

MOTOR PERFORMANCE		Winding codes	3TA	3VA		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	1280	1280		
Fc	Continuous force	N	348	328		
Fs	Standstill force	N	263	248		
Ip	Peak current	Arms	28.5	48.9		
Ic	Continuous current	Arms	3.55	5.75		
Is	Standstill current	Arms	2.69	4.35		
vs	Rated low speed	mm/s	0.13	0.13		
Pc	Power dissipation @ Ic	W	138	137		
Fd	Max. detent force (average to peak)	N	19	19		
Fa	Attraction force	N	2500	2500		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	103	60.0		
Ku	Back EMF constant (*)	Vrms/(m/s)	61.7	36.0		
Km	Motor constant	N/√W	37.3	35.2		
R20	Electrical resistance at 20°C (*)	Ohm	5.08	1.94		
L	Electrical inductance (*)	mH	54.6	18.7		
rth	Thermal time constant	s	2430	2410		
Rth	Thermal resistance	K/W	0.794	0.796		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	2.98	2.91		

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.

