



410-QD1A-B0B10

410-QD1A-B0B10, Three-phase energy meters direct connection

Code: QB4N0 DESCATALOGADO

- > Type Consumer: 4
- > Discon. relay: No
- > Communications: RS-232 | PRIME
- > N° relays: 0
- > 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 410DP** 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 and an RS-232 port for remote management via a GSM/3G modem. 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.



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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 |

Battery specification

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

Mechanical characteristics

| | |
|----------------------------------|---------------------|
| Size (mm) width x height x depth | 172 x 255 x 67 (mm) |
| Envelope | DIN 43859 |
| Weight (kg) | 1,6 |

Environmental characteristics

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

| | |
|------------------------|-------|
| Technology / Interface | PRIME |
|------------------------|-------|

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 |

Serial communication

| | |
|-------------------|--------|
| Technology / Type | RS-232 |
|-------------------|--------|

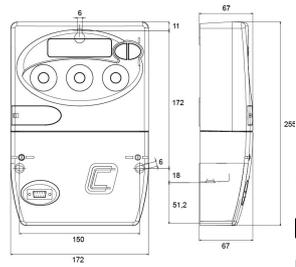
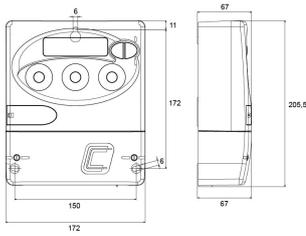


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Dimensions



Connections

