



CEM-D210 -MID

CEM-D210 -MID, Direct three-phase energy meter with MID certificate

Code: Q22602.

- > Módulos: 4
- > Certification: MID
- > Transistor output: 1
- > System: Three-phase
- > Measure: Direct
- > Measurement Range (V): 3x127(230)...3x230(400)V
- > Measurement Range (A): (5) 100A

Description

Three-phase electrical energy meter with direct measurement up to 100 A (depending on model), featuring sealable terminals and optional communication via Modbus RS-485 and M-BUS protocols (depending on model).

Main features include:

- MID certification, modules B+D (depending on model).
- Class 1 for active energy (Class B as per MID), Class 2 for reactive energy.
- Compliant with EN 50470 (European MID standard) or IEC 62052-11 (international standard), depending on the model.
- Compact size (4 DIN rail modules).
- Resettable partial energy counter.
- 1 programmable pulse output (depending on model).
- 1 digital input for tariff control and pulse counting (depending on model).
- Time-of-use tariff calendar.
- Modbus RS-485 and M-BUS communications (depending on model).
- Display of basic electrical parameters (V, A, kW, kWh, PF, etc.).

Application

- Meter for energy sub-metering.
- Applications where certified MID meters are required for energy verification and billing.
- Meter used to verify the energy invoiced by the electricity distributor.
- Energy consumption reporting and connectivity with SCADA systems.
- Energy and cost control in industrial processes.



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Specifications

AC power supply

| | |
|-----------------------|--|
| Installation category | CAT III 300 V |
| Consumption | < 0.5 W, < 2 VA |
| Frequency | 50 ... 60 Hz |
| Nominal voltage | 3 x 127/220 ... 3 x 230/400 V ~ ± 20 % |

Mechanical characteristics

| | |
|----------------------------------|----------------------|
| Size (mm) width x height x depth | 71,5 x 90 x 74 (mm) |
| Envelope | PC+ABS |
| Fastening | DIN rail (IEC 60715) |
| Weight (kg) | 0,38 |

Environmental characteristics

| | |
|--|--|
| Protection class | IP 51 (instaled) IP 40 (terminal area) |
| Relative humidity (without condensation) | 5 ... 95 % |
| Storage temperature | -40 .. +85 °C |
| Working temperature | -40 ... +70 °C |

Current measurement circuit

| | |
|-----------------------------|---------|
| Consumption | < 1 VA |
| Reference current (Iref) | 5 A |
| Minimum current measurement | 0.250 A |
| Transition current | 0.500 A |

Voltage measurement circuit

| | |
|-----------------|--|
| Nominal voltage | 3 x 127/220 ... 3 x 230/400 V ~ ± 20 % |
|-----------------|--|

User interface

| | |
|---------------|---|
| LED | 2 LED: kWh: 4000 imp/kWh, kvarh: 4000 imp/kvarh |
| Keyboard | 2 Keys |
| Display type | LCD |
| Maximum value | 4294967 kWh |

Standards

| | |
|-----------|--|
| Standards | IEC-62053-21; IEC 62053-23; IEC 62053-52; IEC 62052-11; UNE-EN 50470-3; MID (EU Directive 2014/32/EU on Measuring Instruments Annex II, Module B |
|-----------|--|

Digital transistor outputs

| | |
|------|-------------|
| Type | Optocoupler |
|------|-------------|



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| | |
|--|-----------------------------|
| Pulse output, time period (Ton / Toff) | Ton: 40 ms / Toff: 64,34 ms |
| Maximum current | ≤ 27 mA |
| Maximum voltage | ≤ 27 V |

Measurement accuracy

| | |
|-------------------------------------|------------------------|
| Reactive energy measurement (kvarh) | Class 2 (IEC 62053-23) |
| Active energy measurement (kWh) | Class B (UNE-EN-50470) |

CEM-D200

Three-phase direct energy meter up to 100A

| CODE | TYPE | Measurement Range (V) | Measurement Range (A) | Transistor output | Certification | Módulos | Digital inputs | Communications | Protocol |
|---------------------------|---------------|--------------------------|-----------------------|-------------------|---------------|---------|----------------|----------------|------------|
| Direct three-phase | | | | | | | | | |
| Q22601. | CEM-D210 | 3x127(230)...3x230(400)V | (5) 100A | 1 | IEC | 4 | | | |
| Q22602. | CEM-D210 -MID | 3x127(230)...3x230(400)V | (5) 100A | 1 | MID | 4 | | | |
| Q22611. | CEM-D211 | 3x127(230)...3x230(400)V | (5) 100A | | IEC | 4 | 2 | RS-485 | Modbus/RTU |
| Q22612. | CEM-D211 -MID | 3x127(230)...3x230(400)V | (5) 100A | | MID | 4 | 2 | RS-485 | Modbus/RTU |
| Q22621. | CEM-D212 | 3x127(230)...3x230(400)V | (5) 100A | | IEC | 4 | 2 | | MBUS |
| Q22622. | CEM-D212 -MID | 3x127(230)...3x230(400)V | (5) 100A | | MID | 4 | 2 | | MBUS |

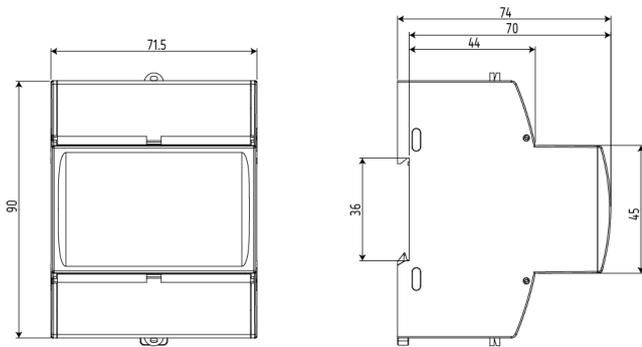


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Dimensions



Connections

3Ph-4W



3Ph-3W

