

MOTOR PERFORMANCE		Winding codes	UL	XL		
		UNIT	WATER COOLING	WATER COOLING		
Tp	Peak torque	Nm	3760	3760		
Ti	Intermittent torque	Nm	2890	2850		
Tc	Continuous torque	Nm	2150	2120		
Ts	Standstill torque	Nm	1750	1720		
Ip	Peak current	Arms	305	592		
Ii	Intermittent current	Arms	192	365		
Ic	Continuous current	Arms	122	231		
Is	Standstill current	Arms	92.1	175		
ns	Rated low speed	rpm	0.048	0.048		
nm	Maximum speed without flux weakening	rpm	306	595		
nm,FW	Maximum speed with flux weakening	rpm	825	825		
ton,p	Maximum ON time for peak cycle	s	17	15		
ton,i	Maximum ON time for intermittent cycle	s	3.2	3.2		
Pp	Power dissipation @ Ip	W	30900	32500		
Pi	Power dissipation @ Ii	W	15600	15600		
Pc	Power dissipation @ Ic	W	6260	6250		
Td	Max. detent torque (average to peak)	Nm	11	11		

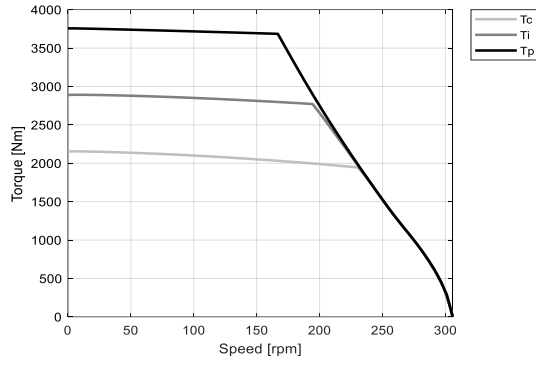
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	21.8	11.2		
Ku	Back EMF constant (*)	Vrms/(rad/s)	13.0	6.69		
Km	Motor constant	Nm/√W	39.8	38.8		
R20	Electrical resistance at 20°C (*)	Ohm	0.200	0.0555		
Ld/Lq	Electrical inductance (*)	mH	2.00 / 1.76	0.531 / 0.470		
Isc	Maximum short-circuit current	Arms	114	221		
nb	Base speed	rpm	230	503		
nb,i	Base speed at intermittent duty cycle	rpm	194	409		
nb,p	Base speed at peak duty cycle	rpm	167	336		
nn	Rated speed	rpm	205	449		
Tn	Rated torque	Nm	1980	1490		
In	Rated current	Arms	112	161		
rth	Thermal time constant	s	189	191		
Rth	Thermal resistance	K/W	0.0165	0.0164		
2p	Number of poles	-	132	132		
J	Rotor inertia	kg·m²	5.81	5.81		
mr	Rotor mass	kg	58.5	58.5		
ms	Stator mass	kg	98.3	98.6		

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	0.328	0.328		
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	20	20		
Δpw	Max. pressure drop at qw	bar	0.8	0.8		

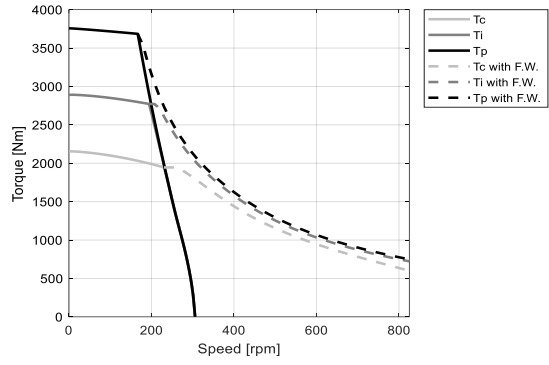
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

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.

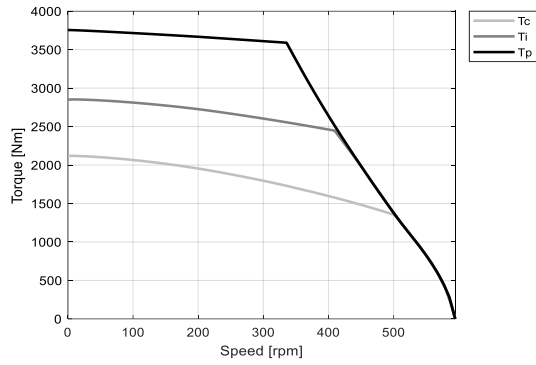
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