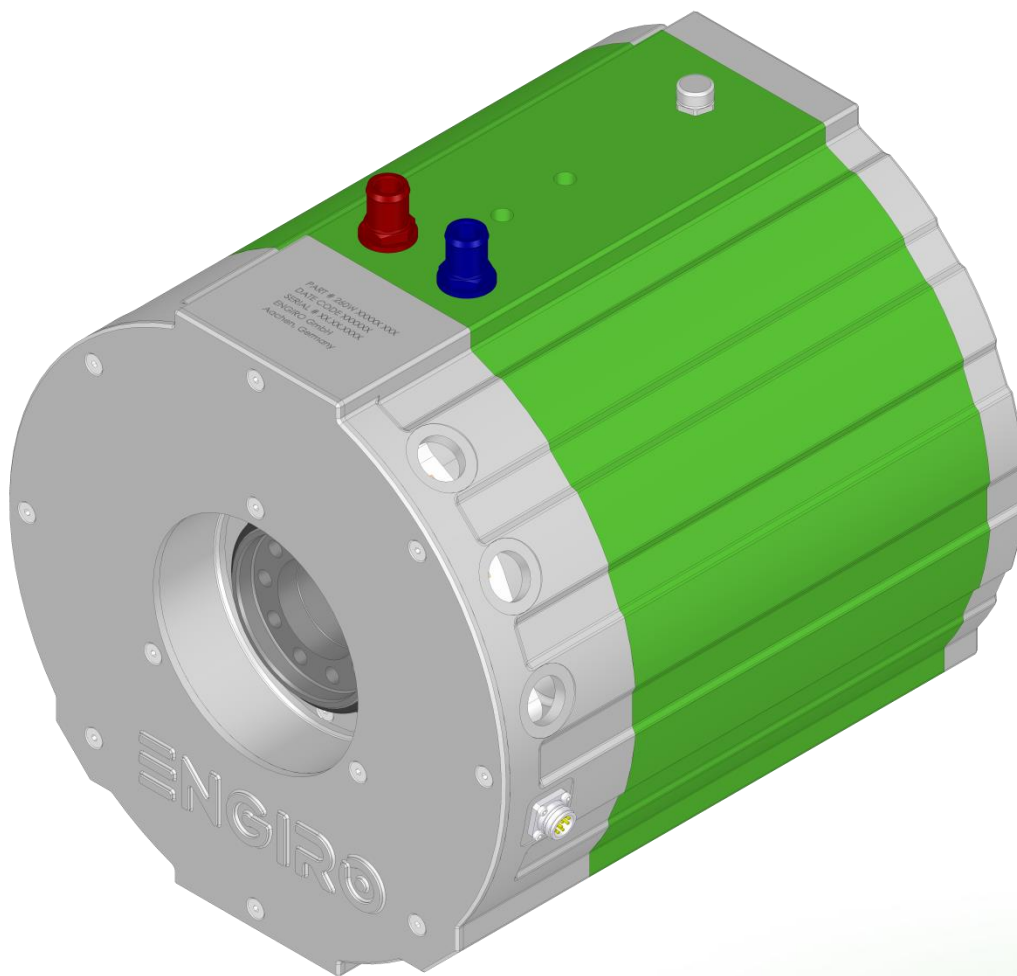


# Data Sheet

## 260W-08028-ABC

water-cooled motor / generator with 93 kW 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 850V
- delivery with controller possible

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Nominal Operation (S2, 60min, cooling as specified below)			
Torque	$T_{nom}$	212	Nm
Power	$P_{nom}$	93	kW
Speed	$n_{nom}$	4200	rpm
Phase rms-current	$I_{nom}$	141 <sup>1,2)</sup>	A
Battery voltage (DC)	$U_{nom}$	700	V
Electric frequency	$f_{el,nom}$	340	Hz
Power factor	$\cos(\varphi)$	0.73	

Maximal Values (S2, 10s, cooling as specified below)			
Torque	$T_{max}$	443	Nm
Power	$P_{max}$	162	kW
Phase rms-current	$I_{max}$	352 <sup>2)</sup>	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		96	%
$T/I$ constant ( $I < I_{nom}$ )		1.56	Nm/A <sub>rms</sub>
$U/n$ constant (AC) at a temperature of 30°C	rms:	94.0	peak: 145.7 V/(1000rpm)
$K_{\phi}$ constant (AC) at a temperature of 30°C	rms:	0.180	peak: 0.278 V/(rad*s <sup>-1</sup> )

Additional Data			
Weight (w/o cables)		68	kg
Rotor moment of inertia		0.067	kg*m <sup>2</sup>
Protection category		IP6K9K <sup>3)</sup>	
Maximal motor temperature		140	°C
Allowed ambient temperature		-20 ... 45 <sup>4)</sup>	°C
Cooling (medium, flow rate, inlet temperature, pressure)		water/glycol 50/50, 14 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	


<sup>1)</sup> Nominal current strongly dependent on cooling as specified below.

<sup>2)</sup> The cables must not exceed a temperature of 140 °C at any time. Temperature and service life depend on the installation condition.

<sup>3)</sup> 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 /

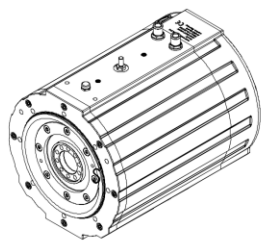
<sup>4)</sup> other range on request

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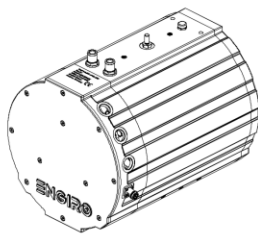
<b>Shaft and Flange Combinations for 260W-08028-ABC</b>		<b>Flange (A)</b>	
		<b>S</b> (Standard)	
<b>Shaft (B)</b>	<b>F</b> (Hollow shaft with two screw flanges)		
<b>Position Sensor (C)</b>		<b>R: Resolver</b>	

Other individual combinations are also possible on request.

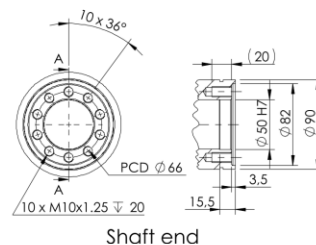
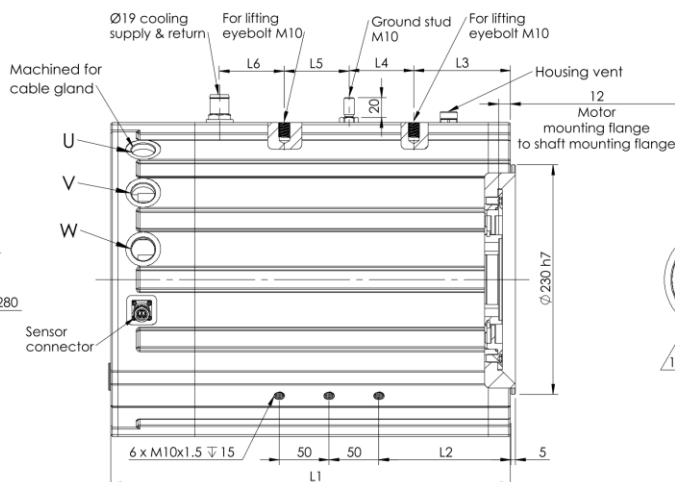
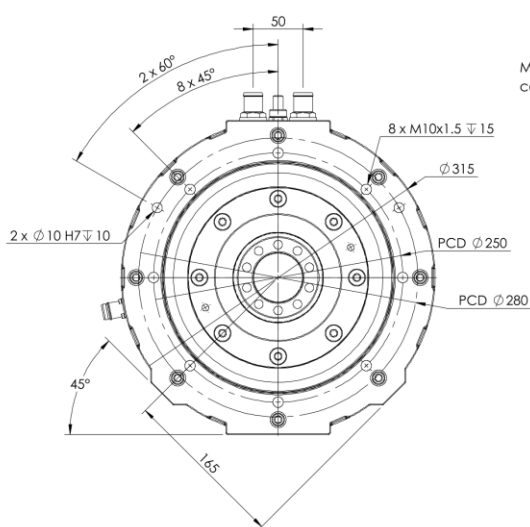
## Technical Drawings



Front view



Rear view  
S Flange

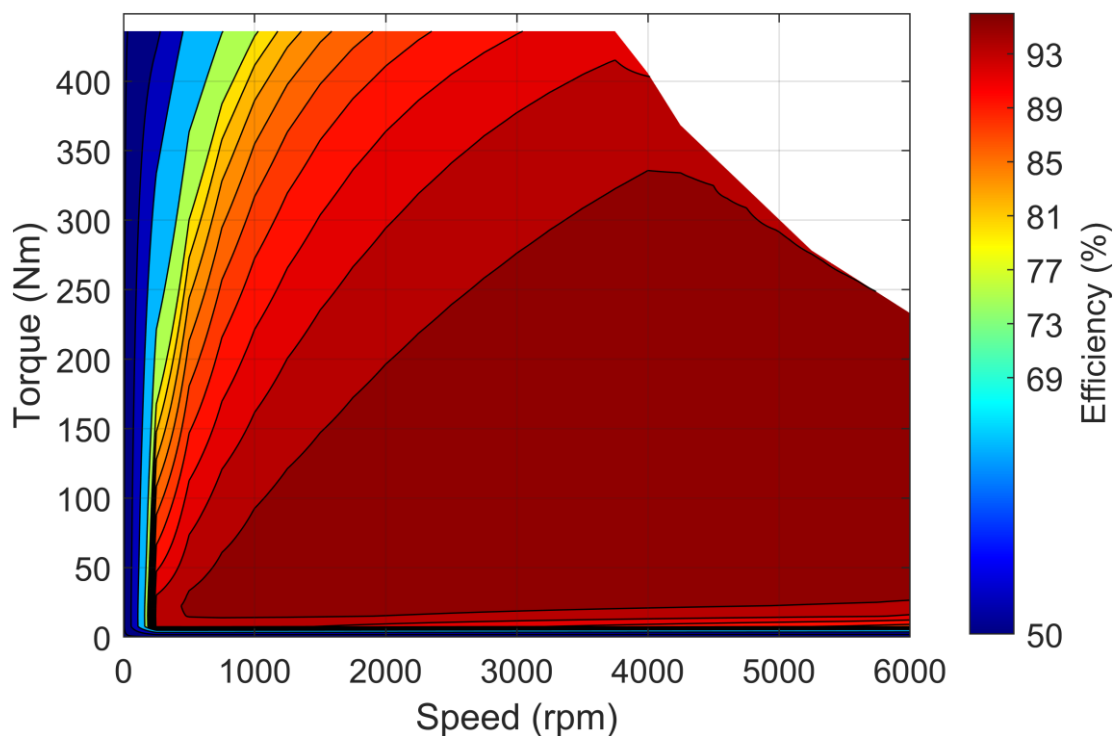


Shaft end

Model	L1	L2	L3	L4	L5	L6	Moment of inertia [kg.m <sup>2</sup> ]	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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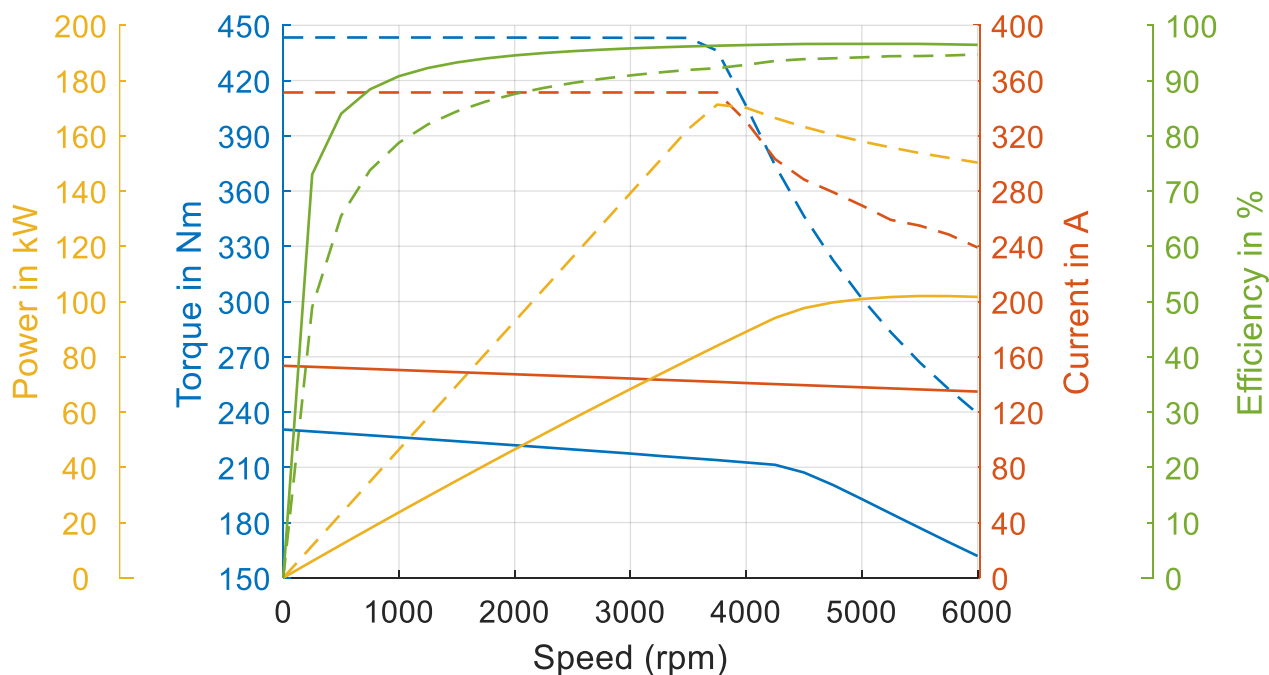
Simulated Efficiency of Motor Application  
(electric machine only;  $U_{nom} = 700\text{ V}$ ; machine at  $140\text{ °C}$ ;)



Simulated Characteristic Motor Parameters

$U_{nom} = 700\text{ V}$

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



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