

Sensway SE-060&100 series

SE-060&100 series is a single phase smart meter with modular design. The meter is used to measure electrical energy accurately for commercial and residential customers.

Key Benefits

- kWh/kvarh/kVAh Metering
- RS-485 Daisy-Chain Port
- Time-of-Use (TOU) Metering
- DLMS/COSEM Protocol
- Real-Time Pricing (RTP) Metering
- Power Quality Monitoring
- Critical Peak Price (CPP) Metering
- Remote Disconnect/Reconnect
- Load Profile
- Outdoor application(IP54)
- Measurement Profile

Easy to Direct Access

With the adoption of IEC 62056 and DLMS/COSEM, the meter provides the easy way to directly access to metering data and control the power supply to customer for AMR & AMI applications

TOU/CPP/RTP Metering

Adopting an integrated solution, the meter can provide the optimal TOU / CPP / RTP metering capabilities for residential & commercial applications:

- 4 tariff metering & 4 self reads: energy, demand & PF
- Daily metering-data profile

Various & Versatile Measurement

With the four-quadrant & bi-directional metering and measurement capabilities, the meter can measure and record the accumulated and interval consumed energy values of active, reactive and apparent power:

- Up to 8-metering recording channels
- Max. demand(kW, kVA) with time stamp
- User-define PF calculation

Load Profile Capacity

For an interval metering, it measures and records an user

- defined interval data into a non-volatile memory:
- Up to 8-channel for interval data metering
- Up to 6,240-records for 4-channel/15-minutes

Measurement Profile

The meter measure and calculate the average value of voltage, ampere, and THD:

- Up to 3-channel recording available
- Up to 288-records(3-days)

Communications

With RS-485 communication port, the meter can be read and programmed locally and remotely up to 38,400-bps.

For the detachable modem, the meter supplies an operating power for modem like PLC and RF:

- IEC 62056 DLMS protocol
- DC 12V, 2.5VA

Instrumentation & PQ

With the meter software, the technicians can test and verify the installation and operation of the meter:

- Per-phase measuring : power, voltage, ampere, angle It can provide with the PQ monitoring capabilities:
- Voltage-THD, Sag & Swell

Self Diagnosis

To ensure the reliable meter operation, the meter detects and indicates the faulty conditions:

- Under voltage, reverse flow, memory & battery error To avoid the tampering & theft operation, the meter detects and indicates the faulty conditions:
- Magnetic force, abnormal temperature, and cover-open

Remote Disconnect/Reconnect

The meter provides the remote disconnect/reconnect capability with the built-in relay:

- Internal Latch Relay : 50A (max. 90A)
- Electrical life : max. 5,500-OPS

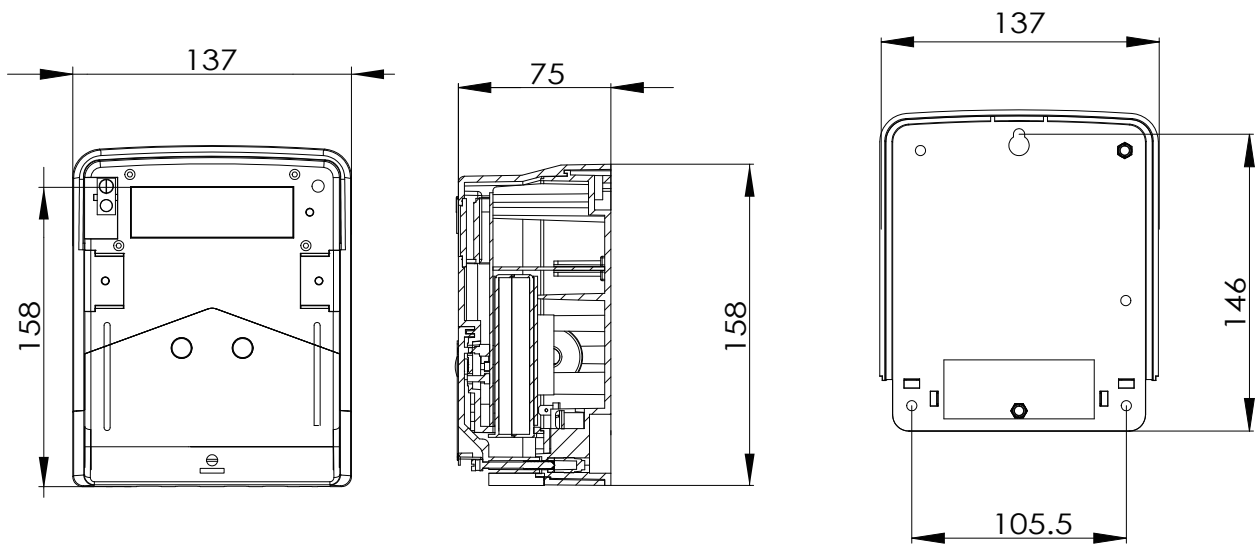
The meter also provides the current-limiting capability for the demand control and overload control with the user-defined conditions.

Housing

- Non-flammable polycarbonate
- IP 54 protection against dust and water(outdoor type)

Dimensions

(Unit: mm)



Specifications and Technical Data : JND12-5190

Voltage	220V (Dynamic operating range=100~264V)
Current	5(50)A
Frequency	50/60 Hz (5% tolerances)
Temperature	-40 oC to +60 oC (operating range)
Humidity	0 to 95% (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 With full load and light load 1.0% for kVAh
Starting current	Conforms to the IEC requirements (less than 0.004Ib)
constant	1,000 pulse/kWh 1,000 pulse/kvarh 1,000 pulse/kVAh
Startup delay	Less than 5 seconds from power application to pulse accumulation
Clock	Built-in real time clock with a backup battery (3.6V/1,200mAh)
Communication	Remote communication up to 38,400 baud
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