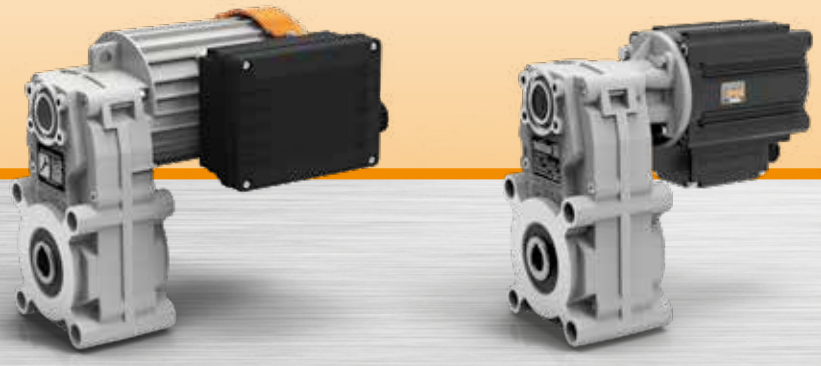
MINI TECNO
small but strong

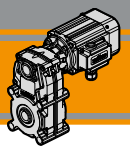
KFT105 - FT

AC

Motoriduttori CA pendolari
AC Helical parallel gearmotors



MINI TECNO brand of TRANSTECNO®



ENERGY SAVING

Caratteristiche tecniche

Technical features

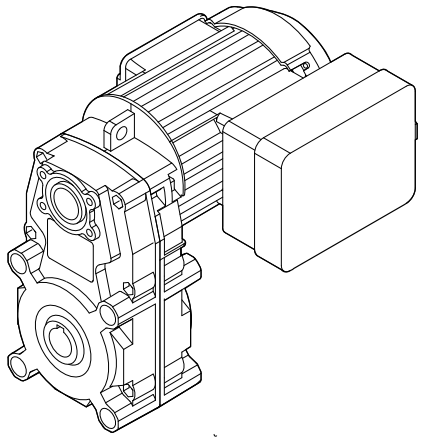
Le caratteristiche principali dei motoriduttori KFT e FT sono:

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico AC con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- Ingranaggi sempre rettificati
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezioni termiche per le taglie 56 e 63
- SMT56 e SMT63 adatti al funzionamento con alimentazione da inverter

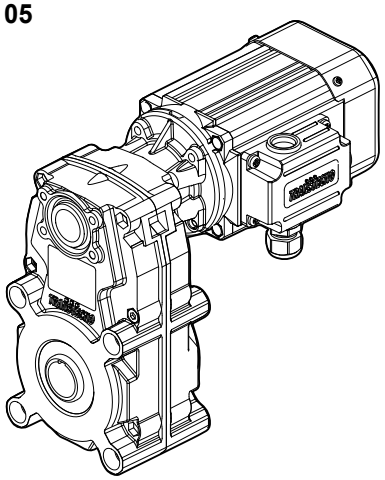
KFT and FT gearmotor range has the following main features:

- *Compact design*
- *AC single phase and three phase motors available*
- *Motor extruded aluminum housing black anodized*
- *Gearbox die-cast aluminum housing*
- *AC electric motor in IP66 protection Standard*
- *Permanent synthetic oil long-life lubrication*
- *Ground helical gears*
- *Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available*
- *Thermal protection for motor sizes 56 and 63*
- *SMT56 and SMT63 are suitable for running with inverter*

KFT105



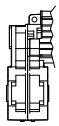
FT105



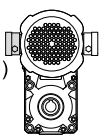
Designazione

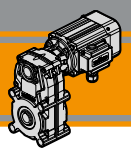
Classification

RIDUTTORE / *GEARBOX*

KFT	105/3	U	88.87	O20
Tipo *Type*	Grandezza *Size*	Versione *Version*	Rapporto *Ratio*	Albero cavo uscita *Hollow output shaft*
KFT 	**105/3** **105/4**	**U...** **F...**	vedi tabelle *see tables*	vedi tabelle *see tables*

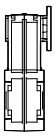
MOTORE / *MOTOR*

40W	4p	3ph	230/400V	50Hz	T1	TEFC
Potenza *Power*	Poli *Poles*	Fasi *Phases*	Tensione *Voltage*	Frequenza *Frequency*	Pos. morsettiera *Terminal box pos.*	Ventilazione *Fan cooling*
vedi tabelle *see tables*	**2p** **4p** **6p**	**1ph** **3ph**	**230V** **...** **230/400V** **...**	**50Hz** **60Hz**	**T4** (Std)  **T2**	**TEFC** **TENV**



Designazione — *Classification*

RIDUTTORE / *GEARBOX*

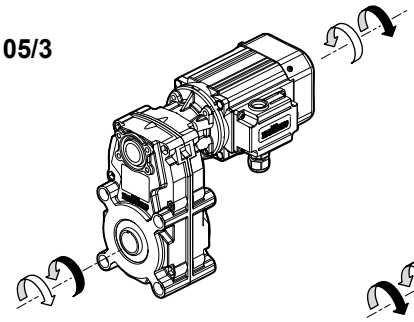
FT	105/3	U	77.07	O20	56	B5
Tipo *Type*	Grandezza *Size*	Versione *Version*	Rapporto *Ratio*	Albero cavo uscita *Hollow output shaft*	IEC	Forma costruttiva *Version*
FT 	**105/3** **105/4**	**U...**	vedi tabelle *see tables*	vedi tabelle *see tables*	**56**	**B14**

SMT	56	2	4	B14	230-400 V	50 Hz	TEFC	T1
Tipo *Type*	Grandezza *Size*	Indicativo potenza *Power coefficient*	Poli *Poles*	Forma costruttiva *Version*	Tensione *Voltage*	Frequenza *Frequency*	*Ventilazione Fan cooling*	Pos. morsettiera *Terminal box pos.*
SMT trifase *threephase*	vedi tabelle *see tables*	**1-2-3-4-5**	**4**	**B14**	**230-400 V**	**50Hz** **60Hz**	**TEFC** **TENV**	**T1** (Std) **T4** **T2** **T3**

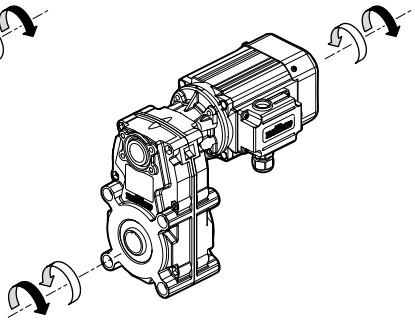
SMM	56	2	4	B14	230 V	50 Hz	TEFC	T1
Tipo *Type*	Grandezza *Size*	Indicativo potenza *Power coefficient*	Poli *Poles*	Forma costruttiva *Version*	Tensione *Voltage*	Frequenza *Frequency*	*Ventilazione Fan cooling*	Pos. morsettiera *Terminal box pos.*
SMM monofase *singlephase*	vedi tabelle *see tables*	**1-2-3-4**	**4**	**B14**	**230 V**	**50Hz**	**TEFC** **TENV**	**T1** (Std) **T4** **T2** **T3**

Sensi di rotazione — *Direction of rotation*

FT 105/3



FT 105/4



Simbologia — *Symbols*

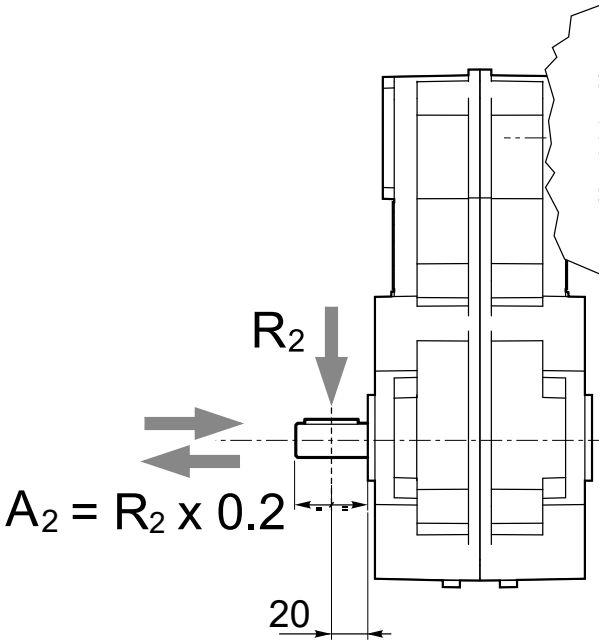
n_1	[min^{-1}]	Velocità in ingresso / *Input speed*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*
i		Rapporto di riduzione / *Ratio*
P_1	[kW]	Potenza in entrata / *Input power*
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / *Output torque referred to P_1*
Pn_1	[kW]	Potenza nominale in entrata / *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.

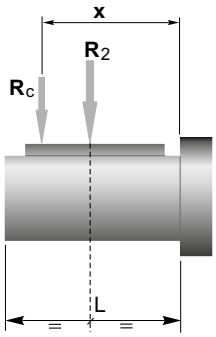
Carichi radiali — *Radial loads*



n_2 [min^{-1}]	R_2 [N] KFT105 FT105
70	1500
40	1700
30	1850
20	2000
10	2000
5	2000

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:



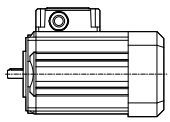
	KFT105 FT105
a	82
b	62
R_{2MAX}	2000

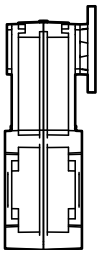
$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

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

Motori applicabili — *IEC Motor adapters*

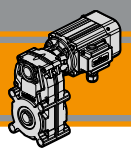




		SMT		SMM	
		5014 5024 5034 5044	5624 5634 5644 5654	5014 5024 5034	5624 5634 5644
FT	105/3	20.57 - 315.05			
FT	105/4	368.19 - 929.4			

20.57 - 929.4

Rapporti di riduzione i
Ratio i



Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	M_n [Nm]	i	
0.025						
	68	3	12.1	40	20.57	**KFT105/3**
	42	5	9.4	50	33.32	
	32	7	9.1	65	44.36	
	26	9	7.4	65	54.87	
	19	12	5.6	65	71.84	
	18	12	5.3	65	77.07	
	16	14	4.6	65	88.87	
	11	20	3.2	65	124.81	
	7.7	29	2.2	65	181.35	
	6.2	36	1.8	65	224.32	
	4.4	51	1.3	65	315.05	
	3.8	58	1.1	65	368.19	**KFT105/4**
	2.6	84	0.8	65	534.98	
	2.1	104	0.6	65	661.76	
	1.5	120	0.5	65	929.40	
0.04						
	68	5	7.6	40	20.57	**KFT105/3**
	42	9	5.9	50	33.32	
	32	11	5.7	65	44.36	
	26	14	4.6	65	54.87	
	19	18	3.5	65	71.84	
	18	20	3.3	65	77.07	
	16	23	2.9	65	88.87	
	11	32	2.0	65	124.81	
	7.7	47	1.4	65	181.35	
	6.2	58	1.1	65	224.32	
	4.4	81	0.8	65	315.05	
	3.8	92	0.7	65	368.19	**KFT105/4**
	2.6	120	0.5	65	534.98	
	2.1	120	0.5	65	661.76	
0.06						
	68	8	5.1	40	20.57	**KFT105/3**
	42	13	3.9	50	33.32	
	32	17	3.8	65	44.36	
	26	21	3.1	65	54.87	
	19	28	2.4	65	71.84	
	18	30	2.2	65	77.07	
	16	34	1.9	65	88.87	
	11	48	1.4	65	124.81	
	7.7	70	0.9	65	181.35	
	6.2	86	0.8	65	224.32	
	4.4	110	0.6	65	315.05	
	3.8	120	0.5	65	368.19	**KFT105/4**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	M_n [Nm]	i	
0.09						
	68	12	3.4	40	20.57	**KFT105/3**
	42	19	2.6	50	33.32	
	32	26	2.5	65	44.36	
	26	32	2.1	65	54.87	
	19	41	1.6	65	71.84	
	18	44	1.5	65	77.07	
	16	51	1.3	65	88.87	
	11	72	0.9	65	124.81	
	7.7	105	0.6	65	181.35	
	6.2	110	0.6	65	224.32	
0.12						
	68	16	2.5	40	20.57	**KFT105/3**
	42	26	2.0	50	33.32	
	32	34	1.9	65	44.36	
	26	42	1.5	65	54.87	
	19	55	1.2	65	71.84	
	18	59	1.1	65	77.07	
	16	68	1.0	65	88.87	
	11	96	0.7	65	124.81	
	7.7	110	0.6	65	181.35	

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

AC

Dati tecnici

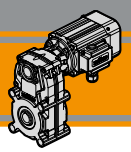
Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.04						
SMT5014	**68**	5	7.6	20.57	**FT105/3**	**B14**
SMM5014	**42**	9	5.9	33.32		**B14**
(1400 min^{-1})	**32**	11	5.7	44.36		**B14**
	26	14	4.6	54.87		**B14**
	19	18	3.5	71.84		**B14**
	18	20	3.3	77.07		**B14**
	16	23	2.9	88.87		**B14**
	11	32	2.0	124.81		**B14**
	7.7	47	1.4	181.35		**B14**
	6.2	58	1.1	224.32		**B14**
	4.4	81	0.8	315.05		**B14**
	3.8	92	0.7	368.19	**FT105/4**	**B14**
	2.6	120	0.5	534.98		**B14**
	2.1	120	0.5	661.76		**B14**
0.06						
SMT5024	**68**	8	5.1	20.57	**FT105/3**	**B14**
SMM5024	**42**	13	3.9	33.32		**B14**
(1400 min^{-1})	**32**	17	3.8	44.36		**B14**
	26	21	3.1	54.87		**B14**
	19	28	2.4	71.84		**B14**
	18	30	2.2	77.07		**B14**
	16	34	1.9	88.87		**B14**
	11	48	1.4	124.81		**B14**
	7.7	70	0.9	181.35		**B14**
	6.2	86	0.8	224.32		**B14**
	4.4	92	0.7	315.05		**B14**
0.09						
SMT5034	**68**	12	3.4	20.57	**FT105/3**	**B14**
SMM5034	**42**	19	2.6	33.32		**B14**
SMT5624	**32**	26	2.5	44.36		**B14**
SMM5624	**26**	32	2.1	54.87		**B14**
(1400 min^{-1})	**19**	41	1.6	71.84		**B14**
	18	44	1.5	77.07		**B14**
	16	51	1.3	88.87		**B14**
	11	72	0.9	124.81		**B14**
	7.7	105	0.6	181.35		**B14**
	6.2	110	0.6	224.32		**B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
SMT5044	**68**	16	2.5	20.57	**FT105/3**	**B14**
SMT5634	**42**	26	2.0	33.32		**B14**
SMM5624	**32**	34	1.9	44.36		**B14**
(1400 min^{-1})	**26**	42	1.5	54.87		**B14**
	19	55	1.2	71.84		**B14**
	18	59	1.1	77.07		**B14**
	16	68	1.0	88.87		**B14**
	11	96	0.7	124.81		**B14**
	7.7	110	0.6	181.35		**B14**
0.18						
SMT5644	**68**	24	1.7	20.57	**FT105/3**	**B14**
SMM5644	**42**	38	1.3	33.32		**B14**
(1400 min^{-1})	**32**	51	1.3	44.36		**B14**
	26	63	1.0	54.87		**B14**
	19	83	0.8	71.84		**B14**
	18	89	0.7	77.07		**B14**
	16	92	0.7	88.87		**B14**
	11	110	0.6	124.81		**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 elettrici — *Electrical technical data*

	P_n [W]	V [V]	F [Hz]	I_n [A]	I_s [A]	cosØ	C [µF]	TEFC Servizio *Duty*	TENV Servizio *Duty*
1 Ph	25	230	50	0.42	0.84	0.87	6.0	S1 100%	S3 30%
	40			0.47	0.86	0.91	6.3		
	60			0.74	1.50	0.82	8.0		
	90			0.82	1.60	0.93	12.5		
	120			1.38	3.10	0.81	14.0		

	P_n [W]	V [V]	F [Hz]	I_n [A]	I_s [A]	cosØ	TEFC Servizio *Duty*	TENV Servizio *Duty*
3 Ph	25	230	50	0.41	0.97	0.54	S1 100%	S3 30%
		400		0.24	0.56	0.54		
	40	230	50	0.43	0.97	0.62		
		400		0.25	0.56	0.62		
	60	230	50	0.72	1.80	0.48		
		400		0.42	1.04	0.48		
	90	230	50	0.74	1.80	0.60		
		400		0.44	1.04	0.60		
	120	230	50	1.34	3.70	0.50		
		400		0.87	2.13	0.50		

Nota:
Classe di rendimento Standard IE1

Note:
Standard efficiency IE1

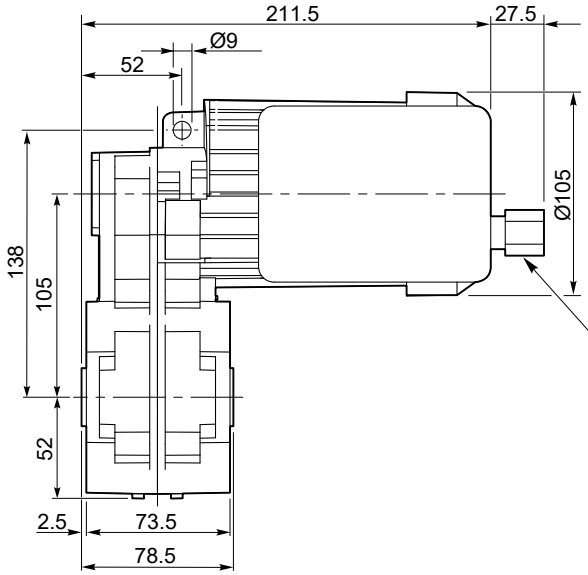
Normative di riferimento — *Reference standards*

	Europe EN	World IEC	Italy CEI
Requisiti genarali per macchine elettriche ***General requirements electrical machines***	EN 60034-1:2010	*IEC 60034-1:2010*	*CEI EN 60034-1:2010*
Classificazione del grado di protezione ***Classification degree of protection provided by enclosures***	EN 60034-5:2001	*IEC 60034-5:2001*	*CEI EN 60034-5:2001*
Sistema di raffreddamento ***Cooling system***	EN 60034-6:1993	*IEC 60034-6:1993*	*CEI EN 60034-6:1993*
Modalità di montaggio ***Mounting arrangements***	EN 60034-7:1993	*IEC 60034-7:1993*	*CEI EN 60034-7:1993*

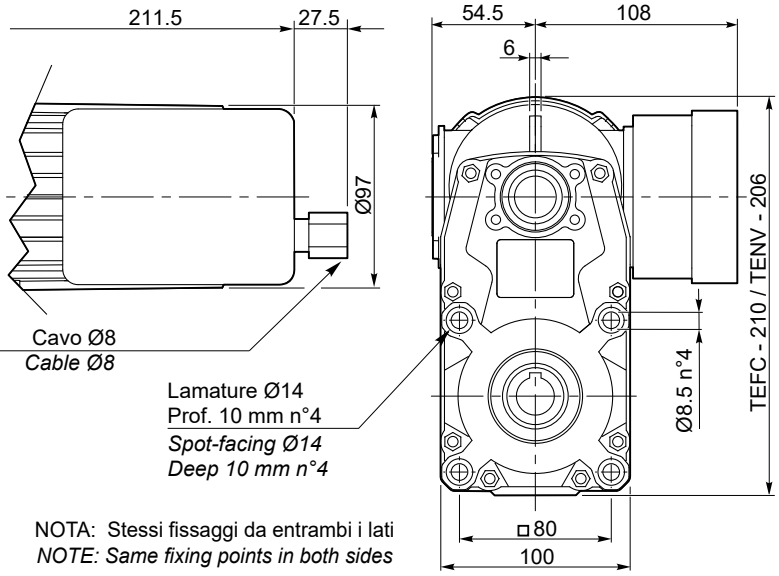
Dimensioni ***Dimensions***

KFT 105... 25W - 40W - 60W - 90W

KFT 105...1 Ph...TEFC

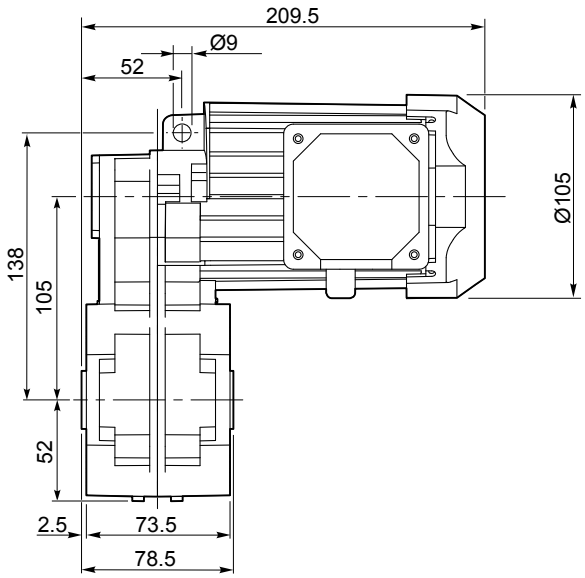


KFT 105...1 Ph...TENV S3 servizio *duty* 30%

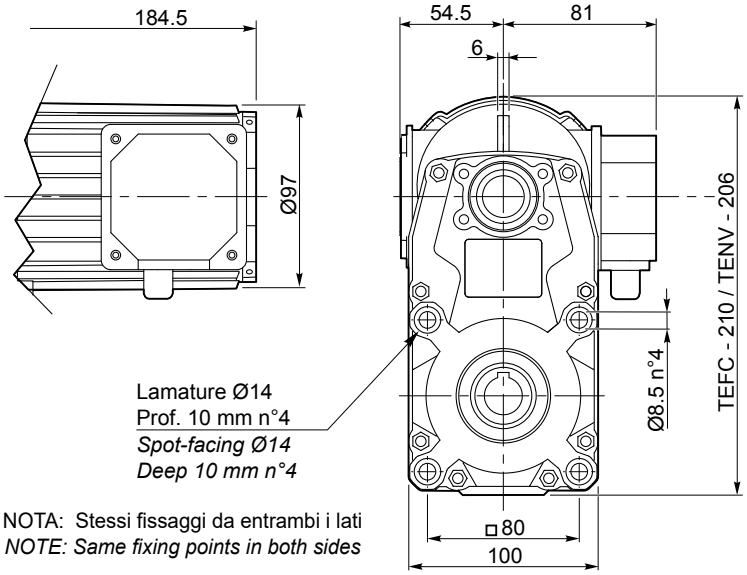


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

KFT 105...3 Ph... TEFC

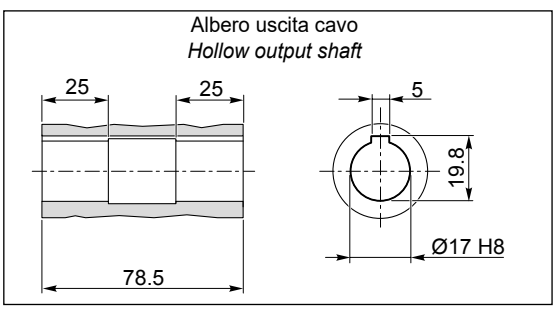


KFT 105...3 Ph... TENV S3 servizio *duty* 30%

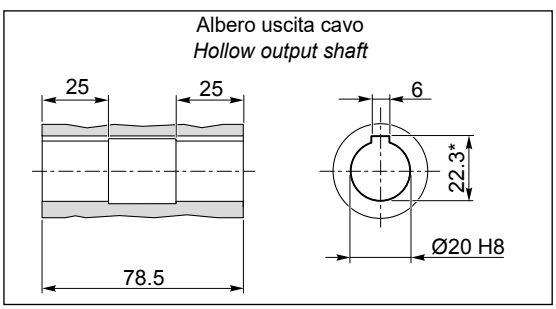


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

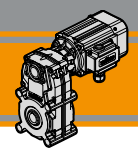
O17



O20

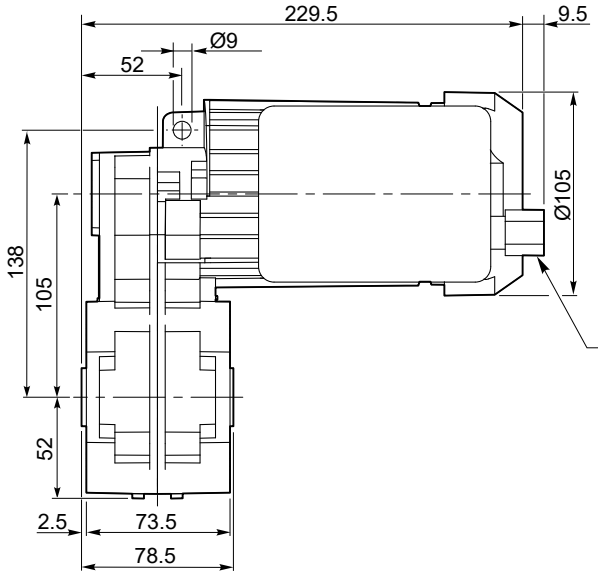


*Sede linguetta ribassata / *Special Keyway*

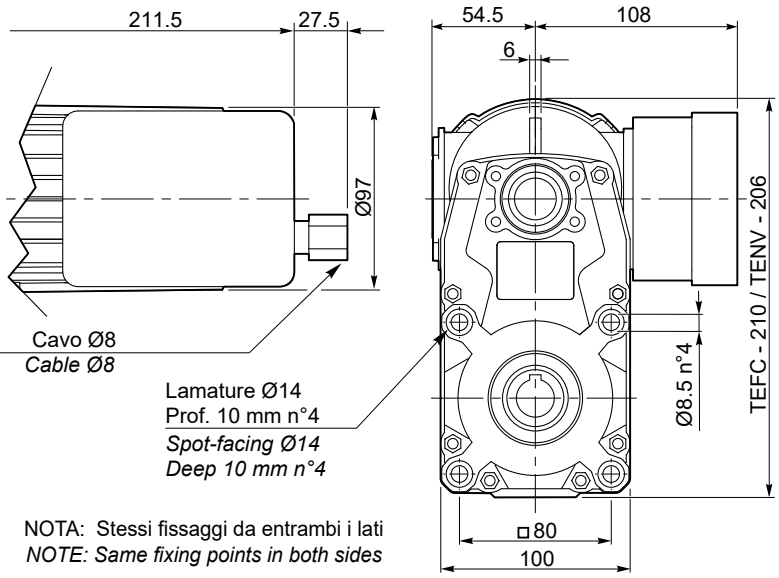


KFT 105... 120W

KFT 105...1 Ph... TEFC

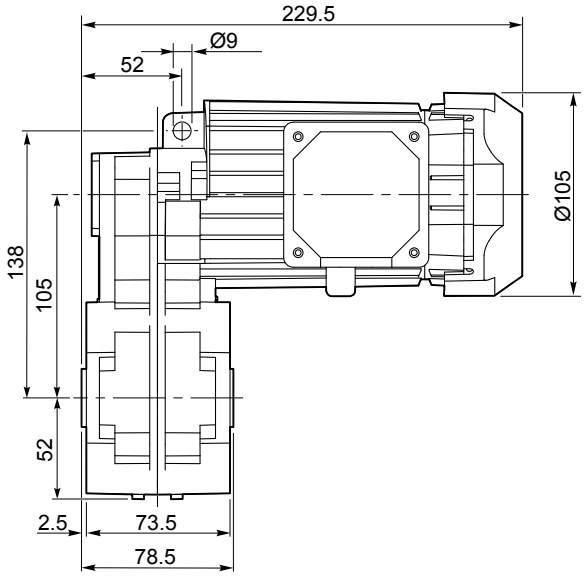


KFT 105...1 Ph...TENV S3 servizio *duty* 30%

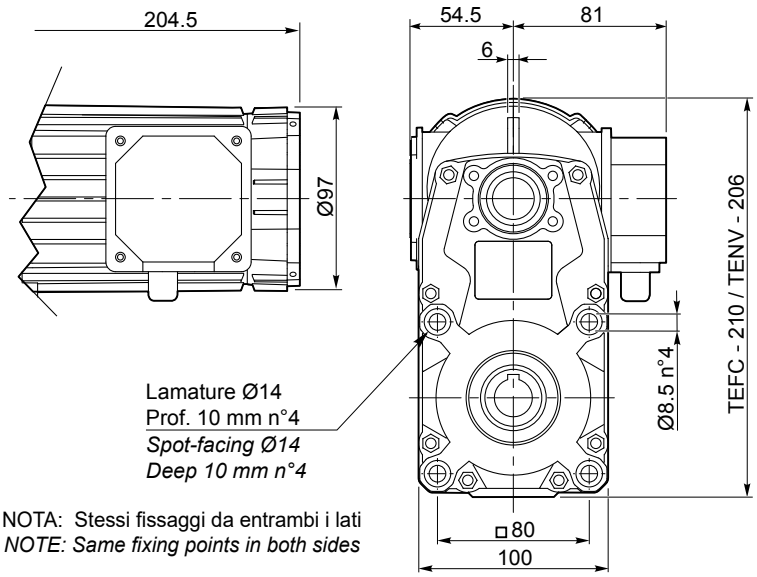


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

KFT 105...3 Ph... TEFC



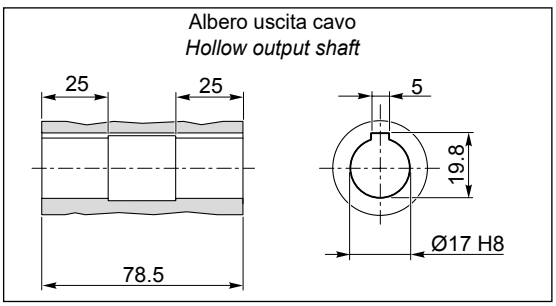
KFT 105...3 Ph... TENV S3 servizio *duty* 30%



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

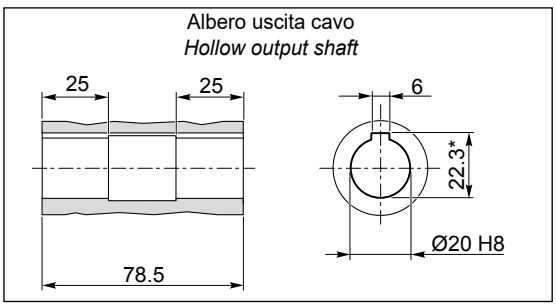
O17

Albero uscita cavo
Hollow output shaft



O20

Albero uscita cavo
Hollow output shaft



*Sede linguetta ribassata/ *Special Keyway*

AC

Dimensioni ***Dimensions***

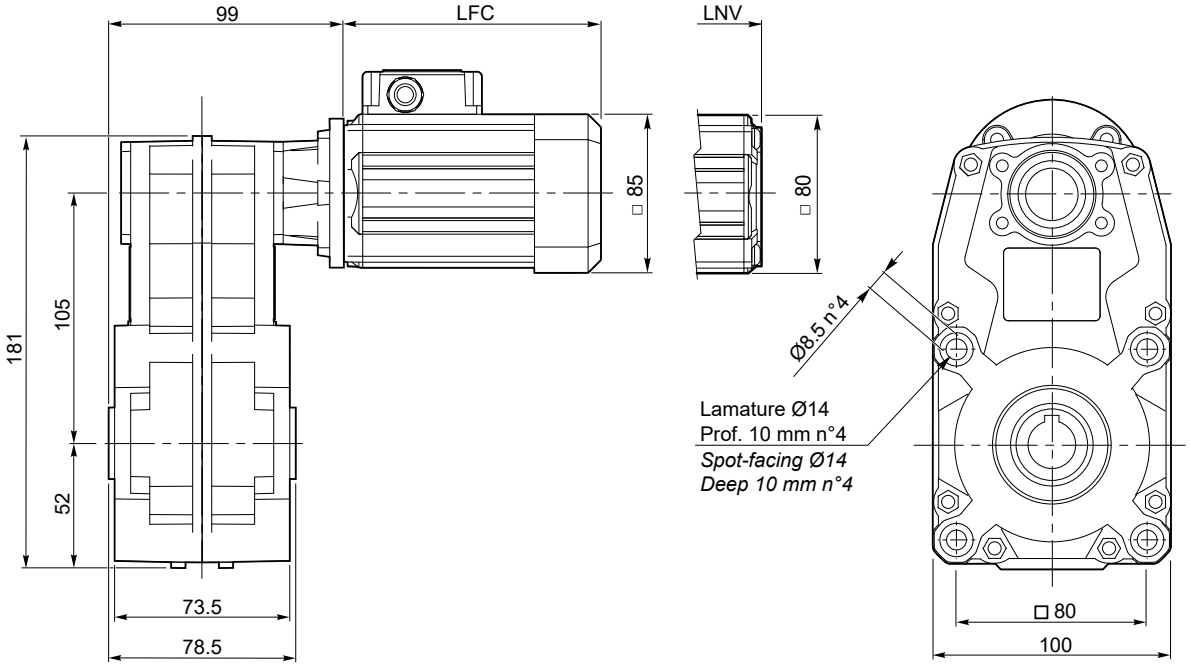
FT105 U

FT 105...U

SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio *duty* **30%**



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

SMT	LFC	LNV	Kg
5014	135.5	108.5	6.5
5024	150.5	123.5	6.9
5034	175.5	148.5	7.7
5044	200.5	173.5	8.4

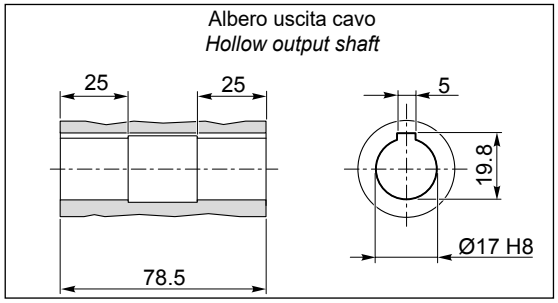
SMM	LFC	LNV	Kg
5014	150.5	123.5	6.9
5024	175.5	148.5	7.7
5034	200.5	173.5	8.4

Nota:
il condensatore sarà fornito a corredo

Note:
the capacitor will be supplied separately

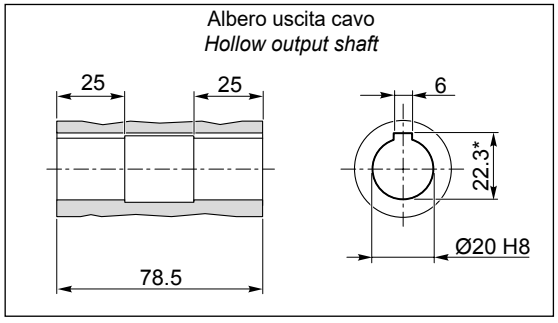
O17

Albero uscita cavo
Hollow output shaft

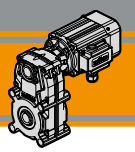


O20

Albero uscita cavo
Hollow output shaft



*: Sede linguetta ribassata / *Special keyway*



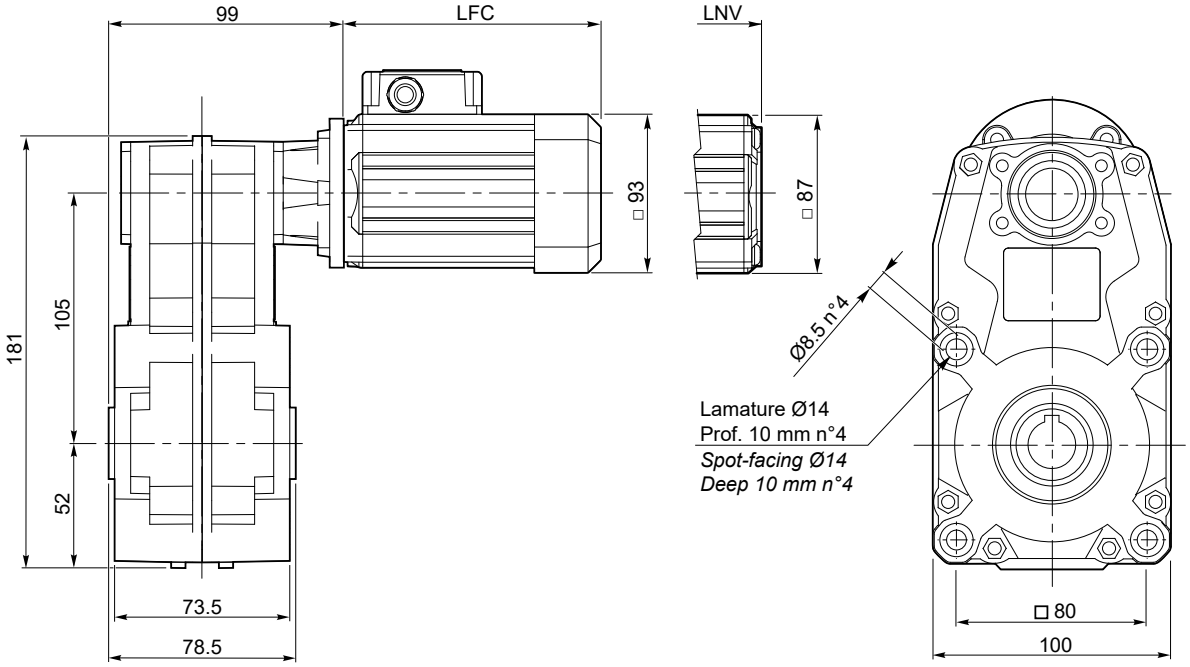
FT105 U

FT 105...U

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio *duty* **30%**



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

SMT	LFC	LNV	Kg
5624	141	117	7
5634	151	127	7.4
5644	186	162	8.6
5654	206	182	9.3

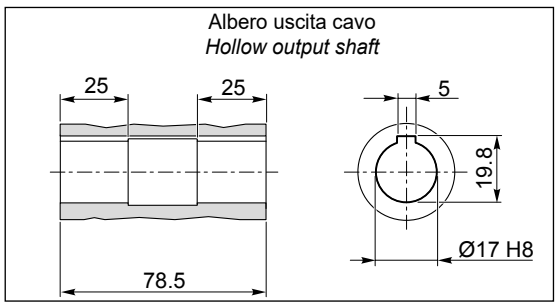
SMM	LFC	LNV	Kg
5624	151	127	7.3
5634	171	147	7.9
5644	206	182	9.2

Nota:
il condensatore sarà fornito a corredo

Note:
the capacitor will be supplied separately

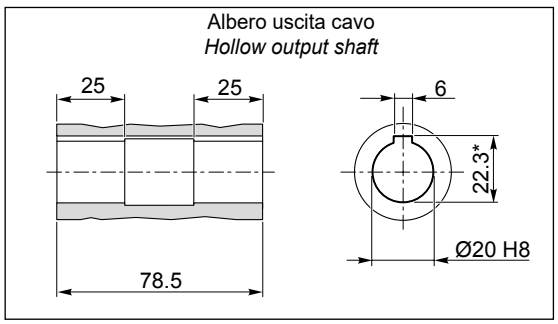
O17

Albero uscita cavo
Hollow output shaft



O20

Albero uscita cavo
Hollow output shaft



*: Sede linguetta ribassata / *Special keyway*

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