ENPHASE

ENGLISH

IQ EV Charger 2

Quick install guide

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MODEL
IQ-EVSE-NA-1050-0110-1120
IQ-EVSE-NA-1060-0101-1120
IQ-EVSE-NA-1060-0100-1120
IQ-EVSE-NA-1060-0100-1420
IQ-EVSE-NA-1080-0100-1420
IQ-EVSE-NA-1100-0100-1420

VERSION 3.0
NOVEMBER 2025

140-00576-03

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Contents

1. Introduction

The IQ EV Charger 2 combines advanced hardware with intelligent energy management to deliver a seamless EV charging experience. It is engineered to be compatible with all electric vehicles and the North American power grids. Offers flexible installation options with wired and wireless connectivity.

When installed as part of an Enphase Energy System, users can manage solar production, battery storage, and EV charging through the Enphase App. However, if installed as a standalone unit, the charger operates independently—without integration with solar or battery systems—while still providing reliable and efficient EV charging.

Enjoy AI-powered home energy optimization, regular over-the-air updates, and complete control through the Enphase App, whether you are maximizing solar savings or simply charging your EV.

2. 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 inclination of less than 5°.
- Mount the charger between 31.5 inches and 47.2 inches above the floor level.
- Ensure the 25 ft cable can comfortably reach the vehicle inlet.
- A cable and connector holster is included with the charger. 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 to the IQ EV Charger 2 must adhere to NEC requirements and applicable local codes.
- To minimize fire hazards, ensure the connection is made only to a circuit equipped with the appropriate maximum branch circuit overcurrent protection, as specified by the National Electrical Code, ANSI/NFPA 70 in the U.S., or the Canadian Electrical Code C22.1 in Canada.
- To prevent the circuit breaker from tripping, ensure that the maximum charging current is configured to no more than 80% of the circuit breaker's rated capacity during the commissioning of the IQ EV Charger 2.
- Refer to the following table for the breaker ratings:

IQ EV Charger model	Input cable type	Connector type	Circuit breaker rating
IQ-EVSE-NA-1050-0110-1120	NEMA 14-50R	Type-1 (J1772)	50 A
IQ-EVSE-NA-1060-0101-1120	Hardwired	NACS (J3400)	60 A
IQ-EVSE-NA-1060-0100-1120	Hardwired	Type-1 (J1772)	60 A
IQ-EVSE-NA-1060-0100-1420	Hardwired	Type-1 (J1772)	60 A
IQ-EVSE-NA-1080-0100-1420	Hardwired	Type-1 (J1772)	80 A
IQ-EVSE-NA-1100-0100-1420	Hardwired	Type-1 (J1772)	100 A

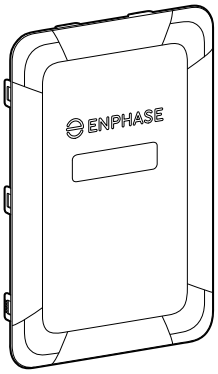
NOTE: The IQ EV Charger 2 can also be installed using a breaker with a lower current rating than the one mentioned in the table. This is achieved by limiting the charger's maximum current to match 80% of the breaker rating during commissioning. Doing so will limit the maximum charging current to the set limit, even though the IQ EV Charger 2 may be of a higher rated current capacity.

Other considerations:

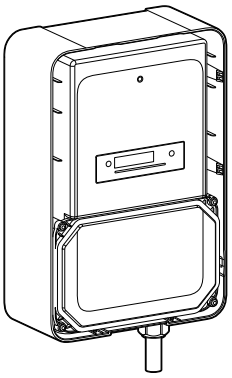
- For information on the supported configurations, see the *IQ EV Charger 2 installation configurations technical brief*.
- Ensure Production and Consumption CTs are installed correctly at PV-only sites for monitoring solar production and total home load. Ensure that all CTs are properly located and installed according to the *IQ EV Charger 2 installation configurations technical brief*.

3. What's in the box

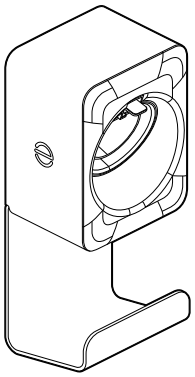
3.1 Box contents



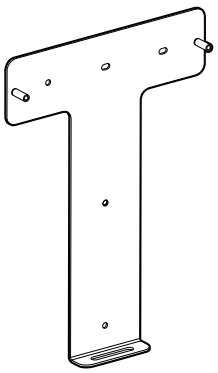
Aesthetic cover × 1



IQ EV Charger 2 enclosure × 1



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

4. 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
- 5/32" flathead screwdriver
- Wrench
- Multimeter
- Wire stripper
- Crimping tool

5. Mounting the wall bracket

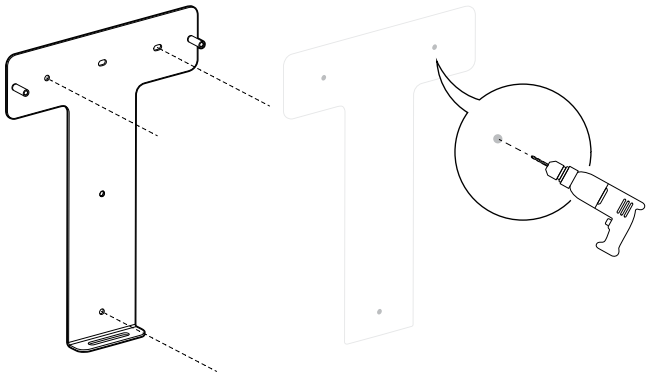
IQ EV Charger 2 can be mounted on a variety of surfaces.

- Mounting on a timber or concrete wall on page 6.
- Mounting on a single vertical timber stud on page 6.

5.1 Mounting on a timber or concrete wall

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

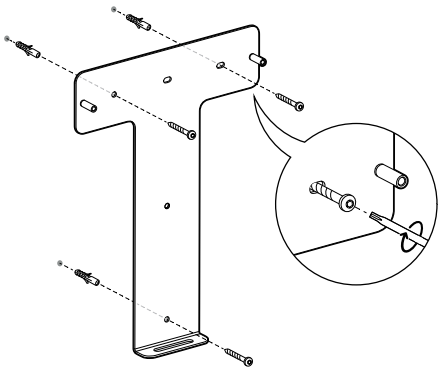
1. Begin at the installation point nearest to the power source and draw a straight horizontal line on the wall to serve as a reference for installation.
2. Use the mounting bracket as a guide to mark three drill points.



3. Drill to a minimum depth of 2.2 inches using a 5/16" 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.

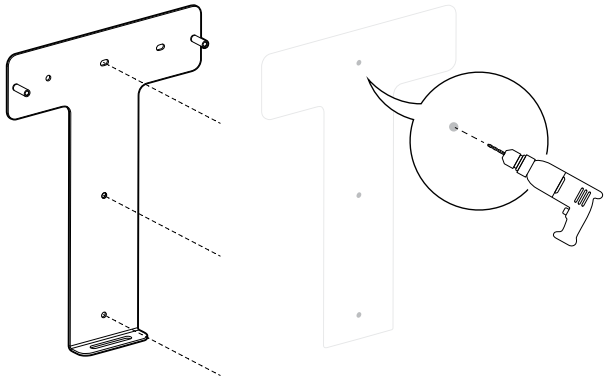


NOTE: Expansion plugs must be inserted into the hole before threading screws into the wooden wall.

5.2 Mounting on a single vertical timber stud

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

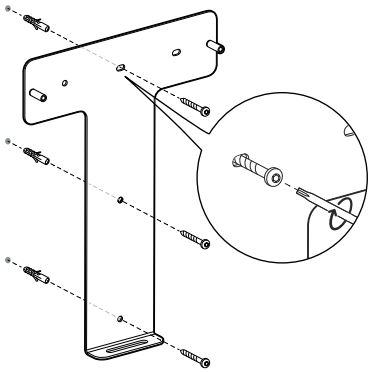
1. Begin at the installation point nearest to the power source and draw a straight horizontal line on the wall to serve as a reference for installation.
2. Use the mounting bracket as a guide to mark three drill points.



3. Drill to a minimum depth of 2.2 inches using a 5/16" diameter drill bit.

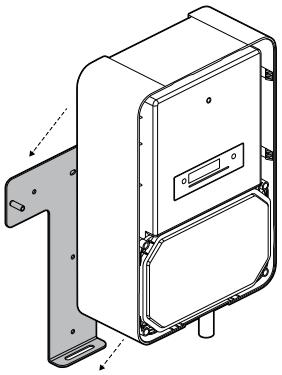
⚠ **WARNING:** Multiple risks. Do not drill into or attach to electric wiring or pipes in the wall.

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

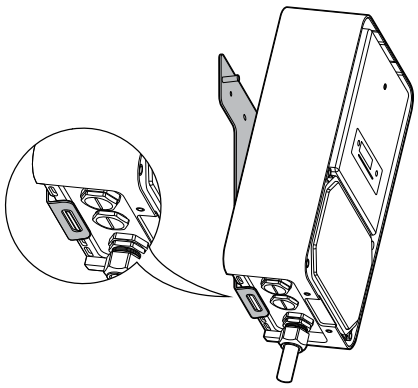


6. Wall-mounting the IQ EV Charger 2

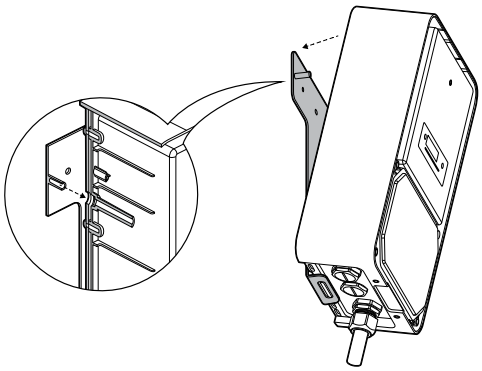
1. Lift and position the IQ EV Charger 2 next to the wall bracket.



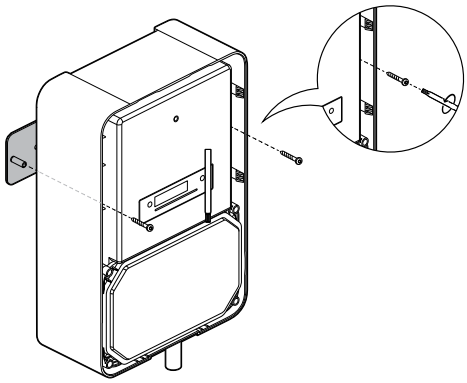
2. To secure the charger, align the mounting guide protrusion at the bottom of the IQ EV Charger 2 with the corresponding slot on the wall bracket socket and insert it firmly.



3. Insert the charger into the wall bracket. Carefully align the prongs on both sides of the wall bracket with the matching slots on the back of the charger enclosure. Slide the prongs into the slots until the charger locks securely into position.



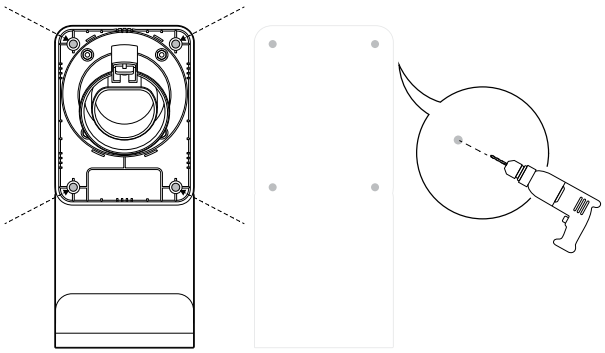
4. Fix the charging station onto the wall bracket using the screws provided—torque to 62 lb-in.



7. Mounting the connector holster

A cable and connector holster is included with the tethered model to keep the charging cable organised and accessible.

1. Draw a horizontal reference line on the wall to guide the installation. Use the holster as a template to mark out drilling holes in the wall.

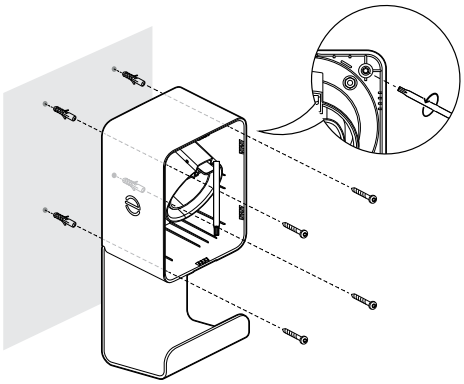


NOTE: Applicable for both J1772 and NACS connectors.

2. Drill to a minimum depth of 2.2 inches using a 5/16" diameter drill bit.

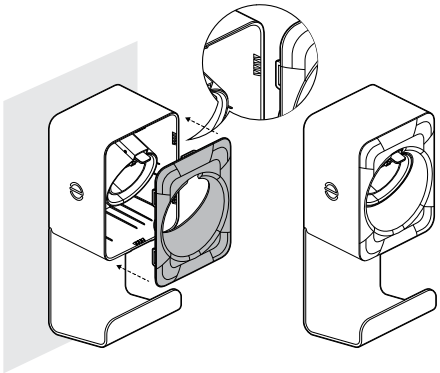
WARNING: Multiple risks. Do not drill into or attach to the electrical wiring or pipes in the wall.

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



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

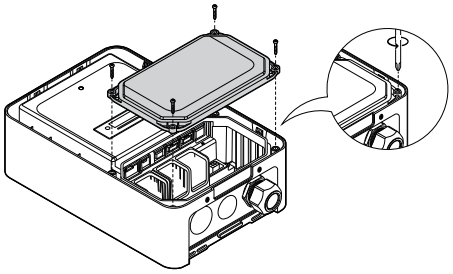
4. Close the holster with the aesthetic cover.



8. Power supply wiring

8.1 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 13
- Supply wiring through the bottom cable entry on page 14

NOTE: The plug-in model (IQ-EVSE-NA-1050-0110-1120) is fitted with a NEMA 14-50 from the bottom of the enclosure. In this configuration, the ground pin is located at the furthest point on the plug. It is recommended that the NEMA 14-50R receptacle be oriented accordingly. The plug-in EVSE must be located within ~30 in (760 mm) of the receptacle.

NOTE: It is also highly recommended that a qualified electrician inspect the premise wire connections on the back of a pre-existing NEMA outlet before using it. Wire connection points behind the receptacle may become loose or oxidized if they were installed many years ago, and may cause the outlet to fail. Ensure that the receptacles are free of any physical damage or defects prior to the installation of the EVSE.

8.2 Service connections

WARNING: This is a single-phase device. Do not connect all three phases of a three-phase feed! You may use any two phases of a three-phase wye-transformer feed. The center point of the three phases (usually used as Neutral) must be grounded somewhere in the system. A Neutral connection is not required by the EVSE. Only Line 1, Line 2, and Ground are required, as shown in Figure 1: 220/240 V single-phase on page 11.

WARNING: The two phases used must each measure 120 V to Neutral. Earth Ground must be connected to Neutral at only one point, usually at the service entry breaker panel.

WARNING: If a 240 V three-phase feed is from a Delta-connected secondary, the leg used must have a center-tap. That tap must be Grounded. Only the two phases on either side of the center-tapped leg can be used. See Figure 2: 208 V three-phase, wye-connected on page 11.

WARNING: Use copper, copper-clad aluminum, or aluminum conductors.

WARNING: Use 75C or greater wire only.

WARNING: The warranty is void if this unit is not wired properly.

DANGER: Only a qualified electrician should perform the installation. The installation must be performed in accordance with all local electrical codes and ordinances.

Only three wires are connected, but ensure that the service transformer secondary connection is known, and the three wires from the main circuit breaker panel are connected and labeled correctly. Figure 1: 220/240 V single-phase on page 11, Figure 2: 208 V three-phase, wye-connected on page 11, and Figure 3: 240 V three-phase, delta-connected, with center-tap on one leg on page 12 show the most common service transformer secondary wiring formats.

Notice that L1, L2, and Ground are labeled on each diagram. Those transformer outputs correspond to the same inputs on IQ EV Charger 2. Also, the two three-phase diagrams show an L3 output, which is not used. Do not connect all three phases of a three-phase secondary to the EVSE. This is a single-phase device.

DANGER: Local electrical codes must always be followed when installing the grounding stake.

The following diagrams illustrate the three service transformer secondary connections most common in North America.

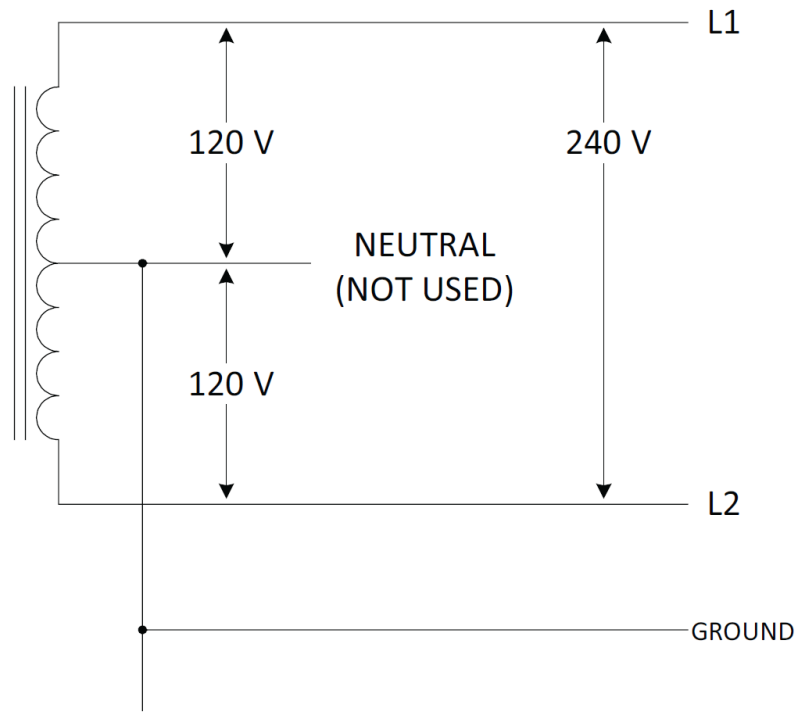


Figure 1: 220/240 V single-phase

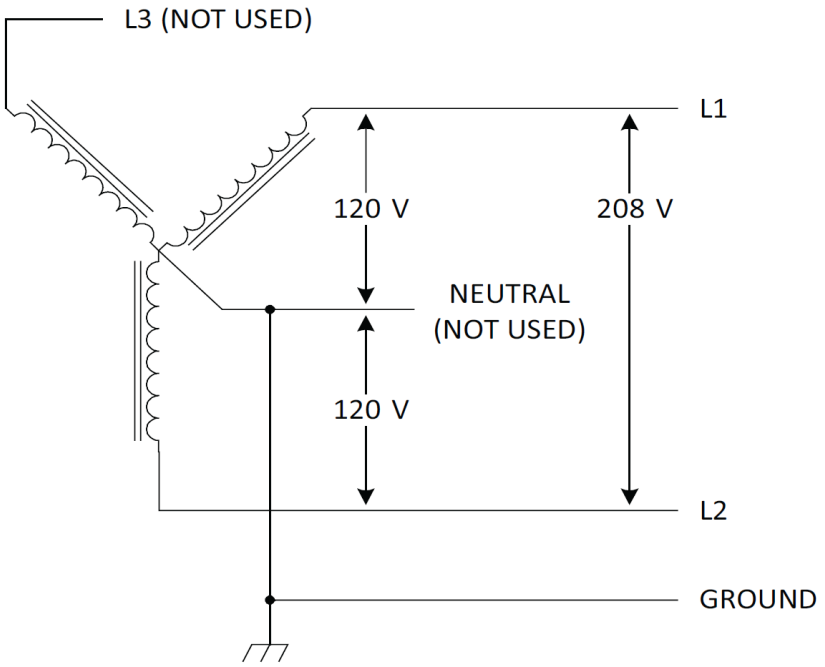


Figure 2: 208 V three-phase, wye-connected

NOTE: With a wye-connected secondary, any two of the legs can be used to provide 208 V to the IQ EV Charger 2. For example, L1 & L2, or L1 & L3, or L2 & L3. Leave the unused leg open. Do not connect it to a Neutral bar or the Ground. Be sure the center point is grounded to Earth somewhere in the system.

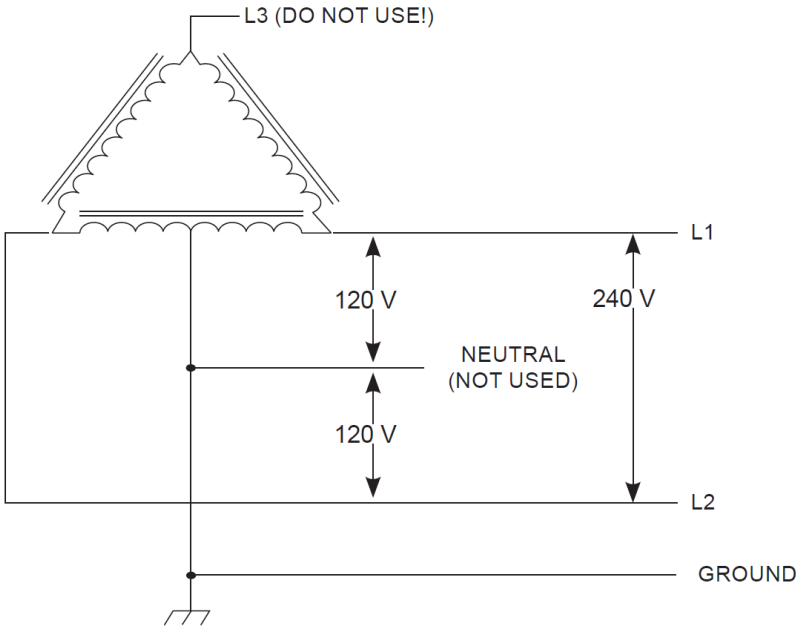
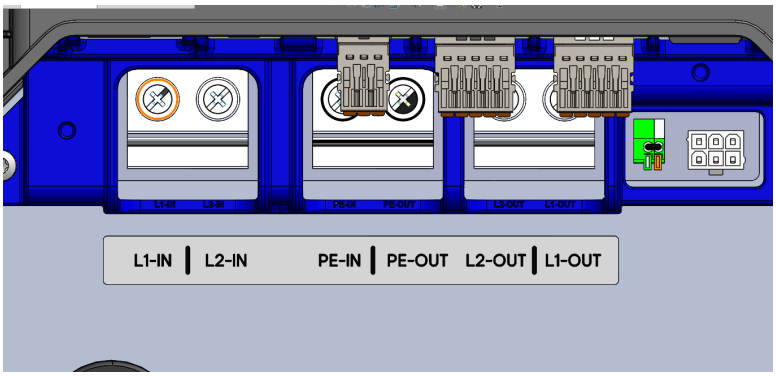


Figure 3: 240 V three-phase, delta-connected, with center-tap on one leg

WARNING: With the delta connection, one leg must be center-tapped. Only the two phases on either side of the center tap can be used. The two phases must both measure 120 V to Neutral. The third line (L3) of the delta is 208 V, with respect to Neutral, and is sometimes referred to as a "stinger." Do not use this third line! Consult the transformer manufacturer's literature to be sure the single leg can supply the required power.

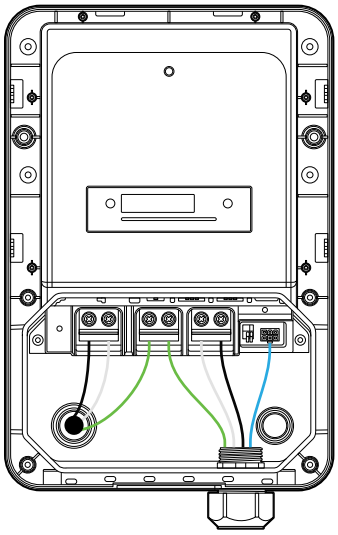
WARNING: A three-phase delta-connected transformer secondary without a center-tap on one leg cannot be used with the EVSE. No "Neutral" point can be connected to the ground for ground-fault protection. The EVSE will not allow the contactor to close if it does not sense the presence of a Ground wire connected to a "Neutral" point on the transformer secondary.

NOTE: For a 277 V three-phase system, the standard NEC color code is brown (L1), orange (L2), and yellow (L3) for the hot wires, with gray for the neutral, and green (or bare/green with a yellow stripe) for the ground. Based on the load distribution across the phases, connect the right hot wire (L1/L2/L3) on the L1 terminal of the input side and the neutral wire to the L2 terminal. Then, connect the ground to the PE-labelled terminal.

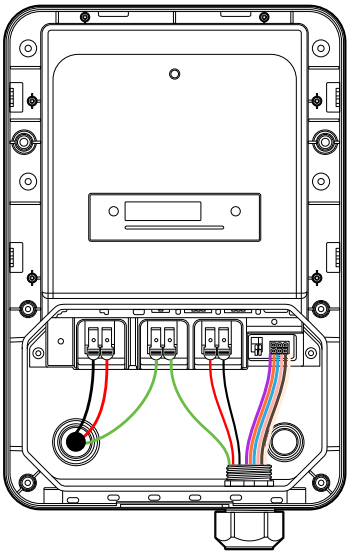


8.3 Supply wiring through the rear cable entry

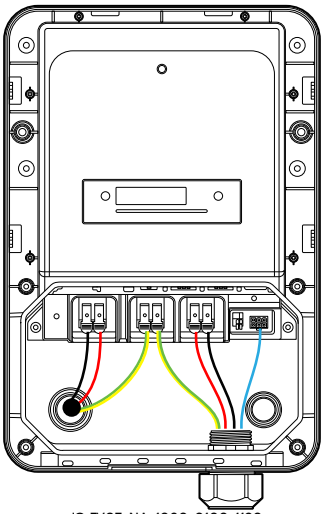
Remove the sealing plug from the rear of the IQ EV Charger 2. Use an IP sealed 1" conduit connector to route the input cables inside the EV charger, and terminate the conductors as labeled.



IQ-EVSE-NA-1100-0100-1420



IQ-EVSE-NA-1060-0101-1120



IQ-EVSE-NA-1060-0100-1120
IQ-EVSE-NA-1060-0100-1420
IQ-EVSE-NA-1080-0100-1420

NOTE: The unused cable entry in the middle can be used for Ethernet communication. For more information, see Wiring connections for communication cables on page 16.

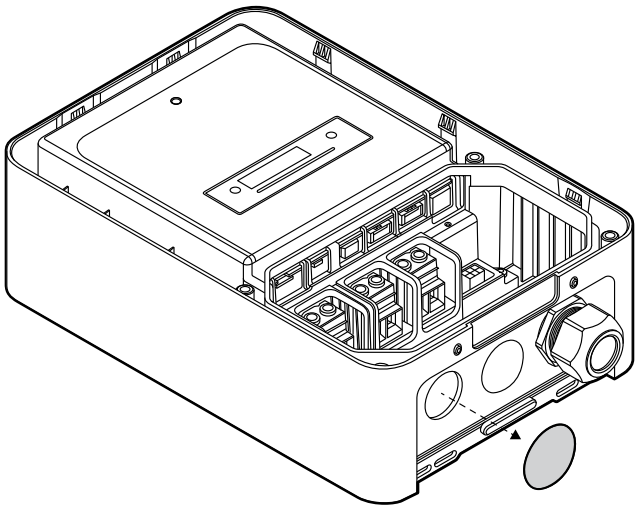
NOTE: Torque screws on the terminal block to 13.28 lb-in.

NOTE: Check the torque of all electrical connections, including the factory-made terminations, because they may loosen during transportation.

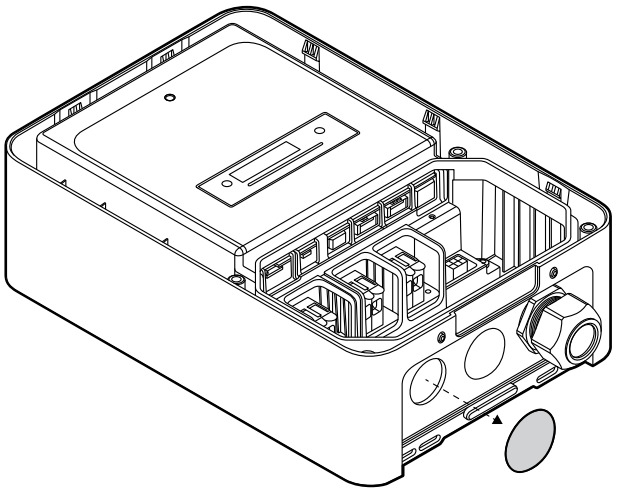
WARNING: Ensure the charger is installed using protective devices of the appropriate rating. For more information, see the Pre-installation checklist on page 4.

8.4 Supply wiring through the bottom cable entry

1. Remove the sealing plug from the input side of the IQ EV Charger 2.

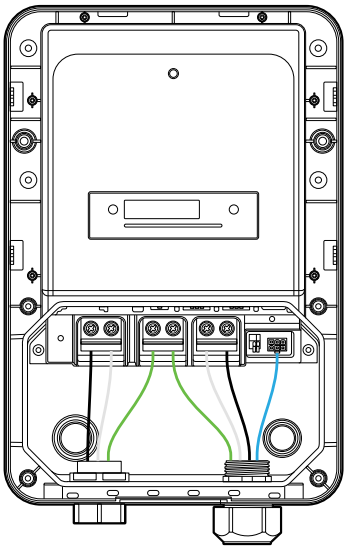


IQ-EVSE-NA-1100-0100-1420

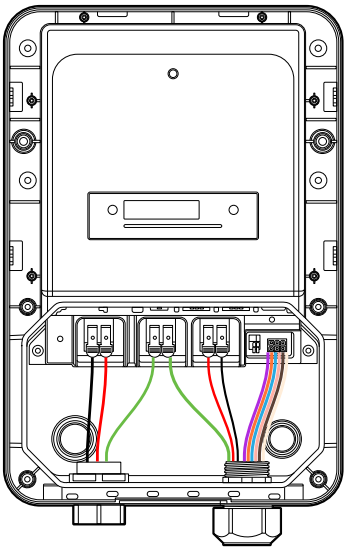


IQ-EVSE-NA-1060-0101-1120
IQ-EVSE-NA-1060-0100-1120
IQ-EVSE-NA-1060-0100-1420
IQ-EVSE-NA-1080-0100-1420

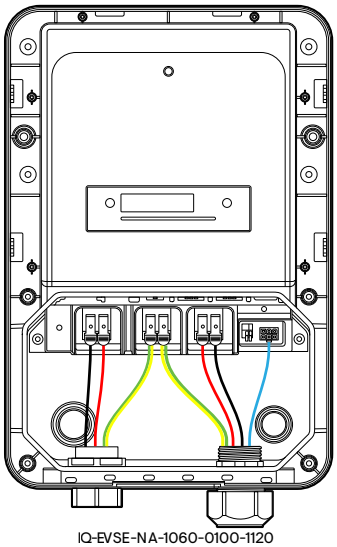
2. Use an IP sealed 1" conduit connector to route the input cables inside the EV charger, and terminate the conductors as labeled.



IQ-EVSE-NA-1100-0100-1420



IQ-EVSE-NA-1060-0101-1120



IQ-EVSE-NA-1060-0100-1120
IQ-EVSE-NA-1060-0100-1420
IQ-EVSE-NA-1080-0100-1420

NOTE: The unused cable entry in the middle can be used for Ethernet communication. For more information, see Wiring connections for communication cables on page 16.

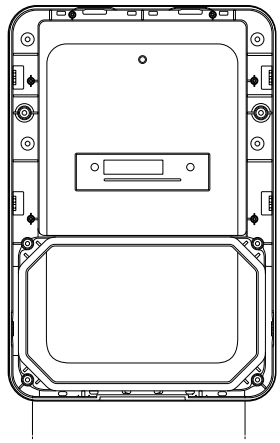
NOTE: Torque screws on the terminal block to 13.28 lb-in.

NOTE: Check the torque of all electrical connections, including the factory-made terminations, because they may loosen during transportation.

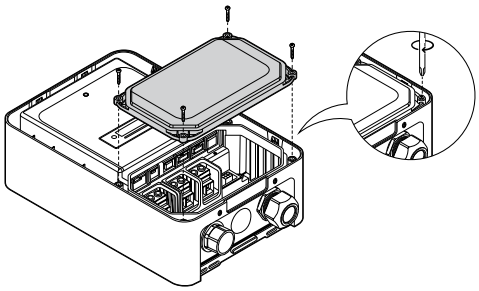
WARNING: Ensure the charger is installed using protective devices of the appropriate rating. For more information, see the Pre-installation checklist on page 4.

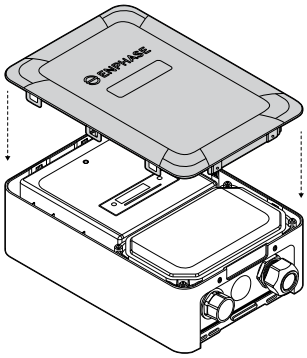
8.5 Completing supply wiring

Close the service panel using the four provided corner screws. Torque the screws to 15.93 lb-in.



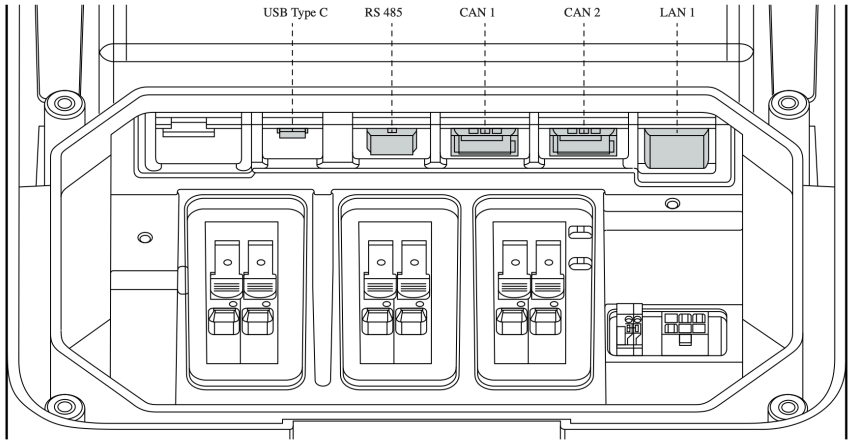
Mount the front door with the bigger curved surface at the bottom edge

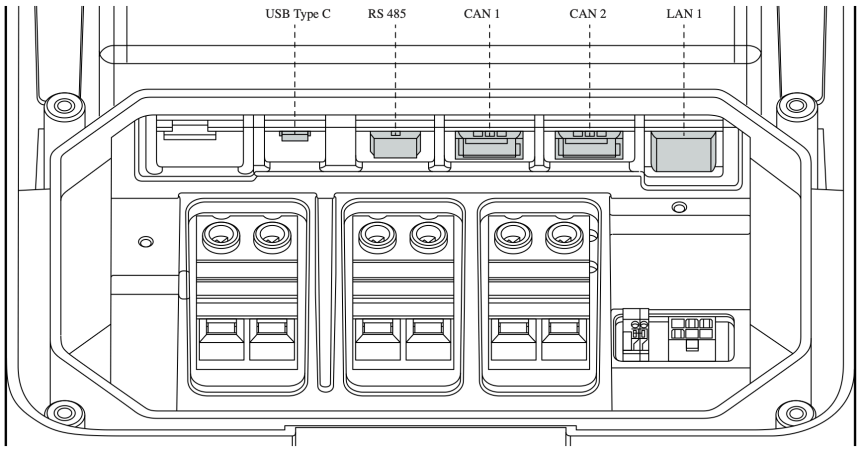




9. Wiring connections for communication cables

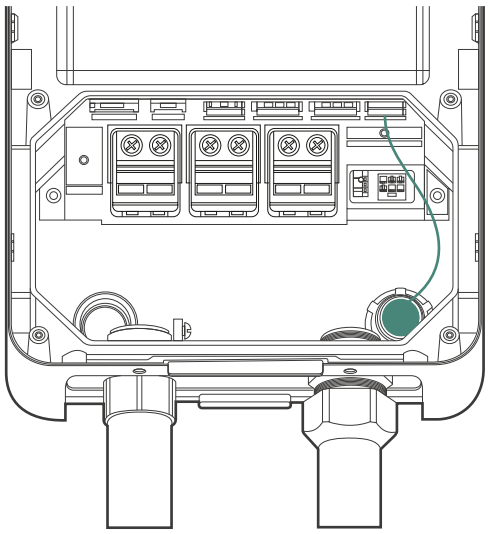
The IQ EV Charger 2 hardware supports several forms of wired communication, as shown in the following figure:





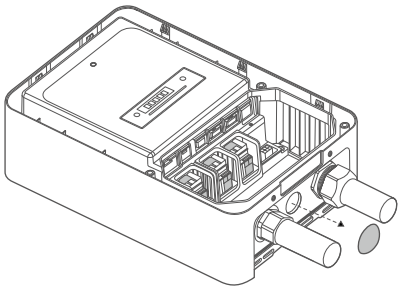
9.1 Communication cable wiring through the rear cable entry

1. Remove the sealing plug from the rear side of the IQ EV Charger.
2. Use an IP sealed ¾" conduit connector to route the communication cables inside the EV charger, and connect to the sockets accordingly.

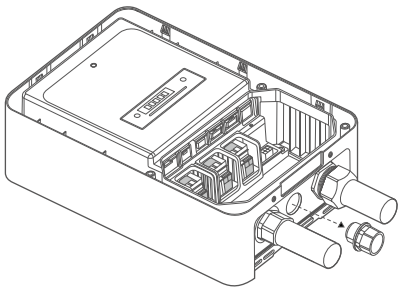


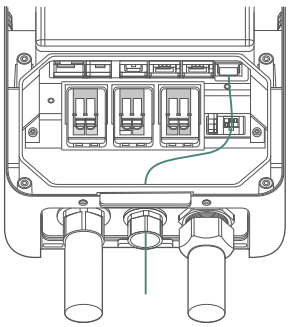
9.2 Communication cable wiring through the bottom (input side) entry

1. Remove the sealing plug from the input side of the IQ EV Charger 2.



2. Use an IP sealed ¾" conduit connector to route the communication cables inside the EV charger, and connect to the sockets accordingly.





10. Commissioning the IQ EV Charger 2

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

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

10.1 Commissioning 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 latest version of the Enphase Installer App from the App Store or Google Play.
2. Log in to your installer account using the account details.
3. Ensure that the white LED on the charger is illuminated before beginning the commissioning process.

NOTE: If you see a red LED at this step, double-check that the charger is properly grounded and that the phase wiring is connected to the correctly labeled phase terminals on the charger.

4. Follow the on-screen instructions and refer to the FAQs for further assistance in completing the commissioning.

10.2 Commissioning through the Enphase App

NOTE: The commissioning 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 commissioning and setup process to ensure safe and correct operation. For more information, see the https://support.enphase.com/s/article/iq-ev-charger-quick-start-guide-for-homeowners.

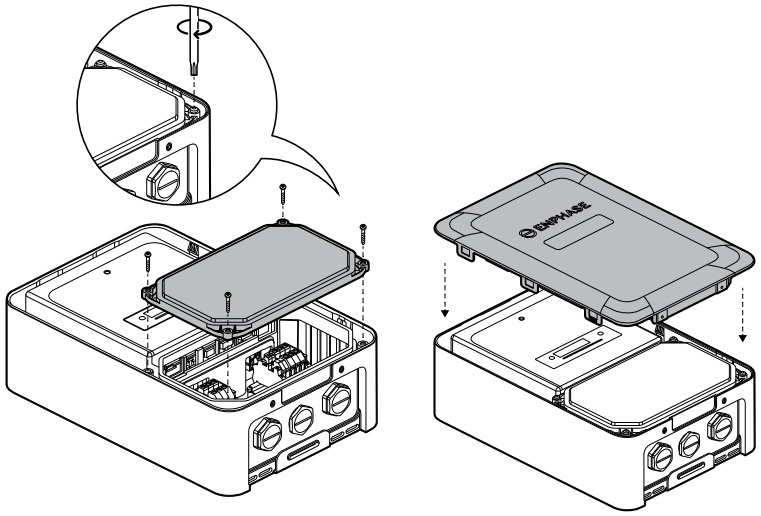
1. Download the latest version of the Enphase App from the App Store or Google Play.
2. Have the homeowner create an account or log in to an existing Enphase Account with their account details.
3. Ensure that the white LED on the charger is illuminated before beginning the commissioning process.

NOTE: If you see a red LED at this step, double-check that the charger is properly grounded and that the phase wiring is connected to the correctly labeled phase terminals on the charger.

4. Follow the on-screen instructions and refer to the FAQs for further assistance in completing the commissioning.

11. 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 5.31 lb-in.



3. Turn on the power to the breaker.

12. Post-installation checklist

- Once commissioning is complete, the device will indicate success by displaying a green LED light. If the device has not been activated, the LED will remain white.

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.

- 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.

13. Troubleshooting

13.1 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

LED color	LED sequence	Device status
Blue	Fading in and out	EV charging in progress
Red	All LEDs indefinitely blinking ON/OFF	Fault/Error

13.2 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

14. Accessories

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

Replacement connector cables	Description	Compatible EVSE SKUs	Maximum current rating
TYPE1-CABLE-7.5M-40A-1P-WIRED	25 ft-long J1772 (TYPE1) - 40 A replacement cable for IQ EV Charger 2 NA	IQ-EVSE-NA-1050-0110-1120	40 A
TYPE1-CABLE-7.5M-48A-1P-WIRED	25 ft-long J1772 (TYPE1) - 48 A replacement cable for IQ EV Charger 2 NA	IQ-EVSE-NA-1060-0100-1120	48 A
TYPE1-CABLE-7.5M-64A-1P-WIRED	25 ft-long J1772 (TYPE1) - 64 A replacement cable for IQ EV Charger 2 NA	IQ-EVSE-NA-1080-0100-1420	64 A
TYPE1-CABLE-7.5M-80A-1P-WIRED	25 ft-long J1772 (TYPE1) - 80 A replacement cable for IQ EV Charger 2 NA	IQ-EVSE-NA-1100-0100-1420	80 A
NACS-CABLE-7.5M-48A-1P-WIRED	25 ft-long J3400 (NACS) - 48 A replacement cable for IQ EV Charger 2 NA	IQ-EVSE-NA-1060-0101-1120, IQ-EVSE-NA-1060-0100-1120	48 A
NACS-CABLE-7.5M-80A-1P-WIRED	25 ft-long J3400 (NACS) - 80 A replacement cable for IQ EV Charger 2 NA	IQ-EVSE-NA-1080-0100-1420, IQ-EVSE-NA-1100-0100-1420	80 A

Accesories	Description
TYPE1-CONN-HOLSTER-EN	Enphase Type-1 (J1772) connector holster with integrated cable management
NACS-CONN-HOLSTER-EN	Enphase NACS (J3400) connector holster with integrated cable management
IQ-EVSE-2-INSTALL-KIT	Kit with all hardware required for the installation of the IQ EV Charger 2
IQ-EVSE-FRONTCOVER-BLK-TETHER	Black Aesthetic Cover Assembly for tethered IQ EV Charger 2

To replace a J1772 charging cable with a J3400 charging cable, refer to the *J3400 charging cable installation guide* available at https://enphase.com/installers/resources/documentation/ev-chargers.

15. Specifications

Electrical specifications (Wi-Fi, BT models)	IQ-EVSE-NA-1050-0110-1120	IQ-EVSE-NA-1060-0101-1120	IQ-EVSE-NA-1060-0100-1120
Operating voltage	208/240 VAC (±10%) Single-phase/split-phase		
Rated output current	6–40 A	6–48 A	
Maximum charging power (configurable)	Up to 9.6 kW	Up to 11.5 kW at 240 V Up to 13.2 kW at 277 V	Up to 11.5 kW
Input cable type/gauge	Prewired NEMA 14–50, 8 AWG (L1, L2), 10 AWG (Ground)	Hardwired	
Connector type	Type 1 (J1772)	NACS (J3400)	Type 1 (J1772)
Input cable length	~33" (850 mm)	—	—

Electrical specifications (cellular models)	IQ-EVSE-NA-1060-0100-1420	IQ-EVSE-NA-1080-0100-1420	IQ-EVSE-NA-1100-0100-1420
Operating voltage	208/240/277[1] VAC (±10%) Single-phase/split-phase		
Rated output current	6–48 A	6–64 A	6–80 A
Maximum charging power (configurable)	Type 1 (J1772): Up to 11.5 kW NACS (J3400): Up to 13.3 kW[1]	Type 1 (J1772): Up to 15.4 kW NACS (J3400): Up to 17.7 kW[1]	Type 1 (J1772): Up to 19.2 kW NACS (J3400): Up to 22.1 kW[1]
Input cable type/gauge	Hardwired		
Connector type	Type 1 (J1772) (factory installed) NACS (J3400) (sold separately)[2]		

Mechanical specifications	IQ-EVSE-NA-1050-0110-1120	IQ-EVSE-NA-1060-0100-1120, IQ-EVSE-NA-1060-0100-1420	IQ-EVSE-NA-1060-0101-1120	IQ-EVSE-NA-1080-0100-1420	IQ-EVSE-NA-1100-0100-1420
Weight	27.94 lb (12.70 kg)	27.39 lb (12.45 kg)	25.52 lb (11.60 kg)	31.92 lb (14.51 kg)	33.68 lb (15.31 kg)

Mechanical specifications (applicable to all six SKUs)	
Enclosure dimensions (L × W × D)	14.5" (370 mm) × 9.8" (250 mm) × 4.64" (118 mm)
Supply cable entry options	Bottom/Rear

Environmental specifications (applicable to all six SKUs)	
Relative humidity range	5% to 95%
Altitude	<8202 ft (<2500 m)
Enclosure rating	NEMA 4
Operating temperature	-40°F to 131°F (-40°C to 55°C)
Storage temperature	-40°F to 185°F (-40°C to 85°C)

[1] Select SKUs of the IQ EV Charger 2 that are factory-equipped with a Type 1 (SAE J1772) connector cable are eligible for field replacement of the cable. A compatible NACS (SAE J3400) connector cable is available for purchase separately, offering adaptable charging solutions. The IQ EV Charger 2 with NACS (J3400) connector supports AC charging at 277 V.

[2] The IQ EV Charger 2 (cellular) is factory-equipped with a Type 1 (SAE J1772) connector cable. A compatible NACS (SAE J3400) connector cable can be purchased separately, offering adaptable charging solutions. A compatible holster must also be purchased separately when using a different cable type.

Communication options (applicable to all six SKUs)	
Wireless network	2.4/5 GHz Wi-Fi (802.11 ax)
Bluetooth	BT 5.3
Wired communication	Ethernet, wired control communication (CAN)
EV communication	ISO 15118-2, ISO 15118-20
Integration support	OCPP 2.0.1 and APIs

Communication options (only for cellular models)	
Cellular	4G LTE

Features (applicable to all six SKUs)	
LED indicator	Yes
Display	Yes
Open protocol (OCPP) and API support	Enables enhanced smart charging, comprehensive device management, and seamless third-party integrations
Custom firmware	Ability to install containerized custom firmware enables seamless integration with partner infrastructure and applications
ANSI C12.1 metering[3]	Revenue-grade metering accuracy enhances trust and credibility
CTEP compliance[3]	Ensures compliance with California-specific metering regulations
Self-consumption[4]	When integrated with Enphase PV or any other PV system (through the IQ Gateway), the charger tracks surplus solar every 30 seconds and redirects it to the EV in 1 A increments
AI optimization	Optimizes charging with dynamic tariff rates and excess solar power
Savings	Optimizes charging patterns while saving money and minimizing carbon footprint
Green charging	Localized green charging tracks solar every 30 seconds to ensure the efficient consumption of excess solar
Scheduled charging	Charges EV based on user-configurable custom or off-peak schedules
Dynamic load balancing	Automatically adjusts EV charging power based on variations in solar production and home consumption to prevent tripping and avoid upgrades to the main panel
Storm Guard	Yes

Compliance (applicable to all six SKUs)	
Compliance	NEC Article 625, SAE J1772, NACS, ENERGY STAR, UL 2594, CSA C22.2 No. 280-22, NMX-J-677-ANCE-2022 (NOM-001-SCFI)[3], UL 2251, CSA C22.2 No. 282, NMX-J-678-ANCE[3], UL 2231-1, UL 2231-2, CSA C22.2 No. 281.1, CSA C22.2 No. 281.2, NMX-J-668/1-ANCE[3], NMX-J-668/2-ANCE[3], U 1998, UL 991, UL 3141 PCS-LC[3], CSA C22.2 No. 0.8, FCC 15B, ICES-003, FCC 15C, RSS-210, FCC 15C, RSS-247, IFT-008-2015 (NOM-208-SCFI-2018), ANSI C12.1[3], NIST HB 44-2025 (CTEP)[3]
Safety features	Short-circuit protection, relay weld detection, surge protection, ground fault protection integral, CCID 20 mA, auto fault reset, overcurrent protection
Built-in sensors	Ambient light, temperature, humidity, tilt
Metering accuracy	±1%, ANSI C12.1, CTEP compliant[3]

Warranty (applicable to all six SKUs)	
Warranty duration	5 years

[3] Certification in progress.

[4] Typically available in residential configurations when integrated with Enphase PV systems or other PV setups via the Enphase IQ Gateway.

16. 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 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.

DANGER: To reduce the risk of electric shock, connect only to properly grounded outlets. (Applicable to the EV charger models with factory-installed NEMA 14-50 supply cable).

DANGER: Risk of electric shock. Do not remove the cover or attempt to open the enclosure. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: Risk of explosion. This equipment has arcing or sparking parts that should not be exposed to flammable vapors. This equipment should be located at least 460 mm (18 inches) above the floor.

WARNING: This device is intended only for charging vehicles not requiring ventilation during charging.

WARNING: The unit employs parts, such as switches and relays, that tend to produce arcs or sparks and must be mounted not less than 18 inches above the floor if installed in an enclosed garage

WARNING: Automatic CCID reset provided.

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 a compatible (J1772 / NACS) 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 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.

Instructions pertaining to the risk of fire or electric shock

- Use the electric vehicle (EV) charging point only with electric vehicles that have a J1772/NACS 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 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 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., 47281 Bayside Pkwy.,
Fremont, CA, 94538, United States of America
PH: +1 (707)763-4784

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.

Contact Enphase Support with any questions about the use of this product.

This documentation has undergone a 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.

FCC 15B statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC RF Exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 20 cm (8 in) from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.

RSS-GEN

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

ISED RF Exposure statement

This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm (8 in) between the radiator and your body.

Revision history

Revision	Date	Description
140-00576-03	November 2025	• Added FCC and ISED RF exposure statements. • Removed the device status “PEN Fault” from the "Troubleshooting" chapter.

Revision	Date	Description
140-00576-02	October 2025	Added note on connecting a higher-rated charger to a lower-rated breaker.
140-00576-01	September 2025	Initial release.

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

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140-00576-03-EN-2025-11-14
Applicable regions: North America

ENPHASE.