

MOTOR PERFORMANCE		Winding codes	3QA	3QB		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	905	905		
Fc	Continuous force	N	187	187		
Fs	Standstill force	N	141	141		
Ip	Peak current	Arms	15.7	31.3		
Ic	Continuous current	Arms	2.20	4.41		
Is	Standstill current	Arms	1.67	3.34		
vs	Rated low speed	mm/s	0.16	0.16		
Pc	Power dissipation @ Ic	W	99.8	99.8		
Fd	Max. detent force (average to peak)	N	12	12		
Fa	Attraction force	N	1800	1800		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	88.3	44.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	53.5	26.7		
Km	Motor constant	N/√W	23.3	23.3		
R20	Electrical resistance at 20°C (*)	Ohm	9.60	2.40		
L	Electrical inductance (*)	mH	53.1	13.3		
rth	Thermal time constant	s	2030	2030		
Rth	Thermal resistance	K/W	1.09	1.09		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	6.19	6.19		
mm	Motor mass	kg	1.64	1.64		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.03	0.03		
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.

