SENSE IT
TECHNOLOGIES
MONITORING AND CONTROL SOLUTIONS



LoRaWAN Digital Energy Meter - Single Phase - 100A - Direct Connection

SKU: SI-LRW-ENMT-003

Monitor single-phase electrical energy consumption, power quality and demand in real time with a multifunction energy meter. Designed for commercial, industrial and utility applications, it provides accurate measurement of electricity usage to support energy management, cost allocation and operational efficiency.

OVERVIEW

The Sense It Single-Phase Energy Meter provides comprehensive monitoring of electrical energy consumption and power quality for commercial, industrial and utility applications. Installed directly onto a DIN rail, it continuously measures electrical parameters including voltage, current, active power, reactive power, apparent power, power factor, frequency and energy consumption, providing a complete view of electrical system performance.

The meter is ideal for monitoring distribution boards, factories, offices, retail stores, schools, agricultural facilities, pump stations, refrigeration systems and individual equipment. It enables organisations to accurately measure electricity consumption, identify excessive energy usage, monitor equipment performance and allocate energy costs between departments, tenants or processes.

Supporting direct connection up to 100 A, the meter eliminates the need for external current transformers in many applications, simplifying installation while maintaining high measurement accuracy. Continuous monitoring of voltage, current and power quality also assists with identifying overloaded circuits, inefficient equipment and abnormal operating conditions before they lead to downtime or increased operating costs.

When connected to the Sense It monitoring platform, users can remotely monitor live electrical measurements, analyse historical energy consumption, compare usage across multiple sites and receive notifications when predefined thresholds are exceeded. Historical reporting helps identify energy-saving opportunities, verify efficiency initiatives and support sustainability reporting.

Its compact DIN rail design makes it suitable for both new electrical installations and retrofit projects. With high measurement accuracy, low maintenance requirements and comprehensive electrical monitoring, it provides a dependable solution for long-term energy management.

KEY FEATURES

- Measures electricity consumption
- Monitors voltage and current
- Measures active power
- Measures reactive power
- Measures apparent power
- Monitors power factor
- Measures supply frequency
- Supports import and export energy measurement
- Calculates maximum demand
- Direct connection up to 100 A

- High measurement accuracy
- DIN rail mounting
- Real-time energy monitoring
- Historical energy reporting
- Supports energy cost allocation
- Helps identify excessive energy usage
- Supports preventative maintenance
- Remote monitoring through the Sense It platform
- Suitable for commercial and industrial installations
- Low maintenance operation

TECHNICAL SPECIFICATIONS

General

- Measurement type: Single-phase multifunction energy meter
- Supply type: Single-phase two-wire (1P+N)
- Direct connection up to 100 A

Performance

- Measures voltage
- Measures current
- Measures active power
- Measures reactive power
- Measures apparent power
- Measures active energy
- Measures reactive energy
- Measures power factor
- Measures frequency
- Measures maximum demand
- Active energy accuracy: Class 0.5 IEC 62053-22 Class C
- Voltage accuracy: ±0.5%
- Current accuracy: ±0.5%
- Frequency accuracy: ±0.2%
- Power accuracy: ±1%

Electrical

- Rated voltage: 230 VAC
- Operating voltage: 80% to 120% of rated voltage
- Maximum current: 100 A
- Starting current: 0.15 A

Environmental

- Operating temperature: -25 °C to +55 °C
- Storage temperature: -40 °C to +70 °C
- Operating humidity: Up to 95% RH non-condensing

Physical

- DIN rail mounting
- LCD display
- Compact modular enclosure

Installation

- 35 mm DIN rail mounting
- Direct-connected single-phase installation
- Suitable for commercial and industrial distribution boards

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