



410-QD1A-B3B12

410-QD1A-B3B12, Three-phase energy meters direct connection

Code: QB4M1D20 **DESCATALOGADO**

- > Type Consumer: 5
- > Discon. relay: Yes
- > Communications: - | PRIME
- > N° relays: 1
- > Class (Active/Reactive): B (1) / 2
- > System: Three-phase
- > Measure: Direct
- > Measurement Range (V): 3x230/400
- > Measurement Range (A): 10 (100)
- > Quadrants: 4
- > Frequency (Hz): 50

Description

The **CIRWATT B 410RCP** is a digital multifunction three-phase class-B/Class-1 meter for active energy and Class-2 for reactive energy. This meter complies with the international IEC 62053-21 and IEC 62053-23 standards, and with the European regulations on energy meters, EN 50470-1 and EN 50470-3 (MID), which allows them to be installed in any European Union country.

It features PLC (Prime Line Carrier) PRIME communications via the electrical grid, as well as an optical port. Both communications use the DLMS protocol. It also has a logger for up to 3 months of time records for the 6 types of energy. It also allows the data to be read in the absence of voltage. It includes a circuit breaker, which allows the user to control the electricity demand, which can be managed remotely using PLC communications.

Application

The main application of the **CIRWATT B410RCP** meter is to measure active and reactive energy for invoicing in those cases where a high-performance meter is required at an optimized cost. PLC communication allows all the data recorded by the meter to be downloaded remotely via the Compact DC concentrator with PLC PRIME communication.

The circuit breaker integrated into the meter allows the supply to be managed remotely by interrupting or restoring the electricity to any user. It is also used to program the power contracted. If the programmed power exceeds its threshold, the circuit breaker will trip, cutting the supply or restoring it safely once the consumption is below the programmed threshold, thus ensuring the end user's safety at all times.



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Specifications

AC power supply

| | |
|-----------------|-------------------|
| Tolerance | 80 % ... 115 % Un |
| Consumption | < 2 W; < 10 VA |
| Frequency | 50 / 60 Hz |
| Nominal voltage | 3 x 230 (400) V |

Mechanical characteristics

| | |
|----------------------------------|---------------------|
| Size (mm) width x height x depth | 172 x 230 x 67 (mm) |
| Envelope | DIN 43859 |
| Weight (kg) | 1,9 |

Environmental characteristics

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

Voltage measurement circuit

| | |
|-------------------|--------------|
| Connection | Asymmetrical |
| Consumption | < 2 W; 10 VA |
| Nominal frequency | 50 / 60 Hz |
| Nominal voltage | 3x230/400 V |

Current measurement circuit

| | |
|-----------------------------|-------------|
| Consumption | < 0,1 VA |
| Reference current (Iref) | 10 A |
| Maximum current | 100 A |
| Minimum current measurement | < 0,5 x Itr |

Communication Network

| | |
|----------|-----------------|
| Protocol | 3 x 127 (230) V |
|----------|-----------------|

Battery specification

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

Optical communication interface

| | |
|----------|-----------------------|
| Hardware | IEC 62056-21 |
| Protocol | DLMS |
| Type | Serial;bi-directional |



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User interface

| | |
|---------------------------|-----------------------|
| Resolution of the display | up to 8 digits (8 mm) |
| Display type | LCD |

Memory

| | |
|-----------------|-----------------------------------------------------------|
| Memory capacity | Data: non-volatile memory, Setup and events: serial-flash |
| Write time | 90 days |
| Type | Serial flash |

PLC

| | |
|-------------------|--------------|
| Hardware | CENELEC |
| Protocol | DLMS / PRIME |
| Modulation system | OFDM |

Measurement accuracy

| | |
|-------------------------------------|-------------------------------------------|
| Reactive energy measurement (kvarh) | IEC 62053-23 (Class 2) |
| Active energy measurement (kWh) | EN 50470 (Class B) IEC 62053-21 (Class 1) |

Features / performance

| | |
|--------------------|----------------------------------------------------------------|
| Billing closures | 12 locks per contract. Programmable date and hour |
| Load curve | 1 load curves, programmable integration time (1 ... 60 min) |
| Tariff programming | 12 days 24 types of data 6 types of tariffs 30 public holidays |

Clock

| | |
|---------------------|------------------------------------|
| Source | Temperature compensated oscillator |
| Accuracy (EN 61038) | < 0,5 s / day (23 °C) |
| Type | Gregorian calendar |

CIRWATT B 410RCP

Three-phase energy meters direct connection

| CODE | TYPE | Type Consumer | Discon. relay | Communications | N° relays | Measure | Measurement Range (A) | Quadrants | Class (Active/Reactive) |
|------------------------------------------------------------------------------|----------------|---------------|---------------|----------------|-----------|---------|-----------------------|-----------|-------------------------|
| CIRWATT B 410RCP, direct connection with internal disconnection relay | | | | | | | | | |
| QB4M0D20 | 410-QD1A-B0B12 | 5 | Yes | - PRIME | 0 | Direct | 10 (100) | 4 | B (1) / 2 |
| QB4M0D21 | 410-QD1A-B0B12 | 5 | Yes | - PRIME | 0 | Direct | 10 (100) | 4 | B (1) / 2 |
| QB4M1D20 | 410-QD1A-B3B12 | 5 | Yes | - PRIME | 1 | Direct | 10 (100) | 4 | B (1) / 2 |
| QB4M1D21 | 410-QD1A-B3B12 | 5 | Yes | - PRIME | 1 | Direct | 10 (100) | 4 | B (1) / 2 |



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Connections

