

MOTOR PERFORMANCE		Winding codes	WA	WB	WD	WH
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	WATER COOLING
<b>Tp</b>	Peak torque	Nm	2420	2420	2420	2420
<b>Ti</b>	Intermittent torque	Nm	1930	1930	1900	1900
<b>Tc</b>	Continuous torque	Nm	1450	1450	1420	1420
<b>Ts</b>	Standstill torque	Nm	1180	1180	1180	1180
<b>Ip</b>	Peak current	Arms	36.8	73.6	147	294
<b>Ii</b>	Intermittent current	Arms	24.4	48.8	94.6	189
<b>Ic</b>	Continuous current	Arms	15.4	30.8	59.8	120
<b>Is</b>	Standstill current	Arms	11.7	23.4	46.7	93.4
<b>ns</b>	Rated low speed	rpm	0.10	0.10	0.10	0.10
<b>nm</b>	Maximum speed without flux weakening	rpm	57.9	116	232	465
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	199	295	447	596
<b>ton,p</b>	Maximum ON time for peak cycle	s	12	12	12	12
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	2.9	2.9	7.8	7.8
<b>Pp</b>	Power dissipation @ Ip	W	26500	26500	26500	26500
<b>Pi</b>	Power dissipation @ Ii	W	15000	15000	13700	13700
<b>Pc</b>	Power dissipation @ Ic	W	5990	5990	5500	5500
<b>Td</b>	Max. detent torque (average to peak)	Nm	7.0	7.0	7.0	7.0

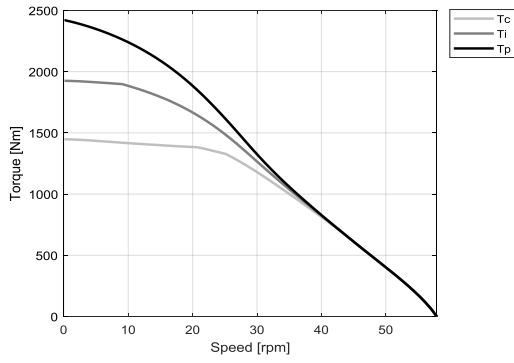
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	119	59.6	29.8	14.9
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	68.5	34.2	17.1	8.56
<b>Km</b>	Motor constant	Nm/√W	28.3	28.3	28.3	28.3
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	11.8	2.96	0.740	0.185
<b>Ld/Lq</b>	Electrical inductance (*)	mH	180 / 144	44.9 / 36.1	11.2 / 9.15	2.80 / 2.29
<b>Isc</b>	Maximum short-circuit current	Arms	10.0	20.0	40.1	80.1
<b>nb</b>	Base speed	rpm	24.7	82.9	199	454
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	9.05	61.0	159	379
<b>nb,p</b>	Base speed at peak duty cycle	rpm	0.164	42.7	108	233
<b>nn</b>	Rated speed	rpm	18.7	71.7	181	278
<b>Tn</b>	Rated torque	Nm	1390	975	623	474
<b>In</b>	Rated current	Arms	15.3	19.4	24.0	37.5
<b>rth</b>	Thermal time constant	s	134	134	134	134
<b>Rth</b>	Thermal resistance	K/W	0.0175	0.0175	0.0175	0.0175
<b>2p</b>	Number of poles	-	88	88	88	88
<b>J</b>	Rotor inertia	kg·m²	0.659	0.659	0.659	0.659
<b>mr</b>	Rotor mass	kg	13.7	13.7	13.7	13.7
<b>ms</b>	Stator mass	kg	62.1	62.1	62.1	62.1

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	0.240	0.240	0.240	0.240
<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	19	19	17	17
<b>Δpw</b>	Max. pressure drop at qw	bar	0.7	0.7	0.7	0.7

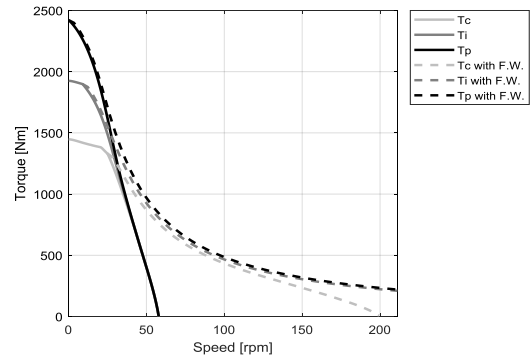
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.  
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

**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.

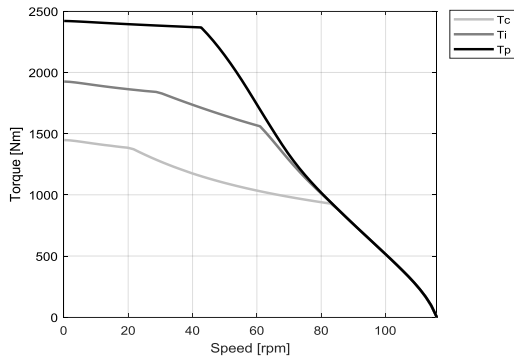
**WA - WATER COOLING**



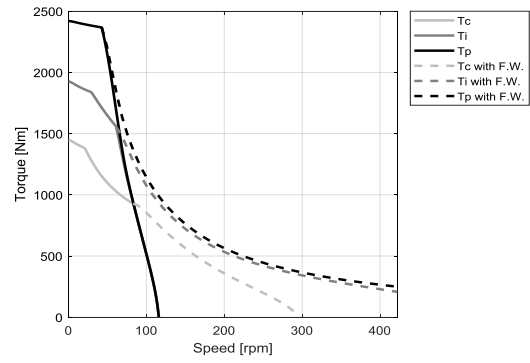
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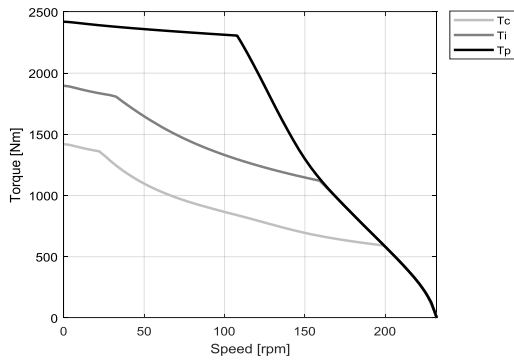
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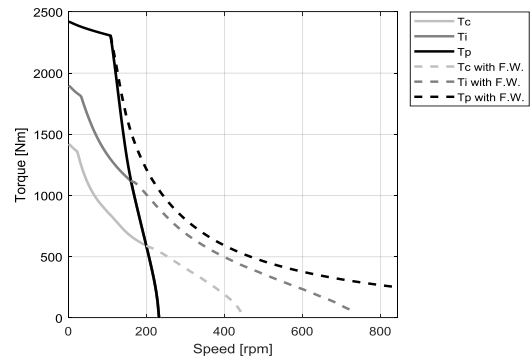
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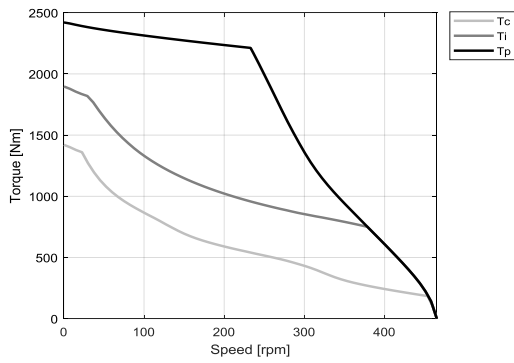
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