

CVM-C10

Power analyzer for panel



Description

The **CVM-C10** is a panel mounted (96 x 96 mm) power analyzer that records energy values. Compact and versatile, with 4-quadrant measurement (consumption and generation). Suitable for Medium or Low voltage installations, in both 3 or 4-wire three-phase circuits, two-phase circuits with or without neutral, single-phase circuits or ARON connections.

Display features and interface:

- Backlit touch-screen (capacitive)
- Analogue display of instantaneous parameters (power, maximum power reached and $\cos \varphi$ or PF)
- Backlit display
- Alarm LED indicator.
- Tariff cost
- Operating hour indicator for preventive maintenance

Applications

- Record the energy consumption from three different sources: network, generator set or photovoltaic energy generation system.
- Generation of an impulse signal associated with the cost, kgCO₂ emissions or savings, according to the consumption or generation of energy.
- Selection of tariffs with digital inputs. Perfect to calculate costs in three different work shifts.
- Programs alarms on any instantaneous parameter measured or calculated. Configurable parameters: Low/High, hysteresis (%), NO/NC, connection/disconnection delay and interlocking.

Technical features

| | | |
|--|-----------------------|--|
| Power circuit | Power supply voltage | 85...265 Vac / 95...300 Vdc 20...120 Vdc (SDC model) |
| Measurement circuit | Voltage | 300 V ac Ph-N / 520 V ac Ph-Ph |
| | Frequency | 50...60 Hz |
| | Current | ITF ... /5 A or .../1 A MC .../250 mA .../333 mV |
| Accuracy class | Sampling | 64 samples/cycle |
| | V, A, Power | 0,5% |
| | Active Energy | Class 0,5S ($\geq 0,1 I_n$) acc. to IEC 62053-22 |
| Display of harmonics, up to the | Reactive Energy | Class 1 ($\geq 0,1 I_n$) acc. to IEC 62053-24 |
| | V, A | 31 st |
| Communications | Protocol | Modbus RTU / BACnet (RS-485) |
| | Speed | 9600, 19200 |
| Outputs | Bit, parity, stop | 8, n, 1 |
| | 2 digital outputs | S0 Interface Configurable, up to 1000 impulses 2 NPN Transistors (Only in version 3 TS) (24 Vdc max, 50 mA, 16 imp/s, Max T_{on}/T_{off} configurable) |
| | 2 relay outputs | Max. / Min / NO/NC / Hysteresis / Interlocking 250 Vac, 6 A |
| Inputs | 2 digital inputs | Tariff selection or external alarms NPN, optocoupled |
| Build features | Enclosure | VO self-extinguishing plastic |
| | Protection Degree | Front panel: IP 51 (IP 64 with accessory) Rear: IP 31 |
| Environmental conditions | Dimensions | 96.7 x 96.7 x 63.4 mm |
| | Operating temperature | -5...+45 °C |
| | Relative humidity | 5 ... 95% |
| Safety | Maximum altitude | 2000 m |
| | | CAT III 300 V according to EN 61010 Double-insulated electric shock protection, Class II |
| Standards | | BS EN 61000-6-4, BS EN-61000-6-2, IEC 61000-6-2, IEC 62053-22 (Class 0,5S), IEC 62053-24 (Class 1), IEC 61000, IEC 61000-4-3, IEC 610004-11, IEC 61000-4-4, IEC 610004-5 , Measurement according to MID, UL certification |

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Power analyzer for panel

Other features:

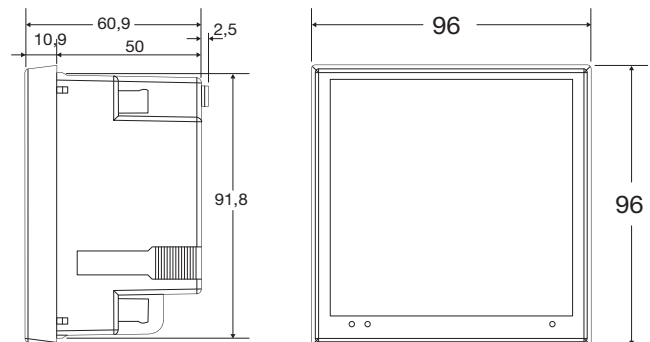
- Modbus RS-485 serial communications
- 2 transistor outputs, configurable for impulses or alarms
- 2 relay outputs, configurable for alarms
- 2 digital inputs for selecting three tariffs or detecting logical states
- Allows for tariff selection through communications
- Precision class 0.5% in voltage, current and power.
- Class 0,5S in active energy and Class 1 in reactive energy.

References

| Transistor output | Current measurement channels | Current input | Type | Code |
|---------------------|------------------------------|------------------|----------------------------------|----------------------|
| 2 | 3 | .../5 or .../1 A | CVM-C10-ITF-485-ICT2 | M55911 |
| 2 | 3 | .../250 mA | CVM-C10-MC-485-ICT2 | M55921 |
| - | 4 | .../5 or .../1 A | CVM-C10-ITF-IN-485-IC2 | M55942 |
| 2 | 2 | .../333 mV | CVM-C10-mV-485-ICT2 | M559210000V |
| 2 | 3 | .../5 or .../1 A | CVM-C10-SDC-ITF-485-ICT2* | M5591100F0000 |
| IP 64 sealing joint | | | IP64-C10-96 | M5ZZ5T |

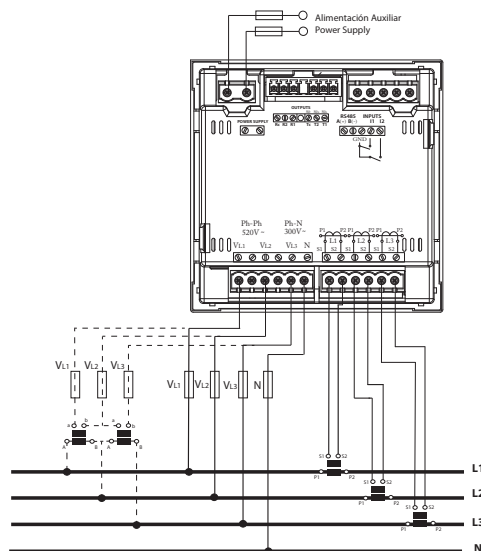
* Power Supply 20...120 Vdc

Dimensions



Connections

Three-phase + neutral connection
with or without voltage transformers



Single-phase connection
with or without voltage transformers

