Smappee Infinity

Introducing the next revolution
in smart energy technology.

smappee

Smappee, the world's smartest energy management system.

Smappee Infinity provides Energy Service Companies and OEM customers with the most comprehensive, future-proof, smart energy offering on the market with the flexibility that it can be tailored to your needs. The modular and global solution delivers increased energy efficiency thanks to detailed, real-time energy insights with not just one, but three methods for submetering electricity. Add solar, gas and water for a complete overview of all your energy flows at a glance. Smappee Infinity is easy to install and to integrate with IoT services, and features optimized self-consumption, delivering exceptional value for your residential and business customers.

Low-cost, quick installation.

Thanks to its quick and easy installation and low maintenance costs, Smappee Infinity's total cost of ownership compares favourable with other competing solutions. The compact plug-and-play system is robust and reliable, with hubs connecting current clamps (CTs). That way you spend less time on the set-up and more time on saving energy for you and your customer.

Fast, accurate energy data tailored to your needs.

Smappee collects real-time production and consumption data down to the appliance level. By combining traditional submetering clamps, our smart Smappee Switch and our patented appliance recognition technology, Smappee offers the most complete and comprehensive set of submetering options available on the market. Not only does this provide a large amount of highly valuable, actionable data but providers and users can also access this data in multiple ways. There's an API for integration with EMS/BMS systems, a flexible professional dashboard for in-depth analyses, and a user-friendly app for consumers.
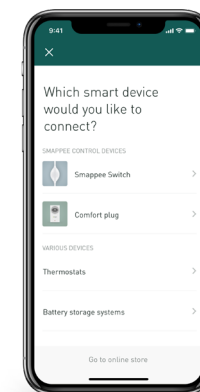
Modular and comprehensive.

We know every customer is different. Which is why we've developed Smappee Infinity with flexibility in mind. Our comprehensive offering means you can pick and choose the features and services you need in order to deliver a solution that is tailored to your customer's needs. Do you need more control, data or services over time? No problem! Thanks to the modularity of Smappee Infinity, you can always build on the existing solution to meet your changing needs.

Keep control and optimize self-consumption.

Smappee Infinity uses the MQTT communication protocol and can easily pair with IoT products and platforms such as Nest and Amazon Alexa. Or simply add a Smappee Switch to control more appliances. Our energy traffic control technology even directs energy to EV chargers and battery storage to provide additional efficiency and peace of mind for you and your customer.

The ingenuity of the Smappee technology.

1 Smappee CT Hub

The CT Hub is the main component of the monitoring system. You can connect up to 4 CTs or Rogowski coils to the CT Hub to measure different currents, ranging from 50 A to 1,000 A. This allows for accurate submetering of (a group of) appliances. Daisy chain up to 7 CT Hubs to measure different installations up to a distance of 100 meters (109 yards).
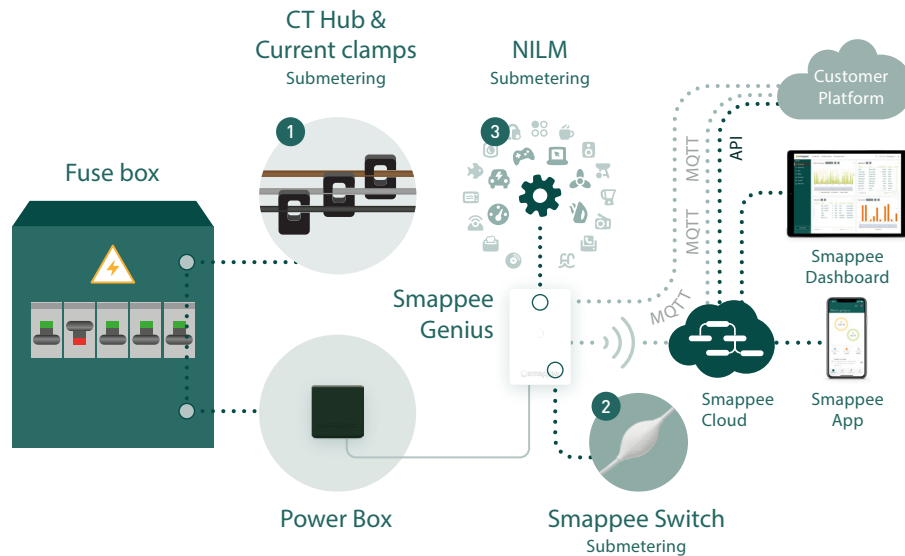
2 Smappee Power Box

The Power Box is the heart of the monitoring system as it provides power to all components. It measures the line voltage of the different connected phases and transfers the data via the Smappee Bus.

3 Smappee Genius

The Genius is the gateway between the monitoring system and the Smappee Cloud, ensuring secure data storage from different components. It also interacts with third party components, Smappee Gas & Water and Smappee Switch. Thanks to these various options, Smappee Genius allows Smappee Infinity to take on the role of a Home or Building Energy Management System (HEMS or BMS) and guarantee optimized self-consumption.

The infinite possibilities of the Smappee architecture.

CT Hub & Current clamps
Submetering

NILM
Submetering

①

③

Customer Platform

Fuse box

Smappee Genius

MQTT
MQTT
MQTT
API

Smappee Dashboard

MQTT

②

Power Box

Smappee Switch
Submetering

Smappee Cloud

Smappee App

Access complete submetering.

Smappee offers the most complete and comprehensive set of submetering options available on the market allowing your company to lock in the level of accuracy, installation requirements and budget that best fit your specific needs.

① Submeter at the source: attach current clamps to the distribution panel. Depending on your electrical installation, you can measure up to 28 circuits of certain appliances or a group of appliances separately. Gather the most accurate energy data down to the appliance level and find out more about appliances with a variable profile, such as a heat pump or an EV charger.

② Supplement the Smappee Infinity with the Smappee Switch. In addition to remotely controlling appliances, Smappee Switch, our genuinely intelligent smart plug, is also a single phase submeter. Just connect the Switch between the power outlet and the appliance or a power strip. It accurately measures the energy consumption of the connected appliance or group of appliances (up to 16 A).

③ Submeter using patented NILM (Non-Intrusive Load Monitoring). By attaching a clamp to your power cable, Smappee can use NILM to detect appliances and their estimated consumption. This load disaggregation technology records the energy signal from a building and breaks it down into data that can be assigned to specific appliances. This functionality is disabled by default.

Plug and play.

Thanks to the compact hardware, Smappee Infinity easily fits into any distribution panel. Once the system is up and running, the maintenance requires little effort, resulting in a low TCO. The two-step installation process consists of the physical installation in the distribution panel and the configuration with the installation wizard in the Smappee App or Dashboard. Prepare the set-up before the physical installation at the customer to gain extra time.

Tailored data access and visualization.

Smappee offers a full range of interfacing options, with visualization of your data tailored to your needs.

API

Dashboard for professionals

This comprehensive web-based tool can be used for graphic and numerical analysis, to track data on a periodic basis (regular intervals: 5-minute, hourly, daily, monthly and yearly). Add the 'Cards' to visualize the data for each site according to your preference, easily compare results and export the required data as a .csv file, using the download button. The dashboard includes a first line support functionality, allowing you to help your customers remotely.

Mobile App

Our user-friendly consumer app is available for iOS and Android. It visualizes real-time energy data and graphs with historical overviews by day, week, month and year. Consumers can detect always-on power, energy guzzlers and learn more about their energy consumption and how much it costs. The app also allows them to control connected appliances and to set scenes to automate energy flows that optimize energy efficiency. The app offers different levels of branding and customized messaging options for our partners.

API

Our well-documented API facilitates easy integration with other EMS/BMS systems. This allows ESCOs and OEM customers to combine Smappee data with other data, creating added value for their business and their customers.

Interoperability with IoT products.

Smappee continuously expands its ecosystem with compatible third party products and services that you can also use to enrich your offer. Smappee also lets partners integrate our technology in their products or services. We work with IP based connections and standards such as Modbus, IoT language MQTT and OCPP to quickly develop new use cases and speed up integration.

Energy traffic control for optimized energy efficiency and auto-consumption.

A growing number of people have or are considering solar panels, EV, heat pumps and other environmentally friendly investments. These investments make energy installations more complex and require an energy management system that manages their energy flows. Smappee can take on the role of energy traffic controller. It automatically manages the energy flows in the best possible way with the Smappee Switch or custom-created scenes.

For example, why not use your solar power for your heat pump instead of sending it back to the grid or store it in your home battery for later? Automatically send less power to the charging station of your electric car when you start cooking so you do not risk blowing your fuses. Controlling your energy flows enables you to optimize energy efficiency and auto-consumption, turning your building into a smart, decentralized power hub.

Specifications.

Smappee CT Hub

Dimensions:
70 × 31 × 23 mm
(2.75 × 1.22 × 0.90 inch)

Weight: 29 g (1.02 oz)

Working temperature:
-10 °C to 70 °C (14 °F to 158 °F)

Storage temperature:
-20 °C to 90 °C (-4 °F to 194 °F)

Relative humidity:
0 % - 95 % non-condensing

EMC: IEC-61326-1,
FCC 47 part 15

Connectivity:
• Smappee Bus A
• 4 inputs for Smappee split
  core CTs (50 A, 100 A, 200 A, 400 A, 800
  A) and Rogowski coils (1,000 A). More
  than 1,000 A (Contact Smappee)

Included accessories:
• Smappee Bus Cable 40 cm (15.75 inch)

Smappee Power Box

Dimensions:
55 × 55 × 26.6 mm
(2.17 × 2.17 × 1.05 inch)

Weight: 44 g (1.55 oz)

Working temperature:
-10 °C to 50 °C (14 °F to 122 °F)
Higher working temperatures possible
depending on connected CT Hubs

Storage temperature:
-20 °C to 90 °C (-4 °F to 194 °F)

Relative humidity:
0 % - 95 % non-condensing

EMC: IEC-61326-1,
FCC 47 part 15

Power supply input:
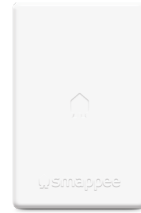90 – 264 V AC

Power consumption: 5 W

Voltage measurement inputs:
L1, L2, L3, N

Topology and maximum nominal ranges:
• Single phase: 240 Vrms
• Split phase: 120/240 Vrms
• 3 phase 3 wires: 240 Vrms
• 3 phase 4 wires: 240/415 Vrms

Frequency: 50/60 Hz

Connectivity:
• Smappee Bus A and B
• Modbus RS485 interface

Included accessories:
• Mounting plate (DIN or wall)
• Power cable 90 cm (35.43 inch)

Smappee Genius

Dimensions:
108 × 69 × 25 mm
(4.25 × 2.72 × 0.98 inch)

Weight: 119 g (4.20 oz)

Working temperature:
-10 °C to 60 °C (14 °F to 140 °F)

Storage temperature:
-20 °C to 90 °C (-4 °F to 194 °F)

Relative humidity:
0 % - 95 % non-condensing

EMC: IEC-61326-1,
FCC 47 part 15

Connectivity:
• Smappee Bus B
• Ethernet 100 BASE-T
• WiFi 2.4 GHz
• Bluetooth 5 (optional)
• 2G/3G/4G (USB Dongle)
• RF433 MHz/915 MHz

Included accessories:
• Mounting plate (DIN or wall)
• Smappee Bus Cable 150 cm
  (59 inch)

Accessories.

Smappee Switch

Functionalities:
• Remotely control appliances
• Measure the exact use of an
  appliance or group of appliances

Dimensions: 600 mm (23.62 inch)

Working temperature:
5 °C to 40 °C (41 °F to 104 °F)

Storage temperature:
-10 °C to 60 °C (14 °F to 140 °F)

Relative humidity:
0 to 80%, 5 °C to 40 °C (41 °F to 104 °F)

Protection class: IP20

Connectivity:
RF433 MHz/915 MHz

Switching up to 16 A (country-specific)

Fitted with the most frequently used plugs
(B, E, F, G,I, J, L, M) or open-ended

Configure up to 20 Switches with 1
Smappee Genius

Smappee Gas & Water

Functionalities:
• Track gas and water
  consumption
• Receive alerts about abnormal
  consumption or leaks

Power:
2 AA batteries

Connectivity:
• RF433 MHz
  range 20-30 m (21.87 to 32.80 yard)
  without obstacles
• Bluetooth 4.0
  range up to 7 m (7.65 yard)

2 inputs for 2 sensors

Included accessories:
• 1 magnetic sensor
  cable length 2 m (78.74 inch)
• 1 optical sensor
  cable length 1.4 m (55.11 inch)
• 2 AA batteries

Save your customers money and grow your business with one single system.

- Save yourself and your customers energy and money.
- Optimize auto-consumption.
- Verify the impact of energy-saving measures.
- Interoperable with IoT products.
- Easy installation, low maintenance.
- Tailored dashboard with real-time and historical data.
- Protects your data and your privacy.
- Modular, future-proof solution.

smappee

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