

MOTOR PERFORMANCE		Winding codes	XD	XH		
		UNIT	WATER COOLING	WATER COOLING		
Tp	Peak torque	Nm	2380	2380		
Ti	Intermittent torque	Nm	1950	1950		
Tc	Continuous torque	Nm	1480	1480		
Ts	Standstill torque	Nm	1210	1210		
Ip	Peak current	Arms	185	370		
Ii	Intermittent current	Arms	133	265		
Ic	Continuous current	Arms	83.9	168		
Is	Standstill current	Arms	63.5	127		
ns	Rated low speed	rpm	0.086	0.086		
nm	Maximum speed without flux weakening	rpm	310	622		
nm,FW	Maximum speed with flux weakening	rpm	1140	1260		
ton,p	Maximum ON time for peak cycle	s	21	21		
ton,i	Maximum ON time for intermittent cycle	s	3.1	3.1		
Pp	Power dissipation @ Ip	W	22900	22900		
Pi	Power dissipation @ Ii	W	15300	15300		
Pc	Power dissipation @ Ic	W	6110	6110		
Td	Max. detent torque (average to peak)	Nm	9.8	9.8		

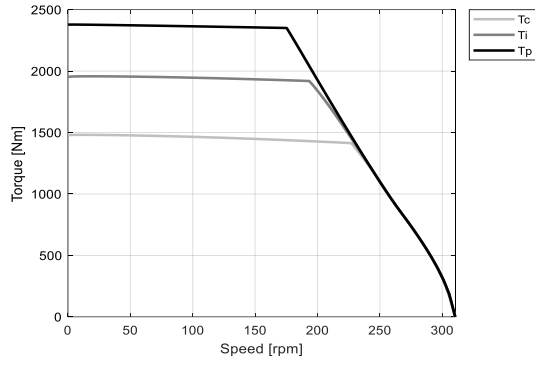
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	21.4	10.7		
Ku	Back EMF constant (*)	Vrms/(rad/s)	12.8	6.40		
Km	Motor constant	Nm/√W	27.2	27.2		
R20	Electrical resistance at 20°C (*)	Ohm	0.413	0.103		
Ld/Lq	Electrical inductance (*)	mH	4.31 / 3.68	1.08 / 0.919		
Isc	Maximum short-circuit current	Arms	78.0	156		
nb	Base speed	rpm	227	492		
nb,i	Base speed at intermittent duty cycle	rpm	193	417		
nb,p	Base speed at peak duty cycle	rpm	175	370		
nn	Rated speed	rpm	202	439		
Tn	Rated torque	Nm	1430	1270		
In	Rated current	Arms	80.8	145		
rth	Thermal time constant	s	159	159		
Rth	Thermal resistance	K/W	0.0164	0.0164		
2p	Number of poles	-	88	88		
J	Rotor inertia	kg·m²	1.77	1.77		
mr	Rotor mass	kg	42.7	42.7		
ms	Stator mass	kg	61.3	61.3		

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	0.172	0.172		
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	0.8	0.8		

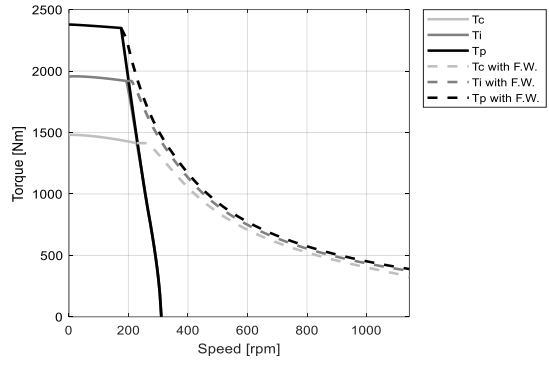
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

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.

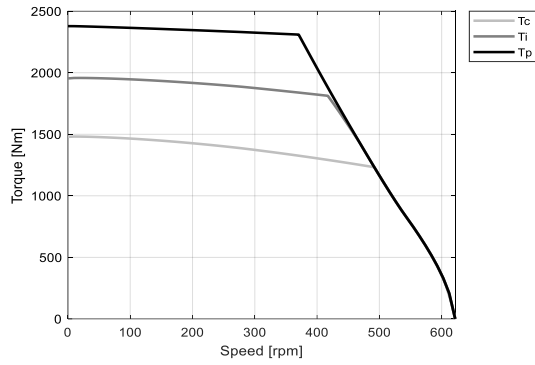
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