

MOTOR PERFORMANCE		Winding codes	WB	WE		
		UNIT	WATER COOLING	WATER COOLING		
<b>Tp</b>	Peak torque	Nm	6450	6870		
<b>Ti</b>	Intermittent torque	Nm	5080	5080		
<b>Tc</b>	Continuous torque	Nm	3660	3660		
<b>Ts</b>	Standstill torque	Nm	2910	2910		
<b>Ip</b>	Peak current	Arms	64.7	183		
<b>Ii</b>	Intermittent current	Arms	46.3	116		
<b>Ic</b>	Continuous current	Arms	29.3	73.3		
<b>Is</b>	Standstill current	Arms	22.2	55.5		
<b>ns</b>	Rated low speed	rpm	0.14	0.14		
<b>nm</b>	Maximum speed without flux weakening	rpm	47.9	120		
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	175	376		
<b>ton,p</b>	Maximum ON time for peak cycle	s	14	8.6		
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	2.8	2.8		
<b>Pp</b>	Power dissipation @ Ip	W	46500	60800		
<b>Pi</b>	Power dissipation @ Ii	W	30500	30500		
<b>Pc</b>	Power dissipation @ Ic	W	12200	12200		
<b>Td</b>	Max. detent torque (average to peak)	Nm	33	33		

MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	143	57.2		
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	82.8	33.1		
<b>Km</b>	Motor constant	Nm/√W	44.6	44.6		
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	6.86	1.10		
<b>Ld/Lq</b>	Electrical inductance (*)	mH	122 / 112	19.6 / 17.9		
<b>Isc</b>	Maximum short-circuit current	Arms	31.2	78.1		
<b>nb</b>	Base speed	rpm	19.2	80.9		
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	4.56	62.2		
<b>nb,p</b>	Base speed at peak duty cycle	rpm	0.0	49.5		
<b>nn</b>	Rated speed	rpm	14.9	69.9		
<b>Tn</b>	Rated torque	Nm	3640	3540		
<b>In</b>	Rated current	Arms	29.3	72.5		
<b>rth</b>	Thermal time constant	s	170	170		
<b>Rth</b>	Thermal resistance	K/W	0.00775	0.00775		
<b>2p</b>	Number of poles	-	50	50		
<b>J</b>	Rotor inertia	kg·m²	1.15	1.15		
<b>mr</b>	Rotor mass	kg	37.4	37.4		
<b>ms</b>	Stator mass	kg	128	128		

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	0.592	0.592		
<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	38	38		
<b>Δpw</b>	Max. pressure drop at qw	bar	5.0	5.0		

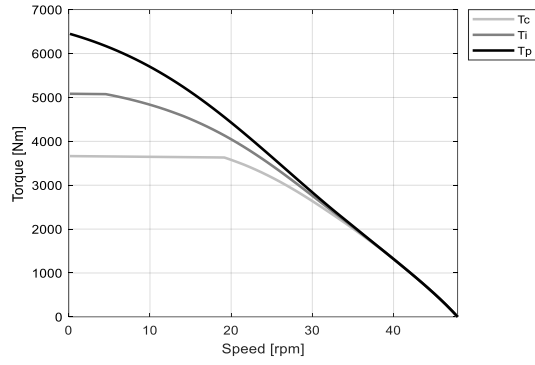
**Notes:** (\*) terminal to terminal.

Hypotheses and tolerances are in ETEL Integration Manual.

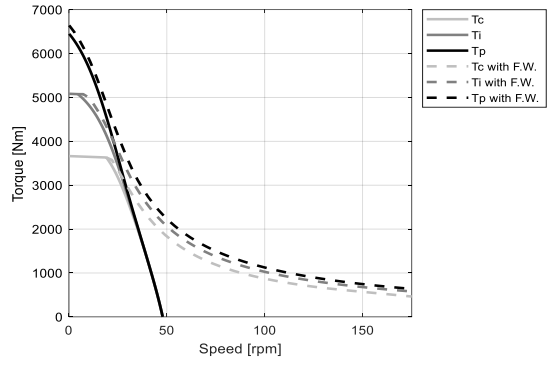
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

**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.

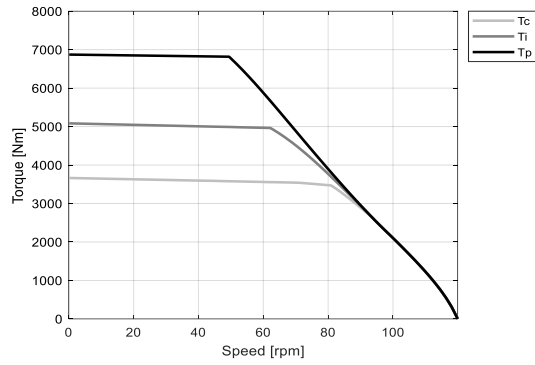
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