

MOTOR PERFORMANCE		Winding codes	3QB	3QD		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2870	2870		
Fc	Continuous force	N	588	588		
Fs	Standstill force	N	445	445		
Ip	Peak current	Arms	29.8	59.6		
Ic	Continuous current	Arms	4.33	8.66		
Is	Standstill current	Arms	3.28	6.56		
vs	Rated low speed	mm/s	0.14	0.14		
Pc	Power dissipation @ Ic	W	243	243		
Fd	Max. detent force (average to peak)	N	37	37		
Fa	Attraction force	N	6310	6310		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	144	71.8		
Ku	Back EMF constant (*)	Vrms/(m/s)	86.8	43.4		
Km	Motor constant	N/√W	47.7	47.7		
R20	Electrical resistance at 20°C (*)	Ohm	6.05	1.51		
L	Electrical inductance (*)	mH	38.1	9.54		
rth	Thermal time constant	s	2300	2300		
Rth	Thermal resistance	K/W	0.449	0.449		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	7.96	7.96		
mm	Motor mass	kg	4.23	4.23		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.07	0.07		
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.

