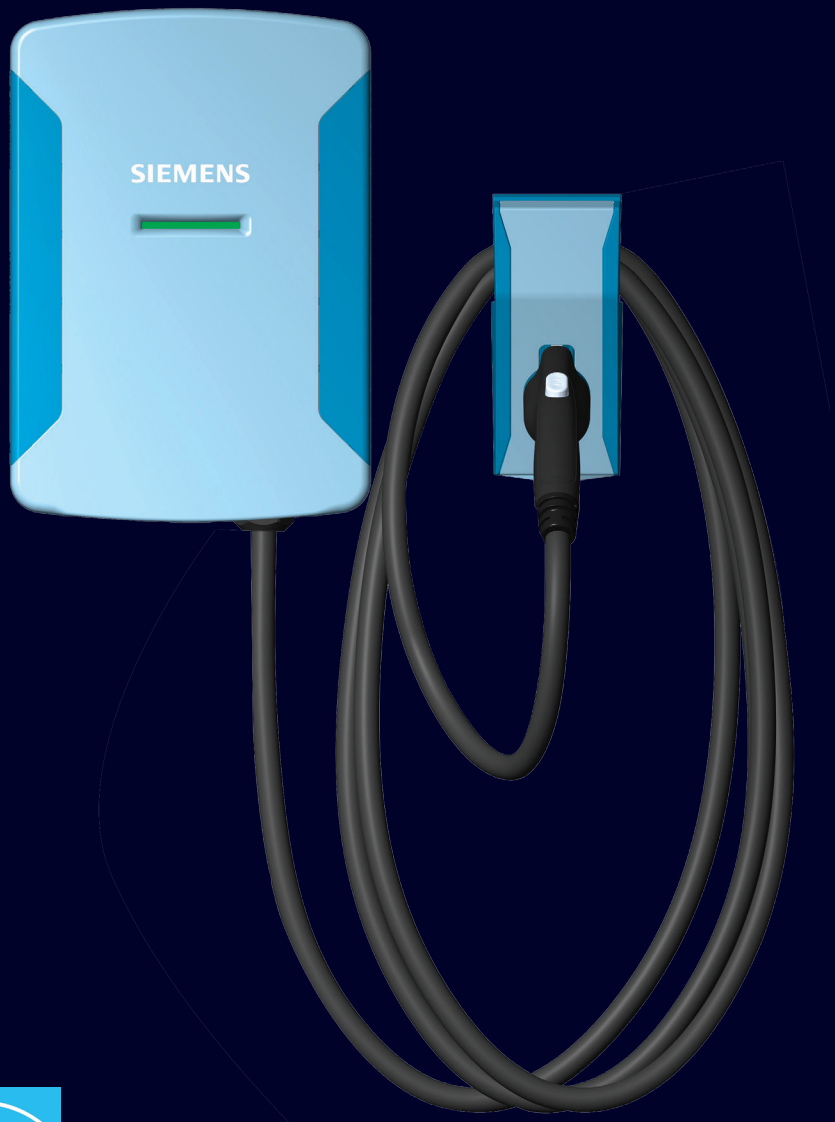

Made in the USA

ENERGY STAR

VersiCharge Blue™ 80 AC Series

usa.siemens.com/versichargeblue80

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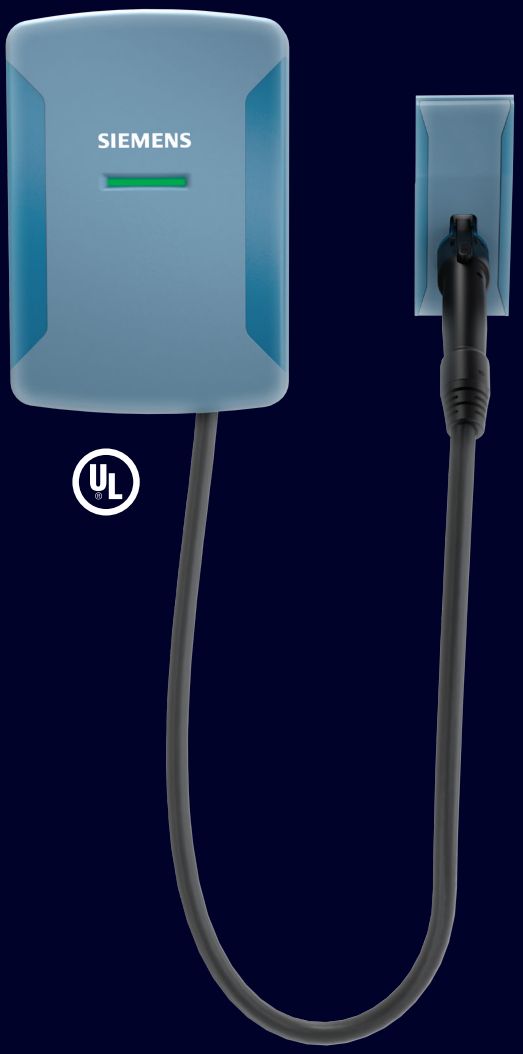
Features



Faster AC charging
- 19.2 kW (80A)
- Built to deliver the fastest AC charging experience

Focus markets
- Fleet and commercial vehicle applications where fast AC charging is needed.
- Supports the growing medium duty truck electrification happening across the country.
- Can charge all standard EVs including Tesla with an adapter.

Quality made
- NEMA 4 and IK10 rated
- Buy American
- 3-year warranty
- 24-ft cable with cable management

Efficient and reliable
- Energy Star and Energy Star Connected
- UL listed
- Resilient operations under extreme temperatures

Smart charging
- ISO15118 HW-ready & OCPP1.6J (2.0.1 upgradeable)
- Complete control with Siemens SW solutions
- Cellular and Wi-Fi enabled network sharing

SIEMENS

VersiCharge Blue 80A – Technical Data

Features and Functions	
Charging mode	Level 2
Vehicle connection	J1772 Type 1 plug with 24 ft cable, 80 A
AC power output	Up to 19.2 kW (240VAC at 80A) - requires a 100A breaker
Mounting options	Wall or Post Mounting, see accessories
LEDs	Charging status; connectivity status; fault status
Network-sharing	Connects to one non-cellular charger by Wi-Fi within 20 feet line of sight
Load management	Via OCPP and Modbus TCP/IP, Modbus RTU coming later
Warranty	Includes 3-year warranty
Communication	
Interfaces	Wi-Fi and Cellular
User authentication	OCPP, ISO15118-2 HW-ready
Configuration	Sifinity Go (Up to 10 chargers) or Sifinity Setup mobile app
Software upgrade	Over-the-air (OTA)
Back-end protocol	OCPP 1.6, upgradeable to OCPP 2.0.1
Electrical design	
Power supply voltage	120/208V, 120/240V AC 60Hz
Rated current settings (A)	12, 16, 32, 40, 48, 64, 80
Wire cross section	3 AWG, minimum 90°C rated (to deliver 80A)
Energy metering	Embedded metering
Ground fault protection	20 mA
Over voltage protection	Over voltage: 264V (maximum 275 V)
Operating altitude	6,651 feet
General design	
Environmental rating	NEMA 4, IK 10
Dimensions (H x W x D)	16.8 in. x 11.6 in. x 4.2 in. (429 mm x 294 mm x 105 mm)
Weight	27 lbs (12 kg)
Ambient conditions	-40 °C to +50 °C, >50 °C with derating, -40° C to +85° C (storage), 98% relative humidity, non-condensing
Colors	Siemens blue (Pantone 7700); FE gray
Certificates and standards	
cUL listed	According to UL 2594, UL 991, UL 1998, UL 2231, file no. E522055
CMC	FCC Part 15 Class A
Consumption	Energy Star certified and Energy Star Connected certified
Certification	Buy American compliant
Catalog numbers	
8EM1315-7BG16-1FH2	Buy America Compliant - 80A (19.2kW) VersiCharge Blue 80 Charger, Cellular/Wi-Fi model
8EM13931PA12	VersiCharge 80A 95" single post with retractable cable management
8EM13932PA12	VersiCharge 80A 95" dual post with retractable cable management

Legal Manufacturer

Siemens Industry, Inc.
3617 Parkway Ln
Peachtree Corners, GA 30092
United States of America

Telephone: +1 (800) 333-7421
helpline.sii@siemens.com

Article No. SIE-B40077-00-4AUS

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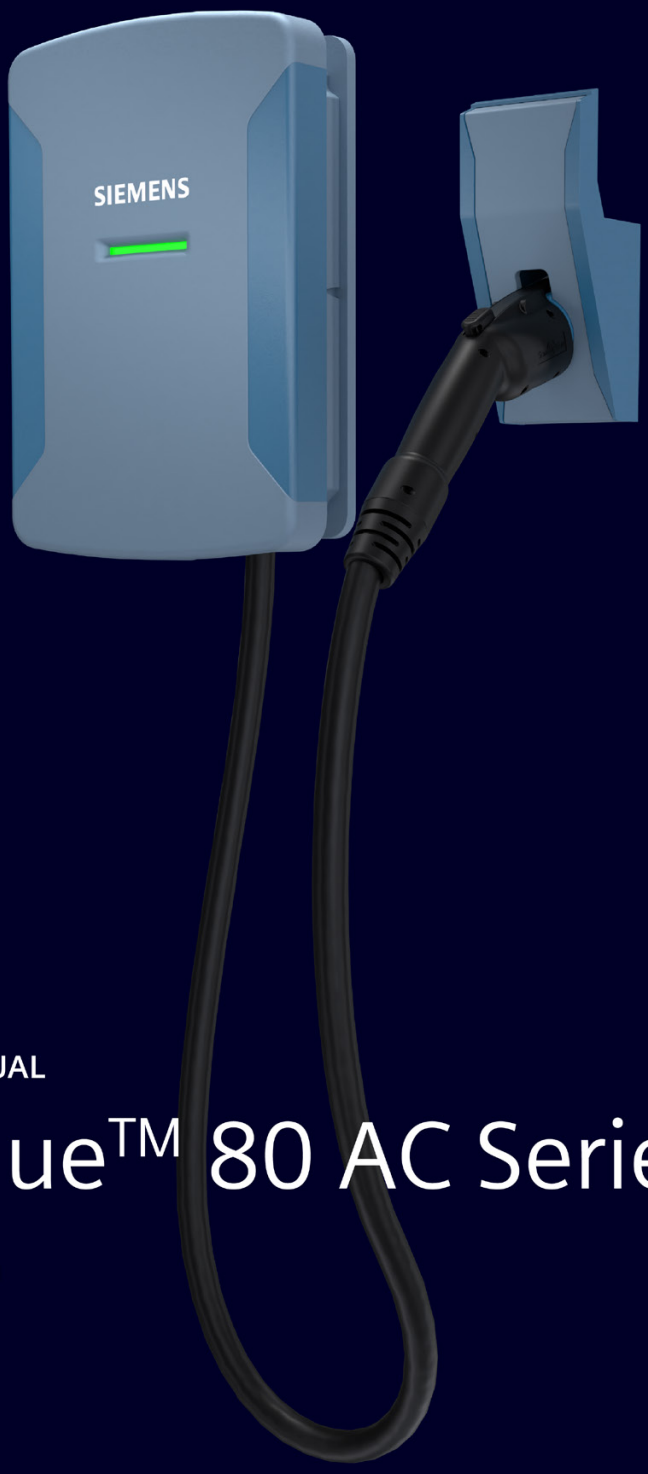

Edition 11/2024

INSTALLATION AND OPERATIONS MANUAL

VersiCharge Blue™ 80 AC Series

Electric vehicle charging station

8EM1315-7BG1.-.FH.

usa.siemens.com/versichargeblue80

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SIEMENS

VersiCharge Blue™ 80 | Installation and Operations Manual

Operating Instructions

11/2024

Rev 01

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠**DANGER**
indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠**WARNING**
indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠**CAUTION**
indicates that minor personal injury can result if proper precautions are not taken.

NOTICE
indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

⚠**WARNING**
Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

All names identified by ® are registered trademarks of Siemens Aktiengesellschaft. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Document order number: SIE-T90002-00-4AUS
Ⓟ 12/2024 Subject to change

Table of contents

General Information

1

Contact Information

Siemens Industry, Inc.

Smart Infrastructure

eMobility Solutions

3617 Parkway Ln.

Peachtree Corners, GA 30092

+1 (855) 950-6339, option 9

Website - (https://usa.siemens.com/versicharge/)

FCC Compliance

This equipment has been tested and found to comply with the limits for class A commercial digital devices, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protections against harmful interference in a residential installation.

Commercial models have been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protections against harmful interference in a commercial 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, this 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 the receiver.
- Connect the equipment to 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.

Changes or modifications not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment and the warranty on the product.

This device should be operated with a minimum distance of at least 20 cm between the 802.11 b/g/n and cellular antennas and a person's body.

ISED Compliance

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-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.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device should be operated with a minimum distance of at least 20 cm between the 802.11 b/g/n and cellular antennas and a person's body.

Other Information

Product information is subject to change without notice. All trademarks are recognized as the property of their respective owners.

For Siemens VersiCharge Blue™ 80 Warranty Terms and Conditions, see the Section Warranty (Page 45).

Safety Information 2

2.1 Read this First

This manual contains instructions for use during the installation, operation and maintenance of the Siemens VersiCharge Blue™ 80 electric vehicle charging station.

2.2 Safety Instructions (General and Specific)

⚠ DANGER

Hazardous Voltage. Will cause death or serious injury.

Turn off power to this equipment before working inside.

- Read this Installation and Operations Manual in its entirety prior to installing, maintaining, servicing or replacing a Siemens VersiCharge EV Charging System.
- **Permits:** Be aware that many areas require special permits and/or utility approvals to install EV charging equipment. Contact your local electrical inspector's office and your local utility prior to beginning work to understand local requirements.
- **Qualified electrician:** Because of the inherent dangers of electricity, only a qualified electrician should install, maintain, service or replace electrical wiring and connected equipment. For the purpose of this manual, a qualified electrician is someone who is familiar with equipment hazards of installation, construction and operation. In addition, this electrician should meet the definition of a qualified electrician pursuant to the National Electrical Code® (NEC®). Failure to comply with this recommendation may void the VersiCharge warranty.
- **Weatherproof seals:** All VersiCharge units are qualified for outdoor use.

⚠ WARNING

Failure to properly seat seals can result in water, debris, and other foreign objects entering the VersiCharge.

These can damage electrical components and prevent proper functioning.

2.3 Instructions Pertaining to a Risk of Fire or Electric Shock

⚠ WARNING

When using electric products, basic precautions should always be followed.

This manual contains important instructions for units supplied with and without a NEMA 6-50 plug that shall be followed during the installation, operation and maintenance of the unit.

- Read all of the instructions before using this product.
- Failure to follow these instructions may lead to death, serious injury or property damage.
- Any electrical wiring required to install this VersiCharge shall conform to applicable codes and standards (ANSI/NFPA 70). A qualified electrician should perform any wiring, maintenance or service.
- To reduce the risk of electric shock, never service, install or uninstall this VersiCharge from service while power is flowing to the unit.
- This equipment has arcing or sparking parts that should not be exposed to flammable vapors. This equipment should be located at least 18 inches above the floor.
- The VersiCharge is equipped with an auto-reset feature.
  - If this VersiCharge is connected to a vehicle at the time that power is restored following an outage, charging may resume automatically.
  - If this VersiCharge is connected to a vehicle and a ground fault trip occurs, charging may resume automatically after a delay period.
- This device should be supervised when used around children.
- Do not put fingers into the electric vehicle connector plug.
- Do not use this product if the power cord or EV cable is frayed, has broken insulation or has any other signs of damage.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open or shows any other indication of damage.
- A torque driver shall be used to make power connections to ensure that adequate contact pressure is applied. See the Installation section of this manual for additional details.
- When a VersiCharge is hardwired during installation, power connections shall be made at line terminals with a torque driver according to the gauge of the line side wire. The wire gauge required is based on local codes.
- A VersiCharge charging station includes wire connector instructions for field installed wiring. Instructions included in this manual must be followed to ensure proper installation.
- An insulated grounding conductor that is identical in size, insulation material and thickness to the grounded and ungrounded branch circuit supply conductors, except that it is green with or without one or more yellow stripes, shall be installed as part of the branch circuit that supplies the VersiCharge or system.

- The grounding conductor shall be grounded to earth at the service equipment or (when supplied by a separately derived system) at the supply transformer.
- Do not attempt to operate this VersiCharge if the ambient temperature is greater than 50 °C (122 °F).
- To maintain Type 4 enclosure rating, use listed conduit fitting rated Type 4 or 4X.
- Use 90°C copper wire only for AC connections (A/L1 and B/L2).
- GROUNDING INSTRUCTIONS: This unit is to be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor is to be run with circuit conductors and connected to an equipment-grounding terminal.

⚠ CAUTION

To reduce risk of fire, connect only to a dedicated branch circuit rated 100A or greater in accordance with local codes. If the derating switch is used to reduce the output current or an energy management system is utilized, please refer to local codes for appropriate circuit sizing.

2.4 Code and Standard References

- This VersiCharge has been designated to meet the requirements in section 625 of the National Electric Code (NEC®).
- UL Listing with Listing Number – Siemens VersiCharge devices are listed in UL file #E348556.
- Complies with the following UL Standards: UL 1998, UL 991, UL2594/CSA C22.2 No.280/NMX-J-677-ANCE, UL 2231-1/CSA C22.2 No.281.1/NMX-J-668-1, UL 2231-2/CSA C22.2 No.281.2/NMX-J-668/2-ANCE and UL 2251/CSA C22.2 No.282/NMX-J-678-ANCE. EV interface compliant to SAE J-1772 Level II.
- The commercial models have been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses and can radiate radio frequency energy and may cause harmful interference to radio communications if not installed and used in accordance with the instructions. 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.

- Personal Protection Equipment: Use of proper personal protection equipment, including, but not limited to, eye protection, shock protection, gloves and other appropriate protection, is recommended when installing or servicing any electrical equipment.
- Charging Circuit Interrupting Device (CCID): The Siemens VersiCharge line of EV Charging Systems includes a CCID. The CCID is required by UL Standard 2231 and is designed to detect ground faults within the system and disconnect power from the downstream conductors when a fault is detected.

⚠ DANGER

Hazard of Electric Shock, Explosion, or Arc Flash. Failure to follow these instructions will result in death or serious injury.

This equipment has arcing or sparking parts that should not be exposed to flammable vapors. This equipment should be installed at least 18 inches above floor or ground level. Use extreme caution and follow instructions carefully.

- Arcing component in contactor: Siemens VersiCharge EV Charging Systems include a contactor that when opened or closed will cause a short duration arc. The contactor is enclosed in an appropriate electrical enclosure but if an arc occurs in the presence of flammable vapors, the vapors could ignite, creating an explosion. Store flammable vapors away from all electrical equipment and if vapors are present allow sufficient time for ventilation before operating this equipment.

2.5 Product Labels

The following symbols appear on the product label and are described here:

This label indicates the risk of hazardous voltage and electric shock which will cause death, serious injury or substantial damage. Turn off the power supplying this VersiCharge before working inside.

2.6 Supported grounding systems

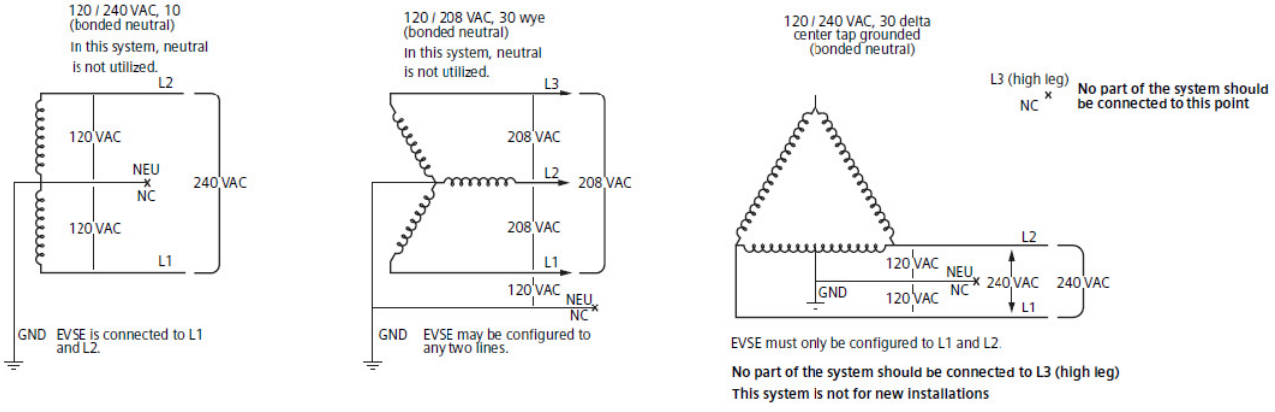
Only center-tapped systems should be used since neither line's voltage relative to ground may shift or change. To provide the necessary voltage reference with respect to ground, Siemens EVSEs must be correctly connected to ground at the panel or transformer.

VersiCharge stations need to be wired into a permanent, grounded, metal wiring system. In addition, plugged connections are accepted. It is mandatory to connect an equipment-grounding conductor to an equipment-grounding connector on the charging station and run it alongside circuit conductors.

A grounding conductor that is in compliance with applicable codes must be grounded to earth at the supply transformer or, if provided by a different system, at the service equipment. It could also be grounded to an earth electrode as an alternative method. Exercise caution to ensure that the grounding conductor is in accordance with and meets all applicable requirements and codes.

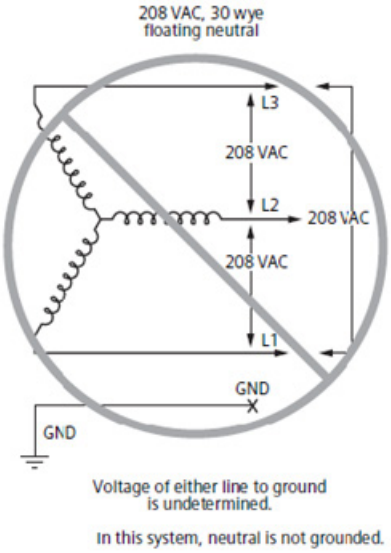
2.6.1 Grounding requirements

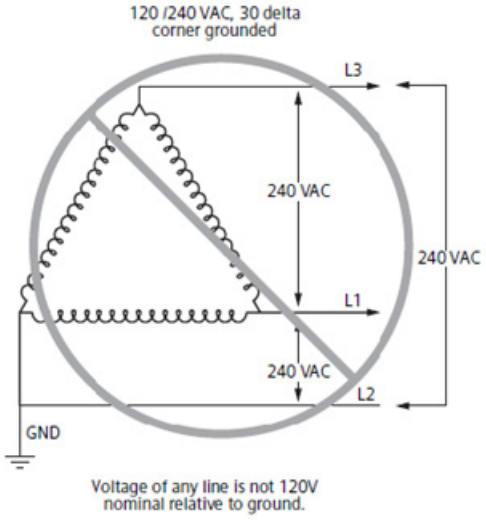
Specific system parameters must be met for proper connections with Siemens EVSEs. In wye systems, as depicted in the below images, connect the Siemens EVSE to any two lines. In delta systems, Siemens EVSEs should only be connected to L1 and L2 in a bonded, center-tapped secondary. This will permit voltages to stay consistent irrespective of other loads that may make use of the lines. The installer should attach the EVSE station to ground and the neutral should be bonded to ground. In addition, while in the provided example found in the image below L1 and L2 are the tapped leg and L3 is the high leg, this may not always be the case. Any leg may be tapped, which changes the high leg to L1 or L2, depending on which leg is tapped (this configuration may be present in older buildings).



2.6.2 Unsuitable grounding systems

Siemens EVSEs must not be connected to (1) a 120/208 VAC 3-phase ungrounded system, (2) a corner-grounded 120/240 VAC 3-phase delta system, or (3) any setup/configuration in which the center point of the AC power source is not grounded.





Mounting Instructions 3

3.1 Equipment List

3.1.1 Kit-Supplied Equipment

Quantity	Item
2	Lag screw, hex head, 1/4 x 2” (mounting bracket)
4	Screw, M4 x 0.7 x 45mm, socket head
5	Screw, #6-19 x 1-1/4”, rounded head, Torx (T15) thread forming
6	Screw, M4 x 0.7 x 14mm, pan head, Torx (T20), 2mm pilot point
1	Screw, #10-32 x 3/8", pan head, Phillips
2	Lag screw, flanged hex head, 3/8 x 2-1/2” (holster)
1	Label - installed output rating sheet
2	Screw, M4 x 0.7 x 12mm, socket head
1	Quick Start Guide - Siemens 80A

3.1.2 Standard Installation Equipment

Preparation Tools and Equipment

- Stud Finder
- Level

Drill and Fastening Tools

- 7/32” Drill bit
- 3mm Hex Head Bit
- Torx head T15 and T20 bits
- Small Flathead Screwdriver Bit (for RS-485 connectors)
- Flathead Screwdriver
- Phillips Head Screwdriver
- 7/16” Wrench or Socket Wrench
- 9/16” Wrench or Socket Wrench
- 41mm Crowfoot Wrench
- Torque Wrench (16 in-lbs. to 80 in-lbs.)

Electrical Components and Connectors

- 1-3/4" Conduit Connector
- 1-1" Conduit Connector
- 100A Circuit Breaker (smaller breakers may be used if allowed by NEC)
- CAT I – 600V Multimeter (minimum rating)

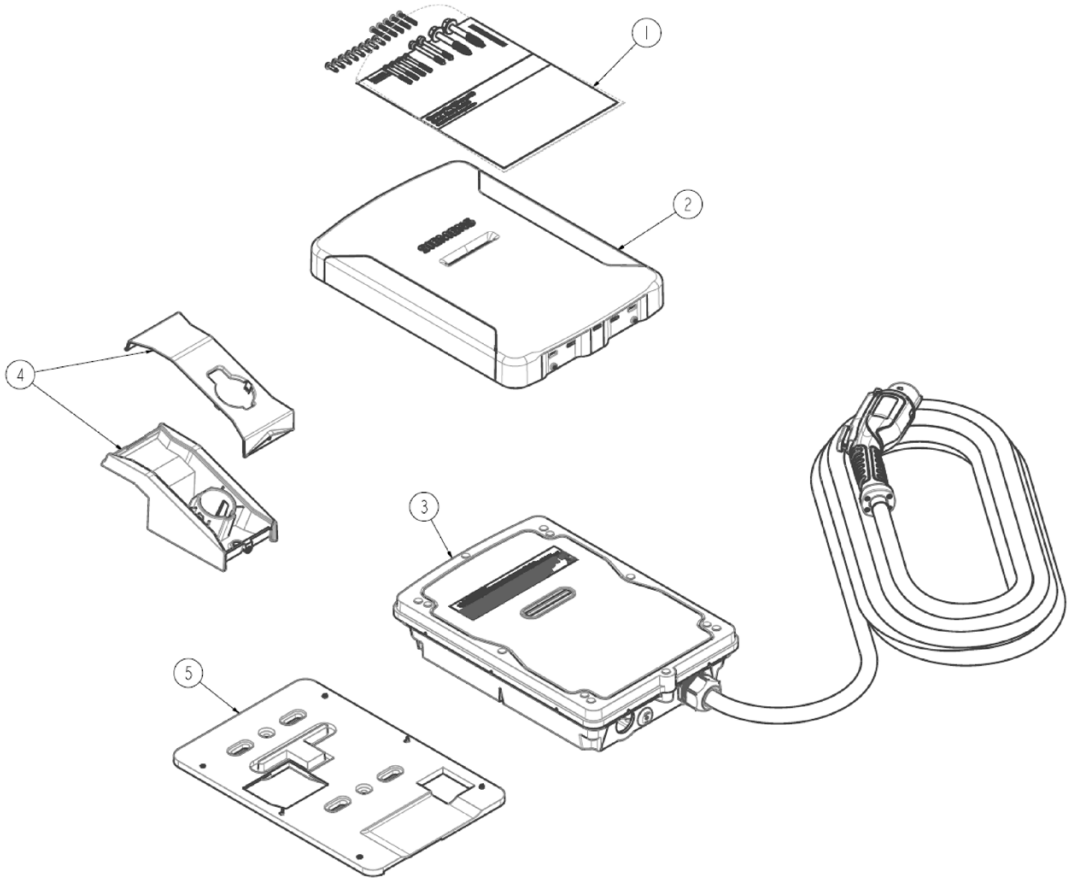
Wiring Materials

- **3 AWG 90°C Copper Wire** for 80A installations. (Smaller wire gauges can be used for lower power installations as allowed by the NEC; however, for this charger, the minimum wire size must be 8 AWG).

Note

Wire must have a temperature rating of 90° C or higher for AC connections (A/L1 and B/L2)

3.2 Remove the VersiCharge from packaging

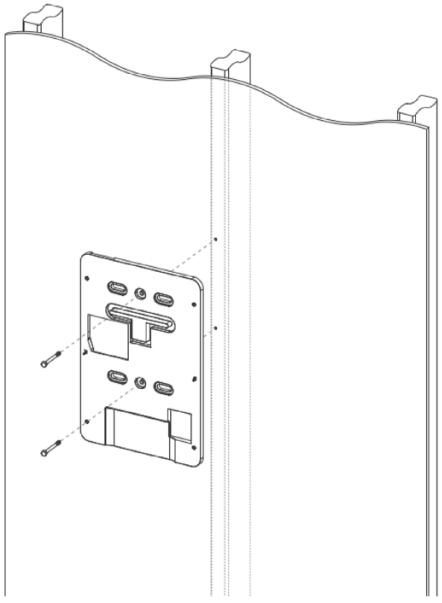


1. Remove all components from the packaging.
2. Set aside the cable holster ④ and decorative cover ②.
3. Make sure that the cover and the decorative cover are not scratched.

If you are mounting the VersiCharge to a stud, follow the steps in the section Mounting Using a Stud (Page 15).

If you are mounting the VersiCharge to a masonry wall or to a drywall using anchors, follow the steps in the section Alternate Mounting - Wallboard Mounting (Page 16).

3.3 Mounting using a stud



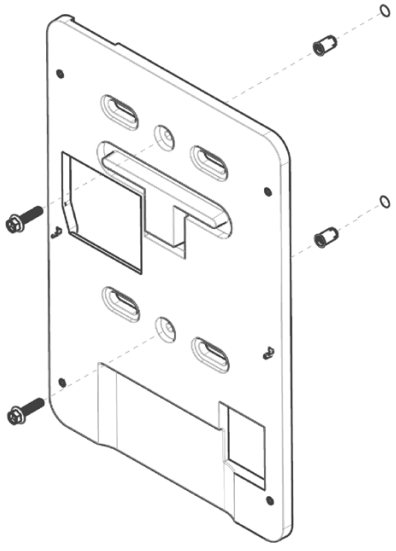
1. Use a stud finder to locate the stud to which the VersiCharge will be mounted to.
2. The top bracket hole should be between 35” to 60” from the floor.
3. If you are wiring through the rear, line up the mounting bracket to allow for the branch circuit conductors to pass through the opening.
4. Use a level to align the bracket and mark the two center mounting holes.
5. Use a drill with a 5/32” bit to drill pilot holes into stud at the marked locations.
6. Align the bracket on the wall and mount it by installing two (2) 1/4” x 2” hex lag bolts into the wall using the 7/16” socket to tighten to the wall.

3.4 Alternate mounting - Wallboard mounting

Note

Concrete anchors must be used. VersiCharge 80 can be mounted using (2) 3/8" x 1-3/4 concrete screw anchors.

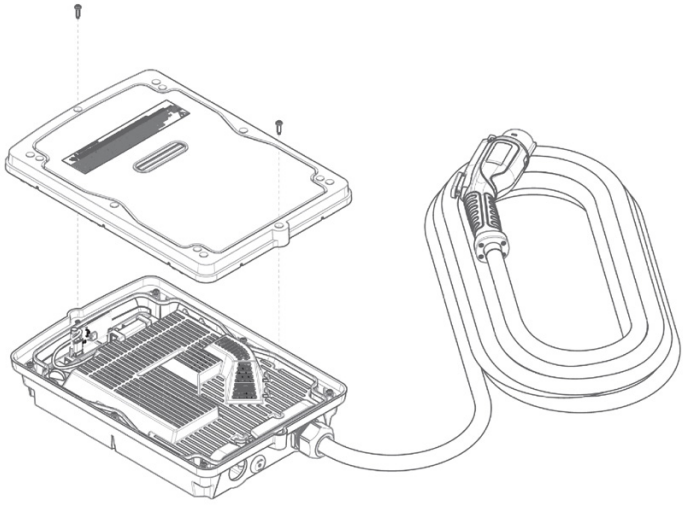
Anchors and screws are not included in the kit.



1. The top bracket hole should be between 35" to 60" from the floor.
2. If you are wiring through the rear, line up the mounting bracket to allow for the branch circuit conductors to pass through the opening.
3. Use a level to align the bracket and mark the two center mounting holes.
4. Mount the bracket to the wall using two 1/4" diameter concrete anchors, based on their respective instructions.
5. If you are utilizing a dual post mount, refer to the online post installation guide, available at the following link (https://info.siemens.com/viewer/66450b5b4be539aa1f080d68).

3.5 Remove the main cover and the internal barrier

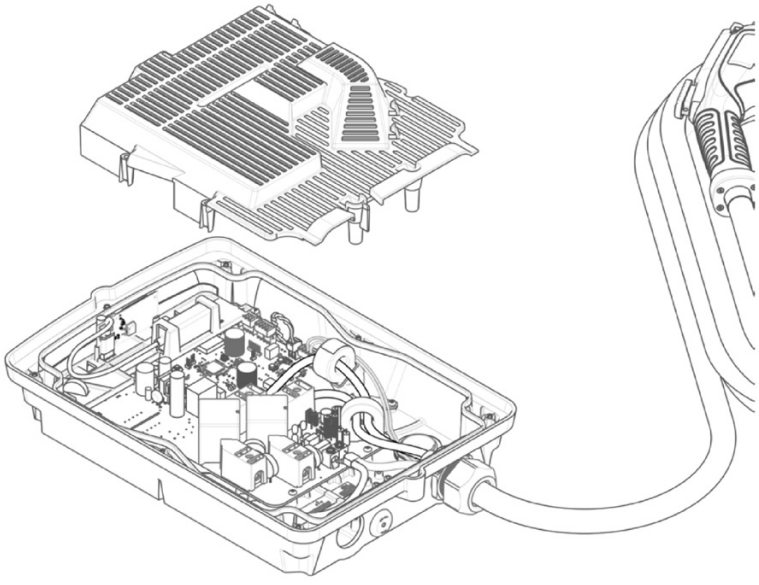
1. Using the T-20 torque drive, remove the two screws to detach the main cover from the EVSE.



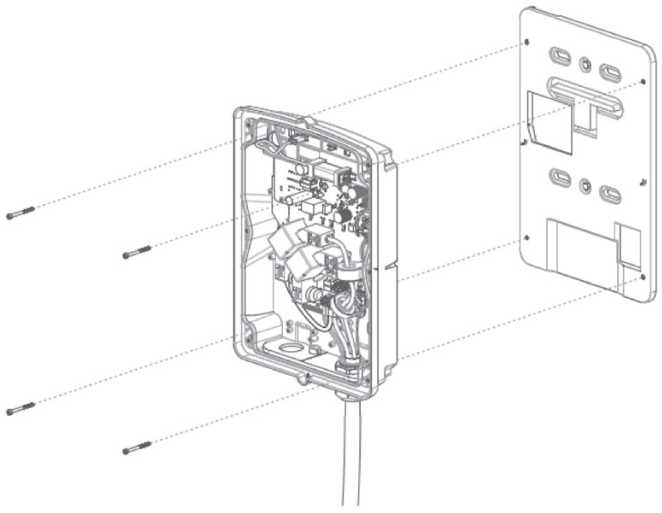
Note

Retain the screws, setting them aside in a safe location.

2. Then remove the internal barrier from the base.



3.6 Attach the VersiCharge to the mounting bracket



1. Place the coupler aside to prevent it from being damaged.
2. Align the T-feature between the VersiCharge and wall mount and then slide the EVSE onto the wall mount.
3. Using the four (4) M4 x 0.7 x 45mm mounting screws, securely attach the VersiCharge to the mounting bracket.
4. Torque with 3mm Hex head bit to 16 in-lbs. (1.8 Nm).

Note

Ensure that mounting screws are torqued correctly and as specified.

3.7 Wiring the VersiCharge

3.7.1 Wiring Information

⚠DANGER

Hazardous Voltage.
Will cause death, serious injury or property damage.

To reduce risk of fire, connect only to a dedicated branch circuit rated 100A or greater in accordance with local codes. If the derating switch is used to reduce the output current or an energy management system is utilized, please refer to local codes for appropriate circuit sizing.

Table 3- 1 Wiring Torque Table (for recommended 100A installation)

Terminal	Wire Size AWG, 90°C	Torque in-lbs. (Nm)
A/L1, B/L2*	3**	60 in-lbs. (6.8 Nm)
Earth	8**	35 in-lbs. (4 Nm)
RS-485 Terminals	18	

* Use 90°C copper wire only for AC connections (A/L1 and B/L2).

** If you are deviating from the above recommended installation parameters, check in accordance with local codes. The range must be between 3 and 8 AWG.

Note

Failure to follow installation torque requirements can result in damage to the VersiCharge system.

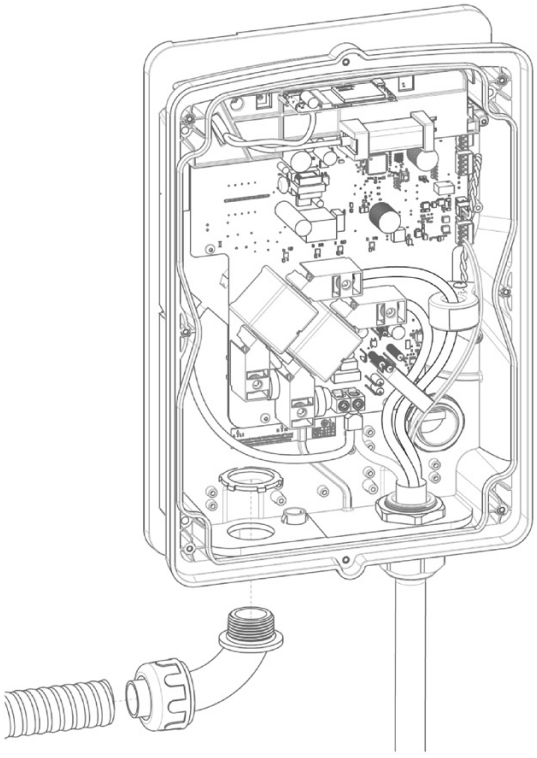
Note

Grounding Instructions

This unit is to be connected to a grounded, metal, permanent wiring system or an equipment-grounding conductor is to be run with circuit conductors and connected to an equipment-grounding terminal.

3.7.2 Wiring using the bottom left entry

Install 1" NPT flexible conduit and fitting



Install 1" flexible conduit and NPT connector per the manufacturer's installation instructions

Note

Straight liquid tight Arlington 1" NPT conduit (part number NMLT10-1) is recommended. Additionally, any standard 90 degree 1" NPT conduit is suitable for usage as well.

Wire connection

⚠DANGER

Hazardous Voltage.
Will cause death or serious injury

Turn off power before working on this equipment, voltage could cause injury or death. Extreme caution is required when servicing or installing the equipment referenced.

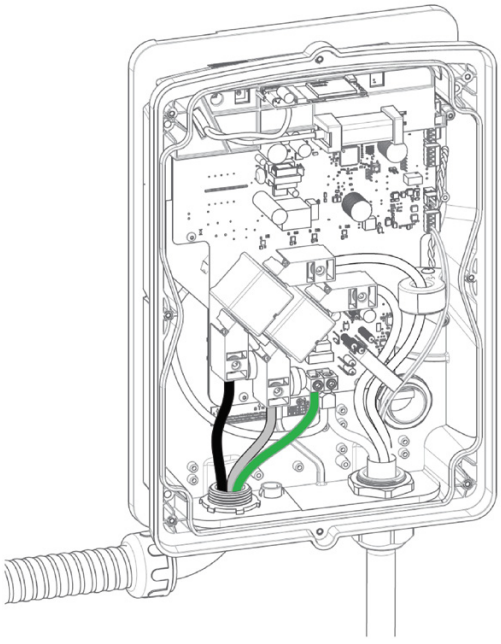
Note

The charger will need to be mounted on the bracket to hardwire the device.

Note

Prior to wiring, the optimal power wire length inside the EVSE shall be cut to Siemens recommended length:

- L1 Wire (Black): 9.5”
- L2 Wire (Gray): 7.0”
- Ground (GND) Wire (Green): 4.5”

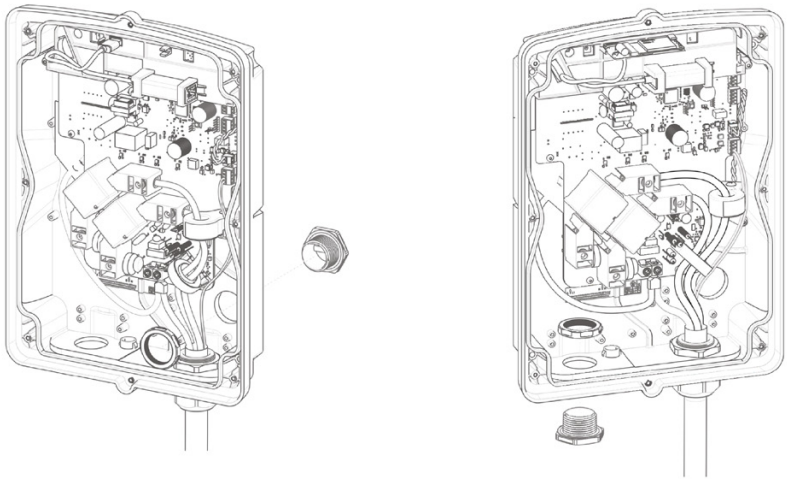


1. Route the wires into the enclosure.
2. Route three (3) conductors (90°C 600V copper wire) connect them according to the wiring diagram.
3. Using a 5/32” hex head bit, tighten connections according to the Wiring Torque Table (Page 19).

⚠ CAUTION
Ensure that all lug nuts and bolts are torqued correctly and as specified.

3.7.3 Wiring using the rear entry

Remove the factory sealing plug and move the hole seal



1. Locate the sealing plug in rear of the base assembly.
2. Loosen the lock nut on the inside to remove the sealing plug.
3. Install the sealing plug to the base of the charger.
4. Place the nut on the inside of the enclosure and torque to a value of 75 to 80 in-lbs. (8.5 to 9 Nm).

Install 1" NPT flexible conduit and fitting

Install 1" flexible conduit and NPT connector per the manufacturer's installation instructions

Note

Straight liquid tight Arlington 1" NPT conduit (part number NMLT10-1) is recommended. Additionally, any standard 90 degree or 45 degree 1" NPT conduit is suitable for usage as well.

Wire connection

⚠DANGER

Hazardous Voltage.
Will cause death or serious injury

Turn off power before working on this equipment, voltage could cause injury or death. Extreme caution is required when servicing or installing the equipment referenced.

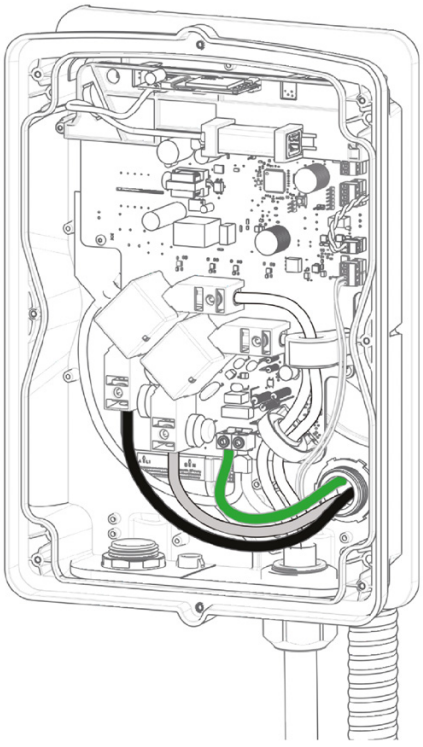
Note

The charger will need to be mounted on the bracket to hardwire the device.

Note

Prior to wiring, the optimal power wire length inside the EVSE shall be cut to Siemens recommended length:

- L1 Wire (Black): 9.5”
- L2 Wire (Gray): 7.0”
- Ground (GND) Wire (Green): 4.5”



1. Route the wires into the enclosure.

   Note

   For indoor installations where a watertight seal is not needed, conduit is not required. Wires can be routed directly through the rear hole.

2. Route three (3) conductors (90°C 600V copper wire) connect them according to the wiring diagram.
3. Using a 5/32” hex head bit, tighten connections according to the Wiring Torque Table (Page 19).

3.7.4 Set the maximum current switch

Establish branch circuit current rating.

The VersiCharge can be installed on a branch circuit rated less than 100A if the maximum output current is reduced as specified in the following Table.

⚠DANGER

Hazardous Voltage.
Will cause death or serious injury.

The maximum current setting switch is factory set to Position 7 – 80A; to reduce risk of fire, verify that the setting aligns with branch circuit and feeder ratings supplying the unit, according to the NEC. If this EVSE is installed on a branch circuit rated less than 100A, the maximum output current must be reduced to meet the requirements of the NEC.

Table 3- 2 Amperage Settings

Switch Position	Adjusted Charger Amperage Rating	Adjusted Breaker Amperage Rating
0	12	15
1	16	20
2	24	30
3	32	40
4	40	50
5	48	60
6	64	80
7	80	100
8	80	100
9	80	100

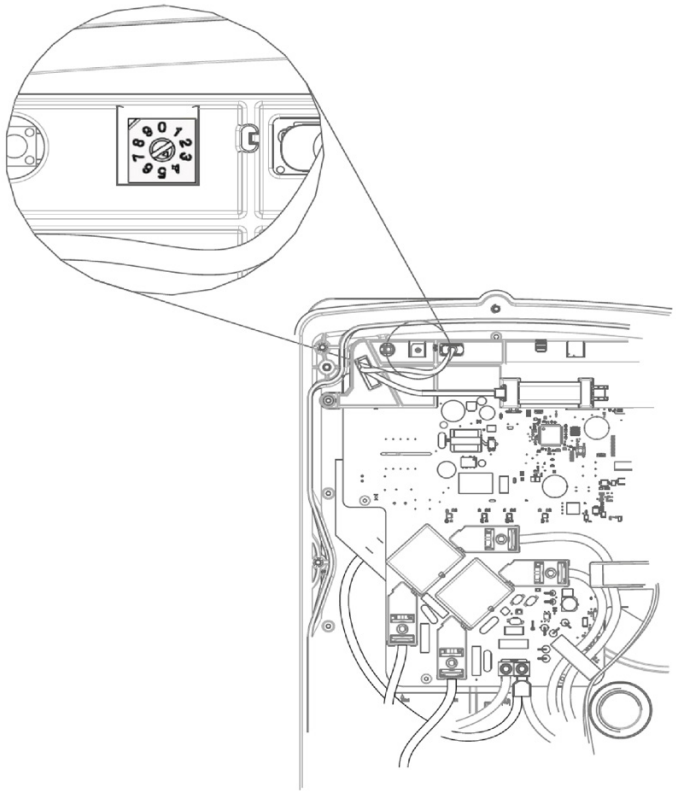
Branch circuit amperage ratings should be in accordance with local codes.

Set amperage switch

DANGER

Hazardous Voltage.
Will cause death or serious injury.

Turn off power before working on this equipment. The voltage present could cause injury or death. Extreme caution is required when servicing or installing the equipment referenced.



The VersiCharge comes set to the maximum of the model.

Follow local and national codes where applicable for rating supply equipment to the EVSE based on the charger's amp adjustment switch. As described in previous step, the Table Amperage Settings establishes correct amp switch setting based on installation.

- The switch has 10 settings.
- When changing the amperage adjustment switch, verify that the VersiCharge is disconnected from power.
- The purpose of the amperage adjustment switch is to set the maximum current that the EV is allowed to draw from the charging stations.

Apply output rating

80 A MDA 240 VAC 19.2 kW AC	80 A MDA 208 VAC 16.6 kW AC	64 A MDA 240 VAC 15.4 kW AC	64 A MDA 208 VAC 13.3 kW AC	48 A MDA 240 VAC 11.5 kW AC	48 A MDA 208 VAC 10.0 kW AC

40 A MDA 240 VAC 9.6 kW AC	40 A MDA 208 VAC 8.3 kW AC	32 A MDA 240 VAC 7.7 kW AC	32 A MDA 208 VAC 6.7 kW AC	24 A MDA 240 VAC 5.8 kW AC	24 A MDA 208 VAC 5.0 kW AC	16 A MDA 240 VAC 3.8 kW AC	16 A MDA 208 VAC 3.3 kW AC	12 A MDA 240 VAC 2.9 kW AC	12 A MDA 208 VAC 2.5 kW AC

The accessory kit supplied with the EVSE includes a set of rating labels. These labels align to the possible input voltages and output rating of the unit. The output label that matches the install of the kit shall be applied to the product label.

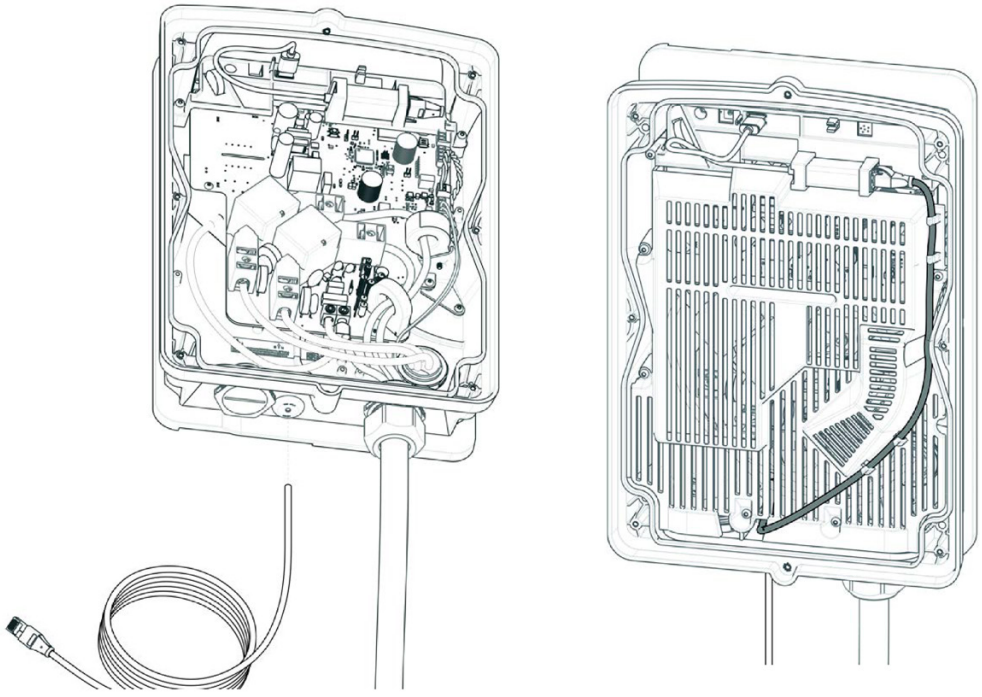
3.8 Close the VersiCharge

DANGER

Hazardous Voltage.
Will cause death or serious injury.

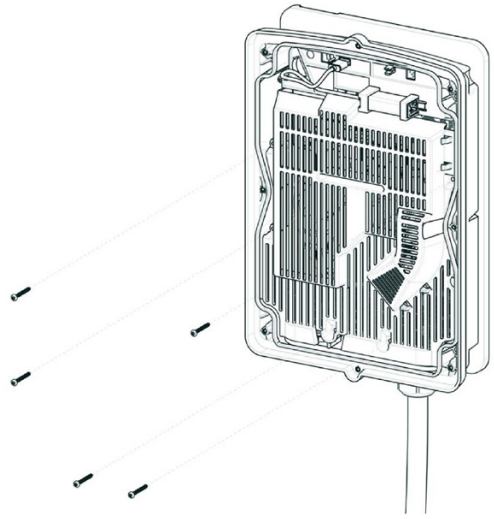
Turn off power before working on this equipment. The voltage present could cause injury or death. Extreme caution is required when servicing or installing the equipment referenced.

(Optional) Route the Ethernet cable



1. If the unit is equipped with Ethernet communications, locate the factory-installed 16mm liquid tight sealing plug on the bottom of the unit.
2. Pierce the membrane and feed approximately 12” to 14” of communication cable into the unit.
3. Let the cable hang down outside of the unit and install the internal barrier but do not use the screws to hold it in place.
4. While holding the internal barrier in place, route the Ethernet cable over the top of the barrier to ensure that the length reaches the Ethernet adaptor.
   – If the cable is not sufficient or is too long, adjust the cable length accordingly.
5. Once the length is correct, use the specified screws to attach the barrier to the enclosure.
6. Terminate the connector to the wire, route it through the wiring guides and plug it into the Ethernet adapter
   – If you are routing RS-485 cable instead of Ethernet cable, apply the same routing method.

Replace the internal barrier

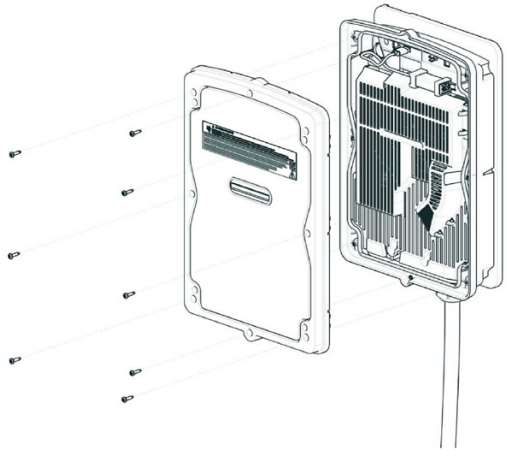


If you are not using Ethernet cable, place the internal barrier on top of the base and install, push it in, and torque the screws.

Replace the main cover

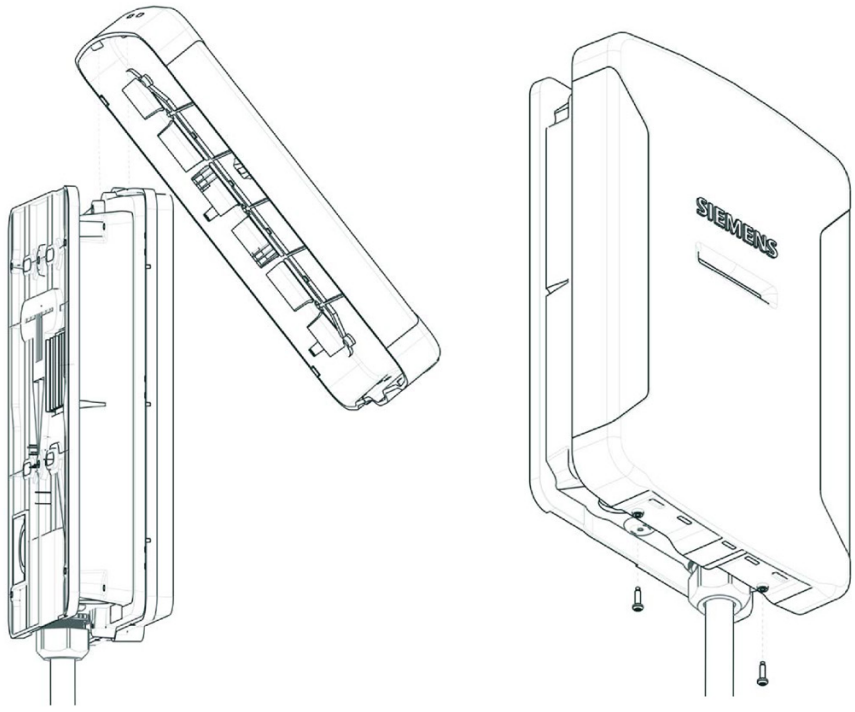
Note

Ensure that the gasket is fully seated in the cover groove (it should not protrude above/beyond the groove), with no visible twists or breaks.



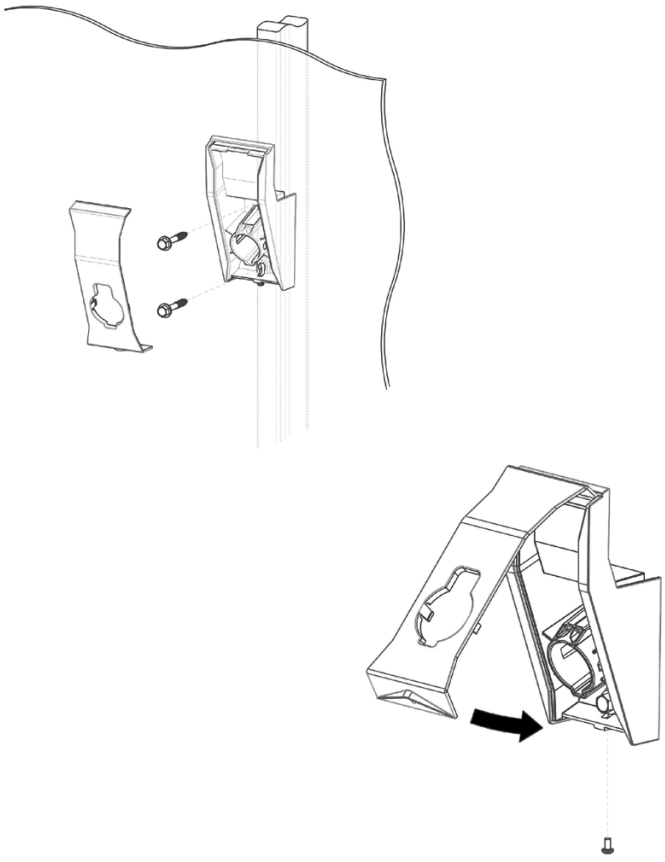
1. Replace the main cover on the unit and attach using the eight (8) M4 x 0.7 x 16 mm screws (the two retained when removed earlier and 6 from the hardware kit).
2. Torque to 16 in-lbs. (1.8 Nm) using the Torx head (T20) bit.
3. Torque in the order shown in the next Figure for the proper sealing of the cover.

Install the decorative cover



1. Carefully align the decorative cover with the main cover.
2. Hook the decorative on top, rotate towards the bottom, and firmly press the decorative cover in place, ensuring that all snaps are fully seated.
3. Using 3mm Hex bit, install, insert and hand tighten two (2) M4 x 0.7 x 12mm locking screws on the bottom of the decorative cover. Do not over push or over-tighten.

3.9 Mount the cable holster



1. Mount the cable holster in an acceptable location within close proximity of the VersiCharge.
   - If you are installing a charger in a public environment, the cable holster must be mounted at least 18 inches above the ground if being installed indoors or at least 24 inches above the ground if being installed outdoors.
   - Whether installing indoors or outdoors, the cable holster should be mounted no more than 48 inches above the ground.
2. Locate the stud with the stud finder.
3. Line up the holster on the stud; use the level to align the holster and mark the two center mounting holes.
4. Use the drill with the 7/32" bit to drill pilot holes into the stud.
5. Align the holster on the wall and install two (2) 3/8" x 2-1/2" hex lag bolts into the wall using the 9/16" socket to push and tighten the holster to the wall.
6. Insert holster cover into slot at the top of the holster.
7. Rotate the cover downward and snap into place at base.
8. Install one (1) #10-32 x 3/8" Phillips-Head screw from the hardware kit at the bottom of the unit to secure the holster cover.

Commissioning

4

4.1 Required Open Ports

Note that the following open ports are required for communication with Siemens Device Management and the logging server.

Domain name	Ports	Application layer protocol	Usage
versichargesg.com	443, 9019	HTTPS, WSS	Registration, upgrade requests, WebSocket communication
versichargesg.blob.core.windows.net	443	HTTPS	Firmware updates
data.logentries.com	443	HTTPS	Logging
us.data.logs.insight.rapid7.com	443	HTTPS	Logging
s-771b624ad7e94b258.server.transfer.us-east-2.amazonaws.com	22	SFTP	Secondary server for firmware updates
siemens.com	N/A	ICMP	Determine if the Wallbox has network connection
pool.ntp.org	123	UDP	NTP server
siemens.pool.ntp.org	123	UDP	NTP server
Several (e.g. dns.opendns.com)	53	UDP and TCP	Accessing the Domain Name Server
dns.opendns.com	53	DNS	DNS
*.store.core.windows.net	443	HTTPS	Firmware updates

Note

If you use an OCPP server, you need additional open ports. Additional information is available in the documentation for the OCPP server.

Note

If you use an ModBus, you need port 502 open. Additional information is available in the in the ModBus Map (https://support.industry.siemens.com/cs/de/en/view/109814359).

Note

If you use an DHCP, you need port 68 open.

4.2 Commissioning with PC or mobile device

For the integrated functions of the charger, you need an Internet connection to connect to Siemens Device Management. The connection is set up during the commissioning described here.

Note

If a charger is moved to another network or if ownership is changed, the charger must be deregistered before recommissioning.

Deregistering the unit can be done through the mobile app or VersiCloud for multiple chargers.

The charger will not automatically commission to a new network, but remembers the initially commissioned network.

Preparing commissioning

Commission the charger with your mobile device using the Sifinity Go App or Sifinity Setup App.

The Sifinity Go App is recommended for a single charger.

To commission several devices in a network (including "Access Point Architecture"), use the Sifinity Setup App.

You can find more information in the download area of the respective tools.

Note

Always use the latest version of the commissioning tool.

Note

Unsupported IP address range for an Ethernet Connection

The IP address range **192.168.1.x** is not supported for an Ethernet connection.

Commissioning with the Sifinity Go App

Use the Sifinity Go App to manage and administer a maximum of 10 VersiCharge units (including commissioning).

To commission a single charger with the Sifinity Go App, follow these instructions:

1. Install the Sifinity Go App from the Google Play Store (https://play.google.com/store/apps/details?id=com.siemens.VersiChargeSG) or the Apple App Store (https://apps.apple.com/us/app/sifinity-go/id989742892) on your mobile device.

2. Create a user account in the app.
   - Change password
   - Set notifications
   - Manage contact details
3. Connect your mobile device to the Wi-Fi of the charger and follow the instructions on your mobile device.
4. Connect the charger to the Internet via the Sifinity Go App. The following options are available for this:
   - Mobile Internet (SIM card only in the Cellular device)
   - Wi-Fi
5. Connect the charger to Siemens Device Management. This takes place automatically.
6. Assign a descriptive name for the charger.
7. Check the settings.

You can find detailed commissioning instructions on the Internet (https://support.industry.siemens.com/cs/ww/de/view/109814740/en).

Commissioning with the Sifinity Setup App (Recommended)

As a professional electrician, you can use the Sifinity Setup App for the commissioning of larger quantities of chargers.

To commission with the Sifinity Setup App, follow these instructions:

1. Install the Sifinity Setup App from the Google Play Store (https://play.google.com/store/apps/details?id=com.siemens.sifinitysetup) or from the Apple App Store (https://apps.apple.com/us/app/sifinity-setup/id6476152331?platform=ipad) on your mobile device.

2. Create a user account in the app.
   - Enter the required information (email, name, company name).
   - You will then receive an email to activate the user account.
   - Open the email and follow the instructions to activate the user account.
3. Log in to the Sifinity Setup App.
4. Follow the Sifinity Setup App operating manual to start up the charger. The following settings are available:
   - Commission a single charger
   - Commissioning several chargers in succession
   - Further (optional) settings are available during commissioning: e.g. activation of RFID authentication, setting up a hotspot or assigning a charger group.
5. Connect the charger to the internet via the Sifinity Setup App. The following options are available for this:
   - Mobile internet (SIM card only in Celluar device)
   - Wi-Fi
6. Check the settings.

You can find detailed commissioning instructions on the internet (https://support.industry.siemens.com/cs/ww/en/view/109972411).

Changing the SSID and password

If you want to change network settings such as SSID and password after the charger has been successfully connected to Siemens Device Management, proceed as follows:

1. Delete the link of the charger with Siemens Device Management via the Sifinity Go App or via VersiCloud (https://www.versichargesg.com/Account).
2. Repeat the above steps for commissioning

If a Wi-Fi repeater is used later, we recommend using the same SSID and password that were used when registering the charger.

NOTICE
Access to VersiCloud Only the person who performed the commissioning can access VersiCloud (https://www.versichargesg.com/Account) to change the SSID and password. If you do not have access to VersiCloud, contact Technical Support.

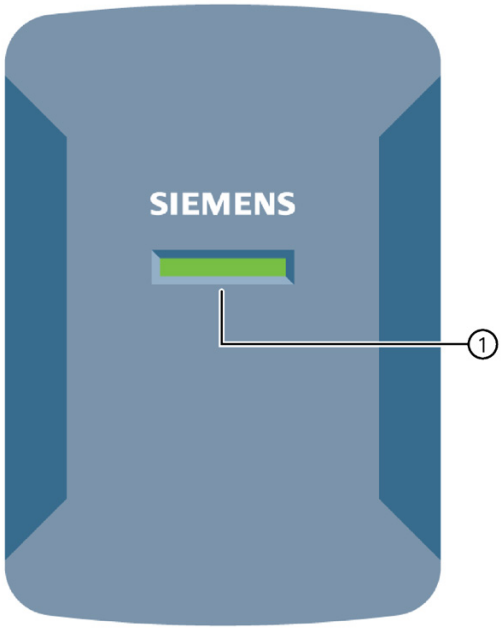
Siemens Care Remote Service

Please note: The product includes Care Remote Service during the standard warranty period. You can find more information on the SIEMENS Care Service on the Internet (https://www.siemens.com/global/en/products/energy/emobility/services.html#CareServices).

Operation

5

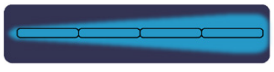
5.1 Status LEDs location

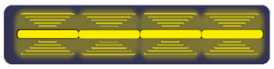
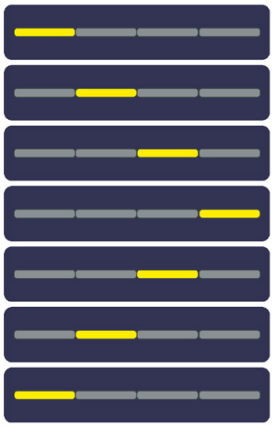
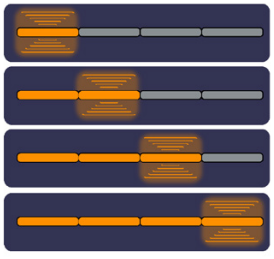


① Status LEDs (multifunction display for charging status/error states)

Figure 5-1 Status LEDs location

5.2 Status LEDs functions

Status LEDs	Description	Charger status
	Green color Status LEDS light up	The charger is ready for operation.
	Blue color Status LEDs ascending left to right	Charging in progress.
	Blue color Status LEDs light up	Charging has been ended or stopped by the electric vehicle.

Status LEDs	Description	Charger status
	Red color Status LEDs light up	Charger fault Follow the instructions on error diagnostics and troubleshooting in the section Faults (Page 41).
	Yellow color Status LEDs light up	Charging interrupted by charger, such as by local load management, OCPP or VersiCloud.
	Yellow color Status LEDs pulsing	Note: The electric vehicle is not ready to charge. User interaction is required (authentication or plugging of charging cable).
	Yellow color Status LEDs ping pong from left to right	The authentication process is running and the charger is waiting for charging to start.
	Orange color Status LEDs pulsing, increasing in segments	Booting after the restart.
	Purple color Status LEDs ping pong from left to right	Updating the firmware.

Status LEDs	Description	Charger status
	Green and yellow color Three LEDs light up green The right LED lights up yellow	Offline mode The charger is ready for charging but has lost its connectivity to VersiCloud. Follow the instructions on General Troubleshooting in the section Faults (Page 41).
	Green and purple color Three LEDs light up green The right LED pulses purple	Uncommissioned Mode The charger is ready for charging, but commissioning has not completed yet. For more information, see section Uncommissioned Mode (Page 40).

5.3 Charging the vehicle

DANGER

Risk of electric shock and fire. Touching live parts may cause electric shock or even death. Defective connectors or cables may cause fire.

Safety instructions during the charging process

- Do not kink or squeeze the charging cable. Do not draw the charging cable over sharp edges or hot surfaces.
- Do not use the charging station if damage or tampering is visible. If damage is visible, inform the operator. Until damage is repaired, keep away from the charging station and do not attempt to charge an EV.
- Grip the power plug/connector to disconnect from the charging unit. Do not remove the connector by pulling on the cable.
- Never touch the power plug/connector with wet hands.
- Do not connect or disconnect any cables during a thunderstorm.
- VersiCharge Blue™ 80 is equipped with an auto-reset feature.
  - If VersiCharge Blue™ 80 is connected to a vehicle at the time that power is restored following an outage, charging may resume automatically.
  - If VersiCharge Blue™ 80 is connected to a vehicle and a ground fault trip occurs, charging may resume automatically after a 20-second delay period.

Risk of Overheating and Fire

- Unauthorized accessories should not be used with this device due to risk of fire and/or overheating.
- Do not use a charging cable adapter that is not approved for the vehicle.
- Do not use an extension to connect the charging station to the vehicle.
- This product is only designed for hard wire installations.

Charging process

Proceed as follows to start charging:

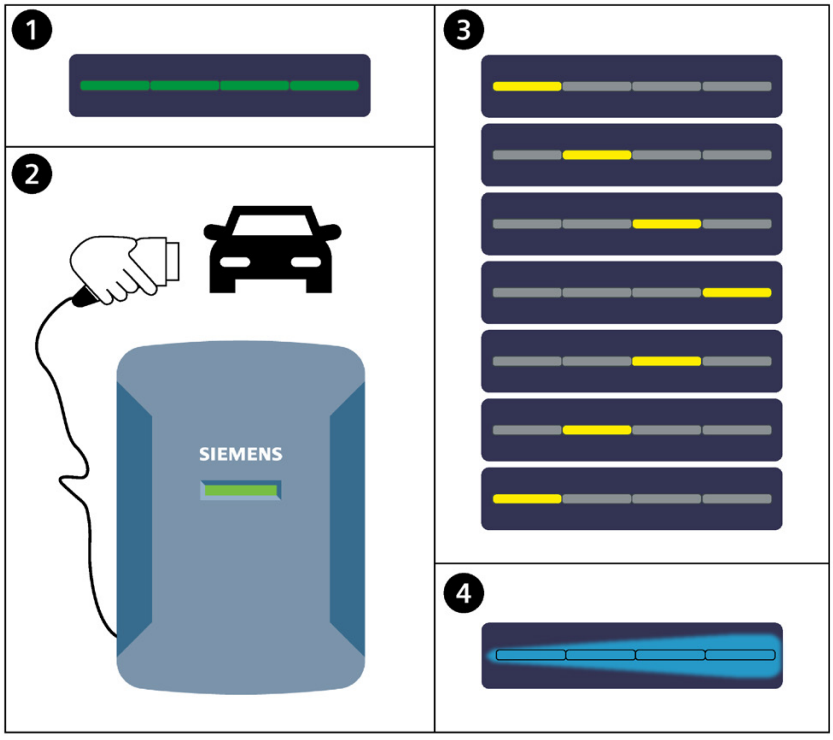


Figure 5-2 Charging the vehicle

1. Check if the required charging point is ready for operation:
   – The Status LEDs light up green.
2. Make sure that the charging cable is not damp or dirty. Then connect the charger to your vehicle. Follow also the vehicle manufacturer's guidelines for safe operation.

   Once connected, the charger establishes a link with the vehicle. This can take some time, depending on the connection and response speed.
3. Then the charging cable is locked and the status LEDs light up yellow and ping pong from left to right.

   Note

   This process may be very brief as the wallbox checks for charging authorization.
4. Charging starts automatically and the status LEDs light up blue ascending left to right.
5. The vehicle is charging. The lock protects the charging cable from unauthorized disconnection.
6. The status LEDs light up blue or yellow when the charging process is completed.

5.4 Stopping the charging process

The user or the electric vehicle can stop charging at any time.

Note

After charging, place the charging cable in the holder. Cables that are not stowed may cause the following hazards:

- Trip hazard
- Damage to the charging plug
- Damage to the cable
- Moisture may enter the charge coupling

There are two different ways to terminate charging:

1. Tap the Stop button in the Sifinity Go App to end charging.
2. End the charging process on the vehicle (see the operating instructions for the vehicle).

5.5 Uncommissioned Mode

The charger is ready for charging, but commissioning is not completed yet. Three Status LEDs light up green and the right LED pulses purple.

To perform commissioning, follow the instructions in the section Commissioning (Page 31).

Note that the following functions are not available in this mode:

- Connection with Siemens backend system
- Connection with OCPP backend
- Connection and control via network, smartphones and digital terminals
- Centralized monitoring, maintenance and evaluation
- Firmware updates

Faults

6

6.1 General Troubleshooting Guide

If the Status LEDs light up red, the charger has a fault and charging is not possible.

The vehicle is connected

1. Pull the charging cable out of the vehicle.
2. Wait for 10 to 15 seconds.
3. Connect the charger to your vehicle.
4. If the charger continues to light up red, pull the charging cable out of the vehicle and follow the instructions in the paragraph below.

The vehicle is not connected

1. If the red LEDs persist, switch off the circuit breaker for the charger. Wait 1 to 2 minutes before turning the power back on.
2. Wait for up to 15 minutes and check whether the red status LEDs have extinguished.
3. Start a charging process. If this is successful, no further troubleshooting is required.
4. If the red LEDs remain lit, try the above troubleshooting steps two more times.
5. If the problem is not resolved, open a service ticket on the Internet (https://emobility.usa.siemens.com/s/eMobilityCloud) or via the support hotline (855-950-6339, option 9).

If the Status LEDs light up green and yellow, the charger is offline, but charging may still be possible.

The charger is offline

The charger has no internet connection or connection to the VersiCloud

1. Switch off the circuit breaker for the charger. Wait 1 to2 minutes before turning the power back on.
2. Wait for up to 15 minutes and check whether the charger is found in the software.

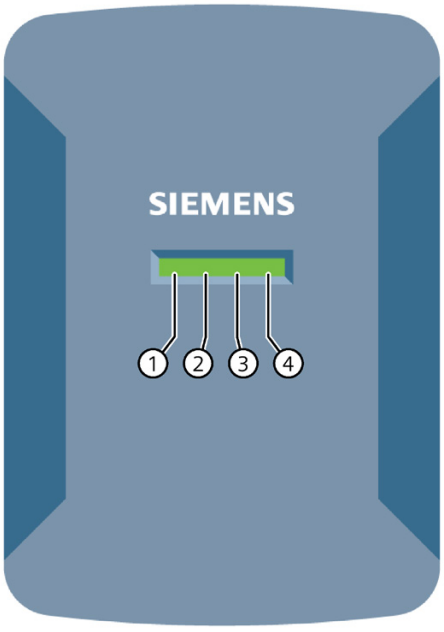
The charging cable is damaged.

1. Switch off the charger.
2. Open a service ticket on the Internet (https://emobility.usa.siemens.com/s/eMobilityCloud).

6.2 Troubleshooting Guide for Technical Support

Follow the instructions below to open a service ticket for the charger:

1. Read status LEDs off the charger.
2. This specific combination of red LED lights will be provided in the service ticket (https://emobility.usa.siemens.com/s/eMobilityCloud) or via the support hotline (855-950-6339, option 9).



① Fault LED 1
② Fault LED 2
③ Fault LED 3
④ Fault LED 4

Maintenance 7

While there is no maintenance required for the internal components of the VersiCharge, the exterior does require some basic maintenance. The following maintenance can be performed by the owner or user. Any additional service must be conducted by qualified personnel.

If any damage is observed on the unit, contact your supplier or Siemens immediately. General exterior maintenance is recommended to be performed every six months, depending on the environment. In harsher conditions, maintenance should be performed more frequently.

7.1 General Exterior Maintenance

Regular cleaning helps prevent the accumulation of debris, dust, and dirt around the unit:

- Wipe surfaces with a soft cloth dampened with water.
- For tougher marks, use an alcohol-based cleaner.
- **Avoid** high-pressure cleaning devices, abrasive chemicals, or immersing the unit in liquids.

7.2 General External Checks

Perform the following checks regularly to ensure the unit's optimal condition:

- Cable and Connector:
  - Inspect the cable for cuts, cracks, or wear.
  - Ensure the connector and plug pins are free from debris or corrosion.
  - If damage or corrosion is present, contact your supplier or Siemens.
- Charger Body and HMI:
  - Examine the charger's exterior for visible damage.
  - Check the HMI for discoloration or signs of wear.
- Surroundings:
  - Remove any debris or snow buildup around the unit, especially in areas with heavy snowfall.
  - This should be checked daily in winter conditions.

If damage is observed, contact your supplier or Siemens directly by creating a support ticket as described in the Help! section (Page 46).

7.3 Cleaning Steps for Polluted Coupler

1. De-energize the unit and ensure the coupler is not connected to a vehicle.
2. Use a dry cloth to clean the cable, connector, and plug pins.
3. For the inside of the pins, use a dry cotton swab to remove debris.

Do not use abrasive agents, compressed air, water jets, or steam cleaners. **Never** submerge components in liquid.

If pin(s) are burnt, deformed or have signs of burning, these units must be removed from service and replaced immediately.

Warranty

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LEGAL NOTICE: Use of this product indicates acceptance of these terms and non-compliance may void the warranty.

Please access the product warranties at the following links:

Product Warranties

- VersiCharge™ - Applies to all VersiCharge™ except the VersiCharge Blue™ 48A variant. (https://assets.new.siemens.com/siemens/assets/api/uuid:aa957eb2-0e18-4983-a559-6c9a30851e1d/SIE-B40053-00-4AUS-VersiCharge-AC-Limited-Warranty.pdf)

Accessories Warranties

- VersiCharge™ Accessories - Applies to all VersiCharge™ accessories except those for VersiCharge Blue™ 48A variant. (https://assets.new.siemens.com/siemens/assets/api/uuid:90a9692a-5992-4b03-bea5-fa30f63f324c/SIE-B40059-00-4AUS-VersiCharge-AC-Accessories-Limited-Warranty_original.pdf)

Help!

9

Call us any time, any day, at +1 (855) 950-6339, option 9, or contact us via support ticket at (https://emobility.usa.siemens.com/s/eMobilityCloud).

Technical Data

10

VersiCharge Blue™ 80

Features and functions	
Charging mode	Level 2
Vehicle connection	J1772 Type 1 plug with 24 ft cable, 80 A
AC power output	Up to 19.2 kW (240VAC at 80A) - requires a 100A breaker
Mounting options	Wall or Post Mounting, see accessories
LEDs	Charging status; connectivity status; fault status
Network Sharing	Connects to one non-cellular charger by Wi-Fi within 20 feet line of sight
Load management	Via OCPP, Modbus RTU coming later

Communication	
Interfaces	Wi-F and Cellular
User authentication	OCPP, ISO15118-2 HW-ready
Configuration	Sifinity Go (Up to 10 chargers) or Sifinity Setup mobile app
Software upgrade	Over-the-air (OTA)
Back-end protocol	OCPP 1.6, upgradeable to OCPP 2.0.1

Electrical design	
Power supply voltage	120/208V, 120/240V AC 60Hz
Rated current settings (A)	12, 16, 32, 40, 48, 64, 80
Wire cross section	3 AWG, minimum 90°C rated (to deliver 80A)
Energy metering	Embedded metering
Ground fault protection	20 mA
Over voltage protection	Over voltage: 264 V (maximum 275 V)
Operating altitude	6,562 ft

General design	
Environmental rating	NEMA 4, IK 10
Dimensions (H x W x D)	16.8 in. x 11.6 in. x 4.2 in. (429 mm x 294 mm x 105 mm)
Weight	27 lbs. (12 kg)
Ambient conditions	-40 °C to +50 °C, >50 °C with derating, -40° C to +85° C (storage), 98% relative humidity, non-condensing
Colors	Siemens blue (Pantone 7700); FE gray

Certificates and standards	
cUL listed	According to UL2594, UL 991, UL 1998, UL 2231, file no. E348556
EMC	FCC Part 15 Class A
Consumption	Energy Star certified and Energy Star Connected certified
Certifications	Buy American compliant
Warranty	3-year warranty

Current offerings: Siemens offers the following VersiCharge Blue™ 80 variants:

Description	**Catalog number**
UL Commercial (Wi-Fi and SIM) 80A	8EM1315-7BG16-1FH2

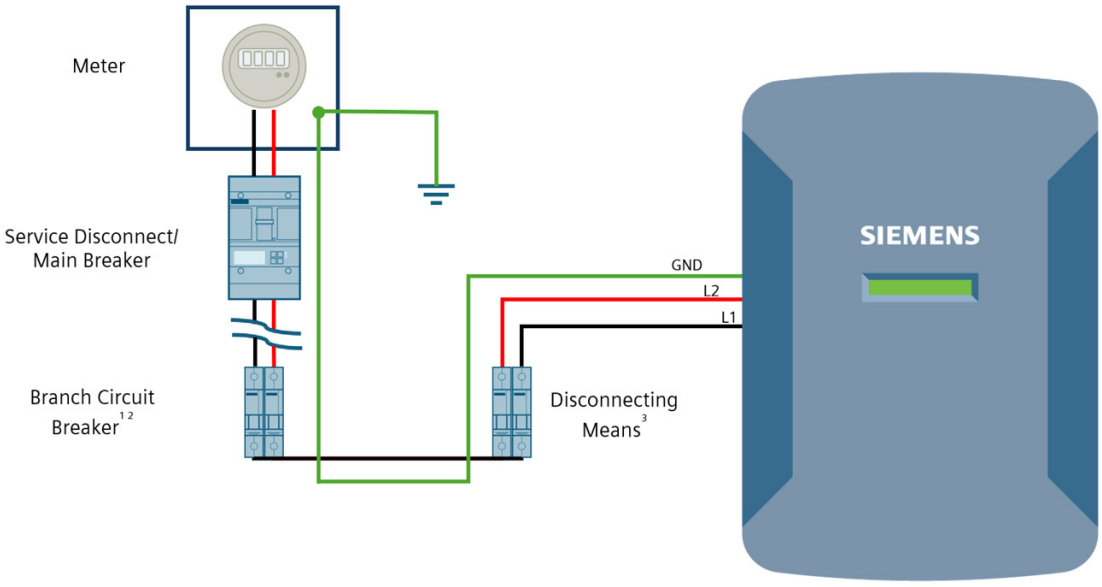
Data plans, accessories and bundles for chargers: Siemens offers chargers with data plans, posts and bundled solutions such as AC StartUp for customer convenience. See the table below:

Description	**Catalog number**
AC StartUp for 4 chargers	US2:ACSTARTUP4
AC StartUp for 10 chargers	US2:ACSTARTUP10
Data plan	US2:DATA1YRMULTI
Scheduled maintenance for 10 chargers	US2:ACEASYCARE10
After hours/weekend/holiday (24x7) support	US2:ACCARE24X7
Proactive remote support	US2:ACCAREPLUS

Appendix

A

A.1 Wiring Schematics

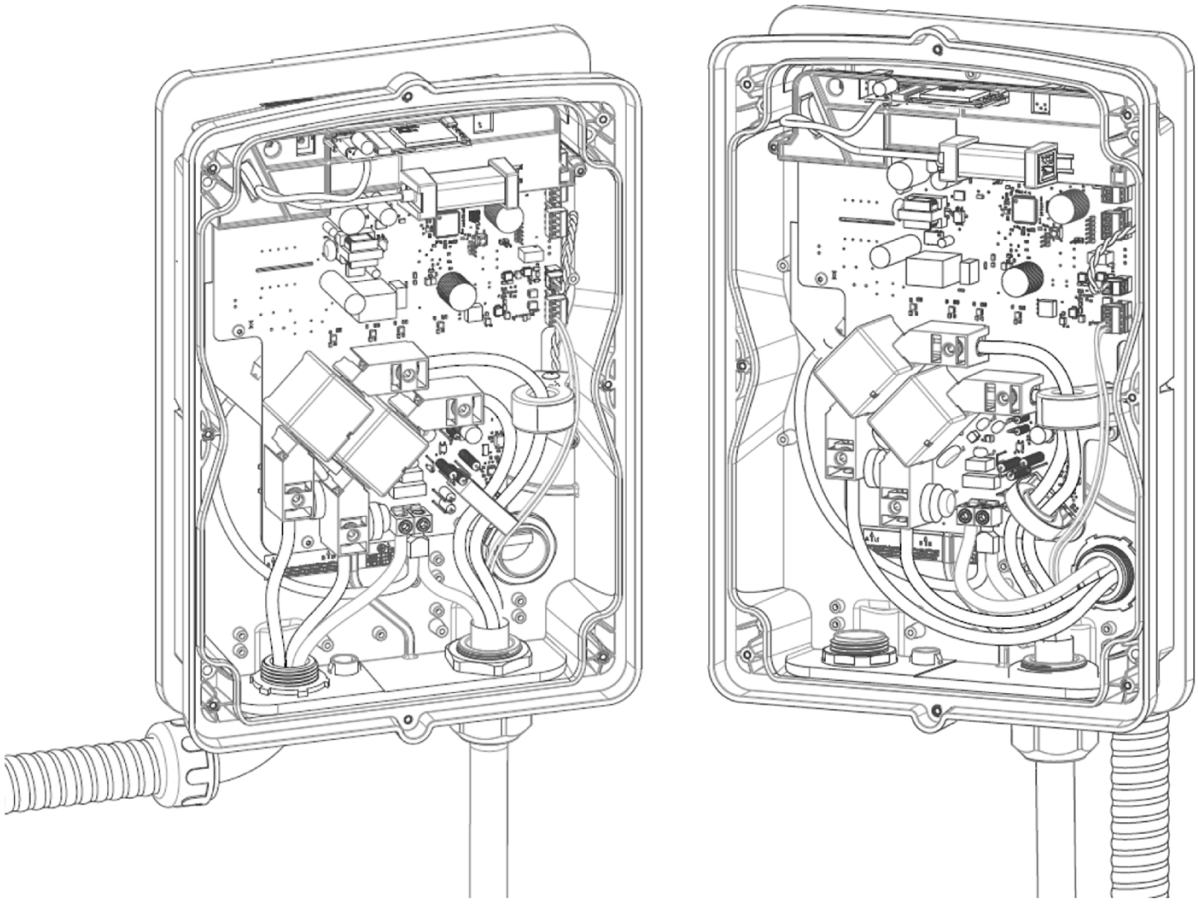


[1] Branch circuit shall be rated ≥125% of the current setting of the EVSE. Consult Sections 625.41 and 625.42 of the NEC for detailed information.

[2] GFCI may be required. Consult Section 625.54 of the NEC for detailed information.

[3] This additional disconnecting means may not be required if the branch circuit breaker can serve this purpose. Consult Section 625.43 of the NEC for detailed information.

A.2 Hardwire Bending Diagrams



A full-size wire bending diagram is supplied in the box.

List of abbreviations

B

AC	Alternating current
APN	Access Point Name
DC	Direct current
ESD	Electrostatic Discharge
EV	Electric Vehicle
FAQ	Frequently Asked Questions
IEC	International Electronical Commission
IK	Impact Protection
ISO	International Organization for Standardization
IP	International Protection
MCB	Miniature circuit breaker
MID	Measurement Instruments Directive
OCPP	Open Charge Point Protocol
PC	Personal Computer
RCCB	Residual current operated circuit breaker
RFID	Radio Frequency Identification
RSS	Rich Site Summary
Wi-Fi	Wireless Fidelity

Legal Manufacturer

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United States of America

Telephone: 855-950-6339, option 9, or visit emobility.usa.siemens.com/s/eMobilityCloud for service questions or inquiries.

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