

Liberty 200

Single-phase smart energy meter



AMI ready



Remote
firmware upgrade



AES128
encrypted security

The Liberty 200 smart meter is a part of the smart metering system. It is a new generation, single-phase, smart electricity meter with communications capability, including DLMS / COSEM. It is equipped with a bi-directional communication unit with provision for a range of communication technologies, including RF or cellular (NB-IoT/ GPRS) devices that allows it to interact with the head end system (HES) for data collection and configuration with adequate security.

It covers state-of-the-art smart functionality, coupled with revenue protection capabilities, making it the ideal solution for smart metering applications.

A built-in connect-disconnect switch and intelligent firmware platform in the Liberty 200 can deliver smart metering use cases of an energy supplier.

Application

- Residential metering
- Small commercial metering

Benefits

- Easy integration with head-end system through bi-directional comms and interoperable protocol
- Periodic remote data availability for utility reconciliation and monitoring
- Improved reading efficiency and elimination of billing errors through smart functionality
- On-demand data collection to serve critical use cases like vigilance
- No site visits to disconnect / reconnect consumer load point
- Enables efficient field operations to quickly restore faults by providing reliable, timely node-specific power interruption information
- Reduced cost of ownership
- Eliminates the cost of manual reading
- Designed to serve long life in the field
- Peak and off-peak management



Features

- Reliable, bi-directional communication unit
- Four-quadrant metering with import / export registration
- Connect-disconnect (load) switch with UC-3 performance
- Connect-disconnect switch in phase and neutral
- Secure data delivery to head end system (HES)
- Intuitive, legible and user-friendly display
- Provision of different communication options - cellular (NB-IoT / GPRS), RF
- Capacitive touch keypad for ease of display navigation
- Extensive revenue protection measures
- Logging of tamper events and information alerts to the backend system
- Quality of supply (QoS) monitoring
- Supports remote firmware upgrade
- DLMS / COSEM open protocol compliant
- Terminal cover open, front cover-open, communication module open detection

Software

- M-Cubed 100 software suite for meter configuration and reading through optical port

SECURE



Technical specifications

Electrical

Connection type	1-phase 2-wire, direct connected
Rated voltage & variation	230 V, $\pm 10\%$
Maximum withstand voltage	440 V
Current range	10 A Ibasic, 100 A Imax
Accuracy	Class 1.0
Frequency	50 Hz, $\pm 5\%$
Metrology LED	One LED, Blinking on configured energy channel
Switch category	UC3

Compliance

Standards	IEC 62052-11, IEC 62053-21, IEC 62053-24, IEC 62052-31, IEC 62056 series (DLMS / COSEM)
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Mechanical

Dimensions W x H x D	150 mm X 252 mm X 67 mm ± 5 mm
Weight	1.20 kg (approximately) with Cellular (NB-IoT / GPRS) comms module
Display	8-digit LCD with backlight and icons for status

Enclosure material

Meter case, terminal block	Engineering Plastic
Sealing	Break to open enclosure, Additional sealing provision on meter body, terminal cover and communication module

Environmental

Ingress protection	IP 54
Insulation class	Protective class II
Operating temperature	-10 °C to +60 °C
Storage temperature	-25 °C to +70 °C
Humidity	95%, non-condensing

Data storage capacity

Energy / demand load profile	One year (single channel) at 30-minute interval (configurable interval)
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Communication

Local	IEC optical port
Communication interface	RF or cellular (NB-IoT / GPRS)
Communication status	Indication on LCD
Security	AES128 encryption

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