

MOTOR PERFORMANCE		Winding codes	WA	WB	WD	WH
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	WATER COOLING
<b>Tp</b>	Peak torque	Nm	1730	1730	1730	1730
<b>Ti</b>	Intermittent torque	Nm	1340	1340	1340	1340
<b>Tc</b>	Continuous torque	Nm	1010	1010	1000	1000
<b>Ts</b>	Standstill torque	Nm	817	817	818	818
<b>Ip</b>	Peak current	Arms	38.1	76.3	153	305
<b>Ii</b>	Intermittent current	Arms	23.8	47.6	94.6	189
<b>Ic</b>	Continuous current	Arms	15.1	30.1	59.8	120
<b>Is</b>	Standstill current	Arms	11.4	22.8	45.7	91.3
<b>ns</b>	Rated low speed	rpm	0.10	0.10	0.10	0.10
<b>nm</b>	Maximum speed without flux weakening	rpm	81.1	162	325	651
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	290	435	621	774
<b>ton,p</b>	Maximum ON time for peak cycle	s	11	11	11	11
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	2.9	2.9	4.2	4.2
<b>Pp</b>	Power dissipation @ Ip	W	22500	22500	22500	22500
<b>Pi</b>	Power dissipation @ Ii	W	11200	11200	11000	11000
<b>Pc</b>	Power dissipation @ Ic	W	4480	4480	4390	4390
<b>Td</b>	Max. detent torque (average to peak)	Nm	5.0	5.0	5.0	5.0

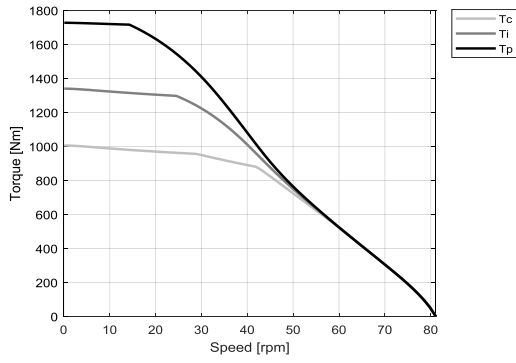
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	84.9	42.5	21.2	10.6
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	48.9	24.5	12.2	6.12
<b>Km</b>	Motor constant	Nm/√W	22.8	22.8	22.8	22.8
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	9.26	2.31	0.579	0.145
<b>Ld/Lq</b>	Electrical inductance (*)	mH	135 / 109	33.8 / 27.3	8.45 / 6.84	2.11 / 1.71
<b>Isc</b>	Maximum short-circuit current	Arms	9.49	19.0	38.0	75.9
<b>nb</b>	Base speed	rpm	41.9	117	279	638
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	24.5	88.4	221	524
<b>nb,p</b>	Base speed at peak duty cycle	rpm	14.3	63.7	149	316
<b>nn</b>	Rated speed	rpm	34.0	102	254	380
<b>Tn</b>	Rated torque	Nm	925	675	428	329
<b>In</b>	Rated current	Arms	14.2	19.0	23.5	37.2
<b>rth</b>	Thermal time constant	s	136	136	136	136
<b>Rth</b>	Thermal resistance	K/W	0.0235	0.0235	0.0235	0.0235
<b>2p</b>	Number of poles	-	88	88	88	88
<b>J</b>	Rotor inertia	kg·m²	0.470	0.470	0.470	0.470
<b>mr</b>	Rotor mass	kg	9.77	9.77	9.77	9.77
<b>ms</b>	Stator mass	kg	49.8	49.8	49.8	49.8

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	0.180	0.180	0.180	0.180
<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	14	14	14	14
<b>Δpw</b>	Max. pressure drop at qw	bar	0.5	0.5	0.5	0.5

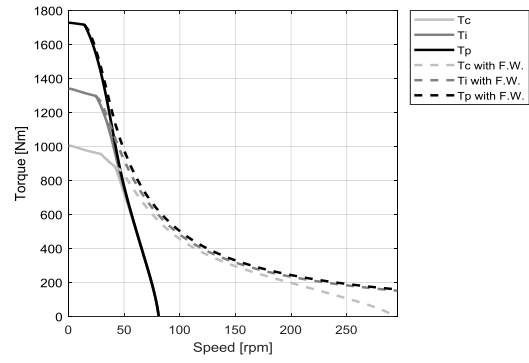
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.  
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

**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.

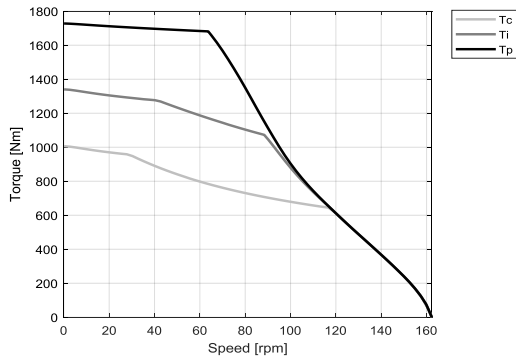
**WA - WATER COOLING**



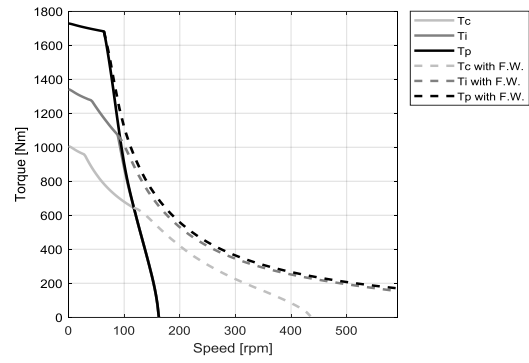
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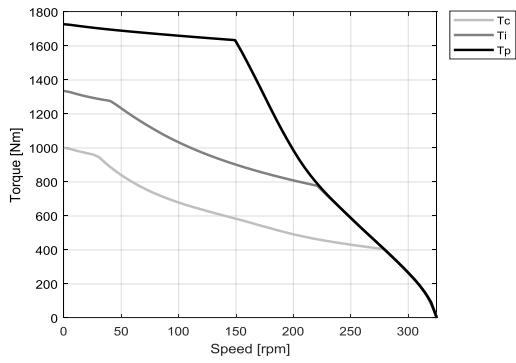
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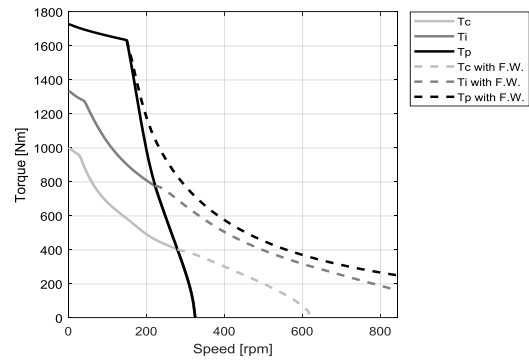
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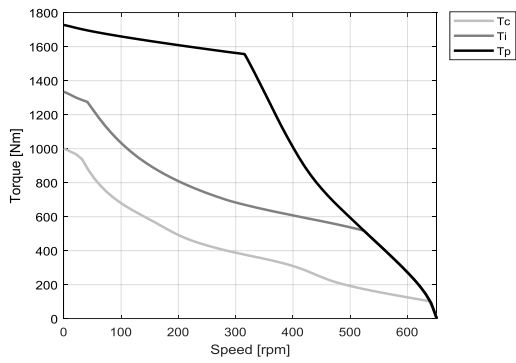
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