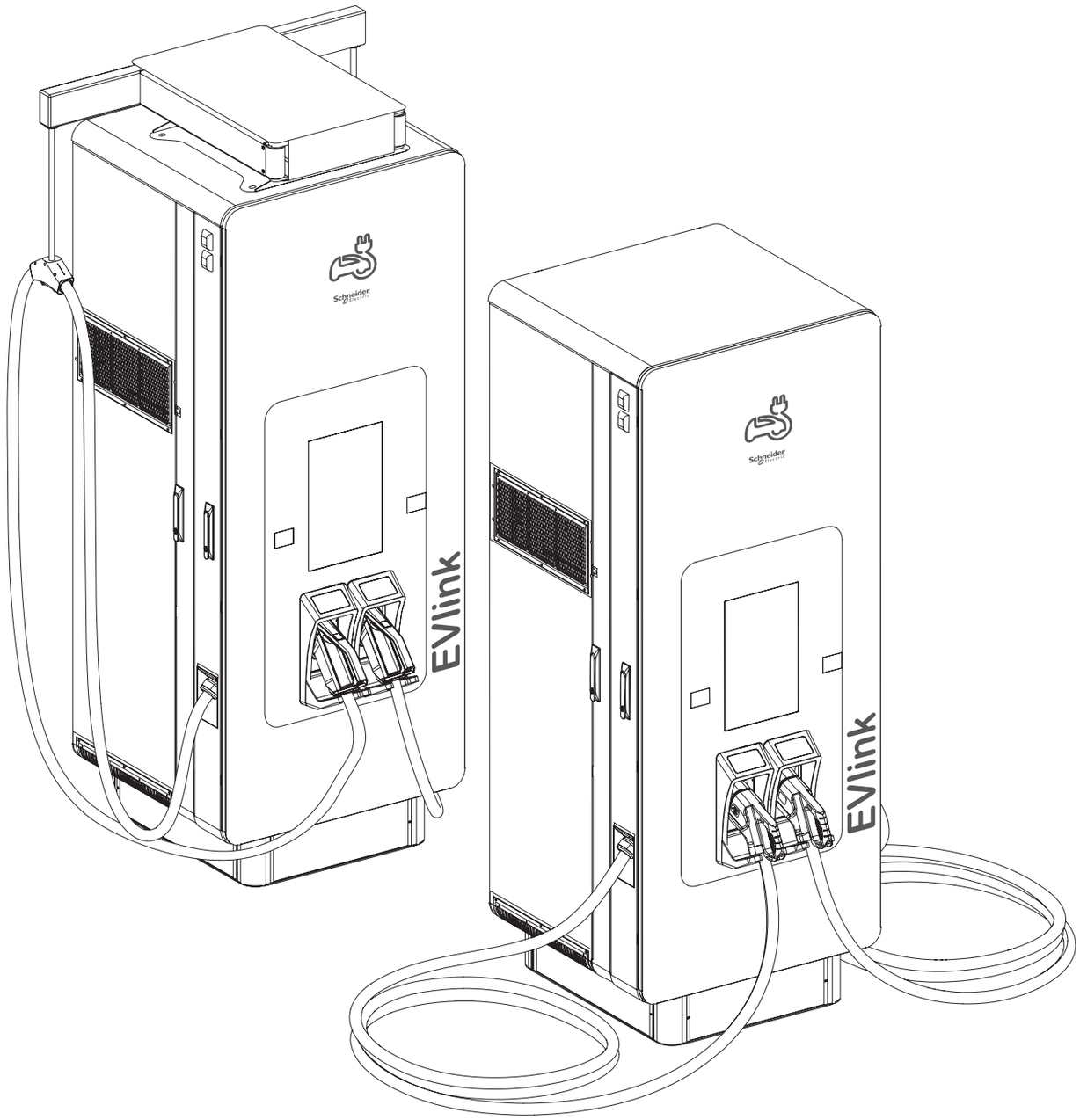
EVlink Pro DC 180 - GEX4300800

en Installation Manual

EVlink Pro DC 180 Charging Station
EVlink Pro DC 150 Charging Station
EVlink Pro DC 120 Charging Station



Customer Care Center

GEX4300800-01_EN
12/2023

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General

Warning Symbols Definitions

The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of this symbol to a “Danger” or «Warning» safety message indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol.
It is used to alert you to potential personal injury hazards.
Obey all safety messages with this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result** in death or serious injury.
Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result** in death or serious injury.
Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result** in minor or moderate injury.
Failure to follow these instructions can result in injury or equipment damage.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this type of safety message.
Failure to follow these instructions can result in equipment damage.

Safety Instructions

⚠ DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices or equivalent local standards.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Do not use this product if the enclosure, EV cable, or the EV connector is broken, cracked, open, or shows any other indication of damage.
- Do not put fingers into the electric vehicle connector.
- The use of extension DC cables or vehicle connector adapters is not permitted.

Failure to follow these instructions will result in death or serious injury.

⚠ CAUTION

HAZARD OF DEGRADATION OF EQUIPMENT PERFORMANCE

- You must be a licensed electrician and complete a training course to become an EVlink Pro DC Charging Station certified installer.
- To complete the training and become a certified installer, or for any further support refer to se.com or contact your local Schneider Electric Customer Care center.
- Do not modify any mechanical or electrical parts.

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

RISK OF DAMAGING

- EVlink Pro DC Charging Station should be installed, operated, serviced and maintained only by qualified personnel.
- Schneider Electric will not accept any liability for consequences arising from the use of this material.
- A qualified person is a person who has the skills and know-how relating to the construction, installation and operation of electrical equipment and who has received a safety training which enables him to recognize and avoid risks.

Failure to follow these instructions can result in equipment damage.

Important

To help you make the best use of your Charging Station, we have prepared this manual with the utmost care.
It provides all the information you need to prepare for the installation and to install your equipment.
We urge you to read it attentively and follow its instructions.

- The product must be installed according to the specifications and requirements as defined by Schneider Electric.
  No responsibility is assumed by Schneider Electric if these requirements are not respected.
- Non-approved installation methods are performed at the risk of the contractor and void the (limited) warranty.
- Under no circumstances will compliance with the information in this manual relieve the user of his/her responsibility to comply with all applicable codes or safety standards.
- This document describes the most used installation and mounting scenarios.
  If situations arise in which it is not possible to perform an installation following the procedures provided in this document, contact Schneider Electric.
- Schneider Electric is not responsible for any damages that may result from custom installations that are not described in this document or for any failure to adhere to installation recommendations.

Preface

This guide describes the planning and physical installation of the EVlink Pro DC 120 or 150 or 180 Charging Stations.
The EVlink Pro DC Charging Stations are easy to install DC fast Charging Stations for electric vehicles.
Fast Charging Stations are electrical installations with high electric currents.
Therefore, the installation must be planned carefully, and must be done by certified personnel only (according to local standards).

The EVlink Pro DC 120/150 is physically the same Charging Station as a DC 180.
The main difference is the output power it can deliver and therefore also the input power needed.
The differences of the DC120/150 and 180, and the consequences for the installation are described in the scope of application section.

As the physical installation of both types is equal, they will be referred to hereafter as EVlink Pro DC 180 only and this will account for all types, unless specifically stated otherwise.
EVlink Pro DC 180 is available in different versions, depending on the outlet types. The different versions are described in the scope of application section.

NOTE: Installing the EVlink Pro DC 180 Charging Station requires atleast two people and takes approximately 1-2 hours.
This time estimate does not include the time needed to commission the Charging Station.

Scope of Application

Type of equipment applicable to this manual: EVlink Pro DC 120 kW – DC 150 kW - DC 180 kW
List of references supported are:

Commercial Reference	Nominal Power	Vehicle connector	Cable management / Cable range (m)
EVD1S180TBB	180 kW DC	2 x CCS2	CMS / 3.6
EVD1S180THB	180 kW DC	1 x CCS2 + 1 x CHAdeMO	CMS / 3.6
EVD1S150TBB	150 kW DC	2 x CCS2	CMS / 3.6
EVD1S150THB	150 kW DC	1 x CCS2 + 1 x CHAdeMO	CMS / 3.6
EVD1S120TBB	120 kW DC	2 x CCS2	CMS / 3.6
EVD1S120THB	120 kW DC	1 x CCS2 + 1 x CHAdeMO	CMS / 3.6
EVD1S180TBBC7	180 kW DC	2 x CCS2	No CMS / 7.5
EVD1S150TBBC7	150 kW DC	2 x CCS2	No CMS / 7.5
EVD1S120TBBC7	120 kW DC	2 x CCS2	No CMS / 7.5

⚠ CAUTION

RISK OF TRIPPING ON LOOSE CABLE

- For versions not equipped with cable management system, it is not recommended for installation in public areas.
- It is necessary to allocate a solution or space to place the cable to avoid cars running over it.

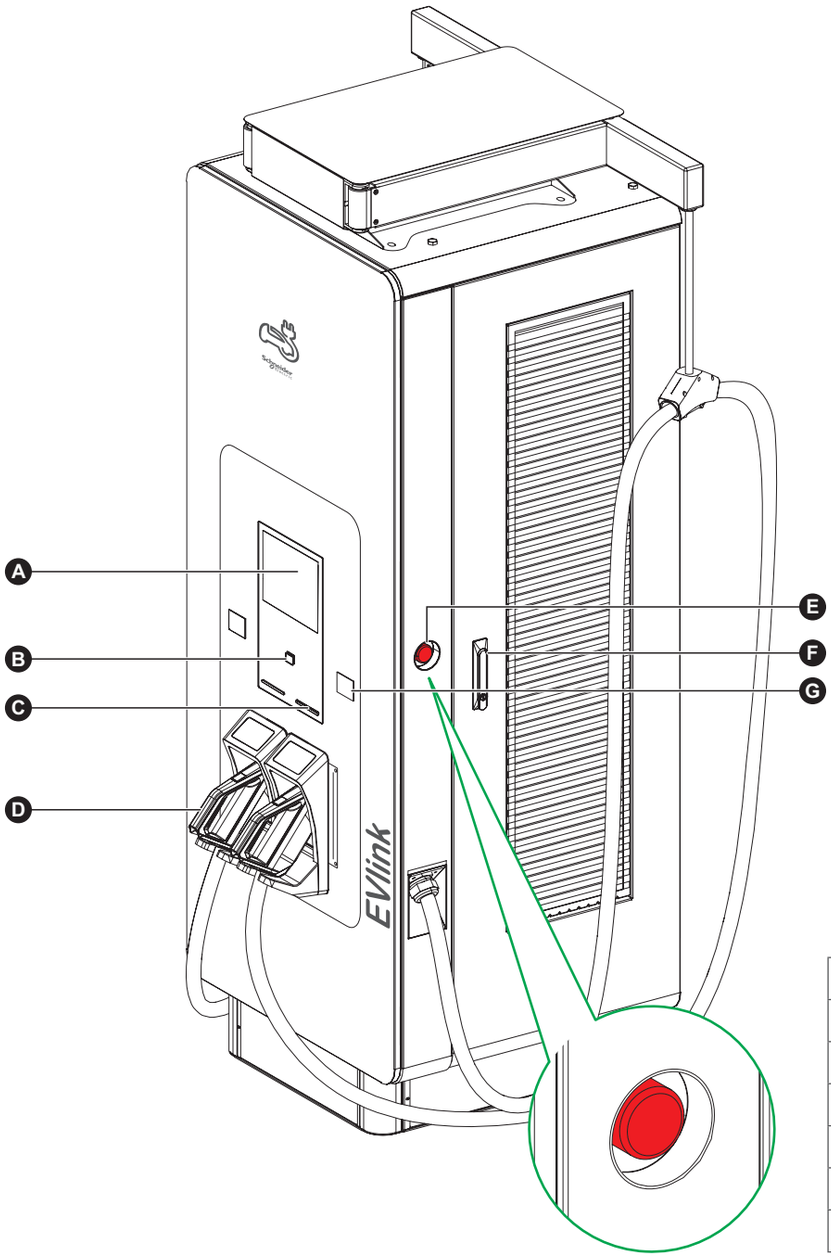
Failure to follow these instructions can result in injury or equipment damage.

Available Documentation

EVlink Pro DC available documents for each phase of the project:

Document	Reference	Content	Audiences
EVlink Pro DC 180 Datasheet	**998-22029850**	Full Charging Station specifications	Site designer, installer, and station operator
EVlink Pro DC 180 Installation Guide	**GEX4300800**	Civil, mechanical, and electrical installation guidelines	Site engineer or installer/contractor
EVlink Pro DC 180 Owners Guide	**GEX4301000**	Operation and maintenance guidelines	Site operator and end user

1 System Overview



A	Touch screen
B	Card swiping area
C	Indicator lights
D	Vehicle connector slot
E	Charge interrupt button
F	Door handle with Lock
G	DC energy meter

Image showing version equipped with cable management system.

2 Installation Environment

The environmental conditions listed in the table below should be taken into consideration when selecting the installation site of the EVlink Pro DC Charging Station.

Environmental parameter	Permissible Conditions
EMC environment	Industrial environment – Class A
Ambient temperature	-30°C ~ 50°C, derating after 50°C
Humidity	10% ~ 95%
Altitude	Up to 2000 m
Ambience	Non explosive environments Housing corrosion protection level C4M Example of environment ■ Outdoor: Urban and industrial atmospheres, moderate sulphur dioxide pollution; coastal area with **low salinity** ■ Indoor: Production rooms with high humidity and some air pollution
Location	Avoid accumulation of sand, dust, snow etc

NOTE: Contact Schneider Electric if the Charging Station will be installed closer than 4 km to a sea/ocean coastline.

3 Site Preparation

3.1 Underground Concrete Base

⚠ WARNING

HAZARD OF HEAVY EQUIPMENT FALLING

- If not installed correctly, the EVlink Pro DC 180 may pose a fall hazard, leading to death, personal injury, or property damage.
- Always follow the provided concrete mounting pad dimension template included inside the shipping box and shown in this document, or a Schneider Electric-approved mounting solution, to install the EVlink Pro DC 180.
- Non-approved installation methods are performed at the risk of the contractor and void the limited warranty.

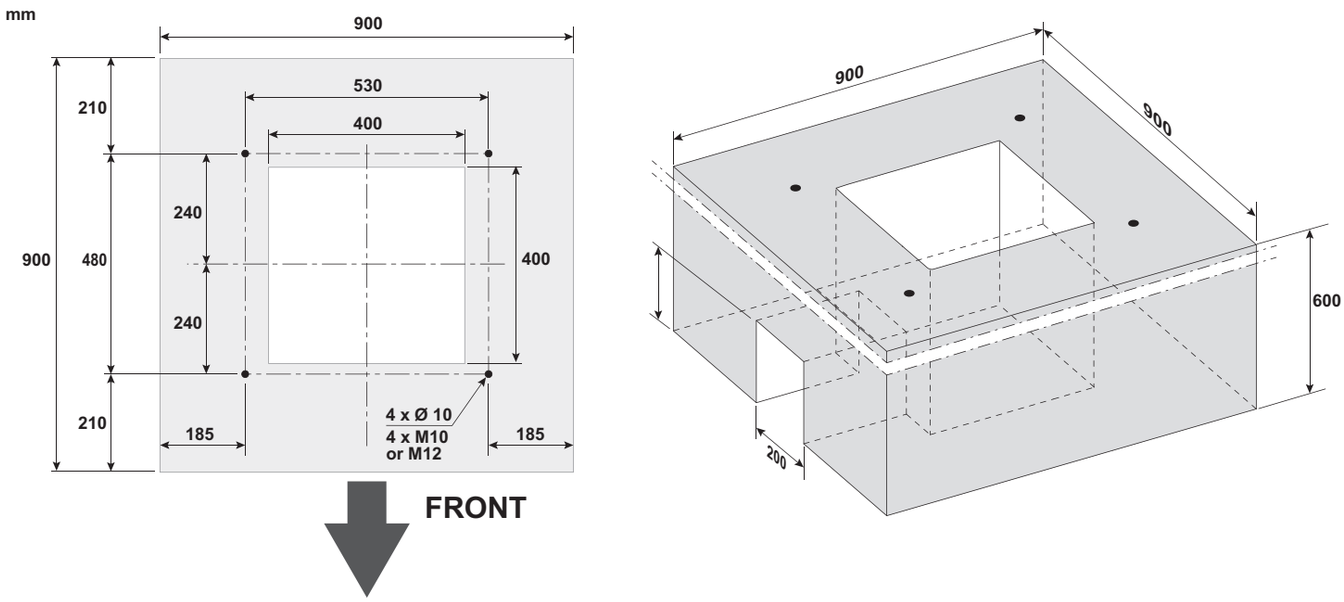
Failure to follow these instructions can result in death, serious injury, or equipment damage.

The Evlink Pro DC shall be mounted on concrete flooring. If the Charging Station will be installed outdoors in sandy or soil ground or on a frost line, a concrete base is mandatory.

Before beginning work, check that the site meets these civil and mechanical requirements outlined below, as illustrated in the following image.

1. Underground concrete base guidelines

- The concrete pad must have a site drawing approved by a structural engineer for this specific site considering the soil behavior and/or any frost line and conforms to the mentioned specifications.
- Ensure a flat surface level with slight outward slope to drain any water, ensuring no obstacles prevent water draining from the base.
- The top of the concrete base must not be lower than the 0 finish floor level. However it may be higher according to the different site situations and local regulations.
- Please consider the height of the screen and the vehicle connector when designing the concrete base elevation.

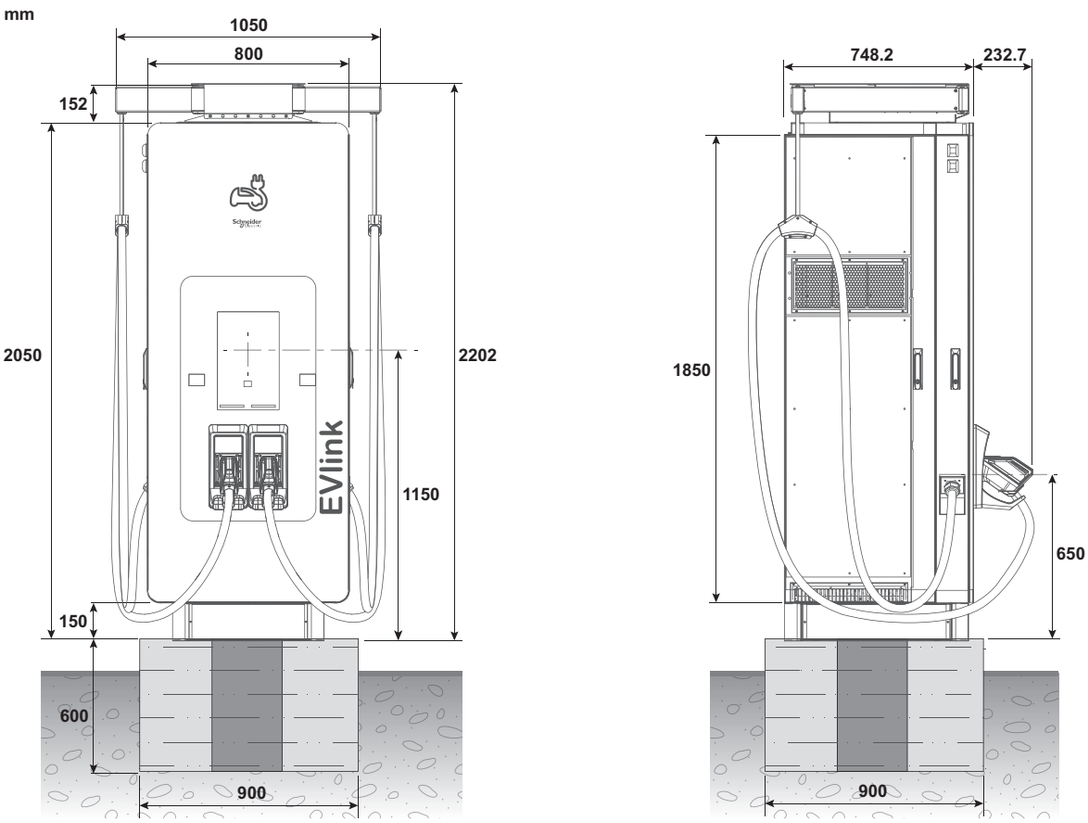


- After the concrete has dried, 4 M10 screws with length L = 250 mm are fixed into the concrete pad according to the provided template (**Appendix 2**) with 30 - 40 mm of threads exposed.

3 Site Preparation

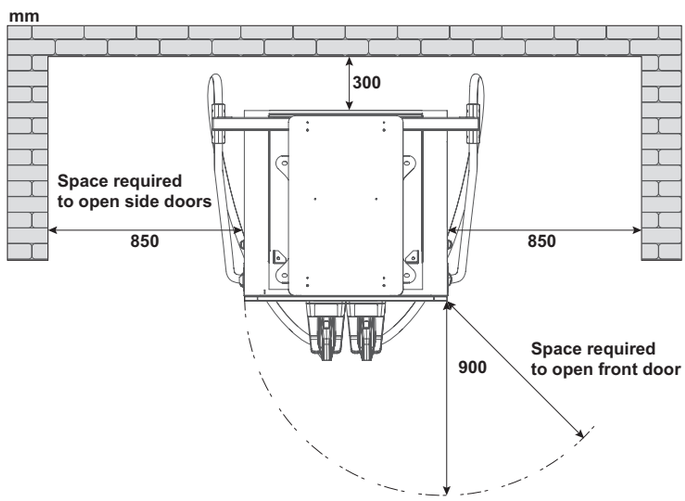
3.1 Underground Concrete Base

2. Installation and construction



3.2 Maintenance Distance

When Charging Stations need to be installed near walls or other obstacles, a certain maintenance distance needs to be allocated.
The service clearance of open space required are described below.

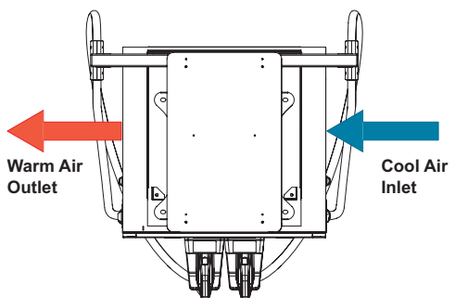


NOTE: Ensure that enough space is available around the installation pad to use a forklift and other lifting equipment, unpack crates, remove packing materials, and allow two people to freely move throughout the area.
For versions equipped with Cable Management System, It is recommended to allow for 500 mm clear space above the Charging Station to allow for maintenance.

3 Site Preparation

3.3 Ventilation Requirements

Ventilation of the Charging Station



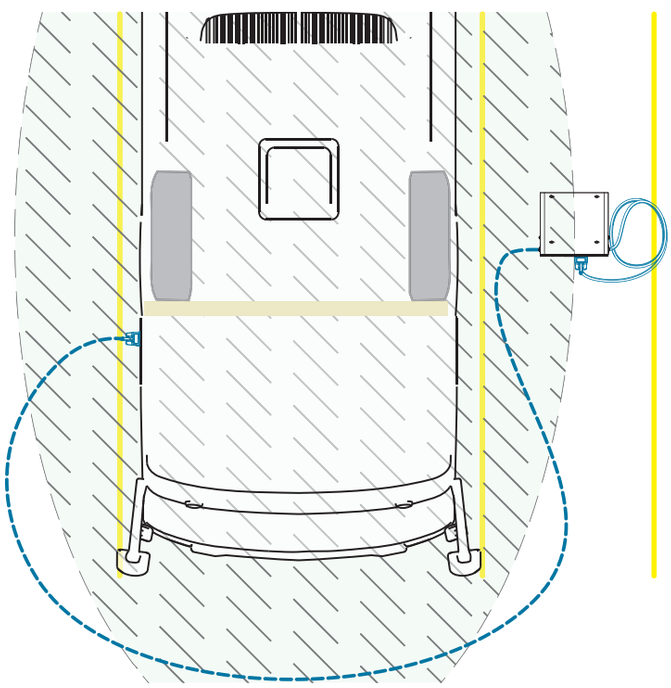
NOTE: If necessary, take precautions to prevent snow or objects from blocking the inlets, outlets or the operation of the cable management system.

3.4 Parking Place Arangements Layout

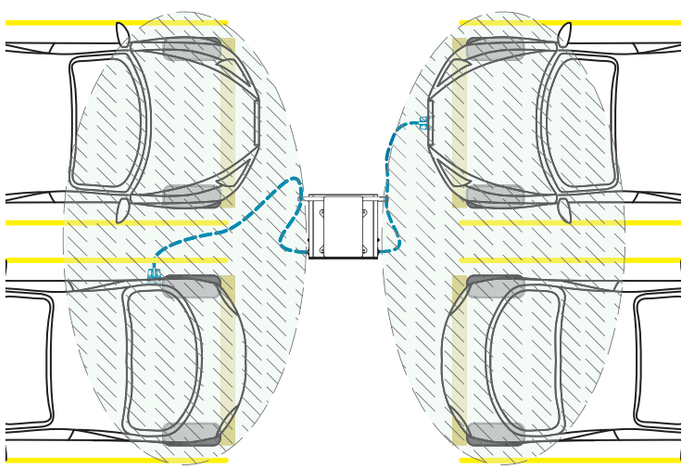
It is possible to position the EVlink Pro DC 180 such that several parking spots can be served. But only two vehicles can be charged at a time.
Some possible arrangements of parking places in relation to the EVlink Pro DC 180 are shown in the figures that follow.

NOTE: The usable connector cable range with optional Cable Management System is 3.6 m.
For all other references the full length of the cable is usable providing extended range of 7.5 m.

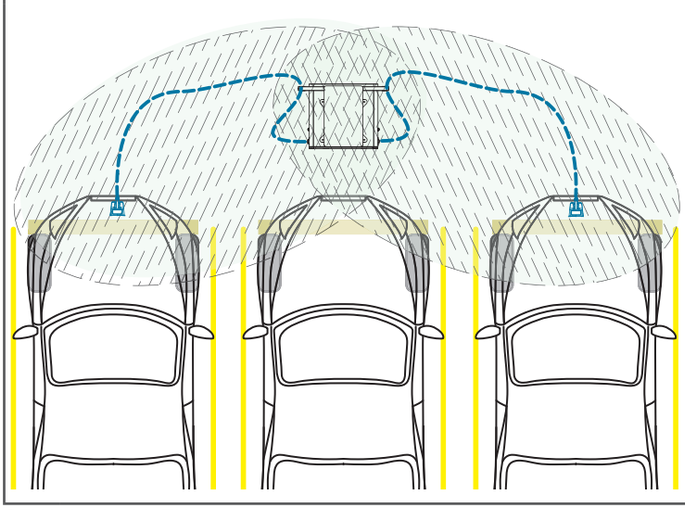
■ For large vehicles with long cable version (without Cable Management System)



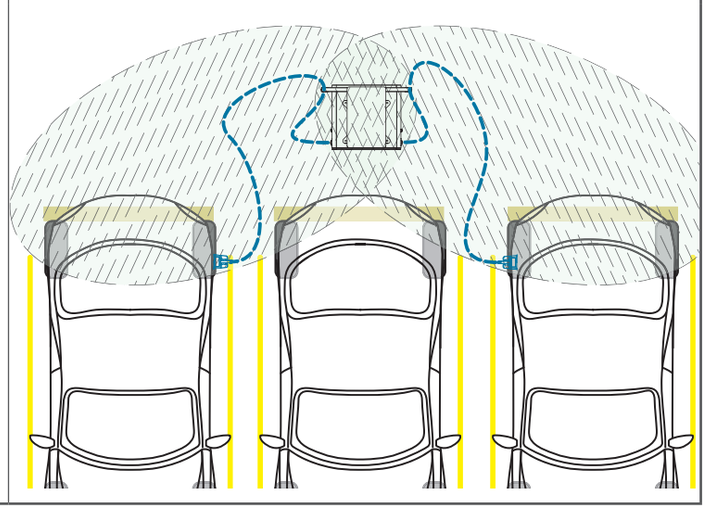
■ Multiple adjacent cars on both sides



■ Forward parking



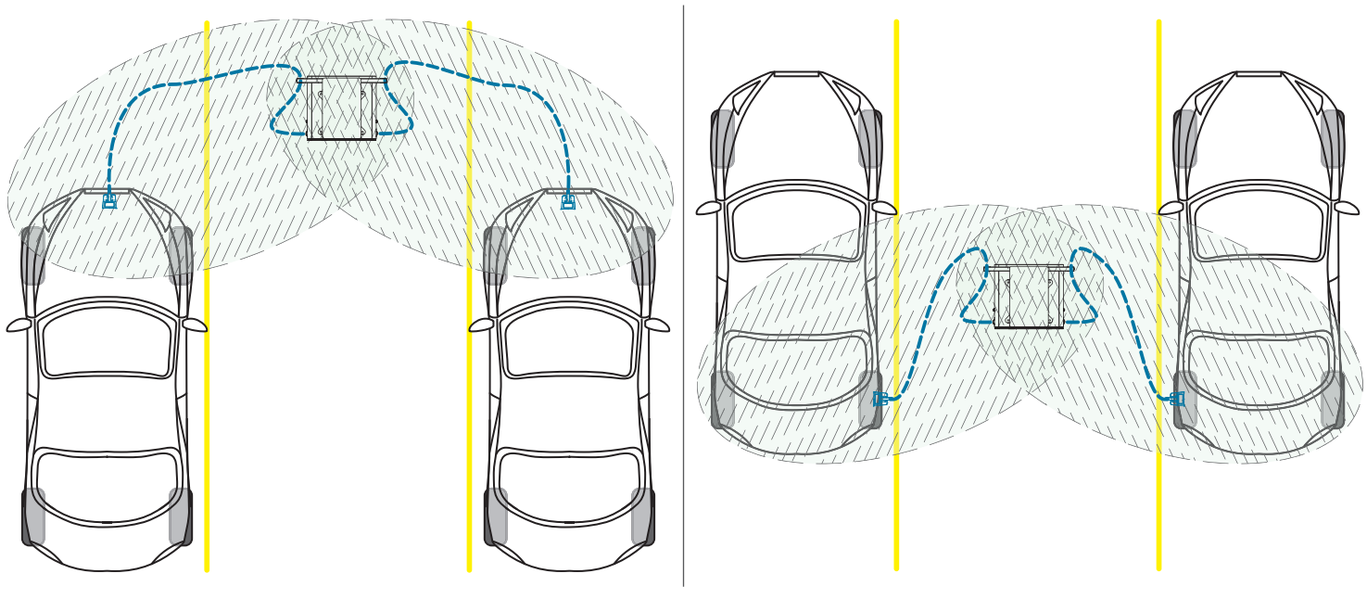
■ Backward parking



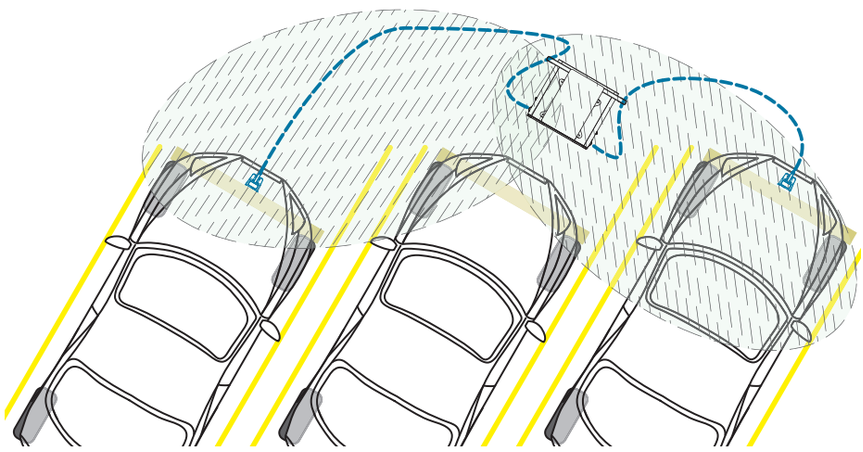
3 Site Preparation

3.4 Parking Place Arrangements Layout

- Drive through



- Angular parking



3.5 Signage and Location

Use road signs and / or special marking to direct drivers to the Charging Station locations and to distinguish the Electric Vehicle parking spaces from ICE (Internal Combustion Engine) vehicles spaces.
To provide a secure comfortable environment for users, and to prevent vandalism and / or theft:

- Install the Charging Station in a location where it can be clearly seen and / or monitored.
- Use 24/7 security control.
- Install sufficient lighting around the Charging Station.
- For a comfortable user experience it is recommended to install a shed or other protection from the direct sunlight while using the charging station.

3.6 Bollards

It is advised to place bollards around the Charging Station to protect against cars collisions.

NOTE: Bollards limiting the access
When installing bollards around the Charging Station make sure all doors can still be opened to be able to service the Charging Station.
In case bollard are installed that are blocking the doors, make sure they are the removable kind.
If removable bollards are used, ensure the tool/key required to remove them is available in case of the Charging Station requiring services.

3.7 Tilt/Collision Sensor

EVlink Pro DC 180 is equipped with a tilt sensor that will interrupt output power/charging session if the sensor detects a tilt in the cabinet in any direction, for example if a vehicle collides with the charging station.
If triggered the indicator light will turn RED and any ongoing charging session will stop. The relevant error message will be shown on screen and an error code will be relayed to the OCPP backend if connected.

4 Electrical Requirements

NOTICE

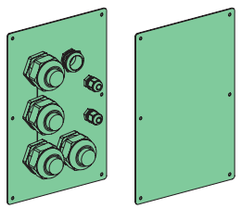
RISK OF FIRE AND/OR EQUIPMENT DAMAGE

- Ensure the appropriate circuit protection, and metering is in place at the installation site.
- Ensure that a grounding conductor that complies with local codes is properly grounded to earth at the power distribution equipment.
- Ensure that a correctly rated, dedicated breaker is installed for each station.

Failure to follow these instructions can result in fire and/or equipment damage

The electrical requirements for each type of Charging Station shall be followed according to this table:

Electrical Parameters			
Rated supply voltage	380 V – 415 Vac +/- 10 % 50 / 60 Hz		
Earthing system	TT/TN-S / TN-C-S		
Power factor	0.99 at nominal output power		
Efficiency	94.5 % at nominal output power		
THDi	≤ 5 % at nominal output power		
Upstream Protection			
Circuit breaker*	3PH + N + PE		
*It is recommended to use a circuit breaker with 30 mA residual current protection or in accordance to local regulations.			
Nominal output power	120 kW	150 kW	180 kW
Rated input current	193 A	242 A	291 A
Max input current	214 A	268 A	323 A
Upstream Cables			
Suggested cable type	U1000 R2V Fine or Extra Fine Wire Strands		
Cable Entry**			
Maximum conductor cross section/phase:	240 mm²		
Maximum outer cable diameter/phase:	31 mm		
**For additional flexibility in installations with different cable cross sections and/or number or cables per phase, the EVlink Pro DC 180 is delivered with 2 different cable entry plates.			



NOTE: The necessary cable size calculations need to be verified according to site conditions, cable route, length, voltage drop. If you have future upgrade plans, it is recommended to install electric infrastructure suitable for the future installation. Bimetallic lugs must be used in the case of Aluminum cables.

5 Communication

1. Cellular and Wireless signal

Use a signal detection device to ensure the signal is within the recommended strength according to the below guidelines:

(Note that these numbers are negative, so -70 dBm is stronger than -85 dBm, and -90 dBm is weaker).

Signal Quality	Cellular Signal	CSQ
	Excellent	> -15
	Fair	2 to 14
	Poor	< 2

Signal Quality	Wireless LAN Signal (WIFI)	CSQ
	Excellent	> -70
	Fair	-70 to -90
	Poor	< -90

2. Ethernet cable

Use RJ45 cat 6, shielded, twisted pairs.

6 Required Materials and Tools

1. Specific equipment

Before you go to the site, please prepare the following tools/equipment:

- Forklift/Crane
- Safety step ladder
- Personal Protective Equipment (PPE)
- Cable cutter
- Wire stripper
- Wire presser/pliers
- Power drill
- Spirit level
- Toolbox
- Multimeter
- LOTO (Lock Out Tag Out) safety equipment

NOTE: The above tools should be selected according to the actual situation on-site.

7 Receiving, Handling

7.1 Receiving

⚠ WARNING

HAZARD OF EQUIPMENT FALLING

- EVlink Pro DC Charging Stations are delivered on pallets, enabling the bottom handling.
- When handled from the bottom, the Charging Station must be lifted with care and held in place during transport by properly strapping them onto the forklift or handling equipment.
- Always transport and store the Charging Station in its original packaging.
- Ensure the load rating of all lifting equipment (forklift, crane and lifting straps, etc) is adequate for the weight of the Charging Station as shown below.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ WARNING

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Do not install the Charging Station during harsh weather.
- If you must complete the installation in rain or wind, you must use a weather-proof shelter that covers all boxes and components to avoid water entering inside the enclosure.
- Do not use power tools during installation or servicing. Over-torqueing can damage the equipment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

7.2 Contents

Inside the EVlink Pro DC shipping box you should find the below mentioned items and documents.
If there are any missing items or documents, please contact Schneider Electric for the necessary replacements:

Item	Quantity
Charging Station mounting template	1
EVlink Pro DC Charging Station (120, 150 or 180)	1
Power modules	4, 5 or 6
Keys	3
Lifting rings	4
Generic RFID badge (for testing)	2
User guidance sticker	1
Bottom entry cable plate	2
Documents	
Installation manual	
Owners manual	

⚠ DANGER

HAZARD OF HEAVY EQUIPMENT FALLING

Do not stand or move beneath the crate as it is being lifted or tilted.

Failure to follow these instructions will result in death or serious injury.

Each EVlink Pro DC (120, 150 or 180) Charging Station ships in one crate. Ensure you have correct crate at the installation site.

Contents	Shipping dimensions (mm)	Shipping weight (KG)
EVD1S180TBB	H 2440 x W 1250 x D 1100	646
EVD1S180THB	H 2440 x W 1250 x D 1100	646
EVD1S150TBB	H 2440 x W 1250 x D 1100	631
EVD1S150THB	H 2440 x W 1250 x D 1100	631
EVD1S120TBB	H 2440 x W 1250 x D 1100	616
EVD1S120THB	H 2440 x W 1250 x D 1100	616
EVD1S180TBBC7	H 2440 x W 1250 x D 1100	627
EVD1S150TBBC7	H 2440 x W 1250 x D 1100	612
EVD1S120TBBC7	H 2440 x W 1250 x D 1100	597

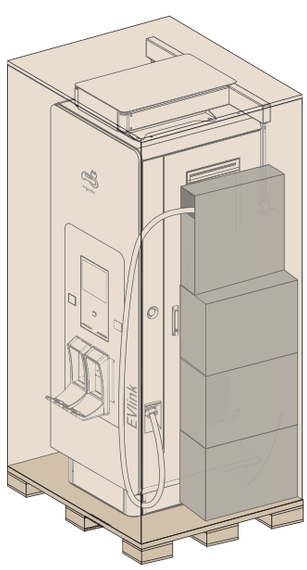


Image showing version equipped with Cable Management System.

8 Unpacking

⚠ CAUTION

HAZARD OF SHARP EDGES

It is recommended to wear protection gloves when unpacking the Charging Station as there could be sharp edges.

Failure to follow these instructions can result in injury.

⚠ CAUTION

HAZARD OF POTENTIAL LOOSE COMPONENTS INSIDE BOX

- The shipping crate is delivered with shock and tilt detection sensors.
- At receiving always inspect the sensors on the crate for damage or mishandling.
- If the sensors are triggered do not attempt to unpack, inform the transport agent and refuse reception.

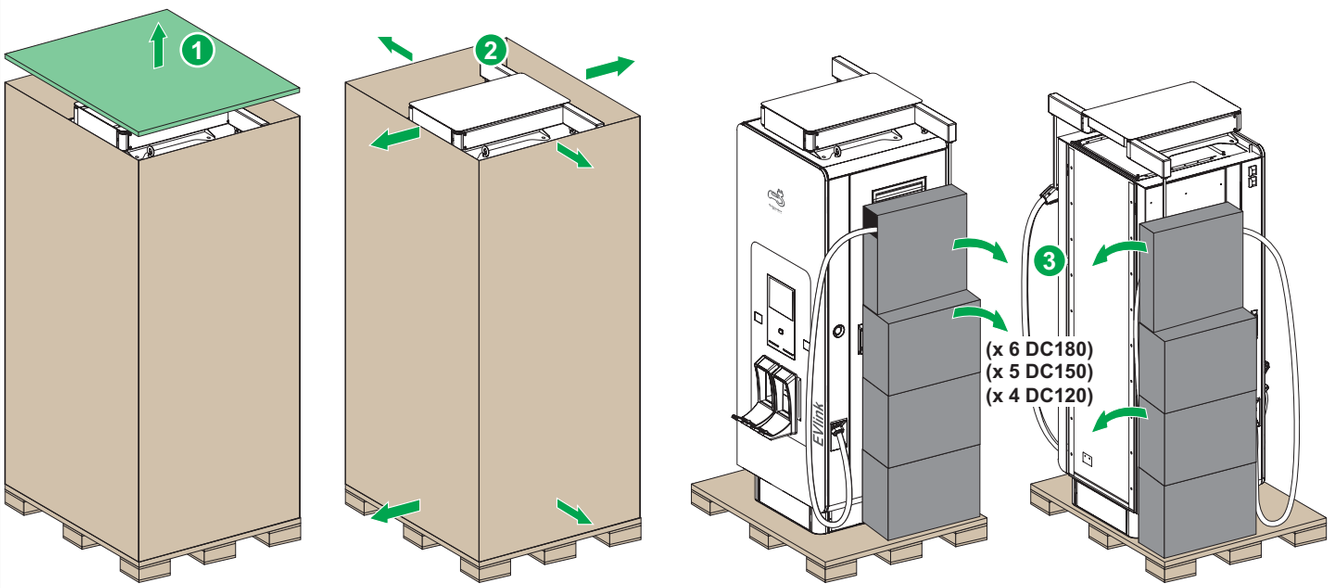
Failure to follow these instructions can result in injury or equipment damage.

NOTICE

RISK OF EQUIPMENT DAMAGE

- 2 operators and safety step ladders are required to safely unbox the EVlink Pro DC Charging Station.
- The power modules are inside the shipping box so take caution while opening the side of the box.
- The power modules should remain in their cartons until the Charging Station is installed in the final location.

Failure to follow these instructions can result in equipment damage



Place the Charging Station shipping box close to the area where it will be installed:

- First remove the top cover of the wooden crate.
- Remove the inner foam protection profiles.
- Carefully remove the plastic wrapping around the charger and carefully remove the power module boxes.
- Proceed to removing the side panels of the crate.

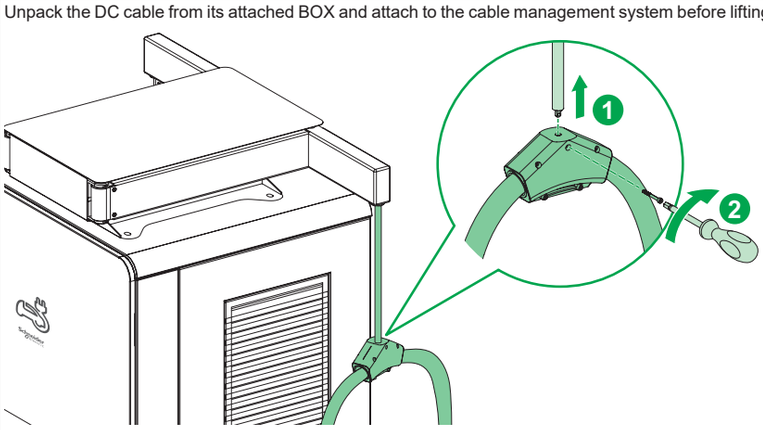
8.1 Inspection

After unpacking the EVlink Pro DC, the installer should check all the items below:

- Appearance: check whether the appearance of the Charging Station is damaged, whether there is any damage such as paint loss, scratch, and deformation, and whether the structure of Charging Station is damaged during transportation.
- Labels: check whether the nameplate of Charging Station is correct, clear and complete, and whether the safety warning signs are posted in place.
- Contents: check whether the documents and accessories are complete according to the list of contents above.
- After inspection ensure the Charging Station is covered/protected from the weather.

8.2 Install cable management

Unpack the DC cable from its attached BOX and attach to the cable management system before lifting the charger.



9 Handling and Mounting

9.1 Handling and Fixing in Place

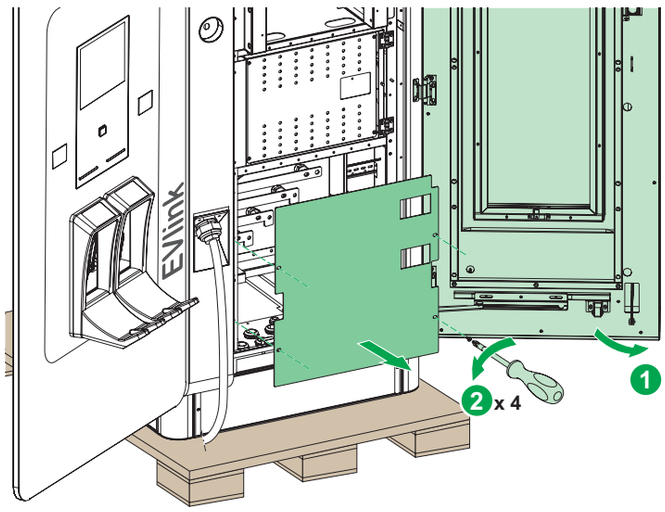
⚠ WARNING

HAZARD OF HEAVY EQUIPMENT FALLING

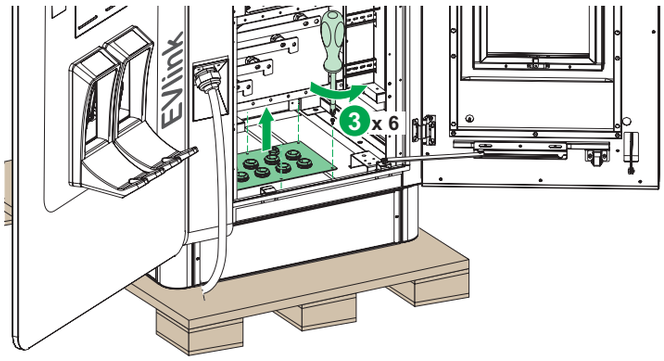
- The EVlink Pro DC 180 weighs at least 500 kg without power modules installed, ensure appropriate hoisting ropes and machinery.
- Extreme caution must be exercised while handling, lifting, or hoisting the Charging Station.
- Personal Protective Equipment required, hard hat, safety shoes, gloves.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

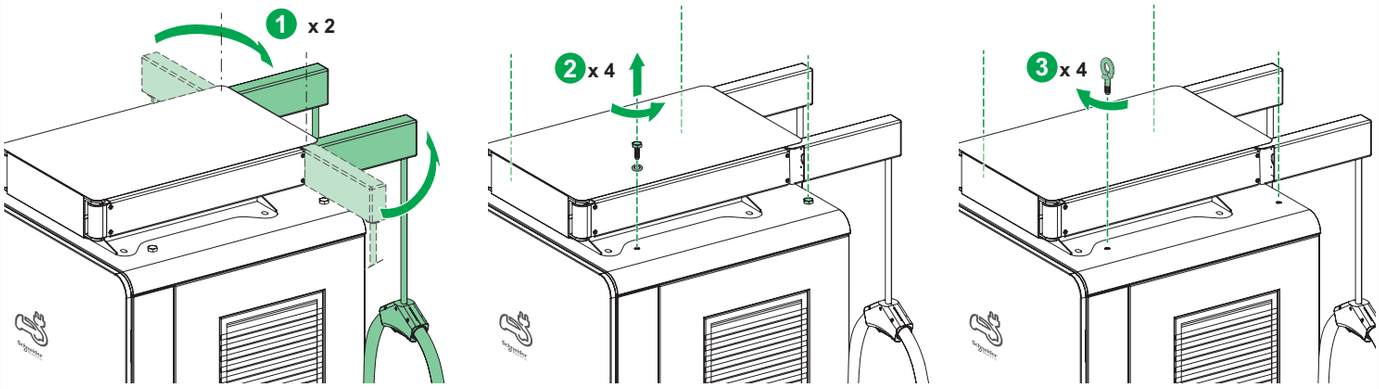
1. Before hoisting:

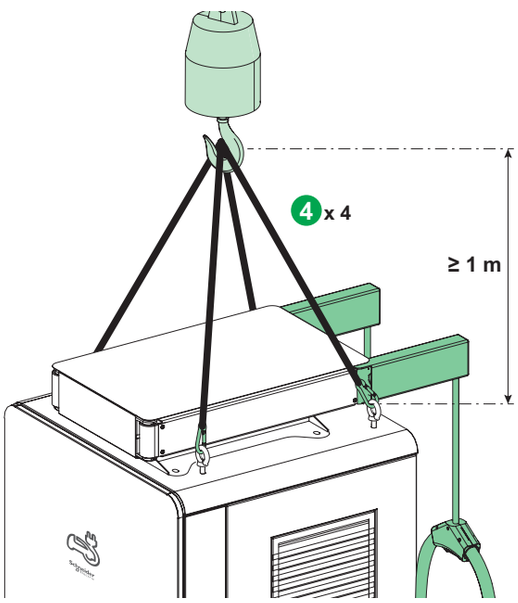


- Before lifting the Charging Station open the right door and remove the cover plate to expose the copper bars.
- Replace with the provided gland plate for larger cross sections if required.



2. Hoisting:



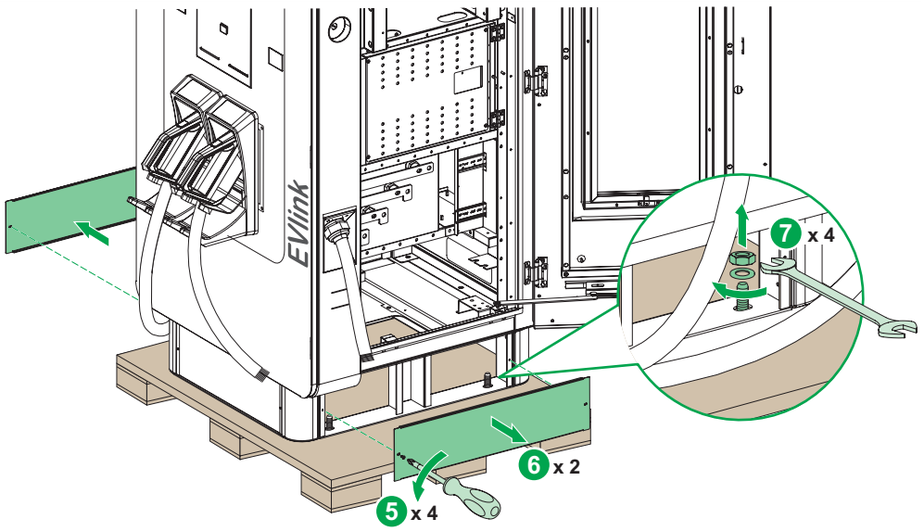


- Each of the top 4 lifting rings shall have a rope at each lifting point.
  Keep the hoisting angle of the rope between 45° and 60°.
  The force center of the hook shall be located at a symmetrical force center.
- Ensure the suitable rope length.

9 Handling and Mounting

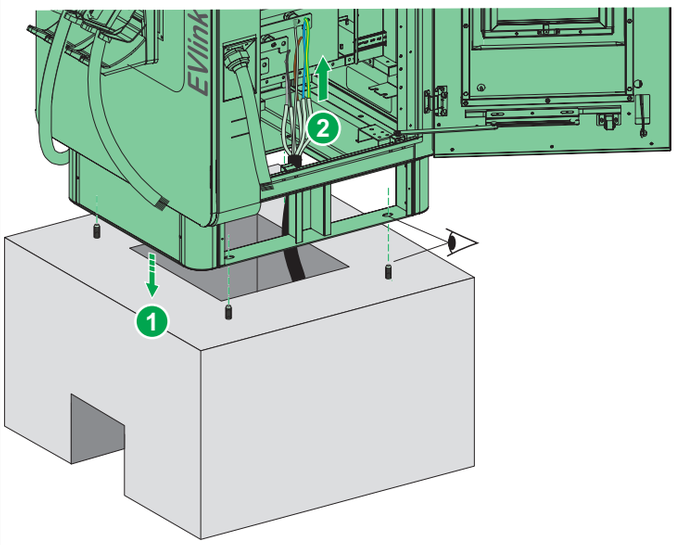
9.1 Handling and Fixing in Place

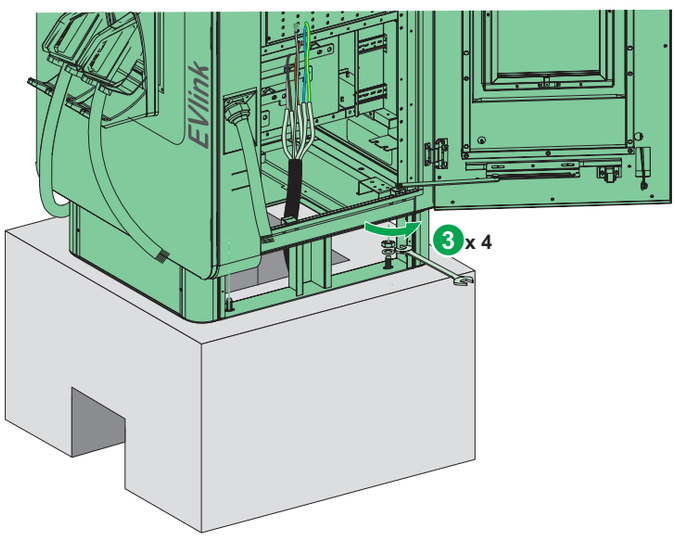
2. Hoisting

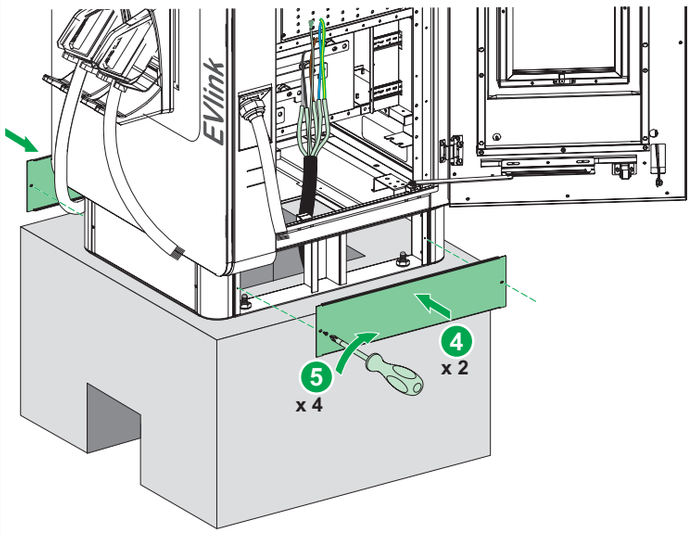


- Ensure the charger is supported from top before removing the pallet.
- The Charging station can be hoisted.

3. Fixing



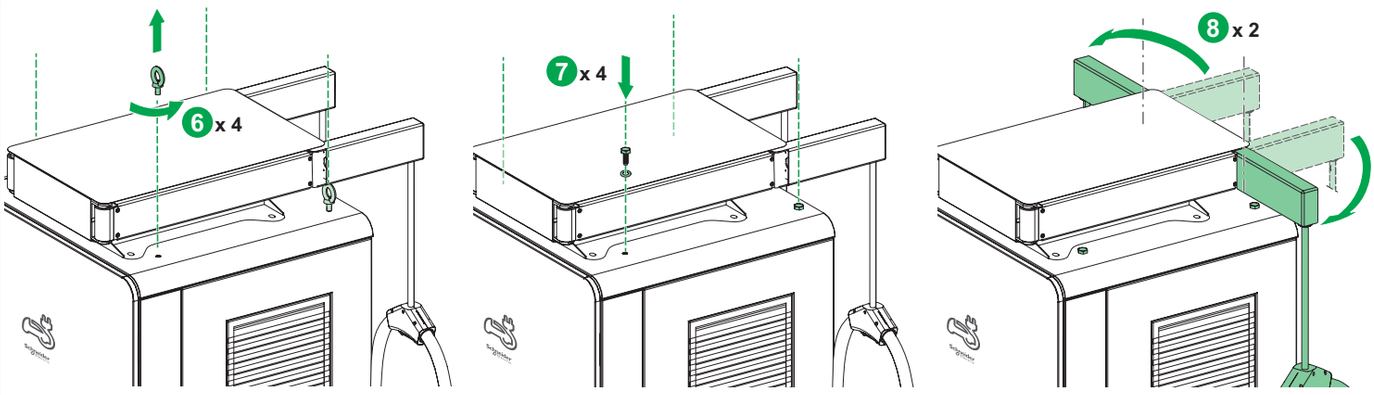


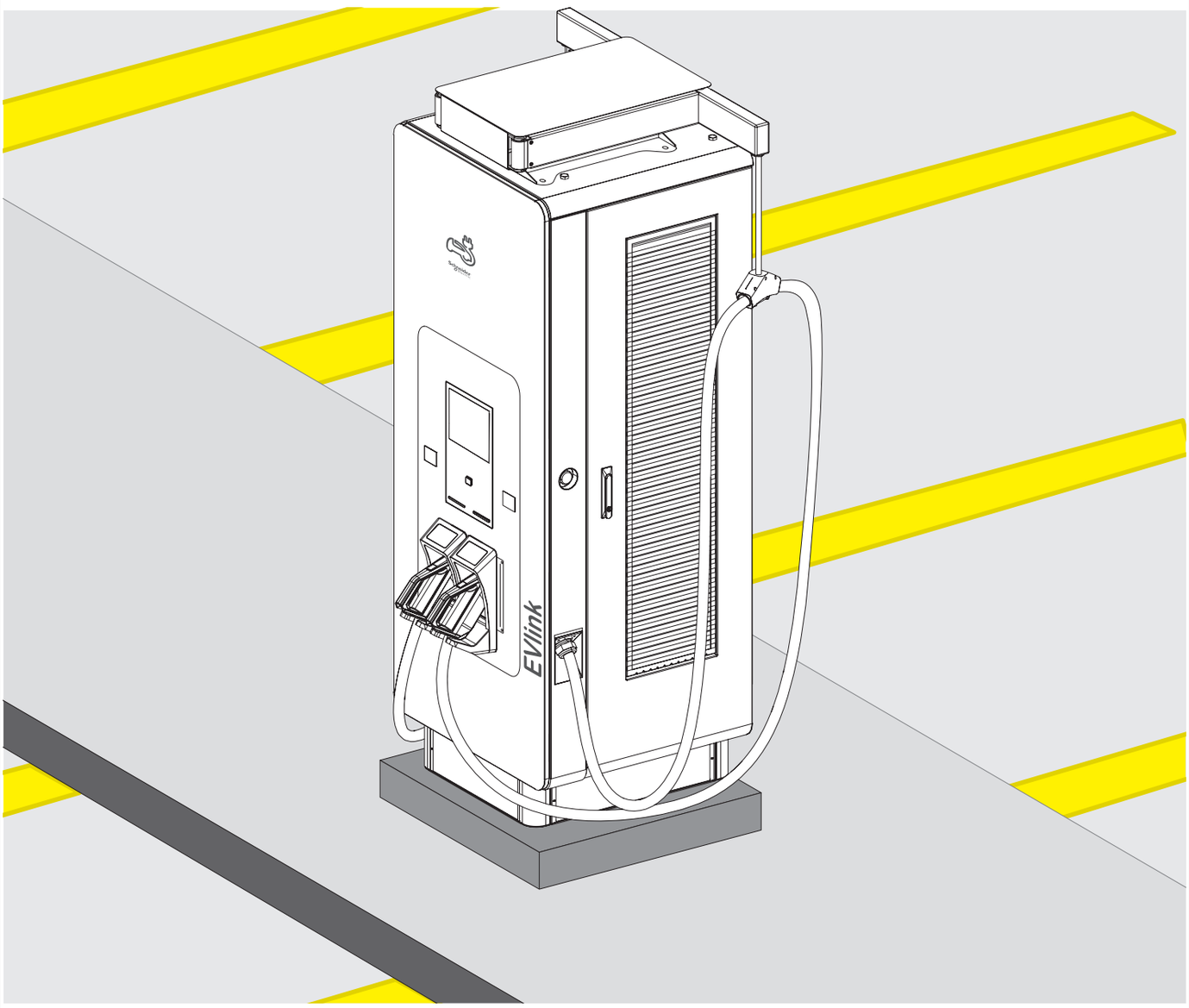


9 Handling and Mounting

9.1 Handling and Fixing in Place

3. Fixing





10 Connecting

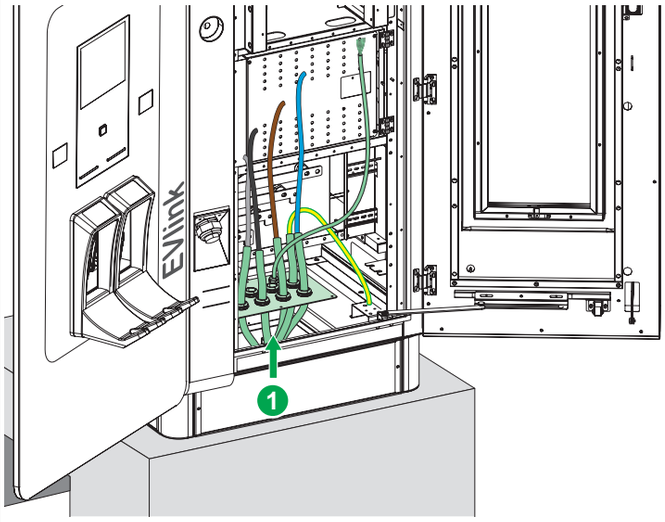
10.1 Connecting the Charging Station

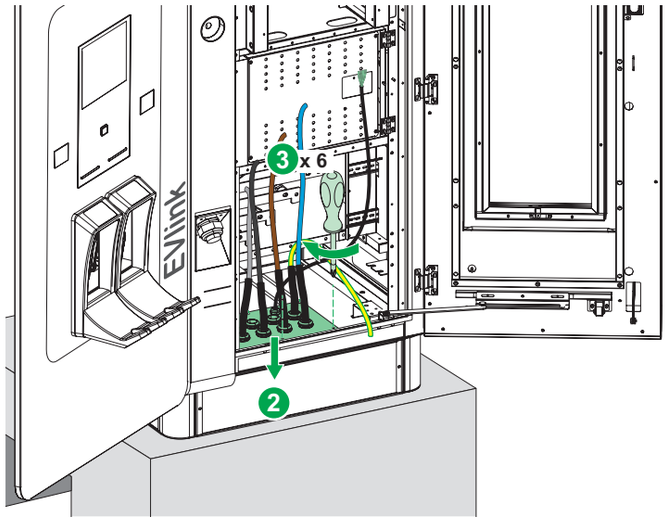
⚠ DANGER

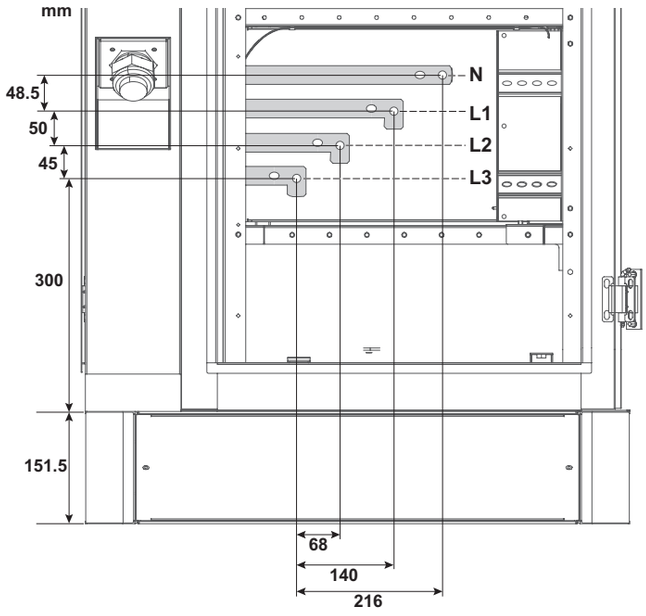
HAZARD OF ELECTRIC SHOCK

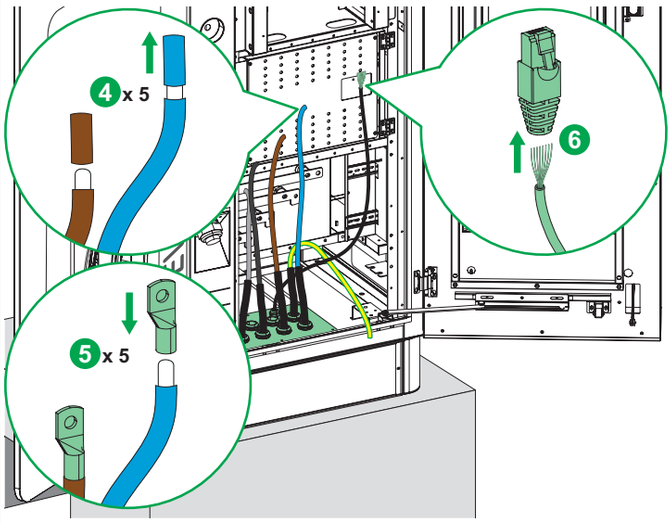
- It is recommended to make the PE wire longer than the phase wires to ensure that the PE wire stays connected the longest if the Charging Station is moved by an accident/collision.
- Always connect the protective earth first, before connecting the N and phase wiring.

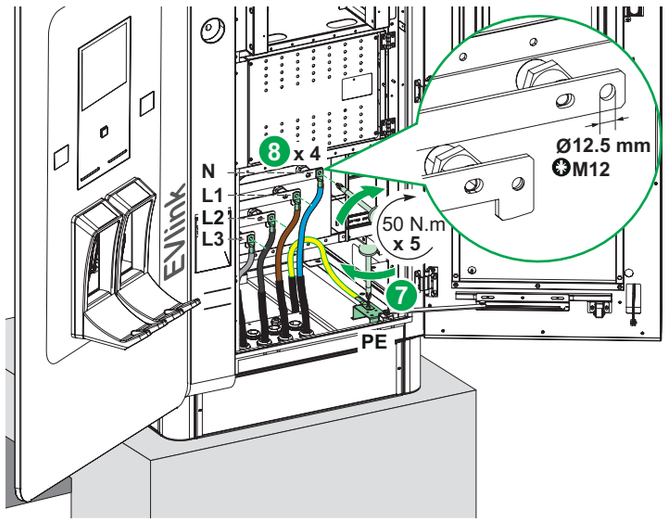
Failure to follow these instructions will result in death or serious injury.







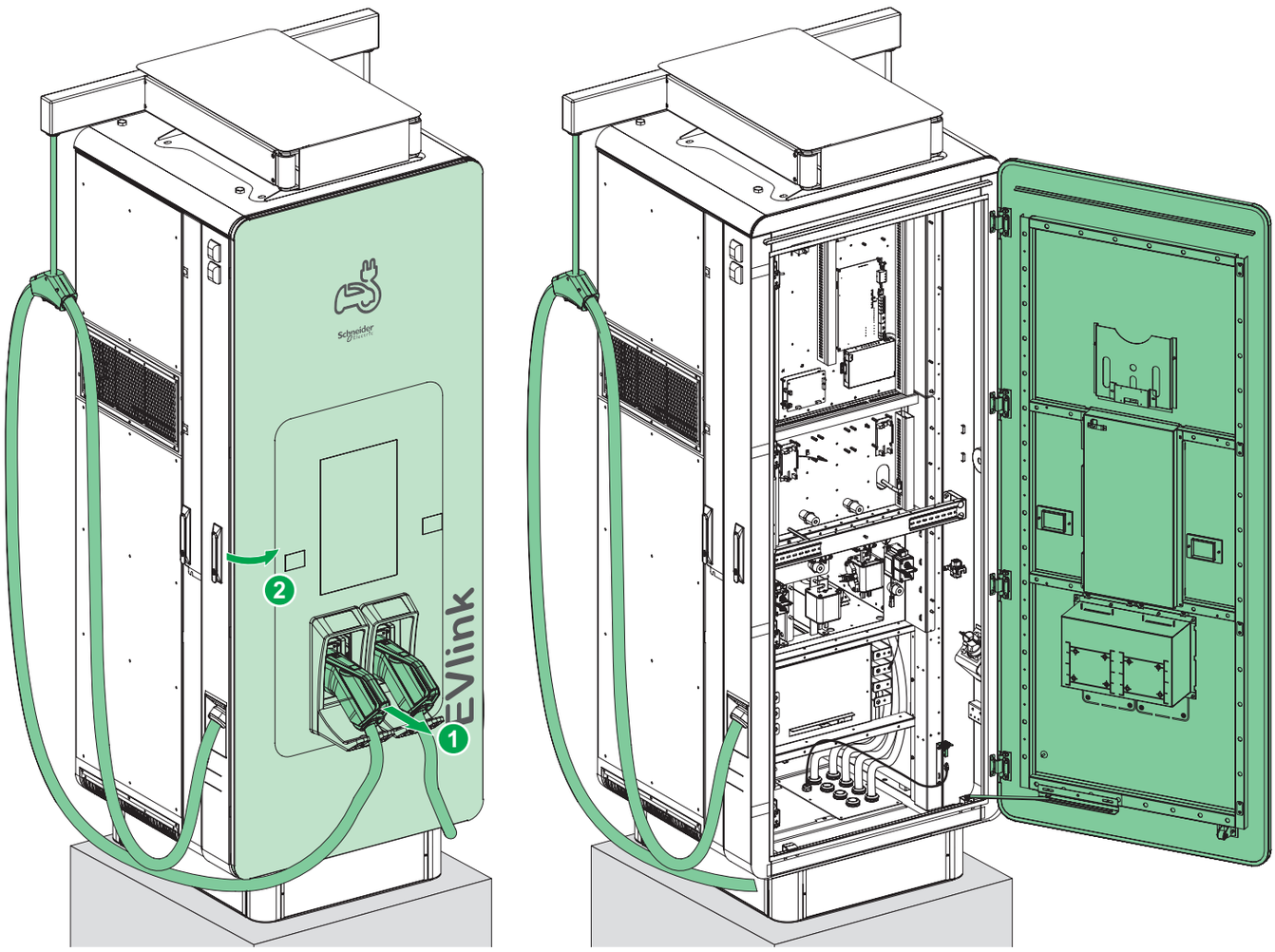


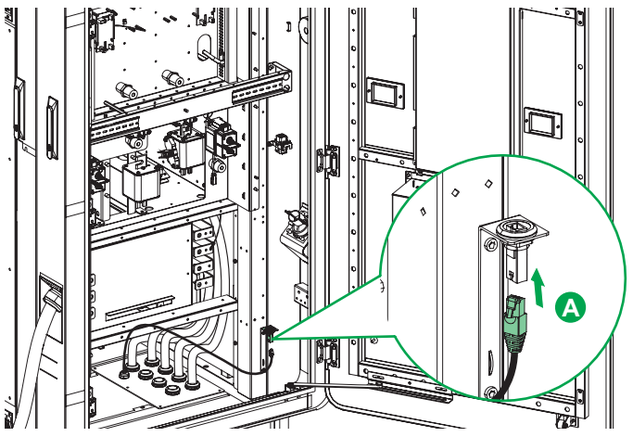


10 Connecting

10.2 Ethernet Connection (Optional)

NOTE: In order to be able to open the front door easily, it is necessary to remove the vehicle connectors from their holders.

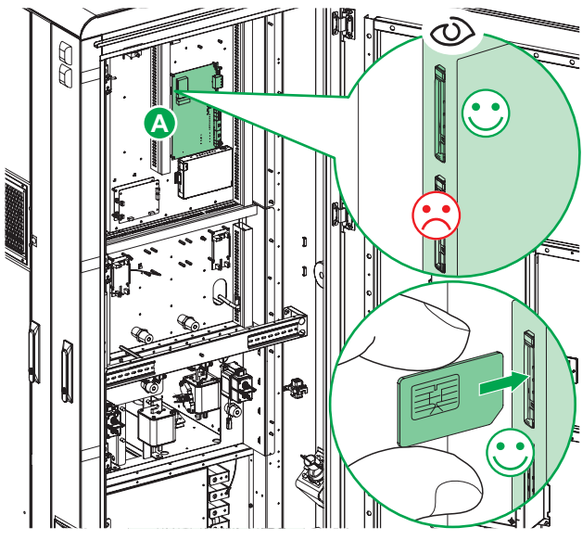




A • Connect the RJ45 plug ethernet cable.

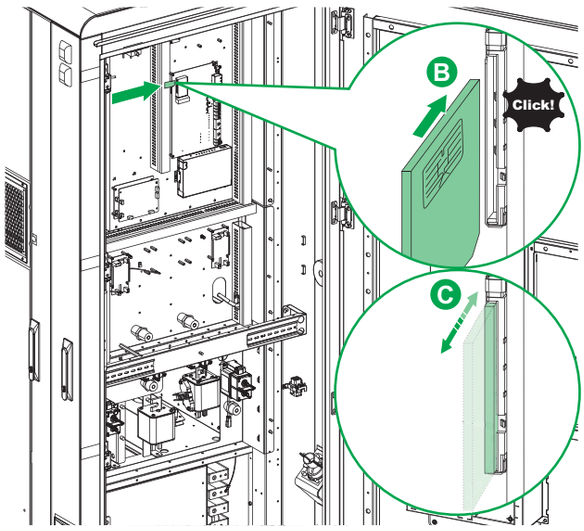
10 Connecting

10.3 Installation of 4G Sim Card (Optional)



A • Locate the communication circuit board CB01 indicated in the image below.

NOTE: The SIMCARD slot is able to receive a standard 25 mm SIMCARD only.



B • Carefully insert the SIMCARD in the dedicated slot shown below until it clicks to lock.

C • To remove the SIMCARD, push the SIMCARD in until it clicks to unlock.

11 Installation of Power Module

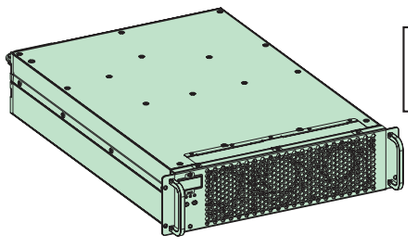
⚠ CAUTION

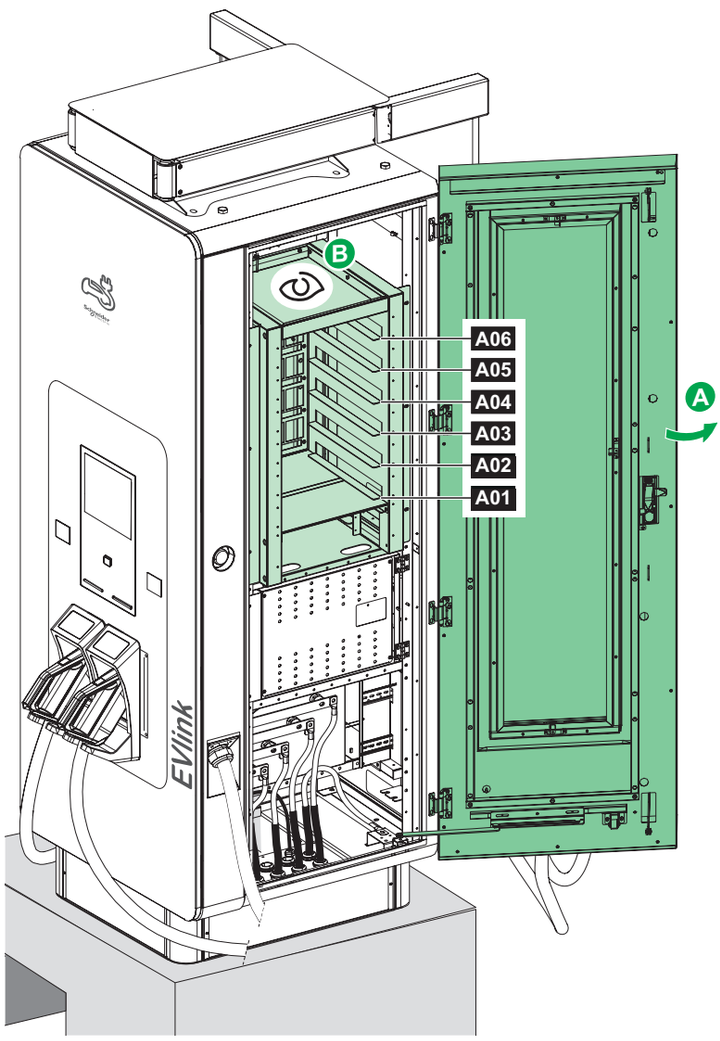
HAZARD OF EQUIPMENT DAMAGE

- The power module is equipped with an intelligent Air-Cooling system. A fan is installed at the front of the module which draws air from the front of the module to the rear.
- The front and rear of the power module must be clear of any obstructions while installed in the Charging Station.

Failure to follow these instructions can result in equipment damage.

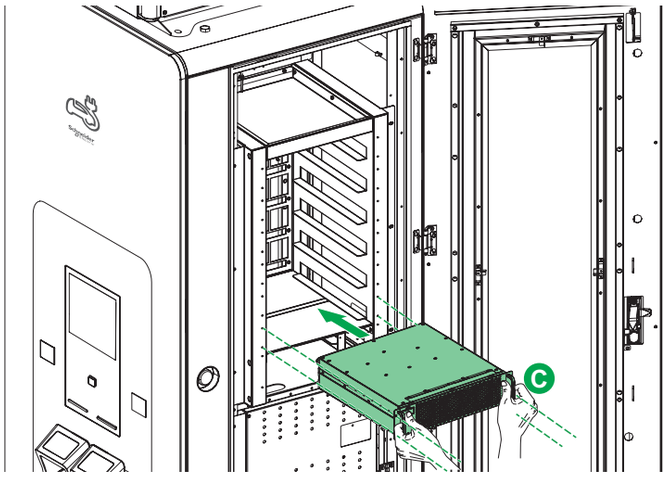
NOTE: The power modules will be shipped with their address settings set and identified in their addressed order from bottom to top; i.e. A01 in the bottom slot and A06 in the top slot.



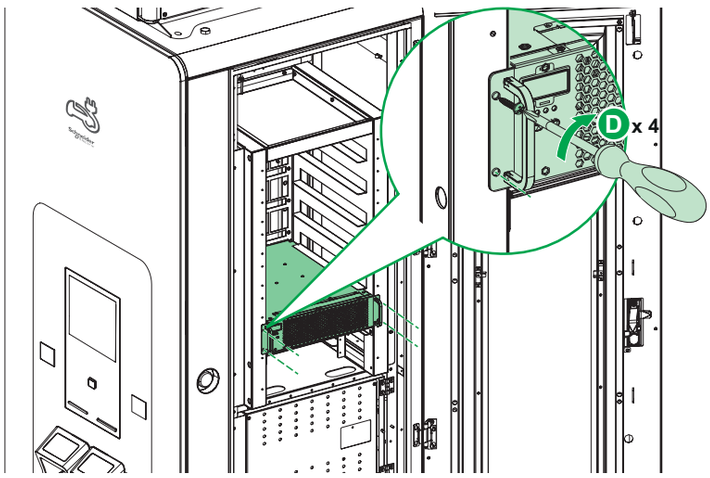


A • Open the right-hand door of the Charging Station.
B • Locate the slot in which the power module will be installed.

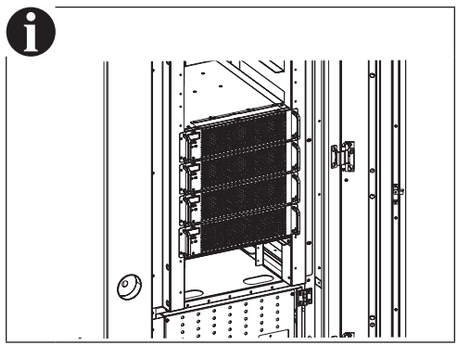
11 Installation of Power Module



C • Carefully with 2 hands hold the power module using both handles and insert in the available slots.

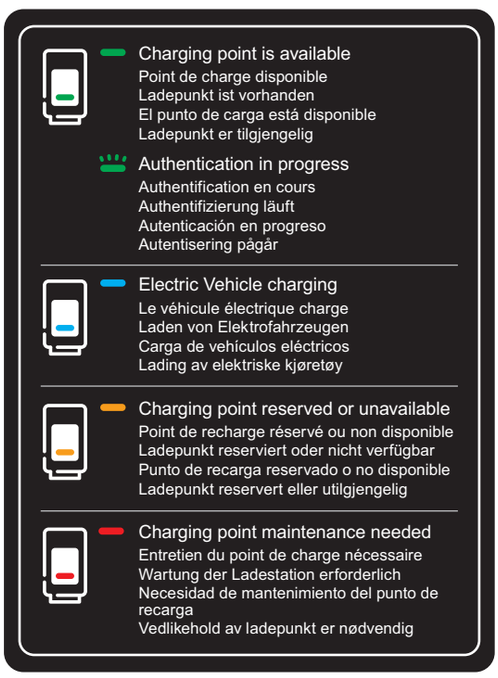


D • Use the 4 provided screws to fix the power module in place.



12 Finalization

■ Complete the installation checklist (Appendix 1) and ensure any open points are closed before placing it in the document holder inside the charger for verification prior to commissioning.
■ Place the provided user guidance sticker on a suitable/visible location on the Charging station. (Optional).



13 Startup / Shutdown

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- It is not possible to isolate the Charging Station fully unless the upstream circuit breaker is switched Off.
- Even with the internal circuit breakers switched off there remains live current in the Charging Station.
- When the system is in an open or dangerous condition, do not allow unqualified persons to go near it. Instruct/warn people about the potential harmful high voltages.
- Make sure that the main upstream protection switch of the power supply for the product is set to the OFF position. Follow standard **Lock-Out/Tag-Out** before you proceed.
- Always perform a voltage absence test and make sure that the electrical power is disconnected from the system.

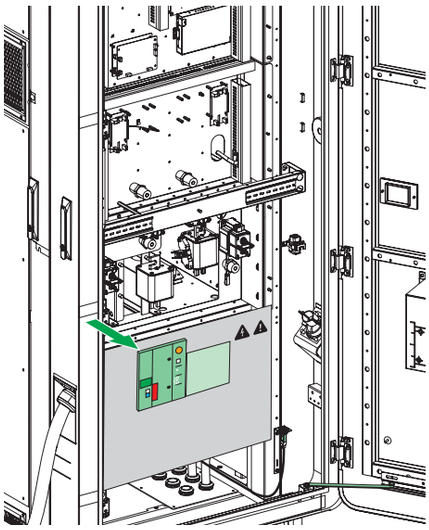
Failure to follow these instructions will result in death or serious injury.

13.1 Startup

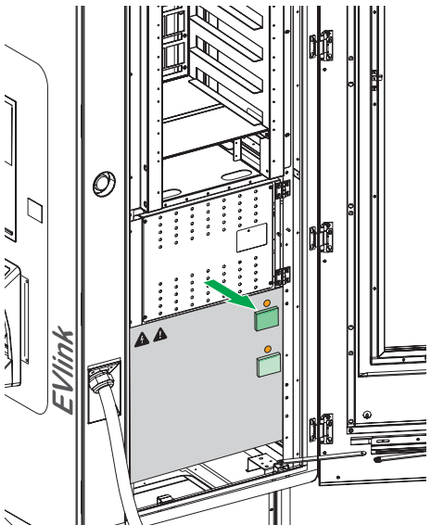
After completing the installation inspection checklist, you can proceed to **Startup** the charger to test the Power system:

A • Keep the upstream circuit breaker in the open (off) position and proceed to close (ON) the QF1 main breaker and QF2 and QF3 MCBs in the Charging Station.
B • Close and secure all the Charging Station doors.
C • Proceed to close the upstream circuit breaker (ON).
D • Wait for 1 minute for the HMI and indicator lights to come online. The HMI screen will display a welcome screen. Verify that there is no error messages and that both indicator lights are stable green.
E • Switch off the charger and wait 5 minutes before you proceed to commissioning.

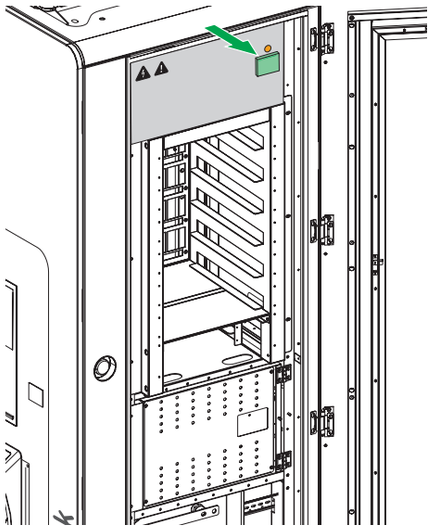
Location of QF1
Front door



Location of QF2
Right door



Location of QF3
Right door



13.2 Shutdown

⚠ DANGER

HAZARD OF ELECTRIC SHOCK

- This equipment contains capacitors which take time to discharge.
- It is mandatory to wait 5 minutes after the equipment is disconnected before touching any internal parts.

Failure to follow these instructions will result in death or serious injury.

To **shutdown** the system:

A • Open the QF1 main breaker.
B • Open the QF3 MCB.
C • Open the upstream protection breaker.
D • Perform Lock-out Tag-Out.

14 Recycle

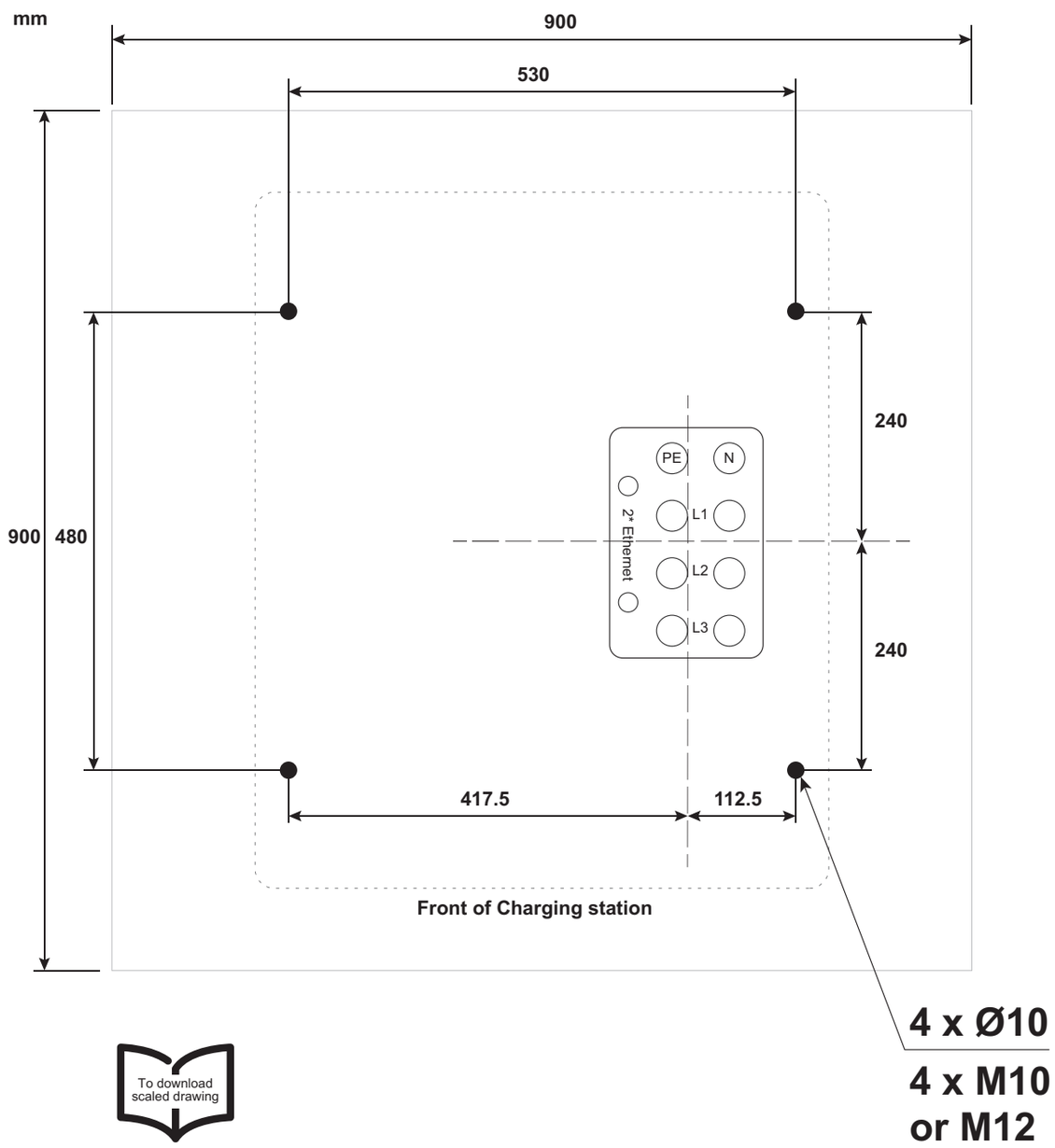
Product Disposal
To comply with Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), devices marked with this symbol may not be disposed of as part of unsorted domestic waste inside the European Union.
Enquire with local authorities regarding proper disposal.
Product and packaging materials are recyclable as marked.

Appendix 1: Installation Check List

Inspection or Verification	Characteristics	Remarks or Repairs
Structure	Check whether the Charging Station base plates and cable glands are fixed and sealed.	
	Check the Charging Station is well mounted on the concrete foundation and is leveled.	
	Check whether all doors operation and panels are intact, closed and locks are intact.	
	Check that the IP is maintained, gaskets and cable glands secured and no openings permit dust, insects or rodents.	
	Check the necessary space is available for maintenance and all construction work is complete.	
Aesthetic	Check the appearance and cleanliness.	
	Check all signs and notices are clear and intact and remove the protective film from the HMI screen and the safety notices.	
Internal components	Verify the QF1 main breaker and QF2 and QF3 MCBs are in the open (OFF). Position before energizing.	
	Check whether the internal components of the charger are intact. (Removal of internal covers is not required).	
	Visually check for any loose component or wiring.	
	Check for any loose hardware or foreign objects in the bottom of the charger.	
	Verify all grounding cables are secured on all doors and on the bottom of the charger.	
	Verify each power module is screwed in place in its correctly numbered slot.	
Electrical tests	Grounding resistance is ≤ 4Ω.	
	Check for over/under voltage.	
Power connections	The specifications of the cables used meet the power requirements of the Charging Station.	
	All power connections (N 1 2 3 and PE) are securely torqued according to the recommended values. (50 Nm).	
	Phase orientation is correct and identified on the cables.	
	Check clearances and creepage distances.	
	No breakage, damage, scratches on cable insulation and all electrical connections and wiring are correct and complete.	
	Check the Charging Cable and connectors are Intact.	
	Check the power module plug in connectors are intact (both upstream and downstream)	
Communication	Ensure that the 4G SIMcard is installed.	
	Ensure that the Ethernet cable is connected to the RJ45 port.	
		Verified by:

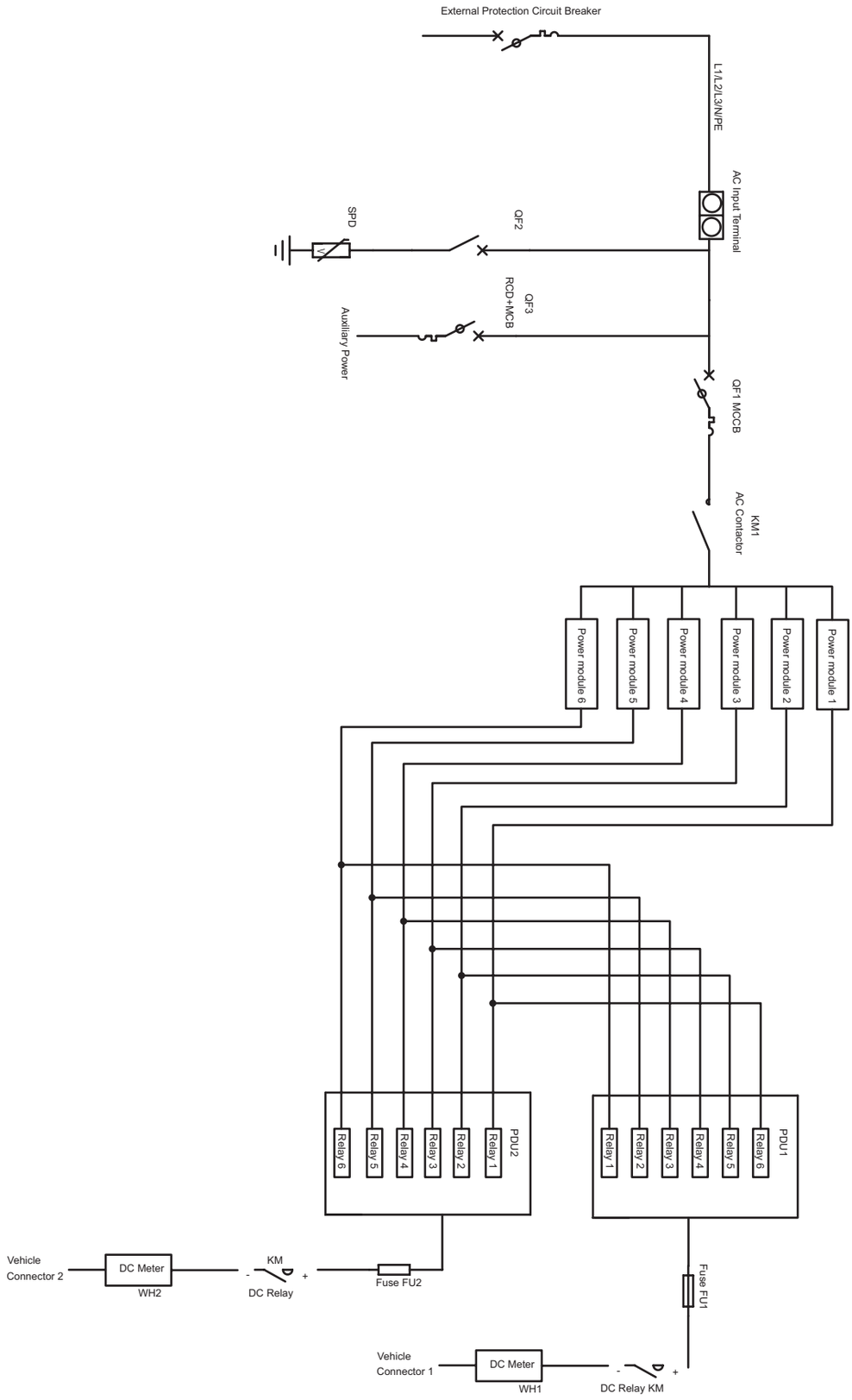
NOTE: Complete the installation checklist and ensure any open points are closed before placing it in the document holder inside the charger for verification prior to commissioning.

Appendix 2: Charging Station Mounting Template



To download scaled drawing

Appendix 3: Schematic diagram



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