Installation Manual

Version 1.01

May 2014 (English), version 1.0

Table of contents

Introduction

The Smappee monitor is a device that measures the energy consumption of your electrical appliances with one sensor close to the fuse box. The sensor is clamped to the main cable and records the energy use. The various devices are recognized by their energy signature or the electrical traces they leave. If you have solar panels, you can also use the Smappee monitor to measure the energy generated.

The Smappee monitor is installed close to the fuse box. It then starts measuring your energy consumption and the yield of your solar panels as well as communicating with your smartphone or tablet. The Smappee app gives you direct insight in your energy consumption, energy costs and the yield of your solar panels. To save on energy costs and contribute to a greener environment, you can take on energy guzzlers and standby power.

This manual describes the installation of the Smappee monitor. All information about the WiFi configuration of the Smappee monitor and the use of the Smappee app can be found in the *Smappee user's manual.*

Read before use

Warnings

Please observe the following safety precautions to avoid possible electric shocks, fire, or personal injury:

- Use the product only as specified as otherwise the safety of the product is not sufficient.
- Do not use the product in environments with explosive gas or vapours, nor in damp or wet environments.
- Do not use damaged power cords and cables. Check the power cords and cables for damaged insulation and exposed metal. Check the connection of the power cords.
- Use only the power cord and cables that are supplied with the product.
- Do not use the product if it is damaged.
- Reparations should only be done by authorized technicians.
- Do not open the product. There is a potential for exposure to hazardous voltage.
- Use only specified replacement parts.
- Do not connect the product to a voltage higher than 240 V.
- Turn off the main power switch before you start the installation of the product.
- Follow local and national safety regulations for installation and use of electrical equipment.

Maintenance

- Clean only the outside with a dry, clean cloth.
- Do not use abrasive agents or solvents.

Technical specifications

- Dimensions: 16 cm (L) x 10 cm (W) x 3,5 cm (H)
- Weight: 300 grams
- Wi-Fi 802.11 b/g/n 2.4 GHz
- Work temperature: 5°C to 40°C
- Storage temperature:-10°C to 60°C
- Relative humidity: 0-80% 5°C to 40°C
- Sealing IP 20.
- Work altitude: 0 to 2.000 meters
- EMC: EN 55022 (Class B)
- Safety: EN61010-1 Ed 3.0 (2010-06), EN61010-2-032 Ed 3.0 (2012-09)
- Overvoltage category: 300 V/CAT II
- ~110-240V 50/60Hz Max 5W

Connecting the Smappee monitor

This chapter describes how to connect the Smappee monitor to your fusebox.

There are three options for the connection:

1. Single phase without solar panels
2. Single phase with solar panels
3. Three-phase connection without solar panels

Whether the single-phase or three-phase connection is applicable, depends on your fusebox.

Attention! Before you can connect the Smappee monitor you must first connect it to your WiFi network as described in the *Smappee user manual*.

Installation video's can be viewed at: http://www.smappee.com/be_nl/support.

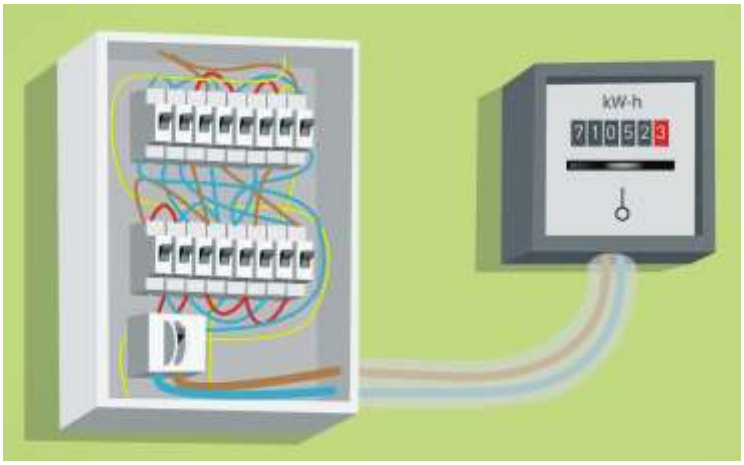
For the connection and safe operation you need:

- The Smappee monitor.
- The power cord and the power clamp(s) supplied with the monitor.

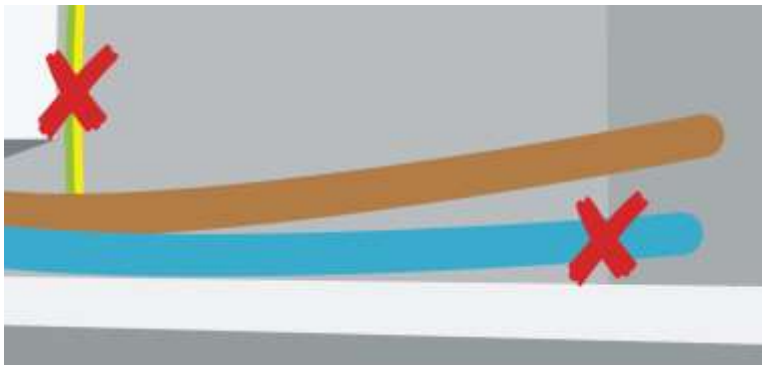
Single-phase connection without solar panels

The following steps describe **the single-phase connection without solar panels.**

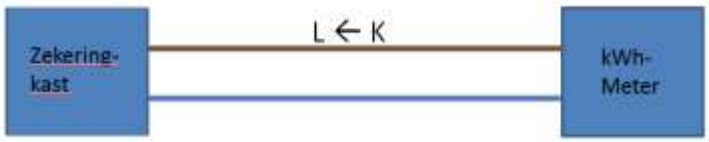
1. Turn off the electricity.
2. Open the fuse box and choose the brown (or black) cable deriving from the electricity (kWh) meter:



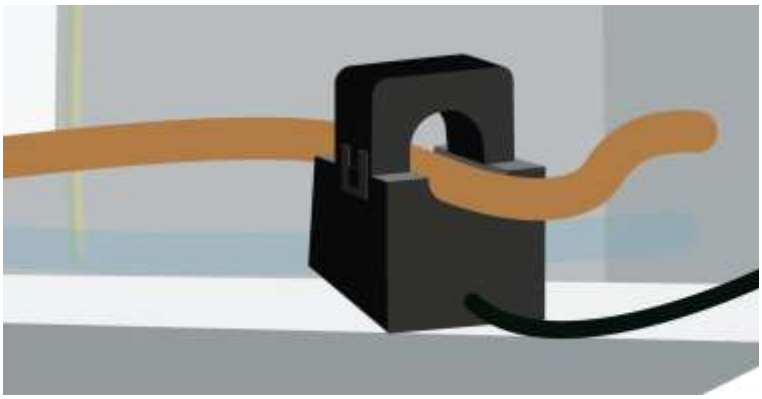
Do not in any case choose the blue or yellow/green cable!



3. Then take the current clamp and check for the symbol **K ← L** in the clamp. Make sure that **L** points in the direction of the fuse box and **K** in the direction of the electricity meter.



4. Place in the fuse box the power clamp over the brown (or black) cable. Make sure that you properly close the clamp by pressing your thumb on the side until you hear a click.



5. Plug the end of the clamp cable into input 1 of the Smappee monitor.

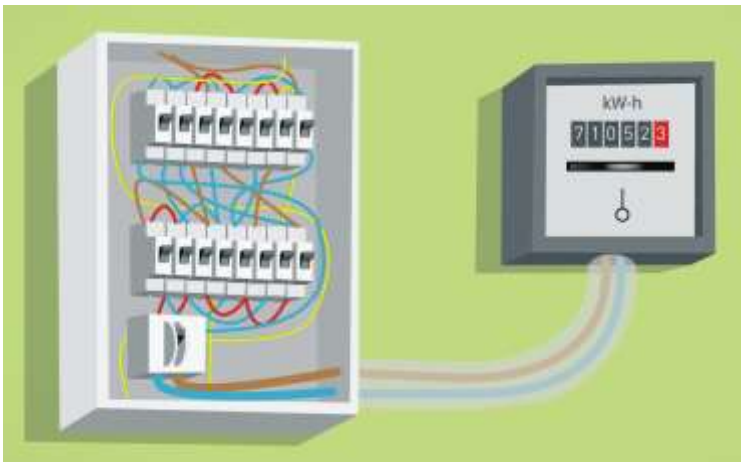
6. Close the fuse box taking care not to jam the cable.
7. Turn the electricity back on.
8. Plug the power cord for the monitor into the wall socket and wait until the monitor shows a green heartbeat. Information about the colour codes can be found in the *Smappee user manual*.

9. You can now get started with the Smappee app as described in the *Smappee user manual.*

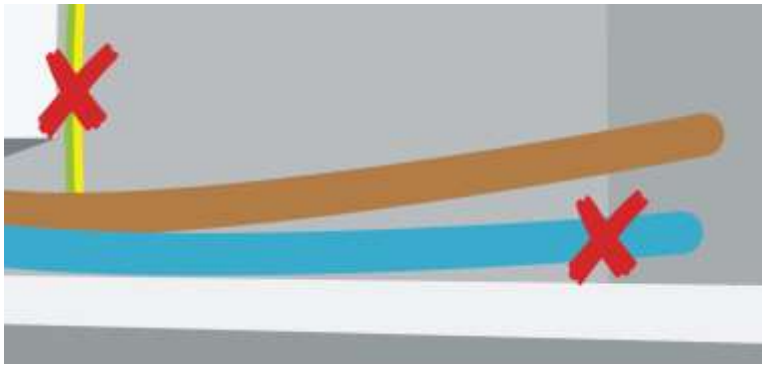
Single-phase connection with solar panels

The following steps describe **the single-phase connection with solar panels.**

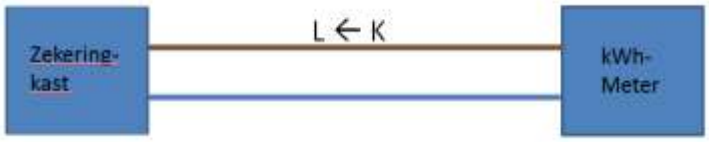
1. Turn off the electricity and disconnect the power supply from the solar panels.
2. Open the fuse box and choose the brown (or black) cable deriving from the current meter:



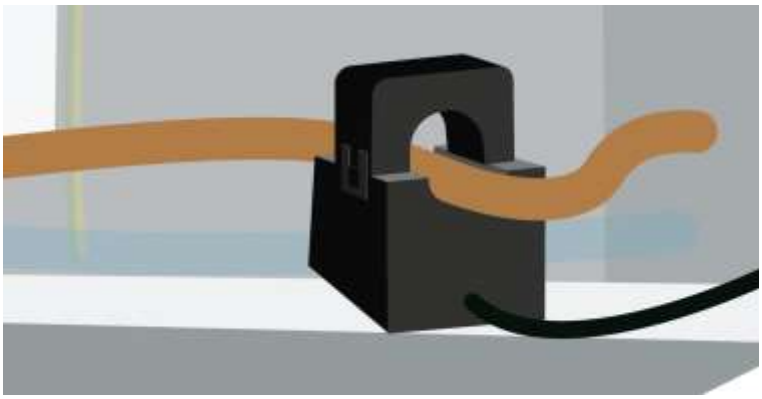
Do not in any case choose the blue or yellow / green cable!



3. Then take the current clamp and check for the symbol **K ← L** in the clamp. Make sure that **L** points in the direction of the fuse box and **K** in the direction of the current meter.

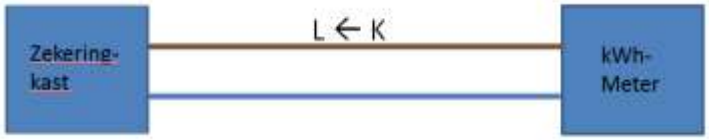


4. Place in the fuse box the power clamp over the brown (or black) cable. Make sure that you properly close the clamp by pressing your thumb on the side until you hear a click.

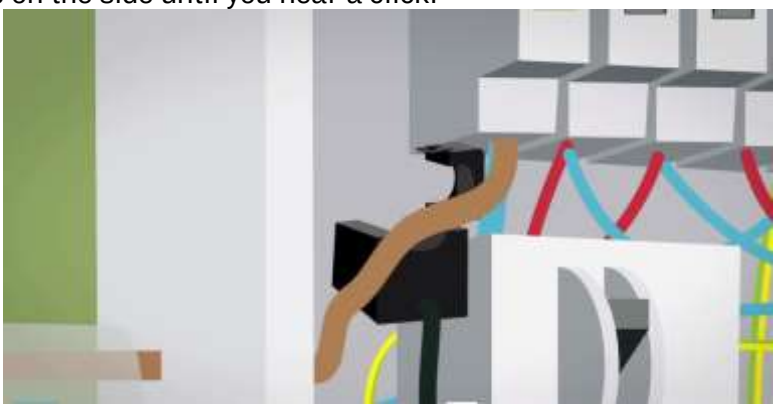


5. Plug the end of the clamp cable into input 1 of the Smappee monitor.

6. Take the second current clamp and check for the symbol **K ← L** in the clamp. Make sure that **K** points in the direction of the converter and **L** in the direction of the fuse box.



7. Place in the fuse box the power clamp over the brown (or black) cable deriving from the PV converter. Make sure that you properly close the current clamp by pressing your thumb on the side until you hear a click.



8. Plug the cable of the second clamp cable to input 2 of the Smappee monitor.

9. Close the fuse box taking care not to jam the cables
10. Turn the electricity back on and re-connect the power supply from the solar panels.
11. Plug the power cord for the monitor into the wall socket and wait until the monitor shows a green heartbeat. Information about the colour codes can be found in the *Smappee user manual*.

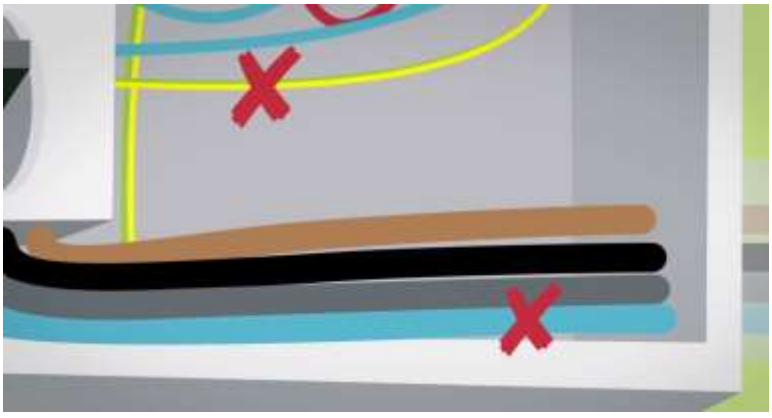
12. You can now get started with the Smappee app as described in the *Smappee user manual.*

Three-phase connection without solar panels

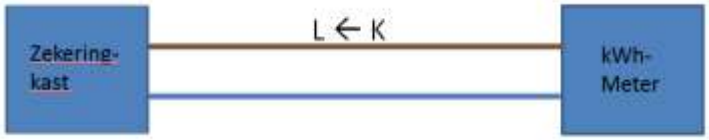
The following steps describe **the three-phase connection without solar panels.**

1. Turn off the electricity.
2. Open the fuse box and choose the brown, black or grey cables deriving from the electricity meter: If there is no grey cable, then choose the brown one plus two black cables.

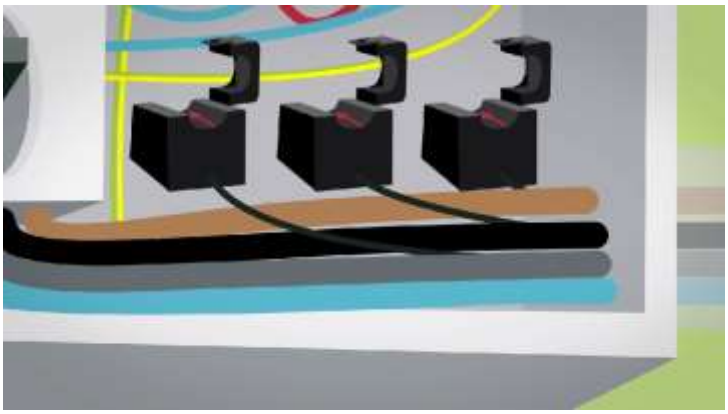
Do not in any case choose the blue or yellow / green cable!



3. Then grab the current clamps and check for the symbol **K ← L** in the clamps. Make sure that in all clamps **L** points in the direction of the fuse box and **K** in the direction of the electricity meter.



4. Place in the fuse box the power clamps over the brown, black and grey cables. Make sure that you properly close the clamps by pressing your thumb on the side until you hear a click.



5. Plug the ends of the power clamp cables into input 1, 2 and 3 of the Smappee monitor

1. Close the fuse box taking care not to jam the cables
2. Turn the electricity back on.
3. Plug the power cord for the monitor into the wall socket and wait until the monitor shows a green heartbeat. Information about the colour codes can be found in the *Smappee user manual*.

4. You can now get started with the Smappee app as described in the *Smappee user manual.*

Declaration of Conformity

October 5, 2013

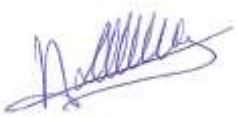
We,
Smappee nv
Evolis 100
8500 Kortrijk
Belgium

following the provision of the following EC Directives:
- 2006/95/EC The Low Voltage Directive
- 2004/108/EEC The Electromagnetic Compatibility Directive
1999/5/EC R&TTE Directive

hereby declare that the product:
Smappee monitor-e1

is in conformity with the applicable requirements of the following documents
* Emissions:
    Radiated Emission EN 55022 (Class B)
    Conducted Emission EN 55022 (Class B)
    EN 61000-3-2
    EN 61000-3-3
* Immunity:
    EN 55024
    EN 61000-4-2
    EN 61000-4-3
    EN 61000-4-4
    EN 61000-4-5
    EN 61000-4-6
    EN 61000-4-1
* Safety:
    EN61010-1 Ed 3.0 (2010-06),
    EN61010-2-032 Ed 3.0 (2012-09)

Authorized signatory



Hans Delabie
Chief Operating Officer