

MOTOR PERFORMANCE		Winding codes	3QA	3TA		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	273	273		
Fc	Continuous force	N	82.8	84.5		
Fs	Standstill force	N	63.8	65.3		
Ip	Peak current	Arms	16.3	30.6		
Ic	Continuous current	Arms	2.13	4.10		
Is	Standstill current	Arms	1.61	3.10		
vs	Rated low speed	mm/s	0.18	0.18		
Pc	Power dissipation @ Ic	W	51.4	51.8		
Fd	Max. detent force (average to peak)	N	7.4	7.4		
Fa	Attraction force	N	581	581		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	41.5	22.1		
Ku	Back EMF constant (*)	Vrms/(m/s)	25.2	13.4		
Km	Motor constant	N/√W	14.7	15.0		
R20	Electrical resistance at 20°C (*)	Ohm	5.29	1.44		
L	Electrical inductance (*)	mH	43.8	12.3		
rth	Thermal time constant	s	1770	1790		
Rth	Thermal resistance	K/W	2.13	2.11		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	3.51	3.51		
mm	Motor mass	kg	0.793	0.810		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.01	0.01		
x	Assumed stroke	m	0.29	0.29		
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.

