

MOTOR PERFORMANCE		Winding codes	UA	UB		
		UNIT	WATER COOLING	WATER COOLING		
<b>Tp</b>	Peak torque	Nm	129	129		
<b>Ti</b>	Intermittent torque	Nm	101	101		
<b>Tc</b>	Continuous torque	Nm	76.3	76.3		
<b>Ts</b>	Standstill torque	Nm	61.5	61.5		
<b>Ip</b>	Peak current	Arms	27.3	54.5		
<b>Ii</b>	Intermittent current	Arms	17.3	34.5		
<b>Ic</b>	Continuous current	Arms	10.9	21.8		
<b>Is</b>	Standstill current	Arms	8.27	16.5		
<b>ns</b>	Rated low speed	rpm	0.47	0.47		
<b>nm</b>	Maximum speed without flux weakening	rpm	833	1670		
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	3070	5200		
<b>ton,p</b>	Maximum ON time for peak cycle	s	13	13		
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	3.1	3.1		
<b>Pp</b>	Power dissipation @ Ip	W	6540	6540		
<b>Pi</b>	Power dissipation @ Ii	W	3340	3340		
<b>Pc</b>	Power dissipation @ Ic	W	1340	1340		
<b>Td</b>	Max. detent torque (average to peak)	Nm	1.0	1.0		

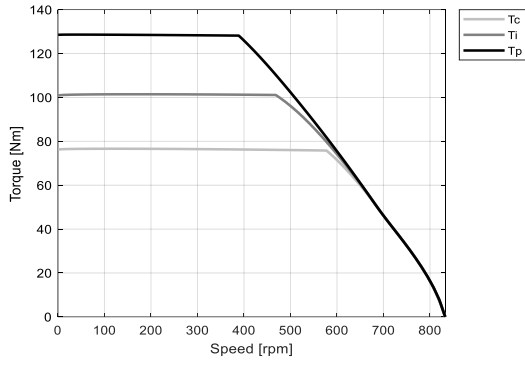
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	8.07	4.04		
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	4.77	2.38		
<b>Km</b>	Motor constant	Nm/√W	2.86	2.86		
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	5.30	1.32		
<b>Ld/Lq</b>	Electrical inductance (*)	mH	45.3 / 39.7	11.3 / 9.94		
<b>Isc</b>	Maximum short-circuit current	Arms	11.0	22.1		
<b>nb</b>	Base speed	rpm	577	1260		
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	468	1050		
<b>nb,p</b>	Base speed at peak duty cycle	rpm	389	886		
<b>nn</b>	Rated speed	rpm	510	1120		
<b>Tn</b>	Rated torque	Nm	76.0	73.6		
<b>In</b>	Rated current	Arms	10.8	21.2		
<b>rth</b>	Thermal time constant	s	116	116		
<b>Rth</b>	Thermal resistance	K/W	0.0766	0.0766		
<b>2p</b>	Number of poles	-	22	22		
<b>J</b>	Rotor inertia	kg·m²	0.00796	0.00796		
<b>mr</b>	Rotor mass	kg	4.25	4.25		
<b>ms</b>	Stator mass	kg	10.5	10.5		

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	0.026	0.026		
<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	4.2	4.2		
<b>Δpw</b>	Max. pressure drop at qw	bar	0.1	0.1		

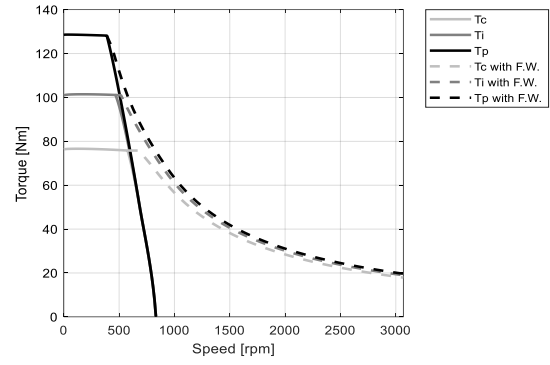
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.

**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.

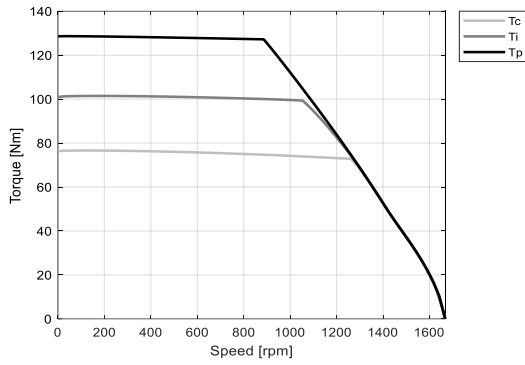
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