

MOTOR PERFORMANCE		Winding codes	3QB	3QD		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	3630	3630		
Fc	Continuous force	N	689	689		
Fs	Standstill force	N	520	520		
Ip	Peak current	Arms	29.8	59.6		
Ic	Continuous current	Arms	4.08	8.16		
Is	Standstill current	Arms	3.09	6.18		
vs	Rated low speed	mm/s	0.13	0.13		
Pc	Power dissipation @ Ic	W	288	288		
Fd	Max. detent force (average to peak)	N	40	40		
Fa	Attraction force	N	6820	6820		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	178	89.2		
Ku	Back EMF constant (*)	Vrms/(m/s)	108	54.1		
Km	Motor constant	N/√W	51.3	51.3		
R20	Electrical resistance at 20°C (*)	Ohm	8.07	2.02		
L	Electrical inductance (*)	mH	53.8	13.4		
rth	Thermal time constant	s	2550	2550		
Rth	Thermal resistance	K/W	0.378	0.378		
2tp	Magnetic period	mm	32	32		
mw	Magnetic way mass	kg/m	12.6	12.6		
mm	Motor mass	kg	5.80	5.80		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Gm	Mechanical gap	mm	0.90	0.90		
Ss	Stator exchange surface	m²	0.09	0.09		
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.

