



## 410-QT5A-90B10-TRMC210-200-3.0.2

410-QT5A-90B10-TRMC210-200-3.0.2, Three-phase energy meter indirect connection

Code: QB870T02

- > Type Consumer: 3
- > Communications: RS-232 | RS-485
- > Class (Active/Reactive): B (1) / 2
- > System: Three-phase
- > Measure: Indirect
- > Measurement Range (V): 3x230/400
- > Measurement Range (A): .../5
- > Quadrants: 4
- > Frequency (Hz): 50

### Specifications

#### AC power supply

Tolerance	80 % ... 115 % Un
Consumption	< 2 W; < 10 VA
Frequency	50 / 60 Hz
Nominal voltage	3 x 230 (400) V

#### Mechanical characteristics

Size (mm) width x height x depth	172 x 255 x 67 (mm)
Envelope	DIN 43859
Weight (kg)	5,6

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

#### Communications

Type	RS-232 / RS-485
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### Optical communication interface

Hardware	IEC 62056-21
Protocol	REE, based on IEC 870-5-136
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

### Internal battery

Type	Lithium
Useful life	> 20 years @ 30 °C

### 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

### Clock

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



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## Dimensions

