



410-QD1A-90B10

410-QD1A-90B10, Three-phase energy meters direct connection

Code: QB4B0

- > Type Consumer: 4
- > Communications: RS-232 | RS-485
- > 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 standard three phase direct connection meter, ideal for industrial three-phase applications. With class B in active energy according to European Directive MID (EN 50470) or class 1 according to IEC-62053-21, it has multiple communication options and expansion modules that allow it to adapt to any type of installation.

Application

CIRWATT-B410D is suitable device for LV applications (for currents up to 100 or 120 A maximum), adapting to new market needs with great versatility in its communication options and expansion modules. Available in 2 quadrants for energy consumption or 4 quadrants for photovoltaic plants (generation and consumption of energy).



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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 |

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) | 2,8 |

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 | 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 |

Optical communication interface

| | |
|----------|-----------------------------|
| Hardware | IEC 62056-21 |
| Protocol | REE, based on IEC 870-5-109 |
| Type | Serial;bi-directional |

User interface

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



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| | |
|-------------------------------------|--|
| 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. Programable 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 |
| 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 RS-485 |



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CIRWATT BIII-D

Three-phase energy meters direct connection

| CODE | TYPE | Measurement Range (V) | Measurement Range (A) | Communications | Class (Active/Reactive) | System | Measure |
|-----------------------|----------------|-----------------------|-----------------------|-------------------|-------------------------|-------------|---------|
| CIRWATT B 410D | | | | | | | |
| 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 |
| QB7A0 | 410-ND1A-70B10 | 3x127/220 | 10 (100) | RS-232 RS-232 | B (1) / 2 | Three-phase | Direct |
| QB4I0 | 410-QD1B-A0B10 | 3x230/400 | 10 (100) | RS-232 Ethernet | 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 |



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Dimensions



Connections

