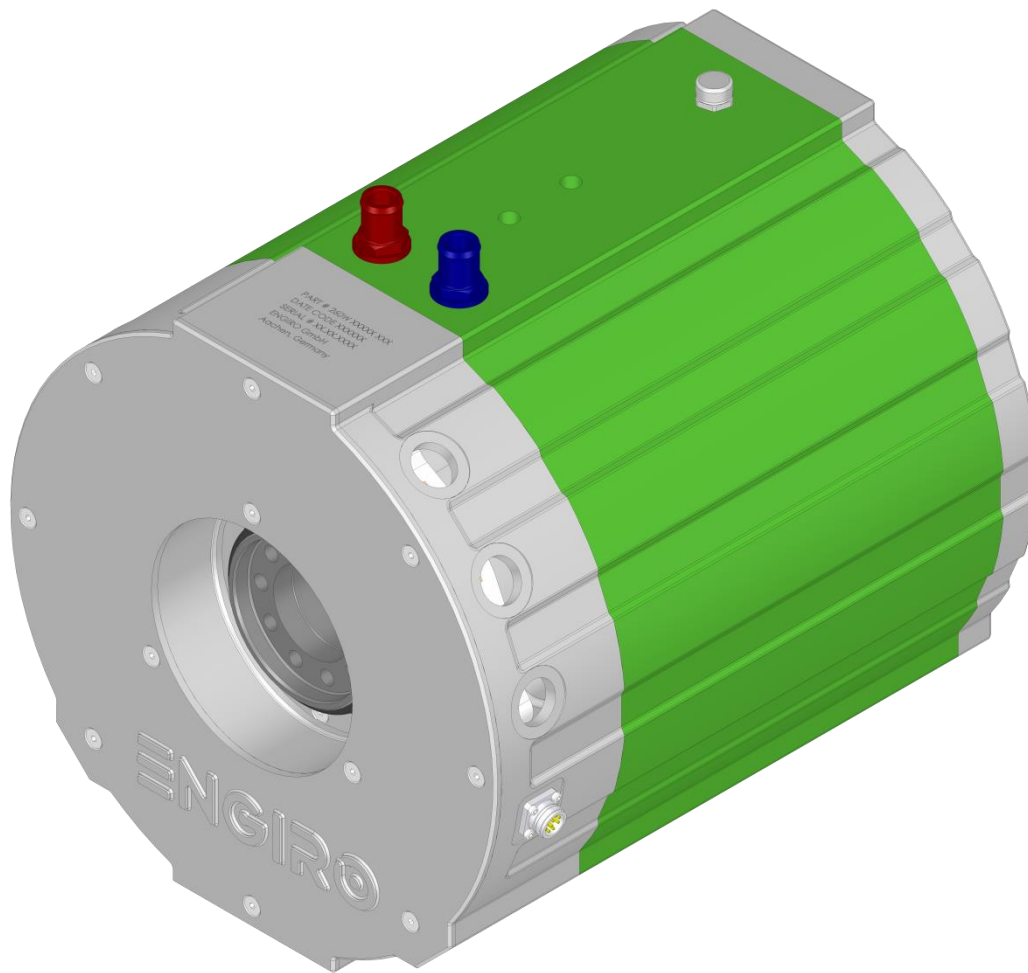


# 260W-10014-ABC

water-cooled motor / generator with 106 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 500V
- delivery with controller possible
- Double shaft end with screw flange

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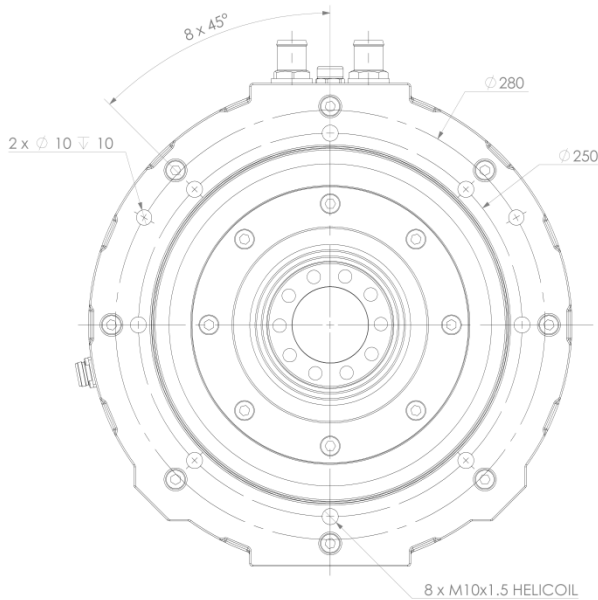
Nominal Operation (S1, cooling as specified below)				
Torque	$T_{nom}$		275	Nm
Power	$P_{nom}$		106	kW
Speed	$n_{nom}$		3690	rpm
Phase rms-current	$I_{nom}$		280	A
Battery voltage (DC)	$U_{nom}$		400	V
Electric frequency	$f_{el,nom}$		397	Hz
Power factor	$\cos(\varphi)$		0.73	
Maximal Values (S2, 10s, cooling as specified below)				
Torque	$T_{max}$		544	Nm
Power	$P_{max}$		205	kW
Phase rms-current	$I_{max}$		702	A
Battery voltage (DC)	$U_{max}$		500	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 ( $I < I_{nom}$ )			0.98	Nm/A <sub>rms</sub>
$U/n$ constant (AC)		rms: 58.8	peak: 83.1	V/(1000rpm)
$K_e$ constant (AC)		rms: 0.112	peak: 0.159	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			IP65 / IP69k	
Maximal motor temperature			140	°C
Allowed ambient temperature			-20 ... 45 <sup>1)</sup>	°C
Cooling (medium, flow rate, inlet temperature, pressure)			water/glycol 50/50, 11 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> other range on request

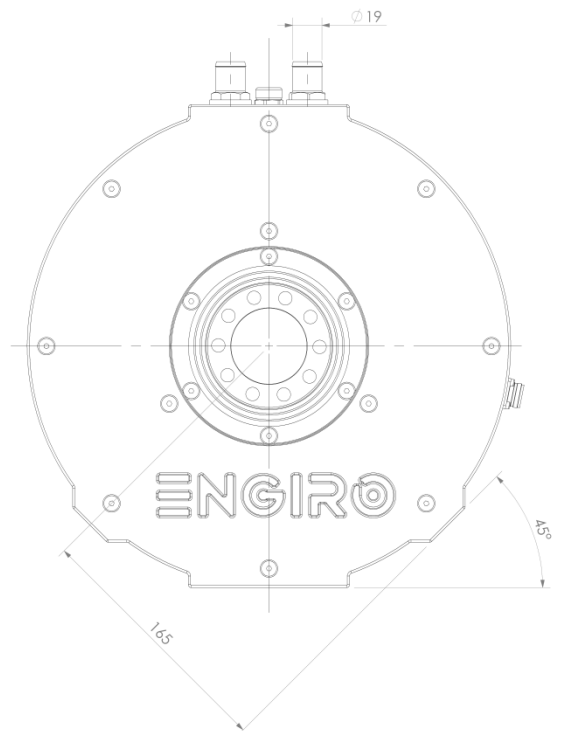
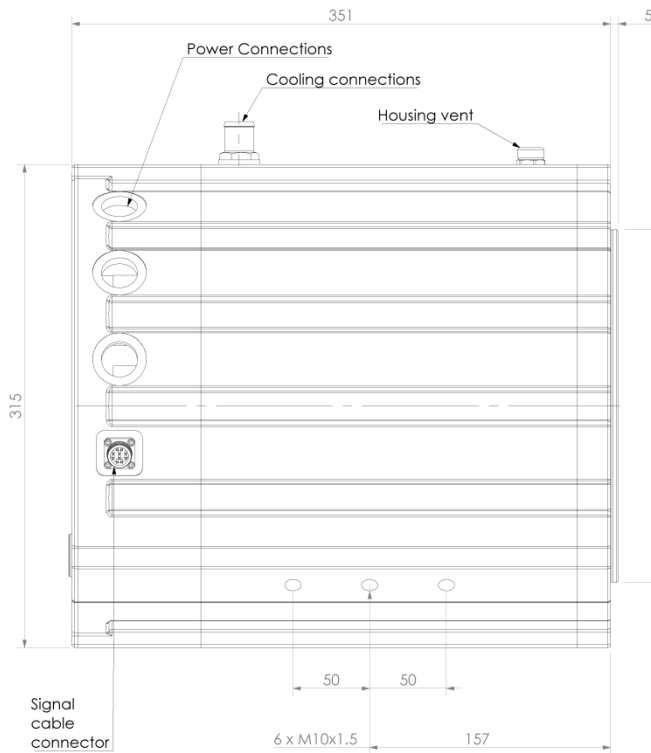
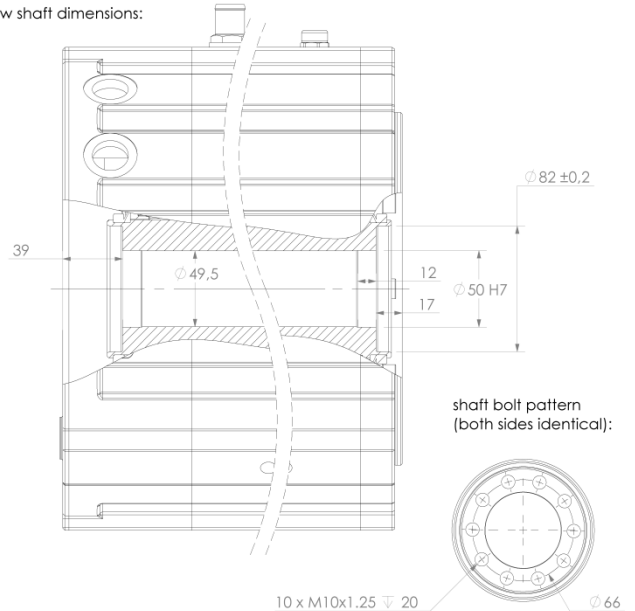
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Available Type Variants

type number	A: flange	B: shaft	C: position sensor
260W-10014-	S: standard	F: hollow shaft with two screw flanges	R: resolver
			N: none



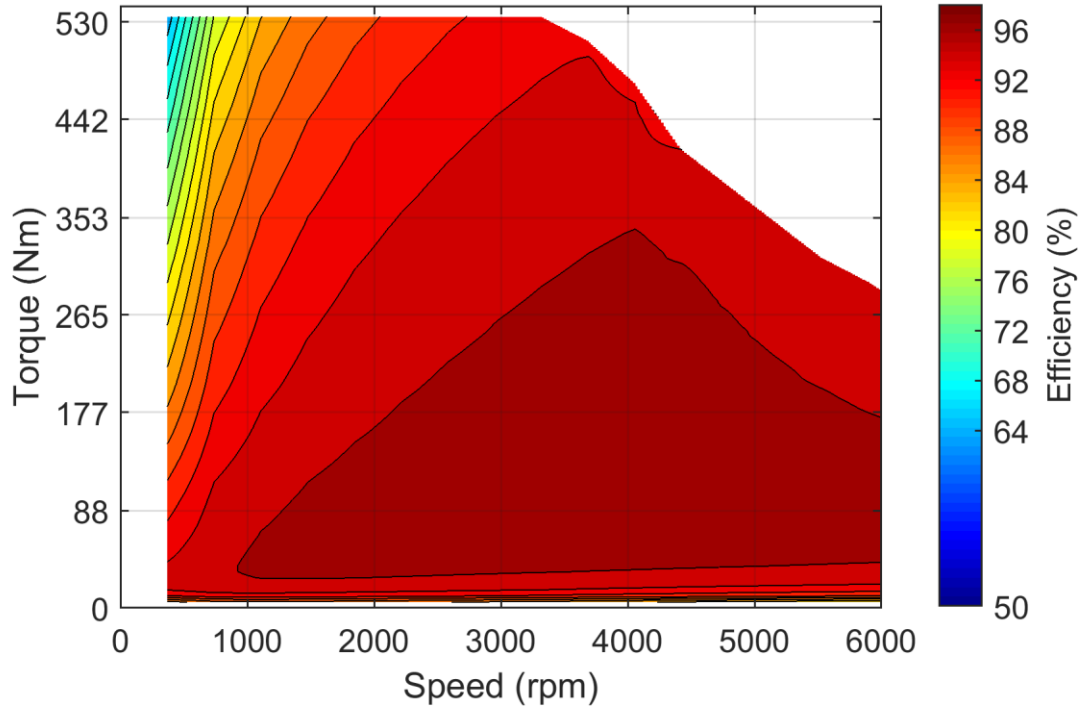
hollow shaft dimensions:



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Simulated Efficiency of Motor Application

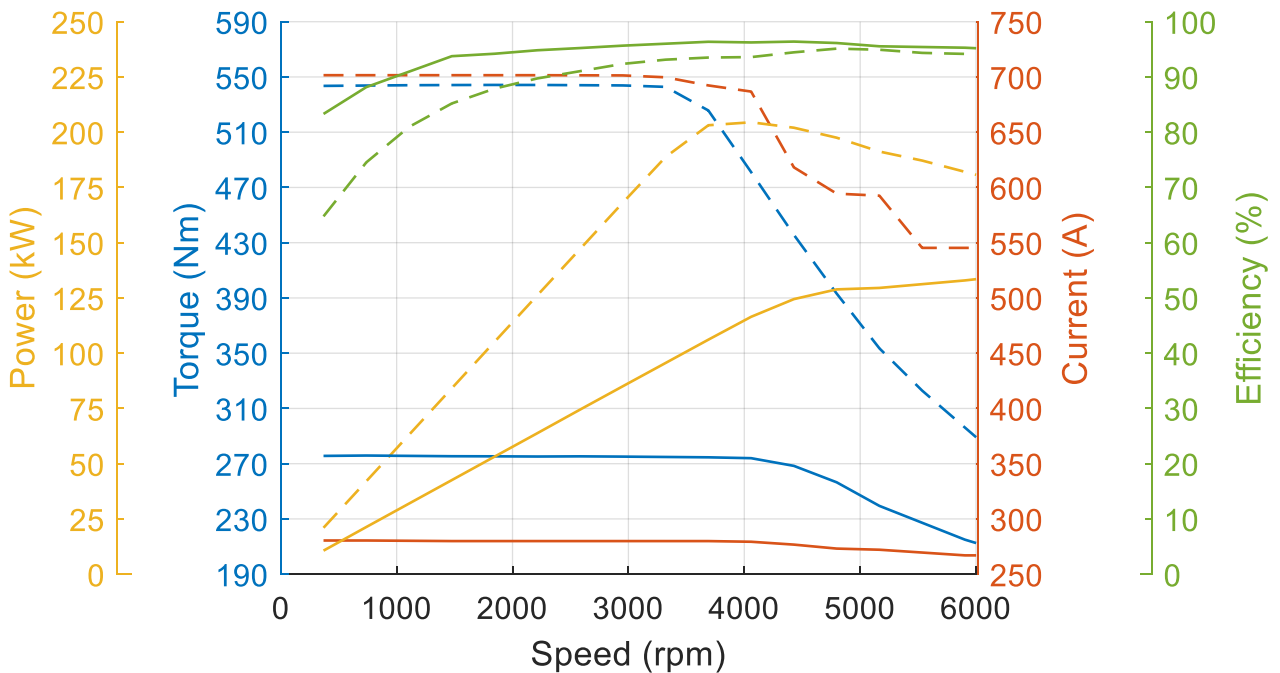
(electric machine only;  $U_{nom} = 400\text{ V}$ ; machine at  $100\text{ °C}$ ;)



Simulated Characteristic Motor Parameters

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

solid lines: continuous; dashed lines: maximum;  
(jitter is caused by numerical inaccuracies in the simulation software)

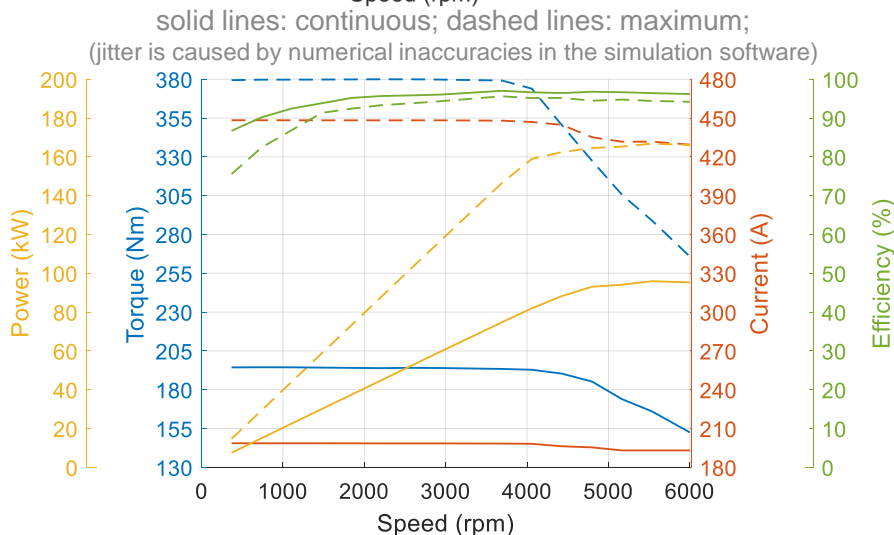
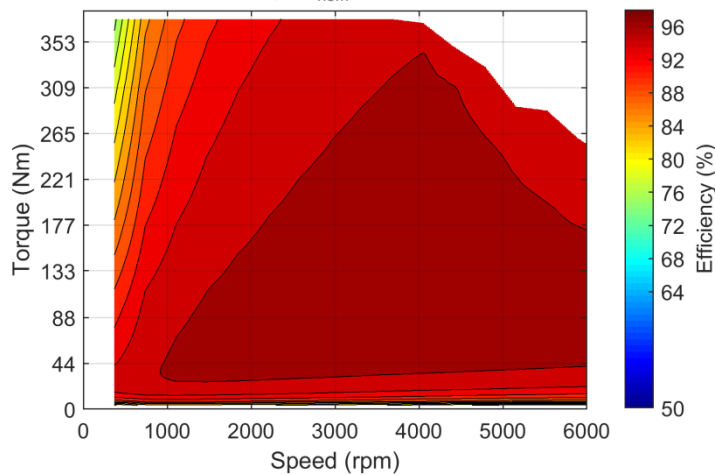


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Nominal Operation Drive Set (S1)			
Torque	$T_{nom}$	193	Nm
Power	$P_{nom}$	75	kW
Speed	$n_{nom}$	3690	rpm
Phase rms-current	$I_{nom}$	199	A
Battery voltage	$U_{nom}$	400	V
Electric frequency	$f_{el,nom}$	307	Hz
Power factor	$\cos(\varphi)$	0.74	
Maximal Values Drive Set (S2, 1-10s)			
Torque	$T_{max}$	380	Nm
Power	$P_{max}$	167	kW
Phase rms-current	$I_{max}$	449	A
Battery voltage	$U_{max}$	400	V
Speed	$n_{max}$	6000	rpm
Electric frequency	$f_{el,max}$	500	Hz

### Simulated Efficiency and Motor Characteristic of Motor Application

(electric machine only;  $U_{nom} = 400$  V; machine at 100 °C;)



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