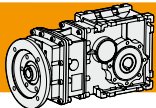


Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical characteristics</i>	C2
Designazione	<i>Designation</i>	C2
Simbologia	<i>Symbols</i>	C2
Lubrificazione	<i>Lubrication</i>	C3
Carichi radiali	<i>Radial loads</i>	C3
Dati tecnici	<i>Technical data</i>	C3
Motori applicabili	<i>IEC Motor adapters</i>	C7
Dimensioni	<i>Dimensions</i>	C8
Accessori	<i>Accessories</i>	C10
Opzioni	<i>Options</i>	C10



CMB

**RIDUTTORI AD ASSI ORTOGONALI
BEVEL HELICAL GEARBOXES**

Caratteristiche tecniche

I riduttori ad ingranaggi ad assi ortogonali della serie CMB sono caratterizzati da un elevato grado di modularità: essi infatti sono stati realizzati con una carcassa completamente intercambiabile con quella dei riduttori a vite senza fine della serie CM. Sono pertanto configurabili secondo le esigenze dell'applicazione con flangia di uscita, albero di uscita, braccio di reazione.

Caratteristiche comuni a tutta la serie:

- Carcassa e flangia PAM in pressofusione di alluminio
- Ingranaggi sempre rettificati
- Lubrificazione permanente

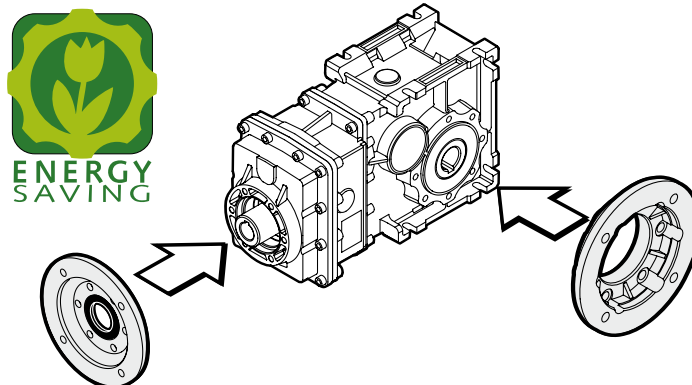
Technical characteristics

The high degree of modularity of CMB bevel helical gearbox allows it to be completely interchangeable with CM wormgearboxes.

It is possible to set up the version required using output flanges, output shafts and optional torque arms.

Common features of all CMB range are:

- Die-cast aluminum housing and input flanges
- Ground helical gears
- Permanent synthetic oil long-life lubrication



Designazione

Designation

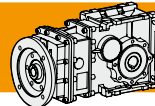
RIDUTTORE / GEARBOX							MOTORE / MOTOR				
CMB	63 3	9.81	U	P71 B5	O25	71B4	B5	230/400	50	T4	
Tipo Type	Grandezza Size	Stadi Stages	Rapporto Ratio	Versione Version	IEC	Diam. albero cavo uscita Output hollow shaft diameter	Grandezza Size	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Pos. morsettiera Terminal board position
 CMB	63 90	3	vedi tabella see tables	U... FD... FS... FBD... FBS... FLD... FLS...	P63... — P90... B5 B14	vedi tabelle see tables	63... — 112...	B5 B14	230/400	50	 T1 T2 T3 T4

RIDUTTORE / GEARBOX						
CMBIS	63 3	9.81	U	I16	O25	
Tipo Type	Grandezza Size	Stadi Stages	Rapporto Ratio	Versione Version	Diam. Albero entrata Input shaft diam.	Diam. Albero cavo uscita Output hollow shaft diameter
 CMBIS	63 90	3	vedi tabelle see tables	U... FD... FS... FBD... FBS... FLD... FLS...	vedi tabelle see tables	vedi tabelle see tables

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 / Nominal output torque
- 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



Lubrificazione

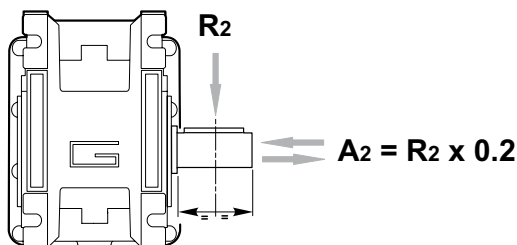
Lubrication

Tutti i riduttori CMB 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 CMB range in all mounting positions.

Carichi radiali

Radial loads

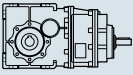
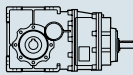


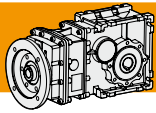
n ₂ [min ⁻¹]	R ₂ [N]	
	CMB 633	CMB 903
200	2742	3986
170	2894	4208
140	3088	4489
100	3454	5022
90	3578	5202
60	4095	5954
40	4688	6816
30	5160	7502
20	5907	8588
15	6500	9500

Dati tecnici

n₁ 1400 min⁻¹

Technical data

	n ₂ [min ⁻¹]	M ₂ [Nm]	P1 [kW]	i		n ₂ [min ⁻¹]	M ₂ [Nm]	P1 [kW]	i
	CMB 633					CMB 903			
	213	150	3.6	6.58		211	280	6.6	6.65
	175	150	2.9	7.99		175	280	5.5	8.00
	143	150	2.4	9.81		144	280	4.5	9.74
	134	150	2.2	10.44		125	280	3.9	11.21
	112	150	1.9	12.53		99.3	300	3.3	14.09
	105	150	1.8	13.31		78.0	450	3.9	17.95
	88.6	170	1.7	15.81		64.8	450	3.2	21.60
	78.8	220	1.9	17.77		53.2	450	2.7	26.30
	64.9	220	1.6	21.56		46.3	450	2.3	30.25
	52.9	220	1.3	26.48		35.7	500	2.0	39.26
	49.7	220	1.2	28.17		29.6	500	1.7	47.25
	41.4	220	1.0	33.81		24.3	500	1.4	57.52
	39.0	220	0.96	35.92		21.2	500	1.2	66.17
	36.0	250	1.00	38.88		16.8	500	0.94	83.20
	29.7	250	0.83	47.16		10.6	500	0.59	132.23
	24.2	250	0.67	57.93		7.3	500	0.41	191.06
	22.7	250	0.63	61.63		6.3	500	0.35	221.88
	18.9	250	0.53	73.96					
	17.8	250	0.50	78.58					
	15.0	250	0.42	93.33					
	10.0	250	0.28	140.52					
	7.7	250	0.21	181.81					
	6.6	250	0.18	211.31					

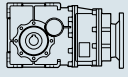

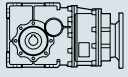



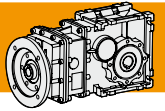
CMB

RIDUTTORI AD ASSI ORTOGONALI BEVEL HELICAL GEARBOXES

Dati tecnici

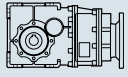

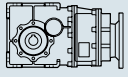

Technical data

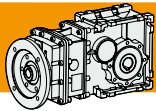
P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i			P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i						
0.12							0.25										
63A4 (1400 min ⁻¹)	213	5	29.6	6.58	CMB633	B5	71A4 (1400 min ⁻¹)	213	11	14.2	6.58	CMB633	B5/B14				
	175	6	24.4	7.99					175	13	11.7			7.99			
	143	8	19.9	9.81						143	16			9.5	9.81		
	134	8	18.7	10.44						134	17			9.0	10.44		
	112	10	15.6	12.53						112	20			7.5	12.53		
	105	10	14.6	13.31						105	21			7.0	13.31		
	88.6	12	14.0	15.81						88.6	25			6.7	15.81		
	78.8	14	16.1	17.77						78.8	28			7.7	17.77		
	64.9	17	13.3	21.56						64.9	35			6.4	21.56		
	52.9	20	10.8	26.48						52.9	42			5.2	26.48		
	49.7	22	10.1	28.17						49.7	45			4.9	28.17		
	41.4	26	8.5	33.81						41.4	54			4.1	33.81		
	39.0	28	8.0	35.92						39.0	58			3.8	35.92		
	36.0	30	8.4	38.88						36.0	62			4.0	38.88		
	29.7	36	6.9	47.16						29.7	76			3.3	47.16		
	24.2	45	5.6	57.93						24.2	93			2.7	57.93		
	22.7	47	5.3	61.63						22.7	99			2.5	61.63		
	18.9	57	4.4	73.96						18.9	119			2.1	73.96		
	17.8	60	4.1	78.58						17.8	126			2.0	78.58		
	15.0	72	3.5	93.33						15.0	150			1.7	93.33		
	10.0	108	2.3	140.52				10.0	225	1.1	140.52						
	7.7	140	1.8	181.81				7.7	291	0.9	181.81						
	6.6	163	1.5	211.31													
								24.3	92	5.4	57.52	CMB903	B5				
								21.2	106	4.7	66.17		B5				
								16.8	133	3.7	83.20		B5				
								10.6	212	2.4	132.23		B5				
								7.3	306	1.6	191.06		B5				
								6.3	356	1.4	221.88		B5				
0.18							0.37										
63B4 (1400 min ⁻¹)	213	8	19.7	6.58	CMB633	B5	71B4 (1400 min ⁻¹)	213	16	9.6	6.58	CMB633	B5/B14				
	175	9	16.3	7.99					175	19	7.9			7.99			
	143	11	13.2	9.81						143	23			6.4	9.81		
	134	12	12.4	10.44						134	25			6.1	10.44		
	112	14	10.4	12.53						112	30			5.0	12.53		
	105	15	9.8	13.31						105	32			4.8	13.31		
	88.6	18	9.3	15.81						88.6	38			4.5	15.81		
	78.8	21	10.7	17.77						78.8	42			5.2	17.77		
	64.9	25	8.8	21.56						64.9	51			4.3	21.56		
	52.9	31	7.2	26.48						52.9	63			3.5	26.48		
	49.7	33	6.8	28.17						49.7	67			3.3	28.17		
	41.4	39	5.6	33.81						41.4	80			2.7	33.81		
	39.0	41	5.3	35.92						39.0	85			2.6	35.92		
	36.0	45	5.6	38.88						36.0	92			2.7	38.88		
	29.7	54	4.6	47.16						29.7	112			2.2	47.16		
	24.2	67	3.7	57.93						24.2	137			1.8	57.93		
	22.7	71	3.5	61.63						22.7	146			1.7	61.63		
	18.9	85	2.9	73.96						18.9	175			1.4	73.96		
	17.8	91	2.8	78.58						17.8	186			1.3	78.58		
	15.0	108	2.3	93.33						15.0	221			1.1	93.33		
	10.0	162	1.5	140.52													
	7.7	210	1.2	181.81													
	6.6	244	1.0	211.31													
								29.6	112	4.5	47.25	CMB903	B5				
								24.3	136	3.7	57.52		B5				
								21.2	157	3.2	66.17		B5				
								16.8	197	2.5	83.20		B5				
								10.6	314	1.6	132.23		B5				
								7.3	453	1.1	191.06		B5				
								6.3	526	0.9	221.88	B5					



Dati tecnici

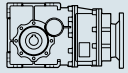

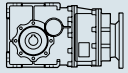

Technical data

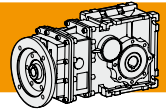
P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i			P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i						
0.55							1.1										
80A4 (1400 min ⁻¹)	213	23	6.5	6.58	CMB633	B5/B14	90S4 (1400 min ⁻¹)	213	46	3.2	6.58	CMB633	B5/B14				
	175	28	5.3	7.99				175	56	2.7	7.99						
	143	35	4.3	9.81				143	69	2.2	9.81						
	134	37	4.1	10.44				105	94	1.6	13.31						
	112	44	3.4	12.53				88.6	112	1.5	15.81						
	105	47	3.2	13.31				78.8	125	1.8	17.77						
	88.6	56	3.0	15.81				64.9	152	1.4	21.56						
	78.8	63	3.5	17.77				52.9	187	1.2	26.48						
	64.9	76	2.9	21.56				39.0	253	0.9	35.92						
	52.9	93	2.4	26.48				36.0	274	0.9	38.88						
	49.7	99	2.2	28.17													
	41.4	119	1.8	33.81						210.5	47			6.0	6.65	CMB903	B5/B14
	39.0	127	1.7	35.92						174.9	56			5.0	8.00		
	36.0	137	1.8	38.88						143.7	69			4.1	9.74		
	29.7	166	1.5	47.16						124.9	79			3.5	11.21		
	24.2	204	1.2	57.93						99.3	99			3.0	14.09		
	22.7	217	1.2	61.63						78.0	127			3.6	17.95		
	18.9	261	1.0	73.96						64.8	152			3.0	21.60		
	17.8	277	0.9	78.58						53.2	185			2.4	26.30		
										46.3	213			2.1	30.25		
46.3	107	4.2	30.25	CMB903	B5/B14	35.7	277	1.8	39.26								
35.7	138	3.6	39.26			29.6	333	1.5	47.25								
29.6	167	3.0	47.25			24.3	406	1.2	57.52								
24.3	203	2.5	57.52			21.2	467	1.1	66.17								
21.2	233	2.1	66.17			16.8	587	0.9	83.20								
16.8	293	1.7	83.20														
10.6	466	1.1	132.23														
0.75							1.5										
80B4 (1400 min ⁻¹)	213	32	4.7	6.58	CMB633	B5/B14	90L4 (1400 min ⁻¹)	213	63	2.4	6.58	CMB633	B5/B14				
	175	38	3.9	7.99				175	77	2.0	7.99						
	143	47	3.2	9.81				143	94	1.6	9.81						
	134	50	3.0	10.44				105	128	1.2	13.31						
	112	60	2.5	12.53				88.6	152	1.1	15.81						
	105	64	2.3	13.31				78.8	171	1.3	17.77						
	88.6	76	2.2	15.81				64.9	207	1.1	21.56						
	78.8	85	2.6	17.77				52.9	255	0.9	26.48						
	64.9	104	2.1	21.56													
	52.9	127	1.7	26.48													
	49.7	135	1.6	28.17													
	41.4	163	1.4	33.81													
	39.0	173	1.3	35.92													
	36.0	187	1.3	38.88													
	29.7	227	1.1	47.16													
	24.2	279	0.9	57.93													
	22.7	296	0.8	61.63													
	64.8	104	4.3	21.60			CMB903	B5/B14	90L4 (1400 min ⁻¹)	211	64	4.4	6.65	CMB903	B5/B14		
	53.2	126	3.6	26.30						175	77	3.6	8.00				
46.3	145	3.1	30.25	144	94	3.0				9.74							
35.7	189	2.6	39.26	125	108	2.6				11.21							
29.6	227	2.2	47.25	99.3	136	2.2				14.09							
24.3	277	1.8	57.52	78.0	173	2.6				17.95							
21.2	318	1.6	66.17	64.8	208	2.2				21.60							
16.8	400	1.2	83.20	53.2	253	1.8				26.30							
				46.3	291	1.5				30.25							
				35.7	378	1.3				39.26							
				29.6	454	1.1	47.25										
				24.3	553	0.9	57.52										



Dati tecnici

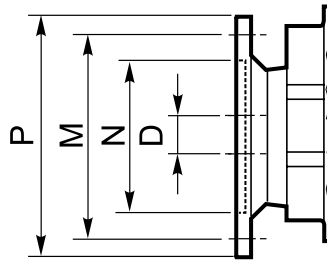
Technical data

P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i			P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i			
1.85							3.0							
90LB4 (1400 min ⁻¹)	213	78	1.9	6.58	CMB633	B5/B14	100LB4 (1400 min ⁻¹)	211	128	2.2	6.65	CMB903	B5/B14	
	175	95	1.6	7.99				175	154	1.8	8.00			
	143	116	1.3	9.81				144	187	1.5	9.74			
	105	158	1.0	13.31				125	216	1.3	11.21			
	88.6	188	0.9	15.81				99.3	271	1.1	14.09			
	78.8	211	1.0	17.77				78.0	345	1.3	17.95			
	211	79	3.5	6.65	CMB903	B5/B14		64.8	416	1.1	21.60			B5/B14
	175	95	2.9	8.00				53.2	506	0.9	26.30			
	144	116	2.4	9.74										
	125	133	2.1	11.21										
	99.3	167	1.8	14.09										
	78.0	213	2.1	17.95										
	64.8	256	1.8	21.60										
	53.2	312	1.4	26.30										
2.2							4.0							
100LA4 (1400 min ⁻¹)	211	94	3.0	6.65	CMB903	B5/B14	112M4 (1400 min ⁻¹)	211	171	1.6	6.65	CMB903	B5/B14	
	175	113	2.5	8.00				175	205	1.4	8.00			
	144	137	2.0	9.74				144	250	1.1	9.74			
	125	158	1.8	11.21				125	287	1.0	11.21			
	99.3	199	1.5	14.09				99.3	361	0.8	14.09			
	78.0	253	1.8	17.95				78.0	460	1.0	17.95			
	64.8	305	1.5	21.60										
	53.2	371	1.2	26.30										
46.3	427	1.1	30.25											
35.7	554	0.9	39.26											



Motori applicabili

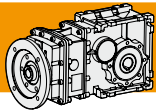
IEC Motor adapters



	IEC	N	M	P	D	i (rapporto / ratio)																
						6.58	7.99	9.81	10.44	12.53	13.31	15.81	17.77	21.56	26.48	28.17	33.81	35.92	38.88	47.16	57.93	61.63
CMB633	90 B5	130	165	200	24																	
	90 B14	95	115	140																		
	80 B5	130	165	200	19																	
	80 B14	80	100	120																		
	71 B5	110	130	160	14	B																
	71 B14	70	85	105																		
	63 B5	95	115	140	11	BS																
CMB903	100/112B5	180	215	250	28																	
	100/112B14	110	130	160																		
	90 B5	130	165	200	24																	
	90 B14	95	115	140																		
	80 B5	130	165	200	19	B																
	80 B14	80	100	120																		
	71 B5	110	130	160	14	BS																

N.B.
 Le aree evidenziate in grigio indicano l'applicabilità della corrispondente grandezza motore.
B/BS = Boccola di riduzione in acciaio

N.B.
 Grey areas indicate motor inputs available on each size of unit.
B/BS = Metal shaft sleeve



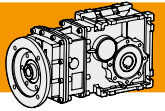
Dimensioni

Dimensions

CMB CMBIS	A	C	E	G	H	K	KE	a ₂	L	M	N f7	N1	O	P	Q	R	S	U	V	Peso / Weight [kg]
633	100	144	174	241	72	85	M8x15	45°	106	95	80	104	8.5	110	80	102	8	233	50	9.5
903	140	206	238	287	103	100	M10x20	45°	134	130	110	130	13	160	102	135	11	279.5	70	18.4

CMB CMBIS	Albero entrata Input shaft					Albero uscita cavo Hollow output shaft				
	D ₁ j6	E ₁	F ₁	G ₁	T ₁	D ₂ H8	F ₂	G ₂	b	t
633	16	40	5	M6	18	25	35	112	8	28.3
903	19	40	6	M6	21.5	35	45	140	10	38.3

CMB CMBIS	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				
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				
903	45°	111	13	6	175 - 188	152	14	210	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				

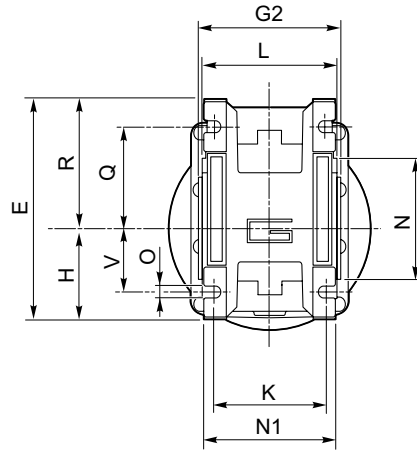
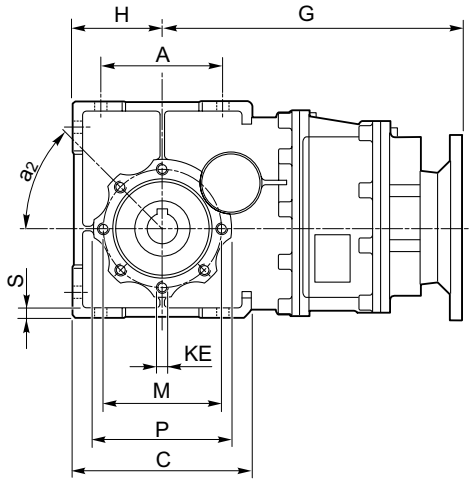


Dimensioni

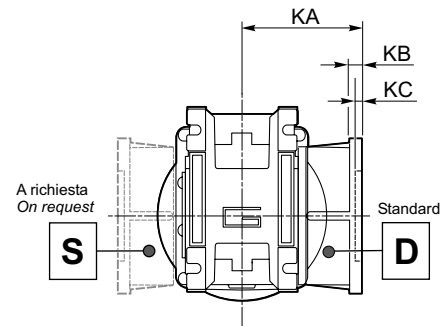
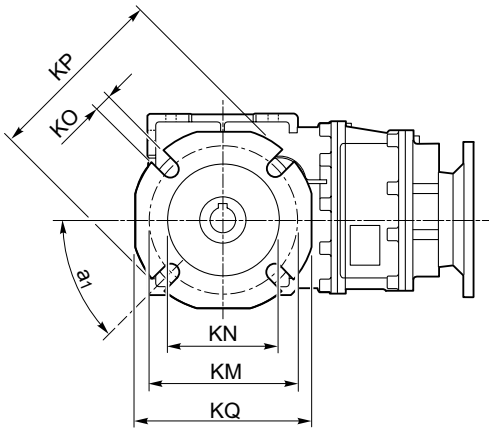
Dimensions

CMB.. - CMBIS..

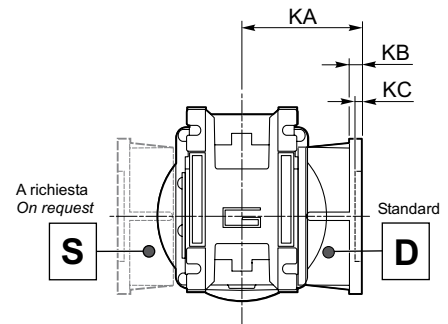
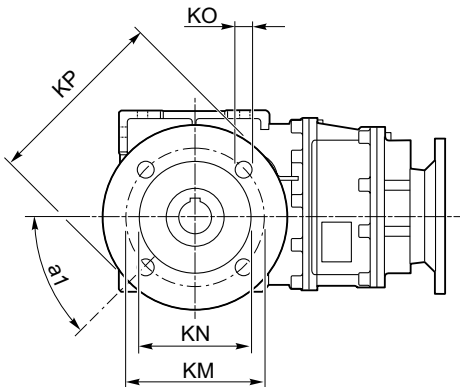
CMB..U



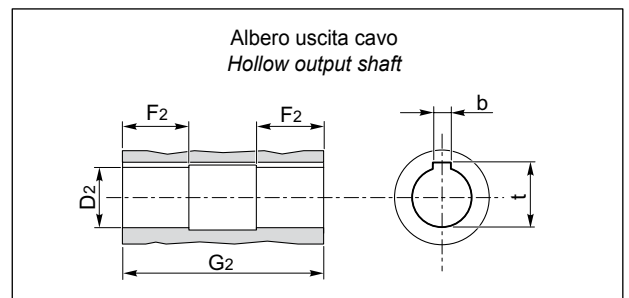
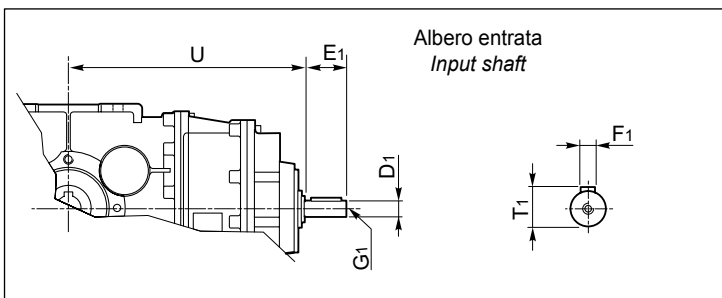
CMB..F
CMB..FL

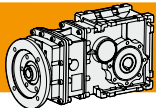


CMB..FB



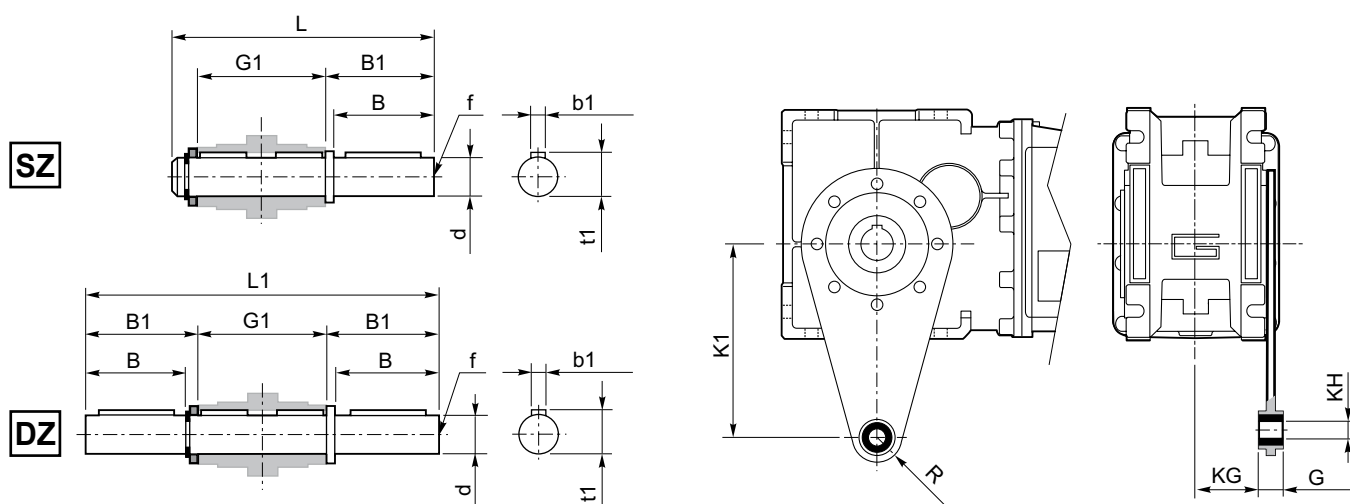
CMBIS..





Accessori

Accessories



Albero lento / Output shaft

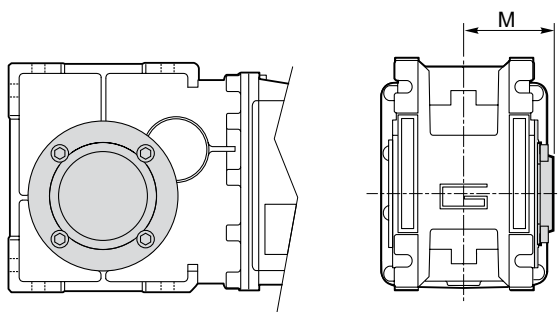
CMB CMBIS	d h6	B	B1	G1	L	L1	f	b1	t1
633	25	50	53.5	112	173	219	M10	8	28
903	35	80	84.5	140	234	309	M12	10	38

Braccio di reazione / Torque arm

CMB CMBIS	K1	G	KG	KH	R
633	150	14	47.5	10	18
903	200	25	56.5	20	30

Opzioni

Options



PC - Coperchio di protezione / Plastic cover

CMB CMBIS	M
633	73
903	94