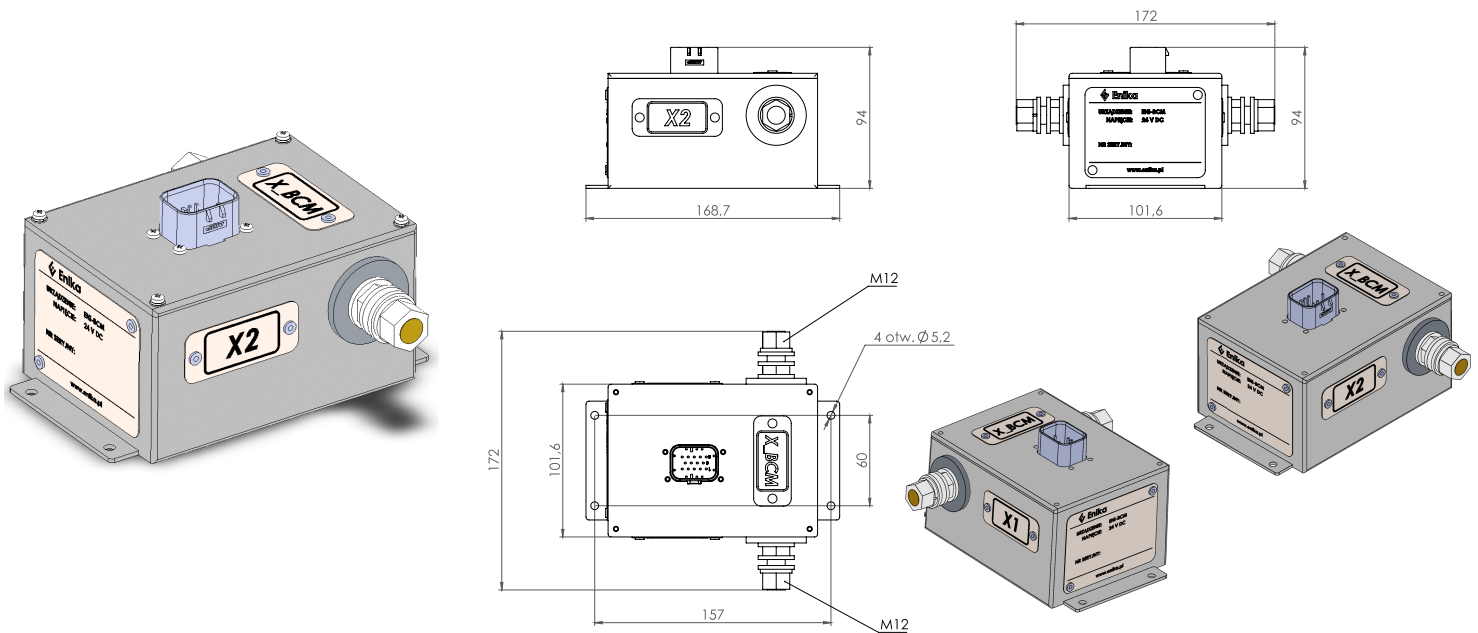


ENI-BCM charge control module

Product Data Sheet



APPLICATION

The ENI-BCM charge control module is designed to measure battery current. It enables measurements in the range $-60 \div 60$ A to adjust the charging current, and measurements in the range $-600 \div 600$ A to monitor the current drawn from the battery. It can also measure temperature, input and output.

SPECIFICATIONS

TYPE	ENI-BCM
Nominal supply voltage	24 V _{DC}
Operating supply voltage variation	16 V _{DC} – 30 V _{DC}
Current measurement range	$-60 \div 60$ A / $-600 \div 600$ A
Digital input	Lower threshold: "0" ≤ 10 V Upper threshold: "1" ≥ 14 V Transient state: 10.1 – 13.9 V Voltage variation range: 0 – 30 V
Digital output	VDO OUT: 0/24 V IDO OUT: max.0.7 A
Temperature input	Sensor type: PT100, KTY84 -130
Connectivity	CAN 2.0
Ambient temperature	-35°C – 45°C
Cooling	natural
Electronics protection rating	IP 65 (TE plug plugged in: 776273-1)
Dimensions (W x D x H)	168.7 mm x 172 mm x 94 mm
Weight	1 kg

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DESIGN

The ENI-BCM module consists of two main elements: a PCB with the electronic part and the enclosure. The electronics board features a current converter for battery current measurement, a digital input, a digital output, an input for temperature sensor measurements and CAN connectivity. The device is protected against reverse polarity at the power input.

The device enclosure consists of a base and a screwed cover with attached X_BCM connector and a nameplate. Current cables with ring terminals are attached to a shaft that runs through the enclosure base. The whole is fixed to the base through four side mounting holes.

OPERATION

Device operation and measurement readouts are achieved via the CAN bus connected to the main controller, or by means of a 24 V signal transmitted to the X_BCM connector pins for the digital input.

The current in the cables connected to terminals X1 and X2 and the shaft flows through the measuring window of the current converter. The device measures current in two ranges: $-60 \div 60$ A and $-600 \div 600$ A.

CONNECTION BLOCK DIAGRAM

