Smappee Smart Grid Ready module

Installation manual



German – 1.1 – December 2025

Accuracy of the document

The specifications and other information in this document have been checked for accuracy and completeness at the time of publication. Due to the constant improvement of the product, this information is subject to change at any time without notice. For the latest information, check out our online documentation: smappee.com/downloads.

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1. Introduction

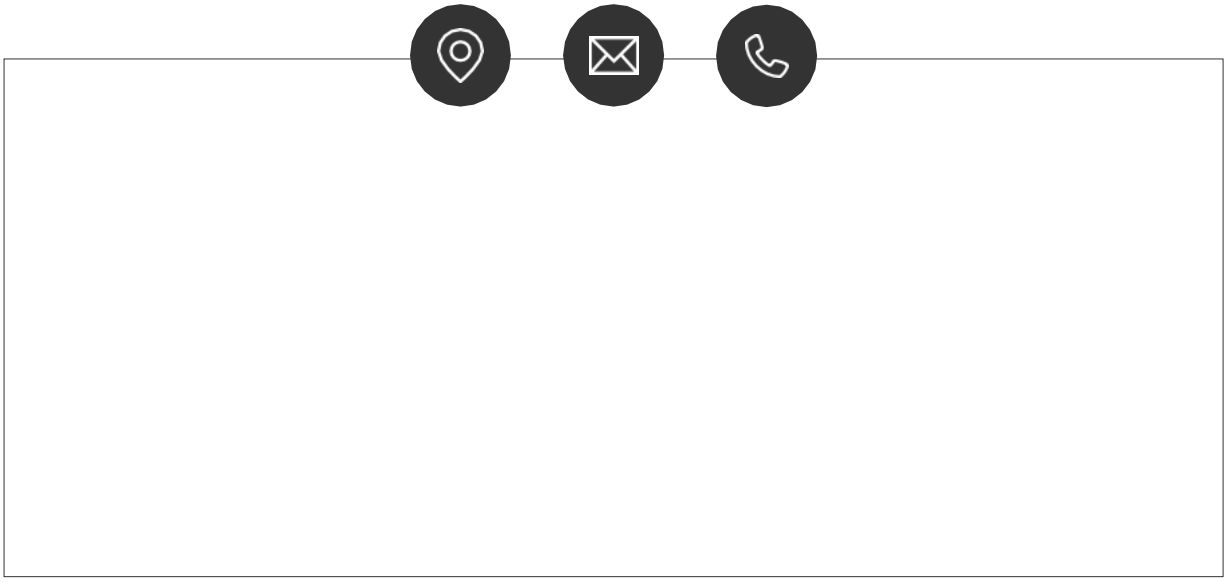
In order to comply with the requirements of §14a of the German Energy Industry Act (EnWG), the charging station must be connected to a separate Smappee Smart Grid Ready (SGR) module.

This module has been developed to meet the technical requirements for integration into a smart and controllable power grid. It enables grid operators to temporarily limit the charging power of private charging stations above 4.2 kW when capacity utilisation is high – as required by law.

Support

Only qualified electricians or equivalently trained professionals are allowed to install Smappee charging stations. If you have any questions, please contact your service partner.

Please have the following information ready to speed up the process: Article number and serial number of the relevant product.



If your local distributor is unable to help you or if you have a suggestion for us to improve, please feel free to contact Smappee directly: support@smappee.com.

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2. Instructions for AC Charging Stations

2.1. Context

CAUTION

Risk of electric shock!

Make sure there are no tools in the charging station and make sure there are no people in their immediate vicinity.

- Supported by all AC charging stations: EV Wall, EV One, EV Base and future variants.
- One SGR module is required per charging station.
- The input signal is received by either a digital or an analog counter. Analog meters require a ripple control receiver for signal conversion.
- Can be connected in series with a digital meter or ripple control receiver.

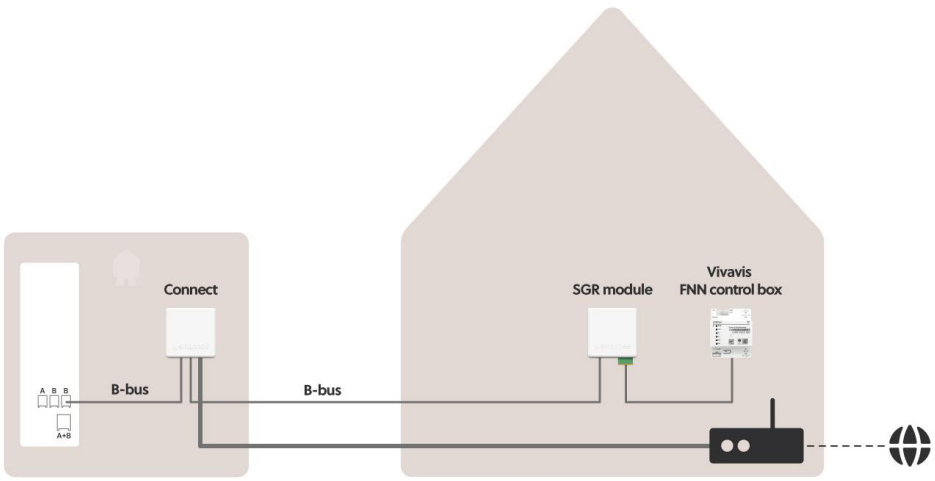
NOTES

- For information on how to open and close the charging station, refer to the instructions for the corresponding model (EV Wall, EV One, EV Base).
- For professional installation, a DIN mounting plate is supplied.

2.2. Limited distance between charging station and SGR module

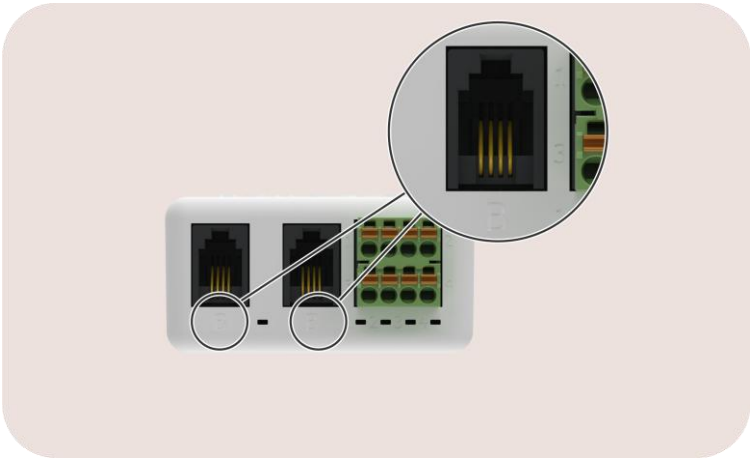
In the box of the SGR module, a 150 cm RJ10 cable is supplied. If the distance between charging station and SGR module does not pass this distance, the installation procedure bellow can be followed.

If the distance surpasses this distance, refer to chapter 2.3 on page 6.



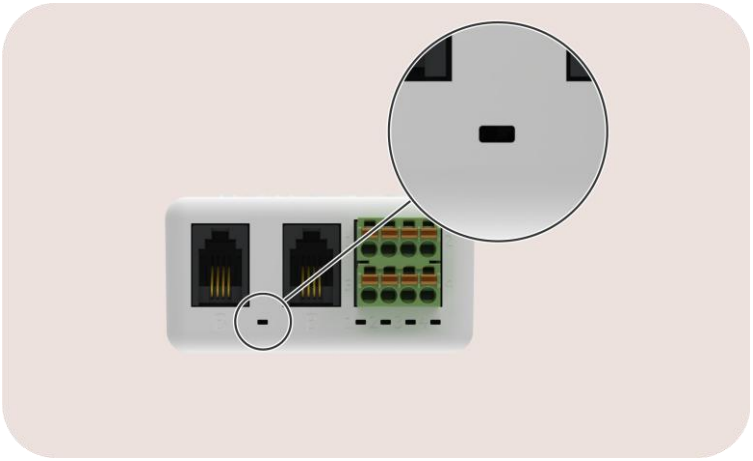
Follow the steps below.

1. Open the charging station.
2. Route the supplied RJ10 cable through the right cable gland and connect it to the free B-port of the Smappee Connect in the charging station.
3. Close the charging station.
4. Run the RJ10 cable to the SGR ready module.
5. Connect the other end of the RJ10 cable to one of the two B ports of the SGR module in the building.



Once the connection has been successfully established and the power is activated, the status light at the bottom of the B ports of the SGR module will flash every 3 seconds.

Verify if the SGR module is shown in the list of charging station components.



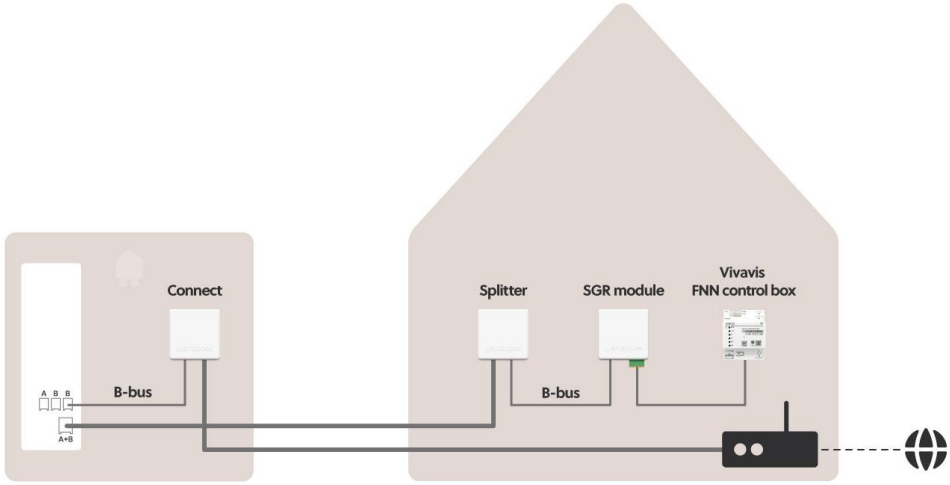
6. Now proceed with the connection to the ripple control receiver (see page 11).

2.3. Extended distance between charging station and SGR module

This procedure has to be followed when the distance between the charging station and the SGR module surpasses 150 cm.

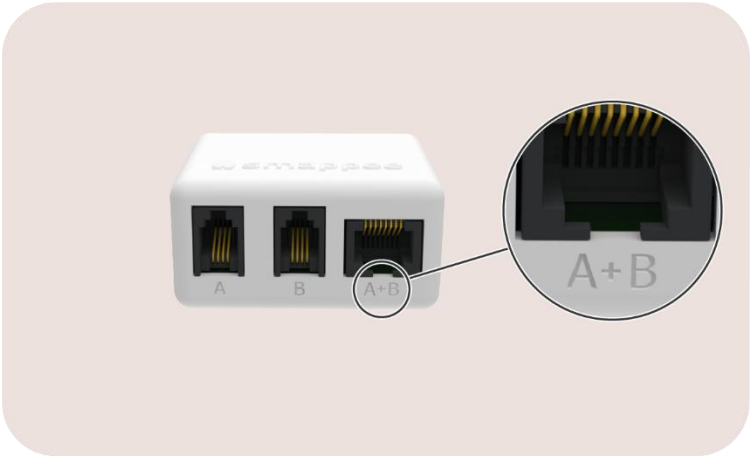
This procedure also requires the use of a Smappee Splitter. The Smappee splitter controls the communication between the charging station and the building and must be purchased separately.

Reference for this splitter is AC-AB-SPLITTER.

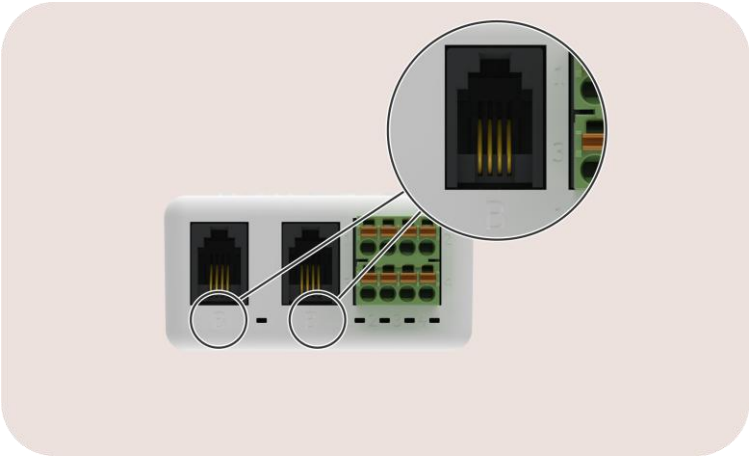


Follow the steps below.

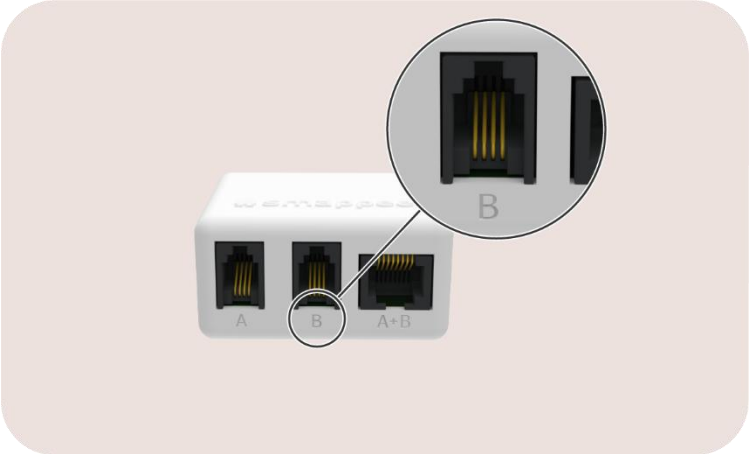
1. Open the charging station.
2. Route the communication cable through the right cable gland and connect it to the A+B RJ45 port of the relay board.
3. Close the charging station.
4. Run the UTP communication cable into the building.
5. Connect the RJ45 port of the UTP communication cable to the A+B port of the Smappee splitter in the building.



6. Connect the supplied RJ10 cable of the Smappee Splitter to one of the two B ports.

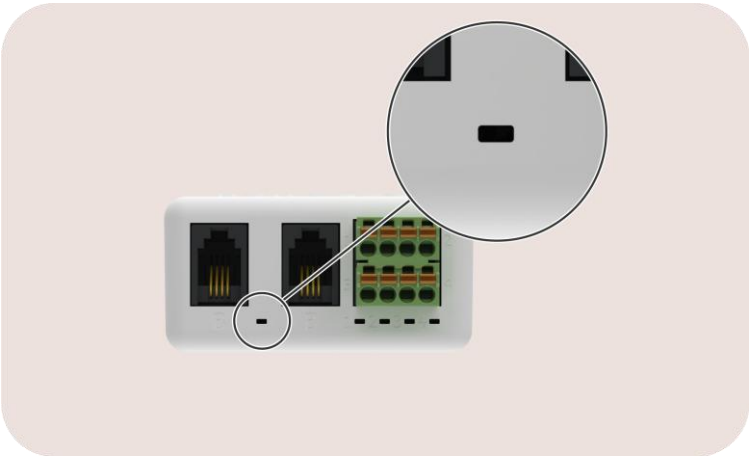


7. Connect the other end of the RJ10 cable to the B port of the Smappee splitter.



Once the connection has been successfully established and the power is activated, the status light at the bottom of the B port of the SGR module will flash every 3 seconds.

Verify if the SGR module is shown in the list of charging station components.



8. Now proceed with the connection to the ripple control receiver (see page 11).

3. Instructions for DC Charging Stations

3.1. Context

CAUTION

Risk of electric shock!

Make sure there are no tools in the charging station and make sure there are no people in their immediate vicinity.

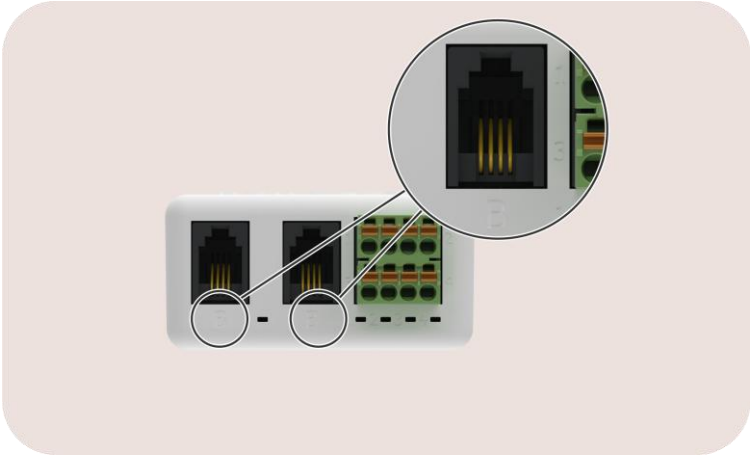
- Supported by all DC charging stations: EV Ultra and future variants.
- 1 SGR module is required per charging station, except for EV Ultra 40D and EV Ultra 120D, which each require 2 SGR modules.
- The input signal is received by either a digital or an analog counter. Analog meters require a ripple control receiver for signal conversion.
- Can be connected in series with a digital meter or ripple control receiver.
- This procedure assumes a cable with 4 conductors is present and available between the charging station and the location of the ripple control device.

NOTES

- For information on how to open and close the charging station, refer to the instructions for the corresponding model (EV Ultra).
- For professional installation, a DIN mounting plate is supplied

3.2. Instructions

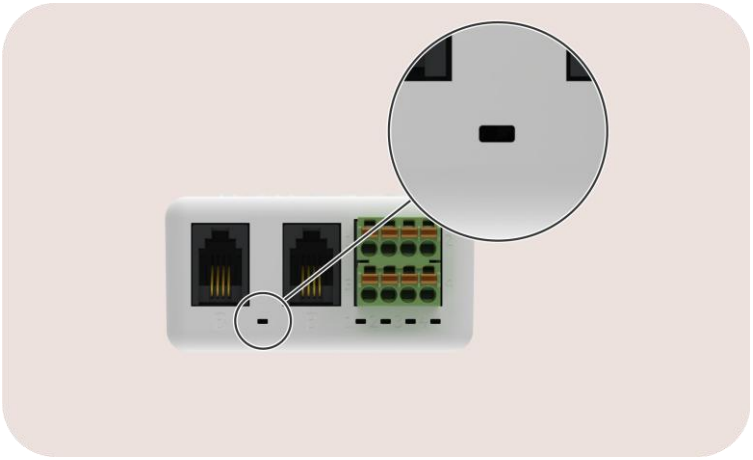
1. Remove the left panel of the EV Ultra. This opens the area that holds the auxiliary power supply.
2. Attach the supplied DIN mounting plate to the DIN Rail at the bottom.
3. Remove the RJ10 cable from the Power Box and connect it to one of the B-ports of the SGR module.



4. Connect the supplied RJ10 cable between the remaining B-port of the SGR module and the B-port of the Power Box.
5. Connect the 4 wires from the building to input 1 and 2 of the SGR module.
6. Mount the SGR module to the DIN mounting plate.

   Once the connection has been successfully established and the power is activated, the status light at the bottom of the B ports of the SGR module will flash every 3 seconds.

   Verify if the SGR module is shown in the list of charging station components.



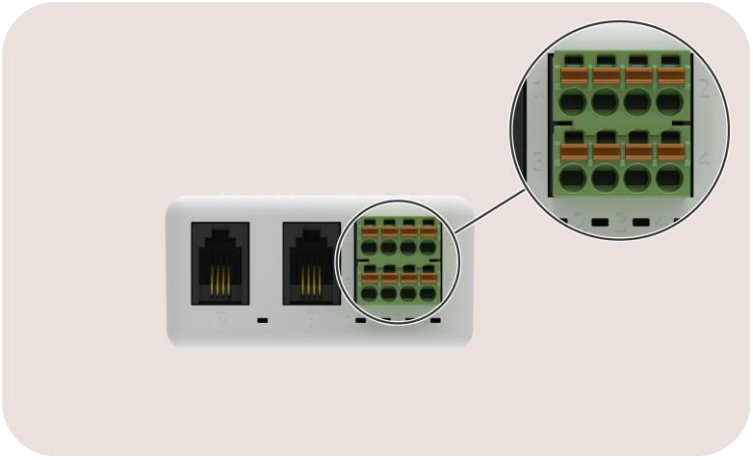
7. Now proceed with the connection to the ripple control receiver (see page 11).

4. Connection to the ripple control receiver

NOTES

- For support and compatibility reasons, the use of a VIVAVIS FNN Control Box is adviced as the ripple control device.

1. Unplug the green plug from the SGR module.



2. Insert four different wires into the two upper terminals (1 and 2) of the plug.
3. Plug the green plug back into the SGR module.
4. Connect the two wires of input 1 (upper left corner) to the S1 connection of the VIVAVIS FNN Control Box.
5. Connect the two wires of input 2 (upper right corner) to the S2 connection of the VIVAVIS FNN Control Box.



6. Close the charging station.