

MOTOR PERFORMANCE		Winding codes	3UBS	3XBS		
		UNIT	WATER COOLING	WATER COOLING		
Tp	Peak torque	Nm	362	362		
Ti	Intermittent torque	Nm	322	320		
Tc	Continuous torque	Nm	250	248		
Ts	Standstill torque	Nm	206	204		
Ip	Peak current	Arms	50.2	96.0		
Ii	Intermittent current	Arms	44.0	83.0		
Ic	Continuous current	Arms	27.9	52.5		
Is	Standstill current	Arms	21.1	39.8		
ns	Rated low speed	rpm	0.65	0.64		
nm	Maximum speed without flux weakening	rpm	587	1120		
nm,FW	Maximum speed with flux weakening	rpm	2140	4080		
ton,p	Maximum ON time for peak cycle	s	26	25		
ton,i	Maximum ON time for intermittent cycle	s	7.8	7.9		
Pp	Power dissipation @ Ip	W	9600	9950		
Pi	Power dissipation @ Ii	W	9700	9770		
Pc	Power dissipation @ Ic	W	3880	3910		
Td	Max. detent torque (average to peak)	Nm	3.0	3.0		

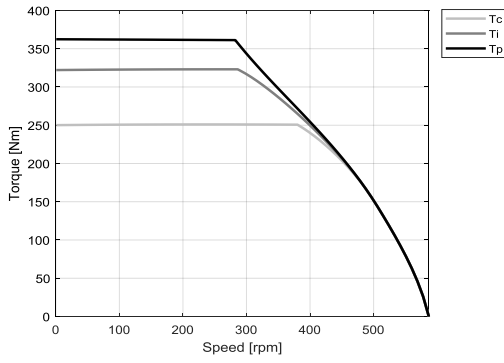
MOTOR SETTING		UNIT				
Kt	Torque constant	Nm/Arms	11.6	6.05		
Ku	Back EMF constant (*)	Vrms/(rad/s)	6.77	3.54		
Km	Motor constant	Nm/√W	6.10	5.99		
R20	Electrical resistance at 20°C (*)	Ohm	2.40	0.680		
Ld/Lq	Electrical inductance (*)	mH	31.5 / 23.4	8.63 / 6.42		
Isc	Maximum short-circuit current	Arms	22.6	43.1		
nb	Base speed	rpm	380	801		
nb,i	Base speed at intermittent duty cycle	rpm	286	623		
nb,p	Base speed at peak duty cycle	rpm	282	593		
nn	Rated speed	rpm	335	712		
Tn	Rated torque	Nm	251	245		
In	Rated current	Arms	28.2	52.3		
rth	Thermal time constant	s	84.5	84.9		
Rth	Thermal resistance	K/W	0.0250	0.0248		
2p	Number of poles	-	22	22		
J	Rotor inertia	kg·m²	0.0212	0.0212		
mr	Rotor mass	kg	11.0	11.0		
ms	Stator mass	kg	23.4	23.4		

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	0.046	0.046		
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	11	11		
Δpw	Max. pressure drop at qw	bar	0.5	0.5		

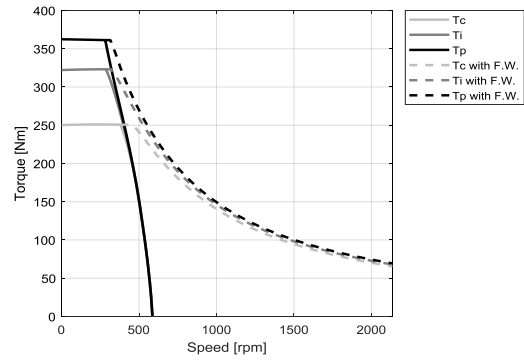
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

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.

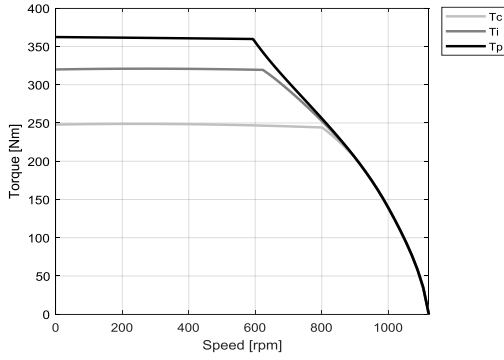
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