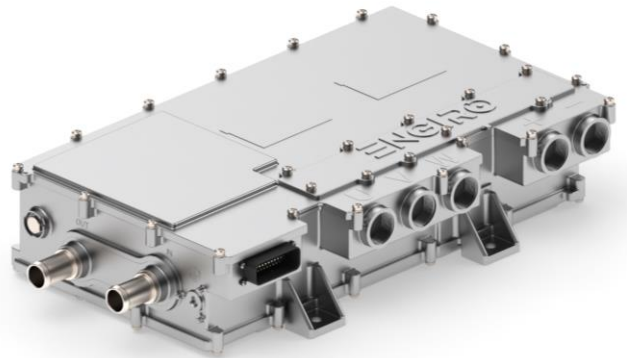
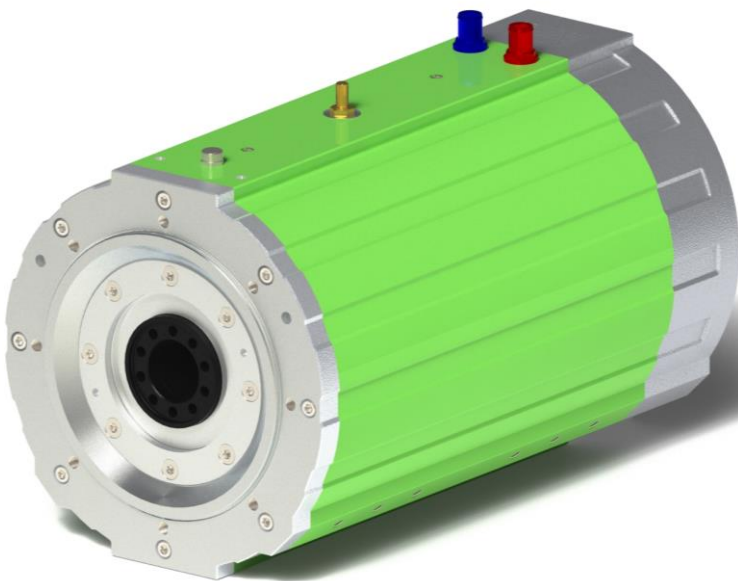


260W-15031-ABC

water-cooled motor / generator with 111 kW continuous power

This datasheet refers to part.no.: see page 2



Part no.: 4843401
Article Name: EN1_800V_900A_W

KEY FEATURES

- permanent magnet synchronous machine
- water-cooled
- high peak power for motor applications
- convincing cost-benefit ratio
- recommended voltage range from 500 V to 850 V
- delivery with controller possible

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Additional Data	5
Available Type Variants / Technical Drawings	6
Performance Plots	7
Additional Characteristics	8

Note:

On September 1st, 2024, we transferred our ERP systems to SAP. Due to this change, we are altering our **current part numbers**. To see how our article numbers and motor naming scheme has changed, please consider the conversion table below:

Article number conversion				
Part.no.	Old part.no.	Flange	Shaft	Position sensor
4807369	260W_15031_SFR	S1	F1	R
4807370	260W_15031_DFR	D1	F1	R

To be noted:

The information in this technical data sheet is based on our current knowledge and experience. Due to the wide range of possible influences during application, they do not exempt the processor and user from carrying out their own tests and trials. Although the suitability for a specific application can be estimated from our information, a legally binding assurance is by no means possible. Depending on the individual case, we recommend consultation with us. Any industrial property rights and applicable laws must be observed by the recipient of our products on his own responsibility.

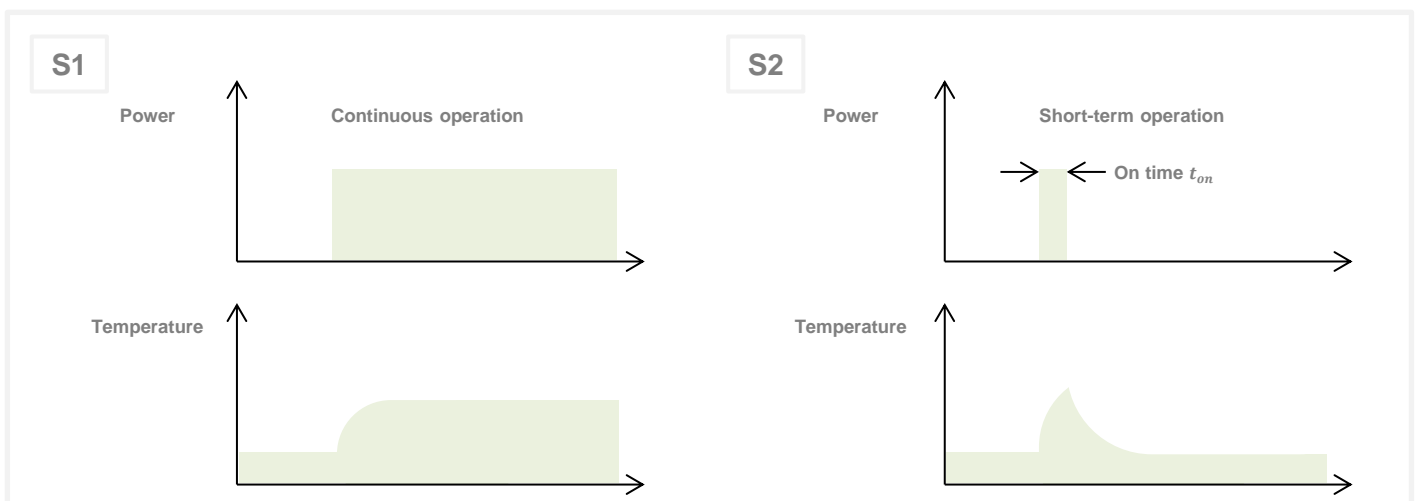
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Characteristic Operating Points¹⁾

		S1	S2	S2	
Feasible operation time	t_{on}	continuous	30 min	30 sec	
Torque	T	480	495	816	Nm
Power	P	111	115	165	kW
Speed	n	2230	2225	1945	rpm
Phase rms-current (AC)	I_{rms}	154	153	316	A
Battery current (DC)	I_{DC}	150	155	239	A
Battery voltage (DC)	U_{DC}	800	800	800	V
Electric frequency	f_{el}	186	186	162	Hz
Efficiency	η_{tot}	94	94	86	%
Power factor	$\cos(\varphi)$	0.83	0.81	0.64	
Cooling	specified on page 5				

Maximum Operating Range

Torque	T_{max}	816 @ 1945 rpm ²⁾			Nm
Power	P_{max}	176 @ 2250 rpm			kW
Speed	n_{max}	6000			rpm
Phase rms-current (AC)	$I_{rms,max}$	316 ^{3) 4)}			A
Battery current (DC)	$I_{DC,max}$	255 ^{3) 4)}			A
Battery voltage (DC)	U_{max}	850			V
Electric frequency	f_{el}	500			Hz

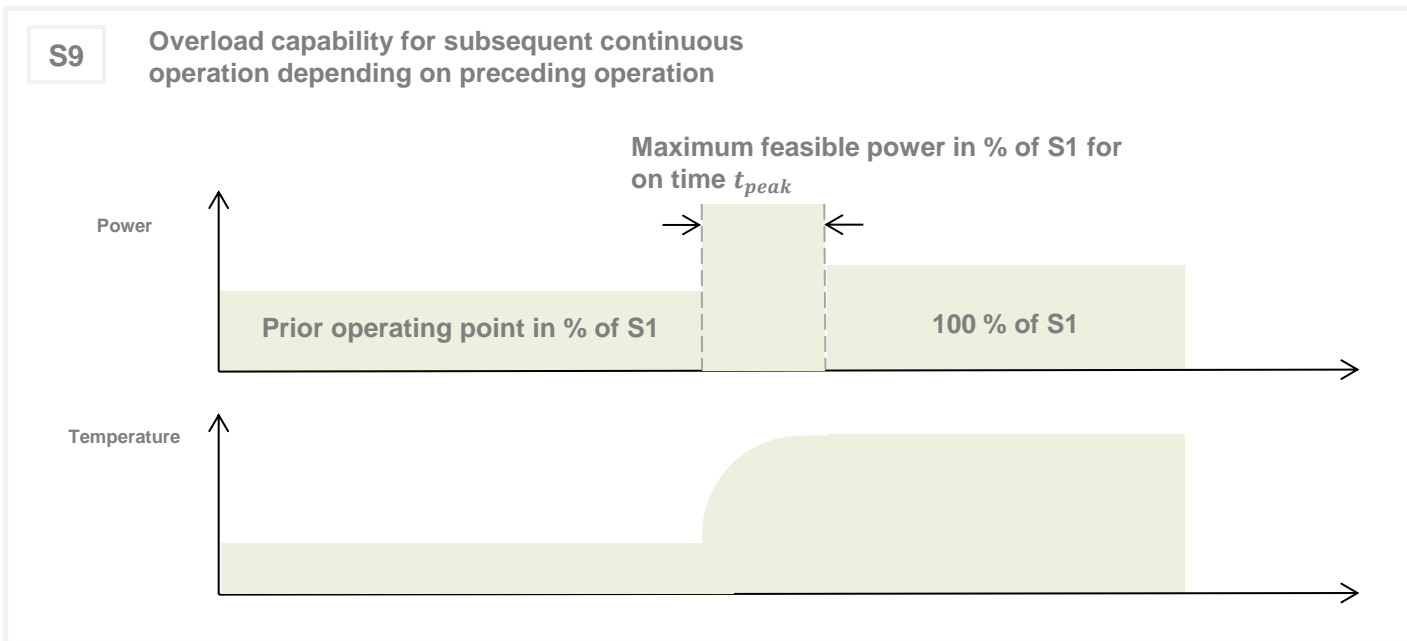


- 1) Defined Range only valid for a power factor of 1 at DC input
- 2) Torque rating is dependant on rotor temperature
- 3) The cables must not exceed a temperature of 140 °C at any time. Temperature and service life depend on the installation condition.
- 4) Peak rating for max. 30 seconds on time

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S9 Operating Points¹⁾
Maximum Feasible Power in % of S1

U _{nom} = 800 V		Prior operating point in % of S1				
		0 %	25 %	50 %	75 %	100 %
On time <i>t_{peak}</i>	30s	165%	160%	150%	130%	100%
	180s	135%	130%	120%	110%	100%
	420s	110%	100%	100%	100%	100%



1) Theoretical rounded assumption

Electrical Data			
Number of phases			3
Number of pole pairs			5
Maximal efficiency			96 %
T/I constant (I<I _{nom})			3.11 Nm/A _{rms}
U/n constant (AC) at temperature 30 °C	rms:	194.6	peak: 281.5 V/(1000rpm)
Ke constant (AC) at temperature 30 °C	rms:	1.85	peak: 2.69 V/(rad*s ⁻¹)
Additional Data			
Rotor moment of inertia			0.1006 kg*m ²
Allowed range of ambient temperature			-20 ... +85 °C
Maximal motor temperature			operating point dependent ¹⁾ °C
Temperature monitoring			1 x KTY84-130
Cooling	Advised medium (OAT Coolants)	water/glycol - 50/50 ▪ TL 774-D/F ▪ VIN 878389 ▪ MAN 324 SNF ▪ MTL 5048	
	Flow rate		20 l/min
	Inlet temperature		45 °C
	Pressure drop		< 0.7 bar
	Maximum pressure		2 bar
	Cooling channel volume		1.64 l
Connectors			
Power terminals			3 x M25 cable gland
Signal connectors			Hummel 10 Pin connector, M16
Cooling connectors			inner Ø 12 mm, outer Ø 19 mm
Certifications			
Type approval			CE, EN 60034
Environmental			Prepared for ISO 9227
Protection grade			IP6K9K ²⁾
Vibrations			Prepared for ISO 16750-3
Customs tariff number			8501 5381

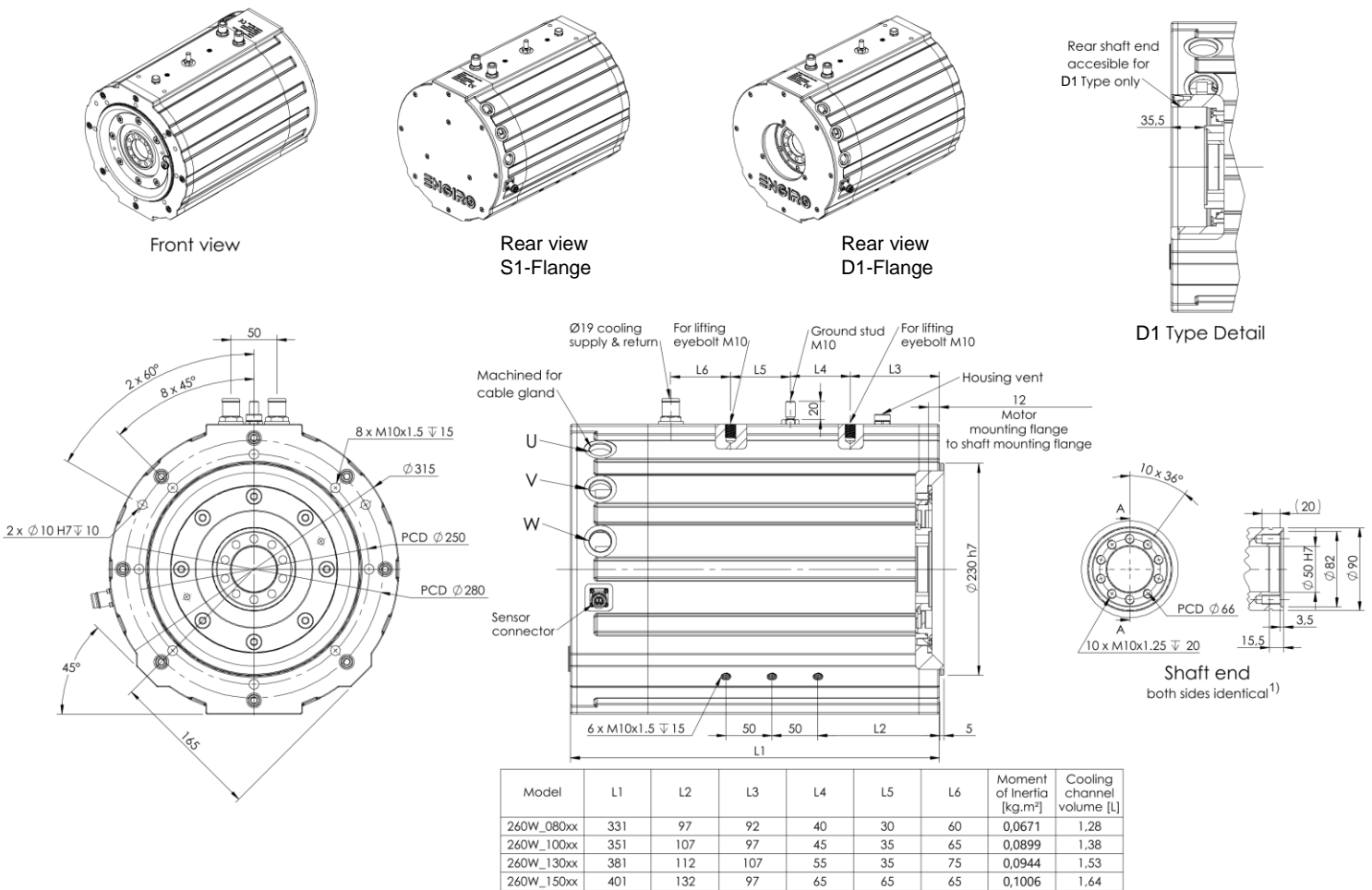
- 1) Please contact ENGIRO for the parametrization of third-party inverters
- 2) Please note that the IP6K9K rating is only valid if the machine is installed with suitable cable glands and an appropriate sealed interface at the drive side of the motor (flange and/or shaft). Please contact ENGIRO for further questions. / Only applies to SFR Variant /

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Shaft and Flange Combinations for 260W-15031-ABC		Flange (A)	
		S1 (Standard)	D1 (Double)
Shaft (B)	F1 (Hollow shaft with two screw flanges)	● (≈ 97 kg)	● (≈ 97 kg)
Position Sensor (C)		R: Resolver	

Other individual combinations are also possible on request.

Technical Drawings



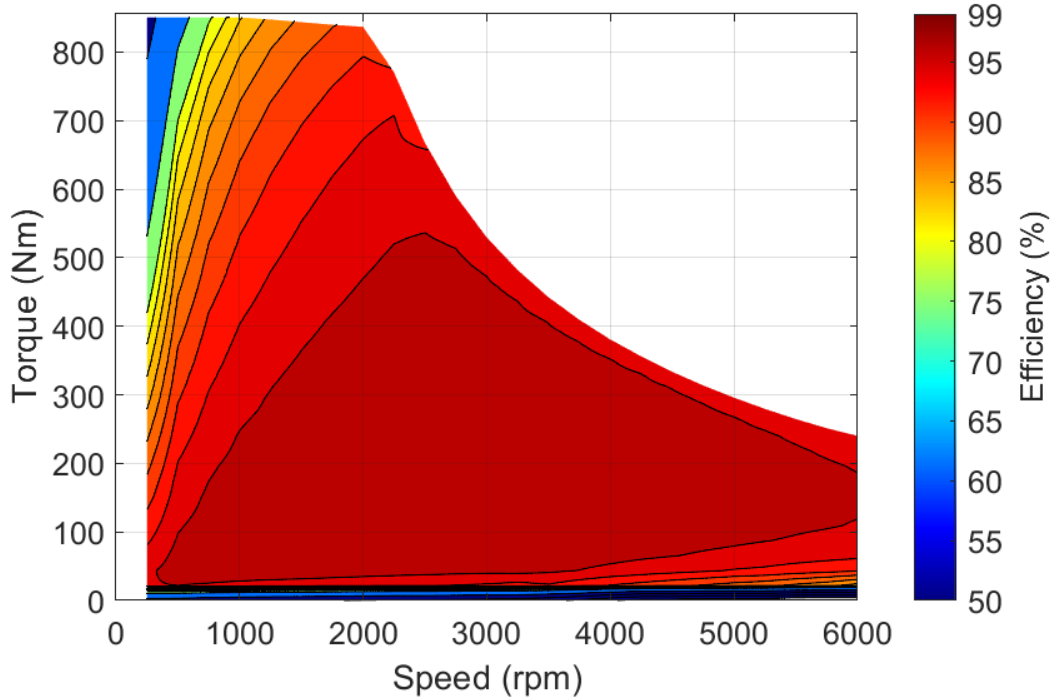
1) Applies to flange type D1 only

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800 V

Simulated Efficiency of Motor Application

(electric machine only; $U_{nom} = 800\text{ V}$; $T_{inlet} = 45\text{ °C}$)

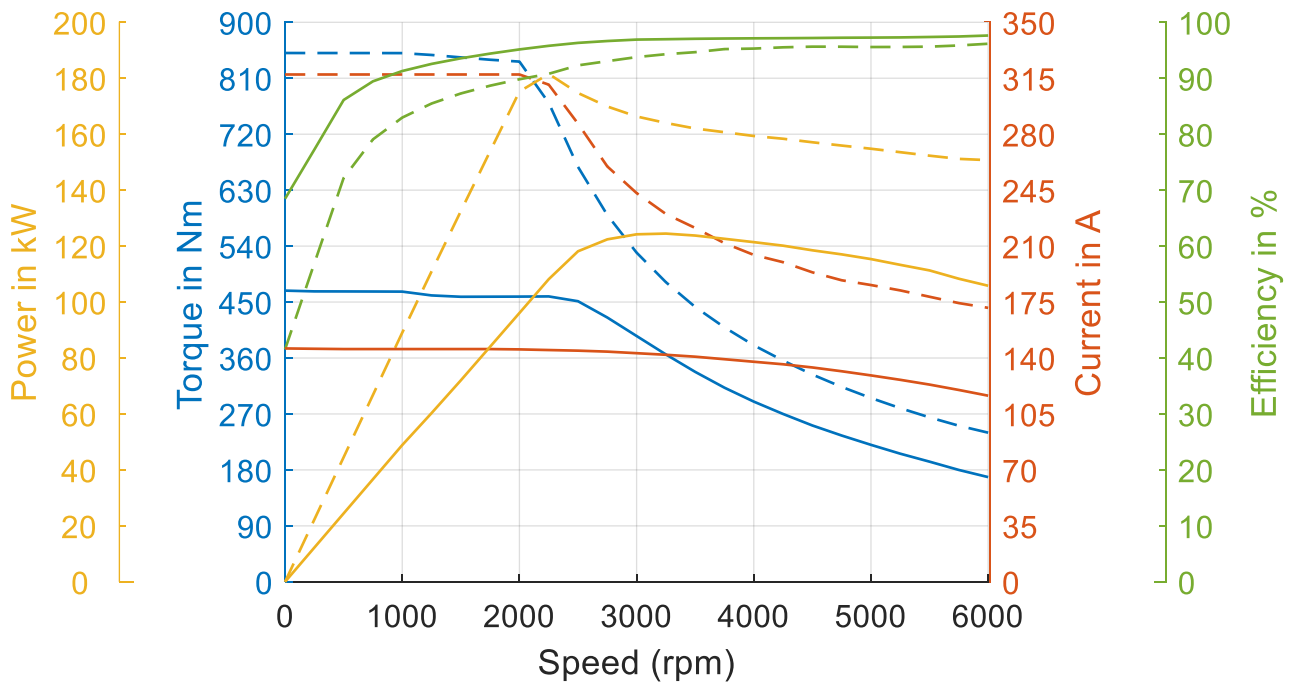


800 V

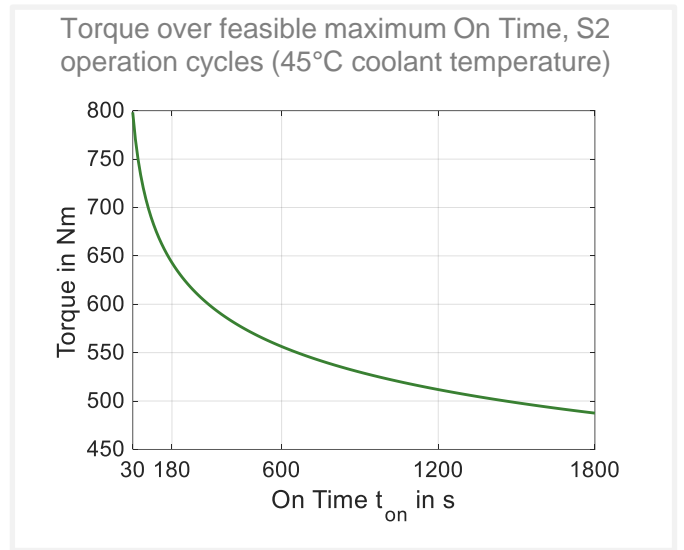
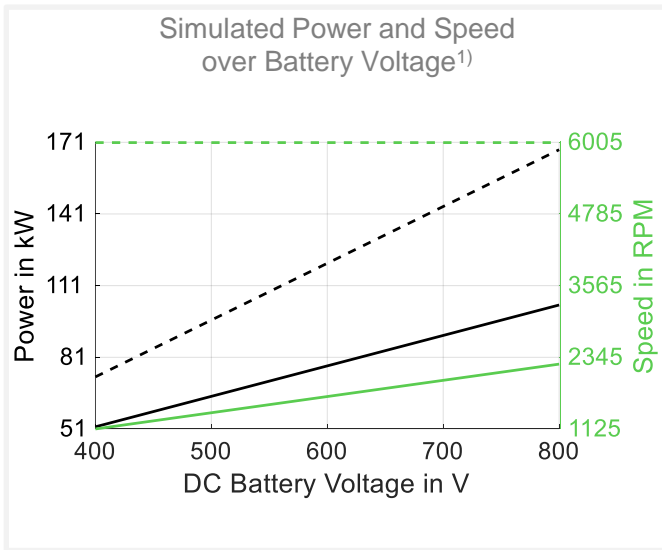
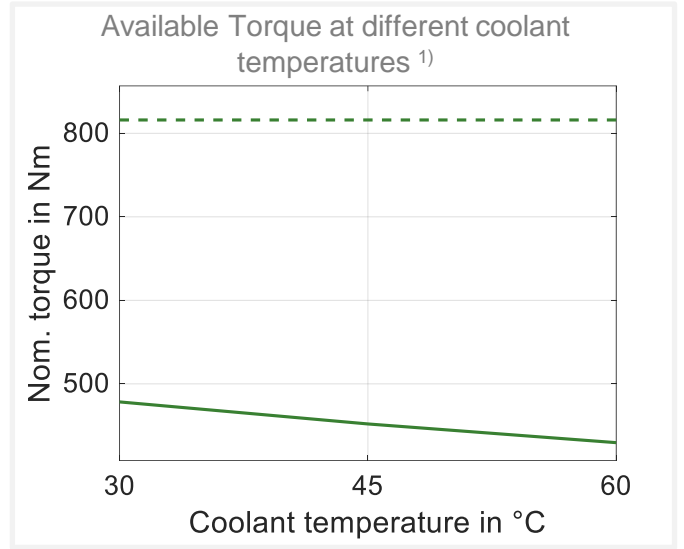
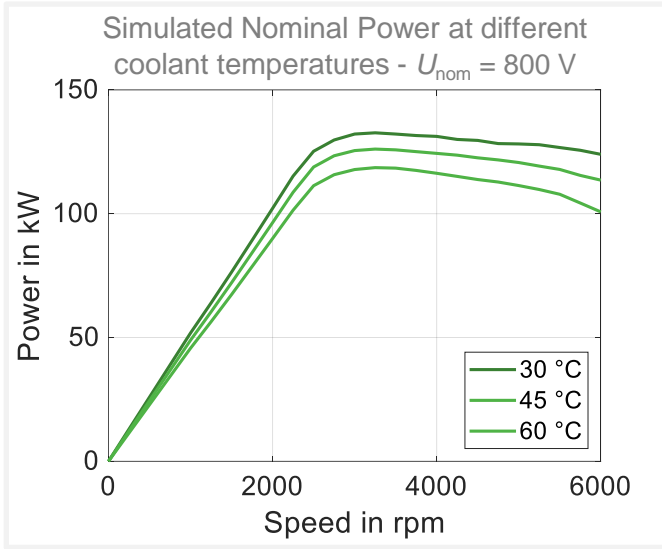
Simulated Characteristic Motor Parameters

$U_{nom} = 800\text{ V}$; $T_{inlet} = 45\text{ °C}$

solid lines: S1 continuous; dashed lines: maximum



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1) solid lines: continuous; dashed lines: maximum;

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