



## 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 / Type	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. Programable 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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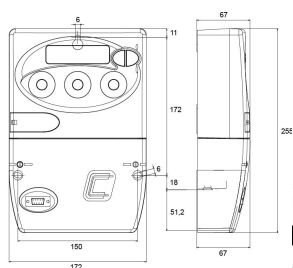
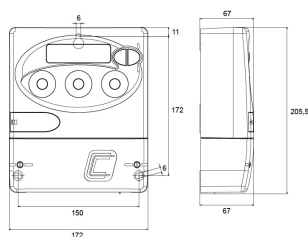


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### Dimensions



### Connections

