Three-phase electricity meters DLMS

Three-phase electricity meter AIST A300 H 3G

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-transmission unit (3G module).

3G module is an embedded module that allows data transmission from the meter to the server/hub through the network of cellular operators using 3G technology.

Technical specifications

Name of characteristic	Value
Accuracy classes: **- for active electrical energy** **- for reactive electrical energy**	 - 0,2S; 0,5S; 1,0 - 1,0; 2,0
Base, Ib, (maximum) current for direct connection, A	5 (60); 5 (100); 10 (100)
Rated, In, (maximum) current for transformer connection, A	1 (2); 5 (7,5); 5 (10)
Rated voltages (Unom), V	direct connection - 3x230/400 transformer connection - 3x230/400; 3x57,7/100
Starting current (sensitivity threshold): **- For a directly connected meter:** • **accuracy class 1** • **accuracy class 2** **- for transformer connected meter:** • **accuracy class 0.2S, 0.5S** • **accuracy class 1** • **accuracy class 2**	 0.004Ib 0.005Ib 0.001Inom 0,002Inom 0,003Inom
Set operating voltage range, V **- for the meter with DLT645 protocol** **- for the meter with SPODES protocol:** • **direct connection** • **transformer connection**	 0.9 to 1.1Unom 0.6 to 1.2Unom 0.8 to 1.2Unom
Extended voltage range, V	0.8 to 1.15Unom
Power consumption, V*A, not more: **- for the counter with DLT645 protocol** • **voltage circuit** • **current circuit** **- for the meter with SPODES protocol** • **voltage circuit** • **current circuit**	 5 0,2 10 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	36

previous programmed billing periods, not less than	
Liquid crystal display (LCD): **- number of indicated digits** **- unit price of the lowest digit when displaying energy, kWh (kVar×h)**	 8 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** **- for the meter with SPODES protocol**	 from “minus” 40 to +55 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** **- for the counter with SPODES protocol**	 not more than 2.8 no more than 1.5
Protection class	IP54