

CVM-A1500

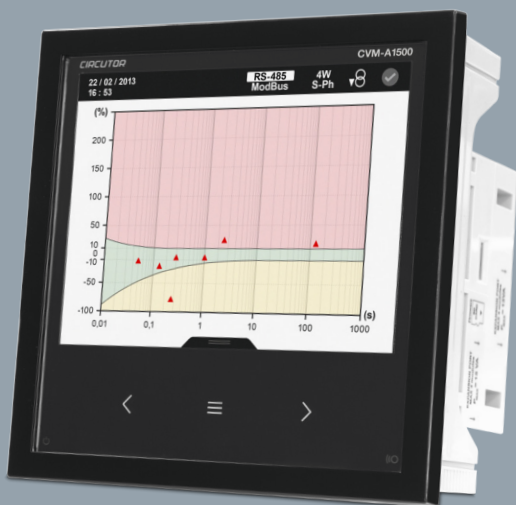
Power analyzer
with power quality

Quality in every sense of the word



Your network quality, at a glance

The **CVM-A1500** records power quality events such as overvoltages, gaps, and electric supply interruptions, as well as the associated voltage and current wave shapes (transients). Any malfunction in the installation caused by an event will be displayed on screen using **event charts** and **CBEMA**, **ITIC** and **SEMIF47** curves.



EVENTS



CBEMA



ITIC



SEMIF47

Class A according IEC 61000-4-30

CVM-A1500

Panel power analyzer
with power quality
measurement

144 x 144 mm



The quality of your installation under supervision

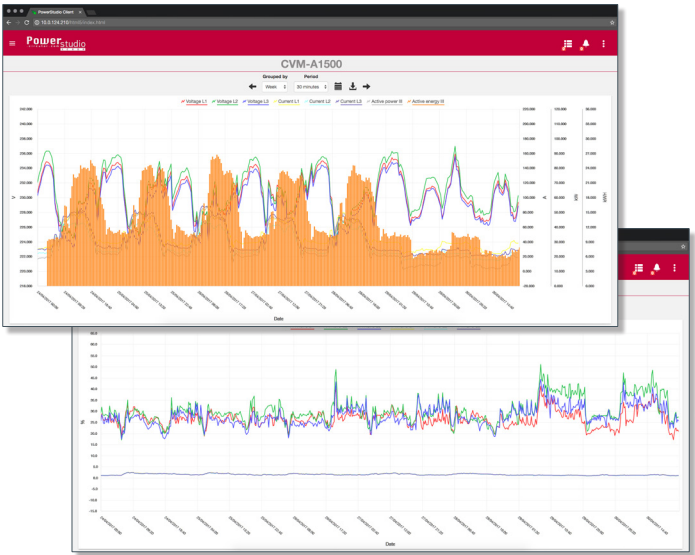
CVM-A1500 is designed to monitor, supervise electrical parameters and detect Power quality events. It is an ideal device to be installed at the most relevant measuring points, such as mains or any problematic line or machine. **CVM-A1500** shows a wide range of electrical parameters, including:

- › Voltages, currents, powers, energies
- › Current and power demands, phase-phase and per phase
- › Recording of power quality events every $\frac{1}{2}$ cycle with: date, time, duration and associated wave shape
- › Power quality variables:
Unbalance, Asymmetry, *Flicker*, etc.
- › Breakdown up to the 63rd harmonic
- › Monitoring of voltage and current wave shapes in real time (Oscilloscope function)
- › Phasor Diagram
- › Consumption comparisons in chart form
- › Datalogger with energy management software (EMS) included: able to store unlimited recorded data on a server or PC.

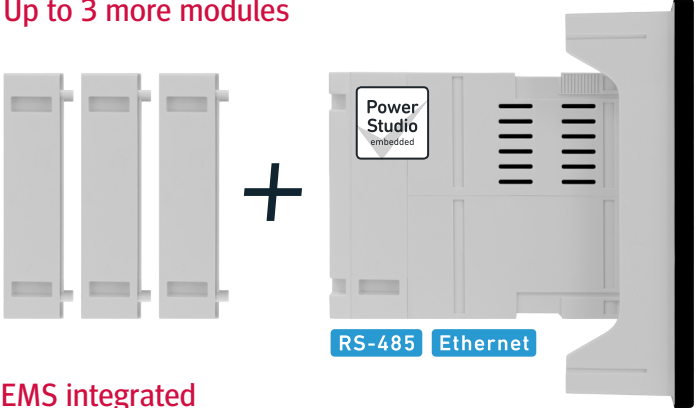
Easy, simple and accessible

The unit has a very user-friendly interface. You can access your data instantaneously using any browser, displaying instantaneous values, charts and tables, and also export data quickly and easily.

Management software, the perfect complement



Up to 3 more modules



EMS integrated

The unit includes the datalogger module with **embedded PowerStudio**: the analysis tool that gives you access to all the information recorded by the analyzer and provides it with Ethernet. It shows averages with different configurations, including maximums, minimums, energy increments, quality events with their associated wave shape, alarms logged and additional calculations programmed by the user.

Waveform capture

The analyzer captures the voltage and current wave shape when it detects quality events or deformation of the voltage wave, storing them internally to be analyzed online or downloading the data to **PowerStudio**.



Oscilloscope in real time

It shows voltage and current wave shapes in real time and has options for *zooming* the wave and time amplitude for a clearer display.

Expandable in many ways

Modular and expandable thanks to its expansion modules; this makes it more versatile as you can add different types of communication and protocols.

The modules feature multiple combinations of inputs/outputs that can be digital, analogue or of relays to manage any parameter in the installation.



Technical features

Power supply circuit	Power supply voltage	85...265 V _{ac} / 120...300 V _{dc}
	AC frequency	50...60 Hz
	AC consumption	max 29,4 V·A
	DC consumption	max 11,9 W max 13,8 W (SDC model)
Voltage measurement circuit	Voltage range	500 V _{p-n} - 866 V _{p-p} (up to 600 V _{p-n} / 1000 V _{p-p})
	Frequency	40...70 Hz
Current measurement circuit	Current measurement	4 (3 phases + 1 neutral)
	Input current	.../5 A or .../1 A or .../250 mA
Maximum transformation ratios	Primary V: 500,000 (500 kV)	
	Primary A: 999.9 to 1.0 (10 kA) in .../5 A and .../1 A, 63...2000 A in MC Prim V x Prim A < 60 MW	
Maximum energy meter value (total)	If (Primary A / Secondary A) < 1000 (2 GW)	
	If (Primary A / Secondary A) ≥ 1000 (2 TW)	
Accuracy class (.../5 A) (Consult other accuracies)	Voltage	0,1 ±1 digit (20...600 V _{a.c.})
	Neutral voltage	0,5 ±1 digit (55...500 V _{a.c.})
	Current	0,1 ±1 digit (0,05...8 A)
	Neutral current	1 ±1 digit (0,1...6 A)
	Active Power	0,2 ±1 digit
	Reactive Power	1 ±1 digit (0,05...6 A)
	Active energy	0,2S
	Reactive energy	1
Harmonics	Voltage / Current	up to the 63 rd
Digital inputs	2, Optoisolated potential-free contact	
Digital outputs	2, NPN transistor	
	2, to relay	
Communications	Protocols	Modbus RTU / BACnet
Build features	Front panel protection degree	IP 40 (IP 65 with airtight seal)
	Back panel protection degree	IP 30
Safety	CAT III 300/520 Vac according to EN 61010 , class II double insulation	
Standards	IEC 62053-22, ANSI (Class 0.2S), IEC 62053-24 (Class 1) / ANSI C12.1 (Class 2), class A acc. to IEC 61000-4-30, IEC 61010, IEC 61000, UNE-EN 55022 Measurement acc. to MID, UL certification IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-11, IEC 61000-4-4, IEC 61000-4-5	

References

Type	Code	Current measurement secondary
CVM-A1500-ITF-RS485-ICT2	M56311	.../5 or .../1 A or ...250 mA
CVM-A1500-SDC-ITF-485-ICT2*	M5631100F0000	.../5 or .../1 A or ...250 mA

* Power supply 20...120 Vdc



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