

Line-CVM-D32

Power analyser for DIN rails



Description

The Line-CVM-D32 is a power analyser that measures, calculates and displays the main electrical parameters in single-phase networks, in systems with two phases without ground, with ARON connections or balanced or unbalanced three-phase systems.

The measurement is a true RMS that relies on three AC voltage inputs and three current inputs.

The device is modular and scalar thanks to expansion modules with different functionalities.

The current is measured indirectly using /5A, /1A or /250mA transformers.

The voltage is measured directly in networks of up to 300V ~ Ph-N or through voltage transformers.

Applications

- Measurement of electrical parameters in switchboards and low- and medium-voltage connections where space constraints require installing a space-saving analyser in the DIN rail.
- Measurement of instantaneous, maximum and minimum values of electrical parameters.
- Logging of consumed or generated Active or Reactive Energy.
- Pricing of electricity in up to 4 tariffs (via communications or expansion module inputs)
- Generation of impulses through outputs to a transistor, fully and independently configurable based on any incremental parameter of active or reactive energy, either per total counter or per tariff.
- The installation can be controlled by way of programmable timer on delay, timer off delay and interlock alarms.
- Ability to expand the analyser's features by using expansion modules with transistor, relay or analogue inputs/outputs.
- Convert any instantaneous parameter measured or calculated by the device into analogue signals by incorporating analogue output expansion modules.
- Track the status of components in the installation by using the status of the inputs to the expansion module.

Technical features

AC power supply	Nominal voltage	80 ... 264 V ~
	Frequency	50...60 Hz
	Consumption	3 ... 8 VA
	Installation category	CAT III 300 V
DC power supply	Nominal voltage	80 ... 264 V ~
	Consumption	3 ... 8 VA
	Installation category	CAT III 300 V
Voltage measurement circuit	Nominal voltage (U_n)	300 V _{aa} (ph-N) / 520 V _{ac} (ph-ph)
	Voltage measuring range	20 ... 300 V ~
	Frequency measuring range	47 ... 63 Hz
Current measurement circuit	Nominal current (I_n)	.../5 A, .../1 A, .../250 mA (MC transformers)
	Phase current measuring range	.../5 A: 0.01 ... 10 A .../1 A: 0.01 ... 2 A .../0.250 A: 0.01 ... 0.5 A
	Consumption	0,9 VA
	Measurement accuracy	Phase voltage measurement
Phase current measurement		0,2 % for three-phase and phase values (.../5A, .../1A) 1 % for $I \geq 20 \% I_n$ for three-phase and phase values (... / 250 mA)
Active energy measurement (kWh)		Class 0.5S (.../5A), Class 1 (.../1A), Class 1 (.../0.250A)

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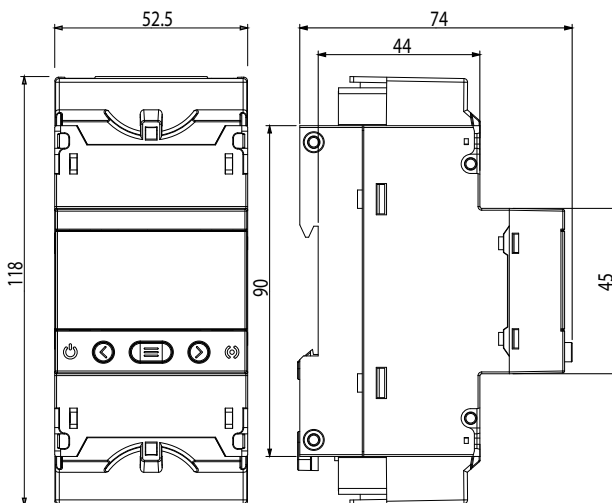
Digital transistor outputs	Quantity	2
	Type	Optocoupler (Open-colector)
	Maximum voltage	48 Vdc
Communications	Maximum current	120 mA
	Type	RS-485
	Protocol	Modbus/RTU
User interface	Baud rate	9600-19200-34800-57600-76800-115200 bps
	Display	TFT RGB 1.77" 160x128 pixel
	Keyboard	3 keyboards
Environmental characteristics	LED	2 LED
	Operating temperature	-10 ... +50 °C
	Storage temperature	-20 ... +70 °C
	Relative humidity (without condensation)	5 ... 95%
	Maximum altitude	2000 m
Mechanical characteristics	Protection degree	IP30 Front: IP40
	Dimensions	52,5 x 118 x 74 mm
	Weight	300 g
	Envelope	Self-extinguishing V0 plastic
	Attachment	DIN rail (IEC 60715)
Standards	UNE-EN 61010-1, UNE-EN 61010-2-30, UNE-EN 61326-1	

References

Type	Code	Measuring channels	Input current	Transistor output	Communications	Protocol	Harmonics
Line-CVM-D32	[*] M58100.	3	.../5A, .../1A .../0.250 A	2	RS-485 / Bus-Line	Modbus/RTU	40

Bus-Line: RS-485 communication system, with lateral side connectors between modules

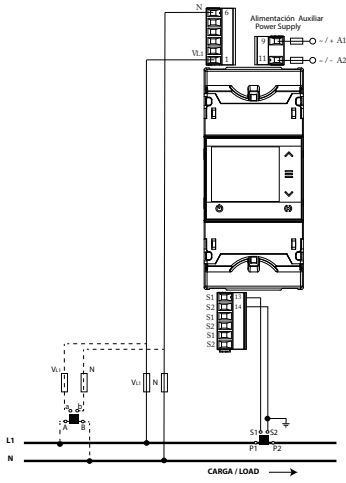
Dimensions



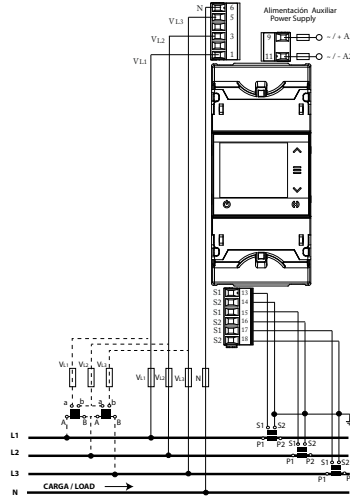
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Connections

Phase-Neutral Network - 2 wires



Three-phase Network - 4 wires



Three-phase Network - 3 wires - ARON

