

MOTOR PERFORMANCE		Winding codes	UA	TB	UB	
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	
Tp	Peak torque	Nm	1540	1560	1560	
Ti	Intermittent torque	Nm	1150	1190	1150	
Tc	Continuous torque	Nm	782	813	782	
Ts	Standstill torque	Nm	600	625	600	
Ip	Peak current	Arms	36.9	55.3	75.2	
Ii	Intermittent current	Arms	25.5	39.2	51.1	
Ic	Continuous current	Arms	16.1	24.8	32.3	
Is	Standstill current	Arms	12.2	18.8	24.5	
ns	Rated low speed	rpm	0.47	0.46	0.47	
nm	Maximum speed without flux weakening	rpm	132	195	264	
nm,FW	Maximum speed with flux weakening	rpm	263	361	449	
ton,p	Maximum ON time for peak cycle	s	3.8	4.3	3.6	
ton,i	Maximum ON time for intermittent cycle	s	2.7	2.7	2.7	
Pp	Power dissipation @ Ip	W	26500	25500	27600	
Pi	Power dissipation @ Ii	W	15900	16200	15900	
Pc	Power dissipation @ Ic	W	6380	6480	6380	
Td	Max. detent torque (average to peak)	Nm	3.9	3.9	3.9	

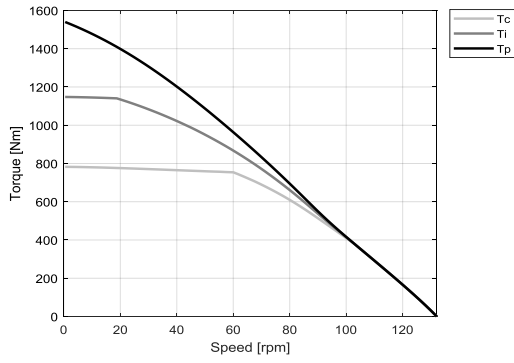
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	52.4	35.6	26.2	
Ku	Back EMF constant (*)	Vrms/(rad/s)	30.0	20.4	15.0	
Km	Motor constant	Nm/√W	12.4	12.8	12.4	
R20	Electrical resistance at 20°C (*)	Ohm	12.0	5.13	2.99	
Ld/Lq	Electrical inductance (*)	mH	45.8 / 42.7	21.2 / 19.5	11.5 / 10.7	
Isc	Maximum short-circuit current	Arms	22.9	33.7	45.8	
nb	Base speed	rpm	60.0	145	216	
nb,i	Base speed at intermittent duty cycle	rpm	18.8	80.3	170	
nb,p	Base speed at peak duty cycle	rpm	0.00	64.7	112	
nn	Rated speed	rpm	47.1	122	191	
Tn	Rated torque	Nm	761	631	525	
In	Rated current	Arms	16.1	19.8	22.4	
rth	Thermal time constant	s	38.8	39.8	38.8	
Rth	Thermal resistance	K/W	0.0141	0.0140	0.0141	
2p	Number of poles	-	66	66	66	
J	Rotor inertia	kg·m²	0.189	0.189	0.189	
mr	Rotor mass	kg	13.6	13.6	13.6	
ms	Stator mass	kg	28.5	28.7	28.5	

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600	600	
Di	Intermittent duty cycle	%	40	40	40	
Dp	Peak duty cycle	%	5.0	5.0	5.0	
Sr	Rotor exchange surface	m²	0.210	0.210	0.210	
θamb	Ambient temperature	°C	20	20	20	
θmax	Maximum coil temperature	°C	130	130	130	
θw	Inlet water temperature	°C	20	20	20	
Δθw	Water temperature difference for Pc	K	5.0	5.0	5.0	
qw	Minimum water flow for Δθw	l/min	20	20	20	
Δpw	Max. pressure drop at qw	bar	2.0	2.1	2.0	

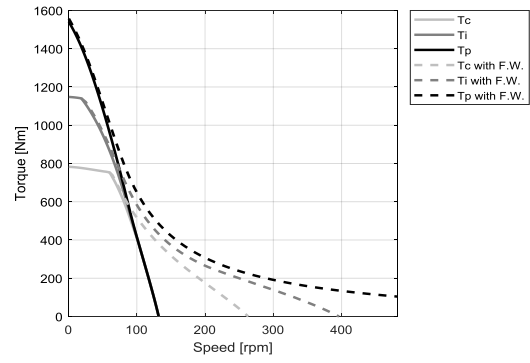
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

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.

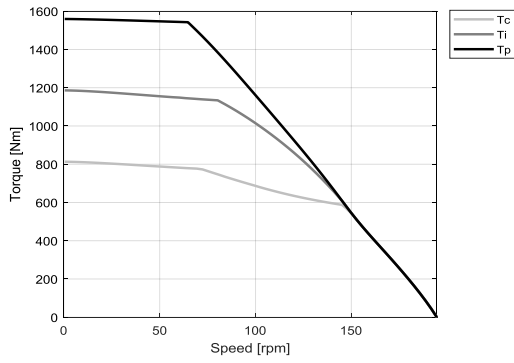
UA - WATER COOLING



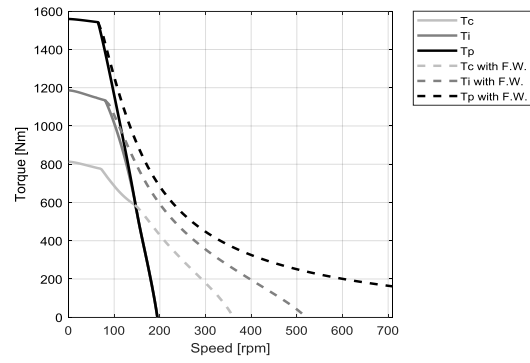
UA - WATER COOLING



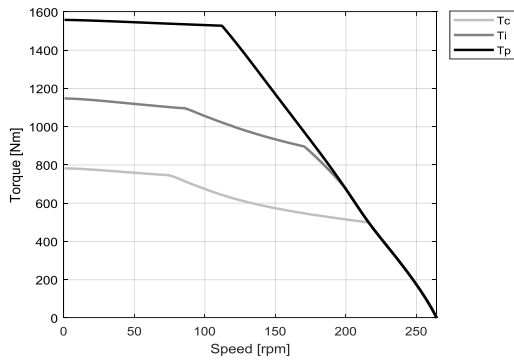
TB - WATER COOLING



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