



## The powerful engine behind the intelligent grid

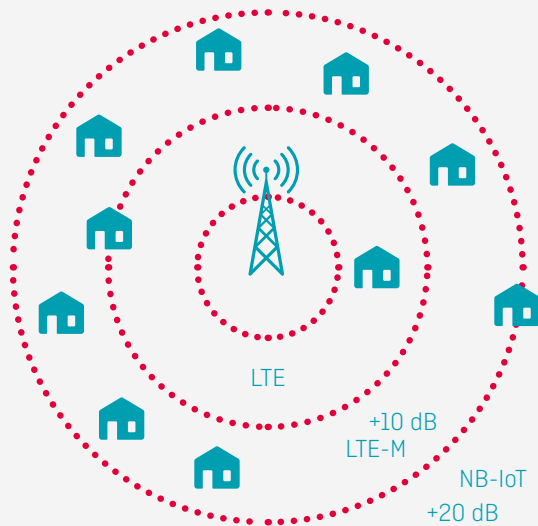
- Integrated cellular IoT communication
- Unrivalled measuring range and data granularity enable advanced analysis and grid optimization
- Quick installation for efficient smart meter rollouts





# Smart metering is a cornerstone in ensuring the optimal use of energy resources and utility assets with a potential that goes far beyond just collecting reliable meter data for billing purposes.

The digital utility of tomorrow uses smart meter data intelligently to gain actionable insights into what goes on in its distribution grid. And the journey begins with the Kamstrup OMNIA® e-meter – the powerful engine behind the intelligent grid.



*20 dB corresponds to one extra thick wall or several thinner walls*

## Maximum flexibility with cellular IoT

The Kamstrup OMNIA® e-meter is born with the latest IoT technology. It contains a dual technology modem capable of using both NB-IoT and LTE-M.

Unlike previous LTE technologies, LTE-M and NB-IoT are tailored to suit the needs of smart metering. This means that you get the needed bandwidth and a much better coverage than with other LTE technologies such as 4G.

And as the infrastructure is already in place, cellular communication eases the transfer to next generation metering and saves you the trouble of having to deal with maintaining a communication infrastructure.

## Combine NB-IoT and LTE-M to achieve

- High data rates and low latencies for most of the meters using LTE-M
- High coverage for hard-to-reach locations using NB-IoT

# The backbone of the data-driven utility

## Prevent power outages and other incidents

Power outages and other grid incidents can be prevented by looking for early warnings such as frequency variations, voltage variations and harmonic content. But locating the root cause of a voltage quality incident can be difficult and time-consuming.

The Kamstrup OMNIA® e-meter builds on a ground-breaking EPU architecture that allows it to analyse very short periods of voltage and current. The extreme granularity lets utilities locate the root cause of voltage quality problems quickly without unnecessary field visits looking for the needle in the haystack.

## Say hello to improved asset management and grid planning

The measurement range and accuracy of the Kamstrup OMNIA® e-meter are way above industry standard and provide a solid foundation for advanced analysis and grid optimisation in the analytics application of your choice.

The use of cellular IoT technologies enables the transfer of larger amounts of data to support customer service and network maintenance.

## Did you know...

The EPU (Electricity Processing Unit) is the core of a static electricity meter. It is where the voltage and current is measured and processed into energy data.



## Made with efficient rollouts in mind

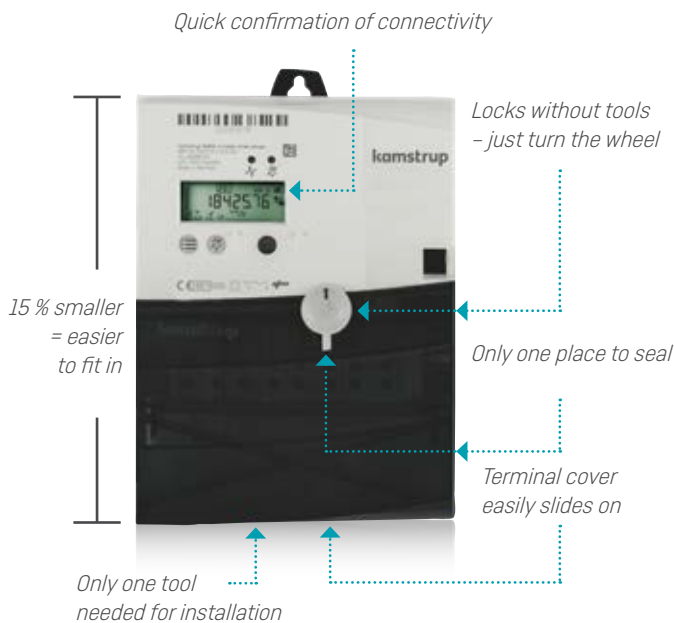
A smart meter rollout is a substantial investment and there is a lot more to the cost of a meter than just its price tag.

The Kamstrup OMNIA® e-meter is designed to save you time and trouble during rollout. Cellular IoT communication eases rollout planning by quite simply eliminating it: since the communication infrastructure is already in place, you decide when and where the next meter should be installed.

The user-friendly design of the Kamstrup OMNIA® e-meter has reduced installation time by 1,5 minutes per meter. Two-stage connectivity verification means that connectivity is verified instantly and the installer doesn't have to wait around or leave prematurely at the risk of having to revisit the installation.

## Did you know...

- Unconfirmed connectivity causes revisits to 3-5% of rural and 1% of urban meter installations on average
- Revisits have an average cost of EUR 70
- Reducing the number of revisits can bring down the cost of a smart meter rollout



## Not all utilities are the same. Why should meters be?

The Kamstrup OMNIA® e-meter offers the possibility of customizing the meter configuration to match your specific needs. And since its powerful core allows for full benefit of future over-the-air firmware upgrades, the meter is an asset that becomes even more valuable over time.

### Integrated flexibility options include:

- Demand response using integrated load control
- Adding smart home equipment for consumer engagement

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