

MOTOR PERFORMANCE		Winding codes	3TA	3VA		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1870	1870		
Fc	Continuous force	N	458	439		
Fs	Standstill force	N	345	331		
Ip	Peak current	Arms	28.5	49.1		
Ic	Continuous current	Arms	3.28	5.41		
Is	Standstill current	Arms	2.48	4.10		
vs	Rated low speed	mm/s	0.12	0.12		
Pc	Power dissipation @ Ic	W	155	155		
Fd	Max. detent force (average to peak)	N	26	26		
Fa	Attraction force	N	3600	3600		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	148	85.8		
Ku	Back EMF constant (*)	Vrms/(m/s)	88.6	51.4		
Km	Motor constant	N/√W	46.5	44.6		
R20	Electrical resistance at 20°C (*)	Ohm	6.74	2.47		
L	Electrical inductance (*)	mH	78.7	26.7		
rth	Thermal time constant	s	2760	2740		
Rth	Thermal resistance	K/W	0.704	0.705		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	12.6	12.6		
mm	Motor mass	kg	4.08	3.98		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.04	0.04		
x	Assumed stroke	m	0.47	0.47		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		

Notes: (*) terminal to terminal.

Hypotheses and tolerances are in ETEL Integration Manual.

Caution: Any use of the motor beyond speed/force limit could lead to hazardous voltage and serious injuries. Customer is responsible for setting safeties/limitations that will keep the motor in its safe operating area. ETEL cannot be held responsible if the motor is used in an improper way.

