

CVM MINI

Three-phase power analyzer, assembly on DIN rail



Description

Three-phase power analyzer (balanced and unbalanced), assembly on DIN rail, with a very compact size, and 4-quadrant measurement.

Other features include:

- Current measurement .../5 or .../1 A or .../250 mA, .../333 mV
- DIN rail format of only 3 modules
- Assembly on 72 x 72 mm panel with adapter front panel
- RS-485 Communications (Modbus-RTU) depending on model
- It features two transistor outputs (programmable)
- With ITF technology: galvanic insulation protection, depending on the type
- Selection of parameters to display
- Selection of the default page
- Universal power supply (optional)
- Sealable

Applications

- Control application on switchboards and low and medium voltage connection points, where an analyzer must be installed on a DIN rail due to space restrictions.
- Alarm control. Maximum value, minimum value and programmable delay.
- Control of active or reactive energy using the impulse output.
- Instantaneous data capture, maximum and minimum values of the electrical parameters measured.

Technical features

Power circuit	Standard	230 Vac (-15...+10%)
	Optional	85...265 Vac / 95...300 Vdc (optional) 20...120 Vdc (optional)
	Consumption	3 V-A
	Frequency	50...60 Hz
Measurement circuit	Rated voltage	300 Vac (p-n) / 520 Vac (p-p)
	Frequency	45...65 Hz
	Voltage circuit consumption	0.7 V-A
	Current circuit consumption	ITF 0.9 VA/ Shunt 0.75 VA
	Transformers	.../5 A or.../1 A or .../250 mA, .../333 mV
	Minimum direct current	110 mA
	Maximum direct current	6 A
Accuracy class	Voltage, Current	0.5% + 1 digit
	Active power, Reactive power	1% + 2 digit
	Active energy Reactive energy	1% + 2 digit Class 1
Environmental conditions	Operating temperature	-10...+50 °C
	Relative humidity	5 ... 95%
	Maximum altitude	2000 m
Optocoupled output transistor (open collector) NPN	Maximum operating voltage	24 Vdc
	Maximum operating current	50 mA
	Maximum frequency of impulses	5 imp/s
	Duration of the impulse	100 ms
Build features	Measurement module	Assembly on DIN 46277 rail (EN 50022)
	Protection degree	Embedded unit: IP 51 Terminals: IP 31
	Dimensions	52.5 x 85 x 67.9 mm (3 modules)
Safety	Designed for CAT III 300/520 Vac installations, in accordance with EN 61010 . Double-insulated electric shock protection, class II	
Standards	IEC 664, VDE 0110, UL 94, IEC 801, IEC 348, IEC 571-1, EN 61000-6-3, EN 61000-6-1, EN 61010-1	

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References

Isolated Inp.	Current Inp.	Digital output	Harmonics	Protocol	Communications	Type	Code
-	.../1 A, .../5 A	-	-	-	-	CVM MINI	M52000
Yes	.../1 A, .../5 A	2	-	-	-	CVM MINI-ITF-C2	M52011
Yes	.../250 mA	2	-	-	-	CVM MINI-MC-ITF-C2 (*)	M52071
Yes	.../1 A, .../5 A	2	-	Modbus/RTU	RS-485	CVM MINI-ITF-RS485-C2	M52021
Yes	.../250 mA	2	-	Modbus/RTU	RS-485	CVM MINI-MC-ITF-RS485-C2 (*)	M52081
Yes	.../1 A, .../5 A	2	U e I (15°)	Modbus/RTU	RS-485	CVM MINI-ITF-HAR-RS485-C2	M52031
Yes	.../1 A, .../5 A	2	-	Modbus/TCP	TCP/IP	CVM-MINI-ITF-ETH-C2	M520J1
Yes	.../1 A, .../5 A	2	-	Modbus/TCP	TCP/IP	CVM-MINI-MC-ITF-ETH-C2 (*)	M520L1
Yes	.../1 A, .../5 A	2	-	BACnet	-	CVM-MINI-ITF-BACnet-C2 (*)	M520F1
Yes	.../1 A, .../5 A	2	-	BACnet	-	CVM-MINI-MC-BACnet-C2 (*)	M520H1
Yes	.../1 A, .../5 A	2	-	LonWoks	LonTalk	CVM MINI-ITF-LonWorks-C2	M52091
ISO/IEC 14908 – ANSI/EIA 7091							
Yes	.../333 mV	2	-	Modbus/RTU	RS-485	CVM-MINI-mV-RS485-C2	M520810000V
Panel adapter for CVM-MINI (72 x 72)						Panel adapter	M5ZZF1

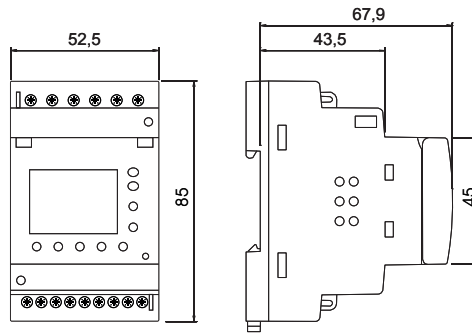
(*) Requires the installation of MC series efficient transformers. – (**) Only available with 230 V_{ac} power supply

Coding table

M	5	X	X	X	X	0	0	X
Code								Internal code ↑
Power supply voltage								0
Standard (230 Vac)								0
85...285 Vac								C
95...300 Vdc								C
20...120 Vdc								5*

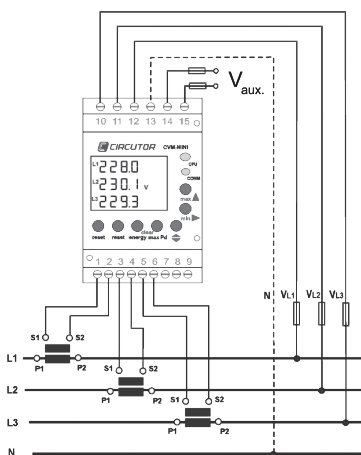
* Only CVM MINI-ITF-RS485-C2

Dimensions

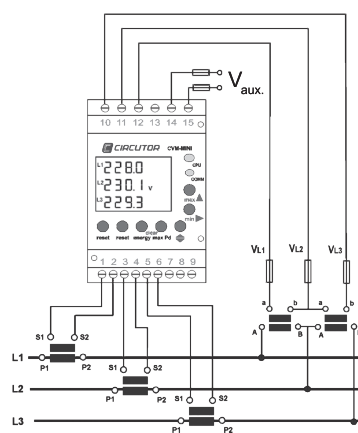


Connections

3 or 4 wires (low voltage)



3 wires (2 voltage transformers and 3 current transformers)



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