NDFT

NDFT

NDFT Alü

Neodymium

Цилиндрические мотор-редукторы с параллельными валами постоянного тока на постоянных неодимовых магнитах

Руководство по эксплуатации

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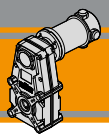


ENERGY SAVING

Caratteristiche tecniche

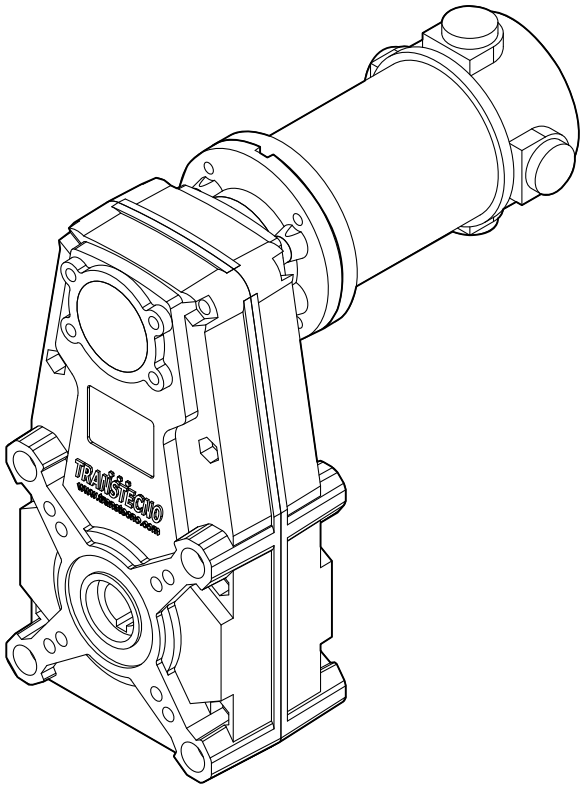
I motoriduttori CC pendolari a magneti permanenti in neodimio NDFT hanno le seguenti caratteristiche principali:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 160 a 250W S2
- Magneti in Neodimio
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali.

Technical features

NDFT neodymium permanent magnets DC helical parallel gearmotors range has the following main features:

- *Low voltage power supply 12/24 Vdc*
- *Suitable for encoder assembly*
- *Motor power ratings available from 160 to 250W S2*
- *Neodymium magnets*
- *Die-cast aluminum housing*
- *Permanent synthetic oil long-life lubrication*
- *helical gears.*

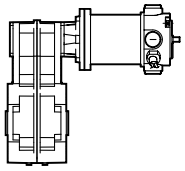


Designazione

Classification

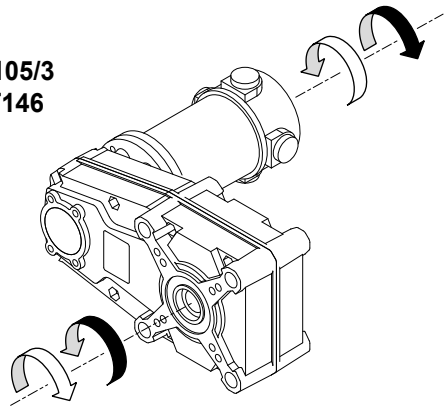
MOTORIDUTTORE / *GEARMOTOR*

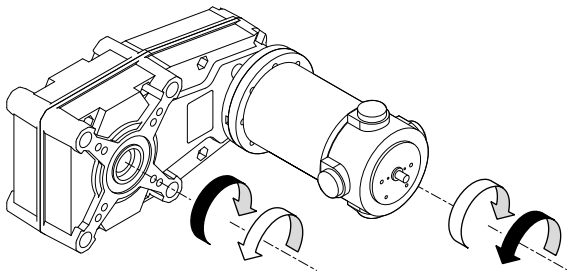
NDFT	120/146		U	60.63	O20	240
Tipo *Type*	Grandezza *Size*		Versione Riduttore *Gearbox Version*	Rapporto *Ratio*	Albero di uscita *Output shaft*	Versione Motore *Motor Version*
NDFT	**120/105/3** **120/146**	**180/105/3** **180/146**	**U...**	Vedere tabella *See tables*	Vedere tabella *See tables*	**120** **240**



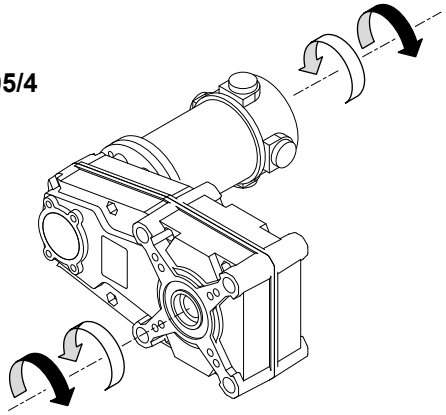
Sensi di rotazione — *Direction of rotation*

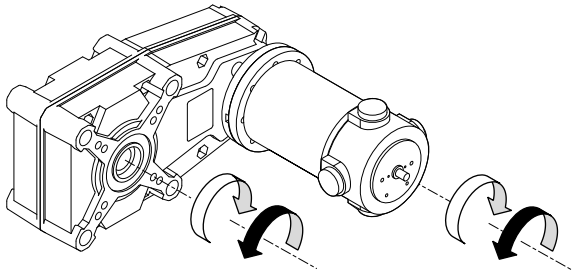
FT105/3
FT146





FT105/4





Simbologia — *Symbols*

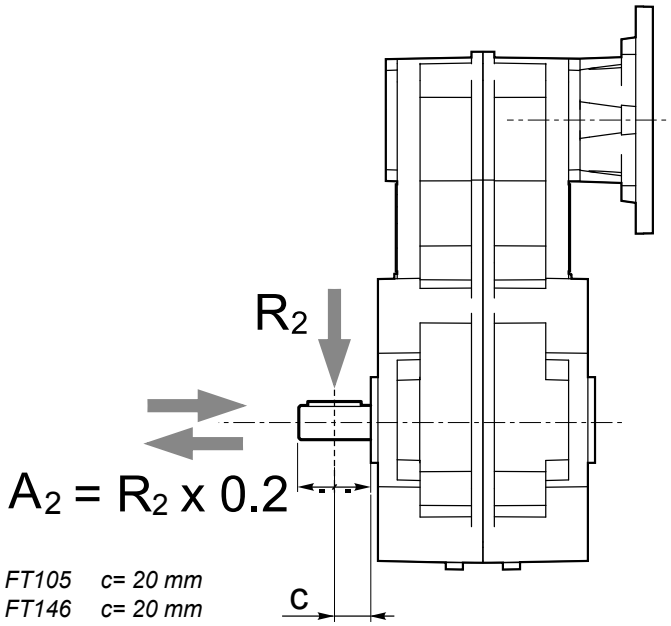
n_1	[min^{-1}]	Velocità in ingresso / *Input speed*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*
i		Rapporto di riduzione / *Ratio*
P_1	[kW]	Potenza in entrata / *Input power*
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / *Output torque referred to* P_1
Pn_1	[kW]	Potenza nominale in entrata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

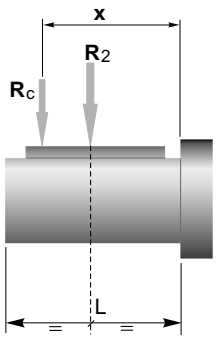


FT105 c= 20 mm
FT146 c= 20 mm

n_2 [min^{-1}]	R_2 [N]	
	FT105	FT146
70	1500	2500
40	1700	2700
30	1850	2850
20	2000	3000
10	2000	3000
5	2000	3000

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:

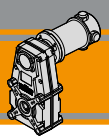


	FT105	FT146
a	82	82,5
b	62	62,5
R_{2MAX}	2000	3000

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

$$R \leq R_c$$

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



Dati tecnici — *Technical data*

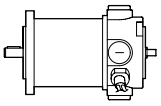
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
160						
(3000 min^{-1})	**146**	10	3.2	20.57	**120/105/3**	120/240
	90	16	2.4	33.32		
	68	21	2.4	44.36		
	55	26	1.9	54.87		
	42	34	1.5	71.84		
	39	37	1.4	77.07		
	34	43	1.2	88.87		
	24	60	0.8	124.81		
	17	86	0.6	181.35		
	13	86	0.6	224.32		
	9.5	86	0.6	315.05		
	49	29	3.0	60.63	**120/146**	120/240
	35	41	2.1	84.63		
	31	46	1.9	95.61		
	26	54	1.6	113.40		
	22	64	1.3	133.45		
	20	72	1.2	150.18		
	19	77	1.2	160.43		
	17	86	1.1	178.83		
	13	107	0.9	223.92		
	13	113	0.8	236.83		
	10	134	0.7	300.07		
	7.5	134	0.7	397.38		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250						
(3000 min^{-1})	**146**	15	2.0	20.57	**180/105/3**	120/240
	90	25	1.6	33.32		
	68	33	1.5	44.36		
	55	41	1.2	54.87		
	42	54	0.9	71.84		
	39	58	0.9	77.07		
	34	66	0.8	88.87		
	49	45	1.9	60.63	**180/146**	120/240
	35	63	1.4	84.63		
	31	72	1.2	95.61		
	26	85	1.0	113.40		
	22	100	0.9	133.45		
	20	112	0.8	150.18		
	19	120	0.8	160.43		
	17	134	0.7	178.83		

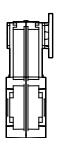
N.B.
Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

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

Motori applicabili — *Motor adapters*



		ND	
		120.120 120.240	**180.120 180.240**
FT	**105/3**	20.57 - 315.05	20.57 - 315.05
	146	60.63 - 397.38	60.63- 397.38

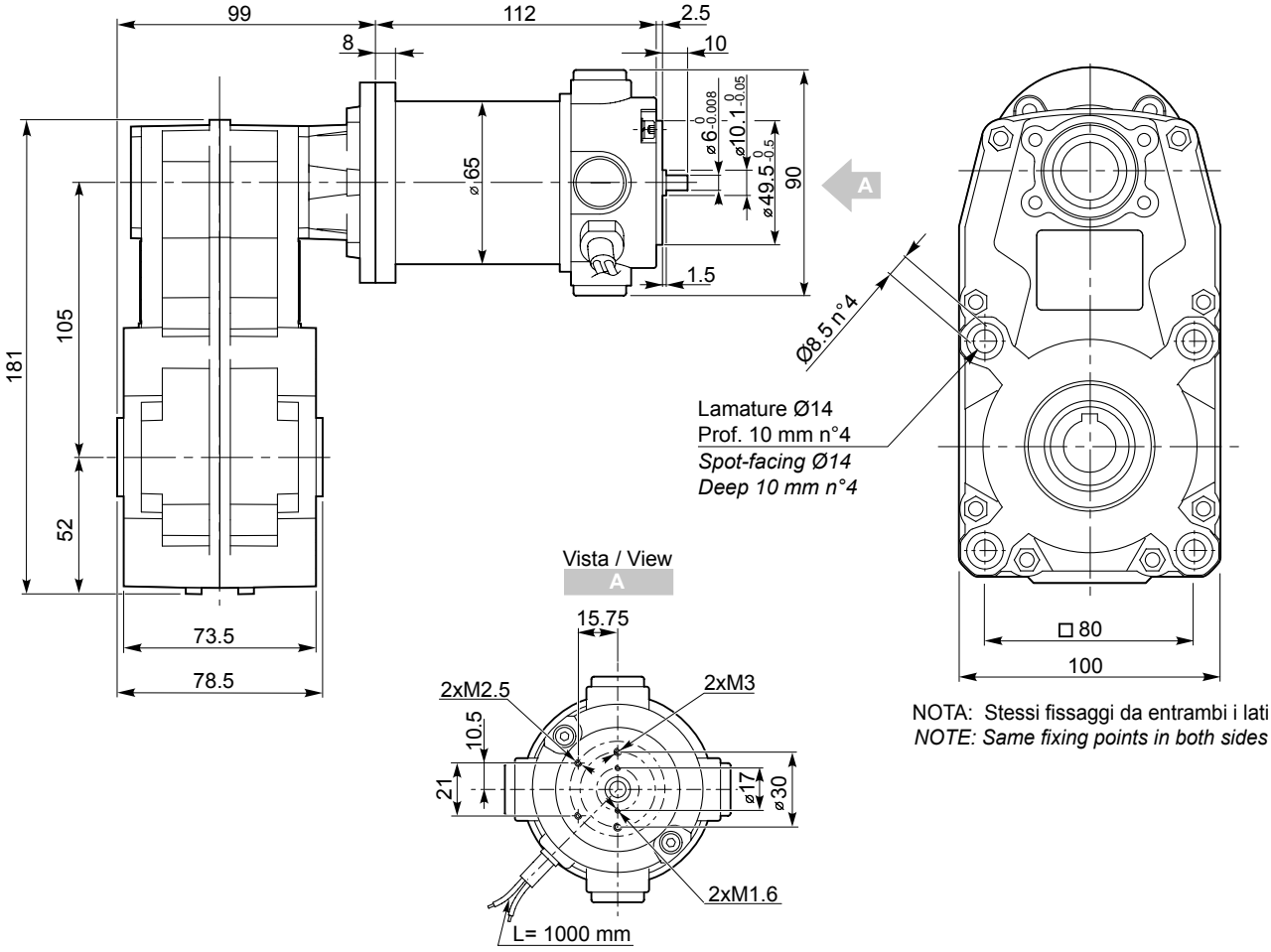


60.63 - 397.38 Rapporti di riduzione i
Ratio i

Dimensioni | *Dimensions*

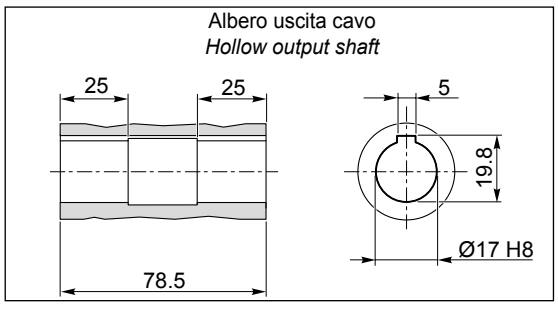
NDFT 120/105

NDFT 120/105...U

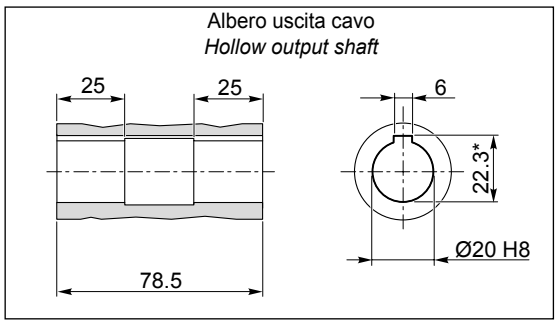


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

O17

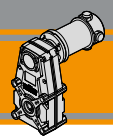


O20



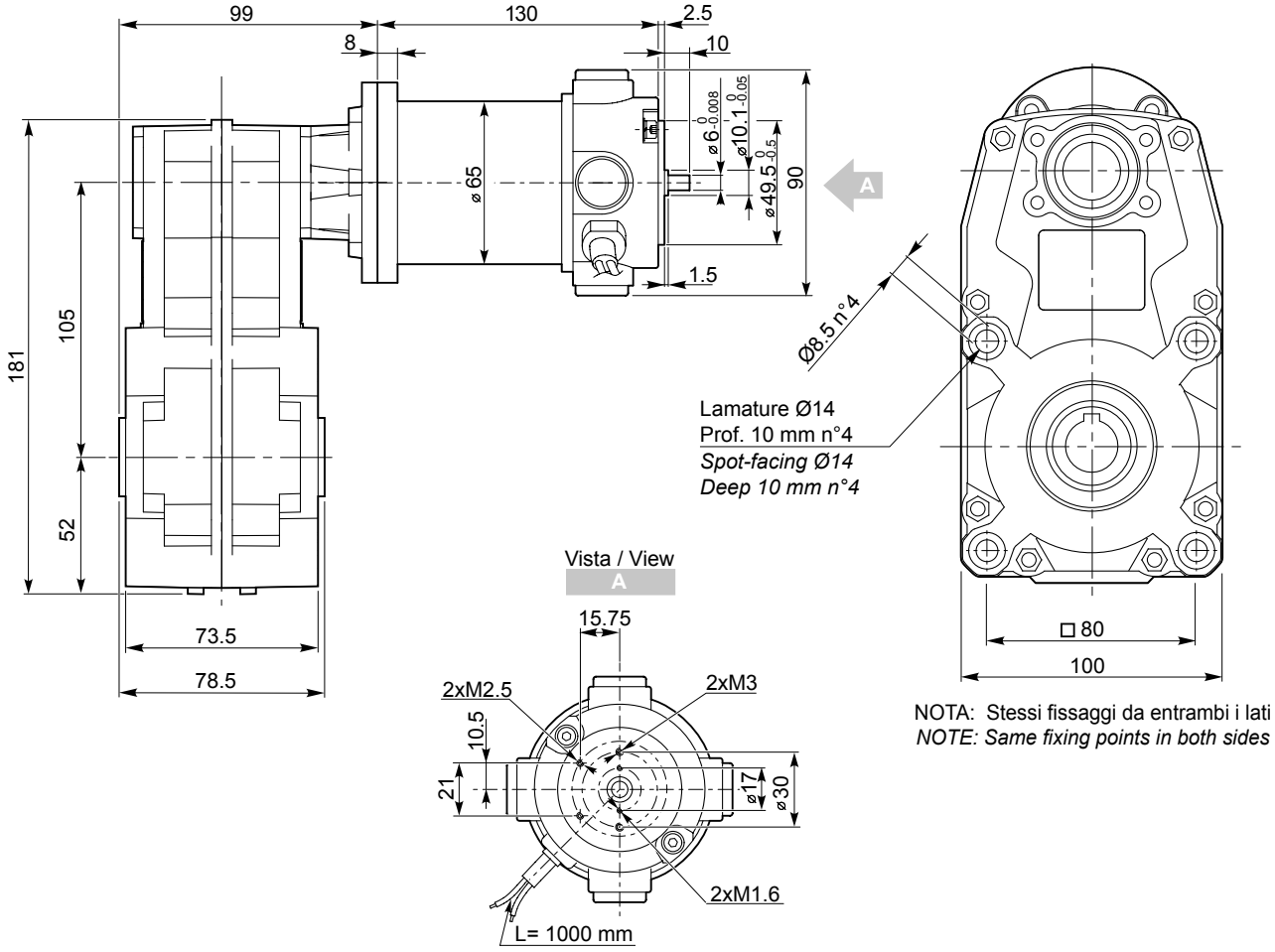
*: Sede linguetta ribassata / *Special keyway*

Freno / *Brake* B9
Encoder B9



NDFT 180/105

NDFT 180/105...U



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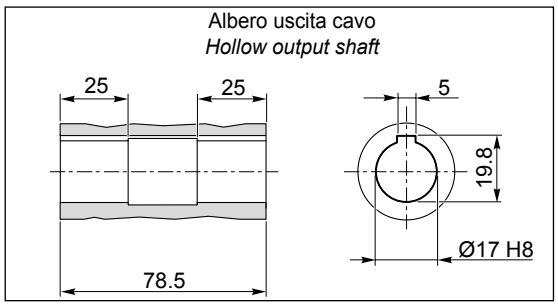
O17



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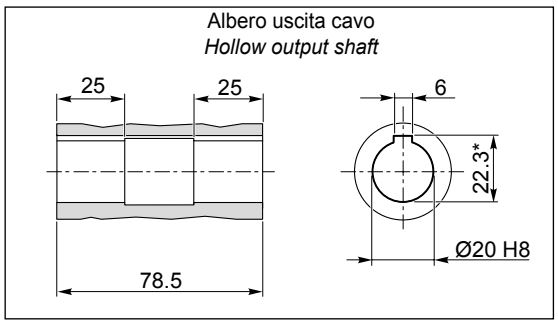


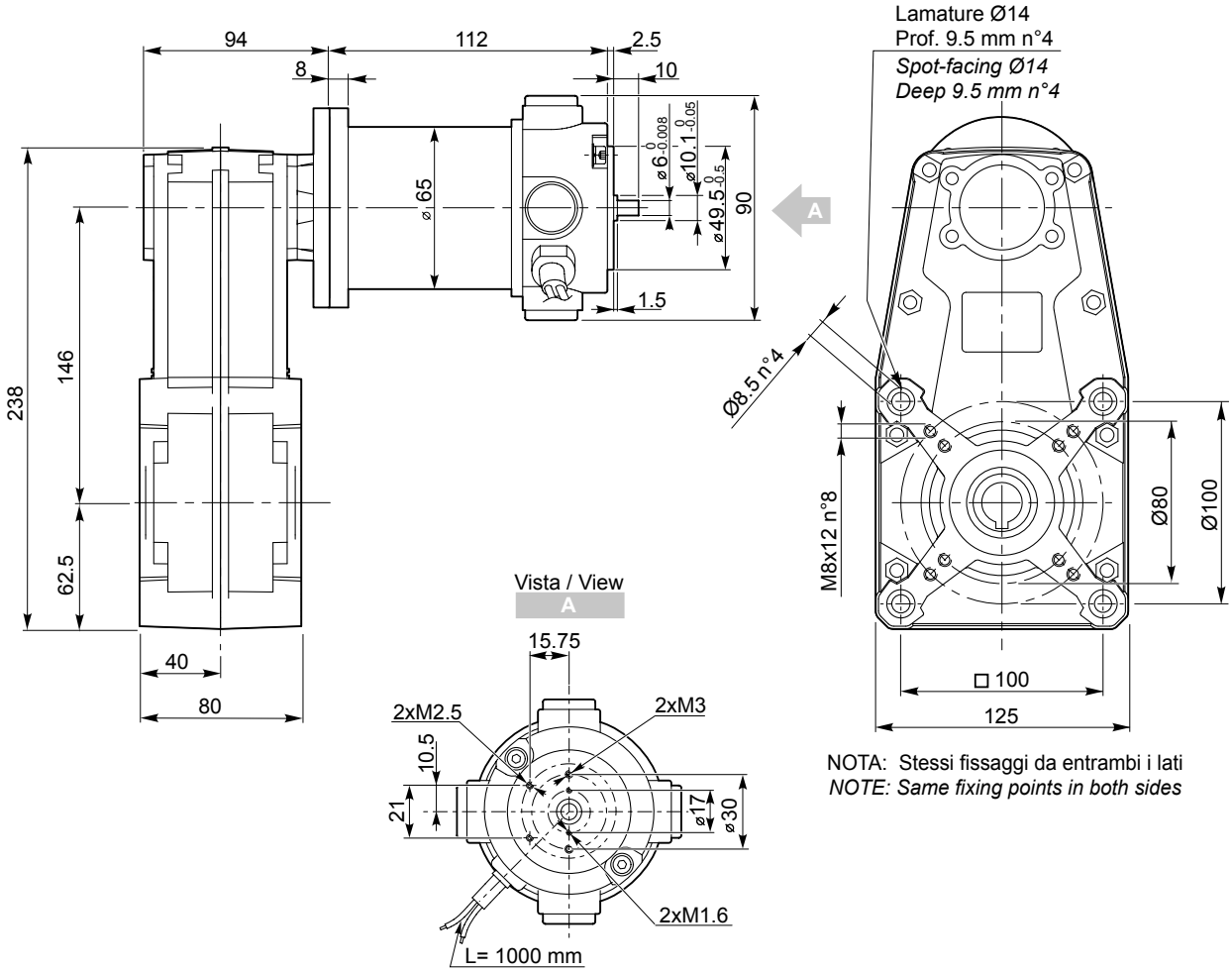
*: Sede linguetta ribassata / *Special keyway*

Freno / *Brake* B9
Encoder B9

Dimensioni | *Dimensions*

NDFT 120/146

NDFT 120/146...U



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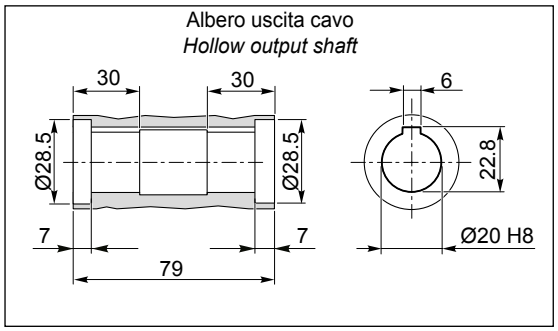
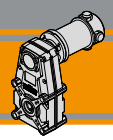
O20

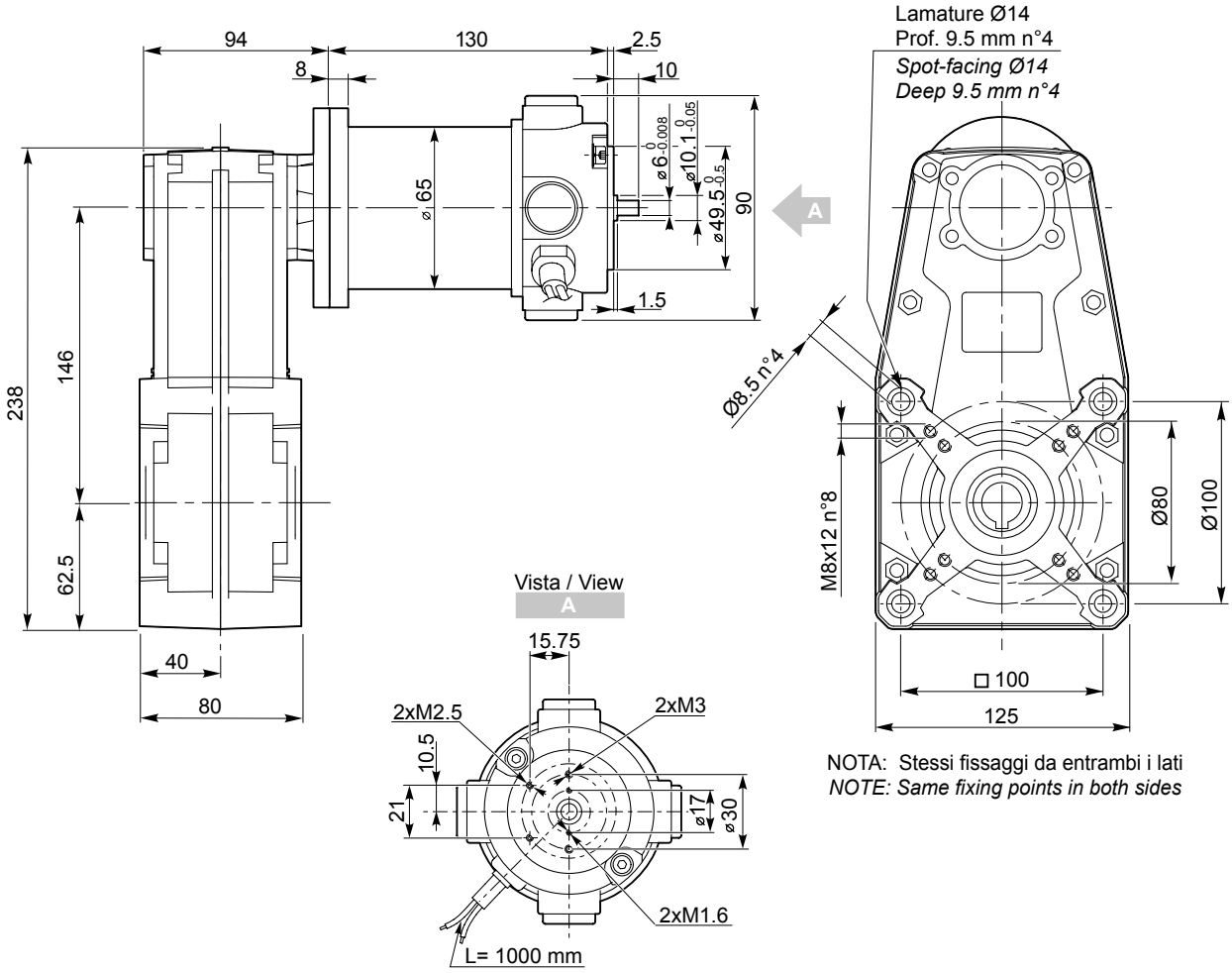


Freno / *Brake* B9
Encoder B9



NDFT 180/146

NDFT 180/146...U



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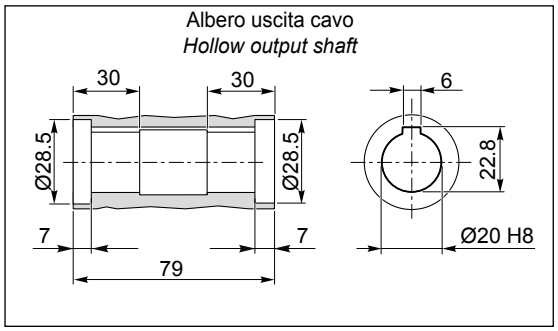

Freno / *Brake* B9
Encoder B9