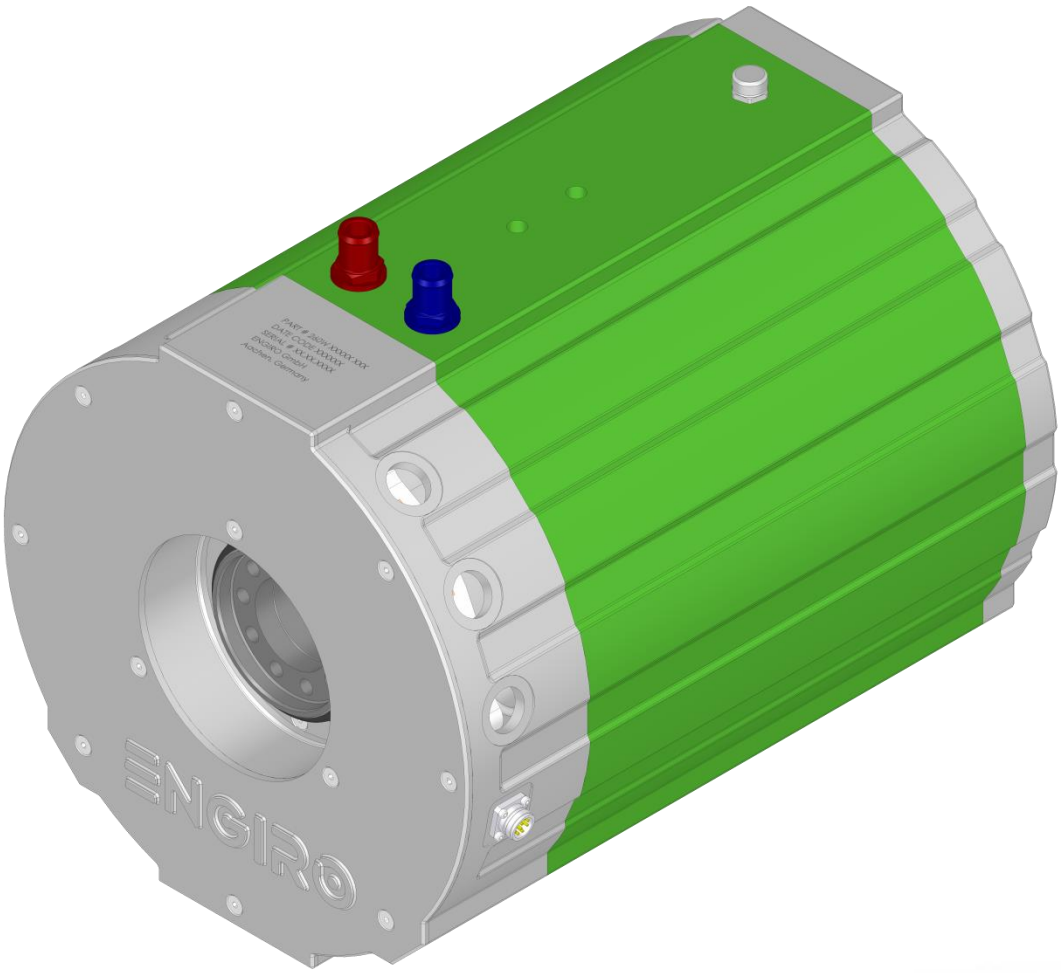
260W-15014-ABC

water-cooled motor/generator with up to 116 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 500V
- delivery with controller possible
- Double shaft end with screw flange

ENGIRO GmbH · Avantisallee 51 · 52072 Aachen · Germany
Tel. +49 (0)241 99798-0 · E-Mail: engineering@engiro.de · www.engiro.de

Version: 010_02

Table of Content

ENGIRO GmbH · Avantisallee 51 · 52072 Aachen · Germany
Tel. +49 (0)241 99798-0 · E-Mail: engineering@engiro.de · www.engiro.de

Technical Data Machine

ENGIRO
Advanced · Drive · Solutions

Nominal Operation (S2, 30min, cooling as specified below)			
Torque	T_{nom}	443	Nm
Power	P_{nom}	116	kW
Speed	n_{nom}	2450	rpm
Phase rms-current	I_{nom}	300[1,2)]	A
Battery voltage (DC)	U_{nom}	400	V
Electric frequency	$f_{el,nom}$	205	Hz
Power factor	cos(φ)	0.73	

Maximal Values (S2, 10s, cooling as specified below)			
Torque	T_{max}	831	Nm
Power	P_{max}	195	kW
Phase rms-current	I_{max}	702[2)]	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})				1.47	Nm/A_{rms}
U/*n* constant (AC) at a temperature of 30°C	rms:	88.2	peak:	124.7	V/(1000rpm)
K_e constant (AC) at a temperature of 30°C	rms:	0.168	peak:	0.238	$V/(rad*s^{-1})$

Additional Data	
Weight (w/o cables)	97 kg
Rotor moment of inertia	0.104 $kg*m^2$
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, 18 l/min, ≤ 45°C, ≤ 0.5 bar
Temperature monitoring	1 x KTY84-130
Type approval	CE, EN 60034
Customs tariff number	8501 5381

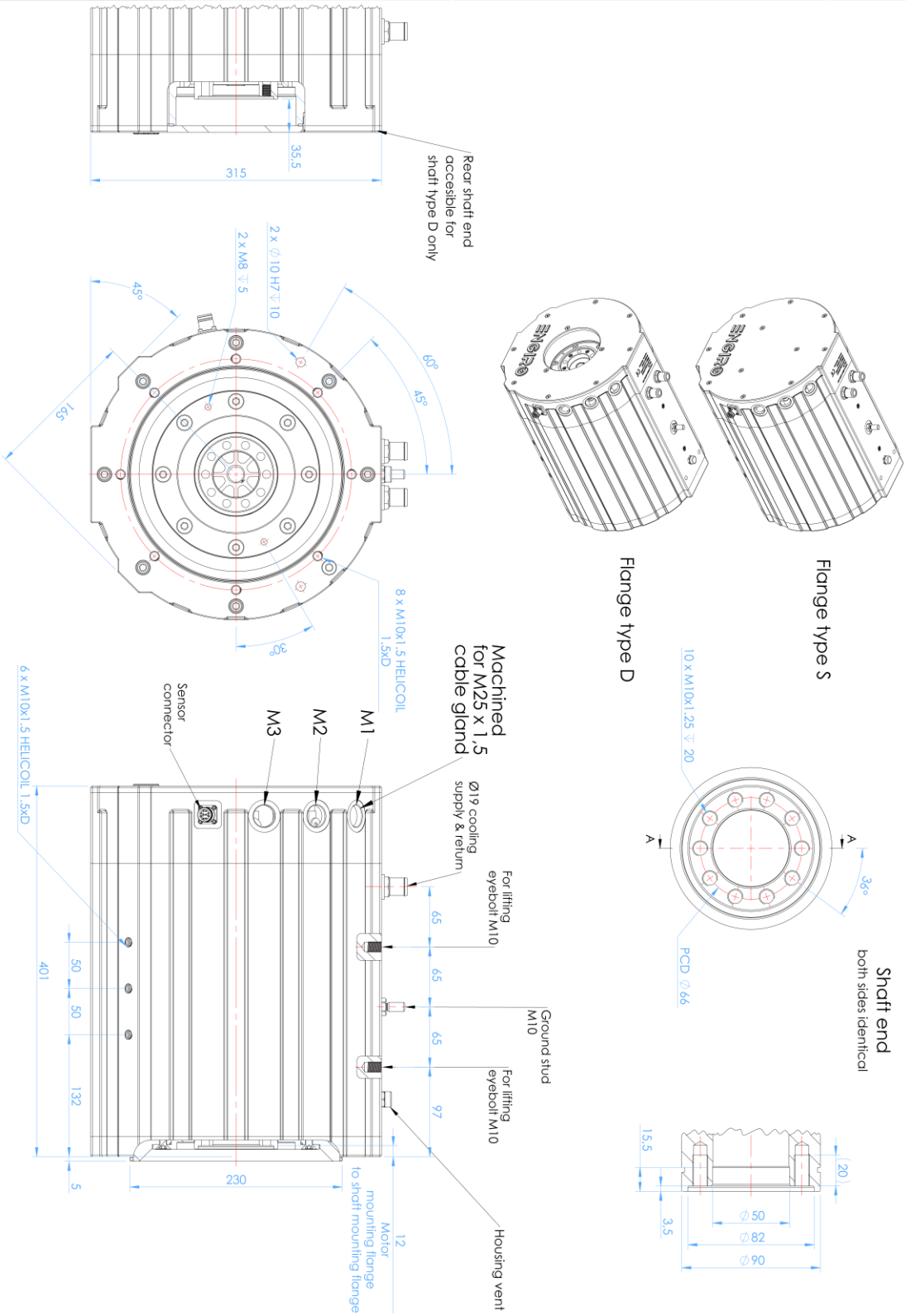
Connectors	
Power terminals	3 x M25 cable gland
Signal connectors	M16, 10 Pin
Cooling connectors	2 x ¾" / 19 mm

[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

ENGIRO GmbH · Avantisallee 51 · 52072 Aachen · Germany
Tel. +49 (0)241 99798-0 · E-Mail: engineering@engiro.de · www.engiro.de

Technical Drawings

Available Type Variants			
type number	A: flange	B: shaft	C: position sensor
260W-15014-	S: standard	F: hollow shaft with two screw flanges	R: resolver
	D: double		N: none

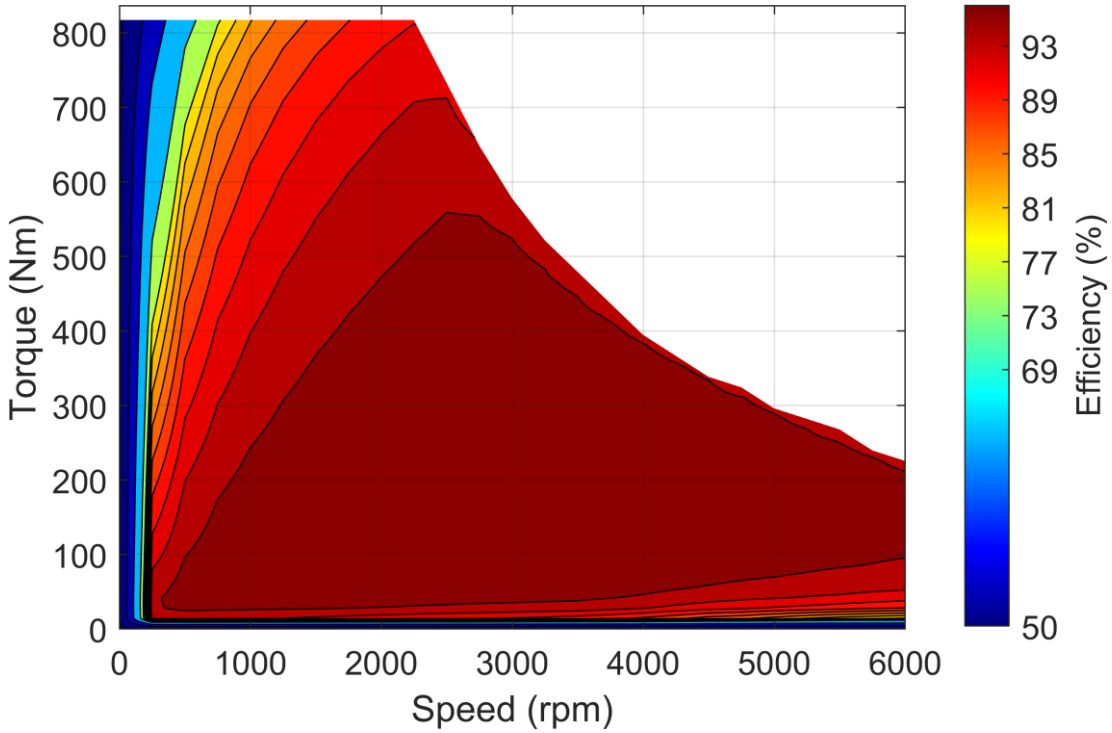


ENGIRO GmbH · Avantisallee 51 · 52072 Aachen · Germany
Tel. +49 (0)241 99798-0 · E-Mail: engineering@engiro.de · www.engiro.de

Characteristics Machine

Simulated Efficiency of Motor Application

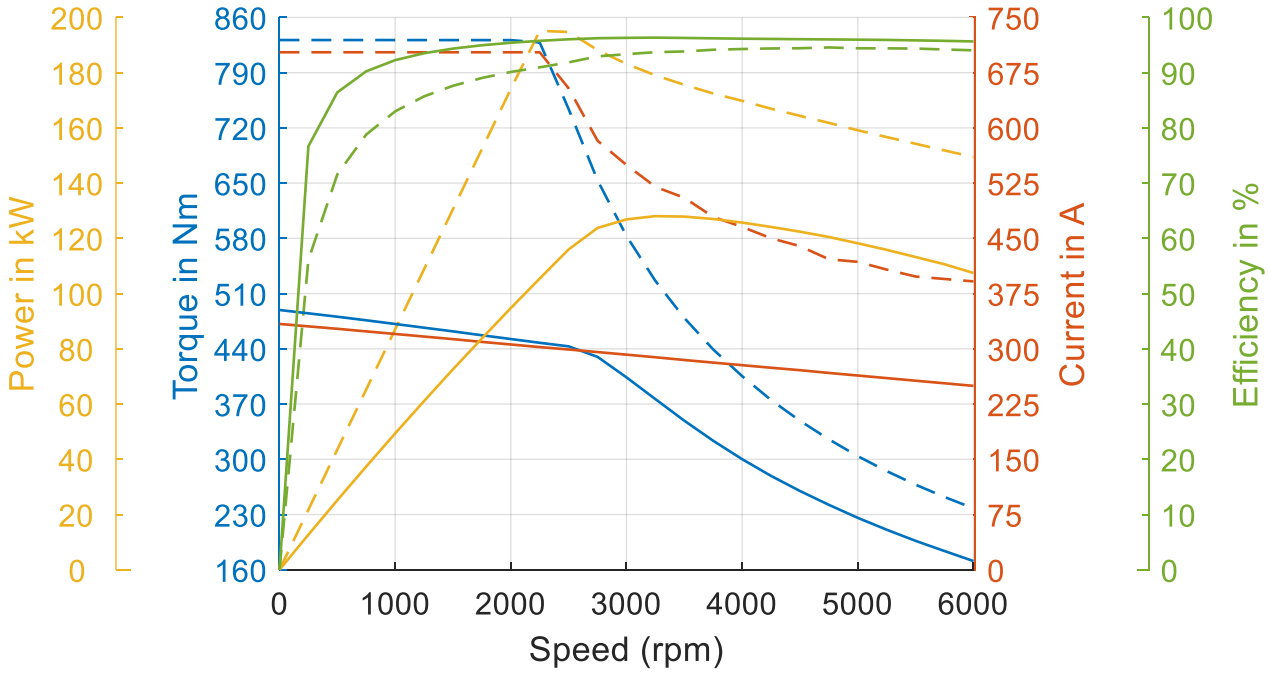
(electric machine only; U_{nom} = 400 V; machine at 140 °C;)



Simulated Characteristic Motor Parameters

U_{nom} = 400 V

solid lines: S2 30min; dashed lines: maximum;



ENGIRO GmbH · Avantisallee 51 · 52072 Aachen · Germany
Tel. +49 (0)241 99798-0 · E-Mail: engineering@engiro.de · www.engiro.de