



410-QD1A-A0B10

410-QD1A-A0B10, Three-phase energy meters direct connection

Code: QB4C0

- > Type Consumer: 4
- > Communications: RS-232 | Ethernet
- > 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

CIRWATT-B410D is a direct three-phase meter, ideal for three-phase industrial applications. It is classified as Class B for active energy as per the European MID Directive (EN 50470) or Class 1 as per IEC-62053-21. It offers multiple communication options and expansion modules, allowing it to adapt to any type of direct measurement installation.

Application

CIRWATT-B410D is suitable for low-voltage applications (for currents up to 100 or 120 A maximum). Offering solutions for a wide variety of installations such as: shopping centres, small industry and high-consumption residential areas (Consumer type 4). Available in 2 quadrants for energy consumption or 4 quadrants for photovoltaic plants (energy generation and consumption).



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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 - 3 x 127 (230) V |

Mechanical characteristics

| | |
|----------------------------------|---------------------|
| Size (mm) width x height x depth | 172 x 255 x 67 (mm) |
| Envelope | DIN 43859 |
| Weight (kg) | 1,5 |

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 | 3 x 230/400 V (Request for other configurations) |

Current measurement circuit

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

Communication Network

| | |
|------------------------|------------------------------|
| Protocol | REE, basado en IEC 870-5-102 |
| Technology / Interface | Ethernet |

Battery specification

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



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Optical communication interface

| | |
|----------|-----------------------------|
| Hardware | IEC 62056-21 |
| Protocol | REE, based on IEC 870-5-112 |
| Type | Serial;bi-directional |

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 | 4000 |
| Type | Serial flash |

Standards

| | |
|-----------|--|
| Standards | UNE-EN 50470-1 Electricity metering equipment (a.c.) -- Part 1: General requirements, tests and test conditions - Metering equipment -class indexes B-) UNE-EN 50470-3 Electricity metering equipment (a.c.) -- Part 3: Particular requirements - Static meters for active energy -class indexes B-) IEC 62052-11, IEC 62053-21, IEC 62053-22 (Standards for static active energy meters for alternating current of class 0.2s, 0.5s) UNE-EN 55022 (Conducted Emissions: Class B, Radiated Emissions: Class B) UNE-EN 61000-4-2, UNE-EN 61000-4-3, UNE-EN 61000-4-4, UNE-EN 61000-4-5, UNE-EN 61000-4-6, UNE-EN 61000-4-8, UNE-EN 61000-4-11 |
|-----------|--|

PLC

| | |
|-------------------|--|
| Hardware | CENELEC A or CENELEC B |
| Protocol | CirPLC & PEP (PLC Encapsulated Protocol) |
| Modulation system | DSCK with repeater system |

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 | 2 load curves, programmable integration time (1 ... 253 min) |
| Optional | Communications: RS-232 / PLC ,RS-485 / PLC, RS-232 / RS-232 , RS-485 / RS-485, RS-232 / RS-485, RS-232 / Ethernet, R-485 / Ethernet. Expansion boards: No inputs / outputs, 4 relay outputs (Rate Indicator), 2 relay inputs / 4 pulse outputs, 4 pulse inputs, Differential current measurement, 2 relay outputs / 2 pulse outputs, / 2 pulse inputs |
| Tariff programming | 12 days 10 types of data 9 types of tariffs 30 public holidays 12 special days |



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Clock

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

Serial communication

| | |
|-------------------|------------------------------|
| Protocol | REE, basado en IEC 870-5-102 |
| Technology / Type | RS-232 |

CIRWATT B 410D

Direct three-phase meter, ideal for three-phase industrial applications. It is classified as Class B for active energy as per the European MID Directive (EN 50470) or Class 1 as per IEC-62053-21

| CODE | TYPE | Measurement Range (V) | Measurement Range (A) | Communications | Class (Active/Reactive) | System | Measure |
|-----------------------|------------------------------------|-----------------------|-----------------------|-------------------|-------------------------|-------------|----------|
| CIRWATT B 410D | | | | | | | |
| QB4B0D02 | 410-QD1A-90B10-SIMPLE TARIFA-3.0A | 3x230/400 | 10 (100) | RS-232 RS-485 | B (1) / 2 | Three-phase | Indirect |
| QB4B0D01 | 410-QD1A-90B10-TRIPLE TARIFA-3.0A | 3x230/400 | 10 (100) | RS-232 RS-485 | B (1) / 2 | Three-phase | Indirect |
| QP302 | 410-QD1C-20P22 | | | | | | |
| QB4A0 | 410-QD1A-70B10 | 3x230/400 | 10 (100) | RS-232 RS-232 | B (1) / 2 | Three-phase | Direct |
| QB4B0 | 410-QD1A-90B10 | 3x230/400 | 10 (100) | RS-232 RS-485 | B (1) / 2 | Three-phase | Direct |
| QB4E0 | 410-QD1A-80B10 | 3x230/400 | 10 (100) | RS-485 RS-485 | B (1) / 2 | Three-phase | Direct |
| QB4C0 | 410-QD1A-A0B10 | 3x230/400 | 10 (100) | RS-232 Ethernet | B (1) / 2 | Three-phase | Direct |
| QB4D0 | 410-QD1A-C0B10 | 3x230/400 | 10 (100) | RS-485 Ethernet | B (1) / 2 | Three-phase | Direct |
| QB4H0 | 410-QD1B-90B10 | 3x230/400 | 10 (100) | RS-232 RS-485 | B (1) / 2 | Three-phase | Direct |
| QB4I0 | 410-QD1B-A0B10 | 3x230/400 | 10 (100) | RS-232 Ethernet | B (1) / 2 | Three-phase | Direct |
| QB7A0 | 410-ND1A-70B10 | 3x127/220 | 10 (100) | RS-232 RS-232 | B (1) / 2 | Three-phase | Direct |
| QB7B0 | 410-ND1A-90B10 | 3x127/220 | 10 (100) | RS-232 RS-485 | B (1) / 2 | Three-phase | Direct |
| QB7E0 | 410-ND1A-80B10 | 3x127/220 | 10 (100) | RS-485 RS-485 | B (1) / 2 | Three-phase | Direct |
| QB7C0 | 410-ND1A-A0B10 | 3x127/220 | 10 (100) | RS-232 Ethernet | B (1) / 2 | Three-phase | Direct |
| QB7D0 | 410-ND1A-C0B10 | 3x127/220 | 10 (100) | RS-485 Ethernet | B (1) / 2 | Three-phase | Direct |
| QB4B0D60 | 410-QD1A-90B10-TRIPLE TARIFA-3.0TD | 3x230/400 | 10 (100) | RS-232 RS-485 | B (1) / 2 | Three-phase | Indirect |

Please contact us for other configurations (Inputs, outputs and other communications)

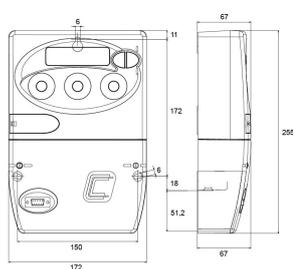
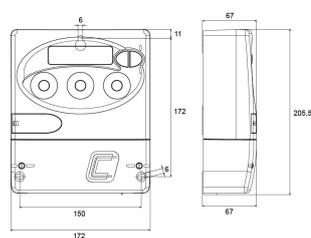


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Dimensions



Connections

