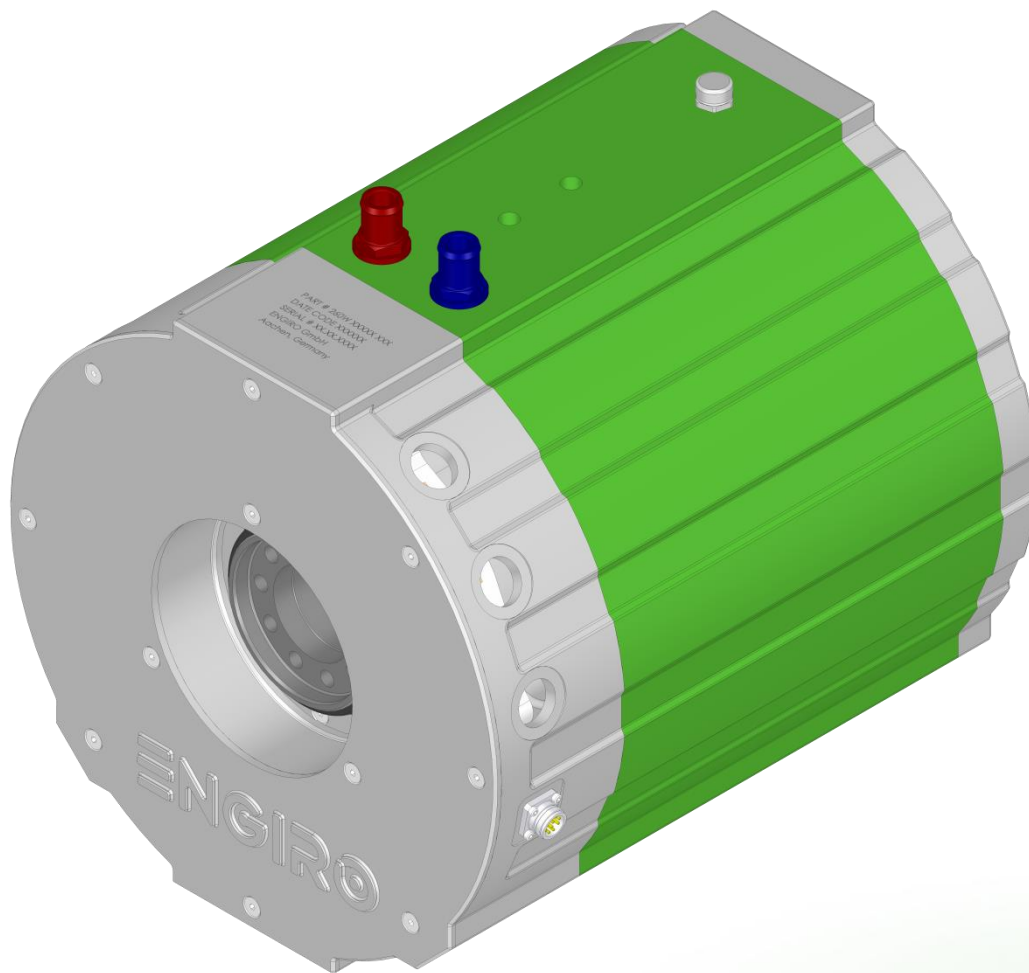


Data Sheet

260W-10020-ABC

water-cooled motor generator with up to 115 kW 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

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Nominal Operation (S2, 60 min, cooling as specified below)					
Torque	T_{nom}	241	221	Nm	
Power	P_{nom}	75	115	kW	
Speed	N_{nom}	3000	5000	rpm	
Phase rms-current	I_{nom}	180 ^{1,2)}	161 ^{1,2)}	A	
Battery voltage (DC)	U_{nom}	400	700	V	
Electric frequency	$f_{el,nom}$	250	416	Hz	
Power factor	$\cos(\varphi)$	0.92	0.89		

Maximal Values (S2, 10s, cooling as specified below)					
Torque	T_{max}	532	532	Nm	
Power	P_{max}	134	239	kW	
Phase rms-current	I_{max}	492 ²⁾	492 ²⁾	A	
Battery voltage (DC)	U_{max}		850	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				97	%
T/I constant ($I < I_{nom}$)				1.4	Nm/A _{rms}
U/n constant (AC) at a temperature of 30°C	rms:	84	peak:	130.2	V/(1000rpm)
K_b constant (AC) at a temperature of 30°C	rms:	0.160	peak:	0.249	V/(rad*s ⁻¹)

Additional Data					
Weight (w/o cables)				77	kg
Rotor moment of inertia				0.0899	kg*m ²
Protection category				IP6K9K ³⁾	
Maximal motor temperature				140	°C
Allowed ambient temperature				-20 ... 45 ⁴⁾	°C
Cooling (medium, flow rate, inlet temperature, pressure)				water/glycol 50/50, 16 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⁾ 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⁾ Please note that the IP6K9K rating is only valid if the machine is installed with suitable cable glands and an appropriate sealed interface at the drive side of the motor (flange and/or shaft). Please contact ENGIRO for further questions. / Only applies to SFR Variant /

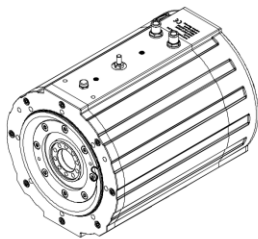
⁴⁾ other range on request

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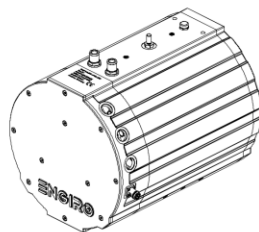
Shaft and Flange Combinations For 260W-10020-ABC		Flange (A)
		S (Standard)
Shaft (B)	F (Hollow shaft with two screw flanges)	
Position Sensor (C)		R: Resolver

Other individual combinations are also possible on request.

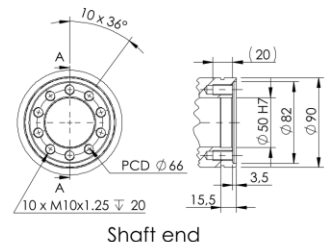
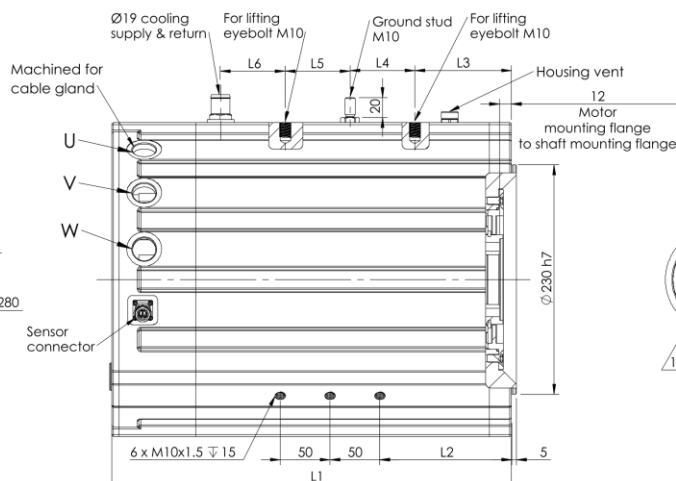
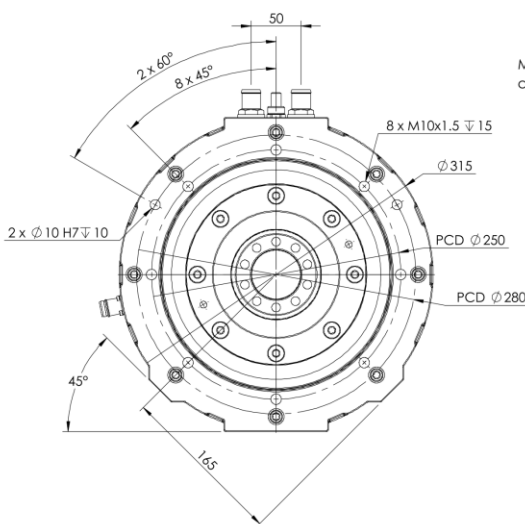
Technical Drawings



Front view



Rear view
S Flange



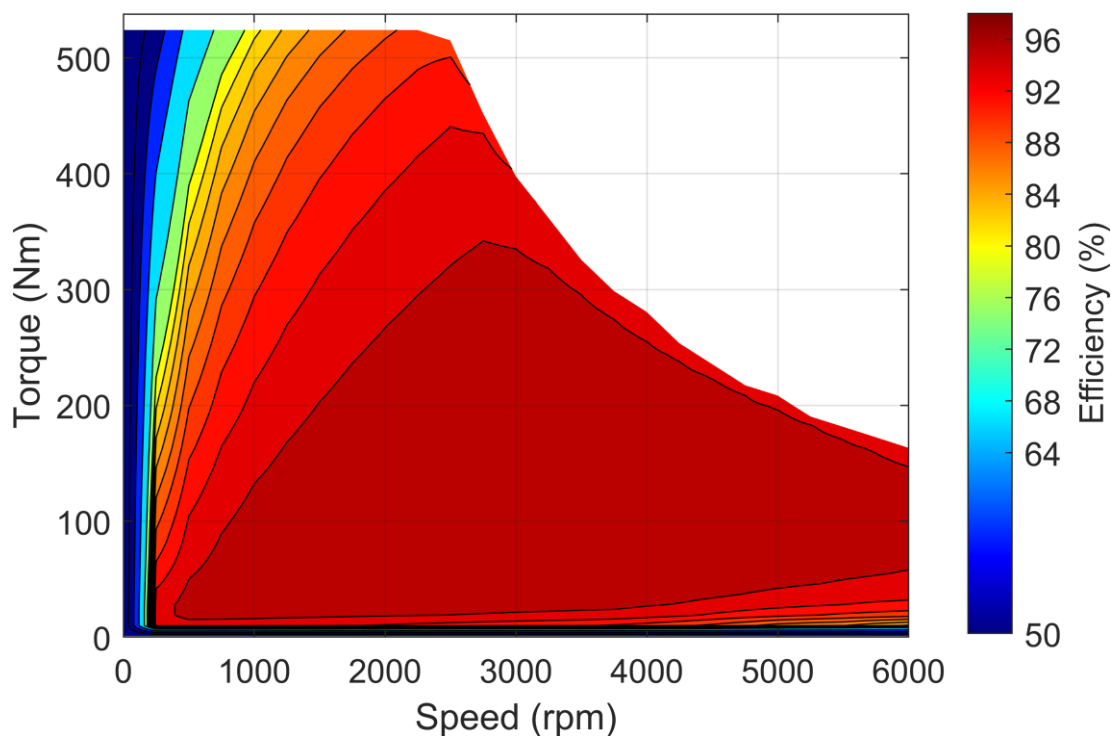
Shaft end

Model	L1	L2	L3	L4	L5	L6	Moment of Inertia [kg.m ²]	Cooling channel volume [L]
260W_080xx	331	97	92	40	30	60	0,0671	1,28
260W_100xx	351	107	97	45	35	65	0,0899	1,38
260W_130xx	381	112	107	55	35	75	0,0944	1,53
260W_150xx	401	132	97	65	65	65	0,1006	1,64

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Simulated Efficiency of Motor Application

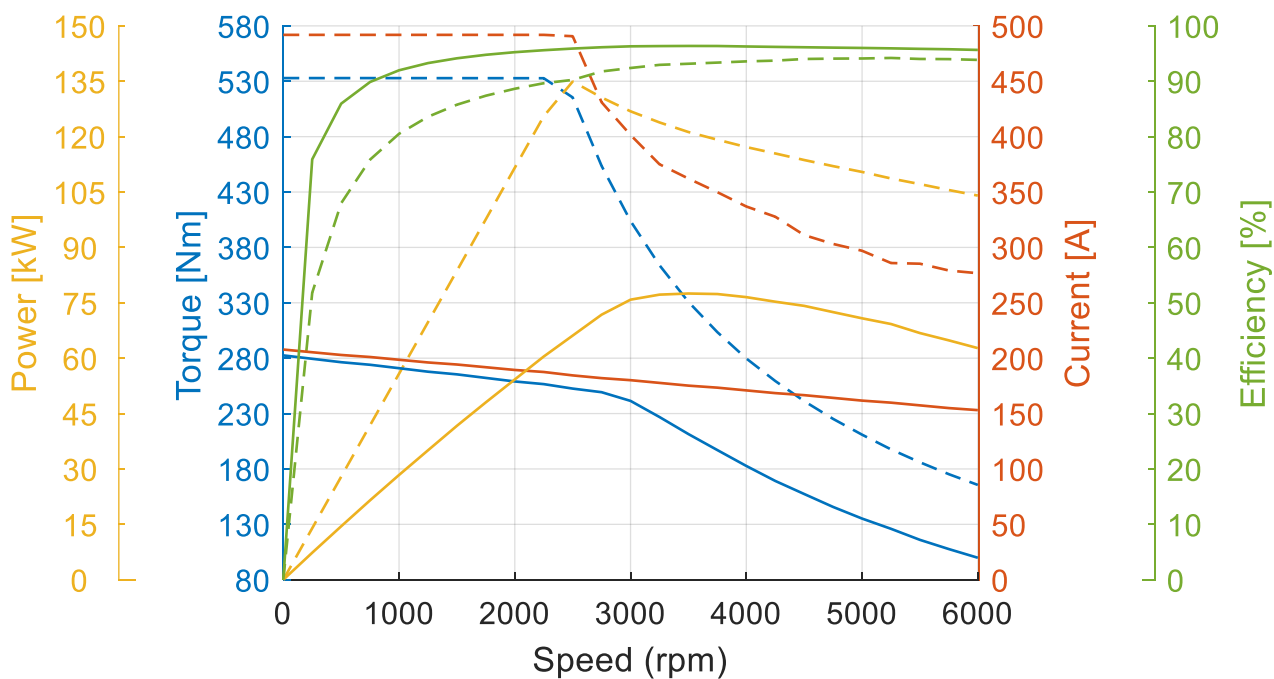
(electric machine only; $U_{nom} = 400\text{ V}$; machine at 140 °C ;)



Simulated Characteristic Motor Parameters

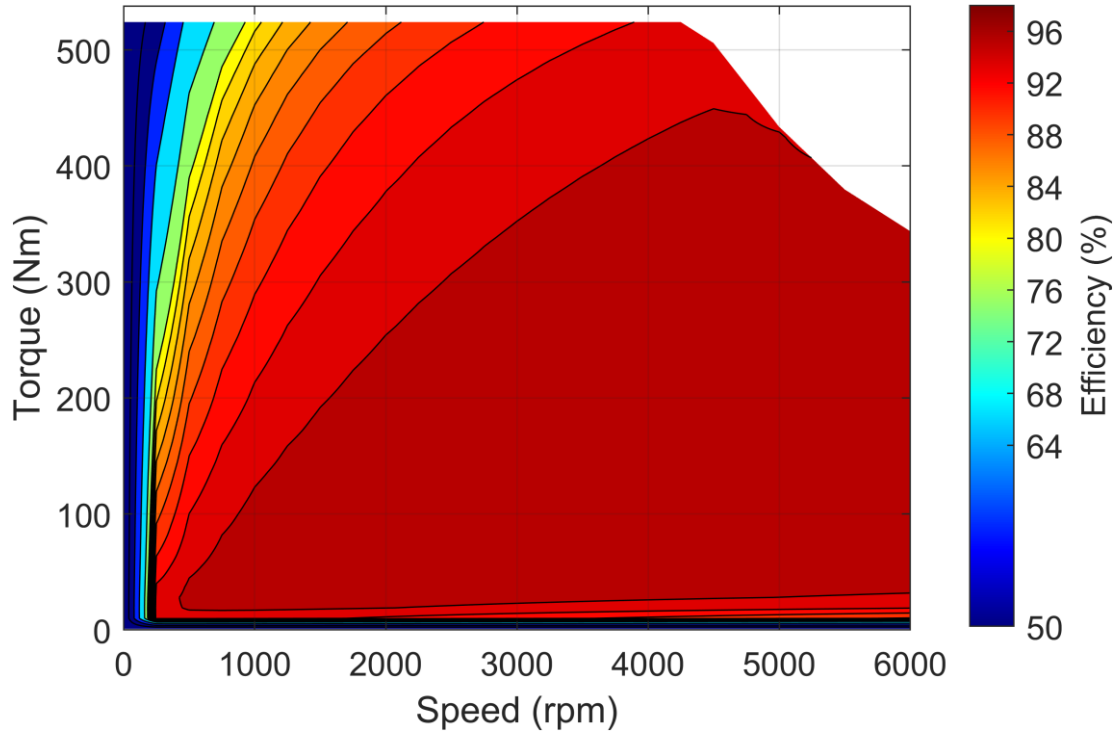
$U_{nom} = 400\text{ V}$

solid lines: S2 60min; dashed lines: maximum;

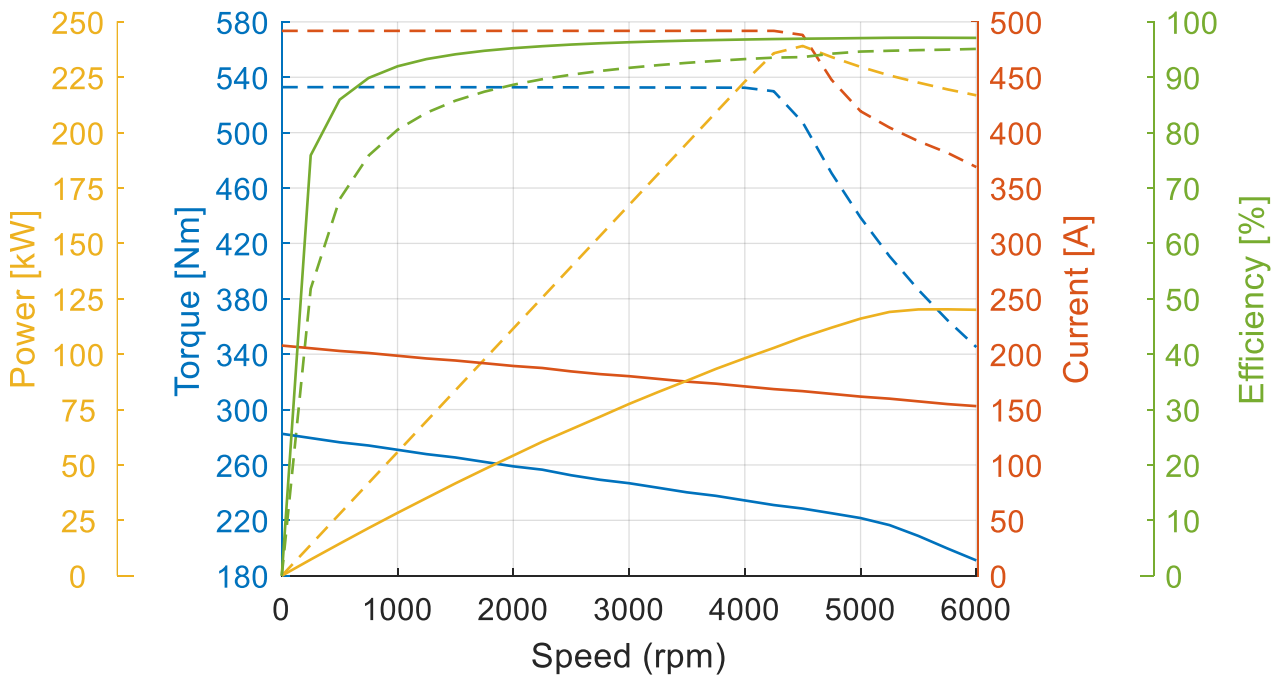


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Simulated Efficiency of Motor Application
(electric machine only; $U_{nom} = 700\text{ V}$; machine at 140 °C ;)



Simulated Characteristic Motor Parameters
 $U_{nom} = 700\text{ V}$
solid lines: S2 60min; dashed lines: maximum;



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