ELECTRIC ENERGY CONSUMPTION MANAGEMENT SYSTEMS

MEM600
SINGLE PHASE ELECTRONIC METER

www.mikroelektronika.net

SCAN ME

MIKROELEKTRONIKA A.D.

Banja Luka, Bosnia & Herzegovina | +387 51 389 030
info@mikroelektronika.net | www.mikroelektronika.net

MAIN FEATURES

- kWh / kvarh — Active or active and reactive energy.
- Maximum power, integration period from 1 to 60 min.
- Measurement of energy in one or two directions or absolute measurement. (+A, +R; -A, -R; |A|, |R|), optionally by quadrants (R1, R2, R3, R4).
- T[4] — Multi-tariff registration, internal tariff calendar or external management via tariff inputs/outputs.
- Internal real-time clock with DST (Daylight saving mode). Backup power source by Li-Ion battery, optional super capacitor.
- Time profiles of measuring data recording (up to 6 channels).
- V / A — Measurement of voltage, current and power factor.
- RS485 — RS485 communication interface.
- For single phase two-wire networks.
- Impulse output(s) (kWh or kWh + kvarh).

MEM600

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Communication modems supported:
- GSM/GPRS
- PLC (S-FSK, DCSK, G3)
- ETHERNET
- LoraWan

- LCD display with backlight.
- Labeling data by OBIS code: IEC 62056-61
- Programmable data collection and order on the display, manual and auto.

Electricity meters of the MEM600 type are single phase multi-tariff meters for measuring active or active and reactive energy and power in single phase two-wire networks.

- Simplicity, speed and ease of connecting the meter to the network, indication of correct connection.
- Self-extinguishing polycarbonate housing.
- Compact design of meter according to DIN 43857.
- IP54 degree of protection against penetration of moisture and dust.
- High resistance to electromagnetic interference.
- Monitoring and registering violation of meter's work integrity (forceful opening, strong magnetic field action, wrong password access attempt, ...).
- DLMS communication protocol.
- Possibility of switching into a remote measurement and management system by installing one of the communication modules: GSM/GPRS, PLC (S-FSK, DCSK, G3), ETHERNET, LoraWan.
- Universal modem socket for single phase and three phase meters, plug in connection. The modem is mounted under the meter's connecting ports cover.
- Battery replacement without removal of the measuring seal
- Operating state indication for the meter and communication module.
- Relay outputs for remote and local load control.
- Power monitoring and load control by integrated load control switch. with maximum current of up to 100 A.
- Optical output(s): 1000 imp/kWh (kvarh).
- LIST and SET buttons (ability to seal the SET button).

The meters correspond to European standards EN 50470-1 and EN 50470-3, as well as to international standards IEC 62052-11 and IEC 62053-21, and are designed and manufactured according to ISO 9001 standard. The active and reactive electrical power meters, in addition to the specified standards, meet the requirements of international standard IEC62053-23.

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IDIS 1DLM Reg No: 00xx

CE M17 1304 14MID005

dlms COSEM compliant

FUNCTIONAL AND TECHNICAL DATA

MEM single phase meters are intended for use in the household, as well as for customers in the category "other consumption" at low voltage. They are used for calculated measurements of active or active and reactive energy and power.

Measurement and registration:
- Energy in one flow direction (taken).
- Energy in two flow directions (taken and handed over).
- Always in a positive direction (absolutely).
- Four-quadrant for reactive energy (optional).

Accuracy/Calibration:
Thanks to long-term measurement stability, there is no need to re-calibrate the meters during utilisation period.

Indicators:
LED 1 (red): kWh impulses.
LED 2 (red): quark impulses.
Unsteady: the current is higher than the starting current.
Illuminating: voltage connected, while the current is less than the starting current.
Not illuminating: no voltage is being applied to the meter.

Communication:
Optical port (IEC 62056-21) for local programming and meter reading.
Additional communication port: RS485, M-Bus, HAN.

Multi-tariff registration:
According to an internal real time counter or external transfer of tariffs. Programmable tariff number (1 ... 4 tariffs).

7-segment liquid crystal display:
- according to VDEW recommendations, 8 digits for data, 6 digits for EDIS identification code (DIN 43863-3) + a certain number of signal flags/ indicators; Indicators: direction/ quadrant of energy flow, presence of voltage, current, remote communication, measuring units, ...
- display mode: automatic, manual data display (using keys), auto-diagnostics;
- A programmable set of displayed data as well as their order;

Option: Present the data on the display when the meter is not under any voltage (battery mode).

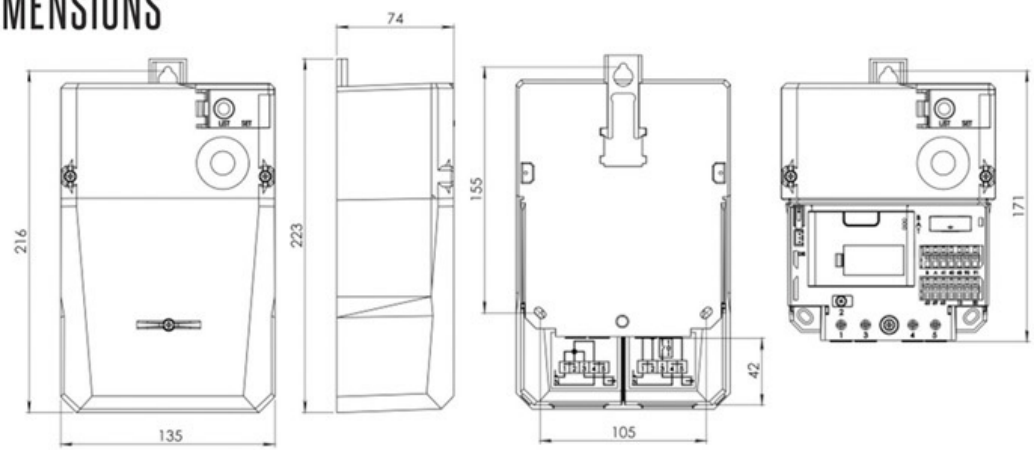
Real Time Counter:
- 32 kHz quartz crystal;
- Allows switching of tariffs by default, switching of seasons, transfer from winter to summer time, and vice versa, power period measurement and data measurement time profiles.

Current clamps:
- Directly connected meters: Universal clamps for all types of conductors (Main connectors = 35 mm2; Auxiliary connecting clamps = 1.5 mm2);

Housing: Self-extinguishing UV stabilized polycarbonate.
Degree of protection against dust and water: IP 54.

Accuracy class (kWh)	A or B (according to EN 50470-3)
	respectively 2 or 1 (according to IEC 62053-21)
(kvarh)	3 or 2 (according to IEC 62053-23)
Reference/ Nominal current In	5, 10 A
Max. current Imax	40, 60, 80, 85, 100 A
Min. current Imin	0,04 In
Starting current	0,004 In
Nominal voltage Un	230 V
Voltage range	0,8 Un 1,15 Un
Nominal frequency	50 Hz
Operating temperature range	-40°C +55°C (LCD: -25°C +55°C)
Extended temperature range	-40°C +70°C
Temperature of storage	-40°C +85°C
Relative humidity	≤ 95%
Encoder constant, A/R energy (optical output, LED red):	1000 imp/kWh (imp/kvarh)
Encoder constant, A/R energy (el. outlet, galvanic. isolat., passive):	500 imp/kWh (imp/kvarh)
Display: Type	LCD
Number of characters for displaying the meas. sizes	8
Number of characters for displaying the OBIS tags	6
Optical port	IEC 62056-21
Accuracy of internal counter	≤±3 min/year. (IEC 62054-21)
Back-up power supply of counter	10 years (Li-battery)
Impulse output(s) characteristics	
Voltage	< 27 V EN 62052-11
Electricity	< 27 mA EN 62053-31
Tariff output(s)	Option for output relays
Own power consumption (with modem)	<4 VA
Own consumption of voltage branch (w/ modem)	< 3 W / 15 VA
Own consumption of tariff input	< 150mW
Dielectric strength	4 kV, 50 Hz, 1 min
Impact voltage	measuring circuits: 12 kV 1,2/50 µs
	auxiliary circuits: 6 kV 1,2/50 µs
Short circuit current	30 Imax
Fast transients (burst)	
Measur. circuits without/ with load	4 kV (IEC 61000-4-4)
Auxiliary circuits	2 kV
Surge test	
Measur. circuits without/ with load	4 kV (IEC 61000-4-5)
Auxiliary circuits	2 kV
Electrostatic discharge	
Contact discharge	8 kV (IEC 61000-4-2)
Contactless discharge	15 kV
Resistance to el.mag. RF fields	80 MHz 2 GHz (IEC 61000-4-3)
Influence of radio interference	
Contact discharge	150 kHz 30 MHz (IEC 61000-4-3)
Contactless discharge.	30 MHz 1 GHz
Vibrations (Vibration test)	(IEC 61000-4-6)
Shock test	(IEC 61000-4-27)
Flammability; Glow-wire flammability test	(IEC 61000-4-11)
Date of expiration	< 15 years
Dimensions	240 x 130 x 90 mm
Mass	< 1,2 kg

METER DIMENSIONS



Due to the occasional product improvements, the products actually delivered may vary in individual details from the data specified in the prospectus.