Economic Meter

NJ Economic meter for low voltage

This meter series can provide a cost-effective solutions for light load residential metering applications

Key Benefits

- Cost-competitive Meter
- kWh and kvarh Metering
- 1-hour Interval Data
- DLMS Protocol
- Backup Power Supply
- RS-485 Communication Port(Option)

Cost-effective Meter

Adopting an integrated solution, this meter provides the optimal and cost-competitive alternatives for the residential metering applications like AMR and AMI:
- kWh & kvarh revenue metering
- One-hour interval metering
- RS-485 remote communication

Active and Reactive Measurement

With vector-summed metrology, the meter measures and records the accumulated energy consumption of active and reactive power:
- Total delivered kWh
- Total lagging kvarh

Load Profile Capacity

For interval metering, the meter measures and records an one-hour interval data into a non-volatile memory:
- Accumulated delivered kWh with date & time stamp
- Up to 31-days for 1-channel/60-minutes
- Power failure & restoration record

Self Diagnosis

To ensure the reliable meter operation, the meter detects and indicates the faulty conditions:
- Reverse energy flow
- Memory failure

Instrumentation

With the meter software, the technicians can test and verify the installation and operation of a meter:
- Phase voltage
- Phase ampere
- Phase angle
- Frequency

Backup Power Supply

Built-in battery supplies the backup power for LCD and RTC operations in case of power-failure

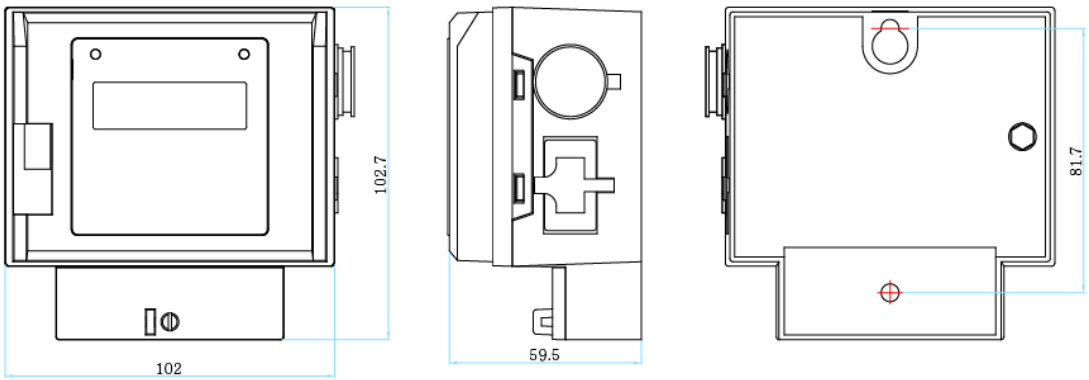
Communications (optional)

For the remote communication, the meter provides with RS-485 communication interface to an external modem or a data concentration unit, and also supplies with their operating power for the external devices like a modem and a data concentration unit:
- IEC 62056 DLMS protocol
- Up to 32-nodes
- DC 12V, 2.5VA

Additionally, the meter provides an AC signal path of power line communication which has a characteristics of very low noise and loss:
- Less than -70dBm (9kHz~30MHz)
- Less than 5dB

For Residential Customers in the Smart Grid Market, the NJ Economic meter is waiting for your best choice...

Dimensions :



Specifications and Technical Data :

Voltage	**220V (±10% of nominal voltage)**
Current	**10(40)A**
Frequency	**50Hz/60 Hz (±5% tolerances)**
Temperature	**-25°C to +55 °C (operating range)**
Humidity	**0 to 100% (non-condensing)**
Power consumption	**Less than 2W**
Accuracy	**With full load and light load ±1.0% for kWh** **With full load and light load ±2.0% for kvarh**
Starting current	**Conforms to the IEC requirements (less than 0.004Ib)**
Creep	**No more than 1 pulse per measured quantity**
Startup delay	**Less than 3 seconds from power application to pulse accumulation**
Clock	**Built-in real time counter without a backup battery**
Communication	**Remote communication up to 19200 baud (upgradeable)**
Standards	**IEC 62052-11** *Electricity metering equipment (a.c.)-General requirements, tests and test conditions -Part 11: Metering equipment* **IEC 62053-21** *Electricity metering equipment a.c.)-Particular requirements -Part 21: Static meters for active energy (classes 1 and 2)* **IEC 62053-23** *Electricity metering equipment a.c.)-Particular requirements -Part 23: Static meters for reactive energy)classes 2 and 3)* **IEC 62056-21** *Electricity metering-Data exchange for meter reading, tariff and load control -Part 21: Direct local exchange* **IEC 62056-42** *Physical layer services and procedures for connection oriented asynchronous data exchange* **IEC 62056-46** *Data Link Layer using HDLC-protocol* **IEC 62056-53** *COSEM Application Layer* **IEC 62056-61** *OBIS Object Identification System* **IEC 62056-62** *Interface Objects*

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