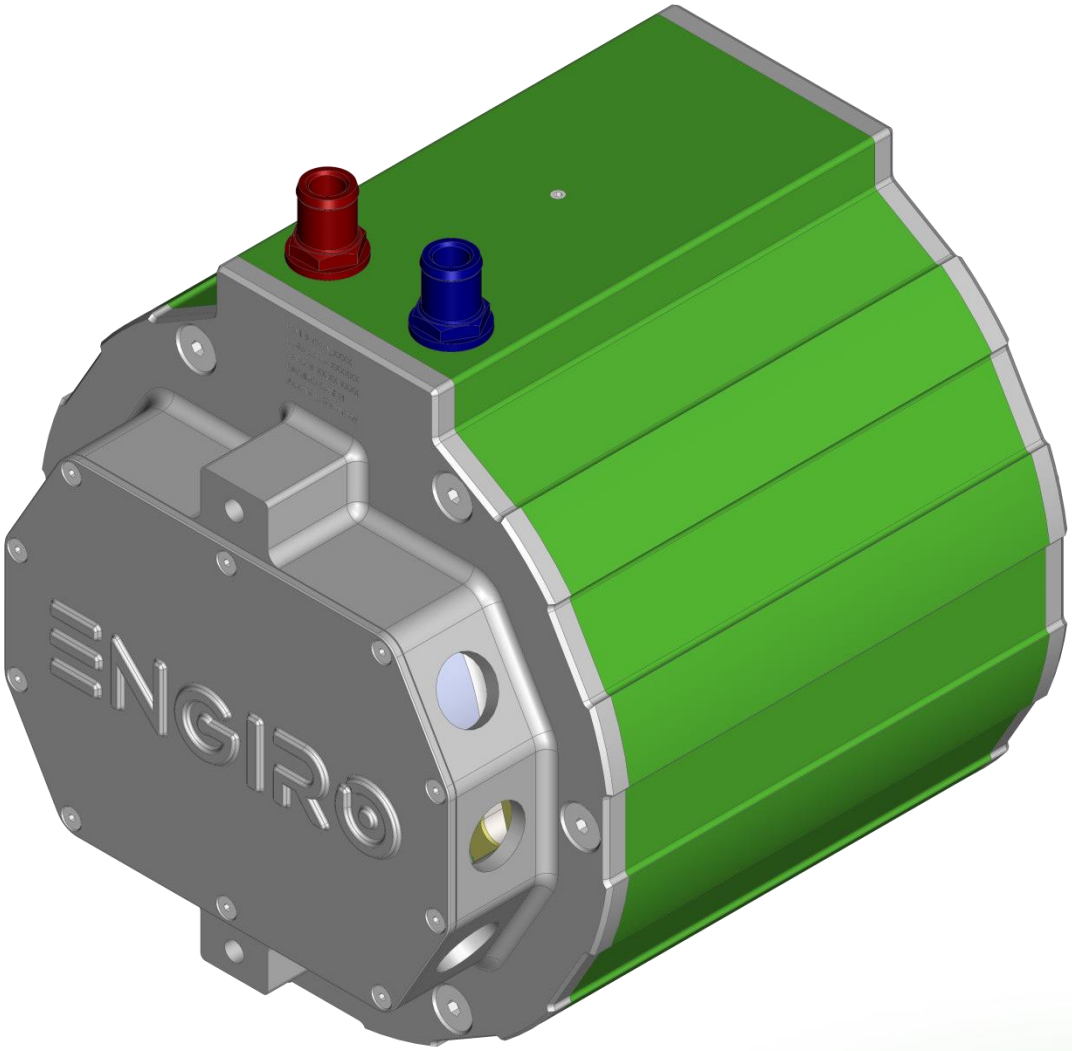
205W-08026-ABC

water-cooled motor / generator with up to 63 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 300V to 850V
- delivery with controller possible
- various mechanical interfaces available

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Version: 009

Table of Content

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Technical Data Machine

ENGIRO
Advanced · Drive · Solutions

Nominal Operation (S1, cooling as specified below)			
Torque	T_{nom}	70	Nm
Power	P_{nom}	52	kW
Speed	n_{nom}	7000	rpm
Phase rms-current	I_{nom}	156[1,2)]	A
Battery voltage(DC)	U_{nom}	400	V
Electric frequency	$f_{el,nom}$	466	Hz
Power factor	cos(φ)	0.74	

Maximal Values (S2, 10s, cooling as specified below)			
Torque	T_{max}	188	Nm
Power	P_{max}	100	kW
Phase rms-current	I_{max}	481[2)]	A
Battery voltage(DC)	U_{max}	850	V
Speed	n_{max}	8000	rpm
Electric frequency	$f_{el,\ max}$	533	Hz

Electrical Data					
Number of phases				3	
Number of pole pairs				4	
Maximal efficiency				96	%
T/*I* constant (I<I_{nom})				0.46	Nm/A_{rms}
U/*n* constant (AC) at a temperature of 30°C	rms:	31.7	peak:	53.4	V/(1000rpm)
K_e constant (AC) at a temperature of 30°C	rms:	0.076	peak:	0.129	V/(rad*s^{-1})

Additional Data	
Weight (w/o cables)	see page 4
Rotor moment of inertia	0.0123 kg*m^2
Protection category	IP65 / IP69k
Maximal motor temperature	140 °C
Allowed ambient temperature	-20 … 45[3)] °C
Cooling (medium, flow rate, inlet temperature, pressure)	water/glycol 50/50, 8 l/min, ≤ 45°C, ≤ 0.5 bar
Temperature monitoring	1 x KTY84-130
Type approval	CE, EN 60034
Customs tariff number	8501 5290

Connectors	
Power terminals	3 x M25 cable gland
Signal connectors	M16, 10 Pin
Cooling connectors	2 x ¾" / 19 mm

[1)] Nominal current strongly dependent on cooling as specified below.
[2)] The cables must not exceed a temperature of 140 °C at any time. Temperature and service life depend on the installation condition.
[3)] other range on request

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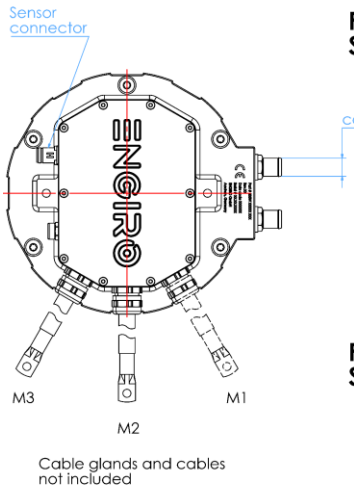
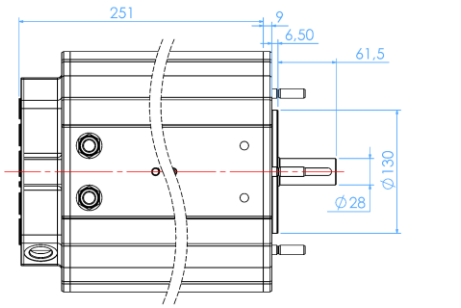
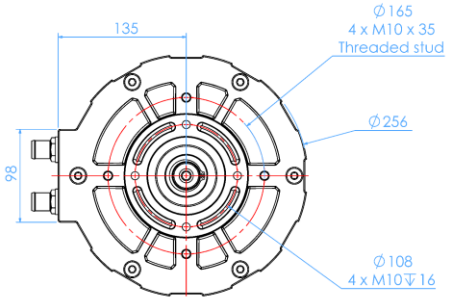
Available Type Variants			
type number	A: flange	B: shaft	C: position sensor
205W-08026-	S: standard	S: cylindrical shaft with keyway Ø28mm	R: resolver
		H: hollow shaft with internal splines ANSI B 92.1	E: sin/cos encoder
			N: none

Approximate machine weight		
flange	shaft	kg
S	S	35
S	H	34

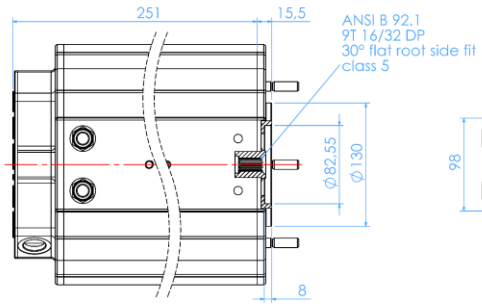


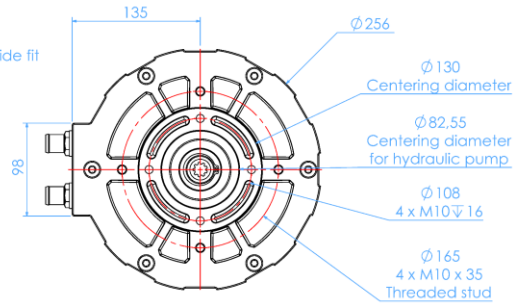
Flange S Shaft S





Flange S Shaft H





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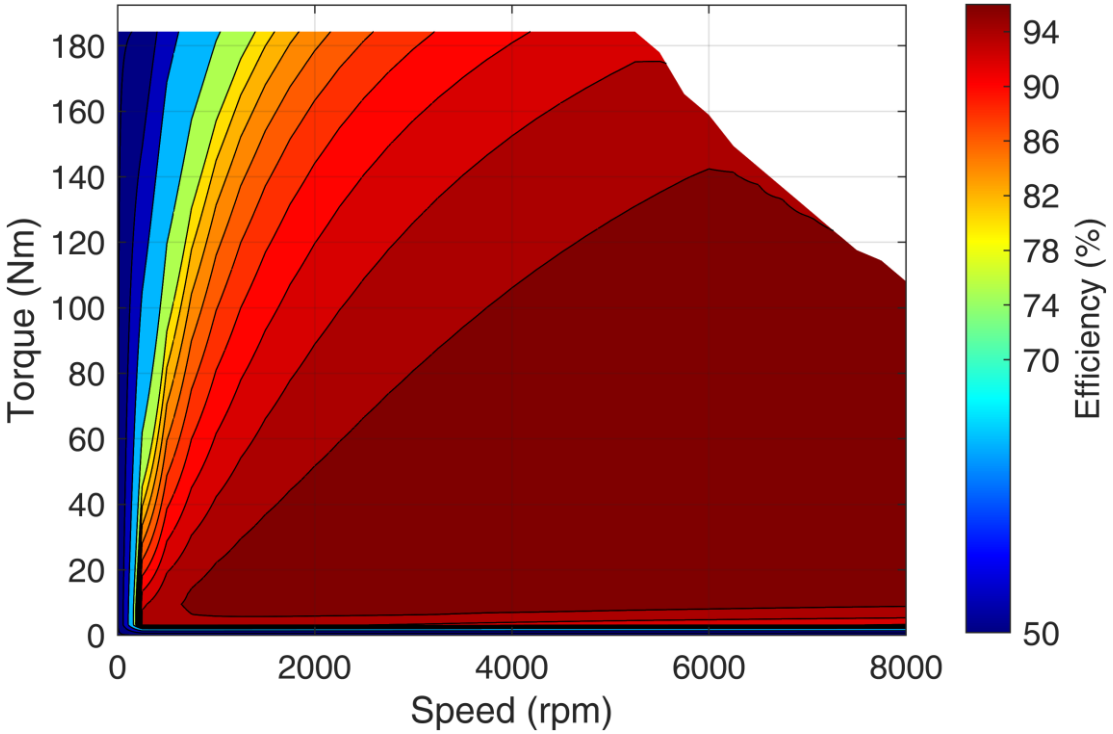
Characteristics Machine

Simulated Efficiency of Motor Application

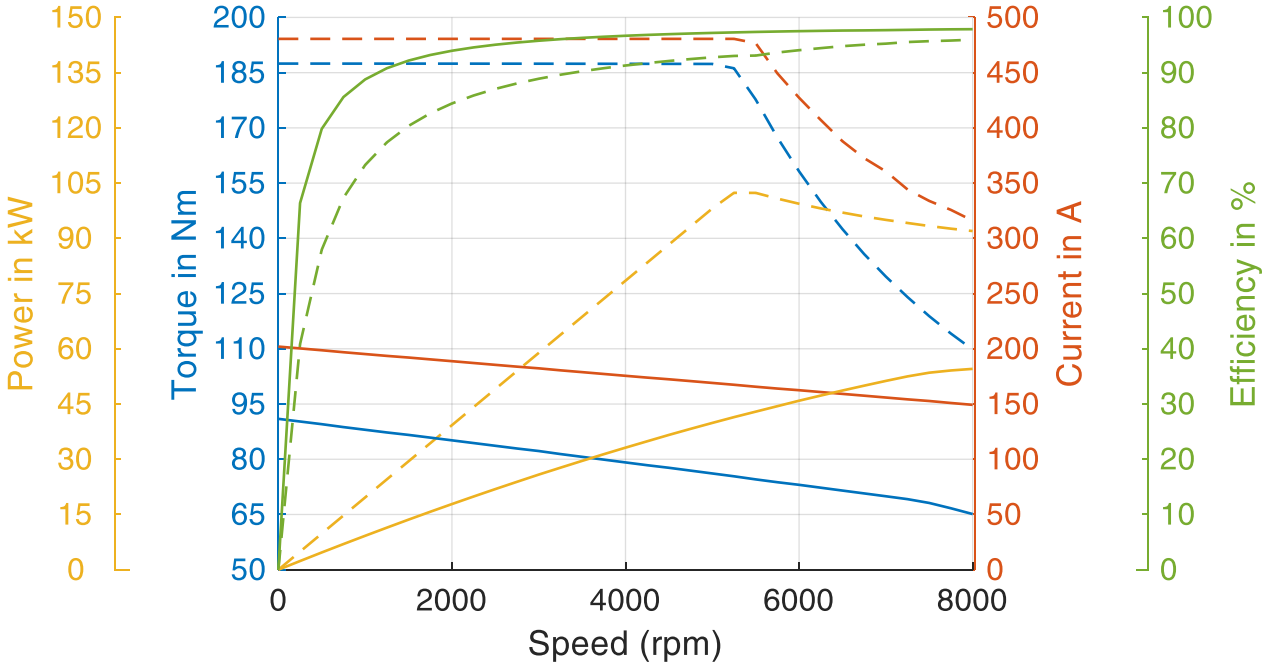
(electric machine only; U_{nom} = 400 V; machine at 140 °C;)



Simulated Characteristic Motor Parameters

U_{nom} = 400 V

solid lines: continuous; dashed lines: maximum;



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