

MOTOR PERFORMANCE		Winding codes	UB	WC	WF	WL
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	WATER COOLING
<b>Tp</b>	Peak torque	Nm	4990	5430	5430	5430
<b>Ti</b>	Intermittent torque	Nm	4000	4070	4070	4070
<b>Tc</b>	Continuous torque	Nm	2970	3030	3030	3030
<b>Ts</b>	Standstill torque	Nm	2390	2450	2450	2450
<b>Ip</b>	Peak current	Arms	44.5	118	236	472
<b>Ii</b>	Intermittent current	Arms	30.5	68.4	137	273
<b>Ic</b>	Continuous current	Arms	19.3	43.2	86.5	173
<b>Is</b>	Standstill current	Arms	14.6	32.8	65.5	131
<b>ns</b>	Rated low speed	rpm	0.068	0.066	0.066	0.066
<b>nm</b>	Maximum speed without flux weakening	rpm	36.5	79.4	159	319
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	133	207	305	400
<b>ton,p</b>	Maximum ON time for peak cycle	s	15	9.3	9.3	9.3
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	2.9	2.9	2.9	2.9
<b>Pp</b>	Power dissipation @ Ip	W	32000	46600	46600	46600
<b>Pi</b>	Power dissipation @ Ii	W	19600	19600	19600	19600
<b>Pc</b>	Power dissipation @ Ic	W	7830	7860	7860	7860
<b>Td</b>	Max. detent torque (average to peak)	Nm	14	14	14	14

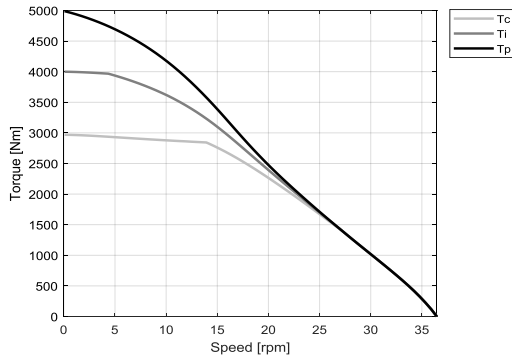
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	189	86.9	43.5	21.7
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	109	50.0	25.0	12.5
<b>Km</b>	Motor constant	Nm/√W	49.2	50.5	50.5	50.5
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	9.85	1.97	0.493	0.123
<b>Ld/Lq</b>	Electrical inductance (*)	mH	142 / 120	30.0 / 24.9	7.49 / 6.24	1.87 / 1.56
<b>Isc</b>	Maximum short-circuit current	Arms	13.4	29.2	58.4	117
<b>nb</b>	Base speed	rpm	13.9	56.2	136	312
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	4.34	41.1	107	257
<b>nb,p</b>	Base speed at peak duty cycle	rpm	0.00	26.7	70.2	153
<b>nn</b>	Rated speed	rpm	11.0	48.7	124	186
<b>Tn</b>	Rated torque	Nm	2870	2100	1340	1040
<b>In</b>	Rated current	Arms	19.2	28.5	35.5	56.2
<b>rth</b>	Thermal time constant	s	134	138	138	138
<b>Rth</b>	Thermal resistance	K/W	0.0134	0.0134	0.0134	0.0134
<b>2p</b>	Number of poles	-	132	132	132	132
<b>J</b>	Rotor inertia	kg·m²	2.32	2.32	2.32	2.32
<b>mr</b>	Rotor mass	kg	20.8	20.8	20.8	20.8
<b>ms</b>	Stator mass	kg	98.7	99.5	99.5	99.5

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	0.360	0.360	0.360	0.360
<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	24	25	25	25
<b>Δpw</b>	Max. pressure drop at qw	bar	1.1	1.1	1.1	1.1

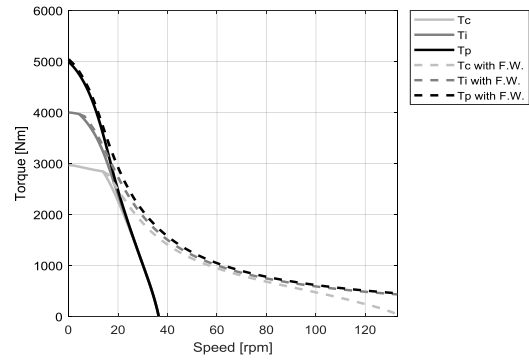
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.  
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

**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.

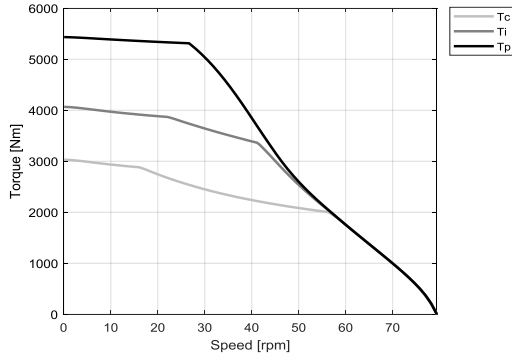
**UB - WATER COOLING**



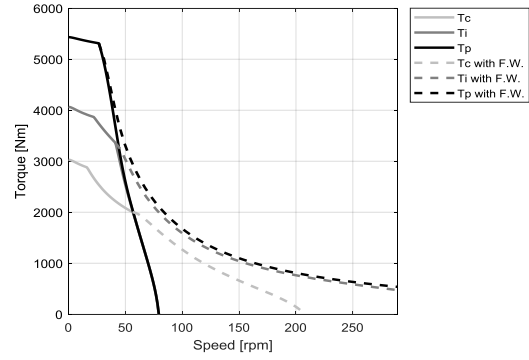
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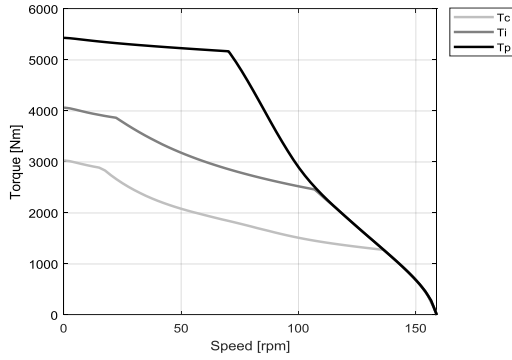
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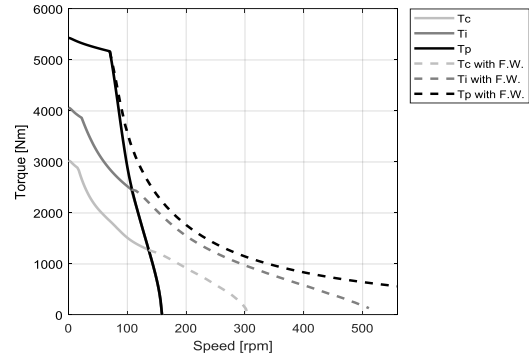
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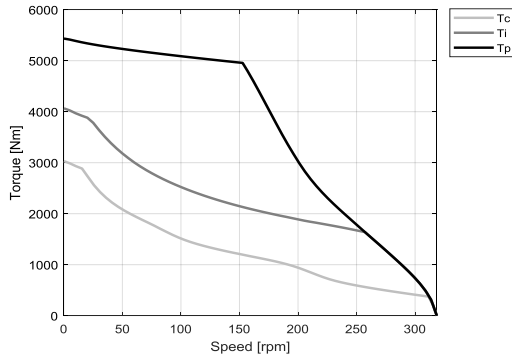
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