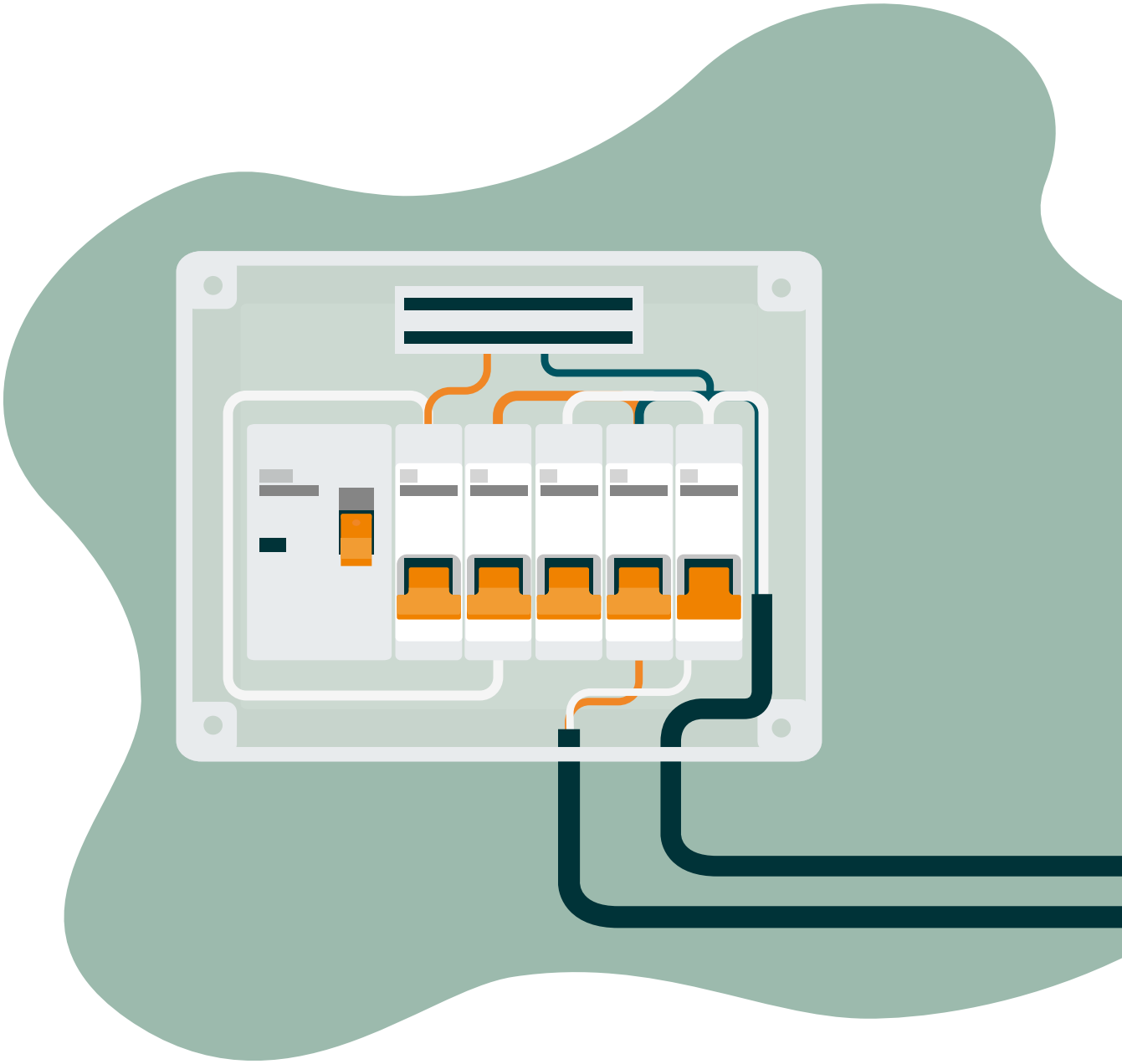
Installation manual

High Current



EV-Optimizer

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Safety warning

Carrying out electrical work at home or work can be dangerous. It must be carried out according to the applicable national safety standards and should be performed by a certified electrician. Because of safety reasons, it is necessary to turn off the installation before proceeding with the physical installation procedure.

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1.0 High Current

The High Current is suitable for a maximum of 20 supply stations and can only be installed with current transformers which are always included. The High Current goes up to a maximum of 1000A.

2.0 Installation High Current

For proper installation of the High Current it is important that you follow the next steps carefully. Take the required safety measures and always turn off the power!

Step 1
Turn off the main power in the meter box by flipping the main fuse or by unscrewing the fuses.

Step 2
Remove the screws of the distribution board and open it.

Step 3
Decide where to place the 3 measuring current transformers that will be connected to the High Current, and make sure they come out of the distribution board. Make sure to do this in a safe and secure manner.

Step 4
Click the measuring current transformers just before or right after the main fuse and put them on the 1st, 2nd, and 3rd phase. Make sure to install them in the same way. It doesn't matter in what order they are placed.

Step 5
Decide where to place the High Current and attach it to the wall using the fixing materials.

Step 6
Connect the cables of the measuring current transformer to the corresponding inputs of the High Current. See image 1 (nr. 1, 2, and 3). Make sure they are placed the same!

Make sure to connect the 1st phase with the 1st phase of the High Current, and do the same with phases 2 and 3.

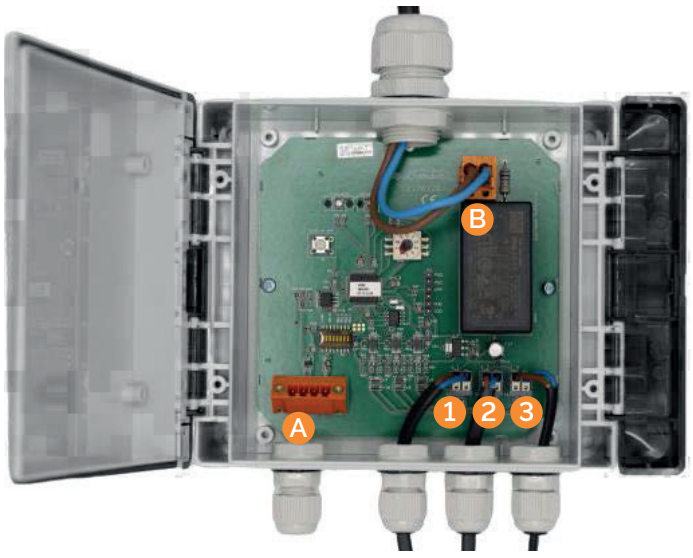


Image 1

Step 7

Put the data cable through the corresponding opening and attach the 2 wires from 1 wire pair of the SF-UTP cable in the orange/black connector as shown on image 2 and plug the connector to the corresponding RS485-port in the High Current. See image 1 (A) on page 4.

Make sure that the 2 wires correspond with the connected wires of the modem in the supply station.

Step 8

Connect the power in the High Current to the corresponding connection. See image 1 (B) on page 4. Connect the power.

Step 9

Now the LED-light on the print of the High Current should start to flash.

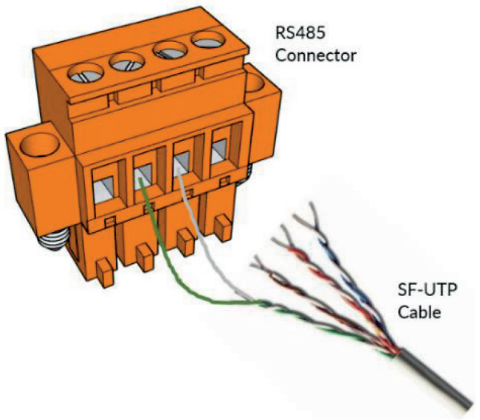
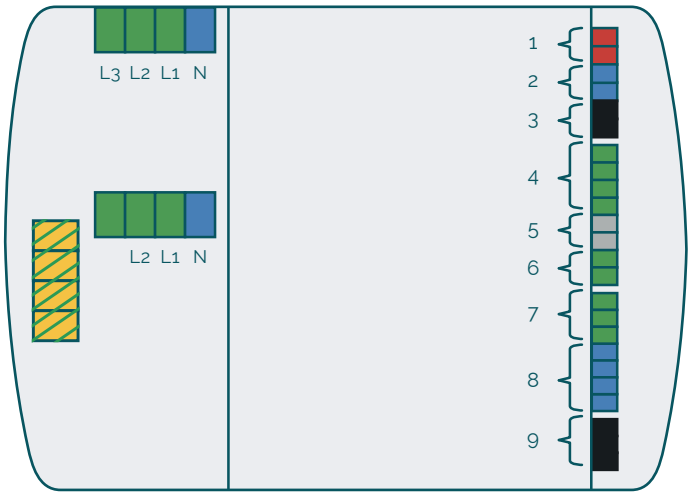


Image 2

3.0 G4-connection

The High Current is connected to the EV-Box G4 series with other connectors. This one is made for 2 instead of 4. The wire pair is connected in the same way as the connector with 4 pins.

G4 update - BusinessLine 1.2



Connection group	Description
1 - 2 pin, red	External relay
2 - 2 pin, blue	kWh meter
3 - 3 pin, black	RS485 hub-satellite communication
4 - 4 pin, green	Inputs: 4(1-2) Unused; 4(3-4) RCBO Temp. Sensor
5 - 2 pin, gray	RS485 smart charging communication *The port is also used for the RS485 Configuration Tool. You cannot operate the tool and SmartGrid module together
6 - 2 pin, green	Temperature sensor
7 - 3 pin, green	Pilot
8 - 4 pin blue	LED ring
9 - 3 pin, black	Lock motor

4.0 Main fuse or circuit breaker

First, determine whether the main fuse contains a fuse or a circuit breaker.

Now that the High Current has been installed, you can verify if the High Current is placed in the right way. If it concerns a fuse, there should be 2 lights turned on.

If it concerns a circuit breaker, there should be 1 light turned on.

If this is not displayed correctly, it can be changed with the button next to the lights.

1 light: circuit breaker
2 lights: fuse

Now contact the supplier of the supply station to verify the connection (smart grid connected) The High Current is now ready to be used!

⚠ EV-Optimizer is not responsible for calamities resulting from incorrect installations by third parties.

5.0 Troubleshooting LED indicator

Red: No connection with the EV-Box
Check the connection of the data cable! Use 1 wire pair, not 2 different wire pairs.
Turn the wire pair around.

Flashing green: Connection with the supply station
The flashing speed is equal to the power consumption. If the power usage goes up, the LED indicator will flash faster.

Continuing green: The EV-Optimizer is still in programming mode
Put the rotary switch (in the EV-Optimizer) from 5 to 6 inside the EV-Optimizer.

6.0 Correct cable specifications

SF UTP Cable

Rexel article number
2700306076

Technische Unie article number
3128246