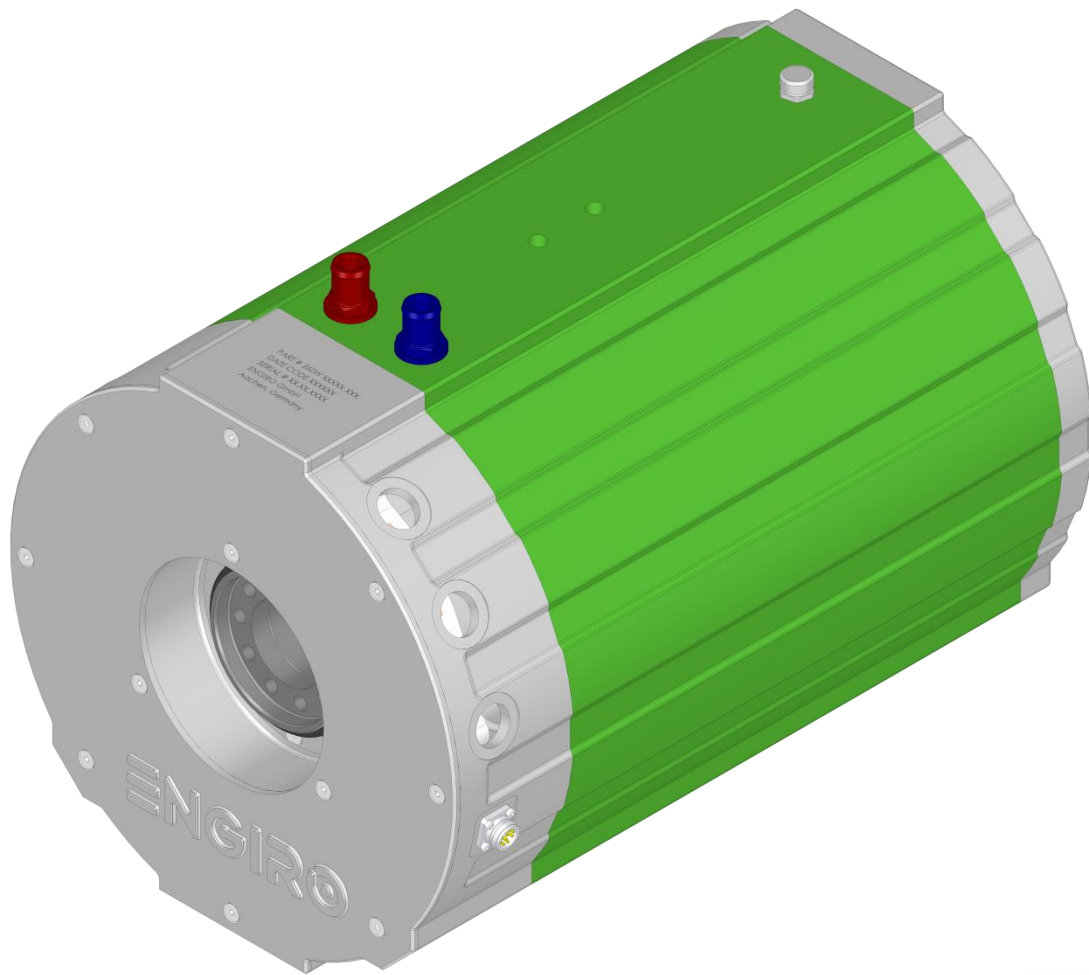


260W-20010-ABC

water-cooled motor / generator with 241 kW continuous power



KEY FEATURES

- permanent magnet synchronous machine
- water-cooled
- high peak power for motor applications
- convincing cost-benefit ratio
- recommended voltage range from 500V to 750V
- delivery with controller possible
- Double shaft end with screw flange

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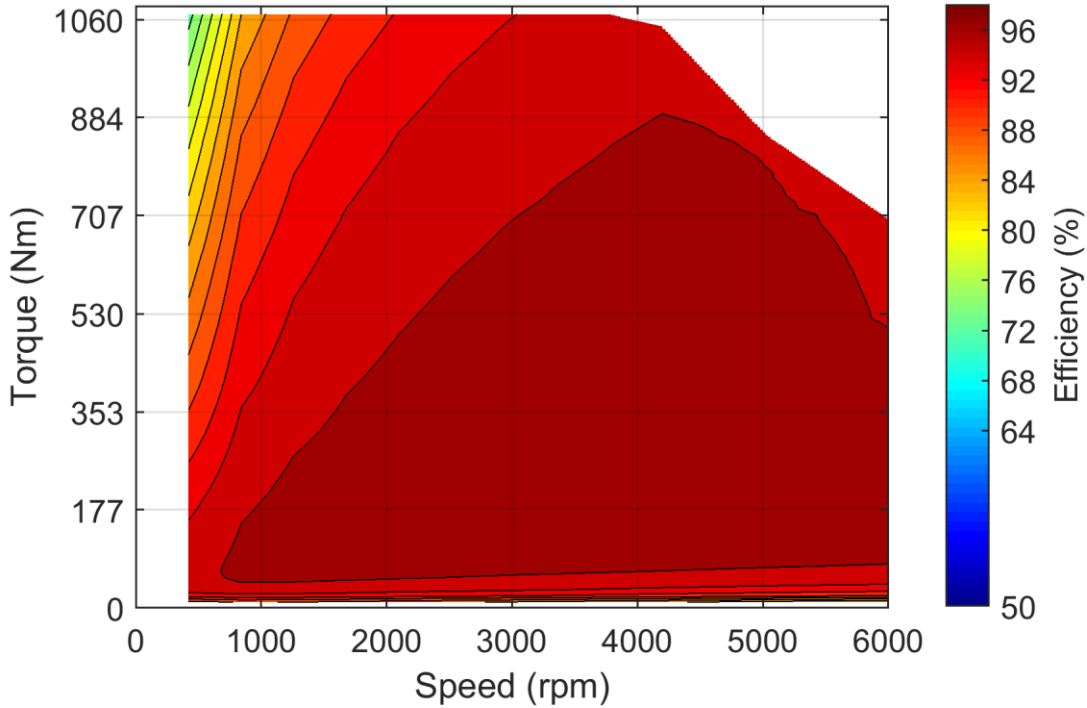
Nominal Operation (S1, cooling as specified below)				
Torque	T_{nom}		547	Nm
Power	P_{nom}		241	kW
Speed	n_{nom}		4200	rpm
Phase rms-current	I_{nom}		391	A
Battery voltage (DC)	U_{nom}		650	V
Electric frequency	$f_{el,nom}$		350	Hz
Power factor	$\cos(\varphi)$		0.73	
Maximal Values (S2, 10s, cooling as specified below)				
Torque	T_{max}		1094	Nm
Power	P_{max}		474	kW
Phase rms-current	I_{max}		991	A
Battery voltage (DC)	U_{max}		750	V
Speed	n_{max}		6000	rpm
Electric frequency	$f_{el,max}$		500	Hz
Electrical Data				
Number of phases			3	
Number of pole pairs			5	
Maximal efficiency			>96	%
T/I constant ($I < I_{nom}$)			1.4	Nm/A _{rms}
U/n constant (AC)		rms: 84.0	peak: 118.8	V/(1000rpm)
K_e constant (AC)		rms: 0.160	peak: 0.227	V/(rad*s ⁻¹)
Additional Data				
Weight (w/o cables)			117	kg
Rotor moment of inertia			0.131	kg*m ²
Protection category			IP65 / IP69k	
Maximal motor temperature			140	°C
Allowed ambient temperature			-20 ... 45 ¹⁾	°C
Cooling (medium, flow rate, inlet temperature, pressure)			water/glycol 50/50, 24 l/min, ≤ 45°C, ≤ 0.5 bar	
Temperature monitoring			1 x KTY84-130	
Type approval			CE, EN 60034	
Customs tariff number			8501 5381	
Connectors				
Power terminals			3 x M25 cable gland	
Signal connectors			M16, 10 Pin	
Cooling connectors			2 x 3/4" / 19 mm	

¹⁾ other range on request

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Simulated Efficiency of Motor Application

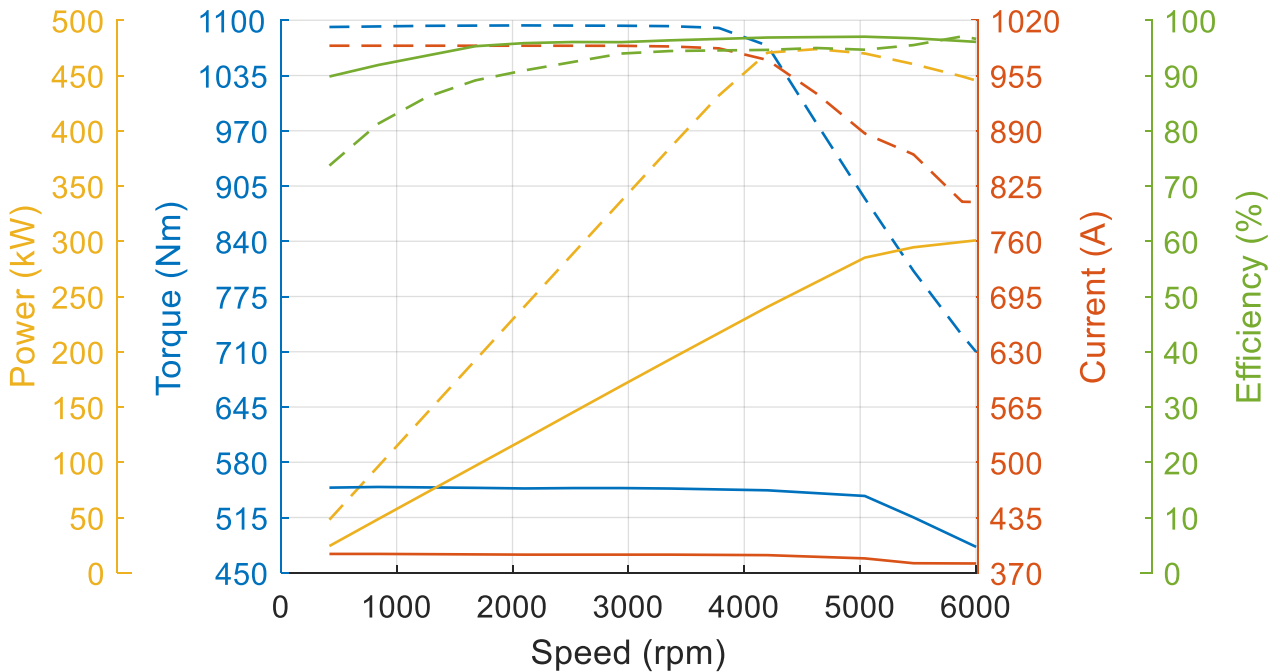
(electric machine only; $U_{nom} = 650\text{ V}$; machine at $100\text{ }^\circ\text{C}$;)



Simulated Characteristic Motor Parameters

$U_{nom} = 650\text{ V}$

solid lines: continuous; dashed lines: maximum;
(jitter is caused by numerical inaccuracies in the simulation software)

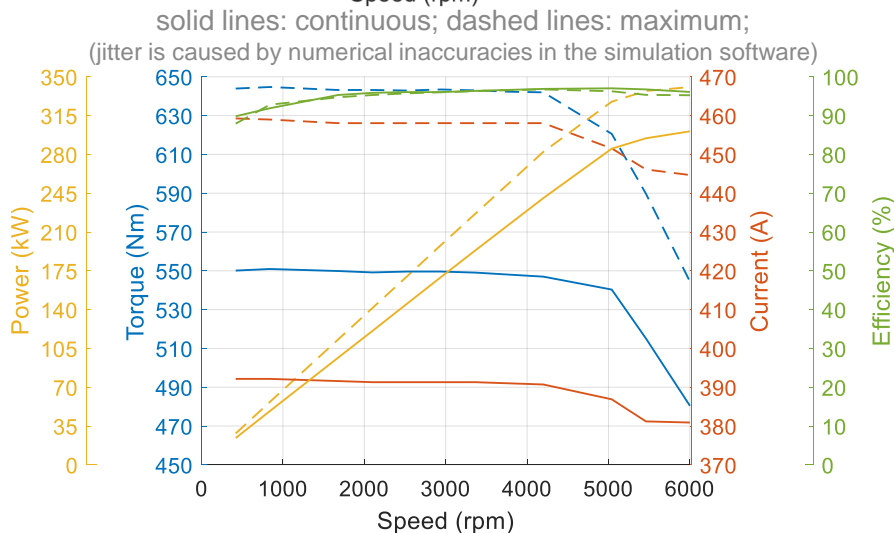
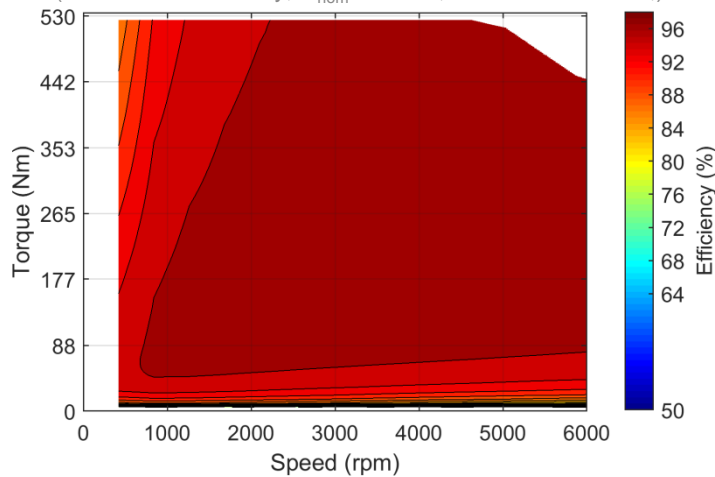


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Nominal Operation Drive Set (S1)			
Torque	T_{nom}		547 Nm
Power	P_{nom}		241 kW
Speed	n_{nom}		4200 rpm
Phase rms-current	I_{nom}		391 A
Battery voltage	U_{nom}		650 V
Electric frequency	$f_{el,nom}$		350 Hz
Power factor	$\cos(\varphi)$		0.73
Maximal Values Drive Set (S2, 1-10s)			
Torque	T_{max}		645 Nm
Power	P_{max}		343 kW
Phase rms-current	I_{max}		460 A
Battery voltage	U_{max}		650 V
Speed	n_{max}		6000 rpm
Electric frequency	$f_{el,max}$		500 Hz

Simulated Efficiency and Motor Characteristic of Motor Application

(electric machine only; $U_{nom} = 650$ V; machine at 100 °C;)



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