



Single-phase electricity meters DLMS

Single-phase electricity meter

AIST A100 H LoRaWAN

Single-phase electronic electricity meter "AIST A100 H" is used for measurement and metering of active and reactive energy in single-phase AC circuits and transmission of telemetric information about consumed electricity when used in automated data acquisition systems.

The meter is additionally equipped with a data input-transmission unit (LoRaWAN module).

The LoRaWAN module allows to poll the meter and then send the data to the server via LoRaWan wireless network. The radio frequency part of the device allows operation in the frequency range of 863-870 MHz.

Technical specifications

Name of characteristic	Value
Accuracy class of active energy	1
Base, I _b (maximum) current, A	5 (60)
Rated voltage value (U _{nom}), V	230
Starting current (sensitivity threshold):	0.004I _b
Set operating voltage range, V:	
- for a meter with DLT645 protocol	0.9 to 1.1U _{nom}
- for the meter with SPODES protocol	0.7 to 1.2U _{nom}
Extended voltage range, V	0.8 to 1.15U _{nom}
Power consumption, VA, not more:	
- for the meter with DLT645 protocol	
§ voltage circuit	5
§ current circuit	0,2
- for the meter with SPODES protocol	
§ voltage circuit	10
§ current circuit	0,5
Nominal value of mains frequency, Hz	50
Maximum number of tariffs	4
Minimum tariff duration, min	15
RS-485 interface communication speed, bps	1200~9600
Accuracy of the built-in clock at normal temperature, better, s/day	± 0,5
Storage period of the profile of the received and given active and reactive energy (power) with programmable interval of integration time from 1 minute to 60 minutes (with integration time of 30 minutes), not less than days	90
Storage in the non-volatile memory device of data on the received and given active and reactive energy with cumulative total at the beginning of the current billing period and previous programmed billing periods, not less than	36
Liquid crystal display (LCD):	
- number of indicated digits	8
- unit price of the lowest digit when displaying energy, kWh	0,01
Meter constant, imp/(kWh):	
- for the meter with DLT645 protocol	1200
- for the meter with SPODES protocol	1000
Average MTBF, h	at least 160 000
Meter clock power supply service life, years	at least 10
Additional I/O units	RF modem, PLC modem, GSM modem, Ethernet module, Wi-Fi module,

	LoRaWAN module, NB-IoT module
Temperature range, °C:	
- for the meter with DLT645 protocol	from “minus” 40 to +55
- for the meter with SPODES protocol	minus 40 to +70
At temperatures from “minus” 20°C to “minus” 40°C partial loss of LCD functionality is allowed	
Relative air humidity at 25°C, %	5 to 95 (without condensation)
Overall dimensions (H×W×D), mm:	
- for the counter with DLT645 protocol	190×113×75
- for the counter with SPODES protocol	220×125×75.5
Weight of meters, kg:	
- for the counter with DLT645 protocol	not more than 2.8
- for the counter with SPODES protocol	no more than 1.0
Protection class:	
- for the meter with DLT645 protocol	IP30
- for meter with SPODES protocol	IP54