# CEM-C31

## Three-phase electrical energy meter with indirect measurement, assembly on DIN rail



#### Description

Three-phase electrical energy meter with indirect measurement, 5(10)A. Built-in LCD display (7 digits) with rotating screen system. Features built-in RS-485 communications. Also features 2 buttons (1 sealable button) for viewing all the measured information.

Other features include:

- Class 1 active energy, Class 2 reactive energy
- Complies with the IEC 62052-11 standards (international standards)
- Compact size (4 modules, 72 mm)
- Resettable partial meter
- 1 programmable impulse output, in accordance with DIN 43864
- Indicates bad connections on the screen
- Energy storage, even in the case of bad connections

### **Applications**

- Redundant meter for verifying the energy allocated by the energy provider.
- Energy consumption report sent to a remote system (PLC/BMS).
- Cost control for achieving a high consumption/unit ratio in industrial processes.
- Display of electrical parameters (V, A, kW, kW·h, PF, etc.), per phase and three-phase.

#### **Technical features**

Power circuit	Rated voltage	230 Vac / 127 Vac, depending on the model	
	Tolerance	± 20%	
	Frequency	5060 Hz	
	Consumption	< 2 W / 10 VA	
Voltage measurement	Connection	Three-phase	
circuit	Reference voltage	3 x 57/1003 x 230/400 Vac	
	Frequency	50 / 60 Hz	
	Self-consumption	< 2 W / 10 VA	
Current measurement	Nominal current In	5 A	
circuit	Maximum current	10 A	
	Self-consumption	< 0.1% of I <sub>n</sub>	
Accuracy	Active Energy	Class 1 ( <b>IEC 62053-21</b> )	
	Reactive Energy	Class 2.0 ( <b>IEC 62053-23</b> )	
Communications	Hardware	RS-485	
	Protocol	Modbus	
	Baud rate	9600, 19200, 38400 bps	
Impulse output	Туре	Optocoupled	
	Electrical features	max. 24 Vdc 50 mA	
Environmental features	Operating temperature	-25 °C+70 °C	
	Relative humidity	5%95% without condensation	
Mechanical features	Protection degree	IP 51 installation / IP 40 terminals	
	Dimensions	70 x 90 x 64 mm	
	Weight	230 g	
	Material	ABS + V0 self-extinguishing polycarbonate	
Standards		2052-11, IEC 62053-21, IEC 62053-23	



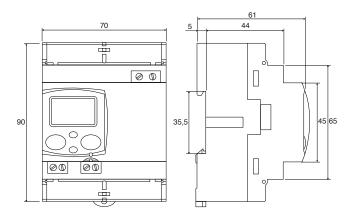
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References				
Туре	Code	Parameters measured	Active	Reactive
CEM-C31	Q23442	V, A, kW, kWh, kvar, kvarh, PF	•	•

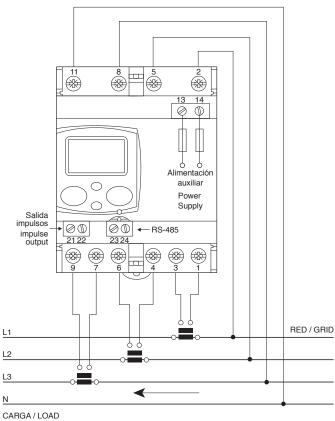
#### **Dimensions**





<u>L1</u>

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