WASION

The Hymeter100 is high-tech smart energy meter developed and produced for high-end international AMI market, which forms an integral part of Wasion's AMI solution that manages data from Smart Electricity meters. MPMS applications are available to meet individual utility's requirements.

Based on the DLMS/COSEM protocol, a range of communications solutions can be deployed to ensure secure and reliable communications. The meter offers a modular solution including HPLC/GPRS/RF, Optical and RS232/RS485 for both WAN and LAN communications infrastructures. This modularity ensures a future proof solution for the utility by the flexible communications technology.

The Hymeter100 offers a highly flexible platform that should match current and anticipated market needs. The product meets most of the requirements from the extended advanced metering markets. The firmware can be downloaded at a specific future date once any improvement is introduced. The metrological code cannot be updated.

The meter design offers high security to the latest industry standards. Security features include anti-tampering detection, such as meter and terminal cover removal even in the absence of power and magnetic field detection monitoring. Extensive alarm and event logs with time and date stamps can be read via local or remote communications.

Smart Grid applications in the future will greatly benefit from the existence of Smart Meters installed on the networks. The Hymeter100 has been designed to anticipate this requirement of smart grids. The meter offers comprehensive power quality monitoring and instrumentation profiling.

HyMeter100
Single Phase Smart Meter

Applications
Commercial, Industrial and Residential

Operation Conditions

Standards

- IEC: IEC 62052-11 (2003), IEC 62053-21 (2003), IEC 62053-23 (2003), IEC 62052-21 (2004)
- Europe: EN 50470-1, EN 50470-3

Voltage

- Nominal voltage: 230V a.c.
- Voltage Operating Range: 0.5Un-1.2Un
- Frequency range: 50Hz (±2%)

Environment

- Operating temperature: -25° C to +70° C
- LCD operating temperature: -25° C to +70° C
- Storage temperature range: -40° C to +85° C
- Relative humidity: up to 95%
- non-condensing

Ingress Protection

- IP54 to IEC 60529:1989
- BS 7856:1996

Electricity Characteristics

- Insulation: Double insulated, protective class II
- Short Circuit Current: withstand 30 Imax
- Surge Test: 4kV
- Impulse Test: 6kV
- EMC Environment: Electromagnetic Environment E2, per the 2004/22/EC directive

Power Consumption

- Voltage burden: <10VA/phase@ Un, 2W
- Current burden:<1VA/phase

[Performance]

Accuracy class

- Class1/Class B for active energy
- Class 2 for reactive energy
- Test constant: 1600imp/kWh def.

Time Clock and Calendar

- Accuracy within 5ppm, quartz controlled
- Synchronized through communication
- Daylight saving calendar
- An incorporated battery for power failure

Auxiliary

- Replaceable external battery, life span: 10 years
- Test Led: active and reactive indicators
- Super Capacitor optional

Load Profile

- Up to 32 channels
- Intervals programmable from 1 to 60 minutes
- Data recorded over 100 days (6 channels, 15 min.)

Firmware

- Upgraded with special channel and key
- Scheduled or command upgrade supported
- Local and remote upgrade

Dimension

- High*Wide*Deep: 260mm x 133mm x 56mm

Current Input

- Reference value: Iref =5A
- Starting current: Ist =0.2% Iref
- Maximum current: Imax =60A

TOU

- 2 Contracts
- maximum of 6 week profile, one per season
- Up to 8 daily profile
- maximum of 10 rate changes, one per hour
- Up to 8 tariff rate
- Up to 50 holidays

Switching Elements

- L，N double circuit switch
- Maximum operating voltage: 250V a.c.
- Nominal load: 80A
- Switching capacity: 20000VA
- Number of operations: 10^5

Security Features

- Main and terminal cover removal detection even power failure
- Magnetic field detection monitoring
- Extensive alarm and event logs with time and date stamps recorded
- Reverse current and bidirectional measurement
- Alarm with LED and buzzer configurable
  Hardware programming protection (optional)

Instantaneous Measurements

- Import and export active power and energy
- 4 quadrants reactive power and energy
- Voltage, Current, Phase angle
- Power factor and Frequency
- THD calculation and Power quality monitor

Communication

- Optical port: IEC 62056−21−E compliant
- Flexible modular communications (HPLC/RF/GPRS)
- Optional for RS485, RS232
- Protocol: DLMS/COSEM, compliance with IEC 62056 standards
- Support both Multi−level security password protection and High level security

Billing

- Manual (local and remote)
- Automatic (hourly, daily and monthly)
- Maximum billing period configurable

LCD Display

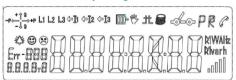- Main and terminal cover removal detection even power failure
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