

MOTOR PERFORMANCE		Winding codes	3TA	3VA		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	3110	3110		
Fc	Continuous force	N	762	731		
Fs	Standstill force	N	578	555		
Ip	Peak current	Arms	27.1	46.7		
Ic	Continuous current	Arms	3.23	5.33		
Is	Standstill current	Arms	2.44	4.04		
vs	Rated low speed	mm/s	0.11	0.11		
Pc	Power dissipation @ Ic	W	226	225		
Fd	Max. detent force (average to peak)	N	44	44		
Fa	Attraction force	N	6870	6870		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	255	148		
Ku	Back EMF constant (*)	Vrms/(m/s)	151	87.8		
Km	Motor constant	N/√W	65.6	62.9		
R20	Electrical resistance at 20°C (*)	Ohm	10.1	3.70		
L	Electrical inductance (*)	mH	120	40.5		
rth	Thermal time constant	s	2900	2880		
Rth	Thermal resistance	K/W	0.484	0.485		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	12.6	12.6		
mm	Motor mass	kg	5.97	5.83		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.06	0.06		
x	Assumed stroke	m	0.51	0.51		
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.

