

Motor Rated Power	80 kW
--------------------------	--------------

Inverter Power Supply	700Vdc
------------------------------	---------------

Description	Symbol	Unit	
Duty	-	-	S1
Nominal Speed	n_n	rpm	4000
Frequency (N° poles)	$f (2p)$	Hz	200.0 (6)
Constant Voltage	K_e	Vrms/Krpm	85.0

Peak Torque S2-60s	T_p	Nm	500.0
Peak Current S2-60s	I_p	Arms	300.0

Rated Torque S1	T_r	Nm	195.0
Rated Current S1	I_r	Arms	110.0

Rotor Inertia	J_r	kg x m ²	0.12
Ambient Temperature	θ_a	°C	-15 ÷ +40
Protection Degree	IP		IP 54 up to IP67
Insulation Class	-	-	F
Thermal protection	-	-	PTY 84-130

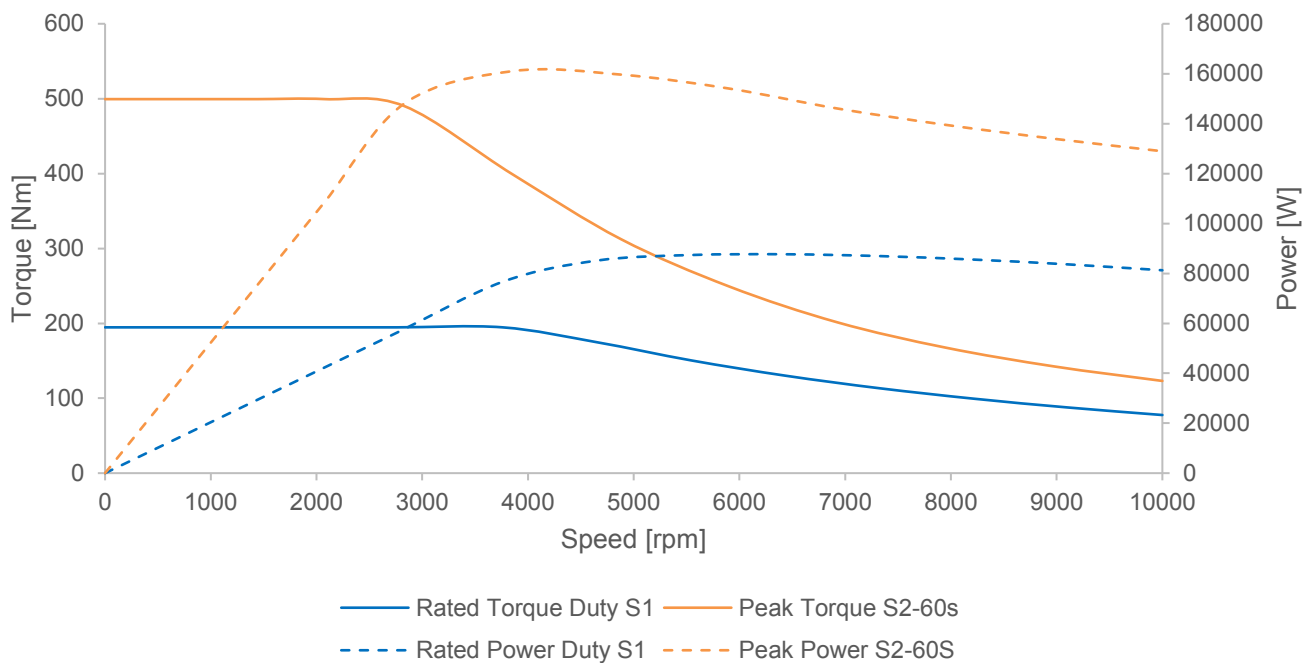
Internal Connection	STAR
---------------------	------

Cooling	LIQUID
Water Flow	20 lt/min. H₂O Temp. 20°C

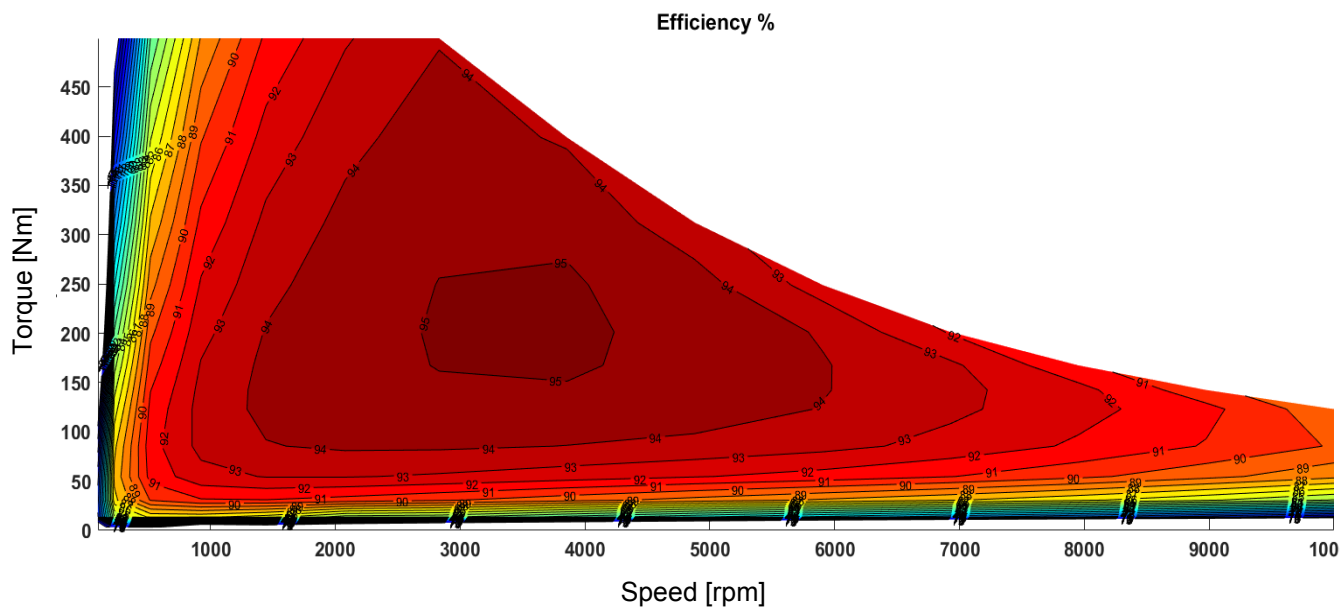
Pos.	Data	Value
1	N° of Stator slots	54
2	N° of Poles	see table above
3	Torque Ripple	see chart below
4	I1 nominal current	see table above
5	T1 nominal torque	see table above
6	N1 nominal speed	see table above
7	V1 nominal phase voltage (rms)	see table above
8	R_{ph-ph} nominal stator winding resistance (20°)	0.04 ohm
9	$\cos\phi_1$ nominal power factor	0.85 (@ 200Nm 3800rpm)
10	TS2,60s S2 for 60s torque (max torque)	see motor curve below
11	IS2,60s S2 for 60s current (max current)	see motor curve below
12	PS2,60s S2 for 60s power (max power)	see motor curve below

Speed-Torque & Speed Power Motor Curves (*)

SMAC 270-200



Efficiency Map % (*)



* MTPA – MTPV Field Weakening strategy control & Optimized Advance Angle

Simulation Only