

MOTOR PERFORMANCE		Winding codes	3SLN	3ULN	3UXN	
		UNIT	WATER COOLING	WATER COOLING	WATER COOLING	
<b>Tp</b>	Peak torque	Nm	5530	5530	5520	
<b>Ti</b>	Intermittent torque	Nm	4130	4120	4080	
<b>Tc</b>	Continuous torque	Nm	3130	3130	3080	
<b>Ts</b>	Standstill torque	Nm	2540	2530	2490	
<b>Ip</b>	Peak current	Arms	243	392	796	
<b>Ii</b>	Intermittent current	Arms	129	208	414	
<b>Ic</b>	Continuous current	Arms	81.9	132	262	
<b>Is</b>	Standstill current	Arms	62.0	99.7	199	
<b>ns</b>	Rated low speed	rpm	0.046	0.046	0.046	
<b>nm</b>	Maximum speed without flux weakening	rpm	154	248	503	
<b>nm,FW</b>	Maximum speed with flux weakening	rpm	560	902	909	
<b>ton,p</b>	Maximum ON time for peak cycle	s	13	13	12	
<b>ton,i</b>	Maximum ON time for intermittent cycle	s	3.0	3.0	3.0	
<b>Pp</b>	Power dissipation @ Ip	W	63300	63800	66600	
<b>Pi</b>	Power dissipation @ Ii	W	22100	22100	22100	
<b>Pc</b>	Power dissipation @ Ic	W	8850	8850	8850	
<b>Td</b>	Max. detent torque (average to peak)	Nm	15	15	15	

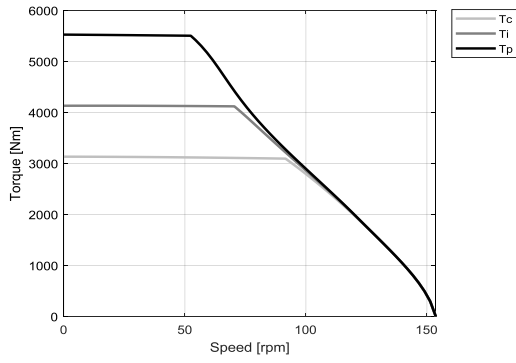
MOTOR SETTING		UNIT				
<b>Kt</b>	Torque constant	Nm/Arms	44.7	27.7	13.7	
<b>Ku</b>	Back EMF constant (*)	Vrms/(rad/s)	25.8	16.0	7.89	
<b>Km</b>	Motor constant	Nm/√W	46.5	46.4	45.5	
<b>R20</b>	Electrical resistance at 20°C (*)	Ohm	0.615	0.238	0.0600	
<b>Ld/Lq</b>	Electrical inductance (*)	mH	7.93 / 6.62	3.05 / 2.55	0.741 / 0.620	
<b>Isc</b>	Maximum short-circuit current	Arms	57.0	91.8	186	
<b>nb</b>	Base speed	rpm	91.6	156	351	
<b>nb,i</b>	Base speed at intermittent duty cycle	rpm	70.5	121	264	
<b>nb,p</b>	Base speed at peak duty cycle	rpm	52.5	92.9	200	
<b>nn</b>	Rated speed	rpm	81.2	139	310	
<b>Tn</b>	Rated torque	Nm	3100	3040	2760	
<b>In</b>	Rated current	Arms	80.7	127	230	
<b>rth</b>	Thermal time constant	s	197	198	197	
<b>Rth</b>	Thermal resistance	K/W	0.0122	0.0122	0.0122	
<b>2p</b>	Number of poles	-	132	132	132	
<b>J</b>	Rotor inertia	kg·m²	7.47	7.47	7.47	
<b>mr</b>	Rotor mass	kg	74.9	74.9	74.9	
<b>ms</b>	Stator mass	kg	120	120	120	

MOTOR ENVIRONMENT		UNIT				
<b>Udc</b>	Nominal DC bus voltage	VDC	600	600	600	
<b>Di</b>	Intermittent duty cycle	%	40	40	40	
<b>Dp</b>	Peak duty cycle	%	5.0	5.0	5.0	
<b>Sr</b>	Rotor exchange surface	m²	0.407	0.407	0.407	
<b>θamb</b>	Ambient temperature	°C	20	20	20	
<b>θmax</b>	Maximum coil temperature	°C	130	130	130	
<b>θw</b>	Inlet water temperature	°C	20	20	20	
<b>Δθw</b>	Water temperature difference for Pc	K	5.0	5.0	5.0	
<b>qw</b>	Minimum water flow for Δθw	l/min	25	25	25	
<b>Δpw</b>	Max. pressure drop at qw	bar	1.0	1.0	1.0	

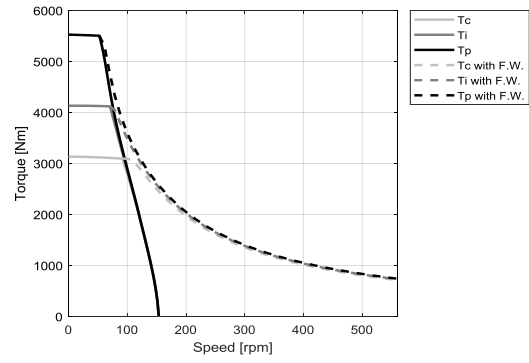
**Notes:** (\*) terminal to terminal.  
Hypotheses and tolerances are in ETEL Integration Manual.

**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.

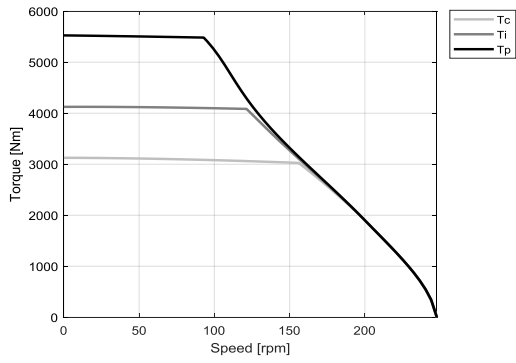
**3SLN - WATER COOLING**



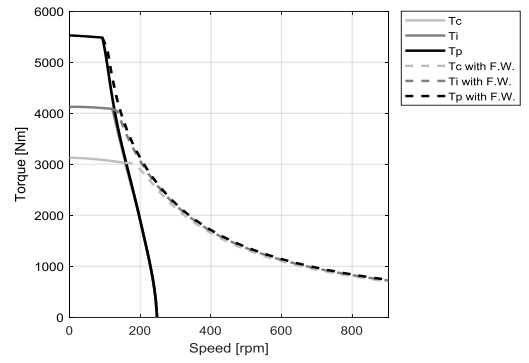
**3SLN - WATER COOLING**



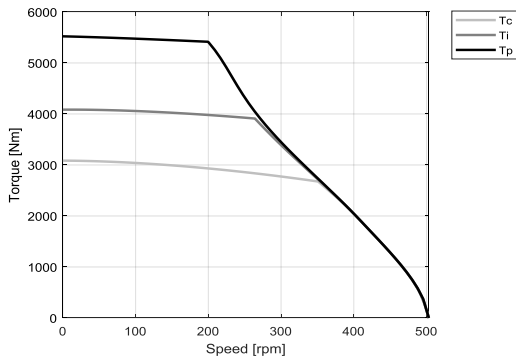
**3JLN - WATER COOLING**



**3JLN - WATER COOLING**



**3JXN - WATER COOLING**



**3JXN - WATER COOLING**

