

MOTOR PERFORMANCE		Winding codes	TB	VB	TF	UF
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	WATER COOLING
<b>Tp</b>	Peak torque	Nm	2200	2210	2210	2210
<b>Ti</b>	Intermittent torque	Nm	1770	1680	1770	1740
<b>Tc</b>	Continuous torque	Nm	1300	1220	1300	1280
<b>Ts</b>	Standstill torque	Nm	1050	976	1050	1020
<b>Ip</b>	Peak current	Arms	42.1	76.4	127	170
<b>Ii</b>	Intermittent current	Arms	30.1	49.8	90.3	117
<b>Ic</b>	Continuous current	Arms	19.0	31.5	57.1	74.1
<b>Is</b>	Standstill current	Arms	14.4	23.9	43.3	56.2
<b>ns</b>	Rated low speed	rpm	0.22	0.23	0.22	0.22
<b>nm</b>	Maximum speed without flux weakening	rpm	83.8	151	252	336
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	222	335	480	582
<b>ton,p</b>	Maximum ON time for peak cycle	s	8.6	5.8	8.3	7.3
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	2.8	2.8	2.8	2.8
<b>Pp</b>	Power dissipation @ Ip	W	30200	36000	30800	32600
<b>Pi</b>	Power dissipation @ Ii	W	19900	19300	19900	19800
<b>Pc</b>	Power dissipation @ Ic	W	7960	7720	7960	7930
<b>Td</b>	Max. detent torque (average to peak)	Nm	5.9	5.9	5.9	5.9

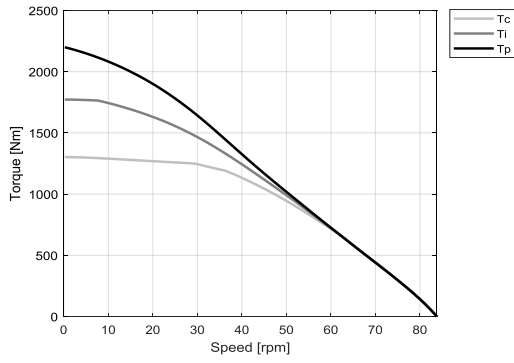
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	82.4	45.8	27.5	20.6
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	47.3	26.3	15.8	11.8
<b>Km</b>	Motor constant	Nm/√W	20.7	19.3	20.7	20.2
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	10.5	3.75	1.17	0.693
<b>Ld/Lq</b>	Electrical inductance (*)	mH	105 / 91.6	32.3 / 29.0	11.6 / 10.2	6.54 / 5.78
<b>Isc</b>	Maximum short-circuit current	Arms	15.8	28.5	47.5	63.3
<b>nb</b>	Base speed	rpm	36.3	110	214	296
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	7.71	74.9	174	252
<b>nb,p</b>	Base speed at peak duty cycle	rpm	0.00	45.3	118	166
<b>nn</b>	Rated speed	rpm	25.3	93.4	194	272
<b>Tn</b>	Rated torque	Nm	1260	886	659	573
<b>In</b>	Rated current	Arms	18.9	22.2	27.0	31.5
<b>rth</b>	Thermal time constant	s	82.4	79.5	82.4	81.1
<b>Rth</b>	Thermal resistance	K/W	0.0122	0.0124	0.0122	0.0122
<b>2p</b>	Number of poles	-	66	66	66	66
<b>J</b>	Rotor inertia	kg·m²	0.323	0.323	0.323	0.323
<b>mr</b>	Rotor mass	kg	16.3	16.3	16.3	16.3
<b>ms</b>	Stator mass	kg	57.3	56.4	57.3	57.0

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	0.280	0.280	0.280	0.280
<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	25	24	25	25
<b>Δpw</b>	Max. pressure drop at qw	bar	2.1	2.0	2.1	2.1

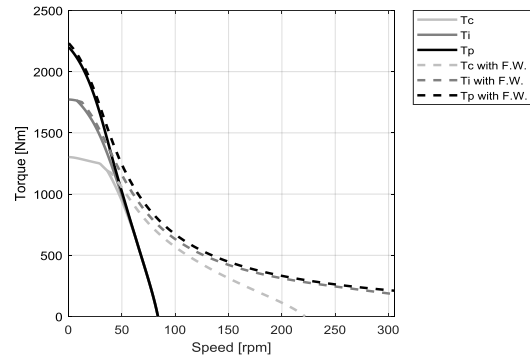
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.  
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

**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.

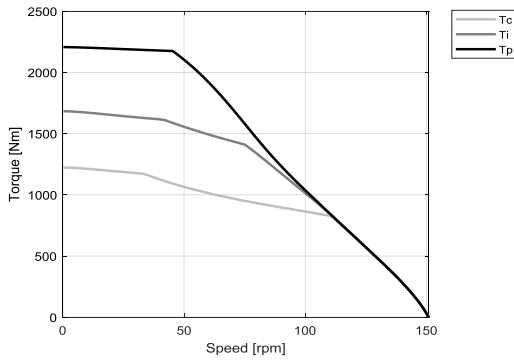
**TB - WATER COOLING**



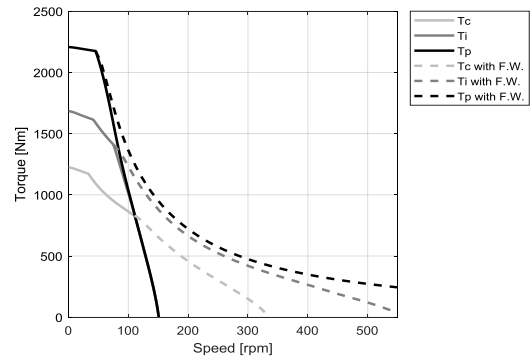
**TB - WATER COOLING**



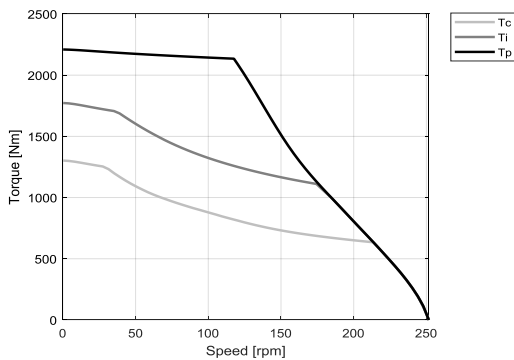
**VB - WATER COOLING**



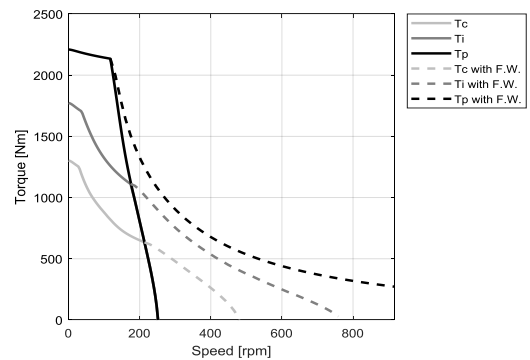
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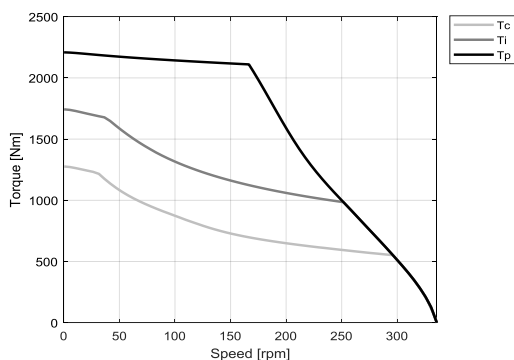
**TF - WATER COOLING**



**TF - WATER COOLING**



**UF - WATER COOLING**



**UF - WATER COOLING**

