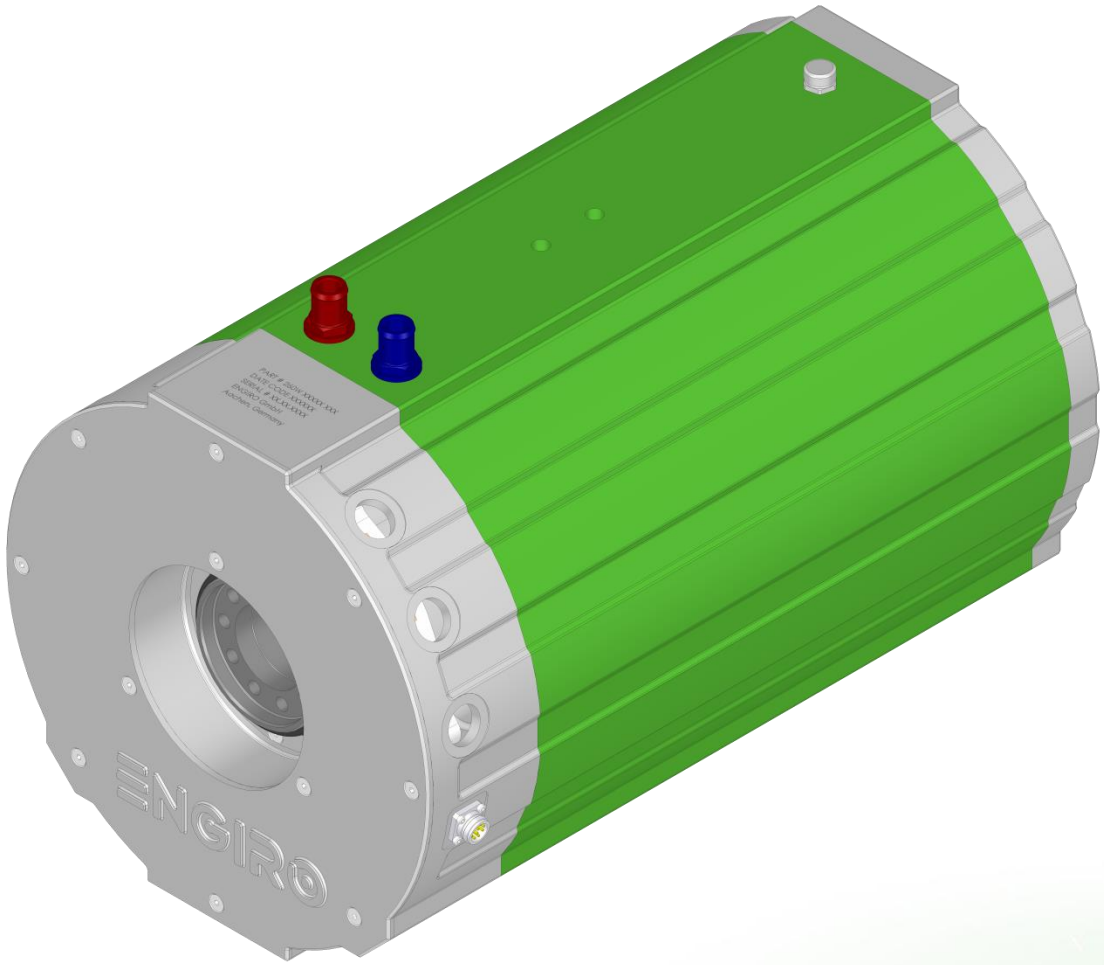
Data Sheet
260W-25018-ABC

water-cooled motor/generator with up to 163 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
- Double shaft end with screw flange

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Table of Content

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Technical Data Machine

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Nominal Operation (S2, 60min, cooling as specified below)				
Torque	T_{nom}	778	780	Nm
Power	P_{nom}	102	163	kW
Speed	n_{nom}	1250	2000	rpm
Phase rms-current	I_{nom}	256[1,2)]	252[1,2)]	A
Battery voltage (DC)	U_{nom}	400	700	V
Electric frequency	$f_{el,nom}$	104	167	Hz
Power factor	cos(φ)	0.73	0.73	

Maximal Values (S2, 10s, cooling as specified below)				
Torque	T_{max}	1386	1386	Nm
Power	P_{max}	145	254	kW
Phase rms-current	I_{max}	547[2)]	547[2)]	A
Battery voltage (DC)	U_{max}		850	V
Speed	n_{max}		3740	rpm
Electric frequency	$f_{el,\ max}$		312	Hz

Electrical Data					
Number of phases				3	
Number of pole pairs				5	
Maximal efficiency				96	%
T/I constant (I<I_{nom})				3.16	Nm/A_{rms}
U/n constant (AC) at a temperature of 30°C	rms:	188.9	peak:	292.8	V/(1000rpm)
K_e constant (AC) at a temperature of 30°C	rms:	0.361	peak:	0.559	$V/(rad*s^{-1})$

Additional Data	
Weight (w/o cables)	137 kg
Rotor moment of inertia	0.158 $kg*m^2$
Protection category	IP6K9K[3)]
Maximal motor temperature	140 °C
Allowed ambient temperature	-20 … 45[4)] °C
Cooling (medium, flow rate, inlet temperature, pressure)	water/glycol 50/50, 24 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 ¾" / 19 mm

[1)] Nominal current strongly dependent on cooling as specified below.
[2)] The cables must not exceed a temperature of 140 °C at any time. Temperature and service life depend on the installation condition.
[3)] 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 /
[4)] other range on request

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Table Shaft and Flange Combinations

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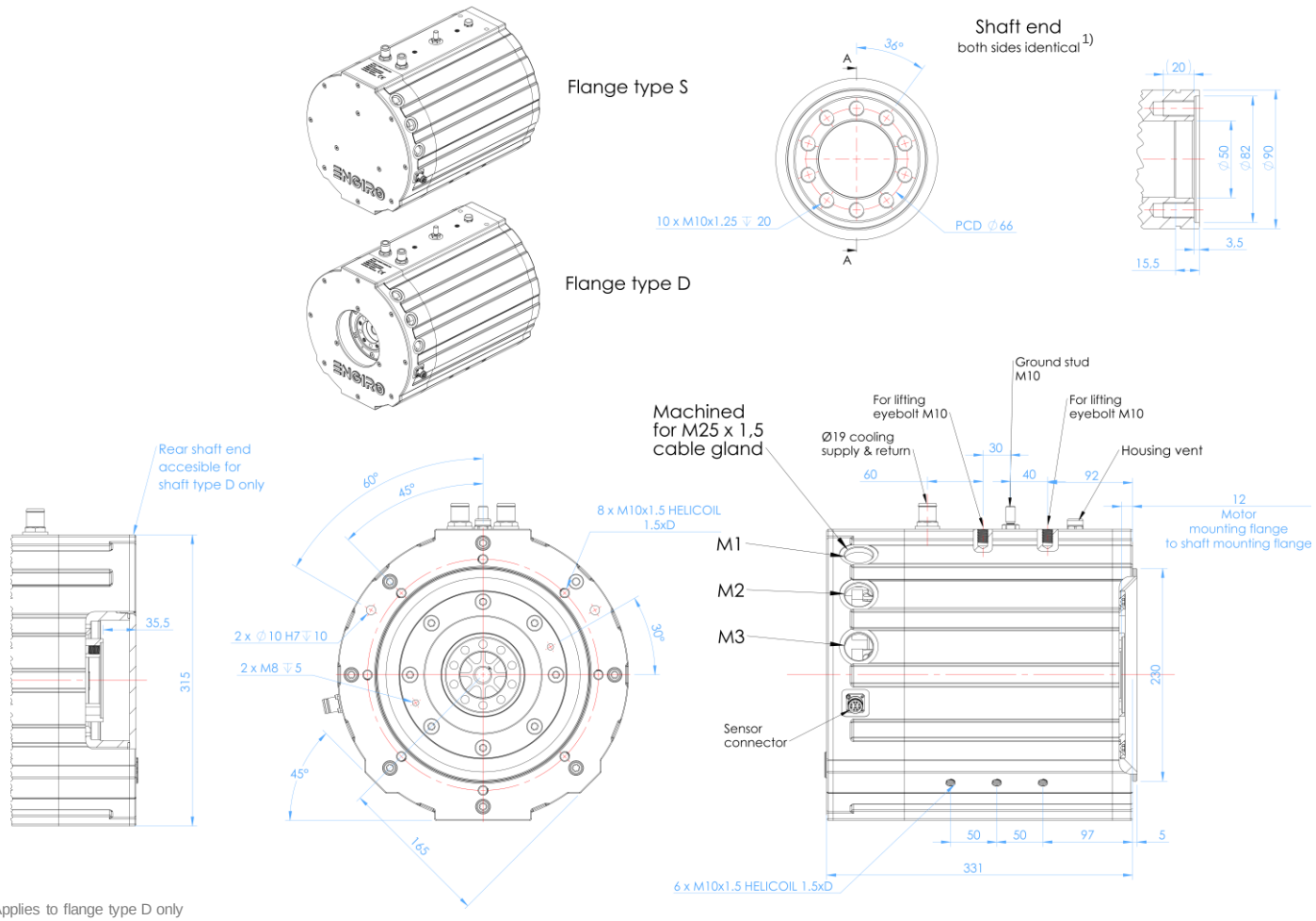
Shaft and Flange Combinations for 260W-25018-ABC		Flange (A)	
		S (Standard)	**D** (Double)
Shaft (B)	**F** (Hollow shaft with two screw flanges)	●	(●) DFR variant only approved for ≤ 3500 rpm
Position Sensor (C)		R: Resolver	

Other individual combinations are also possible on request.

Technical Drawings



1) Applies to flange type D only

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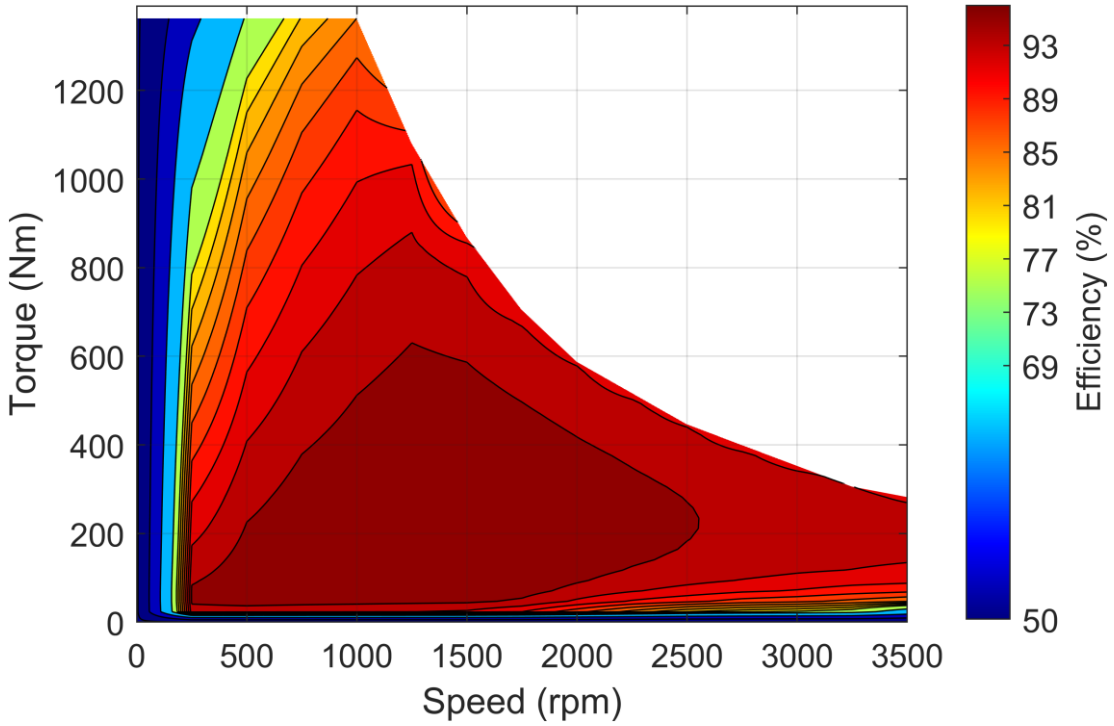
Simulated Efficiency of Motor Application

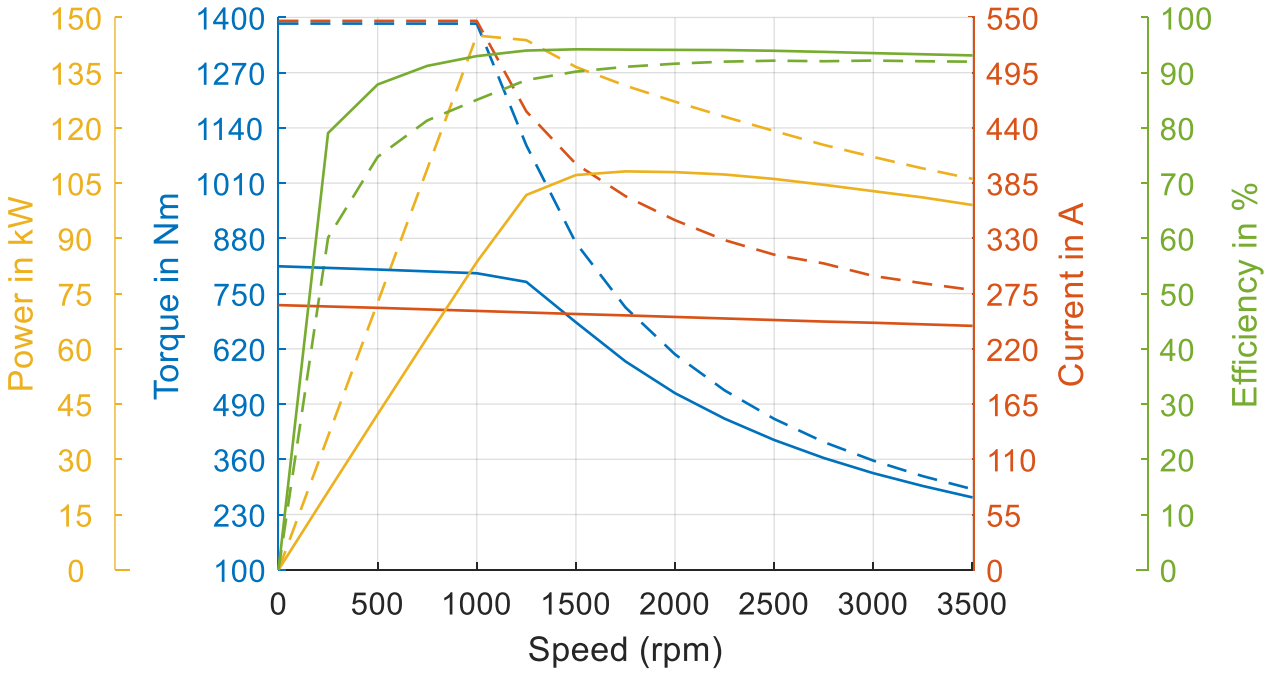
(electric machine only; U_{nom} = 400 V; machine at 140 °C;)



Simulated Characteristic Motor Parameters

U_{nom} = 400 V

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



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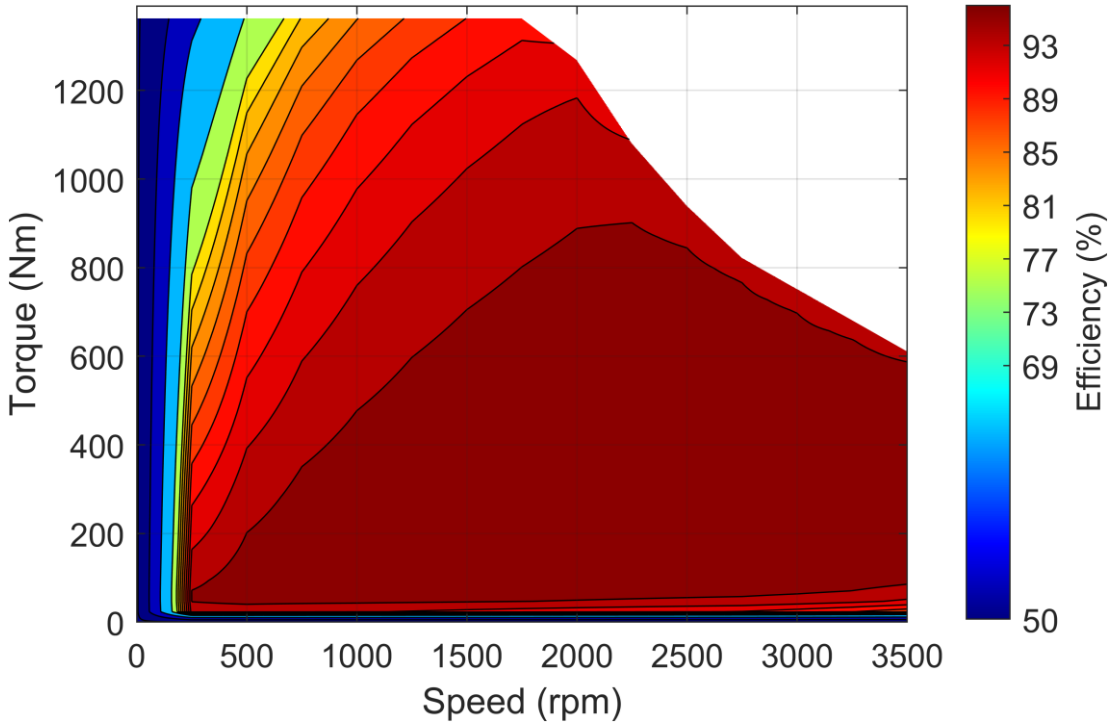
Simulated Efficiency of Motor Application

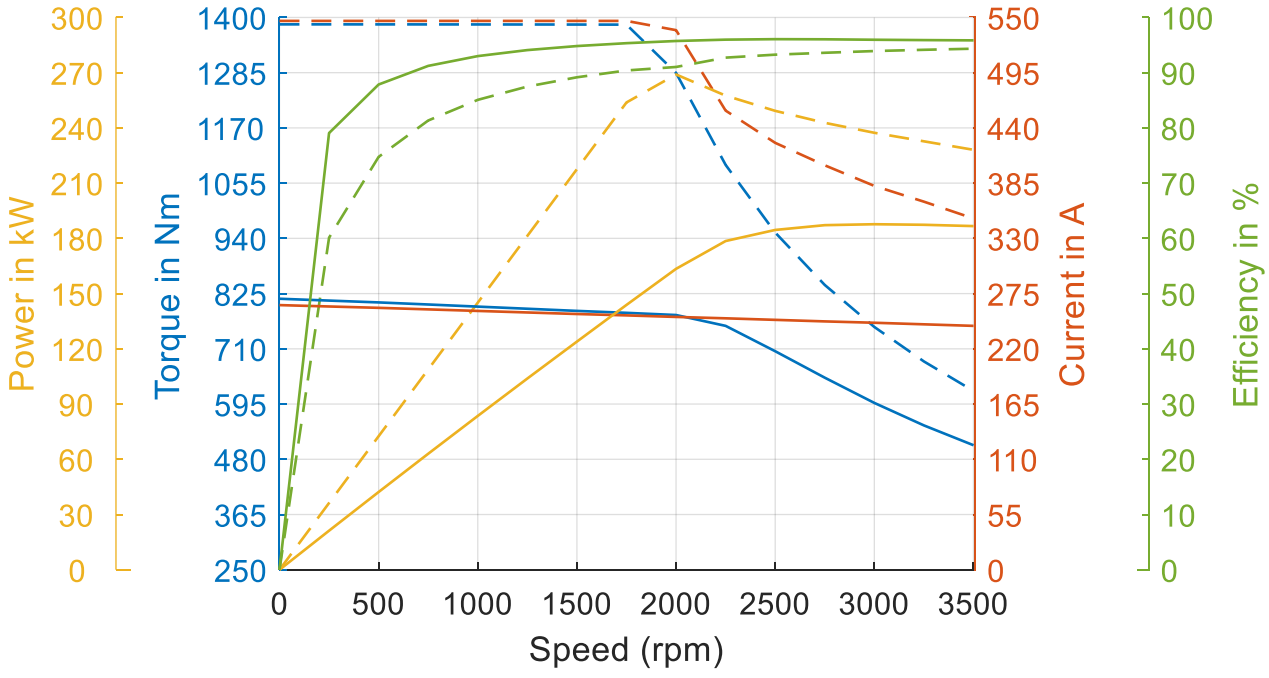
(electric machine only; U_{nom} = 700 V; machine at 140 °C;)



Simulated Characteristic Motor Parameters

U_{nom} = 700 V

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



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