

ARTEMES

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



Energy Analyser
AM-14

Energy Analyser AM-14

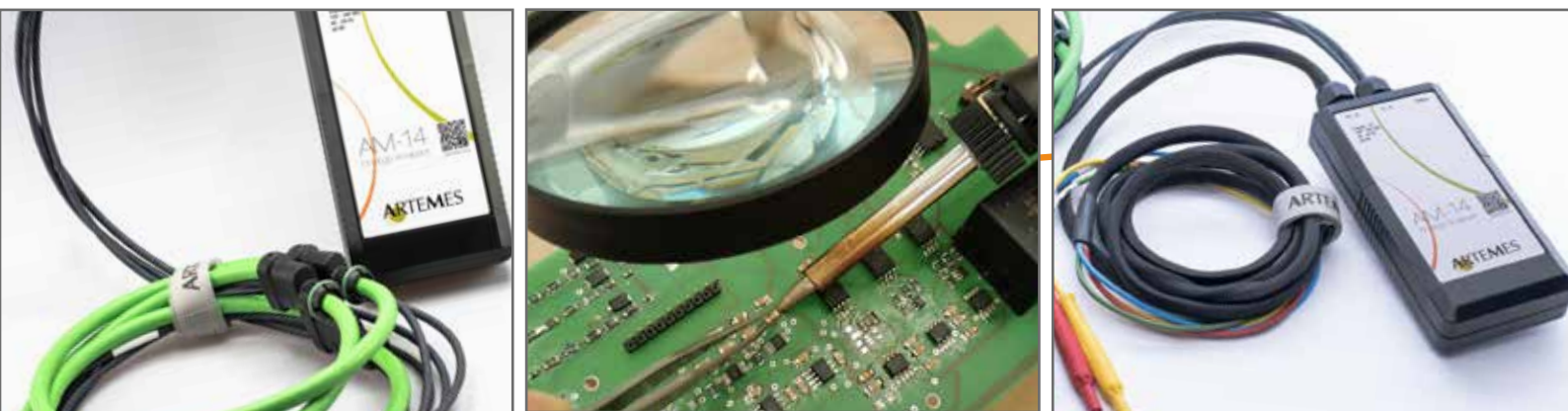


- PM + PQ + PFR
- integrated GSM/WLAN router
- remote maintenance
- 16 bit resolution
- 10 kSamples/sec.
- 3 voltages and 3 currents
- measuring and analysis via web-browser
- ARTEMES CLOUD interface

AM-14 | user-friendly and communicative

“Power logging” has never been that easy. The connection is established by scanning the QR codes for the network and the device. Communication takes place locally via WLAN or remotely via the built-in GSM modem. All that remains to be done on site is to connect the voltage and mount the current sensors. The voltage connections already include fuses and can be connected to the measurement voltages using optionally available magnetic adapters, crocodile clips or power rail taps. The device is supplied via phase 1.

For power tapping, there is a device version with a Rogowski coil (AM-14-R) or with current clamps (AM-14-CI). Web technology allows operation from a mobile phone, laptop or PC without any additional software.



power logger for measuring energy consumption
PQ logger for simple power quality measurements
very user-friendly due to easy connect and web interface

Measurement Functions

Communication

easy connection via QR code scanning

local WiFi

GSM router included

VPN access for maximum data security

public or private GSM networks

optional CLOUD or own server



transparent web-interface

The AM-14 has a web interface for all common browsers (Internet Explorer, Firefox, Chrome, Safari, ...).

The AM-14 works independently of the operating system (MS Windows, Apple, Android, iPhone, Linux, ...)

and offers a user-dependent interface design as well as the individual assignment of rights.



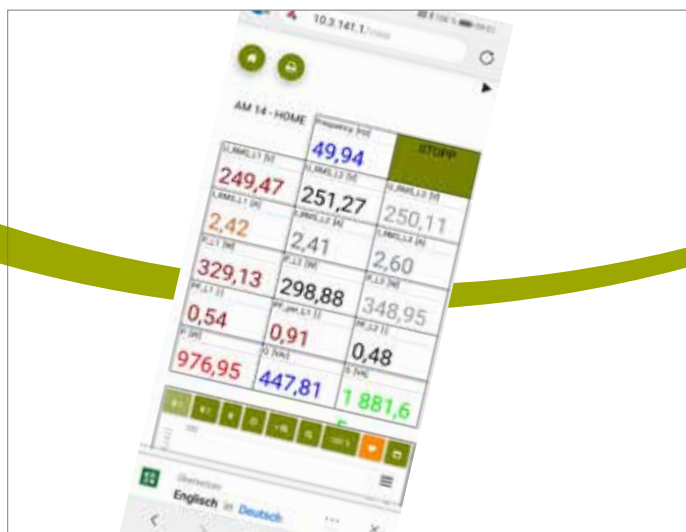
Strong Power Logger

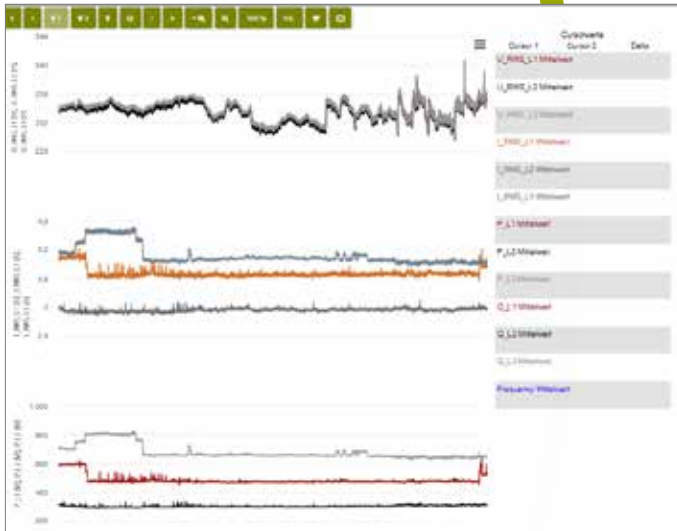
logger for P, Q, S, PF

adjustable interval starting from 10 ms

phase values and sum

further values: frequency, voltages, currents, symmetry





Recorder

- time series can be displayed via web
- cursor measurement functions (2 cursor measurements)
- time values with time cursor
- statistics values: diff, max, min, avg, deviation, energy content, i^2t , time difference
- frequency analysis of time series
- representation of several channels and axes in one diagram



Optional Power Quality Logger (additional package AM-14-Opt-PQ)

- voltage curves
- voltage and current harmonics up to 100 @ 50Hz
- frequency fluctuations
- symmetrical components
- depression / elevation - statistics
- fast recording 10 kHz in the event of an error
- reports according to EN50160 and IEC 61000-2-4



Optional FFT Analyser (additional package AM-14-Opt-PQ)

- FFT for U,I,P,Q,S,Phi
- 10 period values or adjustable (from 5)
- adjustable sidebands
- limit value curves for:
 - EN50160 (all voltage levels)
 - IEC 61000-2-4 (all classes)
 - IEC 61000-2-2
- individually adjustable

Technical Data

		AM-14-CI	AM-14-R
voltage inputs		3	3
	range	+/- 400V	+/- 400V
	accuracy (on value, 5-100% of range)	0,5 %	0,5 %
current inputs		Stromzange bis 5A	3 Rogowskispulen
	range	5A	10kA
	accuracy	1%	2%
measurement parameters	resolution	16 bit	16 bit
	sampling rate	up to 10 kSamples/sec per channel	up to 10 kSamples/sec per channel
	bandwidth	3kHz	3kHz
measurement values	phase voltages, neutral voltage	✓	✓
	3 phase star, 1 phase, 2 phase	✓	✓
	phase currents	✓	✓
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	✓	✓
data storage	internal SD	64 GB	64 GB
	ARTEMES server	licence included (max 3 measurement clients)	licence included (max 3 measurement clients)
	ARTEMES CLOUD	option: AM-10-CLOUD	option: AM-10-CLOUD
communication ports	WLAN / GSM	1	1
EMC	IEC 61326-1	✓	✓
	IEC 61000-4-4 surge, IEC 61000-4-5 burst	2 kV	2 kV
	isolation (AC, 1 min)	2 kV	2 kV
safety	IEC 61010-1	✓	✓
dimensions	width x height x depth in mm	100x23xx42	100x23xx42
		from measurement phase L1, 85-264 VAC / 47-63 Hz	from measurement phase L1, 85-264 VAC / 47-63 Hz
power supply	AC - V/f		
power consumption	VA	20 VA	20 VA
weight	kg	1,5 kg	1,5 kg
temperature range	operation	-20°C to +50°C	-20°C to +50°C
	storing	-20°C to +80°C	-20°C to +80°C

Accessory



AM-14 Carrying Bag
AM-14-Tragtasche
soft carrying bag for AM-14, included



screw terminal adapter
AM-screwadapter
screw terminal adapter for 4 mm strips



alligator clamps, 5 black
AM-alligator-clamp



magnetic adapter
AM-magnetic-adapter

ARTEMES Server
AS-Server
SERVER for more than 4 measurement instruments, webbased analysis tool



ARTEMES-CLOUD
AS-CLOUD
ARTEMES Cloud for the safe storage of data and remote access via a browser



AM-14 Power Quality Option
AM-14-Opt-PQ
calculations and representations for verifying the PQ standards



Measurements for Power Applications

System Integration and Monitoring Solution

convenient generation
of reports

data compression and data base solutions
for easy and individual use

cloud solutions for continuous and
distributed measurement tasks

automated test sequences
for repeated testings

ARTEMES
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energy management systems
for commerce and industry

load profile measurings and
multi-channel power analyses

power quality analyses according
to defined standards

qualification of power plants
with renewables

software and hardware solutions
for individual test bench systems

