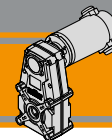




Ferrite

Motoriduttori CC pendolari
DC helical parallel gearmotors

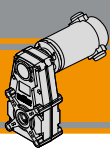




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Caratteristiche tecniche

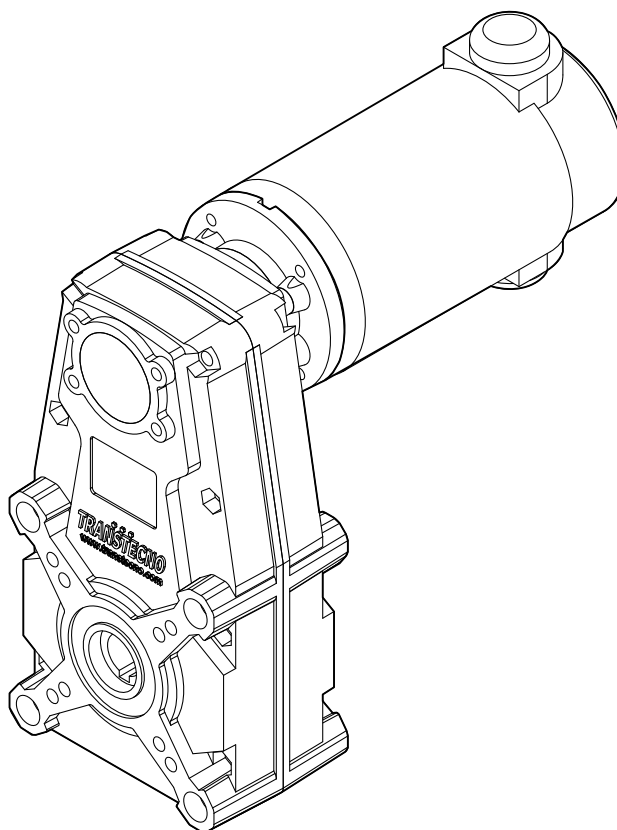
Technical features

I motoriduttori CC pendolari a magneti permanenti in ferrite ECFT hanno le seguenti caratteristiche principali:

ECFT ferrite permanent magnets DC helical parallel gearmotors range has the following main features:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800W S2
- Magneti in ferrite
- Carcasa pressofusione di alluminio
- Lubrificazione permanente con olio sintetico.
- Ingranaggi cilindrici a denti elicoidali.

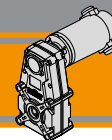
- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 to 800W S2
- Ferrite magnets
- Die-cast aluminum housings
- Permanent synthetic oil long-life lubrication.
- helical gears.



Designazione

Classification

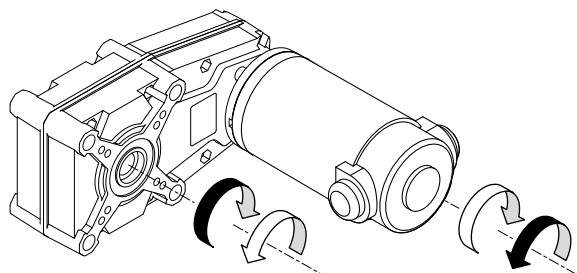
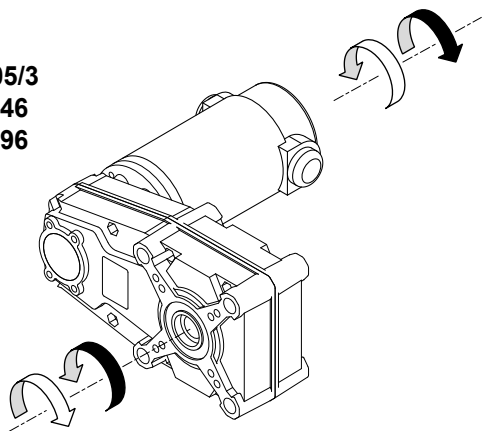
MOTORIDUTTORE / GEARMOTORS							U	60.63	O20	B5
ECFT	180/146						U	60.63	O20	B5
Tipo Type	Grandezza Size						Versione Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft	Versione motore Motor version
	070/105/3	100/105/3	180/105/3	250/146	350/146	600/146	U...	vedi tabelle see tables	vedi tabelle see tables	120 240 12E 24E
	070/105/4	100/146	180/146	250/196	350/196	600/196				
070/146										



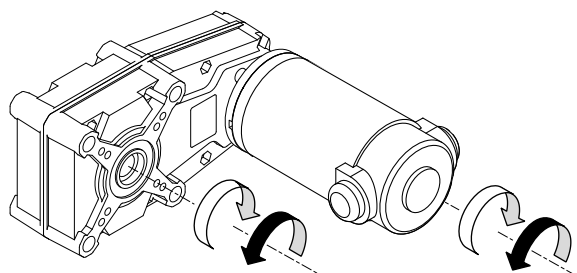
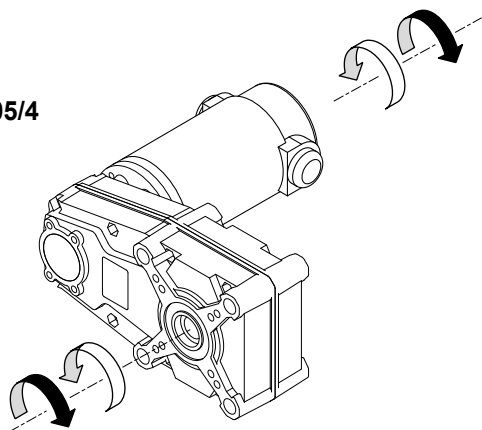
Sensi di rotazione

Direction of rotation

FT105/3
FT146
FT196



FT105/4



Simbologia

Symbols

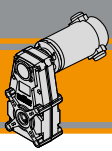
n_1	[min^{-1}]	Velocità in ingresso / <i>Input speed</i>
n_2	[min^{-1}]	Velocità in uscita / <i>Output speed</i>
i		Rapporto di riduzione / <i>Ratio</i>
P_1	[kW]	Potenza in entrata / <i>Input power</i>
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
P_{n1}	[kW]	Potenza nominale in entrata / <i>Nominal input power</i>
M_{n2}	[Nm]	Coppia nominale in uscita in funzione di P_{n1} / <i>Nominal output torque referred to P_{n1}</i>
sf		Fattore di servizio / <i>Service factor</i>
R_2	[N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
A_2	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>

Lubrificazione

Lubrication

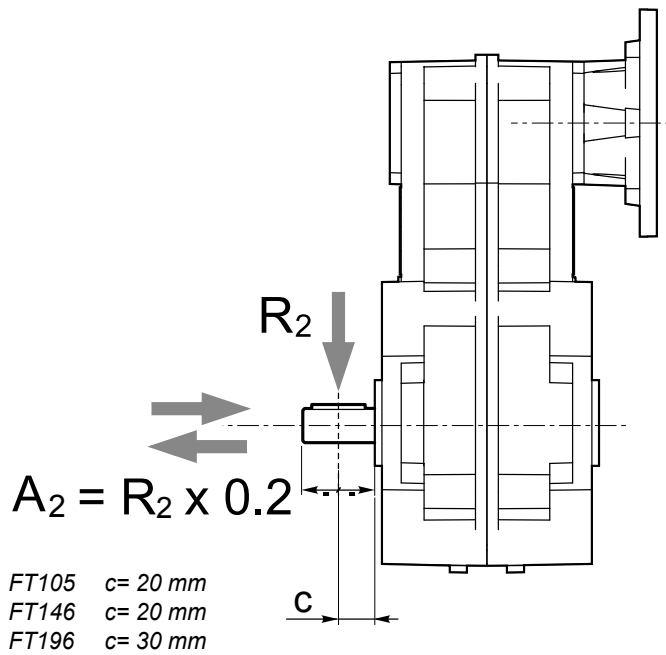
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

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



Carichi radiali

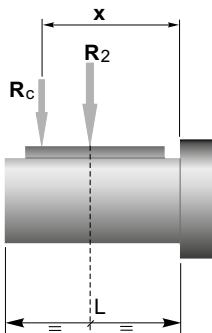
Radial loads



n_2 [min ⁻¹]	R_2 [N]		
	FT105	FT146	FT196
70	1500	2500	3500
40	1700	2700	4000
30	1850	2850	4600
20	2000	3000	5500
10	2000	3000	7000
5	2000	3000	7000

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:

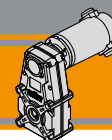


	FT105	FT146	FT196
a	82	82,5	132
b	62	62,5	102
R_{2MAX}	2000	3000	7000

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



$$R \leq R_c$$

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



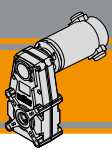
Dati tecnici

Technical data

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)	146	6	5.1	20.57	070/105/3	12E/24E	(3000 min ⁻¹)	31	40	2.1	95.61	100/146	120/240/24E					
	90	10	3.9	33.32					26	48	1.8			113.40				
	68	13	3.8	44.36					22	56	1.5			133.45				
	55	16	3.1	54.87					20	63	1.4			150.18				
	42	21	2.4	71.84					19	67	1.4			160.43				
	39	23	2.2	77.07					17	75	1.2			178.83				
	34	27	1.9	88.87					13	94	1.0			223.92				
	24	37	1.4	124.81					13	99	0.9			236.83				
	17	54	0.9	181.35					10	126	0.7			300.07				
	13	67	0.8	224.32														
	9.5	86	0.6	315.05														
	8.1	86	0.6	368.19	070/105/4	12E/24E	(3000 min ⁻¹)	146	15	2.0	20.57	180/105/3	120/240					
	5.6	86	0.6	534.98					90	25	1.6			33.32				
	4.5	86	0.6	661.76					68	33	1.5			44.36				
	3.2	86	0.6	929.40					55	41	1.2			54.87				
	160	6	11.1	18.75	070/146	12E/24E		42	54	0.9	71.84							
	115	8	8.0	26.17					39	58	0.9			77.07				
	106	8	7.4	28.26					34	66	0.8			88.87				
	86	10	7.4	35.07					160	14	4.4			18.75	180/146	120/240/24E		
	76	12	6.6	39.44					115	20	3.2			26.17				
	65	14	5.6	46.44					106	21	3.0			28.26				
	57	16	4.9	52.86					86	26	3.0	35.07						
	49	18	4.7	60.63					76	30	2.6	39.44						
	43	21	4.1	70.00					65	35	2.2	46.44						
	35	25	3.4	84.63					57	40	2.0	52.86						
	31	29	3.0	95.61			49	45	1.9	60.63								
	26	34	2.5	113.40			43	52	1.6	70.00								
	22	40	2.1	133.45			35	63	1.4	84.63								
	20	45	1.9	150.18			31	72	1.2	95.61								
	19	48	1.9	160.43			26	85	1.0	113.40								
	17	54	1.7	178.83			22	100	0.9	133.45								
	13	67	1.4	223.92			20	112	0.8	150.18								
	13	71	1.3	236.83			19	120	0.8	160.43								
	10	90	1.0	300.07			17	134	0.7	178.83								
	7.5	119	0.8	397.38														
140							350											
(3000 min ⁻¹)	146	9	3.6	20.57	100/105/3	120/240/24E	(3000 min ⁻¹)	160	20	3.2	18.75	250/146	120/240					
	90	14	2.8	33.32					115	27	2.3			26.17				
	68	19	2.7	44.36					106	30	2.1			28.26				
	55	23	2.2	54.87					86	37	2.1			35.07				
	42	30	1.7	71.84					76	41	1.9			39.44				
	39	32	1.6	77.07					65	49	1.6			46.44				
	34	37	1.4	88.87					57	55	1.4			52.86				
	24	52	1.0	124.81					49	64	1.4			60.63				
	16.5	76	0.7	181.35					43	73	1.2			70.00				
	160	8	7.9	18.75			100/146	120/240/24E		35	89			1.0	84.63			
	115	11	5.7	26.17					31	100	0.9	95.61						
	106	12	5.3	28.26					26	119	0.7	113.40						
	86	15	5.3	35.07														
	76	17	4.7	39.44														
	65	19	4.0	46.44														
	57	22	3.5	52.86														
	49	25	3.4	60.63														
	43	29	2.9	70.00														
	35	35	2.4	84.63														



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 in the grey areas



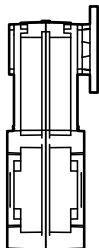
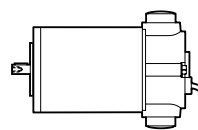
Dati tecnici

Technical data

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
350							800						
(3000 min ⁻¹)	147	21	12.8	20.41	250/196	120/240	(3000 min ⁻¹)	160	45	1.4	18.75	600/146	120/240
	86	36	8.6	34.81			115	63	1.0	26.17			
	70	45	7.9	42.61			106	68	0.9	28.26			
	51	62	6.3	59.36			86	84	0.9	35.07			
	41	76	5.6	72.68			76	94	0.8	39.44			
	32	97	4.4	92.82			65	111	0.7	46.44			
	24	130	3.3	123.95			147	49	5.6	20.41			
	19	165	2.6	158.02			86	83	3.7	34.81			
	15	211	2.0	201.80	70	102	3.4	42.61					
	11	282	1.5	269.47	51	142	2.7	59.36					
					41	174	2.5	72.68					
					32	222	1.9	92.82					
					24	297	1.4	123.95					
					19	378	1.1	158.02					
					15	483	0.9	201.80					
500													
(3000 min ⁻¹)	160	28	2.2	18.75	350/146	120/240							
	115	39	1.6	26.17			147	31	8.9	20.41			
	106	42	1.5	28.26			86	52	6.0	34.81			
	86	52	1.5	35.07			70	64	5.5	42.61			
	76	59	1.3	39.44			51	89	4.4	59.36			
	65	69	1.1	46.44			41	109	3.9	72.68			
	57	79	1.0	52.86			32	139	3.1	92.82			
	49	91	0.9	60.63			24	185	2.3	123.95			
	43	105	0.8	70.00	19	236	1.8	158.02					
					15	302	1.4	201.80					
					11	403	1.1	269.47					

Motori applicabili

Motor adapters



		EC						
		070.12E 070.24E	100.120 100.240 100.24E	180.120 180.240	180.24E	250.120 250.240	350.120 350.240	600.120 600.240
FT	105/3	20.57 - 315.05	20.57 - 315.05	20.57 - 315.05				
	105/4	368.19 - 929.4	368.19 - 929.4	368.19 - 929.4				
	146	18.75 - 397.38	18.75 - 397.38	18.75 - 397.38	18.75 - 397.38	18.75 - 397.38	18.75 - 397.38	18.75 - 397.38
	196		(*)	(*)	(*)	20.41 - 269.47	20.41 - 269.47	20.41 - 269.47

20.57 - 315.05

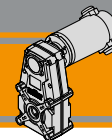
Rapporti di riduzione i
Ratio i

(*) Motore applicabile con portaspazzola inclinato di 45°.

Si prega di contattare il nostro servizio tecnico.

(*) Motor assembly with brush holder inclined 45°.

Please contact our technical service.

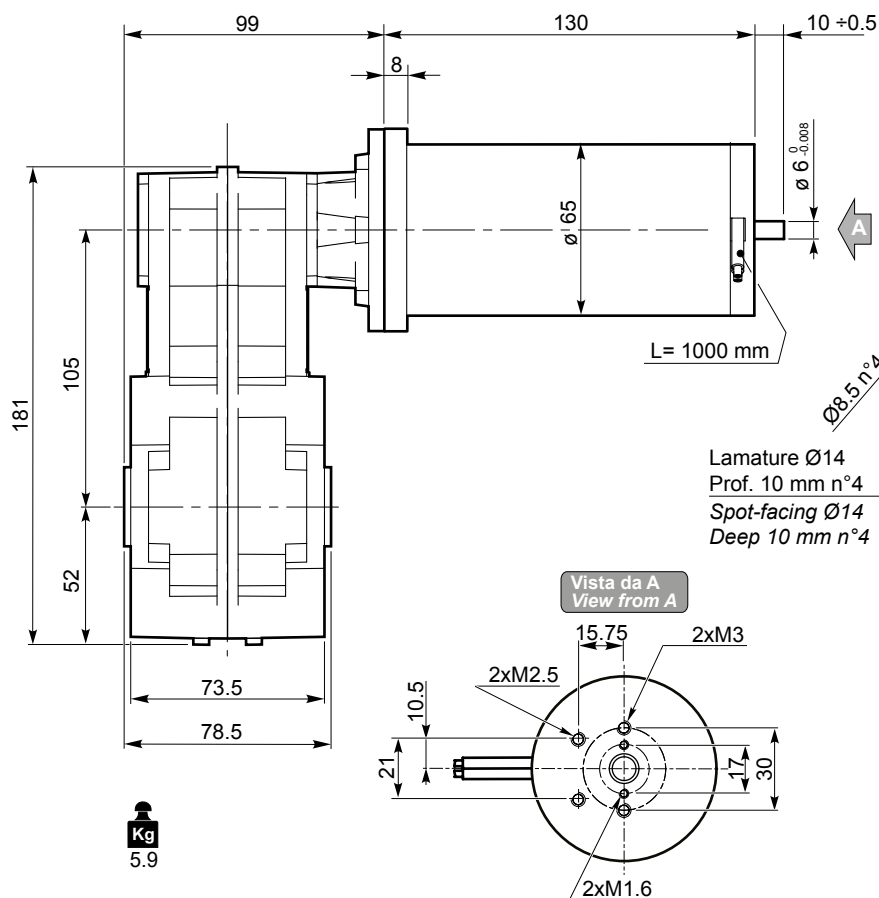


Dimensioni

Dimensions

ECFT 070/105

ECFT 070/105...U



Kg
5.9

NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

Freno / Brake

H23

Encoder

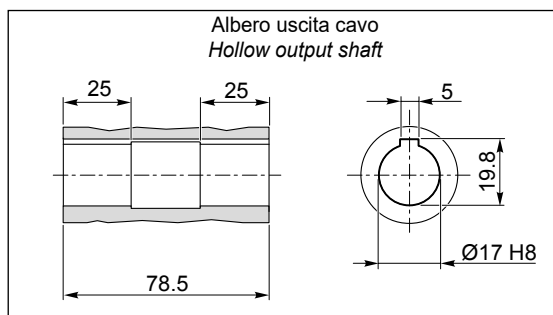
H24

Motori / Motors IP66

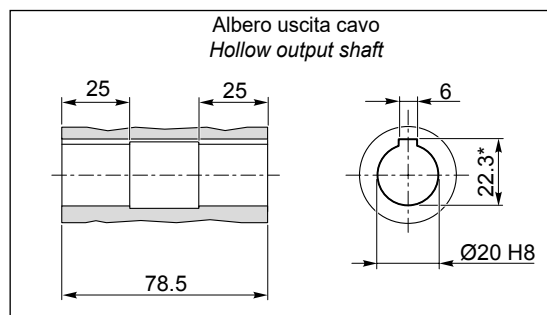
I2

ECFT

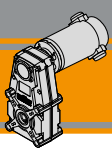
O17



O20

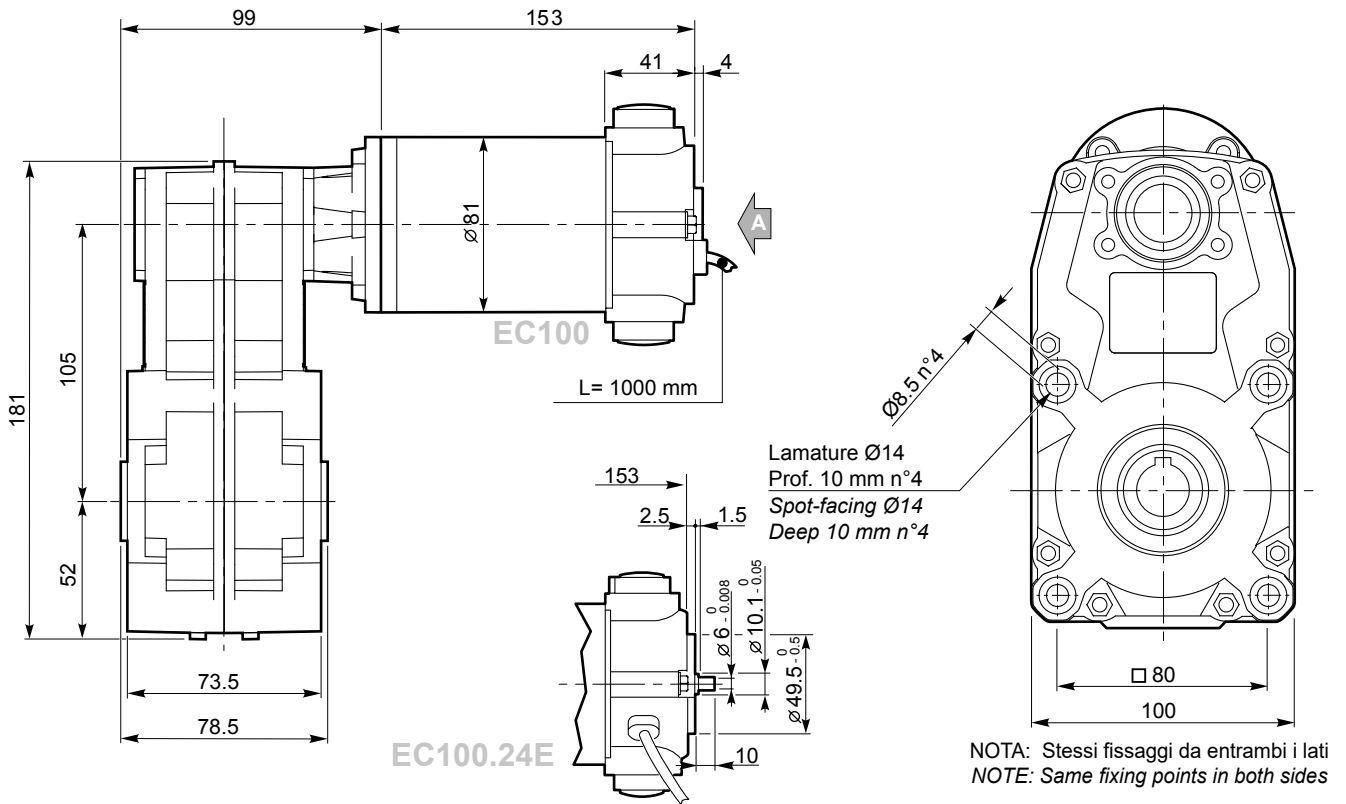


*: Sede linguetta ribassata / Special keyway

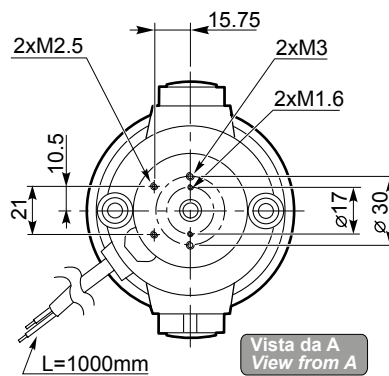


ECFT 100/105

ECFT 100/105...U



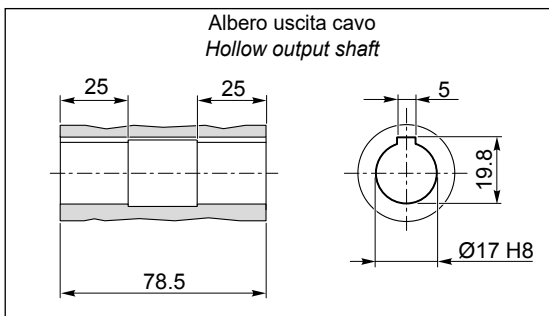
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides



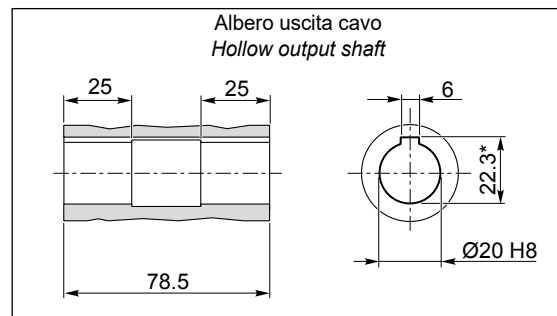
Vista da A
View from A

- Freno / Brake → H23
- Encoder → H24
- Motori / Motors IP66 → I4

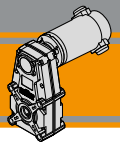
O17



O20



*: Sede linguetta ribassata / Special keyway

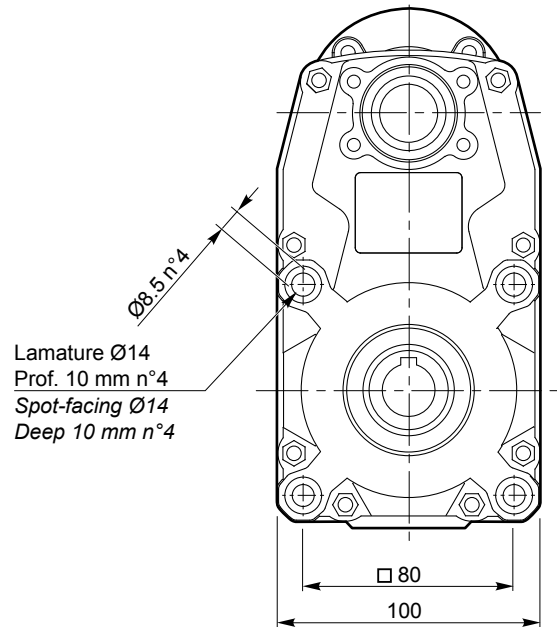
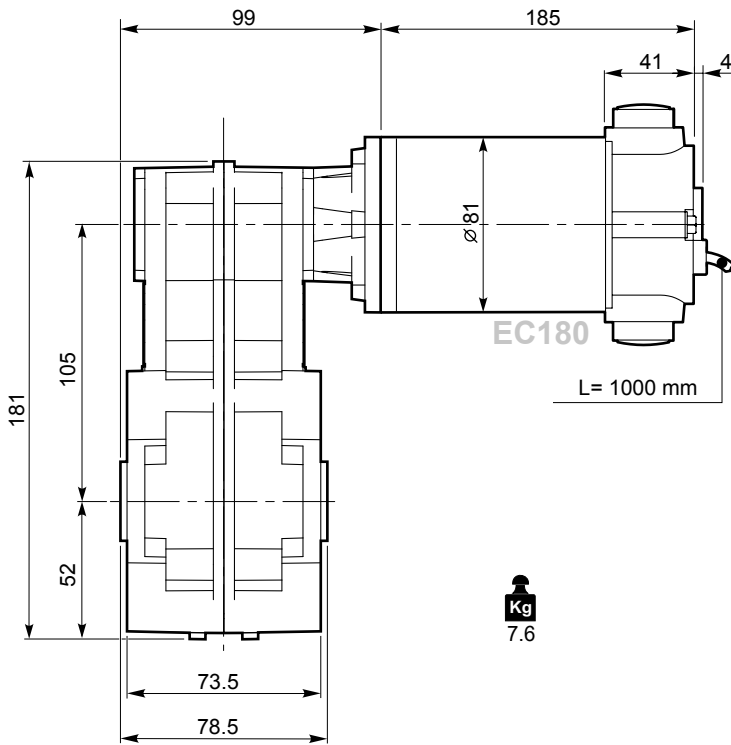


Dimensioni

Dimensions

ECFT 180/105

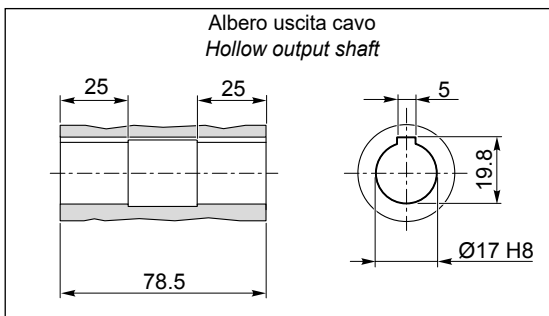
ECFT 180/105...U



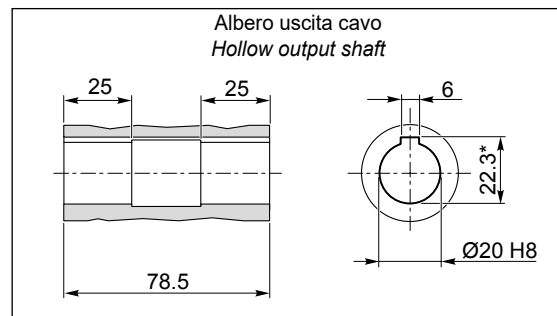
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

- Freno / Brake → H23
- Encoder → H24
- Motori / Motors IP66 → I6

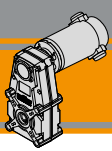
O17



O20

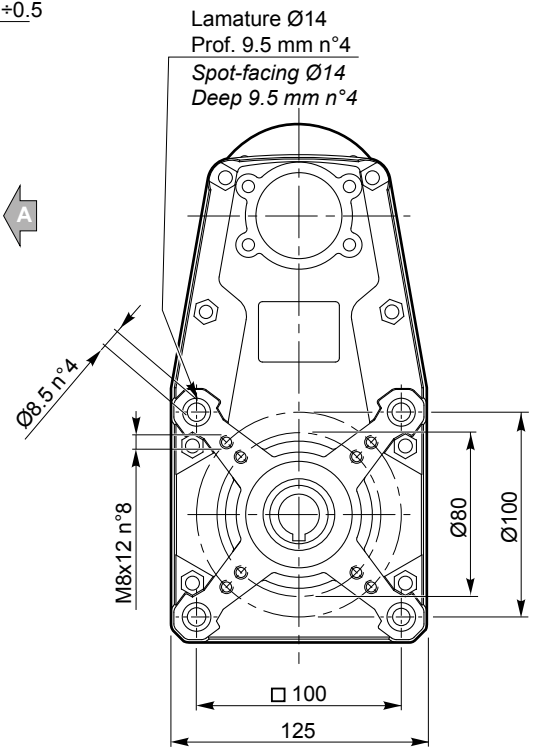
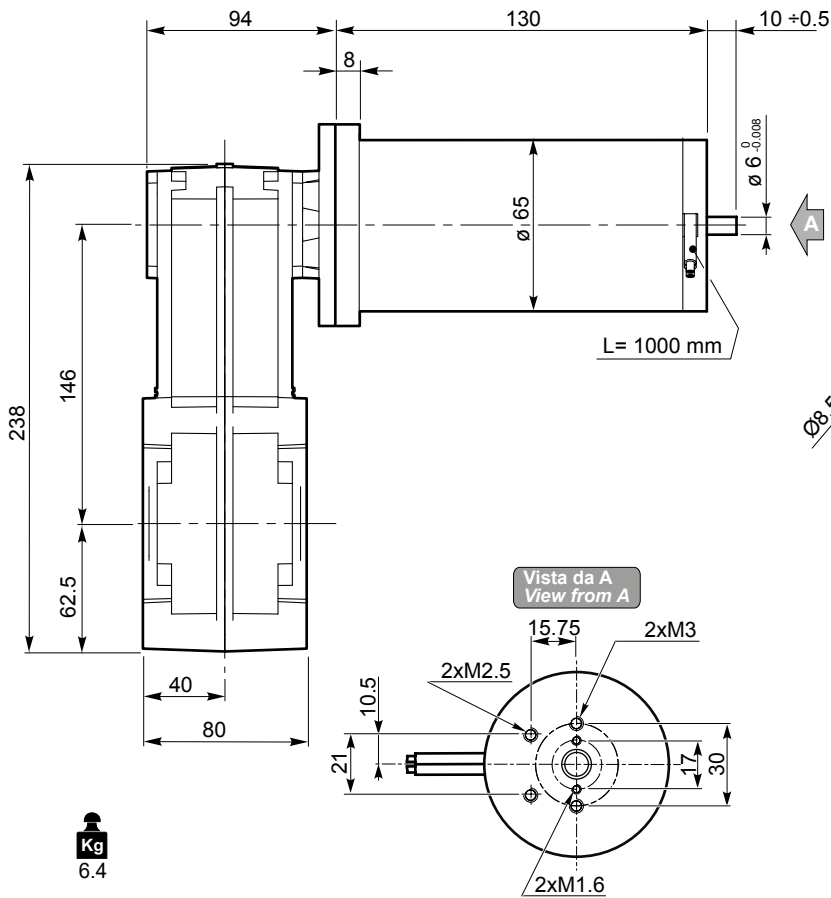


*: Sede linguetta ribassata / Special keyway



ECFT 070/146

ECFT 070/146 U



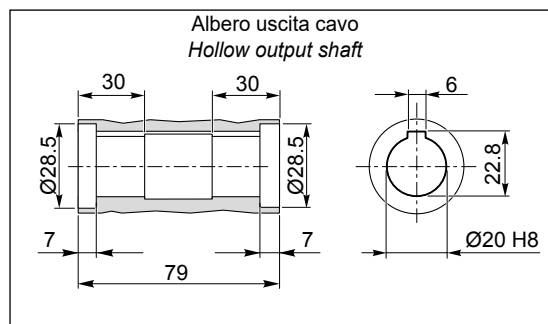
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

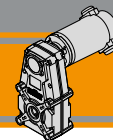
Freno / Brake → H23

Encoder → H24

Motori / Motors IP66 → I2

O20



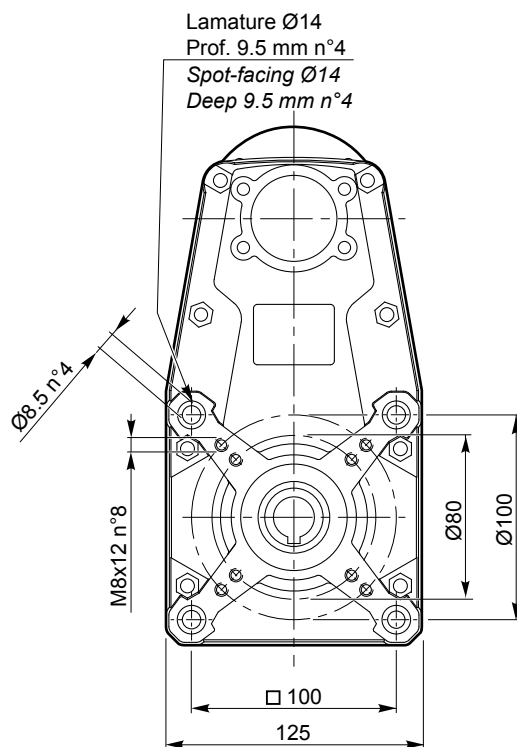
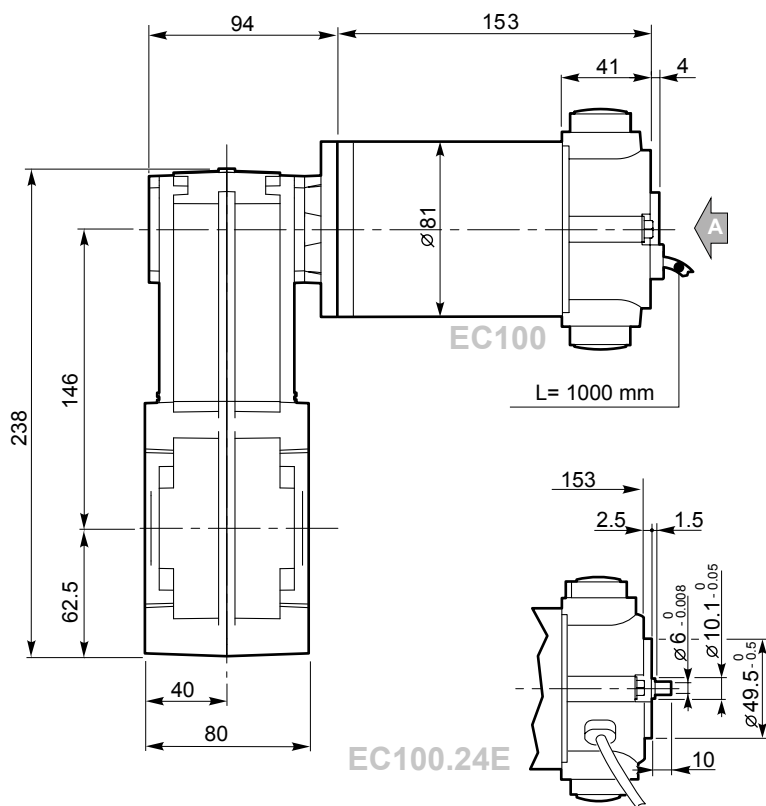


Dimensioni

Dimensions

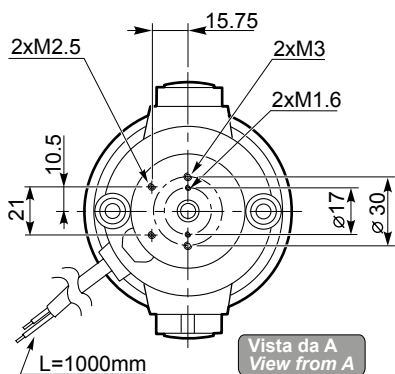
ECFT 100/146

ECFT 100/146 U



NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

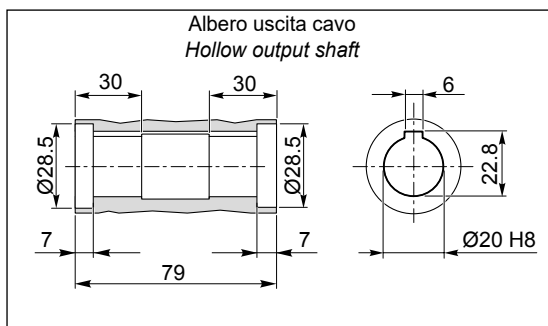
Kg
7.4

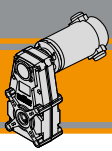


- Freno / Brake → H23
- Encoder → H24
- Motori / Motors IP66 → I4

ECFT

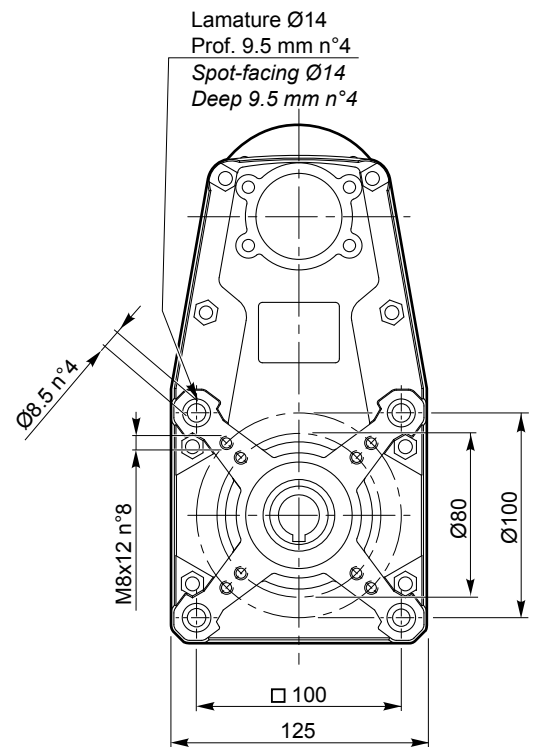
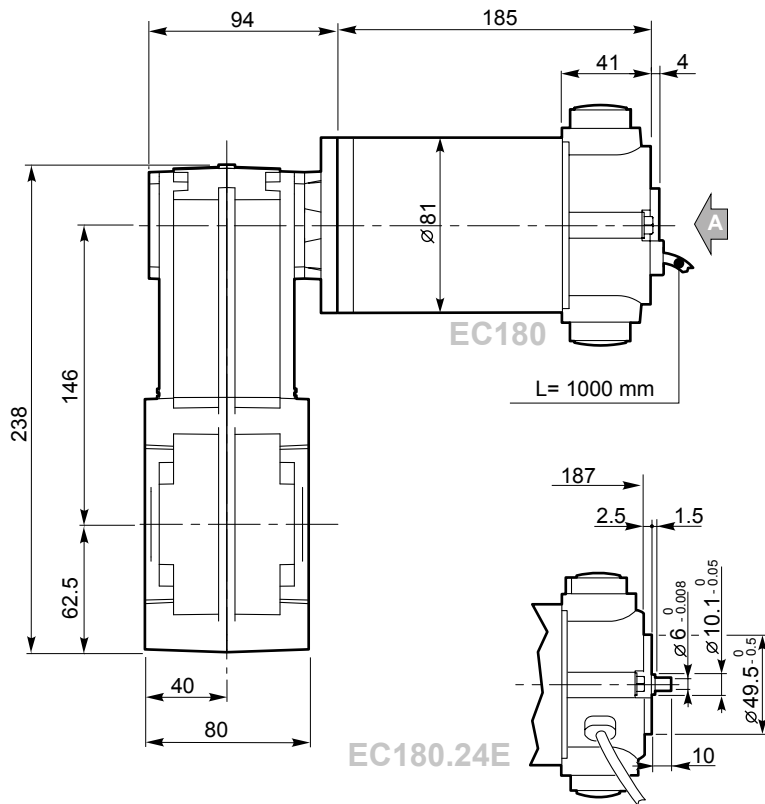
O20





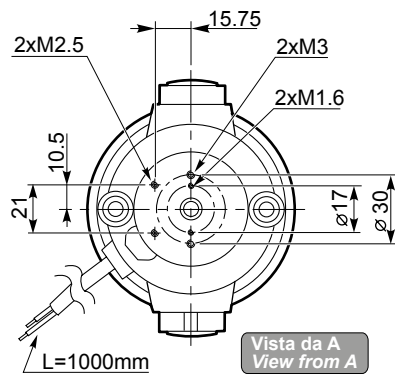
ECFT 180/146

ECFT 180/146 U



NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

Kg
8.1

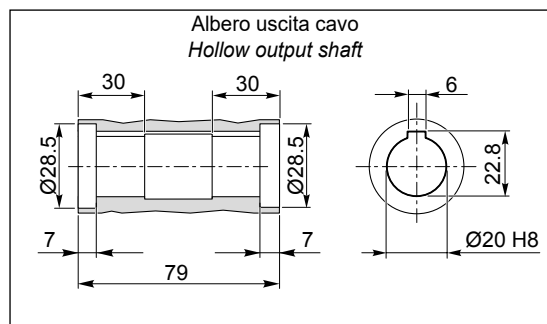


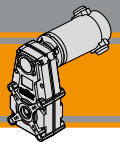
Freno / Brake → H23

Encoder → H24

Motori / Motors IP66 → I6

O20



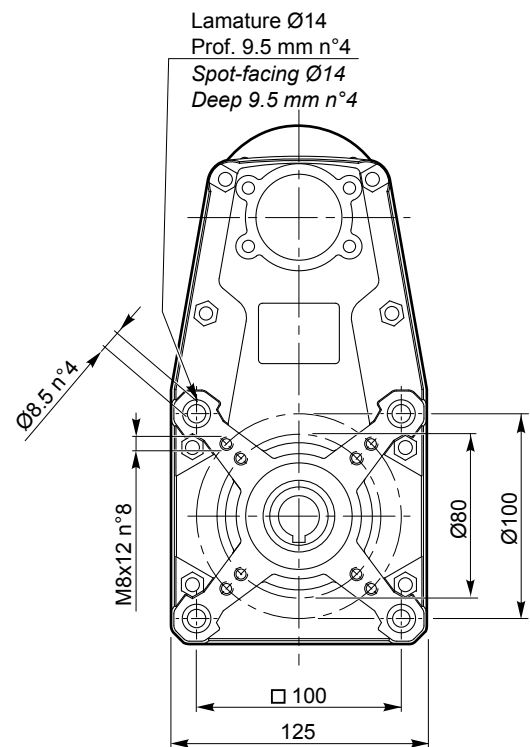
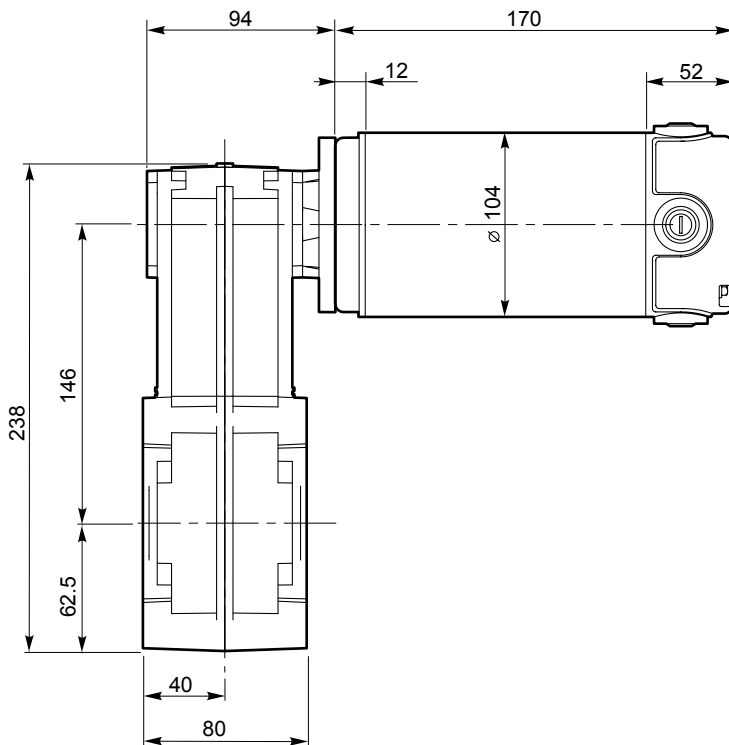


Dimensioni

Dimensions

ECFT 250/146

ECFT 250/146 U



Kg
8.9

NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

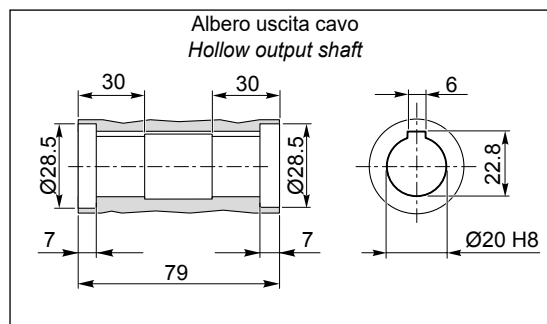
Motori / Motors IP66

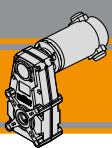
18

ECFT

O20

Albero uscita cavo
Hollow output shaft



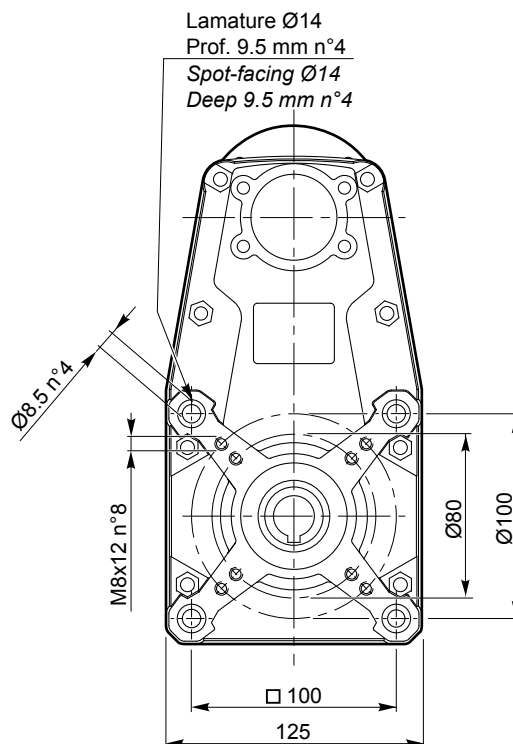
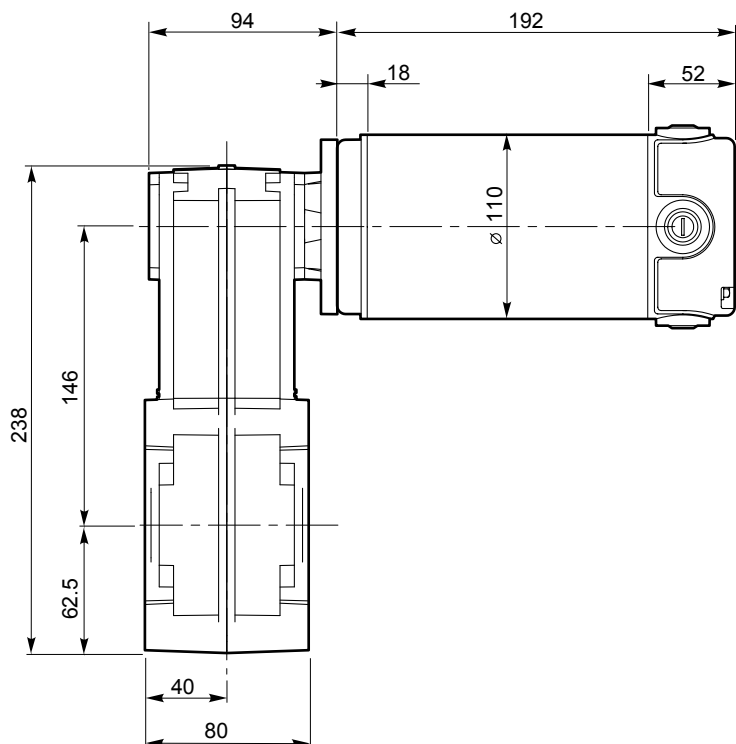


Dimensioni

Dimensions

ECFT 350/146

ECFT 350/146 U



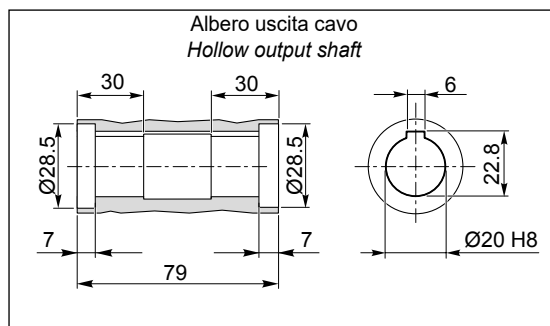
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

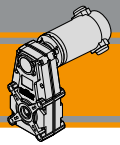
Kg
10.0

Freno / Brake → **H23**

Motori / Motors IP66 → **I10**

O20



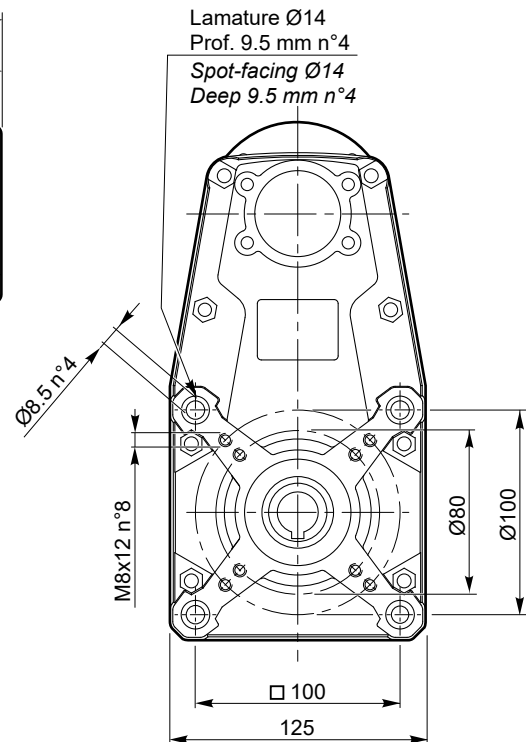
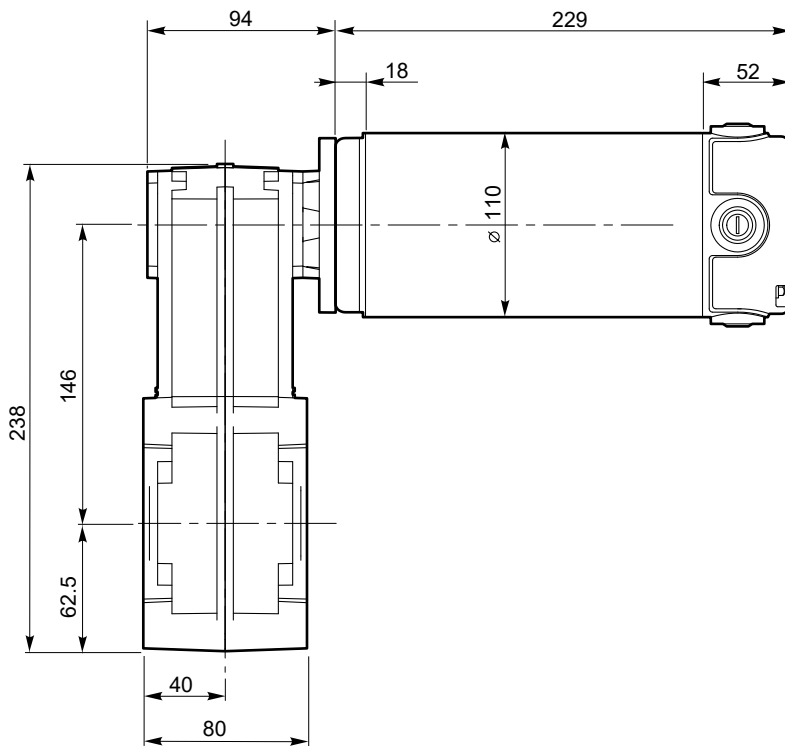


Dimensioni

Dimensions

ECFT 600/146

ECFT 600/146 U



11.8

NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

Freno / Brake

H23

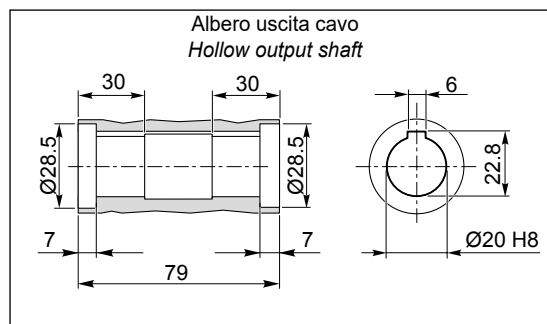
Motori / Motors IP66

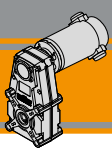
I10

ECFT

O20

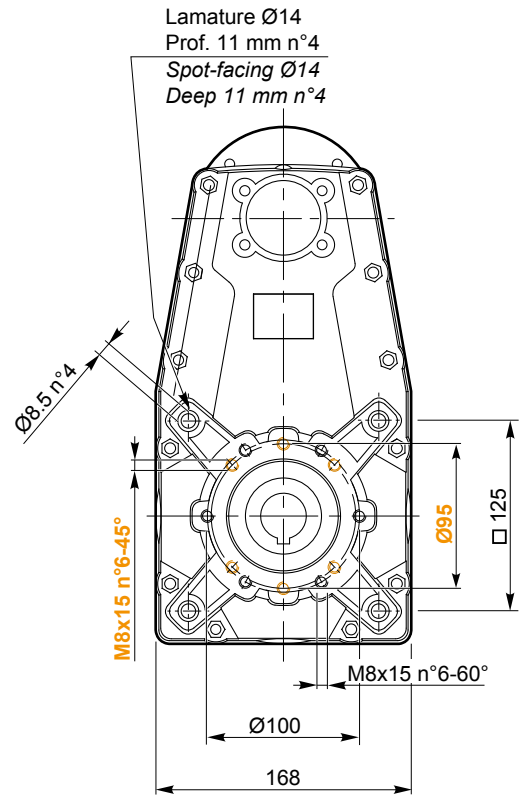
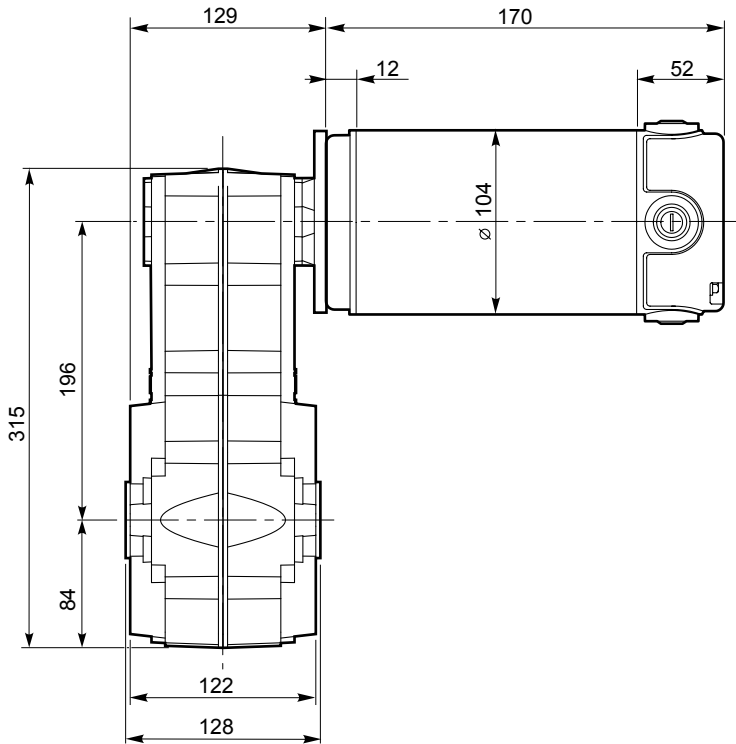
Albero uscita cavo
Hollow output shaft





ECFT 250/196

ECFT 250/196 U



Kg
16.3

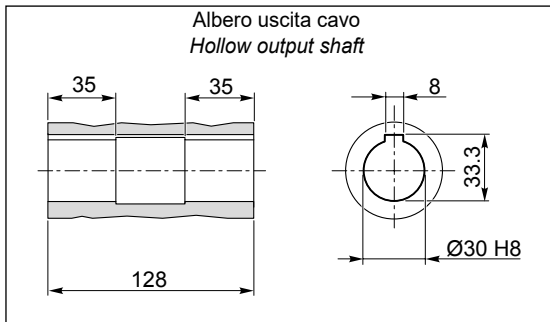
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

Motori / Motors IP66

18

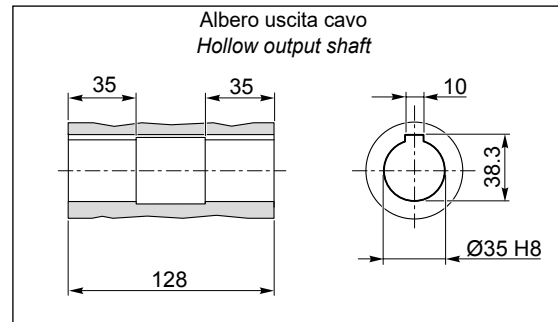
O30

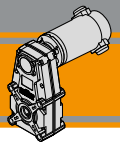
Albero uscita cavo
Hollow output shaft



O35

Albero uscita cavo
Hollow output shaft



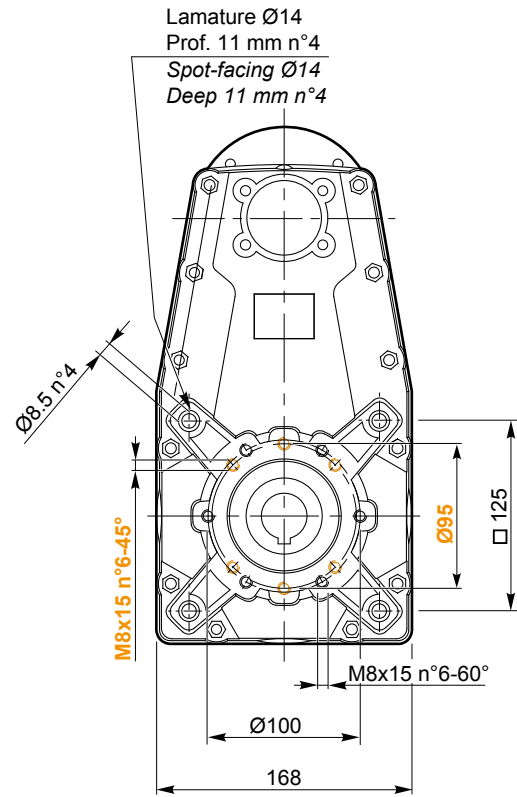
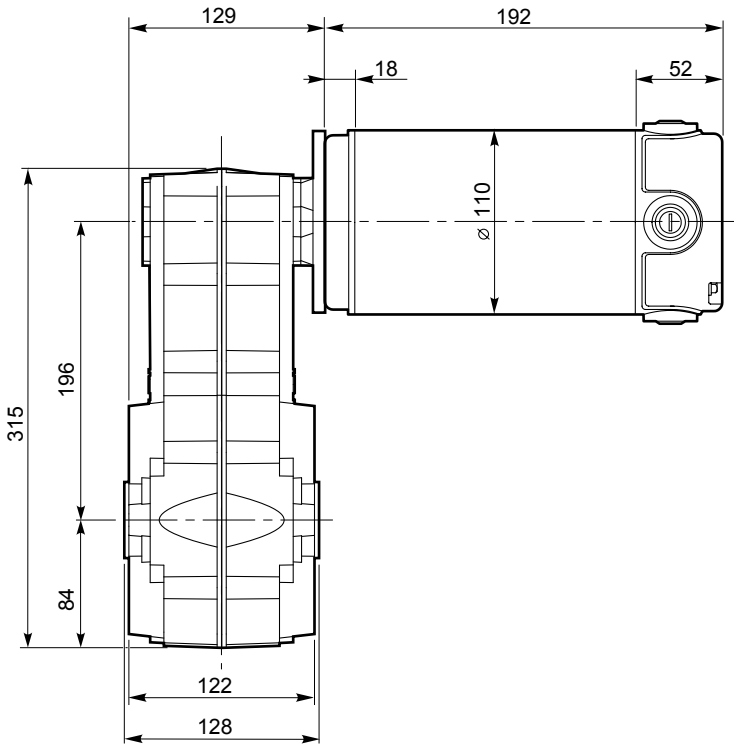


Dimensioni

Dimensions

ECFT 350/196

ECFT 350/196 U



Kg
17.4

NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

Freno / Brake

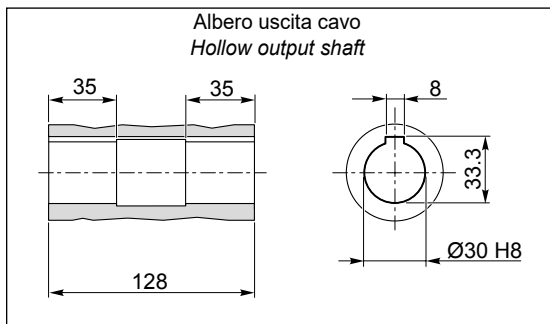
H23

Motori / Motors IP66

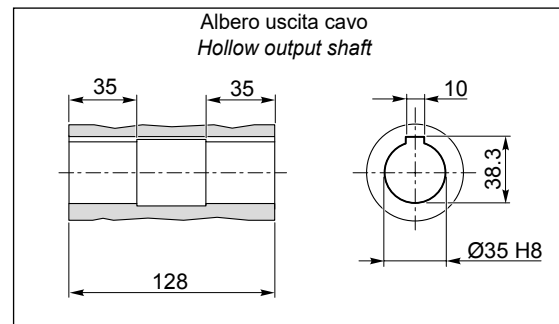
I10

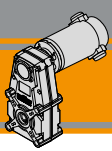
ECFT

O30



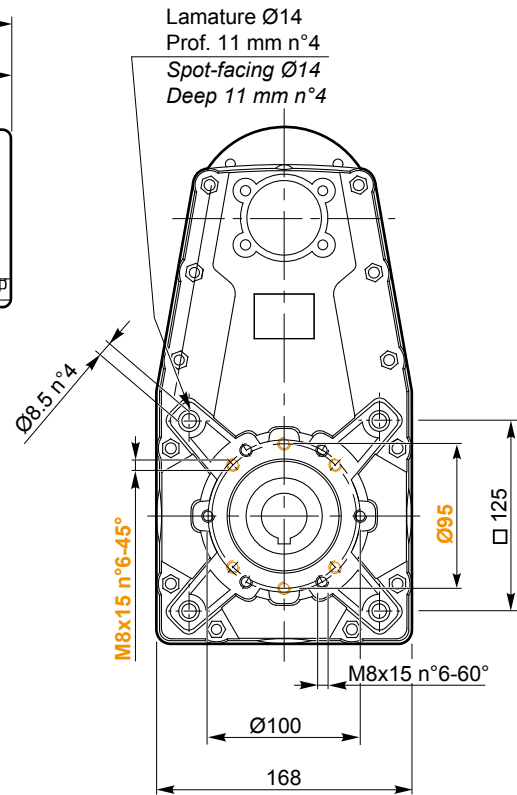
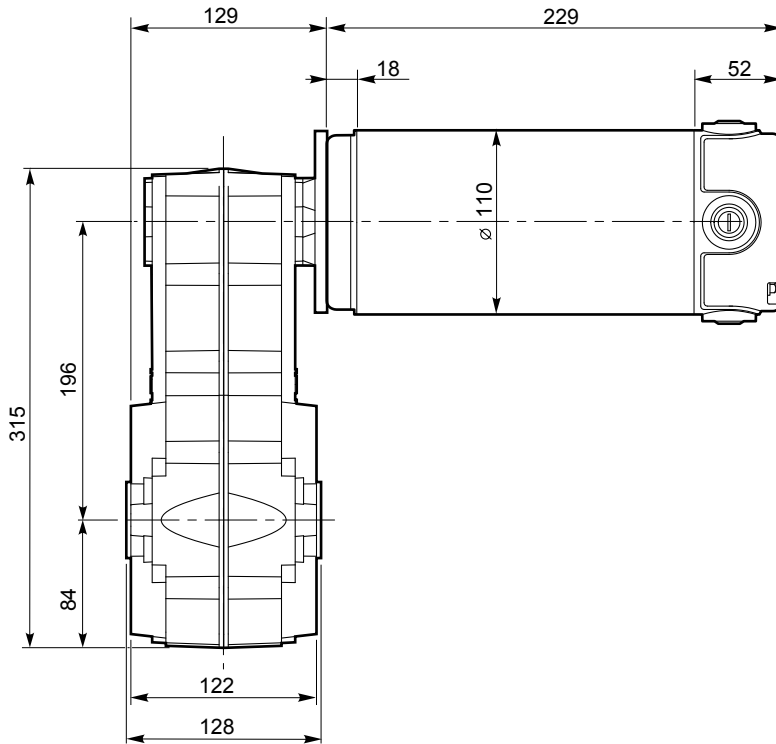
O35





ECFT 600/196

ECFT 600/196 U



Kg
19.2

NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

Freno / Brake

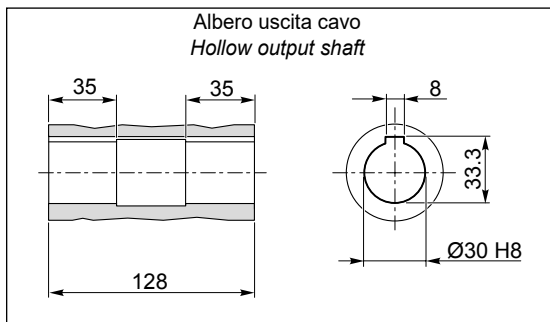
H23

Motori / Motors IP66

I12

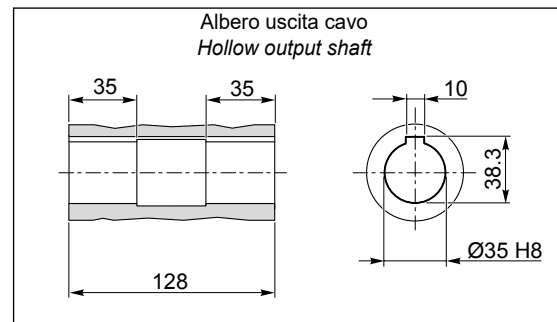
O30

Albero uscita cavo
Hollow output shaft



O35

Albero uscita cavo
Hollow output shaft





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