

MOTOR PERFORMANCE		Winding codes	PD	PD	RD	RD
		UNIT	FREE AIR COOLING	FORCED AIR COOLING	FREE AIR COOLING	FORCED AIR COOLING
Fp	Peak force	N	1980	1980	2010	2010
Fc	Continuous force	N	296	315	300	320
Fs	Standstill force	N	224	238	227	242
Ip	Peak current	Arms	44.8	44.8	71.3	71.3
Ic	Continuous current	Arms	6.64	7.07	10.5	11.2
Is	Standstill current	Arms	5.03	5.34	7.98	8.48
vs	Rated low speed	mm/s	0.38	0.69	0.38	0.68
Pc	Power dissipation @ Ic	W	232	261	233	262
Fd	Max. detent force (average to peak)	N	0.0	0.0	0.0	0.0
Fa	Attraction force	N	0.00	0.00	0.00	0.00

MOTOR SETTING		UNIT				
Kt	Force constant	N/Arms	46.2	46.2	29.6	29.6
Ku	Back EMF constant (*)	Vrms/(m/s)	27.9	27.9	17.8	17.8
Km	Motor constant	N/√W	24.1	24.1	24.4	24.4
R20	Electrical resistance at 20°C (*)	Ohm	2.45	2.45	0.976	0.976
L	Electrical inductance (*)	mH	4.51	4.52	1.85	1.85
rth	Thermal time constant	s	1670	928	1680	941
Rth	Thermal resistance	K/W	0.475	0.420	0.473	0.419
2tp	Magnetic period	mm	64	64	64	64
mw	Magnetic way mass	kg/m	13.3	13.3	13.3	13.3
mm	Motor mass	kg	1.50	2.09	1.52	2.11

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600	600	600
Ss	Stator exchange surface	m²	0.25	0.25	0.25	0.25
x	Assumed stroke	m	1.1	1.1	1.1	1.1
θamb	Ambient temperature	°C	20	20	20	20
θmax	Maximum coil temperature	°C	130	130	130	130
θa	Inlet air temperature	°C	N/A	20	N/A	20
qa	Minimum air flow	l/min	N/A	66	N/A	66
Δpa	Minimum inlet air gauge pressure	bar	N/A	0.8	N/A	0.8

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.

