eSolutions
Free2move

INSTALLATION GUIDE

Supernova

60&180

VH. 2.0 2024/01/30

Table of contents

Purpose and Scope of the Document

The purpose and scope of this document is to introduce Supernova fast charging station and to outline the instructions for correct installation.

The instructions included in this installation guide are for electricians and professionals certified to install, operate and maintain Supernova. Electrical expertise in the local electrical codes and regulations, competence in installing electric vehicle chargers and the associated required credentials, for both are requisites for all electrical installation, energization and commissioning works of the eSolutions Supernova range of DC Chargers.

Audience

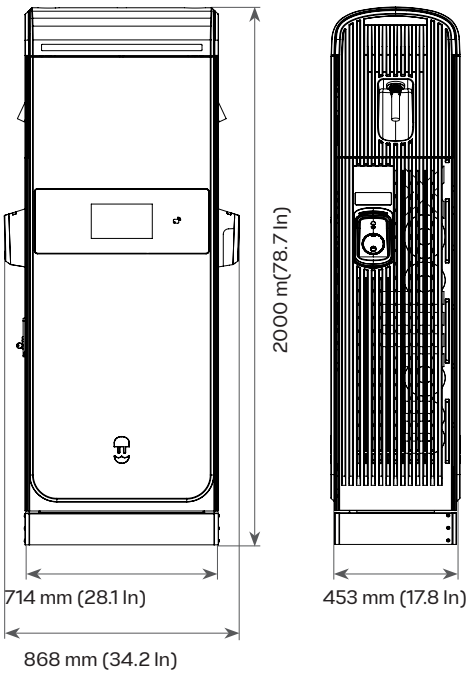
This document is intended for contractors who are responsible for site preparation and installation of Supernova.

GETTING STARTED

Datasheet 60

DC Connectors	CCS1+CCS1
Charging Protocol	ISO15118, DIN SPEC 70121, SAEJ1772
Cable Length	5 m (16.4 ft)
Cable Management	Retracting the cable to its initial position

Output Power	60 kW
Nominal Efficiency	95%
Power Factor	>0.98
THD	5%
Standby Consumption	< 100 W
Output Voltage	150-1000 V
Max Output Current	150 A[1]
Supply Input Voltage Range	480 V ± 10%, 60 Hz; 3P+PE
Max Supply Input Current	80 A
Split Charge	Simultaneous charge of 2 outputs



Environmental Ratings	IP54, IK10, 6560 ft (2000 m) altitude, NEMA 3R
Operating Temperature	-40°C to 50°C (-40°F to 122°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Cooling System	Active air cooling
Operational Noise Level	Low Noise Mode: <65 dBA @ 3.3 ft (1 m)
Humidity	5% to 95% Non-condensing
Dimension with holster	2000x453x868 mm (78.7x17.8x34.2 In)
Dimension without holster	2000x453x714 mm (78.7x17.8x28.1 In)
Dimension with CMS	2136 x 453 x 1219 mm (84 x 17.83 x 48 In)
Weight	340 Kg (750 lbs.)
Weight with packaging	370 Kg (816 lbs.)

Accessibility	Wheelchair access appropriate (ADA compliant), Environmental light
Branding Options	Company logos/front surface/full charger vinyling
Connectivity	Ethernet, 4G/LTE, WiFi
Backend Communication Protocol	OCPP 1.6J, OCPP 2.0 (Hardware Ready), Plug & Charge (Hardware Ready)
Commissioning Interface	Local (via Ethernet and without extra software) and remote webmanager
Diagnostics	Auto-diagnostics system

User Interface	10” Anti-vandal Color Touch Display (sunlight readable), LED status lights
Authentication	App (OCPP) / RFID (MI-FARE ISO/IEC14443A/B, ISO/IEC15693, ISO/IEC18000-3, FeliCa, NFC)
Ad-Hoc Payment	Credit Card Reader (various options available)

Metering	AC, DC Meter (per output)
Charging Compliance	CCS (DIN 70121; ISO15118; SAEJ1772) IEC 61851-1; IEC 61851-23; IEC 61851-21
Safety Compliance	UL 2202, UL 2231
EMC Compliance	FCC 47 CFR Part 15B, CAN ICES-003A / NMB-003A

[1] Supernova 60 may be upgraded to Supernova 180. In that case, the cables may be upgraded, and therefore the max current output may be upgraded to 350 A.

Specifications are subject to change to improve design, function and others.

GETTING STARTED

Datasheet 180

DC Connectors	CCS1+CCS1
Charging Protocol	ISO15118, DIN SPEC 70121, SAEJ1772
Cable Length	5 m (16.4 ft)
Cable Management	Retracting the cable to its initial position
Output Power	180 kW
Nominal Efficiency	95%
Power Factor	>0.98
THD	5%
Standby Consumption	< 100 W
Output Voltage	150-1000 V
Max Output Current	350 A
Supply Input Voltage Range	480 V ± 10%, 60 Hz; 3P+PE
Max Supply Input Current	235 A
Split Charge	Simultaneous charge of 2 outputs
Environmental Ratings	IP54, IK10, 6560 ft (2000 m) altitude, NEMA 3R
Operating Temperature	-40°C to 50°C (-22°F to 122°F)
Storage Temperature	-40°C to 85°C (-22°F to 185°F)
Cooling System	Active air cooling
Operational Noise Level	Low Noise Mode: <65 dBA @ 1 m (3.3 ft)
Humidity	5% to 95% Non-condensing
Dimension with holster	2000x453x868 mm (78.7x17.8x34.2 In)
Dimension without holster	2000x453x714 mm (78.7x17.8x28.1 In)
Dimension with CMS	2136 x 453 x 1219 mm (84 x 17.83 x 48 In)
Weight	400 kg (882 lbs.)
Weight with packaging	430 kg (948 lbs.)
Accessibility	Wheelchair access appropriate (ADA compliant), Environmental light
Branding Options	Company logos/front surface/full charger vinyling[1]
Connectivity	Ethernet, 4G/LTE, WiFi
Backend Communication Protocol	OCPP 1.6J, OCPP 2.0 (Hardware Ready), Plug & Charge (Hardware Ready)
Commissioning Interface	Local (via Ethernet and without extra software) and remote webmanager
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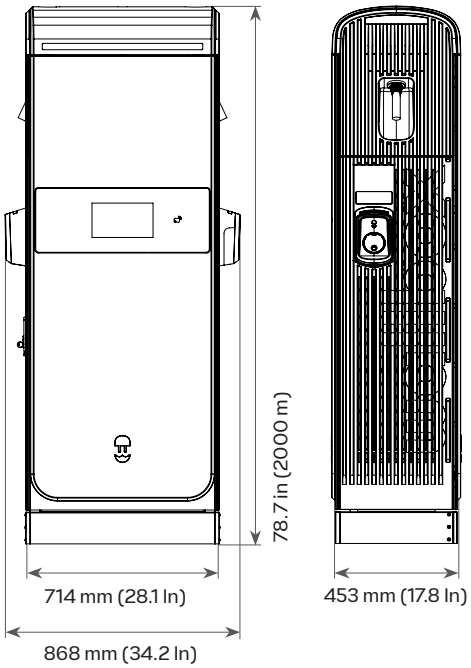


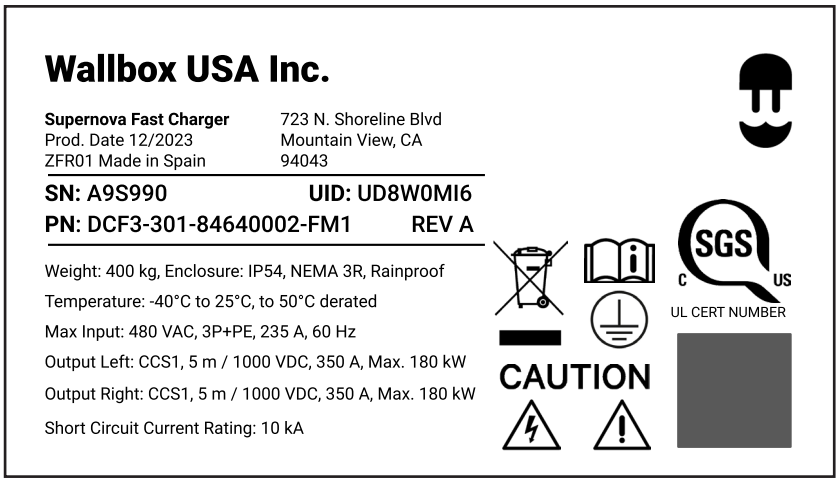
Specifications are subject to change to improve design, function and others.

GETTING STARTED

Nameplate and Copyright

Nameplate

Depending on the configuration of the charging station, a nameplate will be located on the device.



Copyright

NOTE

In case of any discrepancy between metric and imperial measurements and values in this document, take the metric value as being correct.

GETTING STARTED

Manufacturer Contact and Information

WALL BOX CHARGERS S.L.U.

CIF/NIF	B66542903
Registered office	723 N. Shoreline Blvd
	Mountain View, CA
Zip Code	94043
City	San Francisco
Country	USA

eSolutions Costumer Care Support

Reach us by email at supportf2m@f2m-esolutions.com; or if you prefer to speak with a representative over the phone, call us at 1-833-32-CHARGE (1-833-322-4274)

Glossary

AC: Alternating Current.

CCS: Combined Charging System.

DC: Direct Current.

EV: Electric Vehicle.

MCB: Miniature Circuit Breaker.

OCPP: Open Charge Point Protocol. An open standard that allows communications with the charging point.

RFID (Radio Frequency Identification): is a form of wireless communication that incorporates the use of electromagnetic or electrostatic coupling in the radio frequency portion of the electromagnetic spectrum to uniquely identify an object.

GETTING STARTED

Warranty

The warranty period for this EV charger is two years (parts only). Extended warranty and maintenance plans are available. Please contact Free2move eSolutions for warranty coverage. During the warranty period, eSolutions will provide ongoing technical support to help troubleshoot any technical issues. For terms and conditions, and warranty exclusions, see refer to the Warranty Support & Maintenance Service Program Manual.
Contact eSolutions Customer Care Support for more information.

GETTING STARTED

Important Safety Instructions

Save these instructions

This manual contains important instructions for Models Supernova 180, 120, 60 that shall be followed during installation, operation, and maintenance of the unit.

NOTE
When the instructions are the same for all models, specific model numbers are not required to be specified.

Safety Icons

A. 

Hot surface, risk of burn. Some internal components of Supernova can remain hot long after the power supply has been disconnected.

Make sure that the components have cooled down before disassembly, repair, or replacement.

B. 

Flying debris, risk of injury. Flying debris may cause eye, head, and ear injuries. Workers need to be very careful when at risk using appropriate PPE.

C. 

Heavy object, risk of injurious strains. Take into consideration that the components of Supernova can be hefty. Be careful when lifting them to avoid back injuries.

D. 

CAUTION. Follow all the safety and installation instructions carefully. Failure to follow instructions may be a safety hazard and/or cause equipment malfunction.

E. 

Sharp element, risk of injurious cuts. Take care to avoid injuries from sharp elements.

F. 

Ground earth connection required. Take care to ground electrical currents to protect your installation, equipment, appliances and charging site from surges in electricity. If your electrical system is grounded, all of the electricity in excess will go into the earth.

Important Safety Instructions

G. 

Special waste treatment. To protect public health and environment, make sure that your special waste is transported by a registered waste carrier at authorized sites.

I. 

Risk of foot crush. Be careful when assembling and disassembling components so that they do not crush a human body or body part.

H. 

Risk of electric shock. The capacitors located on the Electronic Board position C10 store hazardous energy. Test before starting any service activity. Do not remove cover until 3 minutes after disconnecting all sources of supply to ensure all capacitors are discharged. Installation and maintenance must be carried out only when the power is off. Switch off the main switch of Supernova before proceeding and make sure that the electrical power is disconnected.

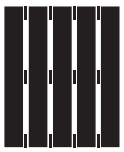
Supernova works at high electrical voltage, so only qualified personnel are permitted to install and maintain its components. Consequently, only qualified personnel are allowed to service it.

GETTING STARTED

Installation Kit & Required Tools

A. Charging Point

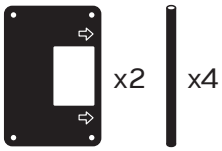
B. Pallet



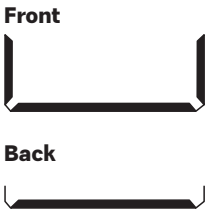
C. Installation Guide

D. Key*

E. 2 lavel plates
+ 4 threared bars



F. Foot coverback
+ front



G. Nuts M16
(5/8)

H. Washer M16
(5/8)

I. Screws M5x8
(8-32)

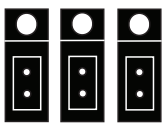
J. Screws M6x12
(4-24)

K. Cable Entry Plate

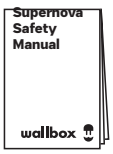
L. Eye bolts 580 M16
(5/8)

M. Screws M5x12
(10-24)

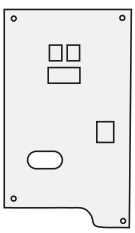
N. Protective
Screens



P. Safety Manual



O. Panel A Protective
Screen



*The key to lock the Supernova is stored in the internal knob located in the front door.

GETTING STARTED

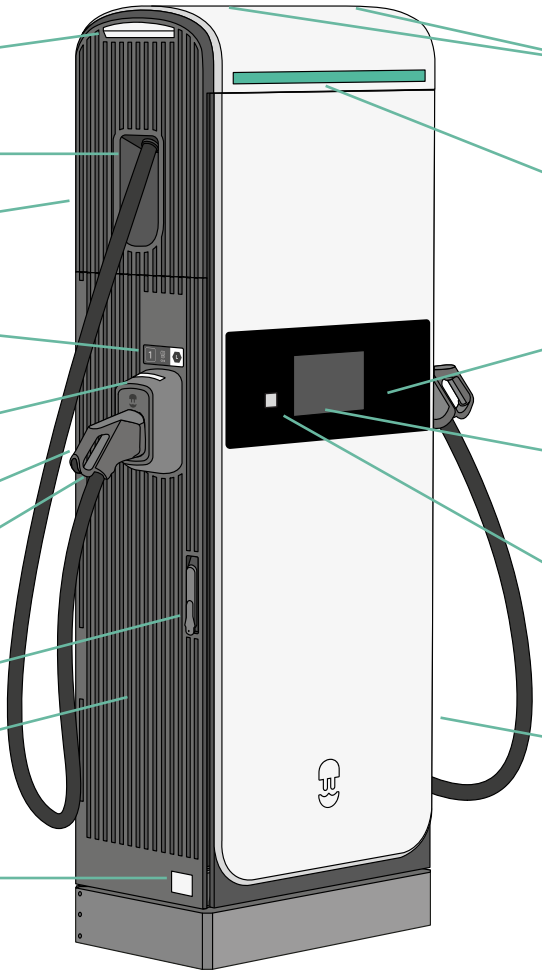
Installation Kit & Required Tools

The following tools are recommended for the installation (not provided):

- 2x wrench (size 24 mm - 0.984 In) for M16 (0.629 In) nuts.
- Torx screwdriver (size T30 - 0.147 In) for M6 (0.236 In) screws.
- Socket wrench (size 18 - 0.708 In) for M12 (0.472 In) hexagonal screw.
- Optionally: wrench or wrench (size 19 - 0.748 In).
- Allen key for DIN 912 M5 screws (0.196 In).
- Hexagon socket wrench for M8 (0.314 In).

External view

The image below shows the external view of Supernova Fast Charging station.



1. Charger Ambient Light

2. EV Cable 1 Exit

3. Back Panel*

4. EV Cable 1 Instructions*

5. EV Cable 1 holster Light*

6. EV Cable 1 Holster*

7. Hose Connector*

8. Access Key-Lock

9. Air intake

10. Product Label

11. Threads for eye bolts

12. Beacon Light

13. Credit card reader

14. 10” Touch Display

15. RFID Reader

16. Air outtake

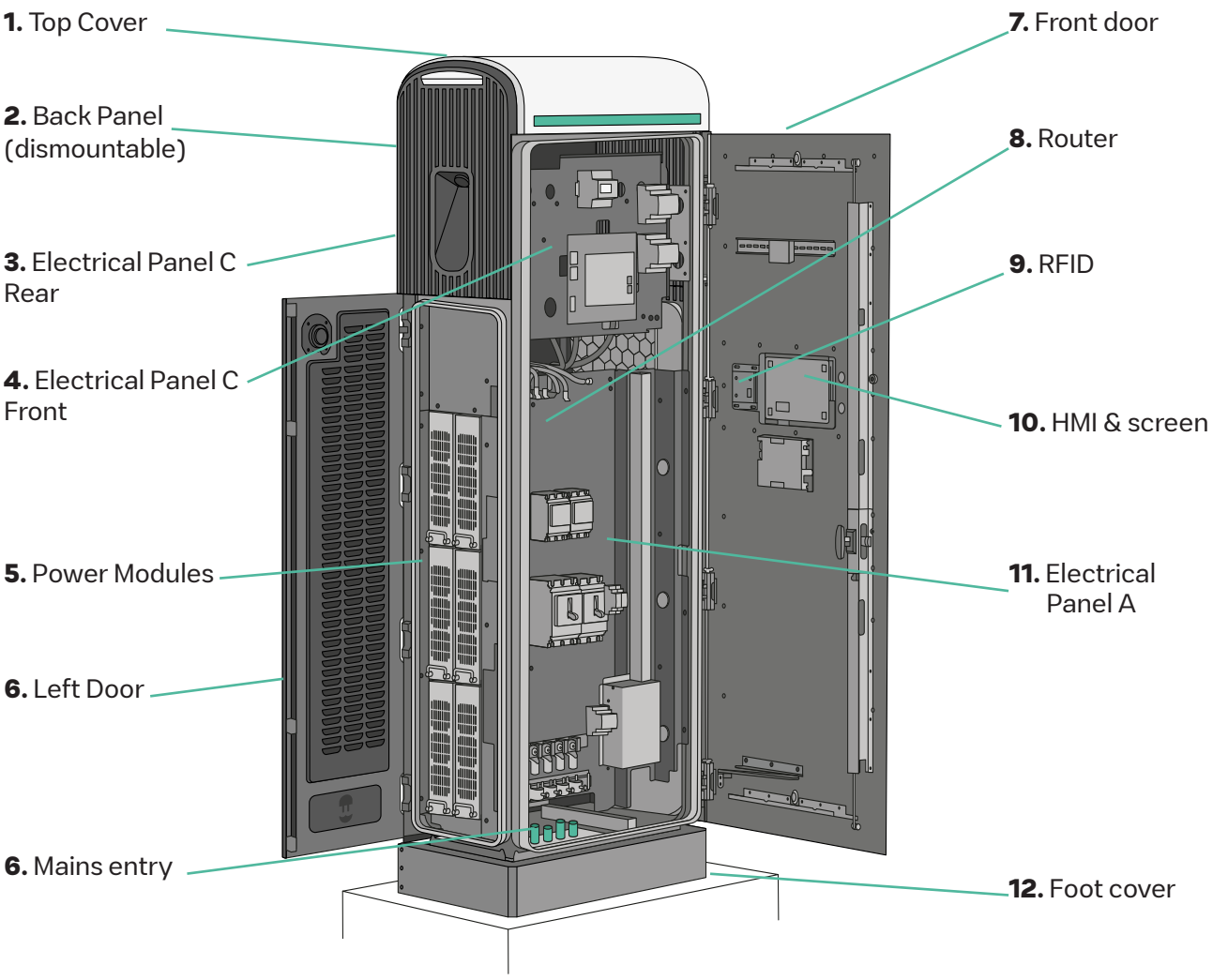
NOTE

- EV stands for electric vehicle.

*Equivalent for EV Cable 2 is located on the other side

Internal view

The image below shows the internal view of Supernova Fast Charging station.



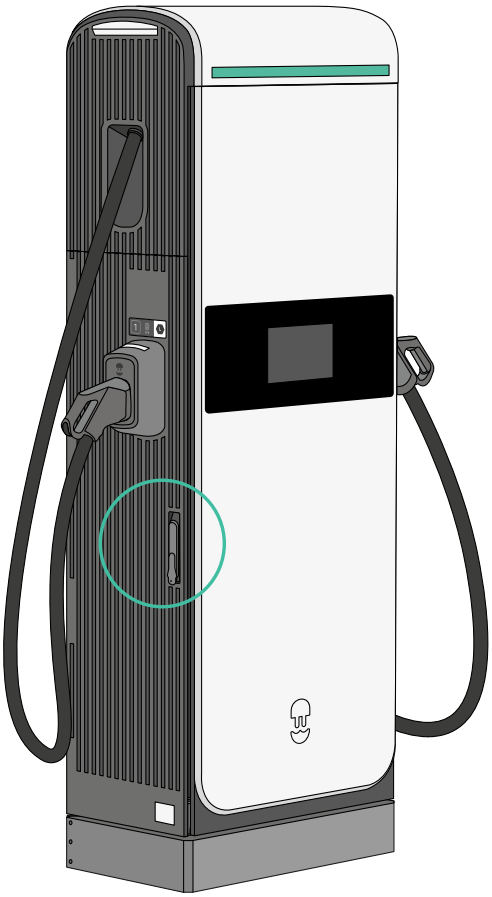
NOTE

- The Cable Management System is not included in the image. If this product has been purchased together with the Supernova, please follow the CMS Installation Guide included in the package for more information.

Door and Keys Instructions

Introduction

Supernova has three doors: one on the left side, one in the front, and the last one on the right side. The doors must always be opened sequentially from left to right. The Supernova also has a back panel which cannot be seen in this image which provides access to the charger if a charging cable (CCS) needs to be replaced.



NOTE

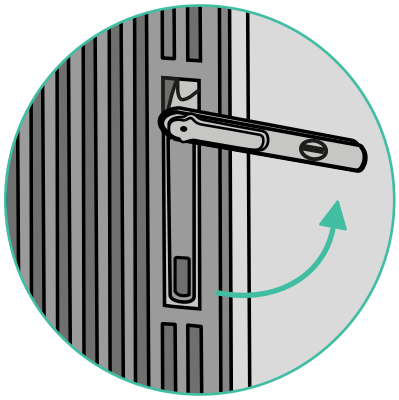
The key to lock the Supernova is stored in the internal knob located in the front door.

Door and Keys Instructions

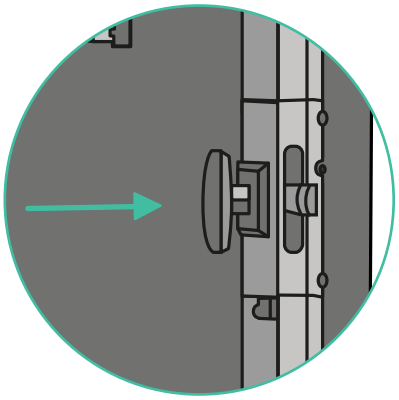
Instructions

For an easier interaction, before opening the doors, unplug the EV cables and , and store them carefully to prevent any damage to the cables, charging connectors, and to prevent a trip hazard.

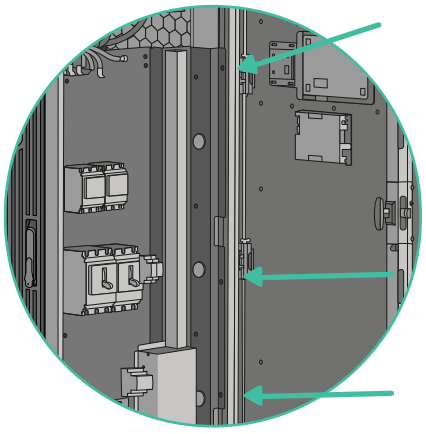
1. Turn the handle to the right and pull the door.



2. Turn the handle inside the charger and push the door to open it.



3. To open the right side door, press the buttons placed inside of Supernova.



4. To close the charger, start from the right door. Then, close the front door and finally lock the left side door by using the key.

Apply a counter-pressure on the door if needed to facilitate the unlock. When closing the right door, apply equal pressure on the upper, middle and bottom to ensure that the buttons close correctly.

DISCLAIMER

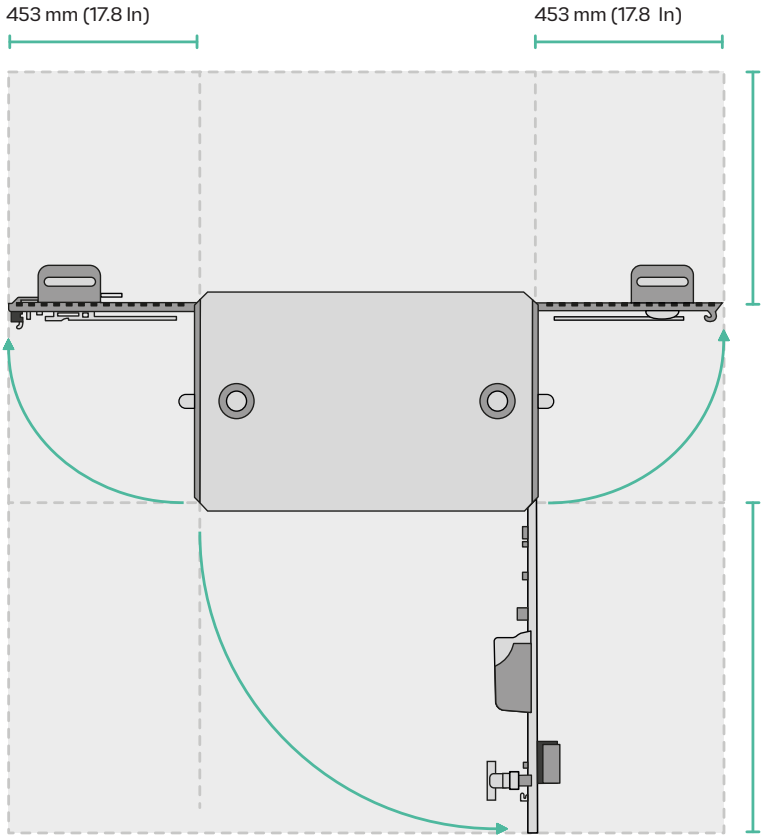
Make sure to close Supernova completely to maintain the IP rating of the charger, therefore avoiding water ingress.

Site Requirements

During the installation, leave a required minimum distance from possible objects around the Supernova to allow the door to open and facilitate maintenance operations.

The image below gives the dimensions of Supernova with the doors opened. Please ensure the required space for maintenance on all sides without obstructions.

Wallbox recommends a minimum of 1 meter of clearance on each side for the Supernova.



NOTE:

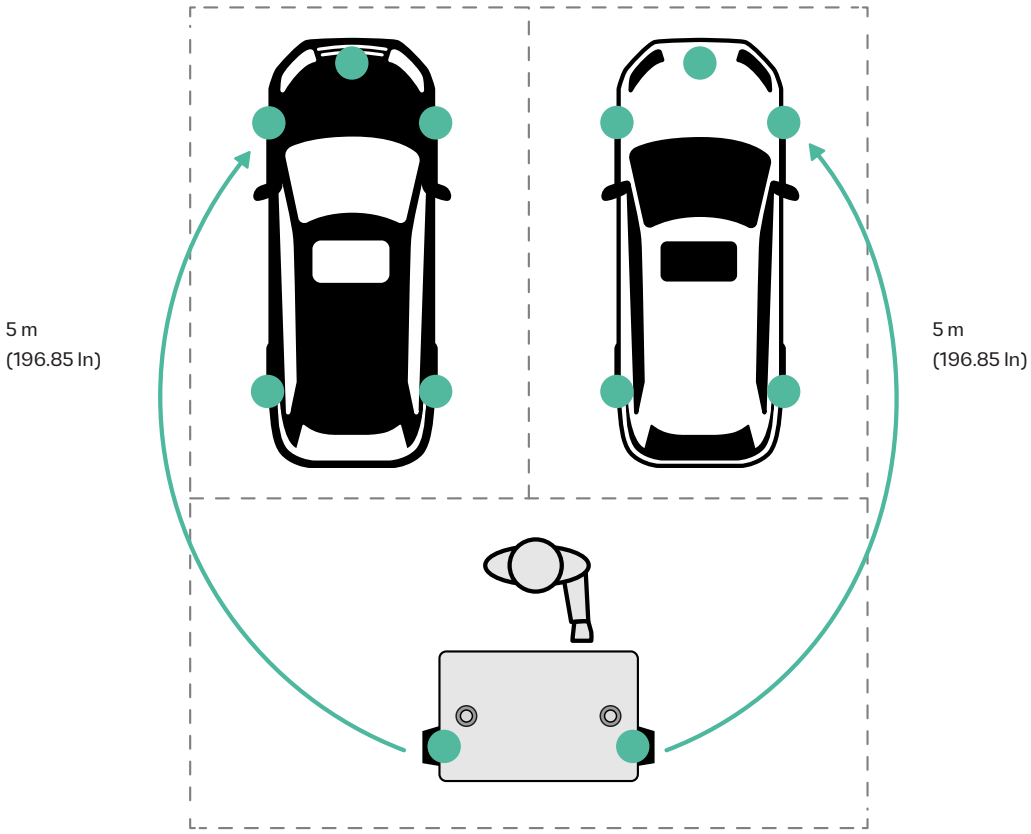
Site specific to allow the removal of the back panel. Panel removes vertically. Minimum 1 m (3.28 feet).

IMPORTANT

- Access to back panel is required. Make sure to leave the required space to the rear of the charger.
- Make sure to install buffers or bollards to prevent the charger from being hit by a vehicle.
- Ensure that doors can be easily opened for maintenance work to be carried out efficiently.
- The charger must be installed in areas without risk of flooding.
- An intensive exposure to dust may lead to a higher ratio of filter replacement and must be therefore avoided.

Cable Reach

The Supernova fast charging station comes with a 5 m (196.85 In) cable. The following image shows the cables' operating radius..



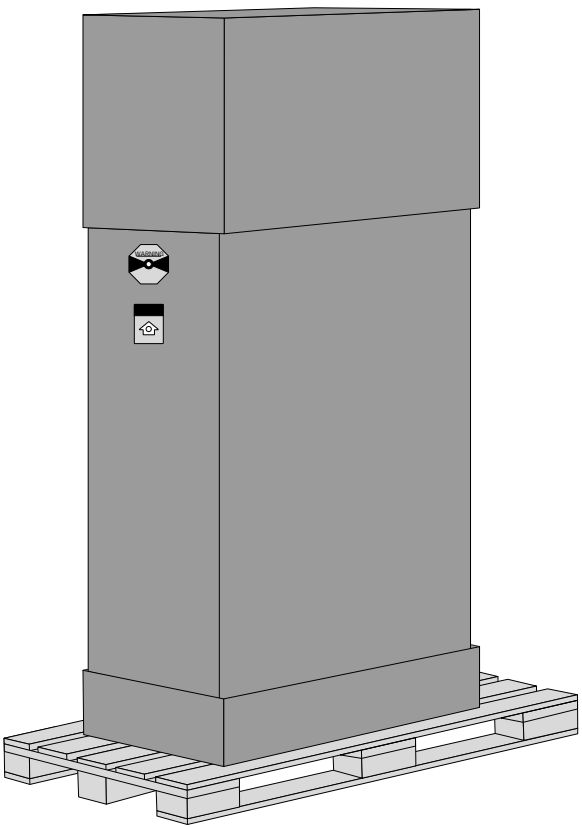
Reception

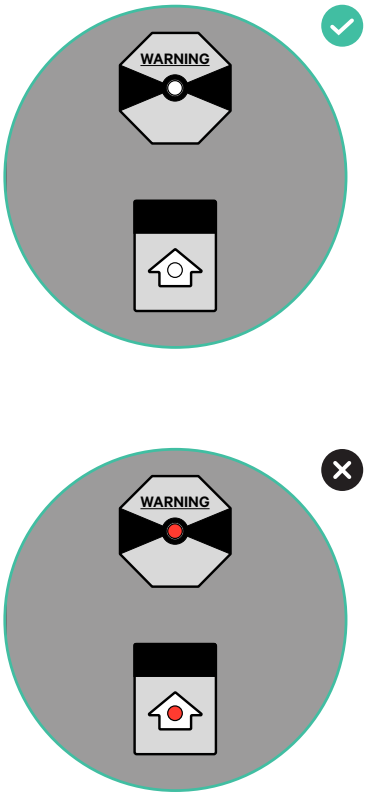
Tilt

If the indicator point is red, this package has exceeded its tilting angle.
Make a note on the bill of lading and check for damage. Any tilt claims depend on this note.

Impact

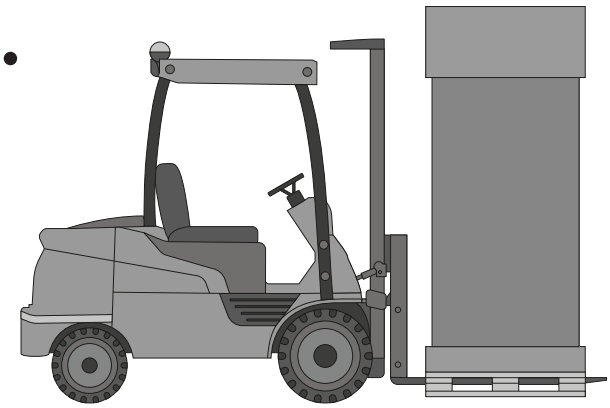
If the indicator point is red, this package suffered an impact or was dropped during transport. Make a note on the bill of lading and check for damage. Any impact claims depend on this note.



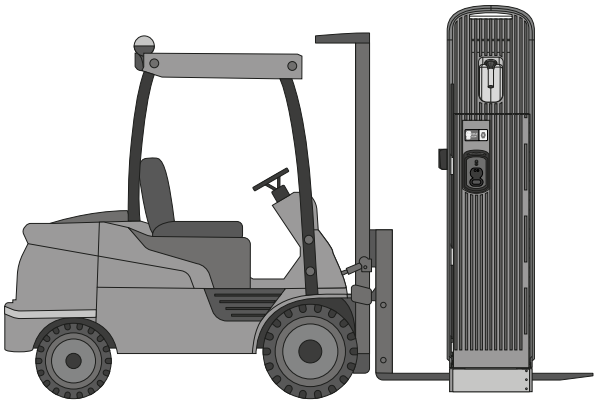


Transport

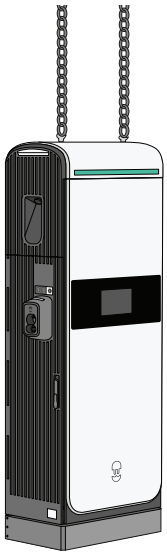
A.



B.



C.



The base of the charging point will be screwed to an EU-pallet with two metal plates held by four M6 nuts (1/4). Therefore any lifting system compatible with the EU-pallet could be used to lift it, move it and transport it to the place of the installation.

REMEMBER
Transport the Supernova vertically to avoid damaging the equipment.

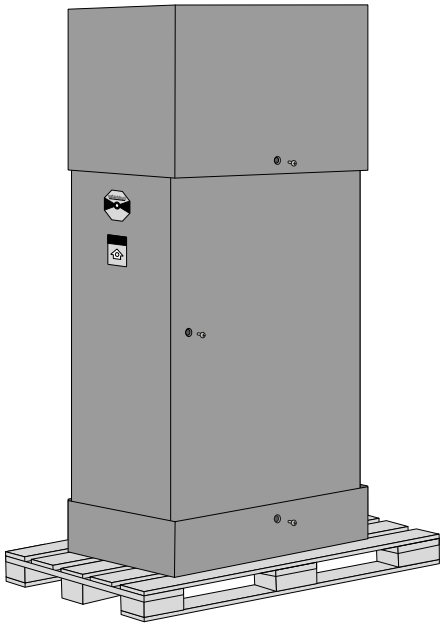
To lift the charger, place the forklift under the EU pallet or directly under the foot of the charger, and ensure it's stable before moving it.

The Supernova can also be transported using a crane. In this specific case, remove the external top cover and the internal top cover of the packaging. Then, mount the eye-bolts on top of the charger. Look at the "Final Steps" section of this manual for more information (page 32).

In both cases, ensure not to damage the charger during the lift.

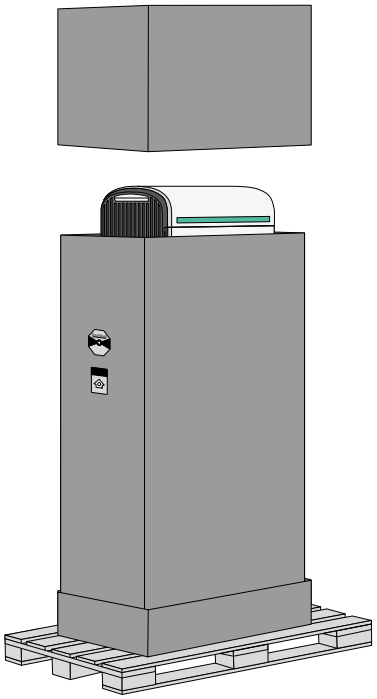
For the Supernova 180, the forklift or crane's lifting capacity must be greater than or equal to 430 kg (lbs). In the case of the Supernova 120 or Supernova 60 the lifting capacity needs to be greater than 400 kg (882 lbs) and 370 kg (816 lbs) respectively.If you have ordered a Supernova with a Cable Management System please allow for another 20 kg (44 lbs)."

Unpacking



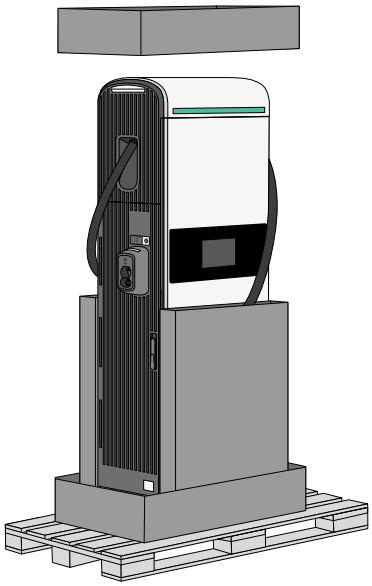
1. Make sure to have enough space to unpack the charger.

Six M10x35 (3/8-16) plastic screws shall be unscrewed from the front and back of the packaging.

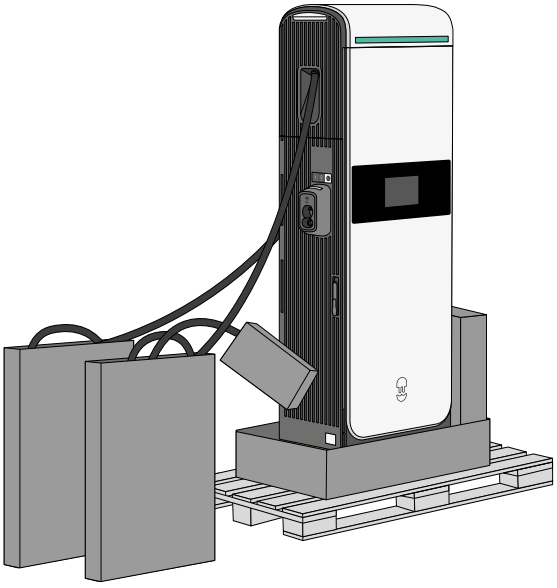


2. Take out the external and the internal top cover.

Unpacking

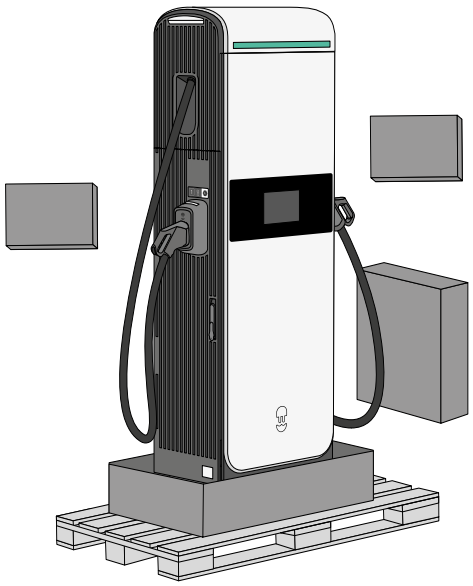


3. Remove the side parts of the packaging to take out the internal top cover.

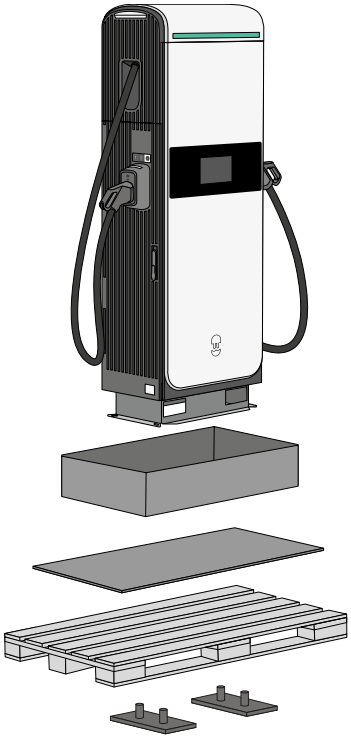


4. Take out the hoses from the boxes placed in front and in the back of the charger.

Unpacking



5. Unpack the EV plugs and connect them to the holsters. Then, unpack the installation kit.



6. Carefully lift the charger with a forklift or crane before unscrewing the four M12 (1/2) nuts and take out the two plates at the bottom of the pallet.

IMPORTANT
Check the Ground Works section for further instructions. (page 23)

NOTE
If you have ordered the Cable Management System for Supernova 60/180, it will be included in the Supernova packaging. For more specific information, check the CMS Installation Guide referring to Supernova 180.

MECHANICAL INSTALLATION

Ground Works

Supernova can be fixed to the ground by using:

- The eSolutions installation kit.
- A concrete footing compliant with the eSolutions installation kit.
- Chemical anchors.

Using the eSolutions installation kit

Structural engineering work must be carried out in accordance with local regulations and as specified below:

- The concrete used for the foundation must be standard ready-mix concrete and be resistant to frost.
- The charger must be fixed to the ground and be perfectly level. If there is a gap between the bottom of the Supernova and the ground below it the IP rating of the charger will be compromised.
- It will be necessary to level the system without the use of washers or other objects that do not guarantee integral and continuous contact between the base of the charging point and the ground.
- To perform the electrical connection, make sure not to cut the conduit at the ground level to prevent water ingress to the charger.

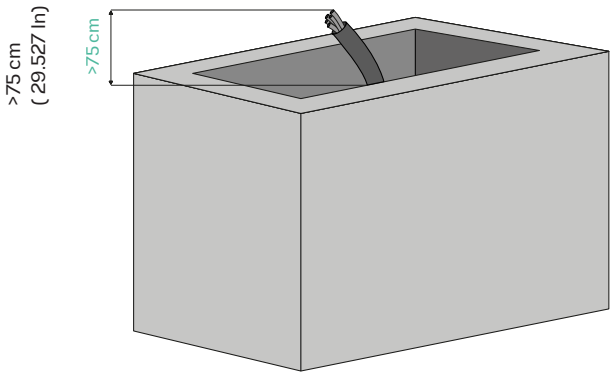
Steps

Material

Assembly	Part	Size	Torque	Quantity	Recommended Tools
Foundation	Level Plate Supernova	360x701 mm (14.173x27.598 In)	-	2	Not Applicable
Foundation	DIN 976-1 B	M16x500 mm (19.685 In)	-	4	Not Applicable
Foundation	NUT DIN 934	M16 (0.629 In)	80	16	2x Wrench (size 24 mm) (0.984 In)

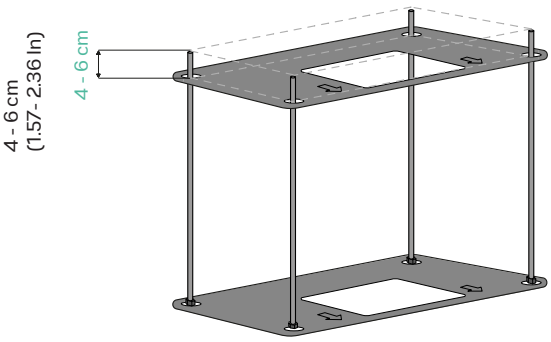
MECHANICAL INSTALLATION

Ground Works



1. Dig a hole, respecting the minimum dimensions of the level plate and leaving some extra space around it. The resulting depth shouldn't be less than 45 cm (17.716 In). The cables must be loose enough and protrude a minimum of 75 cm (29.527 In) above the surface to permit an electrical connection to the charger.

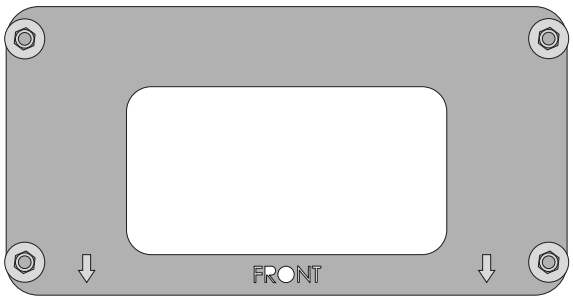
IMPORTANT: For optimal setup, use two cables per phase of 3/0 AWG (95 mm^2), totaling six cables, along with two earth cables of 4 AWG (25 mm^2). For further information, refer to page 29.



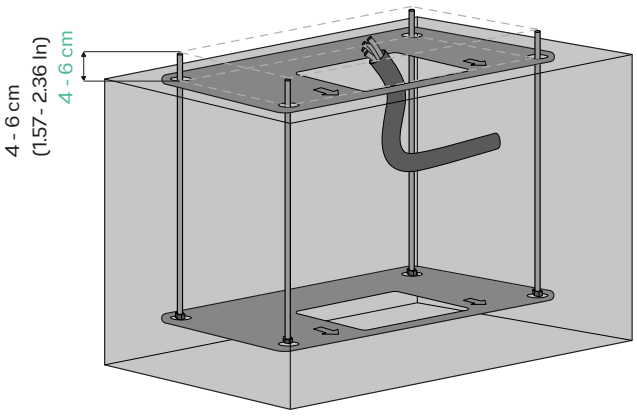
2. Assemble the whole foundation. First, attach one of the level plates to one end of the bars using 8xM16 nuts (5.039 In), 4 above each plate hole and 4 below each plate hole. Subsequently, attach the upper-ground plate using 4xM16 washers and 4xM16 nuts (2.519 In). The rest of the washers and nuts are going to be used for anchoring the charger to the ground.

MECHANICAL INSTALLATION

Ground Works



3. Place the installation kit into the hole, respecting the “Front” direction of the upper plate.



4. Fill the concrete base to ground level. The lower plate should be buried in the concrete, 45 cm (17.71 In) below ground. On the upper plate, the four threaded rods should protrude 4 cm to 6 cm (1.57- 2.36 In) from the ground.

REMEMBER

The concrete shall never exceed the upper-level plate to ensure that the Supernova anchors on a flat surface.

5. Let the concrete dry completely. Concrete dries at different rates depending on humidity, temperature, and the provider. Make sure it is completely dry before moving to the next steps.

MECHANICAL INSTALLATION

Ground Works

Alternative ground preparation methods are described below.

Prefabricated concrete foot with eSolutions compatible mounting plate

Check the manual provided by the supplier of the prefabricated concrete foot before proceeding with the installation.

Chemical anchors in concrete

1. Using the level plate as an indicator, drill to make 4 holes in the concrete substrate and remove dust and debris from the floor, ensuring a clean surface.

   from the floor. Each hole should be 45 cm (17.71 In) deep.

2. Brush the holes to smooth the surface and remove the dust and debris from the holes.

3. Use a caulk gun to fill the holes with epoxy.

4. Take the 4 chemical anchor bolts M16 and place each one of them in one hole, making sure to rotate them while pushing them to the bottom of the holes. They should protrude typically between 4 to 6 cm (1.57- 2.36 In) above the ground. This may vary slightly and local expertise during this part of the installation is required.

   IMPORTANT

   Ensure the size of the hole drilled is larger than M16 to ensure that the M16 anchor bolts can be delivered into the hole that is also full of the epoxy. Please follow the instructions of the manufacturer of the chemical anchors to ensure the size of the holes drilled are the correct depth and diameter relative to the M16 bolts used.

5. Clean the area of any excess epoxy to ensure a clean surface.

6. Let the product dry completely.

Placing

Material

Assembly	Part	Size	Torque	Quantity	Tools recommended
Foundation	Washer DIN 125A	M16 (0.629 In)	-	4	Not Applicable
Foundation	NUT DIN 934	M16 x 500mm (19.685 In)	Row 2	4	Wrench (size 24 mm) (0.984 In)

1. Using the level plate as an indicator, drill to make 4 holes in the concrete substrate and remove the dust and debris from the floor. Each hole should be 45 cm (17.716 In) deep.

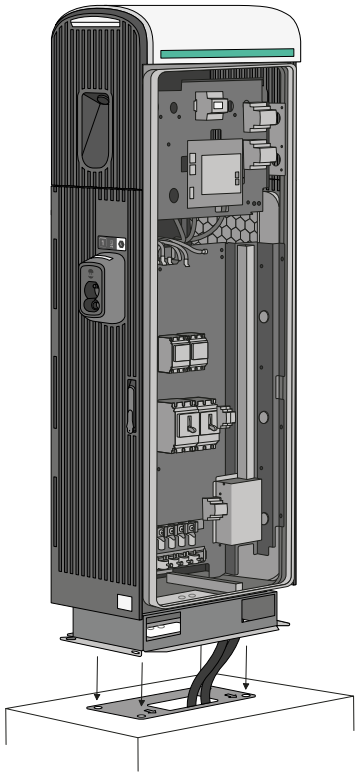
   DISCLAIMER
   Before placing the Supernova, ensure no nuts or washers are screwed to the threaded bars/rods.

2. Open the left side door with the key. Then, open the front door to route the entry cable.

3. Close again the left side door and fix the front door open.

4. Raise the Supernova with a forklift or a crane and place it above the four rods protruding from the ground.

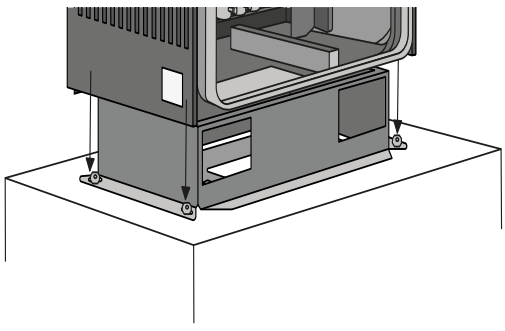
Placing



5. Carefully lower Supernova making sure to route the electrical cables through the centre of the charging point.

REMEMBER
Before lowering the Supernova, make sure the holes are aligned with the extremity are aligned with the extremity of the rods protruding from the ground as per step 4. Remember to keep the cables in the designated area.

IMPORTANT
The installer must be aware of the risk for crushing during this part of the installation and eliminate the possibility of any body part becoming crushed.



6. Use a spirit level (or equivalent) on each side of the Supernova to ensure the charger is level on all planes.

7. Screw the 4xM16 washers and nuts (2.519 In) using a torque of 24 Nm until the Supernova is completely and firmly anchored.

ELECTRICAL INSTALLATION

Grid Connection

Before any manipulation of the electrical installation ensure that the upstream grid connection is powered off and isolated according to local safety and electrical rules and regulations.

NOTE

- Go to the page 36 to check the electrical diagrams.
- The electrical connection is the customer's responsibility and should be carried out by a qualified professional.
- The Supernova must be connected to an electrical network with the following specifications: 3P+PE: 480 VAC 60 Hz.
- This unit is to be connected to a bonded/grounded, metal, permanent wiring system.

The wiring specifications must be according to local regulations. When dimensioning, keep in mind that the charger has a rated supply current of 235 A.

Supply Cabling Information

- For optimal setup for Supernova 180, the Supernova 120 upgradable, and the Supernova 60 upgradable, use two cables per phase of 3/0 AWG (95 mm^2), totaling six cables, along with two earth cables of 4 AWG (25 mm^2).
- Twin conductors per phase are required to meet the bending radius when terminating the supply cables inside the Supernova 180, the Supernova 120 upgradable, and the Supernova 60 upgradable.
- 95 mm2 is the max size conductor that can be terminated directly in the Supernova 180, the Supernova 120 upgradable, and the Supernova 60 upgradable.
- It is the responsibility of the local engineer/contractor to ensure the above meets or exceeds the Supernova 180, the Supernova 120 upgradable, and the Supernova 60 upgradable electrical load requirements. If larger cables are required then there must be a transition joint/connection before the supply cables are terminated in Supernova wih respect to the bending radius and max conductor size described above.
- When running the cables, always run two conduits, installing one circuit (3Ph+PE) in the first conduit, and the second circuit (3Ph+PE) in the second conduit. This is to prevent inductive reactance and de-rating of the cables.
- The maximum cable temperature should not exceed 75° C (167° F).

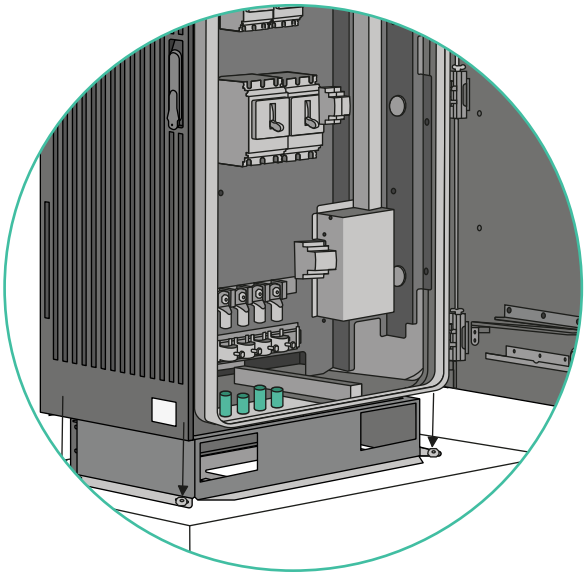
ELECTRICAL INSTALLATION

Grid Connection

- The Supernova is designed to receive copper supply cables from the upstream supply. If another conductor type, such as aluminum, is chosen to supply the Supernova, a transition joint between the copper conductor and the other metallic conductor must be performed outside Supernova.
- Prior to making each conductor ready for termination, carefully plan the the conduit entry of both circuits into the Supernova, and the cable routing to the Supernova main switch and main earth rail, mark the gland plate out accordingly and use the appropriate tool to drill holes of the required diameter.

Material

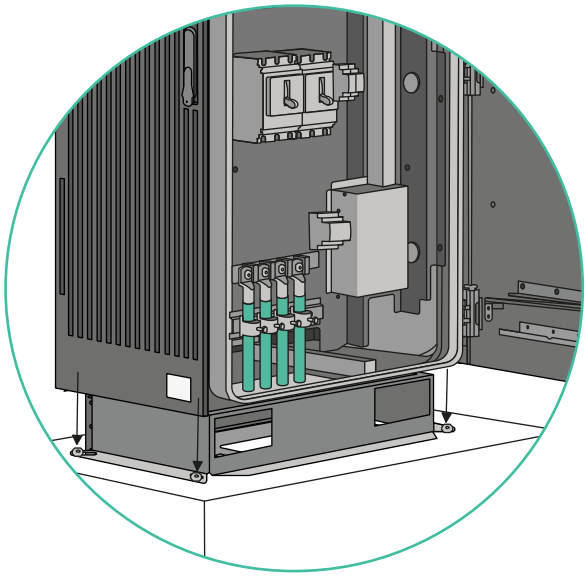
Assembly	Part	Size	Torque	Quantity	Tools recommended
Electrical Cabinet	Cable-entry-plate	-	-	-	Not Applicable
Electrical Cabinet	Grommets	-	-	5	Not Applicable
Electrical Cabinet	4 Screws	M5x12 (0.196 In)	-	4	Not Applicable



1. Locate the power input access at the bottom of the charging point and remove the protective screens providing shock hazard protection from the phase input electrical terminals.

ELECTRICAL INSTALLATION

Grid Connection



2. Remove the cable entry plate and line up the cables for each phase and earth to their respective terminals, then using this cable routing mark out the cable entry plate, drill holes to the correct size required, and install the appropriate cable glands. Pass the cables through their respective glands and once the correct cable routing has been achieved refit the cable entry plate to the charger ensuring it is secure and that it prevents ingress to the charger from foreign objects.

3. Terminate the cables to a length that they can be easily connected to the terminals without force. Use the 10 mm (0.394 In) socket adapter for the PE/Ground connection, and an 8 mm (0.315 In) Allen tool for L1, L2, and L3 conections. Check the torque level in the next step.

4. Connect the cables to L1, L2, L3, and PE following the instructions on the label.

480 VAC, 3 Ph+GROUND, 60 Hz

2x3/0 AWG per phase+2x4 AWG GROUND

USE COPPER CONDUCTORS ONLY

L1, L2, L3: 200 LB - IN/22 Nm

GROUND: 70 LB - IN/8Nm.

Ensure that each phase and PE/ Ground for each twin circuit is correctly routed, tightened, terminated and not providing any tension to the input terminals.

ELECTRICAL INSTALLATION

Grid Connection

5. Re-install the protective screens providing shock hazard protection from the phase input electrical terminals

6. Before closing/re-energizing the circuit breaker that is used to isolate and protect the Supernova charger, ensure that all electrical switches in the Supernova charger are placed in the off/de-energised position and all phase protective screens and the panel A protective screen are secure.

NOTE

In certain states, the local inspector must approve the installation before energization.

IMPORTANT

Do not initiate any charging sessions to electric vehicles before the commissioning process is completed and signed off.

FINAL MECHANICAL PREPARATION

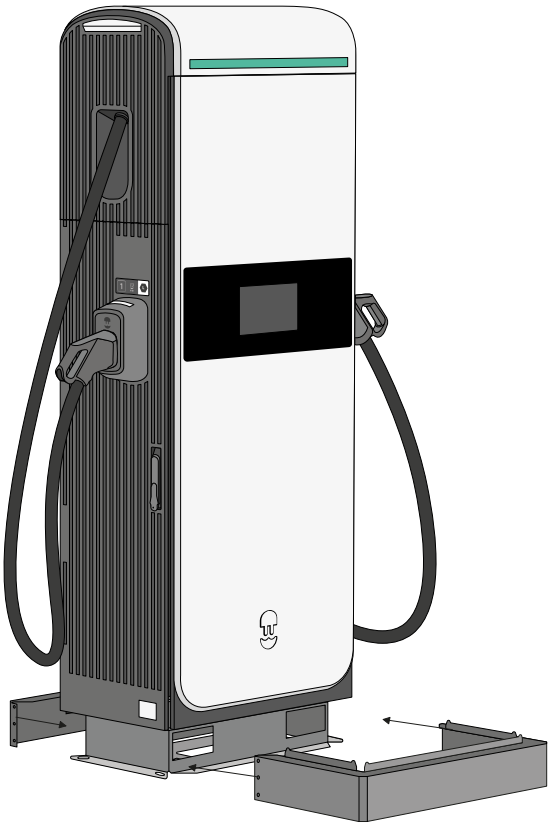
Final Steps

Material

Assembly	Part	Size	Torque	Quantity	Tools Recommended
Structure	Foot Cover Front	N/A	5	1	N/A
Structure	Foot Cover Back	N/A	5	1	N/A
Structure	Internal Screws ISO 7380-2	M5x8 (0.197x0.315 In)	-	7	Allen for M5 Screws
Structure	External Screws ISO 7380-2	M6x12 (0.236x0.472 In)	-	6	Torx for M6 rounded (1.4 In)
Top Cover	Top Cover Screws	M12x16 (0.472x0.629 In)	24	2	Socket wrench for M12 (15/32 In)
Top Cover	Washers	M12 (0.472 In)	-	2	N/A

FINAL MECHANICAL PREPARATION

Final Steps



1. Fix the front foot cover to the structure by screwing 7 screws (DIN 912 M5).

2. Fix the front foot cover with the back foot cover by screwing 6 screws on the sides of the Foot Covers (Torx for M6x12- 0.236x 0.472 In).

REMEMBER
The concrete shall never exceed the upper-level plate to ensure that Supernova anchors on a flat surface.

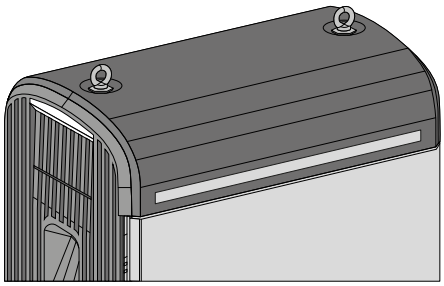
3. Close all doors carefully as specified in the Doors and Key section of this document.

FINAL MECHANICAL PREPARATION

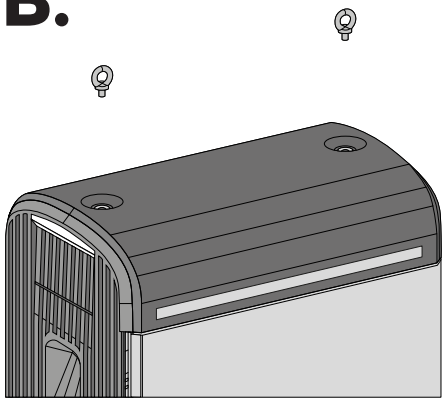
Final Steps

4. If you used a crane, remove the eye bolts from the top of Supernova and replace them with 2 top cover screws. This must be done to maintain the IP rating of the Supernova.

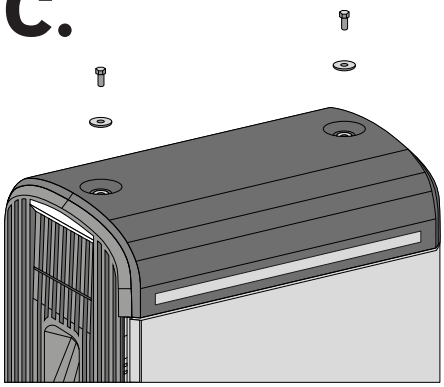
A.



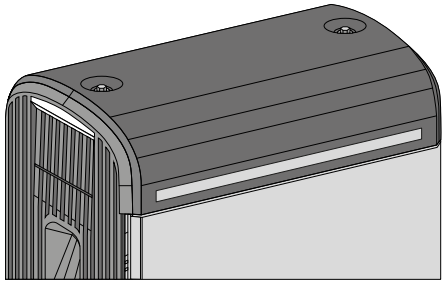
B.



C.



D.



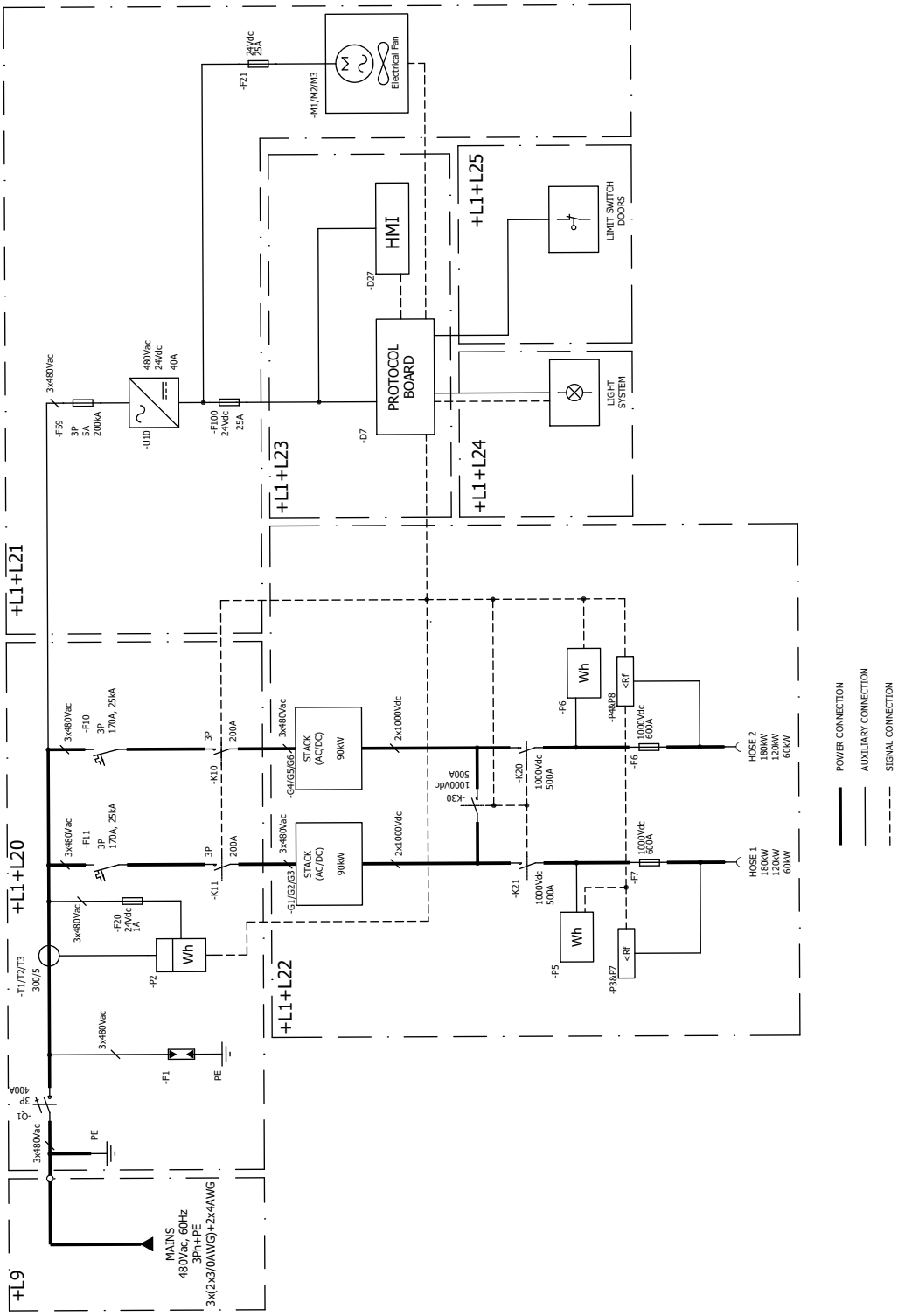
NOTE

After the installation has been completed, prior to use, the charger must be inspected and validated by an eSolutions approved Install Partner.

To commission a charger or for any support, please contact eSolutions Customer Care Support at supportf2m@f2m-esolutions.com; or by phone at 1-833-32-CHARGE (1-833-322-4274). To avoid any service related issues with your charger please ensure that the charger is ONLY commissioned and serviced by eSolutions Customer Care Support.

ELECTRICAL DIAGRAM

Single Line Diagram



OTHER

Notes