



INY Electrification Components

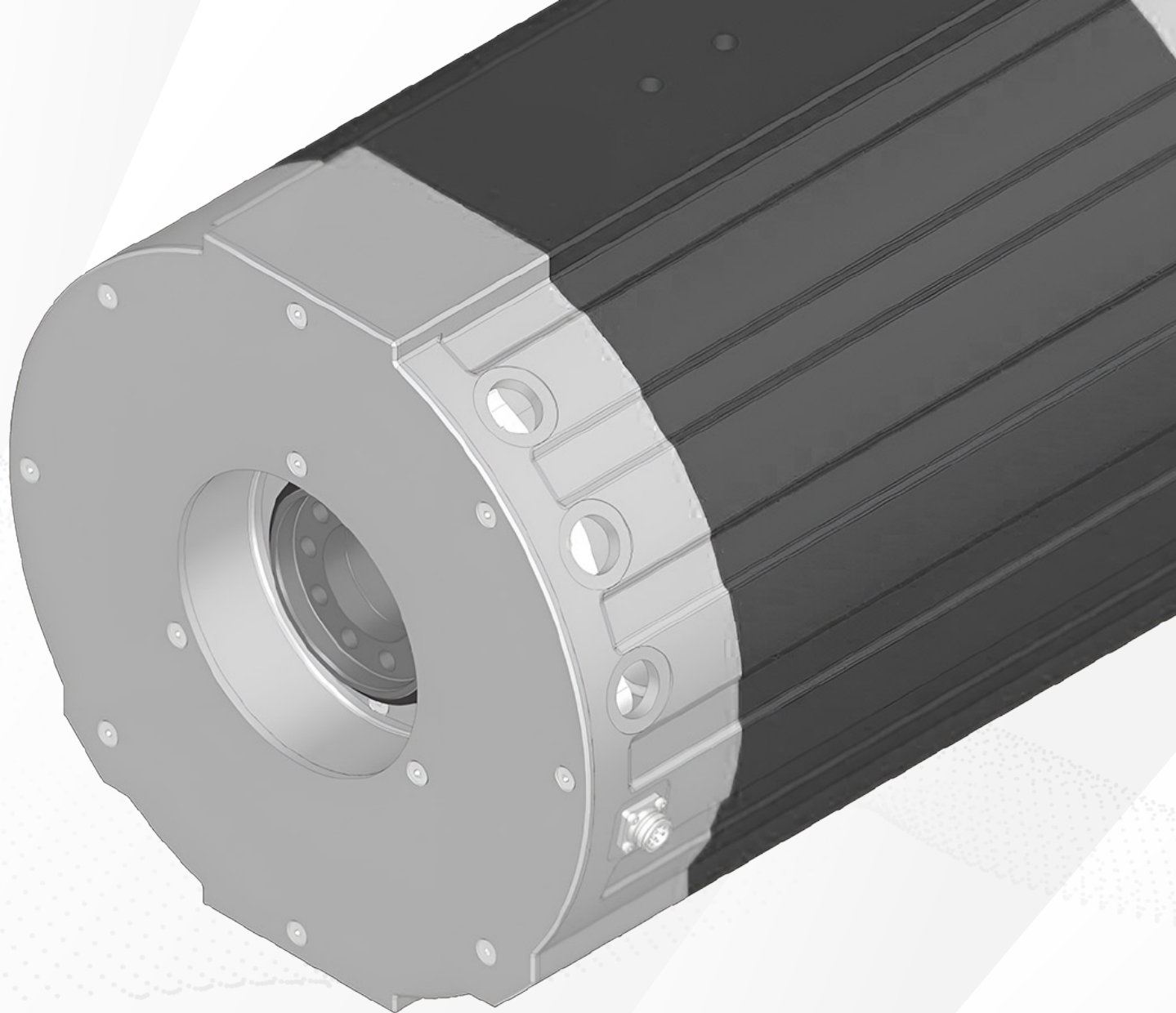
260W-INY-18-ABC

water-cooled motor/generator with up to 153 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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Technical Data Machine

Nominal Operation (S2, 60 min, cooling as specified below)

Torque	T_{nom}	451	422 Nm
Power	P_{nom}	93	153 kW
Speed	n_{nom}	1910	3350 rpm
Phase rms-current	I_{nom}	238 ¹²⁾	222 ¹²⁾ A
Battery voltage (DC)	U_{nom}	400	700 V
Electric frequency	$f_{el,nom}$	159	279 Hz
Power factor	$\cos(\varphi)$	0.73	0.73

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

Torque	T_{max}	830	830 Nm
Power	P_{max}	151	273 kW
Phase rms-current	I_{max}	546 ²⁾	546 ²⁾ A
Battery voltage (DC)	U_{max}		850 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%
TII constant (I</mm)			1.89 Nm/A _{mc}
Uln constant (AC) at a temperature of 30°C	rms: 113.3	peak: 175.6	V/ ('1000rpm)
Keconstant (AC) at a temperature of 300C	rms: 0216	peak: 0.335	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			85015381

Connectors

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

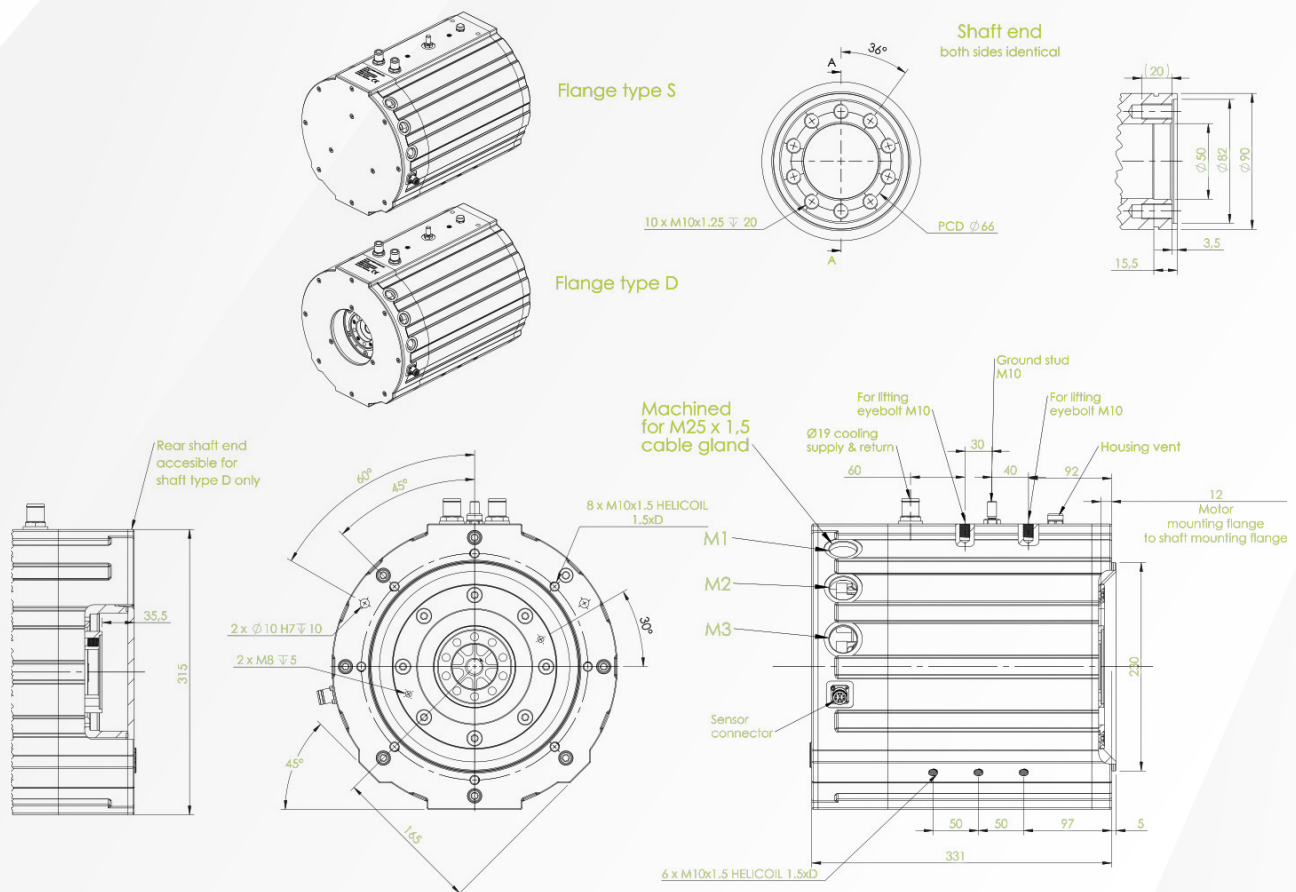
Please contact INY for further questions. / Only applies to SFR Varian 4) other range on request

Shaft and Flange Combinations for 260W-15018-ABC

		Flange (A)	
		S (Standard)	S (Standard)
Shaft (B)	F (Hollow shaft with two screw flanges)	●	●
		DFR variant only approved for $\leq 3500\text{rpm}$	
Position Sensor (C)		R: Resolver	

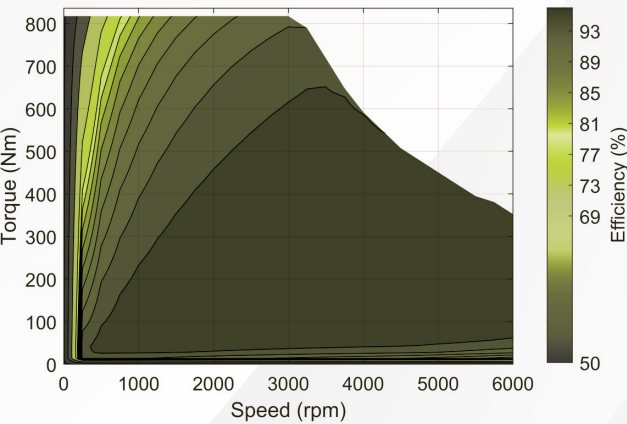
Other individual combinations are also possible on request.

Technical Drawings



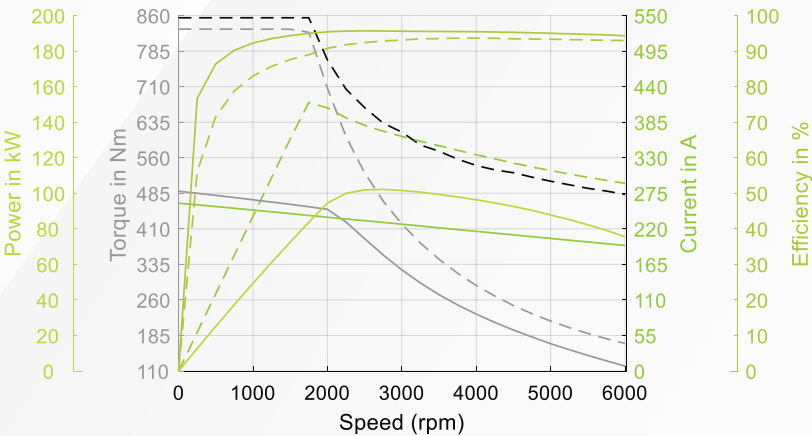
Characteristics Machine

Simulated Efficiency of Motor Application
(electric machine only; $U_{nom} = 400\text{ V}$; machine at $140\text{ }^{\circ}\text{C}$.)



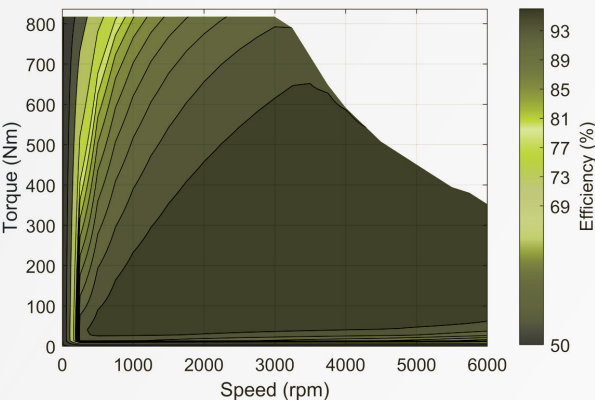
Simulated Characteristic Motor Parameters
 $U_{nom} = 400\text{ V}$

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



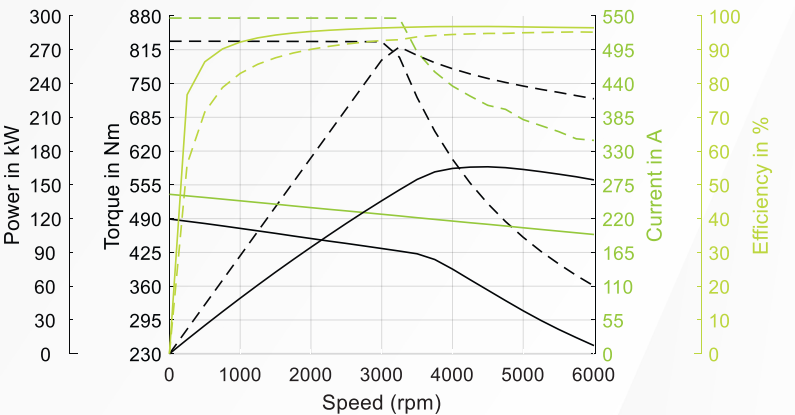
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Simulated Efficiency of Motor Application
(electric machine only; $U_{nom} = 700\text{ V}$; machine at $140\text{ }^{\circ}\text{C}$.)



Simulated Characteristic Motor Parameters
 $U_{nom} = 700\text{ V}$

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



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