

MOTOR PERFORMANCE		Winding codes	UF	XF		
		UNIT	WATER COOLING	WATER COOLING		
 Tp 	Peak torque	Nm	2650	2440		
 Ti 	Intermittent torque	Nm	2050	1980		
 Tc 	Continuous torque	Nm	1540	1470		
 Ts 	Standstill torque	Nm	1250	1190		
 Ip 	Peak current	Arms	187	337		
 Ii 	Intermittent current	Arms	118	242		
 Ic 	Continuous current	Arms	74.9	153		
 Is 	Standstill current	Arms	56.8	116		
 ns 	Rated low speed	rpm	0.19	0.20		
 nm 	Maximum speed without flux weakening	rpm	272	591		
 nm,FW 	Maximum speed with flux weakening	rpm	1000	1570		
 ton,p 	Maximum ON time for peak cycle	s	7.5	11		
 ton,i 	Maximum ON time for intermittent cycle	s	3.0	3.1		
 Pp 	Power dissipation @ Ip	W	41300	30800		
 Pi 	Power dissipation @ Ii	W	20400	19900		
 Pc 	Power dissipation @ Ic	W	8140	7970		
 Td 	Max. detent torque (average to peak)	Nm	9.0	9.0		

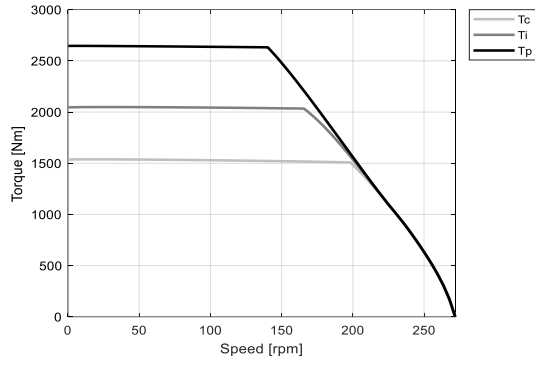
MOTOR SETTING		UNIT				
 Kt 	Torque constant	Nm/Arms	24.6	11.3		
 Ku 	Back EMF constant (*)	Vrms/(rad/s)	14.6	6.73		
 Km 	Motor constant	Nm/√W	23.7	22.5		
 R20 	Electrical resistance at 20°C (*)	Ohm	0.716	0.168		
 Ld/Lq 	Electrical inductance (*)	mH	6.23 / 5.45	1.32 / 1.17		
 Isc 	Maximum short-circuit current	Arms	82.0	178		
 nb 	Base speed	rpm	198	475		
 nb,i 	Base speed at intermittent duty cycle	rpm	166	408		
 nb,p 	Base speed at peak duty cycle	rpm	140	364		
 nn 	Rated speed	rpm	175	425		
 Tn 	Rated torque	Nm	1510	1370		
 In 	Rated current	Arms	73.9	143		
 rth 	Thermal time constant	s	93.5	92.4		
 Rth 	Thermal resistance	K/W	0.0107	0.0108		
 2p 	Number of poles	-	66	66		
 J 	Rotor inertia	kg·m²	0.679	0.679		
 mr 	Rotor mass	kg	41.0	41.0		
 ms 	Stator mass	kg	57.1	56.6		

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	0.162	0.162		
 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	25	25		
 Δpw 	Max. pressure drop at qw	bar	2.2	2.1		

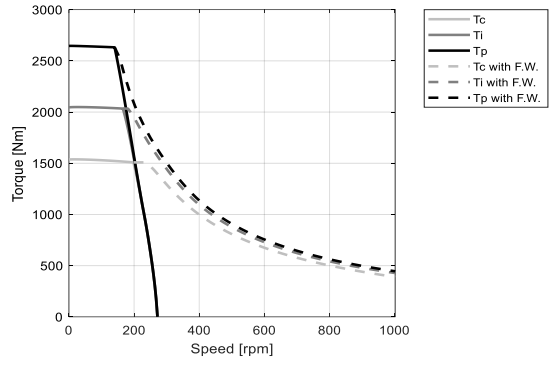
Notes: (*) terminal to terminal.
Hypotheses and tolerances are in ETEL Integration Manual.

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.

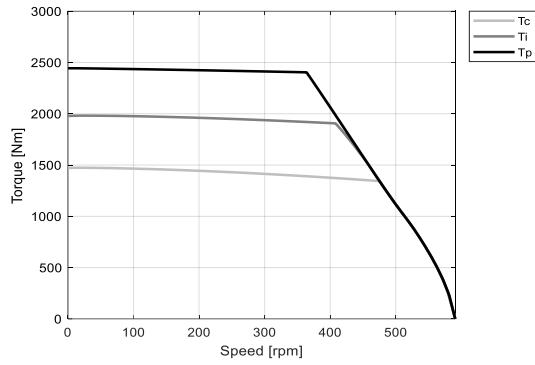
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