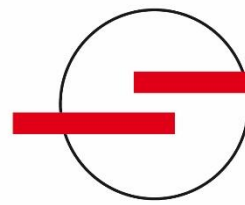




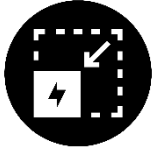
Preliminary  
Data



**SONCEBOZ**

**▶ Compact Power BLDC CPM90**

**5932 – 48V**



HIGH POWER DENSITY



SMART



ENERGY EFFICIENCY

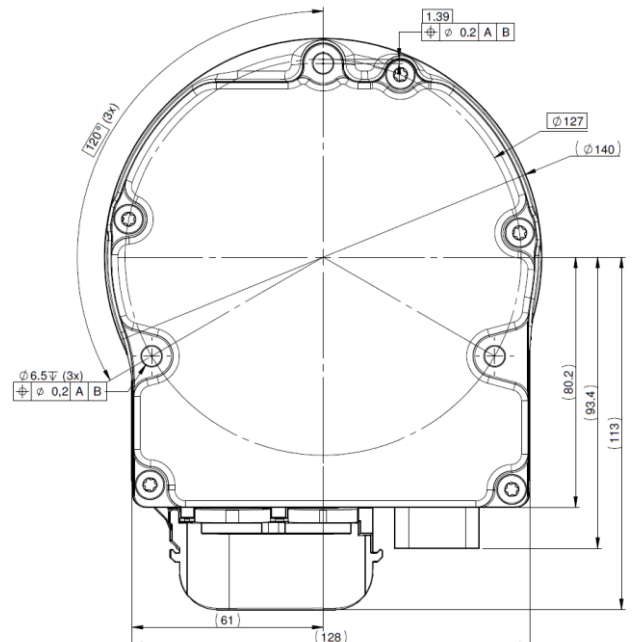
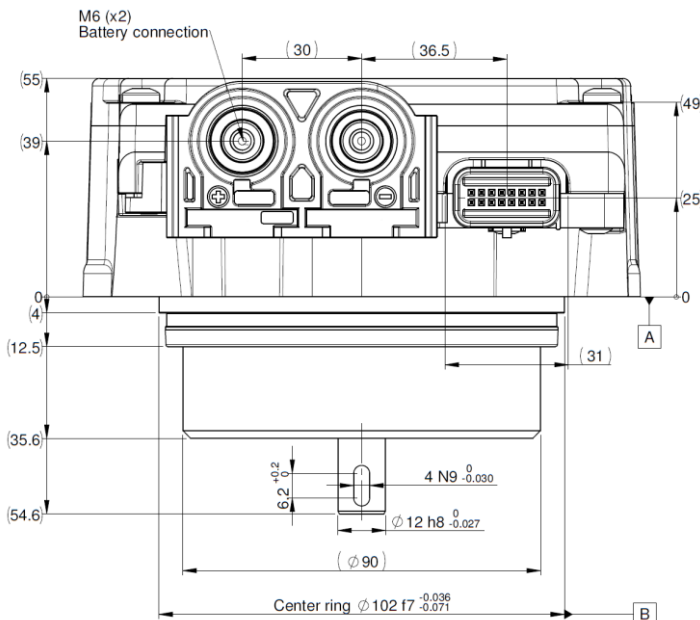
- Peak power.....4.5 kW
- Peak Torque.....min. 7 Nm
- Max. speed.....7000 rpm
- Communication..... CAN
- Weight..... 3.2 kg

The compact power BLDC CPM90 features a brushless, permanent magnet synchro-motor as well as a fully integrated control unit. With its best-in-class efficiency of up to 90%, it is a perfect match for any 48V application where the size matters.

**▶ Features & Benefits**

- Brushless DC motor with integrated CAN bus control electronics
- Wide supply voltage range 12-60V
- Protection index up to IP6k9k, with integration to customer's housing
- Operating temperature from -40°C to 85°C
- Outstanding compactness
- Torque control / Speed control
- Power / Battery current limitation
- Integrated diagnostics
- Integrated signal connector
  - CAN
  - Wake-up and Killswitch inputs
  - 1-2 Digital I/Os
  - 3 Analog Inputs
  - External sensor supply 5V/300mA.
- Fully validated

**▶ Dimensions**

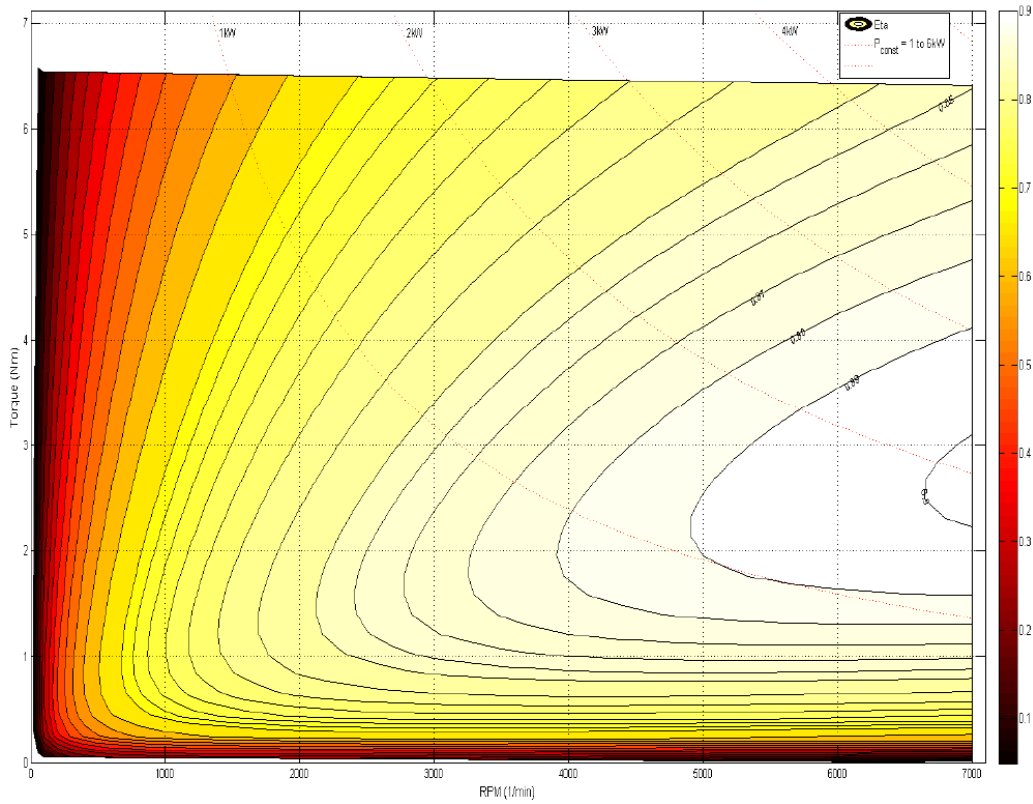


► Performance Data

Torque

Typical Torque 7 Nm – min. 6 Nm at  $T_{mot} = 100^{\circ}\text{C}$

Typical Torque vs. Speed Efficiency Map ( $T_{motor}=100^{\circ}\text{C}$ )



► Electrical and Mechanical Interface

Integrated signal connector	TE GET.64 16 pins
Screw terminals for power supply	2x M6 bolts
Communication	CAN 2.0, Baudrate 250 kbit/s, 500 kbit/s, 1 Mbit/s
Protection functions	Reverse polarity, over current, over temperature, over voltage
Maximum battery current	150 A
Quiescent current	~ 3mA
Output shaft	$\phi 12\text{h}8$ with groove for feather key DIN 6885 – A 4x4x10

► Operating conditions

Operating Temp. Range	-40°C / +85°C
Vibration level	5g RMS, further validations upon request
Protection class	Up to IP 6K9K after integration to the customer's housing
ROHS (Lead Free)	Compliant