

MOTOR PERFORMANCE		Winding codes	VB	VD		
		UNIT	WATER COOLING	WATER COOLING		
<b>TP</b>	Peak torque	Nm	629	629		
<b>TI</b>	Intermittent torque	Nm	492	492		
<b>TC</b>	Continuous torque	Nm	368	368		
<b>TS</b>	Standstill torque	Nm	292	292		
<b>IP</b>	Peak current	Arms	71.8	144		
<b>II</b>	Intermittent current	Arms	45.3	90.7		
<b>IC</b>	Continuous current	Arms	28.7	57.3		
<b>IS</b>	Standstill current	Arms	21.7	43.4		
<b>NS</b>	Rated low speed	rpm	0.23	0.23		
<b>NM</b>	Maximum speed without flux weakening	rpm	448	896		
<b>NM,FW</b>	Maximum speed with flux weakening	rpm	1650	2600		
<b>TON,p</b>	Maximum ON time for peak cycle	s	12	12		
<b>TON,i</b>	Maximum ON time for intermittent cycle	s	3.1	3.1		
<b>PP</b>	Power dissipation @ Ip	W	16100	16100		
<b>PI</b>	Power dissipation @ Ii	W	8120	8120		
<b>PC</b>	Power dissipation @ Ic	W	3250	3250		
<b>TD</b>	Max. detent torque (average to peak)	Nm	2.8	2.8		

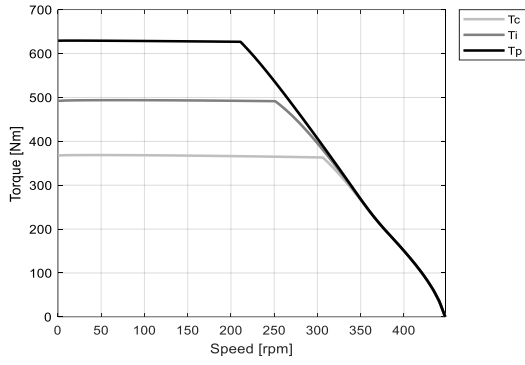
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	14.4	7.19		
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	8.87	4.43		
<b>Km</b>	Motor constant	Nm/√W	8.55	8.55		
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	1.88	0.470		
<b>Ld/Lq</b>	Electrical inductance (*)	mH	18.0 / 15.2	4.50 / 3.79		
<b>Isc</b>	Maximum short-circuit current	Arms	25.8	51.7		
<b>nb</b>	Base speed	rpm	306	665		
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	251	557		
<b>nb,p</b>	Base speed at peak duty cycle	rpm	211	473		
<b>nn</b>	Rated speed	rpm	271	592		
<b>Tn</b>	Rated torque	Nm	364	350		
<b>In</b>	Rated current	Arms	28.3	54.9		
<b>rth</b>	Thermal time constant	s	119	119		
<b>Rth</b>	Thermal resistance	K/W	0.0307	0.0307		
<b>2p</b>	Number of poles	-	44	44		
<b>J</b>	Rotor inertia	kg·m²	0.136	0.136		
<b>mr</b>	Rotor mass	kg	15.5	15.5		
<b>ms</b>	Stator mass	kg	22.3	22.3		

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	0.074	0.074		
<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	10	10		
<b>Δpw</b>	Max. pressure drop at qw	bar	0.5	0.5		

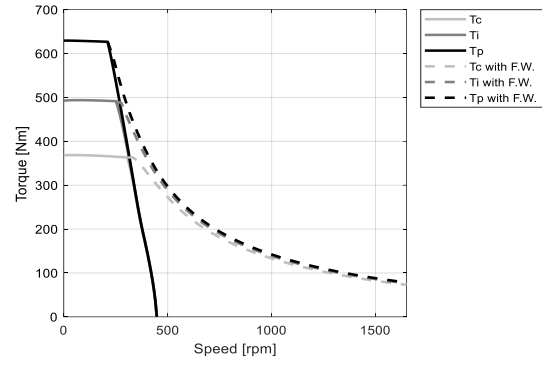
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.

**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.

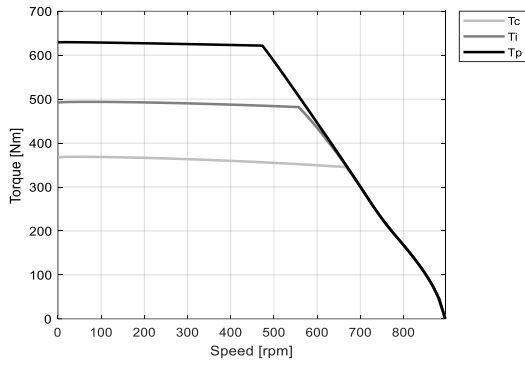
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