

MOTOR PERFORMANCE		Winding codes	RA	TA	SB	UB
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	WATER COOLING
<b>Tp</b>	Peak torque	Nm	247	265	265	264
<b>Ti</b>	Intermittent torque	Nm	211	216	217	209
<b>Tc</b>	Continuous torque	Nm	159	156	157	150
<b>Ts</b>	Standstill torque	Nm	126	124	124	118
<b>Ip</b>	Peak current	Arms	11.6	22.0	34.1	60.4
<b>Ii</b>	Intermittent current	Arms	9.38	16.5	25.8	43.0
<b>Ic</b>	Continuous current	Arms	6.38	10.5	16.3	27.2
<b>Is</b>	Standstill current	Arms	4.84	7.92	12.4	20.6
<b>ns</b>	Rated low speed	rpm	0.92	0.93	0.93	0.95
<b>nm</b>	Maximum speed without flux weakening	rpm	237	399	619	1100
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	561	826	1130	1780
<b>ton,p</b>	Maximum ON time for peak cycle	s	11	6.6	6.8	5.3
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	7.2	2.7	2.7	2.7
<b>Pp</b>	Power dissipation @ Ip	W	8300	11200	11100	12300
<b>Pi</b>	Power dissipation @ Ii	W	6730	8070	8070	7840
<b>Pc</b>	Power dissipation @ Ic	W	3270	3230	3230	3140
<b>Td</b>	Max. detent torque (average to peak)	Nm	2.1	2.1	2.1	2.1

MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	29.2	17.3	11.2	6.32
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	16.8	9.95	6.42	3.62
<b>Km</b>	Motor constant	Nm/√W	3.81	3.72	3.75	3.57
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	39.3	14.5	5.92	2.09
<b>Ld/Lq</b>	Electrical inductance (*)	mH	310 / 268	109 / 95.4	45.4 / 39.5	14.5 / 12.8
<b>Isc</b>	Maximum short-circuit current	Arms	5.68	9.56	14.8	26.3
<b>nb</b>	Base speed	rpm	67.8	287	512	1000
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	0.00	123	423	885
<b>nb,p</b>	Base speed at peak duty cycle	rpm	0.00	107	267	564
<b>nn</b>	Rated speed	rpm	45.5	237	461	927
<b>Tn</b>	Rated torque	Nm	157	110	81.5	56.4
<b>In</b>	Rated current	Arms	6.37	7.18	8.22	10.3
<b>rth</b>	Thermal time constant	s	59.5	58.9	58.9	57.6
<b>Rth</b>	Thermal resistance	K/W	0.0275	0.0276	0.0277	0.0281
<b>2p</b>	Number of poles	-	22	22	22	22
<b>J</b>	Rotor inertia	kg·m²	0.00679	0.00679	0.00679	0.00679
<b>mr</b>	Rotor mass	kg	4.85	4.85	4.85	4.85
<b>ms</b>	Stator mass	kg	19.5	19.4	19.4	19.2

MOTOR ENVIRONMENT		UNIT				
<b>Udc</b>	Nominal DC bus voltage	VDC	600	600	600	600
<b>Di</b>	Intermittent duty cycle	%	40	40	40	40
<b>Dp</b>	Peak duty cycle	%	5.0	5.0	5.0	5.0
<b>Sr</b>	Rotor exchange surface	m²	0.080	0.080	0.080	0.080
<b>θamb</b>	Ambient temperature	°C	20	20	20	20
<b>θmax</b>	Maximum coil temperature	°C	130	130	130	130
<b>θw</b>	Inlet water temperature	°C	20	20	20	20
<b>Δθw</b>	Water temperature difference for Pc	K	5.0	5.0	5.0	5.0
<b>qw</b>	Minimum water flow for Δθw	l/min	10	10	10	9.8
<b>Δpw</b>	Max. pressure drop at qw	bar	0.9	0.9	0.9	0.9

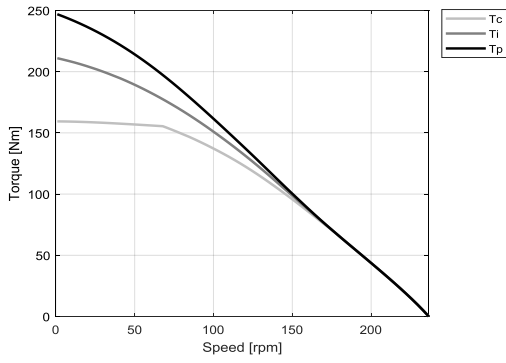
**Notes:** (\*) terminal to terminal.

Hypotheses and tolerances are in ETEL Integration Manual.

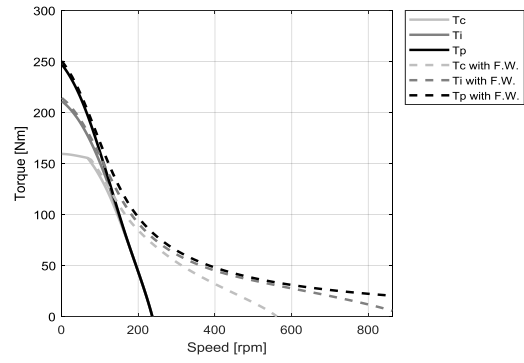
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

**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.

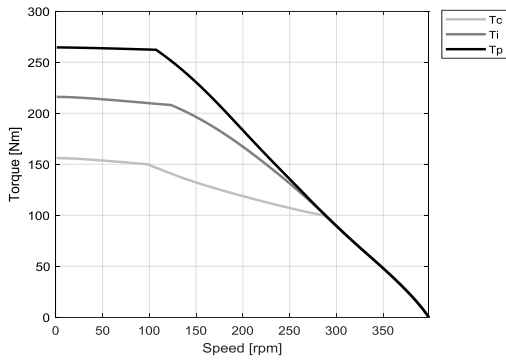
**RA - WATER COOLING**



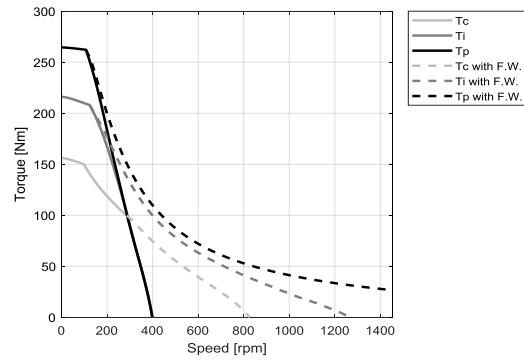
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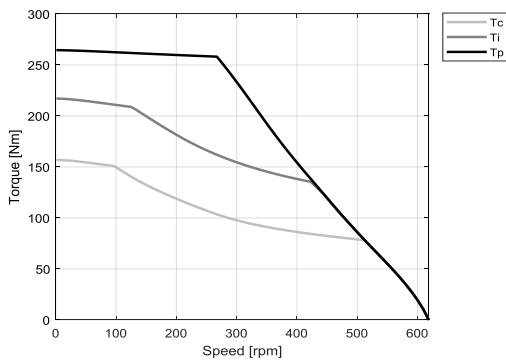
**TA - WATER COOLING**



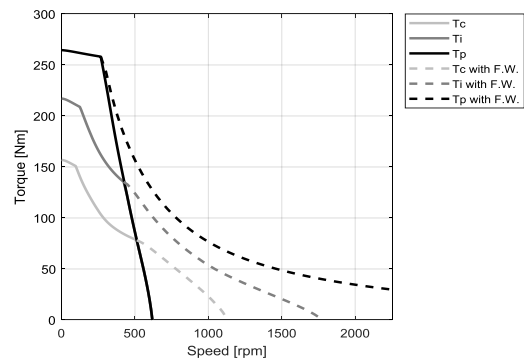
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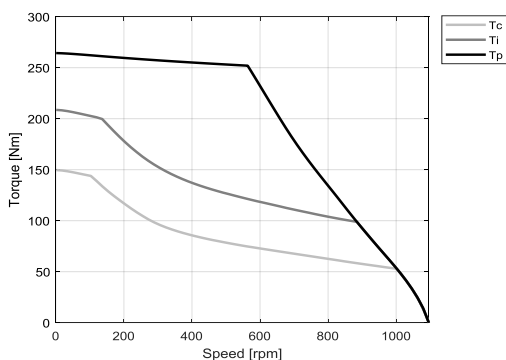
**SB - WATER COOLING**



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**UB - WATER COOLING**



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