

TRANSTECNO[®]
THE MODULAR GEARMOTOR



ROBIN

SMALL but STRONG

MOTORIDUTTORI A VITE SENZA FINE CA e CC
AC and DC WORMGEARMOTORS





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Caratteristiche tecniche

Technical features

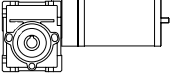
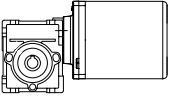
Le caratteristiche principali dei motoriduttori a vite senza fine della gamma Robin sono:

The main features of Robin wormgearmotors range are:

- Alimentazione in bassa tensione (12/24 Vcc) per la serie ECM; corrente alternata monofase (230 Vca - 50Hz) o corrente alternata trifase (400 Vca - 50Hz) per la serie ACM
- Supply voltage 12/24Vdc for ECM range, single phase 230Vac-50Hz or three phase 400Vac-50Hz for ACM range
- Potenze motore disponibili da 40 a 70 W
- Motor power available from 40W to 70W
- Carcasse dei riduttori in pressofusione di alluminio
- Die-cast aluminum housing for wormgearboxes
- Lubrificazione permanente con olio sintetico
- Permanent synthetic oil long-life lubrication
- Elevata affidabilità in ingombri molto ridotti
- Reliable and compact

Designazione

Classification

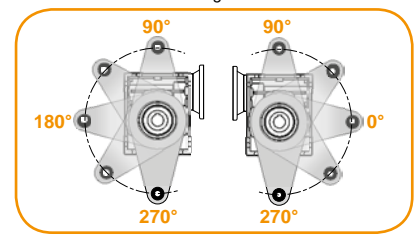
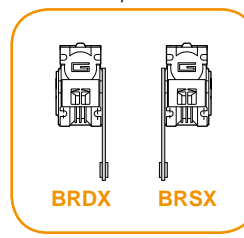
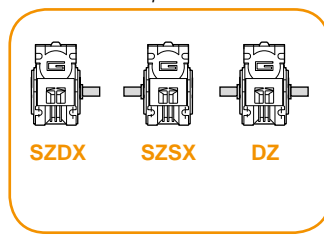
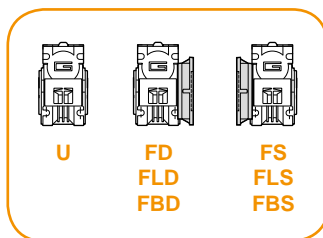
MOTORIDUTTORE / GEARMOTOR								
ECM	050/026	U	10	SZDX	BRSX	90	240	VS
Tipo Type	Grandezza Size	Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version	Opzioni Options
ECM 	035/026 035/030 050/026 050/030	U FD FS	Vedere tabella <i>See tables</i>	SZDX SZSX DZ	BRDX BRSX	0° 90° 180° 270°	120 240	VS
ACM 	040/026 040/030 060/026 060/030						230/1 400/3 <i>230/3 a richiesta on request</i>	

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



Lubrificazione

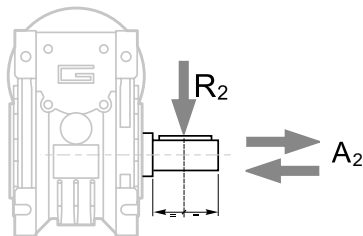
Lubrication

I riduttori a vite senza fine sono lubrificati a vita con olio sintetico viscosità 320 (-35°C +50°C), possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication viscosity grade 320 (-35°C +50°C) allows the wormgearboxes to be installed in all mounting positions and to be maintenance free.

Carichi radiali

Radial loads

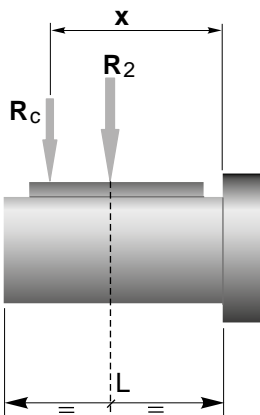


$A_2 = R_2 \times 0.2$

n ₂ [min ⁻¹]	R ₂ [N]	
	CM026	CM030
187	400	674
140	490	743
93	580	851
70	610	936
56	610	1008
47	610	1069
35	610	1179
28	610	1270
23	610	1356
18	610	1471
14	610	1600

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:



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

$$R \leq R_c$$

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

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

**Dati di dentatura****Toothing data**

	Dati della coppia vite-corona <i>Worm wheel data</i>	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'

Rendimento**Efficiency**

	n_1 [min ⁻¹]	Rendimento <i>Efficiency</i>	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








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








Dati tecnici ECM

Technical data ECM

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		
55							70								
(3000 min ⁻¹)	600	0.8	12.8	5		ECM035/026	120/240	(3000 min ⁻¹)	600	1.0	10.1	5		ECM050/026	120/240
	400	1.1	9.6	7.5					400	1.5	7.6	7.5			
	300	1.5	7.4	10					300	1.9	5.8	10			
	200	2.2	5.0	15					200	2.8	4.0	15			
	150	2.8	3.9	20					150	3.6	3.1	20			
	100	3.8	3.1	30					100	4.9	2.5	30			
	75	4.8	2.3	40					75	6.1	1.8	40			
	60	5.6	1.8	50					60	7.1	1.4	50			
	50	6.3	1.4	60					50	8.0	1.1	60			
	600	0.8	16.7	5					ECM035/030	120/240		600			
	400	1.2	13.0	7.5		400	1.5				10.2	7.5			
	300	1.5	10.6	10		300	1.9				8.3	10			
	200	2.2	7.3	15		200	2.8				5.7	15			
	150	2.8	4.9	20		150	3.6				3.9	20			
	120	3.4	4.4	25		120	4.3				3.5	25			
	100	3.9	4.6	30		100	4.9				3.6	30			
	75	4.9	3.3	40		75	6.2				2.6	40			
	60	5.7	2.6	50		60	7.2				2.1	50			
	50	6.5	2.1	60		50	8.3				1.7	60			
	38	8.0	1.5	80		38	10.2	1.2	80						
	30	9.1	1.2	100		30	11.6	0.9	100						

Dati tecnici ACM

Technical data ACM

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		
40							60								
(1300 min ⁻¹)	260	1.3	10.2	5		ACM040/026	230/1 - 400/3	(1300 min ⁻¹)	260	1.9	6.8	5		ACM060/026	230/1 - 400/3
	173	1.9	7.6	7.5					173	2.8	5.0	7.5			
	130	2.4	5.7	10					130	3.7	3.8	10			
	87	3.4	4.1	15					87	5.2	2.7	15			
	65	4.3	3.2	20					65	6.5	2.1	20			
	43	5.8	2.6	30					43	8.7	1.7	30			
	33	7.2	2.0	40					33	10.8	1.3	40			
	26	8.4	1.6	50					26	12.6	1.0	50			
	22	9.3	1.3	60					22	14.0	0.9	60			
	260	1.3	14.2	5					ACM040/030	230/1 - 400/3		260			
	173	1.9	10.7	7.5		173	2.8				5.3	7.5			
	130	2.5	8.5	10		130	3.7				4.3	10			
	87	3.5	6.0	15		87	5.2				3.1	15			
	65	4.4	4.3	20		65	6.6				2.1	20			
	52	5.3	3.8	25		52	7.9				1.9	25			
	43	5.9	3.7	30		43	8.9				2.0	30			
	33	7.3	2.7	40		33	10.9				1.5	40			
	26	8.5	2.2	50		26	12.8				1.2	50			
	22	9.7	1.8	60		22	14.5				1.0	60			
	16	11.3	1.3	80		16	16.9	0.7	80						
	13	12.6	1.1	100		13	16.0	0.7	100						



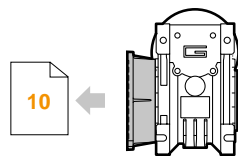
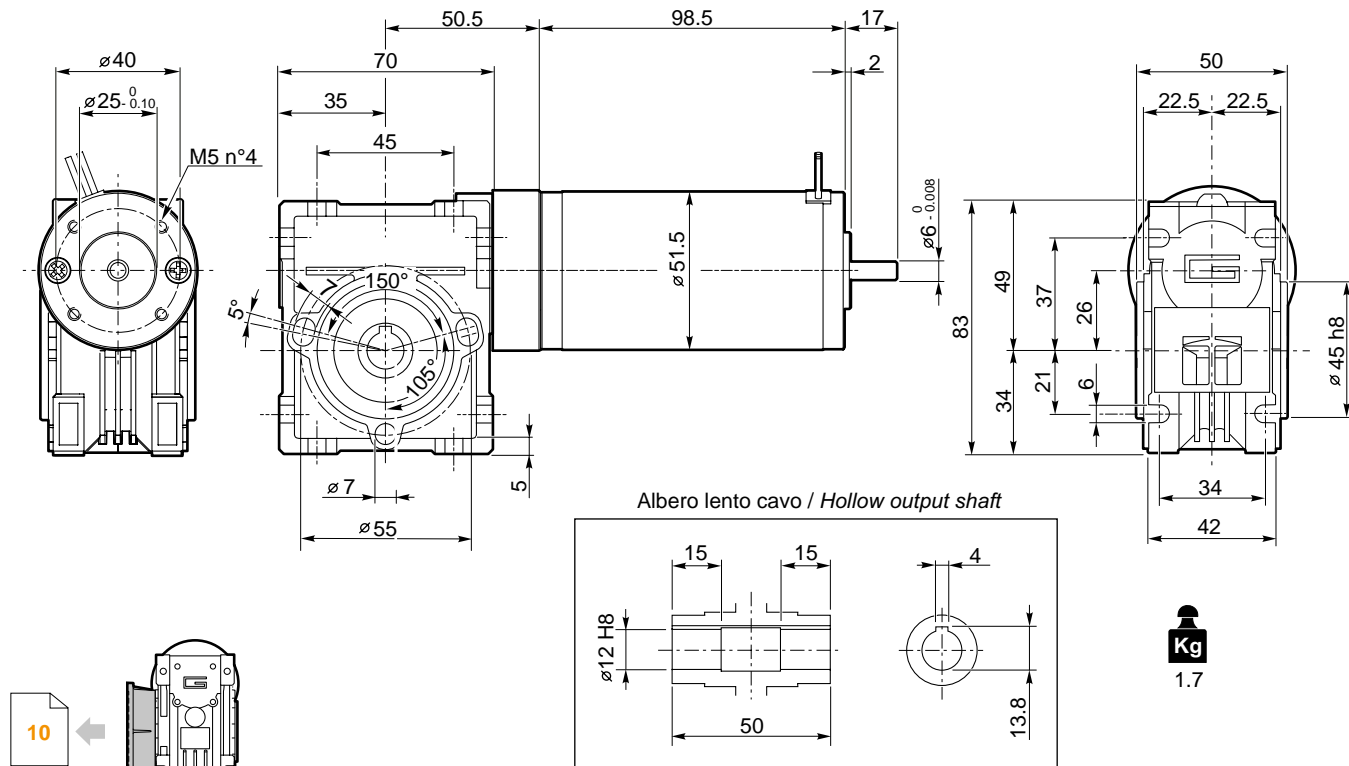
Dati tecnici calcolati secondo i valori di rendimento teorico dei riduttori dopo il rodaggio (vedi tabella)
Technical data calculated by using the theoretical efficiency of the gearboxes after the first running period (see table)



Dimensioni

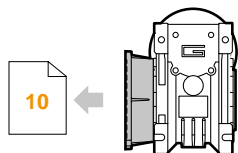
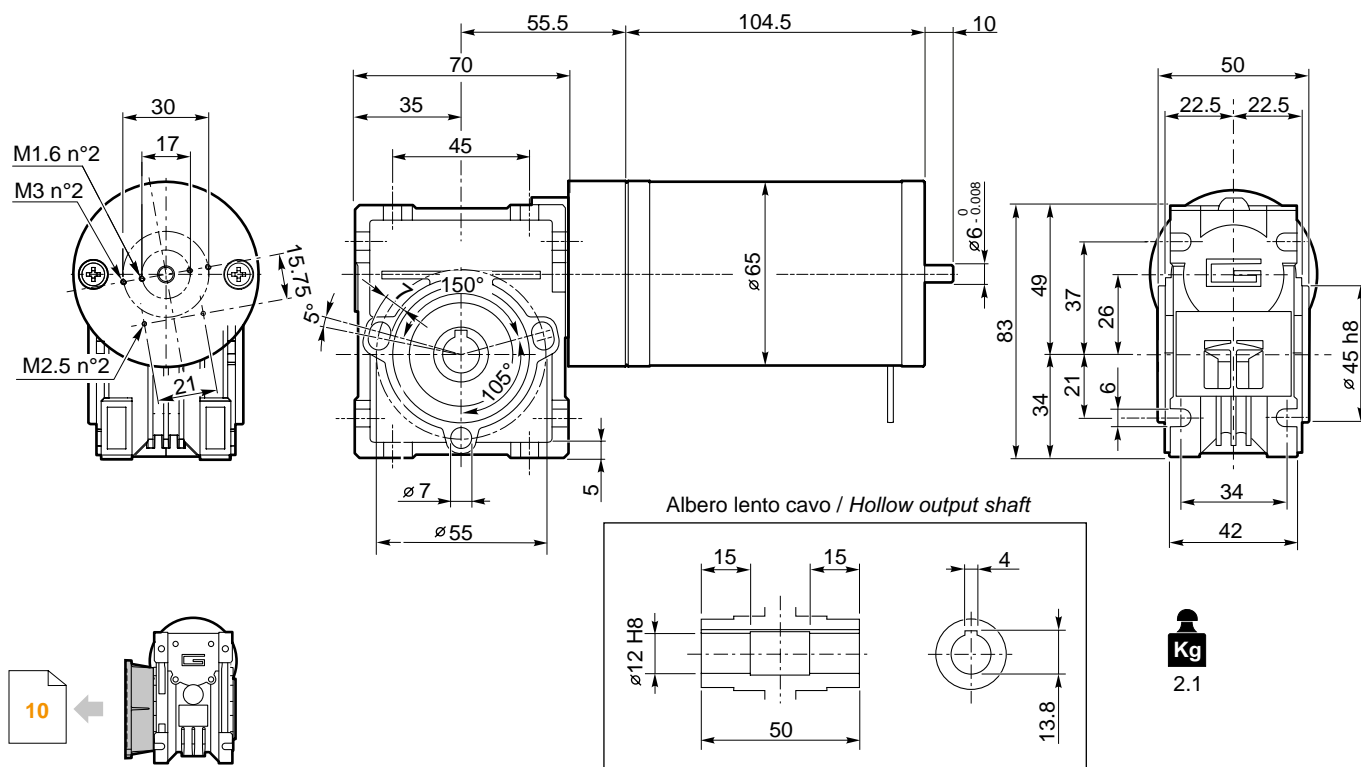
Dimensions

ECM035/026 U



ECM035/026 F

ECM050/026 U



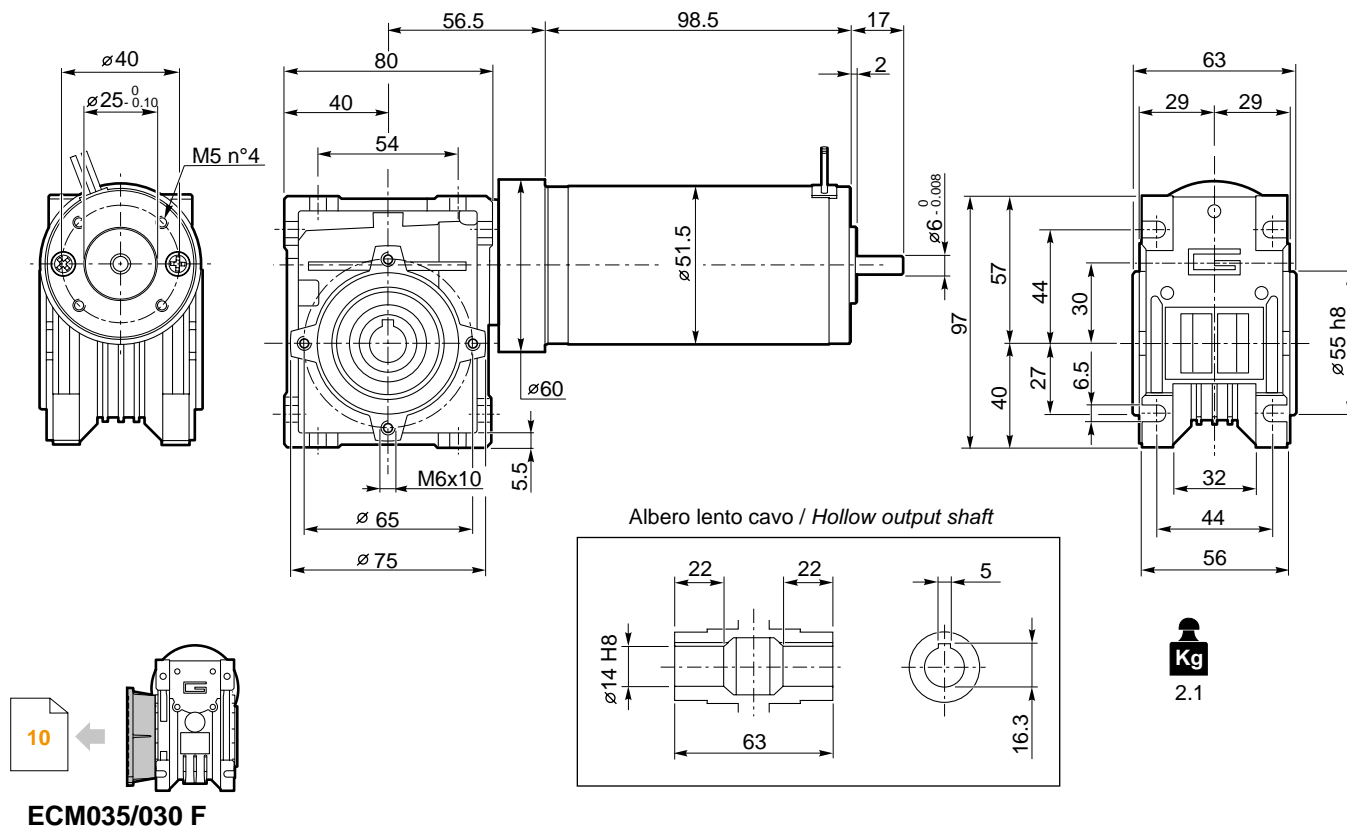
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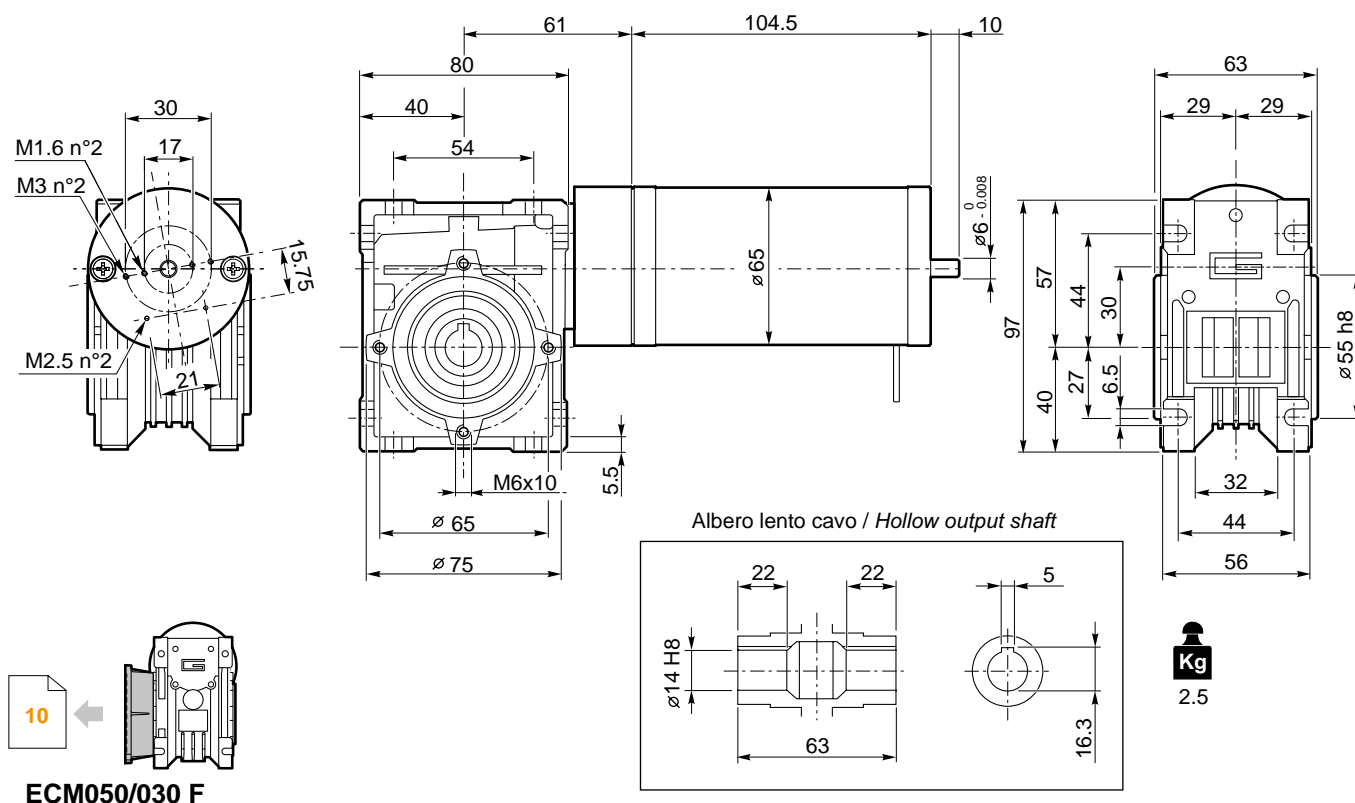
Dimensioni

Dimensions

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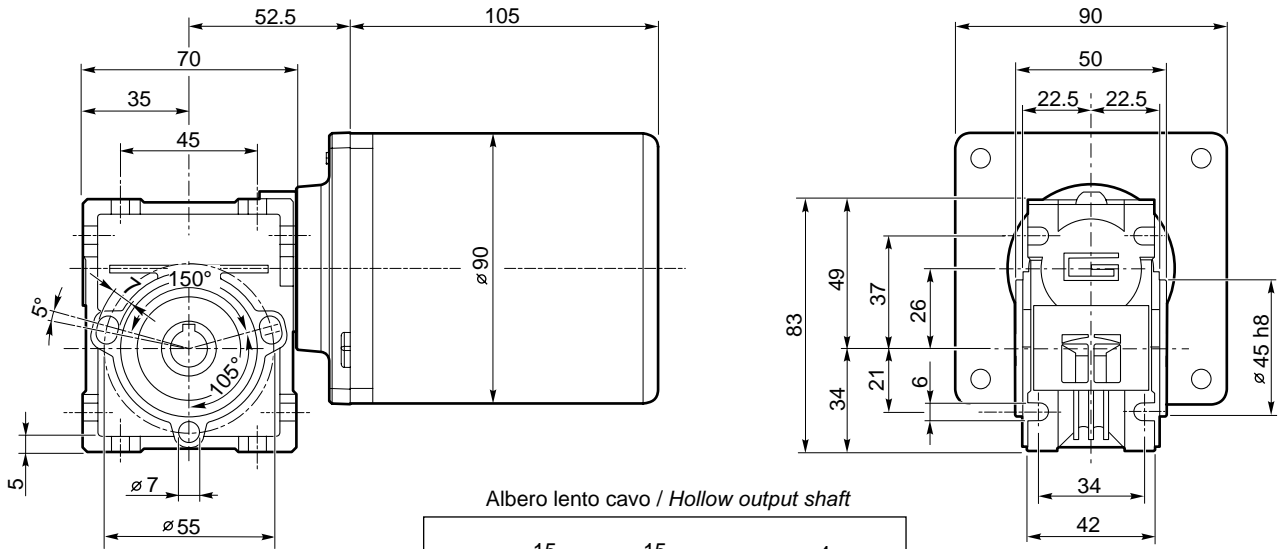


ECM050/030 U

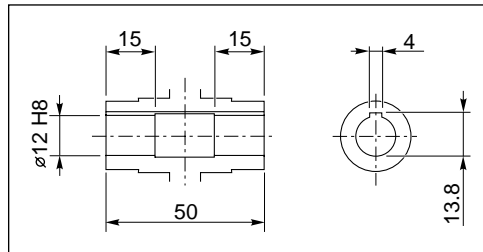




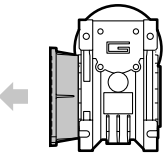
ACM040/026 U



Albero lento cavo / Hollow output shaft

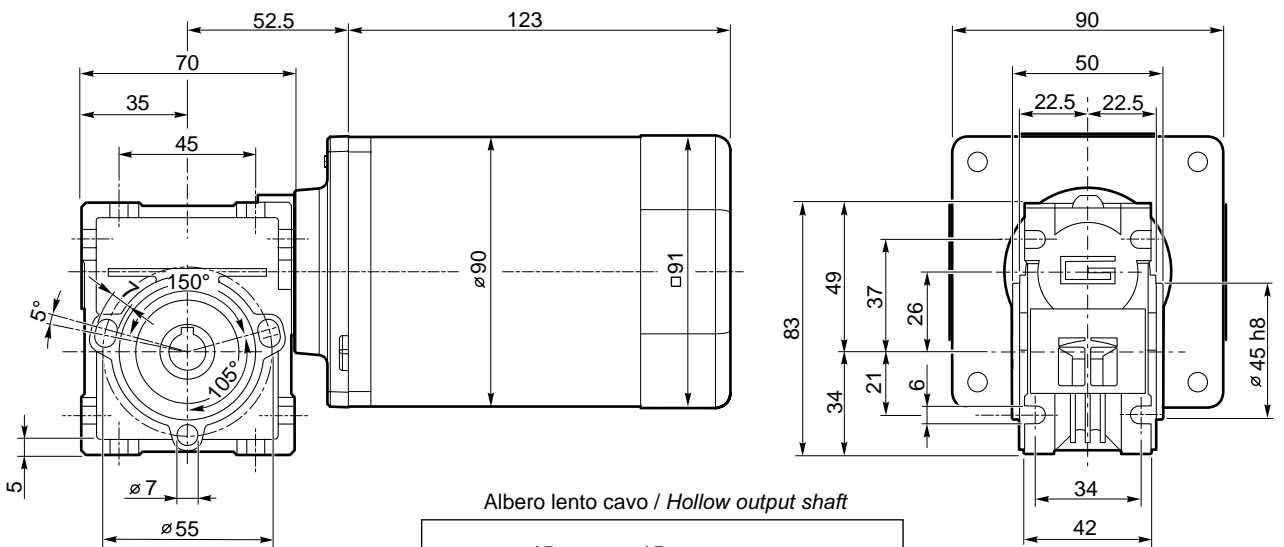


Kg
3.4

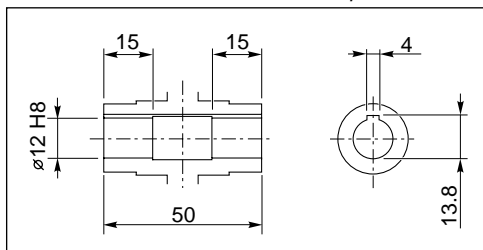


ACM040/026 F

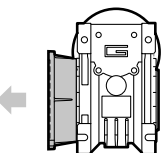
ACM060/026 U



Albero lento cavo / Hollow output shaft



Kg
3.6



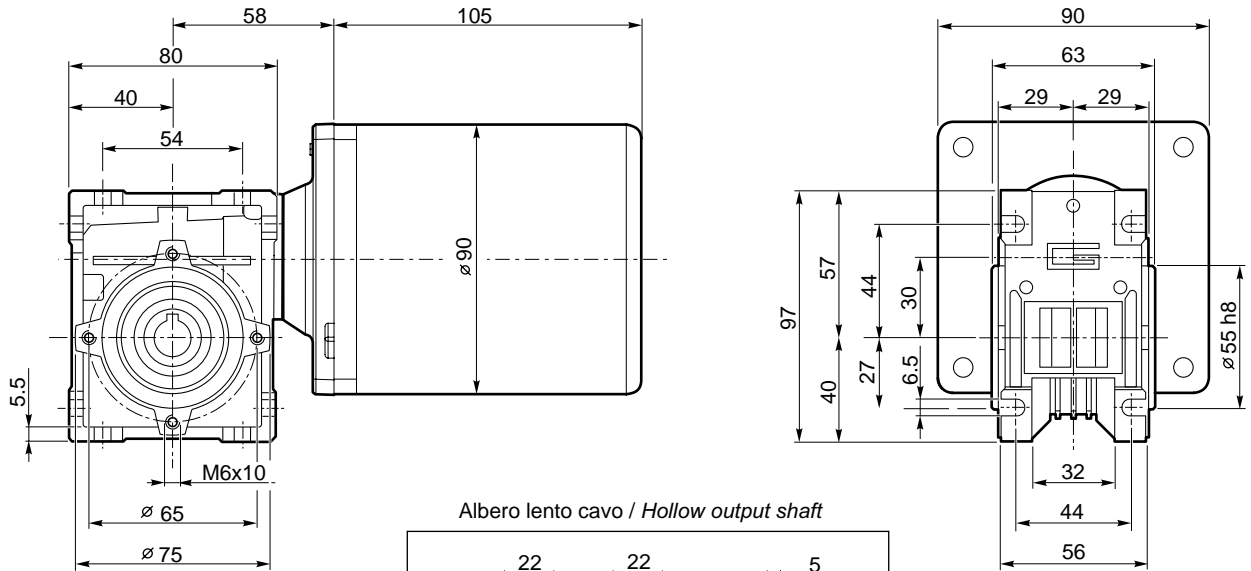
ACM060/026 F



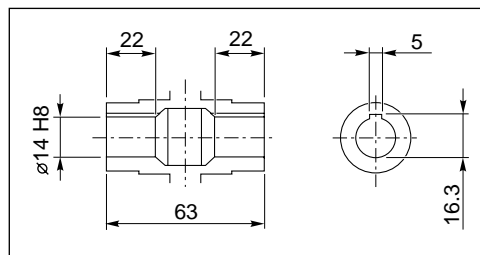
Dimensioni

Dimensions

ACM040/030 U



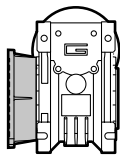
Albero lento cavo / Hollow output shaft



Kg
3.8

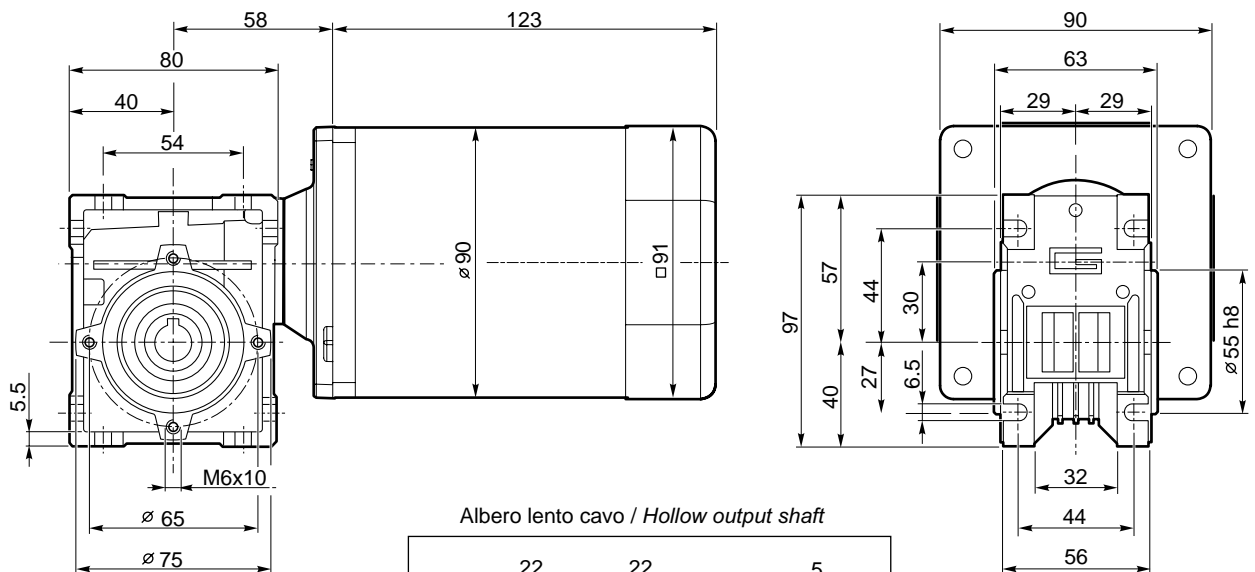


10

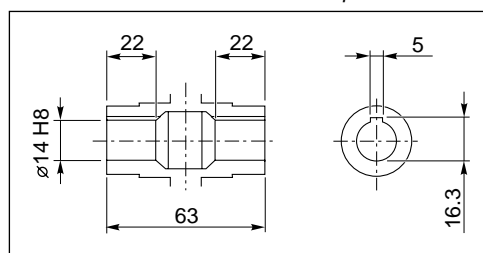


ACM040/030 F

ACM060/030 U



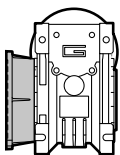
Albero lento cavo / Hollow output shaft



Kg
4.0



10



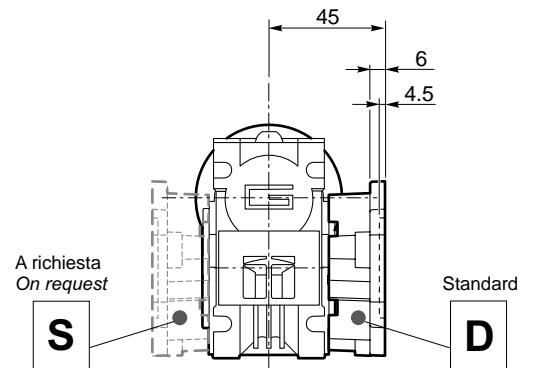
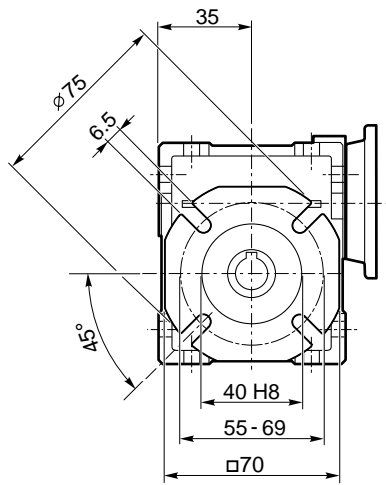
ACM060/030 F



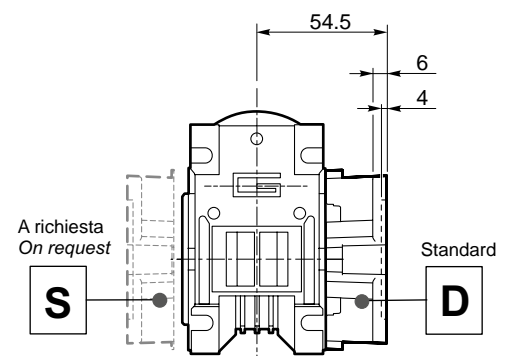
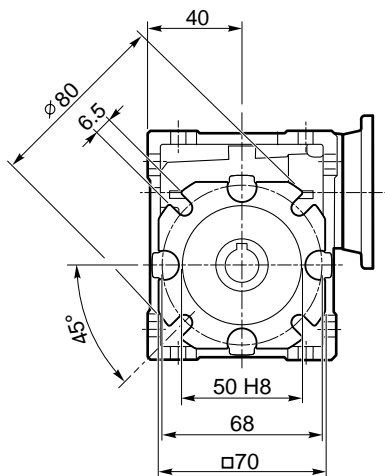
Dimensioni

Dimensions

ECM.../026 F... Flange uscita / Output flanges
ACM.../026 F...



ECM.../030 F... Flange uscita / Output flanges
ACM.../030 F...





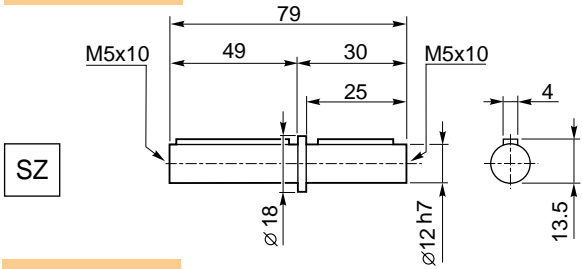
Accessori

Accessories

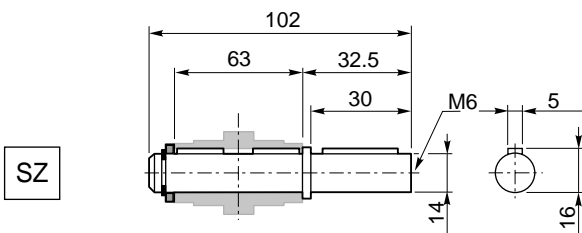
Albero lento semplice e doppio

Single and double Output shaft

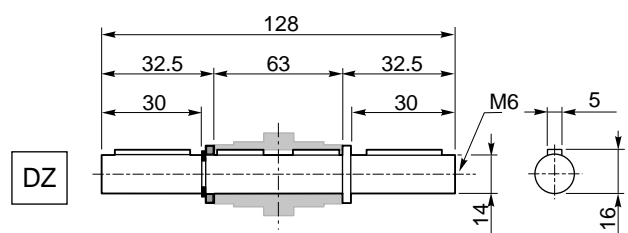
026



030



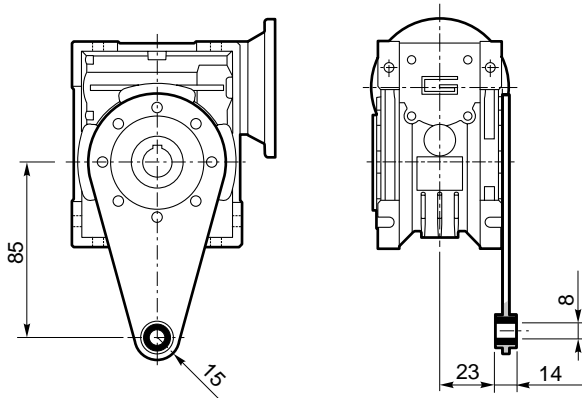
030



Braccio di reazione

Torque arm

030



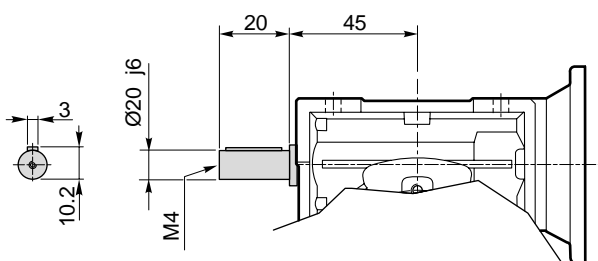
Opzioni

Options

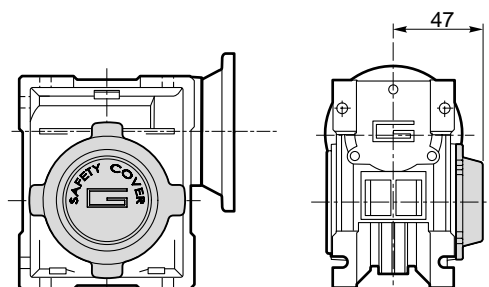
VS - Vite sporgente / Extended input shaft

SC - Safety cover

030



030





Note/Notes

HEADQUARTERS



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