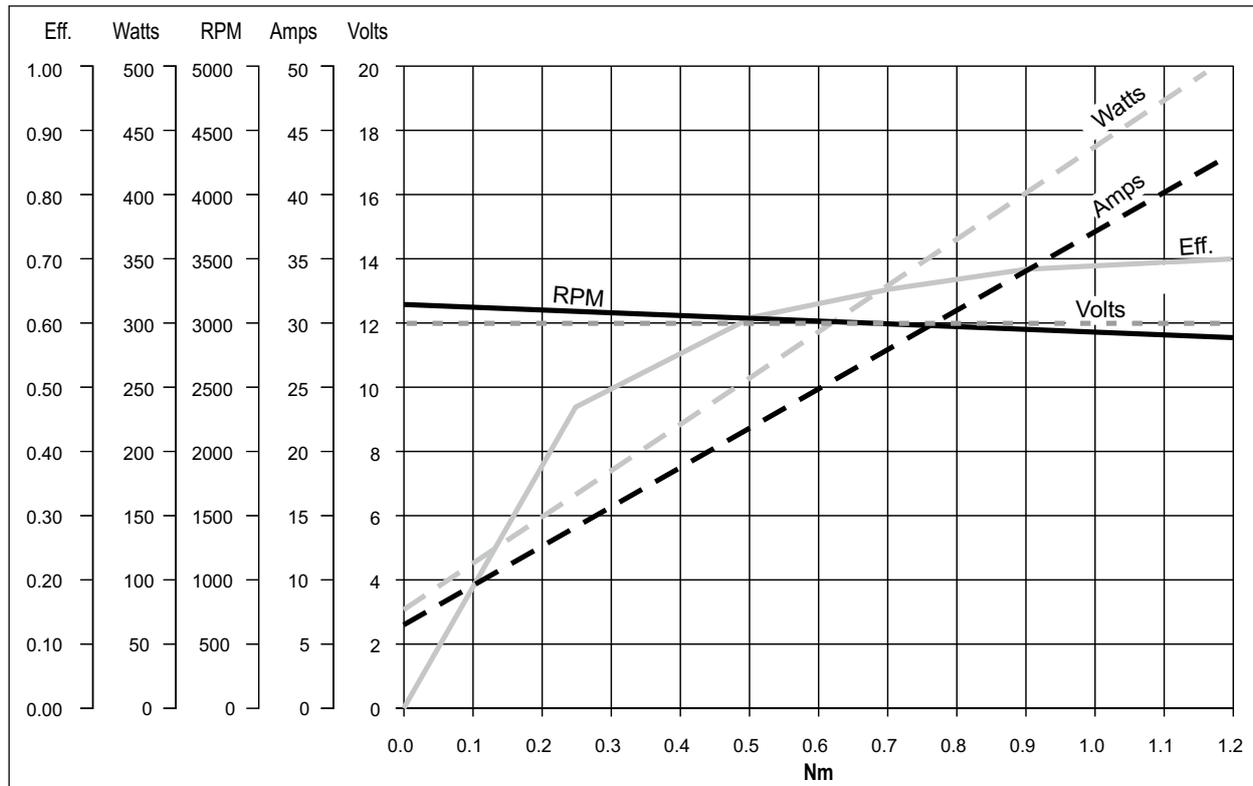


EC350.120 - EC350.120BR - EC350.240 - EC350.240BR

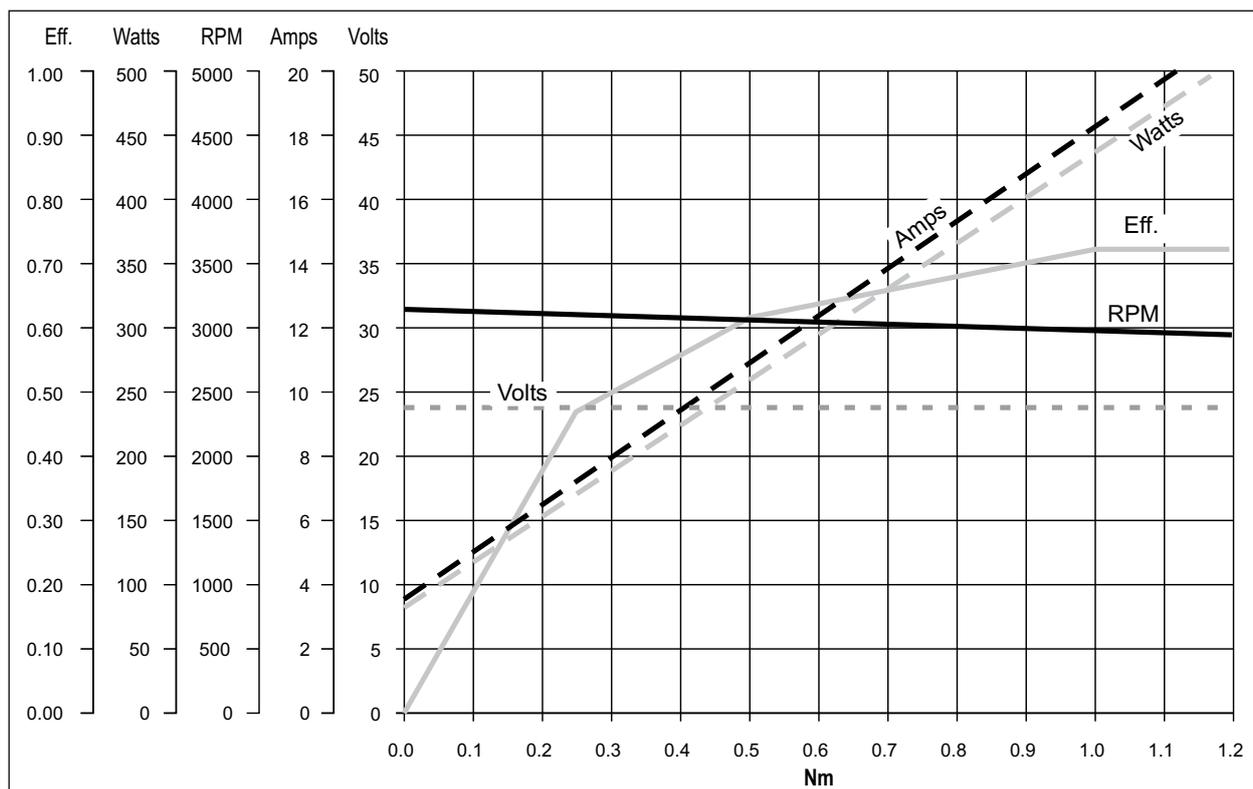
Prestazioni

Performances

EC350.120 - EC350.120BR



EC350.240 - EC350.240BR



EC



EC600.120 - EC600.120BR - EC600.240 - EC600.240BR

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
Spazzole	N° 4 di composto grafite-rame
Dimensione spazzole	LxPxH = 18.9 x 9.5 x 16.7 mm
Terminali	2 con doppio dado di fissaggio
Freno	Elettromagnetico

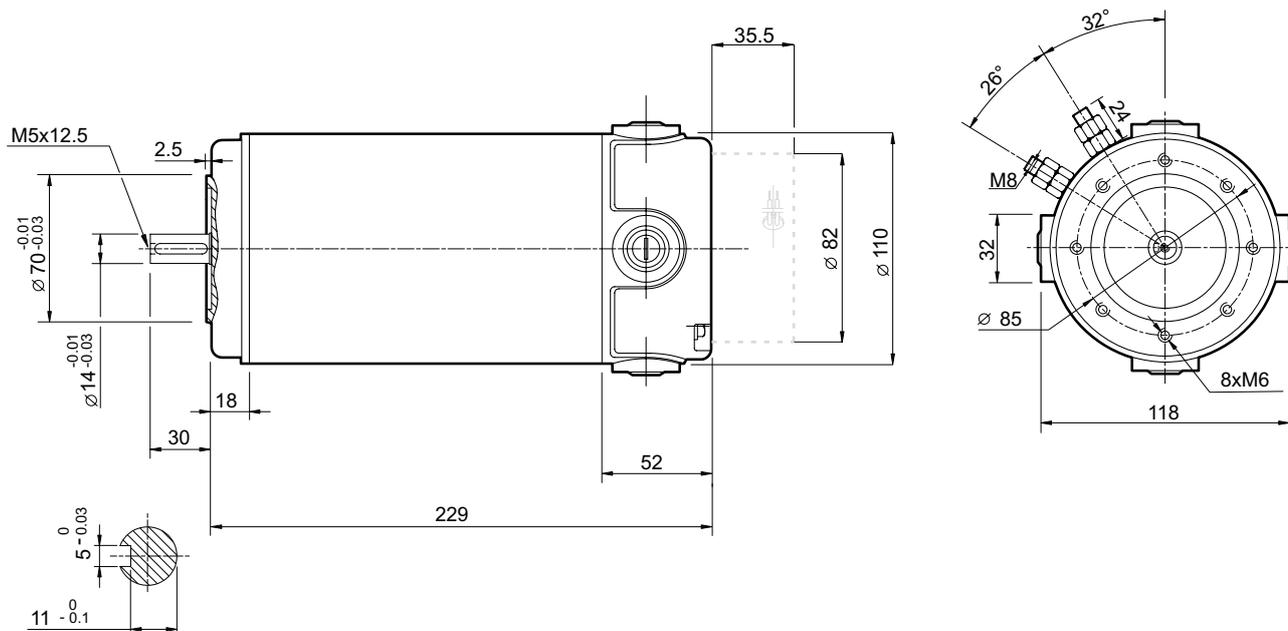
Construction	Tubular, without fan
Size	Ø 110 mm
Power	800 W S2 (600 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 brushes made of graphite/copper composite
Brushes size	LxPxH = 18.9 x 9.5 x 16.7 mm
Leads terminals	2, with double nut
Brake	Electromagnetic

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC600.120	S1	600	12	71	F	1	1.91	3000	44	6.6
EC600.120BR	S2 30'	800		94.4			2.54			
EC600.240	S1	600	24	35.5			1.91			7.1
EC600.240BR	S2 30'	800		47.2			2.54			

Freno Brake	M _{Br} [Nm]	Pe [W]	V [V]	T _r [≤ ms]	T _r [≤ ms]	n ₁ max [min ⁻¹]
EC600.120BR	5	25	DC 12	75	65	3000
EC600.240BR			DC 24			

Dimensioni

Dimensions



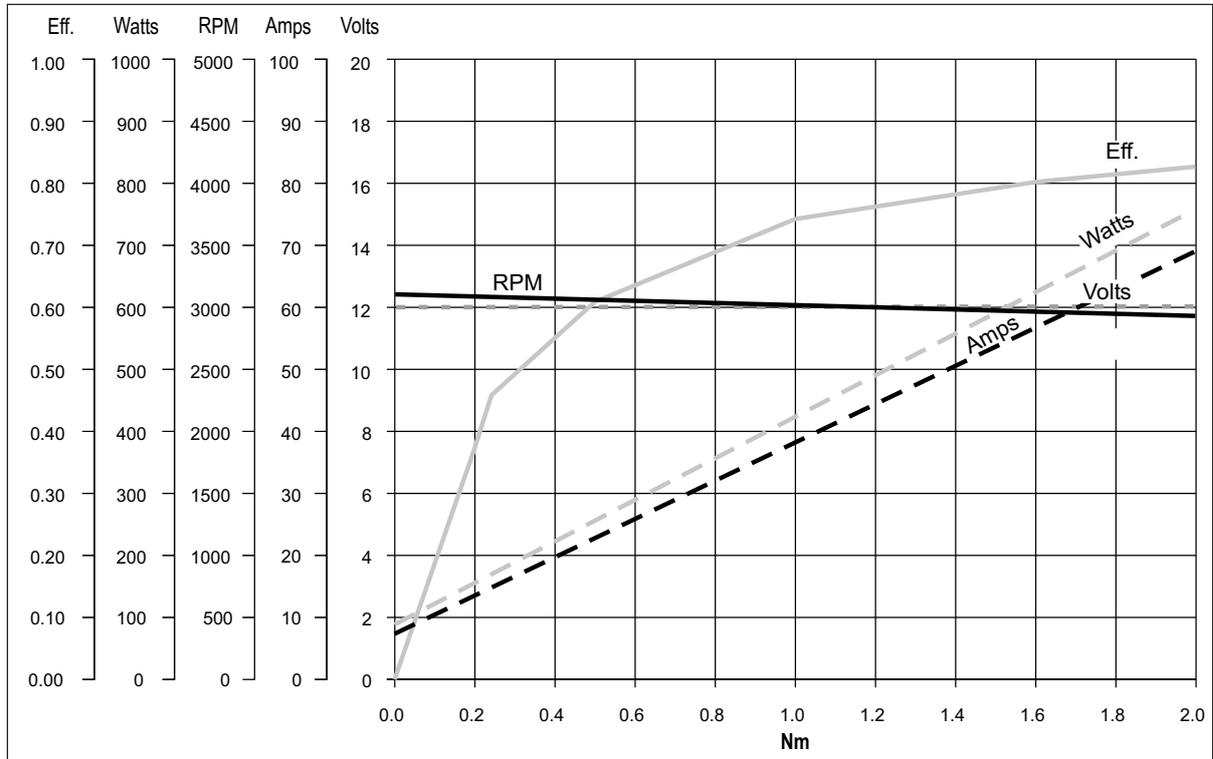


EC600.120 - EC600.120BR - EC600.240 - EC600.240BR

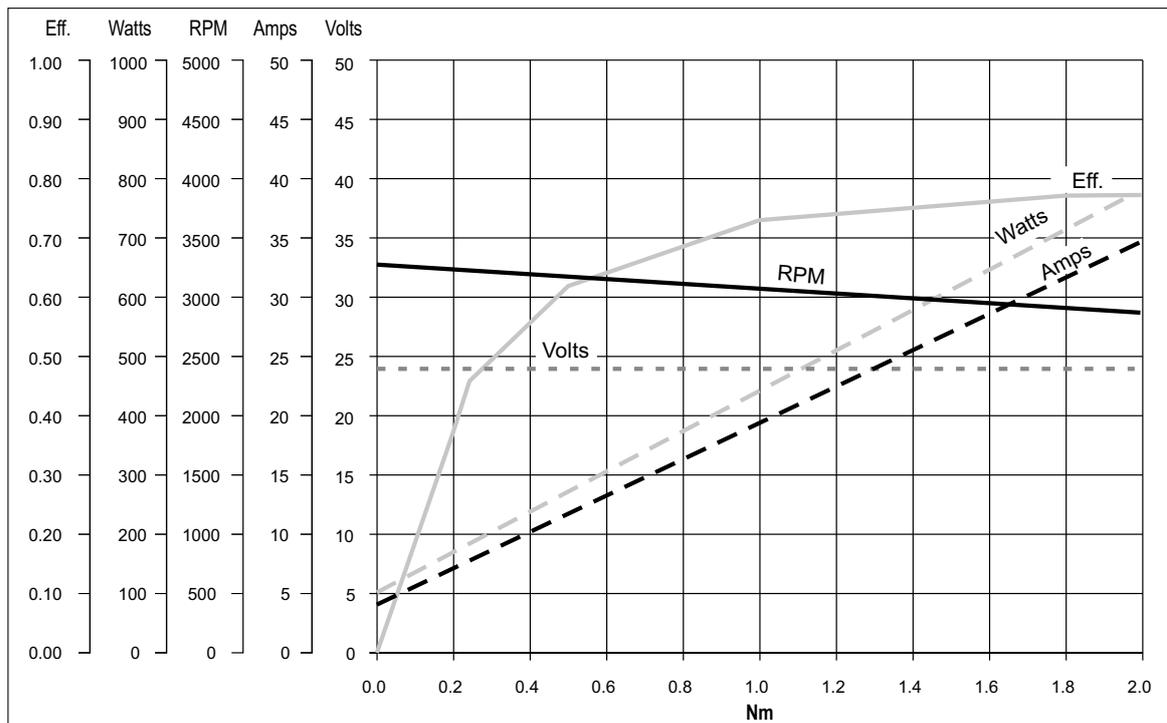
Prestazioni

Performances

EC600.120 - EC600.120BR



EC600.240 - EC600.240BR



EC

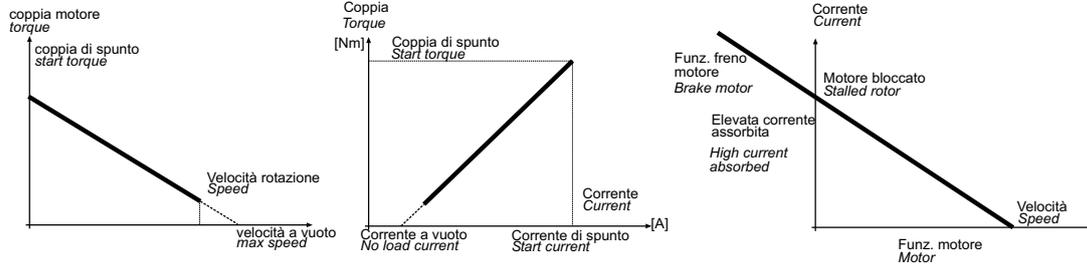


Legenda / Glossario dei grafici

Key / Diagram Glossary

Dato un motore in C.C., la velocità di rotazione è funzione lineare della coppia; così pure la corrente assorbita è una funzione lineare della coppia. Velocità e corrente variano in maniera sensibile al variare del carico.

With a D.C. motor, the rotational speed is a linear function of the torque. In the same way, the absorbed current is also a linear function of the torque. Speed and current change a lot against applied torque.

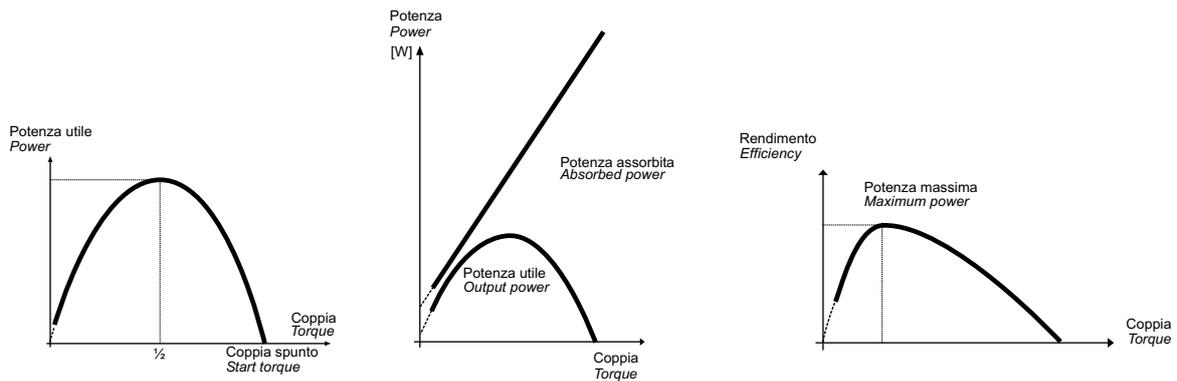


La potenza utile (potenza all' albero) si ricava dalla formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$

The output power is calculated using the formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$



Poiché la tensione di alimentazione è costante mentre la corrente è linearmente crescente al crescere della coppia, l'andamento della potenza assorbita è un retta crescente. Dal rapporto tra la potenza meccanica e la potenza assorbita si ottiene il grafico dell'efficienza.

Since the supply voltage is constant, whereas the current increases in a linear manner as the torque increases, the absorbed power trend is a straight line going up. Efficiency is shown from the ratio between the output power and the absorbed power.

Formule utili

Useful formulas

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

$$[HP] \cdot 746 = [W].$$

Esempio 2 HP = circa 1500 W.

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

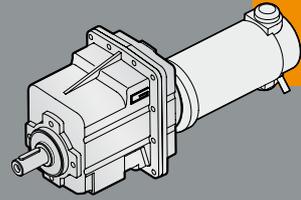
$$[HP] \cdot 746 = [W].$$

Example 2 HP = approx. 1500 W.

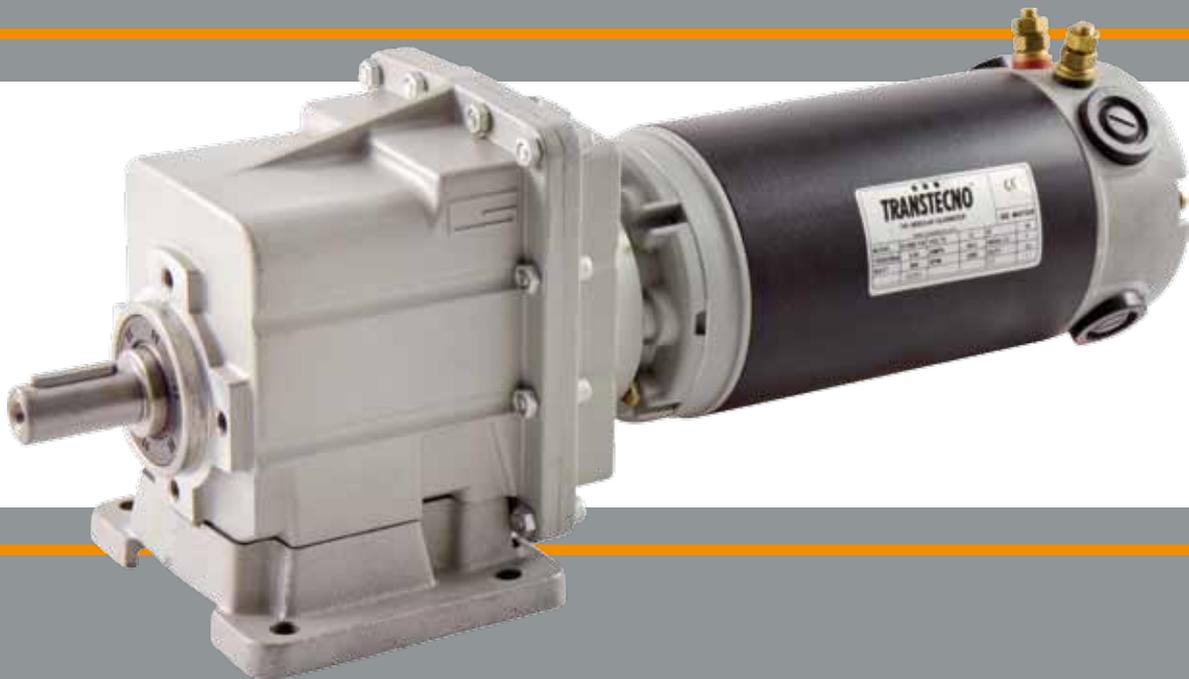
TRANSTECNOTM
THE MODULAR GEARMOTOR

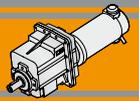
ECMG

ECMG



MOTORIDUTTORI C.C. AD INGRANAGGI CILINDRICI
PERMANENT MAGNETS D.C. HELICAL GEARMOTORS

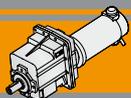




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Designazione	<i>Classification</i>	L2
Sensi di rotazione	<i>Direction of rotation</i>	L3
Lubrificazione	<i>Lubrication</i>	L3
Simbologia	<i>Symbols</i>	L3
Carichi radiali	<i>Radial loads</i>	L4
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	L5
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Caratteristiche tecniche

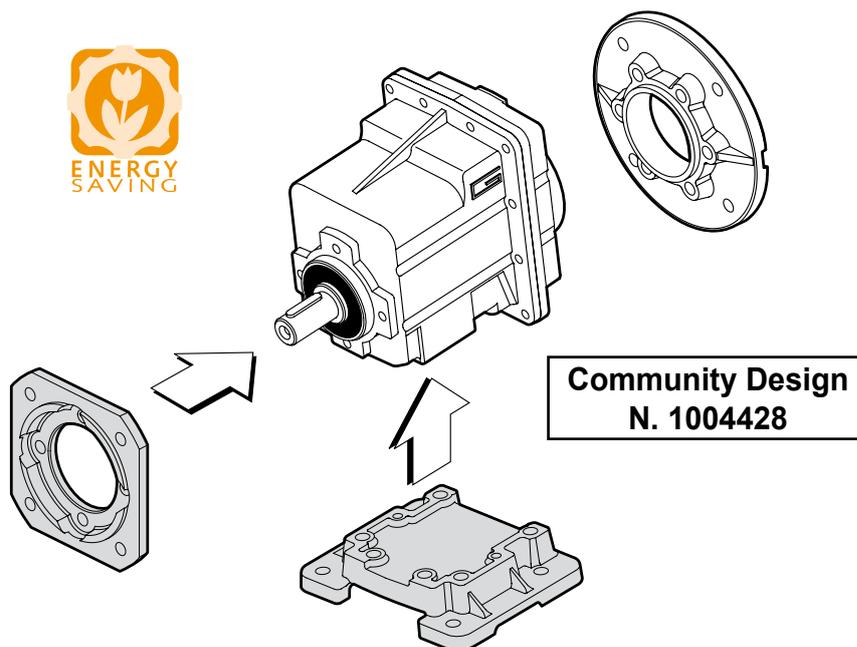
Technical features

Le caratteristiche principali dei motoriduttori a corrente continua della serie ECMG sono:

The main features of ECMG D.C. gearmotor range are:

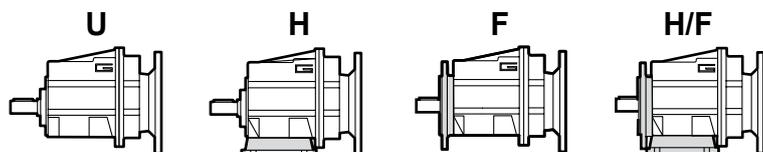
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 100 a 800W S2
- Magneti in ferrite
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi sempre rettificati

- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 100 to 800W S2
- Ferrite magnets
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground helical gears

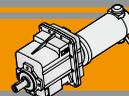


Designazione

Classification

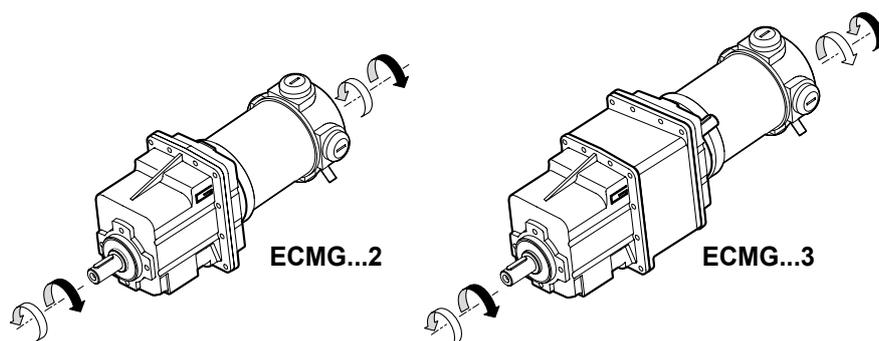


MOTORIDUTTORE / GEARBOX									
ECMG	120/002					U	8.99	D20	240
Tipo Type	Grandezza Size					Versione Version	Rapporto Ratio	Albero uscita Output shaft	Versione motore Motor version
	070/002	100/002	180/002	350/002	600/002	U...	vedi tabelle see tables	vedi tabelle see tables	120
				350/012	600/012				
				350/013	600/013				
				350/022	600/022				
				350/023	600/023				
				350/033	600/033				
350/043	600/043	H...	240						
		F...							
		H.../F...		24E					



Sensi di rotazione

Direction of rotation



Lubrificazione

Lubrication

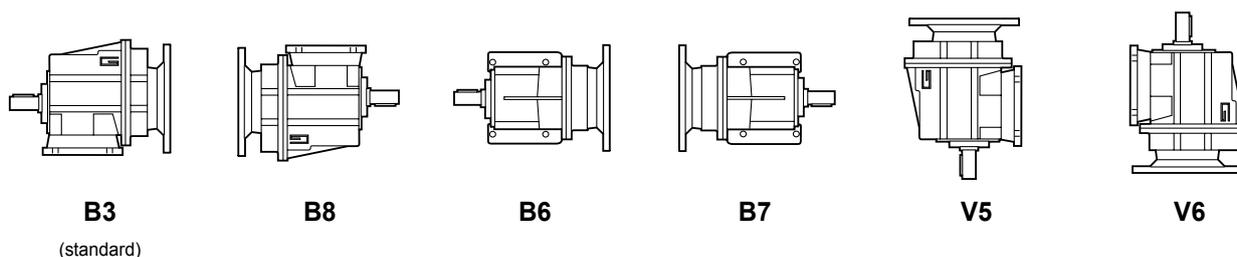
Tutti i riduttori nelle taglie 02 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use sizes 02 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

CMG	Quantità di olio (litri) / Oil quantity (litres)					
	B3	B8	B6	B7	V5	V6
002	0.18					
012	0.32					
013	0.94					
022	0.32					
023	0.94					
033	1.8					
043	1.8					

Lubrificati a vita
Life lubrication

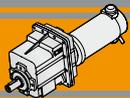
Posizioni di montaggio / Mounting positions



Simbologia

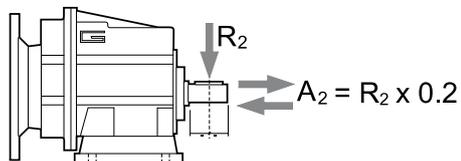
Symbols

- n_1 [min⁻¹] Velocità in ingresso / Input speed
- n_2 [min⁻¹] Velocità in uscita / Output speed
- i Rapporto di riduzione / Ratio
- P_1 [kW] Potenza in entrata / Input power
- M_2 [Nm] Coppia nominale in uscita in funzione di P_1 / Output torque referred to P_1
- sf Fattore di servizio / Service factor
- R_2 [N] Carico radiale ammissibile in uscita / Permitted output radial load
- A_2 [N] Carico assiale ammissibile in uscita / Permitted output axial load



Carichi radiali

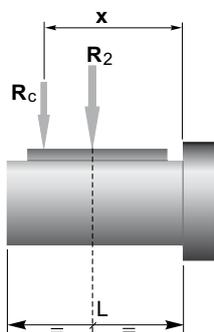
Radial loads



n_2 [min ⁻¹]	R_2 [N]				
	CMG 00	CMG 01	CMG 02	CMG 03	CMG 04
700	416	764	1529	1987	2379
600	437	805	1609	2092	2504
500	465	855	1710	2223	2661
400	501	921	1842	2395	2866
250	586	1077	2154	2801	3353
180	653	1323	2554	3321	3897
150	748	1406	2714	3529	4244
120	806	1631	3467	3801	4572
100	958	1842	3684	4507	5234
80	1032	1984	3969	5042	5991
60	1136	2184	4368	5549	6594
40	1300	2500	5000	6500	8000
10	1300	2500	5000	6500	8000

Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

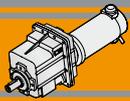


	CMG 00	CMG 01	CMG 02	CMG 03	CMG 04
a	73	104	117	132	150
b	53	84	92	102	115
R_{2MAX}	1300	2500	5000	6500	8000

$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

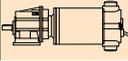
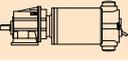
$$R \leq R_c$$

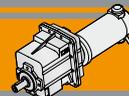
*a, b = valori riportati nella tabella
a, b = values given in the table*



Dati tecnici per servizio S2

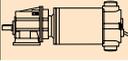
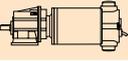
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version		
500							800								
(3000 min ⁻¹)	64	71	2.2	47.19	350/023	120/240	(3000 min ⁻¹)	785	9	5.0	3.82	600/012	120/240		
	54	84	1.9	56.05					648	11	4.2			4.63	
	47	96	1.6	64.01					527	14	3.4			5.69	
	39	114	1.4	76.02					389	19	3.3			7.72	
	33	135	1.2	90.29					327	22	2.8			9.17	
	26	171	0.9	114.46					306	24	2.6			9.81	
	22	203	0.8	135.95					261	28	2.8			11.5	
	17	223	0.7	175.89					252	29	2.7			11.9	
	15	223	0.7	204.69					217	34	2.8			13.8	
	11	223	0.7	264.84					205	36	2.6			14.62	
	10	223	0.7	307.80					168	44	2.2			17.86	
	8	223	0.7	398.25					157	47	2.0			19.07	
	66	68	3.5	45.21	350/033	120/240		151	48	1.9	19.83				
	49	92	2.6	61.32					127	58	1.6	23.56			
	41	109	2.1	72.83					101	72	1.3	29.56			
	31	146	1.6	97.45					85	87	1.1	35.47			
	26	173	1.4	115.74					65	112	0.8	45.89			
	21	211	1.1	140.81					61	120	0.8	49			
	17	261	0.9	174.26					56	130	0.7	53.33			
	13	334	0.7	225.47					64	112	0.8	46.61	600/013	120/240	
	11	334	0.7	262.05					54	133	0.7	55.36			
	9	334	0.7	325.79					47	134	0.7	63.22			
	8	334	0.7	378.64					40	134	0.7	75.08			
	49	92	4.3	61.32			350/043	120/240		34	134	0.7			89.17
	41	109	3.6	72.83					27	134	0.7	113.05			
	31	146	2.7	97.45					22	134	0.7	134.27			
	26	173	2.3	115.74					17	134	0.7	173.72			
	21	211	1.9	140.81					15	134	0.7	202.16			
	17	261	1.5	174.26					11	134	0.7	261.57			
	13	337	1.2	225.47					10	134	0.7	304.00			
	11	392	1.0	262.05					8	134	0.7	393.33			
	9	487	0.8	325.79					302	24	3.9	9.93	600/022	120/240	
	8	557	0.7	378.64					272	27	5.8	11.01			
									249	29	5.3	12.05			
									227	32	4.8	13.21			
							203	36	4.3	14.81					
							175	42	3.0	17.1					
							164	45	2.8	18.26					
							149	49	3.2	20.08					
							126	58	2.7	23.85					
							100	73	2.1	29.93					
							84	88	1.8	35.91					
							65	114	1.4	46.46					
							60	121	1.3	49.61					
							56	132	1.2	54					
800															
(3000 min ⁻¹)	596	12	2.5	5.03	600/002	120/240									
	492	15	2.1	6.10											
	401	18	1.7	7.49											
	334	22	1.8	8.99											
	295	25	1.6	10.16											
	249	30	1.3	12.07											
	224	33	1.7	13.40											
	198	37	1.5	15.14											
	165	44	1.2	18.17											
	139	53	1.0	21.58											
	128	57	1.0	23.51											
	120	61	0.9	25.10											
	111	66	0.8	27.08											
	92	79	0.7	32.49											
	71	79	0.7	42.04											
	67	79	0.7	44.89											
	61	79	0.7	48.86											



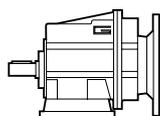
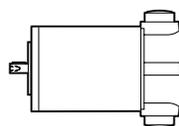
Dati tecnici per servizio S2

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version				
800							800										
(3000 min ⁻¹)	64	113	1.4	47.19	600/023	120/240	(3000 min ⁻¹)	66	108	3.6	45.21	600/043	120/240				
	54	134	1.2	56.05				49	147	2.7	61.32						
	47	153	1.0	64.01				41	174	2.2	72.83						
	39	182	0.9	76.02				31	233	1.7	97.45						
	33	216	0.7	90.29				26	277	1.4	115.74						
	26	223	0.7	114.46				21	337	1.2	140.81						
	22	223	0.7	135.95				17	417	0.9	174.26						
	17	223	0.7	175.89				13	540	0.7	225.47						
	15	223	0.7	204.69				11	557	0.7	262.05						
	11	223	0.7	264.84				9	557	0.7	325.79						
	10	223	0.7	307.80				8	557	0.7	378.64						
	8	223	0.7	398.25													
	66	108	2.2	45.21			600/033	120/240									
	49	147	1.6	61.32													
	41	174	1.3	72.83													
	31	233	1.0	97.45													
	26	277	0.8	115.74													
	21	334	0.7	140.81													
	17	334	0.7	174.26													
	13	334	0.7	225.47													
	11	334	0.7	262.05													
	9	334	0.7	325.79													
	8	334	0.7	378.64													

Motori applicabili

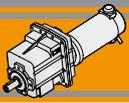
IEC Motor adapters



		EC					
		070.120 070.240	100.120 100.240 100.24E	180.120 180.240	180.24E	350.120 350.240	600.120 600.240
CMG	002	5.03 - 48.86	5.03 - 48.86	5.03 - 48.86	5.03 - 48.86	5.03 - 48.86	5.03 - 48.86
	012					3.82 - 53.33	3.82 - 53.33
	013					46.61 - 393.33	46.61 - 393.33
	022					3.66 - 54	3.66 - 54
	023					47.19 - 398.25	47.19 - 398.25
	033					45.21 - 378.64	45.21 - 378.64
	043					45.21 - 378.64	45.21 - 378.64

5.03 - 48.86

Rapporti di riduzione i
Ratio i

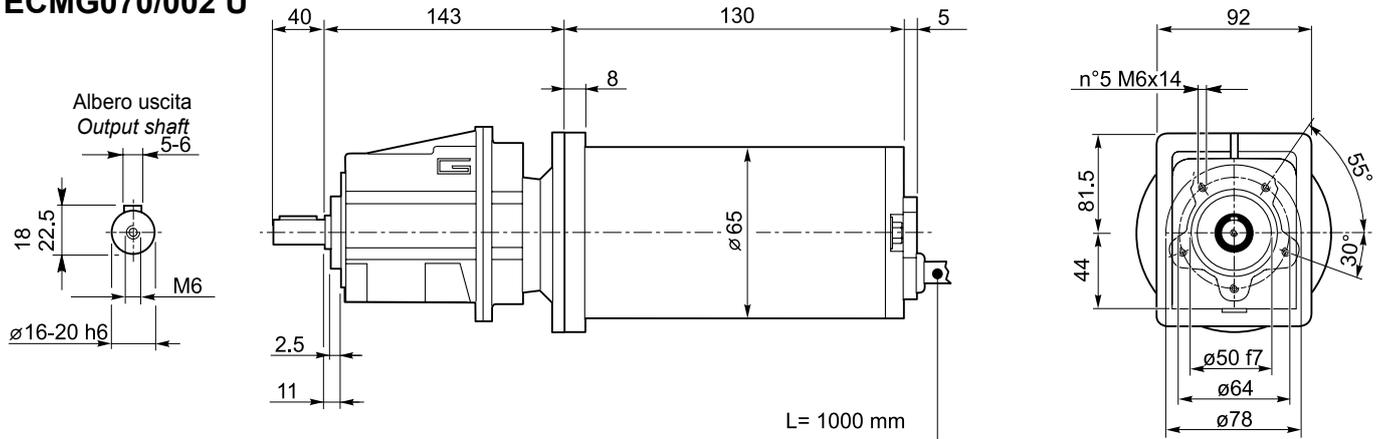


Dimensioni

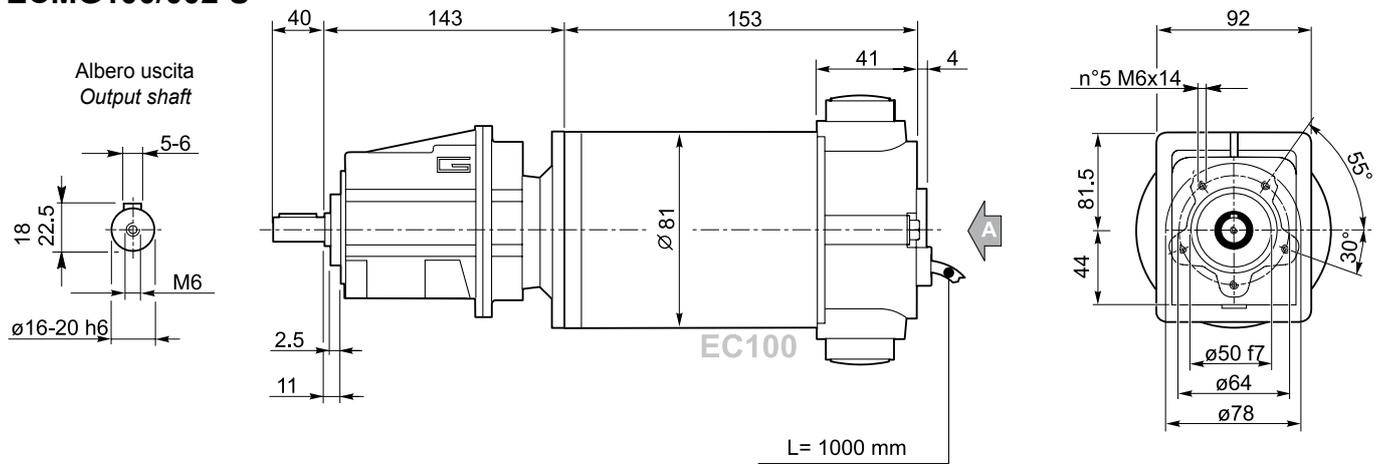
Dimensions

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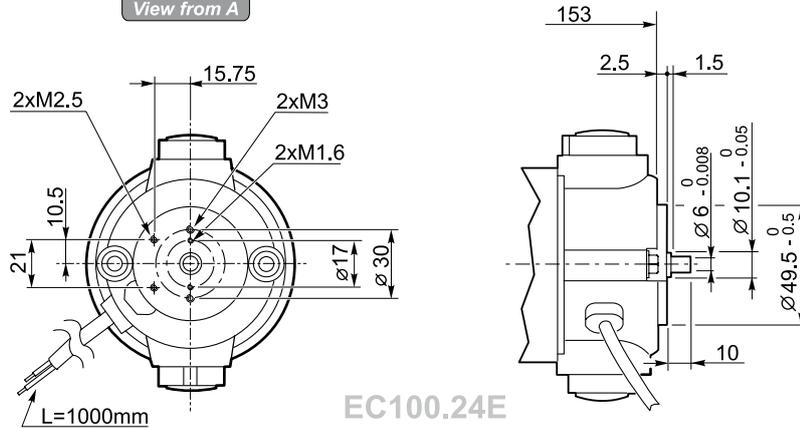
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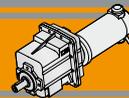


ECMG100/002 U



Vista da A
View from A



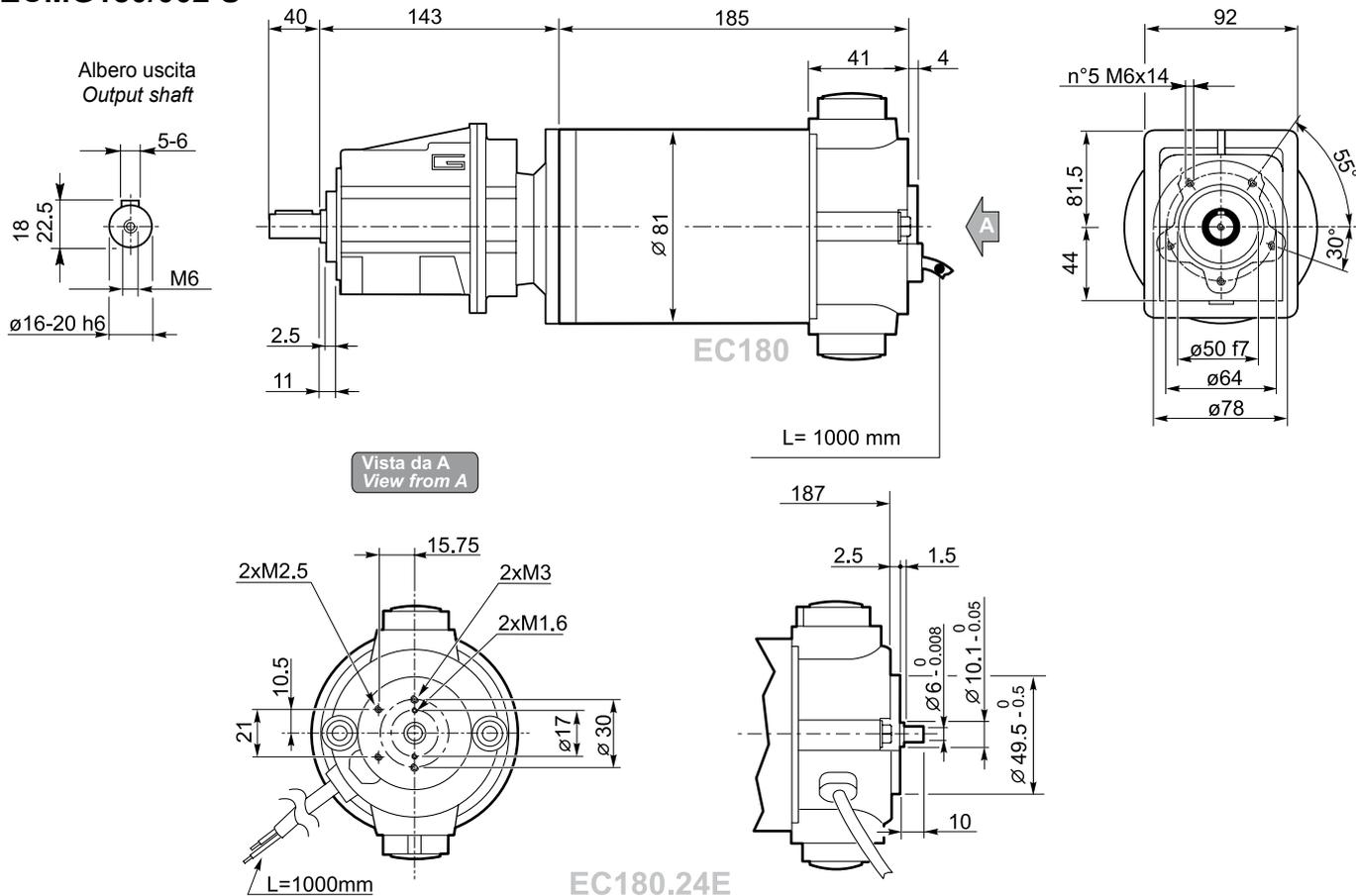


Dimensioni

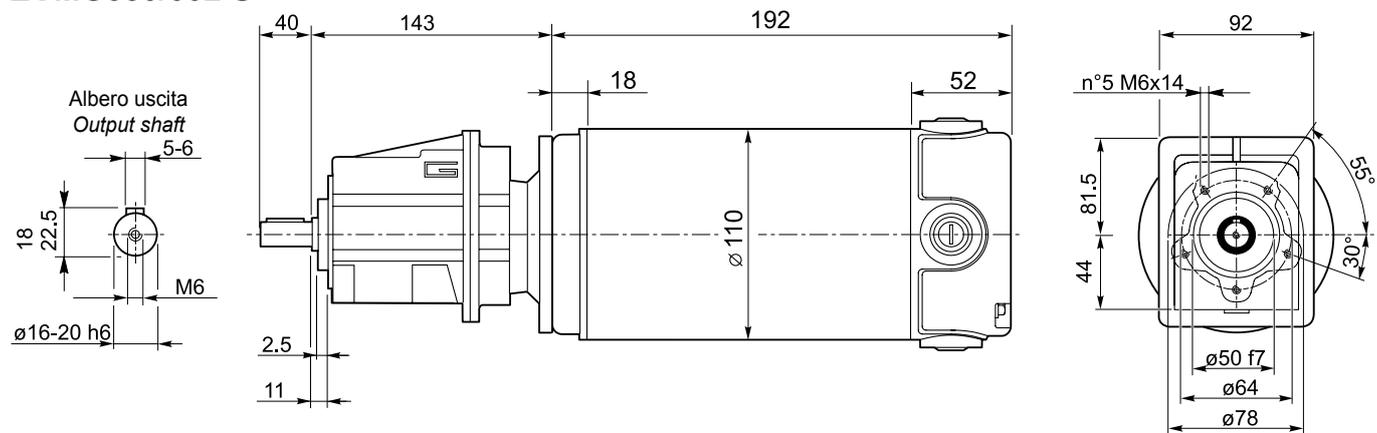
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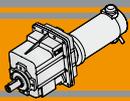
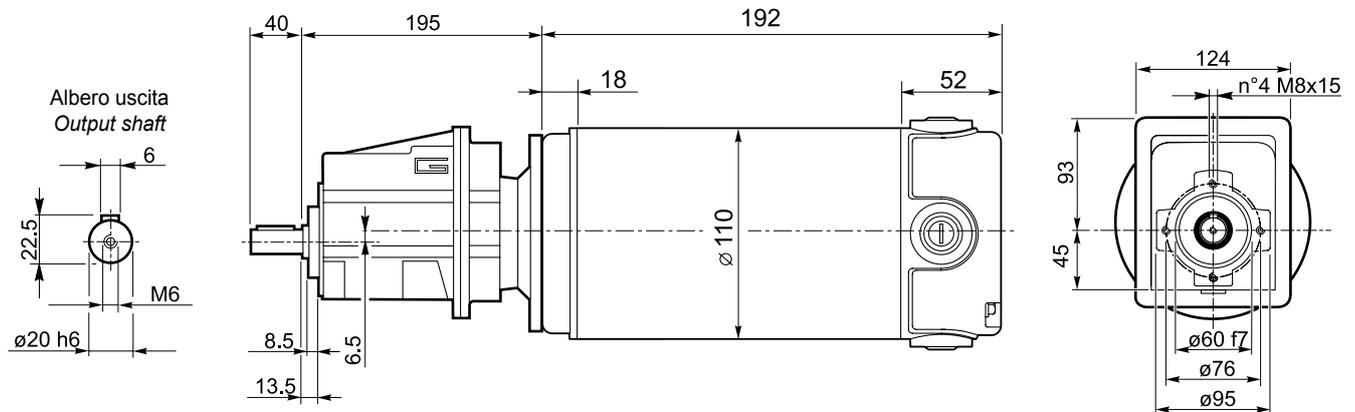
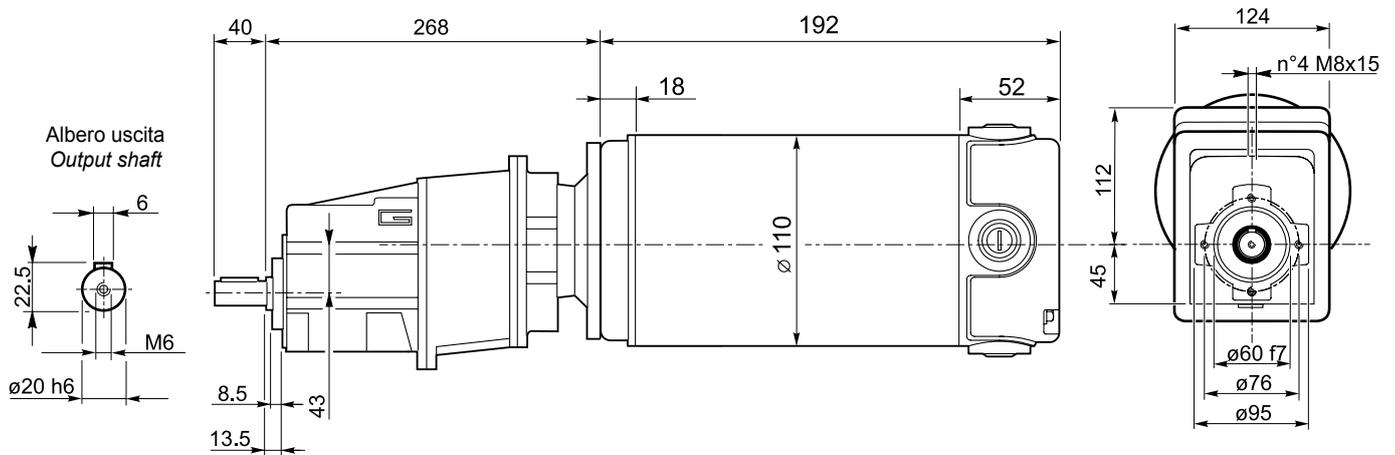
ECMG..U

ECMG180/002 U



ECMG350/002 U



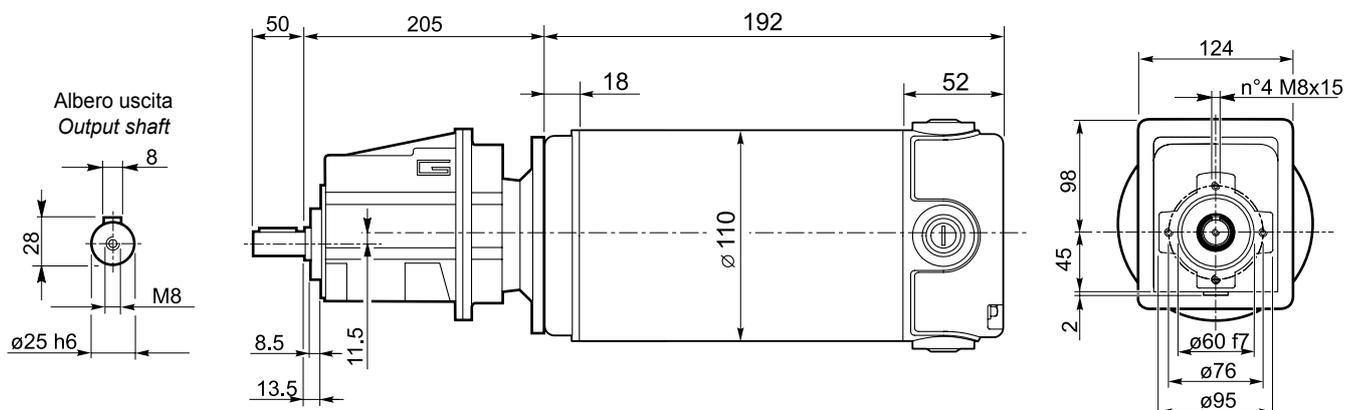
**ECMG****MOTORIDUTTORI C.C. AD INGRANAGGI CILINDRICI**
PERMANENT MAGNETS D.C. HELICAL GEARMOTORS**Dimensioni****Dimensions****ECMG..U****ECMG350/012 U****ECMG350/013 U**

Dimensioni

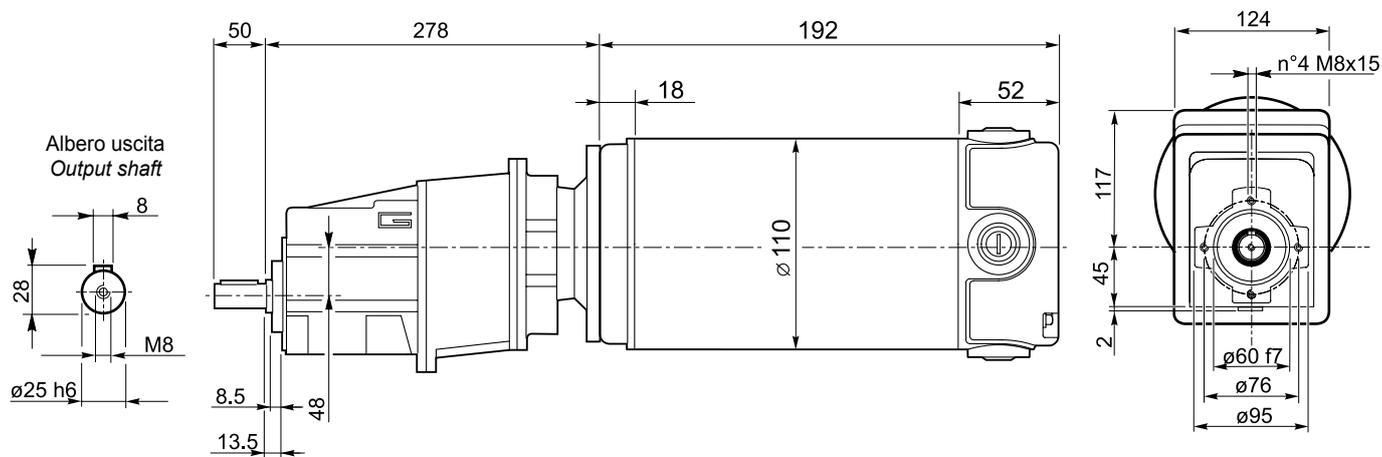
Dimensions

ECMG..U

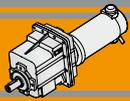
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ECMG350/023 U



ECMG

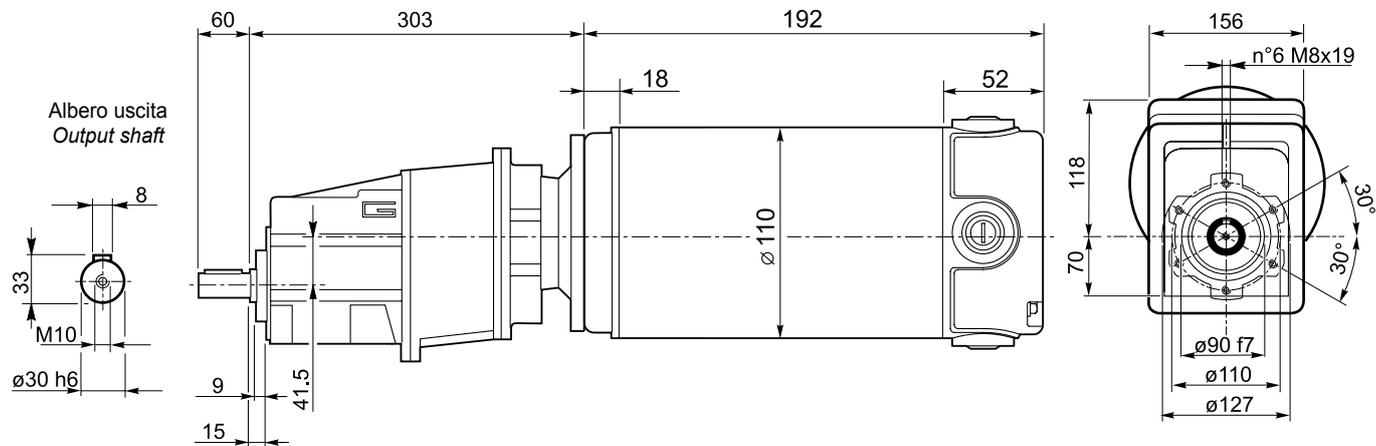


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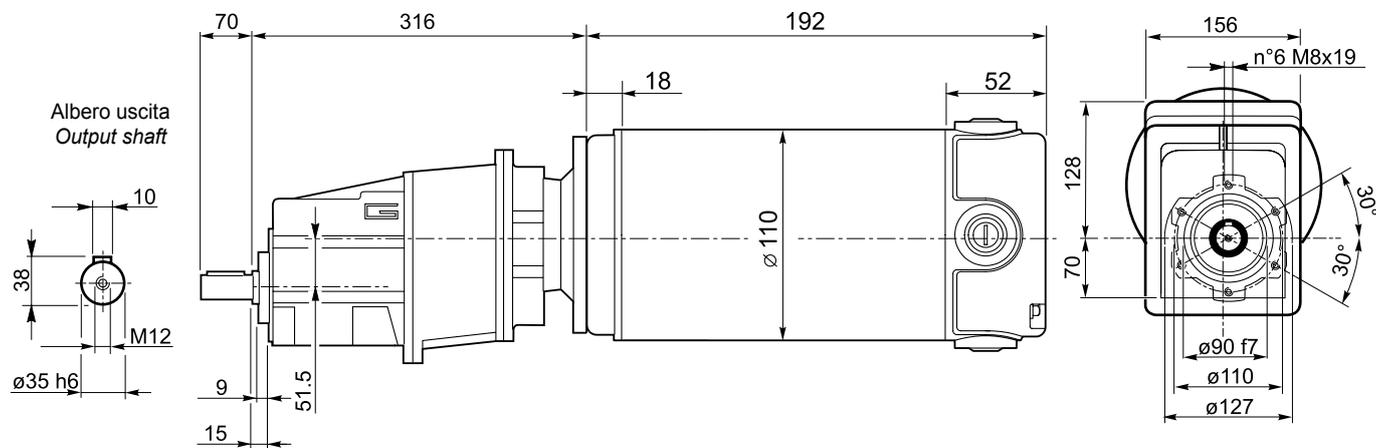
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ECMG350/033 U



ECMG350/043 U

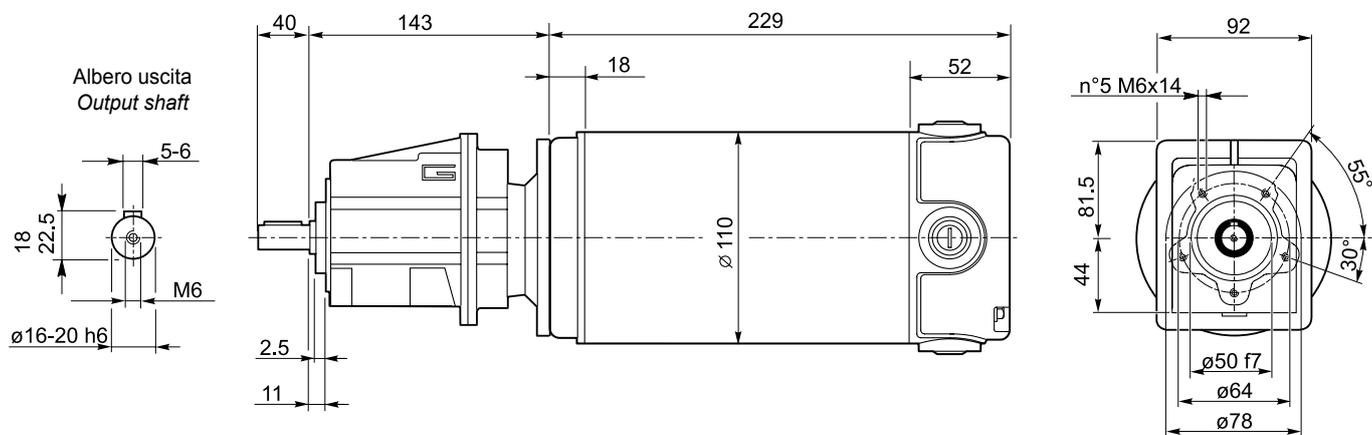


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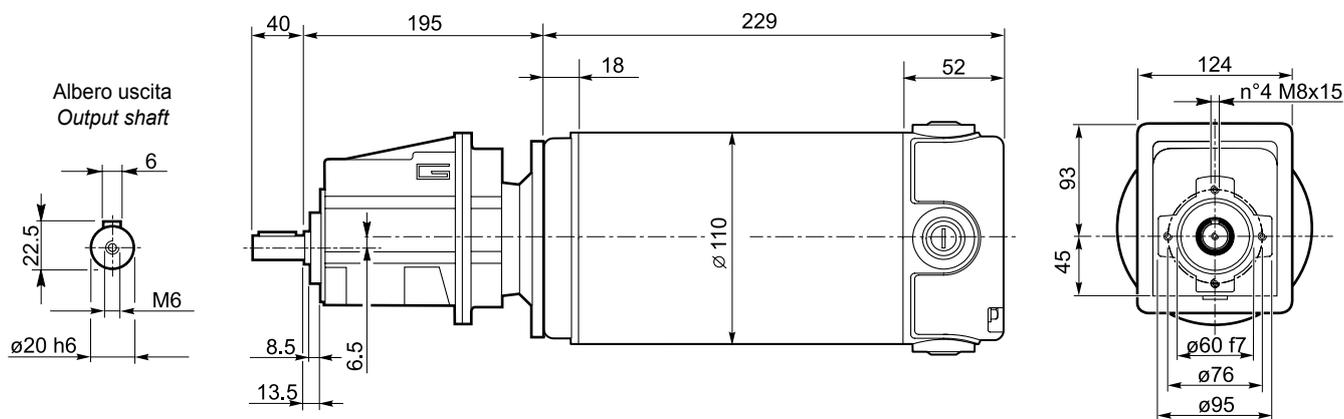
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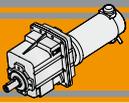
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ECMG600/002 U



ECMG600/012 U



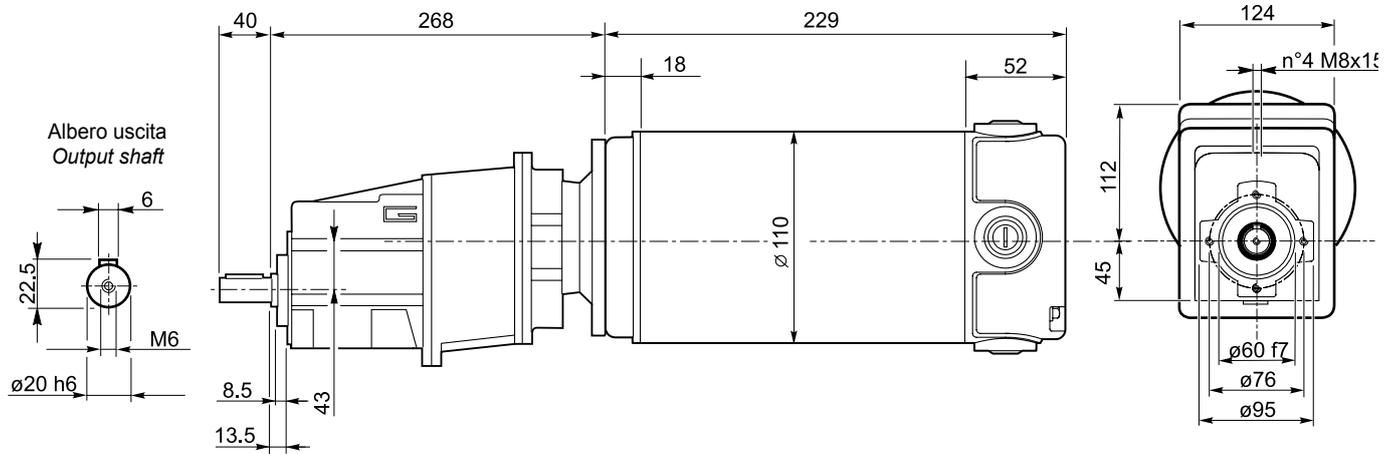


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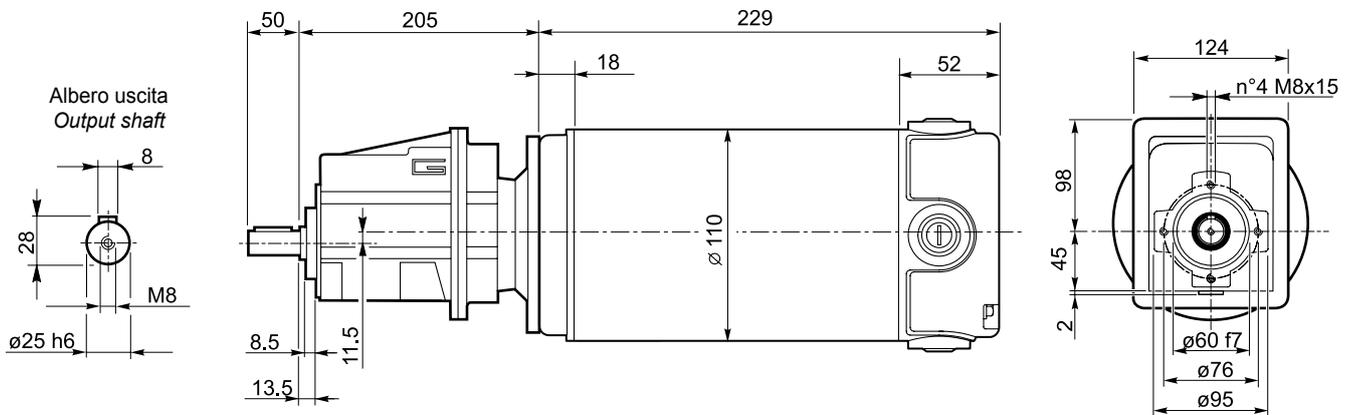
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ECMG..U

ECMG600/013 U



ECMG600/022 U

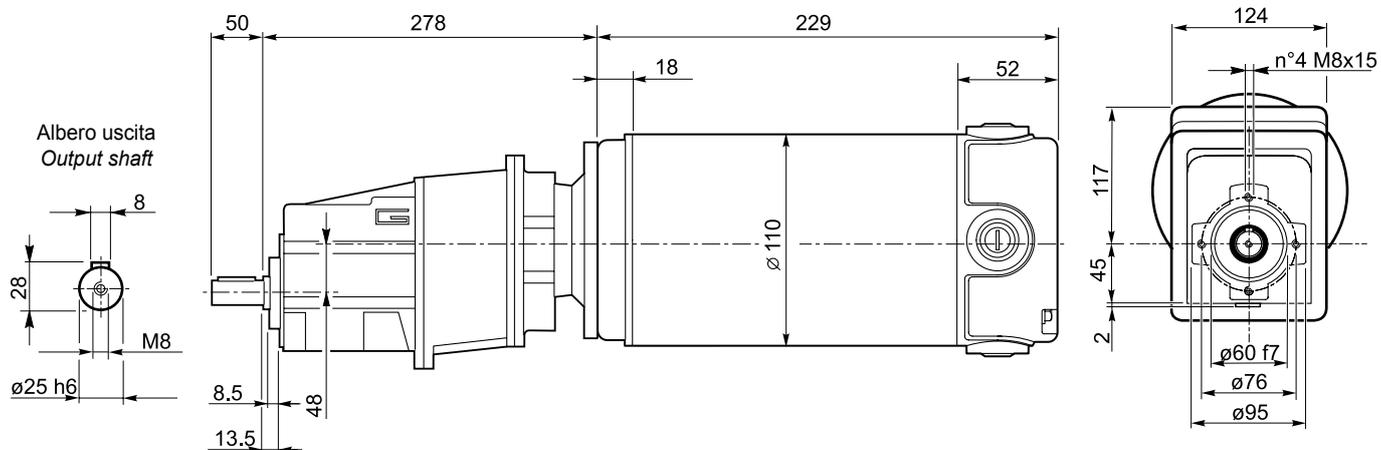


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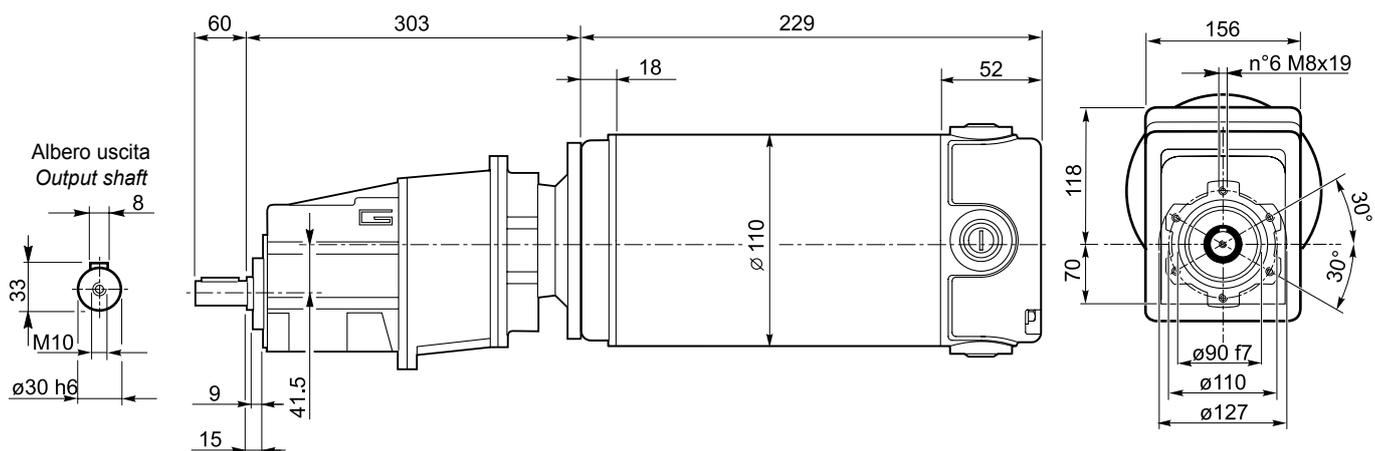
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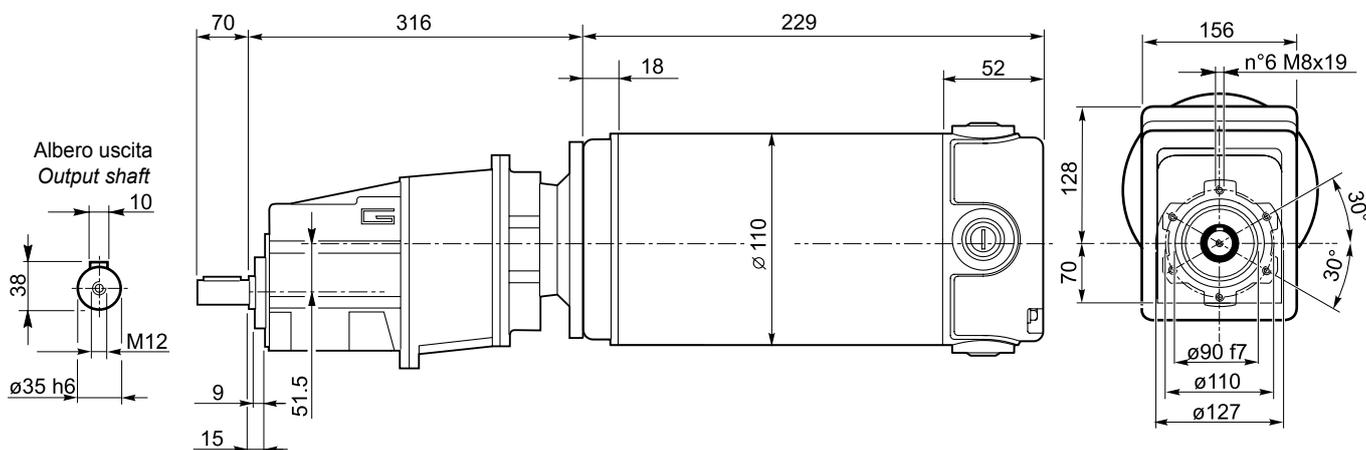
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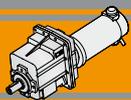


ECMG600/033 U



ECMG600/043 U



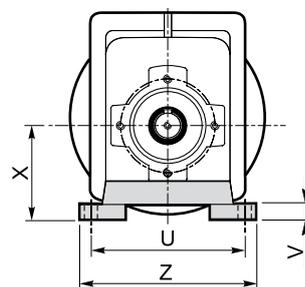
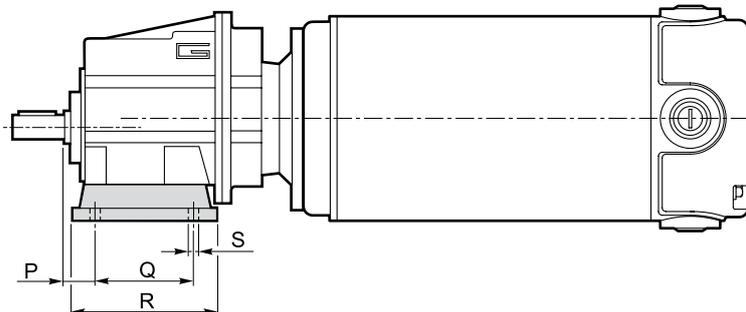


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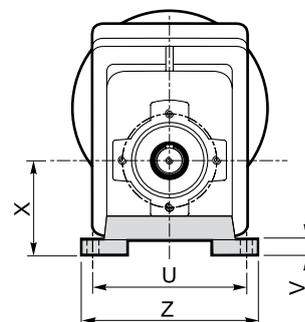
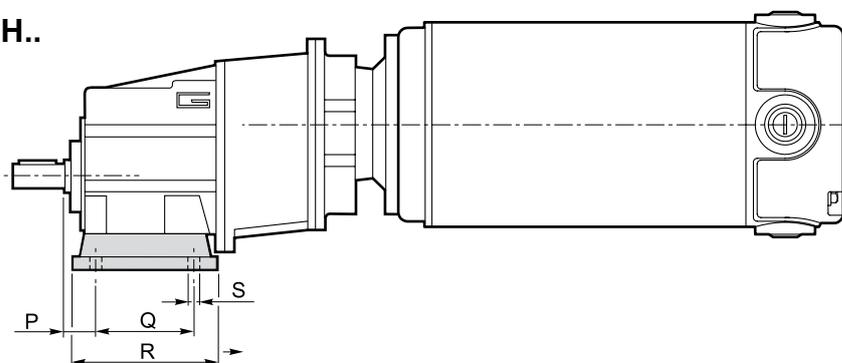
Dimensions

CMG..H

CMG..2 H..



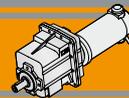
CMG..3 H..



Versione H / H Version

CMG	P	Q	R	S	U	V	X	Z	Piede / Foot	
									Tipo / Type	Peso / Weight [kg]
002	18	60	80	9	100	10	60	120	H60	0.2
	18	80	104	9	110 - 120	10	75	145	H75	0.3
	18	50 - 87	110	9	110	10	85	135	H85	0.4
012 013	20	85	108	9	115	12	65	139	H65	0.7
	18	80	118	9	110	12	75	140	H75	1.0
	25	85	120	9	120	12	80	140	H80	1.1
	18	50 - 87	118	9	110	12	85	130	H85	1.2
	25	130	154	9	110	12	90	135	H90	1.5
022 023	18	60 - 107.5	135	11	130	12	100	155	H100	1.7
	20	85	108	9	115	12	65	139	H65	0.7
	18	80	118	9	110	12	75	140	H75	1.0
	25	85	120	9	120	12	80	140	H80	1.1
	18	50 - 87	118	9	110	12	85	130	H85	1.2
	25	130	154	9	110	12	90	135	H90	1.5
033	18	60 - 107.5	135	11	130	12	100	155	H100	1.7
	30	105	136	14	160	14	95	194	H95	1.5
	30	100	150	11	150	14	110	185	H110	1.9
	18	70			160					
	30	165	195	14	135	14	115	170	H115	2.2
35	110	160	14	170	14	120	210	H120	2.6	
043	30	105	136	14	160	14	95	194	H95	1.5
	30	100	150	11	150	14	110	185	H110	1.9
	18	70			160					
	30	165	195	14	135	14	115	170	H115	2.2
	35	110	160	14	170	14	120	210	H120	2.6

Preferenziale / Preferred

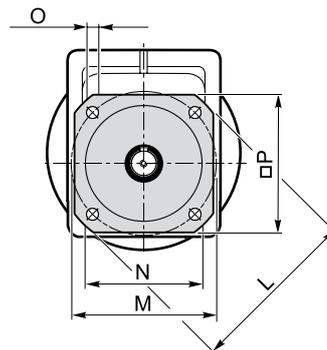
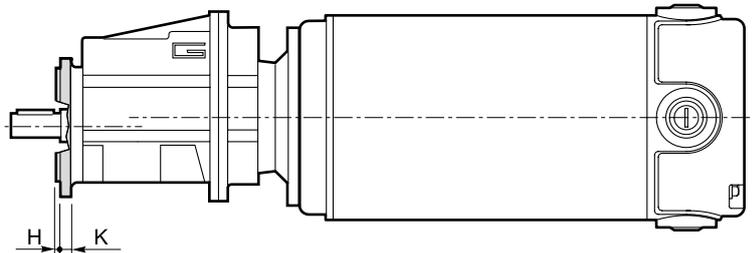


Dimensioni

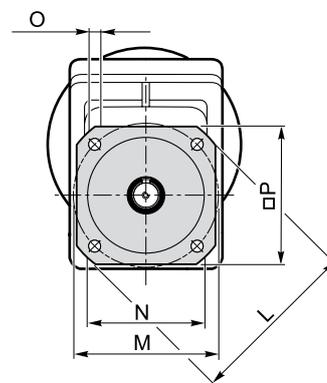
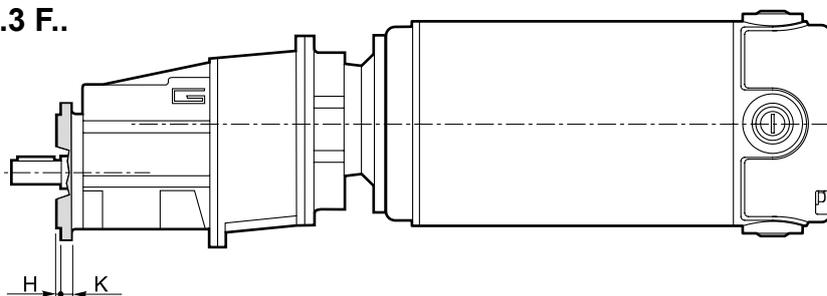
Dimensions

CMG..F

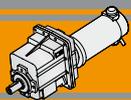
CMG..2 F..



CMG..3 F..



Versione F / F Version									
CMG	H	K	L	M	N f7	O	P	Flangia / Flange	
								Tipo / Type	Peso / Weight [kg]
002	3.5	7	105	85	70	6.5	90	F105	0.1
	3.5	8	120	100	80	7	100	F120	0.2
	3.5	8	140	115	95	9	115	F140	0.2
012 013	3	9	120	100	80	9	106	F120	0.5
	3.5	9	140	115	95	9	115	F140	0.8
	3.5	9	160	130	110	9	126	F160	1.1
022 023	3.5	11	200	165	130	11	165	F200	1.8
	3	9	120	100	80	9	106	F120	0.5
	3.5	9	140	115	95	9	115	F140	0.8
	3.5	9	160	130	110	9	126	F160	1.1
033	3.5	11	200	165	130	11	165	F200	1.8
	3.5	11	160	130	110	9	140	F160	1.0
	4	13	250	215	180	14	215	F250	2.9
043	3.5	11	200	165	130	11	165	F200	1.8
	3.5	11	160	130	110	9	140	F160	1.0
	4	13	250	215	180	14	215	F250	2.9



Dimensioni

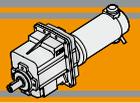
Dimensions

Versione H / H Version											Combinazioni possibili H/F Possible combinations H/F						
CMG	P	Q	R	S	U	V	X	Z	Piede / Foot		F105	F120	F140	F160	F200	F250	F300
									Tipo / Type	Peso / Weight [kg]							
002	18	60	80	9	100	10	60	120	H60	0.2	•	•	•				
	18	80	104	9	110 - 120	10	75	145	H75	0.3	•	•	•				
	18	50 - 87	110	9	110	10	85	135	H85	0.4	•	•	•				
012 013	20	85	108	9	115	12	65	139	H65	0.7		•	•				
	18	80	118	9	110	12	75	140	H75	1.0		•	•	•			
	25	85	120	9	120	12	80	140	H80	1.1		•	•	•			
	18	50 - 87	118	9	110	12	85	130	H85	1.2		•	•	•			
	25	130	154	9	110	12	90	135	H90	1.5		•	•	•	•		
	18	60 - 107.5	135	11	130	12	100	155	H100	1.7		•	•	•	•		
022 023	20	85	108	9	115	12	65	139	H65	0.7		•	•				
	18	80	118	9	110	12	75	140	H75	1.0		•	•	•			
	25	85	120	9	120	12	80	140	H80	1.1		•	•	•			
	18	50 - 87	118	9	110	12	85	130	H85	1.2		•	•	•			
	25	130	154	9	110	12	90	135	H90	1.5		•	•	•	•		
	18	60 - 107.5	135	11	130	12	100	155	H100	1.7		•	•	•	•		
033	30	105	136	14	160	14	95	194	H95	1.5				•	•		
	30	100	150	11	150	14	110	185	H110	1.9				•	•		
	18	70			160												
	30	165	195	14	135	14	115	170	H115	2.2				•	•	•	
	35	110	160	14	170	14	120	210	H120	2.6				•	•	•	
043	30	105	136	14	160	14	95	194	H95	1.5				•	•		
	30	100	150	11	150	14	110	185	H110	1.9				•	•		
	18	70			160												
	30	165	195	14	135	14	115	170	H115	2.2				•	•	•	
	35	110	160	14	170	14	120	210	H120	2.6				•	•	•	

Preferenziale / Preferred

• Combinazioni possibili H/F / Possible combinations H/F

Versione F / F Version									
CMG	H	K	L	M	N f7	O	P	Flangia / Flange	
								Tipo / Type	Peso / Weight [kg]
002	3.5	7	105	85	70	6.5	90	F105	0.1
	3.5	8	120	100	80	7	100	F120	0.2
	3.5	8	140	115	95	9	115	F140	0.2
012 013	3	9	120	100	80	9	106	F120	0.5
	3.5	9	140	115	95	9	115	F140	0.8
	3.5	9	160	130	110	9	126	F160	1.1
	3.5	11	200	165	130	11	165	F200	1.8
022 023	3	9	120	100	80	9	106	F120	0.5
	3.5	9	140	115	95	9	115	F140	0.8
	3.5	9	160	130	110	9	126	F160	1.1
	3.5	11	200	165	130	11	165	F200	1.8
033	3.5	11	160	130	110	9	140	F160	1.0
	3.5	11	200	165	130	11	165	F200	1.8
	4	13	250	215	150	14	215	F250	2.9
043	3.5	11	160	130	110	9	140	F160	1.0
	3.5	11	200	165	130	11	165	F200	1.8
	4	13	250	215	150	14	215	F250	2.9

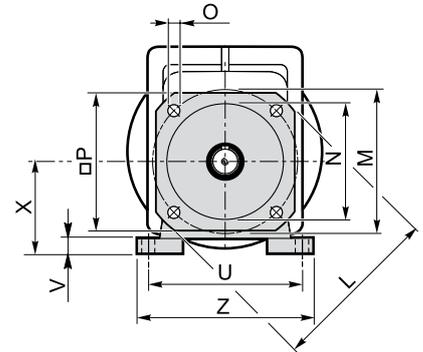
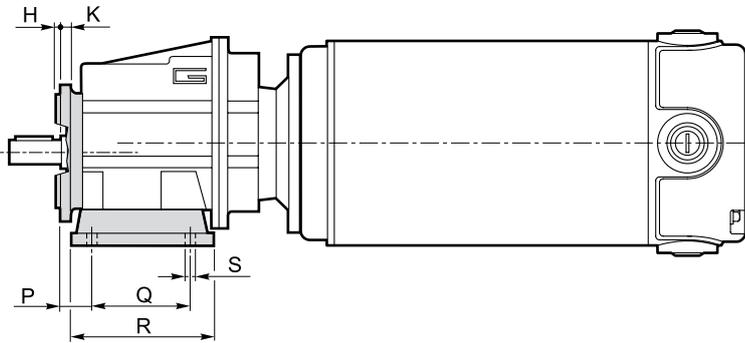


Dimensioni

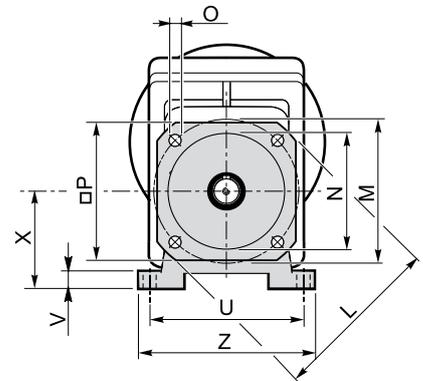
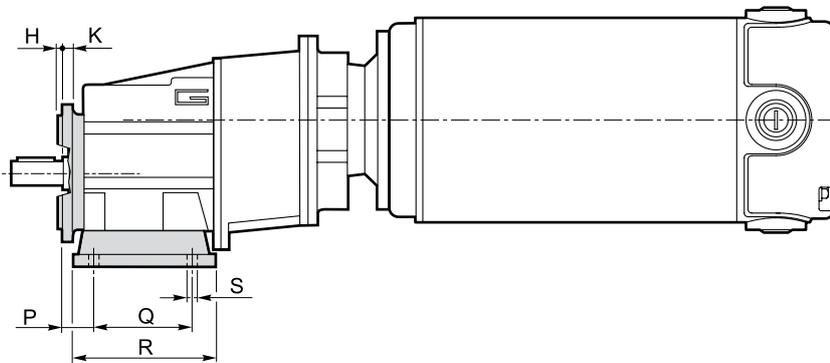
Dimensions

CMG..H../F..

CMG..2 H../F..



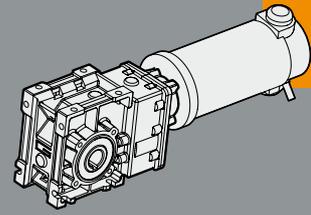
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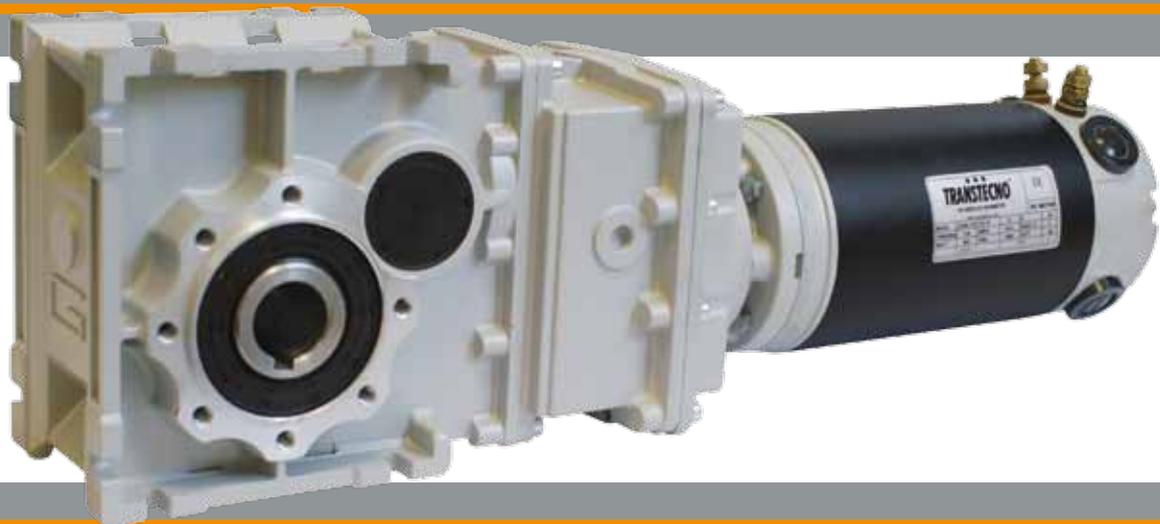
TRANSTECNOTM
THE MODULAR GEARMOTOR

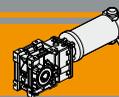
ECMB

ECMB



MOTORIDUTTORI C.C. AD ASSI ORTOGONALI
PERMANENT MAGNETS D.C. BEVEL HELICAL GEARMOTORS

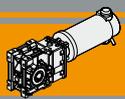




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Sensi di rotazione	<i>Direction of rotation</i>	M2
Simbologia	<i>Symbols</i>	M2
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Carichi radiali	<i>Radial loads</i>	M3
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	M4
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Caratteristiche tecniche

Technical features

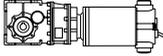
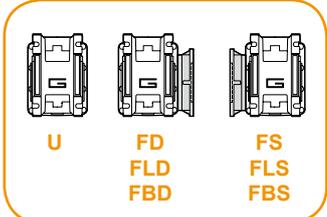
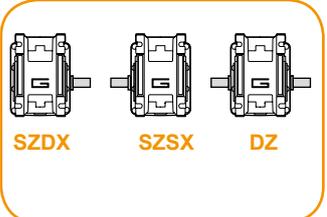
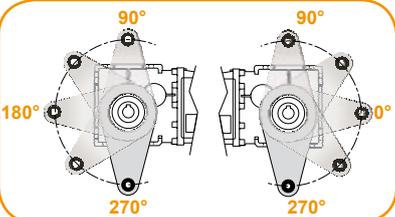
Le caratteristiche principali dei motoriduttori a corrente continua della serie ECMB sono:

The main features of ECMB D.C. gearmotor range are:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 100 a 800W S2
- Magneti in ferrite
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi sempre rettificati
- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 100 to 800W S2
- Ferrite magnets
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground helical gears

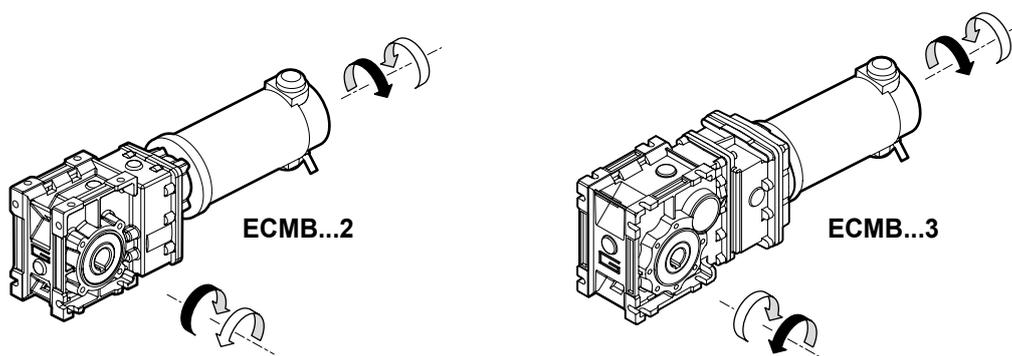
Designazione

Classification

MOTORIDUTTORE / GEARMOTOR												
ECMB	100/402					U	9.2	D20	SZDX	BRSX	90	240
Tipo Type	Grandezza Size					Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version
ECMB 	070/402	100/402 100/502	180/402 180/502	350/402 350/502 350/633	600/402 600/502 600/633	U FD FS FLD FLS FBD FBS	Vedere tabella See tables	Vedere tabella See tables	SZDX SZSX DZ	BRDX BR SX	0° 90° 180° 270°	120 240 24E
	Versione Riduttore Gearbox Version			Albero di uscita Output shaft			Braccio di reazione Torque arm		Angolo Angle			
												

Sensi di rotazione

Direction of rotation



Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / Input speed	M_2 [Nm]	Coppia in uscita in funzione di P_1 / Output torque referred to P_1
n_2 [min ⁻¹]	Velocità in uscita / Output speed	sf	Fattore di servizio / Service factor
i	Rapporto di riduzione / Ratio	A_2 [N]	Carico assiale ammissibile in uscita / Permitted output axial load
P_1 [kW]	Potenza in entrata / Input power	R_2 [N]	Carico radiale ammissibile in uscita / Permitted output radial load

Lubrificazione

Tutti i riduttori nelle taglie 402, 502 e 633 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

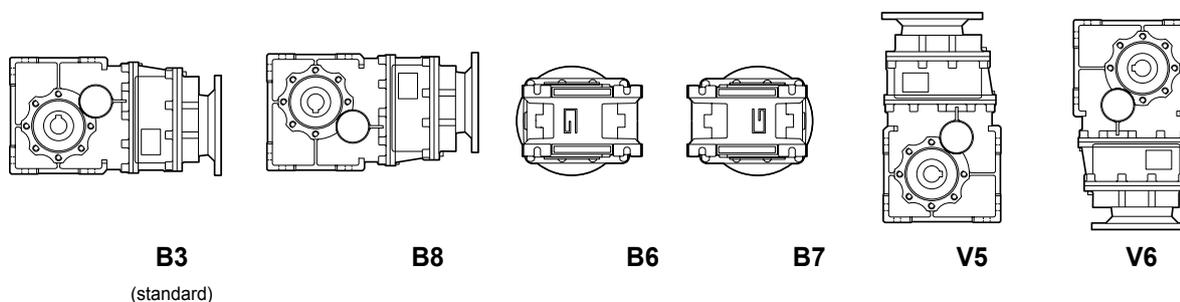
Lubrication

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use sizes 402, 502 and 603 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

CMB	Quantità di olio (litri) / Oil quantity (litres)					
	B3	B8	B6	B7	V5	V6
402	0.4					
502	0.52					
633	1.3					
Lubrificati a vita / Life lubrication						

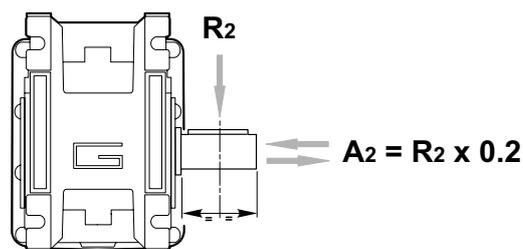
N.B.
 Le quantità di lubrificante sono indipendenti dalla posizione di montaggio per le taglie 402, 502 e 603.
The oil quantity does not depend on mounting position for sizes 402, 502 and 603.

Posizioni di montaggio / Mounting positions



Carichi radiali

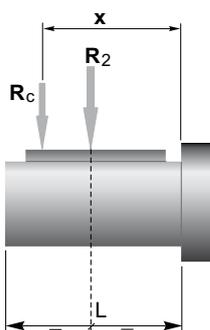
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]		
	CMB 402	CMB 502	CMB 633
400	905	1116	1835
300	996	1228	2020
200	1141	1406	2312
170	1204	1484	2441
140	1414	1743	2604
100	1582	1949	2913
90	1638	2019	3321
60	2047	2490	3801
40	2524	3029	4492
30	2778	3334	5159
20	3180	3816	5906
15	3500	4200	6500
10	3500	4200	6500

Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

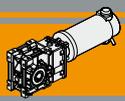


	CMB 402	CMB 502	CMB 633
a	86	104	118
b	66	79	93
R _{2MAX}	3500	4200	6500

$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

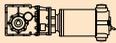
$$R \leq R_c$$

*a, b = valori riportati nella tabella
 a, b = values given in the table*



Dati tecnici per servizio S2

Technical data for S2 duty

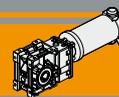
P₁ [W]	n₂ [min ⁻¹]	M₂ [Nm]	sf	i		Versione motore <i>Motor version</i>
100						
(3000 min ⁻¹)	485	1.8	16.8	6.18	070/402	120/240
	401	2.2	13.8	7.49		
	326	2.8	11.3	9.20		
	254	3.5	9.9	11.83		
	240	3.7	9.4	12.48		
	202	4.4	7.9	14.83		
	170	5.3	6.6	17.63		
	161	5.6	7.7	18.60		
	134	6.7	6.4	22.33		
	125	7.2	6.0	23.91		
	104	8.6	5.9	28.89		
	97	9.2	5.5	30.84		
	89	10.0	5.1	33.57		
	84	10.7	4.8	35.63		
	70	12.8	4.0	42.75		
	54	16.6	3.1	55.31		
	51	17.7	2.9	59.06		
	47	19.2	2.7	64.29		

P₁ [W]	n₂ [min ⁻¹]	M₂ [Nm]	sf	i		Versione motore <i>Motor version</i>		
250								
(3000 min ⁻¹)	104	21.6	2.4	28.89	180/402	120/240/24E		
	97	23.1	2.2	30.84				
	89	25.1	2.0	33.57				
	84	26.7	1.9	35.63				
	70	32.0	1.6	42.75				
	54	41.4	1.2	55.31				
	51	44.2	1.2	59.06				
	47	48.1	1.1	64.29				
	134	16.7	5.1	22.33			180/502	120/240/24E
	125	17.9	4.8	23.91				
	104	21.6	4.5	28.89				
	97	23.1	4.2	30.84				
	89	25.1	3.9	33.57				
	84	26.7	3.7	35.63				
	70	32.0	3.1	42.75				
	54	41.4	2.4	55.31				
	51	44.2	2.2	59.06				
	47	48.1	2.0	64.29				

P₁ [W]	n₂ [min ⁻¹]	M₂ [Nm]	sf	i		Versione motore <i>Motor version</i>		
140								
(3000 min ⁻¹)	485	2.6	12.0	6.18	100/402	120/240/24E		
	401	3.1	9.9	7.49				
	326	3.9	8.0	9.20				
	254	5.0	7.1	11.83				
	240	5.2	6.7	12.48				
	202	6.2	5.6	14.83				
	170	7.4	4.7	17.63				
	161	7.8	5.5	18.60				
	134	9.4	4.6	22.33				
	125	10.0	4.3	23.91				
	104	12.1	4.2	28.89				
	97	12.9	3.9	30.84				
	89	14.1	3.6	33.57				
	84	14.9	3.4	35.63				
	70	17.9	2.8	42.75				
	54	23.2	2.2	55.31				
	51	24.7	2.1	59.06				
	47	26.9	1.9	64.29				
	54	23.2	4.23	55.31			100/502	120/240/24E
	51	24.7	3.96	59.06				
	47	26.9	3.64	64.29				

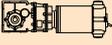
P₁ [W]	n₂ [min ⁻¹]	M₂ [Nm]	sf	i		Versione motore <i>Motor version</i>		
500								
(3000 min ⁻¹)	485	9	3.4	6.18	350/402	120/240		
	401	11	2.8	7.49				
	326	14	2.3	9.2				
	254	18	2.0	11.83				
	240	19	1.9	12.48				
	202	22	1.6	14.83				
	170	26	1.3	17.63				
	161	28	1.5	18.6				
	134	33	1.3	22.33				
	125	36	1.2	23.91				
	104	43	1.2	28.89				
	97	46	1.1	30.84				
	89	50	1.0	33.57				
	84	53	1.0	35.63				
	70	64	0.8	42.75				
	54	73	0.7	55.31				
	51	73	0.7	59.06				
	47	73	0.7	64.29				
	326	14	4.0	9.20			350/502	120/240
	254	18	4.0	11.83				
	240	19	3.7	12.48				
	202	22	3.2	14.83				
	170	26	2.7	17.63				
	161	28	3.1	18.60				
	134	33	2.6	22.33				
	125	35.8	2.4	23.91				
	104	43	2.3	28.89				
	97	46	2.1	30.84				
	89	50	2.0	33.57				
	84	53	1.8	35.63				
	70	64	1.5	42.75				
	54	83	1.2	55.31				
	51	88	1.1	59.06				
	47	96	1.0	64.29				

P₁ [W]	n₂ [min ⁻¹]	M₂ [Nm]	sf	i		Versione motore <i>Motor version</i>
250						
(3000 min ⁻¹)	485	4.6	6.7	6.18	180/402	120/240/24E
	401	5.6	5.5	7.49		
	326	6.9	4.5	9.20		
	254	8.8	4.0	11.83		
	240	9.3	3.7	12.48		
	202	11.1	3.2	14.83		
	170	13.2	2.7	17.63		
	161	13.9	3.1	18.60		
	134	16.7	2.6	22.33		
	125	17.9	2.4	23.91		



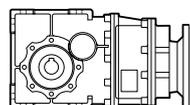
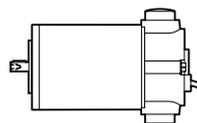
Dati tecnici per servizio S2

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
500							800						
(3000 min ⁻¹)	139	32	5.3	21.56	350/633	120/240	(3000 min ⁻¹)	485	15	3.7	6.18	600/502	120/240
	113	40	4.3	26.48									
	106	42	4.1	28.17									
	89	51	3.4	33.81									
	84	54	3.2	35.92									
	77	58	3.4	38.88									
	64	71	2.8	47.16									
	52	87	2.2	57.93									
	49	92	2.1	61.63									
	41	111	1.8	73.96									
	38	118	1.7	78.58									
	32	140	1.4	93.33									
	21	210	0.9	140.52									
	17	272	0.7	181.81									
	14	279	0.7	211.31									
800							800						
(3000 min ⁻¹)	485	15	2.1	6.18	600/402	120/240	(3000 min ⁻¹)	485	15	3.7	6.18	600/502	120/240
	401	18	1.7	7.49									
	326	22	1.4	9.20									
	254	28	1.2	11.83									
	240	30	1.2	12.48									
	202	36	1.0	14.83									
	170	42	0.8	17.63									
	161	45	1.0	18.60									
	134	53	0.8	22.33									
	125	57	0.8	23.91									
	104	69	0.7	28.89									
	97	73	0.7	30.84									
	89	73	0.7	33.57									
	84	73	0.7	35.63									
	70	73	0.7	42.75									
	54	73	0.7	55.31									
	51	73	0.7	59.06									
	47	73	0.7	64.29									
	485	23	5.0	9.81	600/633	120/240		306	23	5.0	9.81		
	287	25	4.7	10.44									
	239	30	3.9	12.53									
	225	32	3.7	13.31									
	190	38	3.5	15.81									
	169	43	4.0	17.77									
	139	52	3.3	21.56									
	113	63	2.7	26.48									
	106	67	2.6	28.17									
	89	81	2.1	33.81									
	84	86	2.0	35.92									
	77	93	2.1	38.88									
	64	113	1.7	47.16									
	52	139	1.4	57.93									
	49	148	1.3	61.63									
	41	177	1.1	73.96									
	38	188	1.0	78.58									
	32	223	0.9	93.33									
	21	279	0.7	140.52									
	17	279	0.7	181.81									
	14	279	0.7	211.31									

Motori applicabili

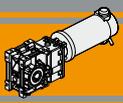
Motor adapters



		EC					
		070.120 070.240	100.120 100.240 100.24E	180.120 180.240	180.24E	350.120 350.240	600.120 600.240
CMB	402	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29
	502	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29	6.18 - 64.29
	633					6.58 - 211.31	6.58 - 211.31

6.18 - 64.29

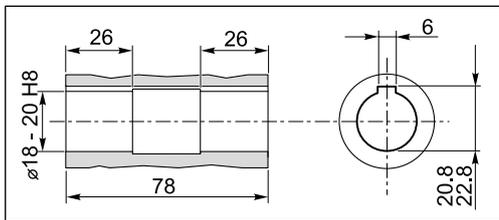
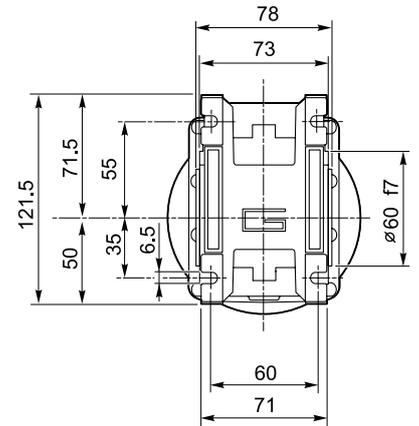
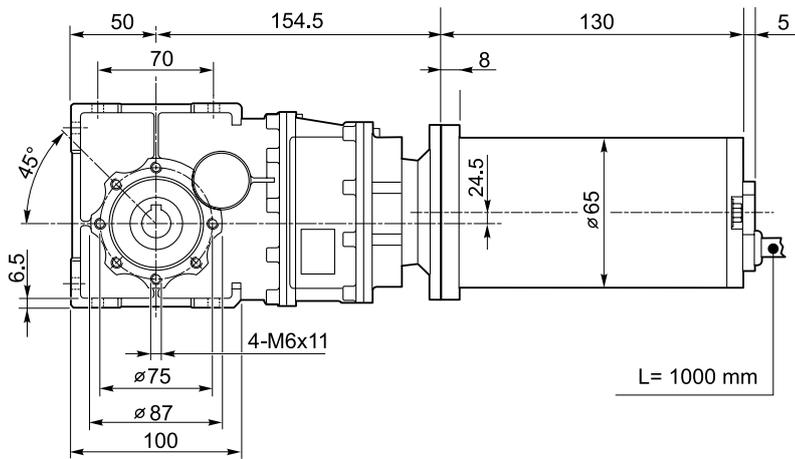
Rapporti di riduzione i
Ratio i



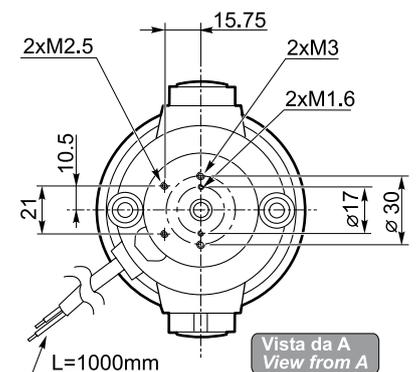
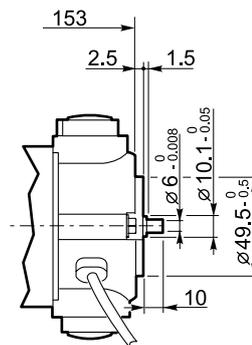
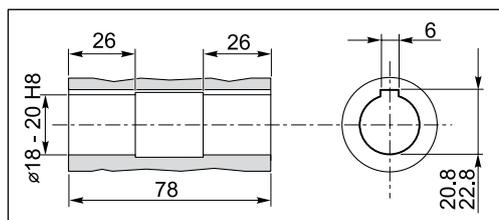
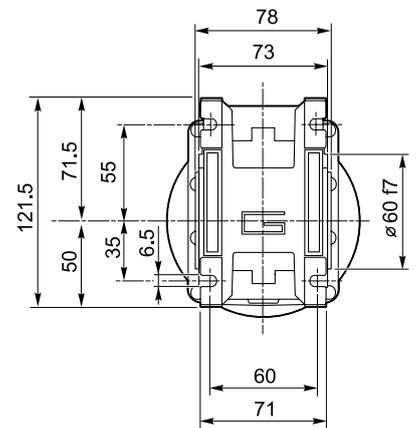
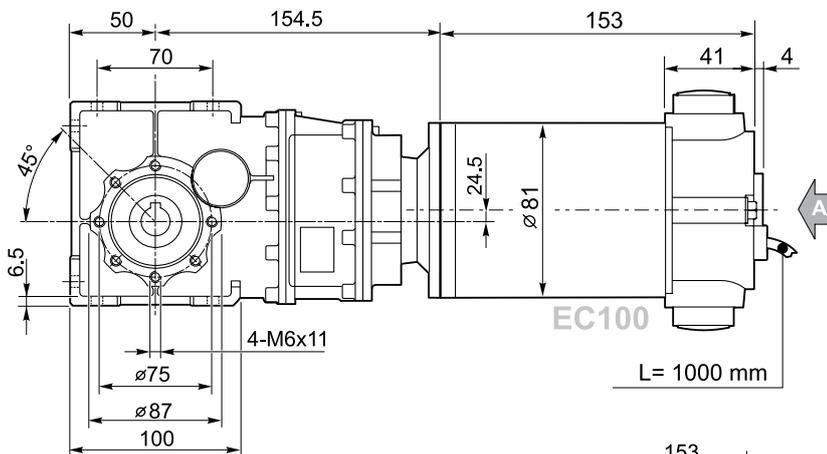
Dimensioni

Dimensions

ECMB70/402 U

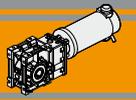


ECMB100/402 U



EC100.24E

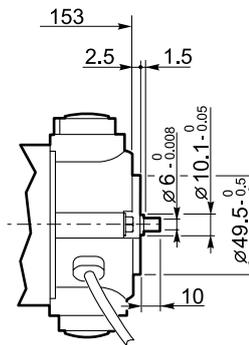
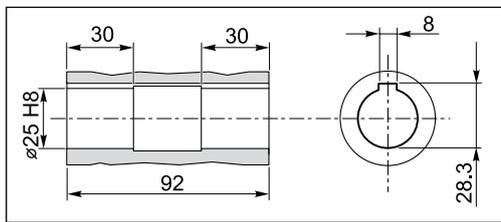
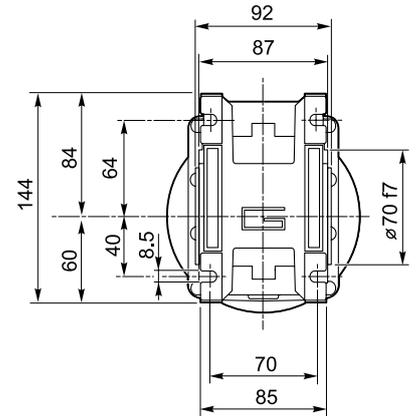
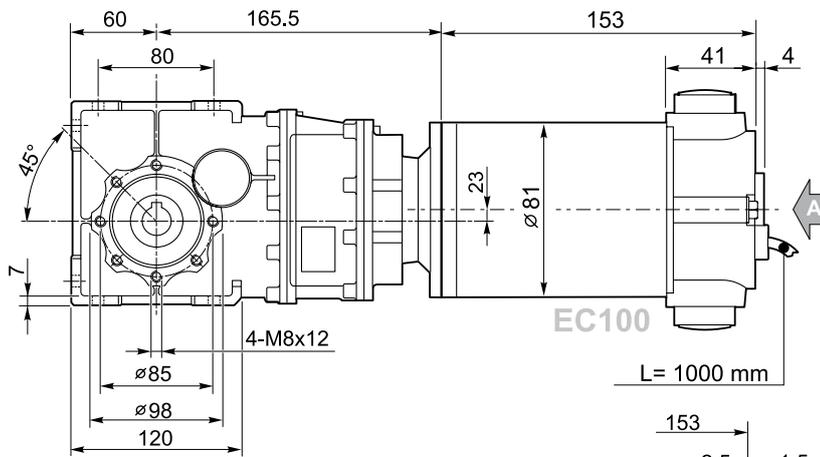
Vista da A
View from A



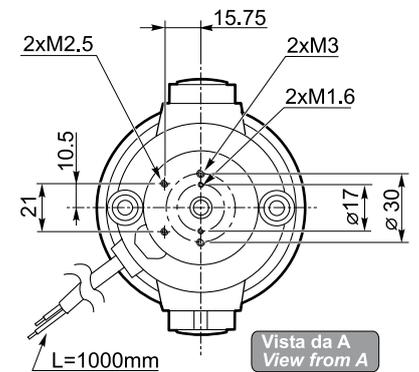
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Dimensions

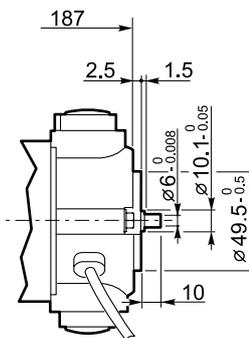
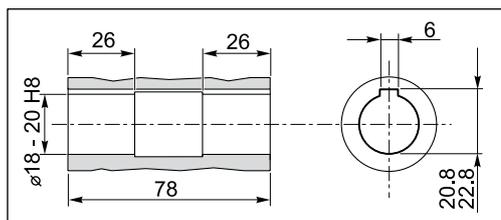
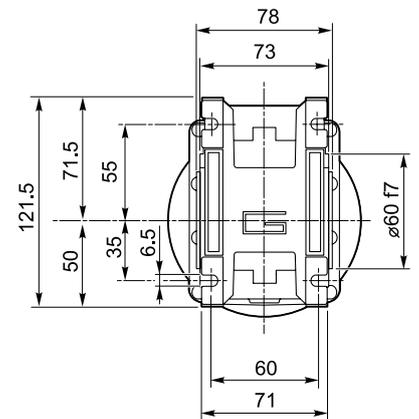
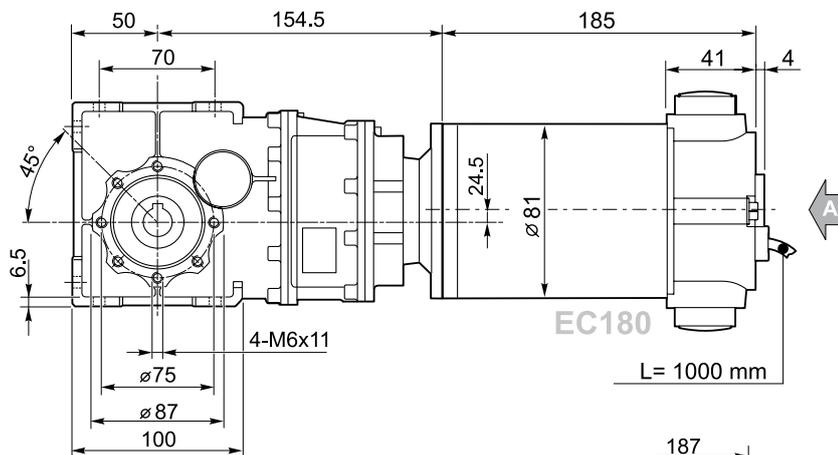
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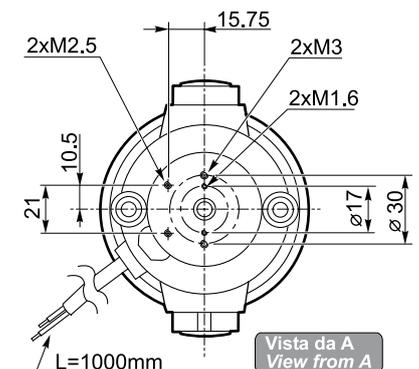
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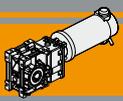


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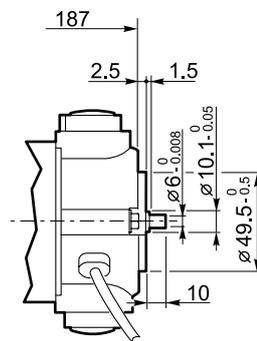
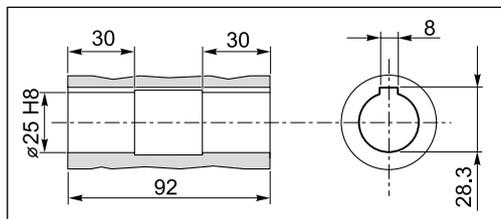
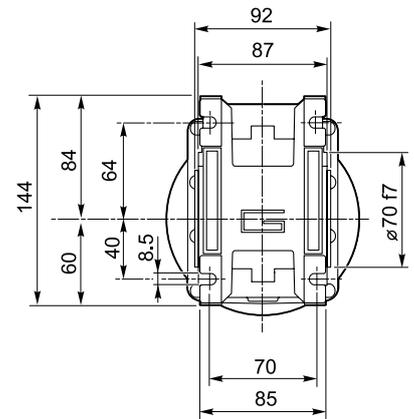
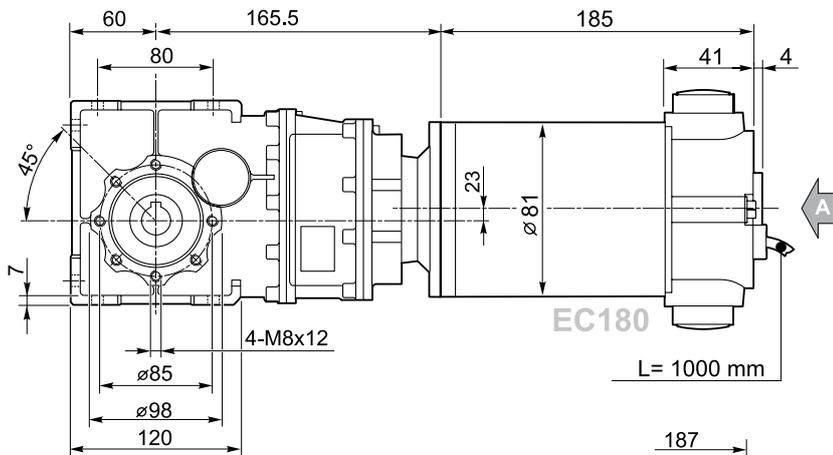




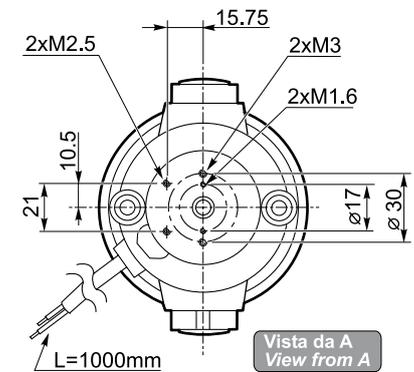
Dimensioni

Dimensions

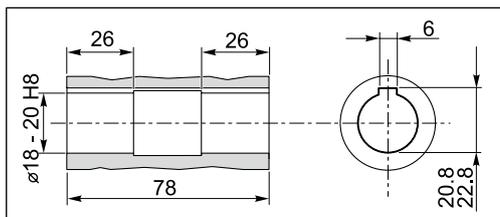
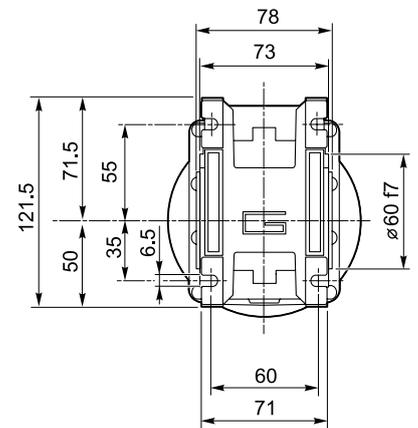
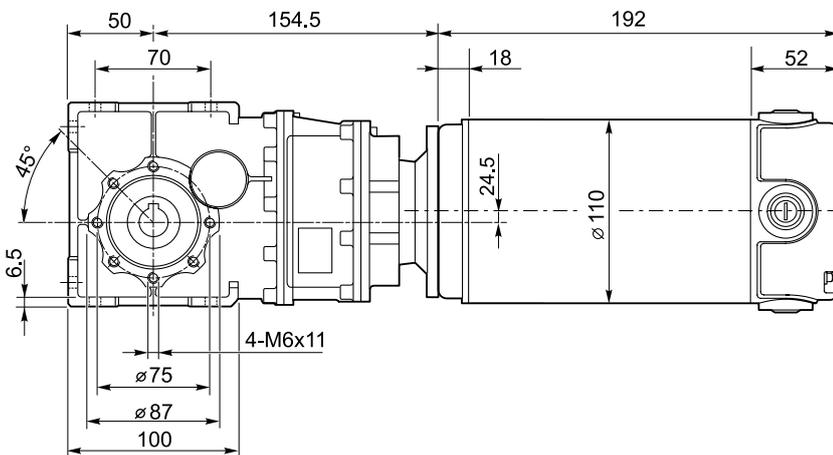
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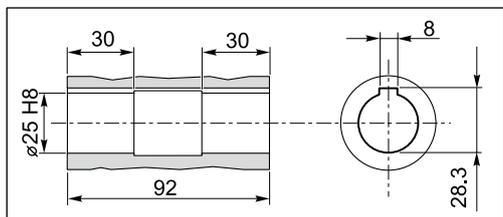
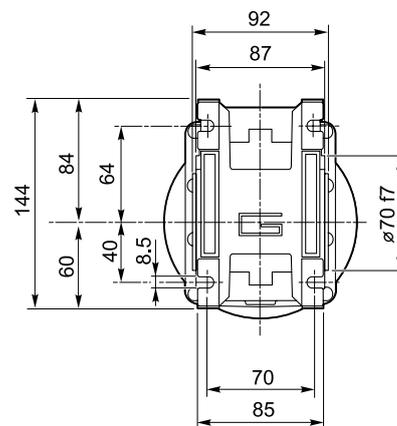
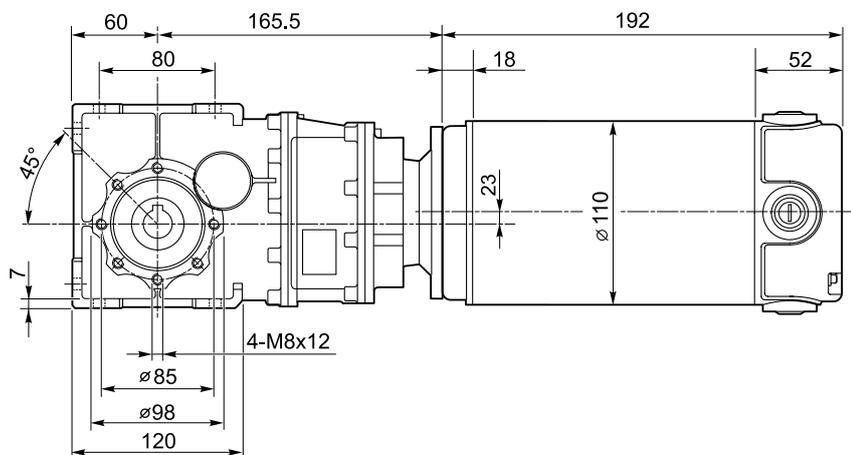
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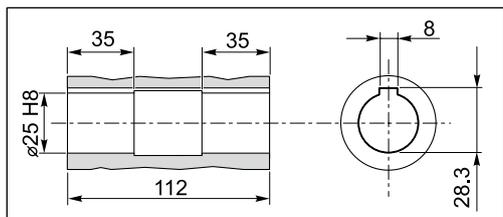
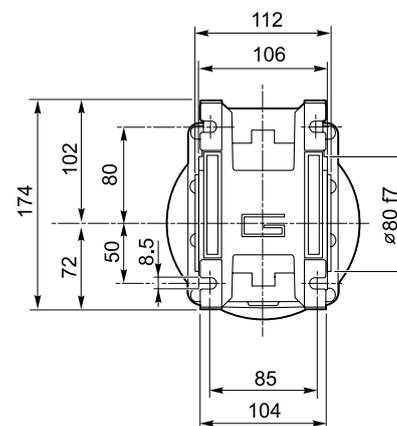
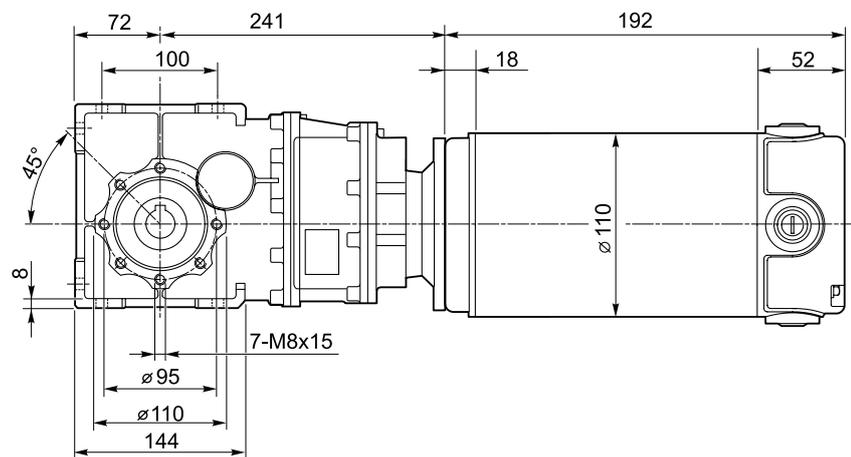
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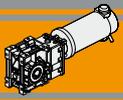
Dimensions

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ECMB350/633 U

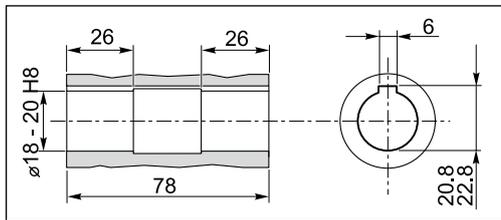
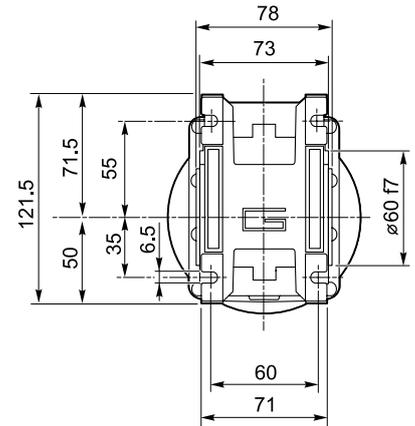
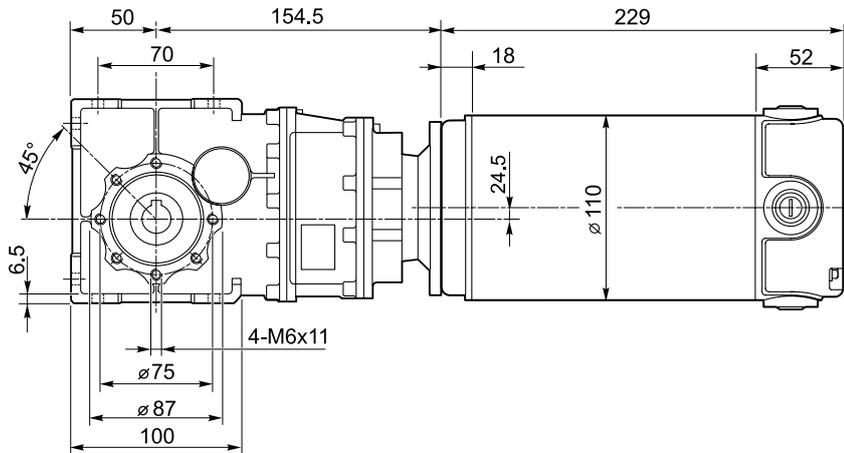




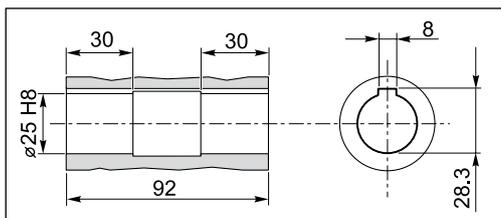
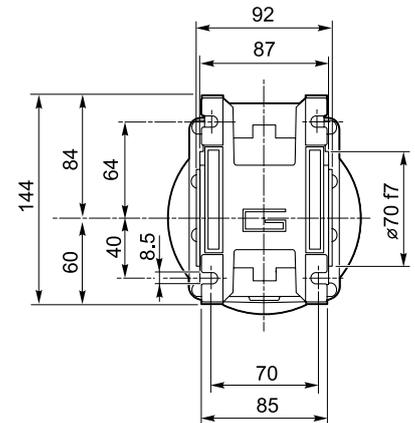
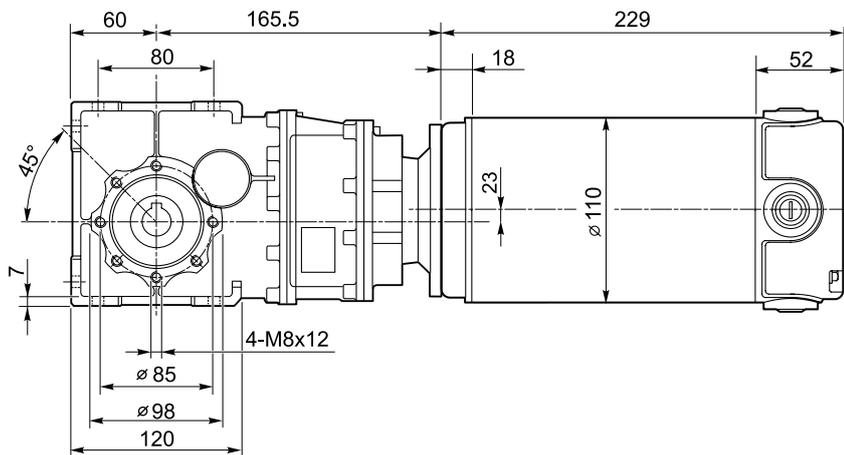
Dimensioni

Dimensions

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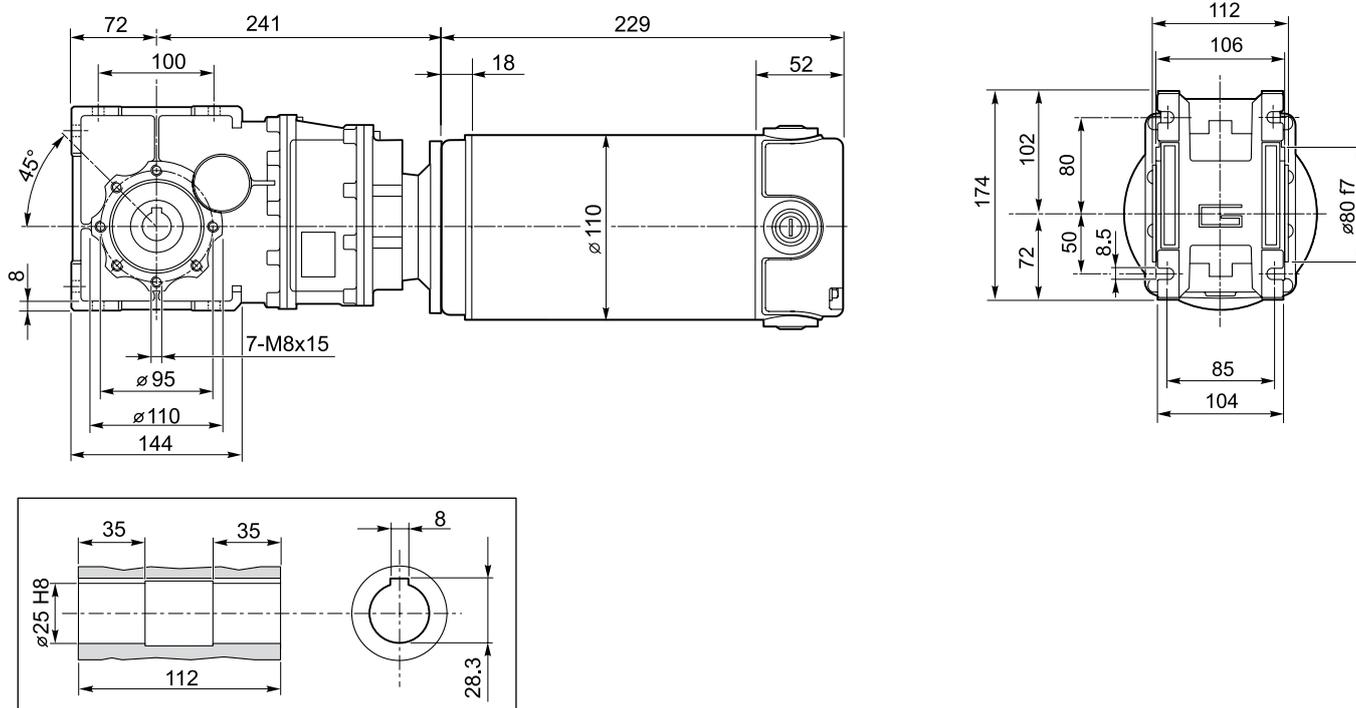
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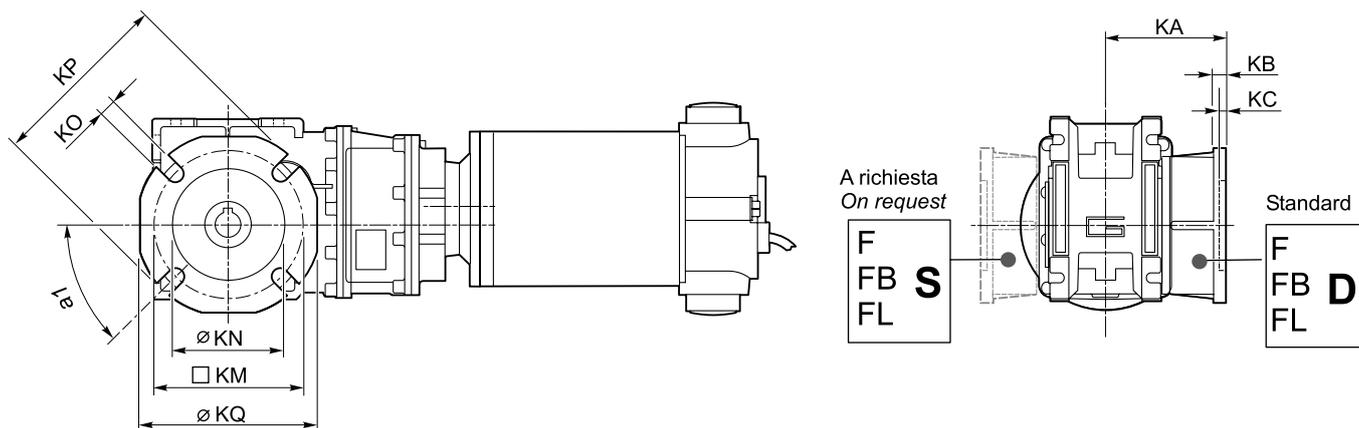
Dimensioni

Dimensions

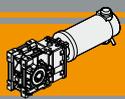
ECMB600/633 U



ECMB.../... F... Flange uscita / Output flanges

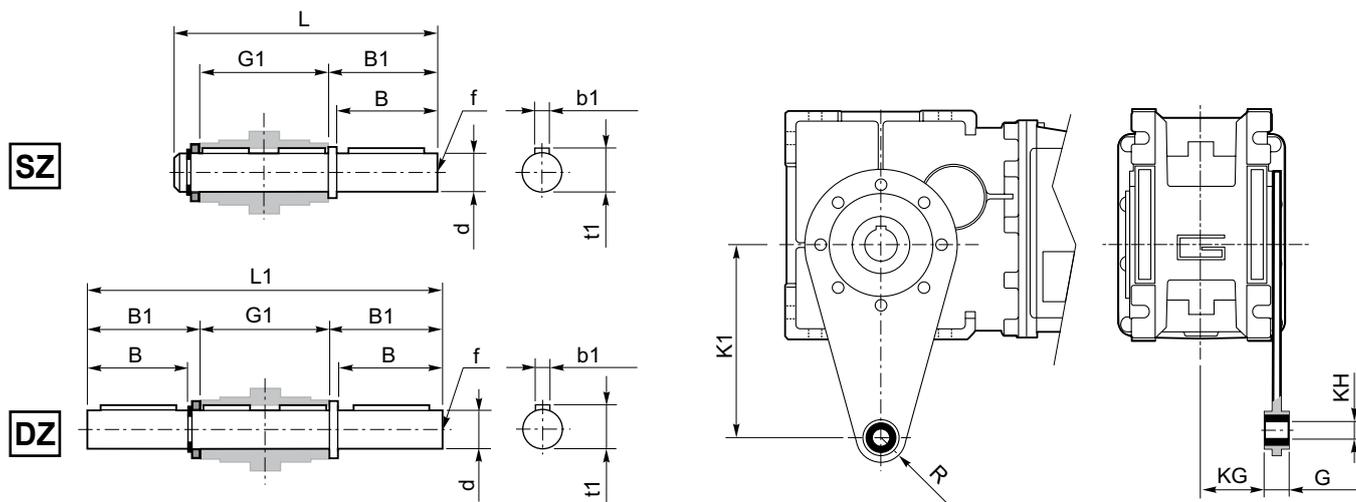


CMB	Flange uscita / Output flanges																										
	F									FL									FB								
	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ
402	45°	67	7.5	4.5	80-95	60	9	110	95	45°	97	7.5	4.5	80-95	60	9	110	95	45°	80	8.5	5	115-125	95	9.5	140	112
502	45°	90	9	5	90-110	70	11	125	110	45°	120	9	5	90-110	70	11	125	110	45°	89	9	5	130-145	110	9.5	160	132
633	45°	82	10	6	150 - 160	115	11	180	142	45°	112	10	8	150 - 160	115	11	180	142	45°	98	11	5	165	130	11	200	160



Accessori

Accessories



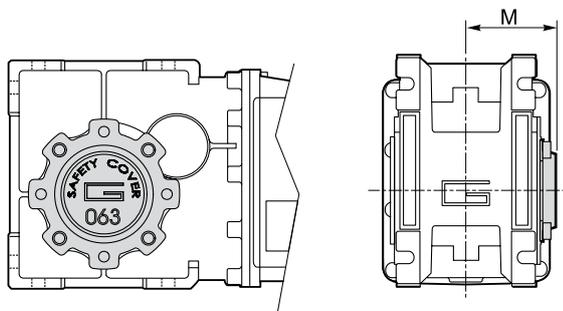
Albero lento / Output shaft

CMB	d h7	B	B1	G1	L	L1	f	b1	t1
402	18	40	43	78	128	164	M6	6	20.5
502	25	50	53.5	92	153	199	M10	8	28
633	25	50	53.5	112	173	219	M10	8	28

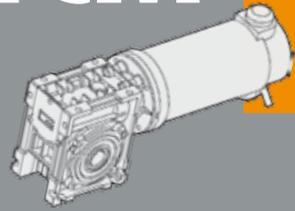
Braccio di reazione / Torque arm

CMB	K1	G	KG	KH	R
402	100	14	31	10	18
502	100	14	38	10	18
633	150	14	47.5	10	18

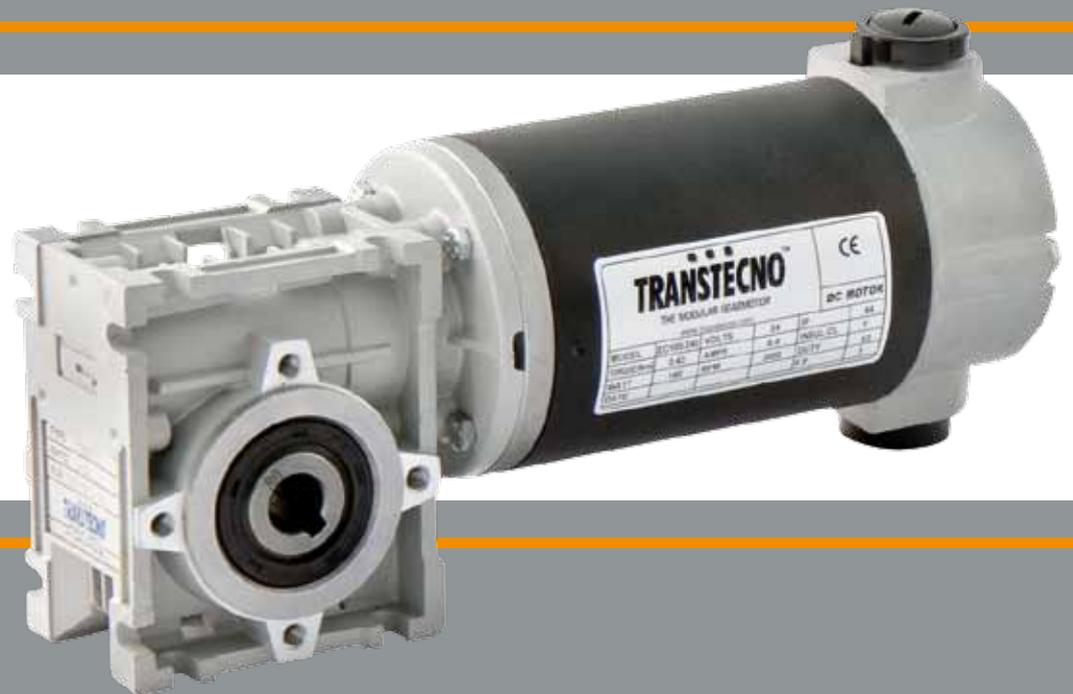
SC - Safety cover



CMB	M
402	54.5
502	62.5
633	73



MOTORIDUTTORI C.C. A VITE SENZA FINE
PERMANENT MAGNETS D.C. WORMGEARMOTORS





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Dimensioni	<i>Dimensions</i>	N7
Opzioni	<i>Options</i>	N16
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Caratteristiche tecniche

Technical features

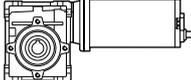
Le caratteristiche principali dei motoriduttori a corrente continua della serie ECM sono:

The main features of ECM D.C. gearmotor range are:

- Alimentazione in bassa tensione 12/24 Vcc
 - Possibilità di montaggio encoder
 - Potenze motore disponibili da 100 a 800W S2
 - Magneti in ferrite
 - Carcasse dei riduttori in pressofusione di alluminio
 - Lubrificazione permanente con olio sintetico.
- Low voltage power supply 12/24 Vdc
 - Suitable for encoder assembly
 - Motor power ratings available from 100 to 800W S2
 - Ferrite magnets
 - Die-cast aluminum housing
 - Permanent synthetic oil long-life lubrication.

Designazione

Classification

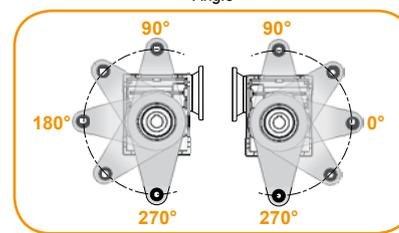
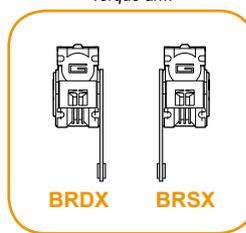
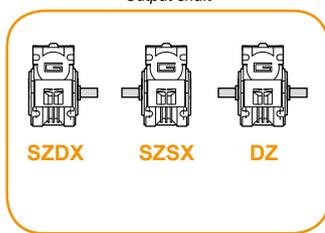
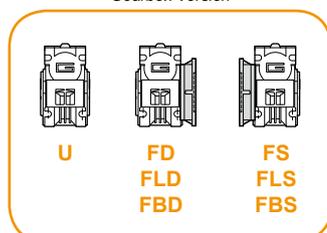
MOTORIDUTTORE / GEARMOTOR												
ECM	070/026					U	10	SZDX	BRSX	90	240	VS
Tipo Type	Grandezza Size					Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version	Opzioni Options
	070/026	100/026	180/026	350/030	600/040	U FD FS FLD FLS FBD FBS	Vedere tabella See tables	SZDX SZSX DZ	BRDX BRSX	0° 90° 180° 270°	120 240 24E	VS
	070/030	100/030	180/030	350/040	600/050							

Versione Riduttore Gearbox Version

Albero di uscita Output shaft

Braccio di reazione Torque arm

Angolo Angle



Simbologia

Symbols

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



Lubrificazione

Lubrication

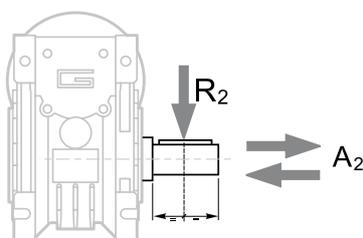
I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

Quantità di olio (litri) / Oil quantity (litres)						
	B3	B8	B6	B7	V5	V6
CM026	0.02					Lubrificazione a vita / Life lubrication
CM030	0.03					
CM040	0.07					
CM050	0.10					
CM063	0.25					

Carichi radiali

Radial loads

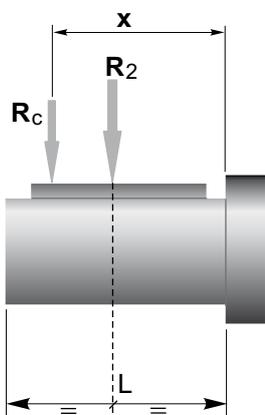


$A_2 = R_2 \times 0.2$

n_2 [min ⁻¹]	R_2 [N]				
	CM026	CM030	CM040	CM050	CM063
187	400	674	1264	1770	2445
140	490	743	1392	1949	2692
93	580	851	1596	2234	3085
70	610	936	1754	2456	3392
56	610	1008	1890	2646	3654
47	610	1069	2004	2805	3874
35	610	1179	2210	3095	4273
28	610	1270	2381	3334	4603
23	610	1356	2542	3559	4915
18	610	1471	2759	3862	5334
14	610	1600	3000	4200	5800

Quando il carico radiale risultante non è applicato sulla mezza-ria dell'albero occorre calcolare quello effettivo con la seguente formula:

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

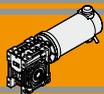


$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

$$R \leq R_c$$

a, b = valori riportati nella tabella
a, b = values given in the table

	CM				
	026	030	040	050	063
a	56	65	84	101	120
b	43	50	64	76	95
R_{2MAX}	610	1600	3000	4200	5800



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
CM026	Z	6	4	3	2	2		1	1	1	1		
	β	34° 35'	24° 41'	19° 1'	12° 57'	10° 30'		6° 33'	5° 17'	4° 26'	3° 49'		
CM030	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'
CM040	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'
CM050	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'
CM063	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

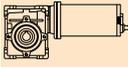
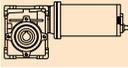
	n_1 [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio											
			5	7.5	10	15	20	25	30	40	50	60	80	100
CM026	2800	Rd	89	87	85	83	80		73	68	64	60		
	1400		87	84	83	78	74		66	61	57	53		
	900		84	83	80	75	71		61	57	52	48		
			Rs	72	71	68	61	56		46	41	36	34	
CM030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	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
CM040	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
CM050	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
CM063	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

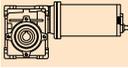
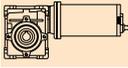
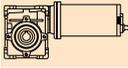
Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period

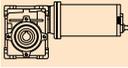
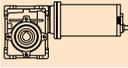


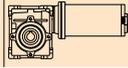
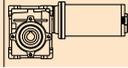
Dati tecnici per servizio S2

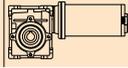
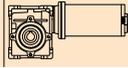
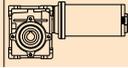
Technical data for S2 duty

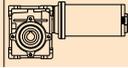
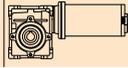
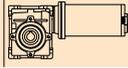
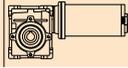
P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
100						
(3000 min ⁻¹)	600	1.4	7.1	5.00		ECM070/026 120/240
	400	2.1	5.3	7.50		
	300	2.7	4.1	10.00		
	200	4.0	2.8	15.00		
	150	5.1	2.2	20.00		
	100	7.0	1.7	30.00		
	75	8.7	1.3	40.00		
	60	10	1.0	50.00		
	50	11	0.8	60.00		
	600	1.4	9.2	5.00		
	400	2.1	7.1	7.50		
	300	2.7	5.8	10.00		
	200	4.0	4.0	15.00		
	150	5.2	2.7	20.00		
	120	6.2	2.4	25.00		
	100	7.1	2.5	30.00		
	75	8.9	1.8	40.00		
	60	10	1.4	50.00		
	50	12	1.2	60.00		
	38	15	0.8	80.00		
	30	17	0.7	100.00		

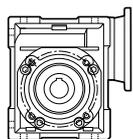
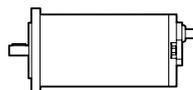
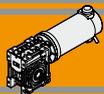
P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
140						
(3000 min ⁻¹)	600	2.0	5.0	5.00		ECM100/026 120/240/24E
	400	2.9	3.8	7.50		
	300	3.8	2.9	10.00		
	200	5.5	2.0	15.00		
	150	7.1	1.5	20.00		
	100	10	1.2	30.00		
	75	12	0.9	40.00		
	60	14	0.7	50.00		
	50	13	0.7	60.00		
	200	5.6	2.8	15.00		
	150	7.2	1.9	20.00		
	120	8.7	1.7	25.00		
	100	10	1.8	30.00		
	75	12	1.3	40.00		
	60	14	1.0	50.00		
	50	17	0.8	60.00		
	38	20	0.6	80.00		
	30	16	0.7	100.00		
	100	10	3.7	30.00		ECM100/040
	75	13	2.6	40.00		
	60	15	2.1	50.00		
	50	18	1.6	60.00		
	38	21	1.3	80.00		
	30	25	1.0	100.00		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
250						
(3000 min ⁻¹)	600	3.5	2.8	5.00		ECM180/026 120/240
	400	5.2	2.1	7.50		
	300	6.8	1.6	10.00		
	200	10	1.1	15.00		
	150	13	0.9	20.00		
	100	17	0.7	30.00		
	75	16	0.7	40.00		
	60	14	0.7	50.00		
	50	13	0.7	60.00		
	600	3.5	3.7	5.00		
	400	5.3	2.9	7.50		
	300	6.8	2.3	10.00		
	200	10	1.6	15.00		
	150	13	1.1	20.00		
	120	16	1.0	25.00		
	100	18	1.0	30.00		
	75	22	0.7	40.00		
	60	21	0.7	50.00		
	50	20	0.7	60.00		
	38	17	0.7	80.00		
	30	16	0.7	100.00		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
250						
(3000 min ⁻¹)	200	10	3.5	15.00		ECM180/040 120/240/24E
	150	13	2.3	20.00		
	120	16	1.8	25.00		
	100	18	2.1	30.00		
	75	23	1.5	40.00		
	60	27	1.2	50.00		
	50	32	0.9	60.00		
	38	38	0.7	80.00		
	30	34	0.7	100.00		
	75	24	2.5	40.00		
	60	28	2.0	50.00		
	50	32	1.6	60.00		
	38	39	1.2	80.00		
	30	46	0.9	100.00		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
500						
(3000 min ⁻¹)	600	7.1	1.8	5.00		ECM350/030 120/240
	400	11	1.4	7.50		
	300	14	1.2	10.00		
	200	20	0.8	15.00		
	150	20	0.7	20.00		
	120	21	0.7	25.00		
	100	26	0.7	30.00		
	75	23	0.7	40.00		
	60	21	0.7	50.00		
	600	7.2	4.0	5.00		
	400	11	2.9	7.50		
	300	14	2.4	10.00		
	200	20	1.7	15.00		
	150	26	1.2	20.00		
	120	32	0.9	25.00		
	100	37	1.0	30.00		
	75	46	0.7	40.00		
	60	46	0.7	50.00		
	50	41	0.7	60.00		
	38	39	0.7	80.00		
	30	34	0.7	100.00		
	200	21	3.0	15.00		ECM350/050 120/240
	150	27	2.1	20.00		
	120	33	1.6	25.00		
	100	37	1.8	30.00		
	75	47	1.3	40.00		
	60	57	1.0	50.00		
	50	65	0.8	60.00		
	38	66	0.7	80.00		
	30	61	0.7	100.00		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version		
800								
(3000 min ⁻¹)	600	11	2.5	5.00		ECM600/040 120/240		
	400	17	1.8	7.50				
	300	22	1.5	10.00				
	200	32	1.1	15.00				
	150	42	0.7	20.00				
	120	40	0.7	25.00				
	100	54	0.7	30.00				
	75	49	0.7	40.00				
	600	11	4.9	5.00				ECM600/050 120/240
	400	17	3.3	7.50				
	300	22	2.7	10.00				
	200	33	1.9	15.00				
	150	43	1.3	20.00				
	120	52	1.0	25.00				
	100	60	1.1	30.00				
	75	75	0.8	40.00				
	60	81	0.7	50.00				
	50	74	0.7	60.00				
	38	66	0.7	80.00				
	200	33	3.5	15.00		ECM600/063 120/240		
	150	43	2.4	20.00				
	120	53	1.8	25.00				
	100	60	2.1	30.00				
	75	77	1.4	40.00				
	60	93	1.1	50.00				
	50	107	0.9	60.00				
	38	132	0.7	80.00				
	30	114	0.7	100.00				



		EC						
		070.120 070.240	100.120 100.240	100.24E	180.120 180.240	180.24E	350.120 350.240	600.120 600.240
CM	026	5-60	5-60		5-60			
	030	5-100	5-100		5-100	5-50	5-50	
	040		5-100		5-100	5-100	5-100	5-40
	050				40-100	5-100	5-100	5-80
	063							5-100

5-100

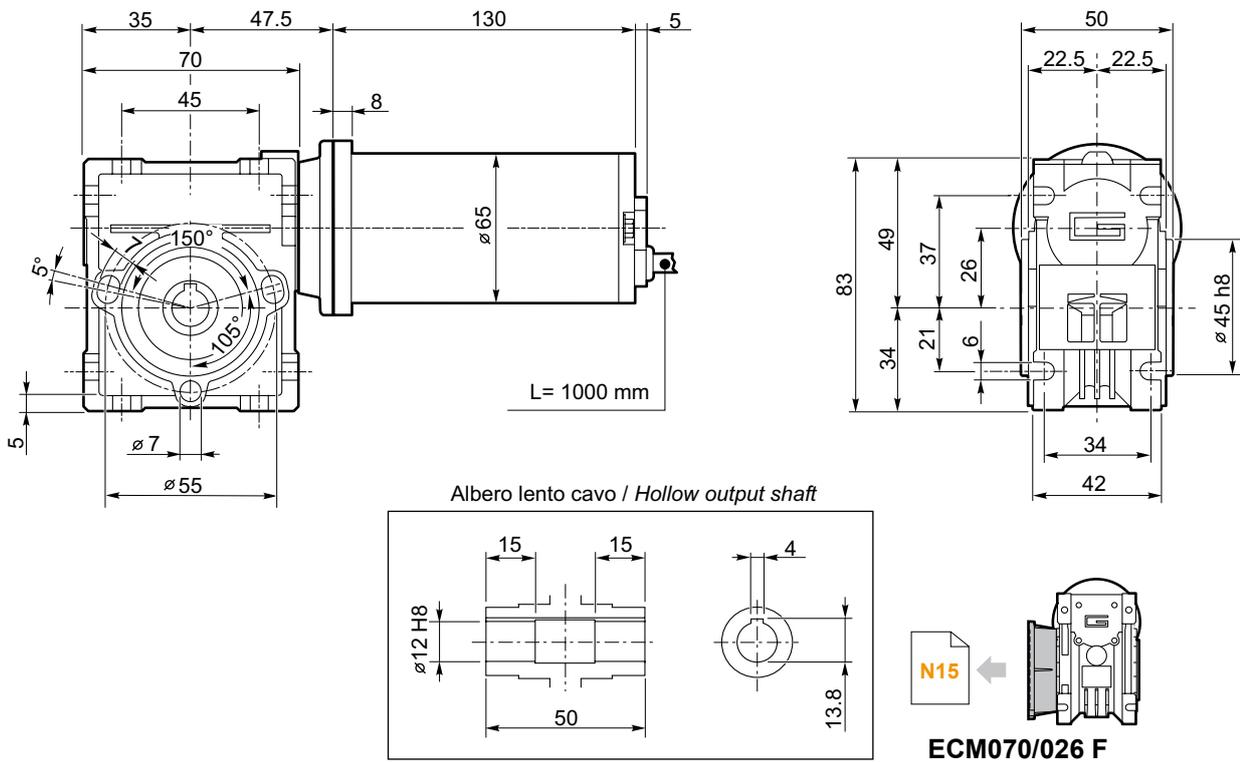
Rapporti di riduzione i
Ratio i



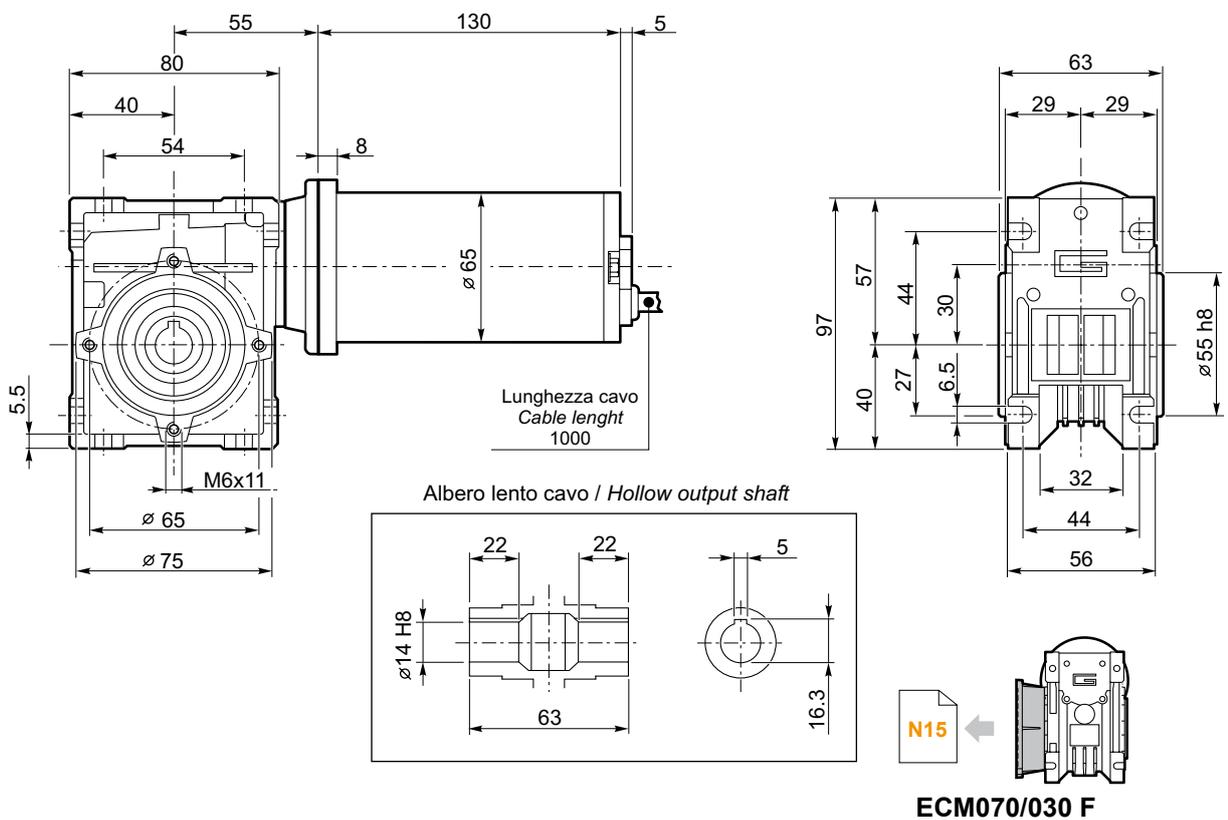
Dimensioni

Dimensions

ECM070/026 U



ECM070/030 U



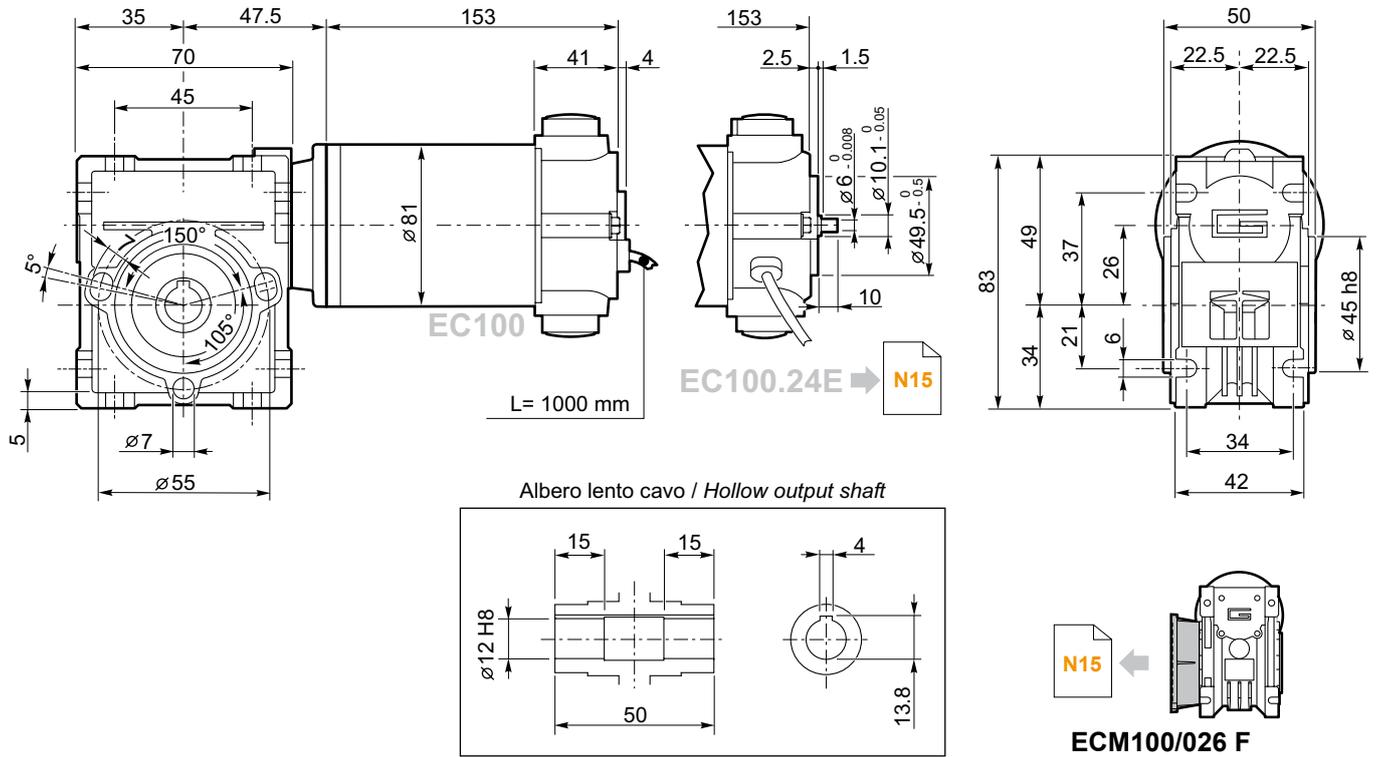
ECM



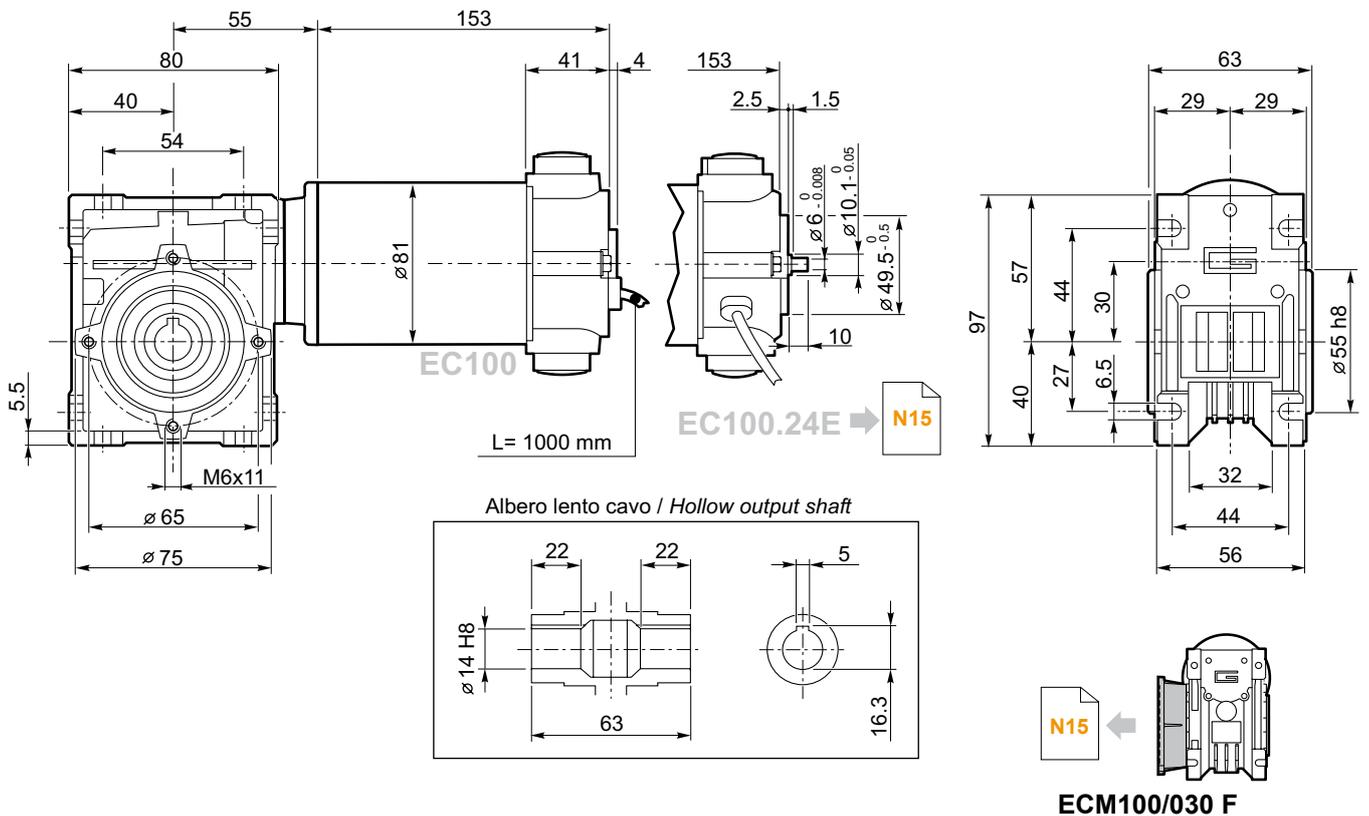
Dimensioni

Dimensions

ECM100/026 U



ECM100/030 U

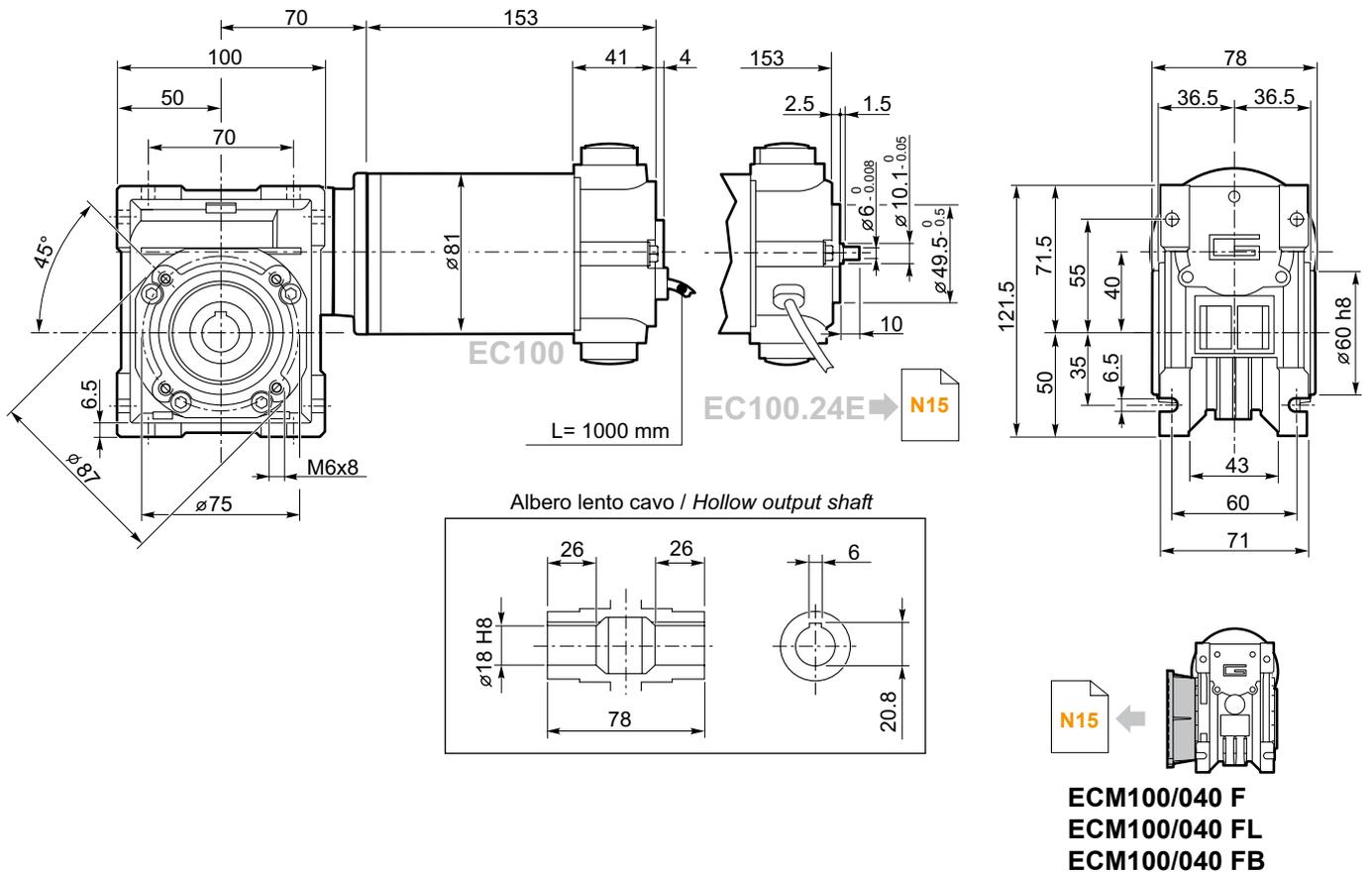




Dimensioni

Dimensions

ECM100/040 U

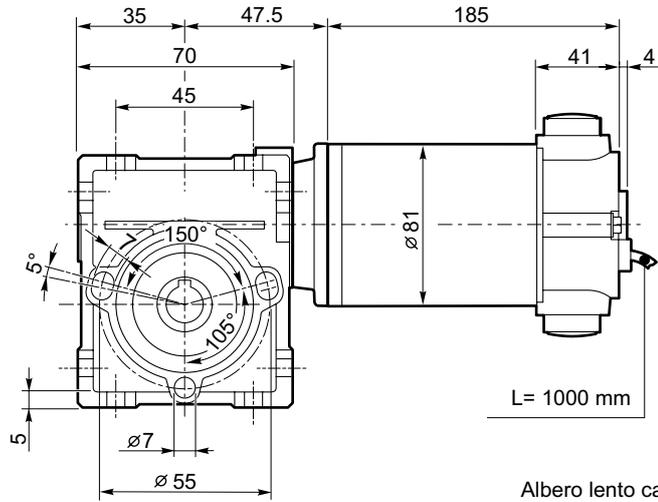




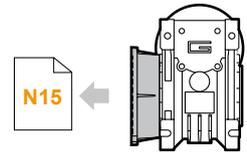
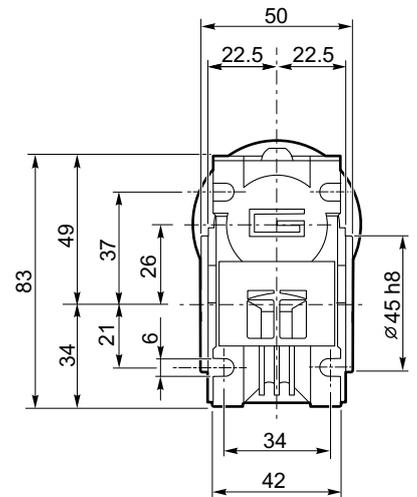
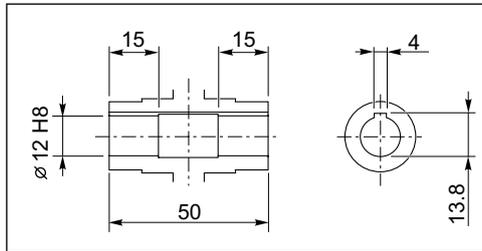
Dimensioni

Dimensions

ECM180/026 U

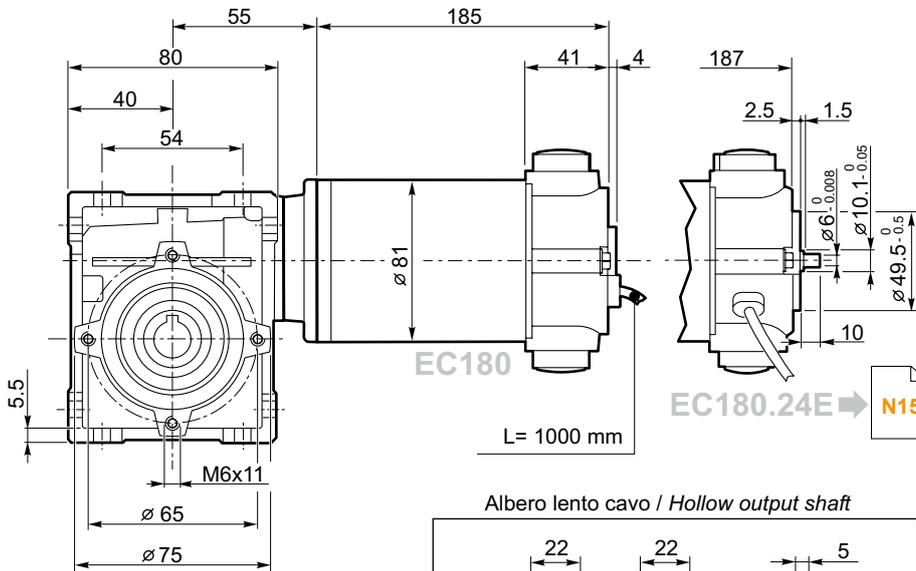


Albero lento cavo / Hollow output shaft

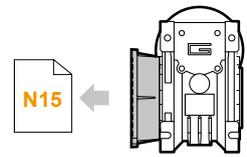
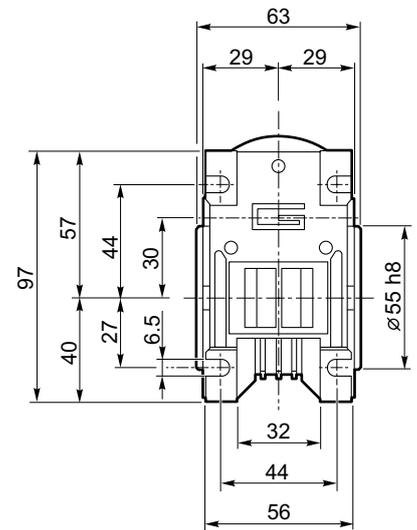
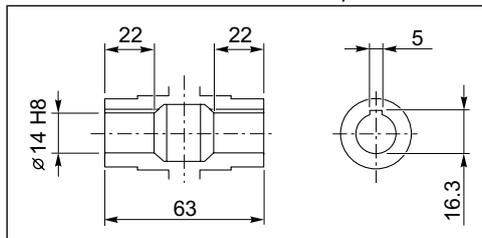


ECM180/026 F

ECM180/030 U



Albero lento cavo / Hollow output shaft



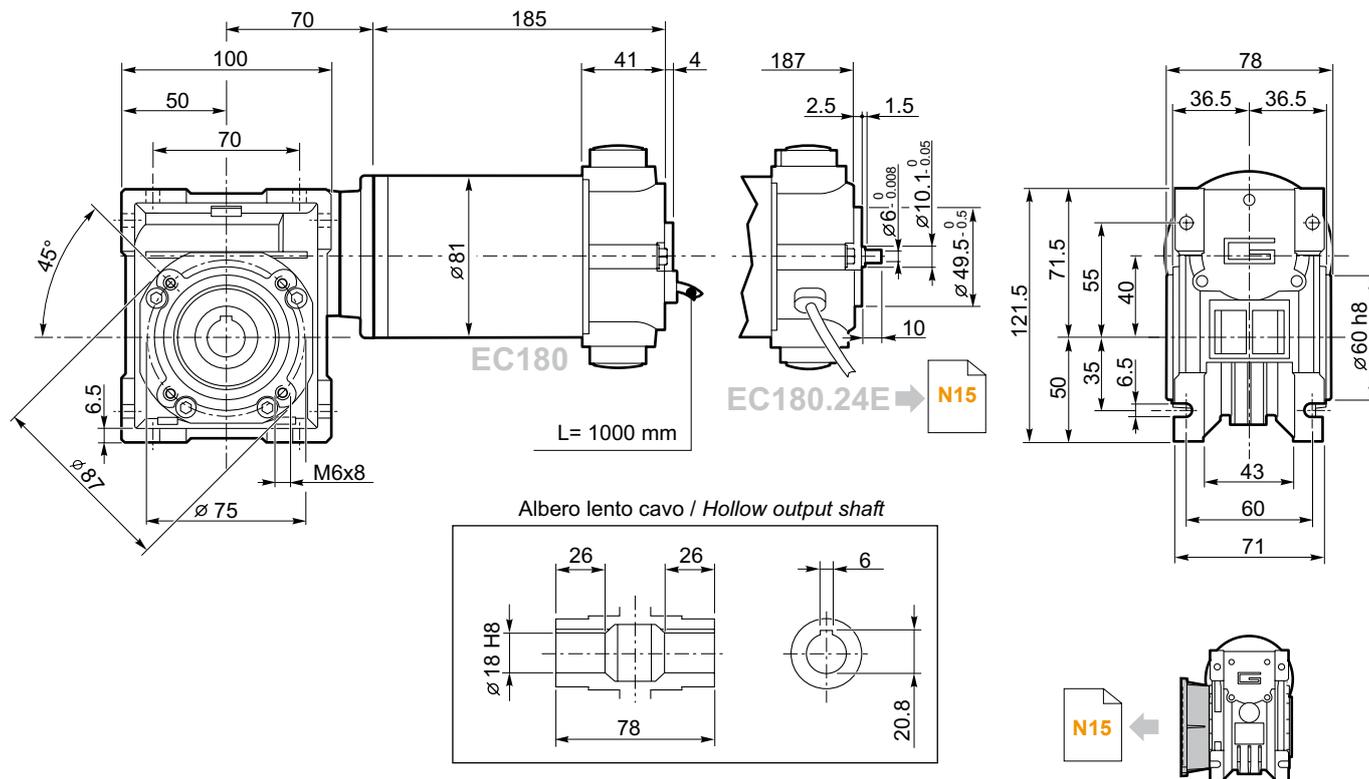
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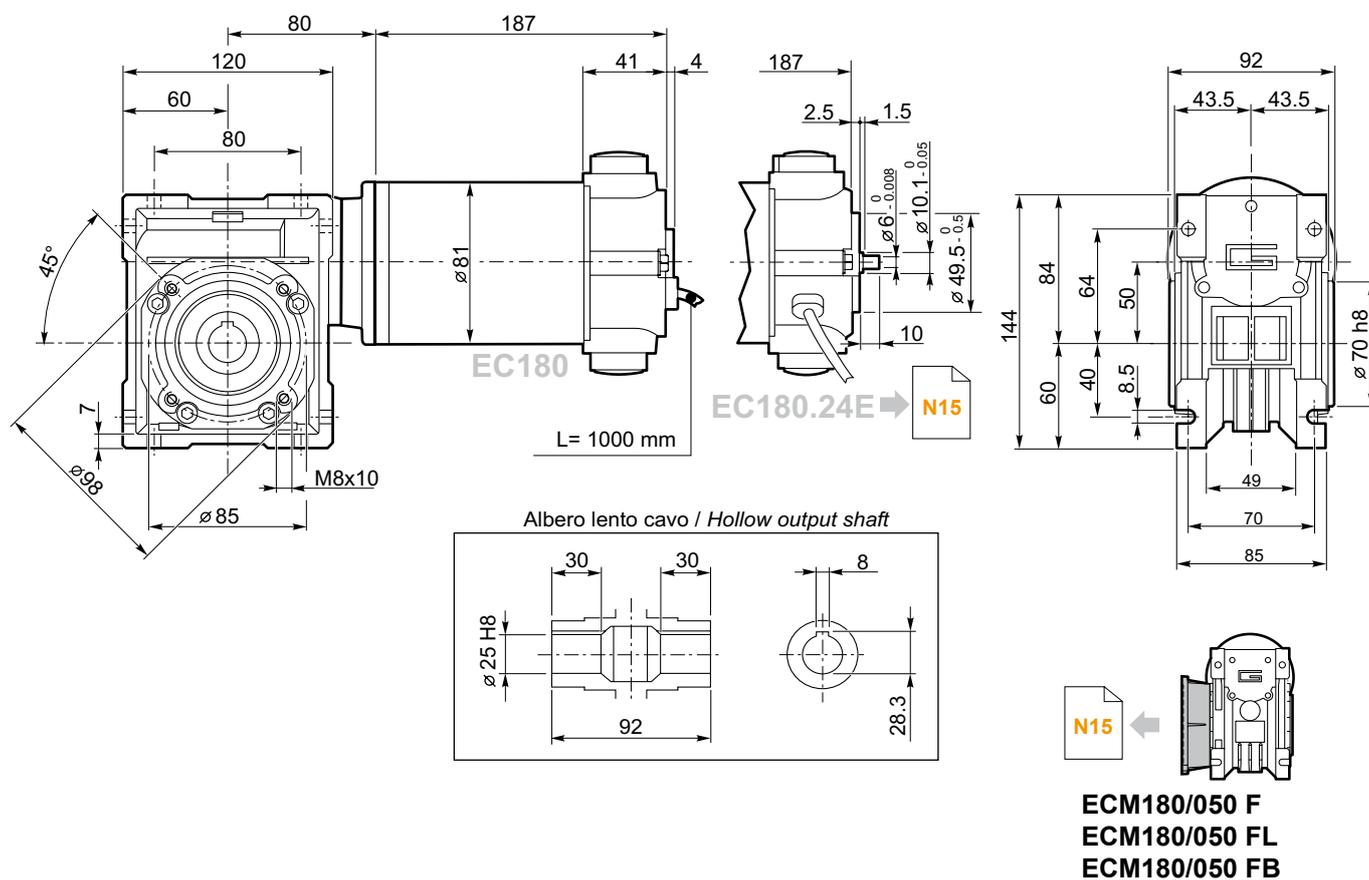
Dimensioni

Dimensions

ECM180/040 U



ECM180/050 U

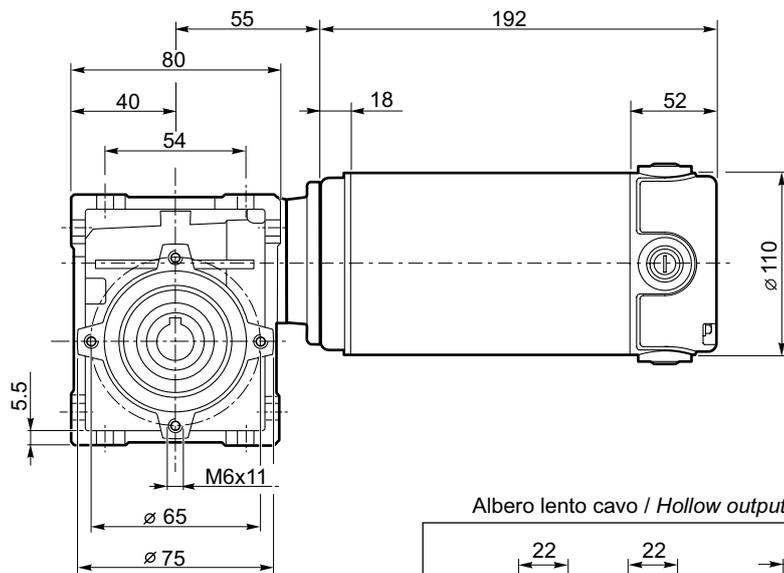




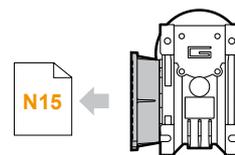
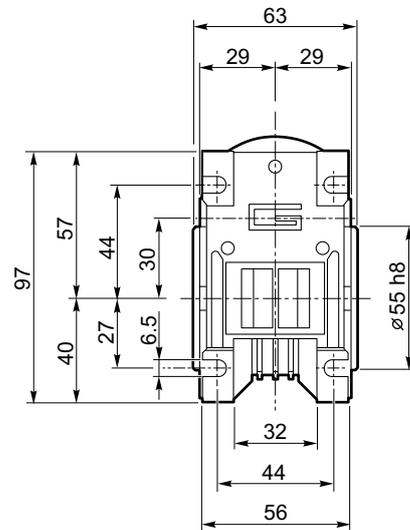
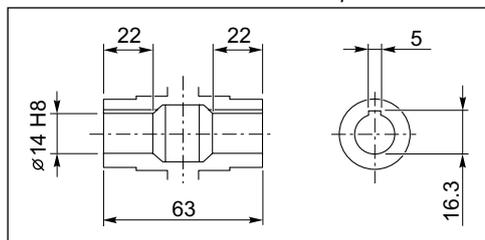
Dimensioni

Dimensions

ECM350/030 U

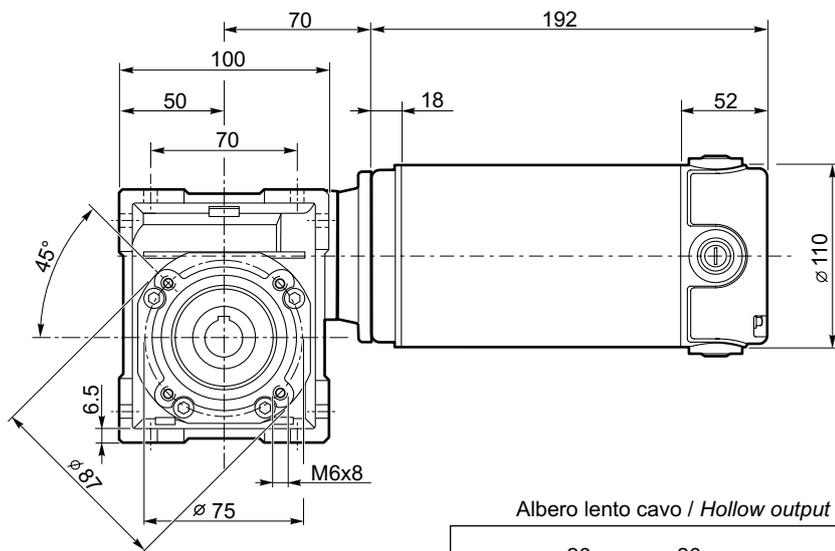


Albero lento cavo / Hollow output shaft

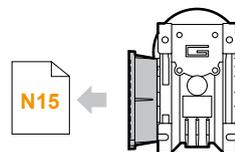
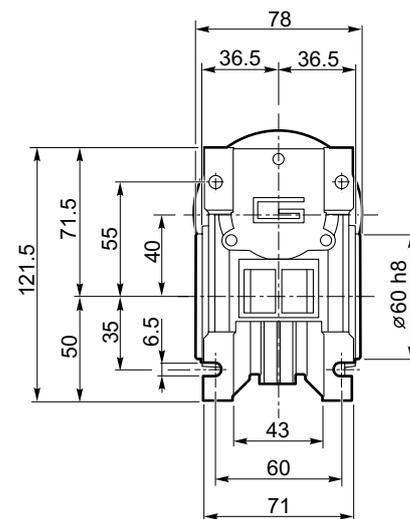
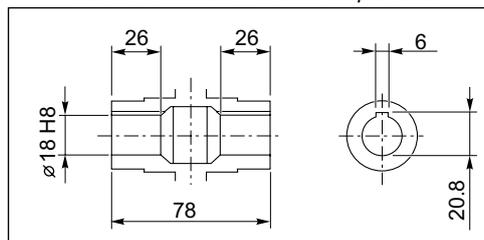


ECM350/030 F

ECM350/040 U



Albero lento cavo / Hollow output shaft



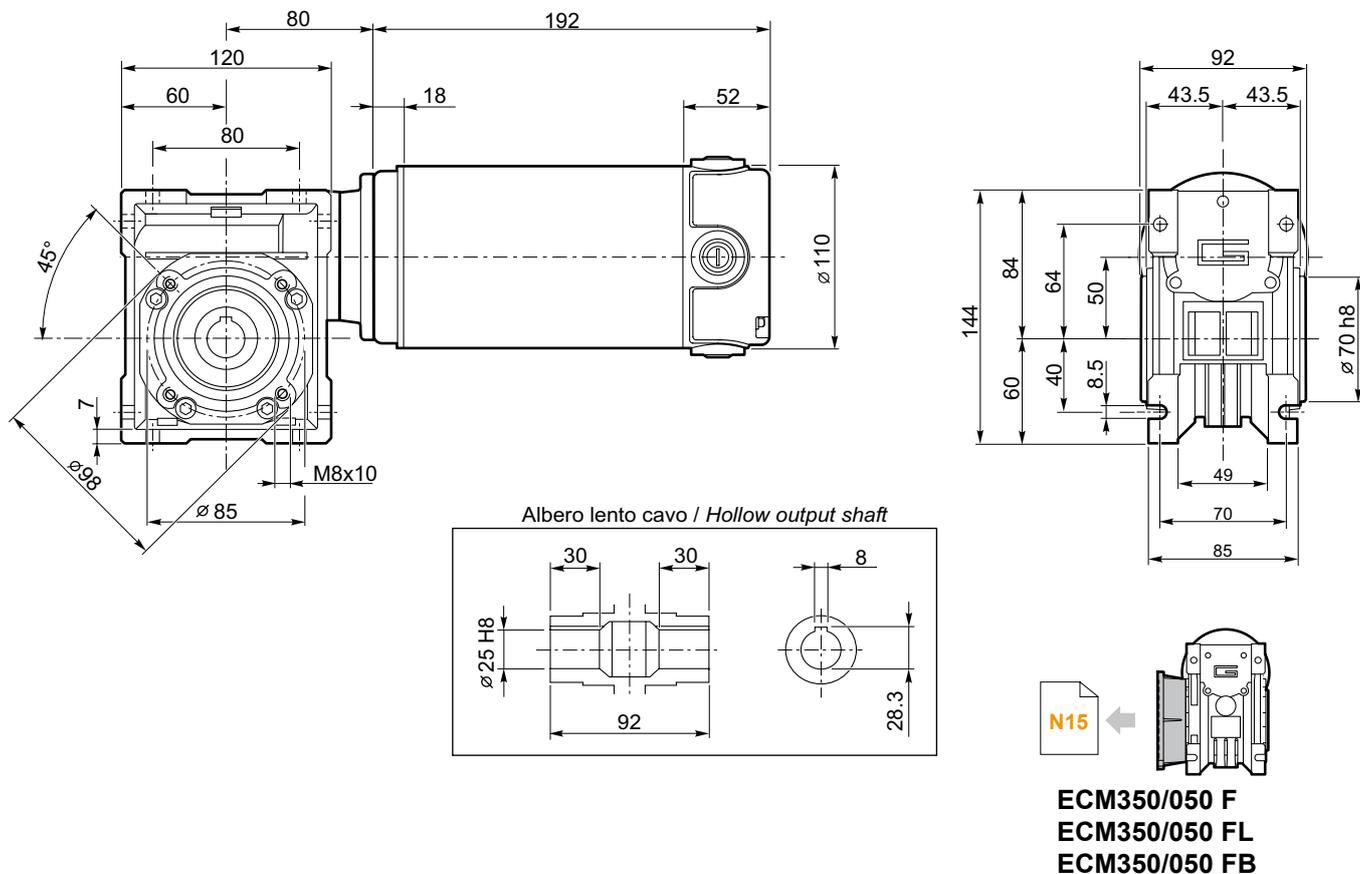
ECM350/040 F
ECM350/040 FL
ECM350/040 FB



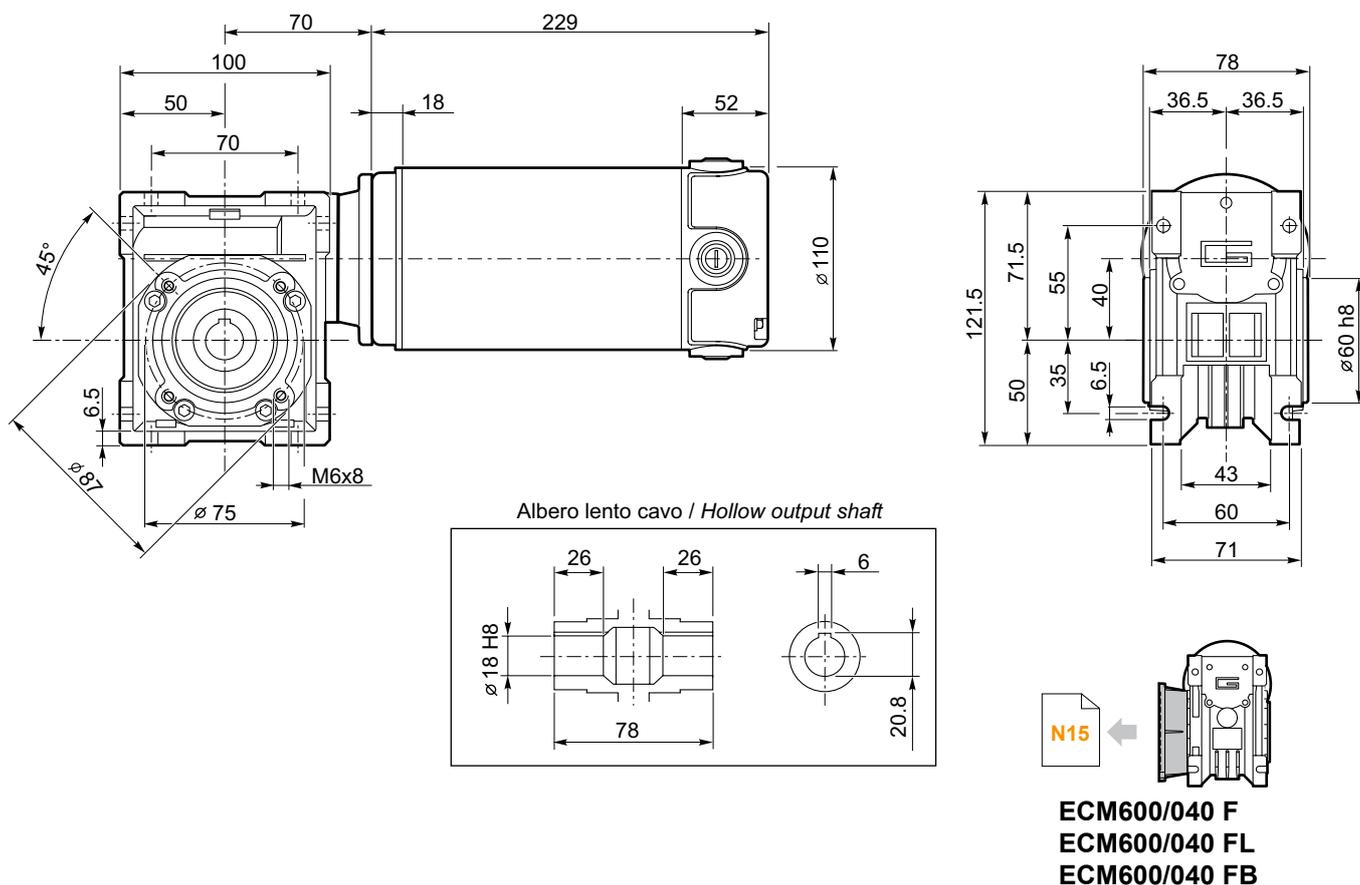
Dimensioni

Dimensions

ECM350/050 U



ECM600/040 U

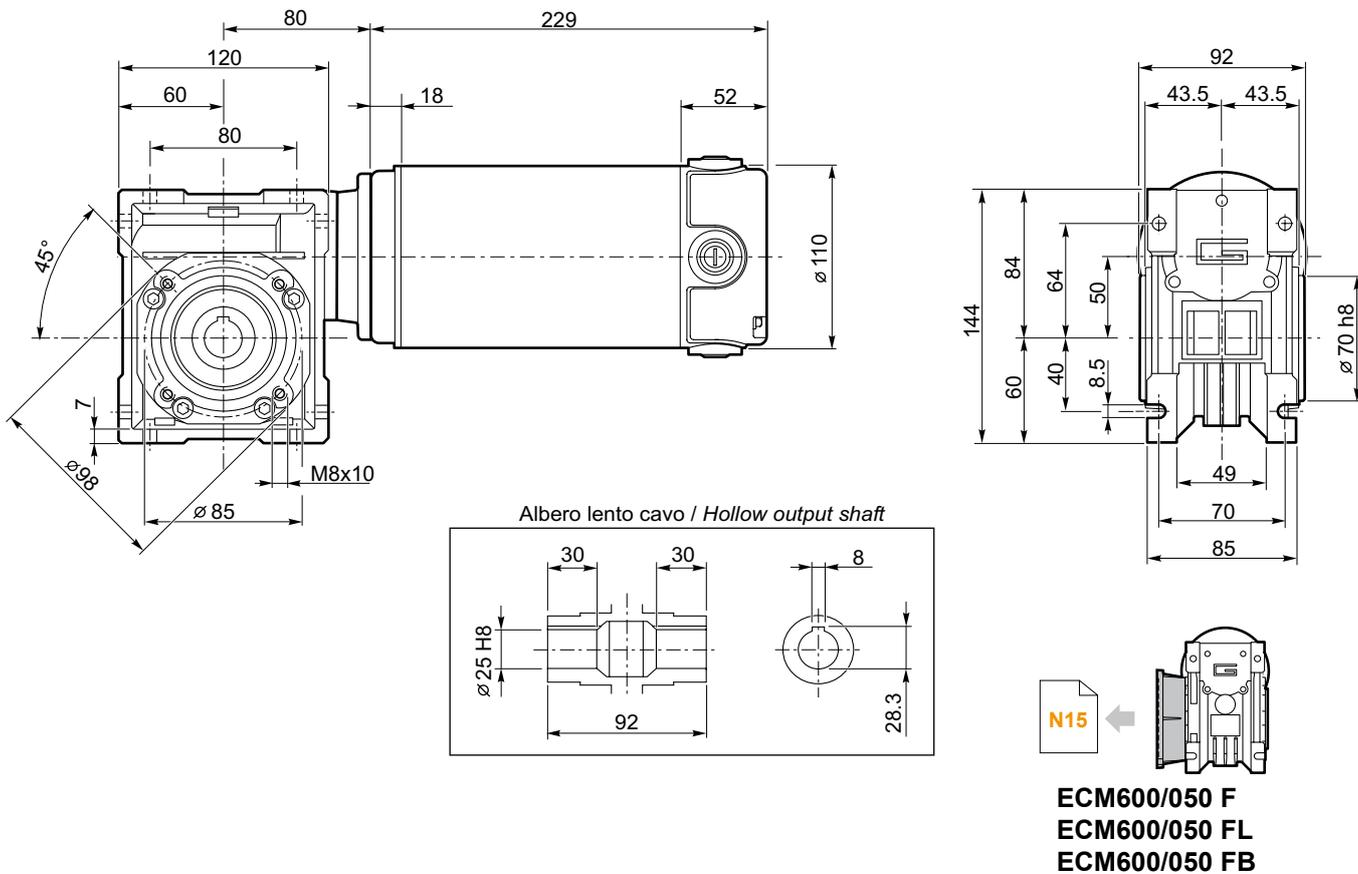




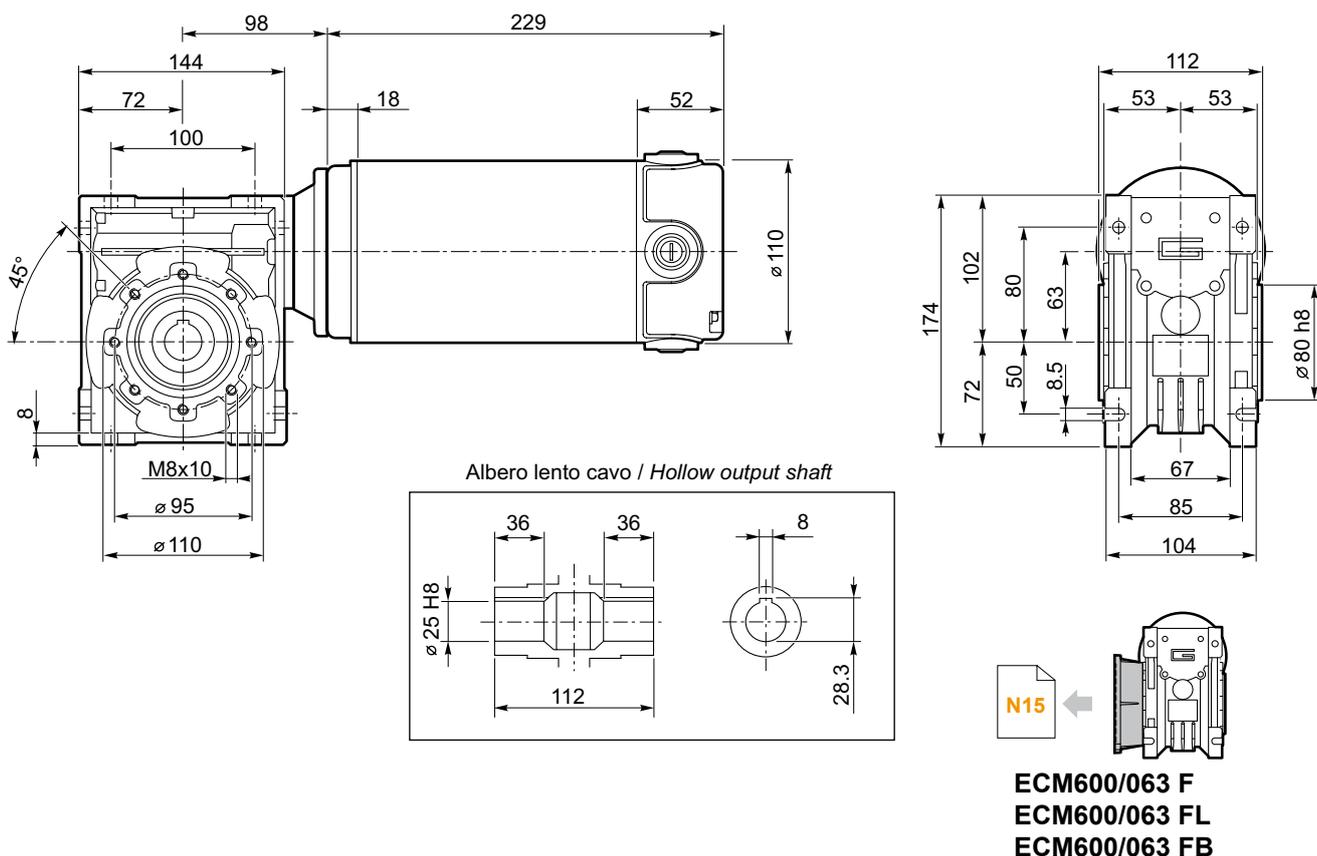
Dimensioni

Dimensions

ECM600/050 U



ECM600/063 U

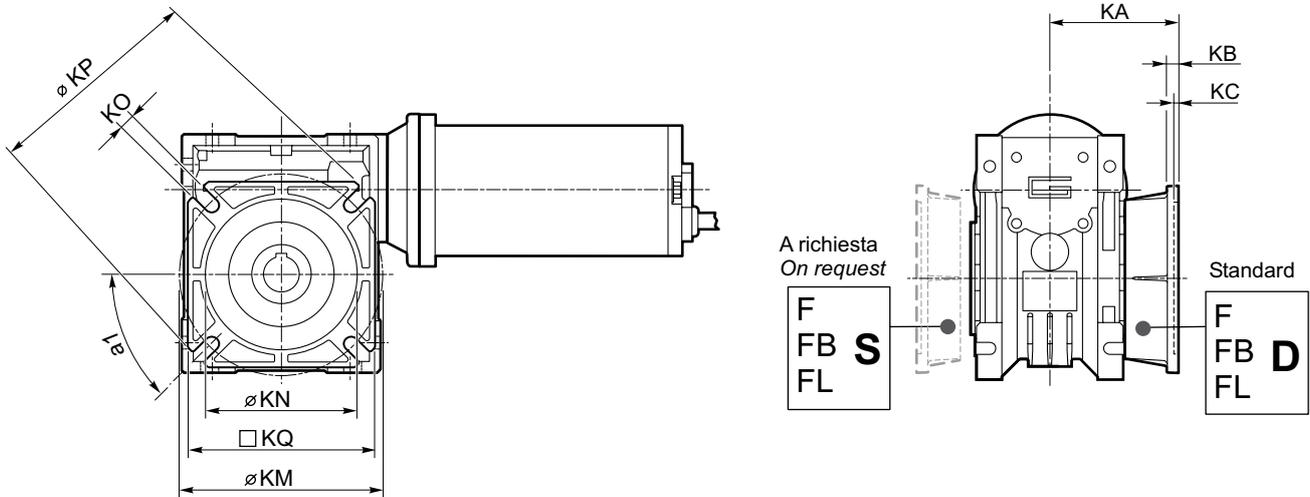




Dimensioni

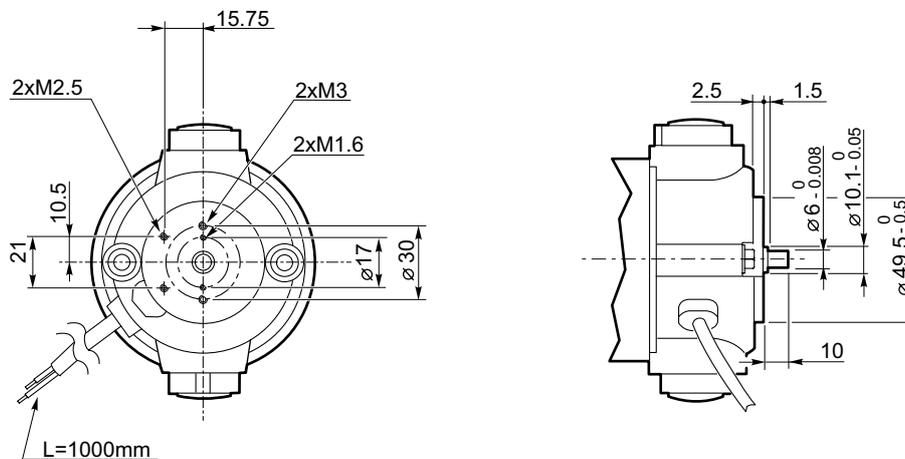
Dimensions

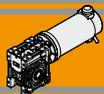
ECM.../... F... Flange uscita / Output flanges



CM	CM..F									CM..FB						CM..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
026	45°	45	6	4.5	55-69	40	6.5(n.4)	75	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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

EC100.24E
EC180.24E

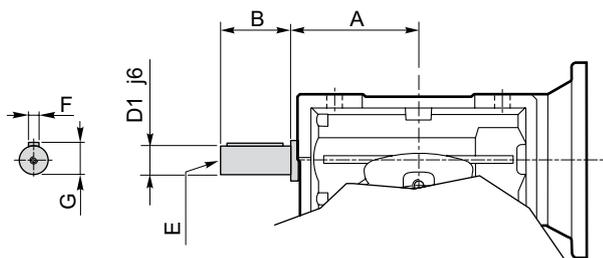




Opzioni

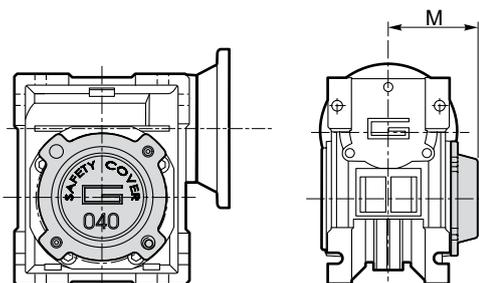
Options

VS - Vite sporgente / Extended input shaft



	A	B	D ₁ j6	E	F	G
CM 030	45	20	9	M4	3	10.2
CM 040	53	23	11	M5	4	12.5
CM 050	64	30	14	M6	5	16
CM 063	75	40	19	M6	6	21.5

SC - Safety cover



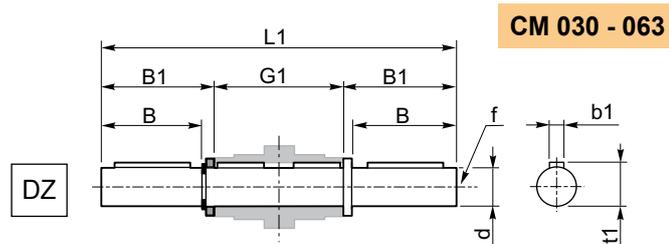
	M
CM 030	47
CM 040	54.5
CM 050	62.5
CM 063	73

Accessori

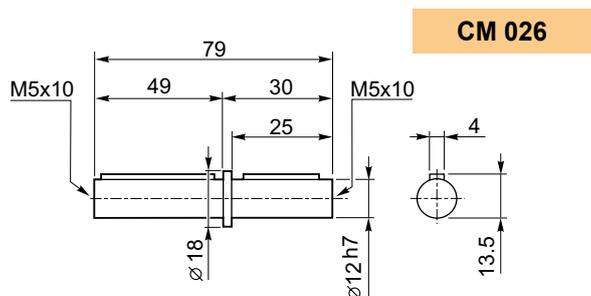
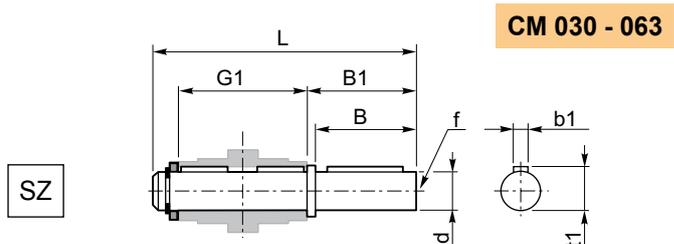
Accessories

Albero lento

Output shaft



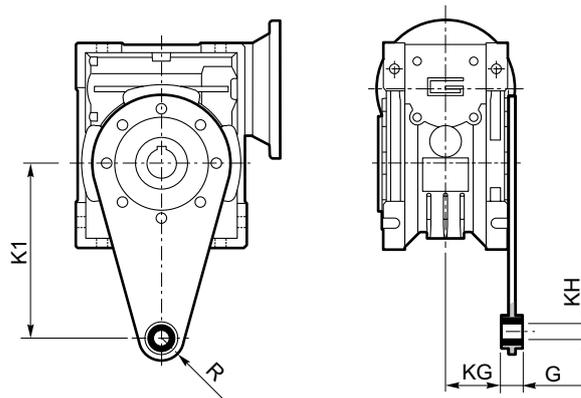
	d h7	B	B1	G1	L	L1	f	b1	t1
CM 030	14	30	32.5	63	102	128	M6	5	16
CM 040	18	40	43	78	128	164	M6	6	20.5
CM 050	25	50	53.5	92	153	199	M10	8	28
CM 063	25	50	53.5	112	173	219	M10	8	28



Braccio di reazione

Torque arm

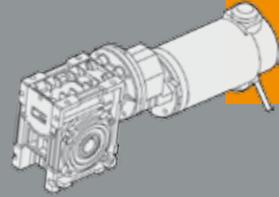
	K1	G	KG	KH	R
CM 030	85	14	23	8	15
CM 040	100	14	31	10	18
CM 050	100	14	38	10	18
CM 063	150	14	47.5	10	18



TRANSTECNOTM
THE MODULAR GEARMOTOR

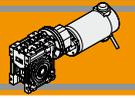
ECMP

ECMP



MOTORIDUTTORI C.C. CON PRECOPPIA
PERMANENT MAGNETS D.C. PRE-STAGE GEARMOTORS

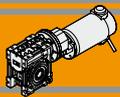




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Caratteristiche tecniche

Technical features

Le caratteristiche principali dei motoriduttori a corrente continua della serie ECMP sono:

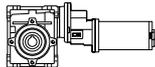
The main features of ECMP D.C. gearmotor range are:

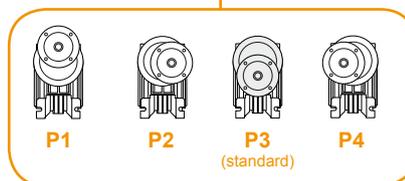
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 100 a 800W S2
- Magneti in ferrite
- Sia le carcasse dei riduttori a vite senza fine che delle precoppie sono in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico

- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 100 up to 800W S2
- Ferrite magnets
- Die-cast aluminum housing on pre-stage and wormgearboxes
- Permanent synthetic oil long-life lubrication.

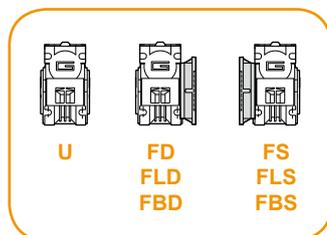
Designazione

Classification

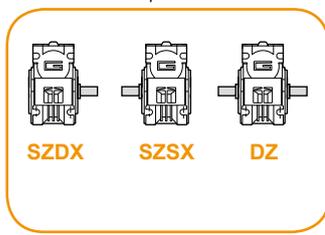
MOTORIDUTTORE / GEARMOTOR													
ECMP	070/056/030				U	90	SZDX	BRSX	90	P4	B3	240	VS
Tipo Type	Grandezza Size				Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montag- gio precoppia Pre stage mounting position	Pos. di montaggio Mounting position	Ver- sione Motore Motor Version	Opzioni Options
	070/056/030	180/056/030	350/063/050	600/071/050	U	Vedere tabella	SZDX SZSX DZ	BRDX BRSX	0°	P1	B3 B8	120	VS
	070/056/040	180/056/040	350/063/063	600/071/063	FD				90°	P2			
	100/056/030	180/063/040	350/071/050	600/071/075	FS	See tables	DZ	180°	P3 (standard)	B6	240		
	100/056/040	180/063/050			FLD			270°	P4	B7	24E		
	100/063/050	180/063/063			FLS FBD FBS					B5 V6			



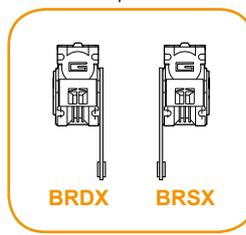
Versione Riduttore
Gearbox Version



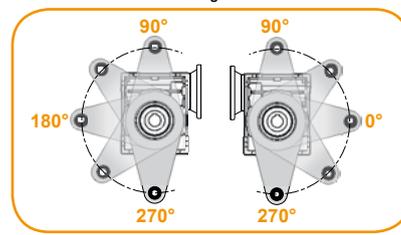
Albero di uscita
Output shaft

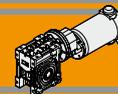


Braccio di reazione
Torque arm



Angolo
Angle





Simbologia

Symbols

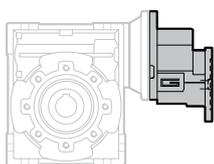
n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	sf	Fattore di servizio / <i>Service factor</i>
i	Rapporto di riduzione / <i>Ratio</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
P_1 [kW]	Potenza in entrata / <i>Input power</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>

Lubrificazione

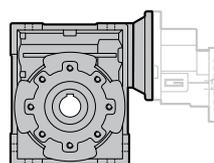
Lubrication

I riduttori a vite senza fine con precoppia della serie CMP sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long - life lubrication allow to use CMP range in all mounting positions.

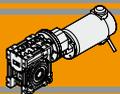


CMP		
056/030 056/040	063/040 063/050 063/063	071/050 071/063 071/075
Lubrificazione a vita - <i>Life lubrication</i>		



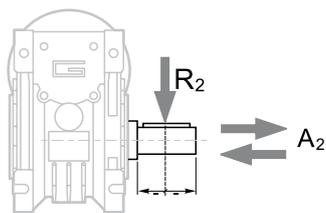
CMP	Quantità di olio (litri) / <i>Oil quantity (litres)</i>	
	Per tutte le posizioni di montaggio / <i>For all mounting positions</i>	
056/030	0.03	
056/040 - 063/040	0.07	
063/050 - 071/050	0.1	
063/063 - 071/063	0.25	
071/075	0.4	

Lubrificazione a vita
Life lubrication



Carichi radiali

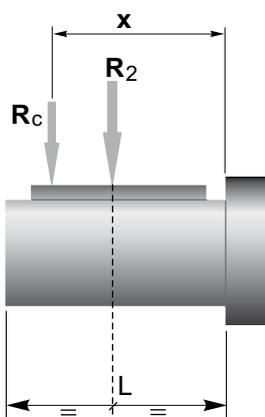
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]				
	CM030	CM040	CM050	CM063	CM075
35	1179	2210	3095	4273	4937
28	1270	2381	3334	4603	5318
23	1356	2542	3559	4915	5678
18	1471	2759	3862	5334	6162
14	1600	3000	4200	5800	6700

Quando il carico radiale risultante non è applicato sulla mezza-
ria dell'albero occorre calcolare quello effettivo con la seguente
formula:

When the resulting radial load is not applied on the centre line
of the shaft it is necessary to calculate the effective load with the
following formula:

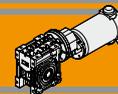


$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

$$R \leq R_c$$

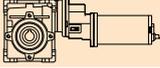
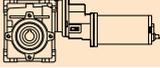
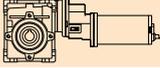
a, b = valori riportati nella tabella
a, b = values given in the table

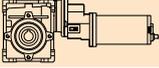
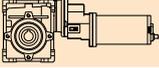
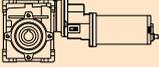
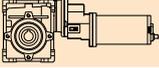
	CM				
	030	040	050	063	075
a	65	84	101	120	131
b	50	64	76	95	101
R _{2MAX}	1600	3000	4200	5800	6700

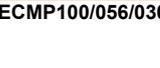
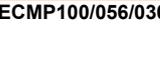
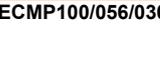


Dati tecnici per servizio S2

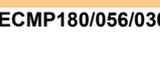
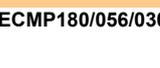
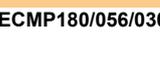
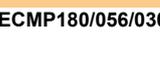
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
100						
(3000 min ⁻¹)	50	13	1.7	60		ECMP070/056/030
	40	16	1.4	75		
	33	17	1.6	90		
	25	22	1.1	120		
	20	25	0.9	150		
	50	14	3.2	60		ECMP070/056/040
	40	16	2.7	75		
	33	19	3.0	90		
	25	22	2.1	120		
	20	27	1.7	150		
17	30	1.4	180			
13	34	1.2	240			
10	38	0.9	300			

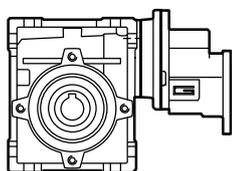
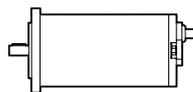
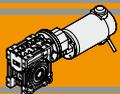
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
500						
(3000 min ⁻¹)	50	70	1.1	60		ECMP350/063/050
	40	84	0.9	75		
	33	95	1.0	90		
	25	116	0.7	120		
	20	116	0.7	150		
	17	109	0.7	180		ECMP350/063/063
	13	99	0.7	240		
	50	73	2.1	60		
	40	88	1.6	75		
	33	98	1.9	90		
25	122	1.3	120			
20	143	1.1	150			
17	163	0.9	180			
13	195	0.7	240			
10	174	0.7	300			
(3000 min ⁻¹)	50	75	3.4	60		ECMP350/071/075
	40	90	2.6	75		
	33	102	3.0	90		
	25	127	2.1	120		
	20	150	1.6	150		
	17	171	1.4	180		
	13	206	1.0	240		
	10	234	0.8	300		

140						
(3000 min ⁻¹)	50	19	1.2	60		ECMP100/056/030
	40	22	1.0	75		
	33	24	1.1	90		
	25	30	0.8	120		
	20	31	0.7	150		
	50	19	2.3	60		ECMP100/056/040
	40	23	1.9	75		
	33	26	2.2	90		
	25	31	1.5	120		
	20	37	1.2	150		
17	42	1.0	180			
13	48	0.8	240			
10	54	0.7	300			
(3000 min ⁻¹)	50	20	4.1	60		ECMP100/063/050
	40	24	3.2	75		
	33	27	3.7	90		
	25	32	2.6	120		
	20	39	2.1	150		
	17	43	1.8	180		
	13	50	1.4	240		

800								
(3000 min ⁻¹)	50	112	0.7	60		ECMP600/071/050		
	40	107	0.7	75				
	33	141	0.7	90				
	50	117	1.3	60				ECMP600/071/063
	40	140	1.0	75				
	33	157	1.2	90				
	25	195	0.8	120				
	20	228	0.7	150				
	17	203	0.7	180				
	(3000 min ⁻¹)	50	120	2.1	60		ECMP600/071/075	
40		144	1.6	75				
33		164	1.9	90				
25		204	1.3	120				
20		240	1.0	150				
17		274	0.9	180				
13		299	0.7	240				
10		277	0.7	300				

250							
(3000 min ⁻¹)	50	33	0.7	60		ECMP180/056/030	
	40	31	0.7	75			
	33	39	0.7	90			
	25	33	0.7	120			
	20	31	0.7	150			
	50	35	1.3	60		ECMP180/056/040	
	40	41	1.1	75			
	33	46	1.2	90			
	25	56	0.9	120			
	20	67	0.7	150			
17	61	0.7	180				
13	57	0.7	240				
10	51	0.7	300				
(3000 min ⁻¹)	50	35	2.3	60		ECMP180/063/050	
	40	42	1.8	75			
	33	48	2.1	90			
	25	58	1.5	120			
	20	69	1.2	150			
	17	77	1.0	180			
	13	90	0.8	240			
	(3000 min ⁻¹)	50	37	4.2	60		ECMP180/063/063
		40	44	3.1	75		
		33	49	3.8	90		
25		61	2.6	120			
20		71	2.1	150			
17		81	1.7	180			
13		97	1.3	240			
10		110	1.1	300			

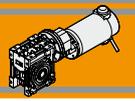
ECMP



		EC					
		070.120 070.240	100.120 100.240 100.24E	180.120 180.240	180.24E	350.120 350.240	600.120 600.240
CMP	056/030	150	150	150			
	056/040	300	300	300			
	063/040		120	120	120		
	063/050		240	240	240	240	
	063/063			300	300	300	
	071/050					75	75
	071/063						180
	071/075						300

150

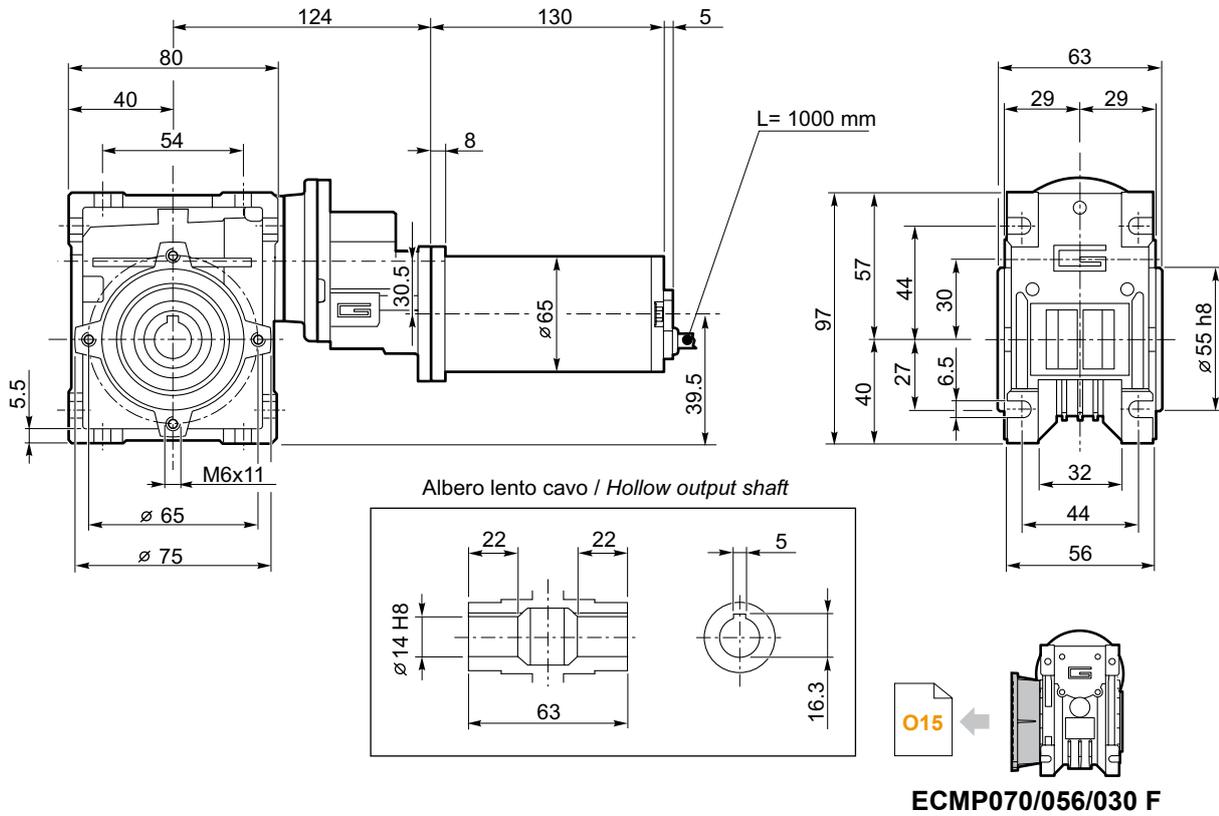
Rapporto di riduzione massimo i_{max}
Maximum ratio i_{max}



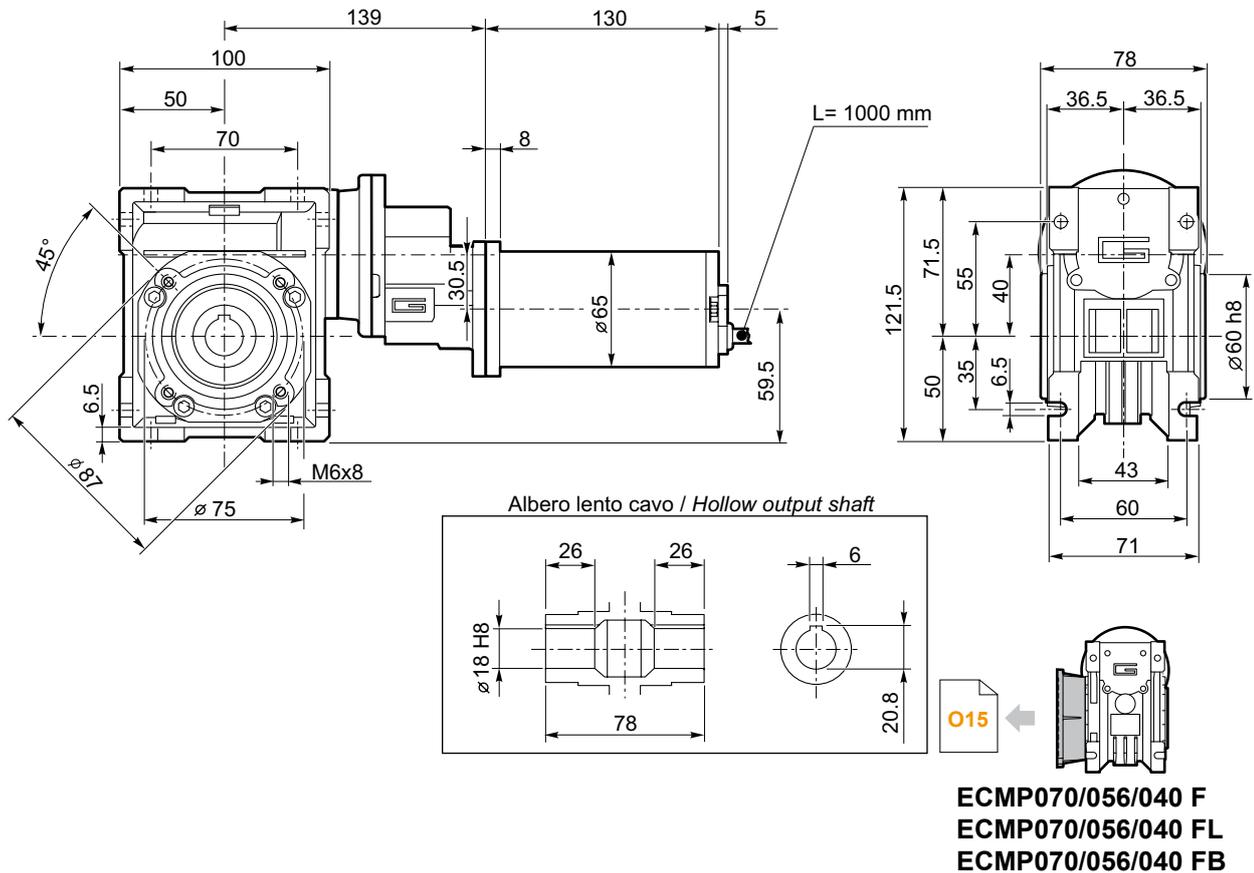
Dimensioni

Dimensions

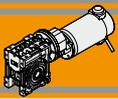
ECMP070/056/030 U



ECMP070/056/040 U



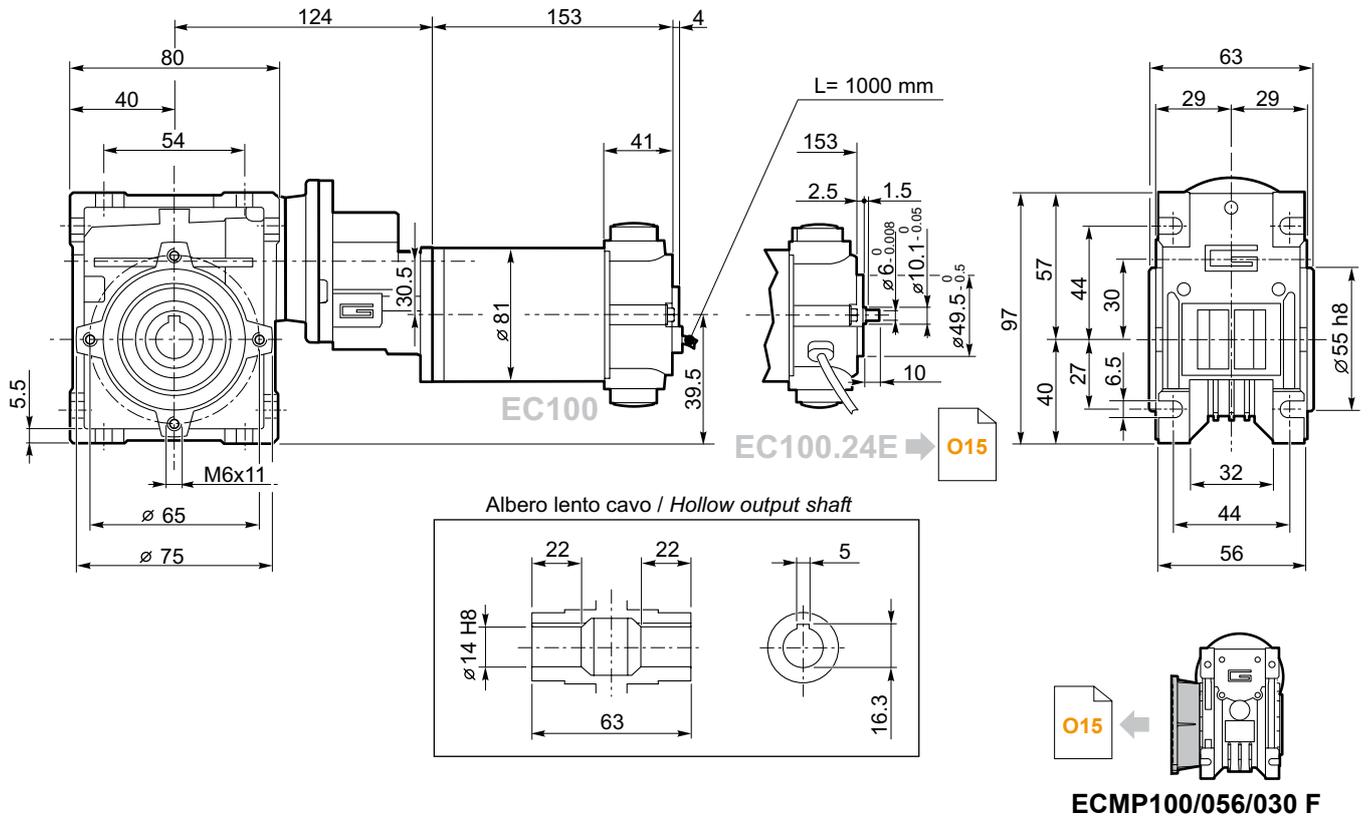
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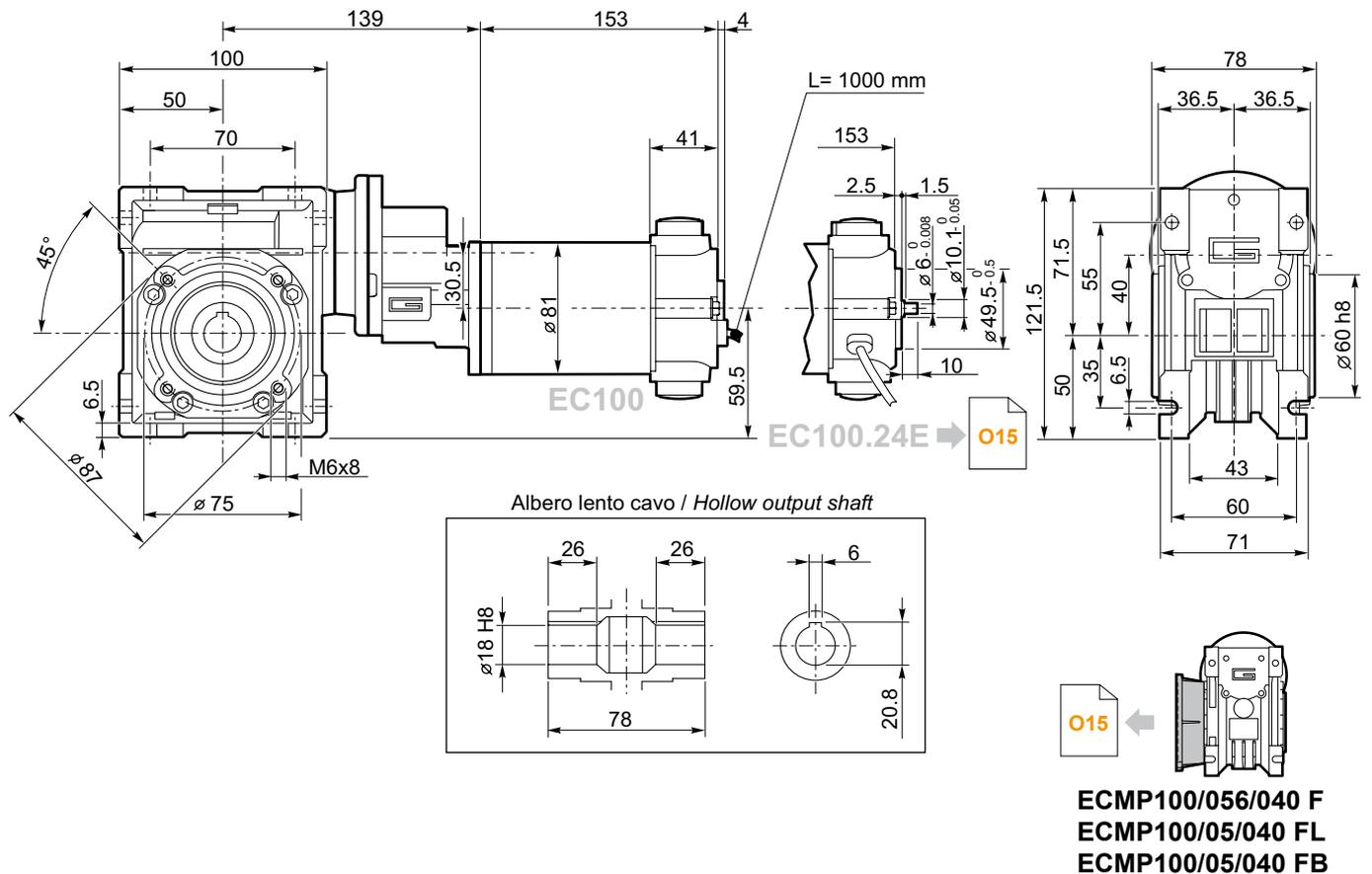
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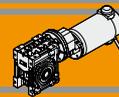
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ECMP100/056/030 U



ECMP100/056/040 U

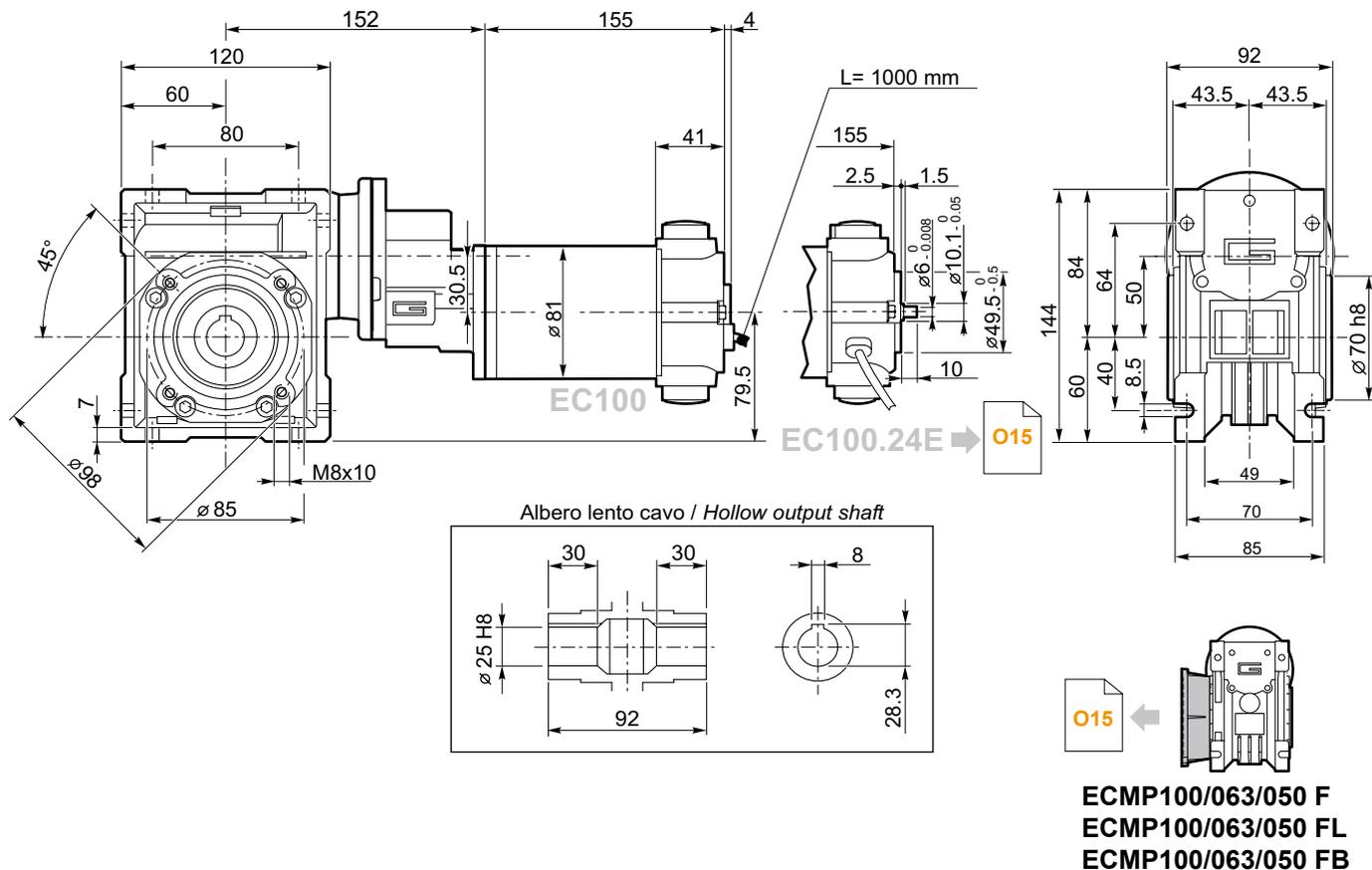




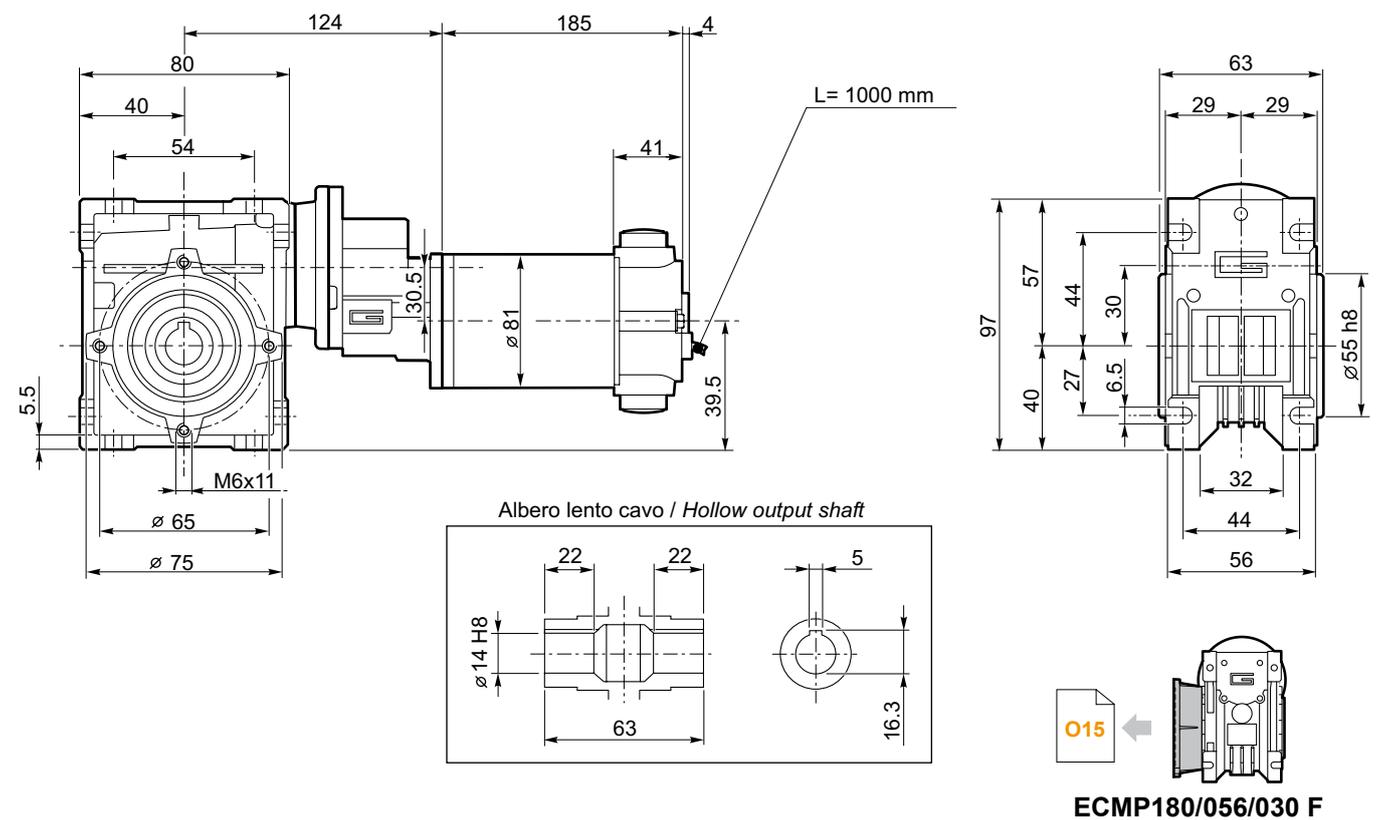
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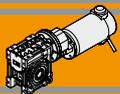
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ECMP100/063/050 U



ECMP180/056/030 U

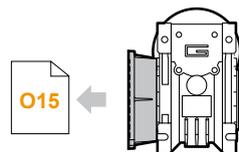
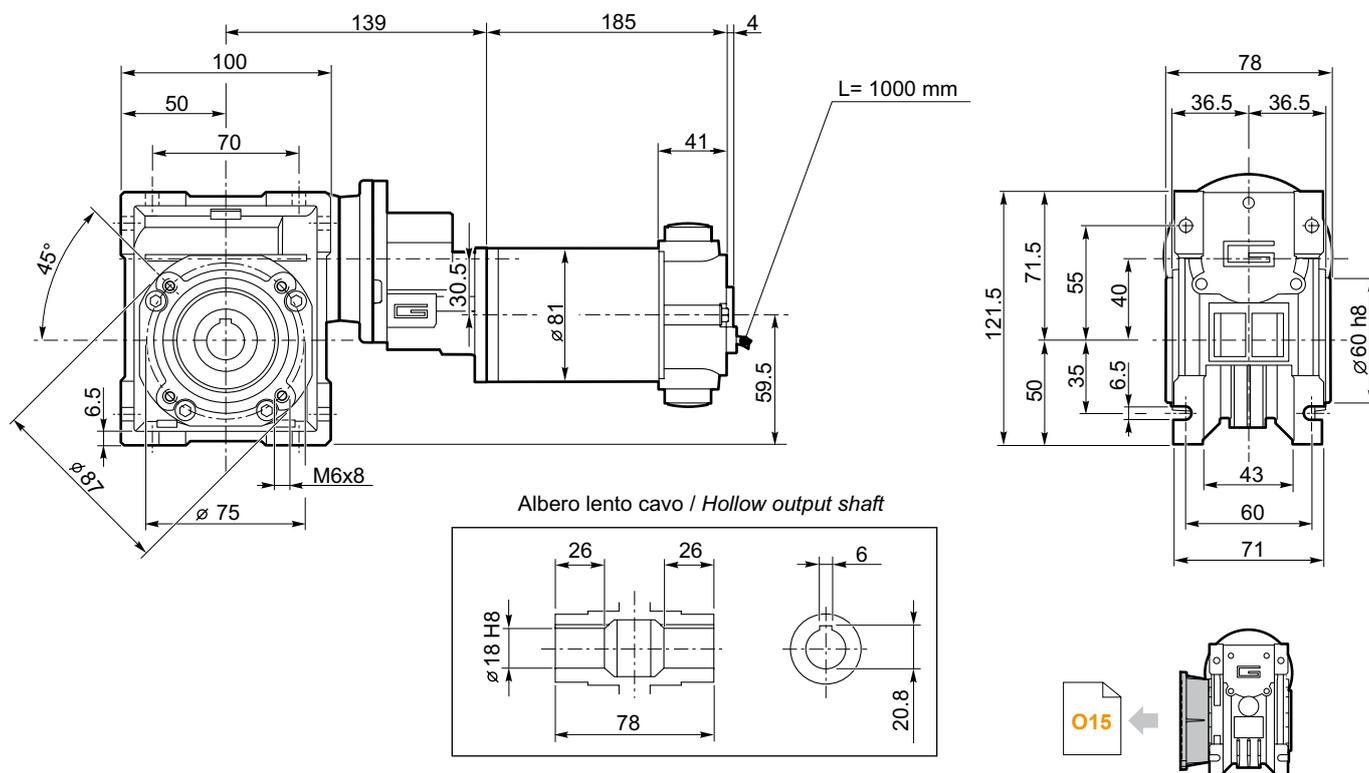




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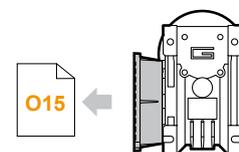
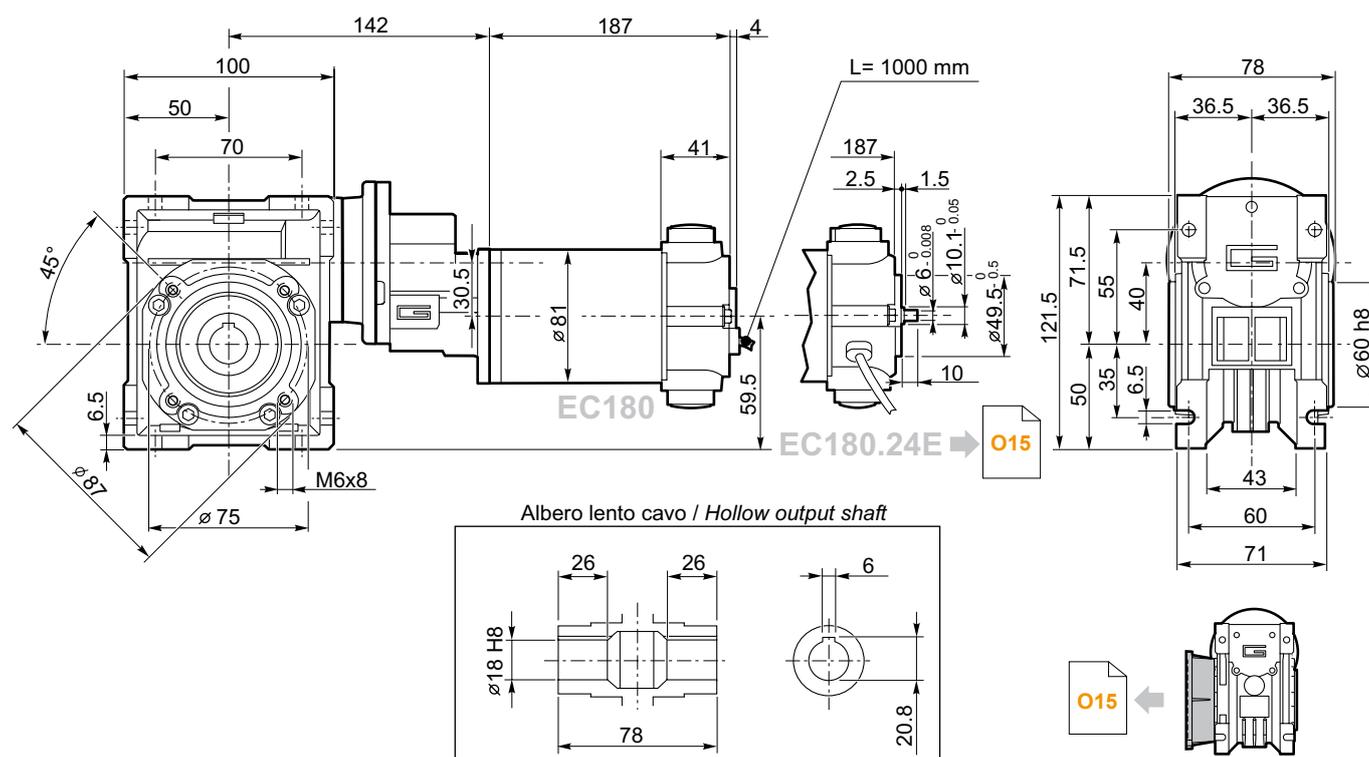
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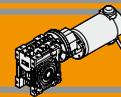


ECMP180/056/040 F
ECMP180/056/040 FL
ECMP180/056/040 FB

ECMP180/063/040 U



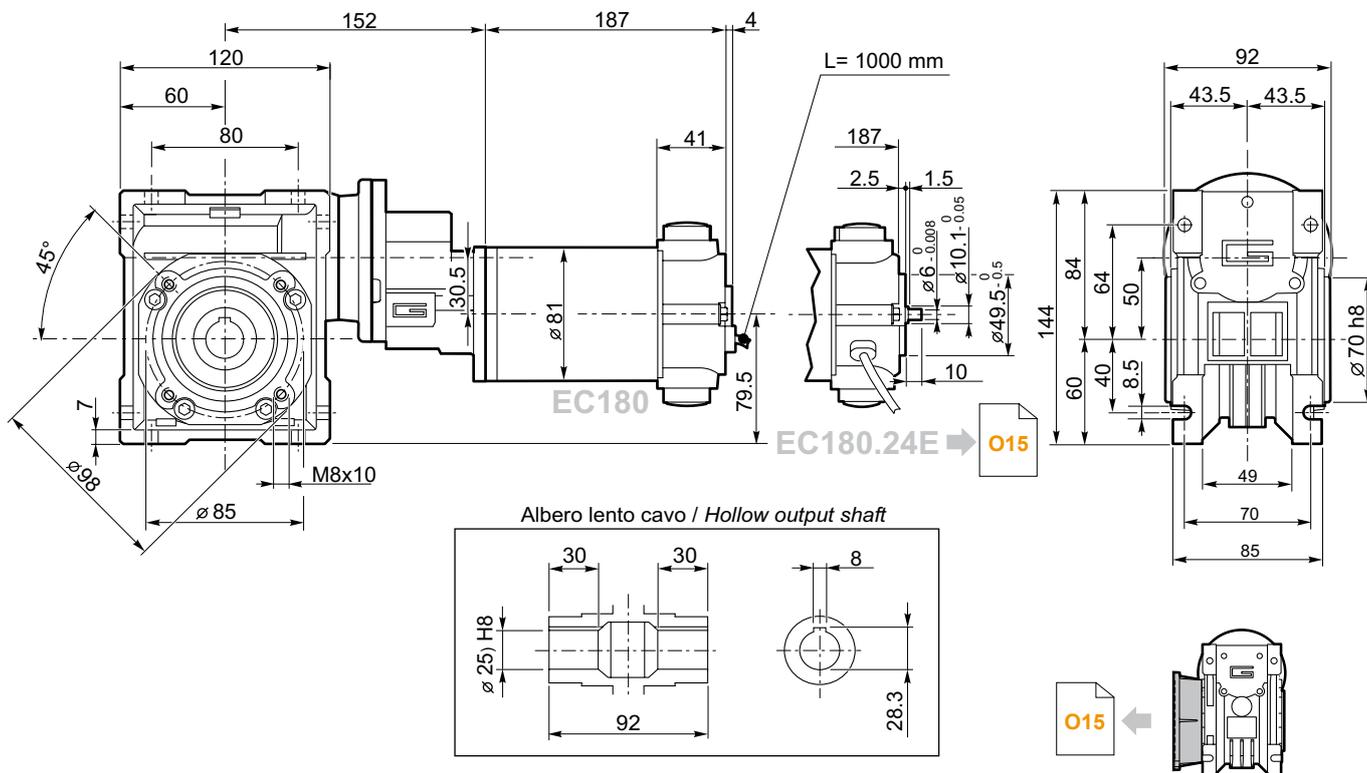
ECMP180/063/040 F
ECMP180/063/040 FL
ECMP180/063/040 FB



Dimensioni

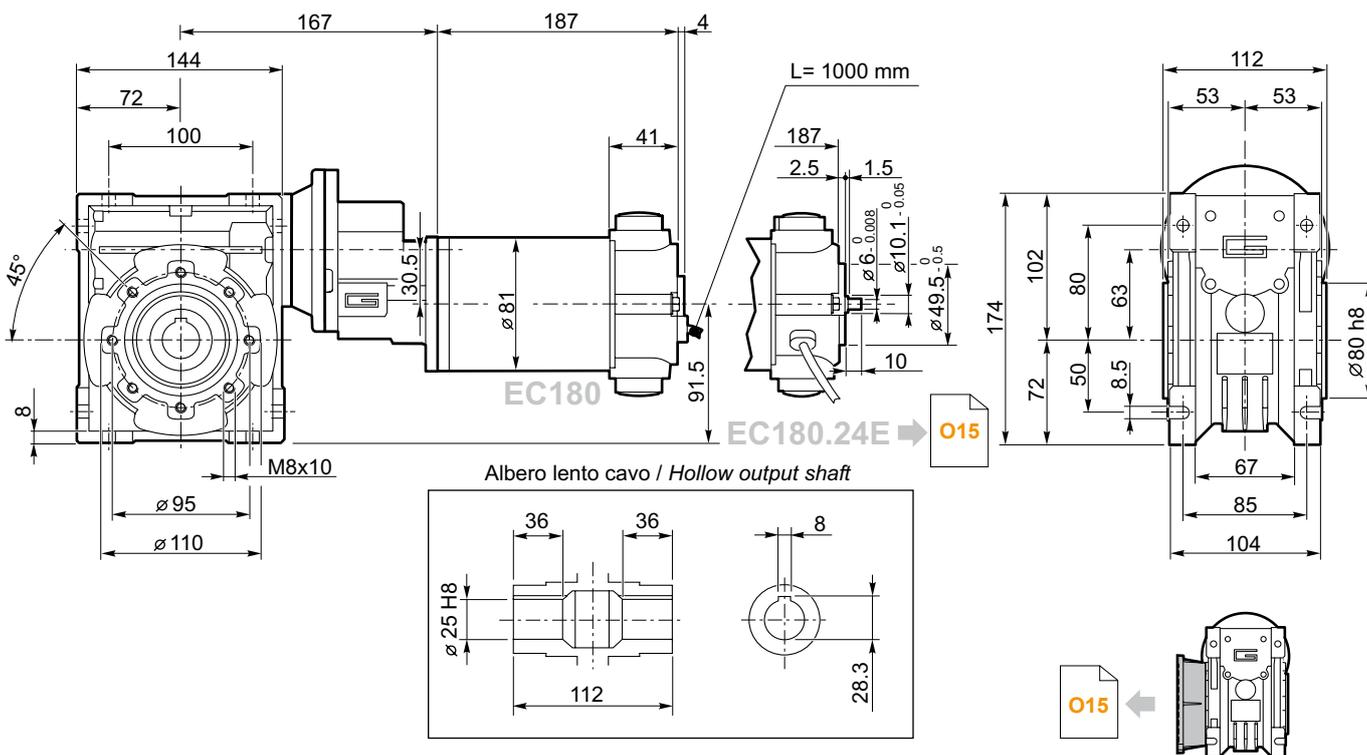
Dimensions

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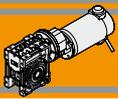
ECMP180/063/050 F
ECMP180/063/050 FL
ECMP180/063/050 FB

ECMP180/063/063 U



ECMP180/063/063 F
ECMP180/063/063 FL
ECMP180/063/063 FB

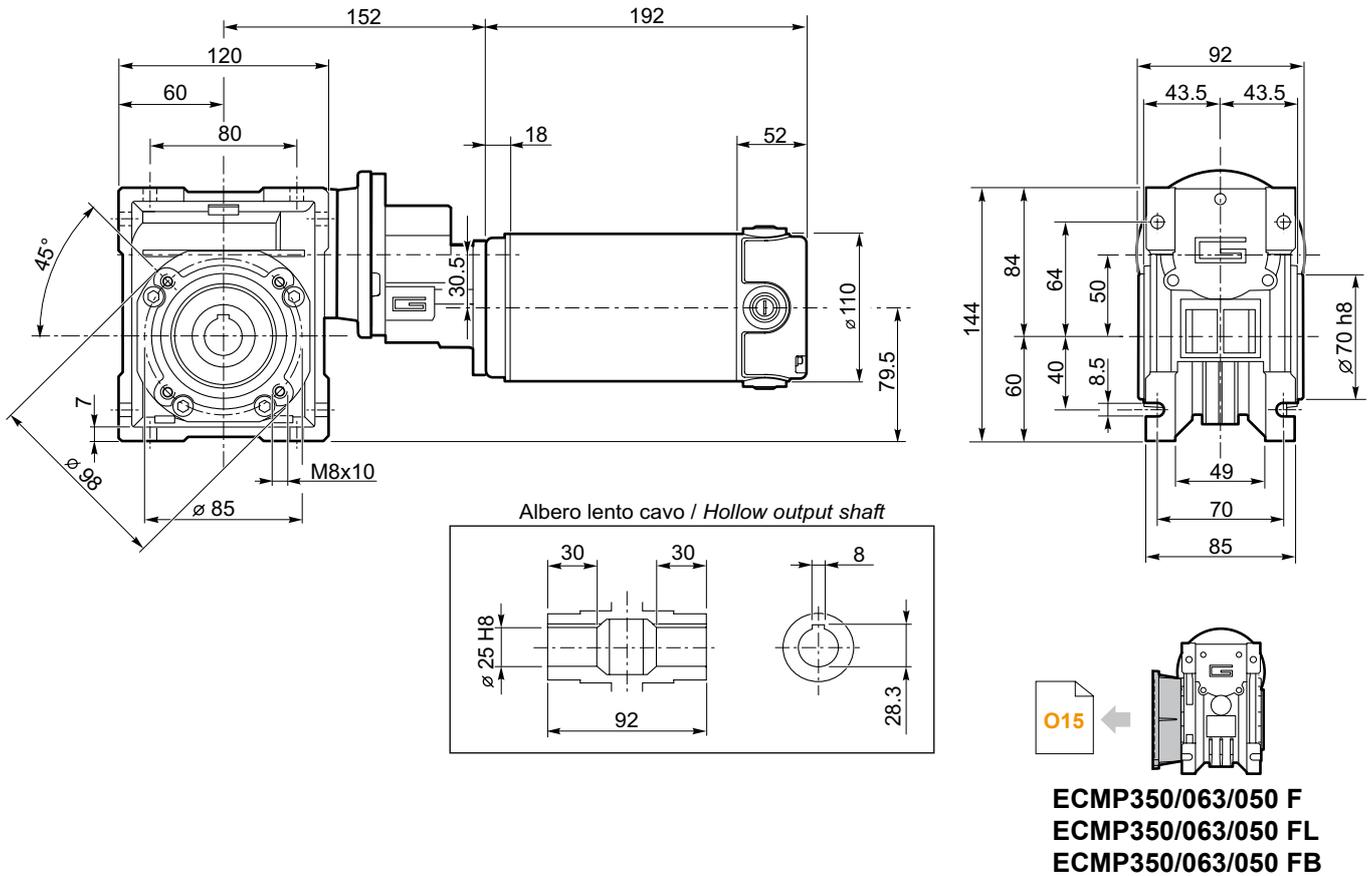
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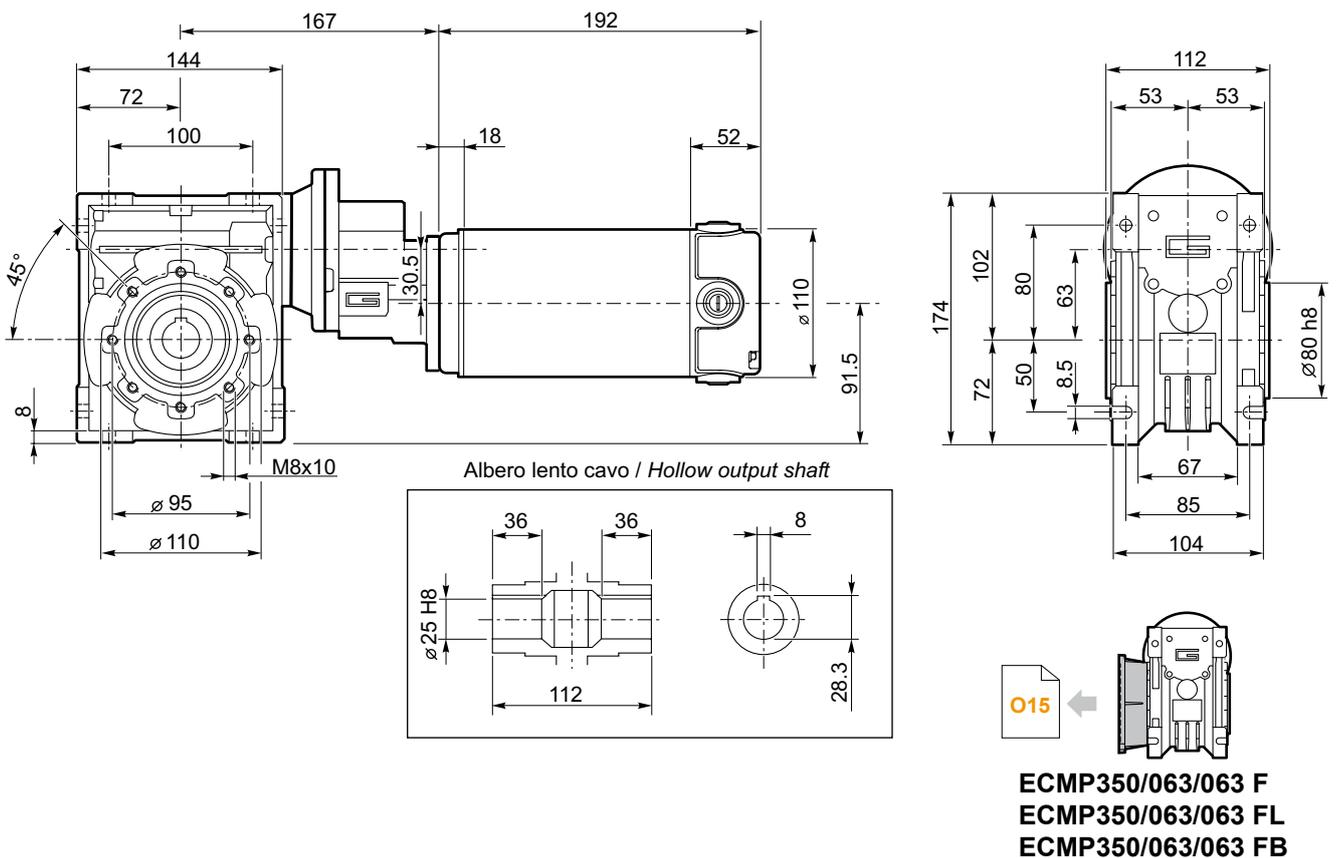
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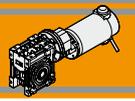
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ECMP350/063/063 U

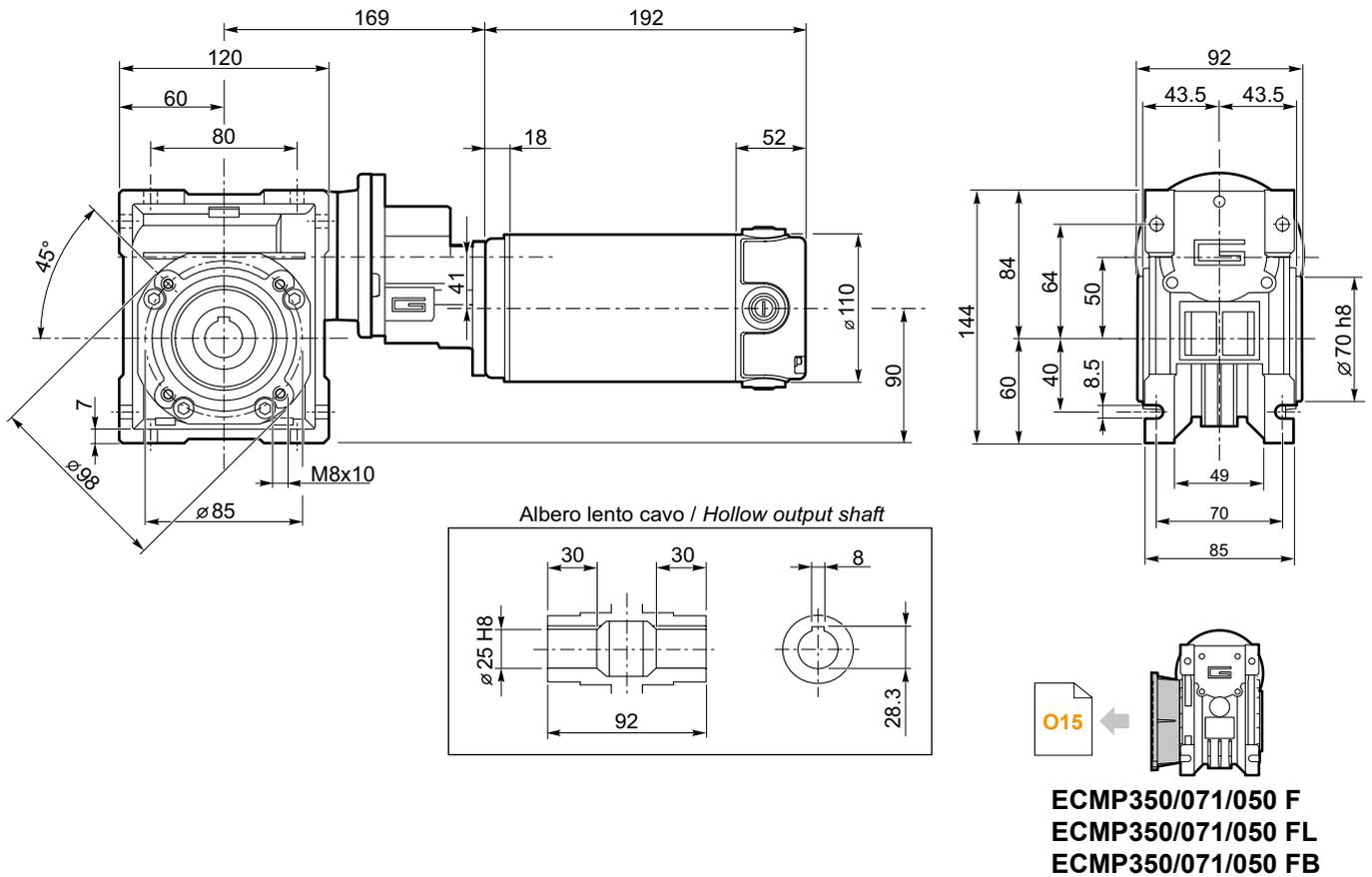




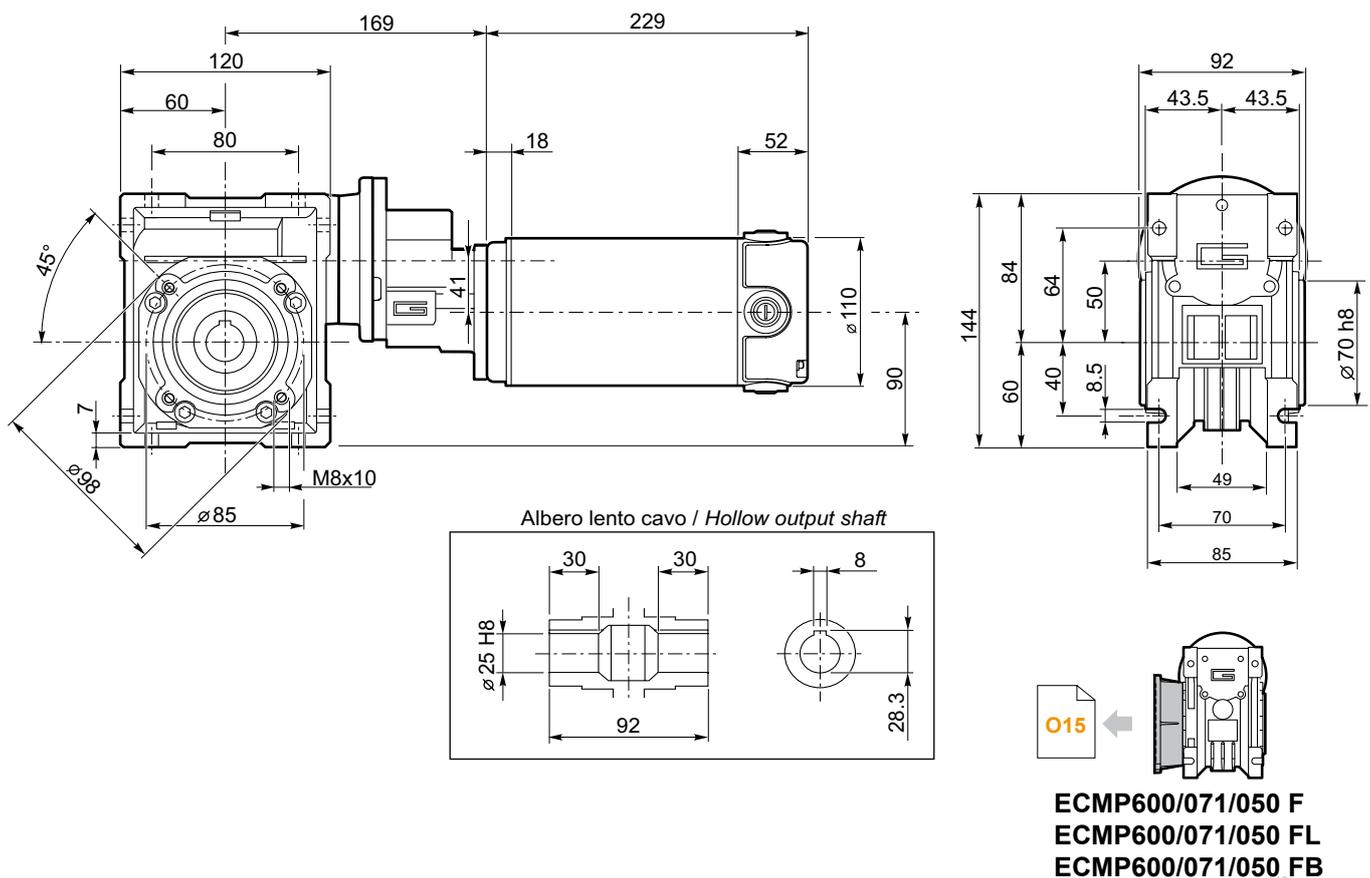
Dimensioni

Dimensions

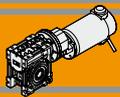
ECMP350/071/050 U



ECMP600/071/050 U



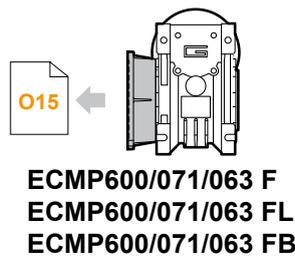
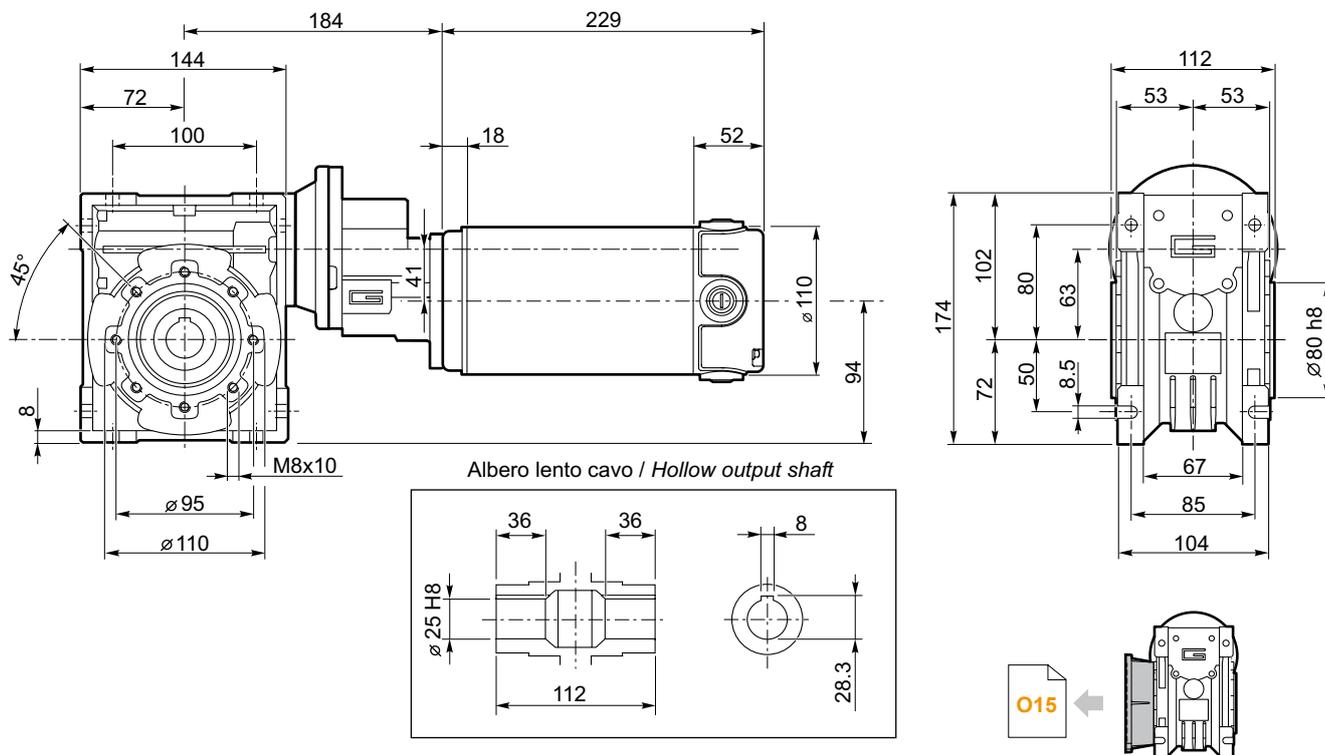
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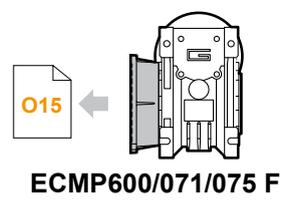
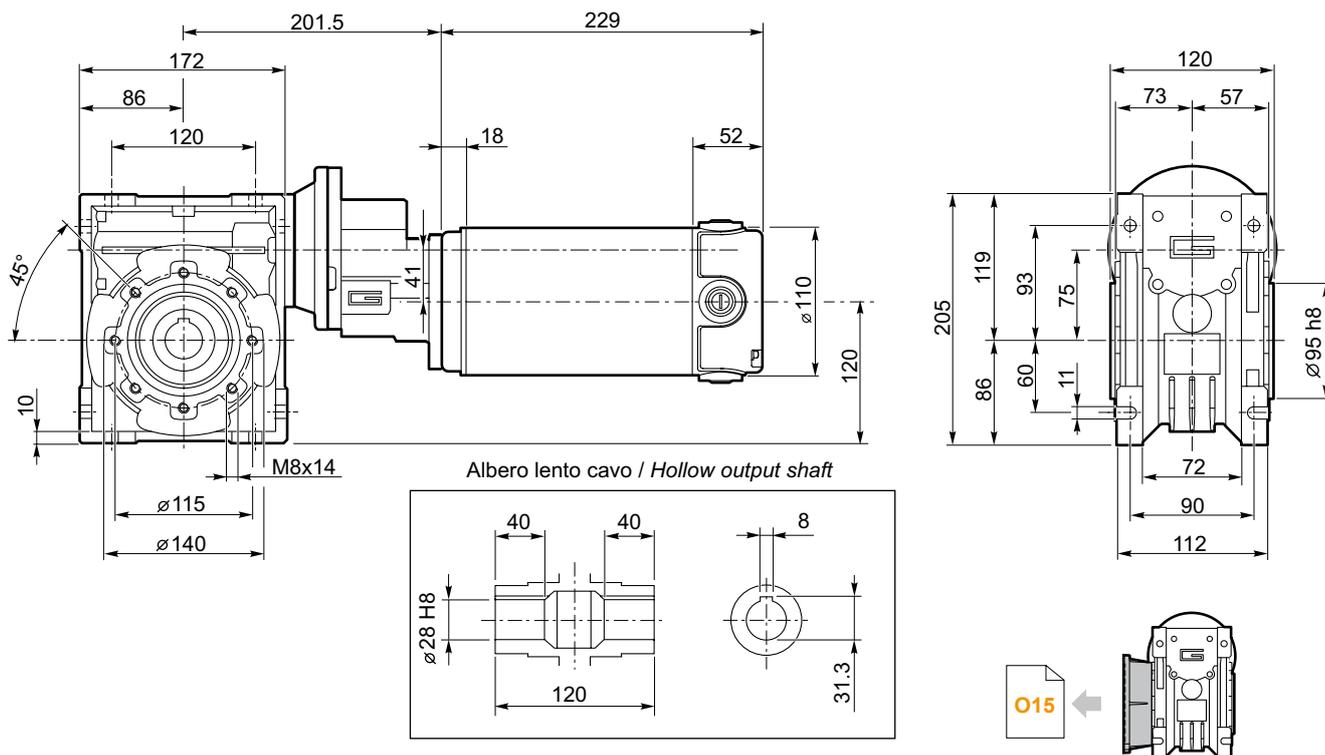
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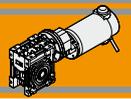
Dimensions

ECMP600/071/063 U



ECMP600/071/075 U

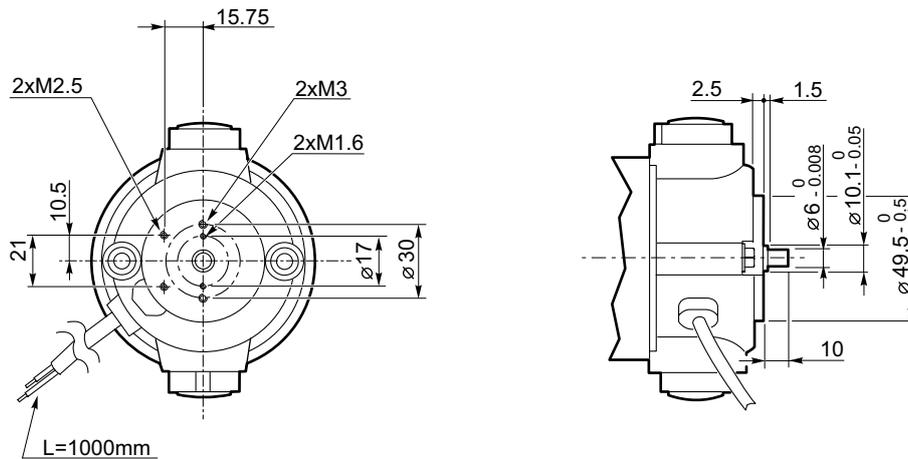




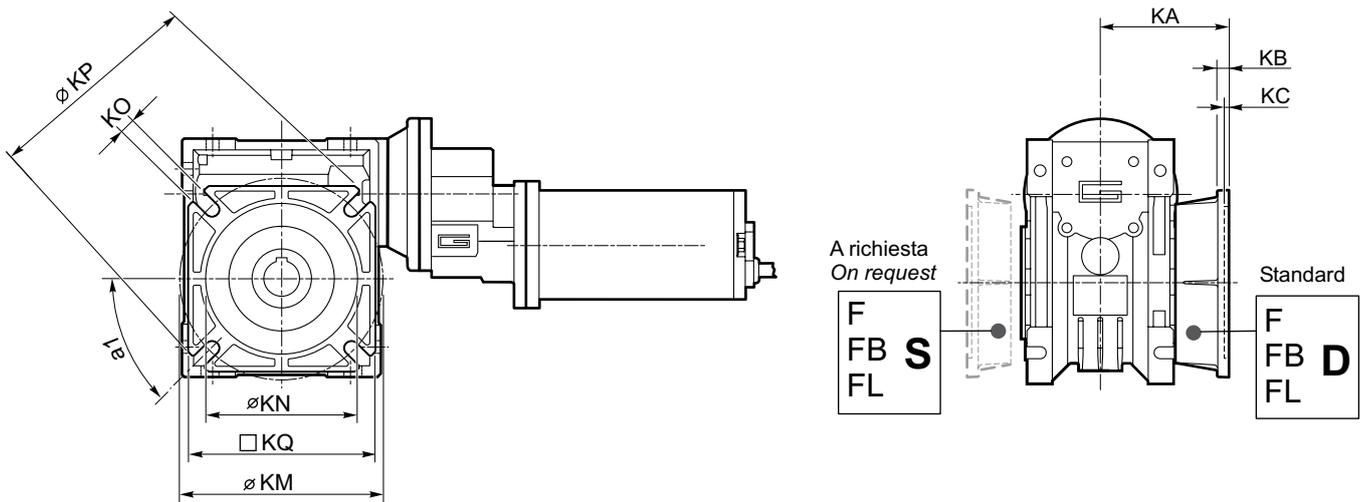
Dimensioni

Dimensions

EC100.24E
EC180.24E

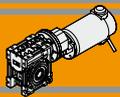


ECMP.../... F... Flange uscita / Output flanges



ECMP

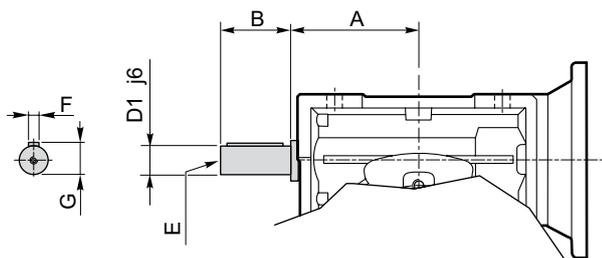
CMP	CMP..F								CMP..FB								CMP..FL								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
056/030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
056/040 063/040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9(n.4)	110	95
063/050 071/050	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
063/063 071/063	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
071/075	45°	111	13	6	165-180	130	14(n.4)	200	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	



Opzioni

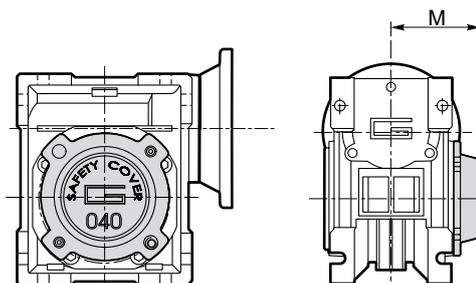
Options

VS - Vite sporgente / Extended input shaft



CMP	A	B	D ₁ j6	E	F	G
056/030	45	20	9	M4	3	10.2
056/040 063/040	53	23	11	M5	4	12.5
063/050	64	30	14	M6	5	16
063/063 071/063 080/063	75	40	19	M6	6	21.5
071/075	90	50	24	M8	8	27

SC - Safety cover



	M
CM 030	47
CM 040	54.5
CM 050	62.5
CM 063	73
CM 075	79

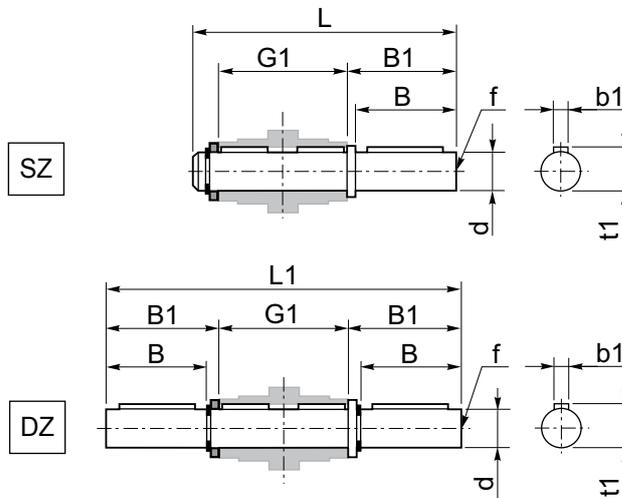
Accessori

Accessories

Albero lento semplice e doppio

CMP	d h7	B	B1	G1	L	L1	f	b1	t1
056/030	14	30	32.5	63	102	128	M6	5	16
056/040 063/040	18	40	43	78	128	164	M6	6	20.5
063/050	25	50	53.5	92	153	199	M10	8	28
063/063 071/063 080/063	25	50	53.5	112	173	219	M10	8	28
071/075	28	60	63.5	120	192	247	M10	8	31

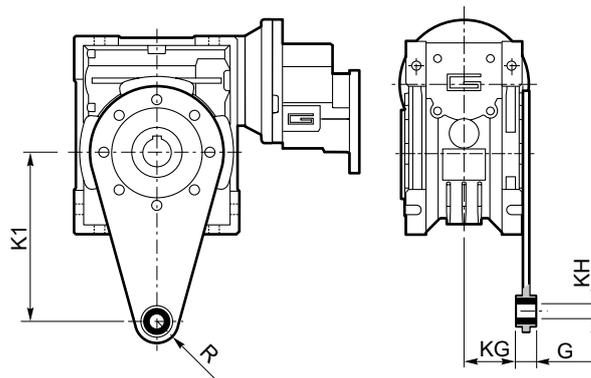
Single and double output shaft



Braccio di reazione

CMP	K1	G	KG	KH	R
056/030	85	14	23	8	15
056/040 063/040	100	14	31	10	18
063/050	100	14	38	10	18
063/063 071/063 080/063	150	14	47.5	10	18
071/075	200	25	46.5	20	30

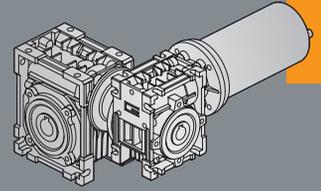
Torque arm



TRANSTECNOTM
THE MODULAR GEARMOTOR

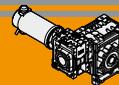
ECMM

ECMM



MOTORIDUTTORI C.C. COMBINATI
PERMANENT MAGNETS D.C. COMBINATION GEARMOTORS

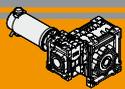




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Simbologia	<i>Symbols</i>	P2
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Caratteristiche tecniche

Technical features

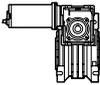
Le caratteristiche principali dei motoriduttori a corrente continua della serie ECMM sono:

The main features of ECMM DC gearmotor range are:

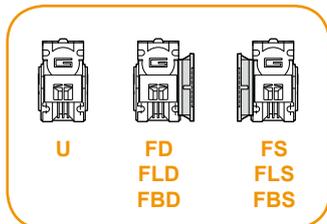
- Alimentazione in bassa tensione 12/24Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 100 a 800W S2
- Magnet in ferrite
- Carcassa in pressofusione di alluminio nelle grandezze 026, 030, 040, 050, 063, 075, 090 e 110. La grandezza 130 è costruita con carcassa in ghisa
- Lubrificazione permanente con olio sintetico
- Low voltage power supply 12/24Vdc
- Suitable for encoder assembly
- Motor power ratings available from 100 up to 800W S2
- Ferrite magnets
- Die cast aluminium housing on sizes 026, 030, 040, 050, 063, 075, 090 and 110. Cast iron housing on size 130
- Permanent synthetic oil long life lubrication

Designazione

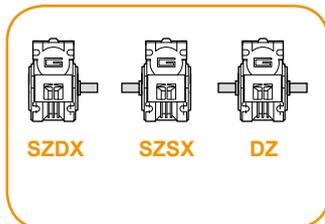
Classification

MOTORIDUTTORE / GEARMOTOR														
ECMM	100/026/026					U	150	SZDX	BR SX	90	B3	UB1	120	VS1
Tipo Type	Grandezza Size					Versione Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montaggio Mounting position	Esecuzione di montaggio Mounting execution	Versione motore Motor version	Opzioni Options
	070/026/026	100/026/026	180/026/040	350/030/040	600/040/075	U	vedi tabelle see tables	SZDX SZSX DZ	BRDX BR SX	0° 90° 180° 270°	B3 B8 B6 B7 V5 V6	UB1 UB2 US1 US2 UV1 UV2 UC1 UC2	120 240 24E	VS1 VS2
	070/026/030	100/026/030	180/026/050	350/030/050	600/040/090	FD								
	070/026/040	100/026/040	180/030/040	350/030/063	600/050/110	FS								
	070/026/050	100/026/050	180/030/050	350/040/075	600/063/130	FLD								
	070/030/040	100/030/040	180/030/063	350/040/090		FLS								
	070/030/050	100/030/050	180/040/075	350/050/110		FBD								
	070/030/063	100/030/063	180/040/090	350/063/130		FBS								
	070/040/075	100/040/075	180/050/110											
	070/040/090	100/040/090												

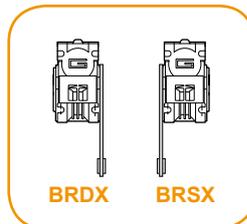
Versione Riduttore
Gearbox Version



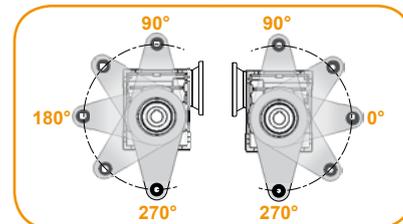
Albero di uscita
Output shaft



Braccio di reazione
Torque arm



Angolo
Angle



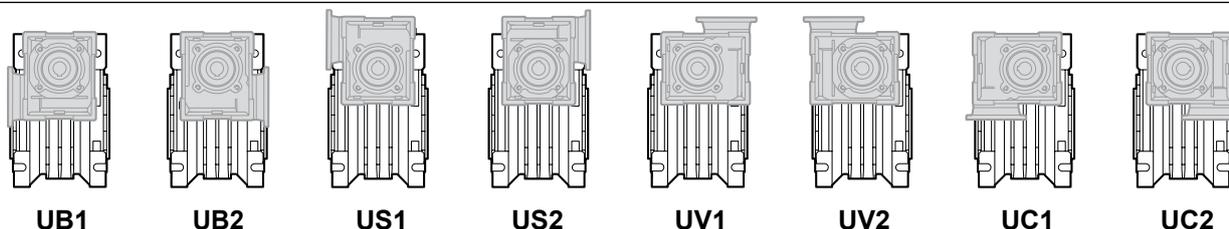
Simbologia

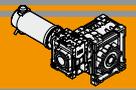
Symbols

n_1 [min ⁻¹]	Velocità in ingresso / Input speed	M_2 [Nm]	Coppia in uscita in funzione di P_1 / Output torque referred to P_1
n_2 [min ⁻¹]	Velocità in uscita / Output speed	sf	Fattore di servizio / Service factor
i	Rapporto di riduzione / Ratio	R_2 [N]	Carico radiale ammissibile in uscita / Permitted output radial load
P_1 [kW]	Potenza in entrata / Input power	A_2 [N]	Carico assiale ammissibile in uscita / Permitted output axial load

Esecuzioni di montaggio

Mounting executions





Combinazioni rapporti

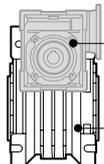
Combination ratio

CMM 026/026 - CMM 026/030 - CMM 026/040 - CMM 026/050												
i (i ₁ x i ₂)												
	150	225	300	450	600	900	1200	1500	1800	2400	3000	3600
i ₁	10	15	10	15	20	30	40	50	60	60	60	60
i ₂	15	15	30	30	30	30	30	30	30	40	50	60

CMM 030/040 - CMM 030/050 - CMM 030/063 - CMM 040/075 - CMM 040/090 - CMM 050/110 - CMM 063/130																
i (i ₁ x i ₂)																
	75	100	150	200	250	300	400	500	600	750	900	1200	1500	1800	2400	3000
i ₁	7.5	10	10	10	10	10	10	10	20	25	30	40	50	60	60	60
i ₂	10	10	15	20	25	30	40	50	30	30	30	30	30	30	40	50

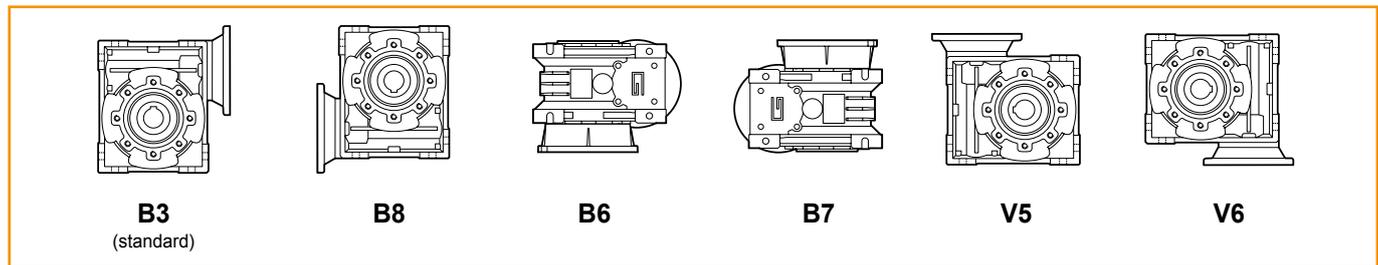
Lubrificazione

Lubrication

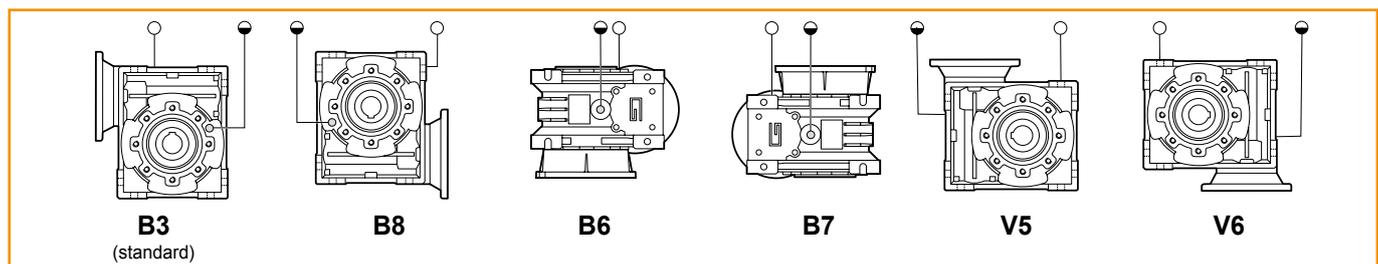
		CMM										
		026/026	026/030	026/040	026/050	030/040	030/050	030/063	040/075	040/090	050/110	063/130
	1	026				030			040		050	063
	Lubrificazione a vita / Life lubricated											
	2	026	030	040	050	040	050	063	075	090	110	130
Lubrificazione a vita / Life lubricated												

Posizioni di montaggio / Mounting positions

CM 026-030-040-050-063-075-090-110



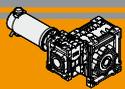
CM 130



○ Sfiato e tappo di riempimento / Breather and filling plug
● Livello olio / Oil level plug

Quantità di olio (litri) / Oil quantity (litres)						
	B3	B8	B6	B7	V5	V6
CM026				0.02		
CM030				0.03		
CM040				0.07		
CM050				0.1		
CM063				0.25		
CM075				0.4		
CM090				0.7		
CM110				1.1		
CM130	4.5	3.3	3.5	3.5	4.5	3.3

Lubrificati a vita
Life Lubrication



Dati tecnici per servizio S2

Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version					
100							100											
(3000 min ⁻¹)	20.0	26	1.0	150	ECMM 070/026/026	120/240	(3000 min ⁻¹)	40.0	15	5.5	75	ECMM 070/030/040	120/240					
	13.3	26	1.0	225					30.0	20	4.2			100				
	10.0	27	1.0	300					20.0	28	3.2			150				
	6.7	27	1.0	450					15.0	36	2.1			200				
	5.0	27	1.0	600					12.0	43	1.6			250				
	3.3	27	1.0	900					10.0	46	2.0			300				
	2.5	27	1.0	1200					7.5	55	1.3			400				
	2.0	27	1.0	1500					6.0	63	1.1			500				
	1.7	27	1.0	1800					5.0	86	1.0			600				
	1.3	22	1.0	2400					4.0	103	0.9			750				
	1.0	20	1.0	3000					3.3	118	0.8			900				
	0.8	18	1.0	3600					2.5	74	1.0			1200				
									2.0	90	1.0			1500				
	20.0	26	1.5	150			ECMM 070/026/030	120/240	1.7	90	1.0			1800				
	13.3	39	1.0	225							1.3			74	1.0	2400		
	10.0	40	1.0	300					1.0	68	1.0	3000						
	6.7	40	1.0	450														
	5.0	40	1.0	600					15.0	36	3.8	200	ECMM 070/030/050	120/240				
	3.3	40	1.0	900					12.0	43	2.9	250						
	2.5	40	1.0	1200					10.0	46	3.5	300						
	2.0	40	1.0	1500					7.5	57	2.4	400						
	1.7	40	1.0	1800					6.0	64	2.0	500						
	1.3	34	1.0	2400					5.0	87	1.9	600						
	1.0	30	1.0	3000					4.0	105	1.5	750						
	0.8	27	1.0	3600					3.3	120	1.4	900						
									2.5	146	0.9	1200						
	20.0	27	3.2	150	ECMM 070/026/040	120/240			2.0	175	0.9	1500						
	13.3	40	2.2	225							1.7	201			0.8	1800		
	10.0	45	2.0	300					1.3	135	1.0	2400						
	6.7	66	1.4	450					1.0	125	1.0	3000						
	5.0	85	1.1	600														
	3.3	90	1.0	900					4.0	109	2.8	750			ECMM 070/030/063	120/240		
	2.5	90	1.0	1200					3.3	124	2.5	900						
	2.0	90	1.0	1500					2.5	149	1.7	1200						
	1.7	90	1.0	1800					2.0	181	1.7	1500						
	1.3	74	1.0	2400					1.7	208	1.5	1800						
	1.0	68	1.0	3000					1.3	249	1.0	2400						
	0.8	62	1.0	3600					1.0	288	0.8	3000						
	20.0	28	5.7	150			ECMM 070/026/050	120/240	2.5	163	2.6	1200	ECMM 070/040/075	120/240				
	13.3	42	3.9	225							2.0	202					2.5	1500
	10.0	46	3.5	300					1.7	232	2.2	1800						
	6.7	67	2.4	450					1.3	280	1.5	2400						
	5.0	86	1.9	600					1.0	325	1.2	3000						
	3.3	118	1.4	900														
	2.5	147	1.1	1200					1.3	300	2.5	2400					ECMM 070/040/090	120/240
	2.0	162	1.0	1500					1.0	350	1.8	3000						
	1.7	162	1.0	1800														
	1.3	135	1.0	2400														
	1.0	125	1.0	3000														
	0.8	113	1.0	3600														

Nota: Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

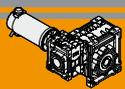
Note: Please check that the output torque M2 does not exceed the value into the grey areas



Dati tecnici per servizio S2

Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version					
140							140											
(3000 min ⁻¹)	20.0	26	1.0	150	ECMM 100/026/026	120/240	(3000 min ⁻¹)	40.0	21	3.9	75	ECMM 100/030/040	120/240					
	13.3	26	1.0	225					30.0	28	3.0			100				
	10.0	27	1.0	300					20.0	38	2.3			150				
	6.7	27	1.0	450					15.0	50	1.5			200				
	5.0	27	1.0	600					12.0	59	1.1			250				
	3.3	27	1.0	900					10.0	63	1.4			300				
	2.5	27	1.0	1200					7.5	77	1.0			400				
	2.0	27	1.0	1500					6.0	87	0.8			500				
	1.7	27	1.0	1800					5.0	119	0.8			600				
	1.3	22	1.0	2400					4.0	90	1.0			750				
	1.0	20	1.0	3000					3.3	90	1.0			900				
	0.8	18	1.0	3600					2.5	74	1.0			1200				
	20.0	37	1.1	150			ECMM 100/026/030	120/240		2.0	90			1.0	1500			
	13.3	39	1.0	225							1.7			90	1.0	1800		
	10.0	40	1.0	300							1.3			74	1.0	2400		
	6.7	40	1.0	450					1.0	68	1.0	3000						
	5.0	40	1.0	600					15.0	50	2.7	200	ECMM 100/030/050	120/240				
	3.3	40	1.0	900					12.0	59	2.1	250						
	2.5	40	1.0	1200					10.0	64	2.5	300						
	2.0	40	1.0	1500					7.5	78	1.7	400						
	1.7	40	1.0	1800					6.0	89	1.4	500						
	1.3	34	1.0	2400					5.0	121	1.3	600						
	1.0	30	1.0	3000					4.0	146	1.1	750						
	0.8	27	1.0	3600					3.3	166	1.0	900						
	20.0	38	2.3	150	ECMM 100/026/040	120/240				2.5	202	0.7			1200			
	13.3	55	1.6	225							2.0	243			0.7	1500		
	10.0	63	1.4	300							1.7	162			1.0	1800		
	6.7	92	1.0	450					1.3	135	1.0	2400						
	5.0	90	1.0	600					1.0	125	1.0	3000						
	3.3	90	1.0	900					6.0	92	2.5	500			ECMM 100/030/063	120/240		
	2.5	90	1.0	1200					5.0	125	2.5	600						
	2.0	90	1.0	1500					4.0	151	2.1	750						
	1.7	90	1.0	1800					3.3	172	1.8	900						
	1.3	74	1.0	2400					2.5	206	1.3	1200						
	1.0	68	1.0	3000					2.0	252	1.2	1500						
	0.8	62	1.0	3600					1.7	288	1.1	1800						
	20.0	39	4.1	150			ECMM 100/026/050	120/240		1.3	346	0.8	2400					
	13.3	58	2.8	225							1.0	232	1.0	3000				
	10.0	64	2.5	300							3.3	188	2.7	900			ECMM 100/040/075	120/240
	6.7	93	1.7	450					2.5	226	1.9	1200						
	5.0	120	1.4	600					2.0	280	1.8	1500						
	3.3	164	1.0	900					1.7	322	1.6	1800						
	2.5	162	1.0	1200					1.3	388	1.1	2400						
	2.0	162	1.0	1500					1.0	451	0.8	3000						
	1.7	162	1.0	1800					1.7	337	2.6	1800	ECMM 100/040/090	120/240				
	1.3	135	1.0	2400					1.3	415	1.8	2400						
	1.0	125	1.0	3000					1.0	485	1.3	3000						



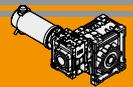
Dati tecnici per servizio S2

Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version				
250							250										
(3000 min ⁻¹)	20.0	70	1.2	150	ECMM 180/026/040	120/240	(3000 min ⁻¹)	12.0	115	3.3	250	ECMM 180/040/075	120/240/24E				
	13.3	103	0.8	225					10.0	132	3.9			300			
	10.0	116	0.8	300					7.5	159	2.7			400			
	20.0	73	2.2	150	ECMM 180/026/050			6.0	184	2.0	500						
	13.3	108	1.5	225					5.0	251	2.0			600			
	10.0	118	1.4	300					4.0	302	1.7			750			
	6.7	173	0.9	450					3.3	349	1.5			900			
	5.0	223	0.7	600					2.5	421	1.0			1200			
	40.0	40	2.1	75			ECMM 180/030/040	120/240/24E		2.0	522			1.0	1500		
	30.0	52	1.6	100							1.7			599	0.9		
	20.0	71	1.2	150					1.3	432	1.0	2400					
	15.0	92	0.8	200					1.0	378	1.0	3000					
	12.0	67	1.0	250					5.0	263	3.3	600	ECMM 180/040/090	120/240/24E			
	10.0	90	1.0	300					4.0	317	2.8	750					
	7.5	74	1.0	400					3.3	366	2.4	900					
	6.0	68	1.0	500					2.5	451	1.7	1200					
	5.0	90	1.0	600					2.0	546	1.6	1500					
	4.0	90	1.0	750					1.7	627	1.4	1800					
	3.3	90	1.0	900			1.3	773	1.0	2400							
	40.0	40	3.9	75	ECMM 180/030/050	120/240/24E		1.0	903	0.7	3000	ECMM 180/050/110			24E 120/240/24E 120/240/24E 120/240/24E 120/240/24E 120/240/24E		
	30.0	52	3.0	100					3.3	376	3.9					900	
	20.0	74	2.2	150					2.5	487	2.7					1200	
	15.0	94	1.5	200					2.0	571	2.6		1500				
	12.0	110	1.1	250					1.7	656	2.3		1800				
	10.0	120	1.4	300					1.3	849	1.6		2400				
	7.5	146	0.9	400					1.0	996	1.2		3000				
	6.0	165	0.8	500					40.0	78	1.1		75	ECMM 350/030/040		120/240	
	5.0	226	0.7	600					30.0	101	0.8		100				
	4.0	162	1.0	750					20.0	87	1.0		150				
	3.3	162	1.0	900			15.0	74	1.0	200							
	2.5	135	1.0	1200			12.0	67	1.0	250							
	2.0	162	1.0	1500			10.0	90	1.0	300							
	1.7	162	1.0	1800			7.5	74	1.0	400							
	15.0	92	2.8	200	ECMM 180/030/063	120/240/24E		40.0	79	2.0	75	ECMM 350/030/050	120/240				
	12.0	108	2.1	250					30.0	103	1.5				100		
	10.0	124	2.5	300					20.0	146	1.1				150		
	7.5	149	1.7	400					15.0	184	0.7			200			
	6.0	172	1.3	500					12.0	216	0.6			250			
	5.0	233	1.3	600					10.0	235	0.7			300			
	4.0	281	1.1	750					7.5	135	1.0			400			
	3.3	320	1.0	900					6.0	125	1.0			500			
	2.5	384	0.7	1200					5.0	162	1.0			600			
	2.0	468	0.7	1500					4.0	162	1.0			750			
	1.7	310	1.0	1800			3.3	162	1.0	900							
	1.3	260	1.0	2400													
	1.0	232	1.0	3000													

Nota: Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

Note: Please check that the output torque M2 does not exceed the value into the grey areas

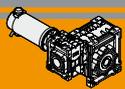


Dati tecnici per servizio S2

Technical data for S2 duty

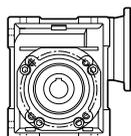
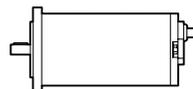
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version					
500							800											
(3000 min ⁻¹)	40.0	80	3.6	75	ECMM 350/030/063	120/240	(3000 min ⁻¹)	40.0	132	3.5	75	ECMM 600/040/075	120/240					
	30.0	104	2.8	100					30.0	172	2.7			100				
	20.0	144	2.1	150					20.0	242	2.0			150				
	15.0	181	1.4	200					15.0	305	1.4			200				
	12.0	213	1.1	250					12.0	365	1.1			250				
	10.0	243	1.3	300					10.0	418	1.2			300				
	7.5	292	0.9	400					7.5	504	0.9			400				
	6.0	338	0.7	500					6.0	378	1.0			500				
	5.0	458	0.7	600					5.0	511	1.0			600				
	4.0	310	1.0	750					4.0	511	1.0			750				
	3.3	310	1.0	900					3.3	511	1.0			900				
	2.5	260	1.0	1200					2.5	432	1.0			1200				
	2.0	310	1.0	1500														
	20.0	150	3.3	150			ECMM 350/040/075	120/240	20.0	249	3.3			150	ECMM 600/040/090	120/240		
	15.0	188	2.3	200					15.0	318	2.4	200						
	12.0	225	1.7	250					12.0	381	1.7	250						
	10.0	258	2.0	300					10.0	438	2.0	300						
	7.5	311	1.4	400					7.5	539	1.4	400						
	6.0	362	1.0	500					6.0	630	1.0	500						
	5.0	493	1.0	600					5.0	835	1.1	600						
	4.0	593	0.9	750					4.0	1006	0.9	750						
	3.3	685	0.7	900					3.3	1162	0.8	900						
	2.5	432	1.0	1200					2.5	755	1.0	1200						
	2.0	511	1.0	1500					12.0	402	3.0	250	ECMM 600/050/110	120/240				
	1.7	511	1.0	1800					10.0	449	3.3	300						
	1.3	432	1.0	2400					7.5	581	2.3	400						
	12.0	236	2.8	250	ECMM 350/040/090	120/240			6.0	682	1.7	500						
	10.0	270	3.2	300					5.0	858	1.7	600						
	7.5	333	2.3	400					4.0	1047	1.4	750						
	6.0	389	1.6	500					3.3	1195	1.2	900						
	5.0	516	1.7	600					2.5	1545	0.9	1200						
	4.0	622	1.4	750					2.0	1812	0.8	1500						
	3.3	718	1.2	900					1.7	2083	0.7	1800						
	2.5	885	0.9	1200					1.3	1320	1.0	2400						
	2.0	1072	0.8	1500					1.0	1157	1.0	3000						
	1.7	1231	0.7	1800					7.5	563	2.8	400			ECMM 600/063/130	120/240		
	1.3	755	1.0	2400					6.0	682	2.2	500						
	1.0	635	1.0	3000					5.0	845	2.0	600						
	6.0	421	2.7	500			ECMM 350/050/110	120/240	4.0	1044	1.6	750						
	5.0	530	2.8	600							3.3	1192	1.4	900				
	4.0	647	2.3	750					2.5	1517	1.1	1200						
	3.3	738	2.0	900					2.0	1836	0.9	1500						
	2.5	955	1.4	1200					1.7	2112	0.8	1800						
	2.0	1120	1.3	1500					1.3	1600	1.0	2400						
	1.7	1288	1.1	1800					1.0	1500	1.0	3000						
	1.3	1665	0.8	2400														
	1.0	1157	1.0	3000														
	4.0	645	2.6	750	ECMM 350/063/130	120/240												
	3.3	737	2.3	900														
	2.5	938	1.7	1200														
	2.0	1135	1.5	1500														
	1.7	1306	1.3	1800														
	1.3	1662	1.0	2400														
	1.0	2011	0.7	3000														

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



Motori applicabili

IEC Motor adapters



		EC						
		070.120 070.240	100.120 100.240	100.24E	180.120 180.240	180.24E	350.120 350.240	600.120 600.240
CMM	026/026	150 - 3600	150 - 3600	150 - 3600	150 - 3600			
	026/030	150 - 3600	150 - 3600	150 - 3600	150 - 3600			
	026/040	150 - 3600	150 - 3600	150 - 3600	150 - 3600			
	026/050	150 - 3600	150 - 3600	150 - 3600	150 - 3600			
	030/040	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 1500	75 - 1500	
	030/050	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 1500	75 - 1500	
	030/063	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 1500	75 - 1500	
	040/075	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 1200
	040/090	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 1200
	050/110				1200 - 3000	75 - 3000	75 - 3000	75 - 3000
063/130						75 - 3000	75 - 3000	

150 - 3600

Rapporti di riduzione i
Ratio i

Dimensioni

Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{h8}	N1	N2
026/026	45	70	12	83	22	47.5	50	35	34	26	26	34	42	55	45	22.5	21
026/030	54	80	14	97	32	47.5	63	40	34	30	26	44	56	65	55	29	21
026/040	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21
026/050	80	120	25	144	49	47.5	92	60	34	50	26	70	85	85	70	43.5	21
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29
030/050	80	120	25	144	49	55	92	60	40	50	30	70	85	85	70	43.5	29
030/063	100	144	25	174	67	55	112	72	40	63	30	85	104	95	80	53	29
040/075	120	172	28	205	72	70	120	86	50	75	40	90	112	115	95	57	36.5
040/090	140	208	35	238	74	70	140	103	50	90	40	100	130	130	110	67	36.5

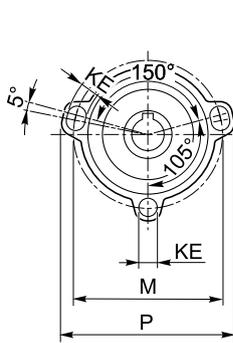
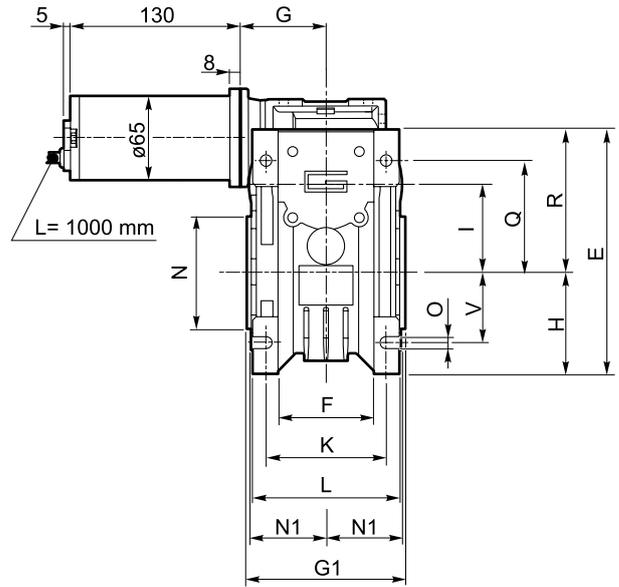
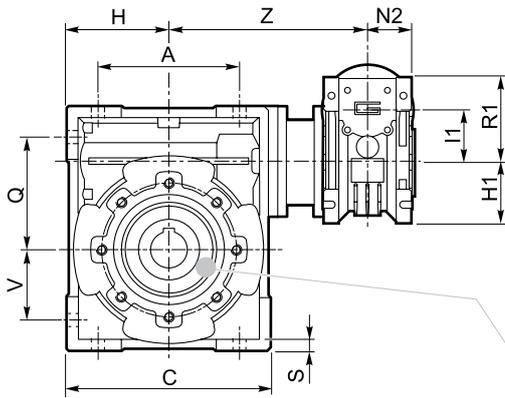
CMM..U - CMM..F - CMM..FB - CMM..FL															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg	
026/026	6	—	37	49	49	5	15	21	76	7	—	4	13.8	3.3	
026/030	6.5	75	44	57	49	5.5	22	27	81	M6x11(n.4)	90°	5	16.3	4.1	
026/040	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	5.2	
026/050	8.5	98	64	84	49	7	30	40	100.5	M8x10(n.4)	45°	8	28.3	6.7	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	5.6	
030/050	8.5	98	64	84	57	7	30	40	132	M8x10(n.4)	45°	8	28.3	6.7	
030/063	8.5	110	80	102	57	8	36	50	145	M8x10(n.8)	45°	8	28.3	8.7	
040/075	11	140	93	119	71.5	10	40	60	165	M8x14(n.8)	45°	8	31.3	13.7	
040/090	13	160	102	135	71.5	11	45	70	182	M10x18(n.8)	45°	10	38.3	17.3	



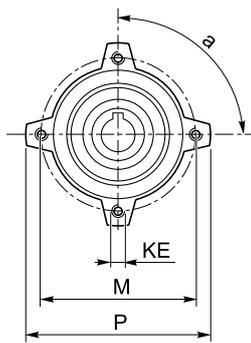
Dimensioni

Dimensions

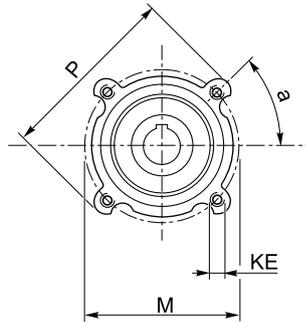
ECMM070/...U



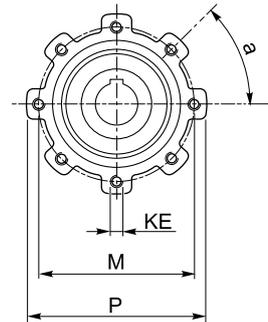
..026/026



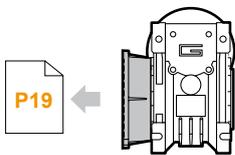
..026/030



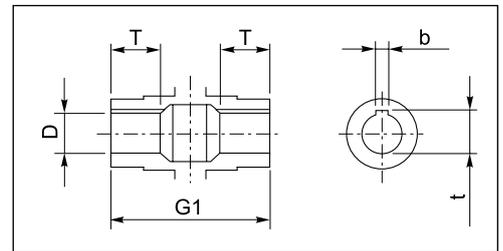
..026/040 ..026/050
..030/040 ..030/050



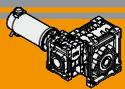
..030/063 ..040/075
..040/090



ECMM070/... F
ECMM070/... FL
ECMM070/... FB



Albero lento cavo / Hollow output shaft



Dimensioni

Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
026/026	45	70	12	83	22	47.5	50	35	34	26	26	34	42	55	45	22.5	21
026/030	54	80	14	97	32	47.5	63	40	34	30	26	44	56	65	55	29	21
026/040	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21
026/050	80	120	25	144	49	47.5	92	60	34	50	26	70	85	85	70	43.5	21
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29
030/050	80	120	25	144	49	55	92	60	40	50	30	70	85	85	70	43.5	29
030/063	100	144	25	174	67	55	112	72	40	63	30	85	104	95	80	53	29
040/075	120	172	28	205	72	70	120	86	50	75	40	90	112	115	95	57	36.5
040/090	140	208	35	238	74	70	140	103	50	90	40	100	130	130	110	67	36.5

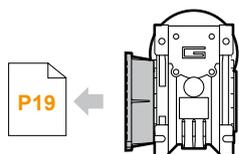
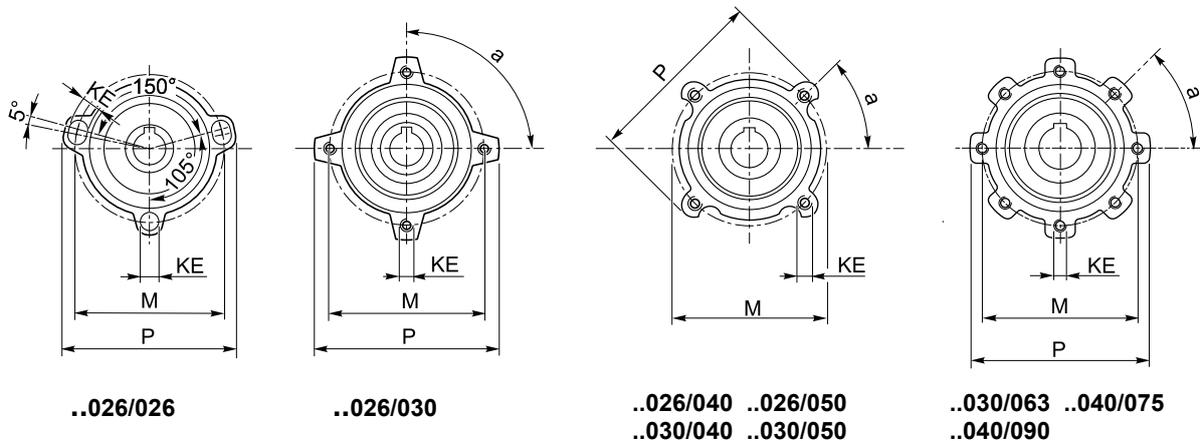
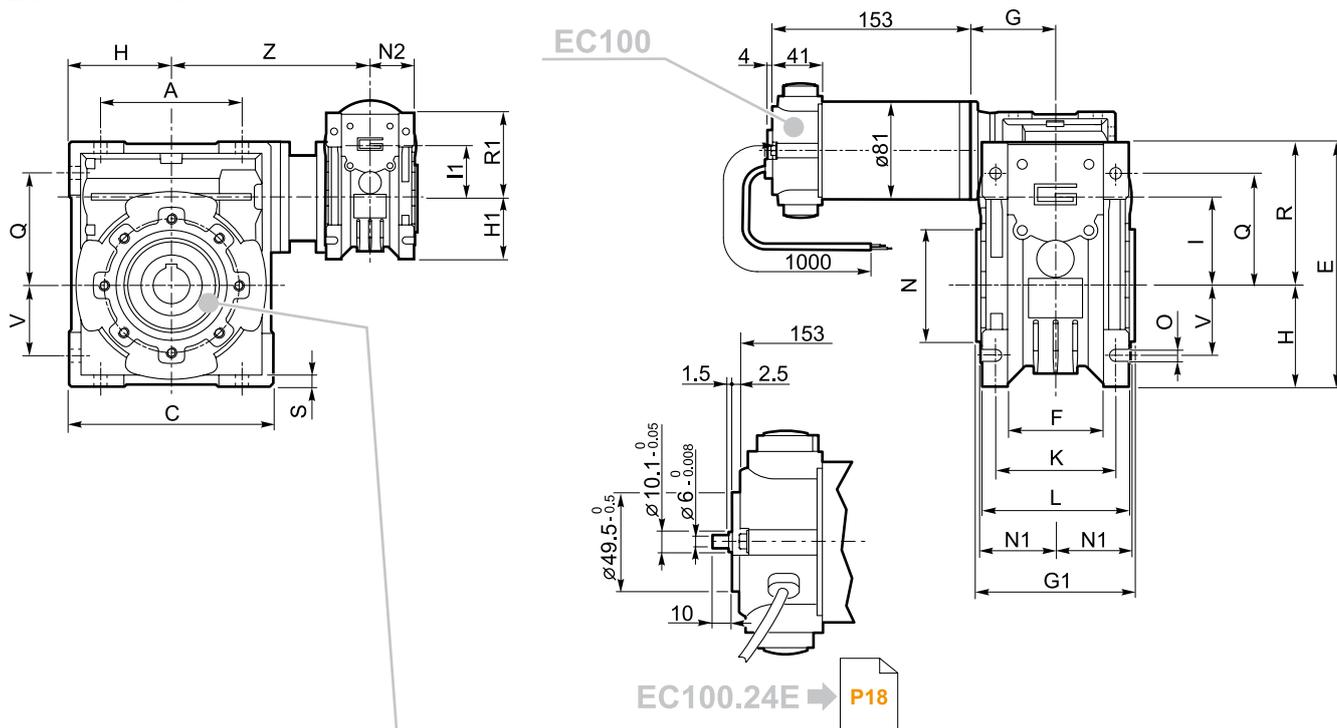
CMM..U - CMM..F - CMM..FB - CMM..FL															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg	
026/026	6	—	37	49	49	5	15	21	76	7	—	4	13.8	4.3	
026/030	6.5	75	44	57	49	5.5	22	27	81	M6x11(n.4)	90°	5	16.3	5.1	
026/040	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	6.2	
026/050	8.5	98	64	84	49	7	30	40	100.5	M8x10(n.4)	45°	8	28.3	7.7	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	6.6	
030/050	8.5	98	64	84	57	7	30	40	132	M8x10(n.4)	45°	8	28.3	7.7	
030/063	8.5	110	80	102	57	8	36	50	145	M8x10(n.8)	45°	8	28.3	9.7	
040/075	11	140	93	119	71.5	10	40	60	165	M8x14(n.8)	45°	8	31.3	14.7	
040/090	13	160	102	135	71.5	11	45	70	182	M10x18(n.8)	45°	10	38.3	18.3	



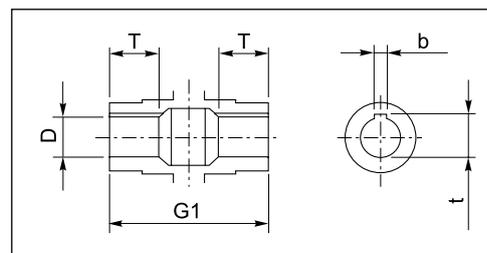
Dimensioni

Dimensions

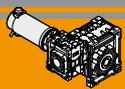
ECMM100/...U



ECMM100/... F
ECMM100/... FL
ECMM100/... FB



Albero lento cavo / Hollow output shaft

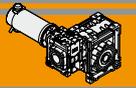


Dimensioni

Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
026/040	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21
026/050	80	120	25	144	49	47.5	92	60	34	50	26	70	85	85	70	43.5	21
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29
030/050	80	120	25	144	49	55	92	60	40	50	30	70	85	85	70	43.5	29
030/063	100	144	25	174	67	55	112	72	40	63	30	85	104	95	80	53	29
040/075	120	172	28	205	72	70	120	86	50	75	40	90	112	115	95	57	36.5
040/090	140	208	35	238	74	70	140	103	50	90	40	100	130	130	110	67	36.5
050/110	170	252.5	42	295	—	80	155	127.5	60	110	50	115	144	165	130	74	43.5

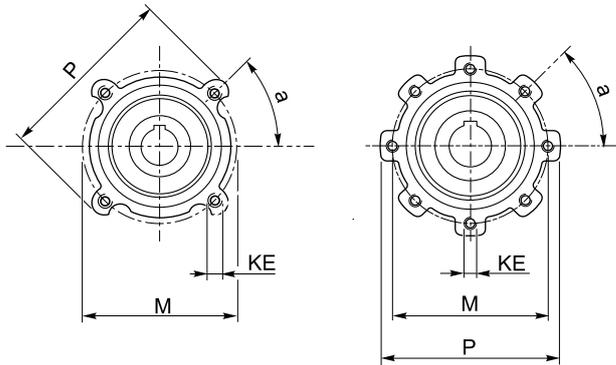
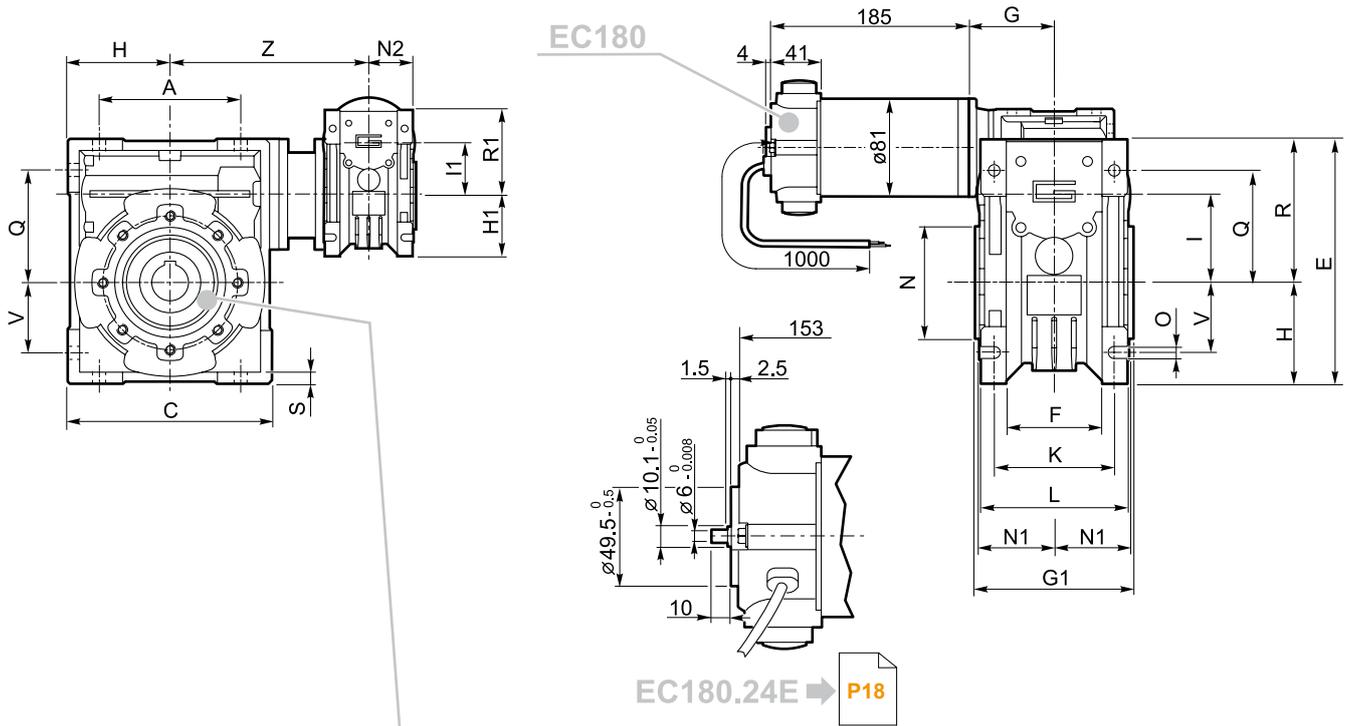
CMM..U - CMM..F - CMM..FB - CMM..FL															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg	
026/040	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	6.9	
026/050	8.5	98	64	84	49	7	30	40	100.5	M8x10(n.4)	45°	8	28.3	8.4	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	7.3	
030/050	8.5	98	64	84	57	7	30	40	132	M8x10(n.4)	45°	8	28.3	8.4	
030/063	8.5	110	80	102	57	8	36	50	145	M8x10(n.8)	45°	8	28.3	10.4	
040/075	11	140	93	119	71.5	10	40	60	165	M8x14(n.8)	45°	8	31.3	15.4	
040/090	13	160	102	135	71.5	11	45	70	182	M10x18(n.8)	45°	10	38.3	19	
050/110	14	200	125	167.5	84	14	50	85	225	M10x18(n.8)	45°	12	45.3	33.6	



Dimensioni

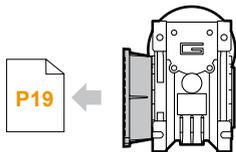
Dimensions

ECMM180/...U

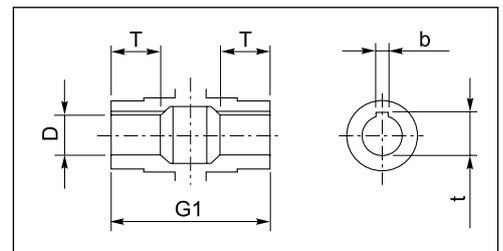


..026/040 ..026/050
..030/040 ..030/050

..030/063 ..040/075
..040/090 ..050/110

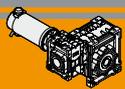


ECMM180/... F
ECMM180/... FL
ECMM180/... FB



Albero lento cavo / Hollow output shaft

ECMM



Dimensioni

Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29
030/050	80	120	25	144	49	55	92	60	40	50	30	70	85	85	70	43.5	29
030/063	100	144	25	174	67	55	112	72	40	63	30	85	104	95	80	53	29
040/075	120	172	28	205	72	70	120	86	50	75	40	90	112	115	95	57	36.5
040/090	140	208	35	238	74	70	140	103	50	90	40	100	130	130	110	67	36.5
050/110	170	252.5	42	295	—	80	155	127.5	60	110	50	115	144	165	130	74	43.5
063/130	200	292.5	45	335	—	95	170	147.5	72	130	63	120	155	215	180	81	53

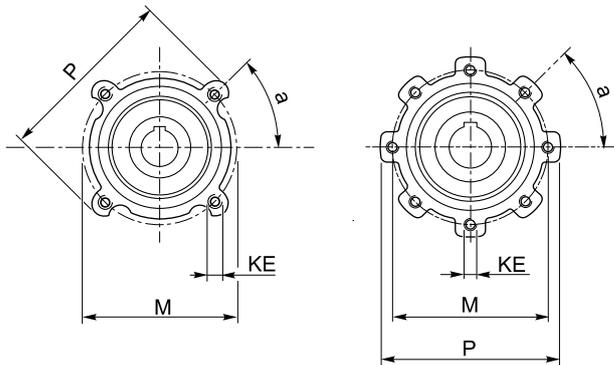
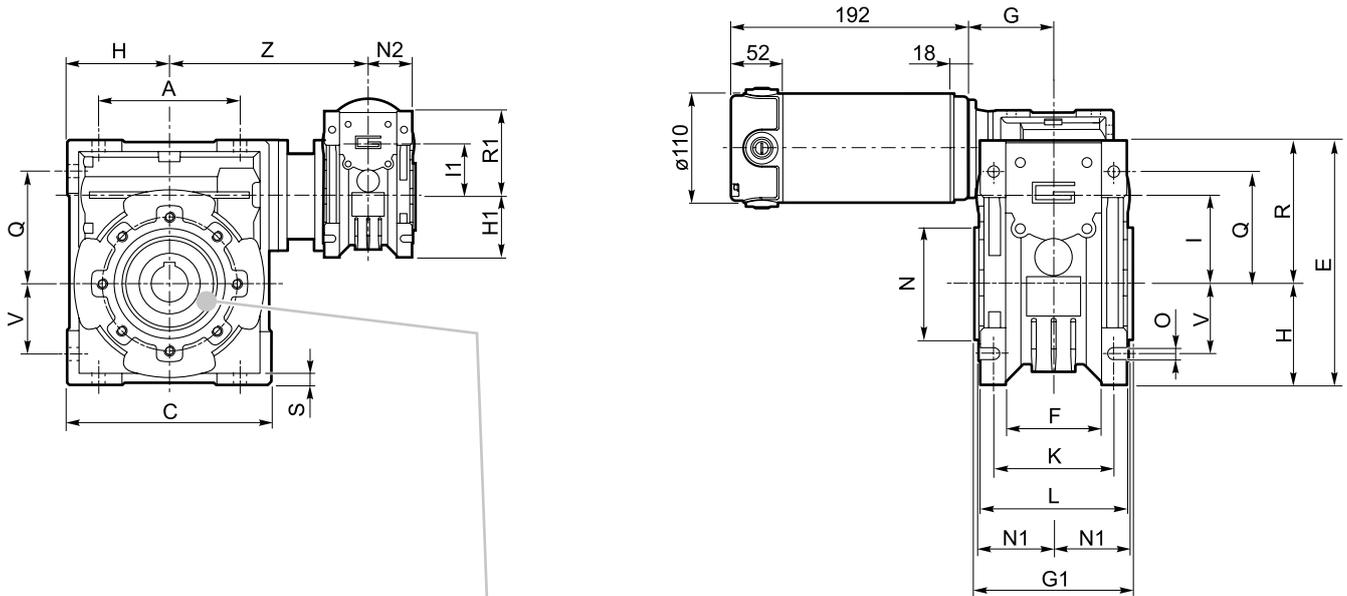
CMM..U - CMM..F - CMM..FB - CMM..FL															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	9.2	
030/050	8.5	98	64	84	57	7	30	40	132	M8x10(n.4)	45°	8	28.3	10.3	
030/063	8.5	110	80	102	57	8	36	50	145	M8x10(n.8)	45°	8	28.3	12.3	
040/075	11	140	93	119	71.5	10	40	60	165	M8x14(n.8)	45°	8	31.3	17.3	
040/090	13	160	102	135	71.5	11	45	70	182	M10x18(n.8)	45°	10	38.3	20.9	
050/110	14	200	125	167.5	84	14	50	85	225	M10x18(n.8)	45°	12	45.3	35.5	
063/130	16	250	140	187.5	102	15	60	100	245	M12x21(n.8)	45°	14	48.8	60.3	



Dimensioni

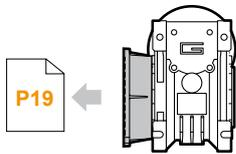
Dimensions

ECMM350/...U

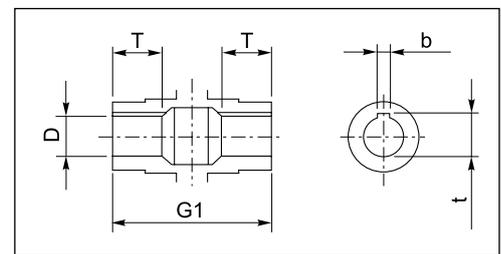


..030/040 ..030/050

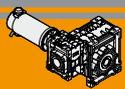
..030/063 ..040/075
..040/090 ..050/110
..063/130



ECMM350/... F
ECMM350/... FL
ECMM350/... FB



Albero lento cavo / Hollow output shaft

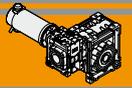


Dimensioni

Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
040/075	120	172	28	205	72	70	120	86	50	75	40	90	112	115	95	57	36.5
040/090	140	208	35	238	74	70	140	103	50	90	40	100	130	130	110	67	36.5
050/110	170	252.5	42	295	—	80	155	127.5	60	110	50	115	144	165	130	74	43.5
063/130	200	292.5	45	335	—	95	170	147.5	72	130	63	120	155	215	180	81	53

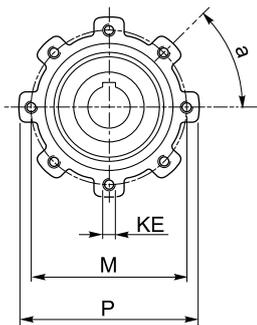
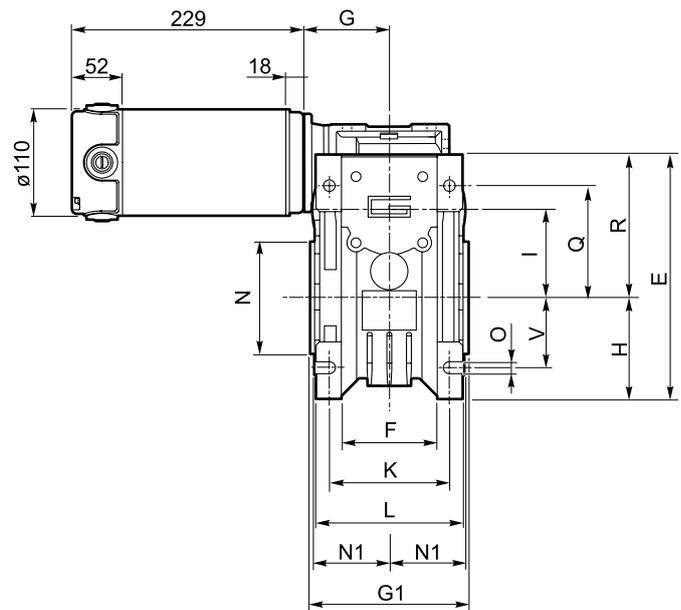
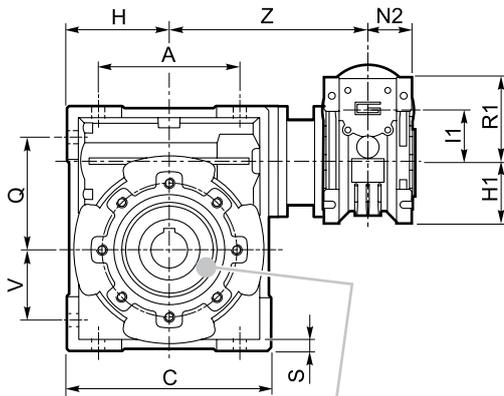
CMM..U - CMM..F - CMM..FB - CMM..FL														
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg
040/075	11	140	93	119	71.5	10	40	60	165	M8x14(n.8)	45°	8	31.3	19.1
040/090	13	160	102	135	71.5	11	45	70	182	M10x18(n.8)	45°	10	38.3	22.7
050/110	14	200	125	167.5	84	14	50	85	225	M10x18(n.8)	45°	12	45.3	37.3
063/130	16	250	140	187.5	102	15	60	100	245	M12x21(n.8)	45°	14	48.8	62.1



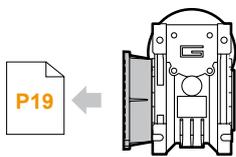
Dimensioni

Dimensions

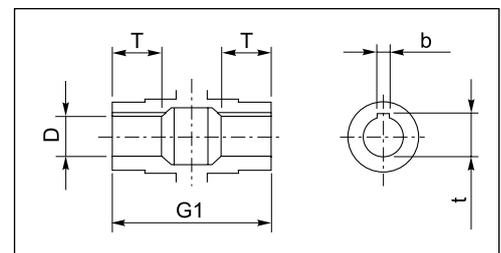
ECMM600/...U



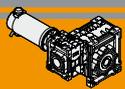
..040/075 ..040/090
..050/110 ..063/130



ECMM600/... F
ECMM600/... FL
ECMM600/... FB



Albero lento cavo / Hollow output shaft



ECMM

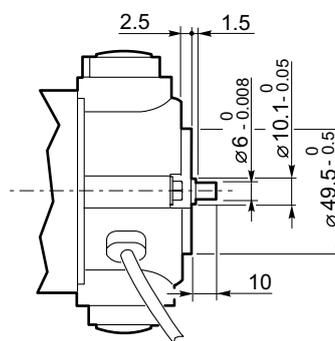
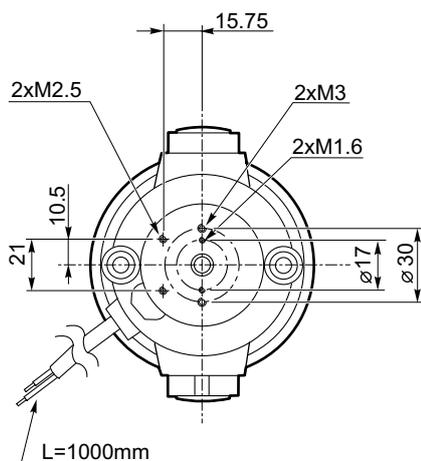
MOTORIDUTTORI C.C. COMBINATI

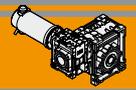
PERMANENT MAGNETS D.C. COMBINATION GEARMOTORS

Dimensioni

Dimensions

EC100.24E
EC180.24E

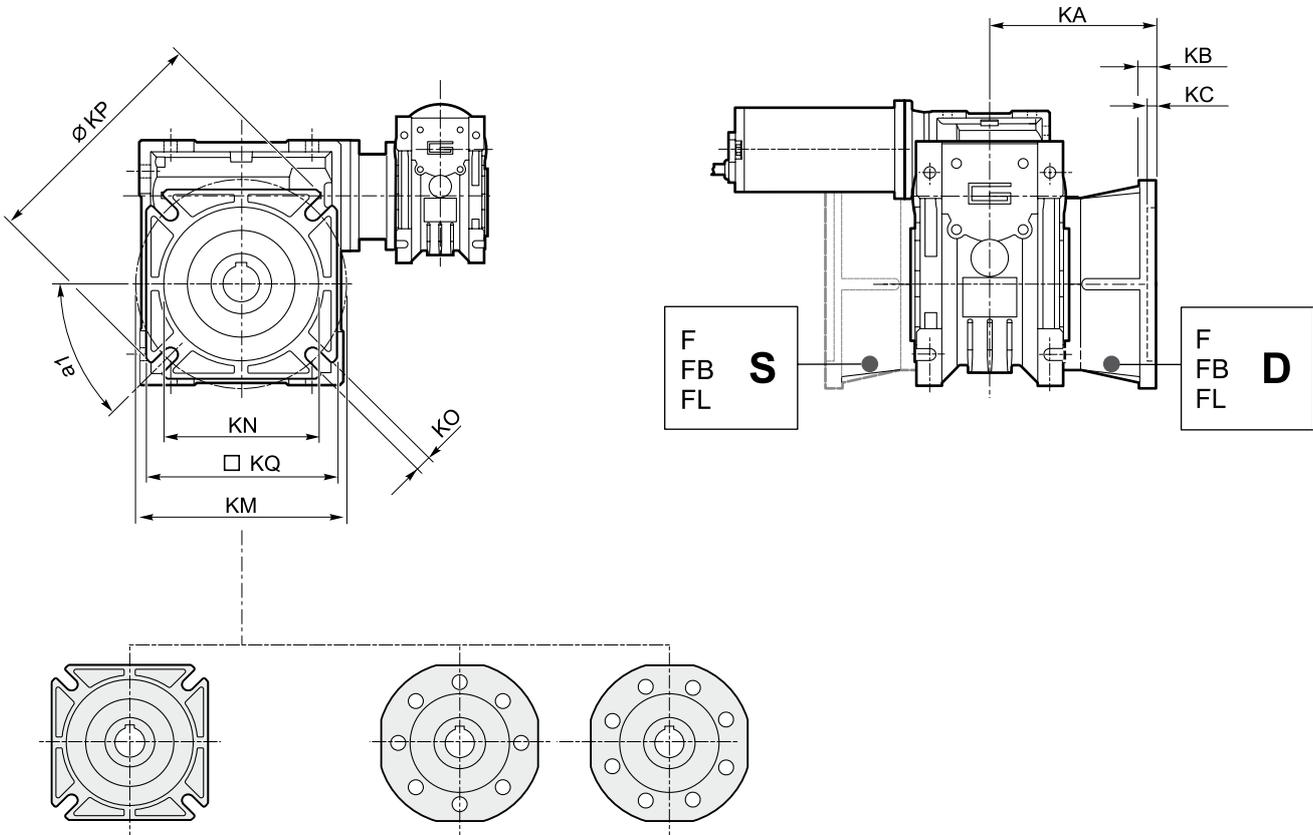




Dimensioni

Dimensions

ECMM.../... F... Flange uscita / Output flanges



CMM..F
(../26 - ../030 - ../075 - ../090)

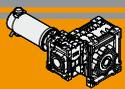
CMM..FB
(../040 - ../063)

CMM..FL
(../040 - ../063)

CMM..F
(../110) (../130)

	CMM..F								CMM..FB								CMM..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	
026/026	45°	45	6	4.5	55-69	40	6.5(n.4)	75	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
026/030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
026/040 030/040	45°	67	7.5	4.5	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	
026/050 030/050	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	
030/063	45°	82	10	6	150-160	115	11(n.4)	180	142	98	10	5	165-180	130	11(n.4)	200	112	112	10	6	150-160	115	11(n.4)	180	142	
040/075	45°	111	13	6	165-180	130	14(n.4)	200	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
040/090	45°	111	13	6	175-190	152	14(n.4)	210	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
050/110	45°	131	15	6	230	170	14(n.8)	280	260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
063/130	22.5°	140	15	6	255	180	16(n.8)	320	290	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

ECMM

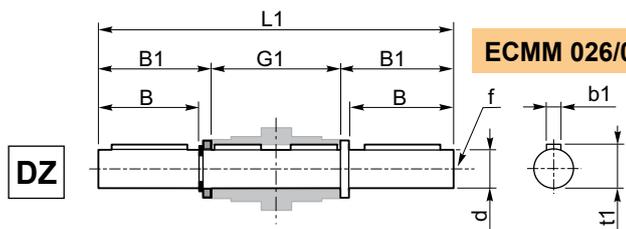


Accessori

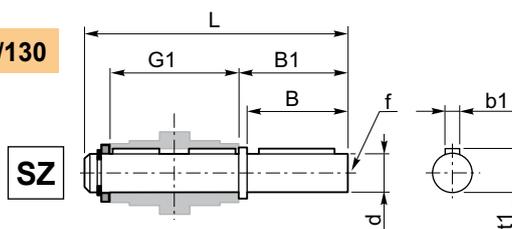
Accessories

Albero lento semplice e doppio

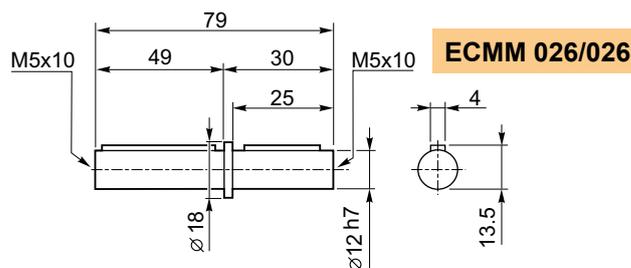
Single and double output shaft



ECMM 026/030 - ECMM 063/130



ECMM	d _{h7}	B	B1	G1	L	L1	f	b1	t1
026/030	14	30	32.5	63	102	128	M6	5	16
026/040 030/040	18	40	43	78	128	164	M6	6	20.5
026/050 030/050	25	50	53.5	92	153	199	M10	8	28
030/063	25	50	53.5	112	173	219	M10	8	28
040/075	28	60	63.5	120	192	247	M10	8	31
040/090	35	80	84.5	140	234	309	M12	10	38
050/110	42	80	84.5	155	249	324	M16	12	45
063/130	45	80	85	170	265	340	M16	14	48.5

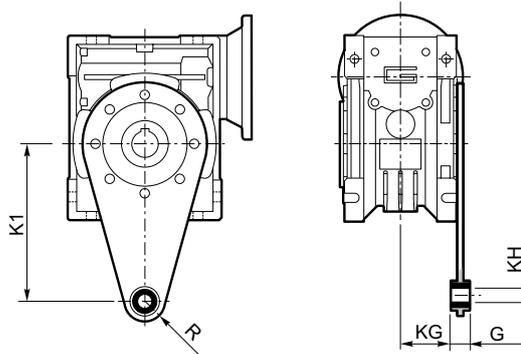


ECMM 026/026

Braccio di reazione

Torque arm

ECMM	K1	G	KG	KH	R
026/030	85	14	23	8	15
026/040 030/040	100	14	31	10	18
026/050 030/050	100	14	38	10	18
030/063	150	14	47.5	10	18
040/075	200	25	46.5	20	30
040/090	200	25	56.5	20	30
050/110	250	30	62	25	35
063/130	250	30	69	25	35

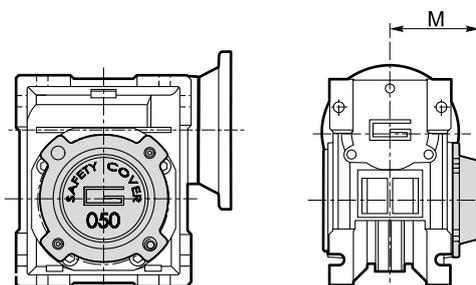
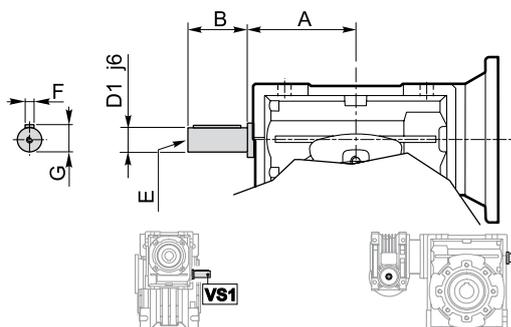


Opzioni

Options

VS1 - VS2 - Vite sporgente / Extended input shaft

SC - Safety cover



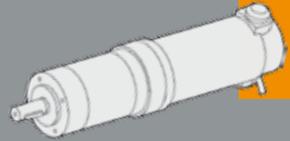
CMM	VS1						VS2					
	A	B	D ₁ j6	E	F	G	A	B	D ₁ j6	E	F	G
026/030	—	—	—	—	—	—	45	20	9	M4	3	10.2
026/040	—	—	—	—	—	—	53	23	11	M5	4	12.5
026/050	—	—	—	—	—	—	64	30	14	M6	5	16
030/040	45	20	9	M4	3	10.2	53	23	11	M5	4	12.5
030/050	45	20	9	M4	3	10.2	64	30	14	M6	5	16
030/063	45	20	9	M4	3	10.2	75	40	19	M6	6	21.5
040/075	53	23	11	M5	4	12.5	90	50	24	M8	8	27
040/090	53	23	11	M5	4	12.5	108	50	24	M8	8	27
050/110	64	30	14	M6	5	16	135	60	28	M10	8	31
063/130	75	40	19	M6	6	21.5	—	—	—	—	—	—

M	CM							
	30	40	50	63	75	90	110	130
	47	54.5	62.5	73	79	94	102	117

TRANSTECNOTM
THE MODULAR GEARMOTOR

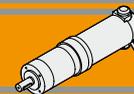
ECP

ECP



MOTORIDUTTORI C.C. EPICICLOIDALI
PERMANENT MAGNETS D.C. PLANETARY GEARMOTORS

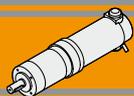




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Dimensioni	<i>Dimensions</i>	Q11

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Caratteristiche tecniche

Technical features

Le caratteristiche principali dei motoriduttori a corrente continua della serie ECP sono:

The main features of ECP D.C. gearmotor range are:

- Alimentazione in bassa tensione 12/24 Vcc
 - Possibilità di montaggio encoder
 - Potenze motore disponibili da 30 a 800W S2
 - Magnet in ferrite
 - Entrata ed uscita coassiali
 - Design compatto
 - Lubrificazione permanente a grasso
 - Possono essere installati in qualunque posizione di montaggio.
- Low voltage power supply 12/24 Vdc
 - Suitable for encoder assembly
 - Motor power ratings available from 30 up to 800W S2
 - Ferrite magnets
 - Coaxial arrangement of the input and output
 - Compact design
 - Permanent grease oil long-life lubrication
 - Can be intalled in all mounting position.

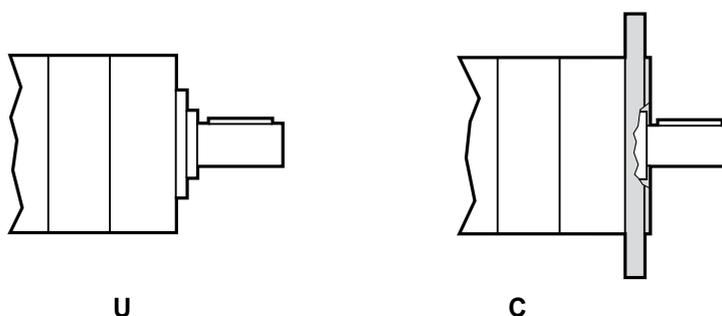
Designazione

Classification

MOTORIDUTTORE / GEARMOTOR													
ECP	070/62								2	C	90	34.97	120
Tipo Type	Grandezza Size								Stadi riduttore Gearbox stages	Versione riduttore Gearbox Version	Flangia Uscita Output flange	Rapporto Ratio	Versione Motore Motor Version
	020/42	035/42 035/52	050/42 050/52	070/52	100/52	180/52	350/62	600/72	1	U	80	Vedere tabella See tables	120
				070/62	100/62	180/62	350/72	600/81					
				070/72	100/72	180/72	350/81	600/105					
				070/81	100/81	180/81	350/105	600/120					
				180/105	350/120	180/120			2	C	105		240
									3		120		24E

Versioni

Versions



Simbologia

Symbols

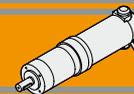
n_1 [min ⁻¹]	Velocità in ingresso / Input speed	sf	Fattore di servizio / Service factor
n_2 [min ⁻¹]	Velocità in uscita / Output speed	Rd %	Rendimento dinamico / Dynamic efficiency
i	Rapporto di riduzione / Ratio	A ₂ [N]	Carico assiale ammissibile in uscita / Permitted output axial load
P ₁ [kW]	Potenza in entrata / Input power	R ₂ [N]	Carico radiale ammissibile in uscita / Permitted output radial load
M ₂ [Nm]	Coppia in uscita in funzione di P ₁ / Output torque referred to P ₁		

Lubrificazione

Lubrication

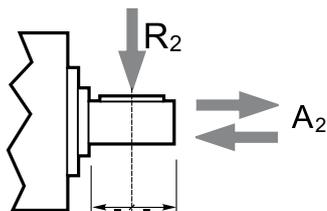
I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione. Questo gli consente di essere installati praticamente ovunque. La temperatura di funzionamento consentita va da -30 °C a +140 °C; per applicazioni particolari, possono essere adottate misure per raggiungere livelli di temperatura maggiori.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenance free. They can be installed in any location. The temperature range is from -30 °C up to +140 °C; for special applications, measures can be taken for higher temperature range.



Carichi radiali

Radial loads



Numero di stadi Stages number	Carichi Radiali R ₂ [N] / Radial Load R ₂ [N]						
	P42	P52	P62	P72	P81	P105	P120
1	160	200	240	320	400	600	600
2	230	320	360	480	600	900	900
3	300	450	520	760	1000	1500	1500

Numero di stadi Stages number	Carichi Assiali A ₂ [N] / Axial Load A ₂ [N]						
	P42	P52	P62	P72	P81	P105	P120
1	50	60	70	70	80	120	120
2	80	100	100	100	120	180	180
3	110	150	150	160	200	300	300

Rapporti

Ratios

Numero di stadi Stages number	Per tutte le grandezze di riduttori della serie P For all gearbox sizes of P range
	Rapporti / Ratios
1	3.70
	4.28*
	5.18*
	6.75
2	13.73
	15.88*
	18.36*
	19.20*
	22.20*
	25.01
	26.85*
	28.93*
3	34.97*
	45.56
	50.89
	58.85*
	68.06*
	71.16*
	78.71*
	92.70
	95.17*
	99.50*
	107.20*
	115.07*
	123.97*
	129.62*
139.13*	
149.90*	
168.84	
181.24*	
195.26*	
236.09*	
307.54	

Rapporti preferenziali
Preferred ratios

* Rapporto non disponibile su grandezza P120
Ratio not available on size P120

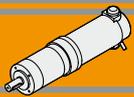
Disponibile a 4 stadi con rapporti fino a 2076
Available 4 stages with ratio up to 2076

Rendimento

Efficiency

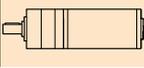
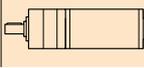
Rendimento Efficiency	Per tutte le grandezze di riduttori della serie P For all gearbox sizes of P range		
	Numero di stadi / Stages number		
	1	2	3
Rd %	80	75	70

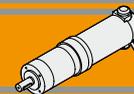
Rendimento medio per velocità nominale in ingresso 3000 rpm
Average efficiency with input rated speed 3000 rpm



Dati tecnici per servizio S2

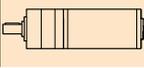
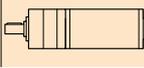
Technical data for S2 duty

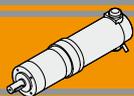
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version		
30							55								
(2850 min ⁻¹)	770	0.24	12.7	3.70	ECP020/421	120/24E	(2850 min ⁻¹)	31	12	1.3	95.17	ECP035/423	120/240		
	666	0.27	11.0	4.28			30	13	1.2	99.50					
	550	0.33	9.0	5.18			28	14	1.1	107.20					
	422	0.43	6.9	6.75			26	14	1.0	115.07					
	208	0.82	9.1	13.73	ECP020/422	120/24E	24	16	1.0	123.97	23	16	0.9	129.62	
	179	0.95	7.9	15.88			22	18	0.9	139.13		20	19	0.8	149.90
	155	1.1	6.8	18.36			20	19	0.8	149.90		18	21	0.7	168.84
	148	1.2	6.5	19.20			17	21	0.7	181.24		15	21	0.7	195.26
	128	1.3	5.6	22.20	ECP020/423	120/24E	13	21	0.7	236.09	10	21	0.7	307.54	
	114	1.5	5.0	25.01			811	0.53	7.5	3.70	ECP035/521	120/240			
	106	1.6	4.7	26.85			701	0.62	6.5	4.28					
	99	1.7	4.3	28.93			579	0.75	5.4	5.18					
	99	1.7	4.3	28.93			444	0.97	4.1	6.75	ECP035/522	120/240			
	81	2.1	3.6	34.97			218	1.9	6.5	13.73					
	63	2.7	2.7	45.56			189	2.1	5.6	15.88					
	56	2.8	5.3	50.89			163	2.5	4.8	18.36					
	48	3.3	4.6	58.85			156	2.6	4.6	19.20	ECP035/523	120/240			
	42	3.8	3.9	68.06			135	3.0	4.0	22.20					
	40	4.0	3.8	71.16			120	3.4	3.6	25.01					
	36	4.4	3.4	78.71			112	3.6	3.3	26.85	ECP035/523	120/240			
	31	5.2	2.9	92.70	104	3.9	3.1	28.93							
	30	5.3	2.8	95.17	86	4.7	2.5	34.97							
	29	5.6	2.7	99.50	66	6.2	2.0	45.56							
	27	6.0	2.5	107.20	59	6.4	3.9	50.89	ECP035/523	120/240					
	25	6.4	2.3	115.07	51	7.4	3.4	58.85							
	23	6.9	2.2	123.97	44	8.6	2.9	68.06							
	22	7.3	2.1	129.62	42	9.0	2.8	71.16							
	20	7.8	1.9	139.13	38	9.9	2.5	78.71	ECP035/523	120/240					
	19	8.4	1.8	149.90	32	11.7	2.1	92.70							
	17	9.5	1.6	168.84	31	12.0	2.1	95.17							
	16	10	1.5	181.24	30	12.5	2.0	99.50							
	15	11	1.4	195.26	28	13.5	1.9	107.20	ECP035/523	120/240					
	12	13	1.1	236.09	26	14.5	1.7	115.07							
	9.3	17	0.9	307.54	24	15.6	1.6	123.97							
					23	16.3	1.5	129.62							
55							70								
(3000 min ⁻¹)	811	0.53	5.6	3.70	ECP035/421	120/240	(3000 min ⁻¹)	811	0.65	4.6	3.70	ECP050/421	120/240		
	701	0.62	4.9	4.28			701	0.75	4.0	4.28					
	579	0.75	4.0	5.18			579	0.91	3.3	5.18					
	444	0.97	3.1	6.75			444	1.2	2.5	6.75					
	218	1.9	4.0	13.73	ECP035/422	120/240	218	2.3	3.3	13.73	ECP050/422	120/240			
	189	2.1	3.5	15.88			189	2.6	2.9	15.88					
	163	2.5	3.0	18.36			163	3.0	2.5	18.36					
	156	2.6	2.9	19.20			156	3.2	2.4	19.20					
	135	3.0	2.5	22.20	ECP035/423	120/240	135	3.7	2.0	22.20	ECP050/422	120/240			
	120	3.4	2.2	25.01			120	4.1	1.8	25.01					
	112	3.6	2.1	26.85			112	4.4	1.7	26.85					
	104	3.9	1.9	28.93			104	4.8	1.6	28.93					
	86	4.7	1.6	34.97			86	5.8	1.3	34.97					
	65.8	6.2	1.2	45.56			66	7.5	1.0	45.56					
	59	6.4	2.3	50.89											
	51	7.4	2.0	58.85											
	44	8.6	1.7	68.06											
	42	9.0	1.7	71.16											
	38	9.9	1.5	78.71											
	32	12	1.3	92.70											



Dati tecnici per servizio S2

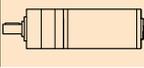
Technical data for S2 duty

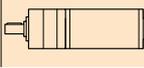
P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version					
70							100											
(2850 min ⁻¹)	59	7.8	1.9	50.89	ECP050/423	120/240	(3000 min ⁻¹)	59	11	2.3	50.89	ECP070/523	120/240					
	51	9.1	1.7	58.85					51	13	2.0			58.85				
	44	10	1.4	68.06					44	15	1.7			68.06				
	42	11	1.4	71.16					42	15	1.6			71.16				
	38	12	1.2	78.71					38	17	1.5			78.71				
	32	14	1.1	92.70					32	20	1.2			92.70				
	31	15	1.0	95.17					31	21	1.2			95.17				
	30	15	1.0	99.50					30	22	1.2			99.50				
	28	17	0.9	107.20					28	23	1.1			107.20				
	26	18	0.8	115.07					26	25	1.0			115.07				
	24	19	0.8	123.97					24	27	0.9			123.97				
	23	20	0.8	129.62					23	28	0.9			129.62				
	22	21	0.7	139.13					22	30	0.8			139.13				
	20	21	0.7	149.90					20	33	0.8			149.90				
	18	21	0.7	168.84					18	36	0.7			168.84				
	17	21	0.7	181.24					17	36	0.7			181.24				
	15	21	0.7	195.26					15	36	0.7			195.26				
	13	21	0.7	236.09					13	36	0.7			236.09				
	9.8	21	0.7	307.54			9.8	36	0.7	307.54								
	163	3.0	4.0	18.36	ECP050/522	120/240	120.0	5.8	4.3	25.01	ECP070/622	120/240						
	156	3.2	3.8	19.20					112	6.2			4.0	26.85				
	135	3.7	3.3	22.20					104	6.7			3.7	28.93				
	120	4.1	2.9	25.01					86	8.1			3.1	34.97				
	112	4.4	2.7	26.85					66	11			2.4	45.56				
	104	4.8	2.5	28.93					59	11			4.5	50.89	ECP070/623	120/240		
	86	5.8	2.1	34.97					51	13			3.9	58.85				
	66	7.5	1.6	45.56					44	15			3.4	68.06				
	59	7.8	3.2	50.89	ECP050/523	120/240	42	15	3.2	71.16								
	51	9.1	2.8	58.85					38	17	2.9	78.71						
	44	10	2.4	68.06					32	20	2.5	92.70						
	42	11	2.3	71.16					31	21	2.4	95.17						
	38	12	2.1	78.71					30	22	2.3	99.50						
	32	14	1.8	92.70					28	23	2.1	107.20						
	31	15	1.7	95.17					26	25	2.0	115.07						
	30	15	1.6	99.50					24	27	1.9	123.97						
	28	17	1.5	107.20					23	28	1.8	129.62						
	26	18	1.4	115.07					22	30	1.7	139.13						
	24	19	1.3	123.97					20	33	1.5	149.90						
	23	20	1.3	129.62					18	37	1.4	168.84						
	22	21	1.2	139.13					17	39	1.3	181.24						
	20	23	1.1	149.90					15	42	1.2	195.26						
	18	26	1.0	168.84					13	51	1.0	236.09						
	17	28	0.9	181.24					9.8	67	0.7	307.54						
	15	30	0.8	195.26			32	20	4.2	92.70	ECP070/723	120/240						
	13	36	0.7	236.09			31	21	4.1	95.17								
	9.8	36	0.7	307.54			30	22	3.9	99.50								
							28	23	3.6	107.20								
							26	25	3.4	115.07								
							24	27	3.1	123.97								
							23	28	3.0	129.62								
							22	30	2.8	139.13								
							20	33	2.6	149.90								
							18	37	2.3	168.84								
	218	3.2	3.8	13.73	ECP070/522	120/240	17	39	2.1	181.24								
	189	3.7	3.3	15.88					15	42	2.0	195.26						
	163	4.3	2.8	18.36					13	51	1.6	236.09						
	156	4.5	2.7	19.20					9.8	67	1.3	307.54						
	135	5.2	2.3	22.20														
	120	5.8	2.1	25.01														
	112	6.2	1.9	26.85														
	104	6.7	1.8	28.93														
	86	8.1	1.5	34.97														
	66	11	1.1	45.56														

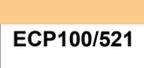


Dati tecnici per servizio S2

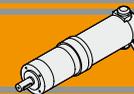
Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
100						
(3000 min ⁻¹)	20	33	3.7	149.90	ECP070/813	120/240
	18	37	3.3	168.84		
	17	39	3.1	181.24		
	15	42	2.8	195.26		
	13	51	2.3	236.09		
	9.8	67	1.8	307.54		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
140						
(3000 min ⁻¹)	59	15	3.3	50.89	ECP100/623	120/240/24E
	51	18	2.8	58.85		
	44	20	2.4	68.06		
	42	21	2.3	71.16		
	38	24	2.1	78.71		
	32	28	1.8	92.70		
	31	29	1.7	95.17		
	30	30	1.7	99.50		
	28	32	1.5	107.20		
	26	35	1.4	115.07		
	24	37	1.3	123.97		
	23	39	1.3	129.62		
	22	42	1.2	139.13		
	20	45	1.1	149.90		
	18	51	1.0	168.84		
	17	55	0.9	181.24		
	15	59	0.9	195.26		
	13	71	0.7	236.09		
	9.8	71	0.7	307.54		
	86	11	3.7	34.97	ECP100/722	120/240/24E
	66	15	2.9	45.56		
	44	20	4.1	68.06	ECP100/723	120/240/24E
	42	21	3.9	71.16		
	38	24	3.5	78.71		
	32	28	3.0	92.70		
	31	29	2.9	95.17		
	30	30	2.8	99.50		
	28	32	2.6	107.20		
	26	35	2.4	115.07		
	24	37	2.3	123.97		
	23	39	2.2	129.62		
	22	42	2.0	139.13		
	20	45	1.9	149.90		
	18	51	1.7	168.84		
	17	55	1.5	181.24		
	15	59	1.4	195.26		
	13	71	1.2	236.09		
	9.8	93	0.9	307.54		
	32	28	4.3	92.70	ECP100/813	120/240/24E
	31	29	4.2	95.17		
	30	30	4.0	99.50		
	28	32	3.7	107.20		
	26	35	3.5	115.07		
	24	37	3.2	123.97		
	23	39	3.1	129.62		
	22	42	2.9	139.13		
	20	45	2.7	149.90		
	18	51	2.4	168.84		
	17	55	2.2	181.24		
	15	59	2.0	195.26		
	13	71	1.7	236.09		
	9.8	93	1.3	307.54		

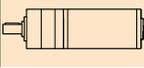
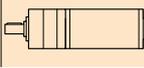
P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version		
140								
(3000 min ⁻¹)	811	1.3	3.1	3.70	ECP100/521	120/240/24E		
	701	1.5	2.7	4.28				
	579	1.8	2.2	5.18				
	444	2.3	1.7	6.75				
	218	4.4	2.7	13.73	ECP100/522	120/240/24E		
	189	5.1	2.3	15.88				
	163	5.9	2.0	18.36				
	156	6.2	1.9	19.20				
	135	7.2	1.7	22.20				
	120	8.1	1.5	25.01				
	112	8.7	1.4	26.85	ECP100/522	120/240/24E		
	104	9.3	1.3	28.93				
	86	11	1.1	34.97				
	66	15	0.8	45.56				
	59	15	1.6	50.89			ECP100/523	120/240/24E
	51	18	1.4	58.85				
	44	20	1.2	68.06				
	42	21	1.2	71.16				
	38	24	1.1	78.71				
	32	28	0.9	92.70				
	31	29	0.9	95.17				
	30	30	0.8	99.50				
	28	32	0.8	107.20				
	26	35	0.7	115.07				
	24	36	0.7	123.97				
	23	36	0.7	129.62				
	22	36	0.7	139.13				
	20	36	0.7	149.90				
	18	36	0.7	168.84				
	17	36	0.7	181.24				
	15	36	0.7	195.26				
	13	36	0.7	236.09				
	9.8	36	0.7	307.54				
	444	2.3	3.4	6.75	ECP100/621	120/240/24E		
	156	6.2	4.0	19.20				
	135	7.2	3.5	22.20	ECP100/622	120/240/24E		
	120	8.1	3.1	25.01				
	112	8.7	2.9	26.85				
	104	9.3	2.7	28.93				
	86	11	2.2	34.97				
	66	15	1.7	45.56				

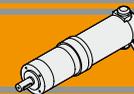
P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
250						
(3000 min ⁻¹)	811	2.4	1.7	3.70	ECP180/521	120/240
	701	2.7	1.5	4.28		
	579	3.3	1.2	5.18		
	444	4.3	0.9	6.75		



Dati tecnici per servizio S2

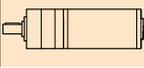
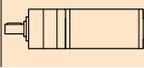
Technical data for S2 duty

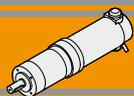
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
250							250						
(3000 min ⁻¹)	218	8.2	1.5	13.73	ECP180/522	120/240	(3000 min ⁻¹)	163	11	3.8	18.36	ECP180/722	120/240/24E
	189	9.5	1.3	15.88				156	12	3.6	19.20		
	163	11	1.1	18.36				135	13	3.2	22.20		
	156	12	1.0	19.20				120	15	2.8	25.01		
	135	13	0.9	22.20				112	16	2.6	26.85		
	120	15	0.8	25.01				104	17	2.4	28.93		
	112	16	0.7	26.85				86	21	2.0	34.97		
	104	17	0.7	28.93				66	27	1.5	45.56		
	86	17	0.7	34.97				59	28	2.9	50.89	ECP180/723	120/240/24E
	66	17	0.7	45.56				51	33	2.5	58.85		
	59	28	0.9	50.89	ECP180/523	120/240		44	38	2.2	68.06		
	51	33	0.8	58.85				42	40	2.1	71.16		
	44	36	0.7	68.06				38	44	1.9	78.71	ECP180/723	120/240/24E
	42	36	0.7	71.16				32	52	1.6	92.70		
	38	36	0.7	78.71				31	53	1.6	95.17		
	32	36	0.7	92.70				30	56	1.5	99.50		
	31	36	0.7	95.17				28	60	1.4	107.20		
	30	36	0.7	99.50				26	64	1.3	115.07		
	28	36	0.7	107.20				24	69	1.2	123.97		
	26	36	0.7	115.07	ECP180/523	120/240		23	73	1.2	129.62		
	24	36	0.7	123.97				22	78	1.1	139.13		
	23	36	0.7	129.62				20	84	1.0	149.90		
	22	36	0.7	139.13				18	95	0.9	168.84		
	20	36	0.7	149.90				17	101	0.8	181.24		
	18	36	0.7	168.84				15	109	0.8	195.26		
	17	36	0.7	181.24				13	120	0.7	236.09		
	15	36	0.7	195.26				9.8	120	0.7	307.54		
	13	36	0.7	236.09				120	15	4.0	25.01	ECP180/812	120/240/24E
	9.8	36	0.7	307.54				112	16	3.7	26.85		
	811	2.4	3.4	3.70	ECP180/621	120/240/24E		104	17	3.5	28.93		
	701	2.7	2.9	4.28				86	21	2.9	34.97		
	579	3.3	2.4	5.18				66	27	2.2	45.56		
	444	4.3	1.9	6.75				51	33	3.6	58.85	ECP180/813	120/240/24E
	218	8.2	3.0	13.73	ECP180/622	120/240/24E		44	38	3.1	68.06		
	189	9.5	2.6	15.88				42	40	3.0	71.16		
	163	11	2.3	18.36				38	44	2.7	78.71		
	156	12	2.2	19.20				32	52	2.3	92.70		
	135	13	1.9	22.20				31	53	2.3	95.17		
	120	15	1.7	25.01				30	56	2.2	99.50		
	112	16	1.6	26.85				28	60	2.0	107.20		
	104	17	1.4	28.93				26	64	1.9	115.07		
	86	21	1.2	34.97				24	69	1.7	123.97		
	66	27	0.9	45.56				23	73	1.7	129.62		
	59	28	1.8	50.89	ECP180/623	120/240/24E		22	78	1.5	139.13		
	51	33	1.5	58.85				20	84	1.4	149.90		
	44	38	1.3	68.06				18	95	1.3	168.84		
	42	40	1.3	71.16				17	101	1.2	181.24		
	38	44	1.1	78.71				15	109	1.1	195.26		
	32	52	1.0	92.70				13	132	0.9	236.09		
	31	53	0.9	95.17				9.8	172	0.7	307.54		
	30	56	0.9	99.50									
	28	60	0.8	107.20									
	26	64	0.8	115.07									
	24	69	0.7	123.97									
	23	71	0.7	129.62									
	22	71	0.7	139.13									
	20	71	0.7	149.90									
	18	71	0.7	168.84									
	17	71	0.7	181.24									
	15	71	0.7	195.26									
	13	71	0.7	236.09									
	9.8	71	0.7	307.54									



Dati tecnici per servizio S2

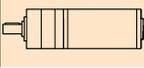
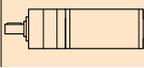
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
500							800						
(3000 min ⁻¹)	120	29	3.6	25.01	ECP350/1052	120/240	(3000 min ⁻¹)	59	90	0.9	50.89	ECP600/723	120/240
	112	32	3.3	26.85				51	105	0.8	58.85		
	104	34	3.1	28.93				44	120	0.7	68.06		
	86	41	2.5	34.97				42	120	0.7	71.16		
	66	54	2.0	45.56				38	120	0.7	78.71		
	59	56	3.5	50.89	ECP350/1053	120/240	32	120	0.7	92.70			
	51	65	3.0	58.85				31	120	0.7	95.17		
	44	75	2.6	68.06				30	120	0.7	99.50		
	42	78	2.5	71.16				28	120	0.7	107.20		
	38	87	2.3	78.71				26	120	0.7	115.07		
	32	102	1.9	92.70				24	120	0.7	123.97		
	31	105	1.9	95.17				23	120	0.7	129.62		
	30	109	1.8	99.50				22	120	0.7	139.13		
	28	118	1.7	107.20				20	120	0.7	149.90		
	26	126	1.5	115.07				18	120	0.7	168.84		
	24	136	1.4	123.97				17	120	0.7	181.24		
	23	142	1.4	129.62				15	120	0.7	195.26		
	22	153	1.3	139.13				13	120	0.7	236.09		
	20	165	1.2	149.90				9.8	120	0.7	307.54		
	18	186	1.1	168.84				811	7.5	2.7	3.70	ECP600/811	120/240
	17	199	1.0	181.24		701	8.7	2.3	4.28				
	15	215	0.9	195.26		579	11	1.9	5.18				
	13	259	0.8	236.09		444	14	1.5	6.75				
	9.8	279	0.7	307.54		218	26	2.3	13.73	ECP600/812	120/240		
	66	54	2.8	45.56	ECP350/1202	120/240	189	30	2.0			15.88	
	32	102	2.9	92.70	ECP350/1203	120/240	163	35	1.7			18.36	
	18	186	1.6	168.84			156	37	1.6			19.20	
	9.8	338	0.9	307.54			135	42	1.4			22.20	
							120	48	1.3	25.01			
							112	51	1.2	26.85			
							104	55	1.1	28.93			
							86	67	0.9	34.97			
							66	86	0.7	45.56			
							59	90	1.3	50.89	ECP600/813	120/240	
							51	105	1.1	58.85			
							44	121	1.0	68.06			
							42	127	0.9	71.16			
							38	140	0.9	78.71			
							32	165	0.7	92.70			
							31	169	0.7	95.17			
							30	171	0.7	99.50			
							28	171	0.7	107.20			
							26	171	0.7	115.07			
							24	171	0.7	123.97			
							23	171	0.7	129.62			
							22	171	0.7	139.13			
							20	171	0.7	149.90			
							18	171	0.7	168.84			
							17	171	0.7	181.24			
							15	171	0.7	195.26			
							13	171	0.7	236.09			
							9.8	171	0.7	307.54			
							701	8.7	4.0	4.28	ECP600/1051	120/240	
							579	11	3.3	5.18			
							444	14	2.6	6.75			



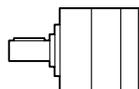
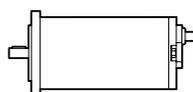
Dati tecnici per servizio S2

Technical data for S2 duty

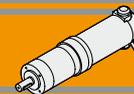
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	
800							800							
(3000 min ⁻¹)	218	26	4.0	13.73	ECP600/1052	120/240	(3000 min ⁻¹)	120	48	3.1	25.01	ECP600/1202	120/240	
	189	30	3.5	15.88				66	87	1.7	45.56			
	163	35	3.0	18.36										
	156	37	2.9	19.20				59	90	3.3	50.89	ECP600/1203	120/240	
	135	42	2.5	22.20				32	165	1.8	92.70			
	120	48	2.2	25.01				18	300	1.0	168.84			
	112	51	2.1	26.85				9.8	429	0.7	307.54			
	104	55	1.9	28.93										
	86	67	1.6	34.97										
	66	87	1.2	45.56										
	59	90	2.2	50.89			ECP600/1053	120/240						
	51	105	1.9	58.85										
	44	121	1.6	68.06										
	42	127	1.5	71.16										
	38	140	1.4	78.71										
	32	165	1.2	92.70										
	31	169	1.2	95.17										
	30	177	1.1	99.50										
	28	191	1.0	107.20										
	26	205	1.0	115.07										
	24	220	0.9	123.97										
	23	230	0.8	129.62										
	22	247	0.8	139.13										
	20	267	0.7	149.90										
	18	279	0.7	168.84										
	17	279	0.7	181.24										
	15	279	0.7	195.26										
	13	279	0.7	236.09										
	9.8	279	0.7	307.54										

Motori applicabili

IEC Motor adapters



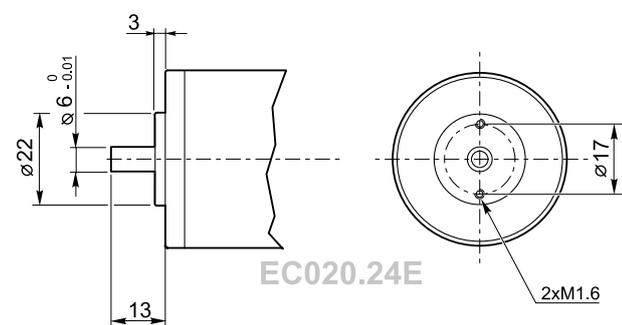
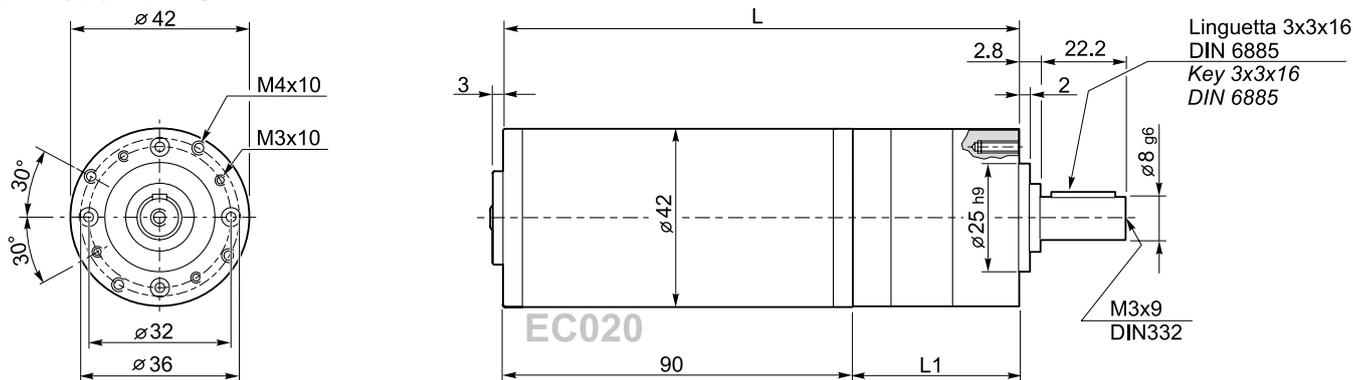
		EC								
		020.120 020.24E	035.120 035.240	050.120 050.240	070.120 070.240	100.120 100.240 100.24E	180.120 180.240	180.24E	350.120 350.240	600.120 600.240
P	42									
	52									
	62									
	72									
	81									
	105									
	120									



Dimensioni

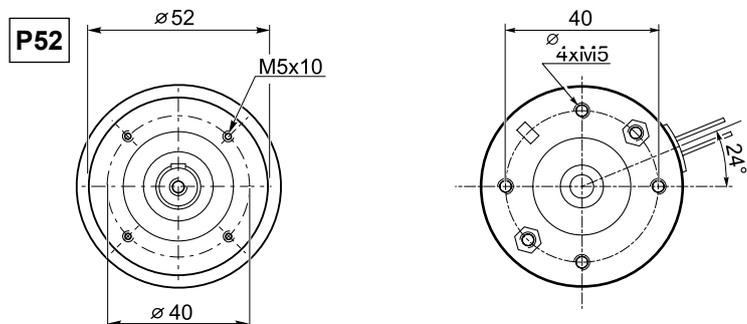
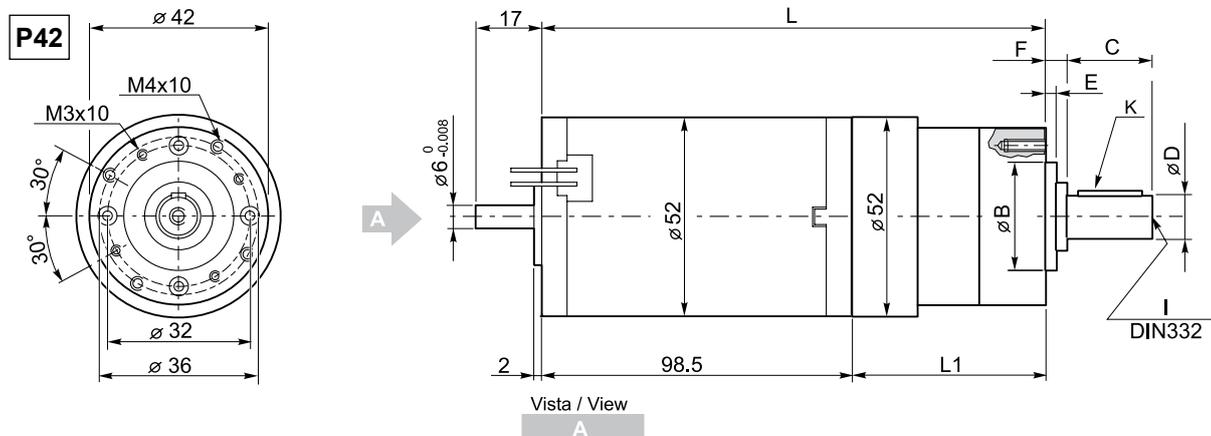
Dimensions

ECP020/42... U

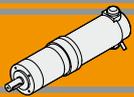


	Numero di stadi / Stages number		
ECP020/42...	1	2	3
L1	60	73	86
L	150	163	176

ECP035/... U



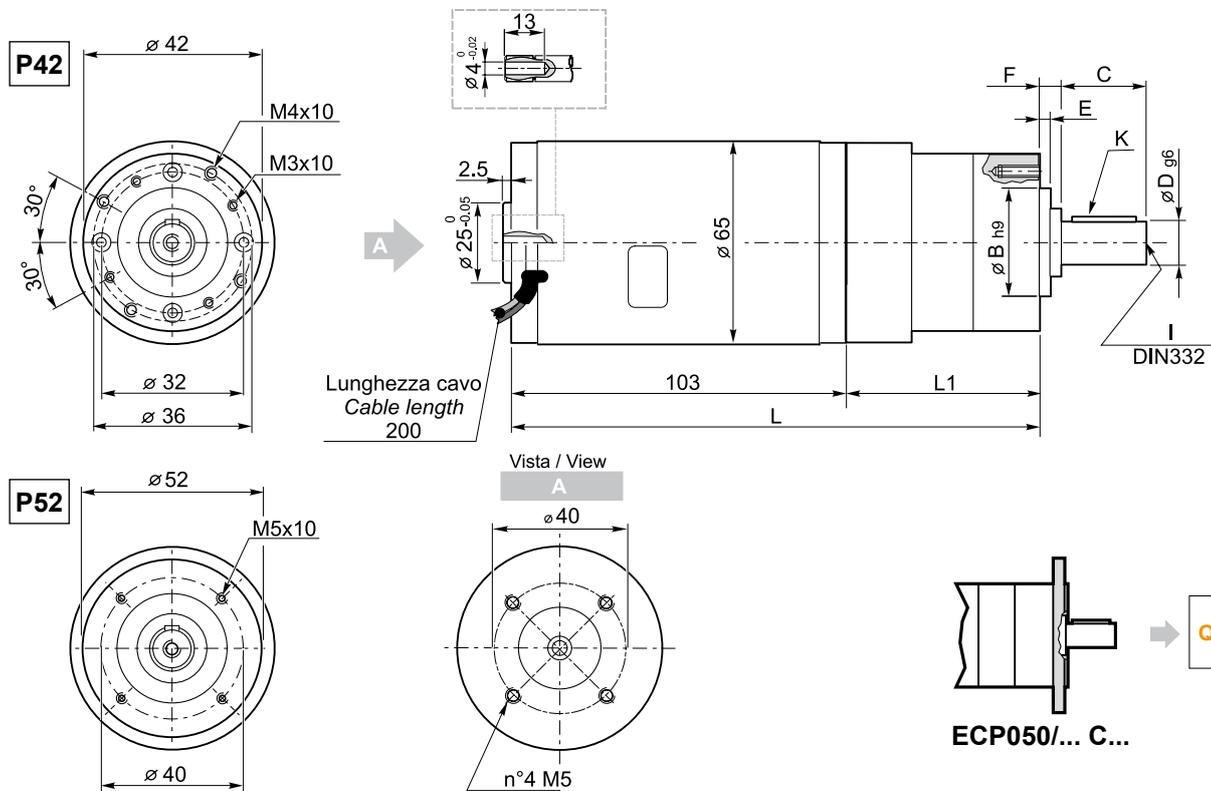
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions								
		L1	L	B	C	D	E	F	I	K
ECP050/42...	1	60	158.5	25 h9	22.2	8 g6	2	2.8	M3x9	3x3x16
	2	73	171.5							
	3	86	184.5							
ECP050/52...	1	72.5	175.5	32 h8	20.8	12 h7	3	4.2	M4x10	4x4x16
	2	86.5	189.5							
	3	100.5	203.5							



Dimensioni

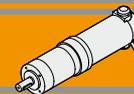
Dimensions

ECP050/... U



ECP050/... C...

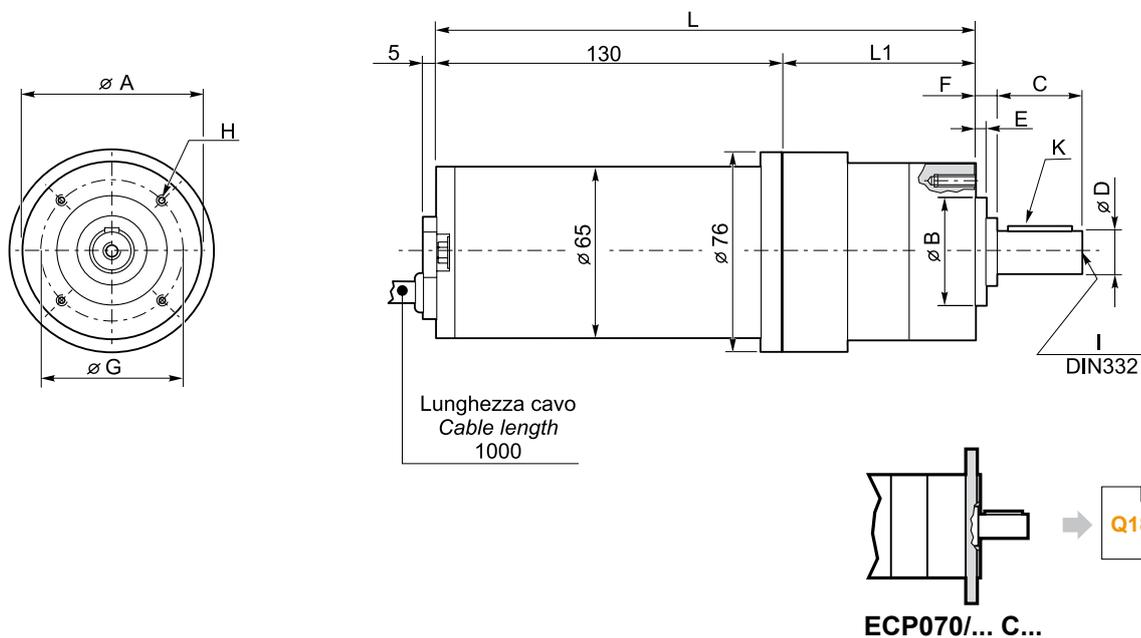
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions								
		L1	L	B	C	D	E	F	I	K
ECP050/42...	1	60	163	25 h9	22.2	8 g6	2	2.8	M3x9	3x3x16
	2	73	176							
	3	86	189							
ECP050/52...	1	72.5	175.5	32 h8	20.8	12 h7	3	4.2	M4x10	4x4x16
	2	86.5	189.5							
	3	100.5	203.5							



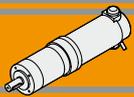
Dimensioni

Dimensions

ECP070/... U



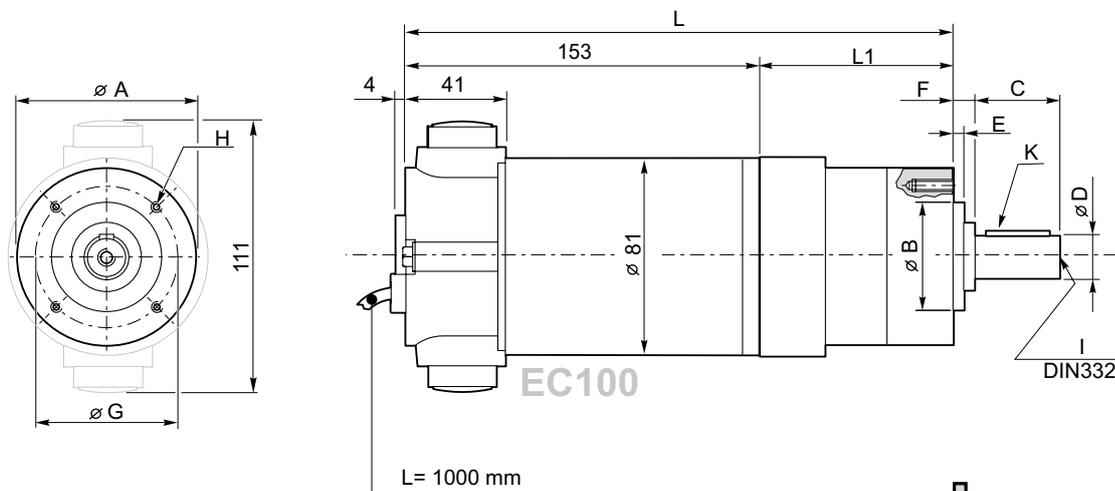
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP070/52...	1	74	204	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	218										
	3	102	232										
ECP070/62...	1	74	204	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	220										
	3	106	236										
ECP070/72...	1	82	212	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	101.5	231.5										
	3	121	251										
ECP070/81...	1	91	221	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	113	243										
	3	135	265										



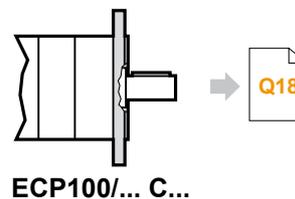
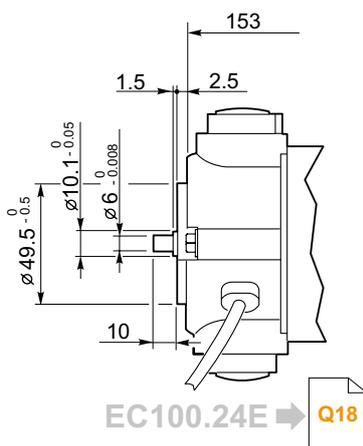
Dimensioni

Dimensions

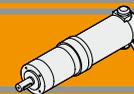
ECP100/... U... 120/140



ECP100/... U... 24E



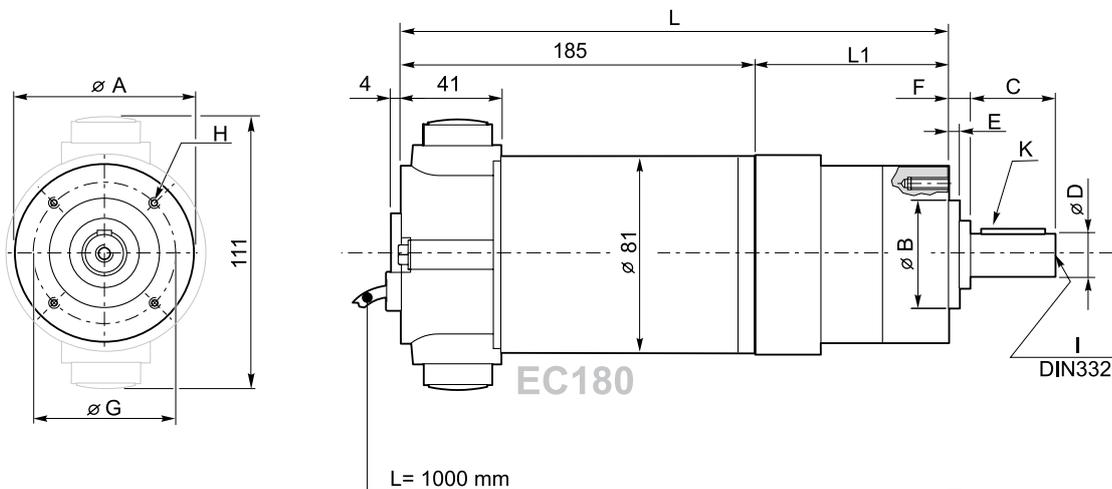
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP100/52...	1	74	227	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	241										
	3	102	255										
ECP100/62...	1	74	227	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	243										
	3	106	259										
ECP100/72...	1	82	235	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	101.5	254.5										
	3	121	274										
ECP100/81...	1	91	244	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	113	266										
	3	135	288										



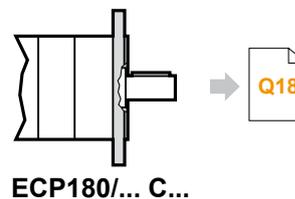
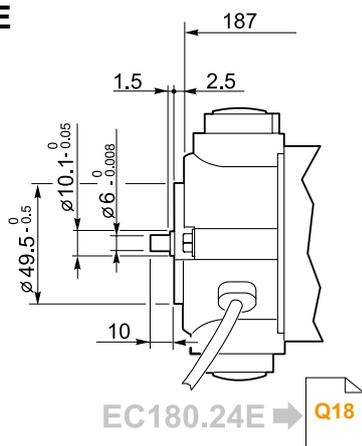
Dimensioni

Dimensions

ECP180/... U... 120/240



ECP180/... U... 24E



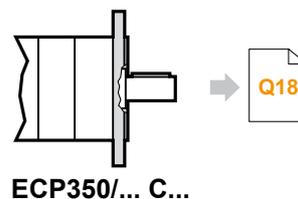
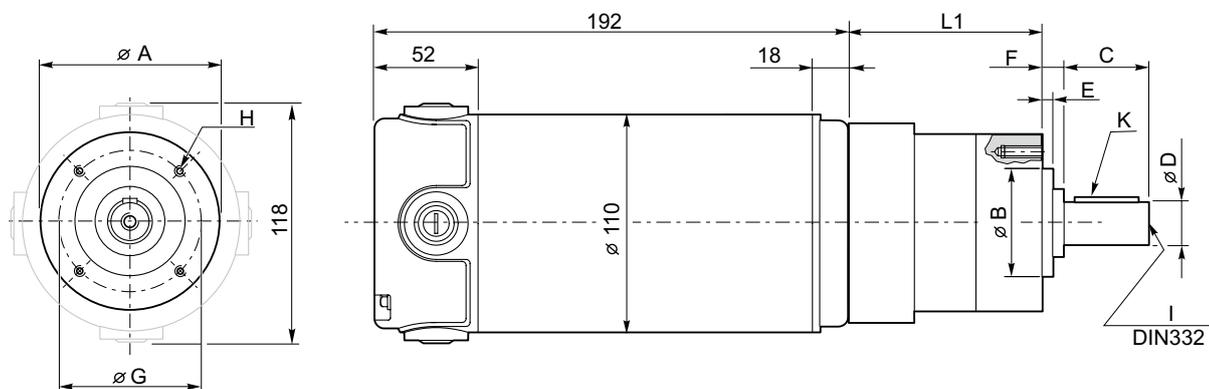
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions													
		EC180		EC180.24E		EC180 - EC180.24E									
		L1	L	L1	L	A	B	C	D	E	F	G	H	I	K
ECP180/52...	1	74	259			52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	273												
	3	102	287												
ECP180/62...	1	74	259	76	263	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	275	92	279										
	3	106	291	108	295										
ECP180/72...	1	82	267	88.4	275.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	101.5	286.5	108	295										
	3	121	306	127.6	314.6										
ECP180/81...	1	91	276	94	281	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	113	298	116	303										
	3	135	320	138	325										
ECP180/105...	1	113	298	116.4	303.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	144	329	147.5	334.5										
	3	175	360	178.5	365.5										
ECP180/120...	1	131	316	134.5	321.4	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	165	350	168.6	355.6										
	3	199	384	202.8	389.8										



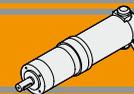
Dimensioni

Dimensions

ECP350/... U



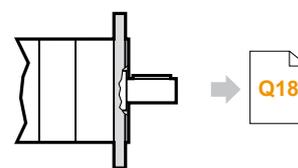
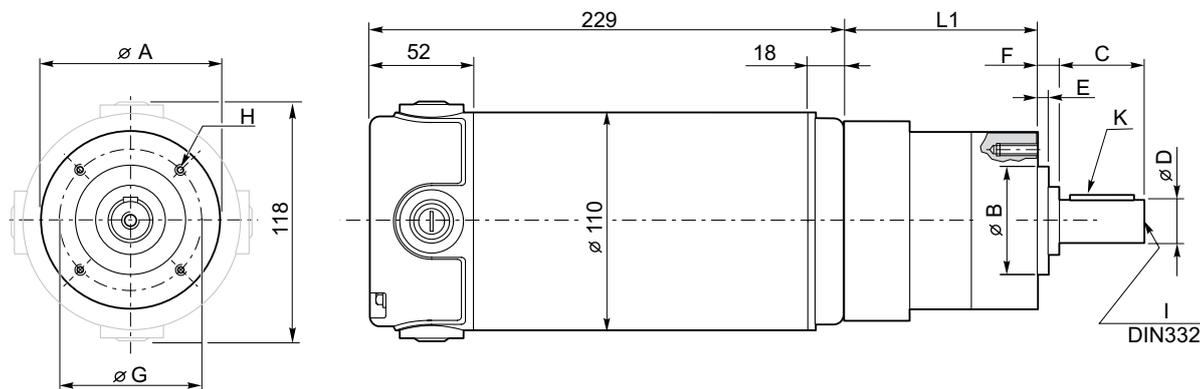
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP350/62...	1	76	268	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	92	284										
	3	108	300										
ECP350/72...	1	88.4	280.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	108	300										
	3	127.6	319.6										
ECP350/81...	1	94	286	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116	308										
	3	138	330										
ECP350/105...	1	116.6	308.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	147.5	339.5										
	3	178.5	370.5										
ECP350/120...	1	134.4	326.4	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	168.6	360.6										
	3	202.8	394.8										



Dimensioni

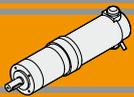
Dimensions

ECP600/... U



ECP600/... C...

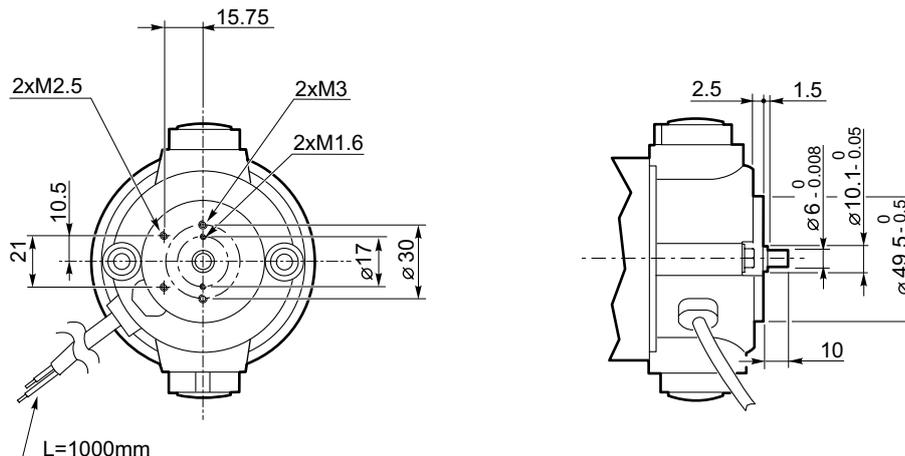
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP600/72...	1	95.4	324.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	115	344										
	3	134.6	363.6										
ECP600/81...	1	101	330	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	123	352										
	3	145	374										
ECP600/105...	1	123.4	352.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	154.5	383.5										
	3	185.5	414.5										
ECP600/120...	1	136.5	365.5	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	170.7	399.7										
	3	204.9	433.9										



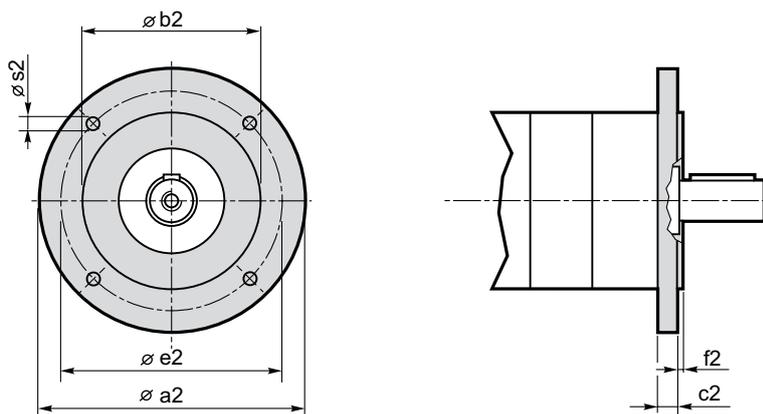
Dimensioni

Dimensions

ECP100.24E
ECP180.24E



ECP.../... C... Flange uscita / Output flanges



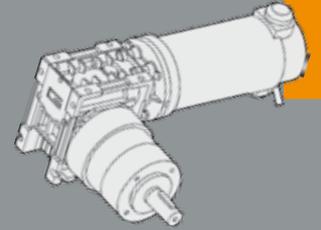
Dimensioni / Dimensions

P	a2	b2	c2	e2	f2	s2	Flangia uscita Output flange
52	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
62	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
72	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	M5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
81	90	60 j7	9	75	2.5	M5	C90
	105	70 j7	9	85	2.5	M6	C105
	120	80 j7	9	100	3.0	6.5	C120
105	120	80 j7	12	100	3	M6	C120
	140	95 j7	12	115	3.5	M8	C140
	160	110 j7	12	130	3.5	M8	C160
120	140	95 j7	15	115	3	M8	C140
	160	110 j7	15	130	3.5	M8	C160

TRANSTECNOTM
THE MODULAR GEARMOTOR

ECWMP

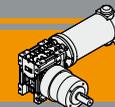
ECWMP



MOTORIDUTTORI C.C. COMBINATI

PERMANENT MAGNETS D.C. COMBINATION GEARMOTORS





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Caratteristiche tecniche

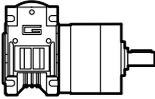
Technical features

L'accoppiamento di un riduttore a vite senza fine con un riduttore epicicloidale consente di ottenere elevati rapporti di riduzione ($i_{max} = 1/18452$) e di disporre di un gruppo autolubrificato compatto, silenzioso e con un'elevata affidabilità.

The coupling of a wormgearbox to a planetary gearbox allows to obtain high reduction ratios ($i_{max} = 1/18452$) and to get a compact, silent, self lubricated with high reliability group.

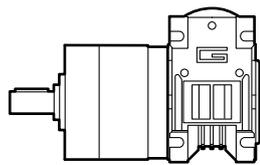
Designazione

Classification

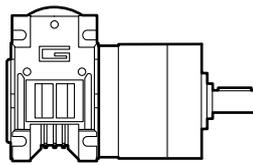
MOTORIDUTTORE / GEARMOTOR										
ECWMP	070/026/52				2	CD	90	405	240	VS
Tipo Type	Grandezza Size				Numero stadi epicicloidale Planetary stages number	Versione Riduttore Gearbox Version	Flangia Uscita Output flange	Rapporto Ratio	Versione Motore Motor Version	Opzioni Options
	070/026/52	100/026/52	180/026/52	350/030/81	1	US	80	Vedere tabella See tables	120	VS
	070/026/62	100/026/62	180/026/62		2	UD	90		240	
	070/030/81	100/030/81	180/030/81		3	CS	105		24E	
						CD	120			

Versioni

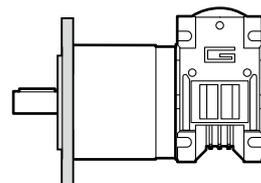
Versions



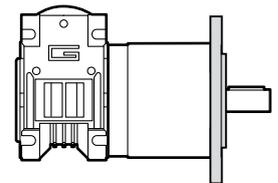
US



UD



CS



CD

Simbologia

Symbols

n_1	[min ⁻¹]	Velocità in ingresso / Input speed
n_2	[min ⁻¹]	Velocità in uscita / Output speed
i		Rapporto di riduzione / Ratio
P_1	[kW]	Potenza in entrata / Input power
M_n	[Nm]	Coppia nominale in uscita del riduttore / Maximum output torque of the gearbox
M_2	[Nm]	Coppia in uscita in funzione di P_1 / Output torque referred to P_1
sf		Fattore di servizio / Service factor
R_d	%	Rendimento dinamico / Dynamic efficiency
A_2	[N]	Carico assiale ammissibile in uscita / Permitted output axial load
R_2	[N]	Carico radiale ammissibile in uscita / Permitted output radial load

Lubrificazione

Lubrication

I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenance free.

Questo gli consente di essere installati praticamente ovunque.

They can be installed in any location.

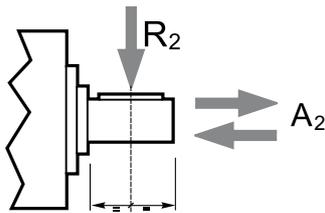
La temperatura di funzionamento consentita va da -30°C a +140°C; per applicazioni particolari possono essere adottate misure per raggiungere livelli di temperatura maggiori.

The temperature range is from -30°C up to +140°C; for special applications, measures can be taken for higher temperature range.



Carichi radiali

Radial loads



Numero di stadi Stages number	Carichi Radiali R ₂ [N] Radial Load R ₂ [N]		
	P52	P62	P81
1	200	240	400
2	320	360	600
3	450	520	1000

Numero di stadi Stages number	Carichi Assiali A ₂ [N] Axial Load A ₂ [N]		
	P52	P62	P81
1	60	70	80
2	100	100	120
3	150	150	200

Rapporti

Ratios

Motoriduttore Gearmotor	Numero stadi epicicloidale Planetary stages number	Rapporto epicicloidale Planetary ratio	Rapporto vite senza fine Wormgearbox ratio	Rapporto finale Total ratio
.../026/052 .../026/062 .../030/081	1	6.75	10	67.5
			15	101.3
			20	135
			30	202.5
			40	270
			50	337.5
	2	28.93	10	289.3
			15	434.0
			20	578.6
			30	867.9
			40	1157
			50	1447
			60	1736
			60	2098
	34.97	60	2098	
	45.56	60	2734	

Rendimento

Efficiency

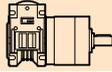
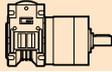
Motoriduttore Gearmotor	n ₁ [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio															
			67.5	101.3	135	202.5	270	337.5	405	289.3	434.0	578.6	867.9	1157	1447	1736	2098	2734
.../026/052	2800	Rd %	68	66	64	58	54	51	48	64	62	60	54	51	48	45	45	45
.../026/062			68	66	64	58	54	51	48	64	62	60	54	51	48	45	45	45
.../030/081			68	67	64	59	56	52	49	64	63	60	55	52	48	46	46	46

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



Dati tecnici per servizio S2

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version					
100							140											
(3000 min ⁻¹)	44.4	14	1.8	67.5	070/026/521	120/240	(3000 min ⁻¹)	44.4	20	1.3	67.5	100/026/521	120/240/24E					
	29.6	21	1.2	101.3				29.6	25	1.0	101.3							
	22.2	25	1.0	135.0				44.4	20	2.0	67.5			100/026/621	120/240/24E			
	14.8	25	1.0	202.5				29.6	29	1.4	101.3							
	11.1	25	1.0	270.0				22.2	37	1.1	135.0							
	10.4	25	1.0	289.3			070/026/522	120/240	14.8	40	1.0					202.5		
	8.9	25	1.0	337.5			070/026/521	120/240	44.4	20	4.0					67.5	100/030/811	120/240/24E
	7.4	25	1.0	405				29.6	29	2.7	101.3							
	6.9	25	1.0	434			070/026/522	120/240	22.2	38	2.1					135.0		
	5.2	25	1.0	579				14.8	52	1.6	202.5							
	3.5	25	1.0	868		11.1	65	1.2	270.0									
	2.6	25	1.0	1157		10.4	80	1.5	289.3	100/030/812	120/240/24E							
	2.1	25	1.0	1447		8.9	75	1.1	337.5	100/030/811	120/240/24E							
	1.7	25	1.0	1736		7.4	80	1.0	405.0									
	1.4	25	1.0	2098		6.9	120	1.0	434.0			100/030/812	120/240/24E					
	1.1	25	1.0	2734		5.2	120	1.0	578.6									
	44.4	14	2.8	67.5	070/026/621	120/240												
	29.6	21	1.9	101.3														
	22.2	27	1.5	135.0														
	14.8	37	1.1	202.5														
	11.1	40	1.0	270.0														
	10.4	50	1.0	289.3			070/026/622	120/240										
	8.9	40	1.0	337.5			070/026/621	120/240										
	7.4	40	1.0	405.0														
	6.9	50	1.0	434.0			070/026/622	120/240										
	5.2	50	1.0	578.6														
	3.5	50	1.0	867.9														
	2.6	50	1.0	1157														
	2.1	50	1.0	1447														
	1.7	50	1.0	1736														
	1.4	50	1.0	2098														
	1.1	50	1.0	2734														
	44.4	14	5.6	67.5	070/030/811	120/240												
	29.6	21	3.8	101.3														
	22.2	27	2.9	135.0														
	14.8	37	2.2	202.5														
	11.1	47	1.7	270.0														
	10.4	58	2.1	289.3			070/030/812	120/240										
	8.9	54	1.5	337.5			070/030/811	120/240										
	7.4	62	1.3	405.0														
	6.9	85	1.4	434.0			070/030/812	120/240										
	5.2	109	1.1	578.6														
	3.5	120	1.0	867.9														
	2.6	120	1.0	1157														
	2.1	120	1.0	1447														
	1.7	120	1.0	1736														
	1.4	120	1.0	2098														
	1.1	120	1.0	2734														
250									500									
(3000 min ⁻¹)	44.4	25	1.0	67.5	180/026/521	120/240			(3000 min ⁻¹)	44.4	73	1.1	67.5	350/030/811	120/240			
	44.4	37	1.1	67.5				29.6	80	1.0	101.3							
	29.6	40	1.0	101.3				22.2	80	1.0	135.0							
	22.2	40	1.0	135.0				44.4	37	2.2	67.5	180/030/811	120/240/24E					
	10.4	50	1.0	289.3				29.6	54	1.5	101.3							
	8.9	40	1.0	337.5				22.2	70	1.1	135.0							
	7.4	40	1.0	405.0				14.8	80	1.0	202.5							
	6.9	50	1.0	434.0				11.1	80	1.0	270.0							
	5.2	50	1.0	578.6				10.4	120	1.0	289.3					180/030/812	120/240/24E	
	3.5	50	1.0	867.9				8.9	80	1.0	337.5					180/030/811	120/240/24E	
	2.6	50	1.0	1157														
	2.1	50	1.0	1447														
	1.7	50	1.0	1736														

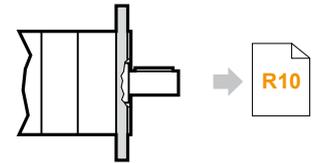
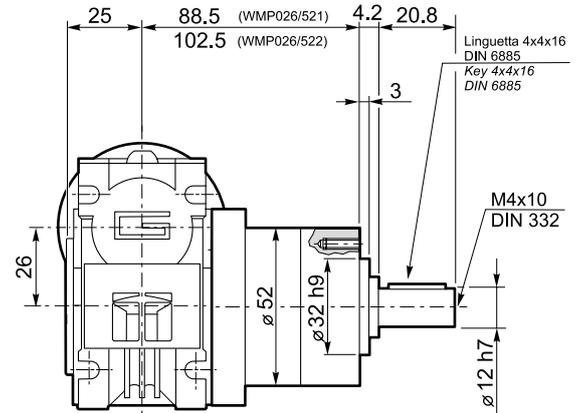
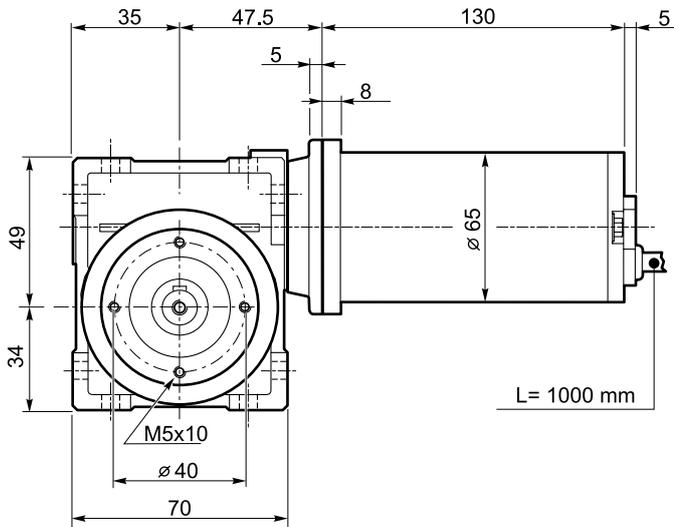
Nota: Verificare sempre che la coppia M₂ utilizzata non ecceda il valore indicato nelle caselle in grigio
Note: Please check that the output torque M₂ does not exceed the value into the grey areas



Dimensioni

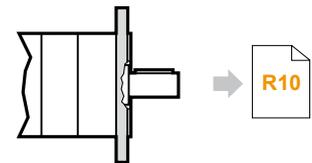
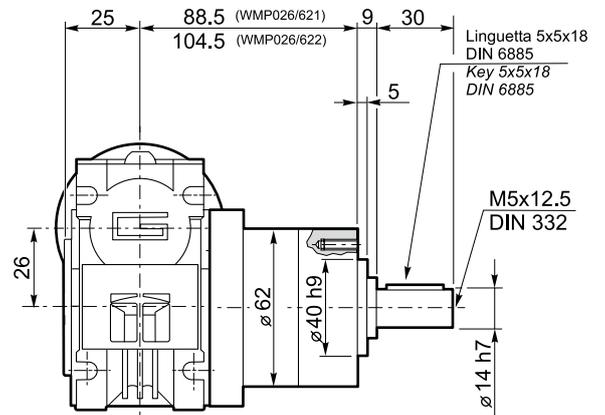
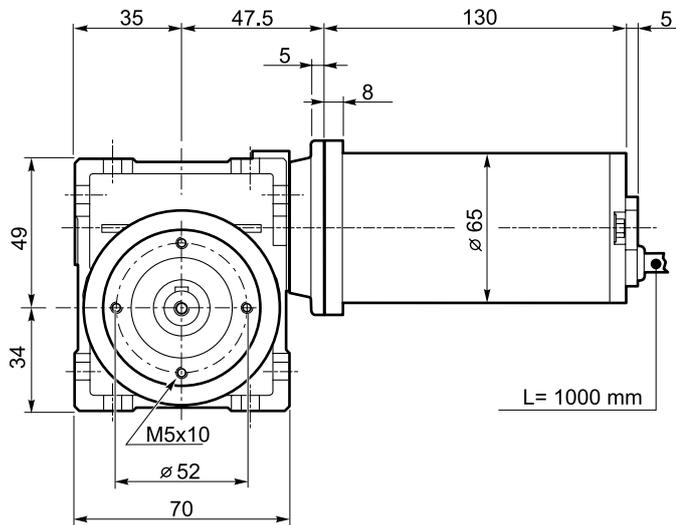
Dimensions

ECWMP070/026/52...U



ECWMP070/026/52...C

ECWMP070/026/62...U



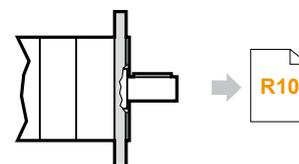
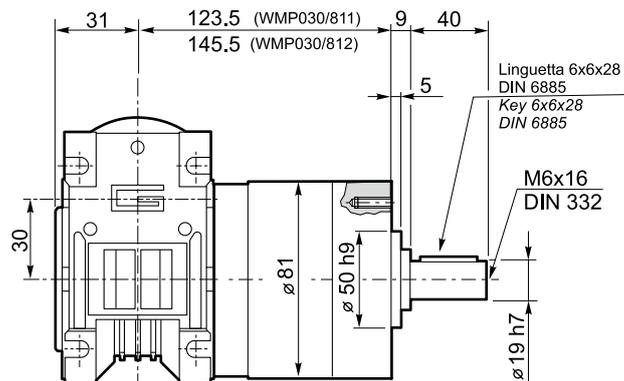
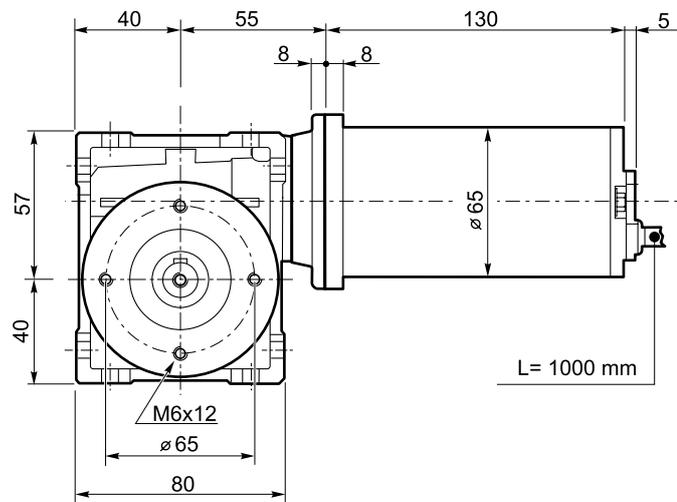
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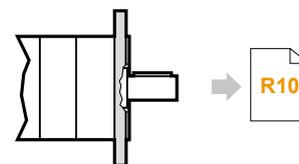
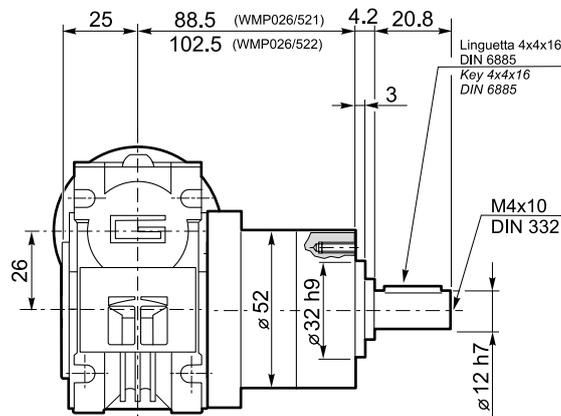
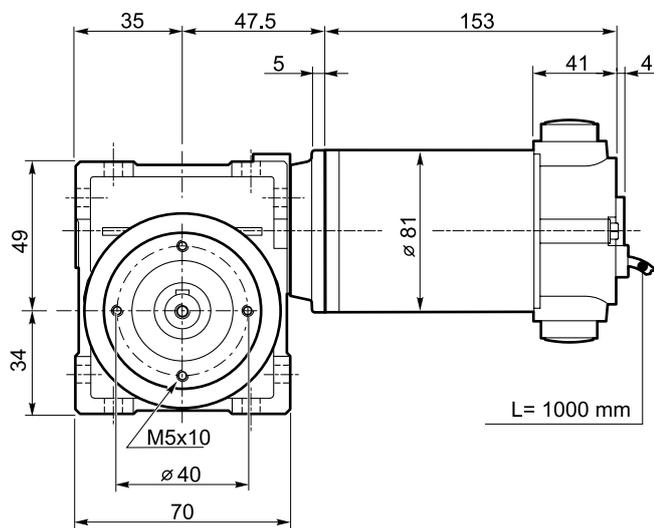
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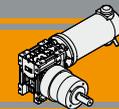


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ECWMP100/026/52...U



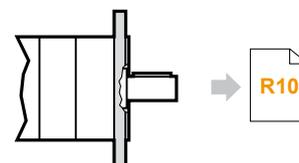
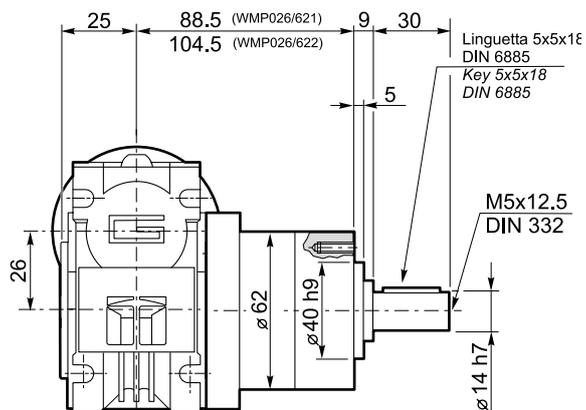
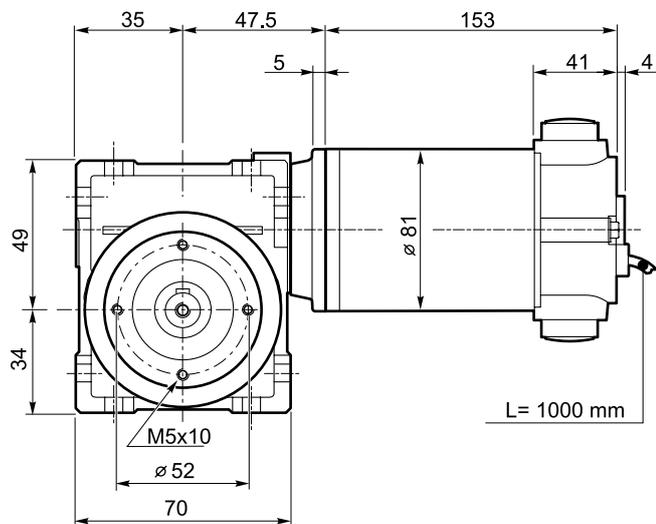
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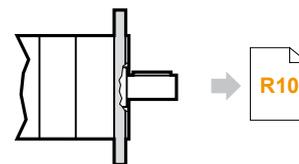
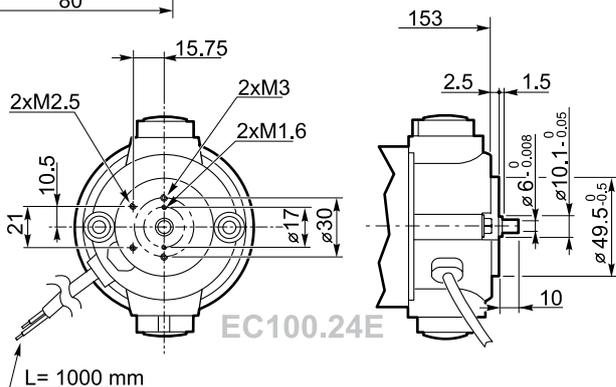
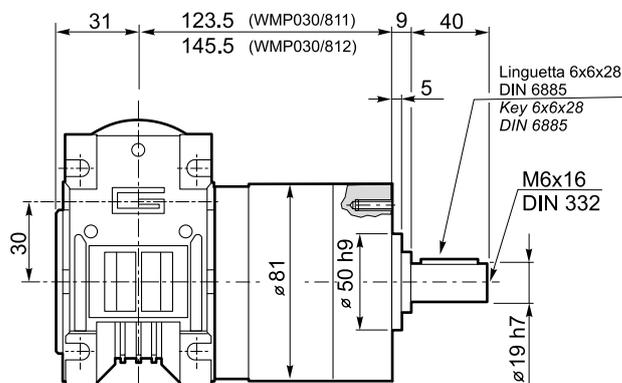
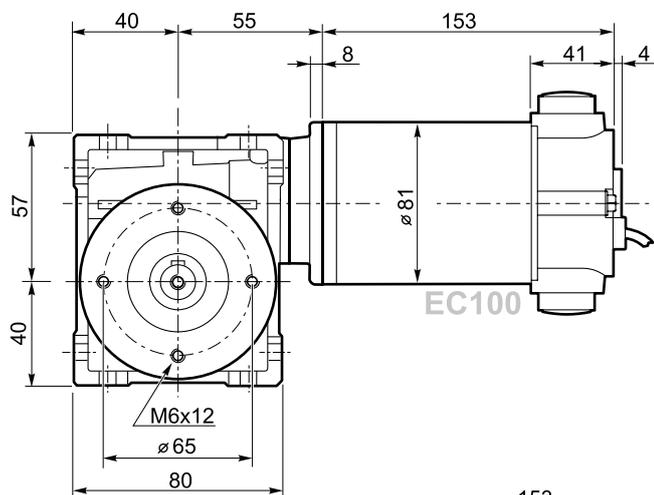
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ECWMP100/026/62...U



ECWMP100/026/62...C

ECWMP100/030/81...U



ECWMP100/030/81...C

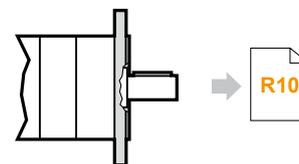
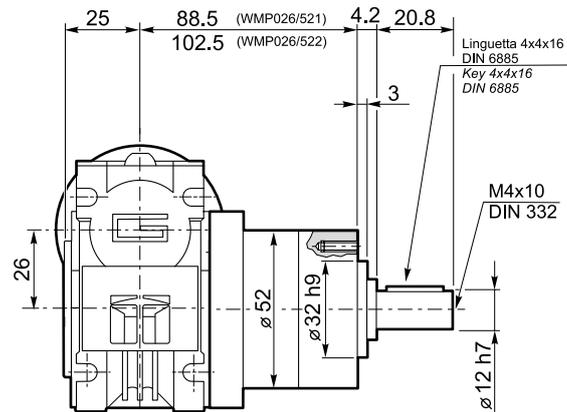
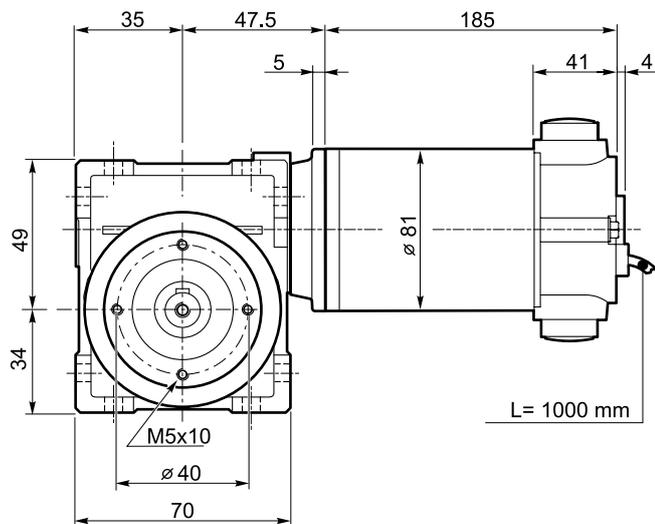
ECWMP



Dimensioni

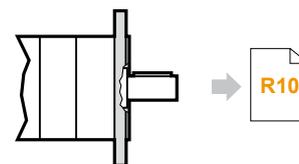
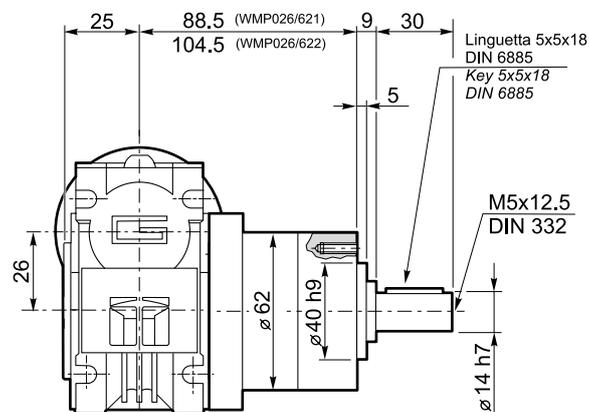
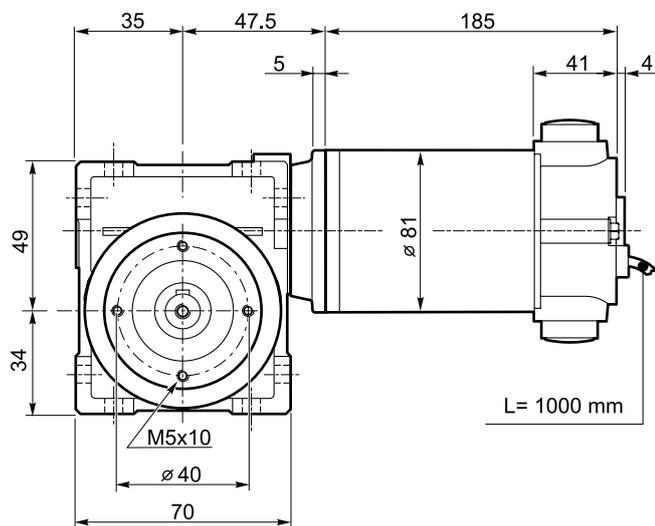
Dimensions

ECWMP180/026/52...U



ECWMP180/026/52...C

ECWMP180/026/62...U



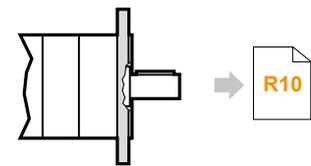
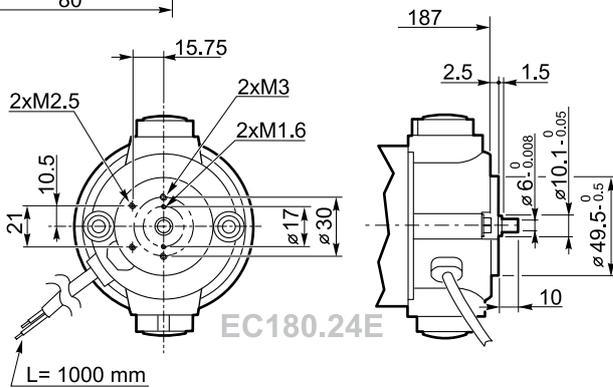
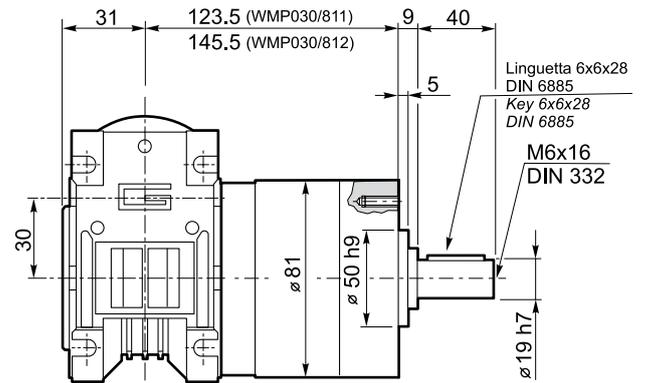
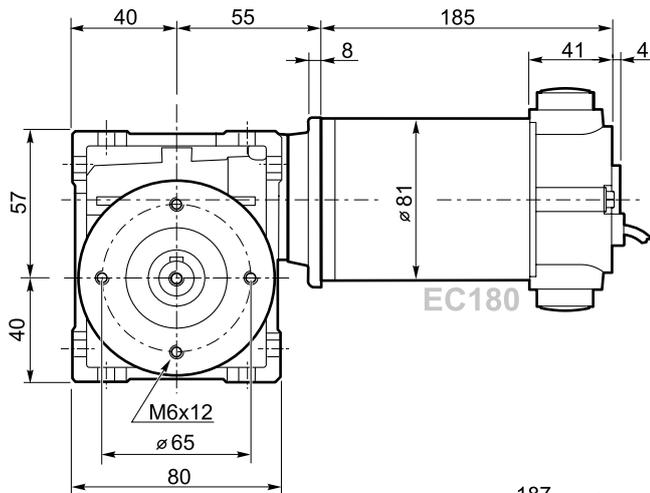
ECWMP180/026/62...C



Dimensioni

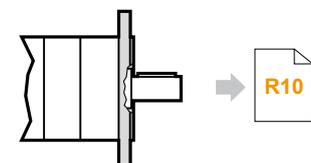
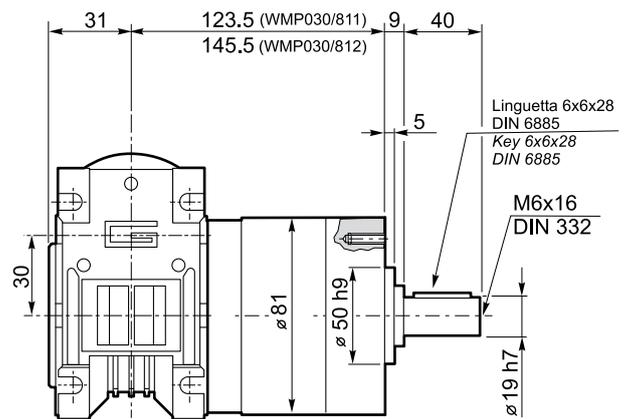
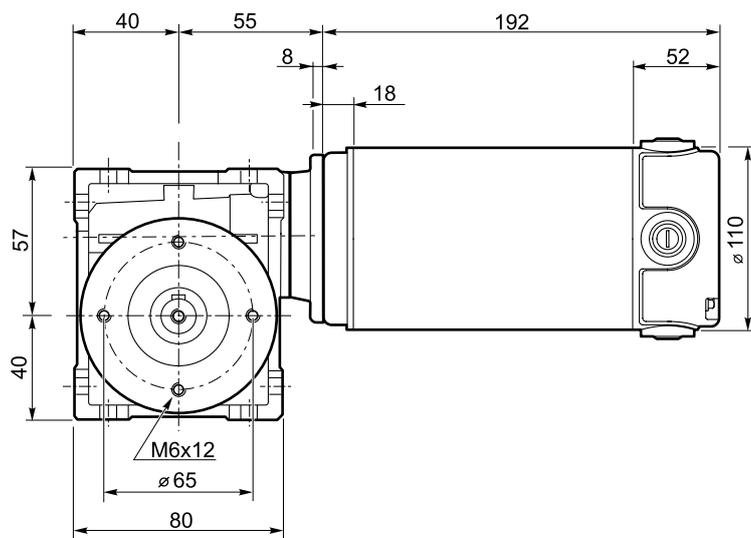
Dimensions

ECWMP180/030/81...U



ECWMP180/030/81...C

ECWMP350/030/81...U



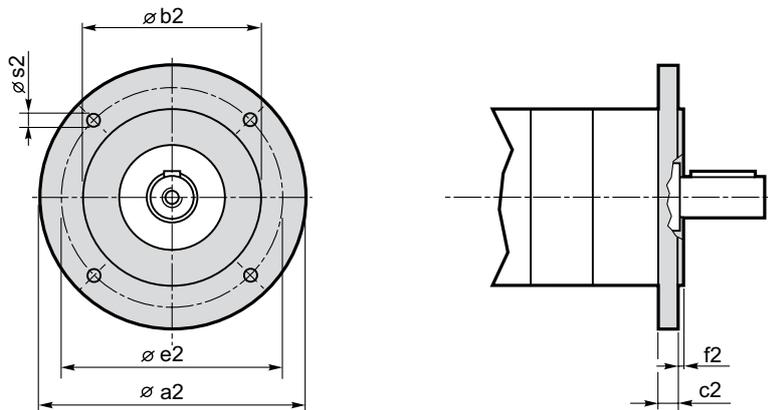
ECWMP350/030/81...C



Dimensioni

Dimensions

ECWMP.../.../... C... Flange uscita / Output flanges



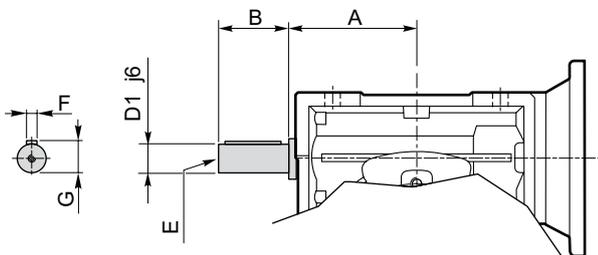
Dimensioni / Dimensions

P	a2	b2	c2	e2	f2	s2	Flangia uscita Output flange
52	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
62	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
81	90	60 j7	9	75	2.5	M5	C90
	105	70 j7	9	85	2.5	M6	C105
	120	80 j7	9	100	3.0	6.5	C120

Opzioni

Options

VS - Vite sporgente / Extended input shaft



	A	B	D_1 j6	E	F	G
CM 030	45	20	9	M4	3	10.2

AZIONAMENTI PER MOTORI C.C.
D.C. MOTOR CONTROLS



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	Caratteristiche tecniche	<i>Technical features</i>	S2
	Dimensioni	<i>Dimensions</i>	S3
	Opzioni	<i>Options</i>	S3
PLN20 PLN40	Schema dei collegamenti	<i>Main connection diagram</i>	S4
	Caratteristiche tecniche	<i>Technical features</i>	S5
	Dotazioni	<i>Equipment</i>	S5
	Manuale	<i>User manual</i>	S5
	Dimensioni	<i>Dimensions</i>	S6
	GUIDA alla selezione dell'azionamento	<i>Drive selection GUIDE</i>	S7
	Note	<i>Note</i>	S8

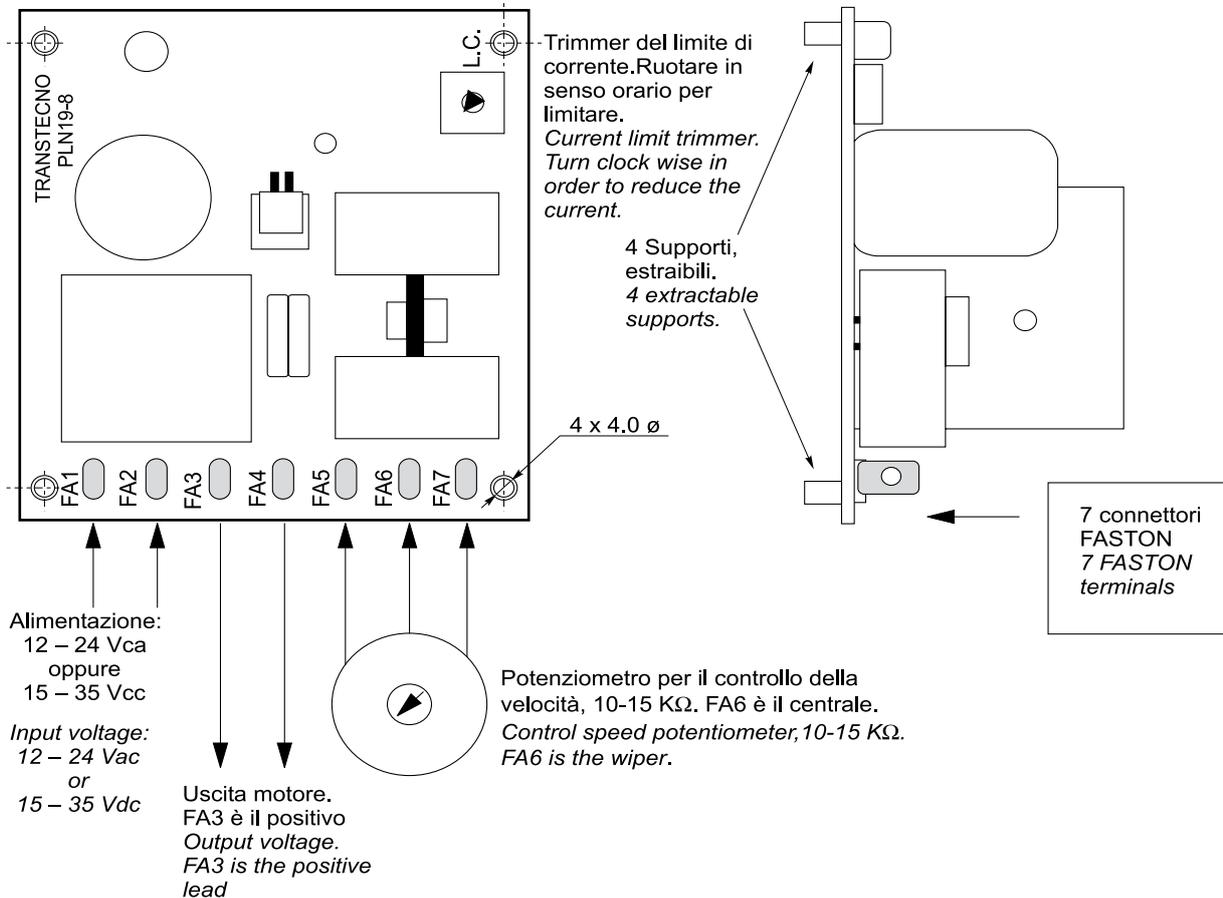
Questa sezione annulla e sostituisce ogni precedente edizione o revisione. Qualora questa sezione non Vi sia giunta in distribuzione controllata, l'aggiornamento dei dati ivi contenuto non è assicurato. **In tal caso la versione più aggiornata è disponibile sul nostro sito internet www.transtecno.com**

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**AZIONAMENTO UNIDIREZIONALE PWM PER LA
REGOLAZIONE DI VELOCITA' DEI MOTORI A
CORRENTE CONTINUA A BASSA TENSIONE**

**LOW VOLTAGE SINGLE DIRECTION
PWM DC MOTORS CONTROL**

SCHEMA DEI COLLEGAMENTI - MAIN CONNECTION DIAGRAM



Attenzione: se si scollega il potenziometro con la scheda alimentata, il motore ruota alla velocità nominale.

Warning: if speed pot is disconnected when the board is powered, the motor runs at its maximum speed.

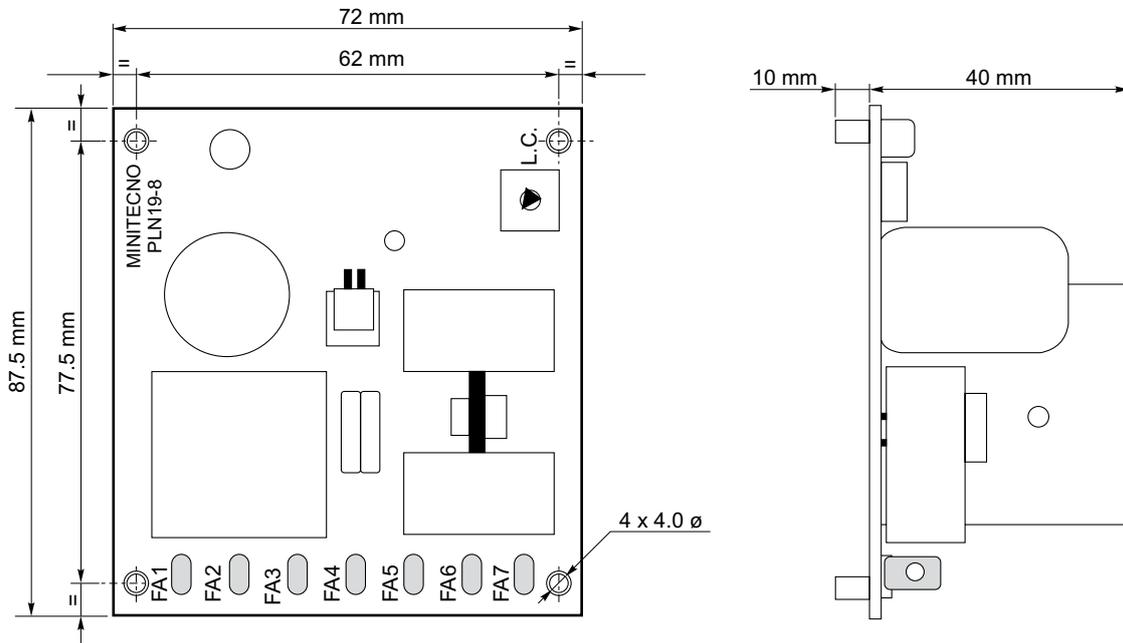
Caratteristiche tecniche

Technical features

- Alimentazione ai terminali FA1 e FA2:
12 - 24 Vca oppure 15 - 35 Vcc.
- Regolazione della velocità mediante potenziometro 10-15 KΩ.
- Trimmer di Limitazione della corrente, per adattare la scheda anche a motori di piccole potenze. Per limitare l'erogazione di corrente, ruotare in senso orario il trimmer.
- Uscita motore ai terminali FA3 e FA4, regolabile da 0 a Vcc MAX che è proporzionale alla tensione di ingresso. Con 35 Vcc di alimentazione, l'uscita MAX è circa 30 Vcc.
- Corrente di uscita (*): Massima corrente ammessa: 8 A in ambiente ventilato, servizio continuo.
- Peso: 0.120 Kg.
- Line voltage at terminals FA1 and FA2:
12 – 24 Vac or 15 – 35 Vdc.
- The speed of the drive is to be controlled by potentiometer, 10-15 KΩ.
- Current Limit trimmer, in order to suit the board for small motors. In order to limit the current, turn clock wise the trimmer.
- Output voltage from terminals FA3 and FA4, from 0 up to Vdc MAX which is proportional to the input voltage. With 35 Vdc input voltage, the max output voltage is about 30 Vdc.
- Output current (*): Maximum output current allowed: 8 A in a ventilated environment, continuous duty.
- Weight: 0.120 Kg.

Dimensioni

Dimensions



Opzioni

Options

1. Potenzimetro 10 kΩ
2. Supporto per montaggio su guida DIN

1. Speed potentiometer 10 kΩ
2. DIN mounting support

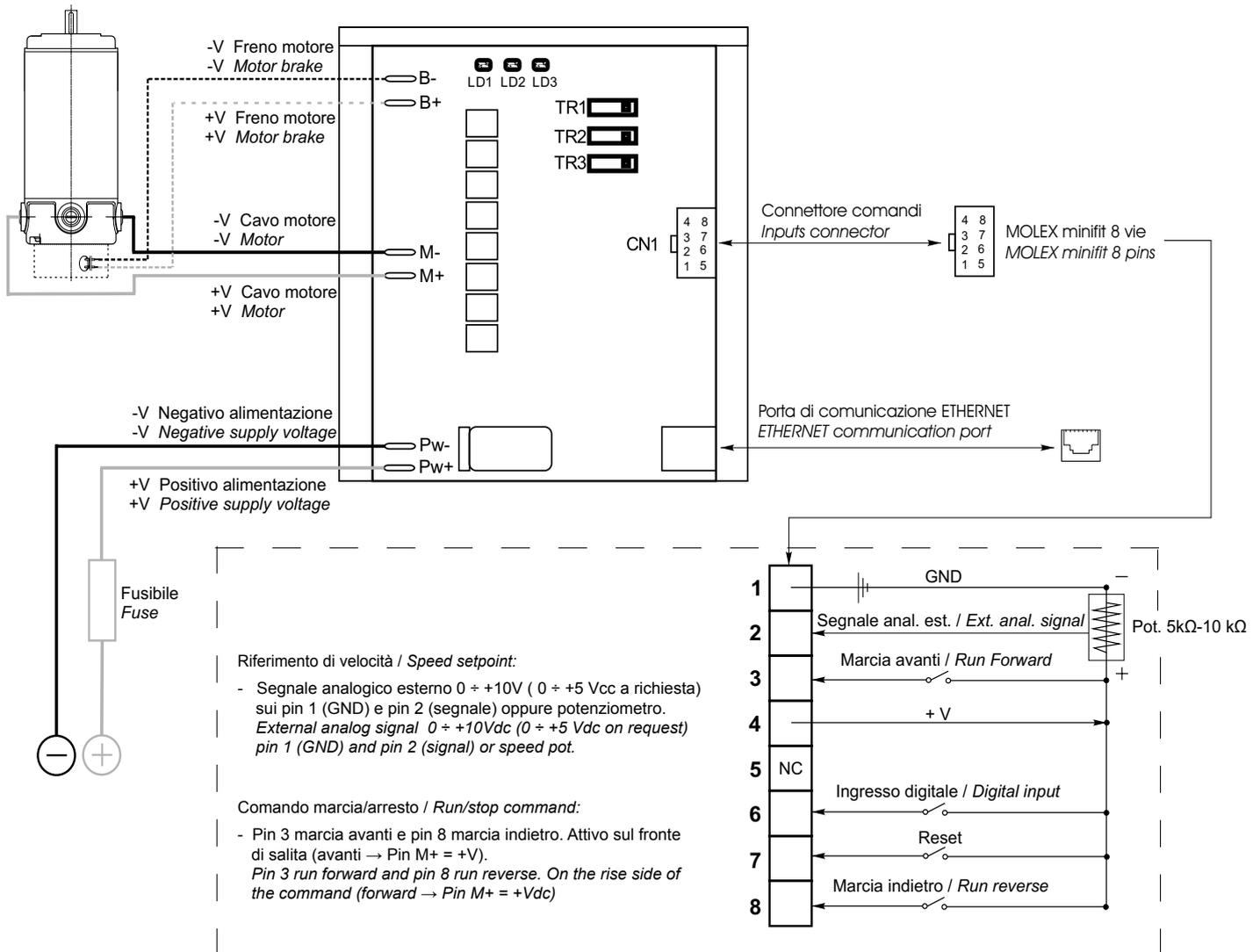
(*) il valore massimo di corrente motore deve essere utilizzato in **ambiente ventilato**. In ambienti non ventilati e per temperatura ambiente di 45 °C, ridurre la corrente motore massima a 4 A; servizio continuo.

(*) *the maximum output current value must be used in a ventilated environment. Derate the maximum output current down to 4 A if the environment is not ventilated and the temperature is about 45 °C; continuous duty.*

**AZIONAMENTO BIDIREZIONALE PWM PER LA
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PWM DC MOTORS CONTROL**

SCHEMA DEI COLLEGAMENTI - MAIN CONNECTION DIAGRAM



Fusibile:

150-200% della corrente motore. Max 3 volte la corrente nominale della scheda, con intervento entro pochi secondi.

Trimmer multigiro:

TR1: Accelerazione: selezione da 0.5 a 10 sec.

TR2: Limite di corrente: riduce il limite di corrente nominale da 100% a circa 30% (corrente di picco 3 volte la corrente selezionata).

TR3: Decelerazione: selezione da 0.5 a 10 sec.

LED:

LD1: Visualizza lo stato di funzionamento con limite di corrente attivo (il motore assorbe più della corrente selezionata e l'azionamento opera in limitazione).

LD2: Stato dell'azionamento: lampeggio veloce e continuo = funzionamento normale, lampeggio lento e codificato = presenza di un allarme

LD3: Segnalazione presenza alimentazione.

Fuse:

150-200 % rated motor current. Max 3 times rated current of the drive (trip time in few seconds).

Multiturn trimmers:

TR1: Acceleration time: from 0.5 to 10 sec.

TR2: Current limitation: rated current limited from 100% to about 30% (peak current 3 times the selected limited current).

TR3: Deceleration time: from 0.5 to 10 sec.

LED:

LD1: ON when the drive runs under current limitation (motor requires more than the rated current and drive supplies only limited current).

LD2: Status: quick continuous flash = drive ok, slow coded flash = fault).

LD3: Power ON

Caratteristiche tecniche

Technical features

- Scheda bidirezionale a transistor a ricircolo di corrente.
 - Selezionabili i seguenti parametri (mediante trimmer):
 - rampa di accelerazione: 0.5 - 10 sec
 - rampa di decelerazione: 0.5 - 10 sec
 - limite corrente 100%-30% circa
 - Temperatura di lavoro: 0°C / +40°C
 - Diagnostica tramite LED
 - Frequenza di commutazione: 16kHz
 - Dotata di coperchio
 - Velocità regolabile con potenziometro 5-10 kΩ o con segnale 0-10 Vcc (0-5 Vcc a richiesta)
 - Limitazione della corrente regolabile
 - Sensore termico di protezione
- *Transistor bidirectional drive with regenerative current system.*
 - *Following settings can be adjusted (by built in trimmers):*
 - *acceleration ramp: 0.5 - 10 sec*
 - *deceleration ramp: 0.5 - 10 sec*
 - *current limit 100% - about 30%*
 - *Room temperature: 0°C / +40°C*
 - *LED for system diagnosis*
 - *Switching frequency: 16kHz*
 - *Covered*
 - *5-10 kΩ Speed pot. or 0-10 Vdc external signal for speed regulation (0-5 Vdc on request)*
 - *Variable current limit*
 - *Thermal sensor for protection*

Modello Model number	Tensione di alimentazione DC input voltage [Vdc]	Tensione di uscita Motor voltage [Vdc]*	Corrente di uscita nominale DC load current [A]	Corrente di picco motore Maximum load current [A]**	Campo di alimentazione Power supply range [Vdc]
PLN20	12 ÷ 24	0 ÷ Vin	20	60 (4 sec)	10 ÷ 30
PLN40	12 ÷ 24	0 ÷ Vin	40	120 (4 sec)	10 ÷ 30

* L'azionamento riduce la tensione nominale di 1-2 Vcc. Il fenomeno è normale e fisiologico. Se serve ottenere 24 ÷ 12 Vcc in uscita sotto ogni condizione di carico, si suggerisce di sovralimentare di un paio di volt.

** Un timer impone il limite con un andamento temporale iperbolico, cioè quanta più corrente eroga e tanto meno è il tempo per il quale ciò è ammesso, prima che appunto la scheda vada in limitazione. Alla corrente di picco (x 3 volte quella nominale) la scheda funziona per pochi secondi.

* *The drive reduces the rated voltage of 1-2 Vdc. This is normal and physiological. If 24 ÷ 12 VDC output is required under all load conditions, it is advisable to supercharge a couple of volts.*

** *A timer imposes a limit with a temporary hyperbolic performance, which means the more current is requested, the less time is permitted with this current before the drive is limited. When the current reaches its peak (3 times the rated value) the drive will work for a few seconds.*

Dotazioni

Equipment

	PLN20 PLN40
Trimmer di selezione ACCEL, DECEL e LIMITE di CORRENTE / <i>Selection Trimmer ACCEL, DECEL, CURRENT LIMIT</i>	■
2 contatti: marcia avanti e marcia indietro / <i>2 contacts : forward and reverse</i>	■
Riferimento di velocità / <i>Speed setpoint reference</i>	■
3 LEDs di segnalazione / <i>3 LEDs signals</i>	■
Segnale di comando di eventuale freno negativo di stazionamento / <i>Command signal for possible negative electromagnetic brake</i>	■
Predisposizione per montaggio a libro e a zoccolo / <i>Arranged for 2 different ways of mounting</i>	■
Porta di comunicazione ethernet / <i>Ethernet communication port</i>	■
Memorizzazione e segnalazione distinta degli allarmi / <i>Memory storage and report of allarm</i>	■
2 ingressi digitali ausiliari / <i>2 auxiliary digital inputs</i>	■#

uno impegnato dal reset / *one comitted by reset*



Per approfondimenti si raccomanda di scaricare il manuale d'uso dal nostro sito www.transtecno.com alla pagina dei prodotti.

Please, download the user manual for more information from our web site www.transtecno.com from the product page.

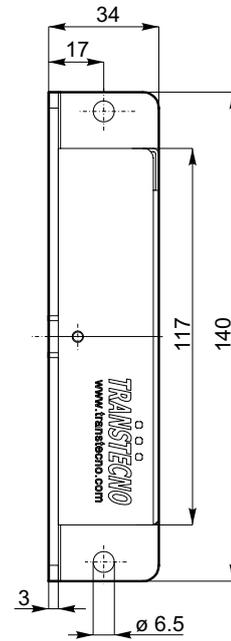
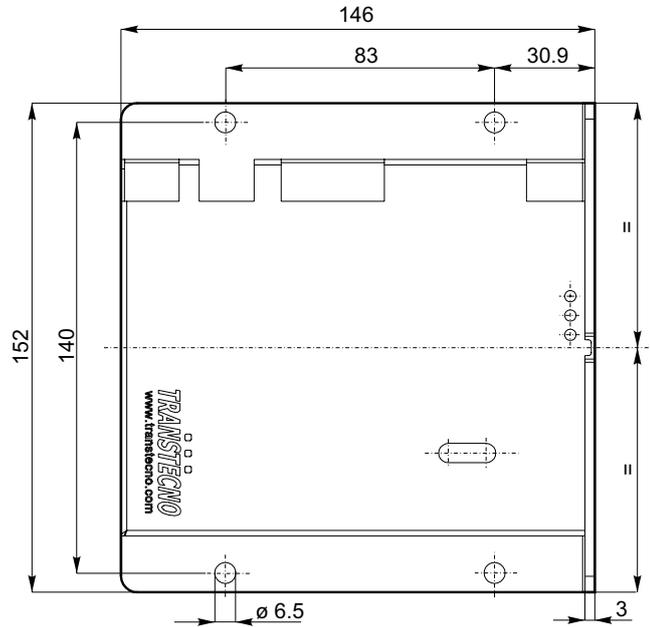
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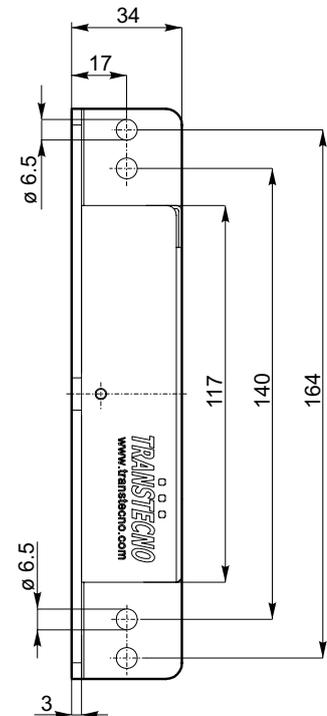
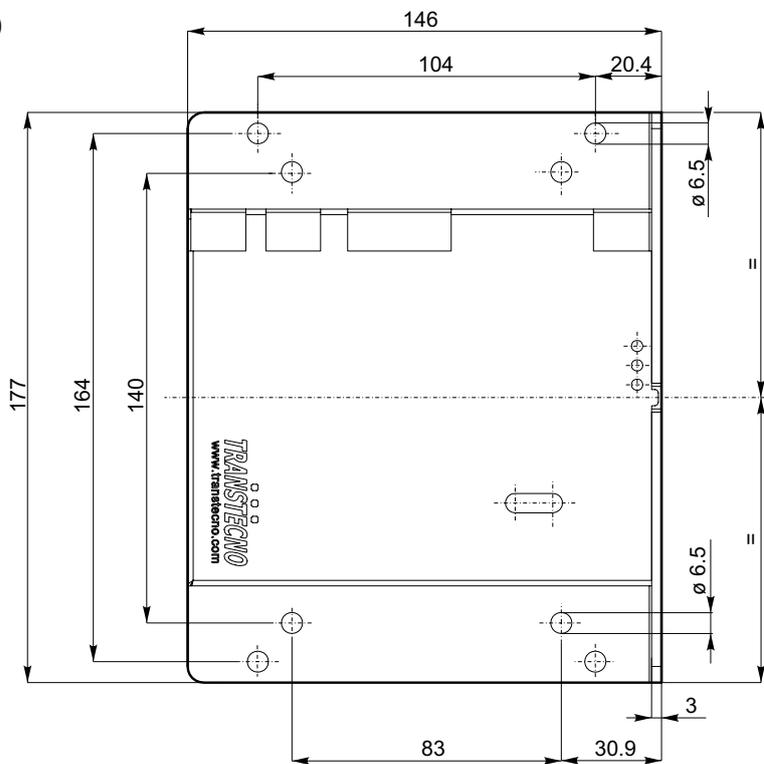
Dimensioni

Dimensions

PLN20



PLN40



Corrente di uso
del motore \leq Corrente nominale
dell'azionamento

Real motor
current \leq Rated current
of the drive

Attenzione: la reale corrente assorbita dal motore può essere diversa da quella indicata in targhetta.

PLN19-8 = max 6 A

PLN20 = max 22 A

PLN40 = max 44 A

Vedere sotto la tabella per esemplificazioni

Warning: the real absorbed current by the motor can be different from the one written on the nameplate.

PLN19-8 = max 6 A

PLN20 = max 22 A

PLN40 = max 44 A

See the table below for quick reference

Codice motore Motor code	Corrente motore Motor current S1	Scheda-Drive (servizio motore-motor duty) S1	Corrente motore Motor current S2	Scheda-Drive (servizio motore-motor duty) S2
EC020.120	3.2	PLN19-8 – PLN20	4	PLN19-8 – PLN20
EC020.240	1.5	PLN19-8 – PLN20	2	PLN19-8 - PLN20
EC035.120	5.2	PLN19-8 – PLN20	8	PLN20
EC035.240	2.6	PLN19-8 - PLN20	4	PLN19-8 - PLN20
EC050.120	6.8	PLN20	9.4	PLN20
EC050.240	3.4	PLN19-8 - PLN20	4.7	PLN19-8 - PLN20
EC070.120	8.4	PLN20	11.8	PLN20
EC070.240	4.2	PLN19-8 - PLN20	5.9	PLN19-8 - PLN20
EC100.120	12	PLN20	16.8	PLN20
EC100.240	6	PLN19-8 - PLN20	8.4	PLN20
EC100.24E	6	PLN19-8 - PLN20	8.4	PLN20
EC180.120	21.5	PLN20	30	PLN40
EC180.240	10.8	PLN20	15	PLN20
EC180.24E	10.8	PLN20	15	PLN20
EC250.120	30	PLN40	39	PLN40
EC250.240	15	PLN20	19.5	PLN20
EC350.120	42	PLN40	58.8	----
EC350.120BR				
EC350.240	21	PLN20	29.4	PLN40
EC350.240BR				
EC600.240	35.5	PLN40	47	PLN40
EC600.240BR				

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