

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	OS 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
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
	Dimensions	96.7 x 96.7 x 63.4 mm
Environmental conditions	Operating temperature	-5...+45 °C
	Relative humidity	5 ... 95%
	Maximum altitude	2000 m
Safety	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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Other features:

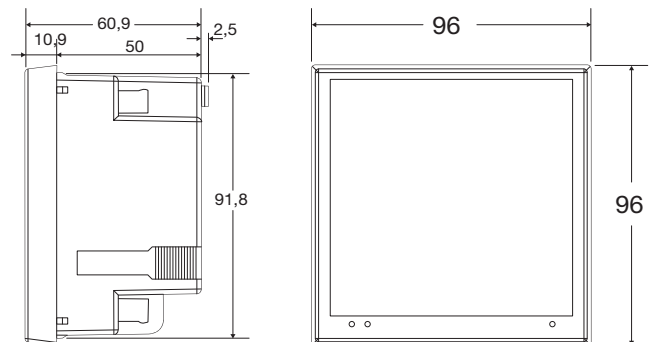
- Modbus RS-485 serial communications
- 2 transistor outputs, configurable for impulses or alarms
- 2 relay outputs, configurable for alarms
- 2 digital inputs for selecting three tariffs or detecting logical states
- Allows for tariff selection through communications
- Precision class 0.5% in voltage,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

