Prosumer Meter

Bringing optimization and intelligence to solar energy
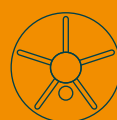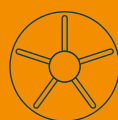
3x3 phase meter

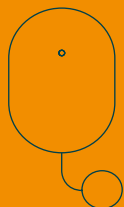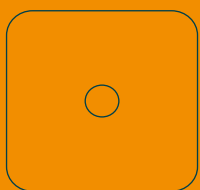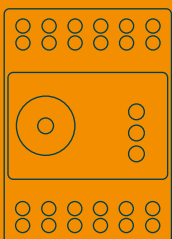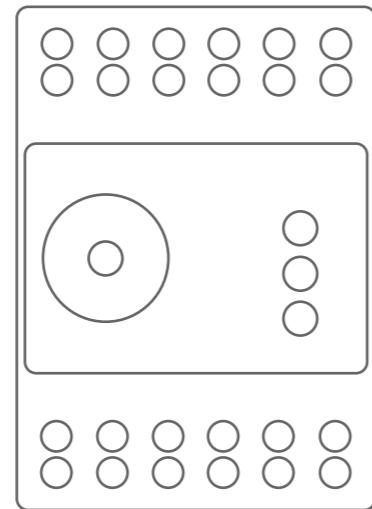The Prosumer Meter is designed to monitor and optimize solar energy usage of households with a photovoltaic system. The Prosumer Meter is a triple three phase meter, measuring production and consumption of energy on all three levels: the solar cell module itself, the total household, and the connected grid.

Real-time measurements

The meter allows active prosumers to get a live feed of how much power is produced from their photovoltaic panels and compare it to the total consumption of the household as well as to grid activity (conventional meter functionality).

Precise data

By logging the power consumption in all directions in 5-minute intervals, the Prosumer Meter enables monitoring of long-term patterns and deliverance of power consumption in all three different dimensions. The Prosumer Meter also offers the flexibility of using it as two three phase meters for separate groups in a building. The meter can set up notifications regarding energy, power, voltage, and current per phase or in total. All data are sent via Zigbee to a gateway. The Prosumer Meter is mounted directly on a DIN rail, with the size of 4 standard DIN modules. Please note that the Prosumer Meter is not certified for billing.

Key features
- 3 x 3 phase meter
- Real-time data logging & monitoring
- Zigbee cerfied
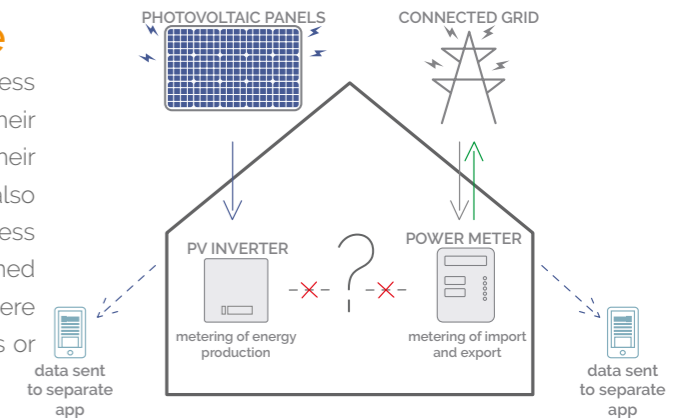
How to build a Prosumer Meter solution

Due to its flexibility, several solutions are possible using the Prosumer Meter:

| Solution	Basic solution	Hardware turnkey solution	Full turnkey solution
Products	Prosumer Meter + existing gateway	Prosumer Meter + Squid.link Gateway (Open software platform)	Customized turnkey solution via 3rd party software providers
Target groups	Smart home providers	Software companies	Utilities and PV resellers/ installers

Conventional energy usage

Today, households with a photovoltaic system can access data showing the amount of energy produced from their photovoltaic panels. Separately, information about their energy import and export to the connected grid is also available. However, these households cannot assess measurements of the percentage of energy consumed coming from their own photovoltaic panels. Moreover, there is no understanding of how this translates into earnings or costs.

PHOTOVOLTAIC PANELS CONNECTED GRID
PV INVERTER POWER METER
metering of energy production metering of import and export
data sent to separate app data sent to separate app

Informed energy usage

To provide the households with this information, the Prosumer Meter integrates photovoltaic systems in smart home and smart metering solutions. The meter simply allows households to monitor their energy production combined with their consumption and provides an overview of the total result of this.

APP
data sent to one app
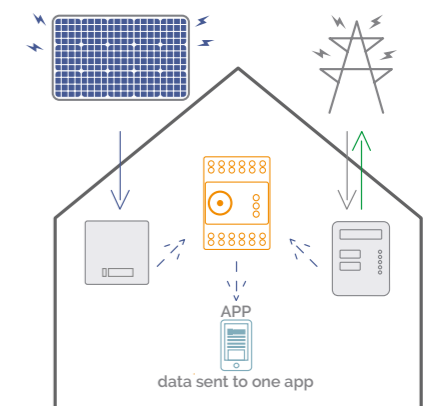
Intelligent energy usage

The Prosumer Meter also enables households to optimize their power consumption. With real-time measurements of the solar energy production and household power consumption, the Prosumer Meter puts prosumers in the position to move their consumption to time intervals with high production in their own photovoltaic system.
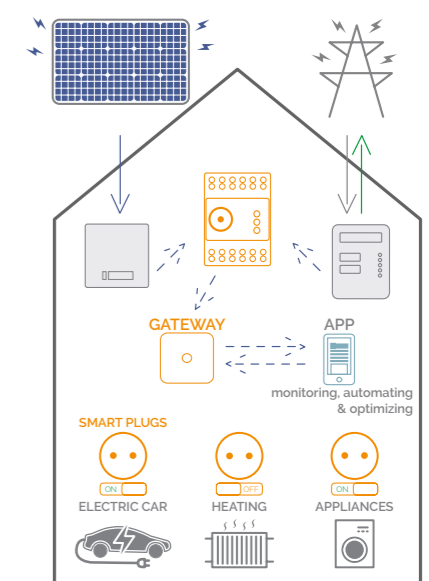
Cost savings

Through optimization of the energy usage, the Prosumer Meter offers households the option to save money on their power consumption. Within each household, heating can be moderated to balance with their own power production, usage of power items can be lowered during cost times, and charging of e.g. electric cars can be moved to periods with high production from their own photovoltaic panels.

GATEWAY APP
monitoring, automating & optimizing
SMART PLUGS
ELECTRIC CAR HEATING APPLIANCES

By bringing intelligence to solar energy, the Prosumer Meter opens a whole new world of opportunities for managing energy in smart homes.

Prosumer Meter - Technical specifications

Model number: SMMZB-310

General

Dimensions (W x H x D)	71 x 97x 70 mm
Color	RAL 7035
Power supply	3 x 230/400V (Neutral) +/-10%
Power consumption	1.5 W
Radio	Sensitivity: -98 dBm
	Output power: +8 dBm
	External antenna connection
Environment	Operation temperature -10 to +50°C
	IP class: IP20 for terminals
	IP51 for the body within the panel

Functions

Power meter	Accuracy: better than 2%
	Reported resolution: 1 W
	Max wire diameter: 5.5 mm
	Frequency: 45 to 65 Hz, resolution 0.01 Hz
	Data storage: 3 months
	Max rated current: 60 Amp per phase
	228 Amp in total (6 phases)

Communication

Wireless protocol	Zigbee Home Automation
	Zigbee Smart Energy

Certifications

	Conforming to CE, RoHS and REACH directives
	Zigbee Smart Energy 1.1B certified

zigbee
certified product

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