AM-2-S80

80A single phase energy meter with built-in communication

- For Ethernet (Modbus TCP) communication
- Direct connection up to 80 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- 8 MB for data recording and automatic/manual data transferring
- LCD display with 7 main digits

» General Features

2 DIN modules energy meter for the energy measurement in industrial and civilian application, with Ethernet MODBUS TCP.

Besides the energy, the meter can measure the main electrical parameters and makes them available on the built-in port. The LCD display shows the energies and the instantaneous powers. Data is transmitted via Ethernet line. Moreover, a dedicated application/interface for remote management with ARTEMES Server is provided.

The meter is built according to EN 50470-1 standard. The active energy is compliant to IEC/EN 62053-21 class 1. The accuracy of reactive energy is compliant to IEC/EN 62053-23 class 2.

Wide backlighted LCD display with clear graphic symbols, comprehensible at a glance. Metrological LED on front panel and sealable terminal covers. The analysis of the MTBF values, the accurate selection of components and the reduction of the internal working temperatures together with strict production and control standards guarantee a product with an excellent quality and a long lasting reliability.

» Benefits

- Totalisation of the electric energy in the industry for each single line or machine.
- Measurement of energy generated by renewable sources such as solar, eolic, etc.
- Accounting and billing of consumptions in camp sites, malls, residential areas, naval ports, etc.
- Totalisation of the electric consumption in hotels, congress centers, exhibition fairs.
- Accounting of the consumptions in buildings with executive office services.
- Internal allocation of the consumptions in timeshare civilian and industrial buildings.
- Realisation of energy monitoring systems.
- Remote survey of the consumptions.

» Applications

- Remote management through ARTEMES server.
- Up to 7 instantaneous measurements, complete set of energy counters and partial counters. Moreover partial counters can be started, stopped or reset.

» Related Products

- ARTEMES Server
- ARTEMES Topo

» Technical Features

Power supply
- power supplied from the voltage circuit
- nominal measurement voltage ±20%
- max consumption: 7.5 VA - 0.5 W
- nominal frequency: 50/60 Hz

Voltage range & frequency
- 230 ... 240 V 50/60 Hz

Current
- starting current I_{st}: 20 mA
- minimum current I_{min}: 250 mA
- transitional current I_{tr}: 500 mA
- reference current I_{ref} (I_b): 5 A
- maximum current I_{max}: 80 A

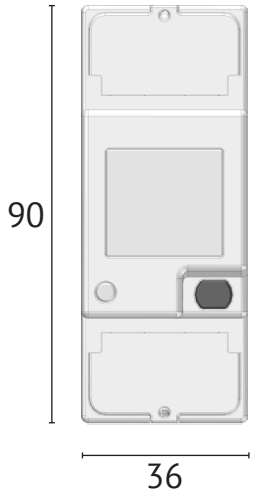
Ethernet communication
- port: 10/100 Base T
- protocol: HTTP, NTP, DHCP, Modbus TCP
- communication speed: 10/100 Mbps
- 8 MB for data recording
- web server

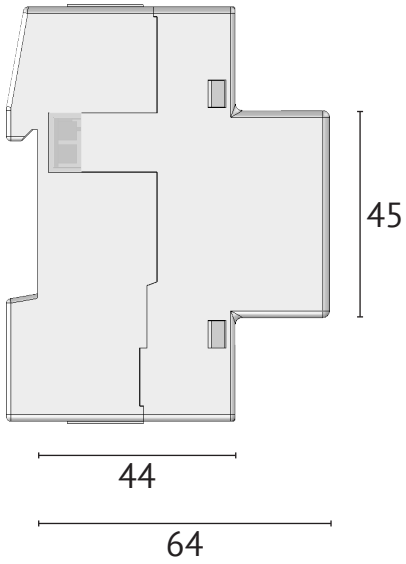
Accuracy
- active energy class 1 according to IEC/EN 62053-21 (NO MID)
- active energy class B according to EN 50470-3 (MID)
- reactive energy class 2 according to IEC/EN 62053-23

Metrological LED
- meter constant: 1000 imp/kWh
- pulse length: 10 ±2ms

Environmental conditions
- operating temperature: -25°C ... +55°C
- storage temperature: -25°C ... +75°C
- humidity: 80% max without condensation
- protection degree: IP51 frontal part -IP20 terminals

» Technical Drawing





» Measurements & Recordings

	SYMBOL	MEASURE UNIT, VALUE or STATUS	DISPLAY	PORT
INSTANTANEOUS VALUES				
Voltage	V	V		●
Current	I	A		■
Power factor	PF	-		●
Apparent power	S	kVA	■	■
Active power	P	kW	■	■
Reactive power	Q	kvar	■	■
Frequency	f	Hz		●
Power direction	> <	-	●	●
RECORDED				
Active energy		kWh	■	■
Inductive and capacitive reactive energy		kvarh	■v	■
Inductive and capacitive apparent energy		kVAh	■	■
Resettable partial energy counters		kWh, kvarh, kVAh	■v	■
Energy balance		kWh, kvarh, kVAh	■v	■

OTHER INFORMATION				
Undervoltage/overvoltage	VOL, VUL	ON/OFF		●
Undercurrent/overcurrent	IOL, IUL	ON/OFF		●
Frequency out of range	fOUT	ON/OFF		●
Partial counters	PAR	START/STOP	●	●

LEGEND: ● = Available ■= Bidirectional value v = varh not available for MID S meter

LEGEND
●= standard

AVG = parameters for AVG recording (fixed)
MAM = parameters for MIN/AVG/MAX recording (up to 24 params programmable)
EC = parameters for Energy counter recording (fixed)

+/- = signed value
imp&exp = values splitted in imported and exported
abs = absolute value
ind&cap = values splitted in inductive and capacitive

DMDBAL = difference between the positive and negative demand value: [DMD+] - [DMD-] BAL = difference between the imported and exported value: [imp] - [exp]

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	COMMUNICATION PORT	OPTIONS	USER MANUAL LANGUAGES
	Self-powered	ETHERNET	RESET	DE/EN
AM-2-S80	230V...240V 50/60Hz	●	●	●

MID:
RESET: Meter with RESET function on ALL counters.

AM99-001-00064

NOTE: Subject to change without notice

ARTEMES

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