CEM-D310

CEM-D310, Indirect three-phase energy meter

Code: Q23601.

> Módules: 4
> Certification: IEC
> Transistor output: 1
> System: Three-phase
> Measure: Indirect
> Measurement Range (V): 3x127(230)...3x230(400)V
> Measurement Range (A): .../5A o .../1A

Description

Three-phase electric energy meter with indirect measurement .../5 A and .../1 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.

CEM-D310

Three-phase electricity meter with indirect measurement /5A and/or 1A.

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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)	.../1 A (1A)|.../5 A (5A)
Minimum current measurement	.../1 A (0.02A)|.../5 A (0.1A)
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: 200 ms / Toff:113.02 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 1 (IEC 62053-21)

CEM-D300

Three-phase electricity meter with indirect measurement /5A and/or 1A.

CODE	TYPE	Measurement Range (V)	Measurement Range (A)	Transistor output	Certification	Módules	Digital inputs	Communications	Protocol
Indirect three-phase									
Q23601.	CEM-D310	3x127(230)...3x230(400)V	.../5A o .../1A	1	IEC	4			
Q23602.	CEM-D310 -MID	3x127(230)...3x230(400)V	.../5A o .../1A	1	MID	4			
Q23611.	CEM-D311	3x127(230)...3x230(400)V	.../5A o .../1A		IEC	4	2	RS-485	Modbus/RTU
Q23612.	CEM-D311 -MID	3x127(230)...3x230(400)V	.../5A o .../1A		MID	4	2	RS-485	Modbus/RTU
Q23621.	CEM-D312	3x127(230)...3x230(400)V	.../5A o .../1A		IEC	4	2		MBUS
Q23622.	CEM-D312 -MID	3x127(230)...3x230(400)V	.../5A o .../1A		MID	4	2		MBUS

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Three-phase electricity meter with indirect measurement /5A and/or 1A.

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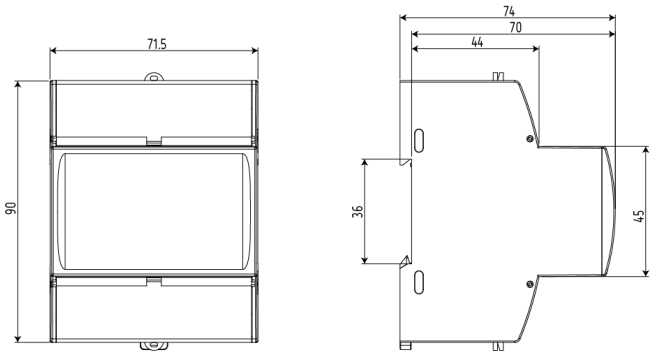
Dimensions



Connections