

IQ EV Charger 2

Quick install guide

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MODEL
IQ-EVSE-UK-1032-0105-1300

VERSION 1.0
NOVEMBER 2024



140-00516-01



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1. Introduction

The IQ EV Charger 2 combines advanced hardware with energy management, making it easy to install and compatible with all Type-2 EVs. Regular over-the-air updates ensure that the charger remains future-proof. Whether used as a standalone unit or integrated with Enphase Energy Systems, users can seamlessly manage solar, battery, and EV charging through the Enphase App.

Save more with AI-driven home energy management, optimising for the lowest utility rates and efficient solar charging. Up to 100% of excess solar power can be directed to EV charging, maximising savings. Designed for all European grids, the IQ EV Charger 2 offers wired and wireless data connectivity for flexible installation. It also includes a built-in MID meter for accurate usage tracking and a Type-2 connector, suitable for all EVs in Europe. Access and control are managed easily through the Enphase App.

2. Integration with the Enphase Energy System

The IQ EV Charger 2 integrates flawlessly with Enphase Energy Systems, allowing users to manage solar, battery, and EV charging—all from the Enphase App. The following figures show the system diagram of a few configurations in which the charger can be installed.

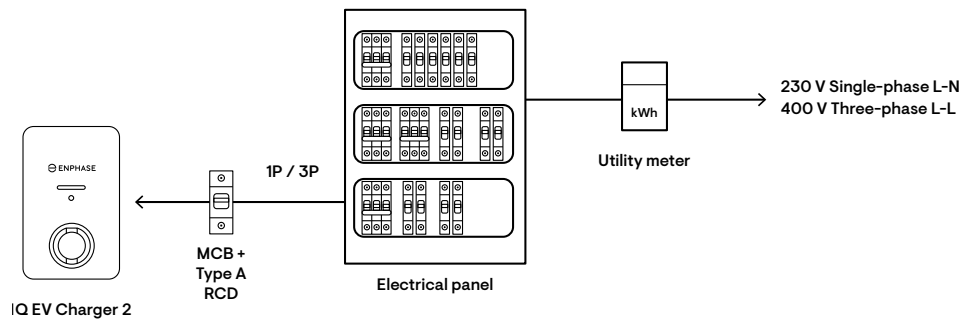


Figure 1: Standalone configuration

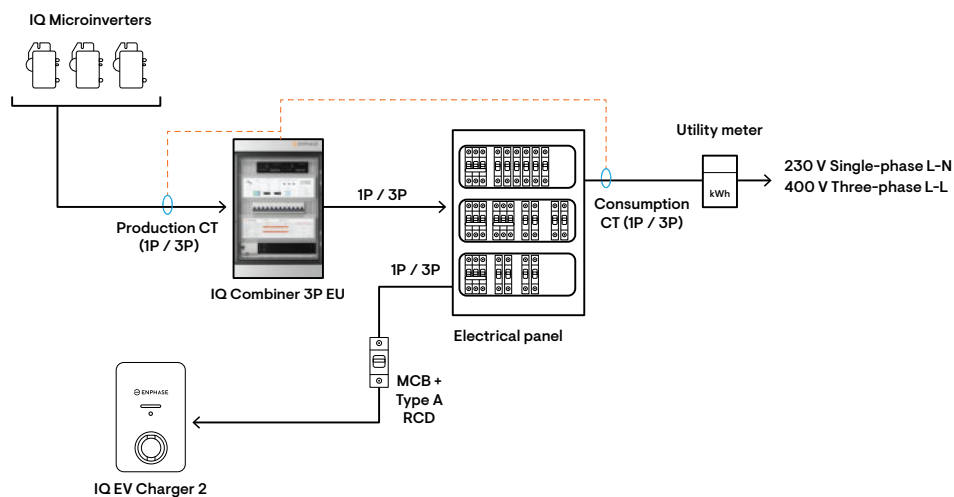


Figure 2: Integrated with an Enphase PV system configuration

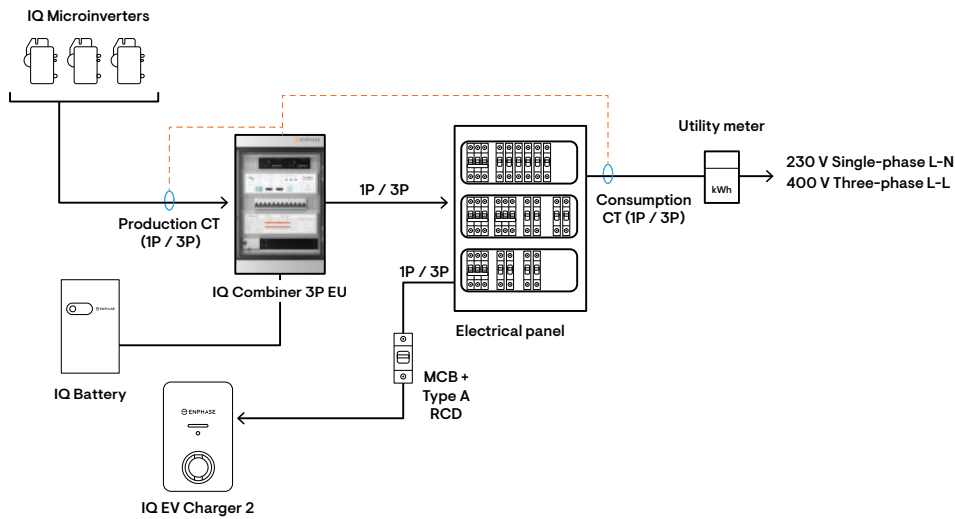


Figure 3: Integrated with an Enphase PV + Battery system configuration

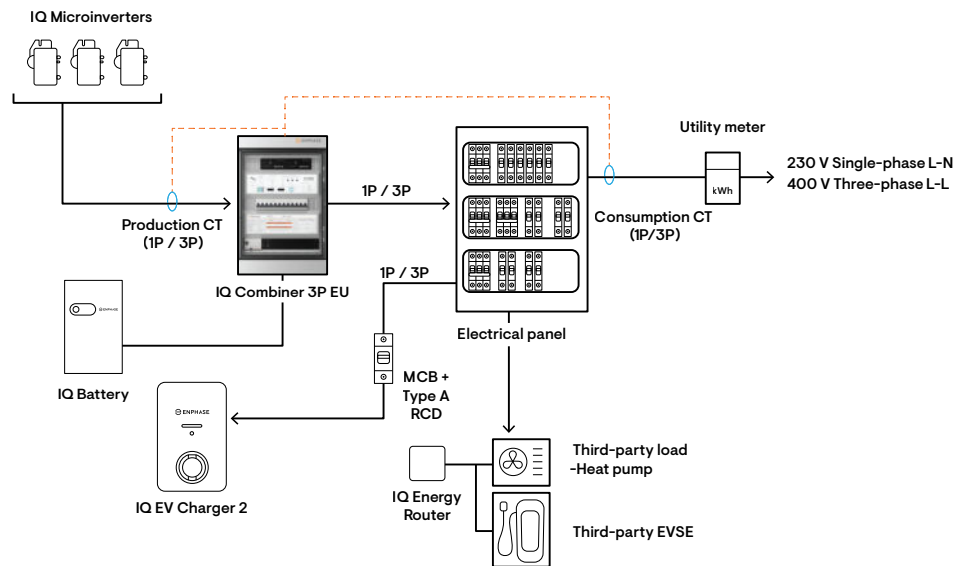


Figure 4: Integrated with an Enphase PV + Battery system + HEMS configuration

✓ **NOTE:** The Integrated with an Enphase PV + Battery system + HEMS configuration is supported by Enphase only in a limited number of countries.

For more information on each of the supported configurations, see the [IQ EV Charger 2 installation configurations technical brief](#).

3. Pre-installation checklist

Location considerations:

- Install the charger on any flat, vertical surface (wood, concrete, or single vertical stud) that supports its weight. The surface should be smooth with minimal irregularities and an incline of less than 5°.
- Mount the charger between 800 mm and 1200 mm above the floor level.
- For the tethered model, ensure the 7,5 m cable can comfortably reach the vehicle inlet (or socket). A 7,5 m cable is also available for purchase with the socketed model and can be purchased separately from the Enphase Store or from your distributor. To achieve the proper charging speed with your socketed model, use a cable that matches your charger's power rating.
- A Type-2 connector holster is included with the tethered model and is available with the socketed model. Install it near the charger to stow the cable and protect the connector.
- Ensure a stable internet connection through Wi-Fi or Ethernet to enable smart features.

Hardware considerations:

- Wiring from the circuit breaker supplying the IQ EV Charger 2 complies with IEC 60364 and local standards.
- Install the charger in one of the following ways:

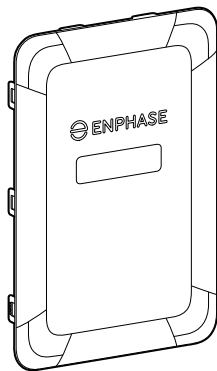
- A dedicated 30 mA Type A RCD/RCCB (10 kA max. short-circuit rating) along with an MCB (Type C tripping characteristics, rated for 125% of the maximum charging station current). For example, a 20 A circuit breaker is recommended for a 16 A charging current setting.
- An RCBO with Type A RCD characteristics (30 mA max. tripping sensitivity) and Type C tripping characteristics (rated for 125% of the maximum charging station current). For example, a 20 A circuit breaker is recommended for a 16 A charging current setting.
- The charger has an integrated ± 6 mA RDC-DD for DC leakage protection in line with IEC 61851-1:2019 Cl. 8.5.
- The installation of the charger, including the RCD/MCB/RCBO, must comply with IEC 60364 and local regulations.

Other considerations:

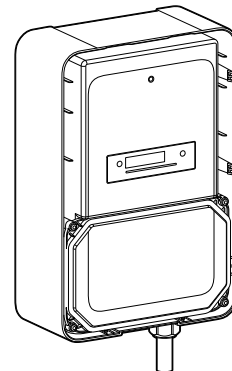
- For information on the supported configurations, see the [IQ EV Charger 2 installation configurations technical brief](#).
- Hardware upgrades are recommended to leverage all smart features at the existing Enphase sites.
- Ensure Production and Consumption CTs are installed correctly at PV-only sites for monitoring solar production and total home load. Ensure that all CTs are properly located and installed according to the [IQ EV Charger 2 installation configurations technical brief](#).

4. What's in the box

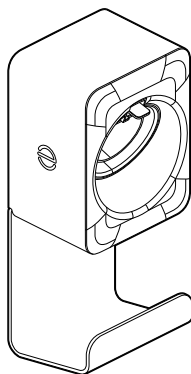
4.1 Tethered Type-2 model



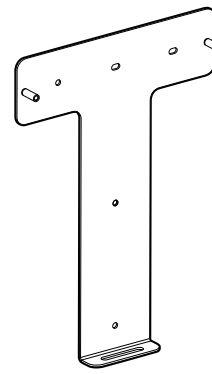
Aesthetic cover × 1



IQ EV Charger 2 enclosure × 1



Type-2 connector holster and cable tidy × 1



Mounting bracket × 1

An accessories box that includes the following items:

- Tx25 x 50 chipboard screws × 8
- Expansion plugs × 8
- Tx25 x 60 chipboard screws × 2
- M32 cable gland × 1
- M25 cable gland × 1
- M32/M25 gland reducer × 1
- Sealing inserts and blanking plugs

5. Tools/Additional items required

The following tools/items are provided by the installer:

- Spirit level
- Pencil
- Tape measure
- Power drill
- Power tool
- Tx25 bit
- Tx20 bit
- Tx10 bit
- 4 mm flathead screwdriver
- Wrench
- Multimeter
- Wire stripper
- Crimping tool

6. Mounting the wall bracket

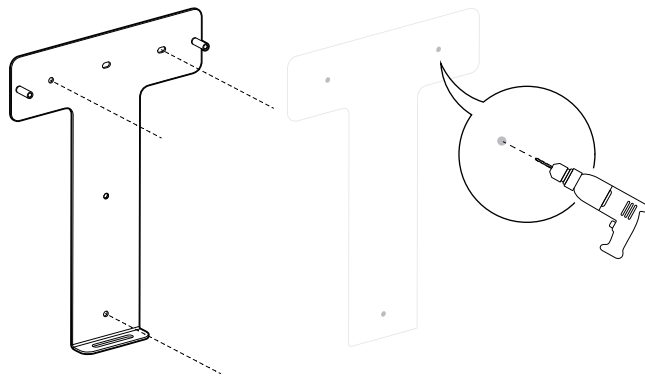
IQ EV Charger 2 can be mounted on a variety of surfaces.

- [Mounting on a timber or concrete wall](#) on page 8
- [Mounting on a single vertical timber stud](#) on page 9

6.1 Mounting on a timber or concrete wall

To mount on a wood or concrete wall, follow these steps:

1. Starting at the installation position closest to the power source, mark a level line on the wall as a guide.
2. Using the mounting bracket as a template, mark out three drilling holes.

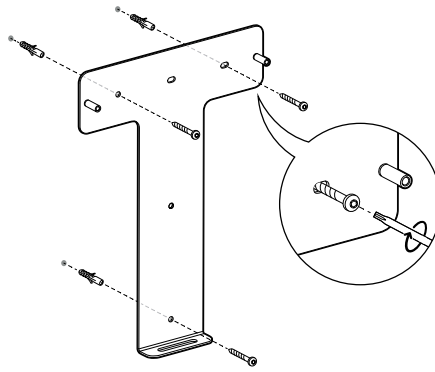


3. Drill to a minimum depth of 55 mm using an 8 mm diameter drill bit.



WARNING: Multiple risks. Do not drill into or attach to electric wiring or pipes in the wall.

4. Mount the wall bracket to the wall using the provided screws.

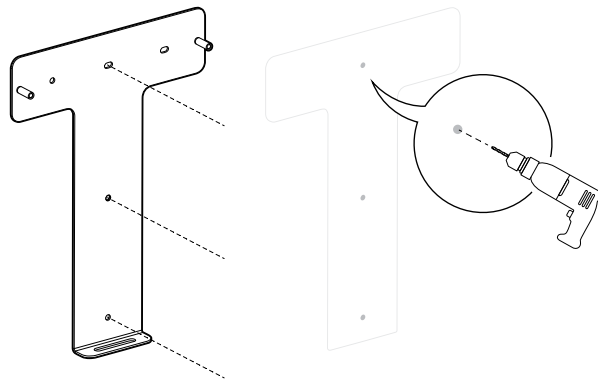


NOTE: Expansion plugs must be inserted into the hole before threading screws on the wooden wall.

6.2 Mounting on a single vertical timber stud

To mount on a single vertical timber stud, follow these steps:

1. Starting at the installation position closest to the power source, mark a level line on the wall as a guide.
2. Using the mounting bracket as a template, mark out three drilling holes.

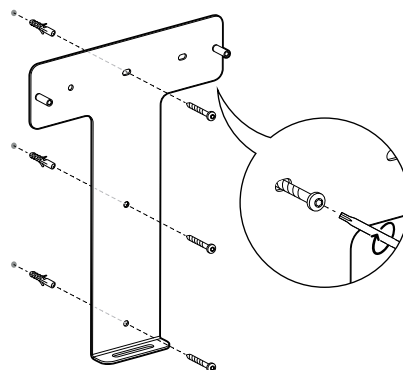


3. Drill to a minimum depth of 55 mm using an 8 mm diameter drill bit.



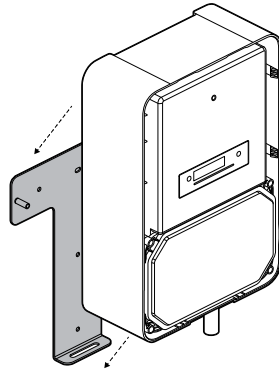
WARNING: Multiple risks. Do not drill into or attach to electric wiring or pipes in the wall.

4. Mount the wall bracket to the wall using the provided screws.

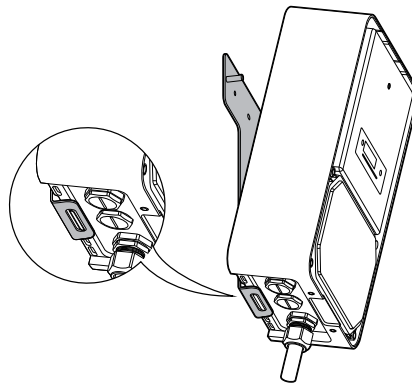


7. Wall-mounting the IQ EV Charger 2

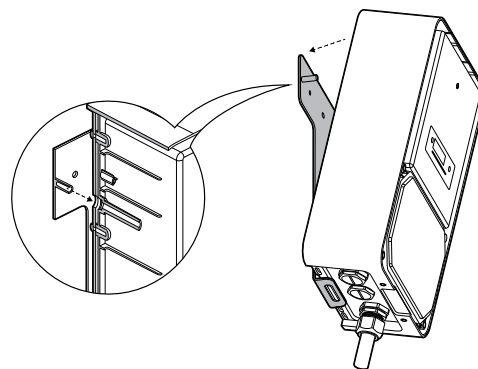
1. Lift and position the IQ EV Charger 2 next to the wall bracket.



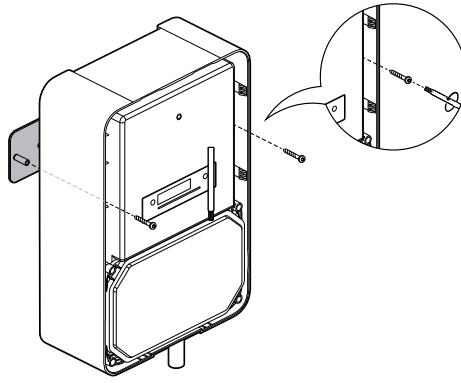
2. Secure the bottom of the charger by inserting the mounting guide protrusion at the bottom of the IQ EV Charger 2 into the corresponding socket on the base of the wall bracket.



3. Insert the charger into the wall bracket. Carefully align the prongs on the left and right sides of the wall bracket with the corresponding gaps on the back of the charger enclosure. Slide the prongs through the gaps until the charger is securely in place.



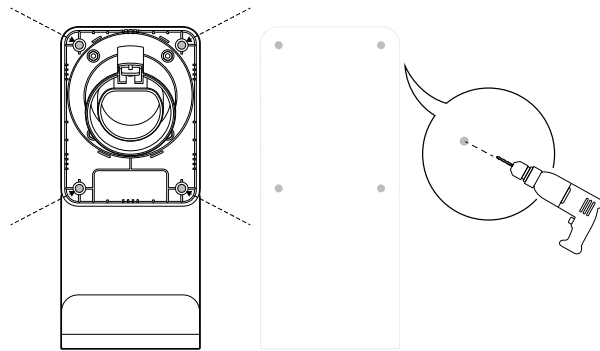
4. Fix the charging station onto the wall bracket using the screws provided—torque to 7 N m.



8. Mounting the connector holster

A Type-2 connector holster is included with the tethered model to keep the charging cable organised and accessible. For the socketed model, it can be purchased separately to enhance cable management and protection.

1. Mark a level line on the wall as a guide. Use the holster as a template to mark out drilling holes in the wall.

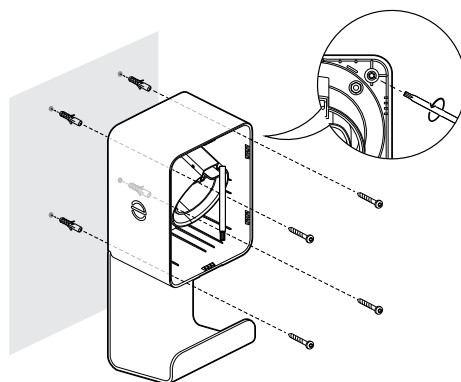


2. Drill to a minimum depth of 55 mm using an 8 mm diameter drill bit.



WARNING: Multiple risks. Do not drill into or attach to electrical wiring or pipes in the wall.

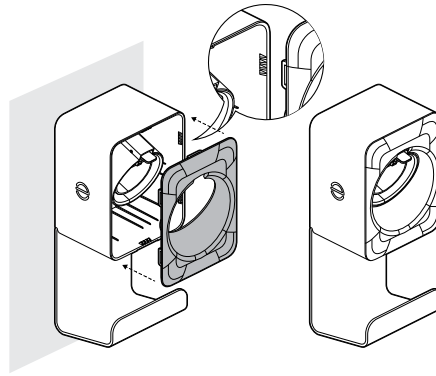
3. Mount the holster to the wall using the provided screws.





NOTE: Expansion plugs must be inserted into the hole before threading screws on the wooden wall.

4. Close the holster with the aesthetic cover.



9. Power supply wiring

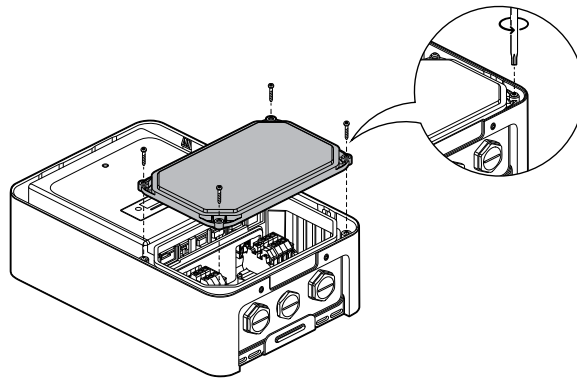
The IQ EV Charger 2 has both a tethered and socketed model. Based on the model, see one of the following topics:

- [Supply wiring for tethered Type-2 model](#) on page 12
- [Supply wiring for socketed Type-2 model](#)

9.1 Supply wiring for tethered Type-2 model

9.1.1 Preparation

Access the service panel by removing the four corner screws.

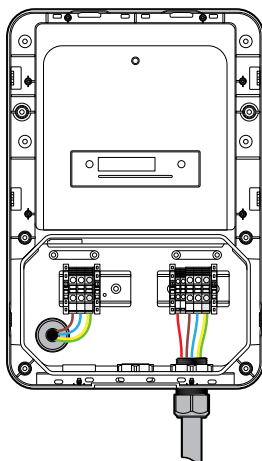


Supply wiring may be routed through two openings in the product. Based on whether the supply wiring will be routed through the rear or the bottom, see one of the following topics:

- [Supply wiring through the rear cable entry](#) on page 12
- [Supply wiring through the bottom cable entry](#) on page 13

9.1.2 Supply wiring through the rear cable entry

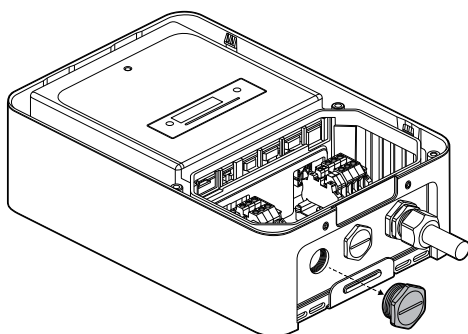
Pierce the sealing grommet with input cables from the rear of the IQ EV Charger 2 and terminate the conductors.



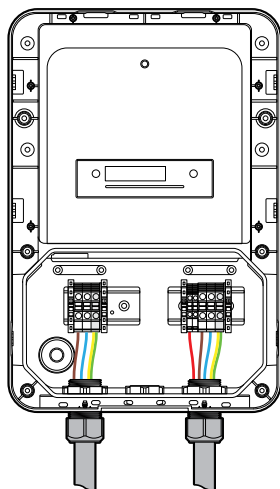
- ✓ **NOTE:** The unused cable entry in the middle can be used for Ethernet communication. For more information, see [Wiring connections for communication](#) on page 14.
- ✓ **NOTE:** Torque screws on the terminal block to 1.5 N m.
- ✓ **NOTE:** Check the torque of all electrical connections, including the factory-made terminations because they may loosen during transportation.
- ✓ **NOTE:** To learn how to connect the IQ EV Charger 2 to suit your grid supply and earthing arrangement, see [Phase wiring diagrams for grid supply types](#).
- ⚠ **WARNING:** Ensure the charger is installed using protective devices of the appropriate rating. For more information, see the [Pre-installation checklist](#) on page 6.

9.1.3 Supply wiring through the bottom cable entry

1. Replace the plug on the input side with the provided M32 cable gland. Torque this gland to 11.3 N m.



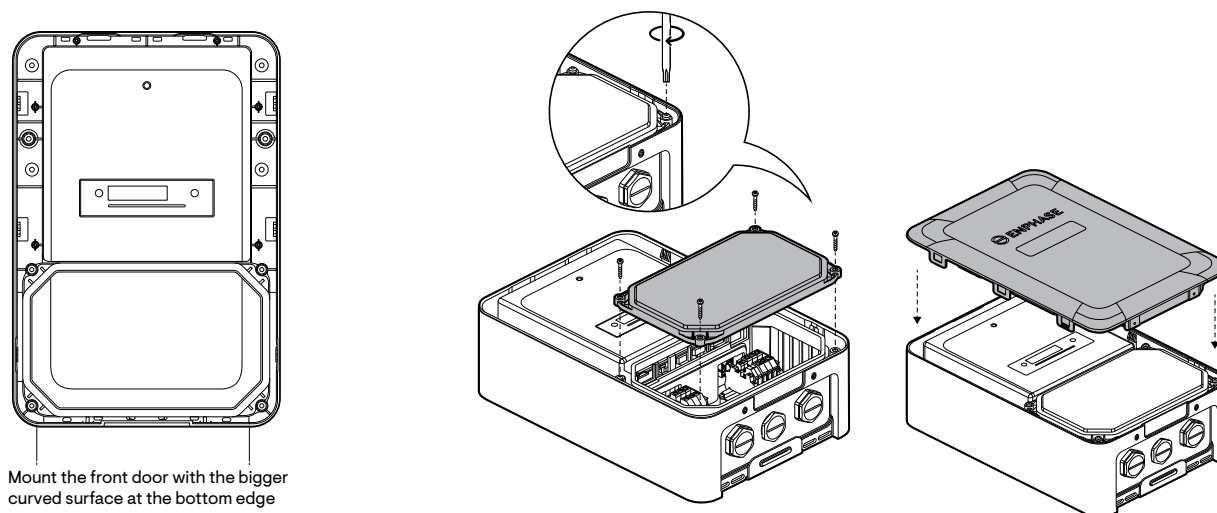
2. Run the power supply wiring through the M32 cable gland and terminate the conductors.



- ✓ **NOTE:** The unused cable entry in the middle can be used for Ethernet communication. For more information, see [Wiring connections for communication](#) on page 14.
- ✓ **NOTE:** Torque screws on the terminal block to 1.5 N m.
- ✓ **NOTE:** Check the torque of all electrical connections, including the factory-made terminations because they may loosen during transportation.
- ✓ **NOTE:** To learn how to connect the IQ EV Charger 2 to suit your grid supply and earthing arrangement, see [Phase wiring diagrams for grid supply types](#).
- ⚠ **WARNING:** Ensure the charger is installed using protective devices of the appropriate rating. For more information, see the [Pre-installation checklist](#) on page 6.

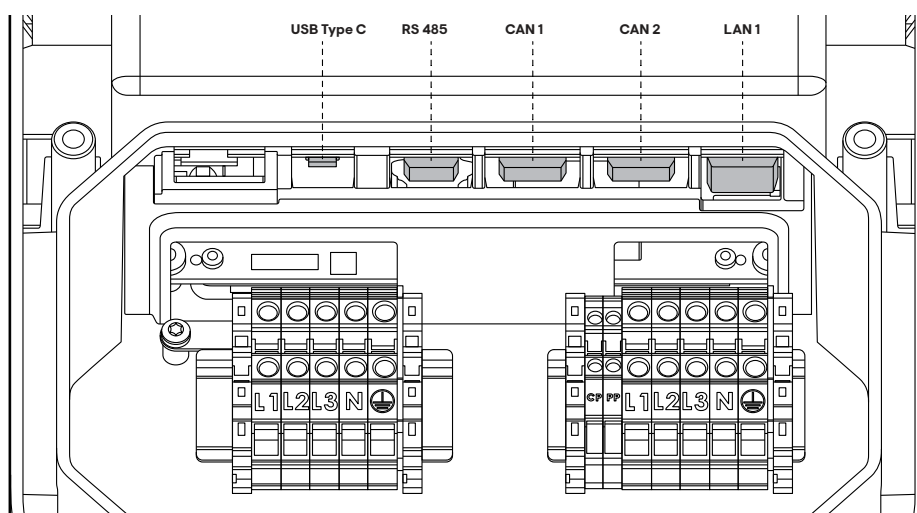
9.1.4 Completing supply wiring

Close the service panel using the four provided corner screws. Torque the screws to 1.8 N m.



10. Wiring connections for communication

The IQ EV Charger 2 hardware supports several forms of wired communication, as shown in the following figure.

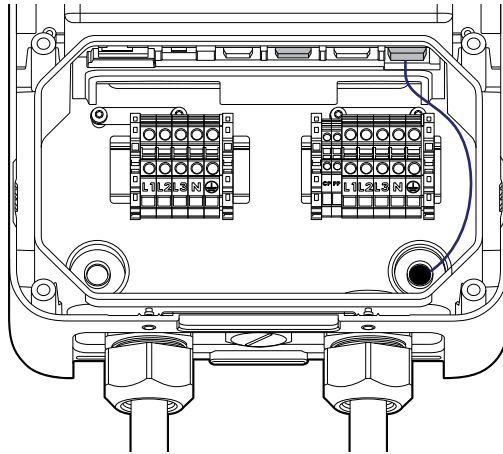


- ✓ **NOTE:** CAN support will not be available at the launch.

10.1 Communication cable wiring through the rear cable entry

10.1.1 Tethered Type-2 model

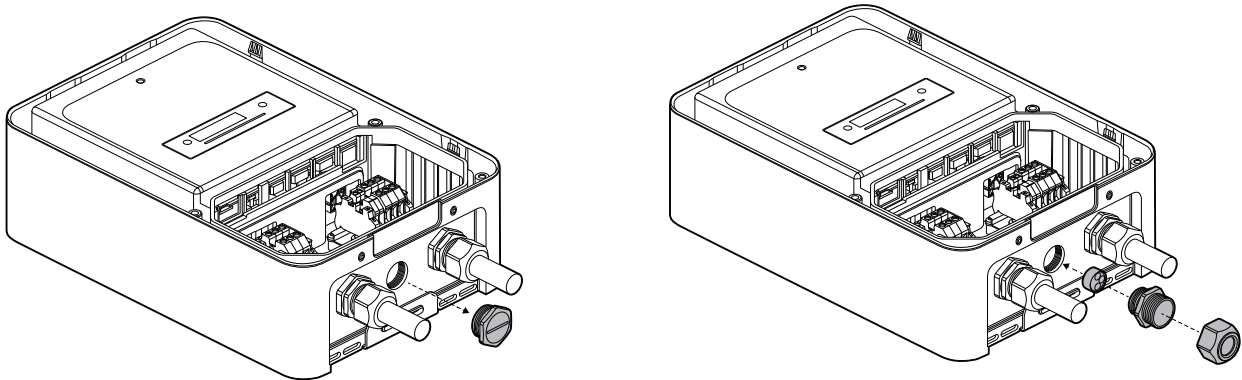
Pierce the sealing grommet with Ethernet cables from the rear of the IQ EV Charger 2, then terminate the conductors.



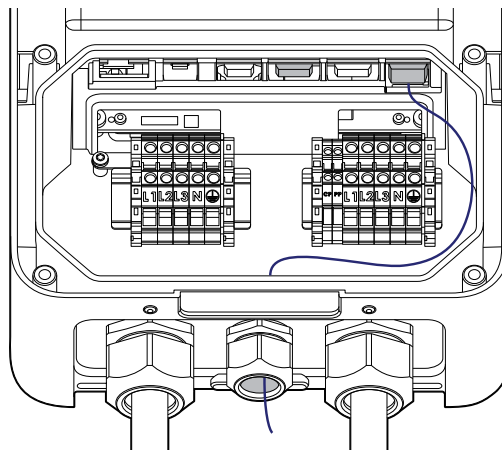
10.2 Communication cable wiring through the bottom entry

10.2.1 Tethered Type-2 model

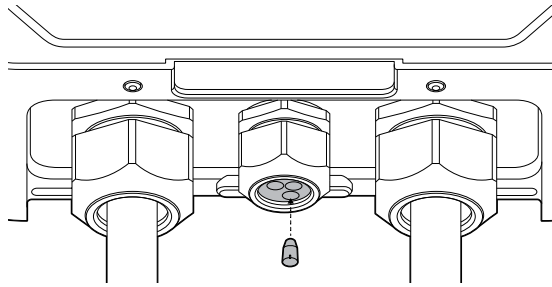
1. Replace the plug at the bottom with the provided M25 cable gland and sealing insert. Torque the gland to 9 N m.



2. Run the Ethernet cable through the holes in the sealing insert and M25 cable gland, then connect it to the respective connectors, as shown in the following figure.



Sealing inserts are provided with 2- and 3-hole configurations. Choose the appropriate sealing inserts based on installation requirements. The inserts come with blanking plugs; keep the blanking plugs in the unused holes of the sealing inserts as shown in the following figure.



11. Activating the IQ EV Charger 2

The IQ EV Charger 2 can be activated (commissioned) through the Enphase Installer App or the Enphase App. Activating the charger unlocks its smart features, including dynamic power adjustment to prevent overloading the main supply, AI-based optimisation for charging when electricity rates are lowest, and access control to prevent unauthorized usage. You can use the IQ EV Charger 2 without activation, though doing so limits its smart features.

The device requires internet access through Ethernet or Wi-Fi (configured during activation) to complete the activation.

11.1 Activation through the Enphase Installer App

✓ **NOTE:** The Enphase Installer App is available primarily for Enphase-certified installers who have completed the Enphase training. If you want to become an Enphase-certified installer and join our network, visit <https://enphase.com/installers/training/getting-started>.

1. Download the version 4.4.0 Enphase Installer App from the App Store or Google Play.
2. Log into your installer account using the account details.
3. Ensure that the white LED on the charger is illuminated before beginning the commissioning process.
4. Follow the on-screen instructions and refer to the FAQs for further assistance in completing the activation.

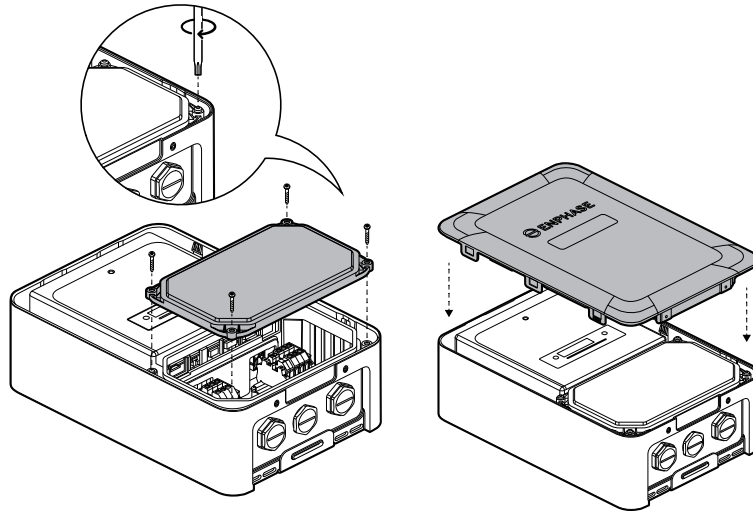
11.2 Activation through the Enphase App

✓ **NOTE:** The activation process involves technically intensive installation details that should only be addressed by a competent electrician. The homeowner must collaborate with the electrician to correctly complete the activation and setup process to ensure safe and correct operation. For more information see, the [*IQ EV Charger 2 commissioning guide for electricians and homeowners*](#).

1. Download the version 4.0 Enphase App from the App Store or Google Play.
2. Have the homeowner create an account or log into an existing Enphase Account with their account details.
3. Ensure that the white LED on the charger is illuminated before beginning the commissioning process.
4. Follow the on-screen instructions and refer to the FAQs for further assistance in completing the activation.

12. Finishing the installation

1. After the activation of the charger, snap the aesthetic cover onto the front of the enclosure.
2. Secure the cover onto the enclosure at the bottom of the unit using the two provided M3 screws—torque to 0.6 N m.



13. Post-installation checklist

- The device will display a **green LED indicator** after commissioning is complete. If the device has not been activated, the LED will remain **white**.
 - Ensure that any unused cable entry points are sealed with the provided plugs to maintain weather integrity.
- ✓ **NOTE:** This charger contains tamper-proof labels and sealed electronics. Any tampering or removal of these labels or seals will void the product's warranty.
- Ensure the connector is fully inserted into the socket. Some friction may be encountered, and additional pressure might be required to ensure a complete connection.



- ✓ **NOTE:** When properly connected, the Enphase logo on the connector should sit flush against the surface of the shuttered socket.
- The LED bar will change from static green to blue when the charger detects that the electric vehicle (EV) is correctly connected. If the EV is not correctly connected, the LED remains static green or white.

14. Troubleshooting

14.1 MID meter display

The IQ EV Charger 2 includes an integrated MID meter and display. Upon power-up, the device shows the MID firmware version and CRC, as required for MID compliance, followed by the charger's lifetime energy consumption—each displayed for 5 seconds before the screen goes blank. The display reactivates during an ongoing charging session, showing values in the following sequence.

Display value	Voltage (per phase)	Current (per phase)	Power (total)	Session energy
Duration	2 seconds	2 seconds	2 seconds	9 seconds

14.2 LED pattern of an uncommissioned device

LED color	LED sequence	Device status
Green	Laser pattern—left to right	Powering on
White	Static ON	No EV is connected
Blue	Static ON	Ready to charge, not currently charging
Blue	Fading in and out	EV charging in progress
Red	All LEDs indefinitely blinking ON/OFF	Fault/Error
Red	Alternate LED segments blinking ON/OFF	PEN fault

14.3 LED pattern of an activated device

LED color	LED sequence	Device status
Green	Static ON	No EV connected
Green	First, middle, and last LED ON	Locked
White	Static ON	Network connectivity lost
Yellow	Boomerang—left to right, right to left	Activation in progress
Green	Static ON for 5 seconds	Activation/Update successful
Red	Blinking ON/OFF for 5 seconds	Activation/Update failed
Purple	Laser pattern—left to right	OTA update in progress
Green	Boomerang—left to right, right to left	Waiting for authorisation
Blue	Static ON	Ready to charge, not currently charging
Blue	Fading in and out	EV charging in progress
Green	Droplet pattern from the middle outwards	Charging authorised but the device is not ready to charge
Red	All LEDs indefinitely blinking ON/OFF	Fault/Error
Red	Alternate LED segments blinking ON/OFF	PEN fault

15. Accessories

Enphase offers various accessories compatible with the IQ EV Charger 2, available for purchase at enphase.com.

SKU	Description
TYPE2-CABLE-7.5M-32A-1P - WIRED	Single-phase, 32 A, Type-2 connector cable for tethered IQ EV Charger 2
TYPE2-CONN-HOLSTER-EN	Enphase Type-2 connector holster with integrated cable management
IQ-EVSE-EU-INSTALL-KIT	Kit with all hardware required for installation of IQ EV Charger 2

16. Specifications

Model name	IQ EV Charger 2 – Tethered single-phase UK
SKU	IQ-EVSE-UK-1032-0105-1300
Electrical specifications	
Nominal voltage (±10%)	230 V
Nominal frequency	50 Hz
Maximum charging power	7.4 kW (single-phase Wye)
Rated output current	32 A
Earthing arrangement	TN or TT
Provided cable gland size	M25 gland (11–17.9 mm)
Socket or connector	7.5 m Type-2 connector cable
Mechanical specifications	
Enclosure dimensions (L × W × D)	370 mm × 250 mm × 118 mm
Weight	10 kg (including tethered charging cable)
Enclosure rating	IP55/IK10
Service cable entry options	Bottom or rear cable entry
Environmental specifications	
Relative humidity range	5% to 95% (condensing)
Altitude	<2,500 m
Operating temperature	–40°C to 55°C
Storage temperature	–40°C to 80°C
Communication options	
Wireless network	2.4/5 GHz Wi-Fi (802.11 ax)
Bluetooth	BT/BLE 5.3
Wired communication	Ethernet, RS-485, CAN
ISO15118	Yes (hardware ready)
Safety and compliance	
Compliance	CE (LVD EU/2014/35, EMC Directive EU/2014/30, RED EU/2014/53, RoHS3.0, REACH, IEC/EN 61851-1, IEC/EN 61851-21-2, IEC/EN 62196-1, IEC/EN 62955, IEC 61439-7, IEC/EN 60364-4-41), MID (EN 50470-1, EN 50470-3), EV Ready 2.0, UK Smart Charging
Safety features	Overvoltage protection (253 V), RDC-DD (±6 mA), relay weld detection, overcurrent detection (+18%), PEN-fault detection
In-built sensors	Ambient light sensor, temperature sensor, humidity sensor, and tilt sensor
Metering accuracy	±1% (Class-B, MID-certified)
Features	
LED indicator	Animated line LED with RGB colors to indicate the state of the IQ EV Charger 2
MID meter display	Display voltage, current, and energy (kWh) consumption of the EV charger
Smart scheduling	Optimises charging with tariff rates and excess solar power
Self-consumption	Charge EV on clean energy from the sun by using excess solar power with an Enphase Energy System
Access control	Available via the Enphase App; RFID/NFC—Hardware ready

Features

Integration support	OCPP 2.0.1 and APIs
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Warranty

Warranty duration	5 years
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17. Safety information

IMPORTANT SAFETY INFORMATION. KEEP THIS DOCUMENT FOR FUTURE REFERENCE.

This guide contains important instructions you must follow during the installation and maintenance of the Enphase IQ EV Charger 2. Failing to follow any of these instructions may void the warranty (<https://enphase.com/warranty>).

Safety and advisory symbols



DANGER: This indicates a hazardous situation, which, if not avoided, will result in death or serious injury.



WARNING: This indicates a situation where failure to follow instructions may be a safety hazard or cause equipment malfunction. Use extreme caution and follow instructions carefully.



NOTE: This indicates information that is very important for optimal system operation. Follow instructions closely.

Safety instructions



DANGER: Risk of electric shock. Risk of fire. Do not attempt to repair or service the IQ EV Charger 2 alone. Only a certified electrician shall install, troubleshoot, or otherwise service the IQ EV Charger 2.



DANGER: Risk of electric shock. Do not use Enphase equipment in a manner not specified by the manufacturer or in the quick install guide (QIG). Doing so may cause death or injury to persons or damage to equipment.



DANGER: Risk of electric shock. Always de-energize the AC branch circuit during an emergency and/or before servicing the IQ EV Charger 2.



DANGER: Risk of electric shock. Do not place fingers or foreign objects inside the coupler end of the Type-2 connector.



DANGER: Risk of electric shock. Risk of fire. If using a converter accessory (adapter), ensure that it is appropriately rated and compatible with your EV and the IQ EV Charger 2.



DANGER: Risk of electric shock. Do not allow children to operate this device. Adult supervision is mandatory when children are in proximity to an IQ EV Charger 2 that is in use.



WARNING: Do not install or use the IQ EV Charger 2 or its components that have been damaged in any way.



WARNING: You must install the IQ EV Charger 2 only on a suitable wall or pedestal mount (Enphase accessory) using the provided mounting bracket.



WARNING: The IQ EV Charger 2 is intended only for charging electric vehicles that do not require ventilation while charging.



WARNING: Only use the IQ EV Charger 2 with electric vehicles that have an IEC 62196 Type-2 (Mennekes) charge port. Refer to the vehicle owner's manual to determine if the vehicle is equipped with the correct charge port.



WARNING: Ensure the charging cable is positioned so as not to be stepped on, tripped over, or subjected to damage or stress.



WARNING: This vehicle charger unit is intended only for charging electric vehicles not requiring ventilation during charging.



WARNING: DO NOT operate the IQ EV Charger 2 or attempt to use the Type-2 connector if it is physically open, cracked, frayed, or otherwise visibly damaged. Immediately contact Enphase Support for service, referring to the Enphase Support section in this manual.



NOTE: Perform installation and wiring, including protection against lightning and resulting voltage surges, following all applicable local electrical codes and standards.



NOTE: Install correctly rated overcurrent protection as part of the system installation.



NOTE: To ensure optimal reliability and to meet warranty requirements, the IQ EV Charger 2 must be installed and/or stored according to the instructions in this guide.



Disposal

In accordance with European Directive 2002/96/EC on waste electrical and electronic equipment and its implementation in national law, used electrical devices must be collected separately and recycled in an environmentally responsible manner. Ensure that you return your used device to your dealer or obtain information regarding a local, authorised collection and disposal system. Failure to comply with this EU Directive may result in a negative impact on the government.

Instructions pertaining to the risk of fire or electric shock

- Use the electric vehicle (EV) charging point only with electric vehicles that have an IEC 62196 Type-2 (Mennekes) charge port. Refer to the vehicle owner's manual to determine if the vehicle is equipped with the correct charge port.
- Ensure the charging cable is positioned so as not to be stepped on, tripped over, or subjected to damage or stress.
- **DO NOT** operate the EV charging point or attempt to use the Type-2 connector if it is physically open, cracked, frayed, or otherwise visibly damaged. Immediately contact [Enphase Support](#) for service.
- **DO NOT** place fingers inside the coupler end of the Type-2 connector.
- If using a converter accessory (adaptor), ensure that it is appropriately rated and compatible with both your EV and this EV charging point.
- **DO NOT** allow children to operate this device. Adult supervision is mandatory when children are in proximity to an EV charging point that is in use.
- Using the EV charging point outside the conditions specified in this product's technical documentation may result in undesired consequences.
- **DO NOT** attempt to repair or service the EV charging point on your own. Only a qualified electrician is permitted to install, service, repair, or relocate the EV charging point.

Additional safety information



WARNING: Turn off the input power to the electric vehicle supply equipment (EVSE) at the circuit breaker panel before servicing or cleaning the unit.

Corporate headquarters contact information

Enphase Energy, Inc.
Het Zuiderkruis 65, 5215 MV 's-Hertogenbosch, The Netherlands
Ph: +31 852 082 305

To view the latest version of the product warranty, see <https://enphase.com/warranty>.

To view the latest version of the product user manual, scan the following QR code.



This documentation has undergone thorough review before being published and contains the most updated information at the time of release. Enphase Energy, Inc. reserves the right to make changes to this product without further notice. Changes or modifications to this product by other than an authorized service facility may void the product warranty. Enphase Energy, Inc. does not assume any liability for damage or defects, in the broadest sense, from or related to the use or interpretation of this document.

Revision history

Revision	Date	Description
140-00516-01	November 2024	Initial release.

Enphase Support: <https://enphase.com/contact/support>.

140-00516-01-EN-2024-11-26
Applicable regions: Great Britain

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IQ EV Charger 2 installatieconfiguraties

Toepasselijke regio's: Europe

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1. Over dit document

Deze technische handleiding biedt installateurs de informatie die ze nodig hebben om de Enphase IQ EV Charger te installeren op nieuwe of achteraf aan te brengen woonlocaties.

2. IQ EV Charger 2

De IQ EV Charger 2 combineert innovatieve software-gedefinieerde hardware met AI-gestuurd energiebeheer. Deze slimme lader is eenvoudig te installeren, ondersteunt alle Type-2 compatibele elektrische voertuigen en is toekomstbestendig dankzij regelmatige draadloze updates. Hij integreert naadloos met Enphase Energy Systems, waardoor gebruikers zonne-energie, batterij en EV-opladen kunnen beheren, allemaal vanuit de Enphase App.



Figuur 1: IQ EV Charger 2

2.1 IQ EV Charger 2 SKU's

Model	Type	SKU	Beschrijving
IQ EV Charger 2	Verbonden 3 fasen	IQ-EVSE-EU-3032-0105-1300	Driefasig, geïntegreerd met Enphase Energy System, 7,5 m type-2 laadkabel
	3 fasen met stopcontact	IQ-EVSE-EU-3032-0005-1300	Driefasig, geïntegreerd met Enphase Energy System, type-2 stopcontact met shutter

3. Ondersteunde systeemconfiguraties

Type	Microinverters	IQ Gateway of IQ Combiner	IQ Energy Router	Production en Consumption CT	IQ Battery
Standalone	N.v.t.	N.v.t.	Nee	N.v.t.	Nee
Enkel zonne-energie IQ7 of IQ8	IQ7/IQ8	IQ Gateway Metered of IQ Combiner 3P EU	Nee	Ja	Nee
Enkel zonne-energie string-omvormer	String-omvormer	IQ Gateway Metered of IQ Combiner 3P EU	Ja	Ja	Nee
Enkel zonne-energie IQ7/IQ8/ string-omvormer en dynamisch tarief	IQ7/IQ8/ string-omvormer	IQ Gateway Metered of IQ Combiner 3P EU	Nee	Ja	Nee
Zonne-energie IQ7/IQ8 en batterij	IQ7/IQ8	IQ Gateway Metered of IQ Combiner 3P EU	Nee	Ja	Ja
Zonne-energie string-omvormer en batterij	String-omvormer	IQ Gateway Metered of IQ Combiner 3P EU	Ja	Ja	Ja
Zonne-energie IQ7/ IQ8, batterij en dynamisch tarief	IQ7/IQ8	IQ Gateway Metered of IQ Combiner 3P EU	Nee	Ja	Ja
PV en batterij van derden	Van derden	IQ Gateway Metered of IQ Combiner 3P EU	Nee	Ja	Ja



OPMERKING: De modi Zelfverbruik en Besparing worden ondersteund door te upgraden naar IQ Gateway Metered.



OPMERKING: Selecteer de modus Zelfverbruik niet voor eenfasige sites met PEL $\leq 1,4$ kW en driefasige sites met PEL $\leq 4,14$ kW.

4. Vereisten voor de locatie

4.1 Veiligheid en elektrische vereisten

Hieronder volgen de essentiële veiligheids- en elektrische locatievereisten:

- Zorg ervoor dat het elektrische paneel een speciaal circuit heeft met een stroomonderbreker en geleiders die geschikt zijn voor de belasting van de EV-lader. Zorg ervoor dat de stroomonderbreker en type A 30 mA RCD geïnstalleerd zijn volgens de plaatselijke voorschriften. De stroomonderbreker moet overeenkomen met de maximale stroomlimiet die is ingesteld op de IQ EV Charger 2.
- Bij het installeren van de voeding naar de IQ EV-lader moeten fasegeleiders geïnstalleerd worden volgens de fasetoewijzing van de IQ Gateway Metered. Als faserotatie wordt gebruikt, moet dit tijdens de inbedrijfstelling worden geconfigureerd.
- Volg de plaatselijke installatienormen en beste praktijken en zorg ervoor dat het elektrische werk wordt uitgevoerd door een bekwame elektricien.
- Volg alle veiligheids- en installatie-instructies volgens de productdocumentatie.

4.2 Vereisten inzake inbedrijfstelling

Hieronder volgen de essentiële vereisten voor inbedrijfstelling op locatie:

- De inbedrijfstelling van de IQ EV-lader kan gedaan worden via de Enphase App of de Enphase Installer App.
- De integratie van IQ EV-laders op de Enphase Energy System-locaties moet worden uitgevoerd door Enphase-gecertificeerde installateurs.
- Als u een IQ EV-lader met enkel zonne-energie/ zonne-energie + batterij op een nieuwe locatie installeert, gebruik dan de Enphase Installer App voor het aanmaken van de locatie. Nadat de locatie in bedrijf is gesteld, kan de IQ EV-lader in gebruik worden genomen met behulp van de Enphase Installer App of de Enphase App.
- Om elektrische voertuigen effectief te kunnen opladen met behulp van overtollige zonneproductie, moeten er in alle fasen van de installatie Production en Consumption CT's aanwezig zijn. Voor locaties met één fase moeten de CT's enkel op L1 worden aangesloten. Voor locaties met drie fasen moeten de CT's echter op *alle drie de fasen* worden aangesloten, zelfs als de PV-/batterijsystemen slechts op één of twee fasen zijn geïnstalleerd.
- De IQ EV Charger 2 ondersteunt alle aardingsconfiguraties van TN/TT/IT-netten. Volg de relevante aardingsrichtlijnen volgens de plaatselijke voorschriften.

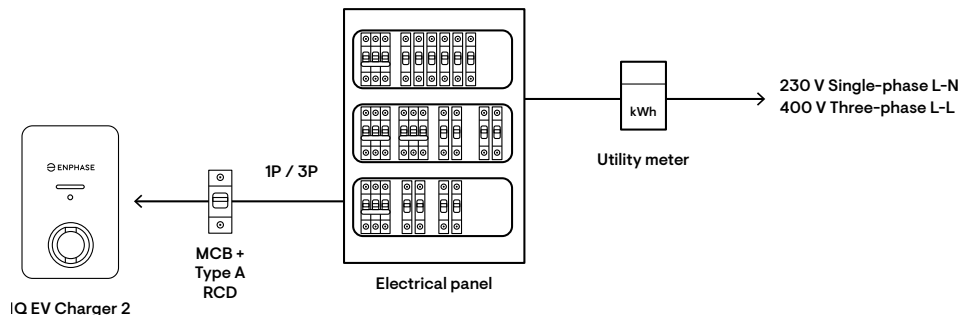


OPMERKING: De IQ EV-lader is niet volledig geïntegreerd in de IQ System Controller voor off-grid scenario's. Voor zulke scenario's wordt het aanbevolen om de IQ EV-lader aan te sluiten als onderdeel van de niet-ondersteunde belasting.

5. Configuraties

5.1 Standalone configuratie

In deze configuratie is de EV-lader aangesloten op het elektriciteitsnet zoals te zien is in de volgende afbeelding.



Figuur 2: Standalone configuratie

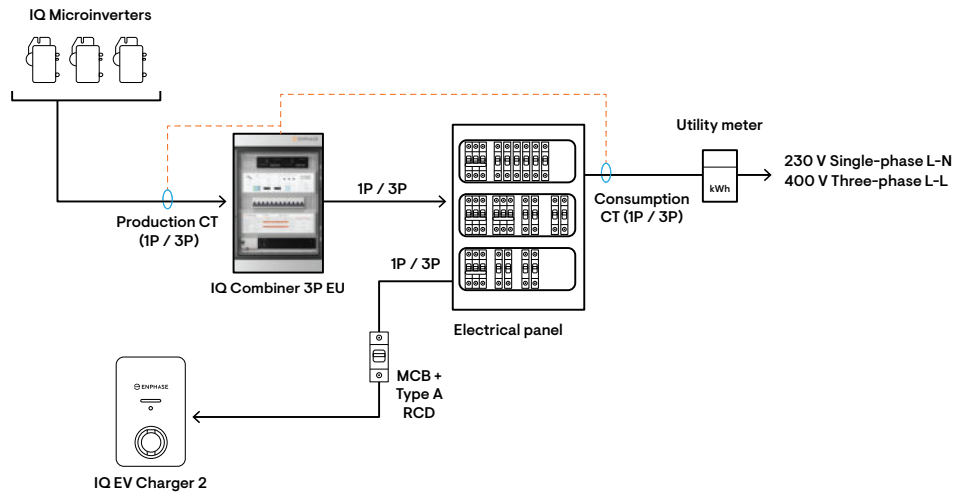


OPMERKING: De MCB/RCD mag zich in het elektrische paneel bevinden.

5.2 Solar met IQ7/IQ8/String omvormer en IQ Gateway Metered/IQ Combiner 3P EU

De IQ EV Charger 2 wordt aangesloten op het elektriciteitsnet zoals te zien is in de volgende afbeelding.

- IQ7/ IQ8/string-omvormer met IQ Gateway Metered of IQ Combiner 3P EU wordt ondersteund.
- Production en Consumption CT's moeten worden geïnstalleerd.
- Deze locatieconfiguratie kan gebruik maken van schema's, groen opladen en opladen buiten de piekuren.
- Dynamische tarieven zijn momenteel alleen beschikbaar in België, Duitsland en Nederland.



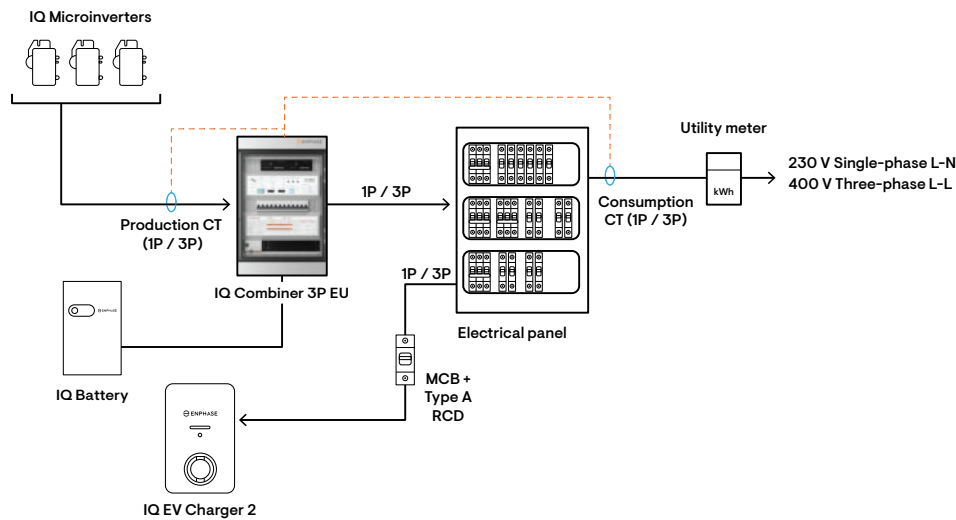
Figuur 3: Alleen zonne-energie met IQ7/IQ8/string-omvormer met IQ Gateway Metered/IQ Combiner 3P EU

- ✓ **OPMERKING:** Production CT's maken deel uit van IQ Combiner 3P EU. In de voorgaande afbeelding worden ze extern weergegeven omdat ze een belangrijk onderdeel van de installatie vormen. IQ Combiner 3P EU wordt getoond als voorbeeld. Het gebruik van individuele componenten waaruit de IQ Combiner bestaat, wordt echter ook ondersteund.
- ✓ **OPMERKING:** De MCB/RCD mag zich in het elektrische paneel bevinden.

5.3 Zonne-energie met IQ7/IQ8/String omvormer, IQ Gateway Metered/IQ Combiner 3P EU, en IQ Battery

De IQ EV Charger 2 wordt aangesloten op het elektriciteitsnet zoals te zien is in de volgende afbeelding.

- Locaties met IQ7/ IQ8/string-omvormer, IQ Combiner 3P EU of IQ Gateway Metered en IQ Battery worden ondersteund.
- Production en Consumption CT's moeten worden geïnstalleerd.
- Deze locatie kan volledig gebruik maken van overtollige zonne-energie en batterijen om de EV op te laden.
- Dynamische tarieven zijn momenteel alleen beschikbaar in België, Duitsland en Nederland.



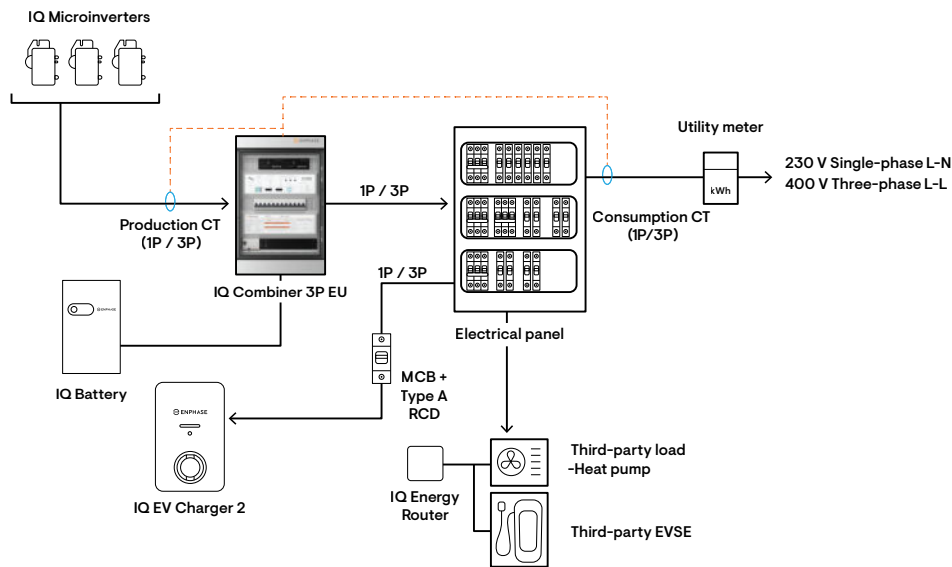
Figuur 4: Zonne-energie met IQ7/IQ8/string-omvormer, IQ Gateway Metered/IQ Combiner 3P EU en IQ Battery

- ✓ **OPMERKING:** Production CT's maken deel uit van IQ Combiner 3P EU. In de voorgaande afbeelding worden ze extern weergegeven omdat ze een belangrijk onderdeel van de installatie vormen. IQ Combiner 3P EU wordt getoond als voorbeeld. Het gebruik van individuele componenten waaruit de IQ Combiner bestaat, wordt echter ook ondersteund.
- ✓ **OPMERKING:** De MCB/RCD mag zich in het elektrische paneel bevinden.

5.4 Zonne-energie/batterij met IQ7/IQ8/string-omvormer, IQ Gateway, IQ Battery en HEMS

De IQ EV Charger 2 wordt aangesloten op het elektriciteitsnet zoals te zien is in de volgende afbeelding.

- Locaties met IQ7/ IQ8/string-omvormer, IQ Combiner 3P EU of IQ Gateway Metered en IQ Battery worden ondersteund.
- Production en Consumption CT's moeten worden geïnstalleerd.
- Deze locatie kan volledig gebruik maken van overtollige zonne-energie en batterijen om de EV op te laden.
- EV-laders van derden en IQ EV Charger 2 kunnen naast elkaar gebruikt worden. Profielen kunnen worden geactiveerd op zowel EV-laders van derden als IQ EV Charger 2. Als er meerdere IQ EV Chargers aanwezig zijn op één locatie, dan wordt slechts één van de EV-laders ingeschakeld.
- Dynamische tarieven zijn momenteel alleen beschikbaar in België, Duitsland en Nederland.



Figuur 5: Zonne-energie/batterij met IQ7/IQ8/string-omvormer, IQ Gateway, IQ Battery en HEMS

✓ **OPMERKING:** Production CT's maken deel uit van IQ Combiner 3P EU. In de voorgaande afbeelding worden ze extern weergegeven omdat ze een belangrijk onderdeel van de installatie vormen. IQ Combiner 3P EU wordt getoond als voorbeeld. Het gebruik van individuele componenten waaruit de IQ Combiner bestaat, wordt echter ook ondersteund.

✓ **OPMERKING:** De MCB/RCD mag zich in het elektrische paneel bevinden.

6. Bedradingsconfiguraties voor IQ EV Charger 2

Locatieconfiguratie		IQ EV Charger 2 eenfasig	IQ EV Charger 2 driefasig
Standalone	–	Ja	Ja
Enkel zonne-energie	eenfasig	Ja ¹	Ja ¹
	driefasig	Ja	Ja ¹
Enkel batterijen	eenfasig	Ja	Ja
	driefasig	Ja	Ja
Zonne-energie + batterijen	eenfasig	Ja ¹	Ja ¹
	driefasig	Ja ¹	Ja ¹

¹ Groen opladen is mogelijk.

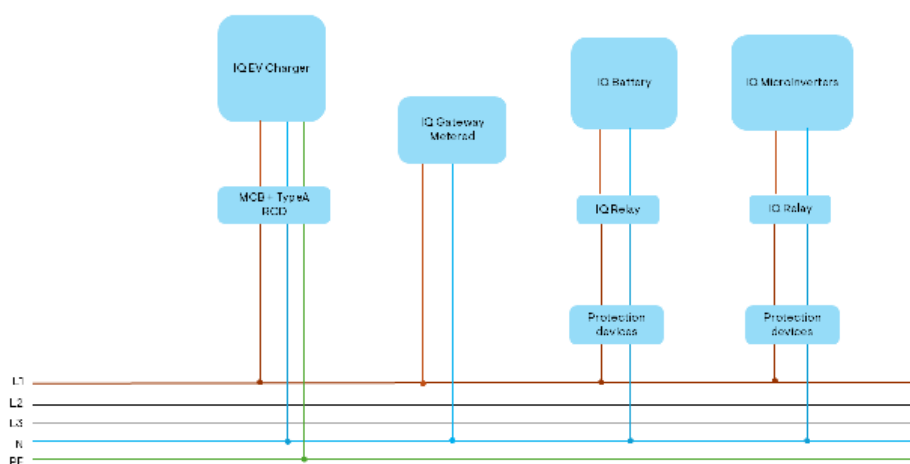
De groene oplaadlimieten worden bepaald op basis van de totale opgewekte en geëxporteerde zonne-energie. De IQ EV Charger 2 ondersteunt dynamisch schakelen tussen driefasig en eenfasig gebruik om groen laden te optimaliseren (profiel voor zelfverbruik).

Het minimumvermogen voor driefasig opladen is 4,2 kW (6A bij 3 fasen) en voor eenfasig opladen is dit 1,38 kW (6A bij 1 fase). Dankzij de dynamische faseschakeling kan de IQ EV Charger 2 schakelen tussen driefasenladen (>4,2 kW) en eenfaseladen (<4,2 kW en >1,38 kW), afhankelijk van de

beschikbare overtollige geproduceerde zonne-energie. Dit maximaliseert het gebruik van overtollige zonne-energie, waardoor opladen met slechts 1,38 kW mogelijk is.

7. Bedrading en bediening

7.1 Lader met zonne-energie/batterij eenfasig en IQ EV Charger 2 eenfasig

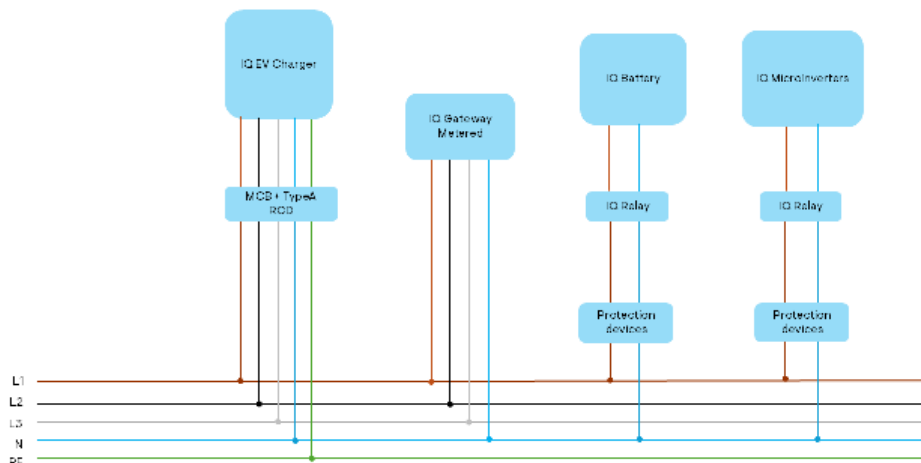


✓ **OPMERKING:** De getoonde bedrading is voor een driefasige netaansluiting. Voor eenfasige aansluitingen moet de bedrading dienovereenkomstig worden aangepast.

Om optimaal groen te laden moet de IQ EV Charger 2 aangesloten worden op dezelfde fase als de zonne-energie/batterij. Deze opstelling maakt opladen met behulp van overtollige zonne-energie mogelijk, geregeld door de IQ Gateway Metered/IQ EV Charger Cloud, met een verminderde fase-onbalans. Bovendien kan de spaarstand worden gebruikt om op te laden met behulp van de overtollige zonne-/batterij-energie.

✓ **OPMERKING:** Zorg ervoor dat het verbruik op alle drie de fasen wordt bewaakt door de IQ Gateway Metered om te voldoen aan de vereisten voor faseverlies en fase-onbalans, indien van toepassing.

7.2 Lader met zonne-energie/batterij eenfasig en IQ EV Charger 2 driefasig

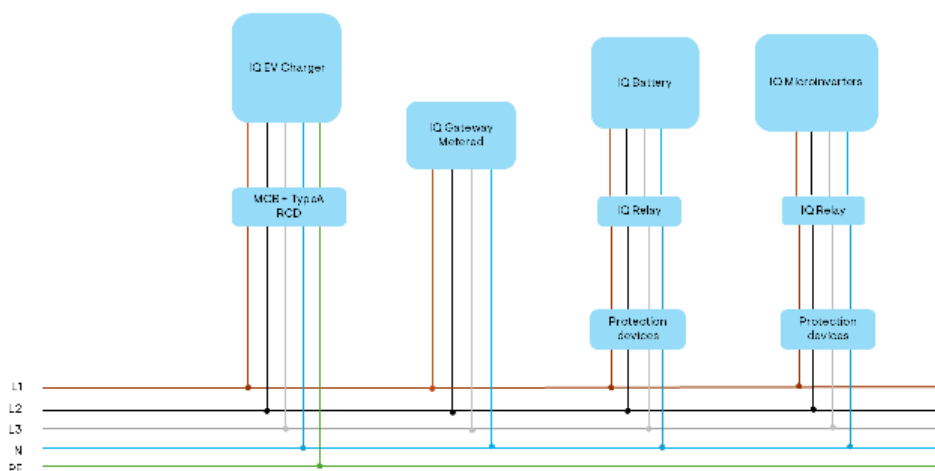


Groen opladen kan gebeuren met behulp van het geaggregeerde overschot aan zonne-energie. Om optimaal groen te laden moet de IQ EV Charger 2 aangesloten worden op dezelfde fase als de zonne-energie/batterij. Deze opstelling maakt opladen mogelijk met behulp van overtollige zonne-energie, geregeld door de IQ Gateway Metered/IQ EV-lader Cloud, met een verminderde fase-onbalans. Als u alle drie de fasen gebruikt, kan u in de spaarstand werken om het overschot aan zonne-/batterij-energie (alleen L1) te gebruiken om op te laden.



OPMERKING: Zorg ervoor dat het verbruik op alle drie de fasen wordt bewaakt door de IQ Gateway Metered om te voldoen aan de vereisten voor faseverlies en fase-onbalans, indien van toepassing.

7.3 Zonne-energie/batterij driefasig en IQ EV Charger 2 driefasig

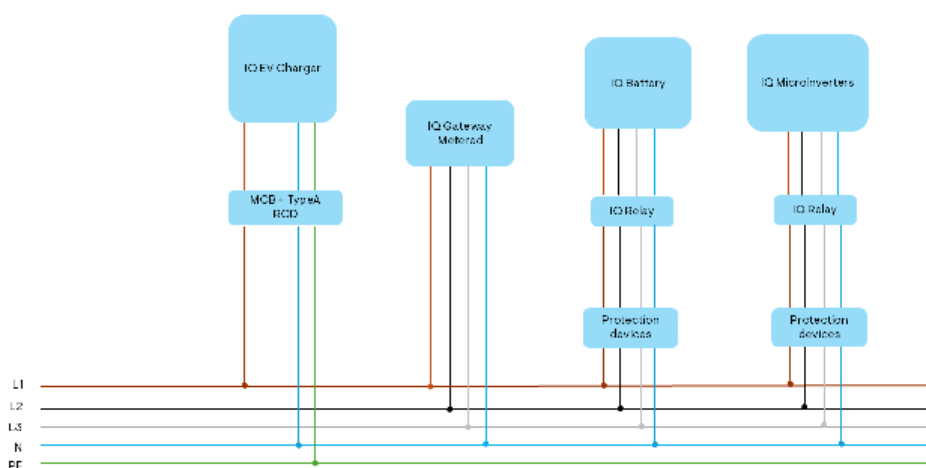


Aangezien zowel de zonne-energie/batterij als de IQ EV Charger 2 driefasig zijn, kan er groen opgeladen worden met behulp van de overtollige zonne-energie op alle drie de fasen. Op basis van het beschikbare overschot aan zonne-energie schakelt de IQ EV-lader automatisch tussen eenfasig en driefasig opladen. Bovendien kan de spaarstand worden gebruikt om op te laden met behulp van de overtollige zonne-/batterij-energie.



OPMERKING: Zorg ervoor dat het verbruik op alle drie de fasen wordt bewaakt door de IQ Gateway Metered om te voldoen aan de vereisten voor faseverlies en fase-onbalans, indien van toepassing.

7.4 Zonne-energie/batterij driefasig en IQ EV Charger 2 eenfasig

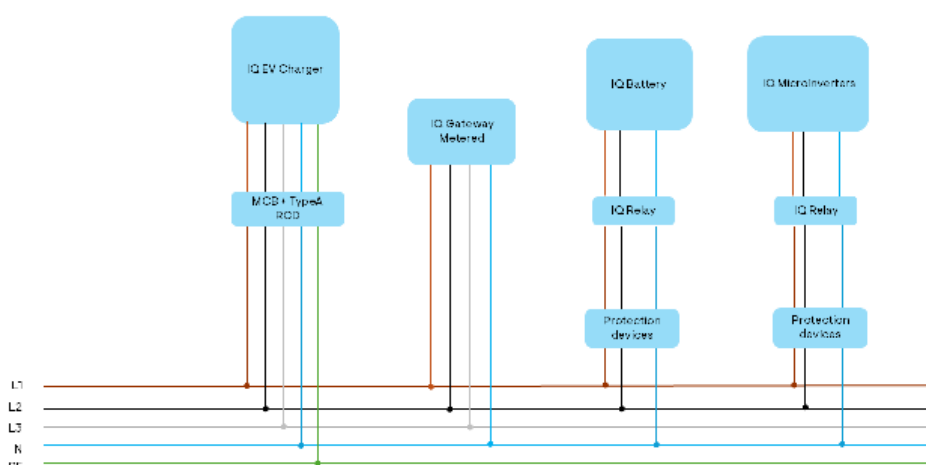


Groen laden kan worden uitgevoerd op basis van het geaggregeerde overschot aan zonne-energie. Bovendien kan de spaarstand worden gebruikt om op te laden met behulp van de overtollige zonne-/batterij-energie.

✓ **OPMERKING:** Zorg ervoor dat het verbruik op alle drie de fasen wordt bewaakt door de IQ Gateway Metered om te voldoen aan de vereisten voor faseverlies en fase-onbalans, indien van toepassing.

⚠ **WAARSCHUWING:** Dit heeft niet de voorkeur omdat een dergelijke installatie problemen met fase-onbalans kan veroorzaken.

7.5 Zonne-energie/batterij een- of tweefasig en IQ EV Charger 2 driefasig



Omdat zowel de zonne-energie/batterij als de IQ EV Charger 2 geen driefasensystemen zijn, kan er groen worden opgeladen met behulp van de totale overtollige zonne-energie. Bovendien kan de spaarstand worden gebruikt om alle fasen op te laden met behulp van de overtollige zonne-/batterij-energie.

✓ **OPMERKING:** Zorg ervoor dat het verbruik op alle drie de fasen wordt bewaakt door de IQ Gateway Metered om te voldoen aan de vereisten voor faseverlies en fase-onbalans, indien van toepassing.

8. Herzieningsgeschiedenis

Herziening	Datum	Beschrijving
TEB-00211-1.0	December 2024	Eerste uitgave.