410-MT5A-A0B10

410-MT5A-A0B10, Three-phase energy meter indirect connection

Code: QBH40

> Type Consumer: 3
> Communications: RS-232 | Ethernet
> Class (Active/Reactive): B (1) / 2
> System: Three-phase
> Measure: Indirect
> Measurement Range (V): 3x63,5/110
> Measurement Range (A): .../5
> Quadrants: 4
> Frequency (Hz): 50

Description

CIRWATT-B410T is an indirect multi-rate three-phase meter and logger, Class B in active energy as per the European MID Directive (EN 50470), or Class 1 as per IEC-62053-21 and Class 2 reactive energy as per IEC-62053-23, with multiple communications options and expansion modules that allow it to be adapted to any type of industrial and tertiary sector installation.

Application

CIRWATT B-410T is perfect for low- and medium-voltage supplies using external current transformers. Offering solutions for a wide variety of installations such as: shopping centres, industries and high-consumption residential areas (Consumer type 3). 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 63,5(110) 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)	0,95

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	3x63,5/110 V

Current measurement circuit

Consumption	< 0,1 V·A
Reference current (Iref)	.../ 5 A
Maximum current	10 A
Minimum current measurement	< 0,5 x Itr

Communication Network

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

Optical communication interface

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Hardware	IEC 62056-21
Protocol	REE, based on IEC 870-5-121
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. 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

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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 410T

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CODE	TYPE	Measurement Range (V)	Measurement Range (A)	Communications	Class (Active/Reactive)	System	Measure
CIRWATT B 410T							
QB860	410-QT5A-70B10	3x230/400	.../5	RS-232 | RS-232	B (1) / 2	Three-phase	Indirect
CIRWATT B 505							
QBN40	410-VT7B-A0B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | Ethernet	C (0,5S)/1	Three-phase	Indirect
CIRWATT B 410T							
QB8A0	410-QT5A-80B10	3x230/400	.../5	RS-485 | RS-485	B (1) / 2	Three-phase	Indirect
QB870	410-QT5A-90B10	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QB870T21	410-QT5A-90B10-TRMC210-100-3.0.TD	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QB870T22	410-QT5A-90B10-TRMC210-200-3.0.TD	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QB870T23	410-QT5A-90B10-TRMC210-500-3.0.TD	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QB880	410-QT5A-A0B10	3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QB890	410-QT5A-C0B10	3x230/400	.../5	RS-485 | Ethernet	B (1) / 2	Three-phase	Indirect
QBJ10	410-VT5A-90B10	3x57/100 ... 3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBG60	410-NT5A-70B10	3x127/220	.../5	RS-232 | RS-232	B (1) / 2	Three-phase	Indirect
QBJ20	410-VT5A-A0B10	3x57/100 ... 3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QBG70	410-NT5A-90B10	3x127/220	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QB8D0	410-QT5B-90B10	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBGA0	410-NT5A-80B10	3x127/220	.../5	RS-485 | RS-485	B (1) / 2	Three-phase	Indirect
QBG80	410-NT5A-A0B10	3x127/220	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QB8E0	410-QT5B-A0B10	3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QBG90	410-NT5A-C0B10	3x127/220	.../5	RS-485 | Ethernet	B (1) / 2	Three-phase	Indirect
QBJ60	410-VT5B-90B10	3x57/100 ... 3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBH20	410-MT5A-70B10	3x63,5/110	.../5	RS-232 | RS-232	B (1) / 2	Three-phase	Indirect
QBJ70	410-VT5B-A0B10	3x57/100 ... 3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QBH30	410-MT5A-90B10	3x63,5/110	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBN0B	410-QT7A-90B10	3x230/400	.../ 1	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBH61	410-MT5A-80B10	3x63,5/110	.../5	RS-485 | RS-485	B (1) / 2	Three-phase	Indirect
QBH40	410-MT5A-A0B10	3x63,5/110	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QBN1B	410-QT7A-A0B10	3x230/400	.../ 1	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect

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CODE	TYPE	Measurement Range (V)	Measurement Range (A)	Communications	Class (Active/Reactive)	System	Measure
QBH50	410-MT5A-C0B10	3x63,5/110	.../5	RS-485 | Ethernet	B (1) / 2	Three-phase	Indirect
QBN0J	410-VT7A-90B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBN1J	410-VT7A-A0B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QBN2B	410-QT7B-90B10	3x230/400	.../ 1	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBN3B	410-QT7B-A0B10	3x230/400	.../ 1	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect
QBN2J	410-VT7B-90B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect
QBN3J	410-VT7B-A0B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect

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

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Dimensions

Connections