ARTEMES

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

- **A**RTE**M**ES 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.

Thermal energy analysis for e.g. ISO 50001 reports are included in the basic version. 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

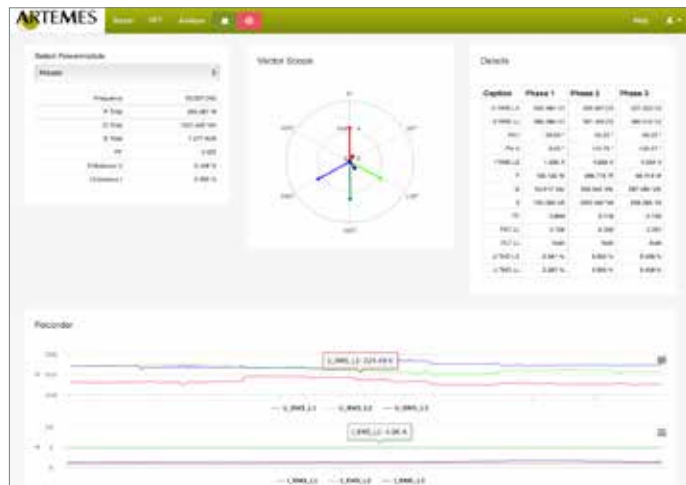overlapping and duration)

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
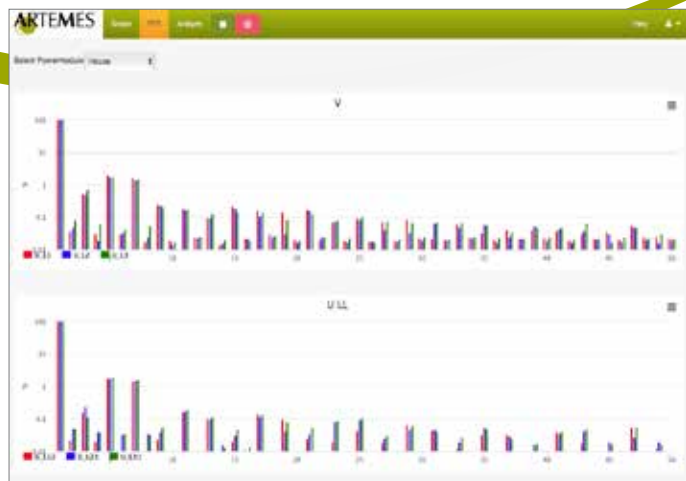

FFT - Real-Time

voltage, current, power, phase angle

phase and phase voltages

bar chart representation and numerical values

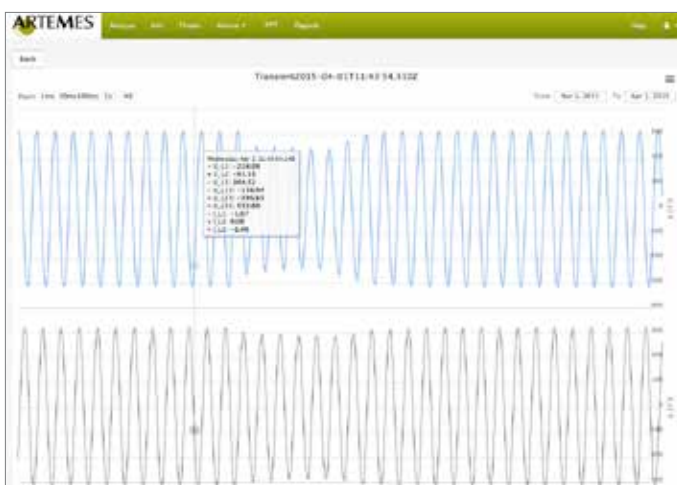IEC 61000-4-7: 2009 Class 1

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

		AM-15-PLOG
voltage inputs		4
	range	+/- 400V / 800V
	accuracy (on value, 5-100% of range)	0,1 %
current inputs		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
measurement parameters	resolution	16 bit
	sampling rate	up to 10 kSamples/sec. per channel
	bandwidth	3 kHz
measurement values	phase voltages, neutral voltage	✓
	line voltages	✓
	phase currents, neutral current	✓
evaluation online	web interface	✓
	recorder - diagram and actual values	✓
	Scope, FFT	✓
	FFT IEC 61000-4-7	✓
data processing	flexible report generator on web	✓
	EN 50160	✓
	IEC 61000-2-4 class 1,2,3	✓
	ISO 50001 energy report	✓
data storage	internal SD	32 GB
	ARTE**M**ES server	licence included (max 3 measurement clients)
	ARTE**M**ES CLOUD	option: AS-CLOUD
communication ports	USB 3.0	1
	LAN	1
	WLAN / GSM	Option AM-15-Route
EMC	IEC 61326-1 industry	✓
	IEC 61000-4-4 surge, IEC 61000-4-5 burst	4 kV
	isolation (AC, 1 min)	2 kV
safety	IEC 61010-1	✓
dimensions	width x depth x height	265 x 210 x 70 mm
power supply	AC - V/f	85-264 VAC / 47-63 Hz
power consumption	VA	ca 10 VA
weight	kg	ca 1 kg
temperature range	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 toplogical 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)

For detailed further information, please
visit our website store.artemes.org.

Measurements for Power Applications

System Integration and Monitoring Solution

energy management systems
for commerce and industry

convenient generation
of reports

load profile measurings and
multi-channel power analyses

data compression and data base solutions
for easy and individual use

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power quality analyses according
to definded standards

cloud solutions for continuous and
distributed measurement tasks

qualification of power plants
with renewables

automated test sequences
for repeated testings

software and hardware solutions
for individual test bench systems

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