

MOTOR PERFORMANCE		Winding codes	VB	VE		
		UNIT	WATER COOLING	WATER COOLING		
 Tp 	Peak torque	Nm	2100	2100		
 Ti 	Intermittent torque	Nm	1560	1560		
 Tc 	Continuous torque	Nm	1130	1130		
 Ts 	Standstill torque	Nm	903	903		
 Ip 	Peak current	Arms	57.0	143		
 Ii 	Intermittent current	Arms	36.0	90.0		
 Ic 	Continuous current	Arms	22.8	56.9		
 Is 	Standstill current	Arms	17.3	43.1		
 ns 	Rated low speed	rpm	0.13	0.13		
 nm 	Maximum speed without flux weakening	rpm	117	294		
 nm,FW 	Maximum speed with flux weakening	rpm	429	550		
 ton,p 	Maximum ON time for peak cycle	s	13	13		
 ton,i 	Maximum ON time for intermittent cycle	s	2.7	2.7		
 Pp 	Power dissipation @ Ip	W	22900	22900		
 Pi 	Power dissipation @ Ii	W	11700	11700		
 Pc 	Power dissipation @ Ic	W	4680	4680		
 Td 	Max. detent torque (average to peak)	Nm	10	10		

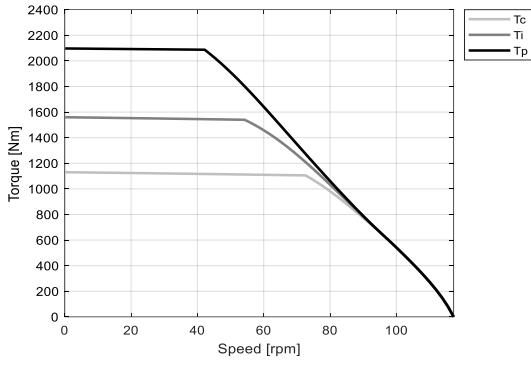
MOTOR SETTING		UNIT				
 Kt 	Torque constant	Nm/Arms	57.7	23.1		
 Ku 	Back EMF constant (*)	Vrms/(rad/s)	33.9	13.5		
 Km 	Motor constant	Nm/√W	22.9	22.9		
 R20 	Electrical resistance at 20°C (*)	Ohm	4.23	0.677		
 Ld/Lq 	Electrical inductance (*)	mH	65.5 / 60.5	10.5 / 9.68		
 Isc 	Maximum short-circuit current	Arms	23.9	59.7		
 nb 	Base speed	rpm	72.6	232		
 nb,i 	Base speed at intermittent duty cycle	rpm	54.2	185		
 nb,p 	Base speed at peak duty cycle	rpm	42.2	152		
 nn 	Rated speed	rpm	63.0	203		
 Tn 	Rated torque	Nm	1110	968		
 In 	Rated current	Arms	22.6	49.0		
 rth 	Thermal time constant	s	180	180		
 Rth 	Thermal resistance	K/W	0.0224	0.0224		
 2p 	Number of poles	-	50	50		
 J 	Rotor inertia	kg·m²	0.365	0.365		
 mr 	Rotor mass	kg	11.9	11.9		
 ms 	Stator mass	kg	49.0	49.0		

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	0.200	0.200		
 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	15	15		
 Δpw 	Max. pressure drop at qw	bar	0.7	0.7		

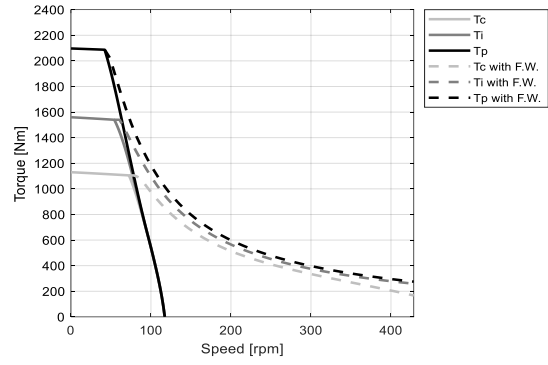
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.
Please refer to ETEL Integration Manual for the mass of the optional cooling jacket and the possible additional pressure drop.

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.

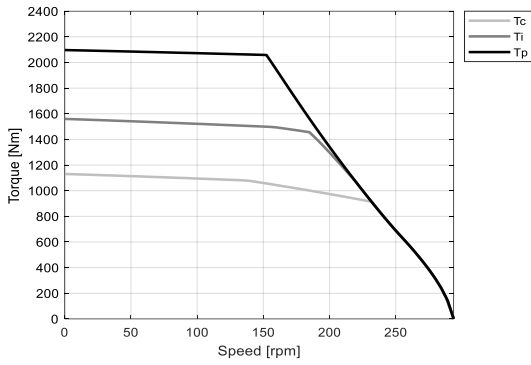
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