



arte[s] me[nsioni]s - The Art of Measuring  
Power & Energy



Power Analyser  
AM-5-P

# Power Analyser AM-5-P



- PQ + PMU + PFR + PM + DFR
- 24 bit resolution
- 10 ksamples/sec. events recorder and data-streaming
- 4 voltages and 4 currents
- measuring and evaluation via web browser
- **ARTEMES** CLOUD interface
- display optional

The ARTEMES Power Analyzer AM-5-P is a powerful 24-bit resolution device that combines the requirements of energy measurement and power quality analysis with the very latest data transmission technology. In addition to the possibility of using web interface such as smartphone or PC, all post-processing activities via the web - as a browser application directly on the device, on a special server or the ARTEMES CLOUD - are available as well.

The basic version already gives you the possibility to make a thermal energy analysis for e.g. ISO50001-reports. The PQ extension option also provides power quality analysis in accordance with the EN 50160 standard. As a high-end solution, the PMU option even offers full phasor measurement functionality for GPS synchronous measurements at different locations.



Energy - ISO 50001  
Power Quality EN 50160, IEC 61000-2-4  
IEC 61000-4-30 Class A  
PMU - phasor measurement unit  
web technology for operation and evaluation via web browser

# Measurement Functions

## Overview - Online

representation of the data over time,  
as a vector diagram and as numerical values

recording mode or simulation mode,  
RMS, AVG, min, max (10 period values,  
adjustable)

RMS, AVG (period values, adjustable  
overlapping and duration)

U, I, P, Q, S, D, PF, unbalance

flicker

IEC 61000-4-15: 2012 Class F1

frequency

symmetrical components

IEC 61000-4-30: 2008 Class A



## Oscilloscope - Real-Time

real-time oscilloscope on the web browser

voltage and current

selectable scaling left or right



## FFT - Real-Time

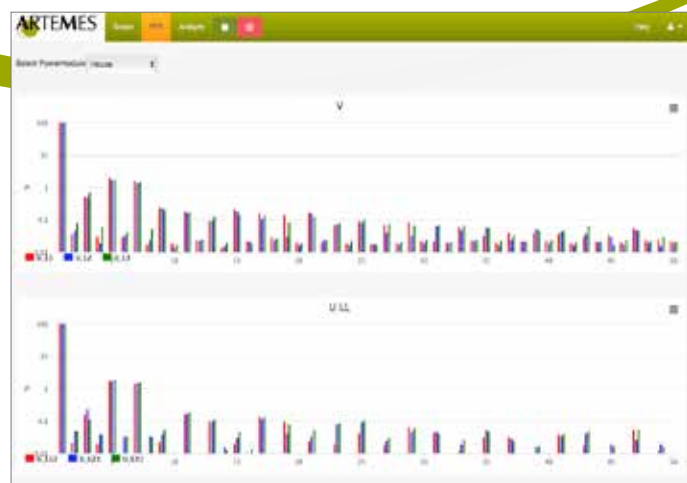
voltage, current, power, phase angle

phase and phase voltages

bar chart representation and numerical values

IEC 61000-4-7: 2009 Class 1

interharmonics





## Dynamic Reports

diagrams of any channels  
ready-made templates  
reduction and enlargement possible



## Static Reports

report generator for defining reports or ready-made reports

EN 50160: 2011, Energy (ISO 50001)

IEC 61000-2-4: 2002

any diagrams possible

event statistics



## Events Recorder

transient recordings (TFR)

fault records (DFR)

event records EN 50160: 2011

IEC 61000-4-30: 2008

scaling: possibilities to enlarge or reduce

statistical ratings: DisDip/Unipede, CBEMA, events according to EN 50160: 2011

# Technical Data

		<b>AM-15-PLOG</b>
<b>voltage inputs</b>		4
	range	+/- 400V / 800V
	accuracy (on value, 5-100% of range)	0,1 %
<b>current inputs</b>		5
	clamp 5A	set of 3 / set of 5
	order number	AM-15-3CL5 / AM-15-5CL5
	range	5 A
	accuracy	1 %
	Rogowski coil	set of 3 / set of 5
	order number	AM-15-3Rog10k / AM-15-5Rog10
	range	100 / 1.000 / 10.000 A
	accuracy	1 %
	other clamps (www.artemes.org)	on request
<b>measurement parameters</b>	resolution	16 bit
	sampling rate	up to 10 kSamples/sec. per channel
	bandwidth	3 kHz
<b>measurement values</b>	phase voltages, neutral voltage	✓
	line voltages	✓
	phase currents, neutral current	✓
<b>evaluation online</b>	web interface	✓
	recorder - diagram and actual values	✓
	Scope, FFT	✓
	FFT IEC 61000-4-7	✓
<b>data processing</b>	flexible report generator on web	✓
	EN 50160	✓
	IEC 61000-2-4 class 1,2,3	✓
	ISO 50001 energy report	✓
<b>data storage</b>	internal SD	32 GB
	ARTEMES server	licence included (max 3 measurement clients)
	ARTEMES CLOUD	option: AS-CLOUD
<b>communication ports</b>	USB 3.0	1
	LAN	1
	WLAN / GSM	Option AM-15-Route
<b>EMC</b>	IEC 61326-1 industry	✓
	IEC 61000-4-4 surge, IEC 61000-4-5 burst	4 kV
	isolation (AC, 1 min)	2 kV
<b>safety</b>	IEC 61010-1	✓
<b>dimensions</b>	width x depth x height	265 x 210 x 70 mm
<b>power supply</b>	AC - V/f	85-264 VAC / 47-63 Hz
<b>power consumption</b>	VA	ca 10 VA
<b>weight</b>	kg	ca 1 kg
<b>temperature range</b>	operation	-20°C to +60°C
	storing	-20°C to +80°C

# Order Number

	article	order number	description
AM-5	AM-5-P	550-AM-5-P	Panel mount power meter with PFR functionality
	AM-5-PQ	550-AM-5-PQ	Panel mount power meter with PQ functionality
	AM-5-PMU	550-AM-5-PMU	Panel mount power meter with PMU functionality
	AM-5N-P	550-AM-5N-P	Panel mount power meter with PFR functionality, without display
	AM-5N-PQ	550-AM-5N-PQ	Panel mount power meter with PQ functionality, without display
	AM-5N-PMU	550-AM-5N-PMU	Panel mount power meter with PMU functionality, without display
	AM-5R-P	550-AM-5R-P	Panel mount power meter with PFR functionality, with Rogowskicoils
	AM-5R-PQ	550-AM-5R-PQ	Panel mount power meter with PQ functionality, with Rogowskicoils
	AM-5R-PMU	550-AM-5R-PMU	Panel mount power meter with PMU functionality, with Rogowskicoils
	AM-5RN-P	550-AM-5RN-P	Panel mount power meter with PFR functionality, without display, with Rogowskicoils
	AM-5RN-PQ	550-AM-5RN-PQ	Panel mount power meter with PQ functionality, without display, with Rogowskicoils
	AM-5RN-PMU	550-AM-5RN-PMU	Panel mount power meter with PMU functionality, without display, with Rogowskicoils
	AM-5-DC	550-AM-5-DC	DC Supply Option for AM-5 instruments, to order only with new instruments
AS	AS-Server-light	550-AS-Server-light	ARTEMES server light for up to 4 measurement units (included in AS-Basic)
	AS-Server	550-AS-Server	ARTEMES Server for more than 4 measurement units, web-based analysis tool for ARTEMES measurement instruments, for Windows Server, Linux on request
	AS-Topo	550-AS-Topo	ARTEMES topological view for control centres (add-on to the ARTEMES server)
	AS-Cloud-light	550-AS-Cloud-light	using the cloud for 6 months, for new instruments only (included in AS-Basic)
	AS-Cloud	550-AS-Cloud	monthly rent for the cloud server; The cloud server is a virtual server in the internet on which you can store and analyse your data, secured by VPN. The software corresponds to the ARTEMES server technology.
	AS-Modbus	550-AS-Modbus	ARTEMES driver for AS-Basic: Modbus (TCP and serial)

# Measurements for Power Applications

# System Integration and Monitoring Solution

