

MOTOR PERFORMANCE		Winding codes	UA	UB		
		UNIT	WATER COOLING	WATER COOLING		
 Tp 	Peak torque	Nm	187	187		
 Ti 	Intermittent torque	Nm	145	145		
 Tc 	Continuous torque	Nm	109	109		
 Ts 	Standstill torque	Nm	88.0	88.0		
 Ip 	Peak current	Arms	28.0	56.0		
 Ii 	Intermittent current	Arms	17.8	35.5		
 Ic 	Continuous current	Arms	11.2	22.5		
 Is 	Standstill current	Arms	8.51	17.0		
 ns 	Rated low speed	rpm	0.50	0.50		
 nm 	Maximum speed without flux weakening	rpm	595	1190		
 nm,FW 	Maximum speed with flux weakening	rpm	2190	4380		
 ton,p 	Maximum ON time for peak cycle	s	12	12		
 ton,i 	Maximum ON time for intermittent cycle	s	3.1	3.1		
 Pp 	Power dissipation @ Ip	W	8560	8560		
 Pi 	Power dissipation @ Ii	W	4360	4360		
 Pc 	Power dissipation @ Ic	W	1750	1750		
 Td 	Max. detent torque (average to peak)	Nm	1.4	1.4		

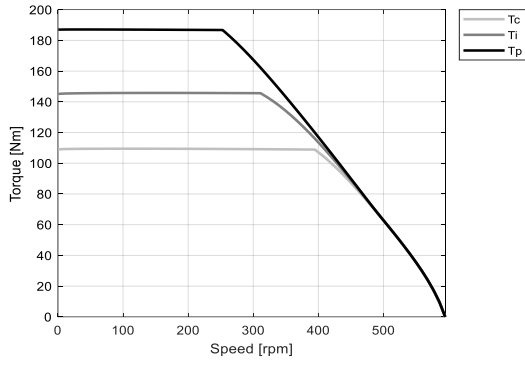
MOTOR SETTING		UNIT				
 Kt 	Torque constant	Nm/Arms	11.4	5.68		
 Ku 	Back EMF constant (*)	Vrms/(rad/s)	6.68	3.34		
 Km 	Motor constant	Nm/√W	3.61	3.61		
 R20 	Electrical resistance at 20°C (*)	Ohm	6.59	1.65		
 Ld/Lq 	Electrical inductance (*)	mH	62.2 / 53.9	15.6 / 13.5		
 Isc 	Maximum short-circuit current	Arms	11.3	22.5		
 nb 	Base speed	rpm	395	878		
 nb,i 	Base speed at intermittent duty cycle	rpm	311	730		
 nb,p 	Base speed at peak duty cycle	rpm	253	614		
 nn 	Rated speed	rpm	346	781		
 Tn 	Rated torque	Nm	109	107		
 In 	Rated current	Arms	11.2	22.1		
 rth 	Thermal time constant	s	108	108		
 Rth 	Thermal resistance	K/W	0.0574	0.0574		
 2p 	Number of poles	-	22	22		
 J 	Rotor inertia	kg·m²	0.0106	0.0106		
 mr 	Rotor mass	kg	5.58	5.58		
 ms 	Stator mass	kg	13.2	13.2		

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	0.030	0.030		
 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	5.5	5.5		
 Δpw 	Max. pressure drop at qw	bar	0.2	0.2		

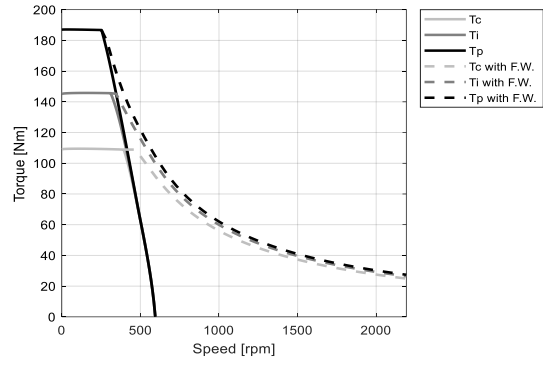
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

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.

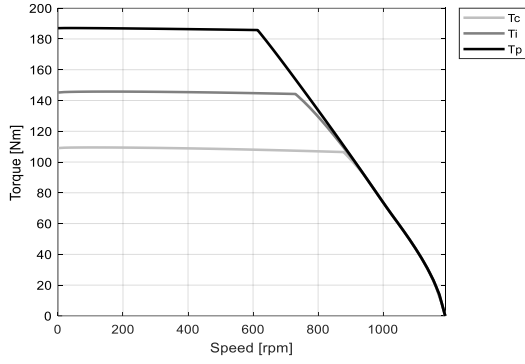
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