Smappee EV Wall Home

Installation manual

English – 3.01 – February 2025

smappee

Document accuracy

The specifications and other information in this document were verified to be accurate and complete at the time of its publication. Due to ongoing product improvement, this information is subject to change at any time without prior notice. For the latest information, see our online documentation: smappee.com/downloads

Table of contents

1 Introduction

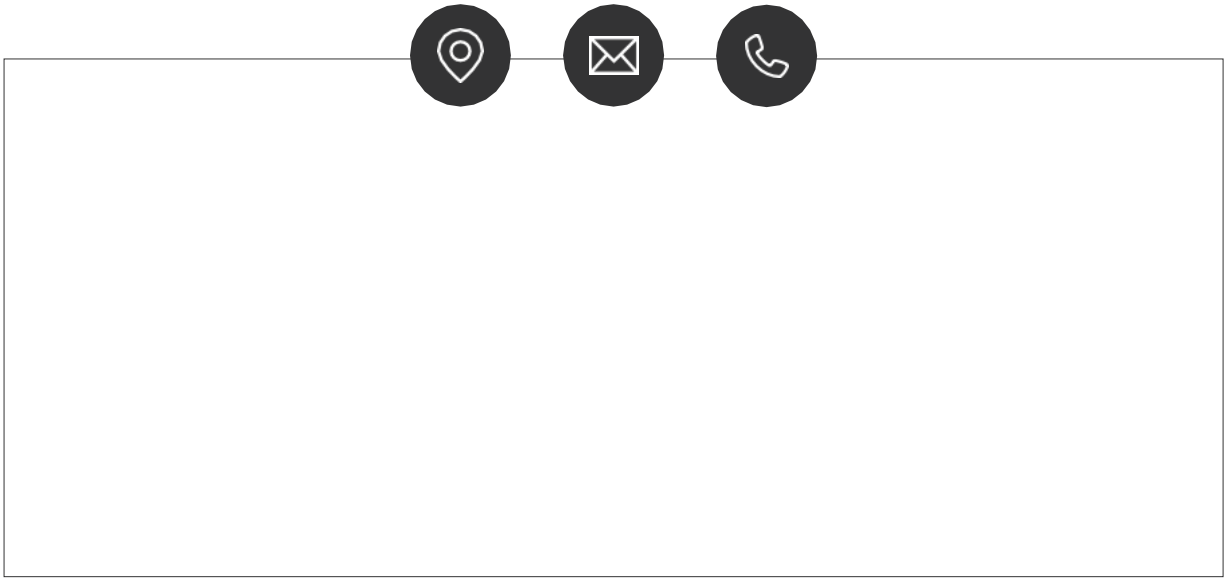
Thank you for purchasing this EV Wall charging station for electric vehicles, the smartest charging station.

This installation manual tells you how to install the EV Wall Home. We recommend that you read the contents of this manual carefully, to ensure a safe and proper installation and enable to use all the advanced features of this product to the full.

Support

Only qualified electricians or equivalent may install the charging station. If you have any questions, please contact your service partner.

Please have the following information ready to hand to speed up the process: Article number and serial number which you can find on the identification label of the charging station.



Should your local distributor be unable to help you, or you have a suggestion for us, you can contact Smappee at: **support@smappee.com**.

Smappee NV
Evolis 104
8530 Harelbeke
Belgium

2 Safety instructions

2.1 Safety warnings and precautions

	WARNING Carrying out activities on this charging station without the relevant knowledge and qualifications can lead to serious accidents and death. Only carry out tasks for which you are qualified and have been fully instructed. Only certified electricians may carry out the installation, which must be in accordance with the national safety regulations. Fully read and follow the safety instructions below before you install, service or use your EV Wall. Incorrect installation, repairs or modifications can result in danger to the user and may void the warranty and liability.

	CAUTION Risk of electric shock. Refer to the accompanying documentation whenever you see this symbol.

Please observe the following safety precautions to avoid potential electric shock, fire, or personal injury:

- Use the correct tools and provide sufficient material resources and protection measures.
- The charging station is, when installed correctly, intended to be used by untrained individuals to exclusively charge their electric vehicle.
- Do not allow children to operate a charging station.
- When a charging station is in use, adult supervision of any children present is required.
- Switch off electrical power supply to your charging station before installation or maintenance work.
- Do not use the charging station if it is damaged or defective.
- Do not immerse the charging station in water or any other liquids.
- Do not expose the charging station to heat, flame or extreme cold.
- Do not attempt to open, repair, or service any parts. Contact Smappee or your service partner for further information.
- Only use the charging station under the specified operating conditions.
- While charging the charging cable must be completely unwound and connected to the electric car without overlapping loops. This to avoid the risk of overheating the charging cable.
- After charging store the charging cable properly so it does not present a tripping hazard. Make sure the charging cable cannot become damaged (kinked, compressed or driven over).
- Do not place any objects on the charging station.

2.2 Maintenance

- Observe the maintenance schedule (page 41).
- Clean the outside only with a dry, clean cloth.
- Do not use abrasive agents or solvents.
- May not be carried out during rain or if air humidity exceeds 95 %.

2.3 Transport and storage

- Disconnect electrical power supply before removing the charging station for storage or relocation.
- Only transport and store the charging station in its original packaging. No liability for damage incurred will be accepted if the charging station is transported in non-standard packaging.
- Store the charging station in a dry environment within the temperature range specified in the technical specifications.

3 Overview of the EV Wall Home

3.1 Models

Article number	EAN	Description
EVW-132-BR-E-W	5425036931916	EV Wall Home 1-Phase 7.4 kW Socket
EVW-132-BSR-E-W	5425036932722	EV Wall Home 1-Phase 7.4 KW Socket with shutter
EVW-132-C8R-E-W	5425036931992	EV Wall Home 1-Phase 7.4 kW Type 2 cable 8m with cable holder
EVW-332-BR-E-W	5425036932036	EV Wall Home 3-Phase 22 kW Socket
EVW-332-BSR-E-W	5425036932739	EV Wall Home 3-Phase 22 kW Socket with shutter
EVW-332-C8R-E-W	5425036932111	EV Wall Home 3-Phase 22 kW Type 2 cable 8m with cable holder
EVW-332-C8R-E-B	5425036932128	EV Wall Home Black 3-Phase 22 kW Type 2 cable 8m with cable holder

3.2 What's in the boxes

In the box of the EV Wall is an Accessory Box. The content of the Accessory Box is related to the single-phase or three-phase model. If the EV Wall has a charging cable, there is a Charging cable box attached to the EV Wall box.

EV Wall box

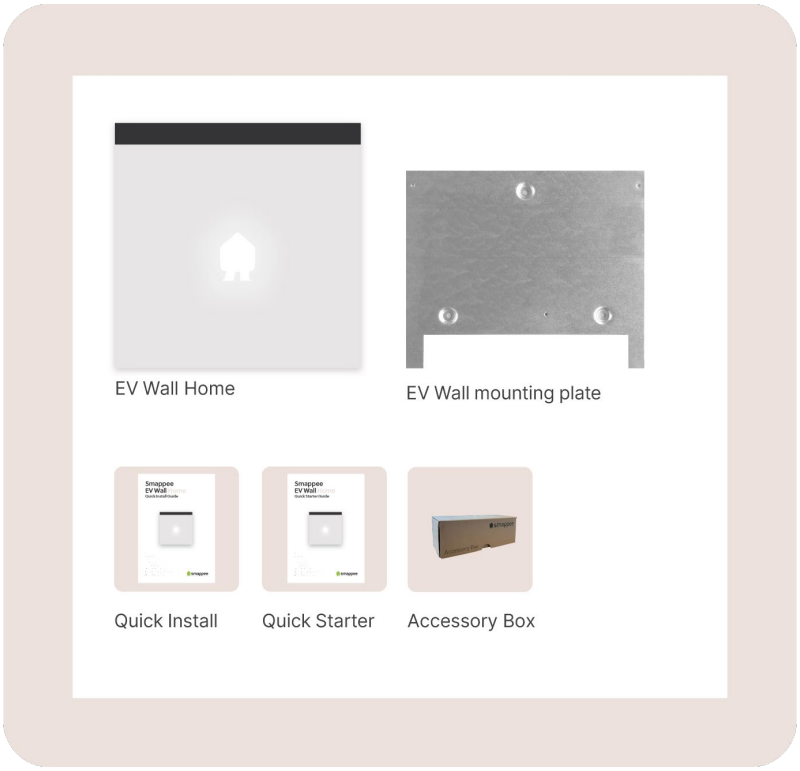


Image 1: Content of the box with the charger

Quantity	Description
1	Smappee EV Wall
1	Wall mounting plate
1	Quick install guide
1	Quick starter guide with Smart Charge Card and QR code label
1	Accessory Box, refer to the following topics

Accessory Box for a single-phase EV Wall

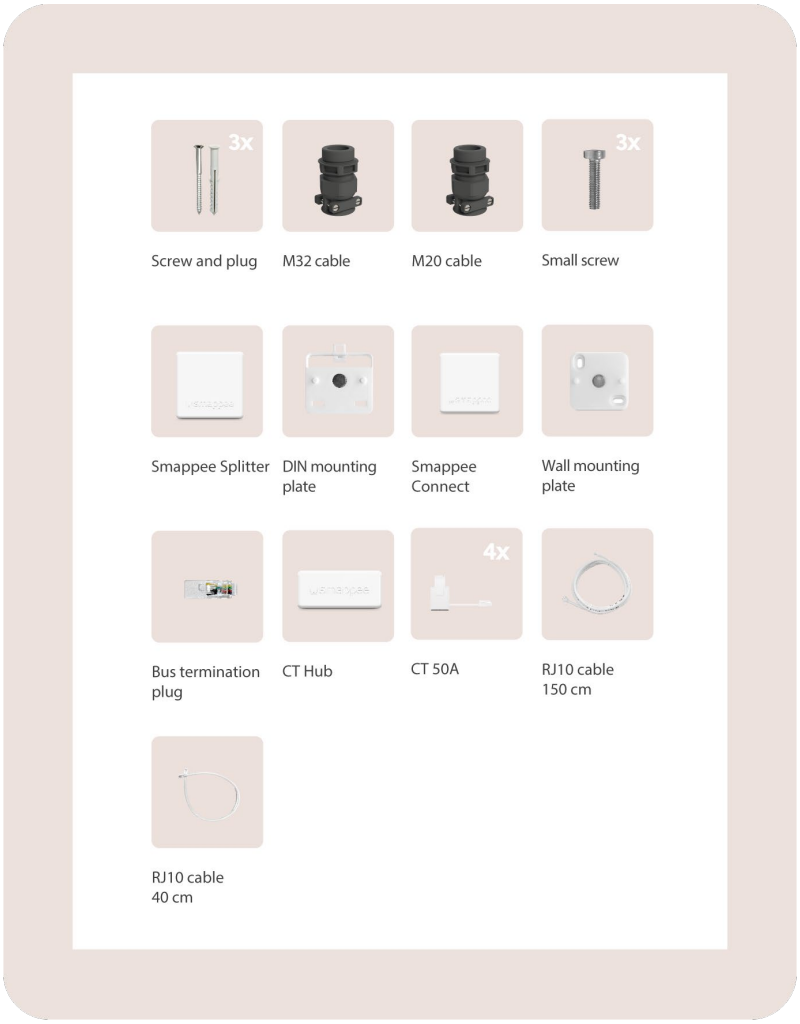


Image 2: Content of the Accessory Box of a single-phase EV Wall

Quantity	Description
3	Screw and plug (Ø 6 mm x 50 mm)
1	M32 cable gland for the power supply cable
1	M20 cable gland for the communication cable
3	Small screw (M4 x 6 mm)
1	Smappee Splitter
1	DIN mounting plate
1	Connect
1	Wall mounting plate
1	Bus termination plug
1	CT Hub
3	CT 50A
1	RJ10 cable 150 cm
1	RJ10 cable 40 cm

Accessory Box for a three-phase EV Wall

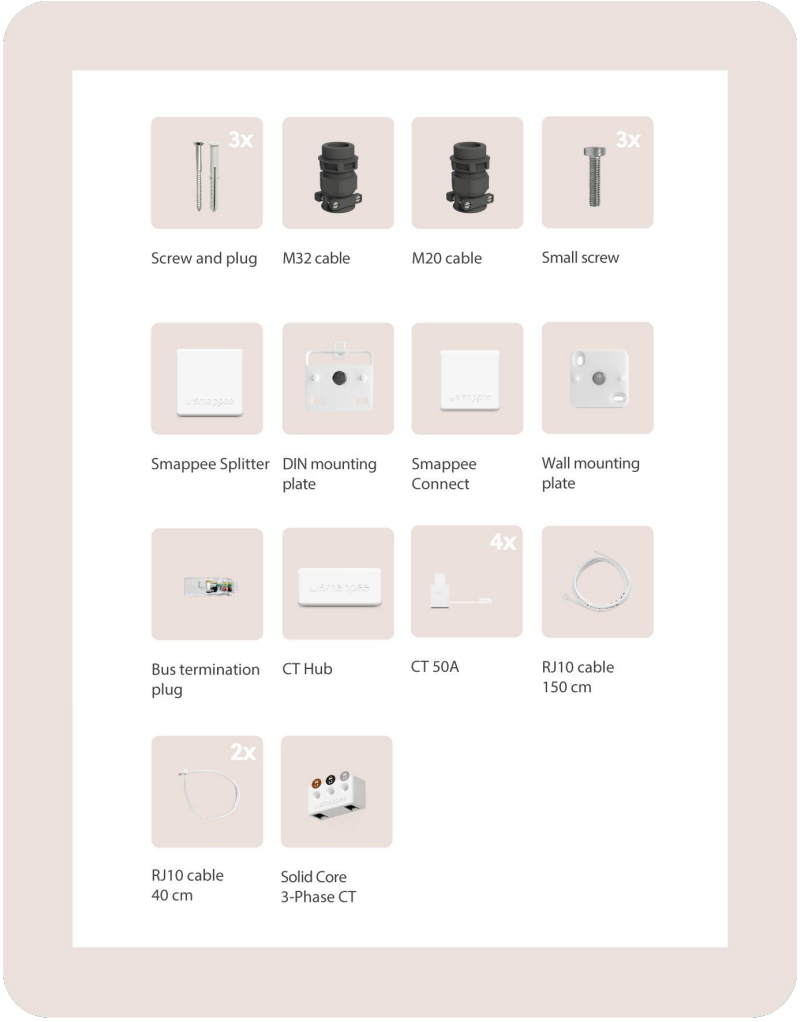
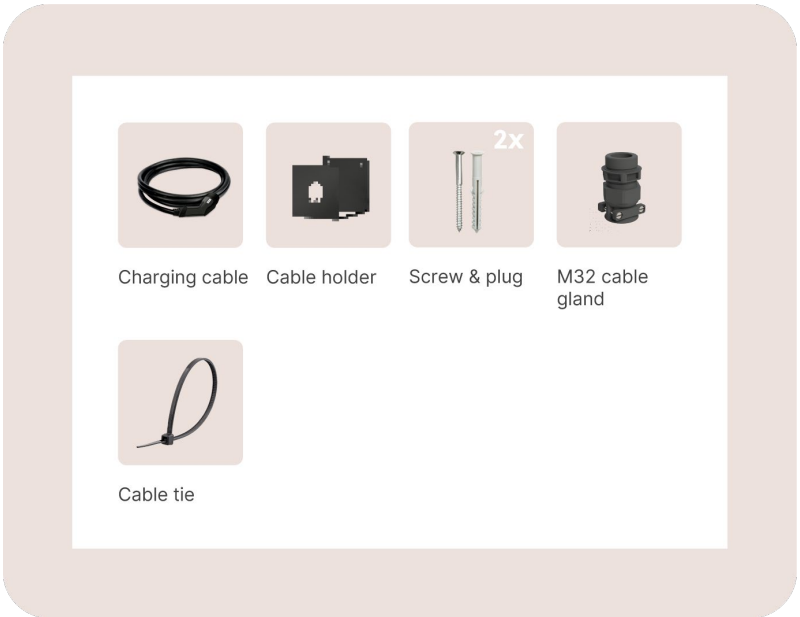


Image 3: Content of the Accessory Box of a three-phase EV Wall

Quantity	Description
3	Screw and plug (Ø 6 mm x 50 mm)
1	M32 cable gland for the power supply cable
1	M20 cable gland for the communication cable
3	Small screw (M4 x 6 mm)
1	Smappee Splitter
1	DIN mounting plate
1	Connect
1	Wall mounting plate
1	Bus termination plug
1	CT Hub
4	CT 50A
1	RJ10 cable 150 cm
2	RJ10 cable 40 cm
1	Solid Core 3-Phase CT

Charging cable box

If the EV Wall has a socket, there is no charging cable box delivered.



Quantity	Description
1	Charging cable
1	Cable holder
2	Screw and plug (Ø 6 mm x 50 mm)
1	M32 cable gland
1	Cable tie for strain relief

3.3 Directional determination

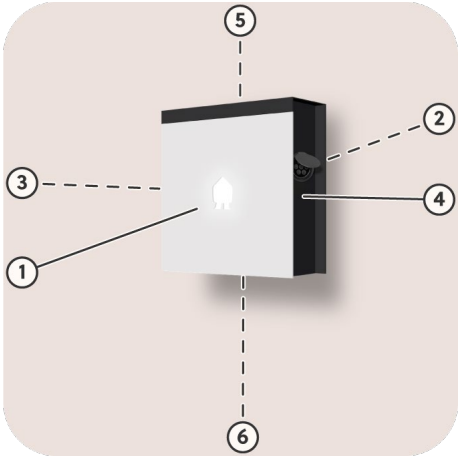


Image 4: Directional determination

Id	Description
1	Front
2	Rear
3	Left
4	Right
5	Top
6	Bottom

3.4 Identification label of the EV Wall

Position of the identification label of the EV Wall

The identification label is on the bottom of the charging station.

Image 5: Position of the identification label

Identification label of the EV Wall

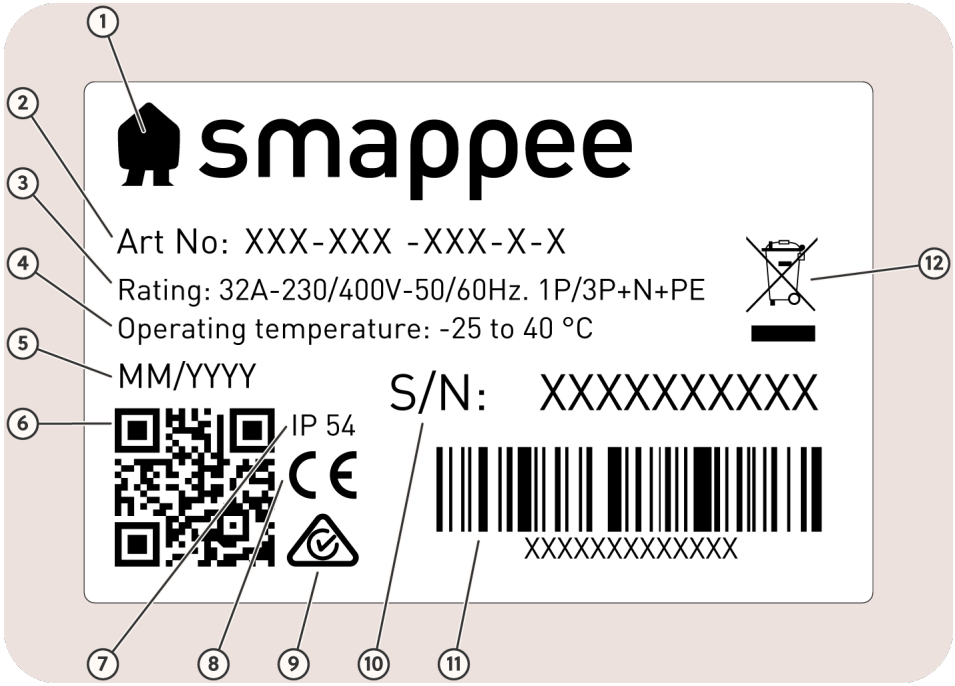


Image 6: Identification label

No.	Description
1	Manufacturer
2	Article number
3	Electrical rating
4	Operating temperature
5	Manufacturing date
6	QR code to scan during configuration of the charging station
7	Ingress protection rating
8	CE
9	RCM
10	Serial number
11	EAN-code
12	Waste disposal symbol

3.5 Technical specifications

Feature	Description	
	Socket	**Type 2 cable**
Physical properties		
Dimensions	300 mm x 300 mm x 110 mm	
Weight (excluding packaging)	7.4 kg	12.4 kg (including cable holder)
Socket	All variants manufactured as of January 31, 2025, have a socket with shutter.	N/A
Charging cable length	N/A	1 x 8 m
Supply line connection	Terminal block, flexible conductors up to 6 mm² or solid conductors up to 10 mm²	
Stationary / moveable	Fixed installation	
External design	Enclosed assembly	
Mounting method	Wall	
Technical features		
Maximum nominal power	Single-phase connection: 7.4 kVA Three-phase connection: 22 kVA	
Charge mode	Mode 3 (IEC 61851)	
Connection case	Case A and B (Socket) (IEC 61851)	Case C (Fixed cable) (IEC 61851)
Metering	kWh meter compliant with IEC 62053-21 and accuracy of 1%	
Integrated Residual Current Protection	6 mA DC RCM and 30 mA AC RCD type A [1]	
Required external circuit breaker	1 x 2P (single-phase), 1 x 3P (three-phase) or 1 x 4P (three-phase with neutral) breaker of maximum 40 A, type B or C	
Supported power systems	TN-C, TN-C-S, TT, IT [2]	
Grounding	TN system: PE wire TT system: Independently installed ground electrode < 100 Ohm spreading resistance IT system: connected to a shared reference (common earth) with other metal parts	
Rated voltage (U_N)	230/400 VAC	
Rated insulation voltage (U_i) of a circuit	500 V	
Rated impulse withstand voltage (U_{imp})	4 kV	
Rated frequency (f_N)	50 Hz / 60 Hz	

1 The variants EVW-132-BSR-E-W and EVW-332-BSR-E-W manufactured before January 31, 2025, have only a 6 mA DC residual current monitor. They need a 30 mA residual current device Type A or B (according to local regulations).

2 Caution: not all vehicles support the IT system. For 3 x 230 V charging, a voltage transformer might be necessary.

Feature	Description	
	Socket	**Type 2 cable**
Rated current (I_{na})	32 A	
Rated current (I_{nc}) of a circuit	32 A	
Rated peak withstand current (I_{pk})	6 kA	
Rated conditional short-circuit current (I_{cc})	6 kA	
EMC classification	Class B	
Connection method	AC, permanently connected	
Interfaces & Connectivity		
Information status	RGB LED	
Session activation	Plug and charge, Swipe RFID, Scan QR code	
Connectivity	Ethernet 100BASE-T, Wi-Fi 2.4 GHz	
Communication protocol	OCPP 1.6 JSON, ready for update to OCPP 2.0	
Certifications and Standards		
Product certification	CE, ACMA	
Standards	IEC 61851-1 (2017), AS/NZS 3820:2020	
Environment		
Enclosure material	Magnelis (housing), aluminium (front plate)	
Enclosure standard colours	RAL 9016 (star white), RAL 7021 (black grey)	
Protection degree	IP 54	
Mechanical impact protection	IK10	
Pollution degree	3	
Electrical safety class	I	
Stand-by use	LED brightness 0%: 2 W LED brightness 100%: 5 W	
Environmental conditions	Indoor and outdoor use	
Operating temperature	-25 °C to 40 °C	
Storage temperature	-25 °C to 60 °C	
Relative humidity	0 % to 95 %, non-condensing	
Maximum installation altitude	0 – 2000 m	
Access	Locations with restricted and non-restricted access	

NOTE

The operating temperate assumes the ambient temperature of a product delivered in the default enclosure colour RAL 7021 (black grey). Direct exposure to sunlight may have an adverse effect on the temperature range.

NOTE

If the product is exposed to lower or higher ambient temperatures, continuous operation cannot be guaranteed. If temperatures exceed the maximum values, the charging station will automatically decrease the charging current to decrease the internal temperature of the charging station.

This stabilises the internal temperature and makes it less likely that a charging session will be unexpectedly paused.

NOTE

If the product is directly exposed to sunlight, the automated temperature management may automatically start below the maximum ambient temperature. Therefore, wherever possible, avoid exposing the charging station to direct sunlight.

NOTE

Where products are exposed to the elements of nature, the enclosure can be subject to gradual aging of the material, which can result in product discolouration over time. Therefore, wherever possible, place the product in a sheltered place to optimise the life of the materials.

4 Preparing the installation

The first step is to prepare the physical installation of the EV Wall Home as described in this chapter.

4.1 Installation prerequisites

- Obtain all necessary permits from the relevant local authorities.
- Local regulations may be applicable and can vary depending upon the region or country.
- Make sure that there is sufficient space around the charging station as specified in the IEC 60204-1 standard.

> NOTE
>
> When positioning the EV Wall, take into account that the power supply cable and communication cable are entering the housing at the bottom through cable glands. The central M32 cable gland is for the power supply, the M20 cable gland for the communication cable.

- Make sure that the installation area of the charging station is adequate for usability and ventilation purposes.
- Refer to local wiring regulations to select the conductor sizes and use only copper conductors.
- Calculate the existing electrical load to find the maximum operating current for the charging station installation.
- The appropriate wire gauge of the supply cable depends on the power rating and distance between the meter cabinet and the charging station. The voltage drop must not exceed 5 %. It is advisable to have a maximum voltage drop of 3 %.
- The power supply connection must be protected against short-circuiting and over-current with an individual circuit breaker. This circuit breaker must be 2-pole (for single-phase), 3-pole (threephase without neutral) or 4-pole (three-phase with neutral), curve B or C, and have a current rating of maximum 40 A (or otherwise in compliance with local standards and regulations).

> NOTE
>
> Some EVs are not compatible with a 3 x 230 V grid due to a built-in security in the EV. Contact your EV manufacturer for more information. If your EV is not compatible with this grid topology, or if you would like to achieve higher charging power than what is possible on a delta grid topology, you can install a transformer that converts the 3 x 230 V topology to a standard 3 x 400 V + N topology.

- Make sure that there is one network cable for the internet connection available for the EV Wall, if you prefer a wired internet connection.
- The EV Wall Home requires a communication cable between the EV Wall Home and the distribution panel where the CT measurements and Connect gateway are placed. To do this, four twisted pairs of a communication cable are used.
- Route the power supply cable and the communication cable to the position where the charging station will be installed.

> NOTE
>
> Make sure that there is at least 30 cm power supply and 30 cm communication cable length available at the location of the EV Wall to be able to connect it easily.

- Use the supplied mounting plate (page 20) to attach the EV Wall.

4.2 Tools (not included)

- Torque wrench with extension bar and socket (inner hex 2.5 and 4 mm and screw width 8 mm)
- Multimeter and earth ground meter
- Wire stripper and cutter
- Needle-nose pliers
- Ferrules crimper (only for stranded power supply cables)
- RJ45 crimping tool
- Rock drill diameter 8 mm (only for floorplate)
- Hammer
- Screwdrivers

4.3 Supplies (not included)

- Power supply cable
- Circuit breaker for power supply
- Communication cable and RJ45 connectors, minimum Cat 5 depending on the environment
- Circuit breaker for Power Box (only for 3 x 230 V with transformer)
- Wi-Fi extender if the signal is weak or absent
- Network cable and RJ45 connectors, minimum Cat 5 depending on the environment, if using wired internet connection
- Ferrules, when using stranded power supply cables or decreasing the length of the charging cable

4.4 Prepare the EV Wall

Context

For safe and compact transport of the EV Wall:

- The EV Wall mounting plate is in the same box as the EV Wall, together with the supplies.
- The charging cable is in a separate box, together with the cable holder, 2 screws and 2 plugs.

Instructions

Proceed as follows.

1. Remove the cardboard packaging.
   Keep in mind to store the cardboard, as this can be used to safely store the frontplate while installing the EV Wall.
2. Unscrew the two inner nuts that hold the front plate.
3. Make sure to keep the nuts for later use.
4. Lift the front plate.

Image 7: View on the front plate

5. Disconnect the black 12-pin cable to the PCB from the front plate.
6. Remove the front plate.
   Put the plate in a safe location where it cannot be scratched or damaged.
   Put the nuts on the threaded rods to avoid losing them.

As a result, the EV Wall is prepared for the next steps.

4.5 Install the EV Wall mounting plate

Context

The EV Wall mounting plate lets you smoothly attach the charging station to a wall.

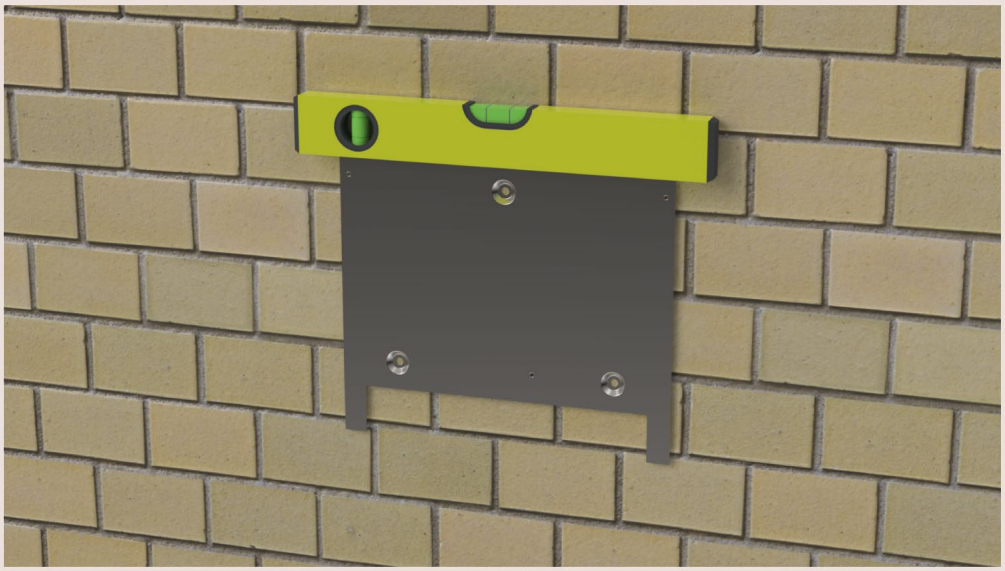


Image 8: View on the EV Wall mounting plate

Instructions

Proceed as follows.

1. Put the mounting plate on the position where the EV Wall will come.
   Make sure the mounting plate is positioned with the 2 insert holes on the bottom.
   Make sure the mounting plate is level.
2. Use the mounting plate to mark the position of the screws on the wall.
3. Drill three holes of 10 mm diameter through the slots to a depth of 50 mm.
4. Insert the supplied wall plugs into the holes.
5. Attach the mounting plate, with the 3 bulges facing the wall, with the supplied screws.

4.6 Install the Smappee Infinity components

Context

The EV Wall Home comes with Smappee Infinity components for measurement of:

- The total grid consumption
- The consumption of the EV charger
- The production of a single-phase solar inverter, if applicable

> NOTE
>
> If there is a three-phase solar inverter or if multiple inverters are present, you can purchase a Solar Add-on that has a CT Hub and two CT 50A.

These components enable overload protection and solar optimisation for your charging station. There is almost no limit to the number of measurements to control your Smappee Infinity. For more information, refer to smappee.com and Smappee Academy.

Most Infinity components are to be installed in the distribution panel, refer to the relevant connection diagram:

- Connection diagram – 1 x 230 V (page 34)
- Connection diagram – 3 x 230 V without transformer (page 35)
- Connection diagram – 3 x 230 V with transformer (page 36)
- Connection diagram – 3 x 400 V + N (page 37)

Instructions

Proceed as follows.

1. Locate a free circuit breaker or install an additional circuit breaker for the overload protection of the Infinity.
   Refer to Technical specifications (page 14) and local regulations.

> NOTE
>
> Only for situations where you need a transformer that converts the 3 x 230 V topology to a standard 3 x 400 V + N topology, you need to install an additional circuit breaker and an additional Power Box (article number i1-VAC-1).
>
> For more information, refer to Connection diagram – 3 x 230 V with transformer (page 36) and the Smappee Academy.

2. Connect the power supply cable that goes to the charging station.
   - For a 3-Phase EV Wall, put the Solid Core 3-Phase CT on top of the circuit breaker.

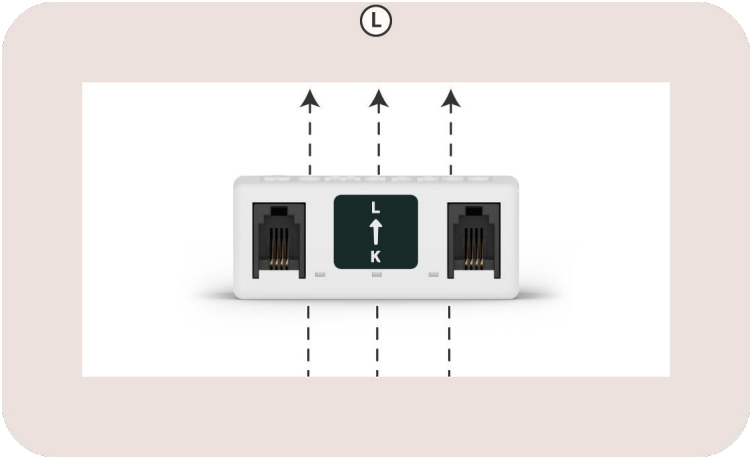


Image 9: View on the arrow on a Solid Core CT

   - For a 1-Phase EV Wall, put a Split Core CT around the neutral wire.
3. Attach the current transformers:
   - That measure the power supply from the grid to the installation (L)
   - That measure the solar power to the installation (L), if applicable

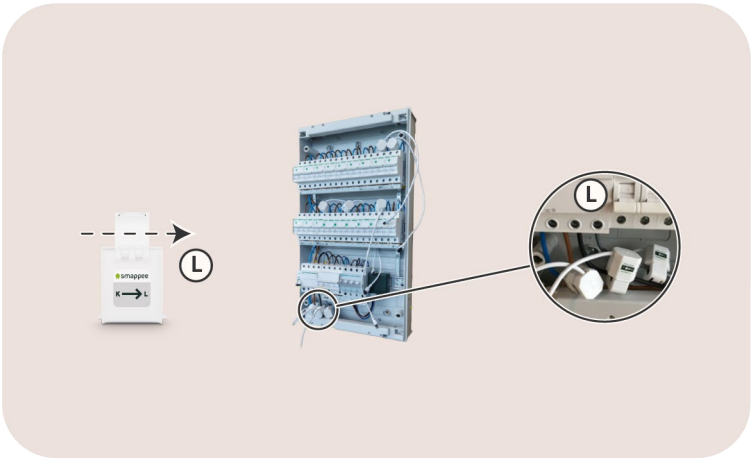


Image 10: View on the arrow on a current transformer and its installation in the distribution panel

4. Connect all current transformers to the CT Hub.
   Use the order as indicated on the sticker.
5. Install the DIN mounting plate for the Smappee Splitter.
6. Install the wall mounting plate for the Smappee Connect next to the distribution panel.
   The LED of the Smappee Connect indicates the status of the system. For more information, refer to Status of the Smappee Connect (page **Error! Bookmark not defined.**).
7. Connect the Smappee Infinity with the cables as indicated on the connection diagram.
   - The Smappee Connect is connected to the B-port of the Smappee Splitter.
   - The Solid Core 3-Phase CT, for a 3-Phase EV Wall, is connected to the A-port of the CT Hub.
   - The CT Hub is connected to the A-port of the Smappee Splitter.
   - The bus termination plug is connected to the free A-port.
   - The network cable for wired internet goes to the RJ45 port of the Smappee Connect.

5 Installation and activation

	CAUTION The installation must be carried out by a qualified professional who has read this manual and works in compliance with local and national standards. Neglecting this may lead to severe injuries or hazardous situations while working with electricity.

	CAUTION The electric system must be entirely disconnected from every power source prior to performing installation or maintenance work. Make sure it is not possible to connect the electric current during installation. Put up caution tape and warning signs to mark the work areas. Make sure no unauthorised people can enter the work areas.

	CAUTION The charging station contains electric components that may still contain electrical charge after being disconnected. Wait at least 10 seconds after disconnection before commencing work.

	CAUTION Adaptors or conversion adaptors and cord extension sets are not allowed to be used.

This procedure describes the required steps for the physical installation of the EV Wall Home.

1. Attach the EV Wall to the mounting plate (page 24)
2. Connect the power supply of the EV Wall (page 25)
3. Connect the charging cable (page 27)
4. Install the cable holder (page 28)
5. Connect the EV Wall Home to Smappee Infinity (page 29)
6. Install the front plate (page 30)

After the physical installation, the configuration can be done. For more information, refer to:

7. Configure the EV Wall with the Smappee App (page 31)
8. Complete the installation of the EV Wall (page 32)

5.1 Attach the EV Wall to the mounting plate

Context

The EV Wall mounting plate lets you smoothly attach the charging station to a wall.

Image 11: View on the EV Wall

Instructions

Proceed as follows.

1. Position the EV Wall in front of the mounting plate.
2. Attach the EV Wall to the mounting plate.
   Use the three M4 x 6 mm hex screws.

5.2 Connect the power supply of the EV Wall

Context

The EV Wall must have a dedicated own circuit breaker. For more information, refer to Installation prerequisites (page 17).

Instructions

1. Guide the power supply cable through the cable gland in the middle of the EV Wall. Tighten the cable gland.
2. Cut the power supply cable to the sufficient length. For stranded wires, add a wire end ferrule to each conductor.
3. Connect the power supply wires as follows:

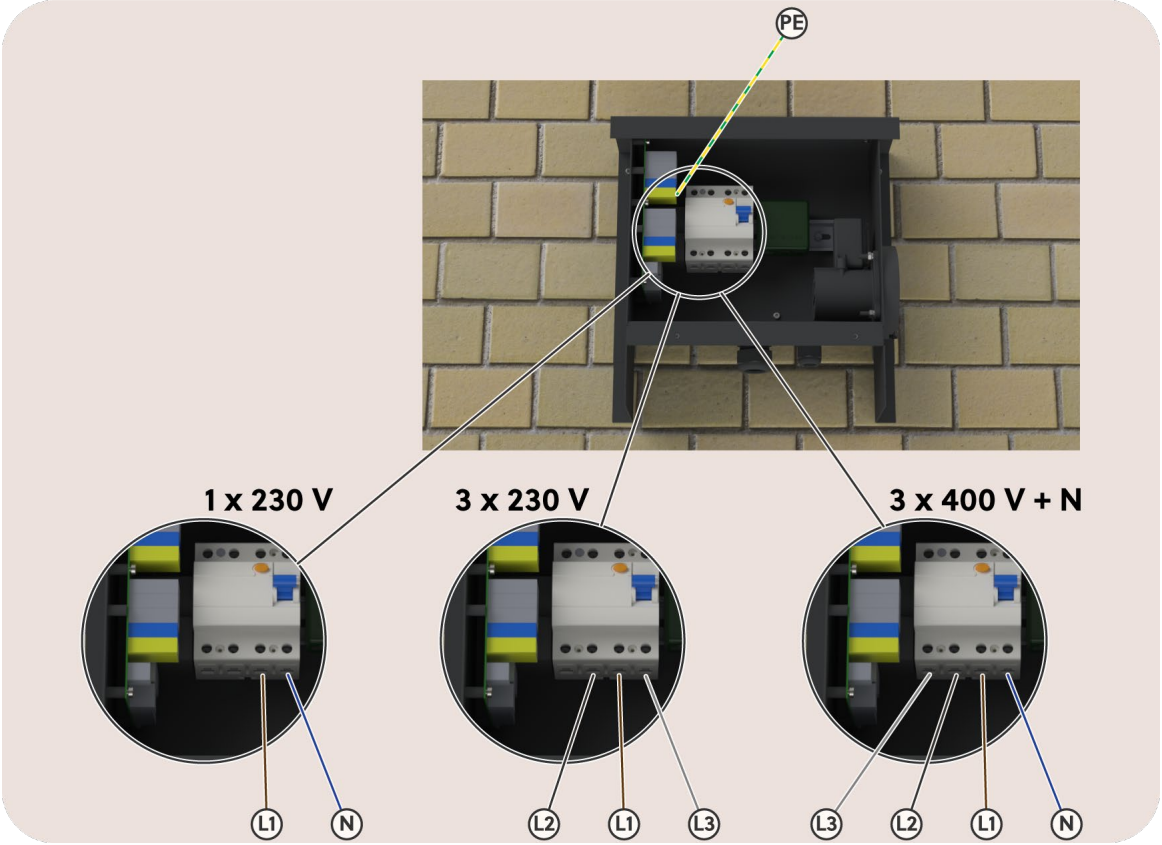


Image 12: View on the power supply connection for each grid type

- Put the green/yellow conductor in the corresponding terminal block for the protective earth (PE).
- Put the blue conductor, if applicable, in the corresponding connection point for the neutral (N) of the residual current device.

	NOTE For a 3 x 230 V with a transformer, the neutral wire comes from the transformer. The two RJ10 cables of the Power Box in the charging station must be disconnected.

- Put the phase conductors in the necessary connection point of the residual current device.

	NOTE • L1 = brown phase 1-conductor • L2 = black phase 2-conductor, if applicable • L3 = grey phase 3-conductor, if applicable For a 3 x 230 V without a transformer, and thus no neutral conductor, put the grey conductor in the neutral connection point.

4. Make sure that the residual current device is set to the on position.
   The on position is shown in Image 9.

As a result, the EV Wall is almost ready for power.

5.3 Connect the charging cable

Context

NOTE

This section is only relevant if the EV Wall comes with a fixed charging cable. If you have a socket-variant, go to Connect the EV Wall Home to Smappee Infinity (page 29).

The charging cable is delivered in a separate box.

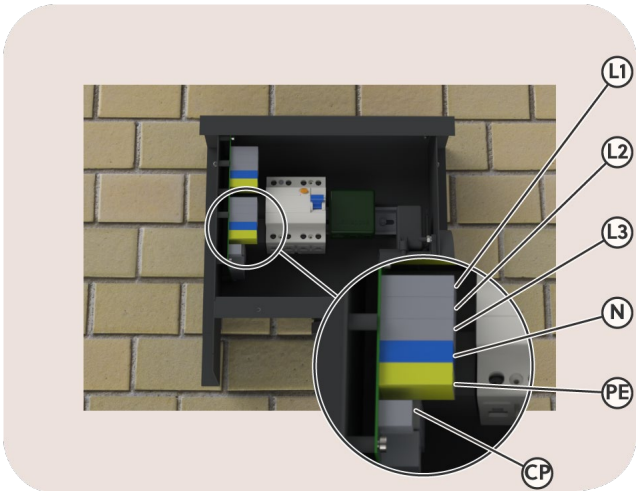


Image 13: View on the cable connections

Instructions

Proceed as follows.

1. Attach the cable gland to the left opening at the bottom of the EV Wall.
2. Guide the charging cable through this cable gland.
3. Tighten the cable gland.
4. If necessary, decrease the length of the charging cable.
   Add a ferrule (not supplied) on each wire.
5. Connect each wire to the corresponding terminal as indicated with a label.
   Do not forget to connect the CP data wire of the charging cable to the CP terminal.
6. For strain relief, put the supplied cable tie around the charging cable.
   Tighten it just after the cable gland on the inside of the charging station.

5.4 Install the cable holder

Context

NOTE

This section is only relevant if the EV Wall comes with a fixed charging cable. If you have a socket-variant, go to Connect the EV Wall Home to Smappee Infinity (page 29).

The charging cable can be stored in a cable holder to keep it tidy.

Image 14: View on the stored cable holder

Instructions

Proceed as follows.

1. Put the cable holder on the location of the EV Wall.
   Make sure the opening is on top and the cable holder is level.
2. Mark the position of the screws on the wall.
3. Drill two holes of 10 mm diameter through the slots to a depth of 50 mm.
4. Insert the supplied wall plugs into the holes.
5. Attach the cable holder to the wall with the supplied screws.

5.5 Connect the EV Wall Home to Smappee Infinity

Context

⚠	CAUTION Risk of electric shock. Make sure no tools are in the charging station and people stand free from the charging station.

Instructions

Proceed as follows.

1. Guide the communication cable through the right cable gland at the bottom of the EV Wall.
2. Cut the communication cable to the necessary length.
3. Attach the RJ45 connector (not supplied).
4. Put the connector in the A+B port of the relay board.

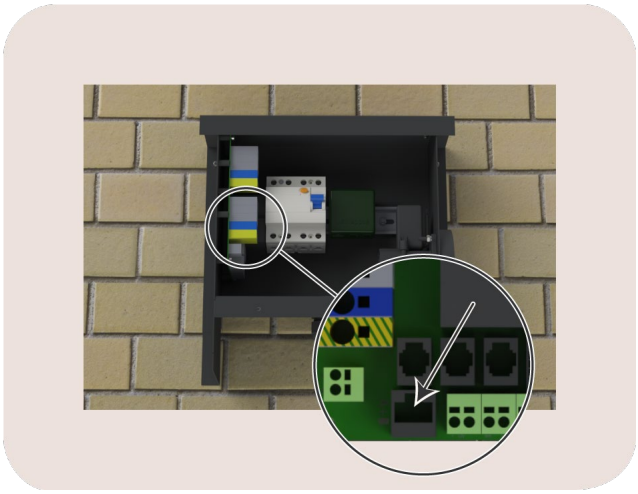


Image 15: View on the A+B port

The communication cable between the charging station and the Smappee Splitter makes the data from the charging station and the Smappee Infinity components can go via the Smappee Connect to the Smappee Cloud.

5. Tighten the cable gland.
6. Start the power supply to the EV Wall and the Power Box.
7. Check the status of the components after approximately 30 seconds.

Description	More information
1 x Smappee Connect	Blue flashing, 1 time per second
1 x Power Box	Status LED is pulsing once every 3 seconds.
1 x CT Hub	
1 x Solid Core 3-Phase CT	

For more information, refer to Colour code explanation (page 38).

8. Stop the power supply to the EV Wall.

5.6 Install the front plate

Prerequisites

	CAUTION Risk of electric shock. Make sure no tools are in the charging station and people stand free from the charging station.

Context

The front plate has a PCB with RFID reader and LED for the Smappee Avatar.

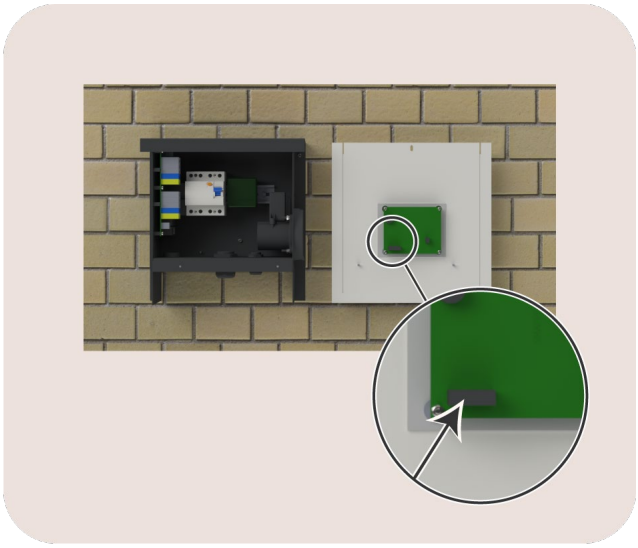


Image 16: View on the 12-pin cable

Instructions

1. Remove the nuts from the threaded rods of the front plate.
2. Connect the black 12-pin cable to the PCB attached to the front plate.
3. Put the front plate back.
4. Put the nuts on the threaded rods to avoid losing them.

As a result, the EV Wall is ready to be configured with the Smappee App.

5.7 Configure the EV Wall with the Smappee App

Prerequisites

This procedure is done with the Smappee App. You can download this mobile app from the Apple App Store for iOS or the Google Play store for Android phones.

Image 17: Download the Smappee App

CAUTION

Risk of electric shock.

Make sure no tools are in the charging station and people stand free from the charging station.

Instructions

Proceed as follows:

1. Open the Smappee App.
   Login to the Smappee App with your partner user account.
2. Tap the **House** button.
3. Tap the **+** button.
4. Tap the **I want to install a Smappee charging station** Button.
5. Follow the steps shown in the Smappee App.

NOTE

If you have the power supply 3 x 230 V, you need configure the CT's as follows:

Single phase load powered by	Connect the clamp around	Configure in Smappee App
L1 and L3	L1	L1
L2 and L3	L2	L2
L1 and L2	L1	L3

NOTE

If the EV will not charge on a 3 x 230 V without tranformator, you can try to disconnect the L2 cable going to the socket.

Do not disconnect the L2 of the power supply cable.

Post-requisites

The settings of your charging station can be adjusted in the Smappee App or the Smappee Dashboard.

- Name
- LED brightness
- Maximum current per connector and thus the charging speed per connector

5.8 Complete the installation of the EV Wall

Instructions

Proceed as follows.

1. Put the M4 nuts on the threaded rods and tighten them.

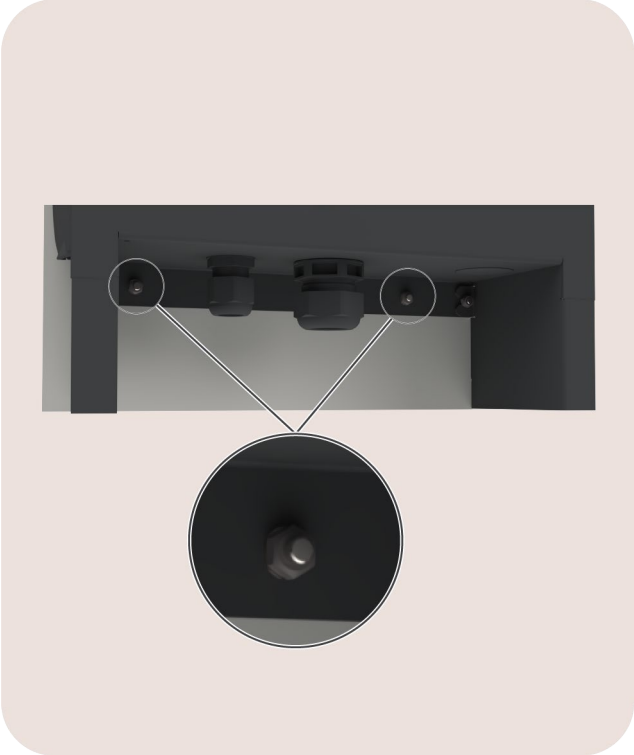


Image 18: View on the inner nuts

As a result, the EV Wall is ready for use. For more information, refer to the annex Status of the charging station (page 40).

Annexes

Declaration of conformity

Declaration of conformity

We,
Smappee nv
Evolis 104
B-8530 Harelbeke, Belgium

following the provision of the following EC Directives:

- 2014/35/EU The Low Voltage Directive
- 2014/30/EU The Electromagnetic Compatibility Directive
- 2011/65/EU RoHS Directive

hereby declare that the product:

EVW-132-BR-E-W, EVW-132-BSR-E-W, EVW-132-C8R-E-W, EVW-332-BR-E-W, EVW-332-BSR-E-W, EVW-332-C8R-E-W, EVW-332-C8R-E-B

is in conformity with the applicable requirements of the following documents

- Emissions:
  (EN61326-1 : 2013)
  Radiated Emission: EN 55011:2009 / EN 55032:2015 (Class B)
  Conducted Emission: EN 55011:2009 / EN 55032:2015 (Class B)
  Harmonic current Emission: EN 61000-3-2:2005 +A1:2008 + A2:2009
  Flicker: EN 61000-3-3:2008
- Immunity:
  (EN61326-1 : 2013)
  ESD : EN 61000-4-2:2008 / EN 61000-4-2 :2009
  Radiated immunity : EN 61000-4-3:2006 + A1:2007 + A2: 2010
  Power frequency magnetic field: EN 61000-4-8:2009
  Voltage dips/interruptions: EN 61000-4-11:2004
  Common Mode Immunity: EN 61000-4-6:2008 / EN 61000-4-6:2009
  Burst : EN 61000-4-4:2004 / EN 61000-4-4:2012
  Surge: EN 61000-4-5:2005 / EN 61000-4-5:2006
- Safety:
  Metering Function : IEC 61010-1 Ed 3.0 (2010-06) + A1:2016
  AC Charging equipment : IEC 61851-1 (2017) / EN61558-1
  Other applicable standards and certifications:
- IEC 60364, IEC 62192-1, IEC 62192-2, AS/NZS 3820:2020

Harelbeke, Belgium, April 21, 2021

Authorized signatory

Stefan Georgian

CEO Smappee

smappee

Connection diagrams

Connection diagram – 1 x 230 V

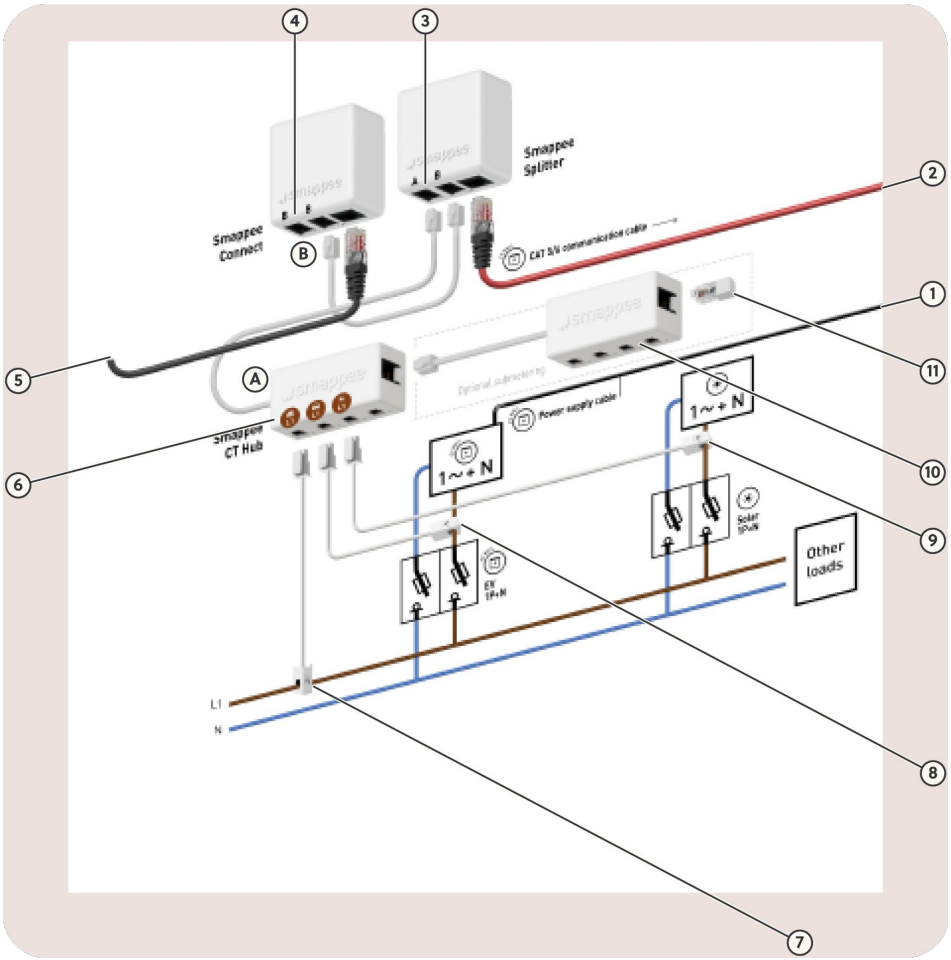


Image 19: Connection diagram 1 X 230 V + N

ID	Description	More information
1	Power supply cable	With dedicated circuit breaker for the charging station
2	Communication cable	Communication between the Smappee Infinity and the charging station
3	Smappee Splitter	Makes data from the A+B port of the charging station goes to the A-bus or the B-bus
4	Smappee Connect	Gateway for communication with the Smappee Cloud
5	Network cable	For wired connection of the gateway to the internet Power over Ethernet is not supported by the gateways.
6	CT Hub	Transfers data from current transformers
7	1 x CT	Current transformer that measures the phase of the power supply from the grid
8	1 x CT	Current transformer that measures the phase to the charging station
9	1 x CT	Current transformer that measures a single-phase solar production
10	CT Hub	Additional Smappee Infinity components can be installed for more submetering.
11	Bus termination plug	Closes the A-bus.

Connection diagram – 3 x 230 V without transformer

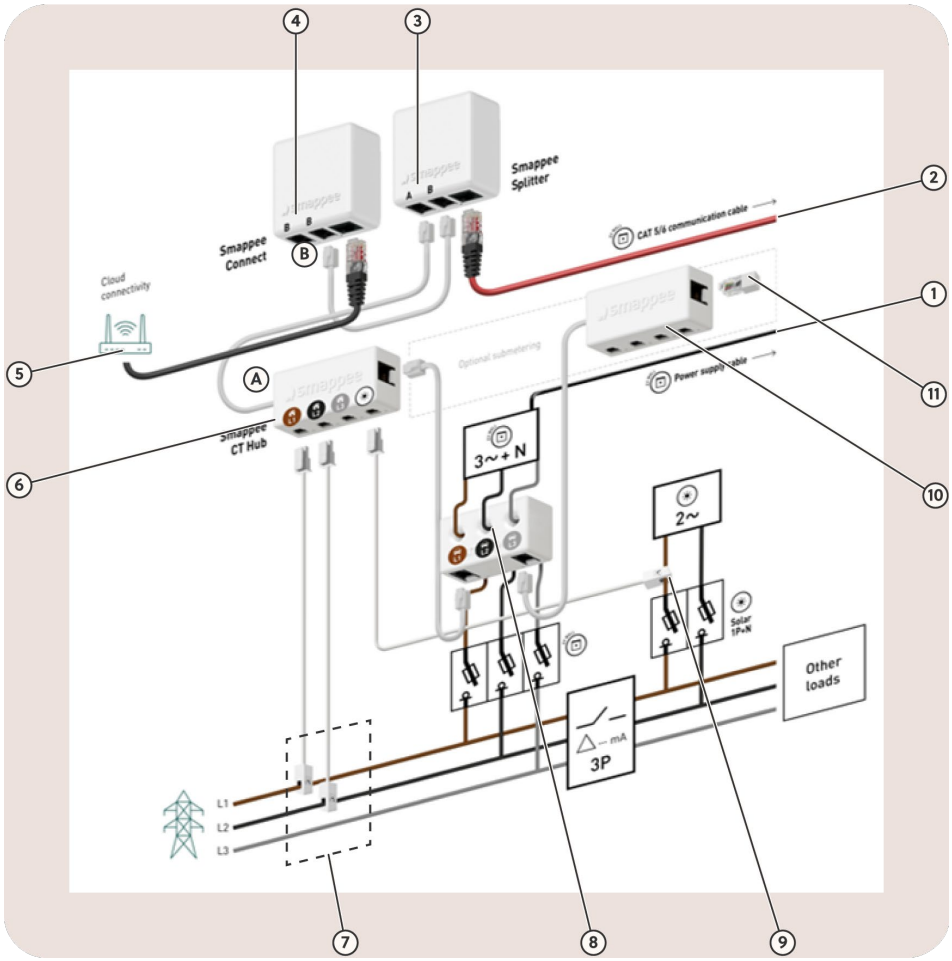


Image 20: Connection diagram 3 x 230 V – without transformer

ID	Description	More information
1	Power supply cable	With dedicated circuit breaker for the charging station
2	Communication cable	Communication between the Smappee Infinity and the charging station
3	Smappee Splitter	Makes data from the A+B port of the charging station goes to the A-bus or the B-bus
4	Smappee Connect	Gateway for communication with the Smappee Cloud
5	Network cable	For wired connection of the gateway to the internet Power over Ethernet is not supported by the gateways.
6	CT Hub	Transfers data from current transformers
7	3 x CT	Current transformers that measure each phase of the power supply from the grid
8	Solid Core 3-Phase CT	Current transformer with a solid body to put three wires to the charging station through
9	1 x CT	Current transformer that measures a single-phase solar production
10	CT Hub	Additional Smappee Infinity components can be installed for more submetering.
11	Bus termination plug	Closes the A-bus.

Connection diagram – 3 x 230 V with transformer

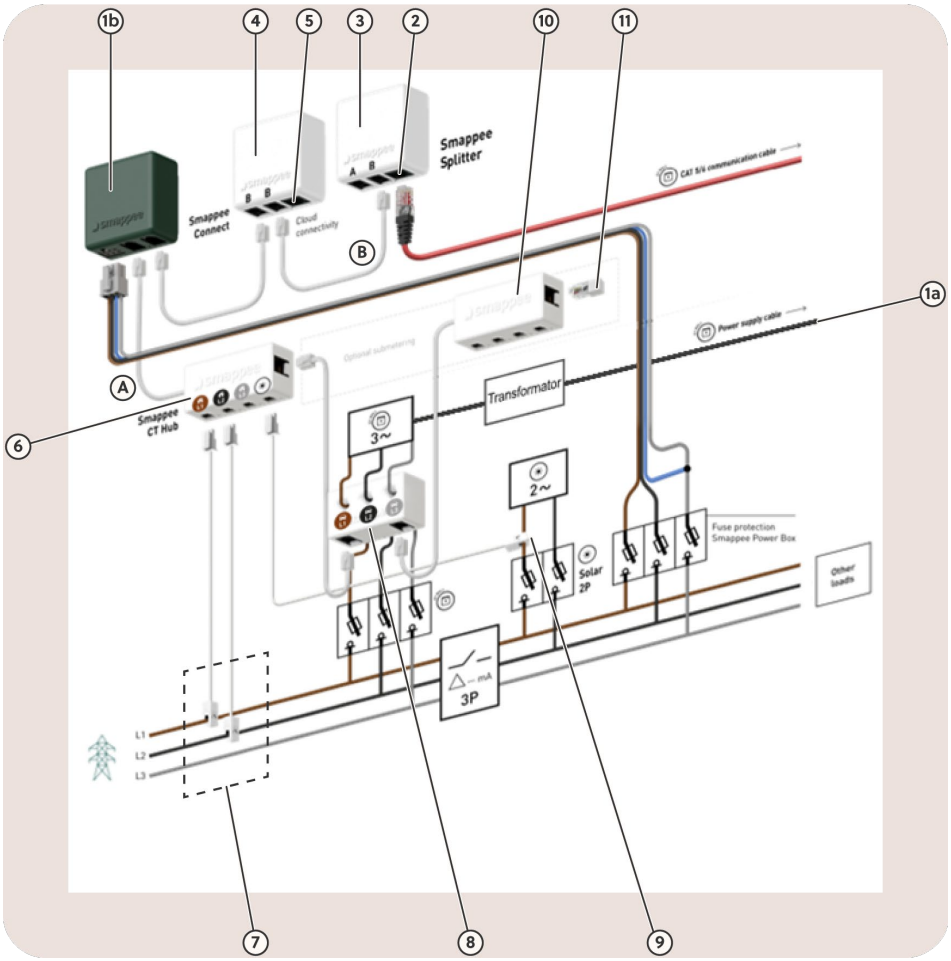


Image 21: Connection diagram 3 x 230 V – with transformer

ID	Description	More information
1a	Power supply cable	With dedicated circuit breaker for the charging station
1b	Power Box	With dedicated circuit breaker for the Infinity
2	Communication cable	Communication between the Smappee Infinity and the charging station
3	Smappee Splitter	Makes data from the A+B port of the charging station goes to the A-bus or the B-bus
4	Smappee Connect	Gateway for communication with the Smappee Cloud
5	Network cable	For wired connection of the gateway to the internet Power over Ethernet is not supported by the gateways.
6	CT Hub	Transfers data from current transformers
7	3 x CT	Current transformers that measure each phase of the power supply from the grid
8	Solid Core 3-Phase CT	Current transformer with a solid body to put three wires to the charging station through
9	1 x CT	Current transformer that measures a single-phase solar production
10	CT Hub	Additional Smappee Infinity components can be installed for more submetering.
11	Bus termination plug	Closes the A-bus.

Connection diagram – 3 x 400 V + N

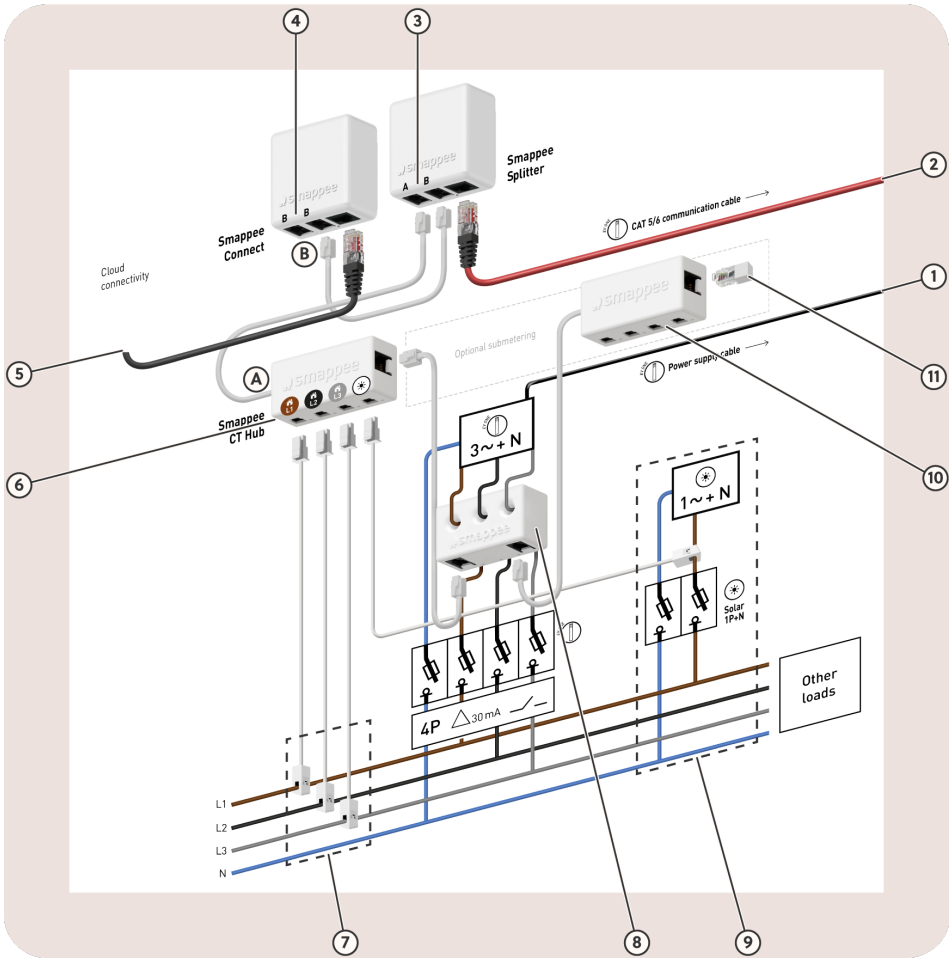


Image 22: Connection diagram 3 x 400 V + N

ID	Description	More information
1	Power supply cable	With dedicated circuit breaker for the charging station
2	Communication cable	Communication between the Smappee Infinity and the charging station
3	Smappee Splitter	Makes data from the A+B port of the charging station goes to the A-bus or the B-bus
4	Smappee Connect	Gateway for communication with the Smappee Cloud
5	Network cable	For wired connection of the gateway to the internet Power over Ethernet is not supported by the gateways.
6	CT Hub	Transfers data from current transformers
7	3 x CT	Current transformers that measure each phase of the power supply from the grid
8	Solid Core 3-Phase CT	Current transformer with a solid body to put three wires to the charging station through
9	1 x CT	Current transformer that measures a single-phase solar production
10	CT Hub	Additional Smappee Infinity components can be installed for more submetering.
11	Bus termination plug	Closes the A-bus.

Colour code explanation

Status of the Smappee Connect

This status is relevant during the configuration and use of the charging station.

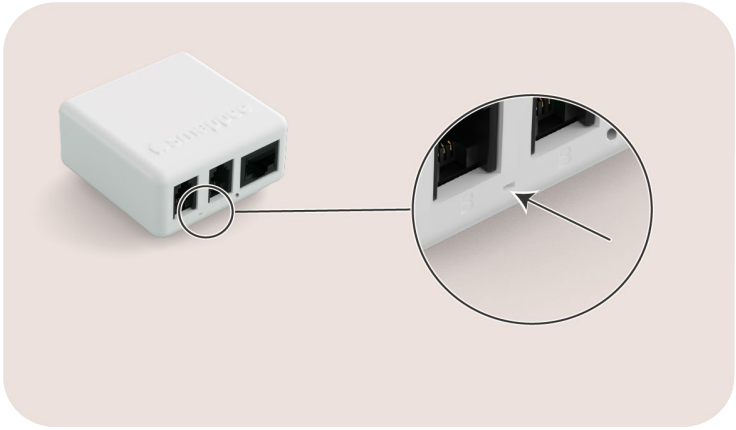


Image 23: Position of the LED on the Smappee Connect

Colour	Status	Meaning	More information
	Blue continuous	Starting up	The Connect is starting up. If this takes more than 30 seconds, please contact support.
	Blue pulsing	Ready for connecting	The Connect is ready to be connected to the network.
	Green continuous	Connecting	The Connect is connecting to the internet and must become *Green breathing*. If this takes more than 2 minutes, please contact support.
	Green breathing	All good	The Connect operates correctly.
	Red flashing	No connection	The Connect has no connection to the internet during start-up. Find the cause of the connection issue or contact support.

Smappee Power Box

LED status	Meaning
Status LED is pulsing once every 3 seconds.	Power Box is powered on and operating correctly.
Status LED is pulsing once every 1 second.	Smappee Bus B error.

Smappee CT Hub

LED status	Meaning
LED at input A, B, C or D 3 pulses per second, on any of the inputs A, B, C, D.	Indication of the selected CT input during CT configuration.
LED at input A Short pulse every 3 seconds.	CT Hub is powered on and operating correctly.
LED at input A One pulse every second.	Communication error.
LED at input A 2 pulses per second.	Configuration problem.

Smappee Solid Core 3-Phase CT

LED status	Meaning
LED at input A, B, C or D 3 pulses per second, on any of the inputs A, B, C, D.	Indication of the selected input during configuration.
LED at input A Short pulse every 3 seconds.	Solid Core 3-Phase CT is powered on and operating correctly.
LED at input A One pulse every second.	Communication error.
LED at input A 2 pulses per second.	Configuration problem.

Status of the charging station

This status is relevant during the use of the charging station.

Image 24: Position of the RFID reader with LED on the EV Wall

Colour	Status	Meaning	Action of the user
	Red continuous	Charging station is unavailable.	Something is wrong or the charging station has been disabled. Enable the charging station with the Smappee App or contact your installer.
	White continuous	Charging station is available.	Connect your electric vehicle (EV) with the charging station.
	Blue continuous	EV is connected to the charging station but is not yet charging.	If no authorization is necessary, wait 3 seconds until you hear a sound and the LED is green. If the LED stays blue, do one of the following: • Swipe your RFID tag (charge card, RFID key, …) along the blue indicator of the charging station. • Scan the QR code, if applicable
	Blue flashing	Authorization is being verified.	Wait 15 seconds until the authorization is finished and you hear a sound. The LED is red if charging has not started or green if charging has started.
	Re flashing	RFID tag is not authorized.	Contact the supplier of the RFID tag.
	Green breathing	EV is being charged.	Your EV is being charged.
	Green pulsing	Charging session is waiting to charge or paused by an overload	This is informative, no action required.
	Green continuous	EV is charged	Disconnect the charging cable and put it safely back in the storage place.

Maintenance schedule

To ensure safe and reliable operation, periodic maintenance and inspections are recommended. The frequency depends on usage and environmental conditions.

WARNING

Before starting maintenance activities, consider all safety precautions as listed in Safety instructions (page 5).

NOTE

For publicly accessible charging stations, periodic inspections may be required by local regulations. Check applicable guidelines for compliance.

Task	**More information**
Visual inspection of the charging station	Check for visible damage or wear. If necessary, consult an installer for assessment or replacement.
Cleaning	Cleaning is optional and does not affect the operation of the charging station. For aesthetic reasons, you may wipe the unit with a dry, clean cloth. Do not use water jets, solvents, or abrasive materials.