



Three-phase electricity meters DLMS

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AIST A300 H LoRaWAN

Three-phase electronic electricity meter "AIST A300 H" is used for measuring and metering of active and reactive energy in three-phase AC circuits and transmission of telemetric information about consumed electricity when used in automated data acquisition systems. The meters are also divided by current and voltage.

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

The LoRaWAN module allows to poll the meter and then send 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 classes:	
- for active electrical energy	- 0,2S; 0,5S; 1,0
- for reactive electrical energy	- 1,0; 2,0
Base, I_b, (maximum) current for direct connection, A	5 (60); 5 (100); 10 (100)
Rated, I_n, (maximum) current for transformer connection, A	1 (2); 5 (7,5); 5 (10)
Rated voltages (U_{nom}), V	direct connection - 3x230/400 transformer connection - 3x230/400; 3x57,7/100
Starting current (sensitivity threshold):	
- For a directly connected meter:	
• accuracy class 1	0.004I _b
• accuracy class 2	0.005I _b
- for transformer connected meter:	
• accuracy class 0.2S, 0.5S	0.001I _{nom}
• accuracy class 1	0,002I _{nom}
• accuracy class 2	0,003I _{nom}
Set operating voltage range, V	
- for the meter with DLT645 protocol	0.9 to 1.1U _{nom}
- for the meter with SPODES protocol:	
• direct connection	0.6 to 1.2U _{nom}
• transformer connection	0.8 to 1.2U _{nom}
Extended voltage range, V	0.8 to 1.15U _{nom}
Power consumption, V*A, not more:	
- for the counter 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	8
Minimum tariff duration, min	15
RS-485 interface communication speed, bps	1200~9600
Accuracy of the built-in clock at normal temperature, better, c/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 (kVar×h)	0,01
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	no more than 292×174×88
Weight of meters, kg:	
- for the counter with DLT645 protocol	not more than 2.8
- for the counter with SPODES protocol	no more than 1.5
Protection class	IP54