

MOTOR PERFORMANCE		Winding codes	3QA	3QB		
		UNIT	FREE AIR COOLING	FREE AIR COOLING		
<b>Fp</b>	Peak force	N	521	521		
<b>Fc</b>	Continuous force	N	123	123		
<b>Fs</b>	Standstill force	N	92.9	92.9		
<b>Ip</b>	Peak current	Arms	15.5	31.0		
<b>Ic</b>	Continuous current	Arms	2.39	4.79		
<b>Is</b>	Standstill current	Arms	1.81	3.62		
<b>vs</b>	Rated low speed	mm/s	0.18	0.18		
<b>Pc</b>	Power dissipation @ Ic	W	82.2	82.2		
<b>Fd</b>	Max. detent force (average to peak)	N	7.1	7.1		
<b>Fa</b>	Attraction force	N	1000	1000		

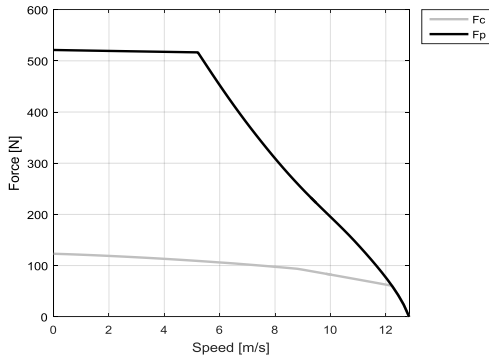
MOTOR SETTING		UNIT				
<b>Kt</b>	Force constant	N/Arms	53.3	26.6		
<b>Ku</b>	Back EMF constant (*)	Vrms/(m/s)	32.3	16.2		
<b>Km</b>	Motor constant	N/√W	16.8	16.8		
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	6.70	1.68		
<b>L</b>	Electrical inductance (*)	mH	36.2	9.05		
<b>rth</b>	Thermal time constant	s	1750	1750		
<b>Rth</b>	Thermal resistance	K/W	1.33	1.33		
<b>2tp</b>	Magnetic period	mm	32	32		
<b>mw</b>	Magnetic way mass	kg/m	3.51	3.51		
<b>mm</b>	Motor mass	kg	1.10	1.10		

MOTOR ENVIRONMENT		UNIT				
<b>Udc</b>	Nominal DC bus voltage	VDC	600	600		
<b>Gm</b>	Mechanical gap	mm	0.90	0.90		
<b>Ss</b>	Stator exchange surface	m²	0.02	0.02		
<b>x</b>	Assumed stroke	m	0.47	0.47		
<b>θamb</b>	Ambient temperature	°C	20	20		
<b>θmax</b>	Maximum coil temperature	°C	130	130		

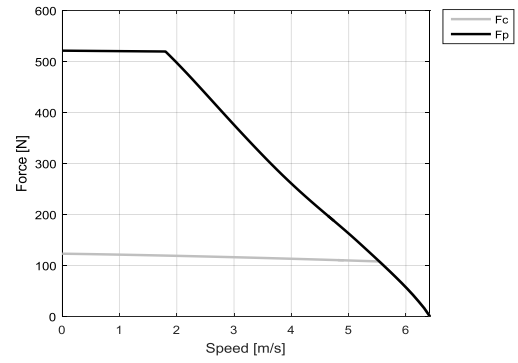
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL handbook.

**Caution:** Any use of the motor beyond speed/torque 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.

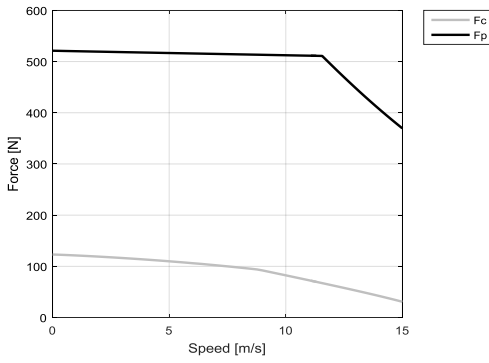
**3QA - FREE AIR COOLING - 600V**



**3QA - FREE AIR COOLING - 300V**



**3QB - FREE AIR COOLING - 600V**



**3QB - FREE AIR COOLING - 300V**

