



CEM-D311, Indirect three-phase energy meter

Code: Q23611.

> Protocol: Modbus/RTU

> Módules: 4

> Certification: IEC

> Communications: RS-485

> Digital inputs: 2

> 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).
- O 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.
- O Compact size (4 DIN rail modules).
- o Resettable partial energy counter.
- o 1 programmable pulse output (depending on model).
- o 1 digital input for tariff control and pulse counting (depending on model).
- $\ \, \circ \ \, \text{Time-of-use tariff calendar}.$
- $\circ~$ Modbus RS-485 and M-BUS communications (depending on model).
- O Display of basic electrical parameters (V, A, kW, kWh, PF, etc.).

Application

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







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

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Specifications

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					
invironmental 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)					
Reference current (Iref) Minimum current measurement	/1 A (1A) /5 A (5A)/1 A (0.02A) /5 A (0.1A)					
Minimum current measurement	/1 A (0.02A) /5 A (0.1A)					
Minimum current measurement Transition current	/1 A (0.02A) /5 A (0.1A)					
Minimum current measurement Transition current foltage measurement circuit	/1 A (0.02A) /5 A (0.1A) 0.500 A					
Minimum current measurement Transition current Oltage measurement circuit Nominal voltage	/1 A (0.02A) /5 A (0.1A) 0.500 A					
Minimum current measurement Transition current Yoltage measurement circuit Nominal voltage User interface	/1 A (0.02A) /5 A (0.1A) 0.500 A 3 x 127/220 3 x 230/400 V ~ ± 20 %					
Minimum current measurement Transition current /oltage measurement circuit Nominal voltage User interface	/1 A (0.02A) /5 A (0.1A) 0.500 A 3 x 127/220 3 x 230/400 V ~ ± 20 % 2 LED: kWh: 4000 imp/kWh, kvarh: 4000 imp/kvarh					
Minimum current measurement Transition current Voltage measurement circuit Nominal voltage User interface LED Keyboard	/1 A (0.02A) /5 A (0.1A) 0.500 A 3 x 127/220 3 x 230/400 V ~ ± 20 % 2 LED: kWh: 4000 imp/kWh, kvarh: 4000 imp/kvarh 2 Keys					
Minimum current measurement Transition current foltage measurement circuit Nominal voltage Jeer interface LED Keyboard Display type	/1 A (0.02A) /5 A (0.1A) 0.500 A 3 x 127/220 3 x 230/400 V ~ ± 20 % 2 LED: kWh: 4000 imp/kWh, kvarh: 4000 imp/kvarh 2 Keys LCD					
Minimum current measurement Transition current /oltage measurement circuit Nominal voltage Jeer interface LED Keyboard Display type Maximum value	/1 A (0.02A) /5 A (0.1A) 0.500 A 3 x 127/220 3 x 230/400 V ~ ± 20 % 2 LED: kWh: 4000 imp/kWh, kvarh: 4000 imp/kvarh 2 Keys LCD					







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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

Measurement accuracy

Reactive energy measurement (kvarh)	Class 2 (IEC 62053-23)
Active energy measurement (kWh)	Class 1 (IEC 62053-21)

Serial communication

Protocol Modbus/RTU

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 t	hree-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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Dimensions Connections







