

MOTOR PERFORMANCE		Winding codes	3TA	3VA		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1790	1790		
Fc	Continuous force	N	475	464		
Fs	Standstill force	N	360	351		
Ip	Peak current	Arms	28.2	46.5		
Ic	Continuous current	Arms	3.58	5.75		
Is	Standstill current	Arms	2.71	4.36		
vs	Rated low speed	mm/s	0.13	0.13		
Pc	Power dissipation @ Ic	W	210	210		
Fd	Max. detent force (average to peak)	N	20	20		
Fa	Attraction force	N	3410	3410		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	141	85.6		
Ku	Back EMF constant (*)	Vrms/(m/s)	84.9	51.5		
Km	Motor constant	N/√W	41.6	40.6		
R20	Electrical resistance at 20°C (*)	Ohm	7.66	2.96		
L	Electrical inductance (*)	mH	72.7	26.8		
rth	Thermal time constant	s	2440	2430		
Rth	Thermal resistance	K/W	0.520	0.520		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	4.30	4.24		

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	0.69	0.69		
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.

