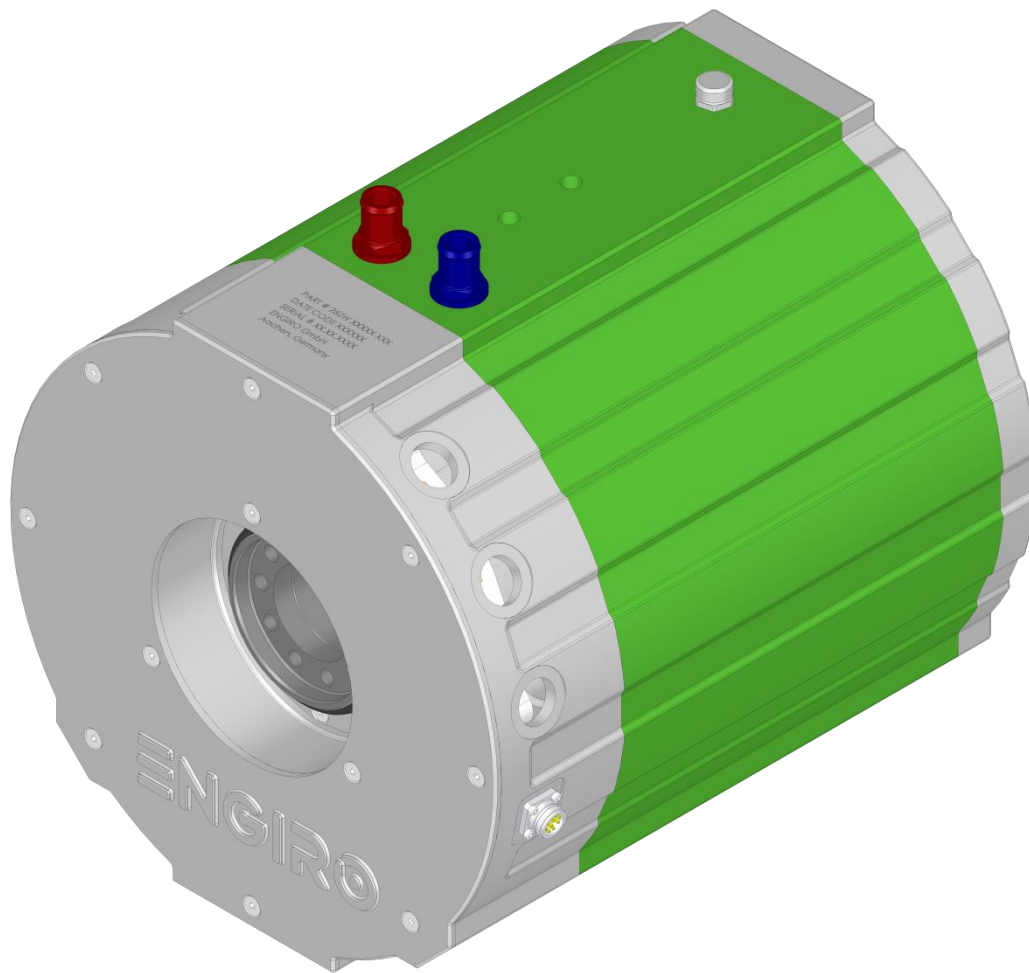


260W-10020-ABC

water-cooled motor generator with up to 130 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 750V
- 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	275	275	Nm
Power	P_{nom}	74	104	130	kW
Speed	N_{nom}	2580	3610	4520	rpm
Phase rms-current	I_{nom}	197	197	197	A
Battery voltage (DC)	U_{nom}	400	560	700	V
Electric frequency	$f_{el, nom}$	215	301	377	Hz
Power factor	$\cos(\varphi)$	0.73	0.72	0.73	

Maximal Values (S2, 10s, cooling as specified below)

Torque	T_{max}	547	547	547	Nm
Power	P_{max}	141	201	252	kW
Phase rms-current	I_{max}	496	496	496	A
Battery voltage (DC)	U_{max}	750			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 ($I < I_{nom}$)	1.4 Nm/A _{rms}				
U/n constant (AC)	rms:	84	peak:	118.8	V/(1000rpm)
K_e constant (AC)	rms:	0.160	peak:	0.227	V/(rad*s ⁻¹)

Additional Data

Weight (w/o cables)	77	kg
Rotor moment of inertia	0.077	kg*m²
Protection category	IP65 / IP69k	
Maximal motor temperature	140	°C
Allowed ambient temperature	-20 ... 45 ¹⁾	°C
Cooling (medium, flow rate, inlet temperature, pressure)	water/glycol 50/50, 13 l/min, ≤ 45°C, ≤ 0.5 bar	
Temperature monitoring	1 x KTY84-130	
Type approval	CE, EN 60034	
Customs tariff number	8501 5381	

Connectors

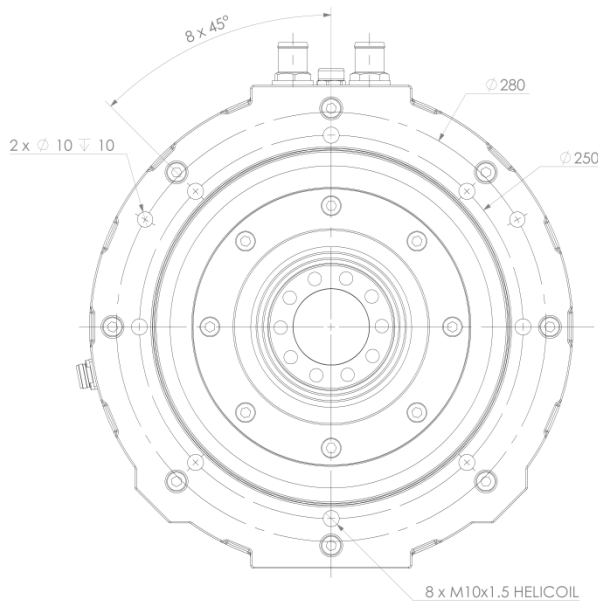
Power terminals	3 x M25 cable gland
Signal connectors	M16, 10 Pin
Cooling connectors	2 x 3/4" / 19 mm

¹⁾ other range on request

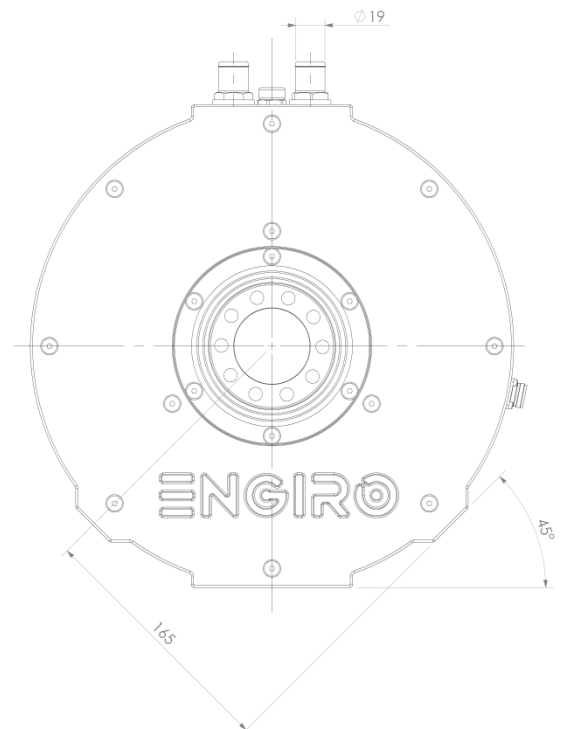
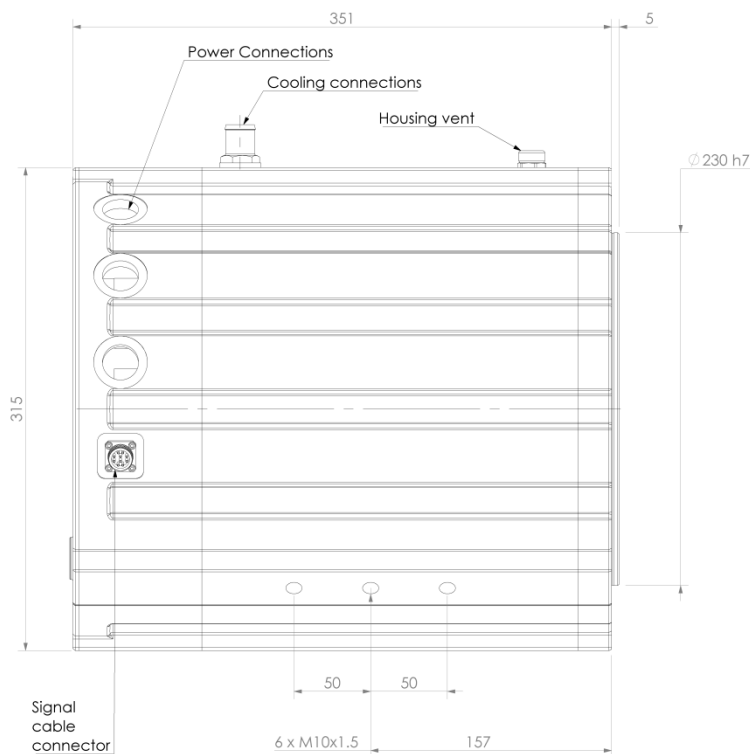
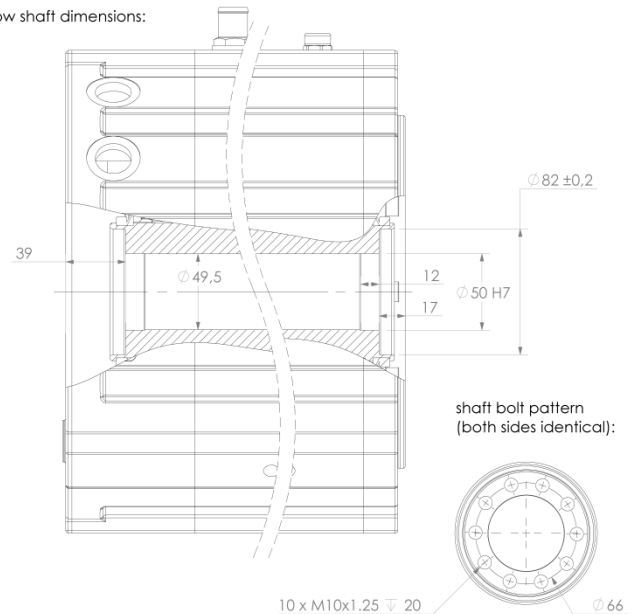
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Available Type Variants

type number	A: flange	B: shaft	C: position sensor
260W-10020-	S: standard	F: hollow shaft with two screw flanges	R: resolver
			N: none



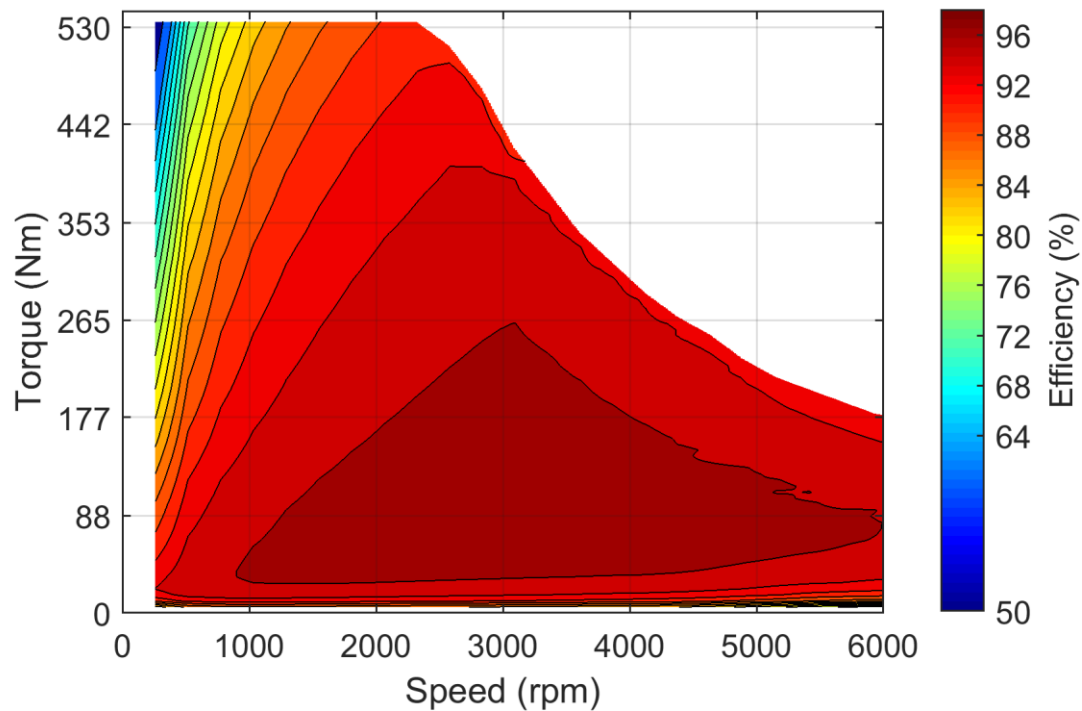
hollow shaft dimensions:



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Simulated Efficiency of Motor Application

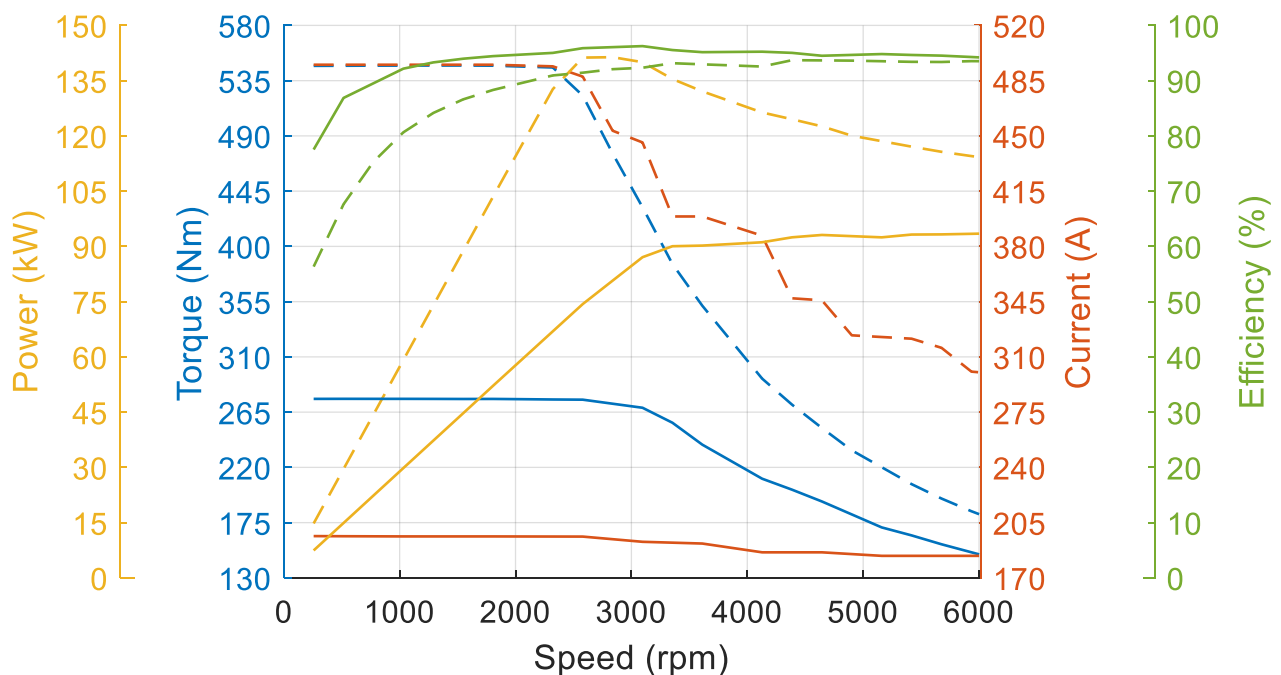
(electric machine only; $U_{\text{nom}} = 400 \text{ V}$; machine at 100°C ;)



Simulated Characteristic Motor Parameters

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

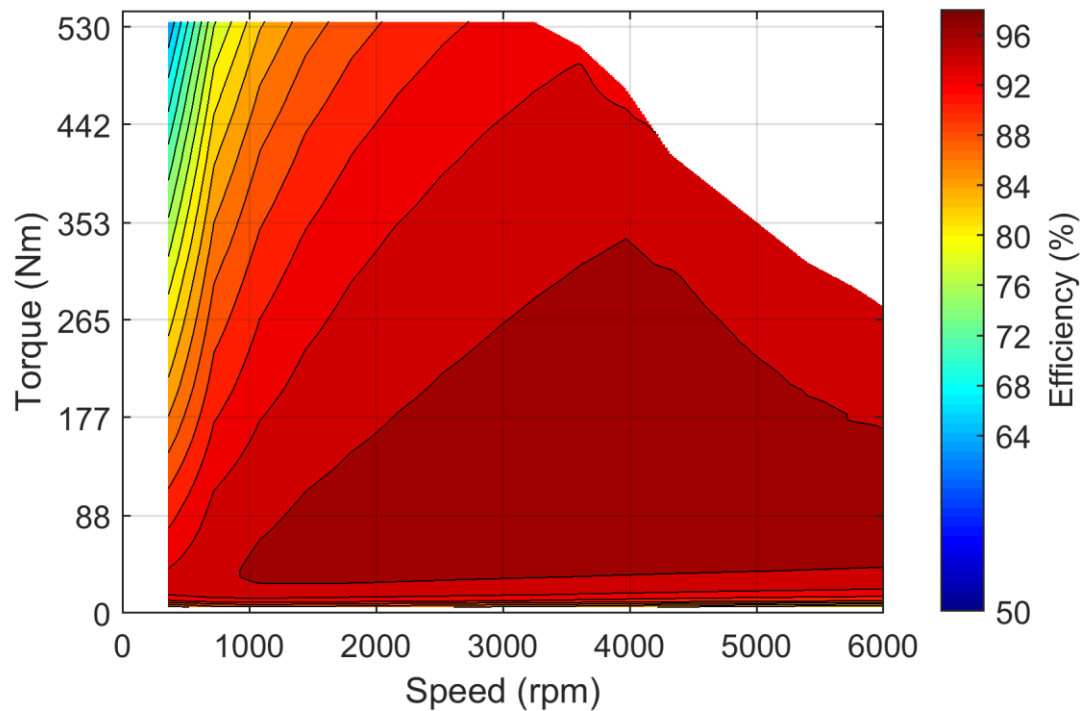
solid lines: continuous; dashed lines: maximum;
 (jitter is caused by numerical inaccuracies in the simulation software)



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Simulated Efficiency of Motor Application

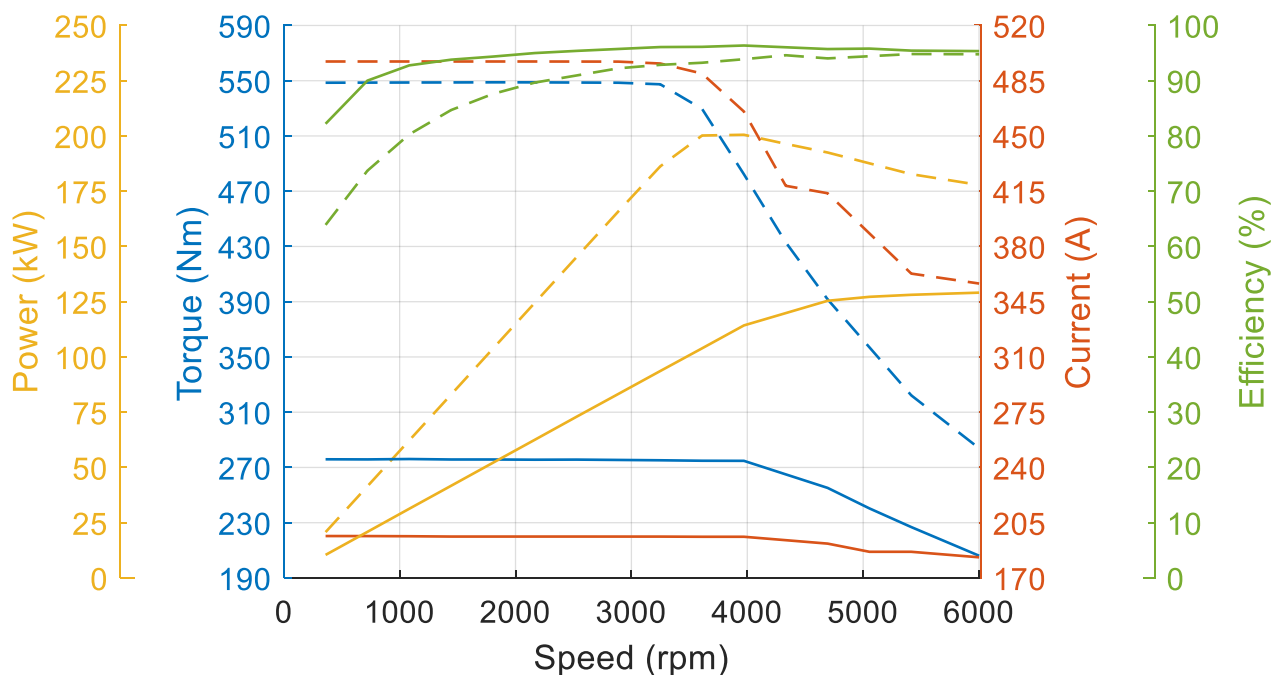
(electric machine only; $U_{\text{nom}} = 560 \text{ V}$; machine at 100°C ;))



Simulated Characteristic Motor Parameters

$U_{\text{nom}} = 560 \text{ V}$

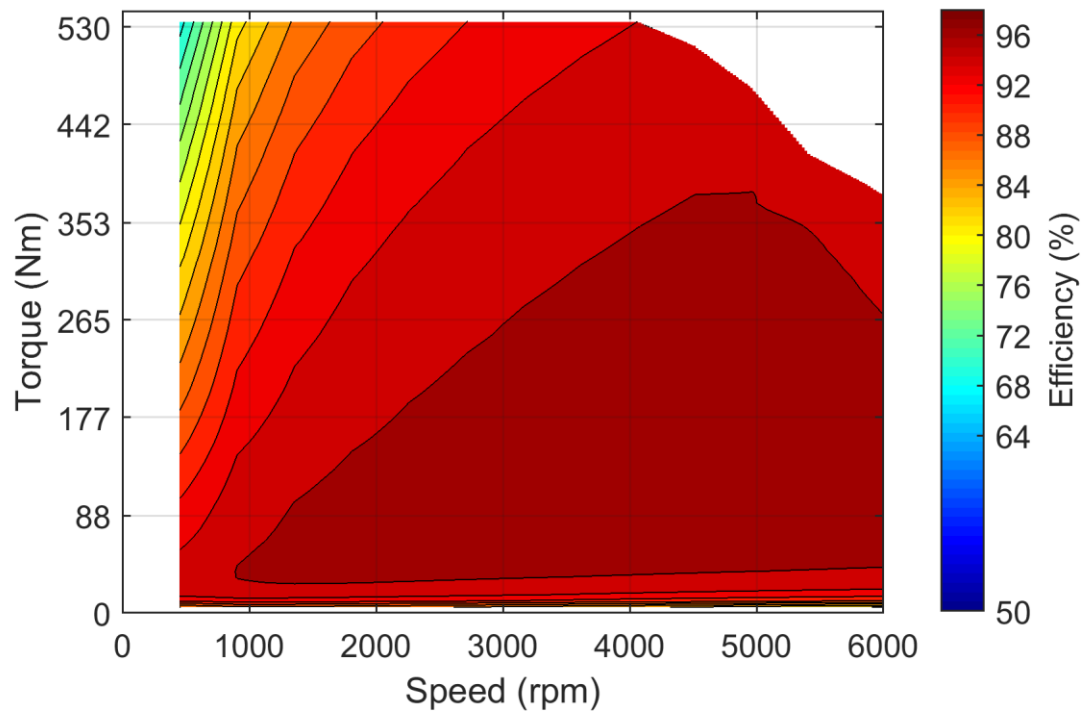
solid lines: continuous; dashed lines: maximum;
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Simulated Efficiency of Motor Application

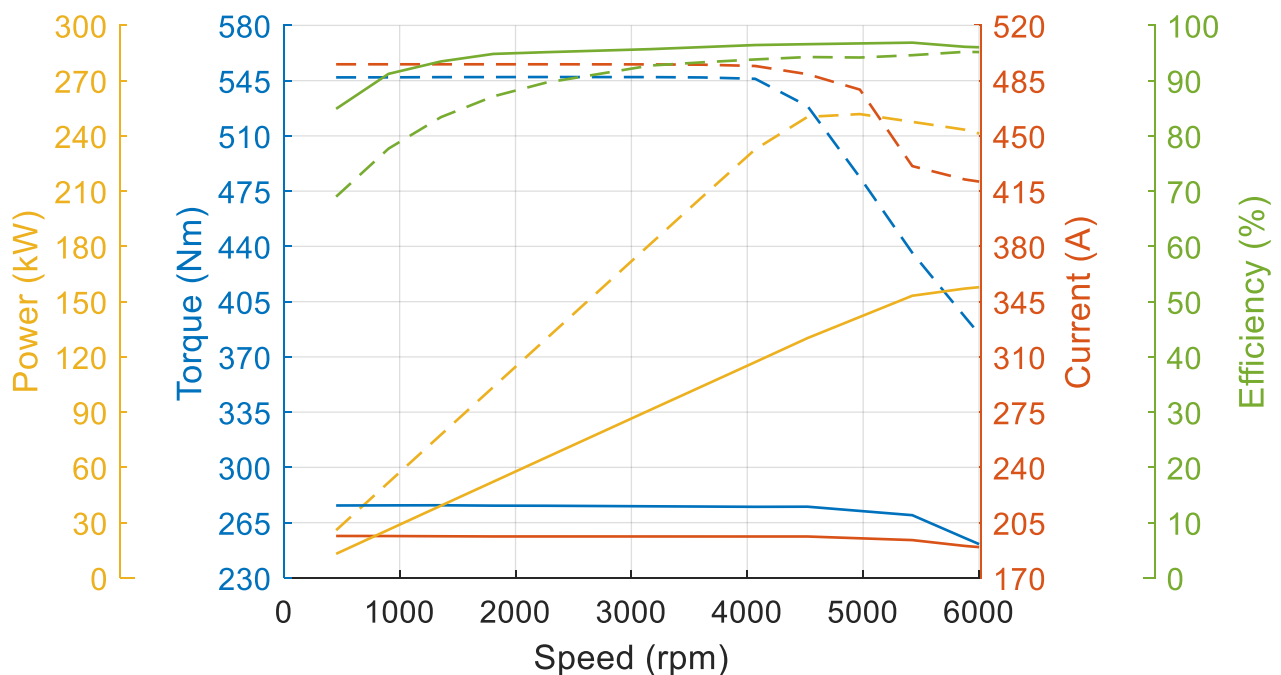
(electric machine only; $U_{\text{nom}} = 700 \text{ V}$; machine at 100°C ;)



Simulated Characteristic Motor Parameters

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

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



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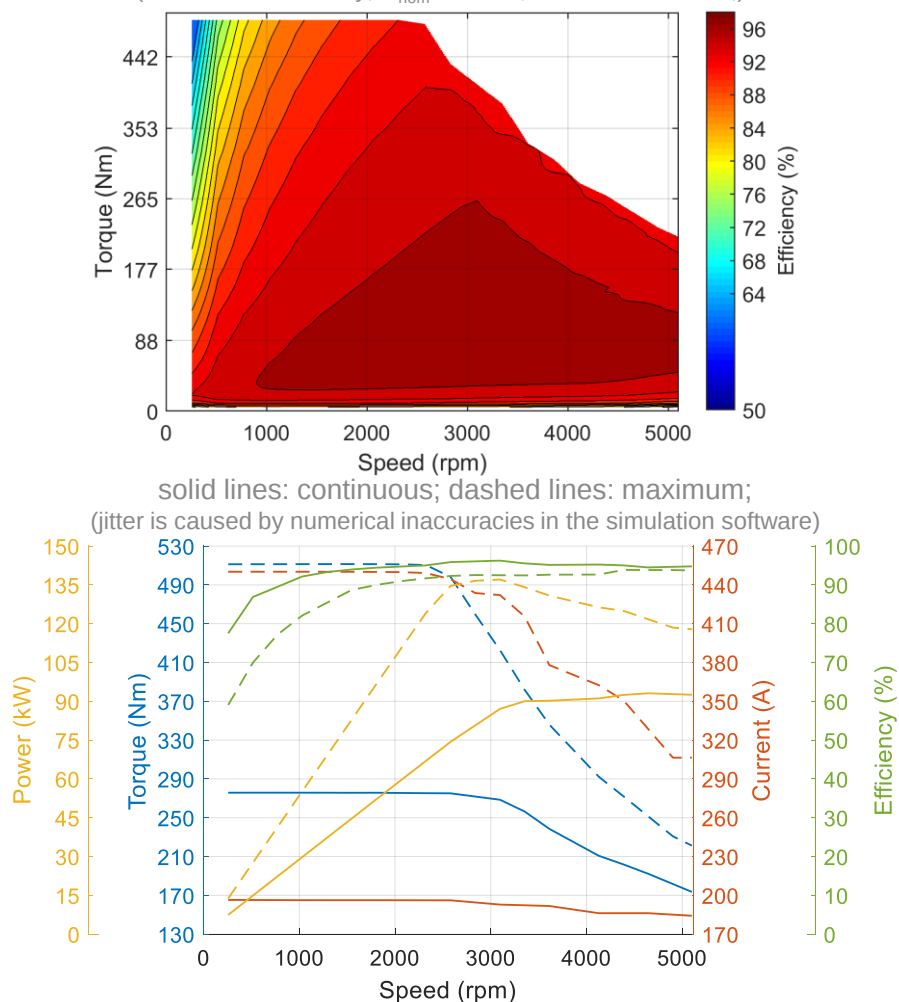
Nominal Operation Drive Set (S1)

Torque	T_{nom}	275	Nm
Power	P_{nom}	74	kW
Speed	n_{nom}	2580	rpm
Phase rms-current	I_{nom}	197	A
Battery voltage	U_{nom}	400	V
Electric frequency	$f_{el, \text{nom}}$	215	Hz
Power factor	$\cos(\varphi)$	0.73	

Maximal Values Drive Set (S2, 1-10s)

Torque	T_{max}	511	Nm
Power	P_{max}	137	kW
Phase rms-current	I_{max}	451	A
Battery voltage	U_{max}	400	V
Speed	n_{max}	5100	rpm
Electric frequency	$f_{el, \text{max}}$	425	Hz

Simulated Efficiency and Motor Characteristic of Motor Application

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

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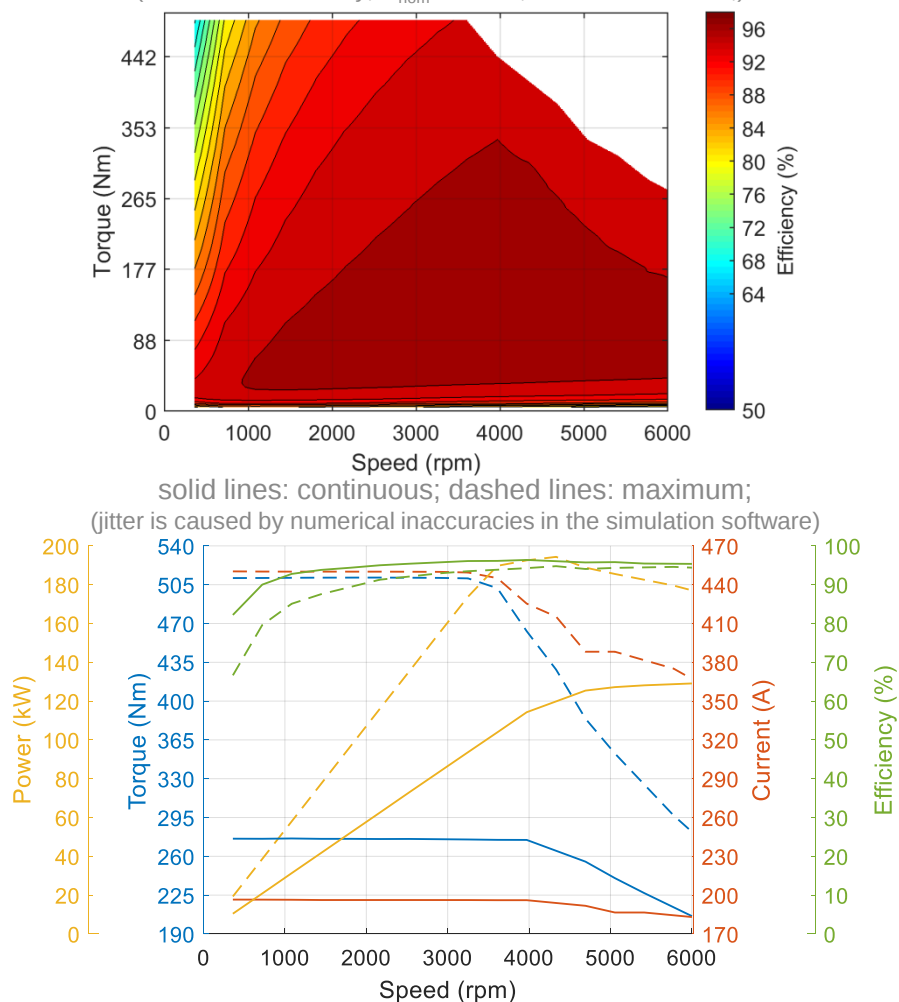
Nominal Operation Drive Set (S1)

Torque	T_{nom}	275	Nm
Power	P_{nom}	104	kW
Speed	n_{nom}	3610	rpm
Phase rms-current	I_{nom}	197	A
Battery voltage	U_{nom}	560	V
Electric frequency	$f_{el,\text{nom}}$	301	Hz
Power factor	$\cos(\varphi)$	0.72	

Maximal Values Drive Set (S2, 1-10s)

Torque	T_{max}	511	Nm
Power	P_{max}	194	kW
Phase rms-current	I_{max}	451	A
Battery voltage	U_{max}	560	V
Speed	n_{max}	6000	rpm
Electric frequency	$f_{el,\text{max}}$	500	Hz

Simulated Efficiency and Motor Characteristic of Motor Application

(electric machine only; $U_{\text{nom}} = 560$ V; machine at 100 °C;)

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Nominal Operation Drive Set (S1)

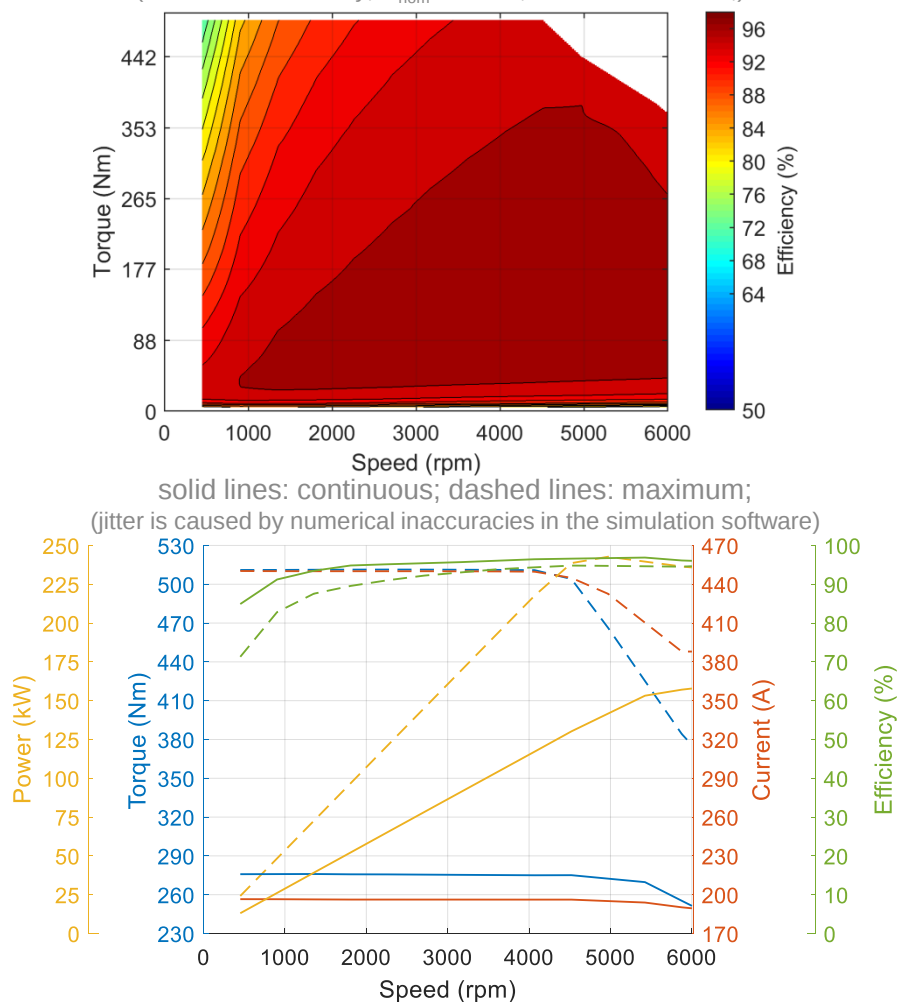
Torque	T_{nom}	275	Nm
Power	P_{nom}	130	kW
Speed	n_{nom}	4520	rpm
Phase rms-current	I_{nom}	197	A
Battery voltage	U_{nom}	700	V
Electric frequency	$f_{el,\text{nom}}$	377	Hz
Power factor	$\cos(\varphi)$	0.73	

Maximal Values Drive Set (S2, 1-10s)

Torque	T_{max}	511	Nm
Power	P_{max}	243	kW
Phase rms-current	I_{max}	451	A
Battery voltage	U_{max}	700	V
Speed	n_{max}	6000	rpm
Electric frequency	$f_{el,\text{max}}$	500	Hz

Simulated Efficiency and Motor Characteristic of Motor Application

(electric machine only; $U_{\text{nom}} = 700$ V; machine at 100 °C;)



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