Electricity meter MTX with integrated LoRaWAN® radio module
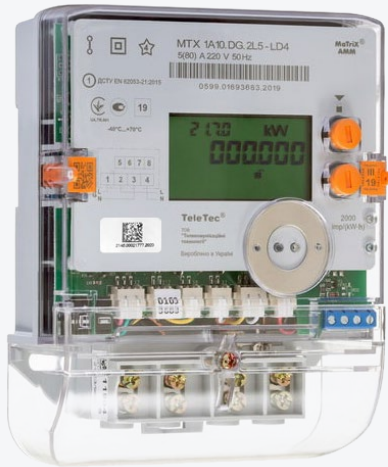

one-phase electricity meter

three-phase electricity meter
(transformer-connected/direct-connected)

Electricity meters with integrated radio modules are designed for measuring the active and reactive energy generation and consumption in the AC mains and automatically transmit readings to the supplier over a LoRaWAN® wireless network.

The device's smart sensors detect attempts at tampering, e.g., by a magnet or by compromising the meter body. All manipulations like these are registered on the event log. The electricity supplier then gets alerted about the attempt at altering the device's operation. Reports complete with the time and description of the incident is created by the operator dashboard on the utility company's side.

With smart electricity meters, utility companies, developers, housing cooperatives, property management companies, and industrial facilities can fully automate the collecting of readings and get accurate, trustworthy data about energy consumption.

- Remote collection of data from all metering points

- The device enables remote disconnection of non-payers as well as automated restoration of service once the debt is repaid

- Warranty period - 5 years

- Calibration interval:
  • 10 years for one-phase electricity meter
  • 16 years for three-phase electricity meter

- Device tampering alert (for example, removal or exposure to a magnet)

Operating principle

Electricity meters are installed in a specially equipped place protected from moisture. Its built-in radio module is then activated. Once powered on, the module is registered in the system automatically. Also, the device can be registered with the integrator mobile app.

The LoRaWAN® module collects meter readings at a preset interval and transmits them to the base station over an encrypted radio channel. Then the data is transmitted to the supplier's server software, where the electricity supplier can access them.

The MTX radio-enabled electricity meters provide electricity accounting with block or load rate tariffs (time of day, workday/weekend, or seasonal).

The device also enables remote disconnection of non-payers as well as automated restoration of service once the debt is repaid.

Universal solution

Automatic data collection from all metering points.

Jooby RDC Dashboard

Reports and user interfaces for 24/7 device status monitoring and readings accounting.

Utility companies cut resource accounting costs and get accurate consumption data.

Managing companies remotely track resource consumption, conveniently prepare reports, and promptly balance accounts.

Housing cooperatives get detailed reporting on resource consumption per flat and promptly detect reading tampering.

Developers get an innovative advantage over their competitors, provide cost-cutting opportunities for the managing company, and improve amenities for residents.

Enterprises improve the efficiency of resource consumption.

API for data exchange

Jooby devices use LoRaWAN® standard communication protocols and are easily integrated into any accounting system of the customer. A quick way to run your own IoT solution on our equipment.

Integrators quickly integrate their devices into the existing dispatch system and get access to the necessary documentation complete with a detailed device functionality list and customer service and support.

General characteristics

LoRaWAN® device class	C
Warranty	5 years
Max. amperage: for one-phase electricity meter for three-phase electricity meter	5 (80) A 5 (80) A (direct-connected) 5 (10) A (transformer-connected)
Electricity metering: for one-phase electricity meter for three-phase electricity meter	A+ A+R±
Rated voltage: for one-phase electricity meter for three-phase electricity meter	220 V 3*220/380 V
Accuracy class for one-phase electricity meter for three-phase electricity meter	1 1/2 (direct-connected) 0,5S/2 (transformer-connected)
Metering element count: for one-phase electricity meter for three-phase electricity meter	2 3
Calibration interval: for one-phase electricity meter for three-phase electricity meter	10 years 16 years

Features of a case design

OBIS code output to display	Yes
Protection from the unauthorized opening of meter body and terminal cover	Yes
Integrated indicator tamper seals and unique QR code	Yes

Optical port protection with a tamper-sealed button	Yes
Protection from software tampering and unsanctioned parametrization by a three-level password	Yes
Transparent body for visual inspection	Yes
Protection from magnetic/ electromagnetic tampering	Yes
Support for classic tamper seals	Yes

Automated meter reading and control system

Max. tariffs supported	Less then 4
No. of season settings	12
Daily archive depth	1 year
Monthly archive depth	4 years
Automated meter reading and control system support (internal and external)	Yes
Wireless protocol	LoRaWAN®
Remote control switch/load limiting	Yes
Remote parametrization	via automated meter reading and control system and optical port
Per-phase load chart archive (only for three-phase meters)	6 channels max.