

CVM NET

Three-phase power analyzer, assembly on DIN rail - without display



Description

CVM NET is a Power Analyzer for measuring balanced or unbalanced single and three-phase networks. It has been specifically designed for measuring up to 230 electrical parameters and for transmitting this data through the RS-485 communication bus with the Modbus/RTU protocol to the supervision SCADA.

Its main features are:

- DIN rail format of only 3 modules
- Mounted on 72 x 72 mm panel, with adapter front panel (M5ZZF1)
- Measures the current with ... / 5 A and .../250 mA external transformers (**MC** model), .../333 mV
- Possibility of measuring Medium and Low Voltage networks
- RS-485 communication (Modbus RTU)
- Compatible with **PowerStudio / PSS / PSSDeluxe software**
- 2 programmable digital outputs
- 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	Rated voltage	230 Vac (-15...+10 %) 85...265 Vac / 95...300 Vdc optional
	Power supply frequency	50...60 Hz
	Maximum power consumption	3 VA
Measurement circuit	Rated voltage	300 Vac Ph-N / 520 Vac Ph-Ph
	Frequency	45...65 Hz
	Nominal current	.../5 A or .../250 mA, .../333 mV
	Permanent overload	1.2 I_n
Accuracy class	Voltage, Current	0.5% ± 1 digit
	Active power, Reactive power	1% ± 1 digit
	Active energy Reactive energy	1% (Class 1)
Communications	Protocol	RS-485
	Communications protocol	Modbus / RTU
	Speed	1200 / 2400 / 4800 / 9600 / 19200 bps
	Length	8
	Parity	No parity / even / odd
	Bits of parity	1 / 2
Output transistors	Type: Isolated transistor	Open NPN collector
	Maximum operating voltage	24 Vdc
	Maximum operating current	50 mA
	Maximum frequency	5 imp/s
	Impulse duration	100 ms
Build features	Measurement module	DIN Rail 46277 (EN 50022)
	Number of modules	3
Environmental conditions	Operating temperature	-10 °C...+50 °C
	Protection degree	Embedded unit: IP51 Terminals: IP31
	Humidity (without condensation)	5 ... 95% (non-condensing)
	Maximum altitude	2000 m
Safety	IEC 61010 Double-insulated electric shock protection, class II	
Standards	IEC 664, VDE 0110, UL 94, IEC 801, IEC 348, IEC 571-1, IEC 61000-6-3, IEC 61000-6-1, IEC 61010-1, IEC 61000-4-11, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC-61000-4-5, EN 55011, CE	

CVM NET

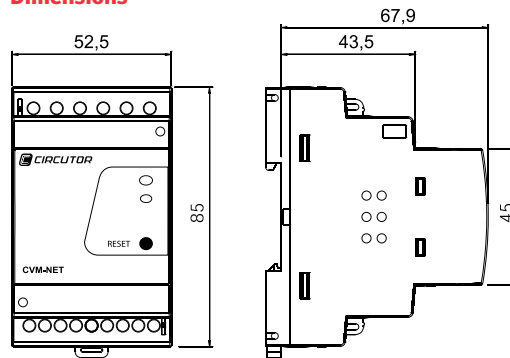
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References

Current input	Protocol	Communications	Type	Code
.../5 A	Modbus/RTU	RS-485	CVM NET ITF-RS485-C2	M54B21
.../250 mA	Modbus/RTU	RS-485	CVM NET-MC-ITF-RS485-C2(*)	M54B31
.../333 mV	Modbus/RTU	RS-485	CVM-NET-mV-RS485-C2	M54B31000V00
Panel adapter for CVM NET (72 x 72 mm)			Panel adapter	M5ZZF1

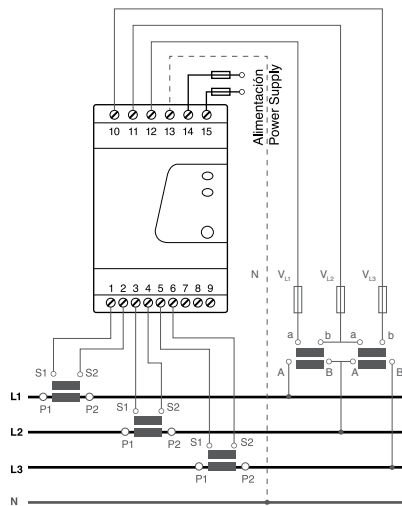
(*) Requires MC efficient transformers.

Dimensions

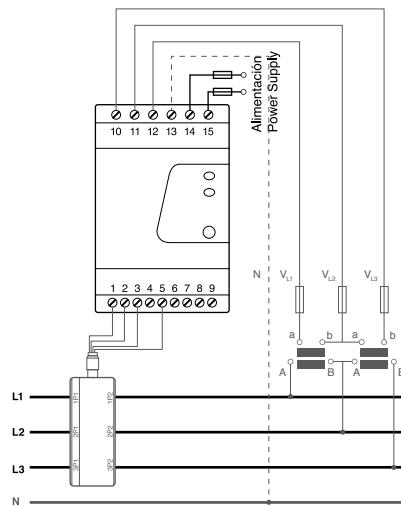


Connections

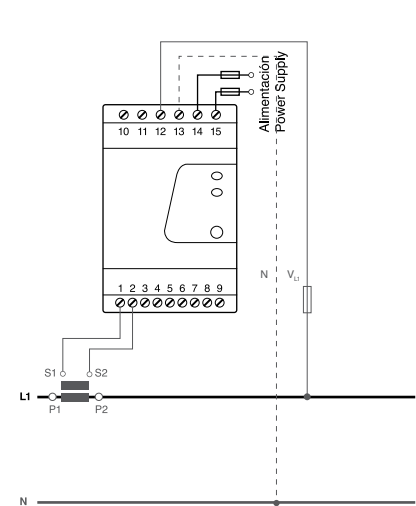
Three-phase + neutral connection
3 voltage transf. + 3 current transf.



Three-phase + neutral connection
MC efficient transformer



Single-phase connection



Coding table

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