



212-ES7A-2EB20

212-ES7A-2EB20, Single-phase energy meter

Code: QBMD7

- > Tariff: 2
- > Entrada cambio tarifa: Yes
- > Certification: IEC
- > Communications: RS-485 (Modbus/RTU)
- > Class (Active/Reactive): B (1) / 2
- > System: Single-phase
- > Measure: Direct
- > Measurement Range (V): 230
- > Measurement Range (A): 5 (65)
- > Quadrants: Abs.
- > Frequency (Hz): 50

Description

The **CIRWATT B102** invoicing meter is a single-phase meter for residential use. It is IEC certified to invoice electricity to end users. It features Class-1 accuracy for active energy, Class-2 for reactive energy, and up to 3 programmable tariffs, with RS-485 communications and optical communications via the front port. The meter has a load profile with more than 400 days of data, 12 end-of-billing periods and the option to record any tampering or fraud in a special event and service quality file. For easier reading, these meters have a backlit display that makes it easy to see the electricity consumption in places with low lighting.

Application

Official electricity meter via on-screen verification or by data download via optical port.

By using an RS-485 communications port, which allows connecting up to 32 meters to the same bus, and remotely downloaded using a GSM/3G modem or IP router.

The device has, depending on the version, a digital input for forced tariff changes, especially designed for installations with dual supply sources, accumulating in tariff 1 the energy from the grid and in tariff 2 the power from the second source based on the status of the digital input.

Depending on the version, the meter can be integrated with LM devices via pulse output to collect pulses, which allow the energy consumption to be centralized and sent remotely to the PowerStudio data management system.



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Specifications

AC power supply

| | |
|-----------------|-------------------|
| Tolerance | 80 % ... 115 % Un |
| Consumption | < 2 W; < 10 VA |
| Frequency | 50 / 60 Hz |
| Nominal voltage | 230 V |

Battery specification

| | |
|-----------------------|--------------------|
| Performance-guarantee | > 20 years @ 30 °C |
| Type | Lithium |

Mechanical characteristics

| | |
|----------------------------------|---------------------|
| Size (mm) width x height x depth | 129 x 215 x 62 (mm) |
| Envelope | DIN 43859 |
| Weight (kg) | 0,58 |

Environmental characteristics

| | |
|--|----------------|
| Relative humidity (without condensation) | 95 % max. |
| Storage temperature | -40 ... +85 °C |
| Working temperature | -40 ... +70 °C |

Voltage measurement circuit

| | |
|-------------------|-----------------------------|
| Connection | Asymmetrical or Symmetrical |
| Consumption | < 2 W; 10 VA |
| Nominal frequency | 50 / 60 Hz |
| Nominal voltage | 230 V |

Current measurement circuit

| | |
|-----------------------------|--------|
| Reference current (Iref) | 5 A |
| Maximum current | 65 A |
| Minimum current measurement | 250 mA |

Optical communication interface

| | |
|----------|-----------------------|
| Protocol | IEC 62056-21 mode C |
| Type | Serial;bi-directional |

User interface

| | |
|---------------------------|----------------|
| Resolution of the display | up to 7 digits |
| Display type | LCD |



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Memory

| | |
|-----------------|--|
| Memory capacity | Up to 4 tariffs, optional load profile, 9600 records for load profiles |
| Type | FIFO |

Measurement accuracy

| | |
|-------------------------------------|---|
| Reactive energy measurement (kvarh) | IEC 62053-21 (Class 2) |
| Active energy measurement (kWh) | Class 1 - IEC 62053-21 Class B - EN 50470 |

Features / performance

| | |
|------------------|----|
| Billing closures | 15 |
|------------------|----|

Serial communication

| | |
|-------------------|---------------------|
| Protocol | Modbus RTU |
| Technology / Type | RS-485 (Modbus/RTU) |

CIRWATT B102

Single-phase energy meter

| CODE | TYPE | Communications | Impulse output | Class (Active/Reactive) | Measurement Range (V) | Measurement Range (A) | Quadrants | Entrada cambio tarifa |
|---------------------|----------------|---------------------|----------------|-------------------------|-----------------------|-----------------------|-----------|-----------------------|
| CIRWATT B102 | | | | | | | | |
| QBMD3 | 212-ES7A-21B20 | RS-485 (Modbus/RTU) | 1 | B (1) / 2 | 230 | 5 (65) | Abs. | 0 |
| QBMD5 | 212-ES7A-23B20 | RS-485 (Modbus/RTU) | 0 | B (1) / 2 | 230 | 5 (65) | Abs. | 0 |
| QBMD7 | 212-ES7A-2EB20 | RS-485 (Modbus/RTU) | 0 | B (1) / 2 | 230 | 5 (65) | Abs. | 1 |

These meter models are not MID certified.

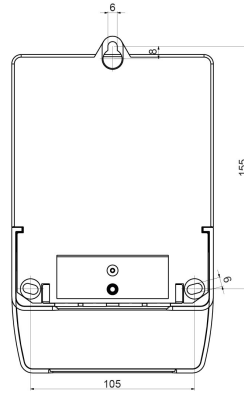
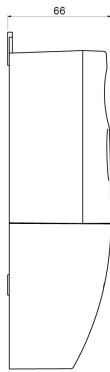
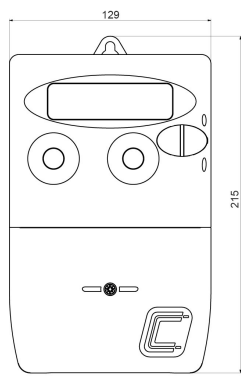


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Dimensions



Connections

