

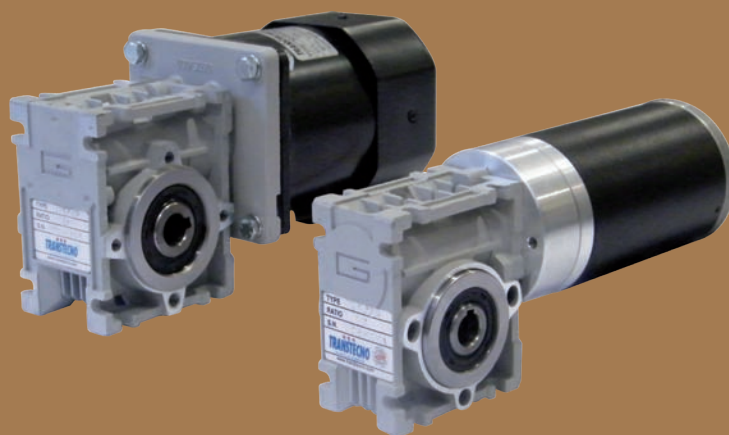
TRANSTECNO®
THE MODULAR GEARMOTOR



ROBIN

SMALL but STRONG

MOTORIDUTTORI A VITE SENZA FINE C.A. e C.C.
A.C. and D.C. WORMGEARMOTORS



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Descrizione

Description

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

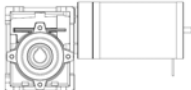
The main features of ROBIN range are:

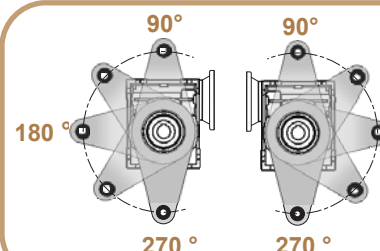
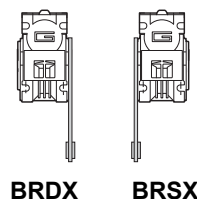
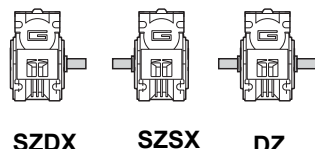
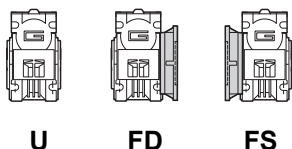
- Alimentazione in bassa tensione (12/24 Vcc) per la serie ECM; corrente alternata monofase (230 Vca - 50Hz) o corrente alternata trifase (400 Vca - 50Hz) per la serie ACM;
- Potenze motore disponibili da 40 a 70 W;
- Carcasce dei riduttori in pressofusione di alluminio;
- Lubrificazione permanente con olio sintetico;
- Elevata affidabilità in ingombri molto ridotti.

- Supply voltage 12/24Vdc for ECM range, single phase 230Vac-50Hz or three phase 400Vac-50Hz for ACM range;
- Motor power available from 40W to 70W;
- Die-cast aluminum housing for wormgearboxes;
- Permanent synthetic oil long-life lubrication;
- Reliable and compact.

Designazione

Classification

Motoriduttori / Gearmotors								
ECM	050/026	U	30	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	Vedi tabelle See tables	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	



Simbologia

Symbols

n_1 [rpm] Velocità in ingresso / Input speed
 n_2 [rpm] Velocità in uscita / Output speed
 i Rapporto di riduzione / Ratio
 P_1 [kW] Potenza in ingresso / Input power
 M_n [Nm] Coppia nominale / Nominal torque
 M_2 [Nm] Coppia in uscita / Output torque

S_f 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
 R_d % Rendimento dinamico / Dynamic Efficiency
 R_s % Rendimento Statico / Static Efficiency

Lubrificazione

Lubrication

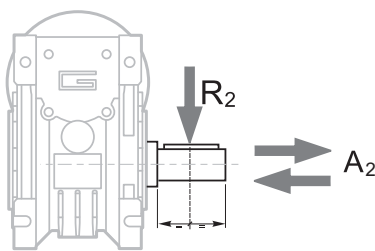
I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico viscosità 320 (-35°C +50°C), possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

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



Carichi radiali

Radial loads

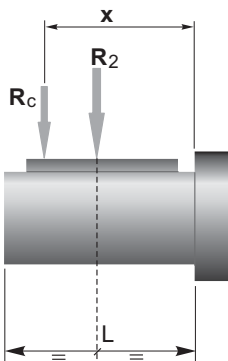


$$A_2 = R_2 \times 0.2$$

n ₂ [rpm]	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, calculate the effective load with the following formula:



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

$$R \leq R_c$$

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

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

Dati di dentatura

Toothing data

	Dati della coppia vite-corona	Rapporto / Ratio											
	Worm wheel data	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	1	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 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



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

**Dati tecnici: servizio S2 per ECM****Technical data: S2 duty for ECM**

P_1 [W]	n_2 [rpm]	M_2 [Nm]	sf	i	ECM	Versione motore Motor version
55						
(3000rpm)	600	0,8	12,8	5	035/026	120/240
	400	1,1	9,6	7,5		120/240
	300	1,5	7,4	10		120/240
	200	2,2	5,0	15		120/240
	150	2,8	3,9	20		120/240
	100	3,8	3,1	30		120/240
	75	4,8	2,3	40		120/240
	60	5,6	1,8	50		120/240
	50	6,3	1,4	60		120/240
	600	0,8	16,7	5	035/030	120/240
	400	1,2	13,0	7,5		120/240
	300	1,5	10,6	10		120/240
	200	2,2	7,3	15		120/240
	150	2,8	4,9	20		120/240
	120	3,4	4,4	25		120/240
	100	3,9	4,6	30		120/240
	75	4,9	3,3	40		120/240
	60	5,7	2,6	50		120/240
	50	6,5	2,1	60		120/240
	38	8,0	1,5	80		120/240
	30	9,1	1,2	100		120/240

P_1	n_2	M_2	sf	i	ECM	Versione motore Motor version
70						
(3000rpm)	600	1,0	10,1	5	050/026	120/240
	400	1,5	7,6	7,5		120/240
	300	1,9	5,8	10		120/240
	200	2,8	4,0	15		120/240
	150	3,6	3,1	20		120/240
	100	4,9	2,5	30		120/240
	75	6,1	1,8	40		120/240
	60	7,1	1,4	50		120/240
	50	8,0	1,1	60		120/240
	600	0,8	16,7	5	050/030	120/240
	400	1,2	13,0	7,5		120/240
	300	1,5	10,6	10		120/240
	200	2,2	7,3	15		120/240
	150	2,8	4,9	20		120/240
	120	3,4	4,4	25		120/240
	100	3,9	4,6	30		120/240
	75	4,9	3,3	40		120/240
	60	5,7	2,6	50		120/240
	50	6,5	2,1	60		120/240
	38	8,0	1,5	80		120/240
	30	9,1	1,2	100		120/240

Nota: Dati tecnici calcolati secondo i valori di rendimento teorico dei riduttori dopo rodaggio (vedi tabella)

Note: Technical data calculated by using the theoretical efficiency of the gearboxes after the first running period (see table)

Dati tecnici: servizio S1 per ACM**Technical data: S1 duty for ACM**

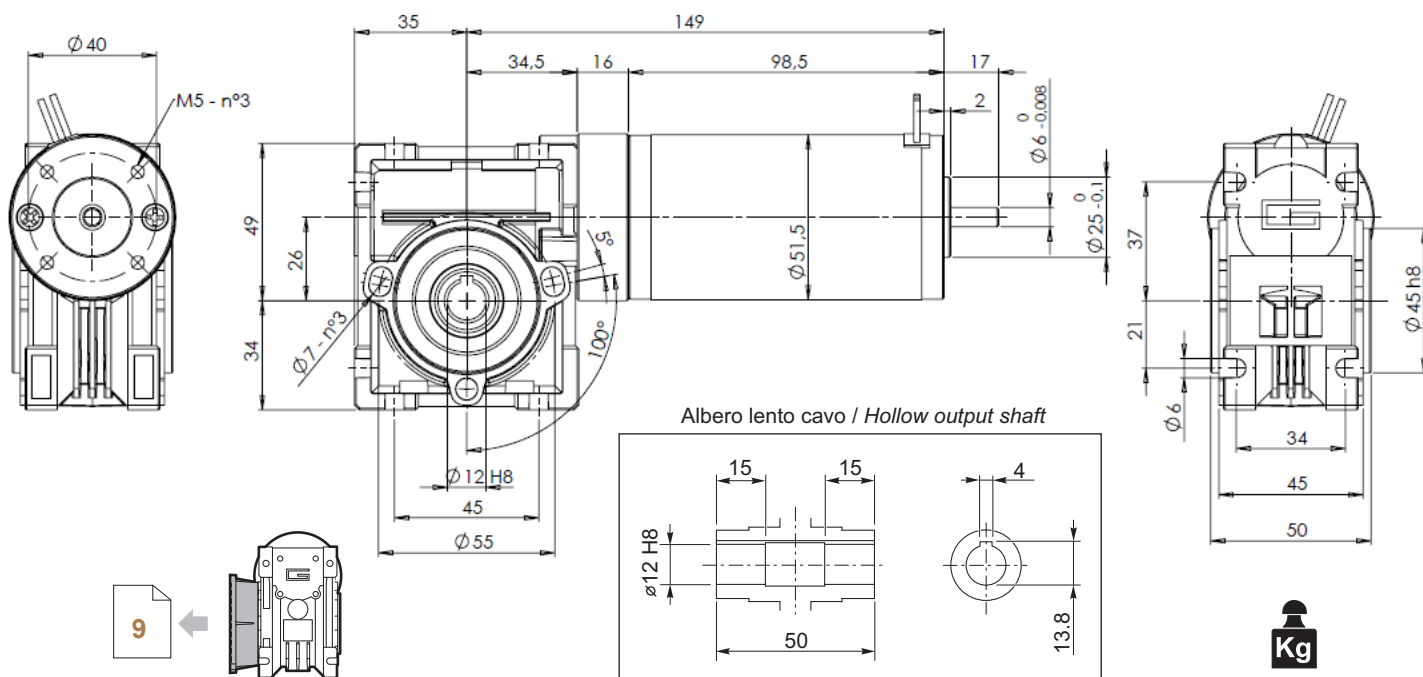
P_1	n_2	M_2	sf	i	ACM	Versione motore Motor version
40						
(1300rpm)	260	1,3	10,2	5	040/026	230/1 - 400/3
	173	1,9	7,6	7,5		230/1 - 400/3
	130	2,4	5,7	10		230/1 - 400/3
	87	3,4	4,1	15		230/1 - 400/3
	65	4,3	3,2	20		230/1 - 400/3
	43	5,8	2,6	30		230/1 - 400/3
	33	7,2	2,0	40		230/1 - 400/3
	26	8,4	1,6	50		230/1 - 400/3
	22	9,3	1,3	60		230/1 - 400/3
	260	1,3	14,2	5	040/030	230/1 - 400/3
	173	1,9	10,7	7,5		230/1 - 400/3
	130	2,5	8,5	10		230/1 - 400/3
	87	3,5	6,0	15		230/1 - 400/3
	65	4,4	4,3	20		230/1 - 400/3
	52	5,3	3,8	25		230/1 - 400/3
	43	5,9	3,7	30		230/1 - 400/3
	33	7,3	2,7	40		230/1 - 400/3
	26	8,5	2,2	50		230/1 - 400/3
	22	9,7	1,8	60		230/1 - 400/3
	16	11,3	1,3	80		230/1 - 400/3
	13	12,6	1,1	100		230/1 - 400/3

P_1	n_2	M_2	sf	i	ACM	Versione motore Motor version
60						
(1300rpm)	260	1,9	6,8	5	060/026	230/1 - 400/3
	173	2,8	5,0	7,5		230/1 - 400/3
	130	3,7	3,8	10		230/1 - 400/3
	87	5,2	2,7	15		230/1 - 400/3
	65	6,5	2,1	20		230/1 - 400/3
	43	8,7	1,7	30		230/1 - 400/3
	33	10,8	1,3	40		230/1 - 400/3
	26	12,6	1,0	50		230/1 - 400/3
	22	14,0	0,9	60		230/1 - 400/3
	260	1,9	6,9	5	060/030	230/1 - 400/3
	173	2,8	5,3	8		230/1 - 400/3
	130	3,7	4,3	10		230/1 - 400/3
	87	5,2	3,1	15		230/1 - 400/3
	65	6,6	2,1	20		230/1 - 400/3
	52	7,9	1,9	25		230/1 - 400/3
	43	8,9	2,0	30		230/1 - 400/3
	33	10,9	1,5	40		230/1 - 400/3
	26	12,8	1,2	50		230/1 - 400/3
	22	14,5	1,0	60		230/1 - 400/3
	16	16,9	0,7	80		230/1 - 400/3
	13	16,0	0,7	100		230/1 - 400/3

Nota: Dati tecnici calcolati secondo i valori di rendimento teorico dei riduttori dopo rodaggio (vedi tabella)

Note: Technical data calculated by using the theoretical efficiency of the gearboxes after the first running period (see table)

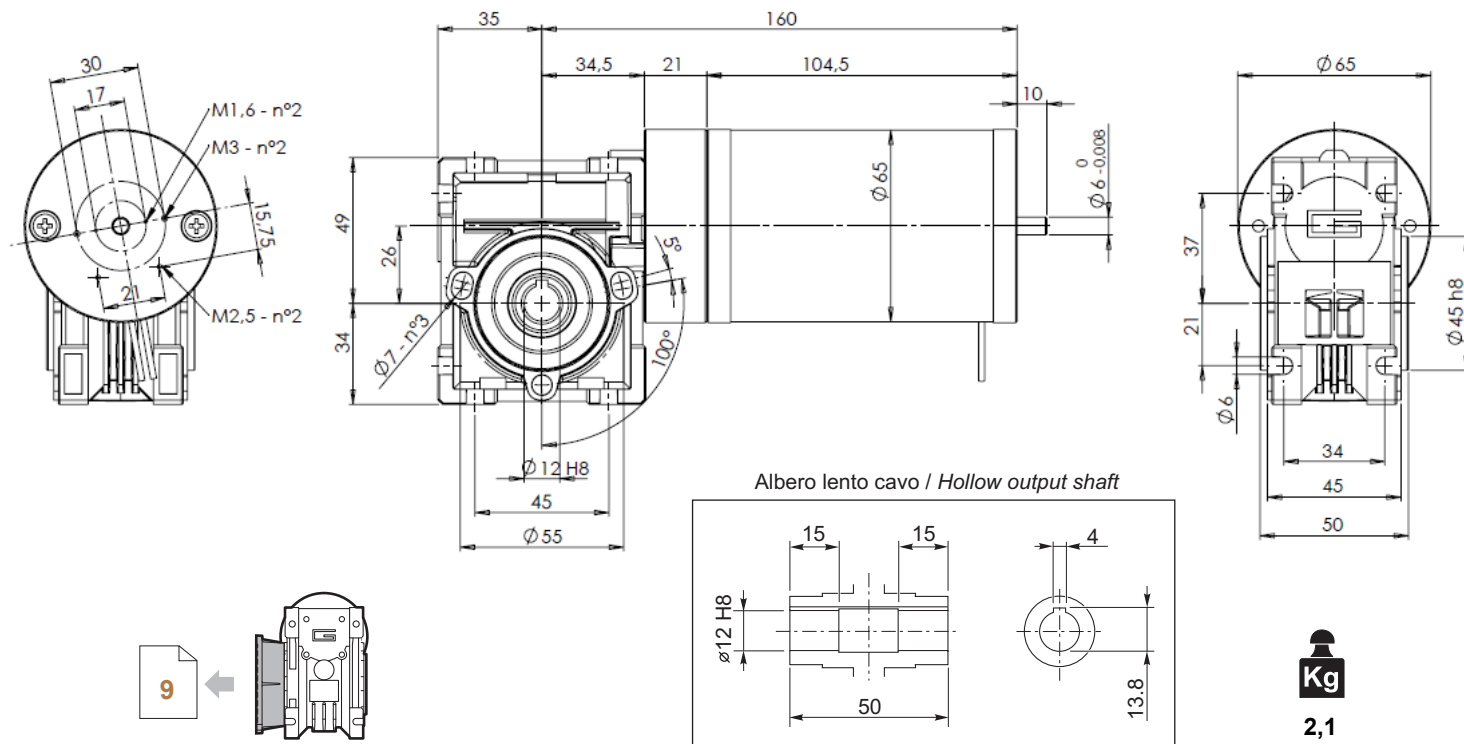
ECM035/026 U



ECM035/026 F

Kg
1,7

ECM050/026 U

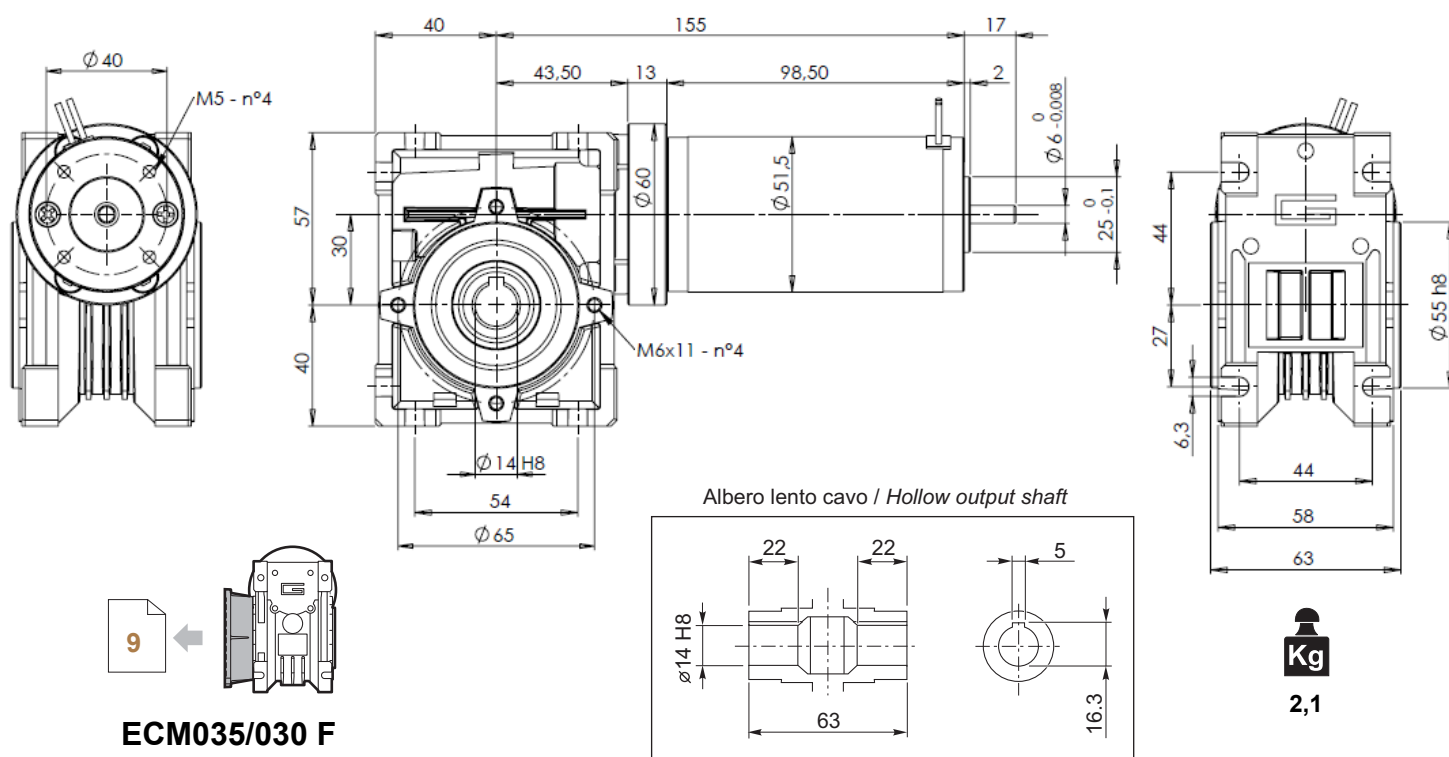


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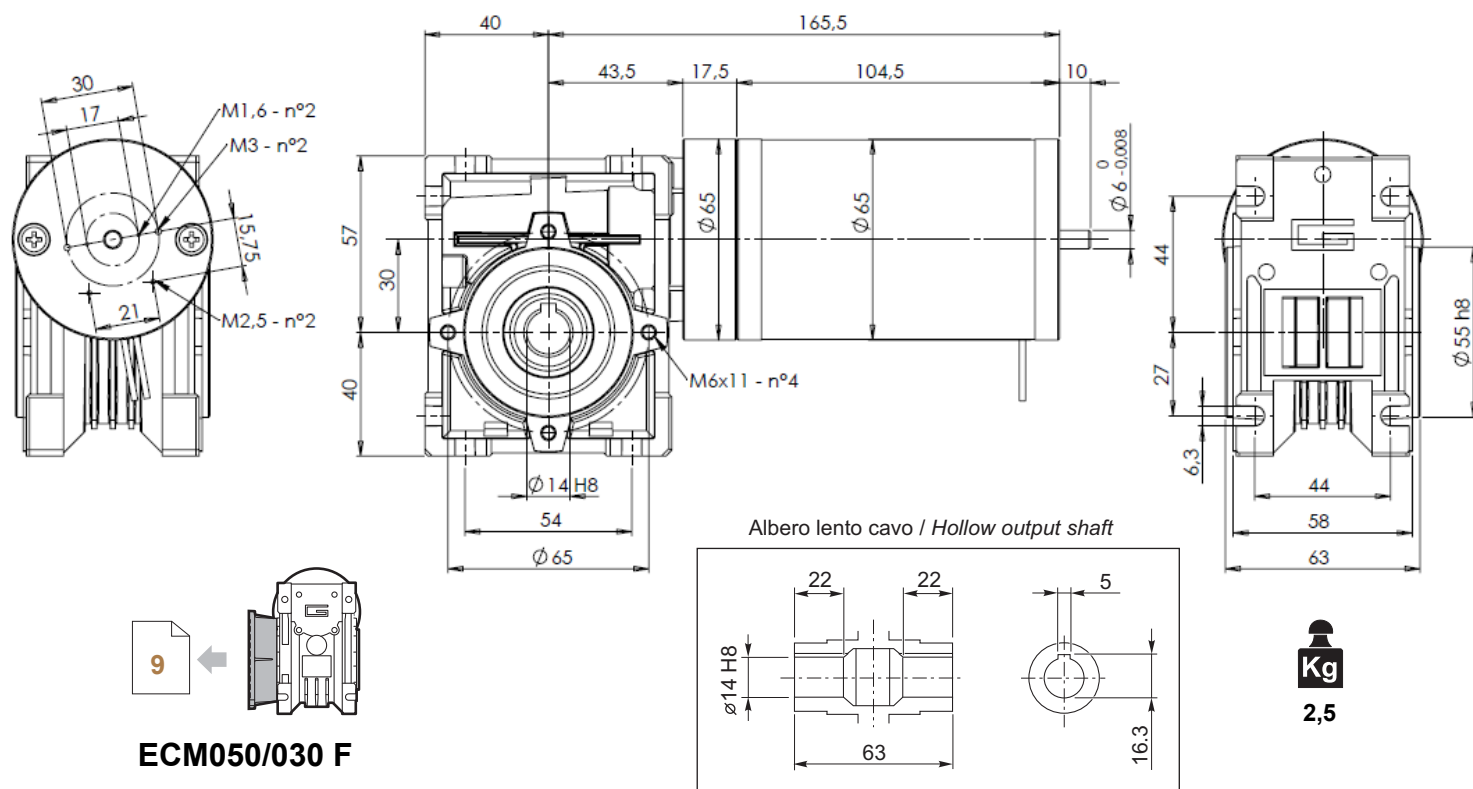
Kg
2,1

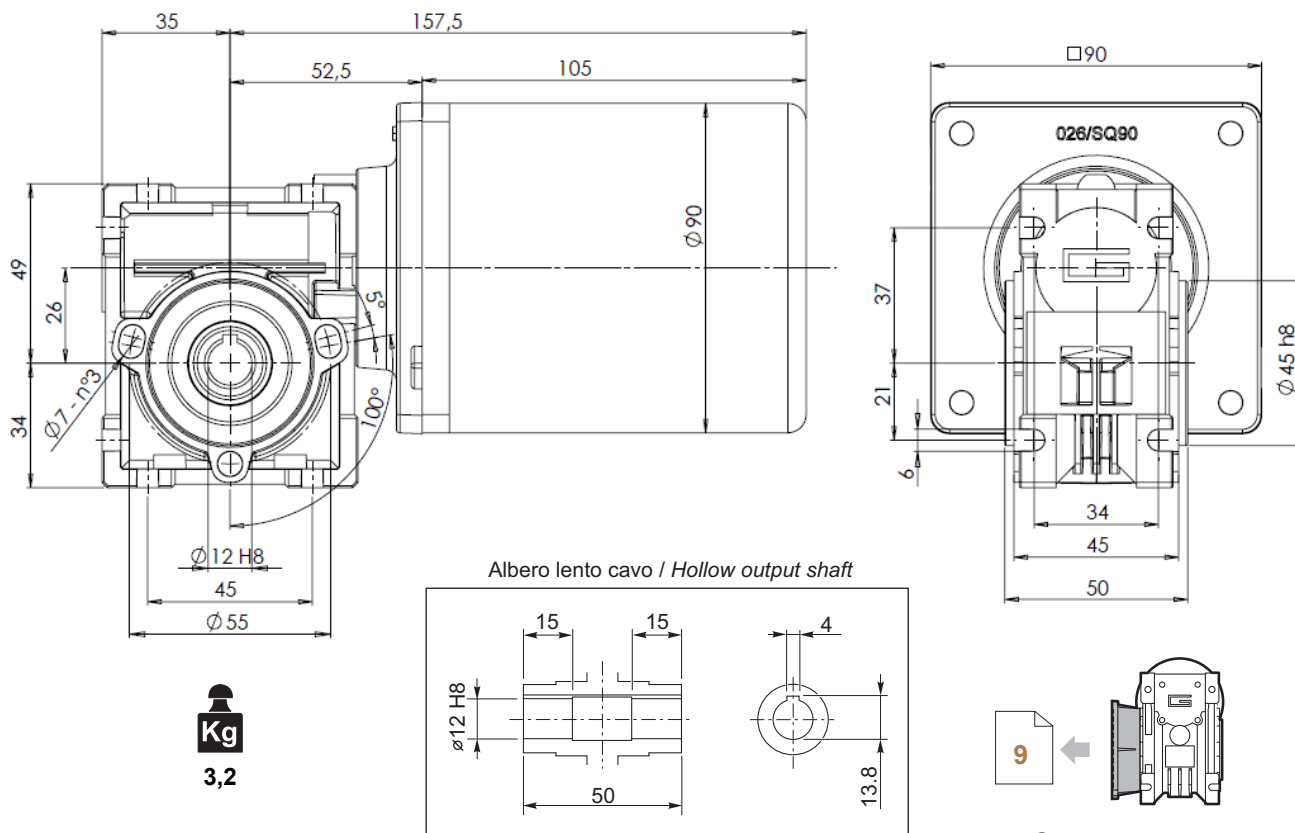
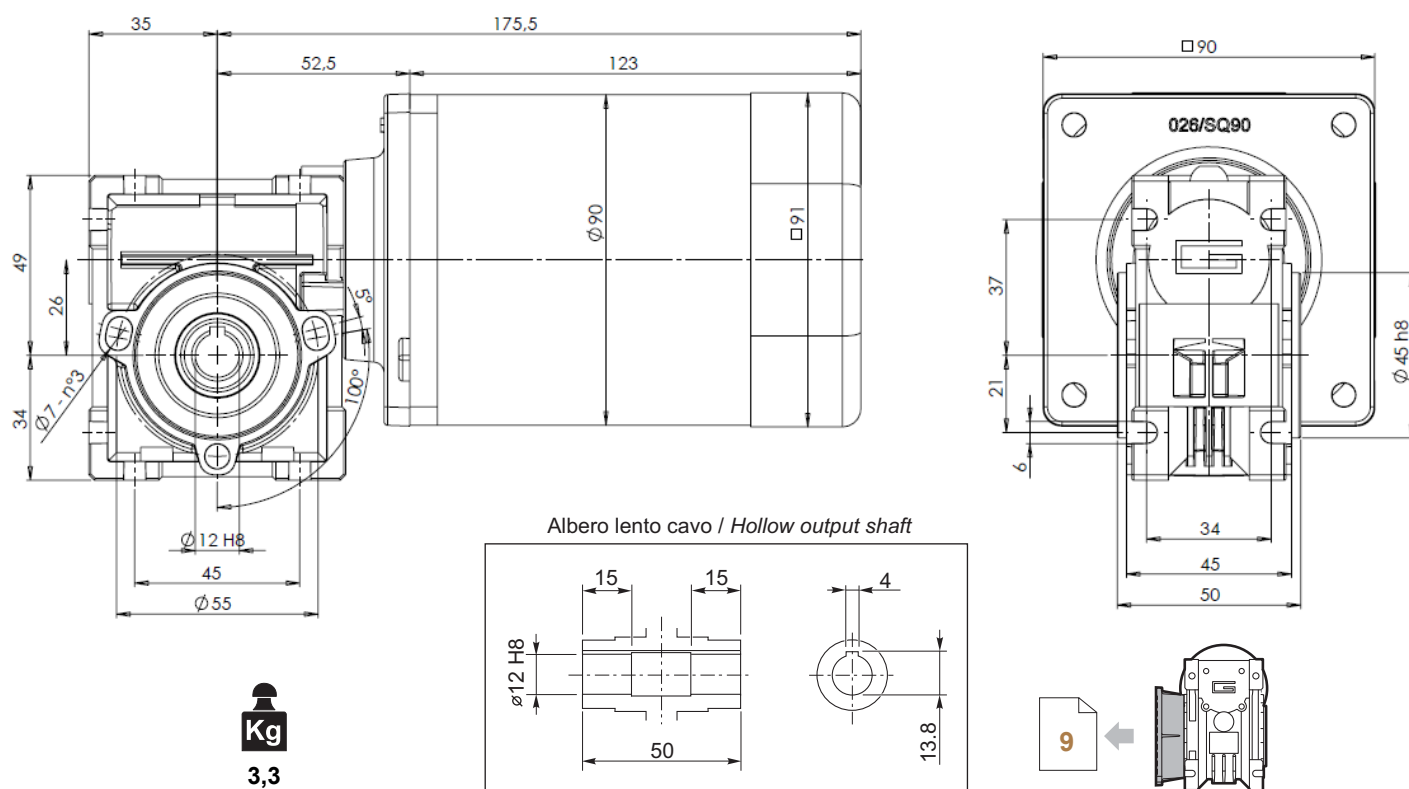


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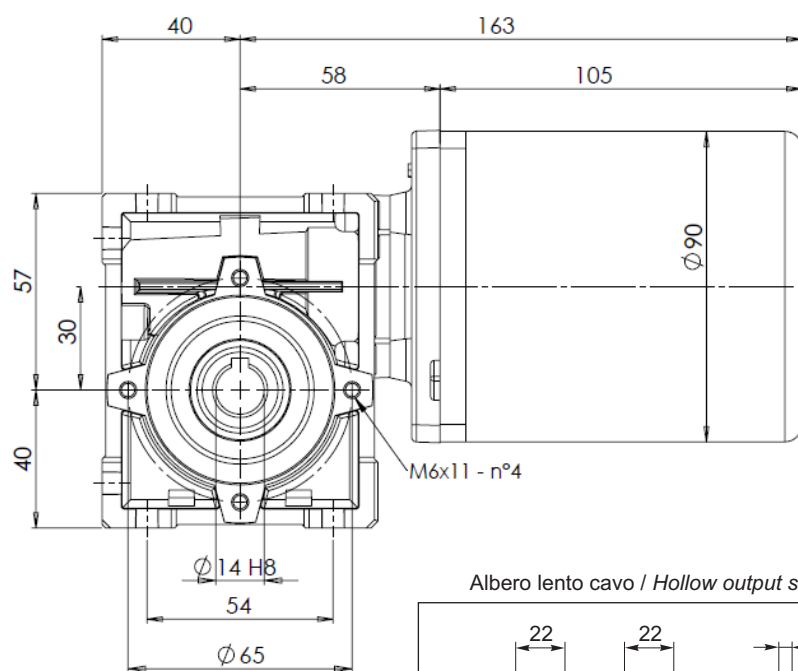
ECM050/030 U



ACM040/026 U

ACM040/026 F
ACM060/026 U

ACM060/026 F

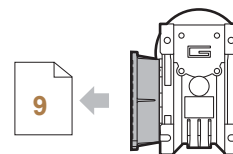
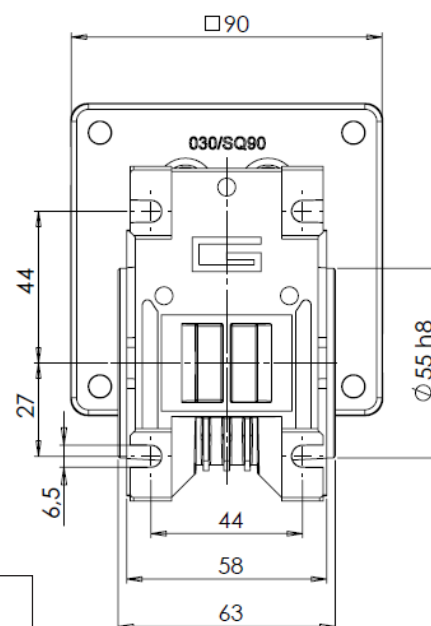
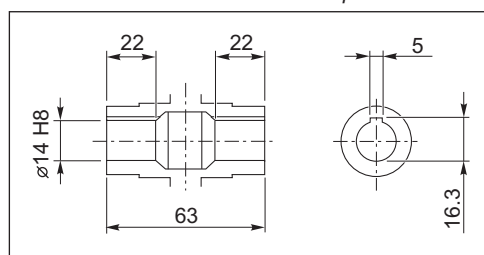


ACM040/030 U



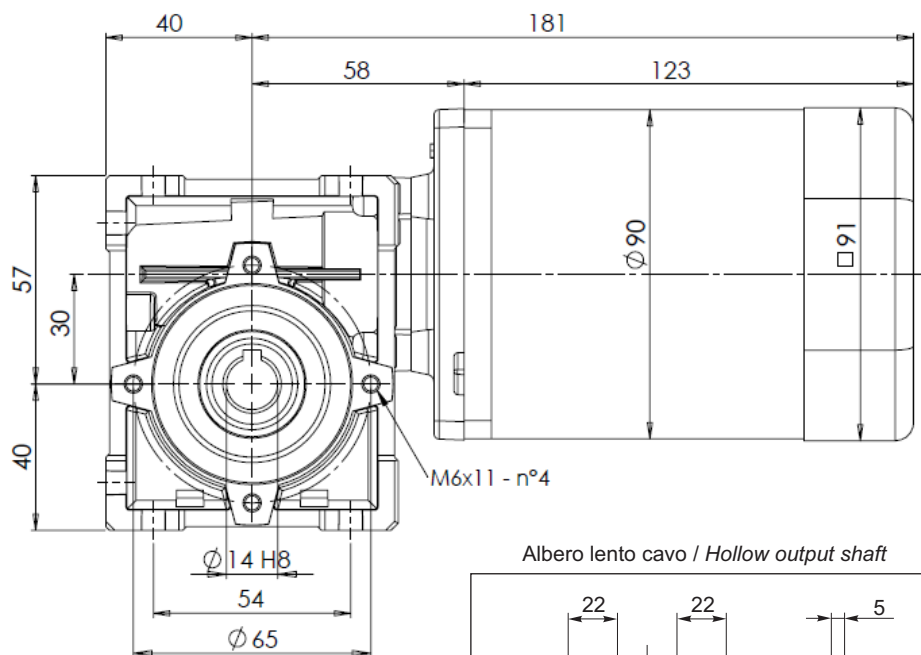
Kg
3,6

Albero lento cavo / Hollow output shaft



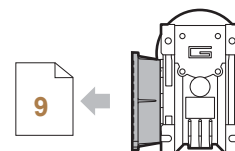
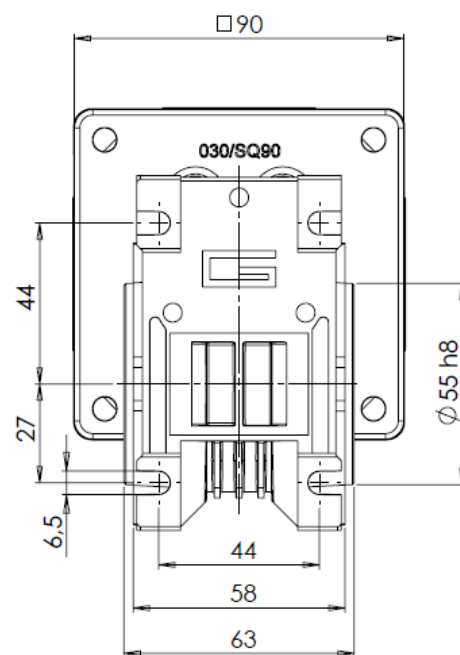
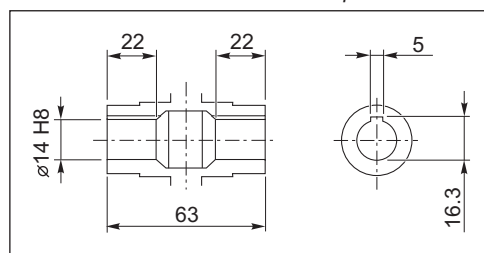
ACM040/030 F

ACM060/030 U



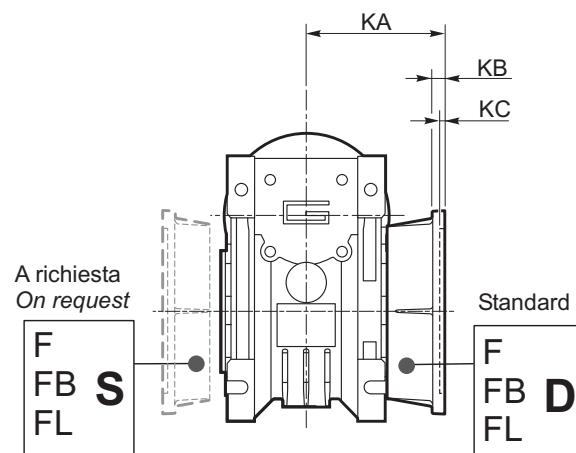
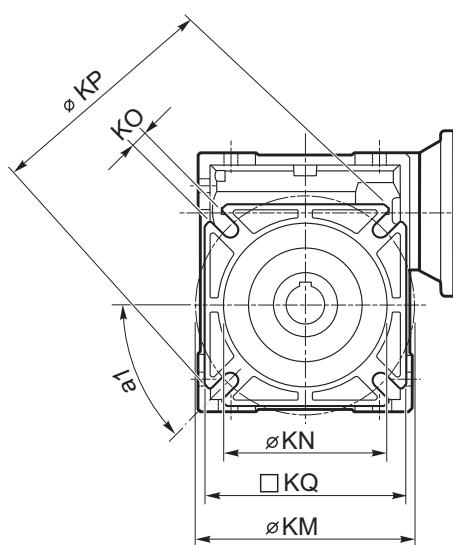
Kg
3,7

Albero lento cavo / Hollow output shaft

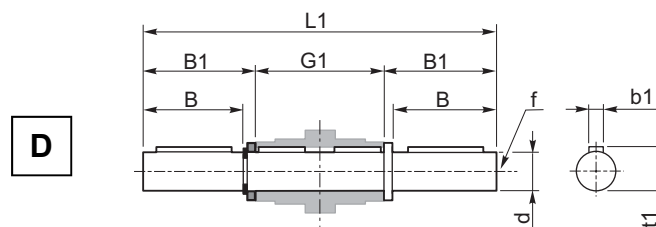
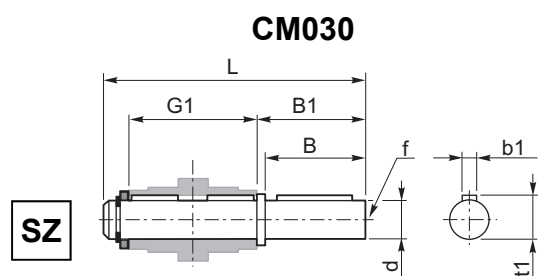
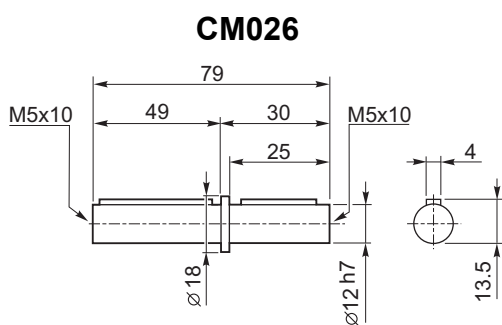


ACM060/030 F



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


CM	F								
	a1	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

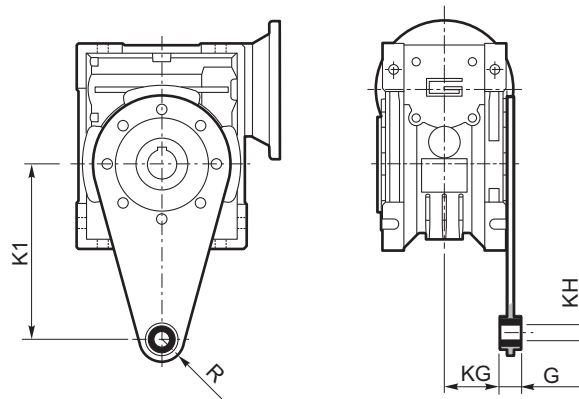
Albero lento / Output shafts


CM	d h7	B	B1	G1	L	L1	f	b1	t1
030	14	30	32,5	63	102	128	M6	5	16



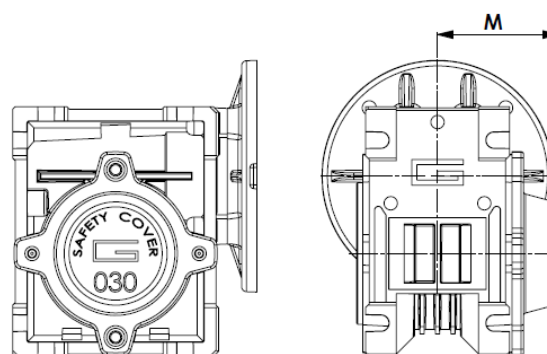
Braccio di reazione / Torque arm

CM	K1	G	KG	KH	R
030	85	14	23	8	15



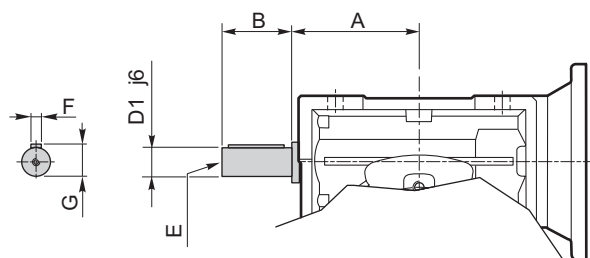
Safety cover

CM	M
030	47



VS - Vite sporgente / Extended input shaft

CM	A	B	D1 j6	E	F	G
030	45	20	9	M4	3	10.2



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