

MOTOR PERFORMANCE		Winding codes	UL	XL		
		UNIT	WATER COOLING	WATER COOLING		
Tp	Peak torque	Nm	5460	5460		
Ti	Intermittent torque	Nm	4200	4170		
Tc	Continuous torque	Nm	3130	3100		
Ts	Standstill torque	Nm	2540	2510		
Ip	Peak current	Arms	310	602		
Ii	Intermittent current	Arms	196	375		
Ic	Continuous current	Arms	124	237		
Is	Standstill current	Arms	94.1	180		
ns	Rated low speed	rpm	0.050	0.049		
nm	Maximum speed without flux weakening	rpm	218	424		
nm,FW	Maximum speed with flux weakening	rpm	805	895		
ton,p	Maximum ON time for peak cycle	s	16	15		
ton,i	Maximum ON time for intermittent cycle	s	3.2	3.2		
Pp	Power dissipation @ Ip	W	40100	41500		
Pi	Power dissipation @ Ii	W	20500	20400		
Pc	Power dissipation @ Ic	W	8190	8170		
Td	Max. detent torque (average to peak)	Nm	15	15		

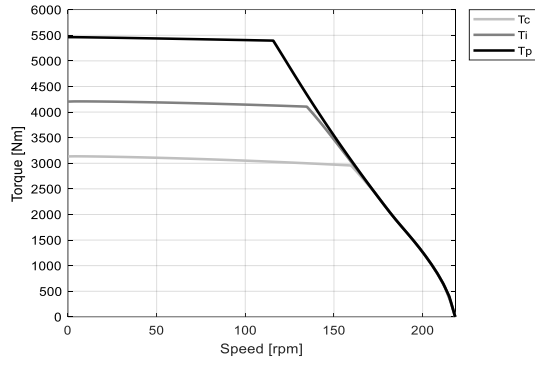
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	30.7	15.8		
Ku	Back EMF constant (*)	Vrms/(rad/s)	18.2	9.37		
Km	Motor constant	Nm/√W	50.0	49.2		
R20	Electrical resistance at 20°C (*)	Ohm	0.252	0.0689		
Ld/Lq	Electrical inductance (*)	mH	2.76 / 2.41	0.733 / 0.643		
Isc	Maximum short-circuit current	Arms	115	223		
nb	Base speed	rpm	160	338		
nb,i	Base speed at intermittent duty cycle	rpm	135	281		
nb,p	Base speed at peak duty cycle	rpm	116	236		
nn	Rated speed	rpm	142	301		
Tn	Rated torque	Nm	2990	2590		
In	Rated current	Arms	118	199		
rth	Thermal time constant	s	183	185		
Rth	Thermal resistance	K/W	0.0124	0.0124		
2p	Number of poles	-	132	132		
J	Rotor inertia	kg·m²	7.47	7.47		
mr	Rotor mass	kg	74.9	74.9		
ms	Stator mass	kg	118	119		

MOTOR ENVIRONMENT		UNIT				
Udc	Nominal DC bus voltage	VDC	600	600		
Di	Intermittent duty cycle	%	40	40		
Dp	Peak duty cycle	%	5.0	5.0		
Sr	Rotor exchange surface	m²	0.407	0.407		
θamb	Ambient temperature	°C	20	20		
θmax	Maximum coil temperature	°C	130	130		
θw	Inlet water temperature	°C	20	20		
Δθw	Water temperature difference for Pc	K	5.0	5.0		
qw	Minimum water flow for Δθw	l/min	26	26		
Δpw	Max. pressure drop at qw	bar	1.1	1.1		

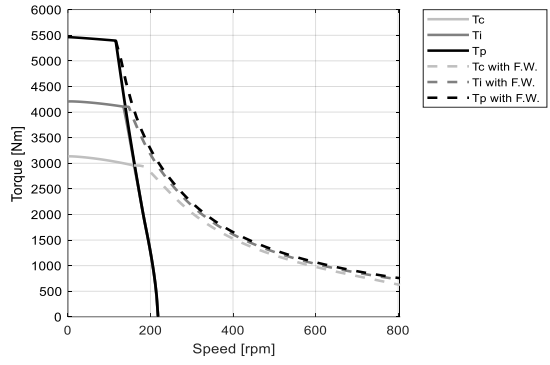
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

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.

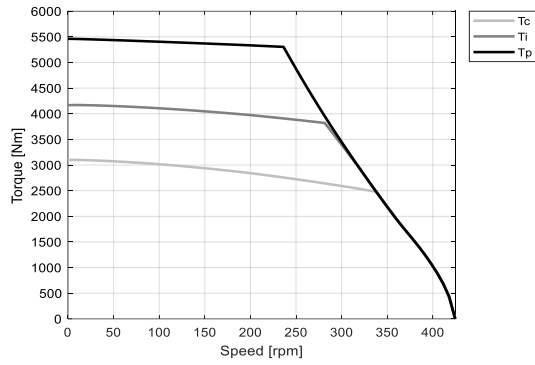
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