CVM-1D

Single-phase power analyzer, DIN rail

Description

CVM-1D is a power analyzer for single-phase circuits up to 32 A. It features an LCD display with a rotating screen system, showing a total of 24 instantaneous, maximum and minimum, electrical variables. It has been designed in an enclosure with only 1 DIN module (18 mm). The compact size of the analyzer allows it to be installed on any electric panel. The unit has the Modbus/RTU (RS-485) protocol and is compatible with the **PowerStudio** energy management software.

Its main features are:

- Sealable
- Six-digit LCD display
- RS-485 Modbus/RTU communication (depending on model)
- Programmable alarm or impulse output
- Measurement in four quadrants

Applications

- Student residences / Hotels
- Marinas
- Shopping centres
- Buildings with rented office space
- Campgrounds
- Domestic and industrial lines
- Single-phase lines in general

Technical features

Power circuit	Single-phase power supply	88...276 Vac
	Power supply frequency	50 / 60 Hz
	Power supply use	2 V·A
Measurement circuit	Phase – Neutral rated voltage	110...230 Vac (±20%)
	Frequency	50 / 60 Hz
	Nominal current	5 A
	Minimum current	250 mA
	Maximum current	32 A
Accuracy class	Voltage, Current	0.5% + 1 digit
	Active power, Reactive power	1% + 1 digit
	Active Energy	Class 1 (**IEC 62053-21**)
	Reactive Energy	Class 2 (**IEC 62053-23**)
Output transistor features	Type	Optoisolated transistor (collector open) NPN
	Maximum operating voltage	42 Vdc
	Maximum operating current	50 mA
	Maximum frequency	1000 imp/kWh
	Impulse duration	4...200 ms (configurable)
	Insulation	3.7 kV $_{RMS}$ / 1 min
Communications	Port	RS-485 (depending on model)
	Protocol	Modbus / RTU (depending on model)
Build features	Measurement module	Assembly on DIN 46277 rail (**EN 50022**)
	Number of modules	1
Environmental conditions	Operating temperature	-5...+45 °C
	Protection degree	IP 20 / Frontal IP 31
	Humidity (non-condensing)	5 ... 95% (non-condensing)
	Maximum altitude	2000 m
Safety	**EN 61010** Double-insulated electric shock protection, class II	
Standards	**IEC 664, VDE 0110, UL94-V0, EC 801, IEC 348, IEC 571-1,** Class 2 **EN 62053-23** in Reactive Energy, **EN 61010, EN 61000-4-3, EN 61000-4-4, EN 61000-6-4, EN 55022**	

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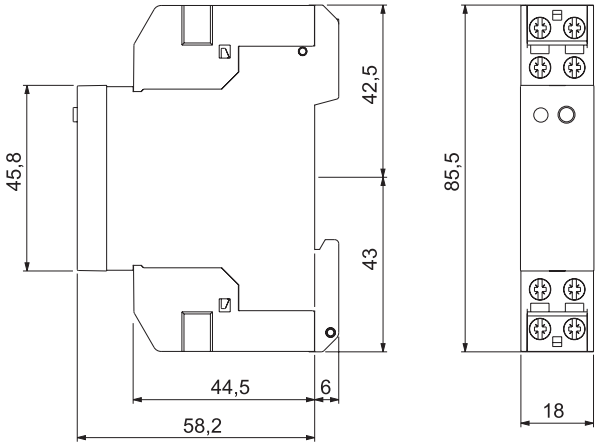
References

Type	Code	Nominal current	Protocol	Communication
CVM 1D-C	M55510	250 mA...32 A	-	-
CVM 1D-RS485-C	M55511	250 mA...32 A	Modbus/RTU	RS-485

Dimensions



Connections