

MOTOR PERFORMANCE		Winding codes	3QB	3QD		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
Fp	Peak force	N	2520	2520		
Fc	Continuous force	N	502	502		
Fs	Standstill force	N	379	379		
Ip	Peak current	Arms	30.1	60.2		
Ic	Continuous current	Arms	4.28	8.56		
Is	Standstill current	Arms	3.24	6.49		
vs	Rated low speed	mm/s	0.14	0.14		
Pc	Power dissipation @ Ic	W	242	242		
Fd	Max. detent force (average to peak)	N	28	28		
Fa	Attraction force	N	4770	4770		

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	124	61.9		
Ku	Back EMF constant (*)	Vrms/(m/s)	75.0	37.5		
Km	Motor constant	N/√W	40.7	40.7		
R20	Electrical resistance at 20°C (*)	Ohm	6.17	1.54		
L	Electrical inductance (*)	mH	37.4	9.34		
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	4.22	4.22		

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.

