

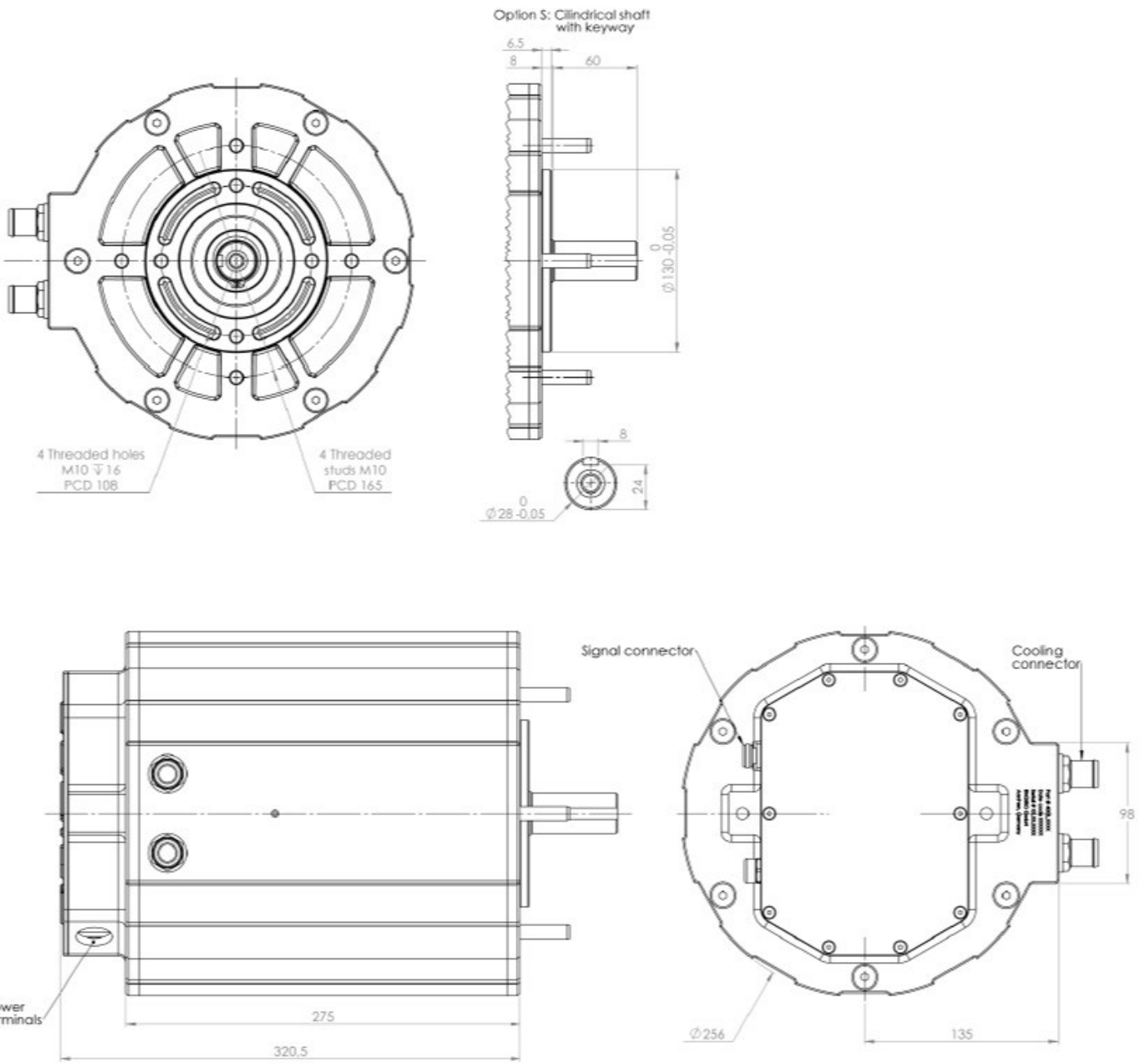
Technical Data Machine

Nominal Operation (S1, cooling as specified below)				
Torque	T_{nom}	134	134	Nm
Power	P_{nom}	14	28	kW
Speed	n_{nom}	990	2000	rpm
Phase rms-current	I_{nom}	385	385	A
Battery voltage (DC)	U_{nom}	48	96	V
Electric frequency	$f_{el, nom}$	66	147	Hz
Power factor	$\cos(\varphi)$	0.81	0.80	
Maximal Values (S2, 10s, cooling as specified below)				
Torque	T_{max}	285	285	Nm
Power	P_{max}	27	56	kW
Phase rms-current	I_{max}	961	961	A
Battery voltage (DC)	U_{max}		200	V
Speed	n_{max}		5700	rpm
Electric frequency	$f_{el, max}$		380	Hz
Electrical Data				
Number of phases			3	
Number of pole pairs			4	
Maximal efficiency			>96	%
T/I constant ($I < I_{nom}$)			0.35	Nm/A _{rms}
U/n constant (AC)		rms: 23.8	peak: 33.7	V/(1000rpm)
K_e constant (AC)		rms: 0.057	peak: 0.080	V/(rad*s ⁻¹)
Additional Data				
Weight (w/o cables)			44	kg
Rotor moment of inertia			0.03512	kg*m ²
Protection category			IP65 / IP69k	
Maximal rotor temperature			150	°C
Allowed ambient temperature			-20 ... 45 ¹⁾	°C
Cooling (medium, flow rate, inlet temperature, pressure)			water/glycol 50/50, 6 l/min, ≤ 60°C, ≤ 0.5 bar	
Temperature monitoring			1 x KTY84-130	
Type approval			CE, EN 60034	
Customs tariff number			8501 5230	
Connectors				
Power terminals			3 x M25 cable gland	
Signal connectors			M16, 10 Pin	
Cooling connectors			2 x ¾" / 19 mm	

¹⁾ other range on request

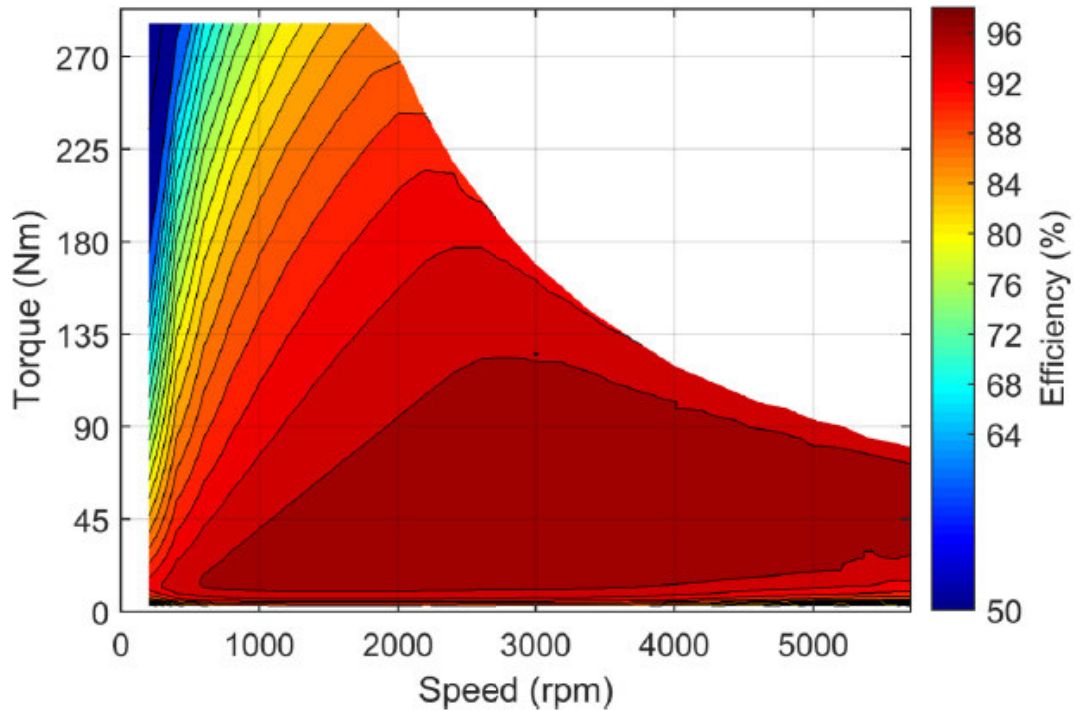
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Technical Drawings



Characteristics Machine

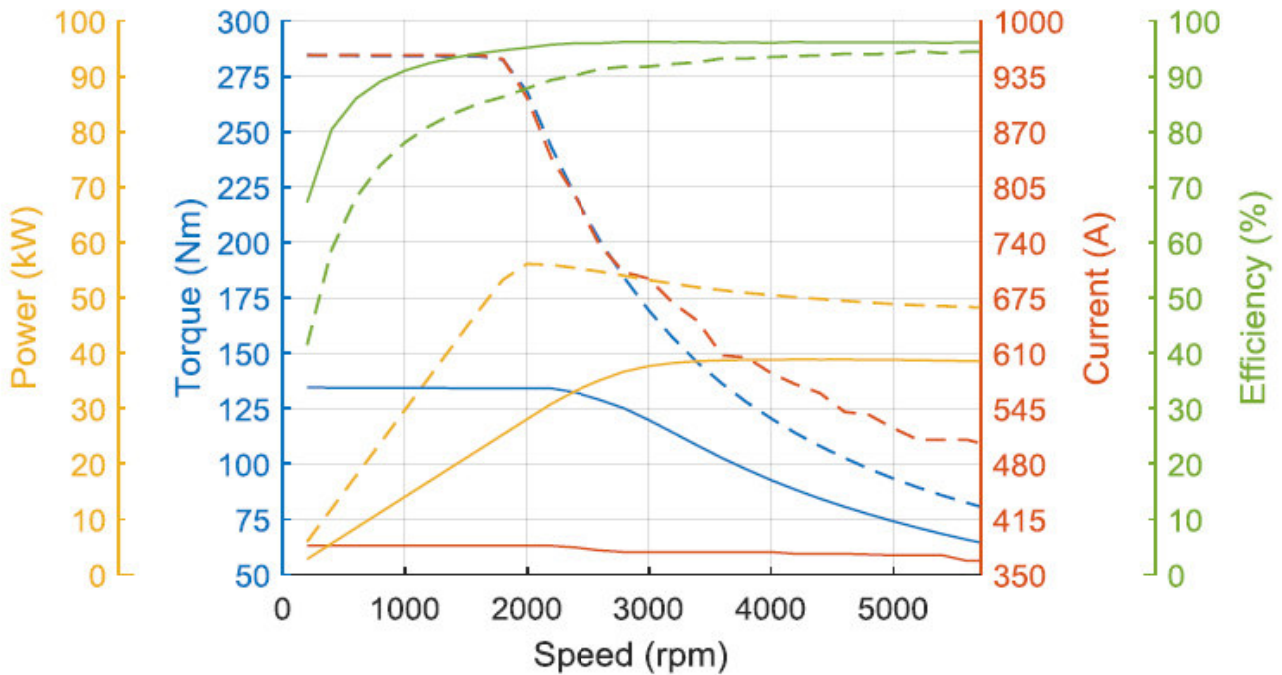
Simulated Efficiency of Motor Application
(electric machine only; $U_{nom} = 96\text{ V}$; machine at $100\text{ }^\circ\text{C}$;))



Simulated Characteristic Motor Parameters

$$U_{nom} = 96\text{ V}$$

solid lines: continuous; dashed lines: maximum;

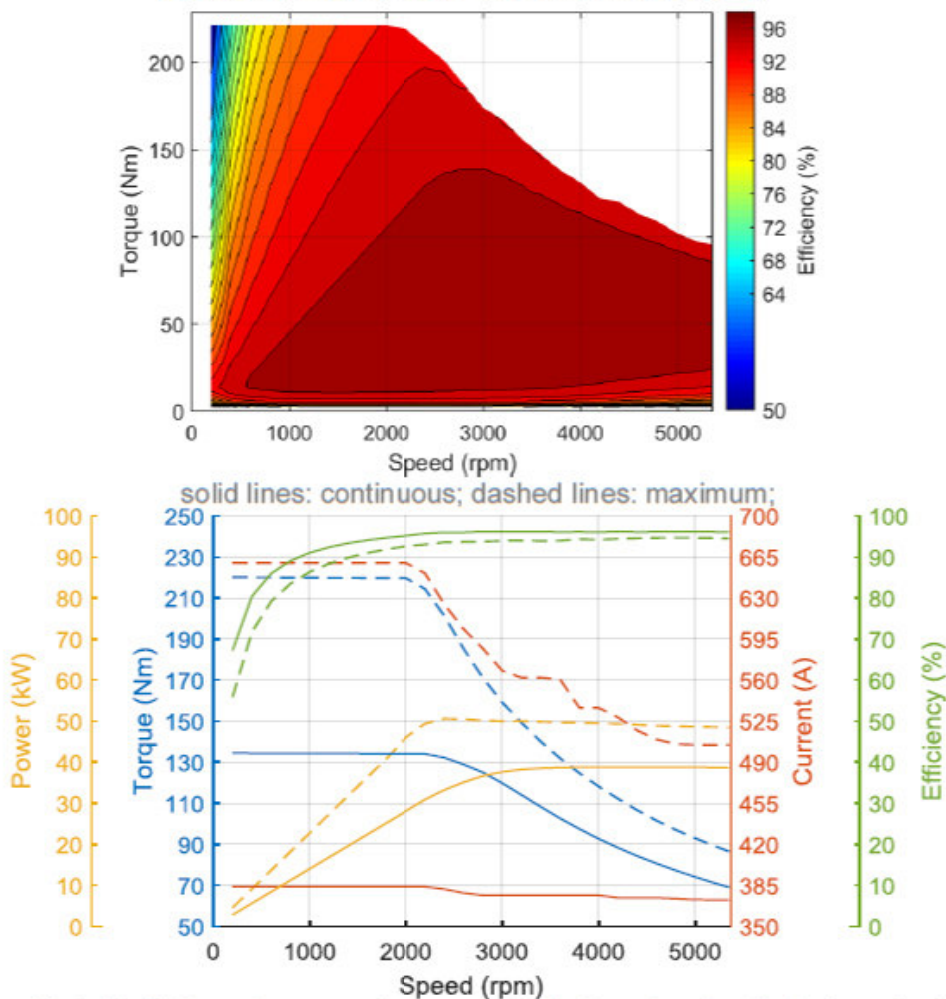


Technical Data Inverter Set

Nominal Operation Drive Set – 116V (S1)			
Torque	T_{nom}	134	Nm
Power	P_{nom}	28	kW
Speed	n_{nom}	2000	rpm
Phase rms-current	I_{nom}	385	A
Battery voltage (DC)	U_{nom}	116	V
Electric frequency	$f_{el,nom}$	147	Hz
Power factor	$\cos(\varphi)$	0.80	
Maximal Values Drive Set (S2, 1-10s)			
Torque	T_{max}	220	Nm
Power	P_{max}	51	kW
Phase rms-current	I_{max}	660	A
Battery voltage (DC)	U_{max}	116	V
Speed	n_{max}	5350	rpm
Electric frequency	$f_{el,max}$	357	Hz

Simulated Efficiency and Motor Characteristic of Motor Application

(electric machine only; $U_{nom} = 116$ V; machine at 100 °C;)



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