410-QD1A-B0B10

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

Code: QB4N0

> 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

CIRWATT B 410DP

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CODE	TYPE	Type Consumer	Discon. relay	Communications	N° relays	Measure	Measurement Range (A)	Quadrants	Class (Active/Reactive)
CIRWATT B 410DP, direct connection									
QB4N0	410-QD1A-B0B10	4	No	RS-232 | PRIME	0	Direct	10 (100)	4	B (1) / 2

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Dimensions

Connections