 <small>ELECTRIC POWERTRAIN SOLUTIONS</small>	<b>SMAC SERIE</b>		MDS	51J27015006GT060300	
	<b>MOTOR CURVE</b>		Rev.	00	
			Date	14/11/2022	
	<b>3-PHASE SYNCHRONOUS MOTOR</b>		Page	1	di

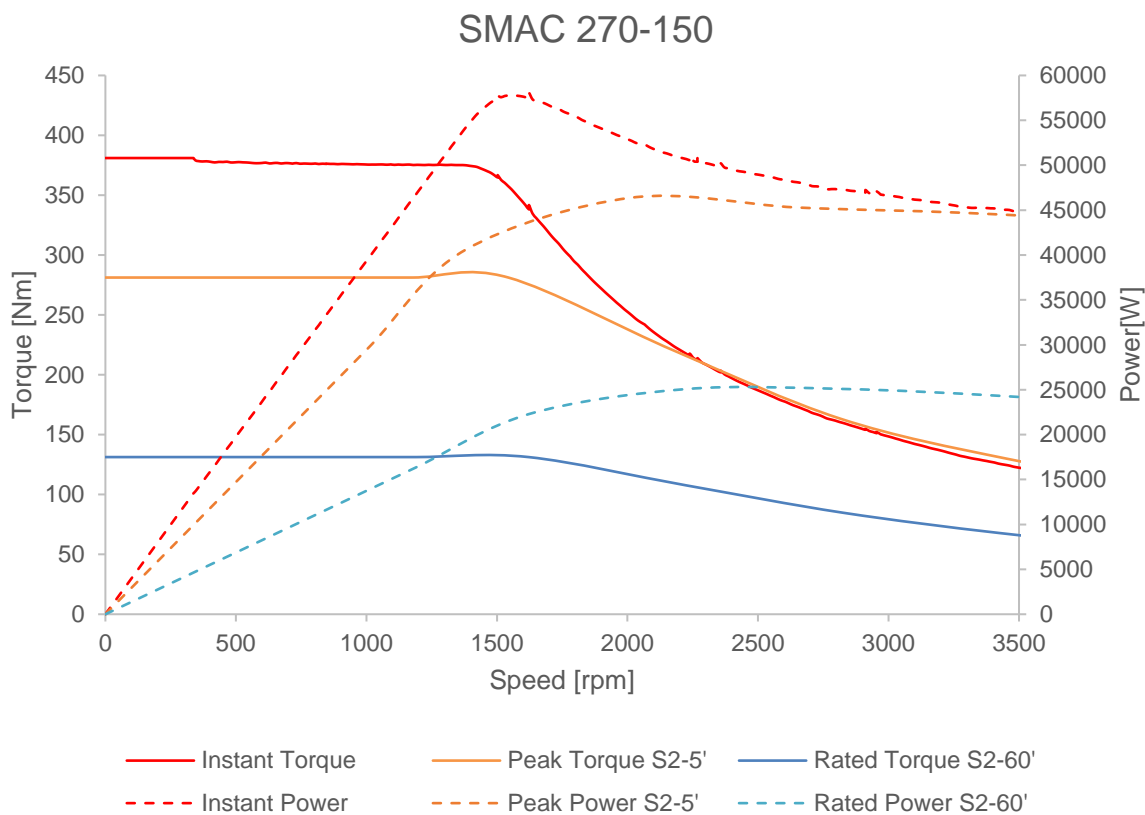
<b>Motor Rated Power</b>			<b>20000W</b>	
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<b>Inverter Power Supply</b>			<b>80Vdc</b>	
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<b>Description</b>	<b>Symbol</b>	<b>Unit</b>		
<i>Duty</i>	-	-	S2-60min	
<i>Nominal Speed</i>	$n_n$	<i>rpm</i>	1500	
<i>Frequency (N° poles)</i>	$f (2p)$	<i>Hz</i>	75.0 (6)	
<i>Costant Voltage</i>	$K_e$	<i>Vrms/Krpm</i>	22.6	
<i>Instant Torque</i>	$T_i$	<i>Nm</i>	380.0	
<i>Instant Current</i>	$I_i$	<i>Arms</i>	900.0	
<i>Peak Torque</i> S2-5min.	$T_p$	<i>Nm</i>	280.0	
<i>Peak Current</i> S2-5min.	$I_p$	<i>Arms</i>	560.0	
<i>Rated Torque</i> S2-60min.	$T_r$	<i>Nm</i>	130.0	
<i>Rated Current</i> S2-60min.	$I_r$	<i>Arms</i>	280.0	
<i>Rotor Inertia</i>	$J_r$	<i>kg x m<sup>2</sup></i>	0.1	
<i>Ambient Temperature</i>	$\theta_a$	<i>°C</i>	-15 ÷ +40	
<i>Protection Degree</i>	<i>IP</i>		IP 54	up to IP67
<i>Insulation Class</i>	-	-	F	
<i>Thermal protection</i>	-	-	PTY 84-130	
<i>Cooling system</i>			Air	

**PRELIMINARY**  
**Simulated Data**

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



Efficiency Map % (\*)

Torque [Nm]

TBD

Speed [rpm]

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