

MOTOR PERFORMANCE		Winding codes	UC	UF		
		UNIT	WATER COOLING	WATER COOLING		
Tp	Peak torque	Nm	1760	1760		
Ti	Intermittent torque	Nm	1370	1370		
Tc	Continuous torque	Nm	1030	1030		
Ts	Standstill torque	Nm	839	839		
Ip	Peak current	Arms	96.0	192		
Ii	Intermittent current	Arms	60.6	121		
Ic	Continuous current	Arms	38.4	76.7		
Is	Standstill current	Arms	29.1	58.1		
ns	Rated low speed	rpm	0.20	0.20		
nm	Maximum speed without flux weakening	rpm	204	408		
nm,FW	Maximum speed with flux weakening	rpm	751	1500		
ton,p	Maximum ON time for peak cycle	s	8.3	8.3		
ton,i	Maximum ON time for intermittent cycle	s	3.1	3.1		
Pp	Power dissipation @ Ip	W	30700	30700		
Pi	Power dissipation @ Ii	W	15300	15300		
Pc	Power dissipation @ Ic	W	6130	6130		
Td	Max. detent torque (average to peak)	Nm	6.0	6.0		

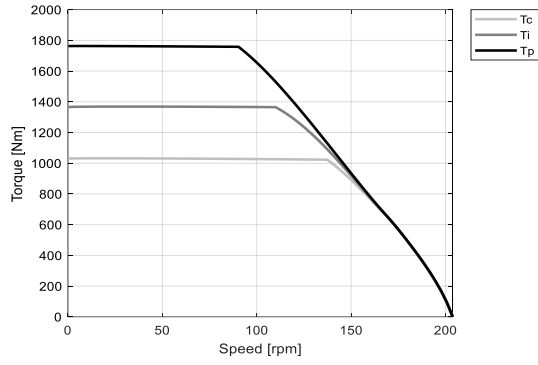
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	32.6	16.3		
Ku	Back EMF constant (*)	Vrms/(rad/s)	19.5	9.74		
Km	Motor constant	Nm/√W	18.8	18.8		
R20	Electrical resistance at 20°C (*)	Ohm	2.01	0.503		
Ld/Lq	Electrical inductance (*)	mH	16.7 / 14.6	4.18 / 3.64		
Isc	Maximum short-circuit current	Arms	40.7	81.5		
nb	Base speed	rpm	137	308		
nb,i	Base speed at intermittent duty cycle	rpm	110	261		
nb,p	Base speed at peak duty cycle	rpm	90.4	224		
nn	Rated speed	rpm	120	273		
Tn	Rated torque	Nm	1030	1000		
In	Rated current	Arms	38.1	74.6		
rth	Thermal time constant	s	92.9	92.9		
Rth	Thermal resistance	K/W	0.0154	0.0154		
2p	Number of poles	-	66	66		
J	Rotor inertia	kg·m²	0.473	0.473		
mr	Rotor mass	kg	28.6	28.6		
ms	Stator mass	kg	40.9	40.9		

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	0.124	0.124		
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	19	19		
Δpw	Max. pressure drop at qw	bar	1.2	1.2		

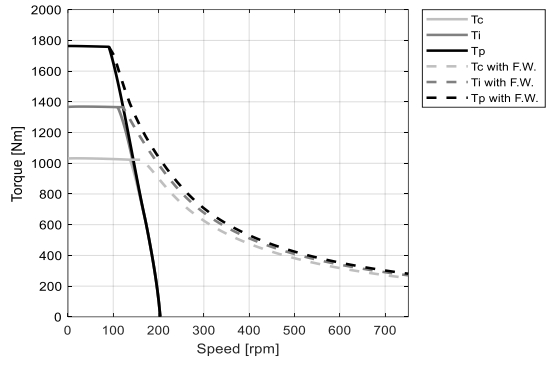
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

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.

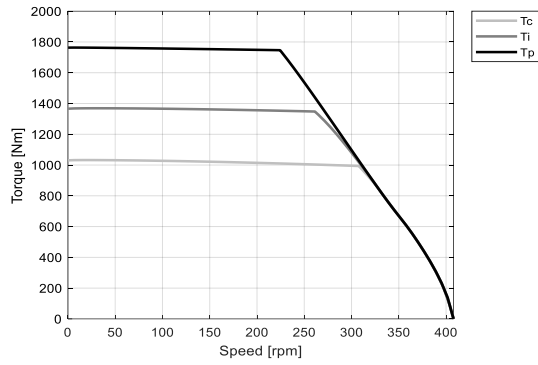
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