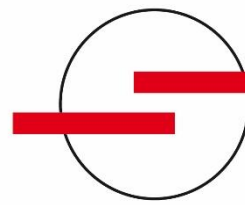




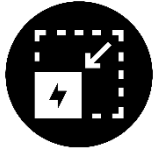
Preliminary Data



SONCEBOZ

▶ Compact Power BLDC CPM90

5934 – 48V



HIGH POWER DENSITY



SMART



ENERGY EFFICIENCY

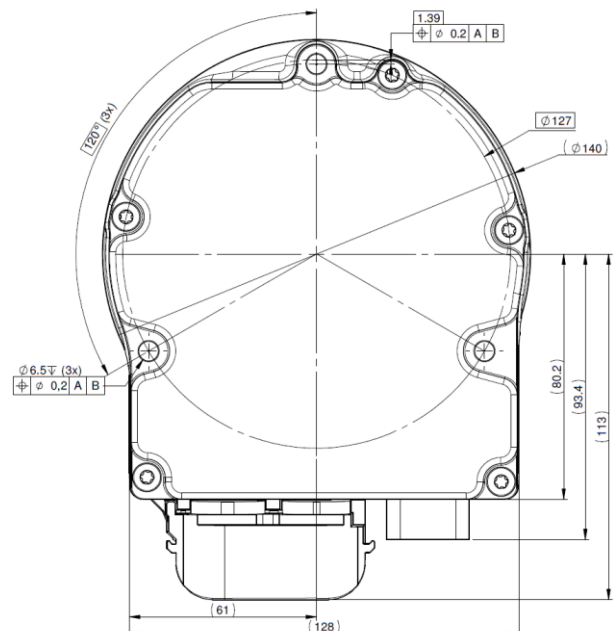
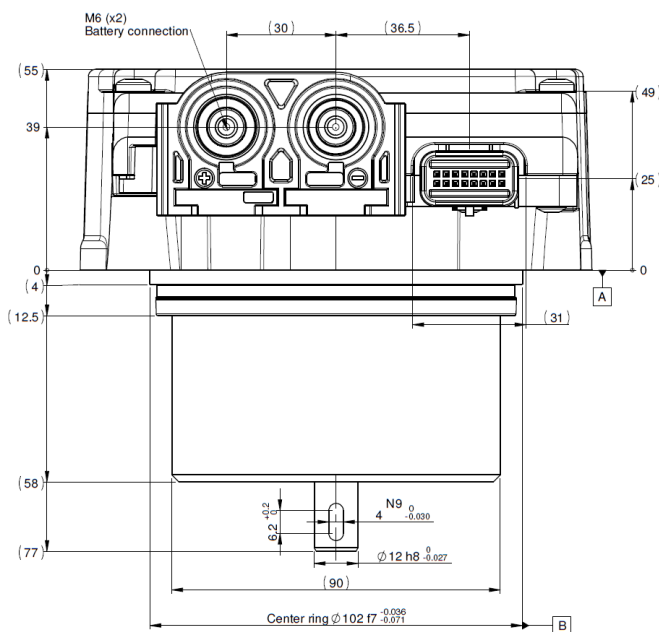
- Peak power.....5.4 kW
- Peak Torque.....14.2 Nm
- Max. speed.....6000 rpm
- Communication..... CAN
- Weight..... 4.1 kg

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 control
- 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

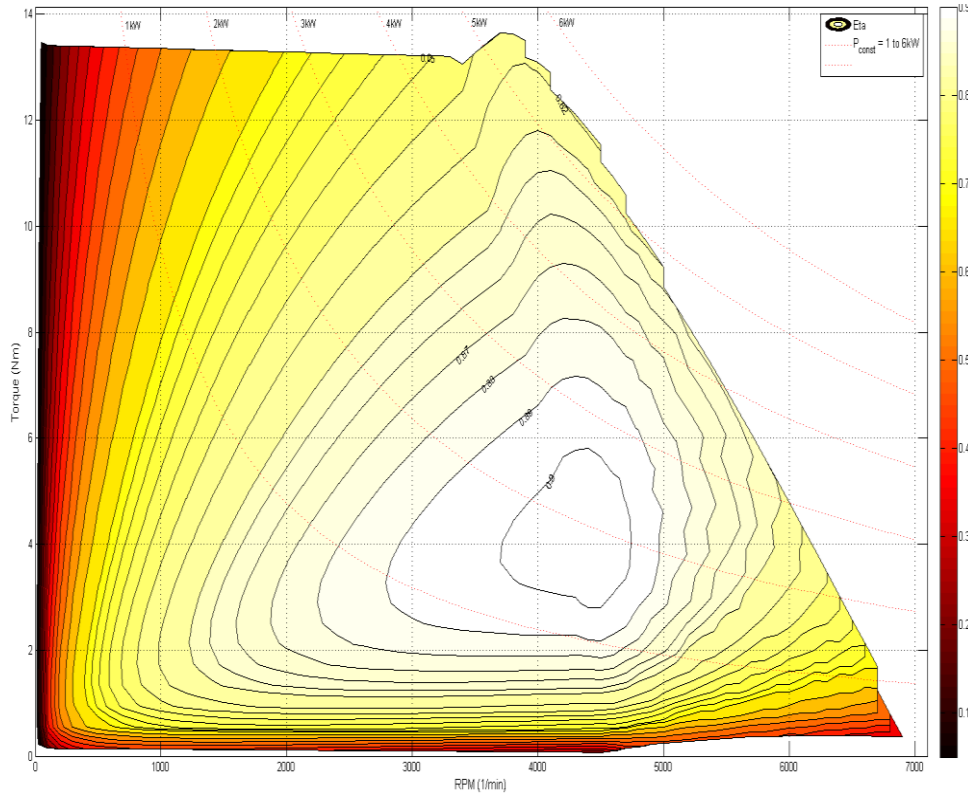
▶ Dimensions



► Performance Data

Torque	Typical Torque 14.2Nm – min. 13Nm at $T_{mot} = 100^{\circ}\text{C}$
Maximum Speed	Full Torque up 4000rpm, 5Nm up to 6000rpm

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