



MEASUREMENT AND CONTROL

CVM-A1500

Power analyzer
with power quality

Quality in every sense of the word



Class A

IEC 61000-4-30

Poor voltage quality supplied by the electric company affects the proper operation of your installation, which has a direct effect on equipment, production systems or the level of service of your business.

When the voltage in your installation is too high or too low for the loads connected, whether temporarily or all the time, it can cause service outages or interruptions that can cost you money.

The **CVM-A1500** power quality analyzer is specially designed to record the signal quality of your installation and detect anomalous events such as overvoltages, dips or interruptions caused by a problem in the power grid.









The **CVM-A1500** analyzer is Class-A certified as per the **IEC 61000-4-30** standard, so you can implement solutions that can mitigate the impact of poor power quality, as well as file claims with insurance companies for any associated damage.

CVM-A1500

Power analyzer
with power quality

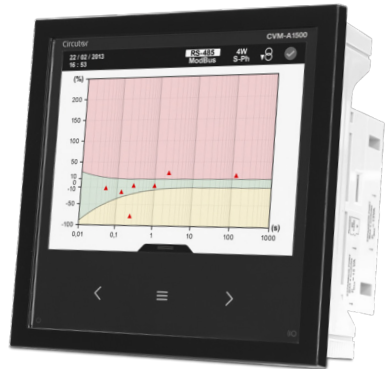
The quality of your installation under supervision

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:

-  Current and power demands, phase-phase and per phase
-  Recording of power quality events every 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.



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.

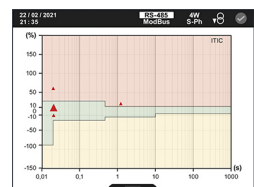


Quality events



N	Descripción	Fecha	Hora
6	Huaca L2	09/08/2016	07:36:51
5	Huaca L2	08/08/2016	11:58:25
4	Huaca L1	08/08/2016	07:34:59
3	Sobretensión L3	08/08/2016	07:34:56
2	Sobretensión L2	08/08/2016	07:34:56

ITIC graph



Event counter



Contador de eventos por fase			
Tipo de evento	L1	L2	L3
 Sobretensión	00001	00002	00025
 Huelco	00036	00015	00056
 Corte	00087	00056	00085
 Transitorio	00021	00096	00046

The quality of your installation under supervision



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.



Waveform capture

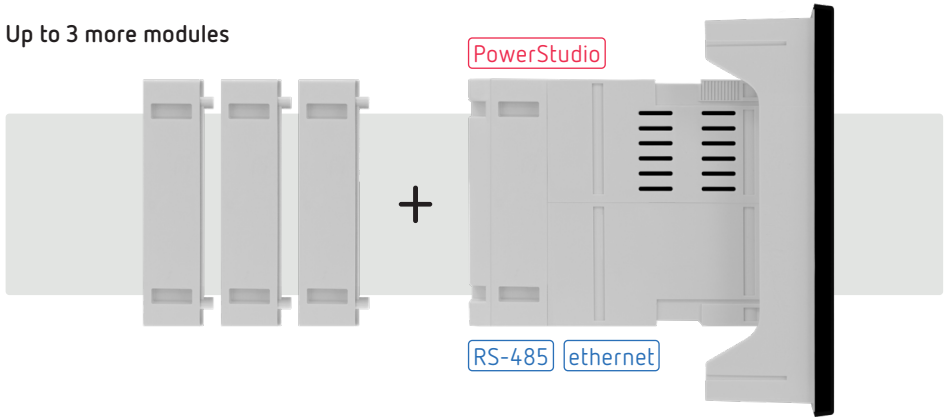
The analyzer captures the voltage and current wave shape when it detects quality events or deformation of the voltage wave, storing them internally to be analyzed online or downloading the data to **PowerStudio**.



Oscilloscope in real time

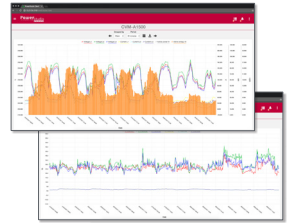
It shows voltage and current wave shapes in real time and has options for zooming the wave and time amplitude for a clearer display.

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.



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.



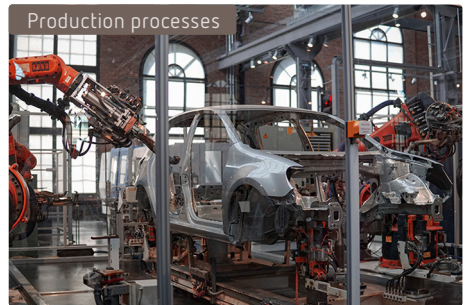
Installation without interruption

The most flexible version

Install the FLEX version in all those installations where interrupting the power is not an option. The CVM-A1500-FLEX power analyzer allows connecting flexible current clamps (FLEX-MAG) to read the current and any associated electrical parameters, such as energy and power. The flexible clamps are designed for installations of up to 10000 A with diameters of 70 or 120 mm, spanning distances up to 5 meters from the measuring point to the analyzer.



Applications



Technical features

Power supply circuit	Power supply voltage	100...240 Vac / 120...300 Vac
	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	20 Vp-n - 600 Vp-p (up to 600 Vp-n / 1000 Vp-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 Vc.a.)
	Neutral voltage	0,5 ±1 digit (55...500 Vc.a.)
	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 63rd
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
Seguridad	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	Standard
CVM-A1500A-ITF-485-ICT2	M563110000A00	.../5 or .../1 A or ...250 mA	Class A*
CVM-A1500A-FLEX-485-ICT2	M563510000A00	Rogowski	Class A*
CVM-A1500-ITF-485-ICT2	M56311.	.../5 or .../1 A or ...250 mA	Acc. Class A
CVM-A1500-FLEX-485-ICT2	M56351.	Rogowski	Acc. Class A

* IEC 61000-4-30

Circuitor

Vial Sant Jordi, s/n
08232 Viladecavalls
Barcelona (Spain)
t. +34. 93 745 29 00
info@circuitor.com

CIRCUITOR, SAU reserves the right to change
any information contained in this catalogue.