

MOTOR PERFORMANCE		Winding codes	VF	VL		
		UNIT	WATER COOLING	WATER COOLING		
<b>TP</b>	Peak torque	Nm	10100	10100		
<b>TI</b>	Intermittent torque	Nm	7490	7490		
<b>TC</b>	Continuous torque	Nm	5430	5430		
<b>TS</b>	Standstill torque	Nm	4330	4330		
<b>IP</b>	Peak current	Arms	161	322		
<b>II</b>	Intermittent current	Arms	102	204		
<b>IC</b>	Continuous current	Arms	64.4	129		
<b>IS</b>	Standstill current	Arms	48.8	97.6		
<b>NS</b>	Rated low speed	rpm	0.099	0.099		
<b>NM</b>	Maximum speed without flux weakening	rpm	69.9	140		
<b>NM,FW</b>	Maximum speed with flux weakening	rpm	248	353		
<b>TON,p</b>	Maximum ON time for peak cycle	s	10	10		
<b>TON,i</b>	Maximum ON time for intermittent cycle	s	2.8	2.8		
<b>PP</b>	Power dissipation @ Ip	W	70700	70700		
<b>PI</b>	Power dissipation @ Ii	W	35500	35500		
<b>PC</b>	Power dissipation @ Ic	W	14200	14200		
<b>TD</b>	Max. detent torque (average to peak)	Nm	34	34		

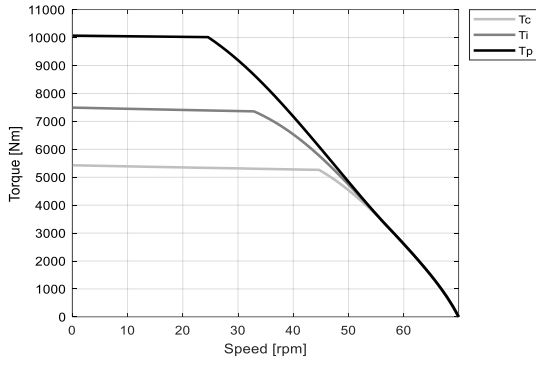
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	97.7	48.9		
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	56.8	28.4		
<b>Km</b>	Motor constant	Nm/√W	62.1	62.1		
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	1.65	0.413		
<b>Ld/Lq</b>	Electrical inductance (*)	mH	29.9 / 26.1	7.47 / 6.53		
<b>Isc</b>	Maximum short-circuit current	Arms	73.2	146		
<b>nb</b>	Base speed	rpm	44.7	113		
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	32.9	92.3		
<b>nb,p</b>	Base speed at peak duty cycle	rpm	24.6	74.2		
<b>nn</b>	Rated speed	rpm	38.5	99.7		
<b>Tn</b>	Rated torque	Nm	5290	4560		
<b>In</b>	Rated current	Arms	63.9	107		
<b>rth</b>	Thermal time constant	s	201	201		
<b>Rth</b>	Thermal resistance	K/W	0.00669	0.00669		
<b>2p</b>	Number of poles	-	60	60		
<b>J</b>	Rotor inertia	kg·m²	2.31	2.31		
<b>mr</b>	Rotor mass	kg	51.6	51.6		
<b>ms</b>	Stator mass	kg	156	156		

MOTOR ENVIRONMENT		UNIT				
<b>Udc</b>	Nominal DC bus voltage	VDC	600	600		
<b>Di</b>	Intermittent duty cycle	%	40	40		
<b>Dp</b>	Peak duty cycle	%	5.0	5.0		
<b>Sr</b>	Rotor exchange surface	m²	0.721	0.721		
<b>θamb</b>	Ambient temperature	°C	20	20		
<b>θmax</b>	Maximum coil temperature	°C	130	130		
<b>θw</b>	Inlet water temperature	°C	20	20		
<b>Δθw</b>	Water temperature difference for Pc	K	5.0	5.0		
<b>qw</b>	Minimum water flow for Δθw	l/min	44	44		
<b>Δpw</b>	Max. pressure drop at qw	bar	5.2	5.2		

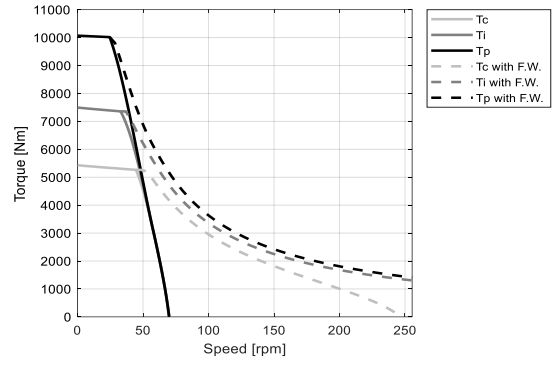
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.  
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

**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.

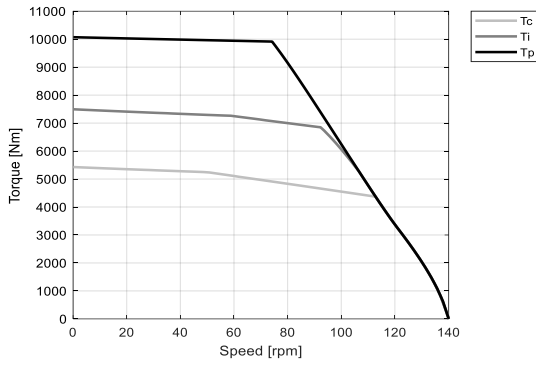
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