

MOTOR PERFORMANCE		Winding codes	WB	WE		
		UNIT	WATER COOLING	WATER COOLING		
TP	Peak torque	Nm	5310	5310		
TI	Intermittent torque	Nm	3930	3930		
TC	Continuous torque	Nm	2830	2830		
TS	Standstill torque	Nm	2250	2250		
IP	Peak current	Arms	73.8	184		
II	Intermittent current	Arms	46.6	117		
IC	Continuous current	Arms	29.5	73.7		
IS	Standstill current	Arms	22.3	55.9		
NS	Rated low speed	rpm	0.14	0.14		
NM	Maximum speed without flux weakening	rpm	62.0	155		
NM,FW	Maximum speed with flux weakening	rpm	227	454		
TON,p	Maximum ON time for peak cycle	s	9.7	9.7		
TON,i	Maximum ON time for intermittent cycle	s	2.7	2.7		
PP	Power dissipation @ Ip	W	49200	49200		
PI	Power dissipation @ Ii	W	24800	24800		
PC	Power dissipation @ Ic	W	9920	9920		
TD	Max. detent torque (average to peak)	Nm	25	25		

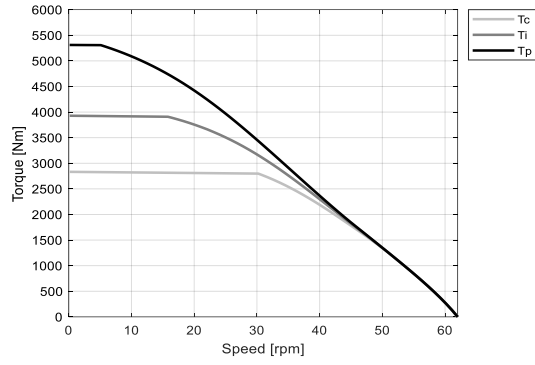
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	110	44.1		
Ku	Back EMF constant (*)	Vrms/(rad/s)	64.0	25.6		
Km	Motor constant	Nm/√W	38.5	38.5		
R20	Electrical resistance at 20°C (*)	Ohm	5.46	0.873		
Ld/Lq	Electrical inductance (*)	mH	94.8 / 86.5	15.2 / 13.8		
Isc	Maximum short-circuit current	Arms	31.2	77.9		
nb	Base speed	rpm	30.2	111		
nb,i	Base speed at intermittent duty cycle	rpm	15.8	86.6		
nb,p	Base speed at peak duty cycle	rpm	5.11	70.8		
nn	Rated speed	rpm	24.9	96.2		
Tn	Rated torque	Nm	2800	2680		
In	Rated current	Arms	29.4	71.1		
rth	Thermal time constant	s	170	170		
Rth	Thermal resistance	K/W	0.00989	0.00989		
2p	Number of poles	-	50	50		
J	Rotor inertia	kg·m²	0.883	0.883		
mr	Rotor mass	kg	28.8	28.8		
ms	Stator mass	kg	100	100		

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	0.459	0.459		
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	31	31		
Δpw	Max. pressure drop at qw	bar	2.7	2.7		

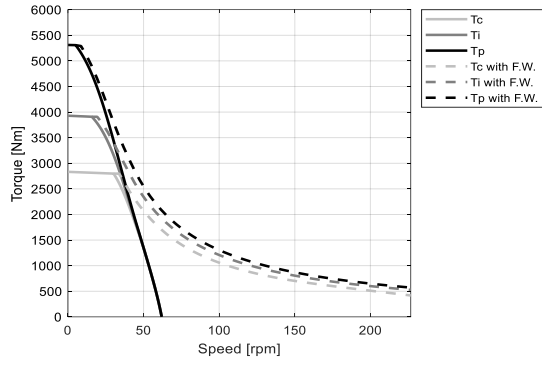
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

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.

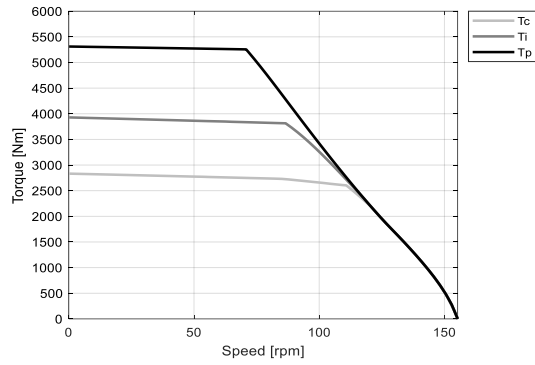
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