



Installation Guide

Install and Configure the SolarEdge ONE EV Charger and EV Charger Pro

Version 3.0

June 2026

MAN-01-01248-3.0

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Revision history

Version	Date	Description
3.0	June 2026	Added: Internal and external overview, LEDS, part numbers, MID meter, ISO 15118, use cases, troubleshooting FAQs, and installation procedures
2.0	September 2025	Updated user interface for residential software
1.0	May 2025	Initial version

About

This installation and configuration guide is intended for installers. It provides safety, installation, maintenance, and operation requirements for the SolarEdge ONE EV Charger and SolarEdge ONE EV Charger Pro. It also explains how to configure and reconfigure the electric vehicle (EV) charger after installation.

The [Quick Installation Guide](#) (QIG) shipped with the EV charger explains how to install the EV charger out of the box. For technical specifications, refer to the [Datasheet](#).

Overview

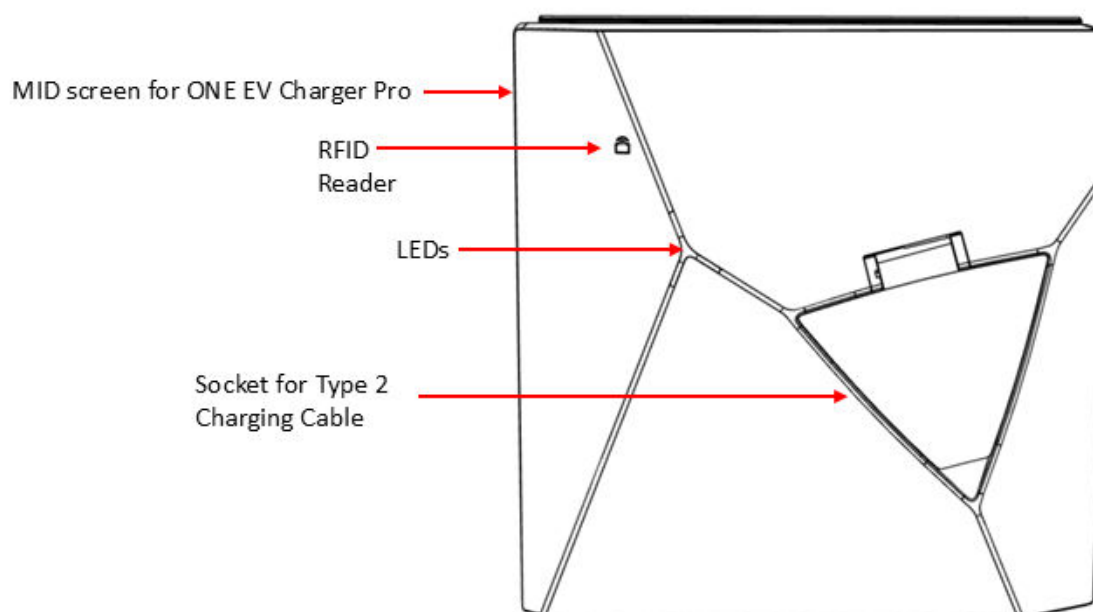


The SolarEdge ONE EV Charger and ONE EV Charger Pro utilize your excess PV energy to charge your EV efficiently and maximize your self-consumption. Key features and capabilities are described in the following table.

Category	Features and Capabilities
SolarEdge ONE EV Charger and ONE EV Charger Pro for residential installations	Advanced scheduling features to help lower electricity bills [8]
	Remote monitoring and control via SolarEdge apps, enabling you to operate the EV charger remotely, manage charging schedules, and track charging history
SolarEdge ONE EV Charger and ONE EV Charger Pro for residential and C&I installations	Compatible with single-phase and three-phase installations
	Multiple authentication options, including a built-in RFID reader, a mobile app, or plug-and-play charging [8]
	Flexible charging options, supporting socket or tethered configurations with a cable lock
	ISO 15118 [7] hardware readiness for Plug & Charge
SolarEdge ONE EV Charger Pro for residential and C&I installations	MID metering [6]
SolarEdge ONE EV Charger Pro for C&I installations	Cellular connectivity [26]

External overview

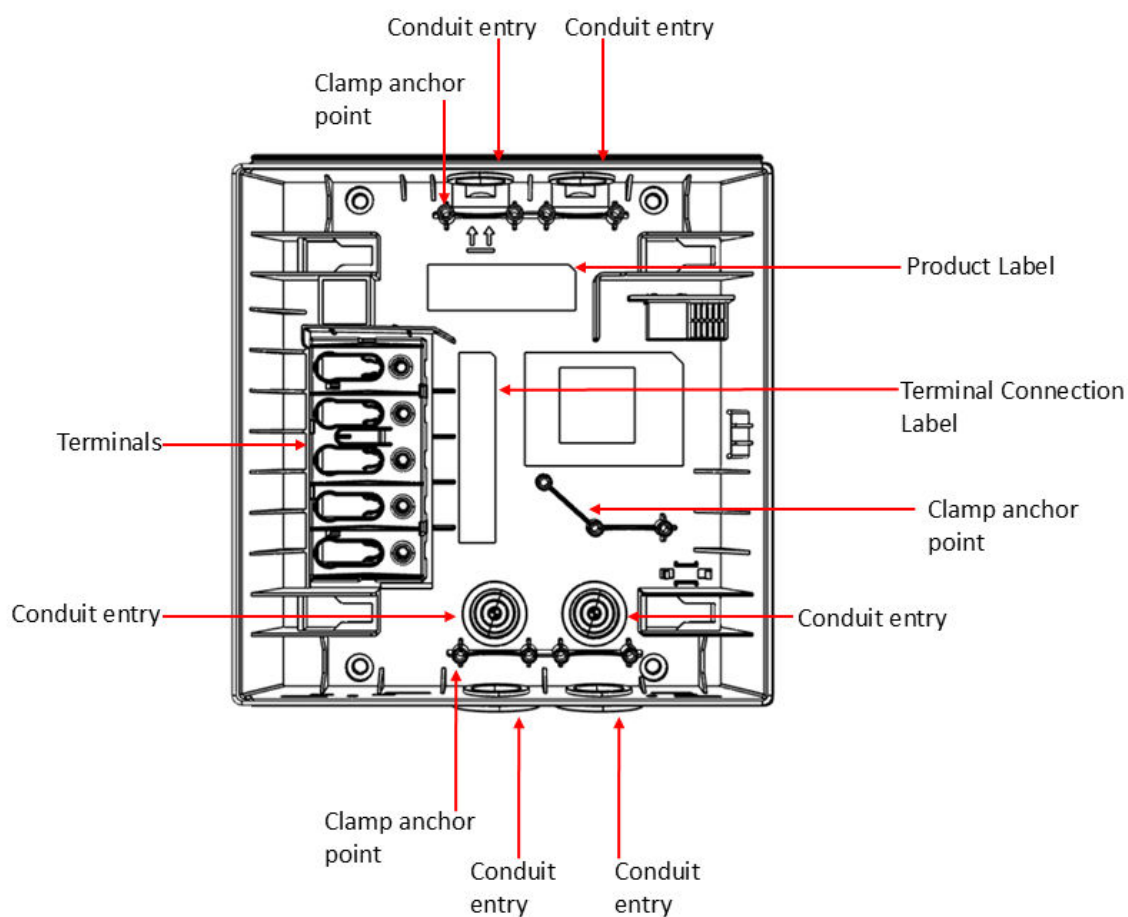
The following image provides an overview of the EV charger and its external features.



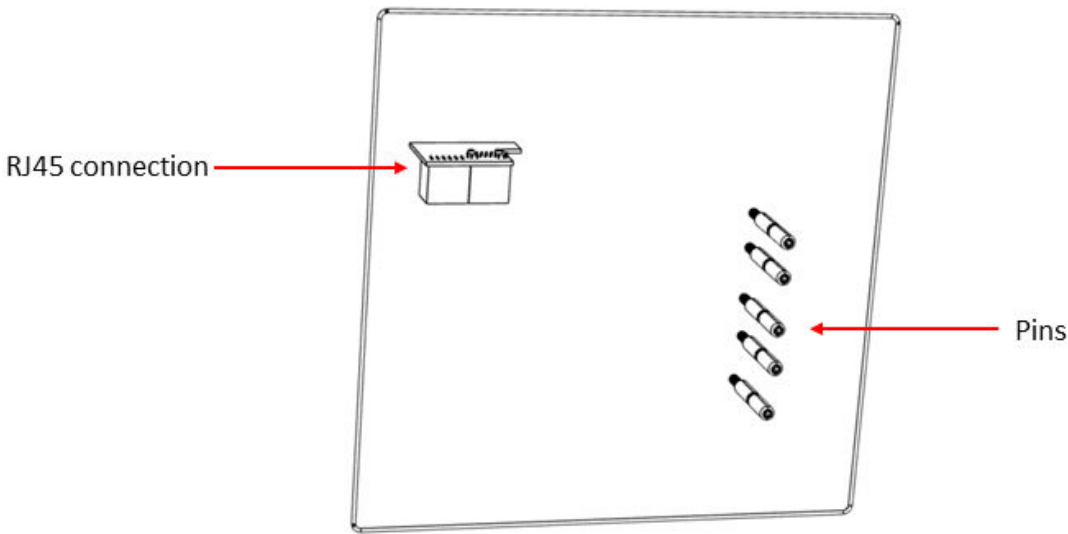
Internal overview

The following images provide an overview of the EV charger and its internal features.

On the backplate



Behind the frontplate



Technical and physical specifications

Specification	Value
Power and current	• Rated AC Power Output Up to 22 kW • Rated Current per phase: 6–32 A
Socket	Type 2, up to 32 A / 400 V AC, in accordance with EN 62196-1
Operating conditions	• Operating temperature: -30 to +50 °C • Storage temperature: -40 to +70 °C • Working air humidity: 5–80% non-condensing • Working altitude: maximum 2000 m above sea level
Protections	• Over-Voltage Category III, in accordance with EN 60664-1 • Protection Class IP54 • Mechanical Protection Class IK08 • Residual DC Detecting Device RDC-DD, 6 mA DC, according to IEC 62955
Dimensions	• Height: 23.5 cm • Width: 23 cm • Depth: 10.7 cm

Specification	Value
Weight	2.3 kg

**NOTE**

For further technical specifications, refer to the [Europe, Australia, and New Zealand Datasheet](#) and the [UK Datasheet](#).

Part numbers

- SolarEdge ONE EV Charger Part Number: SE-EVN22SE0-01
- SolarEdge ONE EV Charger Pro Part Number: SE-EVN22SEM-01
- SolarEdge ONE EV Charger for the UK Part Number: SE-EVN74SU0-01

Package contents

The EV charger package includes the following:

- EV Charger and backplate
- Quick Installation Guide (QIG)
- RFID card: This is used to authenticate a driver and start a charging session
- Ten screws
 - Four 5 x 50 mm
 - Four 4 x 15 mm
 - Two 4 x 8 mm
- One plug
- Two cable clamps
- One extra conduit

MID Meter

The MID meter is the certified built-in energy meter in the SolarEdge ONE EV Charger Pro. It enables the charger to measure energy consumption in kWh for regulated billing and reimbursement use cases.

**NOTE**

The base SolarEdge ONE EV Charger includes a built-in meter for charging history and energy visibility.

ISO 15118 support

ISO 15118 is the communication standard between an EV and an EV charger.

The SolarEdge ONE EV Charger and EV Charger Pro are designed to support ISO 15118. When the EV is plugged in, the charger automatically authenticates the vehicle, allowing the charging session to start without an RFID card, app, or manual authentication. It also enables the user to view the EV charging status during the charging session.

Charging process:

1. The EV is plugged into the charger.
2. The EV and charger communicate using ISO 15118.
3. The vehicle securely identifies and authenticates itself.
4. After authentication, charging starts automatically.

**NOTE**

This feature depends on the vehicle, charger, and charging ecosystem all supporting Plug & Charge.

LED indications

LED state	Status
	Ready to charge
	Charging
	Standby - online
	Standby - offline
	Critical error. Contact SolarEdge Support .
	Contact the installer

Charging modes and power control

The SolarEdge ONE EV Charger and EV Charger Pro support the following charging modes and a power control option.

Charging / power control	Description
Plug-and-play	Charging starts automatically when authorization is disabled.
RFID authorized	Charging starts after the user scans an authorized RFID card.
App-controlled	For residential installations users can start charging manually in the mySolarEdge app.
Scheduled	For residential installations users can define scheduled charging times in the mySolarEdge app.
Excess PV	The charger uses available excess PV energy to charge the EV.
Plug & Charge	For compatible SolarEdge ONE EV Charger and EV Charger Pro installations, the EV and charger use ISO 15118 to authenticate the vehicle automatically, if this is supported by the vehicle and charging ecosystem.
Import-limit power control	Charging power is reduced automatically to help prevent overloading the home connection.

Installation, operation, and maintenance requirements

The following information explains how to [install](#) [8] [operate](#) [11] and [maintain](#) [11] the EV charger.

Safety and installation requirements

Safety requirements

Before and during installation, follow these safety requirements.



NOTE

Only certified installers are allowed to install the EV charger. Ensure you comply with national and regional regulations during the installation process.

**WARNING**

There is a risk of electric shock. Before and during installation, switch off the power. Activate the power only after the installation is complete.

**IMPORTANT**

The installer and homeowner are responsible for connecting and installing ground protection. Ensure that the installation is correctly grounded and that a properly grounded electrical outlet is used, according to local laws and regulations.

**NOTE**

Ensure that the EV charger's AC grid connection and load planning comply with all applicable national and regional laws, regulations, and standards. Obtain approval from the relevant authorities, as required.

Regulations may vary depending on your region or country of residence.

Storage and environmental requirements**IMPORTANT**

- Store the EV charger away from flammable or explosive materials and flowing water
- Avoid exposure to direct sunlight and extreme weather conditions, such as blizzards and thunderstorms
- [Maintain relative humidity \[5\]](#) in the storage and usage location
- Avoid radioactive or corrosive substances
- Maintain a stable temperature within the [specified \[5\]](#) range
- For outdoor installations, conduct inspections according to local laws and regulations

Installation location requirements**IMPORTANT**

- Install the EV charger in a fixed location with sufficient wall or structural load-bearing capacity
- Do not install the EV charger close to strong electromagnetic fields or radio transmitters
- The EV charger is designed for use in open-access areas

Electrical installation requirements

Connect the EV charger to the required upstream electrical protection:

1. An upstream circuit breaker.



NOTE

Use a circuit breaker rated maximum 40 A. A C-curve circuit breaker is recommended.

2. A residual current device (RCD).



NOTE

The recommended RCD is a type A rated 40 A, 30 mA.

Cable and charger handling requirements



IMPORTANT

- Refer to the [QIG](#) for instructions on opening and closing the EV charger
- Do not use the charging cable with an extension cable or adapter
- Only use cables specified in IEC 62196
- Do not step on or squeeze the cable during installation
- Verify that the cable and charger are compatible, are not worn, and have undamaged insulation
- Position the cable to prevent unintended movement by people, animals, or other moving objects

Operation requirements



IMPORTANT

- Keep the EV charger's QIG and PIN code in a safe place
- When the power circuit is active, the terminals on the backplate are electrified; do not touch or make contact, except when the charger is installed
- Do not allow any foreign objects except cable plugs to touch the socket
- Do not pull or poke the cable with sharp objects
- Do not touch the cable plug with wet hands
- Do not use extension car charging cables
- Replace damaged cables or plugs to prevent safety hazards

Maintenance requirements



IMPORTANT

Maintenance and repairs must only be performed by authorized electricians.



WARNING

Before disassembling the EV charger, disconnect the power.



NOTE

For disassembly instructions, refer to the QIG and follow the EV charger installation procedure in reverse order.



IMPORTANT

- Transport EV chargers in their packaging
- If the EV charger is dropped, conduct a visual inspection
- Do not install or use damaged products
- Maintenance and repair of the EV charger must comply with national and regional laws, regulations, and standards

Disposal requirements

Do not dispose of the EV charger with general household waste. Dispose of the EV charger according to applicable national and regional laws, regulations, and standards. For proper

disposal instructions, consult the local authority or an approved electronic waste collection facility.

Required tools

- 6 mm drill bit
- Pencil
- Hammer
- Pliers
- Phillips screwdriver
- Utility knife
- Torque wrench
- T20 bit with a screwdriver

Install the EV charger



NOTE

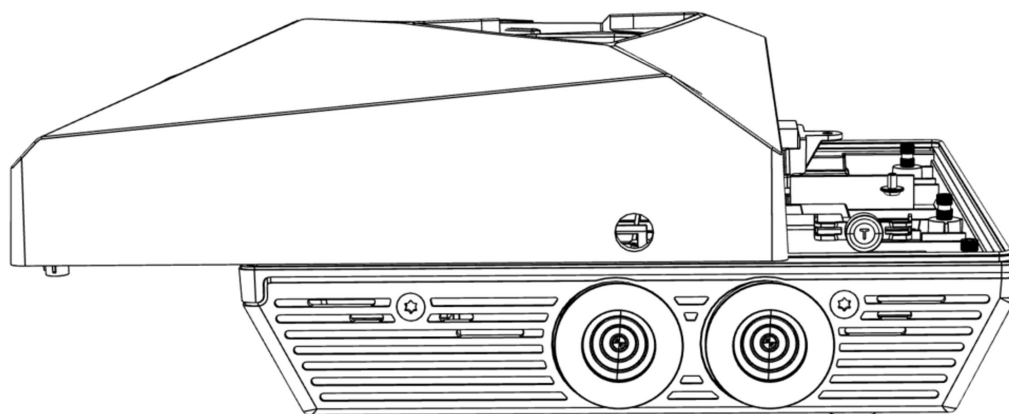
- Mount the EV Charger at least 140 cm above the floor
- Mount the EV Charger with at least 5 cm clearance from the ceiling and the surrounding walls

1. Remove the EV charger front cover from the backplate by sliding it to the left, as displayed below.

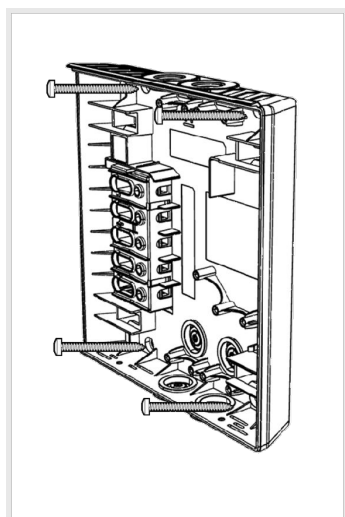


NOTE

Place the EV charger on a flat surface before sliding the front of the EV charger away from the backplate.



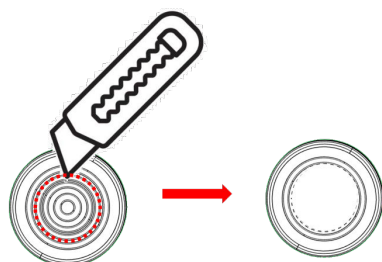
2. Install the backplate on the wall by tightening the supplied 5 x 50 mm screws to 2.5 N·m.



3. Remove the plastic seal from the conduit entries, as displayed below.

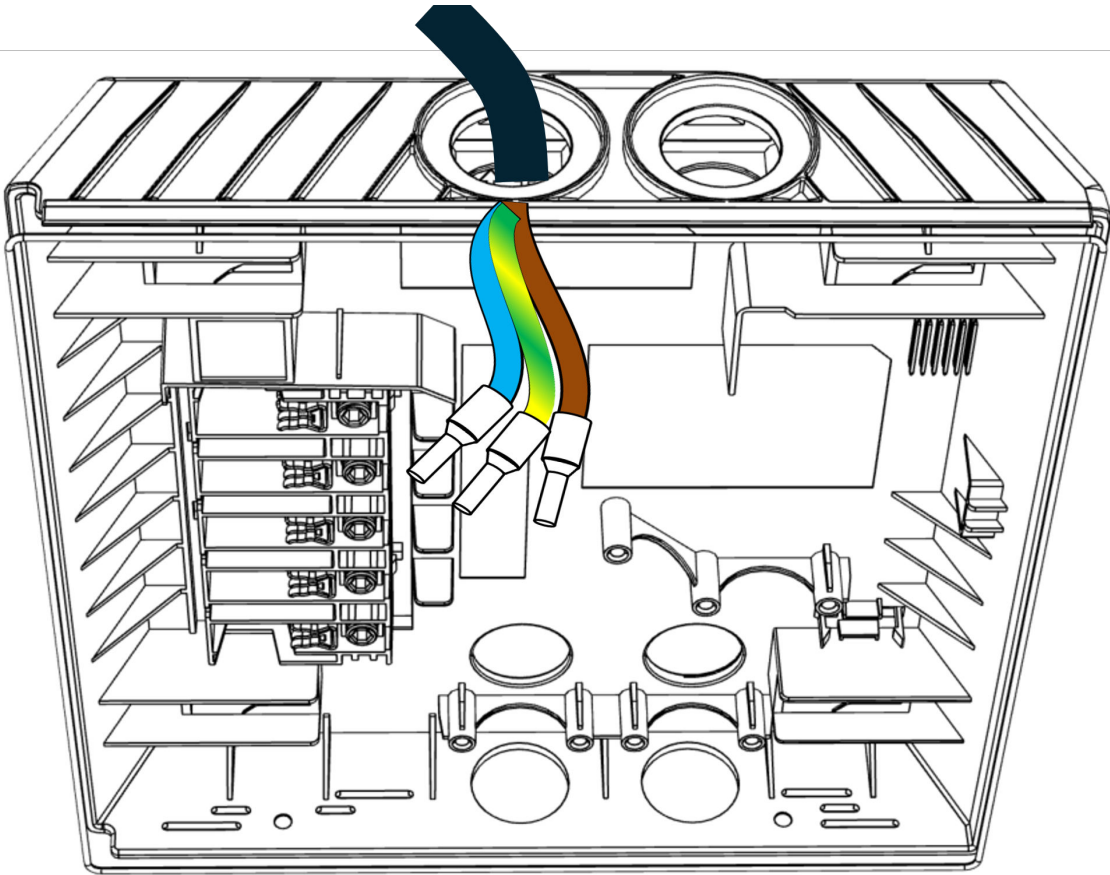
**NOTE**

Measure the diameter of the cable before cutting the conduit entry.

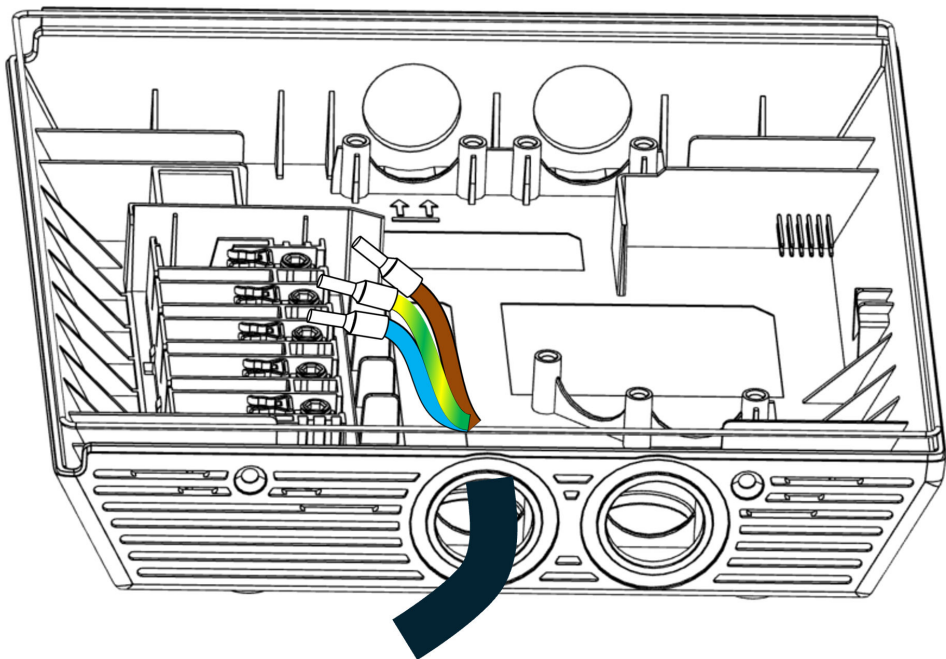


4. Route the power cables through the top, bottom or back conduit entry, as displayed below.

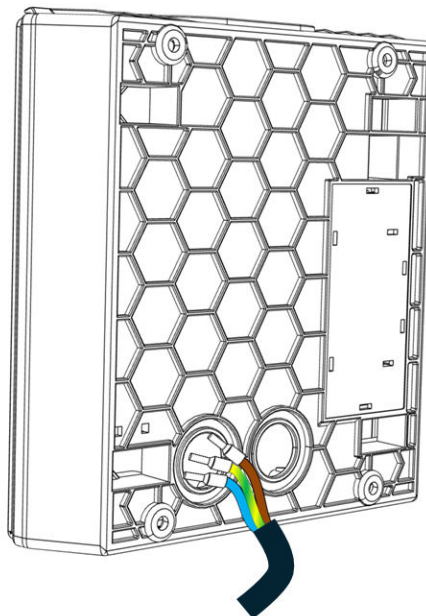
Top



Bottom



Back

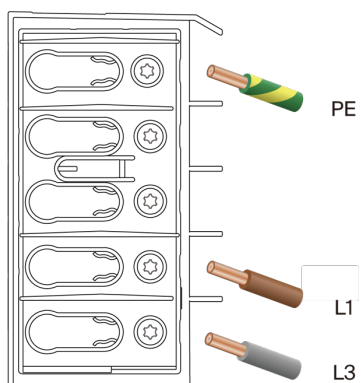


5. Install the ends of the cables into the terminals, as displayed below.

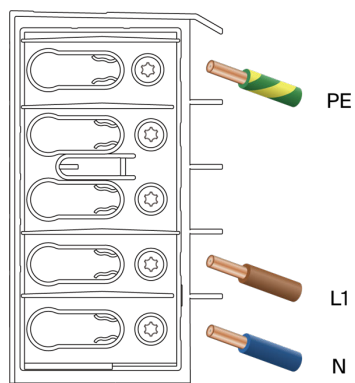


NOTE

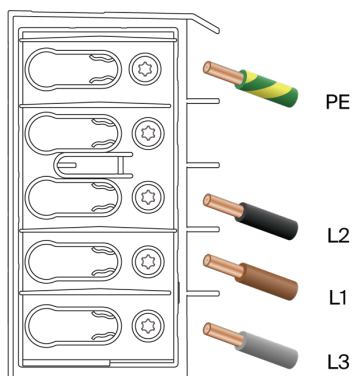
- For a three-phase installation, connect PE, L3, L2, L1 and Neutral cables
- For a single-phase installation, connect PE, L1 and Neutral cables



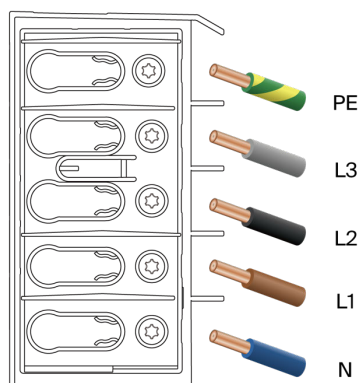
IT/TT 1-phase (230V)



TN/TT 1-phase (230V)



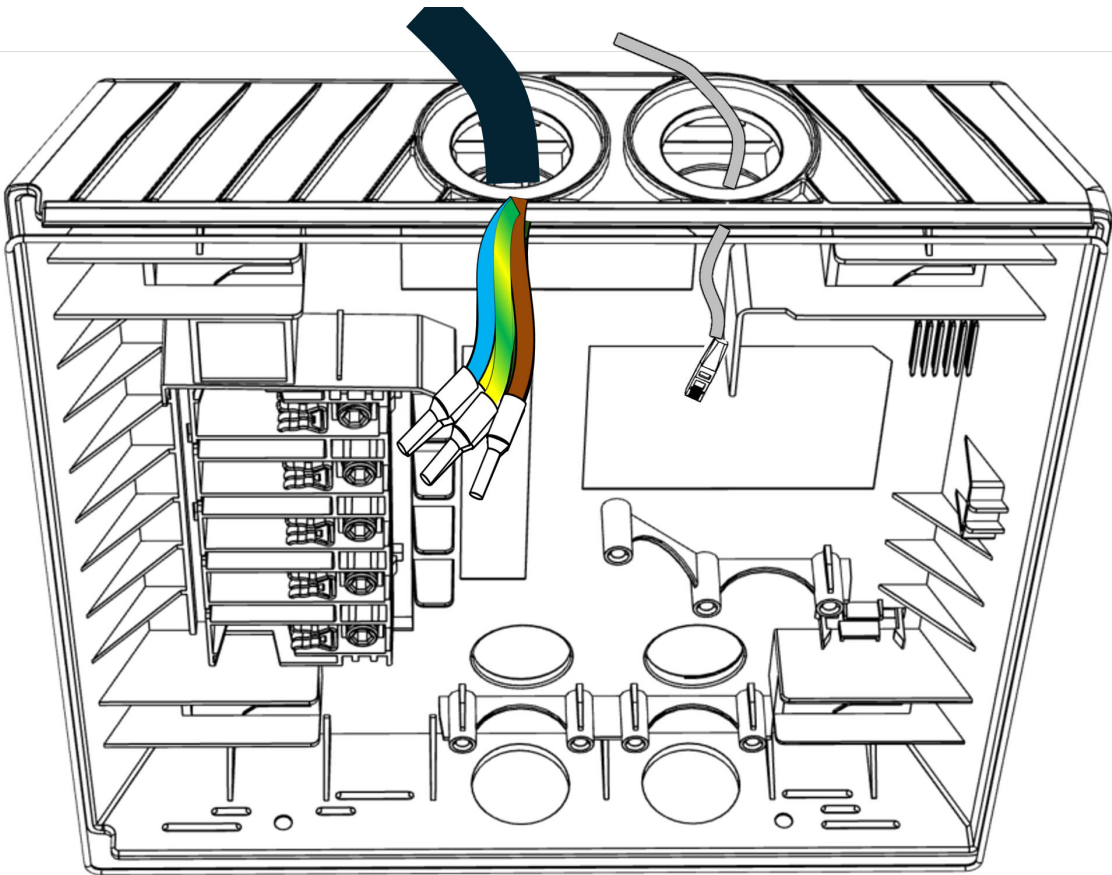
IT/TT 3-phase (3 x 230V)



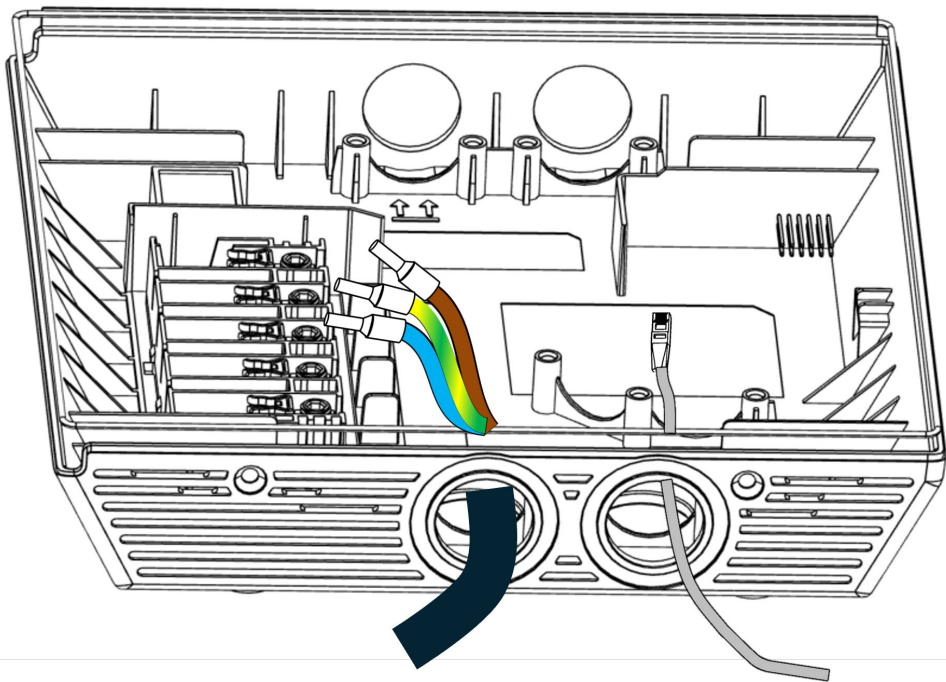
TN/TT 3-phase (3X 230V/400V)

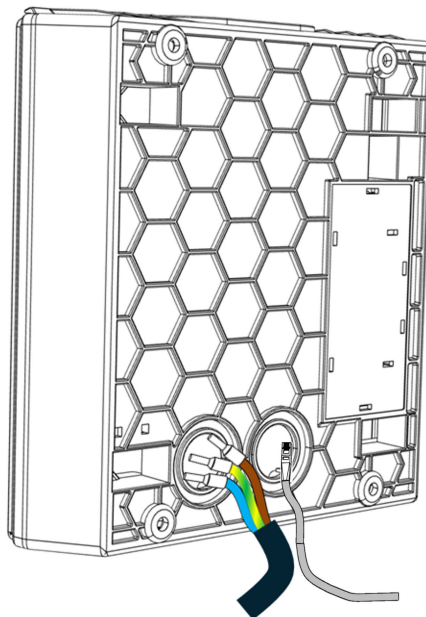
6. Route the Ethernet cable through the top, bottom or back conduit entry, as displayed below.

Top

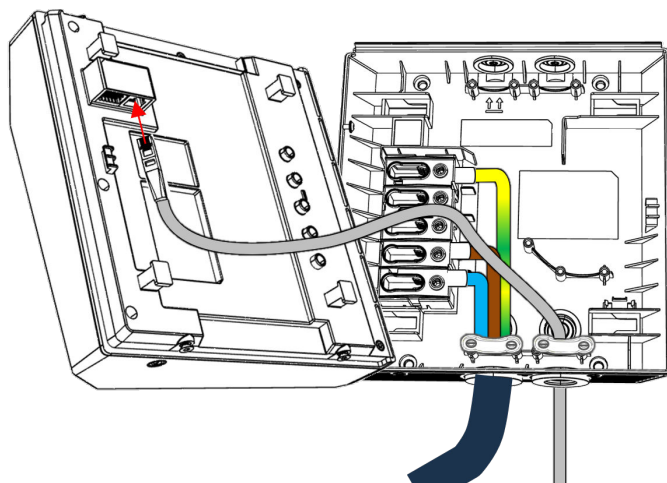


Bottom



Back

7. Connect the Ethernet cable to the Ethernet port on the inside of the front cover, as displayed below.

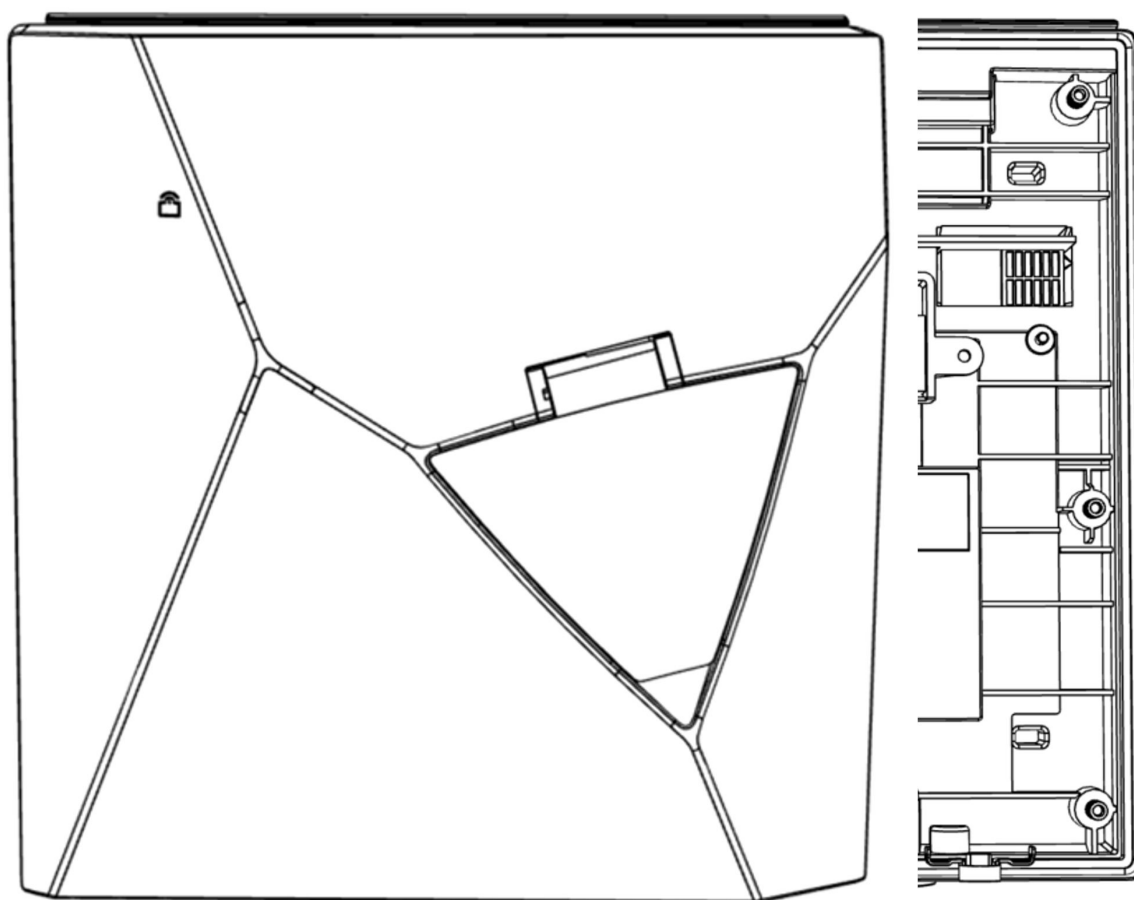


8. Attach the cable clamps to the anchors on the backplate, and screw them in with the supplied 4 x 15 mm screws.

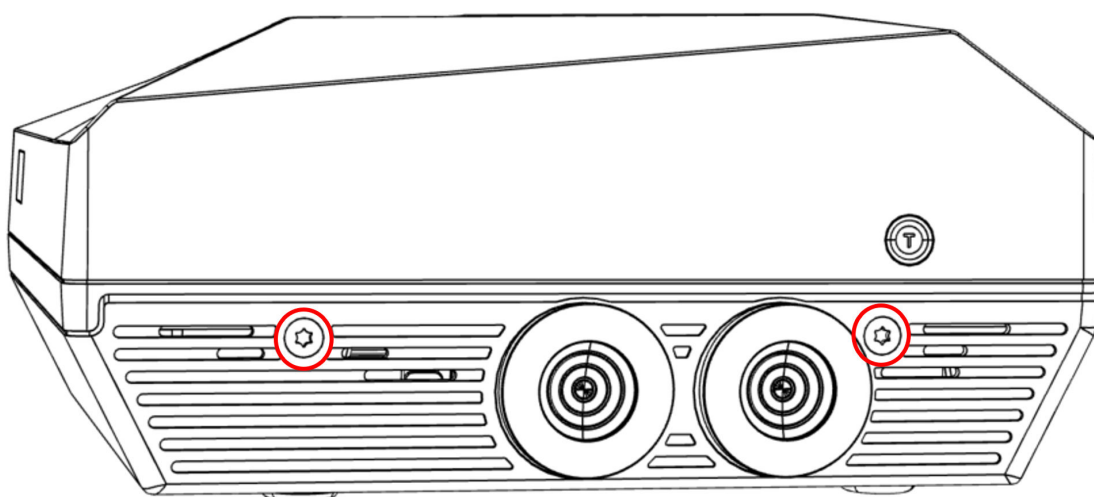
**NOTE**

- Use both provided cable clamps if you are installing an Ethernet cable in addition to the power cables
- If you route the cables through the back conduit entry, only use the center screw holder to secure both cable clamps

9. Attach the EV charger front cover to the backplate by sliding it to the right, as displayed below.



10. Secure the front cover of the EV charger to the base of the EV charger with the supplied 4 × 8 mm screws.



Configure the EV charger

The following explains how to configure the SolarEdge ONE EV charger for [Residential \[20\]](#) and [C&I \[26\]](#) installations.



IMPORTANT

- For SolarEdge ONE EV for C&I, standalone, and third-party Charge Point Management Systems (CPMS), set up the CPMS system before configuration
- To set up a SolarEdge C&I CPMS system with ONE EV for C&I, email Support-EV@solaredge.com
- For third-party CPMS setups, contact your Charge Point Operator / CPMS provider

Configure chargers for residential installations with Ethernet or Wi-Fi



NOTE

- This option is available for systems with a residential inverter, with or without a battery
- It is only supported on inverters running firmware version 4.24.22 or later, excluding 4.xx.5xx versions

Before configuration:

- After installing and connecting the EV charger, turn it ON
- Ensure you have the SolarEdge Go app to configure the Ethernet or Wi-Fi connection

The following procedures explain how to configure the EV charger for residential use.

To connect the EV charger to Ethernet:

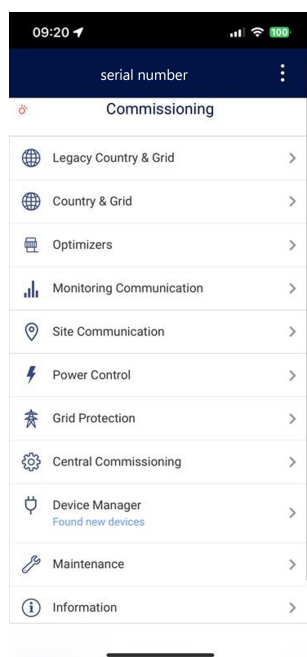


NOTE

SolarEdge recommends connecting your EV charger via Ethernet to ensure a stable connection.

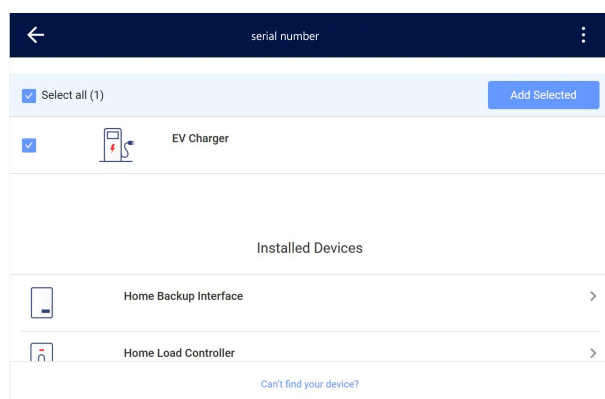
1. Connect the Ethernet cable to your SolarEdge ONE EV charger and router. Make sure your EV charger is in the same network as your inverter.
2. Open SolarEdge Go, and scan the QR code on the inverter.

The **Commissioning** screen is displayed.



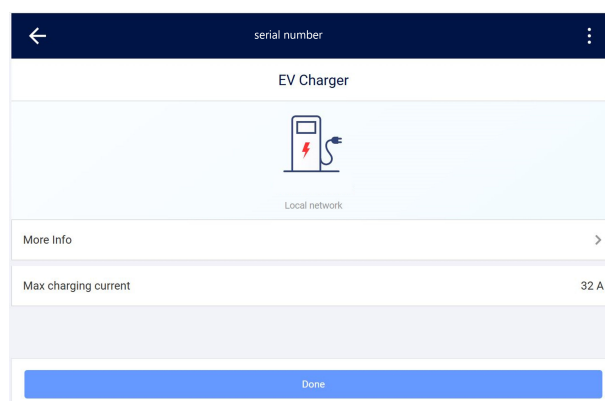
3. In **Device Manager**, select **Found new devices**.

The **Device Manager** screen is displayed.



4. Select the EV charger's checkbox > **Add Selected**.

Your EV charger is displayed.



5. Select **Done**.

**NOTE**

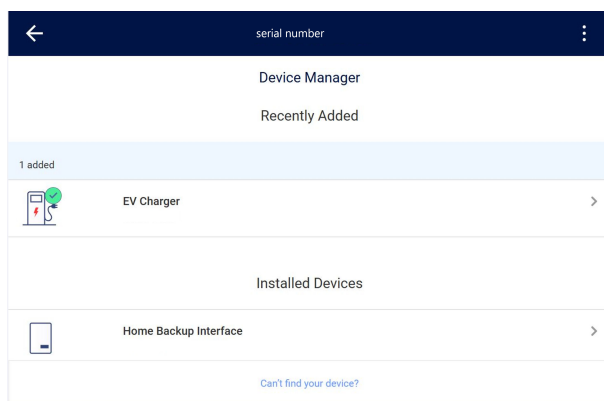
To adjust the local charger settings, connect to the EV Charger locally.

You can change the following settings:

- Maximum charging current
- Network settings
- Grid settings
- LED brightness

You can also reboot the charger.

The **Device Manager** screen is displayed with the EV charger added. Your EV charger is now commissioned.



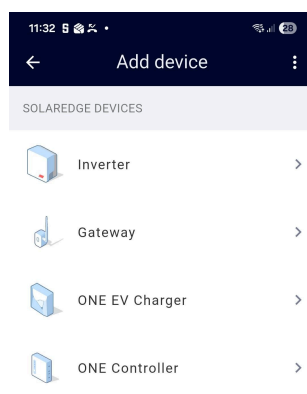
To configure the EV charger for a Wi-Fi connection:

**NOTE**

The QR code, Serial Number, and PIN code for connecting and configuring the EV charger to the inverter are displayed on the EV charger and the QIG.

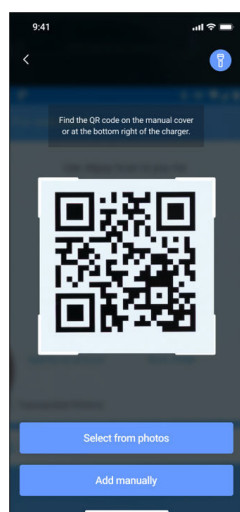
1. On your mobile phone, open **SolarEdge Go**.
2. Go to your EV charger site and select **Add Device**.

The **Add device** screen is displayed.



3. On the **Add device** screen, select **ONE EV Charger**.

The in-app camera is displayed.



4. Scan the QR code located on the sticker on the QIG, or type the serial number and PIN code found on the cover of the QIG.

The **Connect to charger** screen is displayed. The **Serial number** and **PIN code** fields are pre-filled.

12:49

< Connect to charger

Serial number
Find the serial number on the manual cover or on the right side of the charger.

SN-000000000

PIN code
Find the PIN code on the manual cover.

1234

Confirm

5. Select **Confirm**.

Your mobile is connecting to the EV charger. When connected, the **Select Wi-Fi** screen is displayed.

< ONE EV Charger

Select Wi-Fi

Bakker living room	
Bakker	
Smith	
Adam	

Enter Wi-Fi Manually

6. Select your Wi-Fi network.

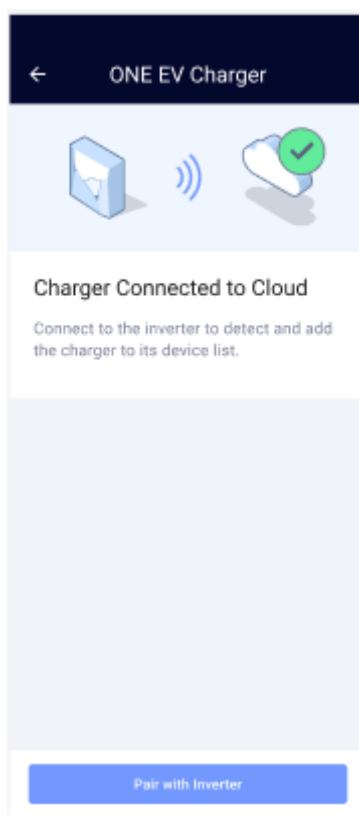
**NOTE**

Make sure your selected Wi-Fi network is on the same network as your inverter.

If your Wi-Fi network is not displayed, do one of the following:

- a. Refresh the screen.
 - b. Select **Enter Wi-Fi Manually**.
7. Enter your Wi-Fi password.
 8. Select **Continue**.

Your charger is connected to the cloud.



9. Select **Pair with Inverter**.

**NOTE**

Follow the steps to connect your EV charger to your inverter, as described in **To connect the EV charger to Ethernet** above.

**NOTE**

To reconfigure your EV charger, refer to [Reconfigure chargers for residential and C&I installations \[31\]](#)

Configure chargers for C&I, third-party, or standalone installations

After installing and connecting the EV charger, turn the EV charger on to configure it for C&I using **SolarEdge ONE EV Charger Setup**. To download SolarEdge ONE EV Charger Setup, select [iOS](#) or [Android](#).

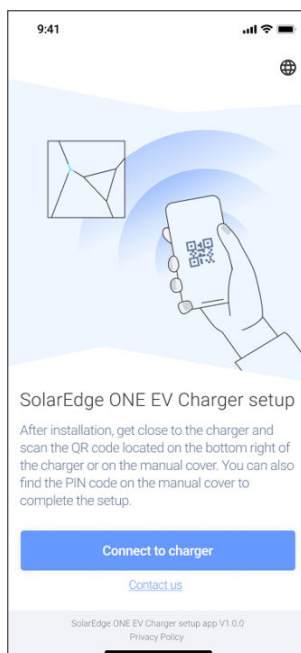
To configure the EV charger:

**NOTE**

The QR code, Serial Number, and PIN code for connecting and configuring the EV charger to the inverter are displayed on the EV charger and the QIG.

1. On your mobile phone, open **SolarEdge ONE EV Charger setup**.

The **SolarEdge ONE EV Charger setup** screen is displayed.

**NOTE**

To change the language, tap . By default, the language matches your mobile phone settings. On the **Language** screen, tap  to return to the **SolarEdge ONE EV Charger setup** screen.

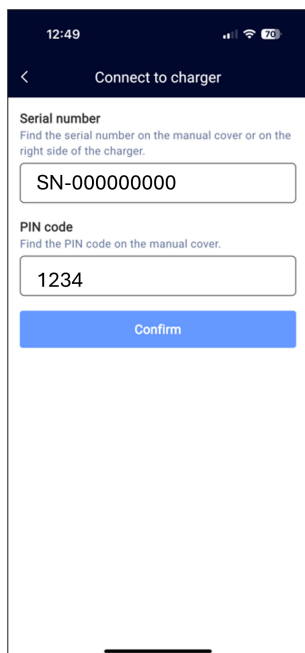
2. Select **Connect to charger**.

The in-app camera is displayed.



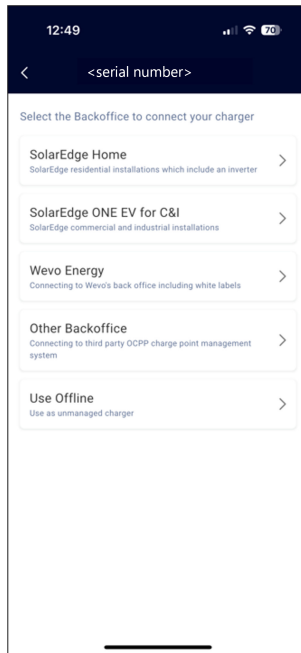
3. Scan the QR code located on the sticker on the QIG, or type the serial number and PIN code found on the front of the QIG.

The **Connect to charger** screen is displayed. The **Serial number** and **PIN code** fields are pre-filled.



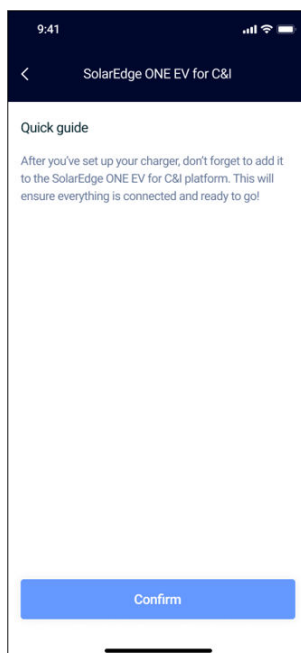
4. Select **Confirm**.

The **<Backoffice>** screen is displayed.

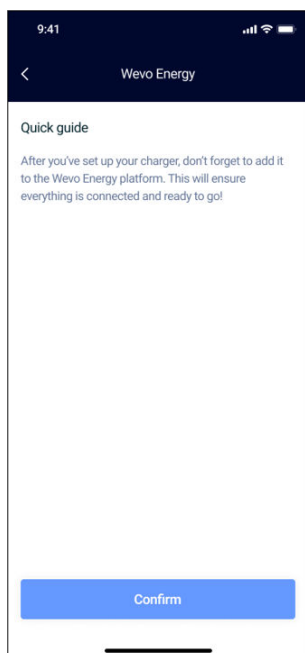


5. On the **<Backoffice>** screen, select from the following:
- **SolarEdge ONE EV for C&I:** Connects to SolarEdge commercial and industrial installations
 - **Wevo Energy:** Connects to Wevo's back office, this includes white labels
 - **Other Backoffice:** Connects to a third-party OCPP based CPMS
 - **Use Offline:** The EV charger is not managed by a CPMS

For C&I installations, the **SolarEdge ONE EV for C&I** screen is displayed.



If you selected Wevo, the **Wevo Energy** screen is displayed.



6. Read the **Quick guide** information on the screen, then select **Confirm**.

The **Network** screen is displayed.



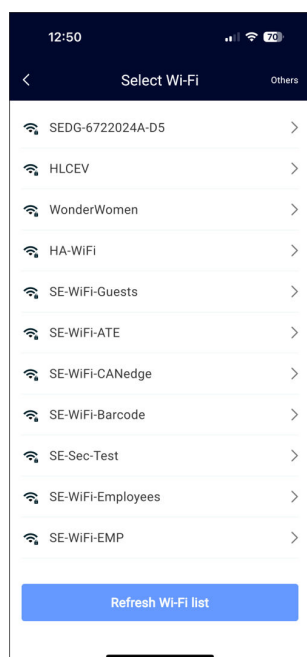
7. Select your network > **Continue**.

If you chose Wi-Fi the **Select Wi-Fi** screen is displayed. If you chose Ethernet, follow the steps [here \[20\]](#).



NOTE

If you chose the Cellular option, ensure it is commissioned for **Cellular in the Backoffice**.

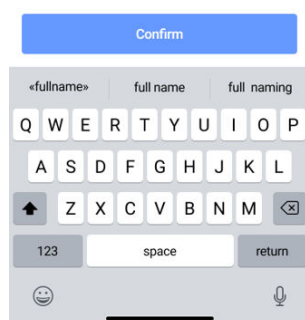
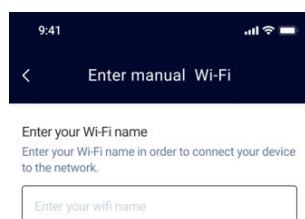


8. Select the Wi-Fi network.

If your Wi-Fi network is not displayed, do one of the following:

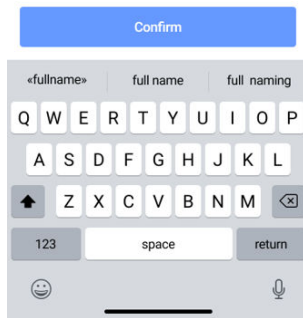
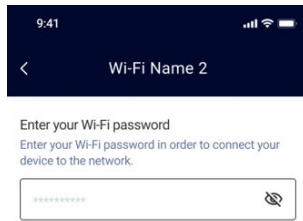
- a. Select **Others**.
- b. Select **Refresh Wi-Fi list**.

The **Enter manual Wi-Fi** screen is displayed.



9. To connect your device, enter your Wi-Fi name, then select **Confirm**.

The **Wi-Fi Name 2** screen is displayed.

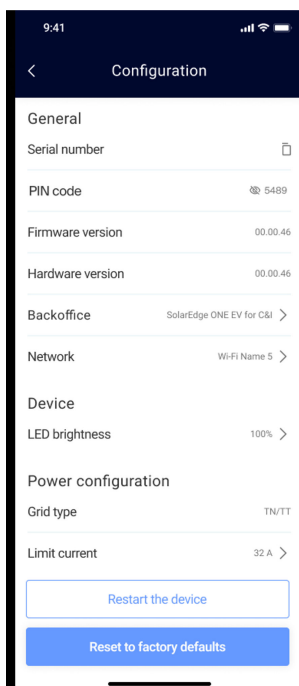


10. Enter your Wi-Fi password.
11. Select **Confirm**.

Your device is connected to Wi-Fi. To reconfigure your EV charger, refer to [Reconfigure chargers for residential and C&I installations \[31\]](#).

Reconfigure chargers for residential and C&I installations

To reconfigure your EV charger:



1. On the **Configuration** screen, as displayed above, select one of the following:

a. **Backoffice****NOTE**

Backoffice can only be reconfigured in C&I configurations.

b. **Network**c. **LED brightness:**

The **LED brightness** screen is displayed.

i. Change the setting.

ii. Select **Save**.

Your settings are saved.

d. **Limit current:**

The **Limit current** screen is displayed.

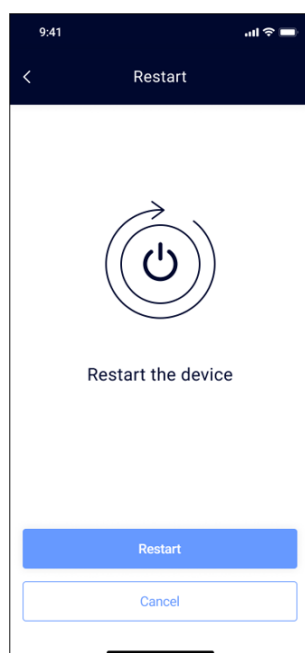
i. Change the setting.

ii. Select **Save**.

Your settings are saved.

2. To restart your device, select **Restart the device**.

Restart is displayed.

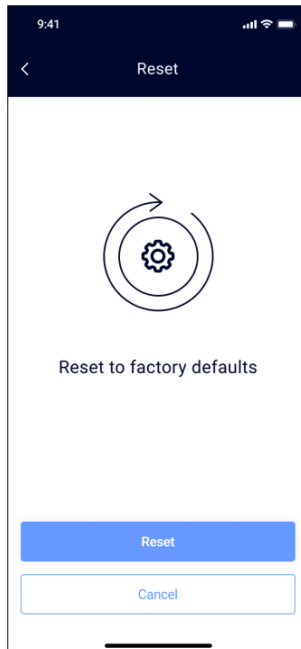


3. Select **Restart**.

You are automatically redirected to the **SolarEdge ONE EV Charger setup** screen.

4. To reset to factory default, select **Reset to factory defaults**.

Reset is displayed.



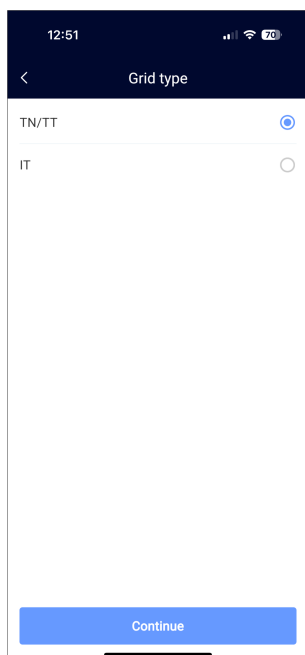
5. Select **Reset**.

You are automatically redirected to the **SolarEdge ONE EV Charger setup** screen.

Change the grid type for residential and C&I installations

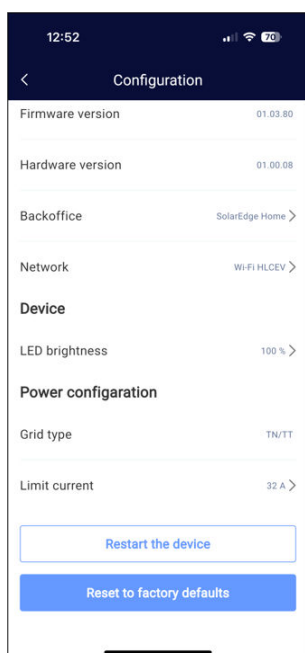
To change the grid type:

1. From the **Grid type** options, select **TN/TT** or **IT**.



2. Select **Continue**.

The **Grid type** is saved, and the EV charger is successfully configured. The **Configuration** screen is displayed.



Use cases

- **Residential:** Use with a SolarEdge residential PV system with up to three chargers
- **Commercial with PV:** Use with a SolarEdge commercial PV solution
- **Commercial without PV:** Use without a SolarEdge PV system

- **Standalone:** Use without a PV system

**NOTE**

For more information on commercial and standalone installations, refer to the [SolarEdge ONE EV Charger Brochure](#).

Troubleshooting

The following post-installation checks help installers verify that the EV charger is installed, configured, and communicating correctly.

1. Verify that the EV charger is powered on.
2. Verify that the inverter firmware is higher than 4.22.22.
3. Verify that the EV Charger firmware is higher than 4.0.44.
4. Verify LAN or Wi-Fi connectivity.
5. Verify that the EV Charger and inverter are on the same network.
6. In SolarEdge Go, verify that the EV Charger appears in the [Device Manager of the inverter \[20\]](#).
7. Add the EV Charger if required.
8. Verify that the EV Charger shows a green check mark.
9. If the charger is not detected, check for an IP address conflict and configure a fixed IP address if required.

Frequently asked questions

1. **When should I choose the Pro version over the Standard version?**

Select the Pro version when the installation requires one or more of the following capabilities: built-in LTE connectivity, RFID-based access control, or MID-certified energy metering. These features are typically relevant for workplaces, shared parking areas, fleet use, tenant billing, or reimbursement scenarios. The Standard and Pro versions support charging power up to 22 kW. The Pro version adds connectivity, access control, and metering functions.

2. **What is the benefit of automatic phase switching?**

Automatic phase switching allows the charger to change the charging phase configuration based on available site capacity. In three-phase installations, this can help match EV charging to available solar or grid power. This function is useful in installations where solar generation or available load varies during the day, including sites with single-phase solar systems connected to a three-phase supply.

3. How does the charger stay connected if my internet goes down?

All charger models support Ethernet and Wi-Fi connectivity. The Pro version also includes an integrated eSIM for cellular connectivity. Cellular backup allows the charger to maintain remote communication for diagnostics, software updates, and tariff-based charging functions when the local network connection is unavailable.

4. Is the charger compatible with Plug & Charge and future bidirectional charging?

Yes. The Pro version hardware is designed to support ISO 15118, the communication standard used for Plug & Charge. The hardware is also prepared for future Vehicle-to-Home and Vehicle-to-Grid functions through firmware updates, subject to vehicle compatibility, site configuration, applicable regulations, and supported SolarEdge functionality.

5. Can I use the charger for official billing or reimbursement purposes?

The Pro version includes a built-in MID-certified energy meter. This enables revenue-grade energy measurement for use cases such as employee reimbursement, tenant billing, fleet charging allocation, and shared parking cost tracking. The charger also supports OCPP communication for integration with compatible backend systems.

6. How is the charger protected from cyber threats?

The EV charger includes cybersecurity mechanisms such as device-level digital certificates, encrypted communication, and secure firmware update processes. These controls are designed to protect device communication and software integrity within the connected SolarEdge energy system.

7. How well does the charger scale from a single car to a fleet?

For residential installations, up to three chargers can be installed and managed together. For commercial sites, shared parking areas, and multi-unit residential buildings, the charger can connect to the SolarEdge ONE platform or an OCPP-compliant backend. This enables centralized monitoring, charging schedules, load sharing, user management, and energy cost allocation across multiple chargers.

8. Can the SolarEdge ONE EV Charger Pro be installed in the UK?

The SolarEdge ONE EV Pro Charger cannot be installed in the UK. Please install the ONE EV Charger in the UK.

SolarEdge support, warranty and related documentation

- If there are technical problems with the SolarEdge ONE EV Charger or EV Charger Pro, have the EV Charger's serial number available when you contact [SolarEdge Support](#).
- For the SolarEdge EV Charger warranty information, refer to the [SolarEdge Limited Product Warranty](#).
- For more information about the SolarEdge ONE EV Charger, refer [here](#).

- Refer to the [SolarEdge Homeowner EV Charger Feature Guide](#) for information about using the charger after installation. For C&I applications, refer to the relevant SolarEdge ONE for EV documentation, including the [SolarEdge ONE EV Charger Brochure](#).