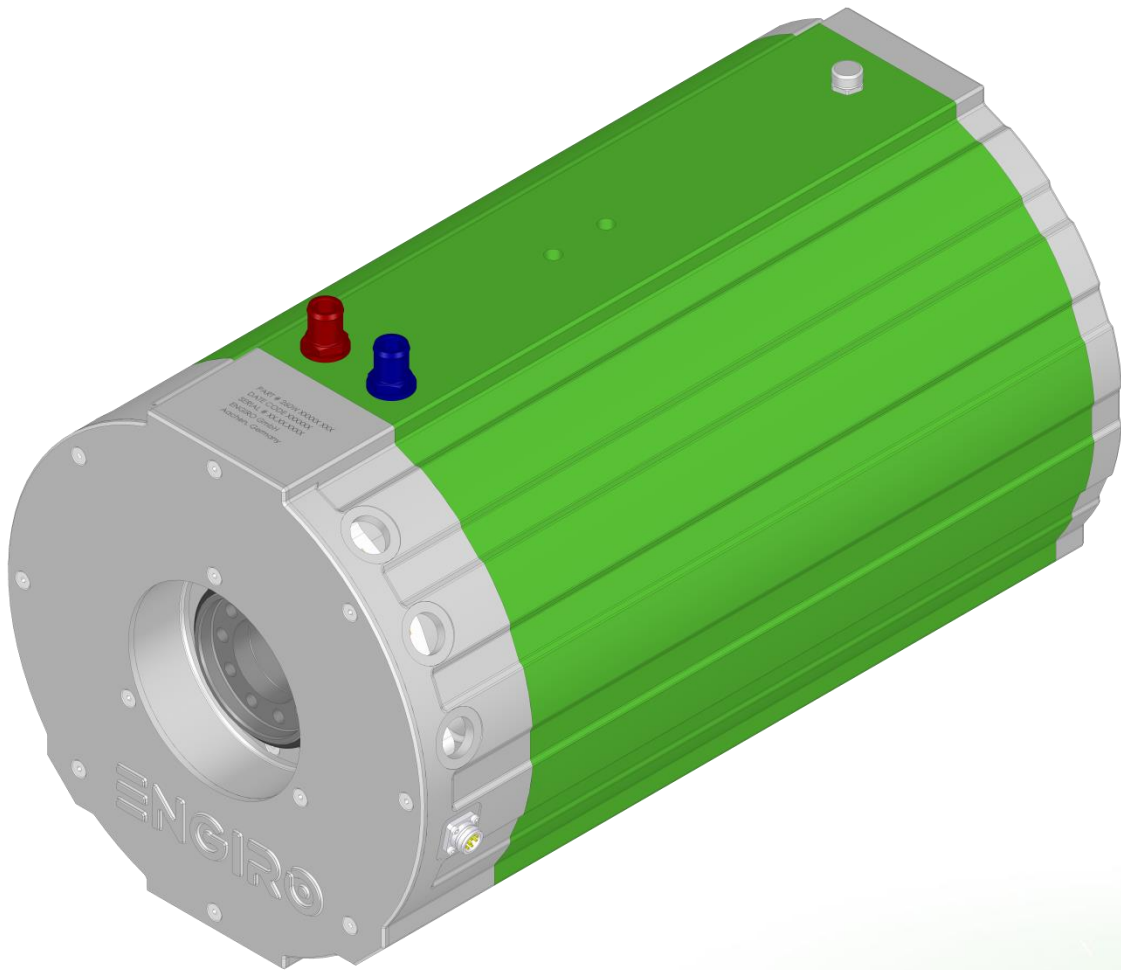


Data Sheet

260W-28018-ABC

water-cooled motor / generator with 186 kW power



KEY FEATURES

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

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| Nominal Operation (S2, 30min, cooling as specified below) | | | |
|---|-----------------|---------------------|-----|
| Torque | T_{nom} | 887 | Nm |
| Power | P_{nom} | 186 | kW |
| Speed | n_{nom} | 2000 | rpm |
| Phase rms-current | I_{nom} | 264 ^{1,2)} | A |
| Battery voltage (DC) | U_{nom} | 700 | V |
| Electric frequency | $f_{el,nom}$ | 166 | Hz |
| Power factor | $\cos(\varphi)$ | 0.74 | |

| Maximal Values (S2, 10s, cooling as specified below) | | | |
|--|--------------|-------------------|-----|
| Torque | T_{max} | 1378 | Nm |
| Power | P_{max} | 256 | kW |
| Phase rms-current | I_{max} | 442 ²⁾ | A |
| Battery voltage (DC) | U_{max} | 850 | V |
| Speed | n_{max} | 3340 | rpm |
| Electric frequency | $f_{el,max}$ | 278 | Hz |

| Electrical Data | | | |
|--|------|-------|--------------------------------------|
| Number of phases | | 3 | |
| Number of pole pairs | | 5 | |
| Maximal efficiency | | 96 | % |
| T/I constant ($I < I_{nom}$) | | 3.53 | Nm/A _{rms} |
| U/n constant (AC) at a temperature of 30°C | rms: | 211.6 | peak: 328 V/(1000rpm) |
| K_e constant (AC) at a temperature of 30°C | rms: | 0.404 | peak: 0.626 V/(rad*s ⁻¹) |

| Additional Data | | | |
|--|--|---|-------------------|
| Weight (w/o cables) | | 149 | kg |
| Rotor moment of inertia | | 0.175 | 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, 28 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 /

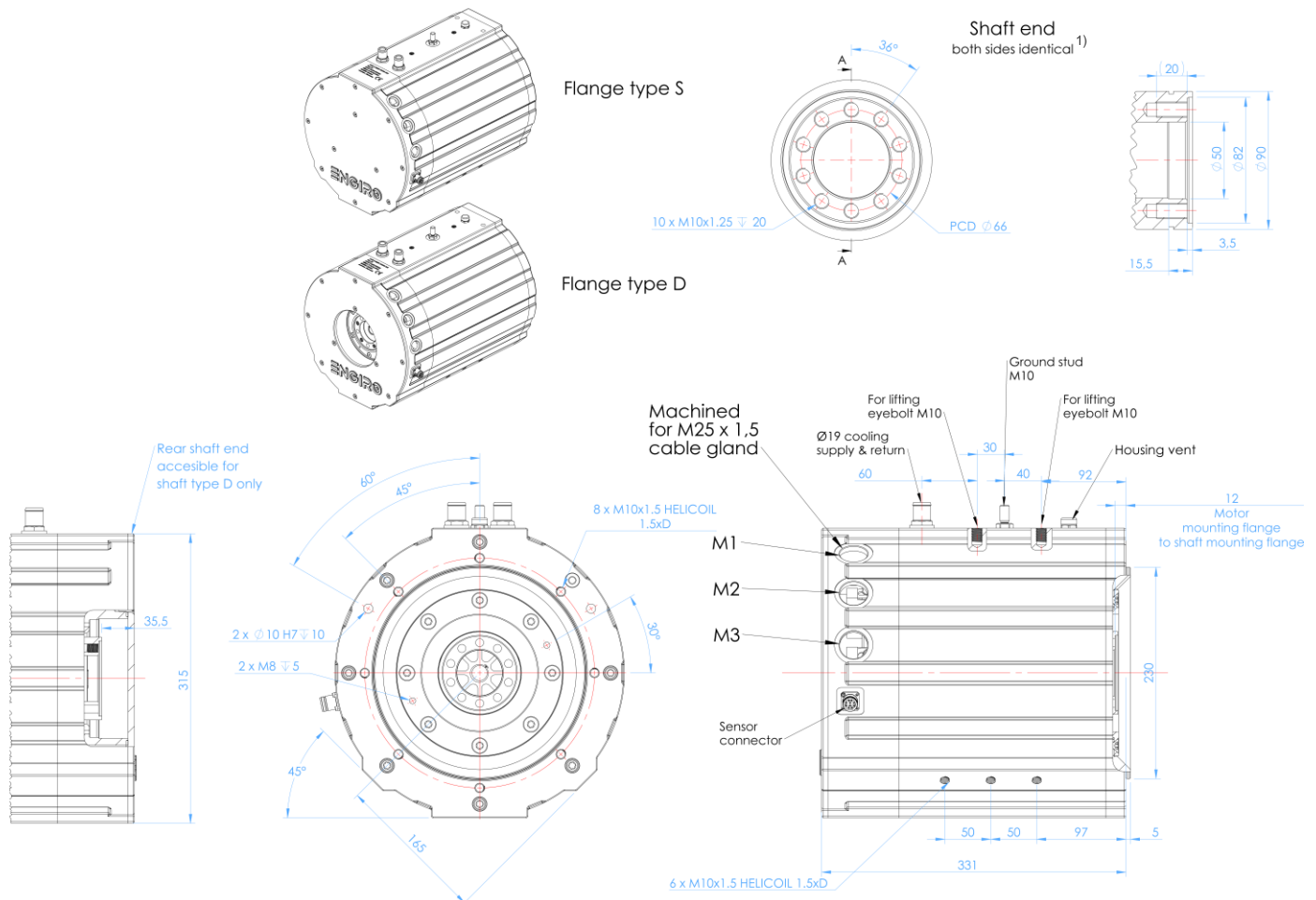
⁴⁾ other range on request

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| Shaft and Flange Combinations for 260W-28018-ABC | | Flange (A) | |
|--|---|--------------|---|
| | | S (Standard) | D (Double) |
| Shaft (B) | F (Hollow shaft with two screw flanges) | ● | (●) DFR variant only approved for ≤ 3500rpm |
| Position Sensor (C) | | R: Resolver | |

Other individual combinations are also possible on request.

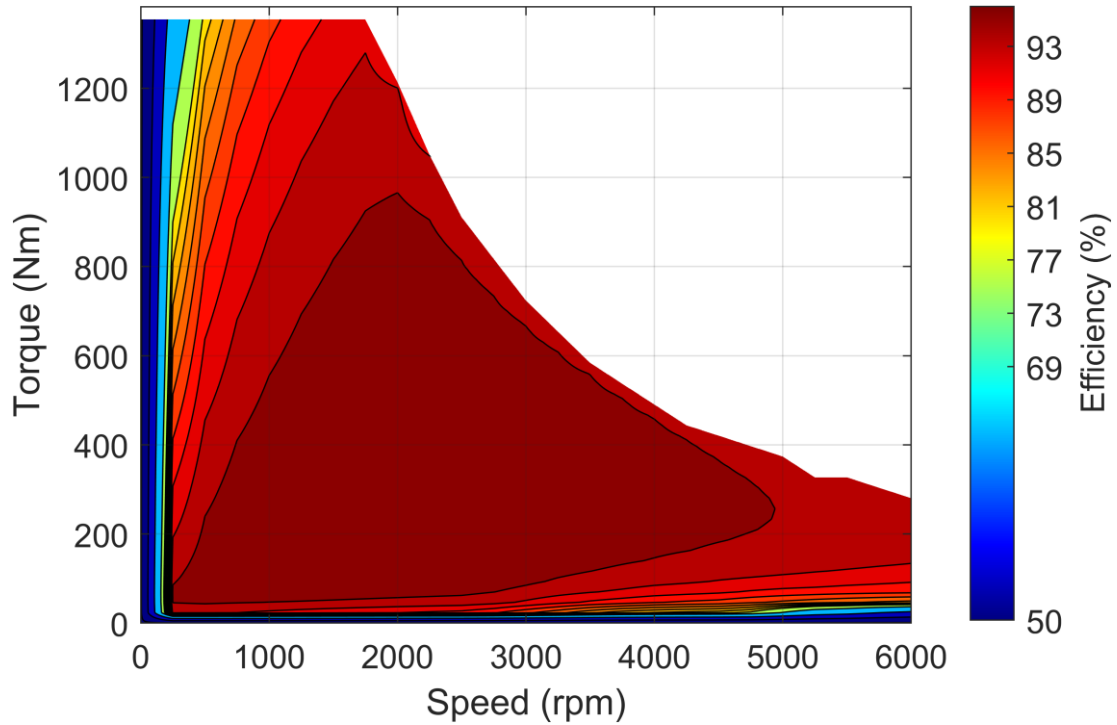
Technical Drawings



1) Applies to flange type D only

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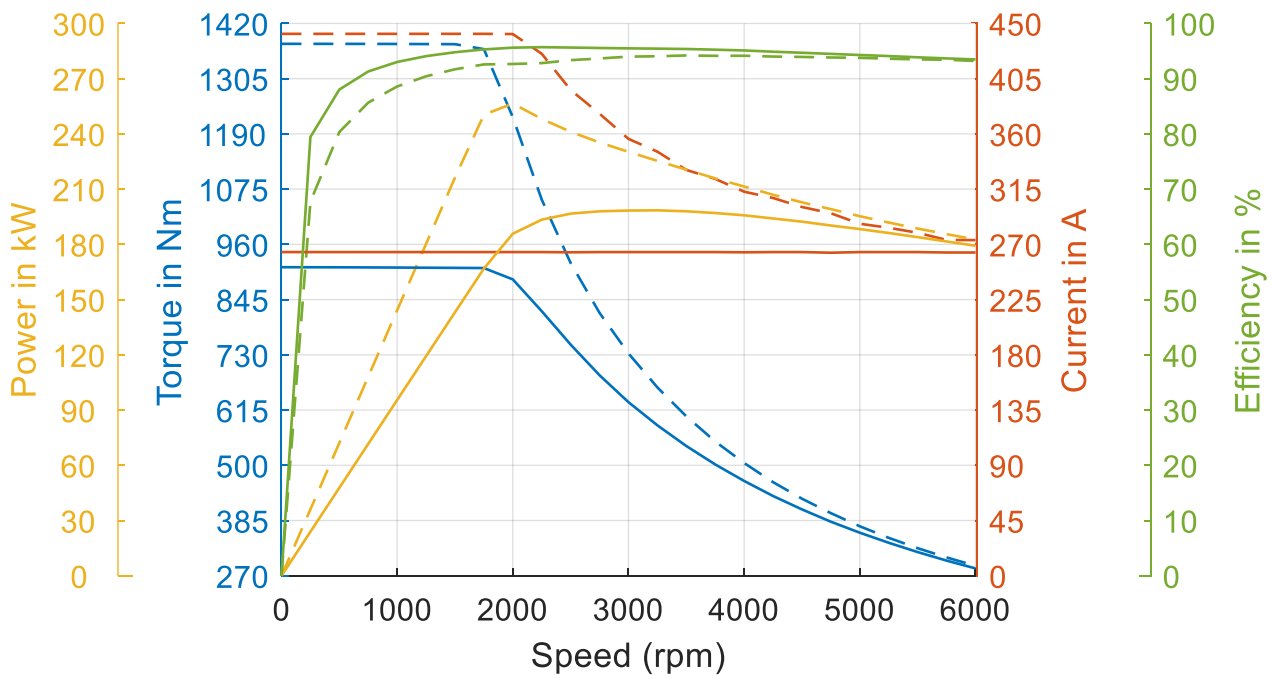
Simulated Efficiency of Motor Application
(electric machine only; $U_{nom} = 700\text{ V}$; machine at 140 °C ;))



Simulated Characteristic Motor Parameters

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

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



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