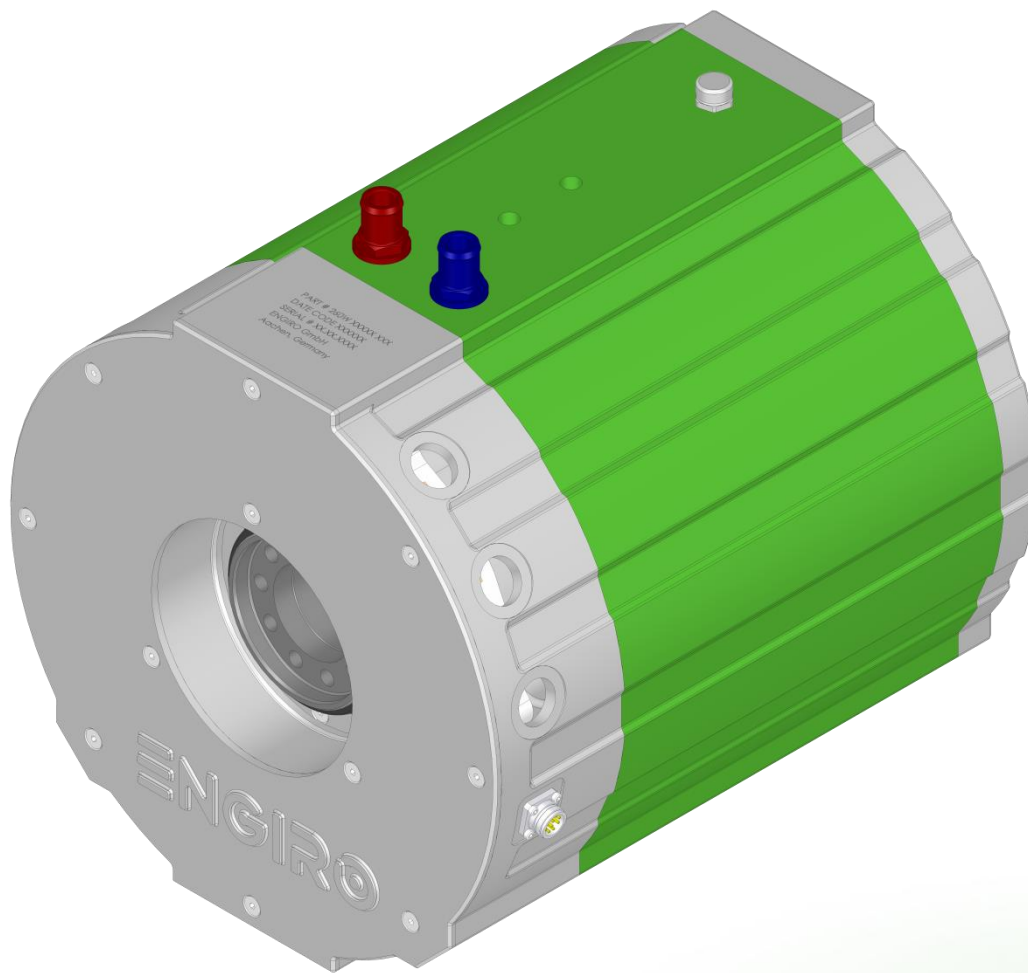


# Data Sheet

## 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 <sup>1,2)</sup>	161 <sup>1,2)</sup>	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 <sup>2)</sup>	492 <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				97	%
$T/I$ constant ( $I < I_{nom}$ )				1.4	Nm/A <sub>rms</sub>
$U/n$ constant (AC) at a temperature of 30°C	rms:	84	peak:	130.2	V/(1000rpm)
$K_e$ constant (AC) at a temperature of 30°C	rms:	0.160	peak:	0.249	V/(rad*s <sup>-1</sup> )

Additional Data					
Weight (w/o cables)				77	kg
Rotor moment of inertia				0.077	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, 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	


<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 /

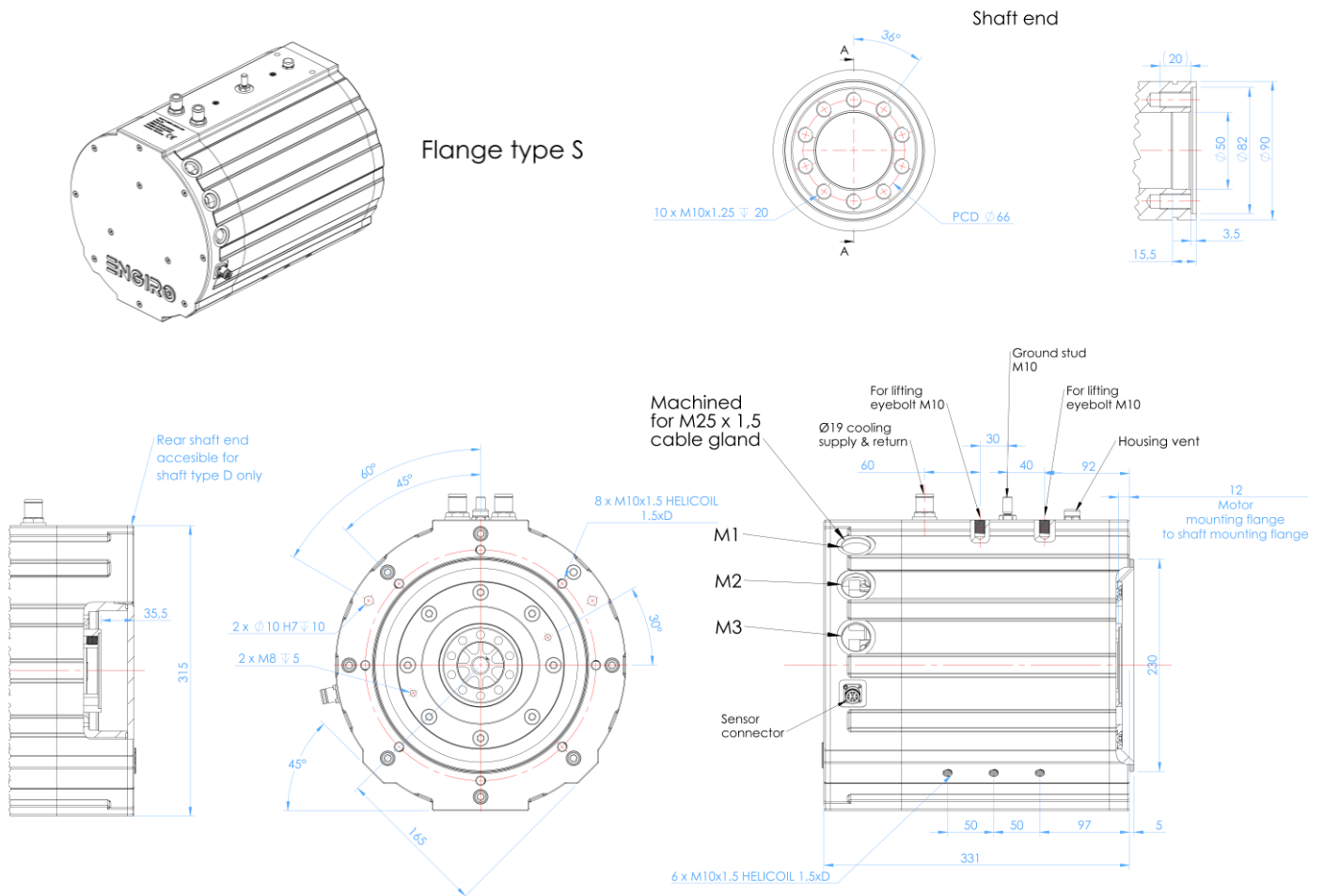
<sup>4)</sup> other range on request

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<b>Shaft and Flange Combinations For 260W-10020-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>

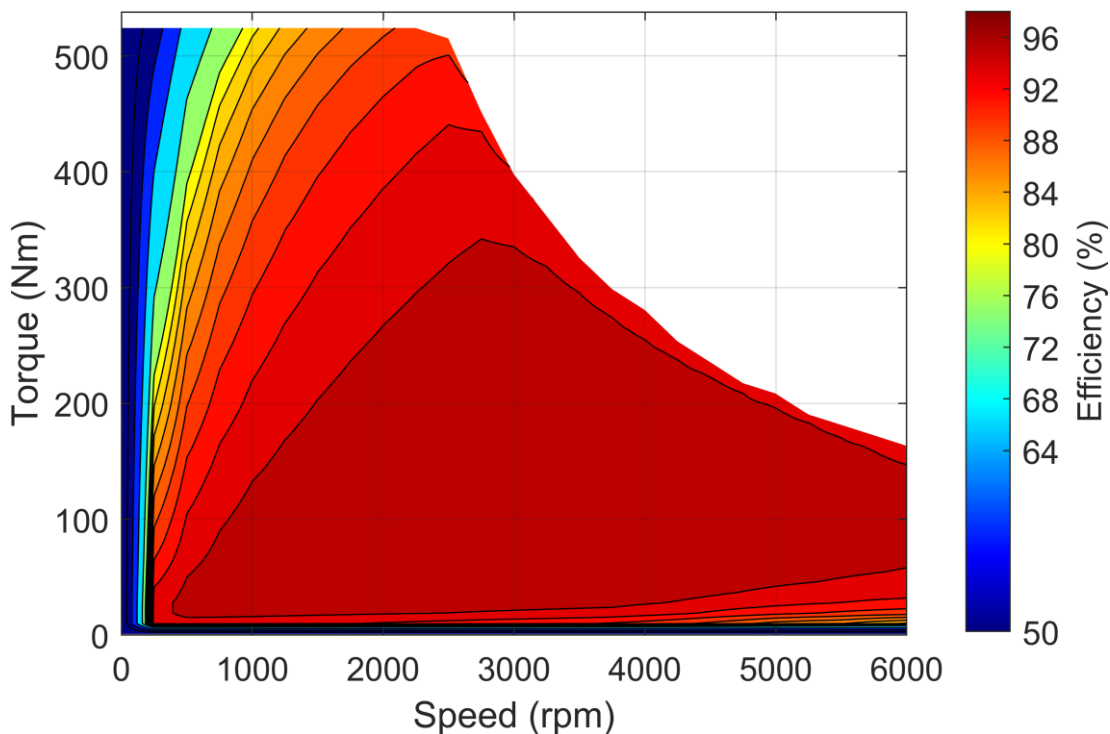
Other individual combinations are also possible on request.

## Technical Drawings



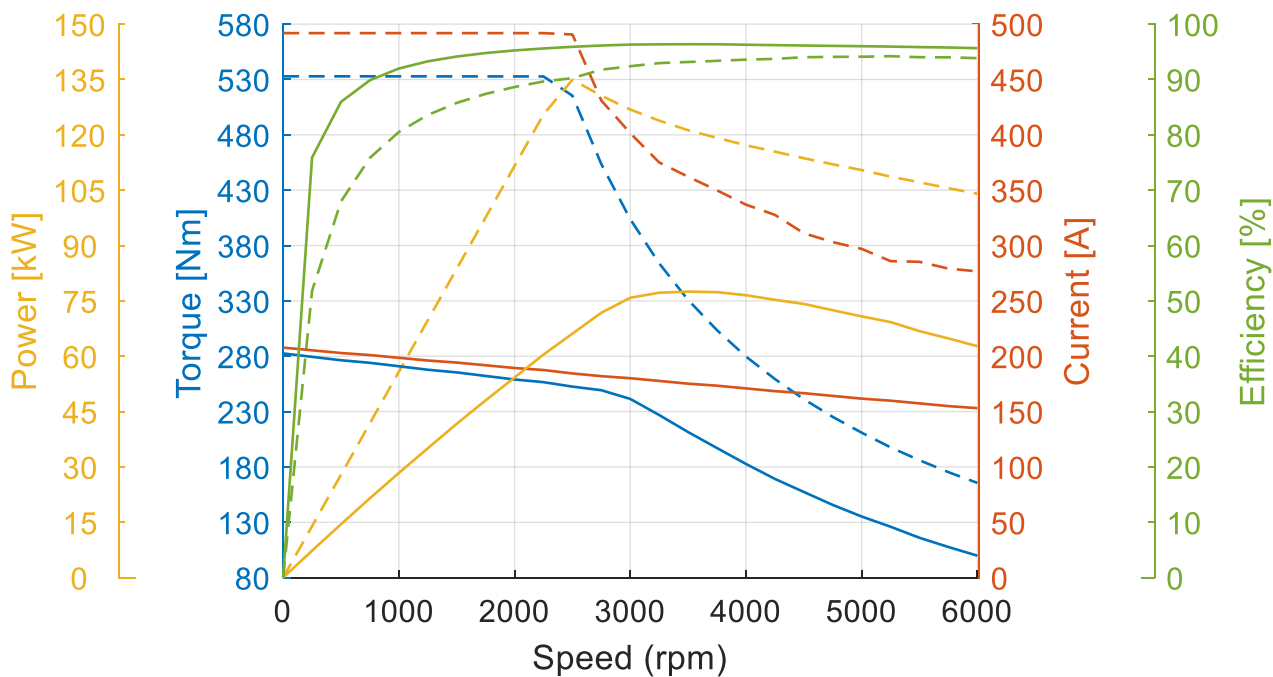
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Simulated Efficiency of Motor Application  
(electric machine only;  $U_{nom} = 400\text{ V}$ ; machine at  $140\text{ °C}$ ;)



Simulated Characteristic Motor Parameters

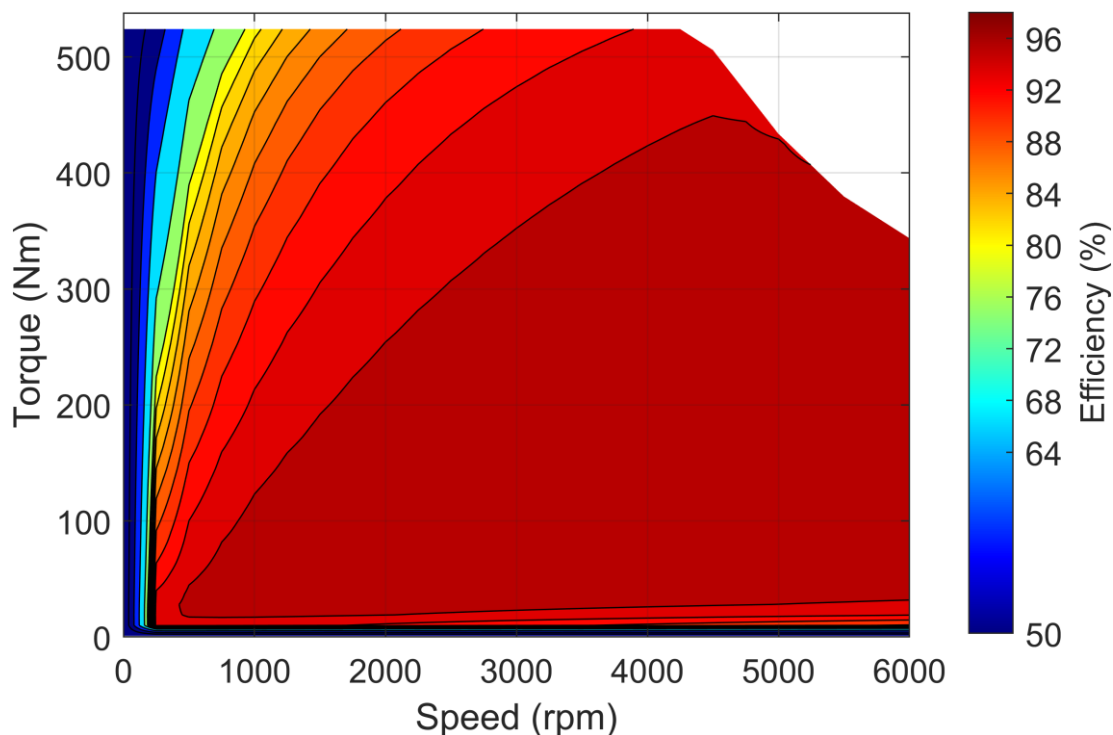
$U_{nom} = 400\text{ V}$   
solid lines: S2 60min; dashed lines: maximum;



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## Simulated Efficiency of Motor Application

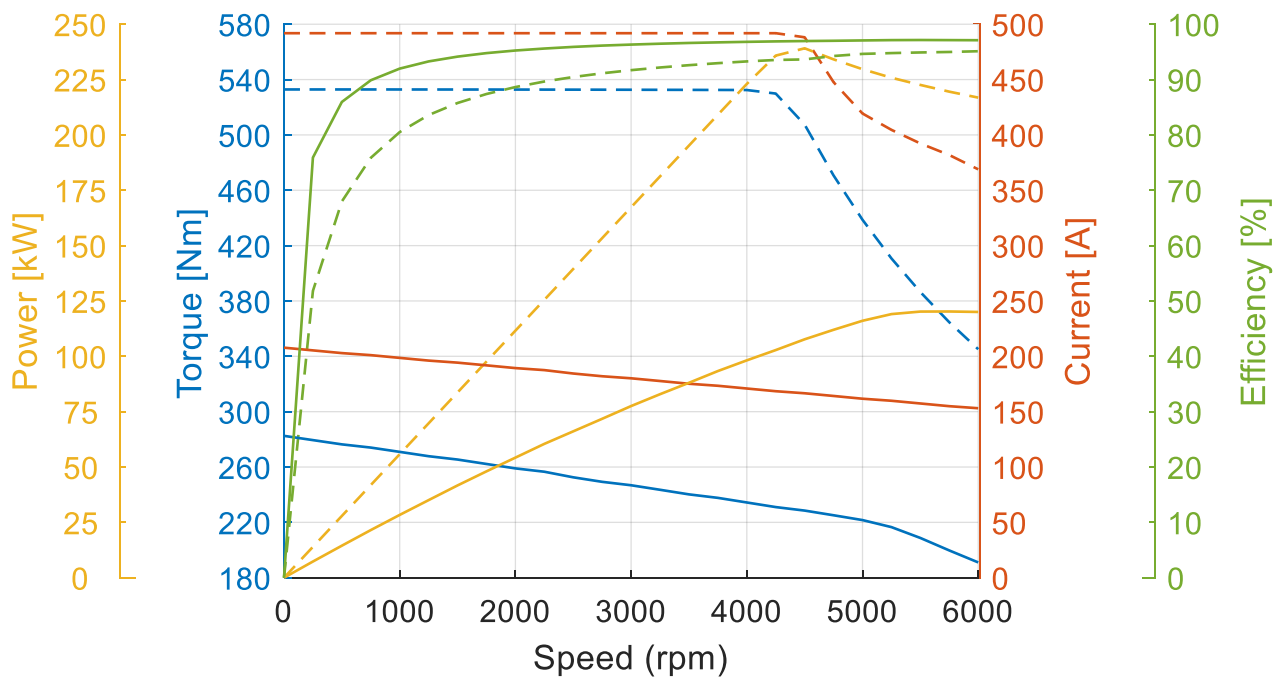
(electric machine only;  $U_{nom} = 700\text{ V}$ ; machine at  $140\text{ °C}$ ;)



## Simulated Characteristic Motor Parameters

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

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



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