

MOTOR PERFORMANCE		Winding codes	UP	XP		
		UNIT	WATER COOLING	WATER COOLING		
<b>Tp</b>	Peak torque	Nm	20500	20600		
<b>Ti</b>	Intermittent torque	Nm	15600	15600		
<b>Tc</b>	Continuous torque	Nm	11500	11600		
<b>Ts</b>	Standstill torque	Nm	9240	9310		
<b>Ip</b>	Peak current	Arms	405	786		
<b>Ii</b>	Intermittent current	Arms	256	502		
<b>Ic</b>	Continuous current	Arms	162	318		
<b>Is</b>	Standstill current	Arms	123	241		
<b>ns</b>	Rated low speed	rpm	0.034	0.034		
<b>nm</b>	Maximum speed without flux weakening	rpm	80.2	156		
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	295	573		
<b>ton,p</b>	Maximum ON time for peak cycle	s	13	14		
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	3.1	3.1		
<b>Pp</b>	Power dissipation @ Ip	W	95800	94600		
<b>Pi</b>	Power dissipation @ Ii	W	47500	48000		
<b>Pc</b>	Power dissipation @ Ic	W	19000	19200		
<b>Td</b>	Max. detent torque (average to peak)	Nm	42	42		

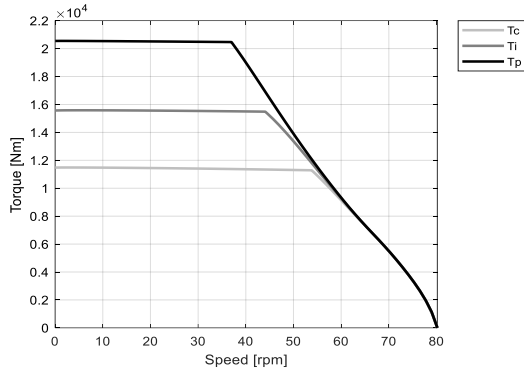
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	84.5	43.5		
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	49.6	25.5		
<b>Km</b>	Motor constant	Nm/√W	116	117		
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	0.351	0.0921		
<b>Ld/Lq</b>	Electrical inductance (*)	mH	4.32 / 3.85	1.15 / 1.02		
<b>Isc</b>	Maximum short-circuit current	Arms	151	293		
<b>nb</b>	Base speed	rpm	53.8	113		
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	44.1	94.7		
<b>nb,p</b>	Base speed at peak duty cycle	rpm	37.0	81.1		
<b>nn</b>	Rated speed	rpm	47.6	100		
<b>Tn</b>	Rated torque	Nm	11300	11000		
<b>In</b>	Rated current	Arms	160	303		
<b>rth</b>	Thermal time constant	s	202	202		
<b>Rth</b>	Thermal resistance	K/W	0.00478	0.00477		
<b>2p</b>	Number of poles	-	176	176		
<b>J</b>	Rotor inertia	kg·m²	38.1	38.1		
<b>mr</b>	Rotor mass	kg	207	207		
<b>ms</b>	Stator mass	kg	287	287		

MOTOR ENVIRONMENT		UNIT				
<b>Udc</b>	Nominal DC bus voltage	VDC	600	600		
<b>Di</b>	Intermittent duty cycle	%	40	40		
<b>Dp</b>	Peak duty cycle	%	5.0	5.0		
<b>Sr</b>	Rotor exchange surface	m²	0.583	0.583		
<b>θamb</b>	Ambient temperature	°C	20	20		
<b>θmax</b>	Maximum coil temperature	°C	130	130		
<b>θw</b>	Inlet water temperature	°C	20	20		
<b>Δθw</b>	Water temperature difference for Pc	K	10	10		
<b>qw</b>	Minimum water flow for Δθw	l/min	30	30		
<b>Δpw</b>	Max. pressure drop at qw	bar	1.6	1.6		

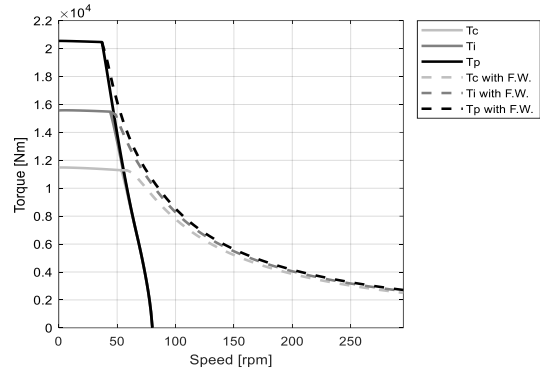
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.

**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.

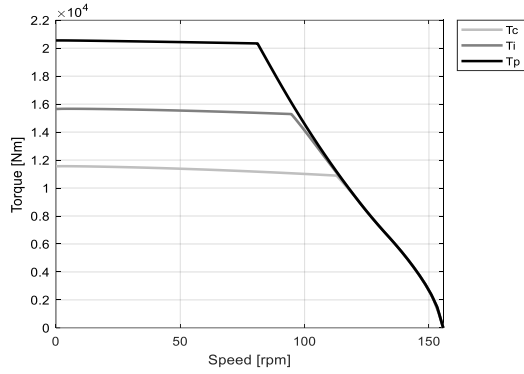
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