



ELECTRIC POWERTRAIN SOLUTIONS

SMAC SERIE
TECHNICAL DATA SHEET
3-PHASE SYNCHRONOUS MOTOR

Code	51J20015747PS080400		
Rev.	00		
Date	06/05/2021		
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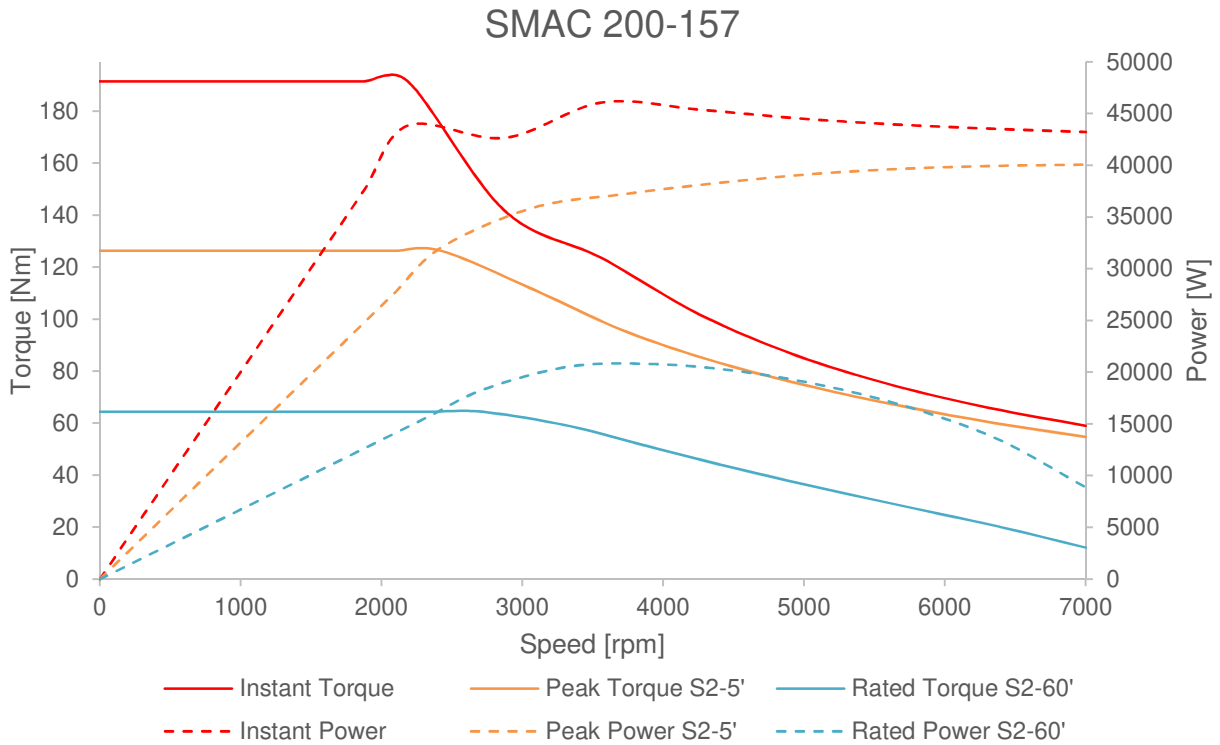
Motor Rated Power			16000W	
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Inverter Power Supply			400Vdc	
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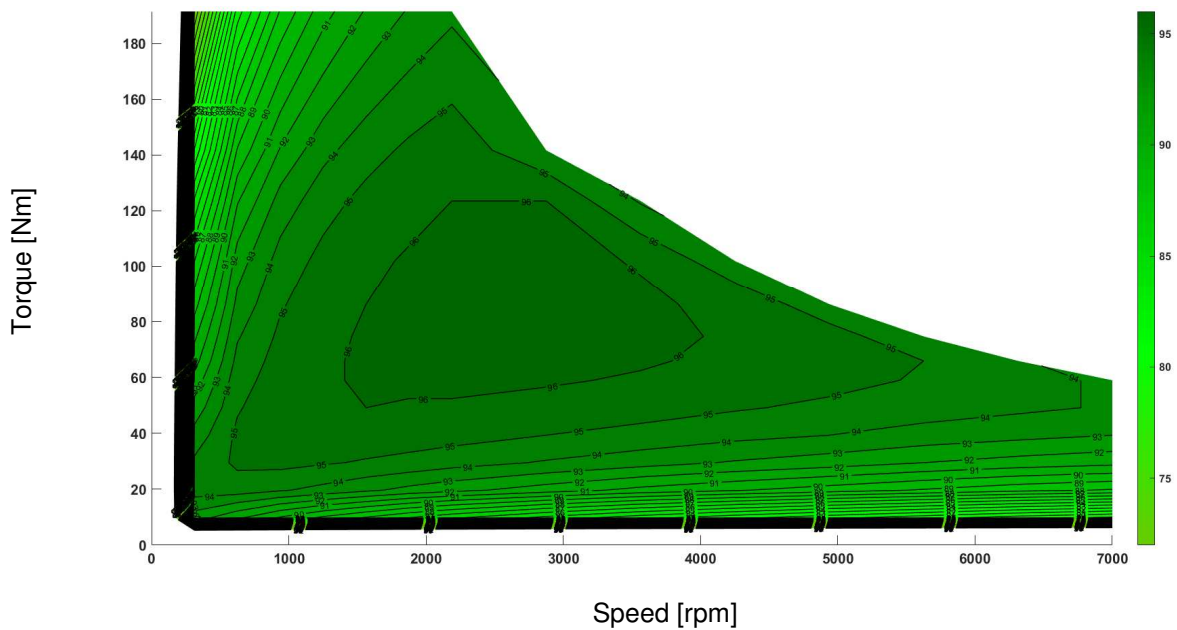
Description	Symbol	Unit		
Duty	-	-	S2-60'	
Nominal Speed	n_n	rpm	2500	
Frequency (N° poles)	$f (2p)$	Hz	166.6 (8)	
Costant Voltage	K_e	Vrms/Krpm	87.0	
Costant Torque	K_t	Nm/Arms	1.4	
Instant Torque	T_i	Nm	190.0	
Instant Current	I_i	Arms	155.0	
Peak Torque	T_p	Nm	125.0	
Peak Current	I_p	Arms	90.0	
Rated Torque	T_r	Nm	64.0	
Rated Current	I_r	Arms	45.0	
Rotor Inertia	J_r	kg x m ²	0.022	
Ambient Temperature	θ_a	°C	-15 ÷ +40	
Protection Degree	IP		IP54	
Insulation Class	-	-	F	
Thermal protection	-	-	PTY 84-130	
Cooling system			Air	

PRELIMINARY

Speed-Torque & Speed Power Motor Curves (*)



Efficiency Map % (*)



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