



CompactIQ

Compact in size. Big on insights.

- 4TE design for small enclosures
- LTE-M with eSIM
- MID-certified energy metering
- Remote updates and fraud detection

xemex

SMART IN ENERGY SOLUTIONS

Maximum functionality in a minimum of space

Compact Smart Meter with RS485 Modbus gateway: rapid integration into compact and smart energy systems



Does your meter cupboard fail to meet the requirements of modern energy projects?

As an installer, you increasingly face the same challenge: too little space, too many components and higher demands for monitoring, data readout and smart control. Particularly in compact technical installations, where every DIN rail counts, this calls for smart choices. How do you achieve reliable energy measurement and data communication without extra gateways, converters or complex cabling?

The solution lies in simplicity. With the CompactIQ Meter from Xemex, you combine accurate energy measurement and smart gateway functionality in a single compact meter. This smart 4 DIN solution offers everything you need for modern energy installations: MID-certified measurement, integrated RS485 Modbus Gateway, LTE-M communication and real-time data exchange. This allows you to complete a full installation more quickly, with fewer components and less installation time.

Smart installation, faster commissioning

For you as an installer, convenience is key. Less space in the cabinet, less installation work and quick integration. Thanks to LTE-M with eSIM, there is no need for additional communication hardware. You can easily connect the CompactIQ Meter to energy management systems, inverters and battery systems via RS485 Modbus

Uses cases CompactIQ

The CompactIQ is designed for situations where traditional smart meters are unsuitable or impractical. Examples include locations that are unoccupied or installations with limited space.

1. Energy storage and PV monitoring

Measure and monitor energy generation, storage and consumption in real time.

2. Charging points and charging stations

Achieve reliable energy metering in compact charging installations without the need for additional gateway hardware.

3. Sub-metering in commercial buildings

Measure consumption per installation, floor or asset and provide customers with immediate insight into energy performance.

4. Technical distribution cabinets

Integrate smart energy metering into limited cabinet space, without compromising on functionality.

5. Remote monitoring

Read installations securely from a distance via LTE-M. Ideal for locations without a fixed data connection.

CompactIQ is used in compact locations such as EV charging points and street cabinets. It combines accurate energy metering with LTE-M connectivity without the need for an additional gateway. This gives you real-time insight into energy consumption and grid load wherever you are.

The CompactIQ is designed for both standalone use and system integration

Seamless integration with an EMS or online broker

The CompactIQ Meter integrates seamlessly with energy management systems such as the Xemex Enny platform. Using RS485 Modbus, you can make real-time measurement data directly available for monitoring and analysis. This allows you to quickly build a comprehensive solution for monitoring and gaining insights into your energy assets.



Technical data

General

- 100 A 1-phase and 3-phase 4U DIN-rail meter
- Compatible with 4-wire and 3-wire networks
- MID-certified
- ESMR Smart Meter functionality
- RS485 Modbus functionality
- LTE-M communication
- Last gasp functionality
- Firmware can be updated
- Fraud detection

Electrical

- Ref. standard: EN 50470-1/3, IEC 62052-11
- Active and reactive measurement
- Accuracy:
 - Active: Class B
 - Reactive: Class 2
- Voltage: 3x230V(400V)
- Current: 0.25-5(100)A
- Max. conductor diameter: 35 mm²

AMR

- DLMS protocol compatible with ESMR 5
- Security: AES-128
- Real-time clock + calendar
- Current meter readings: index registers in kWh
- Periodic meter readings stored in memory:
 - 15-minute intervals over 10 days
 - 40 daily meter readings / 13 monthly readings
- Definable load profile: 960 entries
- Tariff control (day/night switching)

Interface - data ports

- LTE-M with eSIM for WAN connectivity:
 - Supported frequency bands: 3, 8, 20
 - 450 MHz support: bands: 31, 72
- Internal antenna
- MCX connector for external antenna
- Dot matrix LCD display and 1 push button
- Optical port for local configuration
- 485 port for Modbus RTU Master support

Technical specifications

- Power consumption: < 4 Watts
- Operating temperature range: -25 °C – 70 °C
- IP rating: IP51
- Dimensions (HxWxD in mm): 159.4x72x81
- Weight: 476 grams
- Expected service life: 20 years





Ready for every smart energy system

With the CompactIQ Meter, you're choosing a compact, smart and future-proof metering solution. It's quicker to install, saves space and integrates easily with existing systems. This allows you to achieve reliable energy metering and smart data integration in a single compact solution, ready for the energy projects of today and tomorrow.

CompactIQ thus supports the next step in energy management: smart, compact, flexible and ready for any application.