



CEM8

NEW CONTROLLER
FOR GENSET APPLICATION

NATIVE, INTUITIVE
AND ADVANCED
MANAGEMENT

CEM8 - Controller for genset application

Controller for genset with optimized navigation to ensure maximum performance. It integrates IoT functionalities that facilitate remote monitoring, intelligent equipment management and optimise operational efficiency.

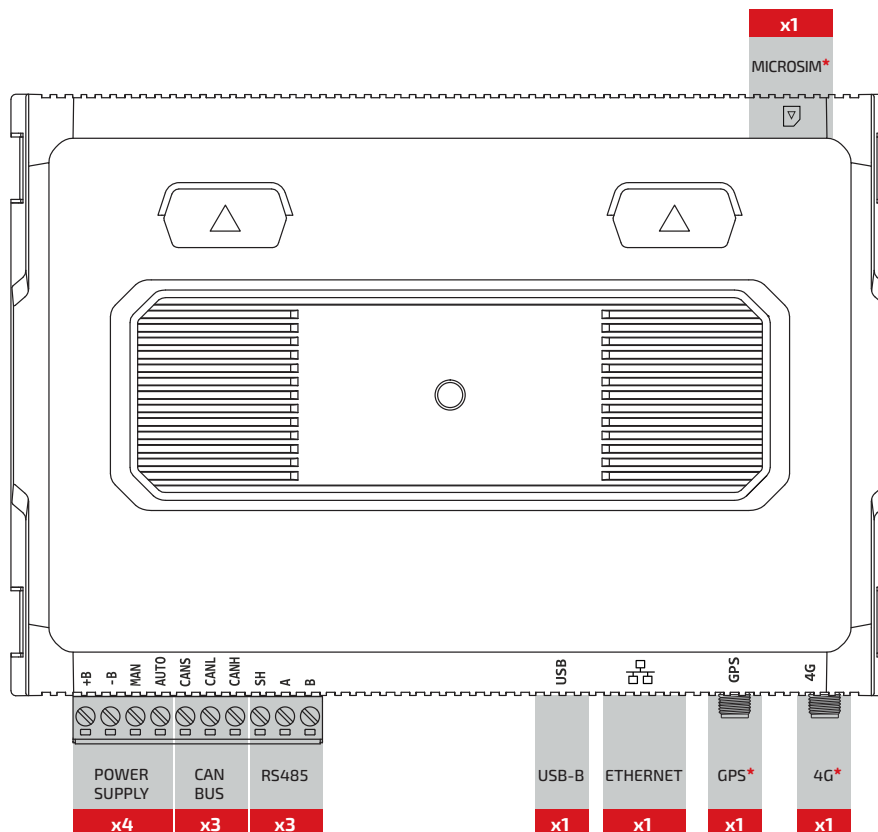
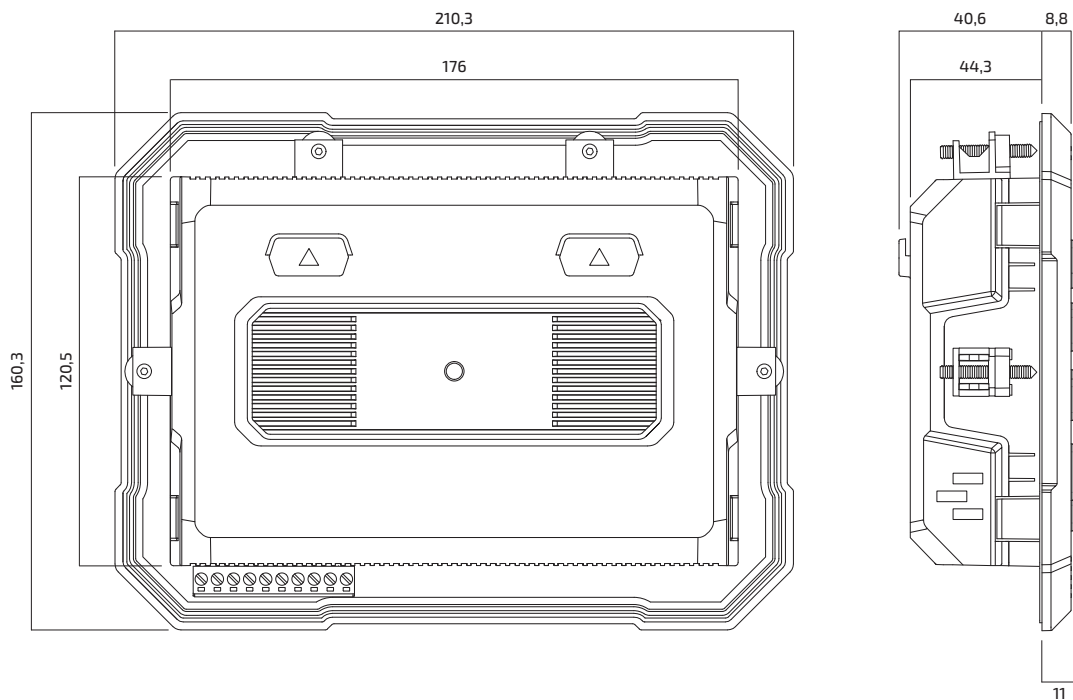
Key features

- 2 installation modes: compact or distributed.
- Intuitive and user-friendly interface.
- Configurable dashboard.
- Multiple languages including ideogram-based languages.
- Real-time clock with programmable calendar.
- Communication buses: CAN, USB, Ethernet and RS485.
- J1939, Modbus RTU/TCP, SNMP protocols.
- Integrated PLC with custom logic programming.
- Compatibility with Stage V and Tier 4 Final engines.
- Controller power-off with safe engine stop.
- Engine controller via power drivers (no relays).
- Output driver protection against overload and overtemperature.
- Inputs and outputs configurable for any use.
- 3 configurable parameter sets for genset operation.
- Built-in genset management functions: transfer pump, dummy load, load shedding and genset in reserve.
- 12 digital inputs, 1 emergency stop, 1 power-on input, 1 pick-up input and 4 analog inputs (configurable as Ω , V or I).
- 8 digital outputs, 3 high-current digital outputs (40 A peak) and 4 voltage-free relay outputs (NC and NO contacts).
- 1 D+ input/output (alternator excitation for battery charging).
- IoT communications: 4G*, Ethernet.
- Satellite geolocation with perimeter anti-theft protection.*

* Available only for the CEM8 IoT version.

Sizes (mm) and connections

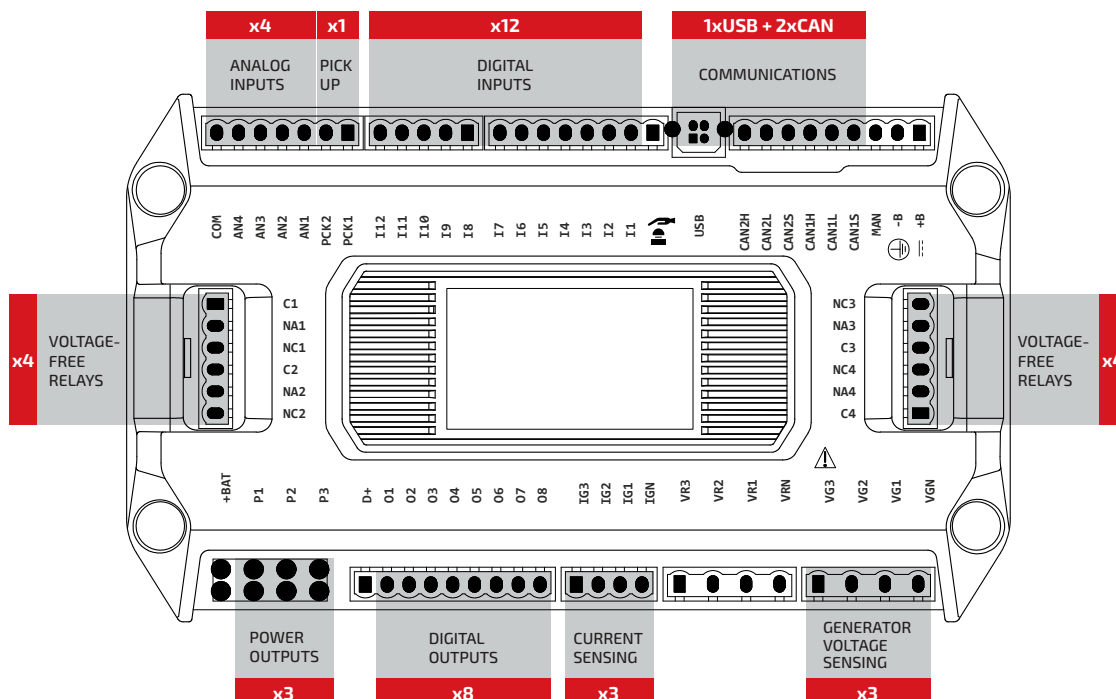
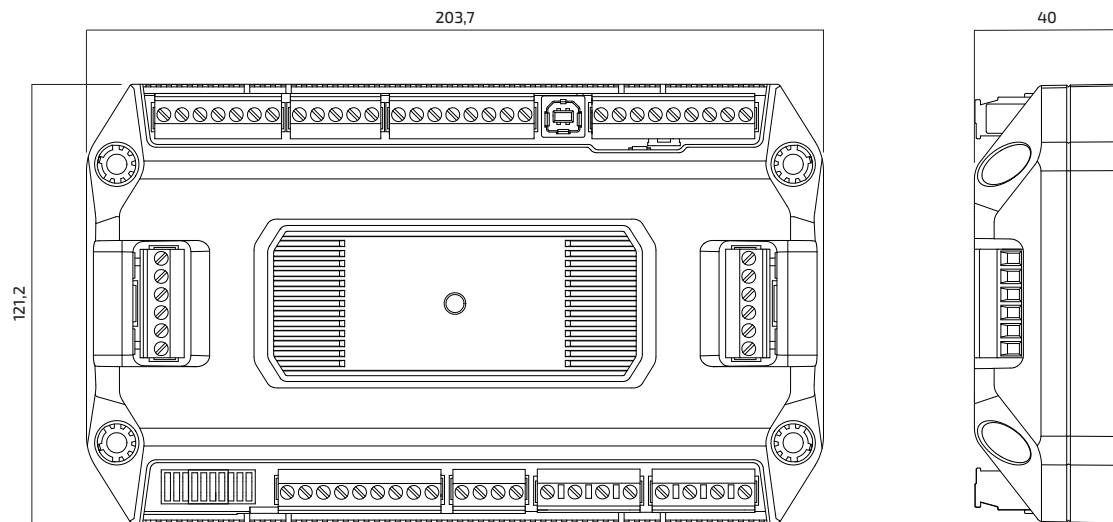
CEM8



* Available only for the CEM8 IoT version.

Sizes (mm) and connections

CPU8



Technical data

Power supply

Power supply range	8 - 36 VDC
Interface module power supply current	1250 mA (12 V), 625 mA (24 V)
Power consumption of interface module	15 W
Control module power supply current	833 mA (12 V), 417 mA (24 V)
Power consumption of control module	10

Operating conditions

Degree of protection (interface module with sealing gasket supplied)	IP65
Operating temperature	-20 °C ~ +70 °C
Relative humidity	80 % (non-condensing)
Maximum altitude above sea level	2000 m
Degree of pollution	II

AC voltage measurement

Phase-to-phase input voltages	100 - 576 VAC
Phase-to-neutral input voltages	58 - 333 VAC
Frequency	3.5 - 75 Hz
Voltage measurement resolution	1 VAC
Frequency measurement resolution	0.1 Hz
Phase-to-neutral input resistance	450 kΩ

AC current measurement

Input current	0 - 5.75 AAC
Current resolution	0.025 AAC
Input resistance	0,01 Ω

PNP digital input (MAN display and measurements)

Input voltage	0 - 36 V
Minimum input voltage at high level	8 V

NPN digital inputs (I1 - I12)

Input voltage	0 - 36 V
Maximum low-level input voltage	1 V
Minimum input voltage at high level	8 V

Analog pick-up input

Input voltage	0.5 - 70 VAC
Input frequency	10 - 10000 Hz
Frequency measurement resolution	1 Hz
Input resistance	48 kΩ

Analog inputs (AN1 - AN4)

Input voltage	0 - 12.5 V
Voltage measurement resolution	0.01 V
Input current	0 - 25 mA
Current measurement resolution	0.02 mA
Input resistance	0 - 10 kΩ
Resistance measurement resolution	10 Ω

Analog input/output D+

D+ input voltage	0 - 36 V
D+ output voltage	0 - 36 V (pin +BAT)
D+ voltage measurement resolution	0.1 V
D+ output current	210 mA (12 V), 105 mA (24 V)

High-current digital outputs (P1, P2 and P3)

Output voltage	0 - 36 V (pin +BAT)
Output current $T \leq 1s$	40 A (max. 40 A for 3 outputs)
Output current $1s \leq T \leq 10s$	20 A (max. 30 A for 3 outputs)
Output current $T > 10s$	10 A (max. 20 A for 3 outputs)

PNP digital outputs (O1 - O8)

Output voltage	0 - 36 V (pin +BAT)
Output current	2 A (8 A max. total)

Relay outputs

Contact voltage	250 VAC
Contact current	8 A

Communications

USB	USB-B 2.0 port
Ethernet	100BaseTX Ethernet port
GPS*	SMA connector for GPS antenna
4G*	SMA connector for 4G antenna
MicroSIM*	Push-push socket for MicroSIM card

* Available only for the CEM8 IoT version.

AVAILABLE EXPANSIONS

ANALOG/DIGITAL READING MODULE: Device with 8 analog inputs.
8-INPUT CEX DIGITAL MODULE: Device with 8 digital inputs.

CE6/7 1P TELESIGNAL MODULE: Device with 12 relay outputs.
RAM7 ANNOUNCEMENT PANEL: Device with 17 LEDs.