

MOTOR PERFORMANCE		Winding codes	UF	UL	WL	
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	
Tp	Peak torque	Nm	11600	11600	11600	
Ti	Intermittent torque	Nm	8760	8760	8920	
Tc	Continuous torque	Nm	6510	6510	6660	
Ts	Standstill torque	Nm	5250	5250	5380	
Ip	Peak current	Arms	156	312	452	
Ii	Intermittent current	Arms	92.7	185	278	
Ic	Continuous current	Arms	58.6	117	176	
Is	Standstill current	Arms	44.4	88.9	133	
ns	Rated low speed	rpm	0.070	0.070	0.068	
nm	Maximum speed without flux weakening	rpm	51.1	102	148	
nm,FW	Maximum speed with flux weakening	rpm	133	210	263	
ton,p	Maximum ON time for peak cycle	s	7.9	7.9	9.0	
ton,i	Maximum ON time for intermittent cycle	s	2.8	2.8	2.8	
Pp	Power dissipation @ Ip	W	85500	85500	80000	
Pi	Power dissipation @ Ii	W	37800	37800	38000	
Pc	Power dissipation @ Ic	W	15100	15100	15200	
Td	Max. detent torque (average to peak)	Nm	31	31	31	

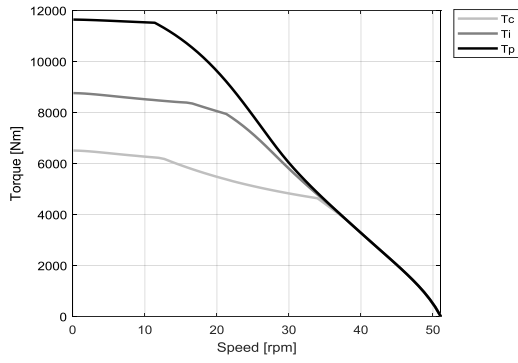
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	135	67.7	46.7	
Ku	Back EMF constant (*)	Vrms/(rad/s)	77.7	38.9	26.8	
Km	Motor constant	Nm/√W	76.4	76.4	78.7	
R20	Electrical resistance at 20°C (*)	Ohm	2.09	0.523	0.234	
Ld/Lq	Electrical inductance (*)	mH	31.8 / 26.9	7.96 / 6.73	3.78 / 3.16	
Isc	Maximum short-circuit current	Arms	42.7	85.4	124	
nb	Base speed	rpm	33.8	85.5	132	
nb,i	Base speed at intermittent duty cycle	rpm	21.0	66.8	109	
nb,p	Base speed at peak duty cycle	rpm	11.4	43.2	69.8	
nn	Rated speed	rpm	28.7	76.9	121	
Tn	Rated torque	Nm	4890	3270	2640	
In	Rated current	Arms	42.6	54.4	64.4	
rth	Thermal time constant	s	130	130	133	
Rth	Thermal resistance	K/W	0.00663	0.00663	0.00661	
2p	Number of poles	-	132	132	132	
J	Rotor inertia	kg·m²	4.95	4.95	4.95	
mr	Rotor mass	kg	44.3	44.3	44.3	
ms	Stator mass	kg	167	167	169	

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	0.690	0.690	0.690	
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	47	47	48	
Δpw	Max. pressure drop at qw	bar	3.9	3.9	4.0	

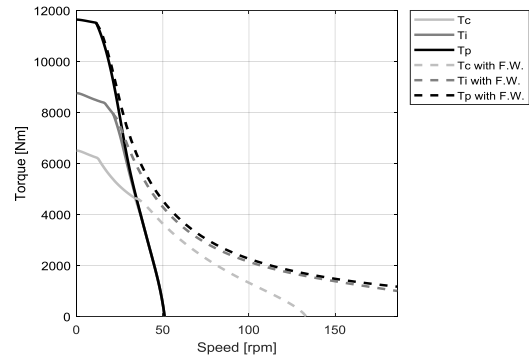
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

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.

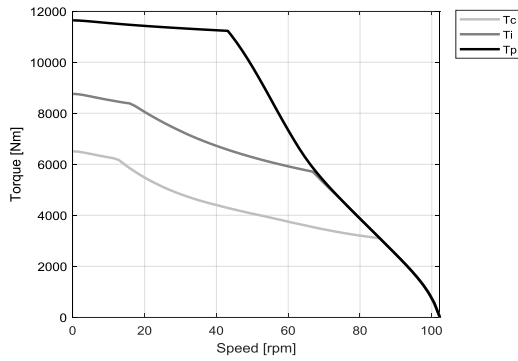
UF - WATER COOLING



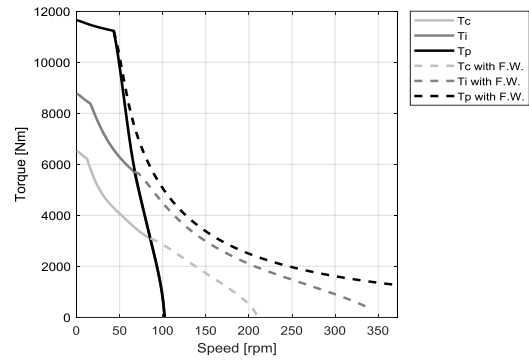
UF - WATER COOLING



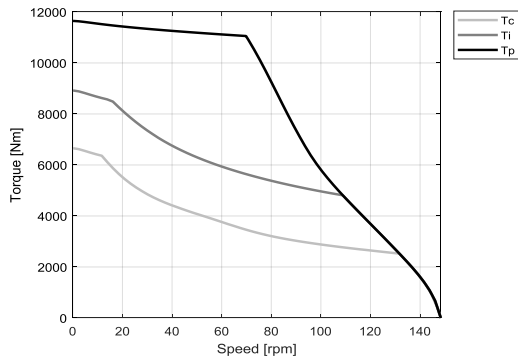
UL - WATER COOLING



UL - WATER COOLING



WL - WATER COOLING



WL - WATER COOLING

