

## Caratteristiche tecniche

## Technical features

I riduttori combinati a vite senza fine della serie CMM hanno le seguenti caratteristiche principali :

CMM range combination gearboxes have the following main features:

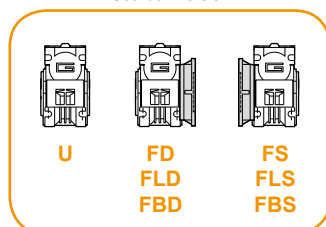
- Carcassa in alluminio nelle grandezze 026, 030, 040, 050, 063, 075, 090 e 110. La grandezza 130 è costruita con carcassa in ghisa;
- Die-cast aluminum housing on sizes 026, 030, 040, 050, 063, 075, 090 and 110. Cast iron housing on size 130;
- Le grandezze 090, 110 e 130 sono fornite con cuscinetti a rulli conici sulla vite;
- Double taper roller bearing on sizes 090, 110 and 130;
- Lubrificazione permanente con olio sintetico.
- Permanent synthetic oil long-life lubrication.

## Designazione

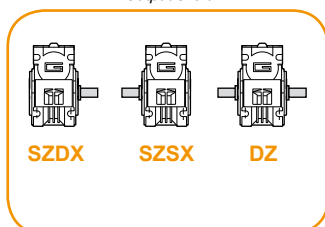
## Classification

RIDUTTORE / GEARBOX											
CMM	030/063	FD	20	71	B5	SZDX	BRSX	90	B3	US1	VS
Tipo Type	Grandezza Size	Versione Version	Rapporto Ratio	IEC 	Forma costruttiva Version	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montaggio Mounting position	Esecuzione di montaggio Mounting execution	Opzioni Options
 <b>CMM</b>	026/026 026/030 026/040 026/050 030/040	U FD FS FBD	vedi tabelle- see tables	56.. — 90..	B5 B14	SZDX SZSX DZ	BRDX BRSX	0° 90° 180° 270°	B3 B8 B6 B7 V5 V6	UB1 UB2 US1 US2 UV1 UV2 UC1 UC2	VS1 VS2
 <b>CMMIS</b>	030/050 030/063 040/075 040/090 050/110 063/130	FBS FLD FLS									

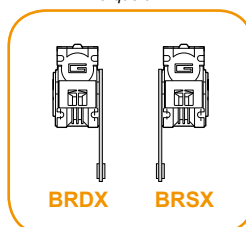
Versione Riduttore  
Gearbox Version



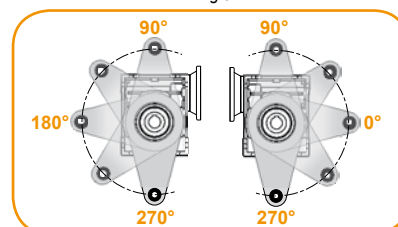
Albero di uscita  
Output shaft



Braccio di reazione  
Torque arm



Angolo  
Angle



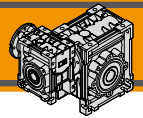
MOTORE CM / CM MOTOR

0.25kW	4p	3ph	50Hz	T1
Potenza Power  Vedi tabelle See tables	Poli Poles  2p 4p 6p 8p	Fasi Phases  1ph 3ph	Frequenza Frequency  50Hz 60Hz	Pos. morsettiera Terminal box pos.  T1 (Std)  T4 T3

## Simbologia

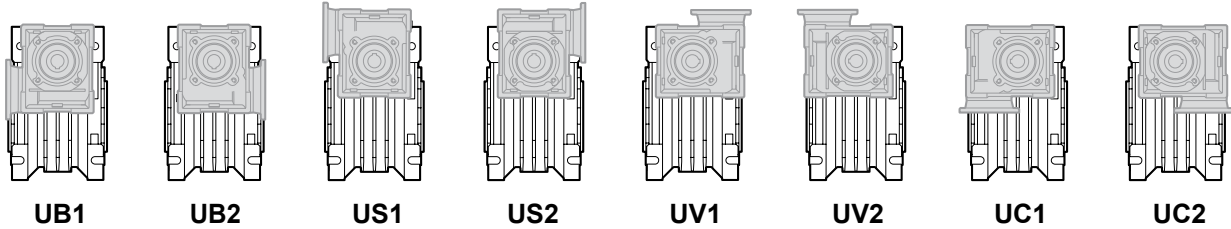
## Symbols

- |                            |                                    |            |   |
|----------------------------|------------------------------------|------------|---|
| $n_1$ [min <sup>-1</sup> ] | 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 <sup>-1</sup> ] | 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**

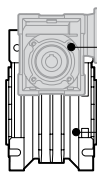
**Combination ratio**

CMM 026/026 - CMM 026/030 - CMM 026/040 - CMM 026/050												
$i (i_1 \times i_2)$												
	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

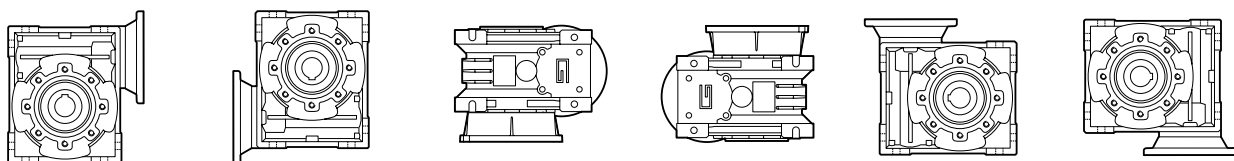
CMM 030/040 - CMM 030/050 - CMM 030/063 - CMM 040/075 - CMM 040/090 - CMM 050/110 - CMM 063/130																
$i (i_1 \times i_2)$																
	75	100	150	200	250	300	400	500	600	750	900	1200	1500	1800	2400	3000
$i_1$	7.5	10	10	10	10	10	10	10	20	25	30	40	50	60	60	60
$i_2$	10	10	15	20	25	30	40	50	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 <i>Life lubricated</i>											
	②	026	030	040	050	040	050	063	075	090	110	130
Lubrificazione a vita <i>Life lubricated</i>												

**Posizioni di montaggio / Mounting positions**



**B3**  
(standard)

**B8**

**B6**

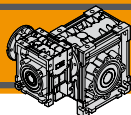
**B7**

**V5**

**V6**





Quantità di olio (litri) / Oil quantity (litres)						
	B3	B8	B6	B7	V5	V6
CM026	0.015					
CM030	0.03					
CM040	0.07					
CM050	0.1					
CM063	0.25					
CM075	0.4					
CM090	0.85					
CM110	1.5					
CM130	4.5	3.3	3.5	3.5	4.5	3.3

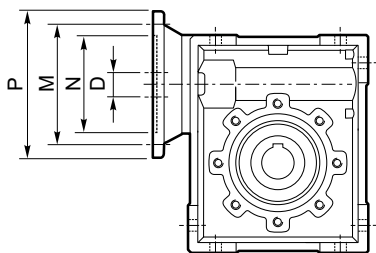
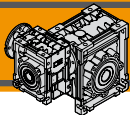
Lubrificati a vita  
*Life lubrication*



## Dati tecnici

## Technical data

P <sub>1</sub> [kW]	n <sub>2</sub> [min <sup>-1</sup> ]	M <sub>2</sub> [Nm]	sf	i			P <sub>1</sub> [kW]	n <sub>2</sub> [min <sup>-1</sup> ]	M <sub>2</sub> [Nm]	sf	i		
<b>0.06</b>							<b>0.06</b>						
56A4 (1400 min <sup>-1</sup> )	9.3	26	1.0	150	CMM 026/026	B14	56A4	18.7	20	7.8	75	CMM 030/050	B5/B14
	6.2	26	1.0	225			56A4 (1400 min <sup>-1</sup> )	14.0	26	5.9	100		
	4.7	27	1.0	300				9.3	37	4.3	150		B5/B14
	3.1	27	1.0	450				7.0	47	2.9	200		B5/B14
	2.3	27	1.0	600				5.6	55	2.2	250		B5/B14
	1.6	27	1.0	900				4.7	60	2.7	300		B5/B14
	1.2	27	1.0	1200				3.5	73	1.9	400		B5/B14
	0.9	27	1.0	1500				2.8	83	1.5	500		B5/B14
	0.8	27	1.0	1800				2.3	107	1.5	600		B5/B14
	0.6	22	1.0	2400				1.9	128	1.3	750		B5/B14
	0.5	20	1.0	3000				1.6	143	1.1	900		B5/B14
	0.4	18	1.0	3600				1.2	174	0.8	1200		B5/B14
								0.93	207	0.8	1500		B5/B14
	9.3	34	1.1	150	CMM 026/030	B14		0.78	162	1.0	1800		B5/B14
	6.2	48	0.8	225						0.58	135	1.0	2400
	4.7	40	1.0	300				0.47	125	1.0	3000		B5/B14
	3.1	40	1.0	450									
	2.3	40	1.0	600				2.8	86	2.7	500	CMM 030/063	B5/B14
	1.6	40	1.0	900				2.3	111	2.8	600		B5/B14
	1.2	40	1.0	1200				1.9	133	2.3	750		B5/B14
	0.93	40	1.0	1500				1.6	148	2.1	900		B5/B14
	0.78	40	1.0	1800				1.2	178	1.5	1200		B5/B14
	0.58	34	1.0	2400				0.93	214	1.5	1500		B5/B14
	0.47	30	1.0	3000				0.78	243	1.3	1800		B5/B14
	0.39	27	1.0	3600				0.58	292	0.9	2400		B5/B14
								0.47	338	0.7	3000		B5/B14
	9.3	35	2.5	150	CMM 026/040	B14		0.93	232	2.2	1500	CMM 040/075	B5/B14
	6.2	50	1.8	225						0.78	269		
	4.7	58	1.5	300				0.58	325	1.3	2400		B5/B14
	3.1	82	1.1	450				0.47	377	1.0	3000		B5/B14
	2.3	104	0.9	600									
	1.6	90	1.0	900				0.58	348	2.2	2400	CMM 040/090	B5/B14
	1.2	90	1.0	1200				0.47	406	1.6	3000		B5/B14
	0.93	90	1.0	1500									
	0.78	90	1.0	1800									
	0.58	74	1.0	2400									
	0.47	68	1.0	3000									
	0.39	62	1.0	3600									
	9.3	37	4.4	150	CMM 026/050	B14	<b>0.09</b>						
	6.2	52	3.1	225					56B4 (1400 min <sup>-1</sup> )	9.3	53	1.6	150
	4.7	59	2.7	300				6.2	74	1.2	225		B14
	3.1	83	1.9	450				4.7	87	1.0	300		
	2.3	105	1.5	600				9.3	55	2.9	150	CMM 026/050	B14
	1.6	141	1.1	900				6.2	78	2.1	225		
	1.2	162	1.0	1200				4.7	89	1.8	300		
	0.93	162	1.0	1500				3.1	125	1.3	450		
	0.78	162	1.0	1800				2.3	158	1.0	600		
	0.58	135	1.0	2400				18.7	29	2.9	75	CMM 030/040	B5/B14
	0.47	125	1.0	3000				14.0	39	2.2	100		B5/B14
	0.39	113	1.0	3600				9.3	53	1.6	150		B5/B14
								7.0	69	1.1	200		B5/B14
	18.7	20	4.3	75	CMM 030/040	B5/B14		5.6	83	0.8	250		B5/B14
	14.0	26	3.3	100						4.7	88	1.0	300
	9.3	36	2.4	150									
	7.0	46	1.6	200				18.7	30	5.2	75	CMM 030/050	B5/B14
	5.6	55	1.2	250				14.0	39	4.0	100		B5/B14
	4.7	59	1.5	300				9.3	56	2.9	150		B5/B14
	3.5	72	1.0	400				7.0	70	2.0	200		B5/B14
	2.8	68	1.0	500				5.6	83	1.5	250		B5/B14
	2.3	90	1.0	600				4.7	90	1.8	300		B5/B14
	1.9	90	1.0	750				3.5	109	1.2	400		B5/B14
	1.6	90	1.0	900				2.8	124	1.0	500		B5/B14
	1.2	74	1.0	1200				2.3	160	1.0	600		B5/B14
	0.93	90	1.0	1500				1.9	192	0.8	750		B5/B14
	0.78	90	1.0	1800				1.6	215	0.8	900		B5/B14
	0.58	74	1.0	2400									
	0.47	68	1.0	3000									

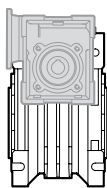


N.B.

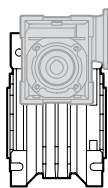
Le aree evidenziate in grigio indicano l'applicabilità della corrispondente grandezza motore.  
Grey areas indicate motor inputs available on each size of unit.

**B/BS = Boccia di riduzione in acciaio**

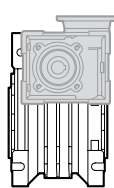
**B/BS = Metal shaft sleeve**



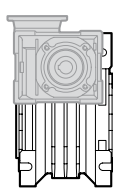
**US1**



**US2**

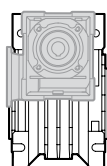


**UV1**

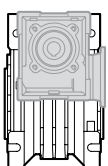


**UV2**

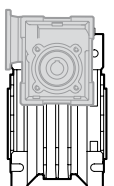
CMM	IEC	N	M	P	D	i <sub>1</sub>						
						10	15	20	30	40	50	60
<b>026/026</b>	<b>56B14</b>	50	65	80	9							



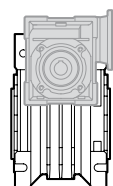
**UB1**



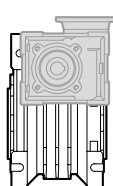
**UB2**



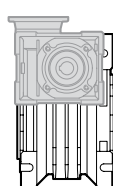
**US1**



**US2**

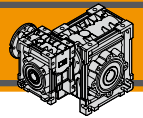


**UV1**



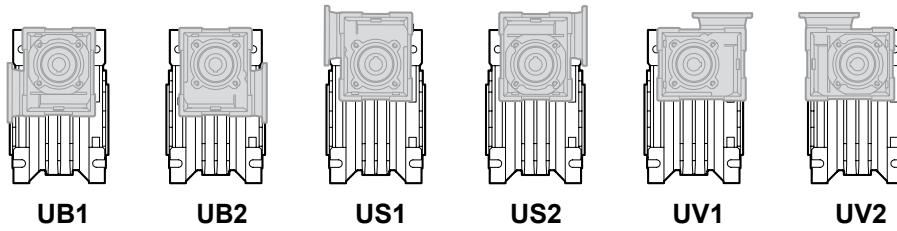
**UV2**

CMM	IEC	N	M	P	D	i <sub>1</sub>						
						10	15	20	30	40	50	60
<b>026/030</b> <b>026/040</b> <b>026/050</b>	<b>56B14</b>	50	65	80	9							

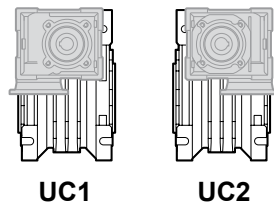


**Motori applicabili**

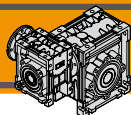
**IEC Motor adapters**



CMM	IEC	N	M	P	D	i <sub>1</sub>								
						7.5	10	15	20	25	30	40	50	60
030/040 030/050 030/063	63B5	95	115	140	11									
	63B14	60	75	90	11									
	56B5	80	100	120	9	B	B	B	B	B	B	B	B	
	56B14	50	65	80	9									
040/075 040/090	71B5	110	130	160	14									
	71B14	70	85	105	14									
	63B5	95	115	140	11	B	B	B	B	B	B	B		
	63B14	60	75	90	11									
	56B5	80	100	120	9	BS	BS	BS	BS	BS	BS	BS	B	B
050/110	80B5	130	165	200	19									
	80B14	80	100	120	19									
	71B5	110	130	160	14	B	B	B	B	B	B			
	71B14	70	85	105	14									
	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	B	B	B
063/130	90B5	130	165	200	24									
	90B14	95	115	140	24									
	80B5	130	165	200	19	B	B	B	B	B	B			
	80B14	80	100	120	19									
	71B5	110	130	160	14	BS	BS	BS	BS	BS	BS	B	B	B
	71B14	70	85	105	14									
	63B5	95	115	140	11							BS	BS	BS



CMM	IEC	N	M	P	D	i <sub>1</sub>								
						7.5	10	15	20	25	30	40	50	60
030/040 030/050	63B14	60	75	90	11									
	56B5	80	100	120	9	B	B	B	B	B	B	B	B	
	56B14	50	65	80	9									
030/063	63B5	95	115	140	11									
	63B14	60	75	90	11									
	56B5	80	100	120	9	B	B	B	B	B	B	B	B	
	56B14	50	65	80	9									
040/075 040/090	71B14	70	85	105	14									
	63B5	95	115	140	11	B	B	B	B	B	B			
	63B14	60	75	90	11									
	56B5	80	100	120	9	BS	BS	BS	BS	BS	BS	BS	B	B
050/110	56B14	50	65	80	9									
	80B14	80	100	120	19									
	71B5	110	130	160	14	B	B	B	B	B	B			
	71B14	70	85	105	14									
	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	B	B	B
063/130	63B14	60	75	90	11									
	90B14	95	115	140	24									
	80B14	80	100	120	19	B	B	B	B	B	B			
	71B5	110	130	160	14	BS	BS	BS	BS	BS	BS	B	B	B
	71B14	70	85	105	14									
63B5	95	115	140	11							BS	BS	BS	



**Dimensioni**

**Dimensions**

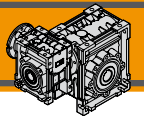
CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D <sub>H8</sub>	E	F	G	G1	H	H1	I	I1	K	L	M	N <sub>h8</sub>	N1	N2
<b>026/026</b>	45	70	12	83	22	47.5	50	35	34	26	26	34	42	55	45	22.5	21
<b>026/030</b>	54	80	14	97	32	47.5	63	40	34	30	26	44	56	65	55	29	21
<b>026/040</b>	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21
<b>026/050</b>	80	120	25	144	49	47.5	92	60	34	50	26	70	85	85	70	43.5	21

CMM..U - CMM..F - CMM..FB - CMM..FL															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg	
<b>026/026</b>	6	—	37	49	49	5	15	21	76	7	—	4	13.8	1.6	
<b>026/030</b>	6.5	75	44	57	49	5.5	22	27	81	M6x11(n.4)	90°	5	16.3	2.4	
<b>026/040</b>	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	3.5	
<b>026/050</b>	8.5	98	64	84	49	7	30	40	100.5	M8x10(n.4)	45°	8	28.3	5.0	

	CMM..F								CMM..FB								CMM..FL									
	a1	KA	KB	KC	KM	KN <sub>H8</sub>	KO	KP	KQ	KA	KB	KC	KM	KN <sub>H8</sub>	KO	KP	KQ	KA	KB	KC	KM	KN <sub>H8</sub>	KO	KP	KQ	
<b>026/026</b>	45°	45	6	4.5	55-69	40	6.5(n.4)	75	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>026/030</b>	45°	54.5	6	4	68	50	6.5(n.4)	80	70								—									
<b>026/040</b>	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	
<b>026/050</b>	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	

CMMIS						
	A	B	D1 <sub>j6</sub>	E	F	M
<b>026/026</b> <b>026/030</b> <b>026/040</b> <b>026/050</b>	45	20	9	M4	3	10.2

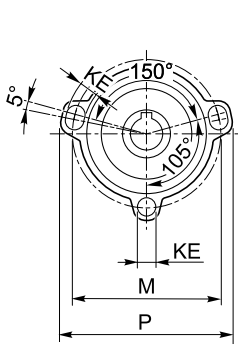
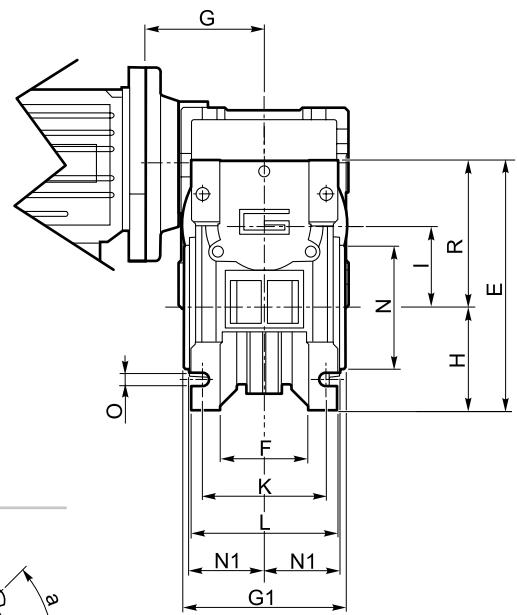
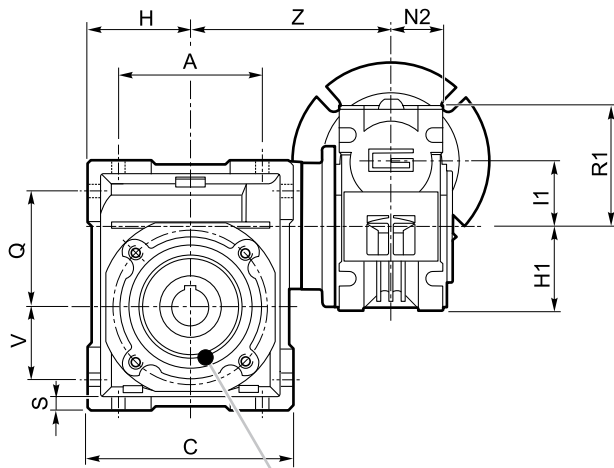
The drawing shows a cross-section of a gear assembly. Dimension A is the total width of the housing. Dimension B is the width of the gear housing. Dimension E is the distance from the front face to the gear center. Dimension F is the gear face width. Dimension G is the gear thickness. D1 j6 is the gear pitch diameter.



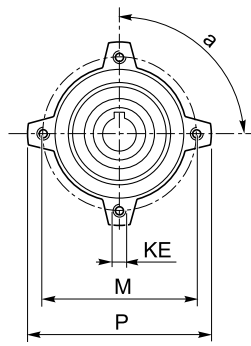
Dimensioni

Dimensions

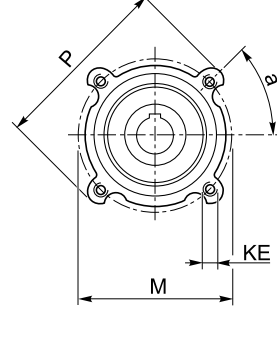
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..026/026



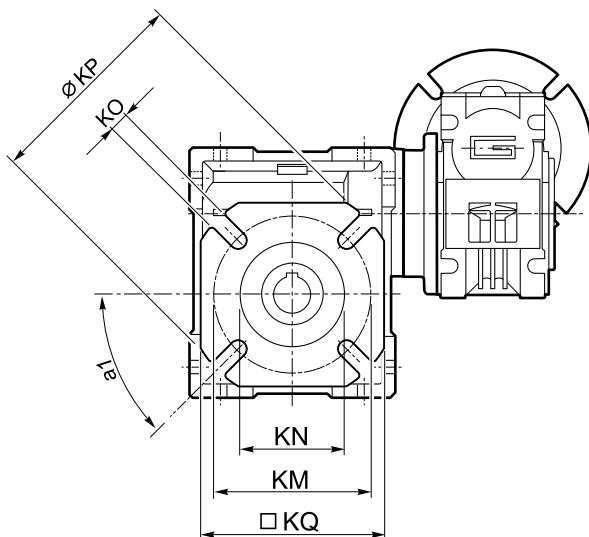
..026/030



..026/040

..026/050

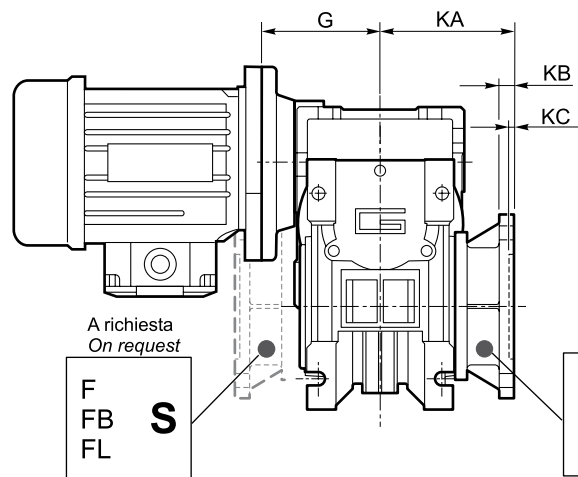
CMM



CMM026/..F

CMM026/..FB

CMM026/..FL

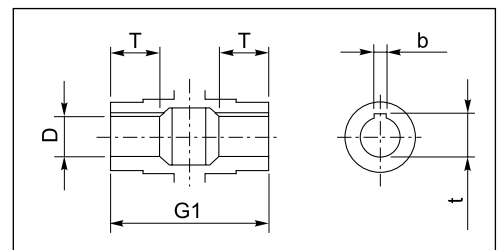


A richiesta  
On request

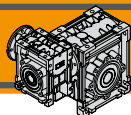
F  
FB  
FL **S**

Standard

F  
FB  
FL **D**



Albero lento cavo / Hollow output shaft



**Dimensioni**

**Dimensions**

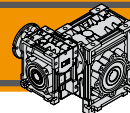
CMM.. - CMM..F - CMM..FB - CMM..FL																	
	A	C	D <sub>H8</sub>	E	F	G	G1	H	H1	I	I1	K	L	M	N <sub>H8</sub>	N1	N2
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29
030/050	80	120	25	144	49	55	92	60	40	50	30	70	85	85	70	43.5	29
030/063	100	144	25	174	67	55	112	72	40	63	30	85	104	95	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.. - 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 (21.8)	3.9
030/050	8.5	98	64	84	57	7	30	40	132	M8x10(n.4)	45°	8	28.3 (27.3)	5.0
030/063	8.5	110	80	102	57	8	36	50	145	M8x10(n.8)	45°	8	28.3	7.0
040/075	11	140	93	119	71.5	10	40	60	165	M8x14(n.8)	45°	8	31.3	12.0
040/090	13	160	102	135	71.5	11	45	70	182	M10x18(n.8)	45°	10	38.3	15.6
050/110	14	200	125	167.5	84	14	50	85	225	M10x18(n.8)	45°	12	45.3	30.2
063/130	16	250	140	187.5	102	15	60	100	245	M12x21(n.8)	45°	14	48.8	55.0

	CMP..F								CMP..FB								CMP..FL							
	a1	KA	KB	KC	KM	KN <sub>H8</sub>	KO	KP	KQ	KA	KB	KC	KM	KN <sub>H8</sub>	KO	KP	KA	KB	KC	KM	KN <sub>H8</sub>	KO	KP	KQ
030/040	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	97	7.5	4.5	80-95	60	9(n.4)	110	95
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	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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

CMMIS						
	A	B	D1 <sub>j6</sub>	E	F	M
030/040 030/050 030/063	51	20	9	M4	3	10.2
040/075 040/090	66	23	11	M5	4	12.5
050/110	76	30	14	M6	5	16
063/130	94.5	40	19	M6	6	21.5

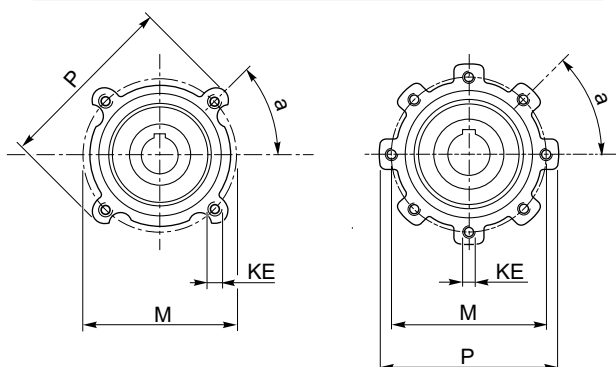
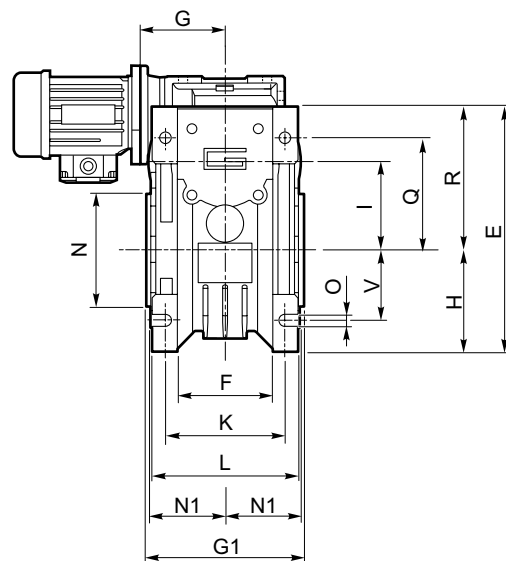
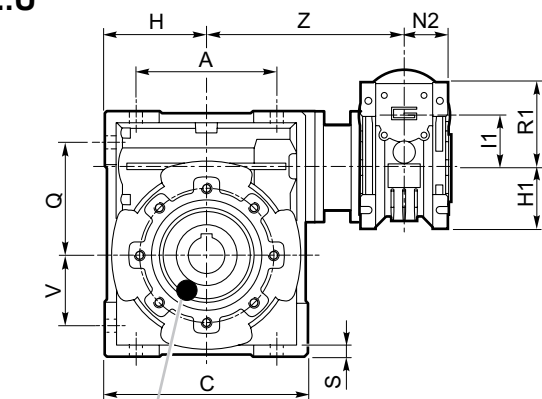




Dimensioni

Dimensions

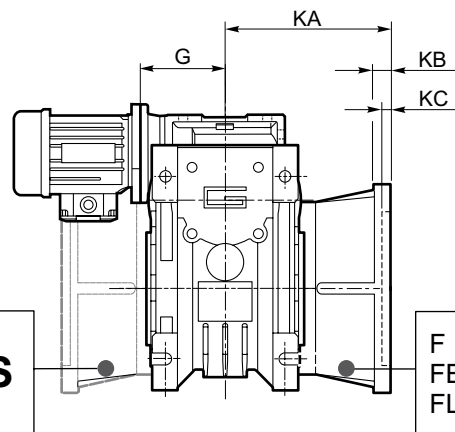
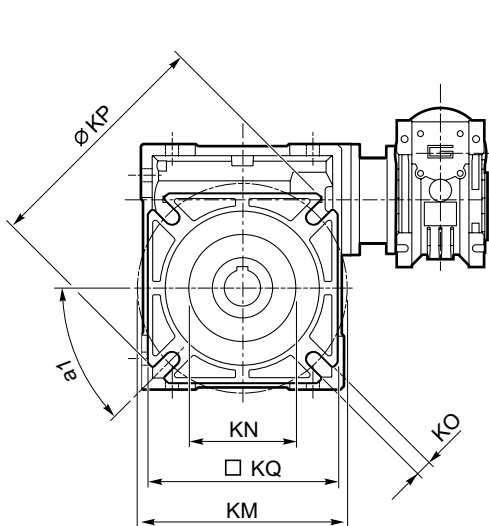
CMM..U



..030/040  
..030/050

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

CMM



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

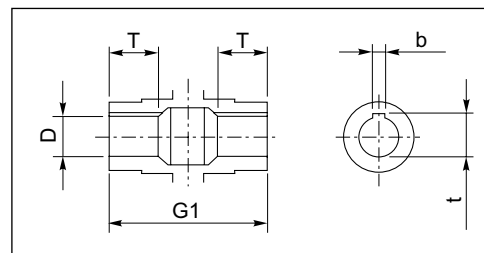
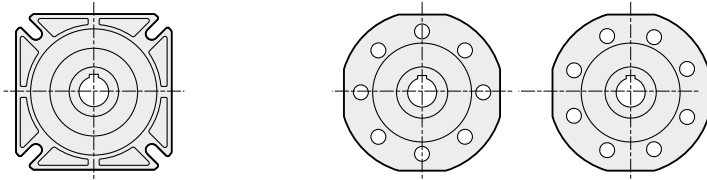
CMM..FB (../040 - ../063)

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

CMM..F

(../110

../130)



Albero lento cavo / Hollow output shaft