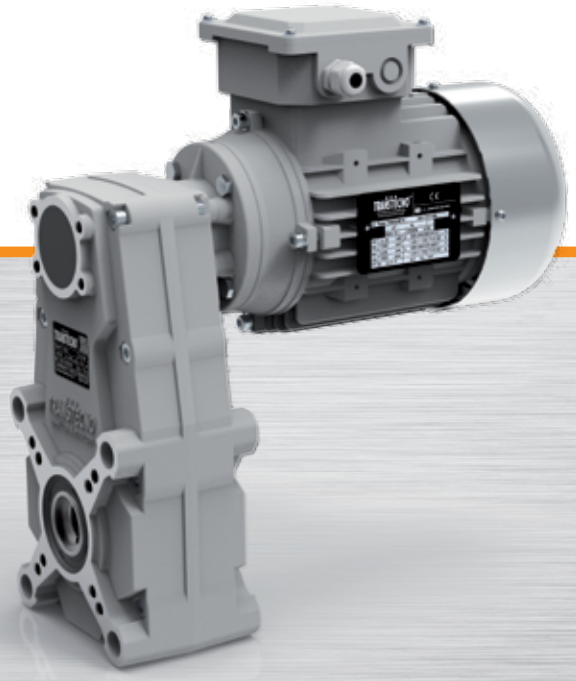
TRANSTECNO®
the modular gearmotor

FT

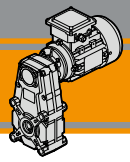
FT

FT Alu

Motoriduttori pendolari
Helical parallel gearmotors



TRANSTECNO · GENUINE · PRODUCTS



ENERGY SAVING

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**E2**
Designazione	*Classification*	**E2**
Sensi di rotazione	*Direction of rotation*	**E3**
Simbologia	*Symbols*	**E3**
Lubrificazione	*Lubrication*	**E3**
Carichi radiali	*Radial loads*	**E4**
Dati tecnici	*Technical data*	**E5**
Dimensioni	*Dimensions*	**E8**

Questa sezione annulla e sostituisce ogni precedente edizione o revisione. Qualora questa sezione non Vi sia giunta in distribuzione controllata, l'aggiornamento dei dati ivi contenuto non è assicurato. **In tal caso la versione più aggiornata è disponibile sul nostro sito internet www.transtecno.com**

This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. ***In this case the latest version is available on our web site www.transtecno.com***

Caratteristiche tecniche

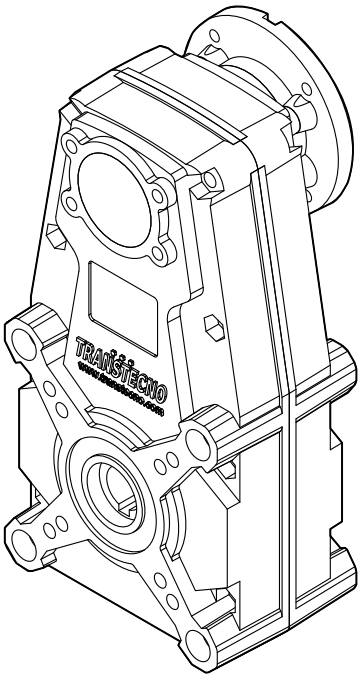
Technical features

I motoriduttori pendolari della serie FT hanno le seguenti caratteristiche principali:

- Carcassa in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico.
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati.

FT helical parallel gearmotors range has the following main features:

- *Die-cast aluminium housings*
- *Permanent synthetic oil long-life lubrication.*
- *Ground-hardened helical gears.*

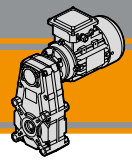


Designazione

Classification

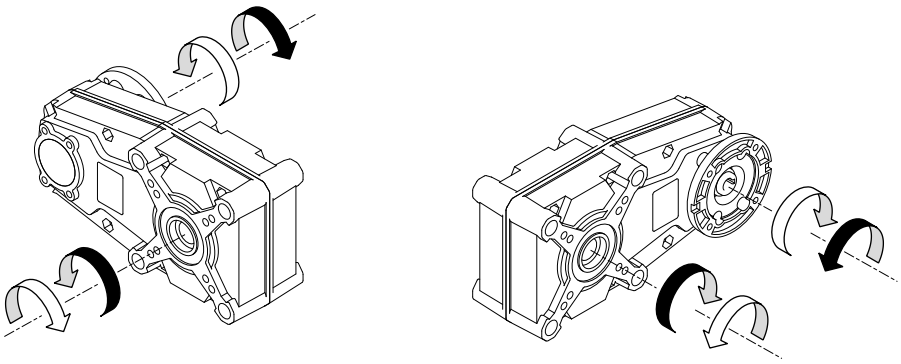
RIDUTTORE / *GEARBOX*						
FT	**146**	**U**	**60.63**	**O20**	**56**	**B5**
Tipo *Type*	Grandezza *Size*	Versione *Version*	Rapporto *Ratio*	Albero cavo uscita *Hollow output shaft*	IEC	Forma costruttiva *Version*
FT	**105/3** **105/4** **146** **196**	**U...**	vedi tabelle *see tables*	vedi tabelle *see tables*	**56** **63** **71** **80** **90**	**B5** **B14**

MOTORE / *MOTOR*					
0.09kW	**4p**	**3ph**	**230/400V**	**50Hz**	**T1**
Potenza *Power*	Poli *Poles*	Fasi *Phases*	Tensione *Voltage*	Frequenza *Frequency*	Pos. morsettiera *Terminal box pos.*
vedi tabelle *see tables*	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**50Hz** **60Hz**	**T1** (Std) **T4** **T2** **T3**

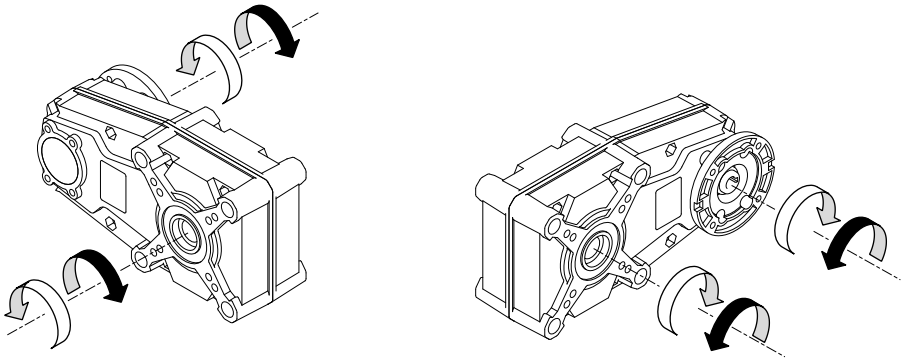


Sensi di rotazione / *Direction of rotation*

FT105/3
FT146
FT196



FT105/4



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_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / *Output torque referred to P_1*
Pn_1	[kW]	Potenza nominale in entrata / *Nominal input power*
Mn_2	[Nm]	Coppia nominale in uscita in funzione di Pn_1 / *Nominal output torque referred to Pn_1*
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*

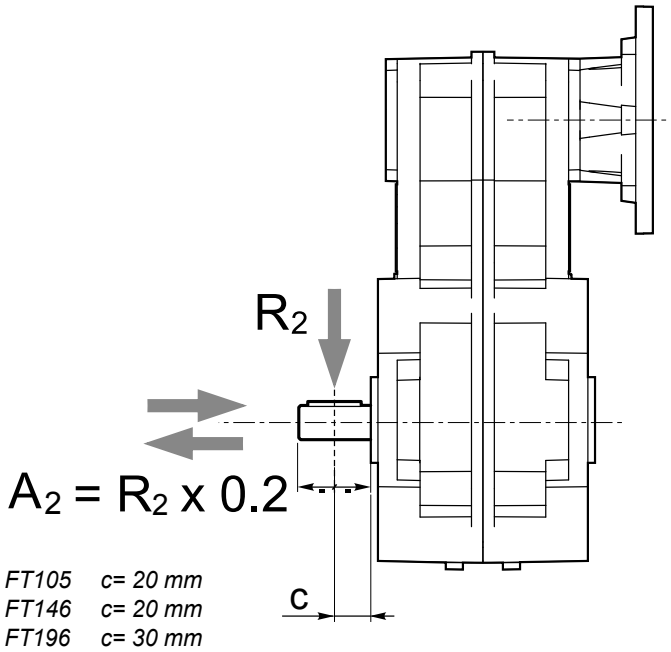
Lubrificazione / *Lubrication*

Tutti i 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

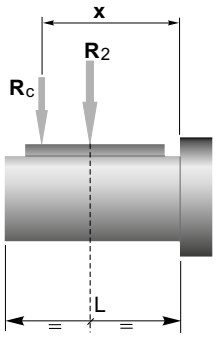


FT105 c= 20 mm
FT146 c= 20 mm
FT196 c= 30 mm

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 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:

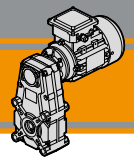


	FT105	FT146	FT196
a	82	82,5	132
b	62	62,5	102
R_{2MAX}	2000	3000	7000

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

$$R \leq R_c$$

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



Dati tecnici — n_1 1400 min^{-1} — *Technical data*

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motori applicabili / *IEC Motor adapters*		
FT105					**56B14**		
FT105/3	**68**	40	0.30	20.57			
	42	50	0.23	33.32			
	32	65	0.23	44.36			
	26	65	0.18	54.87			
	20	65	0.14	71.84			
	18	65	0.13	77.07			
	16	65	0.11	88.87			
	11	65	0.081	124.81			
	7.7	65	0.056	181.35			
	6.2	65	0.045	224.32			
	4.4	65	0.032	315.05			
FT105/4	**3.8**	65	0.028	368.19			
	2.6	65	0.019	534.98			
	2.1	65	0.015	661.76			
	1.5	65	0.011	929.40			
FT146					**56 B5/B14**	**63 B5/B14**	**71 B5/B14**
	75	80	0.65	18.75			
	53		0.47	26.17			
	50		0.43	28.26			
	40	100	0.44	35.07			
	35		0.39	39.44			
	30		0.33	46.44			
	26		0.29	52.86			
	23	110	0.28	60.63			
	20		0.24	70.00			
	17		0.20	84.63			
	15		0.18	95.61			
	12		0.15	113.40			*
	10		0.13	133.45			*
	9.3		0.11	150.18			*
	8.7	120	0.11	160.43			*
	7.8		0.10	178.83			*
	6.3		0.082	223.92			*
	5.9		0.077	236.83		*	*
	4.7		0.061	300.07		*	*
	3.5		0.046	397.38		*	*
FT196					**71 B5/B14**	**80 B5/B14**	**90 B5/B14**
	69	350	2.6	20.41			
	40	400	1.8	34.81			
	33	450	1.6	42.61			
	24	500	1.3	59.36			
	19	550	1.1	72.68			
	15		0.92	92.82			
	11		0.69	123.95			
	8.9		0.51	158.02			
	6.9		0.42	201.80			
	5.2		0.32	269.47			

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

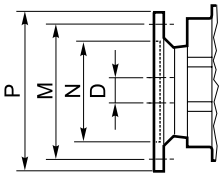
*** =** Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle pag. E6.

N.B.
Highlighted areas indicate motor inputs available on each size of unit.

**** =*** *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page E6.



Dimensioni IEC / *IEC Dimensions*

	56 B5	56 B14	63 B5	63 B14	71 B5	71 B14	80 B5	80 B14	90 B5	90 B14
N	80	50	95	60	110	70	130	80	130	95
M	100	65	115	75	130	85	165	100	165	115
P	120	80	140	90	160	105	200	120	200	140
	9		11		14		19		24	

Dati tecnici

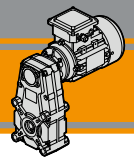
Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.09						
56B4 (1400 min^{-1})	**68**	12	3.4	20.57	**FT105/3**	**B14**
	42	19	2.6	33.32		**B14**
	32	26	2.5	44.36		**B14**
	26	32	2.1	54.87		**B14**
	20	41	1.6	71.84		**B14**
	18	44	1.5	77.07		**B14**
	16	51	1.3	88.87		**B14**
	11	72	0.90	124.81		**B14**
	7.7	105	0.62	181.35		**B14**
	6.2	110	0.59	224.32		**B14**
	4.4	110	0.59	315.05		**B14**
	3.8	120	0.54	368.19	**FT105/4**	**B14**
	2.6	120	0.54	534.98		**B14**
	2.1	120	0.54	661.76		**B14**
	1.5	120	0.54	929.40		**B14**
	75	11	7.4	18.75	**FT146**	**B5/B14**
	53	15	5.3	26.17		**B5/B14**
	50	16	4.9	28.26		**B5/B14**
	40	20	4.9	35.07		**B5/B14**
	35	23	4.4	39.44		**B5/B14**
	30	27	3.7	46.44		**B5/B14**
	27	31	3.3	52.86		**B5/B14**
	23	35	3.1	60.63		**B5/B14**
	20	40	2.7	70.00		**B5/B14**
	17	49	2.3	84.63		**B5/B14**
	15	55	2.0	95.61		**B5/B14**
	12	65	1.7	113.40		**B5/B14**
	10	77	1.4	133.45		**B5/B14**
	9.3	87	1.3	150.18		**B5/B14**
	8.7	93	1.3	160.43		**B5/B14**
	7.8	103	1.2	178.83		**B5/B14**
	6.3	129	0.94	223.92		**B5/B14**
	5.9	137	0.88	236.83		**B5/B14**
	4.7	170	0.70	300.07		**B5/B14**
	3.5	170	0.70	397.38		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
63A4 (1400 min^{-1})	**75**	14	5.6	18.75	**FT146**	**B5/B14**
	53	20	4.0	26.17		**B5/B14**
	50	22	3.7	28.26		**B5/B14**
	40	27	3.7	35.07		**B5/B14**
	35	30	3.3	39.44		**B5/B14**
	30	36	2.8	46.44		**B5/B14**
	26	41	2.5	52.86		**B5/B14**
	23	47	2.4	60.63		**B5/B14**
	20	54	2.0	70.00		**B5/B14**
	17	65	1.7	84.63		**B5/B14**
	15	74	1.5	95.61		**B5/B14**
	12	87	1.3	113.40		**B5/B14**
	10	103	1.1	133.45		**B5/B14**
	9.3	116	0.95	150.18		**B5/B14**
	8.7	123	0.97	160.43		**B5/B14**
	7.8	138	0.87	178.83		**B5/B14**
	6.3	172	0.70	223.92		**B5/B14**
0.18						
63B4 (1400 min^{-1})	**75**	22	3.7	18.75	**FT146**	**B5/B14**
	53	30	2.6	26.17		**B5/B14**
	50	33	2.5	28.26		**B5/B14**
	40	40	2.5	35.07		**B5/B14**
	35	46	2.2	39.44		**B5/B14**
	30	54	1.9	46.44		**B5/B14**
	26	61	1.6	52.86		**B5/B14**
	23	70	1.6	60.63		**B5/B14**
	20	81	1.4	70.00		**B5/B14**
	17	98	1.1	84.63		**B5/B14**
	15	110	1.0	95.61		**B5/B14**
	12	131	0.84	113.40		**B5/B14**
	10	154	0.72	133.45		**B5/B14**
0.22						
63C4 (1400 min^{-1})	**75**	26	3.0	18.75	**FT146**	**B5/B14**
	53	37	2.2	26.17		**B5/B14**
	50	40	2.0	28.26		**B5/B14**
	40	49	2.0	35.07		**B5/B14**
	35	56	1.8	39.44		**B5/B14**
	30	66	1.5	46.44		**B5/B14**
	26	75	1.3	52.86		**B5/B14**
	23	86	1.3	60.63		**B5/B14**
	20	99	1.1	70.00		**B5/B14**
	17	119	0.93	84.63		**B5/B14**
	15	135	0.82	95.61		**B5/B14**

N.B.
Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

N.B.
Please check that the output torque M2 does not exceed the value in the grey areas



Dati tecnici

Technical data

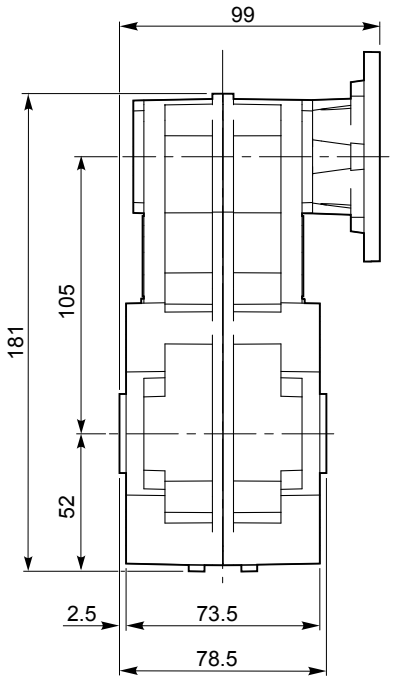
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.25						
71A4 (1400 min^{-1})	**75**	30	2.7	18.75	**FT146**	**B5/B14**
	53	42	1.9	26.17		**B5/B14**
	50	45	1.8	28.26		**B5/B14**
	40	56	1.8	35.07		**B5/B14**
	35	63	1.6	39.44		**B5/B14**
	30	74	1.3	46.44		**B5/B14**
	26	85	1.2	52.86		**B5/B14**
	23	97	1.1	60.63		**B5/B14**
	20	112	0.98	70.00		**B5/B14**
	17	136	0.81	84.63		**B5/B14**
	15	153	0.72	95.61		**B5/B14**
	69	33	10.7	20.41	**FT196**	**B5/B14**
	40	56	7.2	34.81		**B5/B14**
	33	68	6.6	42.61		**B5/B14**
	24	95	5.3	59.36		**B5/B14**
	19	117	4.7	72.68		**B5/B14**
	15	149	3.7	92.82		**B5/B14**
	11	199	2.8	123.95		**B5/B14**
	8.9	253	2.2	158.02		**B5/B14**
	6.9	323	1.7	201.80		**B5/B14**
	5.2	432	1.3	269.47		**B5/B14**
0.37						
71B4 (1400 min^{-1})	**75**	44	1.8	18.75	**FT146**	**B5/B14**
	53	62	1.3	26.17		**B5/B14**
	50	67	1.2	28.26		**B5/B14**
	40	83	1.2	35.07		**B5/B14**
	35	94	1.1	39.44		**B5/B14**
	30	110	0.91	46.44		**B5/B14**
	26	125	0.80	52.86		**B5/B14**
	23	144	0.76	60.63		**B5/B14**
	69	48	7.2	20.41	**FT196**	**B5/B14**
	40	83	4.8	34.81		**B5/B14**
	33	101	4.5	42.61		**B5/B14**
	24	141	3.6	59.36		**B5/B14**
	19	172	3.2	72.68		**B5/B14**
	15	220	2.5	92.82		**B5/B14**
	11	294	1.9	123.95		**B5/B14**
	8.9	375	1.5	158.02		**B5/B14**
	6.9	479	1.1	201.80		**B5/B14**
	5.2	639	0.86	269.47		**B5/B14**
0.55						
80A4 (1400 min^{-1})	**69**	72	4.9	20.41	**FT196**	**B5/B14**
	40	123	3.2	34.81		**B5/B14**
	33	150	3.0	42.61		**B5/B14**
	24	209	2.4	59.36		**B5/B14**
	19	255	2.1	72.68		**B5/B14**
	15	327	1.7	92.82		**B5/B14**
	11	437	1.3	123.95		**B5/B14**
	8.9	557	1.0	158.02		**B5/B14**
	6.9	712	0.77	201.80		**B5/B14**

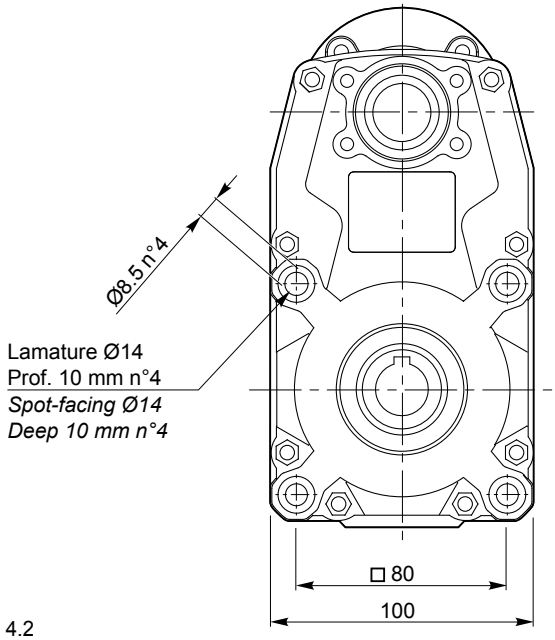
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.75						
80B4 (1400 min^{-1})	**69**	98	3.6	20.41	**FT196**	**B5/B14**
	40	167	2.4	34.81		**B5/B14**
	33	205	2.2	42.61		**B5/B14**
	24	285	1.8	59.36		**B5/B14**
	19	350	1.6	72.68		**B5/B14**
	15	446	1.2	92.82		**B5/B14**
	11	596	0.92	123.95		**B5/B14**
1.1						
90S4 (1400 min^{-1})	**69**	144	2.4	20.41	**FT196**	**B5/B14**
	40	246	1.6	34.81		**B5/B14**
	33	301	1.5	42.61		**B5/B14**
	24	419	1.2	59.36		**B5/B14**
	19	513	1.1	72.68		**B5/B14**
	15	655	0.84	92.82		**B5/B14**
1.5						
90L4 (1400 min^{-1})	**69**	196	1.8	20.41	**FT196**	**B5/B14**
	40	335	1.2	34.81		**B5/B14**
	33	410	1.1	42.61		**B5/B14**
	24	571	0.88	59.36		**B5/B14**
	19	699	0.79	72.68		**B5/B14**

Dimensioni *Dimensions*

FT 105

FT 105...U

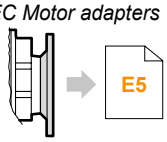




Kg 4.2

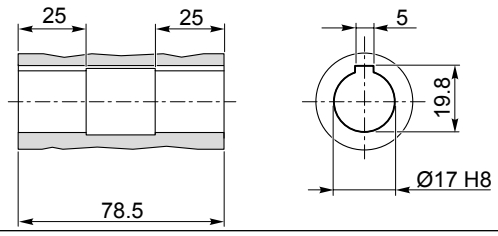
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

IEC Motori applicabili
IEC Motor adapters



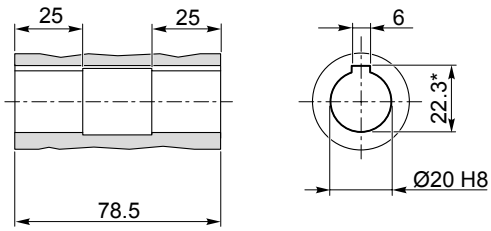
O17

Albero uscita cavo
Hollow output shaft

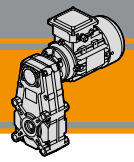


O20

Albero uscita cavo
Hollow output shaft

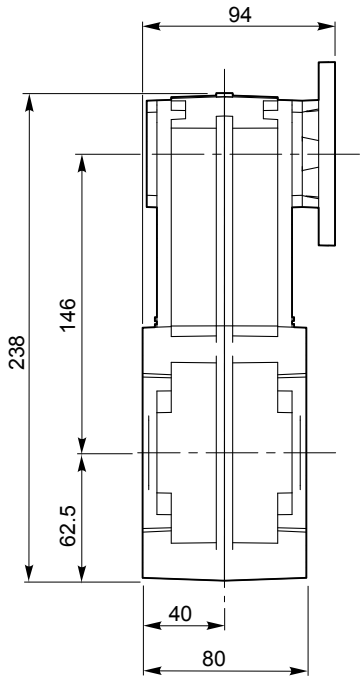


*: Sede linguetta ribassata / *Special keyway*

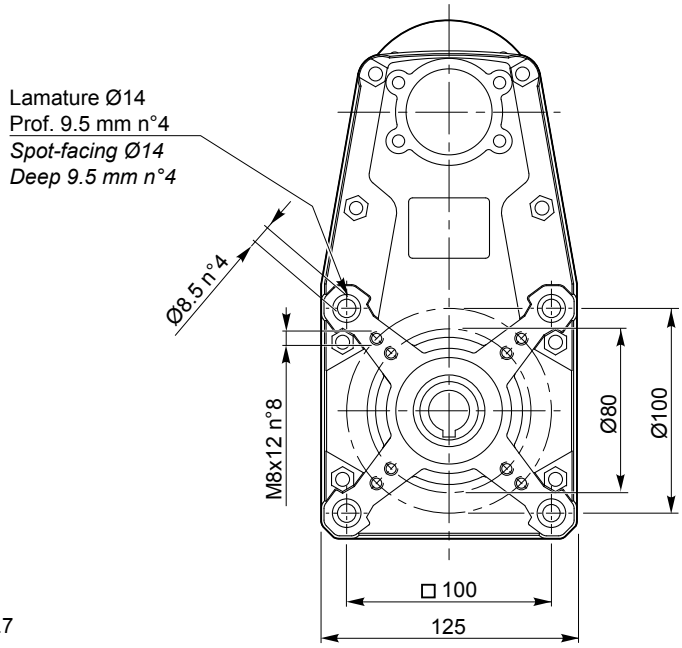


FT 146

FT 146 U

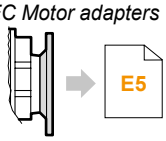


4.7



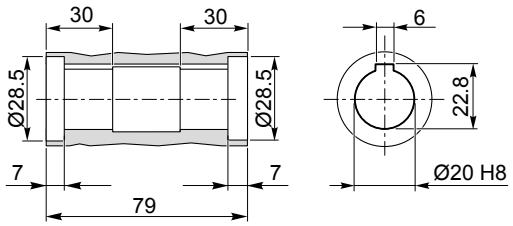
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

IEC Motori applicabili
IEC Motor adapters



O20

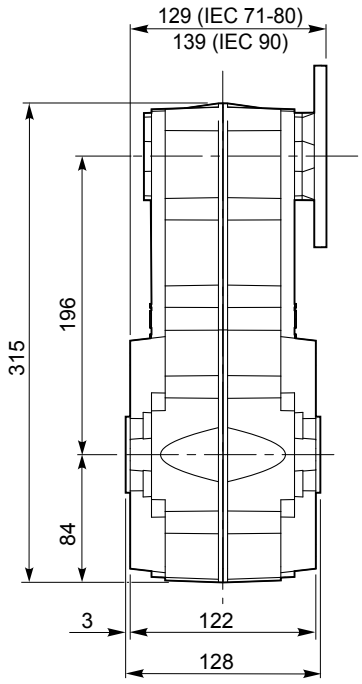
Albero uscita cavo
Hollow output shaft

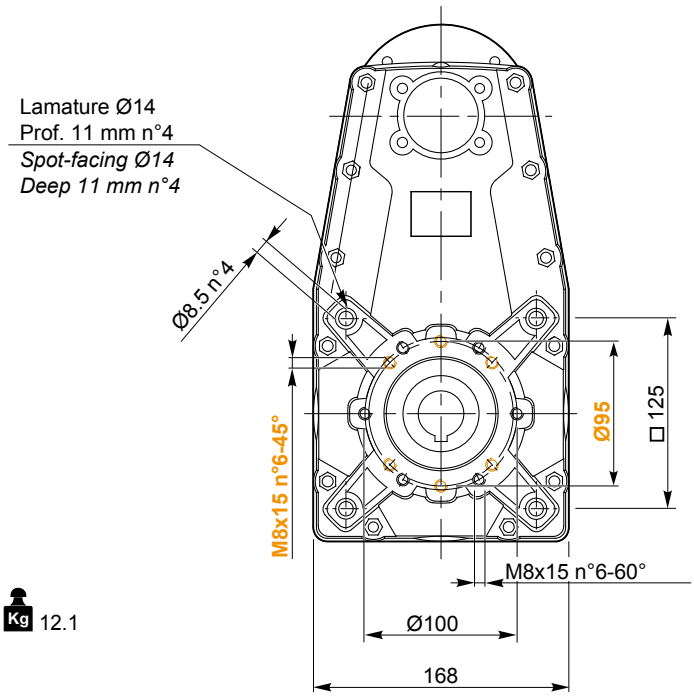


Dimensioni ***Dimensions***

FT 196

FT 196 U

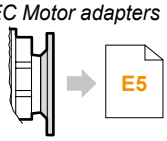




Kg 12.1

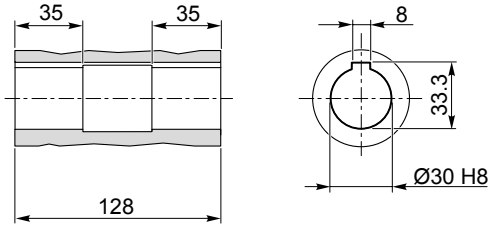
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

IEC Motori applicabili
IEC Motor adapters



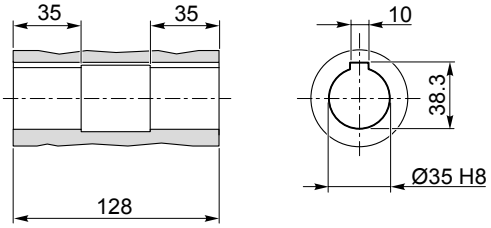
O30

Albero uscita cavo
Hollow output shaft



O35

Albero uscita cavo
Hollow output shaft



MA TRANSTECNO S.A.P.I. DE C.V.
Av. Mundial # 176, Parque Industrial
JM Apodaca, Nuevo León,
C.P. 66600
MÉXICO
T +52 8113340920
info@transtecno.com.mx
www.transtecno.com.mx

TRANSTECNO SRL
Via Caduti di Sabbiuno, 11/D-E
40011 Anzola dell'Emilia (BO)
ITALY
T+39 051 64 25 811
F +39 051 73 39 04
sales@transtecno.com
www.transtecno.com

HANGZHOU TRANSTECNO POWER TRANSMISSIONS CO LTD
No.4 Xiuyan Road Fengdu Industry Zone
Pingyao Town Yuhang District
Hangzhou City, Zhejiang Province
311115 – CHINA
T +86 571 86 92 02 60
F +86 571 86 92 18 10
info-china@transtecno.com
www.transtecno.cn

CATACALU0118

TRANSTECNO U.S.A. LLC
5440 S.W. 156th Place Miami,
FL 33185 - USA
Tel: +1 (305) 220-4423
Fax: +1 (305) 220-5945
usaoffice@transtecno.com

TRANSTECNO B.V.
Ind. terrein Wieken/Vinkenhoef
De Stuwdam,43
3815 KM Amersfoort - NETHERLANDS
Tel: +31(0) 33 45 19 505
Fax: +31(0) 33 45 19 506
info@transtecno.nl
www.transtecno.nl

SALES OFFICE INDIA
A/10, Anagha, S.N. Road, Mulund (W) Mumbai
400080 - INDIA
Tel: +91 9820614698
Fax-Italy: +39 051 733 904
indiaoffice@transtecno.com

SALES OFFICE BRAZIL
Rua Dr. Freire Alemão 155 / 402 - CEP. 90450-060
Auxiliadora Porto Alegre RS - BRAZIL
Tel: +55 51 3251 5447
Fax: +55 51 3251 5447
Mobile: +55 51 811 45 962
braziloffice@transtecno.com
www.transtecno.com.br

TRANSTECNO IBÉRICA
THE MODULAR GEARMOTOR, S.A.
C/Enginy, 2 Nave 6 - 08850 Gavà (Barcelona) - SPAIN
Tel: +34 931 598 950
info@transtecno.es
www.transtecno.es

SALES OFFICE SOUTH KOREA
D-304 Songdo BRC Smart Valley 30, Songdomirae-ro,
Yeonsu-gu, Incheon, 406-840 - KOREA
Tel: +82 70 8288 2107
Fax: +82 32 815 2107
Mobile: +82 10 5094 2107
koreaoffice@transtecno.com

SALES OFFICE FRANCE
12 Impasse des Mûriers
38300 Ruy - FRANCE
Tel: +33 (0) 6 85 12 09 87
Fax-Italy: +39 051 733 904
franceoffice@transtecno.com
www.transtecno.fr

SALES OFFICE OCEANIA
44 Northview drive, Sunshine west 3020
Victoria - AUSTRALIA
Ph +61 03 9312 4722
Fax +61 03 9312 4714
Mobile: +61 0438060997
oceaniaoffice@transtecno.com
www.transtecno.com.au

TRANSTECNO®
the modular gearmotor

www.transtecno.com

designed by Procedi srl