 ELECTRIC POWERTRAIN SOLUTIONS	<b>SMAC SERIE</b>		MDS	51J20010528HT080400	
	<b>MOTOR CURVE</b>		Rev.	02	
			Date	23/01/2023	
	<b>3-PHASE SYNCHRONOUS MOTOR</b>		Page	1	di

<b>Motor Rated Power</b>			<b>11000W</b>	
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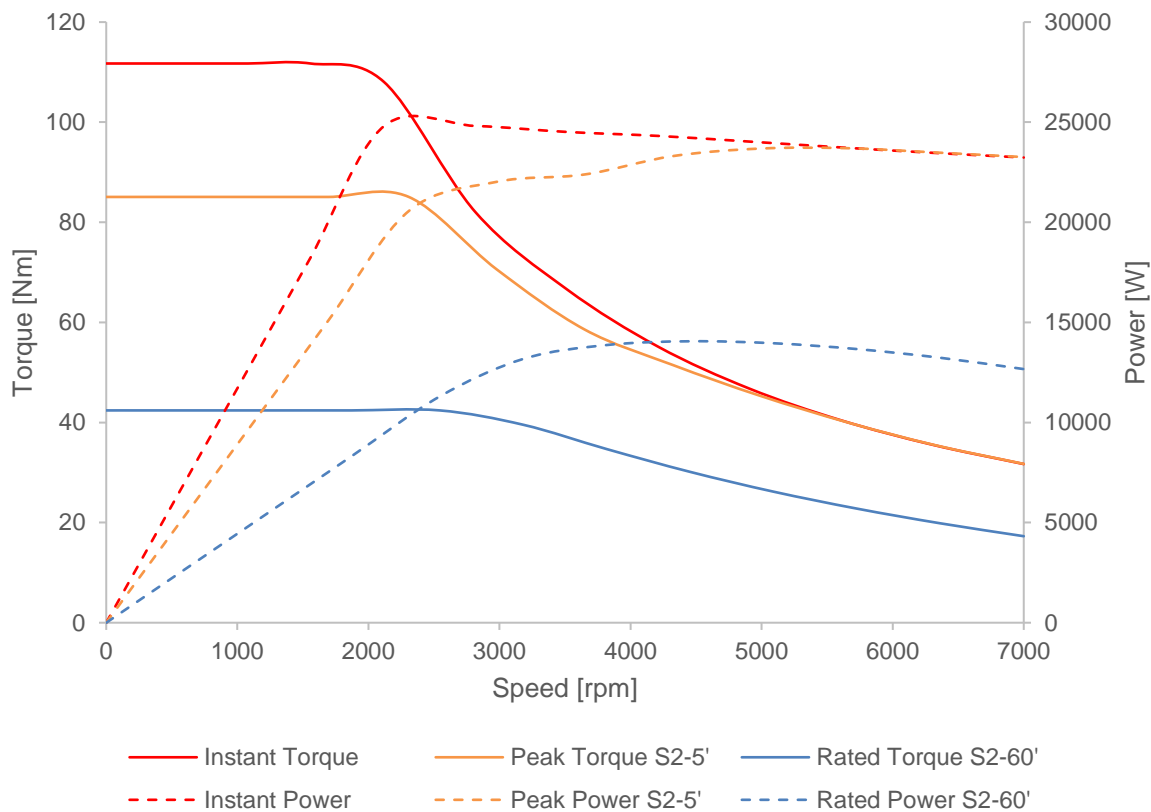
<b>Inverter Power Supply</b>			<b>96Vdc</b>	
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Description	Symbol	Unit		
Duty	-	-	S2-60min	
Nominal Speed	$n_n$	rpm	2500	
Frequency (N° poles)	$f (2p)$	Hz	166.6 (8)	
Costant Voltage	$K_e$	Vrms/Krpm	19.8	
Costant Torque	$K_t$	Nm/Arms	0.32	
Instant Torque	$T_i$	Nm	110.0	
Instant Current	$I_i$	Arms	420.0	
Peak Torque	$T_p$	Nm	85.0	
Peak Current	$I_p$	Arms	280.0	
Rated Torque	$T_r$	Nm	42.0	
Rated Current	$I_r$	Arms	140.0	
Rotor Inertia	$J_r$	kg x m <sup>2</sup>	0.015	
Ambient Temperature	$\theta_a$	°C	-15 ÷ +40	
Protection Degree	IP		IP 54	up to IP67
Insulation Class	-	-	F	
Thermal protection	-	-	PTY 84-130	Alternative to KTY 84-130
Cooling system			Air	

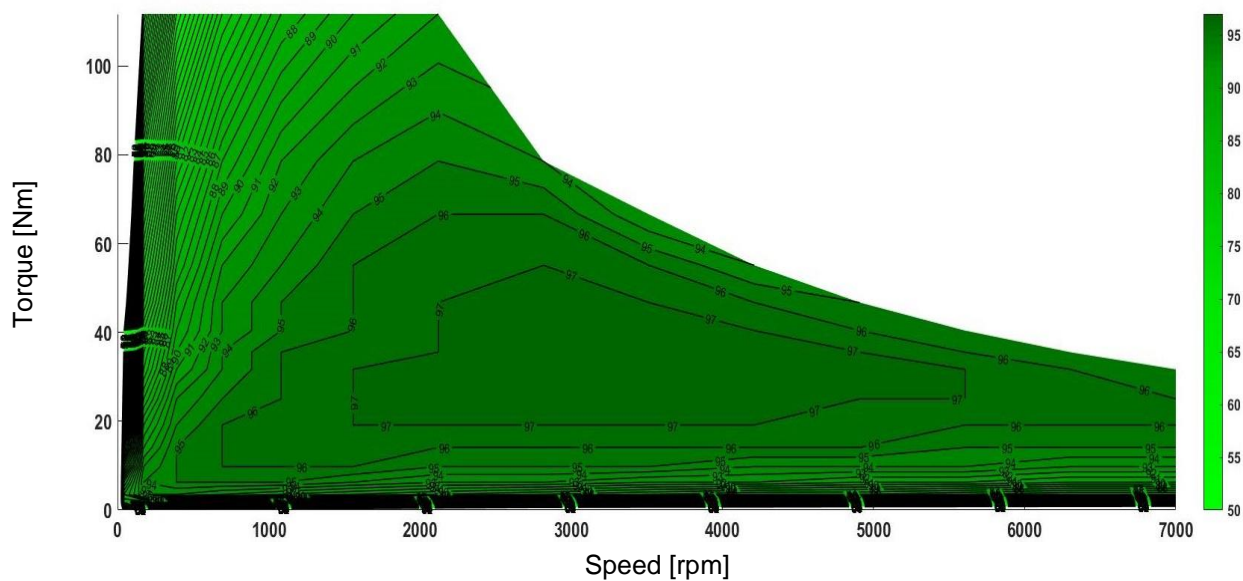
**PRELIMINARY**  
Simulation Only

Speed-Torque & Speed Power Motor Curves (\*)

SMAC 200-105



Efficiency Map % (\*)



\* MTPA – MTPV Field Weakening strategy control & Optimized Advance Angle  
(Ref. Simulation temperature 20.0°C)

Simulation Only