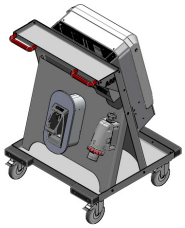
Terra DC wallbox accessories

	Description	Type	Order code	Weight Pkg (1 pce) (kg)
	Connector holder Plastic /cable holders to be ordered separately * Metal cable holders are provided with the product			
	CCS-1	TWB Ext.Con.Hol. CCS1	6AGC076604	4.66
	CCS-2	TWB Ext.Con.Hol. CCS2	6AGC076603	4.14
	CHAdeMO	TWB Ext.Con.Hol. J	6AGC076601	4.24
	Mobile cart including Terra DC wallbox Perfect fit for workshops at car dealers or at bus and truck depots Wheels are made of stainless steel, providing grounding of the cart to the earth The mobile cart is pre-assembled in the factory and delivered as one with Terra DC Wallbox already installed. Total weight: Mobile cart 70 kg + Terra DC wallbox 70 kg CCE inlet connector 63A 5P IP67 AC cable from the wall plug to the mobile cart is **not** provided with the product			
	Terra DC wallbox CE 24 kWp, 3 phases, CCS, 3.5 m cable, EMC Class B including mobile cart, CE	TWB CE 24 C 3T-7M-0-0 + mobile cart, CE	6AGC102583	140
	Terra DC wallbox CE 24 kWp, 3 phase, CCS, 7 m cable, EMC Class B including mobile cart, CE	TWB CE 24 C 7T-7M-0-0 + mobile cart, CE	6AGC102584	140
				

Warranty			
Total warranty time of 3 years (standard warranty 2 years + 1 year)	EVC Extended warranty 3 yr	6AGC100306	-
Total warranty time of 4 years (standard warranty 2 years + 2 year)	EVC Extended warranty 4 yr	6AGC100307	-
Total warranty time of 5 years (standard warranty 2 years + 3 year)	EVC Extended warranty 5 yr	6AGC100308	-

Technical specification

	DC Wallbox 24 kW IEC version	DC Wallbox 24 kW UL version 1-phase	DC Wallbox 24 kW UL version 3-phase
DC output connection			
Charging mode	Type 4: CCS 2, CHAdeMO	Type 4: CCS 1, CHAdeMO	Type 4: CCS 1, CHAdeMO
Number of outputs	Standard: single output CCS2	Standard: single output CCS1	Standard: single output CCS1
	Optional: dual output CHAdeMO + CCS 2	Optional: dual output CHAdeMO + CCS 1	Optional: dual output CHAdeMO + CCS 1
Number of simultaneous charging session	Single	Single	Single
Output power rating	0 … 22.5 kW, 24 kW (peak)	19.5 kW - 208 V 22.5 kW - 240 V	0 … 22.5 kW, 24 kW (peak)
Output current	60 A DC	60 A DC	60 A DC
Output voltage	CCS: 150 … 920 V DC CHAdeMO: 150 … 500 V DC	CCS: 150 … 920 V DC CHAdeMO: 150 … 500 V DC	CCS: 150 … 920 V DC CHAdeMO: 150 … 500 V DC
Average efficiency at full power	≥ 95 %	≥ 95 %	≥ 95%
AC input connection			
Earthing system	3P, N, PE	2 wire (e.g. L1 - N, L1 - L2) + PE Note that a neutral wire may not be available.	3P, N, PE
Input current	3-phase, 40 A	100 A	3 phase, 32 A
Input voltage	3-phase 400 V AC +/- 10 %	208 … 240 V AC two wire +/- 10%	3 phase 480 V AC +/- 10 %
Input frequency	50 Hz	50 / 60 Hz	50 / 60 Hz
Input protection	External circuit breaker (not Included)	External circuit breaker (not Included)	External circuit breaker (not Included)
Power factor	> 0.96	> 0.96	> 0.96
Harmonic distortion (THDi)	< 8 %	< 8 %	< 8 %
General characteristics			
Dimensions H x W x D	770 x 584 x 294 mm 30.31 x 22.99 x 11.57 inches	770 x 584 x 294 mm 30.31 x 22.99 x 11.57 inches	770 x 584 x 294 mm 30.31 x 22.99 x 11.57 inches
IP rating	IP54	IP54	IP54
IK rating	IK10 (IK08 for HMI)	IK10 (IK08 for HMI)	IK10 (IK08 for HMI)
NEMA enclosure type		NEMA 3 outdoor	NEMA 3 outdoor
Operating altitude	2500 m (8200 ft)	2500 m (8200 ft)	2500 m (8200 ft)
Operating temperature range	-35 … +45 °C	-35 … +45 °C	-35 … +45 °C
Mounting	Wall or floor using a pedestal	Wall or floor using a pedestal	Wall or floor using a pedestal
Emergency stop button type	Push button	Push button	Push button
Electromagnetic compatiblity	IEC 61000-6-3 Class B, suitable for residential environment	EMC Class A	IEC 61000-6-3 Class B, suitable for residential environment
User Interface			
Screen type	7 LCD touchscreen display	7 LCD touchscreen display	7 LCD touchscreen display
Languages	English as standard Others languages available via software configuration	English as standard Others languages available via software configuration	English as standard Others languages available via software configuration
Standby indicator	Yes	Yes	Yes
Connectivity	Cellular connection 3G/4G 2 port RJ45 Ethernet	Cellular connection 3G/4G 2 port RJ45 Ethernet	Cellular connection 3G/4G 2 port RJ45 Ethernet
Communication protocol	OCPP 1.5 / 1.6	OCPP 1.5 / 1.6	OCPP 1.5 / 1.6
User athentication	RFID (ISO 14443 A + B to part 4 and ISO/IEC 15693 Mifare, NFC, Calypso, Ultralight, PayPass, HID; and more)	RFID (ISO 14443 A + B to part 4 and ISO/IEC 15693 Mifare, NFC, Calypso, Ultralight, PayPass, HID; and more)	RFID (ISO 14443 A + B to part 4 and ISO/IEC 15693 Mifare, NFC, Calypso, Ultralight, PayPass, HID; and more)
	On-screen PIN code authentication	On-screen PIN code authentication	On-screen PIN code authentication
	OCPP support of ISO 15118 Plug&Charge is according to publicly available and commonly recognized implementation whitepaper Please contact your ABB local organization	OCPP support of ISO 15118 Plug&Charge is according to publicly available and commonly recognized implementation whitepaper Please contact your ABB local organization	OCPP support of ISO 15118 Plug&Charge is according to publicly available and commonly recognized implementation whitepaper Please contact your ABB local organization
Configuration			
Software update	OCPP 1.6, ABB web portal	OCPP 1.6, ABB web portal	OCPP 1.6, ABB web portal
Remote control and configuration via ABB Ability connected services	Authentication Payment Monitoring Remote diagnostic Repair	Authentication Payment Monitoring Remote diagnostic Repair	Authentication Payment Monitoring Remote diagnostic Repair
Remote control and configuration via local service tool	Please contact your ABB local organization	Please contact your ABB local organization	Please contact your ABB local organization
Certification and standards			
Codes and standards	EN 61851- 1 EN 61851-2 UL 2202	EN 61851- 1 EN 61851-2 UL 2202	EN 61851- 1 EN 61851-2 UL 2202
Certification	CE, EMC Class B	UL, FCC, EMC Class A	UL, FCC, EMC Class B
Warranty	24 months Warranty extention possible	24 months Warranty extention possible	24 months Warranty extention possible

—

For more information please contact:

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E-mail: info.evci@nl.abb.com

abb.com/evcharging

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MANUAL: NORTH AMERICA

Terra DC Wallbox

Single-phase Version Installation Manual

Revision 2.6

Revision level	Change	Date
2.1	Added revision level to document and added revision table	4-15-2021
2.2	Added ferrite information and changes pictures	10-22-2021
2.3	Added GID for optional gun holster – different connector type	03-16-2022
2.4	Added GID for minimal gun holster spare codes	03-31-2022
2.5	Added instructions to mounting gun holster	05-04-2022
2.6	Energy Star logo on the cover page	05-05-2023
2.7	Par. 5.4.1 note about number of people required to lift the DCWB	06-20-2023

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Contents

1 Introduction 6
1.1 Preface 6
1.2 Intended document users 6
1.3 Terra DC Wallbox hardware ordering details 6
1.4 Signs 7
1.4.1 Owner responsibilities 8
1.4.2 Tilting and handling 8
1.4.3 Sharp edges 9
1.4.4 Electric hazards 9
1.4.5 Installation safety 9
1.5 Environment and disposal of waste 9

2 Description of the product 10
2.1 Overview of the system 10
2.1.1 Complete overview 10
2.1.2 External view 11
2.1.3 Inside view 12

3 Installation Planning and Design 13
3.1 Internet connection 13
3.1.1 Internet via cellular connection 13
3.1.2 Internet via ethernet connection 13
3.2 Electrical requirements 13
3.2.1 Required electrical grid configuration 14
3.2.2 Overcurrent protection device 15
3.2.3 Conduit for power input wires 15
3.2.4 Specification for power input wires 15
3.2.5 Conduit for ethernet cable 16
3.2.6 Specification for ethernet cable 16
3.3 DC Wallbox placement 16
3.3.1 Charging cable reach 16
3.3.2 DC Wallbox position with respect to parking space 17
3.3.3 Required space for installing and maintaining the DC Wallbox 18
3.3.4 Ventilation and airflow required for the DC Wallbox 19
3.3.5 Considerations for where to position DC Wallbox vertically 19

4 Installation instructions 20
4.1 About construction 20
4.2 Instruction for a wall bearing 20
4.2.1 Mounting on a pedestal 20
4.3 Power feed 20
4.4 Internet connection 20

5 Receiving, Placing and connecting 21
5.1 Receiving the Wallbox 21
5.2 Unpacking the charging and mounting preparations 21
5.2.1 Unpacking 21
5.2.2 Mounting preparations 22
5.3 Move cabinet to position 23

5.3.1 Options 23
5.4 Mounting the Terra DC Wallbox 23
5.4.1 Mounting the Terra DC Wallbox 23
5.4.2 Install cable gland(s) or connect conduit to the unit. 27
5.5 Connect cables 29
5.5.1 Connect PE of power cable 29
5.5.2 Connect power cable 29
5.6 Instruction for Mounting the DC Wallbox Gun Holders 30
5.6.1 General 30
5.6.2 General description 30
5.6.3 Mounting instructions 31

6 Commissioning 33
6.1 Commissioning preparation 33

7 Maintenance and Cleaning of the cabinet 34
7.1 Recommended Periodic maintenance 34
7.2 Cleaning of the cabinet 34

8 Technical Data 35
8.1 Electrical data 35
8.2 Mechanical data 36
8.3 Environment 36
8.4 Certifications 36

9 Contact information 37

10 Appendix A – Mounting points 38
10.1 Terra DC Wallbox Charger wall mounting 38

11 Appendix B - Disposal instruction 39
11.1 Directive on Waste Electrical and Electronic Equipment (WEEE – 2012/19/EU) 39

12 Appendix C – Pedestal requirements 40

Glossary

AC
Alternating Current.

CCS
Combined Charging System. This is the name of the charging protocol of European and North American car makers.

CHAdeMO
DC fast charging method for electric vehicles.

Contractor
Entity hired by the owner / site operator to do engineering, civil and electrical installation work.

DC
Direct Current.

EV
Electric Vehicle.

Grid provider
Company responsible for the transportation and distribution of electricity.

HMI
Human Machine Interface; the display/screen on the charger.

NOC
ABB Network Operating Centre; remotely checks the correct functioning of the charger.

Owner
The legal owner of the charger.

OCPP
Open Charge Point Protocol. Open standard for communication with charge stations.

PE
Protective Earth.

PPE
Personal Protective Equipment.
Equipment such as safety shoes, helmet, glasses, gloves.

RCD
Residual Current Device. Breaks the connection if a residual current is detected.

RFID
Radio-Frequency IDentification. RFID is a communication technology by means of radio waves to transfer data over a very short distance between a reader and an electronic tag or card.

Site operator
This entity is responsible for the day to day control of the charger. The site operator can be the owner, but not necessarily.

User
The owner of an electric vehicle, who uses the Charge Station to charge that vehicle.

1 Introduction

1.1 Preface

This guide provides an overview for the installation of the Terra DC Wallbox.

The Terra DC Wallbox charging station is an easy to install DC fast charger for electric vehicles. Fast chargers 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). Local regulations shall take precedence if they list different installation requirements than prescribed in this Installation Manual.

The Terra DC Wallbox is offered in a variety of configurations and with multiple connector types. The different versions are described in section 1.3.

Before installing the Terra DC Wallbox, read this installation guide carefully and attentively. Be sure to follow all instructions when installing the charger. ABB is not responsible for any damage caused by not following or incorrectly executing the instructions described in this manual.

1.2 Intended document users

This document is intended to be used by:

- Customers who have purchased a Terra DC Wallbox or customers in the process of ordering and require additional details on installation.
- Contractors who are responsible for site preparation and/or installation of a Terra DC Wallbox.

1.3 Terra DC Wallbox hardware ordering details

ABB's Terra DC Wallbox single-phase is offered in the following configurations:

- Terra DC Wallbox C UL
- Terra DC Wallbox J UL
- Terra DC Wallbox CJ UL

C CCS-1 (Combo) standard
J CHAdeMO standard
CJ CCS-1 (Combo) standard and CHAdeMO standard

All variations are offered with charging cable lengths up to 7 meters (23 ft). The Terra DC Wallbox comes with the standard connector holsters as shown.

Charging cable type	ABB order code (**)
CCS-1	ABB6AGC076604
CCS-1 (*)	ABB6AGC109619
CHAdeMO	ABB6AGC102972

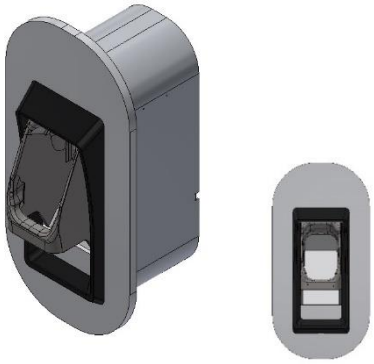
(**) the codes are referred to the spare parts. Minimal gun holster is included in the packaging

(*) CCS-1 minimal holster to be use in combination with products:

ABB6AGC107060	TWB UL 24 C 7M-7M-0-0
ABB6AGC107059	TWB UL 24 C 3M-7M-0-0

ABB6AGC107314	TWB UL 24 CJ 7M-7M-0-0
ABB6AGC109857	TWB UL 24 CJ 3M-7M-0-0

Optional connector holsters shown below may be purchased separately with the order code details shown below.



Charging cable type	ABB order code
CCS-1	ABB6AGC076604
CCS-1 (*)	ABB6AGC109619
CHAdeMO	ABB6AGC076601

(*) CCS-1 optional holster to be use in combination with products:

ABB6AGC107060	TWB UL 24 C 7M-7M-0-0
ABB6AGC107059	TWB UL 24 C 3M-7M-0-0
ABB6AGC107314	TWB UL 24 CJ 7M-7M-0-0
ABB6AGC109857	TWB UL 24 CJ 3M-7M-0-0

1.4 Signs

The following signs are used on the equipment and in this manual:

DANGER
Hazardous voltage
Identifies a hazard that could result in severe injury or death through electrocution.

WARNING
Various
Identifies a hazard that could result in severe injury or death.

WARNING
Rotating parts
Identifies a hazard that could result in injury due to the presence of rotating or moving parts.

WARNING
Pinch Hazard
Identifies a hazard that could result in injuries, in which some body parts are pinched or crushed.

CAUTION
Various
Identifies a hazard that could result in damage to the machine, other equipment, and/or environmental pollution.

CAUTION
Environmental damage
Identifies a hazard that could result in environmental damage and/or environmental pollution.

NOTICE
Contains remarks, suggestions or advice.

1.4.1 Owner responsibilities

The owner and site operator are required to:

- Operate the charge station with the protective devices installed and to ensure all protective devices are correctly installed after carrying out installation or maintenance work.
- Write an emergency plan that instructs people what to do in case of emergency.
- Prepare the site where the charge station will be installed according to the requirements described in this guide.
- Ensure there is sufficient space around the charger to carry out maintenance work.
- Appoint a person responsible for the safe operation of the charge station and for the coordination of all work.

The owner is cautioned that changes or modifications not expressly approved by ABB could void the owner's authority to operate the equipment and ABB's warranty policy.

Neither ABB nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs or expenses incurred by purchaser or third parties as a result of: an accident, misuse or abuse of this product or unauthorized modifications, repairs or alterations to this product, or failure to strictly comply with ABB's operating and maintenance instructions.

1.4.2 Tilting and handling

WARNING
Heavy equipment
The Terra DC Wallbox weighs approximately 70 kg. Follow the handling Instructions:
1. Two people are recommended for the installation and wall-mounting of a Terra DC Wallbox.
2. Do not drop the Terra DC Wallbox.

1.4.3 Sharp edges

WARNING
Sharp metal edges
There could be sharp metal edges inside the Terra DC Wallbox. It is recommended to wear mash protecting gloves when working inside the charger.

1.4.4 Electric hazards

DANGER
Hazardous voltage
The Terra DC Wallbox contains conductors under hazardous electrical voltages. The grid terminals on the internal DIN rail may carry hazardous voltages, even if all circuit breakers are switched off.

1.4.5 Installation safety

DANGER
Hazardous voltage
Instructions:
1. Always switch off the input circuit feeding the unit, (external disconnect or breaker) before performing any installation, disassembly, repair or replacement of components. Follow appropriate requirements for safe work practices, including but not limited to NFPA-70e.
2. Perform a voltage check to ensure electrical power is disconnected from the system.
3. Only ABB certified technicians should commission the Terra DC Wallbox.
4. When the system is in an open or dangerous condition, do not allow unqualified persons to go near it. Instruct and warn people about the potentially harmful high voltages.
5. The installation and maintenance personnel must supply their own lighting equipment because the Terra DC Wallbox has no lights inside the cabinet.
6. Always connect the Protective Earth (PE) first, before connecting the other power input wires.
7. Be sure to properly and securely reassemble the Terra DC Wallbox's enclosure after installation or service operations.
8. When handling the equipment, a proper lifting device should be used in accordance with your local EHS policies.

1.5 Environment and disposal of waste

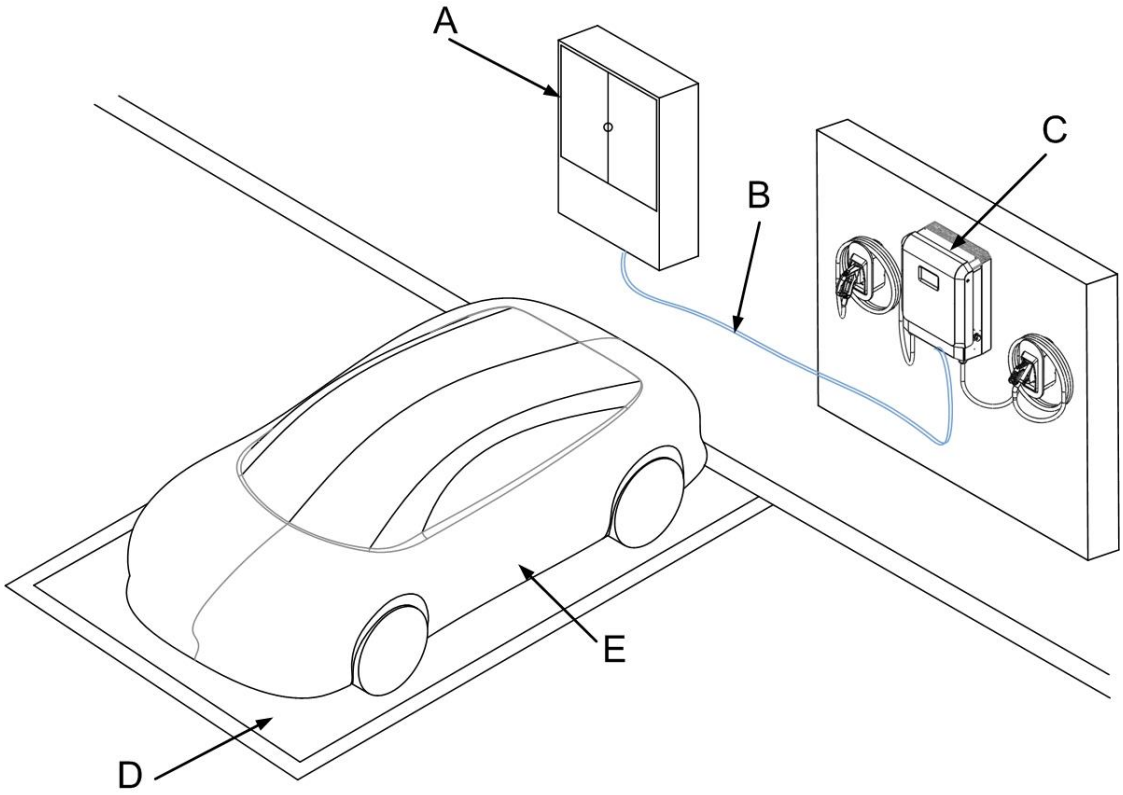
NOTICE

Always follow the local rules and regulations regarding disposal of any (non-reusable) Terra DC Wallbox parts.

2 Description of the product

2.1 Overview of the system

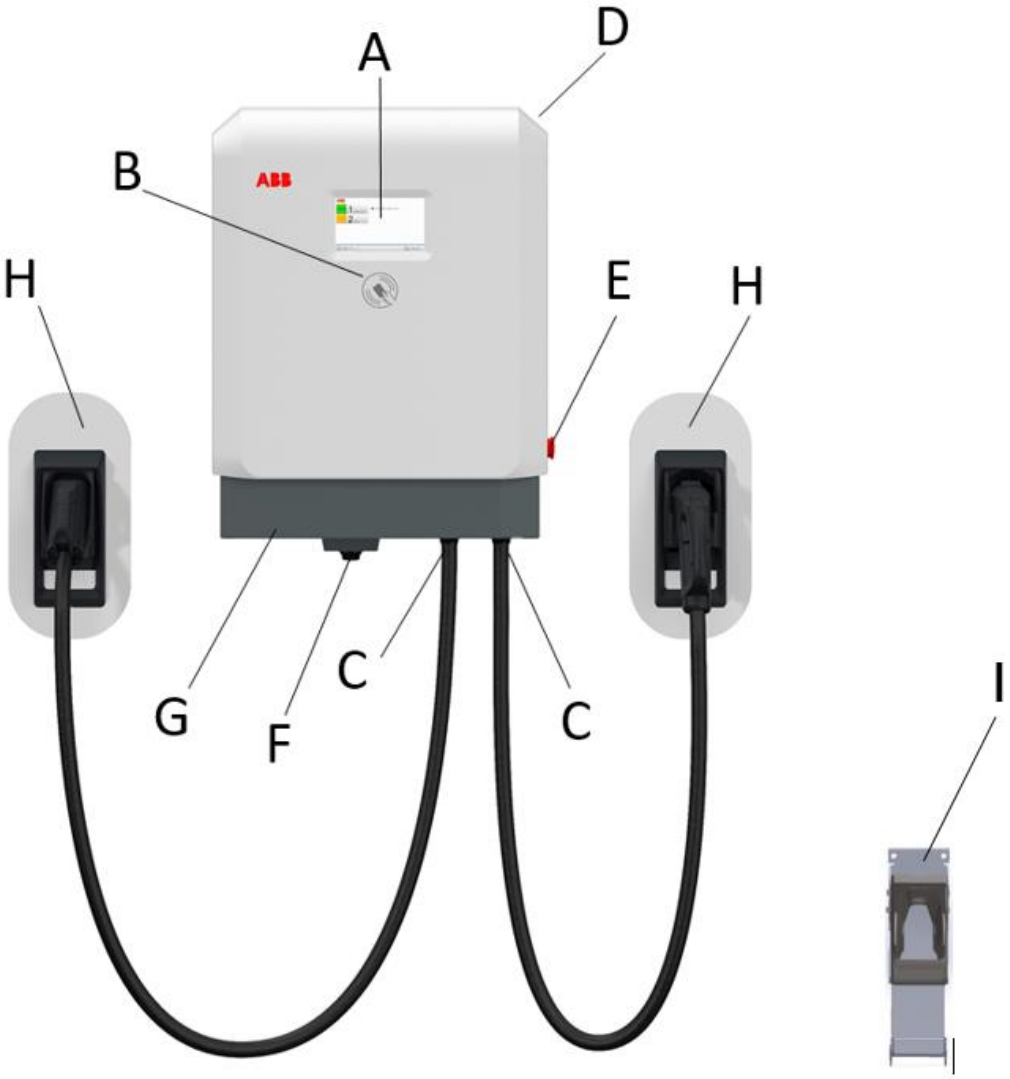
2.1.1 Complete overview



Example of a complete installation

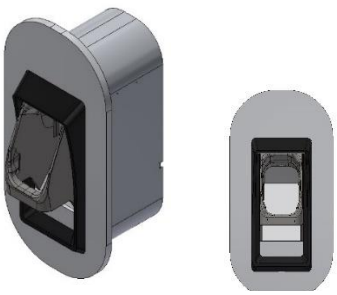
A	Power distribution board of the owner
B	Cables in conduit
C	Terra DC Wallbox
D	Parking space for charging
E	Electric vehicle

2.1.2 External view



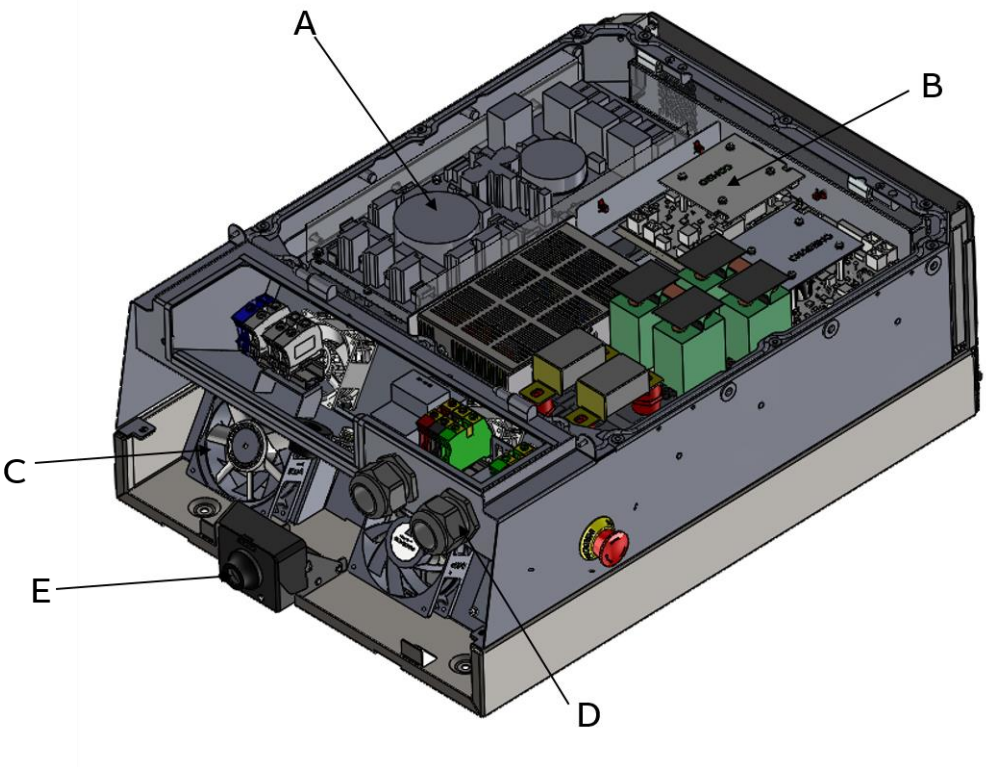
A	Display / HMI	E	Emergency stop button
B	RFID card reader	F	AC input connection point for Conduit
C	DC Charging cable	G	Air inlet
D	Air outlet	H	Optional Holster (purchased separately)
		I	Standard Holster (included)

Standard charging cable holster supplied with DC wallbox



Optional charging cable holster sold separate from DC wallbox

2.1.3 Inside view



A	AC input board	D	Cable gland for DC output(2x)
B	CPI and IMI boards	E	Cable gland for AC input
C	External Fan (2x)		

3 Installation Planning and Design

This section provides several considerations for the DC Wallbox installation planning and design, which are to be made by the customer to ensure a successful project.

3.1 Internet connection

ABB requires an internet connection to the DC Wallbox to conduct remote service operations including, oversight of the product during the warranty period, diagnosis and troubleshooting of issues, and performing software firmware update. Not having internet connection to the DC Wallbox may severely impact, or even void, the product warranty and/or ABB's service level agreement (SLA).

It is the installer's responsibility to ensure reliable internet connection to the DC Wallbox is made. Contingency planning and the associated costs are the responsibility of the installer.

3.1.1 Internet via cellular connection

The preferred method of establishing internet connection to the charger is using the charger's standard featured hardware with ABB's Charger Connect service offering, which provides internet access via Vodafone's 4G LTE wireless network.

In the USA, Vodafone primarily roams on the AT&T and T-Mobile 4G LTE networks. It is expected that a cellular availability test is performed prior to construction to ensure there is reasonable signal quality to at least one of the AT&T and T-Mobile 4G LTE bands 2 (1900 MHz), 4 (1700/2100MHz), or 12 (700 MHz).

The signal strength must be greater than -85dbm and should be measured with a cellular network signal meter, such as a Squid-4G or Sure Call device. Handheld mobile phones are not recommended for assessing signal strength since they are not reliable measuring devices.

The DC Wallbox only supports SIM cards provided by ABB. Customer procured SIM cards are not supported.

3.1.2 Internet via ethernet connection

Internet connection to the charger may be performed by connecting an ethernet cable to the charger from other on-site IT infrastructure. However, due to the scope of work required for integrating this solution to ensure secure communication, this method is typically not preferred.

ABB may require additional commissioning fees if ethernet cable method for establishing internet is used, depending on the situation. Please contact your ABB sales representative for more details.

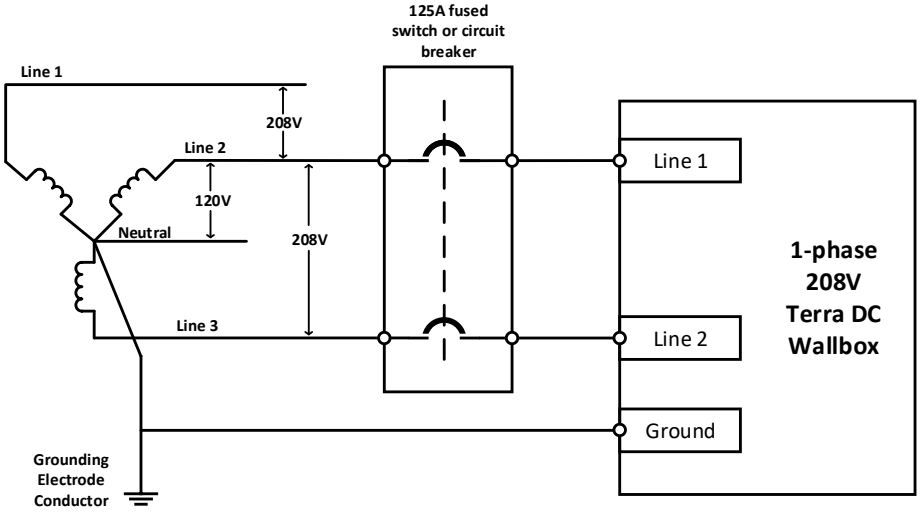
See sections 3.2.5 and 3.2.6 for more details on connection of conduit carrying ethernet cable and specification of the ethernet cable.

3.2 Electrical requirements

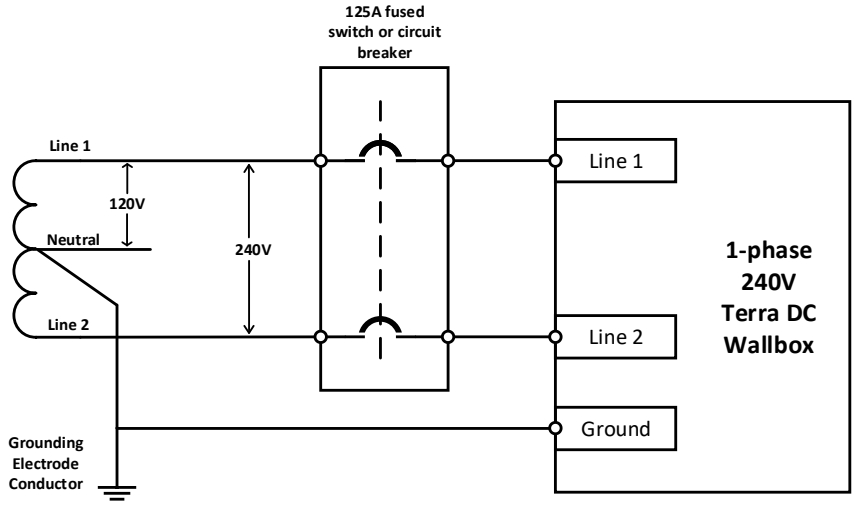
CAUTION
The installation company is responsible to design and install the electrical installation according to the local regulations.

3.2.1 Required electrical grid configuration

Is essential that the DC Wallbox 1-phase input variant is installed in the proper electrical grid configuration. The allowable grid configurations are shown in the figures below. Please observe the 1-phase variant DC Wallbox supports two different grid configurations. For the 1-phase variant DC Wallbox, ABB recommends the electrical designer to consider power distribution phase balancing design requirements.



One of two electrical grid configurations acceptable for use with 1-phase, DC Wallbox UL variant (1ø, 208V input)



One of two electrical grid configurations acceptable for use with 1-phase, DC Wallbox UL variant (1ø, 240V input)

NOTICE:

The grid connections shown for the various configurations of the DC Wallbox are mandatory. Failure to adhere to these instructions may partially or fully void the product warranty, result in a costly site visit to reconfigure the grid configuration, and/or cause several site visits for the DC Wallbox commissioning. ABB is not responsible for scheduling delays and additional costs from not properly planning the installation. If ABB is contracted to perform the DC Wallbox commissioning, ABB observes the right to charge additional money for more than one site visit required for the commissioning due to an initial, improper installation of the DC Wallbox.

Important steps to ensure project success include:

1. Identify the grid configuration at the location where the DC Wallbox will be installed. If the grid configuration available is not okay for use with the DC Wallbox, then determine how to establish the required grid connection. A transformer solution offered by ABB is available to derive the required grid configuration when the required grid configuration is not available. Contact your local ABB sales representative for more details.

2. Select the 1-phase variant of the DC Wallbox according to Section 1.3 titled Terra DC Wallbox hardware ordering details based on Step 1 above.

3. Carefully execute a project plan to ensure the correct variant of DC Wallbox is used on the project and that the project site's grid configuration is compatible with the DC Wallbox.

4. Verify the actual grid configuration the DC Wallbox is installed in matches the described criteria during the DC Wallbox commissioning.

3.2.2 Overcurrent protection device

Both variant of the DC Wallbox is recommended to be fed by the circuit breaker or fuse ratings shown below.

- 1-phase, 208-240V DC Wallbox variant: 2-pole, 125A circuit breaker or fuses

3.2.3 Conduit for power input wires

Both variant of the DC Wallbox supports up to a 1-1/4" trade size conduit connection.

3.2.4 Specification for power input wires

The exact size and type of wires used must be defined by the customer and be protected by customer provided overcurrent protection according to local codes and regulations.

The input terminals for 1-phase UL variant of the DC Wallbox accept a range of wire sizes from 10 AWG to 0 AWG. Wire terminals are rated 75C.

The 1-phase UL variant DC Wallbox requires Two (2) phase wires and One (1) wire for protective earth. (2W+G)

All wires 1-phase variant of the DC Wallbox may connect directly to the ABB provided terminals.

The integrity of the electrical grounding is essential. Ensure that the equipment grounding terminal is used in the device and an actual grounding conductor is installed to provide a path back to the source upstream panel. (Do not use the conduit or raceway as the sole equipment grounding conductor).

3.2.5 Conduit for ethernet cable

The DC Wallbox does not have a hole designated for a conduit carrying only an ethernet cable to connect to. If ethernet cable solution is required for an installation, please contact your ABB sales contact person to review ethernet cable entry solutions.

3.2.6 Specification for ethernet cable

If the cellular connection is not available, ethernet connection must be made to the charger using a shielded 8P+PE ethernet cable with RJ45 connectors. Additional recommendations include:

- Maintain distance of 75 meters or less. Distances over 75 meters require a custom engineered solution.
- Minimum bandwidth:
  upload: 128 kb/s
  download: 4 Mb/s
- 99.9% availability
- 600V rated cable that may route beside input power wires for short distances

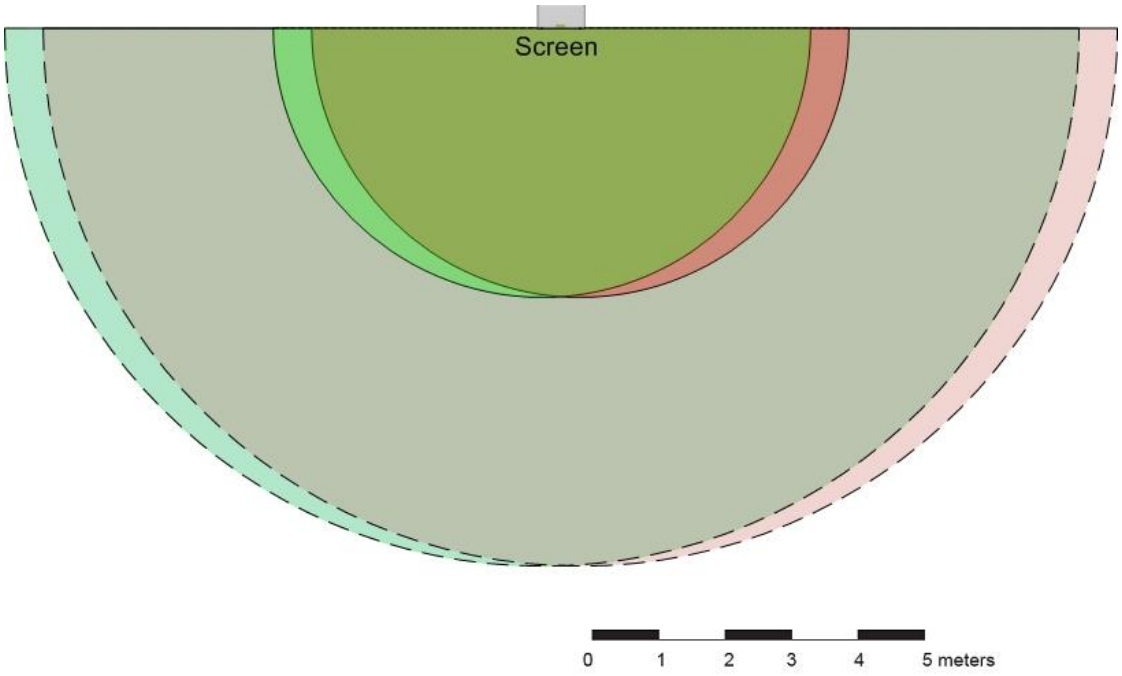
3.3 DC Wallbox placement

Placement of the Terra DC Wallbox must be carefully determined by accounting for charging cable reach, DC Wallbox position with respect to parking space, bollards and wheel stops, ventilation and working clearances, and other local codes and regulations (e.g. ADA requirements in the USA).

3.3.1 Charging cable reach

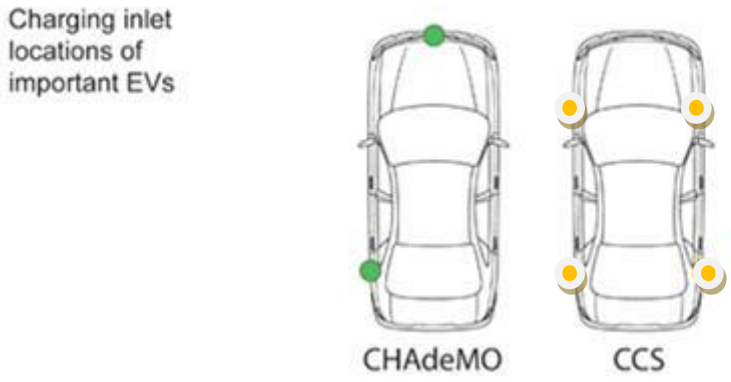
The Terra DC Wallbox charging cables are available in lengths of 3.5 or 7 meters. The charging cables exit the charger enclosure on both the right and left sides. The cables and the connectors mounted on the cables are different depending on the charging standard and vary in flexibility.

The figure below shows an example of a dual connector charger with both types of connector and the corresponding reach area. The green circle with a continuous line describes the CHAdeMO cable 3.5m and the red circle with a continuous line describes the CCS cable 3.5m. The broken lines indicate the same cable types with a length of 7 meters (23 ft).

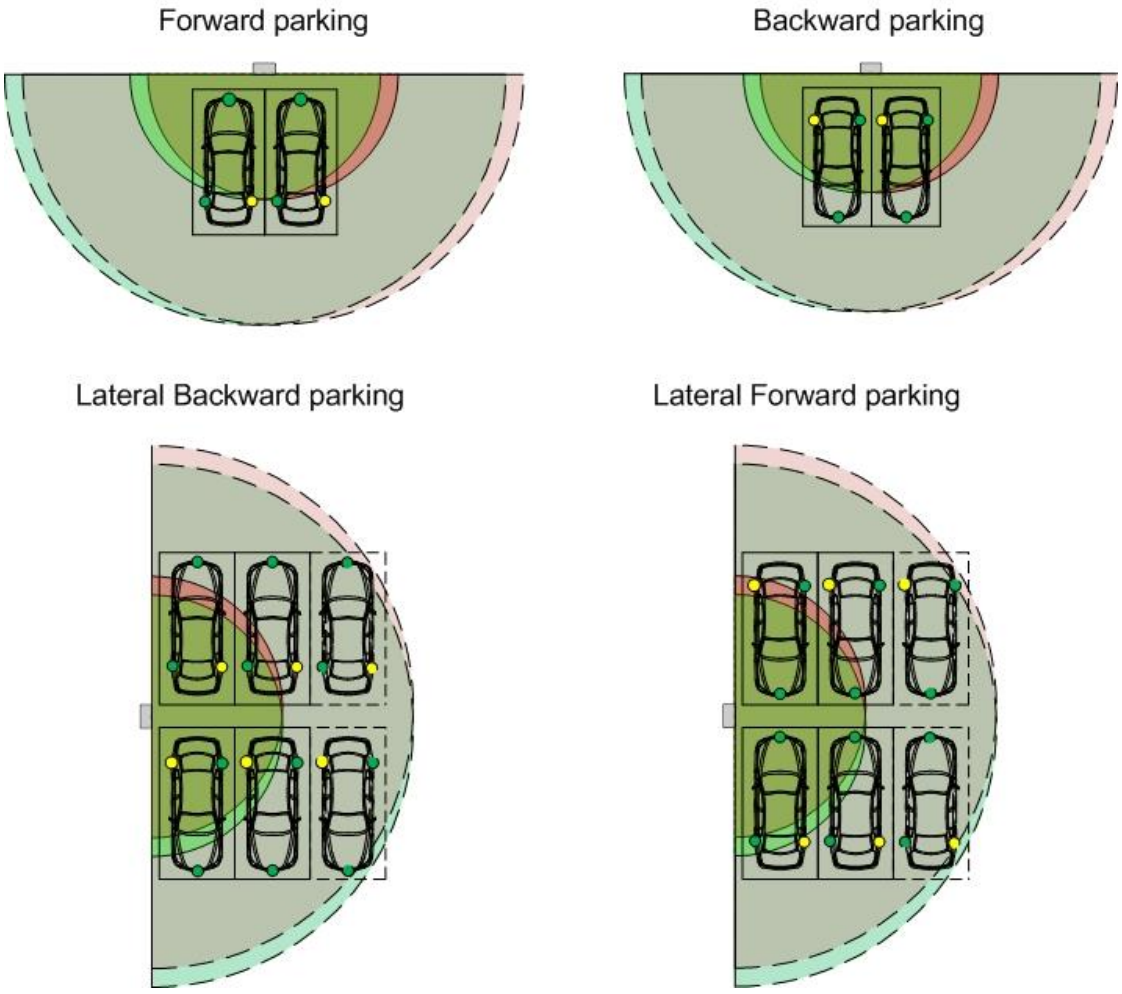


3.3.2 DC Wallbox position with respect to parking space

The charging inlets on a vehicle can be located at different positions depending on the manufacturer. The most common vehicles have inlets located either on the front or in the back on either the left or right side.



This makes some charger placements with respect to the parking space more favorable than others. Keep this in mind when designing a site. Below are examples of possible situations:



3.3.3 Required space for installing and maintaining the DC Wallbox

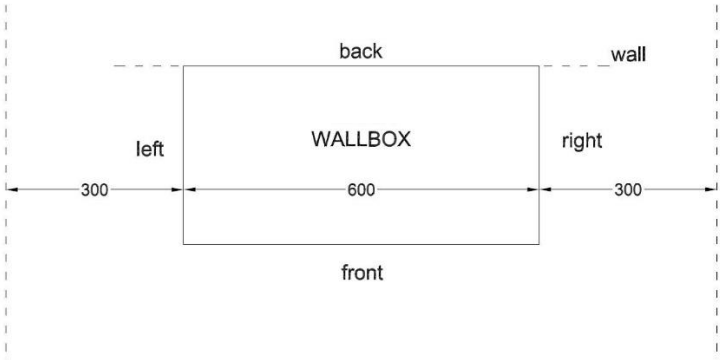
The Terra DC Wallbox requires a minimum space of 36” x 48”. This space is calculated as follows:

- Charger size (H x W x D): 30.3 x 23 x 11.8 in

- Bottom side 23.6” (15.75” from the Terra DC Wallbox in order to avoid obstacles for the electrical connection).

- Left and right side 300mm/12”, in order to operate without obstacles on the lateral side of the Terra DC Wallbox.

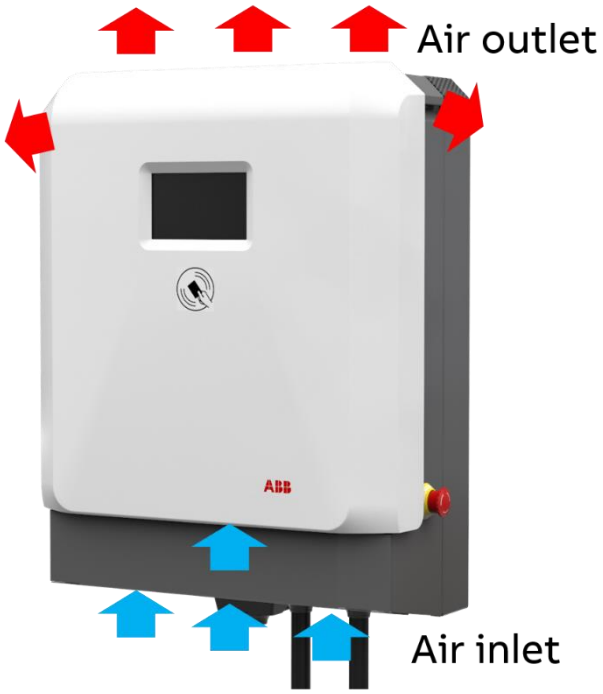
Note: The below dimensions are shown in millimeters.



3.3.4 Ventilation and airflow required for the DC Wallbox

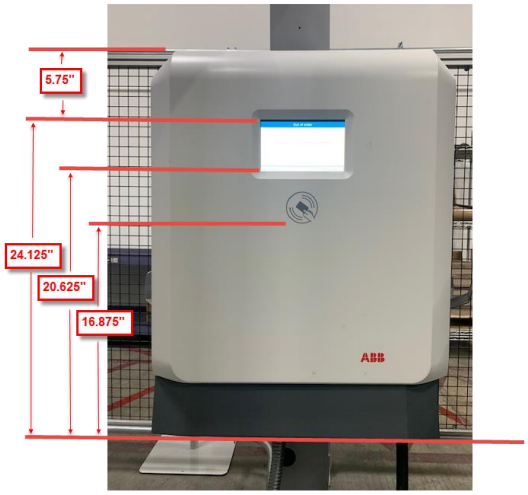
The Terra DC Wallbox has an air inlet on the bottom side and an outlet on the top side.

NOTICE
Free air flow
If necessary, take precautions to prevent snow or objects from blocking the inlets and outlets.



3.3.5 Considerations for where to position DC Wallbox vertically

The below picture shows the height of the operable parts and display screen from the top and bottom of the DC Wallbox' s enclosure (not accounting for piece on enclosure where the customer conduits connect to). It is the installer's responsibility to use this information to define the height at which to install the DC Wallbox from the ground and to ensure compliance to local codes and regulations (**e.g. ADA requirements in the USA).**



4 Installation instructions

4.1 About construction

The construction phase includes all work required to prepare the location and ensure it is ready for the placement and connection of the Terra DC Wallbox charger. The construction phase can start when:

- The wall preparation work is done.
- All necessary permits are granted.
- The grid connection is available.

4.2 Instruction for a wall bearing

1. Drill and tap 4 holes and insert the plug for fixation in the wall at the indicated positions (refer to technical drawing in the Appendix A par. 10.1). For safety purposes, the number of recommended fixing screws is 4xST7.3x70. This is assuming the appropriate type of wall plugs are used (depends on wall's characteristics, structure and type). It is the installer's responsibility to choose an appropriate wall plug and to plan for a load of 820 N on each plug.
2. When selecting the area along the wall for installation, ensure the required free spaces for the Terra DC Wallbox cables are available (refer to section 3.4).

4.2.1 Mounting on a pedestal

The Terra DC Wallbox can also be mounted on a pedestal. In order to achieve a safe installation, the minimum set of requirements are included in Appendix C – Pedestal requirements). For the ABB pedestal solution, contact your local ABB sales representative.

4.3 Power feed

The power cable enters the charger from below. Use conduit, foam, or proper cable lugs and glands to prevent animals from entering the AC or Ethernet cable inlets. (Reference Section 3.2 for feeder specifications)

4.4 Internet connection

The preferred method of communication is the wireless 4G modem integrated into the charger. A customer SIM card is not required. A subscription for the SIM card is provided by ABB for select countries.

If there is no wireless signal available, a standard wired internet connection is required. (Reference Section 3.1, 3.2.5 and 3.2.6 for wiring and connection methods)

- The connection must be available for the ABB service engineer and the NOC (Network Operation Center).
- Please contact ABB (800.825.2556 option 2) for a specific configuration.

If a separate internet connection is not used, please ensure the cable entry hole is closed to retain the IP54 grade of the cabinet and prevent insects and small animals from entering the cabinet.

5 Receiving, Placing and connecting

5.1 Receiving the Wallbox

The product is delivered by a transport company to a warehouse where it will be handed over.

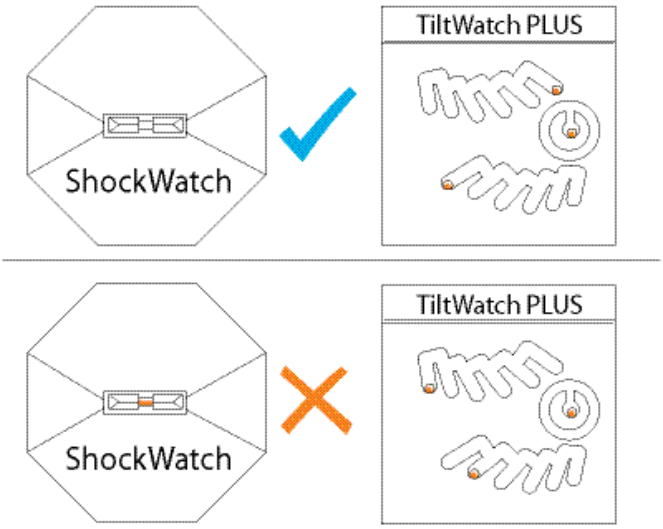
Transporting the Terra DC Wallbox to its final location (last mile service) is not included standard in the order.

NOTICE

The delivery truck unloads the pallet carrying the Terra DC Wallbox.
The movement of the Terra DC Wallbox to its final location is the responsibility of the customer / contractor.

Ensure the Terra DC Wallbox has not been shaken or tilted.

- The cabinet is equipped with Shock Watch and Tilt Watch indicators.



Checking the Shock Watch and Tilt Watch PLUS sensors:

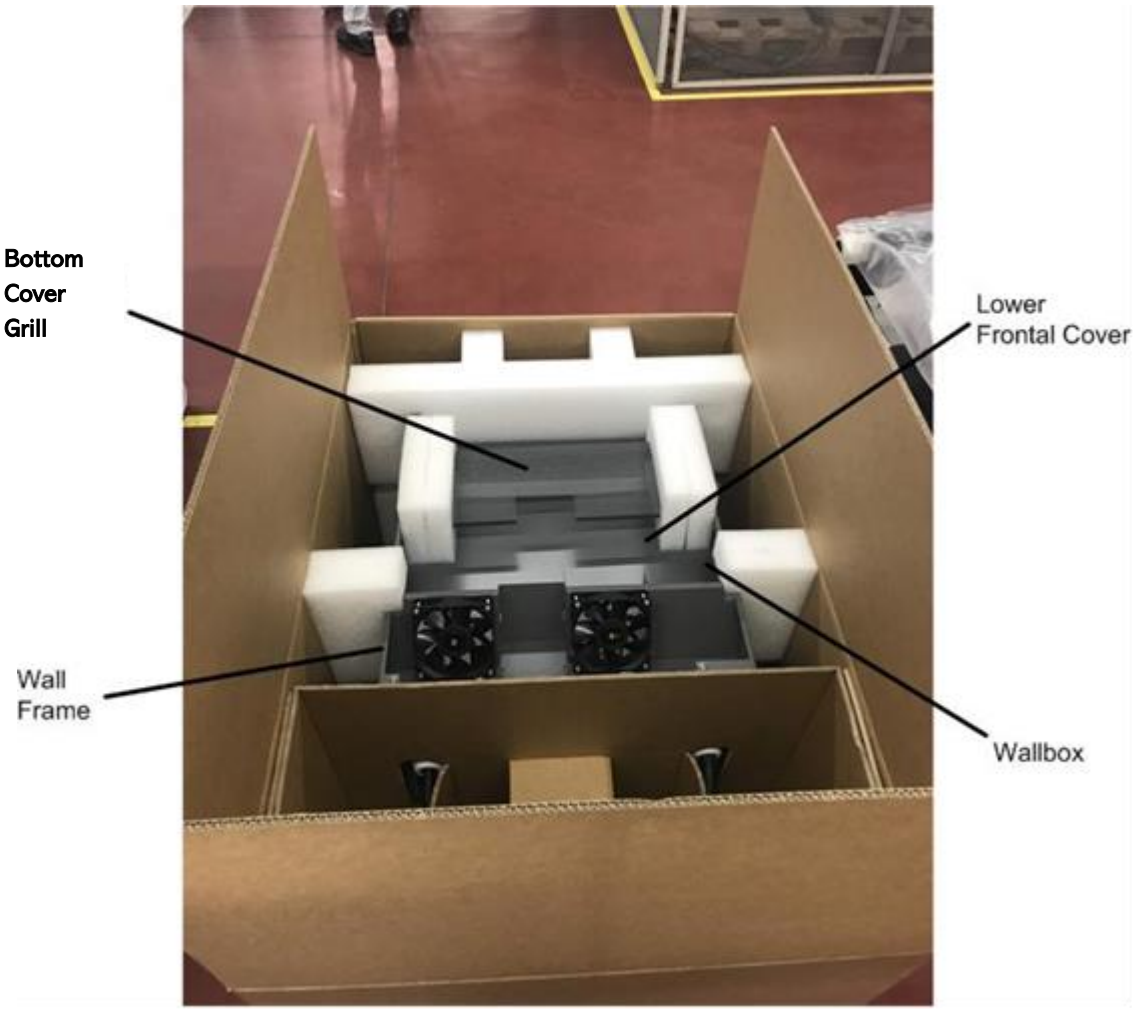
If the Shock Watch indicator is red, or the Tilt Watch PLUS indicator is tilted over 30°:

1. Do not refuse the delivery / receipt.
2. Make a notation on the delivery receipt and inspect cabinet for damage.
3. If damage is discovered, leave cabinet in original package and request immediate inspection from carrier within 3 days of delivery.
4. Contact your local ABB office.

5.2 Unpacking the charging and mounting preparations

5.2.1 Unpacking

The packaging of the Terra DC Wallbox can be removed without the use of tools. Follow local regulations on disposal of packaging material.



1. Remove the plastic protection profiles.
2. Remove the bottom air grate grill and the lower frontal cover.
3. Remove the wall frame.
4. Remove the Terra DC Wallbox. (USE CAUTION TO NOT DAMAGE THE E-STOP BUTTON ON THE SIDE OF THE ENCLOSURE)
5. Remove the AC ferrite core link to the outlet gun cable (assembly position shown at paragraph 5.4.2)
6. For all components above, remove the shrink wrap.

5.2.2 Mounting preparations

Unpack the IP BOX and verify all the following items are present:

- Wall frame
- Frontal cover
- Bottom grid cover

5.3 Move cabinet to position

5.3.1 Options

A properly rated lifting devices should be used to move the Terra DC Wallbox from the delivery truck to the installation location.

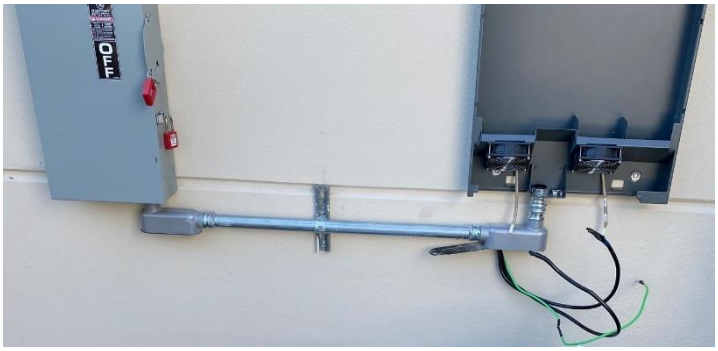
DANGER
Hazardous voltage
Ensure the product's power supply group main switch is set to the OFF position. Perform a voltage check to verify there is no electrical power on the cables or on the system. Secure the product from resetting.

NOTICE
Warranty
Damage due to moving the cabinet to its position is not considered a warranty issue.

5.4 Mounting the Terra DC Wallbox

Preconditions:

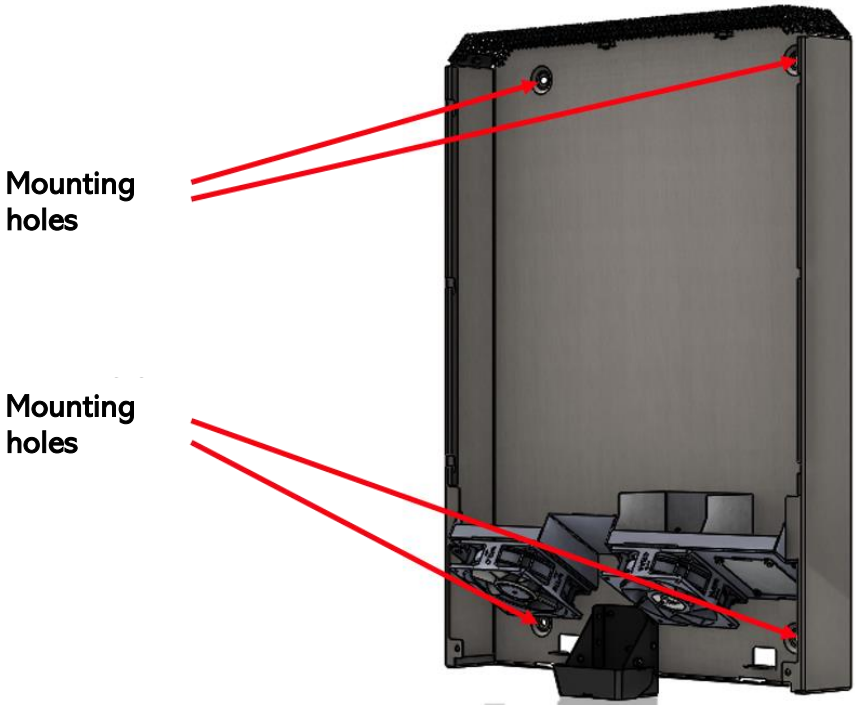
- Tools: Spanner/Wrench size 17.
- Guide the power cable through the central cable gland, and the Ethernet cable if required, through the smaller gland. Install the power wiring in the conduit/raceway that is connected to the unit. See below image for a typical conduit install make ready for installation of the Wallbox.



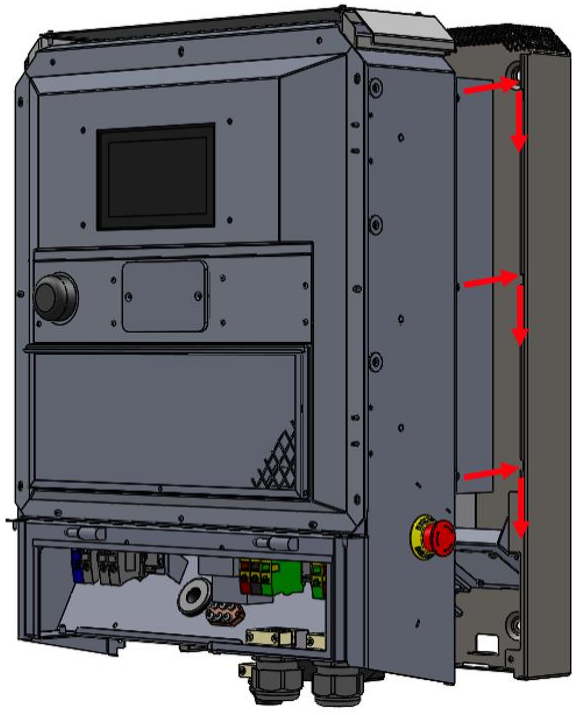
5.4.1 Mounting the Terra DC Wallbox

NOTICE
The minimum number of people required to lift and install the Terra DC Wallbox must be determined based on the relevant local regulation with taking into account the maximum allowed weight per person as well as the usage of the appropriate and suitable lifting equipment. The definition of the exact lifting equipment and working method for lifting is the responsibility of the installation contractor.

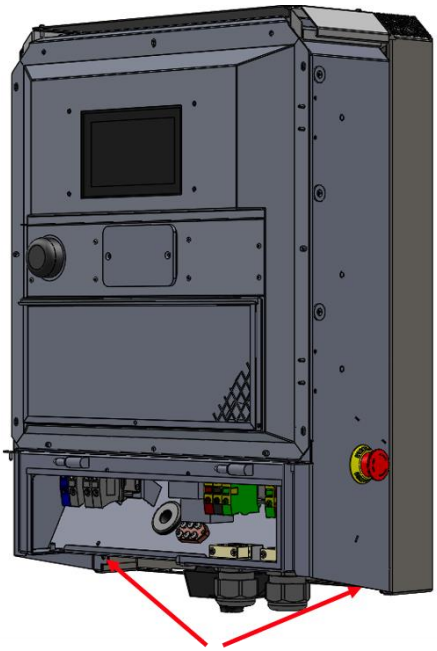
1. Carefully lower the Terra DC Wallbox onto its location.
2. Ensure cable(s) are not entrapped.
3. Place the wall frame in the correct position on the wall bearing by aligning the four holes of the charger with the corresponding holes on the wall bearing.
4. Tighten the four screws with stainless steel 8.8 hexagonal bolts.



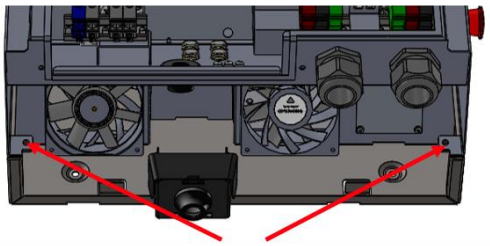
5. Place the unit on the wall frame by correctly aligning the 6 bolts (3 for each lateral side).



6. Tighten the two M5 bolts on the lower side of the unit. Pay attention to the internal fan power supply cable. CAUTION: DO NOT SET SMALL OBJECTS ON TOP MESH COVER, ITEMS MAY FALL INTO THE COOLING FINS OR FAN COMPONENTS.

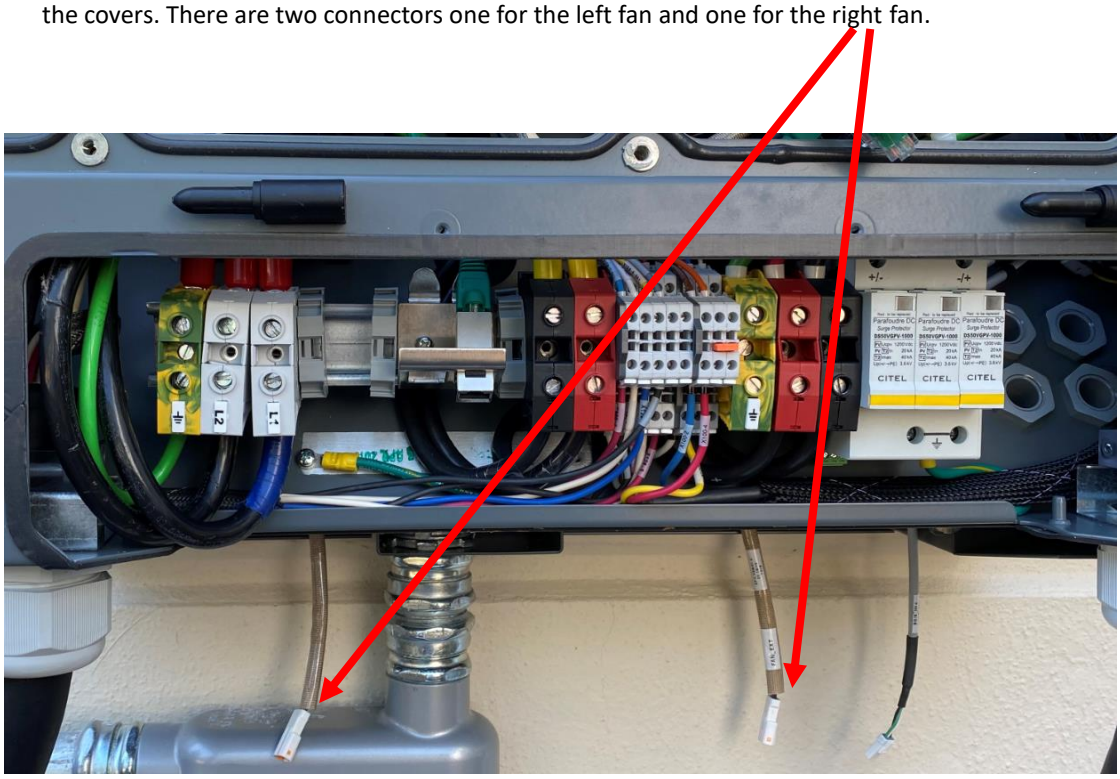


DETAIL
(BOTTOM VIEW)

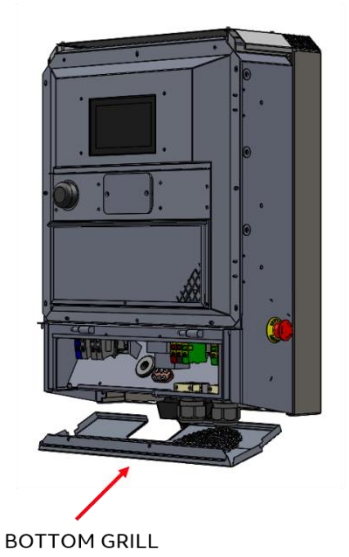


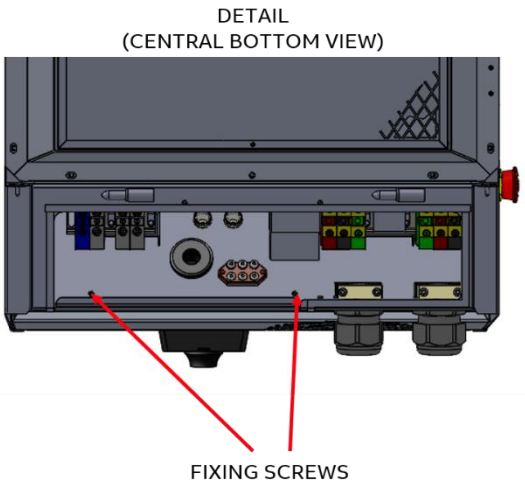
7. Let the auxiliary power supply cable pass through the central gland and tighten it.

8. IMPORTANT, connect both of the cooling fans to their power connections before proceeding to close the covers. There are two connectors one for the left fan and one for the right fan.

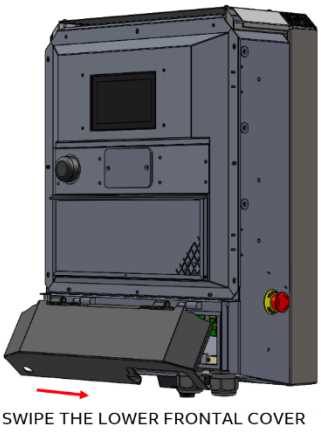


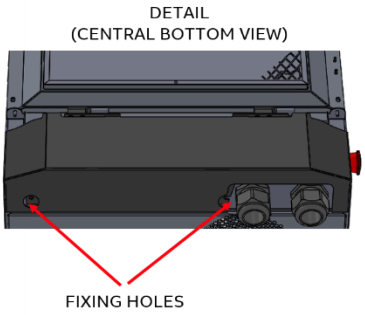
9. AFTER the completing wiring terminations, take the bottom cover grill and put it on the lower side of the unit and fix it by tightening two screws as shown in the following picture. Please note the 3-phase and 1-phase versions have a slightly different bottom grill assembly

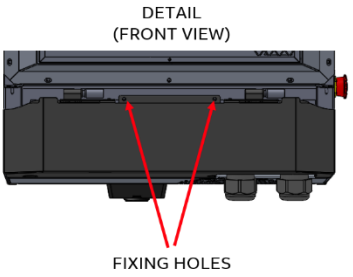




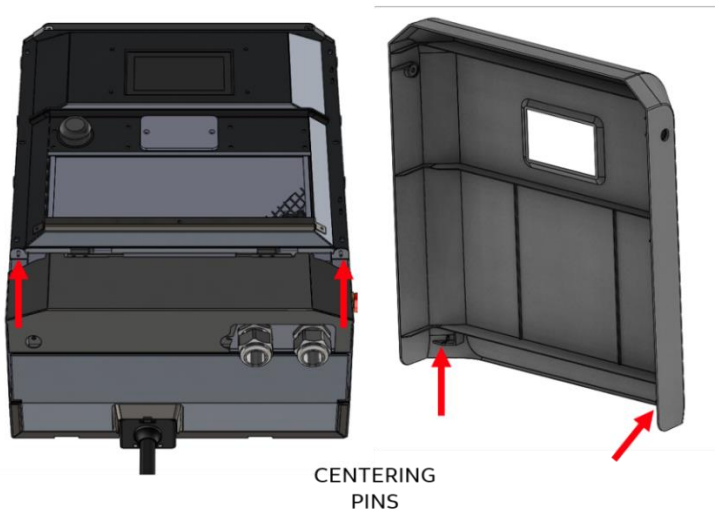
10. Take the lower frontal cover and place it on the lower side of the unit. Secure it in place by tightening the two screws.







11. Center the holes on the plastic cover with the pins on the box.



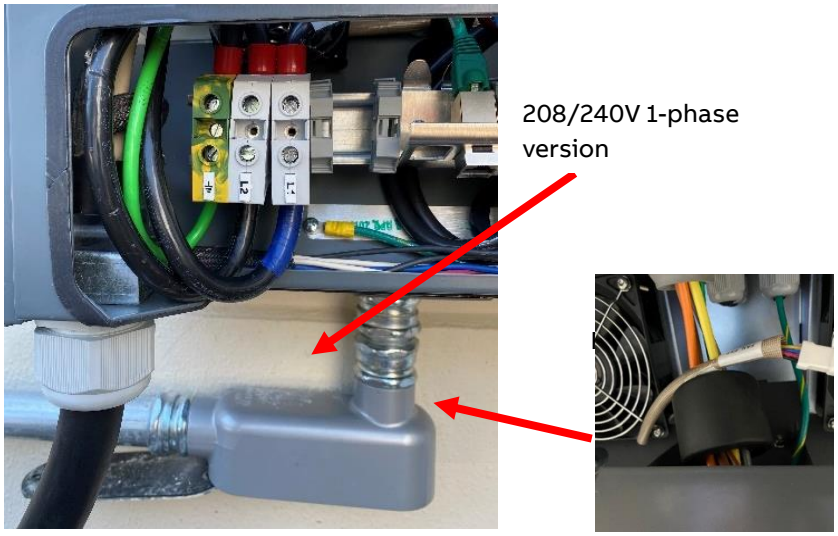
12. Place the central cover on the unit and secure it in place by tightening the two screws located on the left and right side of the cover. Center the bottom pins, rotate the cover, and tighten the 2 lateral screws.

5.4.2 Install cable gland(s) or connect conduit to the unit.

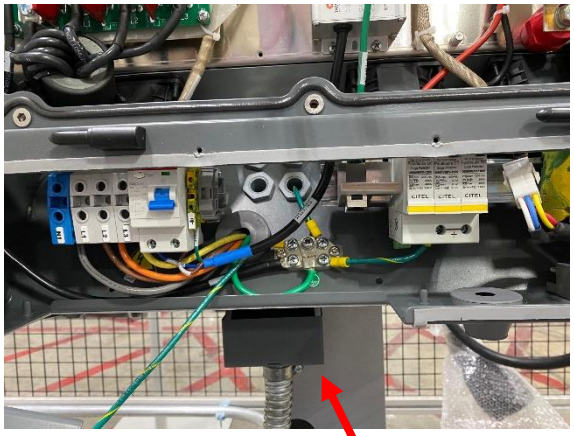
The maximum diameter of the grid cable is 32 mm. The opening is pre-punched for a 1.25” trade size conduit. The minimum diameter of the grid cable is 22 mm with the standard fitted cable gland insert.

Conduit Install shown as a comparison

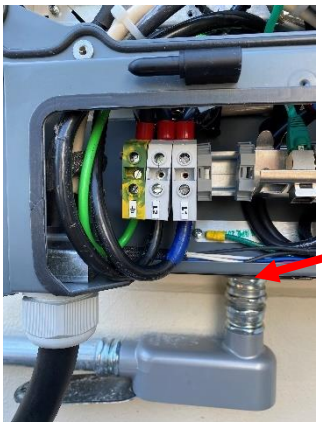
1. Slide the cable inside the grommets, ensure at least 10mm of cable external jacket inside the box (see notes at the end of this section, before sliding the cable inside the grommet. Allow at least 24 inches of wire from the conduit entry point to allow enough wire to route thru the internal grommet/cable glands and wrap around to the terminal blocks.



2. Push the cables back through the gland plate, until sufficient cable length is left to reach the cable terminals. Ensure the PE cable is longer than the other cables.



1-Phase Connection using flexible



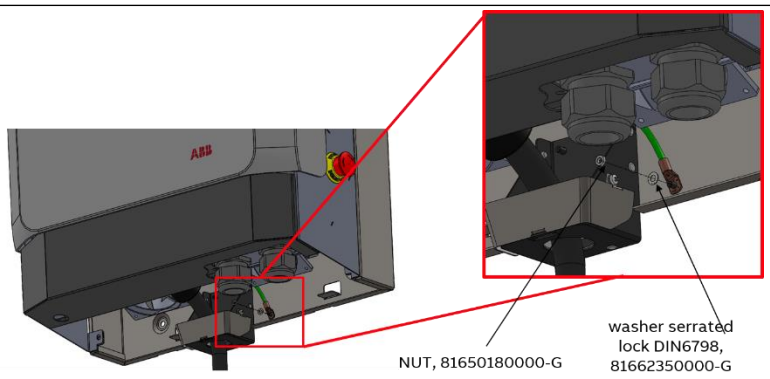
Conduit Installation 1.25“ secured to bottom mounting area. 1-phase Version Shown

3. Slide the cable cover and tighten the two screws.

If a wired internet connection is not used, please ensure the cable entry hole is closed, to assure the IP54 grade of the cabinet, and prevent insects and small animals to enter the cabinet.

NOTE 1: For 3-phase versions a ferrite core is provided with the Wallbox (plastic bag within the package or strapped to the CCS-1 cable) and needs to be installed in commissioning phase. The Ferrite needs to be inserted in the AC in cable and located in the screw cable cover (see picture above, left). ***THE FERRITE IS REQUIRED TO MAINTAIN THE WARRANTY.***

NOTE 2: Two floating grounding cables are provided that are connected to the ground node. One cable must be connected between the to the wall frame PEM the other to the front lower cover in order to guarantee equal ground potential (see picture above, right).



5.5 Connect cables

5.5.1 Connect PE of power cable

Preconditions:

- Tools: Wire stripper pliers; wire-end lug pliers; wire-end lug.

DANGER
Hazardous voltage
Make sure that the main switch of the power supply group for the product is set to the OFF position. Perform a voltage check and make sure that the electrical power is disconnected from the system. Follow recommended *NFPA-70e* procedures.

1. Cut the PE wire of the power cable to the correct length (equal than the other phases) to reach the PE connector.

NOTICE

For safety, it is recommended that the PE wire is longer than the phase wires. This ensures the PE wire will be the last wire connected if the Terra DC Wallbox is moved by a collision.

2. Use wire stripper pliers to remove 0.75 in (20 mm) of the insulation from the end of the PE wire and attach the cable lugs.
3. Pull the cover away from the connectors and remove them.
4. Loosen the bolts of the PE connector
5. Attach the PE wire on the PE connector as indicated on the label on the relative terminal block
6. Tighten the bolts. The advised torque value is 2.9 Nm.

5.5.2 Connect power cable

Preconditions:

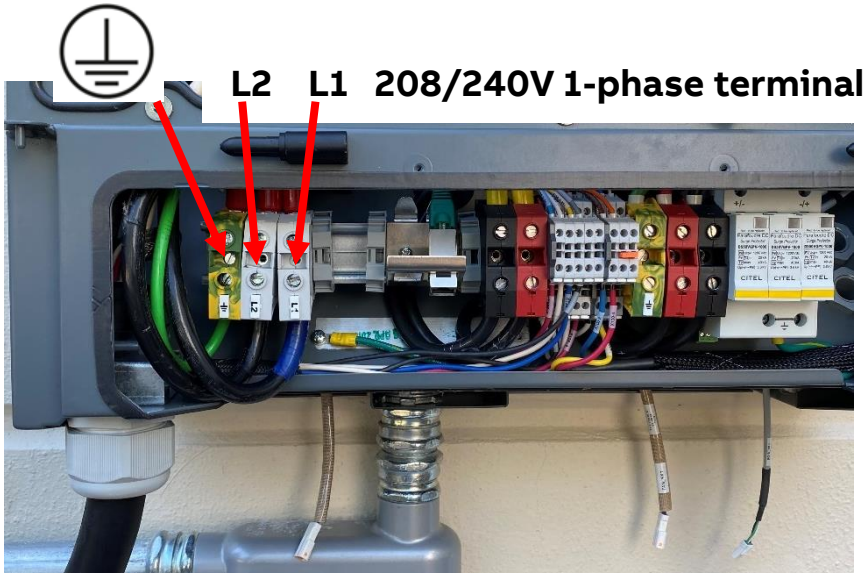
- Tools: Wire stripper pliers; wire-end lug pliers; wire-end lugs.

DANGER
Hazardous voltage
Ensure the product's power supply group's main switch is set to the OFF position. Perform a voltage check and ensure the electrical power is disconnected from the system.

7. Cut the 2 phase wires of the power cable to the correct lengths to reach the connectors.
8. Use wire stripper pliers to remove 0.75 in (20 mm) of the insulation from the ends of the wires insert and attach the cable lugs
9. Pull the covers away from the connectors and remove them.
10. Loosen the bolts of the connectors.
11. Attach the 2 wires on to their connectors as indicated on the label on the relative terminal block (see the following picture as example).

- From left to right for the 1-phase unit (as showed in the following picture):

  PE- terminal block green/yellow, L2 - terminal block grey, L1 - terminal block grey



12. Tighten the bolts. The advised torque value is 2.9Nm.
13. After terminating the wires, make sure to adjust the terminal blocks so they are properly aligned as misalignment can occur while applying proper torque to the connectors (as shown in 208/240V terminal layout above)

5.6 Instruction for Mounting the DC Wallbox Gun Holders

5.6.1 General

This document is intended to provide an instruction for service team / installers in order to be able to properly install the terra DC wallbox gun holders.

5.6.2 General description

The Terra DC wallbox is provided with two types of gun holders. A standard gun holder is provided with all the DC wallboxes. The standard Terra DC wallbox gun holder is illustrated in Fig.1 and 2**Error! Reference source not found.**. An optional gun holder is also available a s an optional / spare part and can be ordered as external kit. The optional gun holder is illustrated in Fig. 3 and 4. All the above described gun holders include adapters for CCS or Chademo charging guns.

5.6.3 Mounting instructions

The gun holders described above are intended for a very simple installation. Standard gun holder is provided with 3 holes for wall hooking while optional one is provided with a wall mounted hooking bar (10 in Fig.3) to be mounted to wall. The recommended dowels to be used are of 10 size for both cases.

Figure 1: Series production Terra DC wallbox gun holder (Chademo model).

Figure 2: Series production Terra DC wallbox gun holder (CCS model).

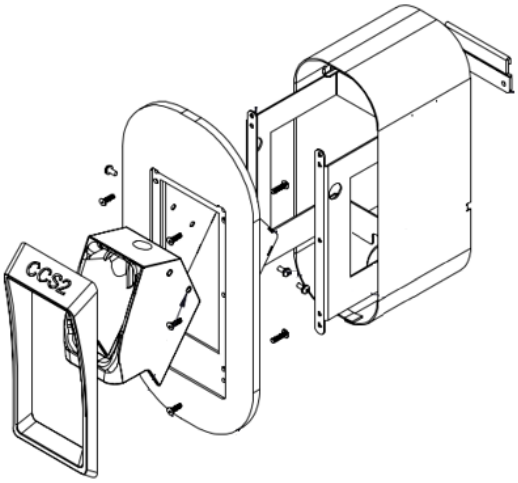
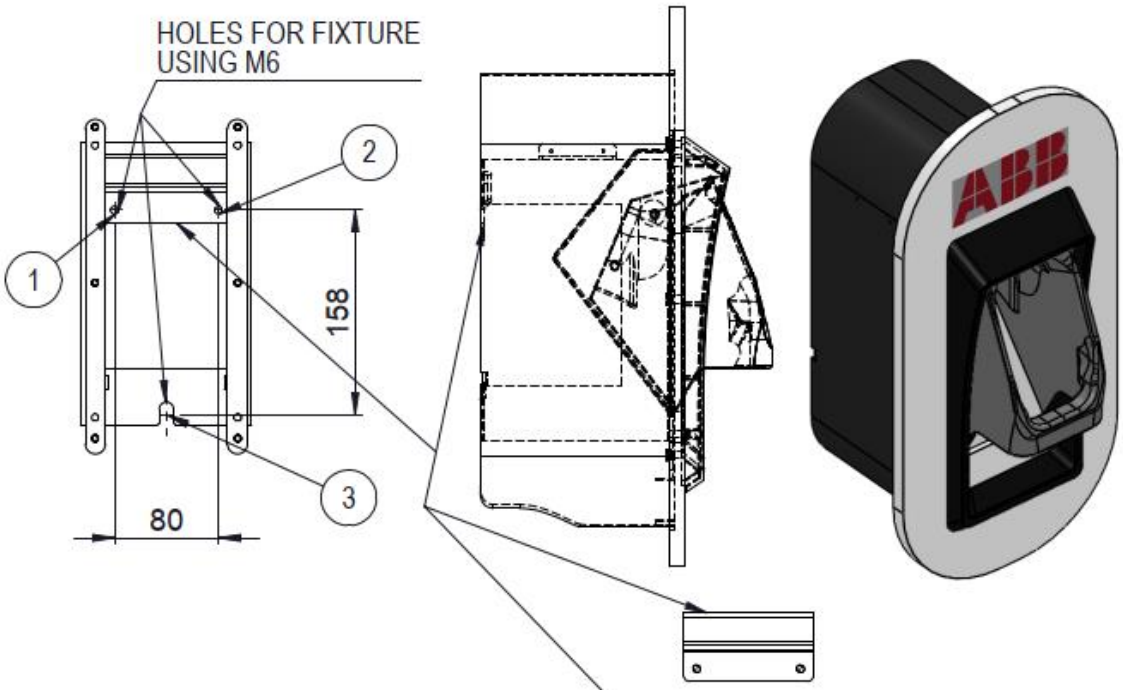


Figure 3: Terra DC wallbox optional gun holder.

Figure 4: Terra DC wallbox optional Gun holder; front and side view.



1) Fix XAB.V2M09.0 on the wall using holes 1 and 2

2) Fix the system on the bracket (XAP.V2M09.0)

3) Fix Screw on hole number 3

6 Commissioning

6.1 Commissioning preparation

Commissioning is the last phase necessary to get the Terra DC Wallbox operational. The purpose is to check the safe functioning of the charger for its operational purpose.

A certified service engineer from the ABB Service department or a trained engineer by ABB is required to perform the commissioning. During this commissioning, the safety and the functioning of the charger will be tested. ABB Form Titled "**SI-TWBCE-001 UL CSAT Procedure DC Wallbox**", (Charger System Acceptance Test) should be used for the commissioning process as it contains the checklist and contact information for activation of the charger warranty.

Before the service engineer can start, the following conditions must be met:

- All work described in Preparation, Construction and Placement and connection is complete with Power available.
- A local technician is present for assistance and to switch on the power.
- Internet access must be available in case 4G is not functional.
- A Combo compliant electric vehicle must be available for testing CCS charging.
- A CHAdeMO compliant electric vehicle must be available for testing the CHAdeMO charging.
- Any electric vehicle for instructing the site operator.

NOTICE
Warranty : It is not allowed to move the Terra DC Wallbox, after it is commissioned. In case the Terra DC Wallbox is moved without approval from ABB, the warranty will be considered void. In case of relocation please contact the local ABB Service department.

Commissioning is executed according to the CSAT checklist, this check list can be found in the Helios Suite Service tool that is available to the certified commissioning engineers or their supervising ABB organization. The following data is required for input:

- End-user Contact person (Create a contact if it doesn't exist).
- Charger address (Check the site address, it will be the address the charger was shipped to).
- Coordinates longitude and latitude for plots on the maps. If there are more chargers on 1 location, make sure the coordinates are slightly different (at least 0,0001 degrees) to prevent being displayed on the same location.
- Site name if this is useful for better recognition (example: Shell petrol station Amsterdam).
- External fuse of the charger.
- SAT (Site Acceptance Test) date.

  Location remarks (any special remarks about the site, e.g. behind a gate, no photo cameras allowed etc.). Add a picture of the surrounding of the charger, upload the local CAF document A4 on the page of the charger in PDF. Change Deliver status to <SAT>.

After completing the Site Acceptance Test, ABB's Network Operation Center will be triggered to perform a final check on the connection and configuration of the charger.

Upon approval the charger will be operational and initialized for use.

7 Maintenance and Cleaning of the cabinet

7.1 Recommended Periodic maintenance

A. Following *NFPA-70e* procedures, de-energize unit, open cover, inspect air filter, clean or replace as needed.

B. Check input connections and terminations for proper toque values

C. Check Grounding resistance

D. Exercise input breaker and output DC breakers

E. Open HMI cover, inspect capacitors and fuse connections.

F. Clean interior with a HEPA vacuum.

G. Blow out rear cooling fins and remove any debris

H. Reassemble unit, energize verify input voltage, perform a charging session.

I. Using the connected network verify charging session details.

7.2 Cleaning of the cabinet

The Terra DC Wallbox Charger is powder coated. This coating must be kept in good condition.

Clean the Terra DC Wallbox Charger three times a year in the following way:

- Remove rough dirt by spraying with low-pressure tap water.
- Apply a neutral or weak alkaline cleaning solution and let it soak.
- Remove dirt by hand with a non-woven nylon hand pad.
- Rinse thoroughly with tap water.
- Do a check on the coating and on the front cover for damage.

NOTICE

When the Terra DC Wallbox Charger is exposed to rain, it is sufficient to clean it twice a year.

CAUTION

Do not apply high-pressure water jets. Water may leak into the Terra DC Wallbox Charger. If a high-pressure water jet has been used, ensure the inside of the Terra DC Wallbox Charger is dry.

- Only use cleaning agents with a pH value between 6 and 8.
- Do not use cleaning agents with abrasive components.
- Do not use abrasive tools.

8 Technical Data

8.1 Electrical data

AC Input	
AC input voltage range	208 - 240 V_{AC} +/- 10% (60Hz)
AC input power connection	1-phase, 208-240 V_{AC}: L1, L2, GND
Maximum rated input current at nominal voltage	100 A
Recommended upstream overcurrent protection device rating	125 A
Power factor	> 0.96
Efficiency	94% at nominal output power
DC output	
Maximum DC output power	19.5 kW @ 208 V 22.5 kW @240 V
DC output voltage range	CCS1: 150 - 920 VDC CHAdeMO: 150 – 500 VDC
Maximum DC output current	60 ADC

(1) Single phase configuration

General	
DC connection standard	EN61851-23 / DIN 70121 CCS 2 CHAdeMO 1.0
DC cable length	3.5 meters or 7 meters (12 feet or 23 feet)
DC plug type	CCS 1 / CHAdeMO
RFID data	ISO/IEC14443A/B, ISO/IEC15693, NFC reader mode, Mifare, Calypso
RFID system	FeliCa™1, NFC reader mode
Network connection	GSM / 4G modem 10/100 Base-T Ethernet

8.2 Mechanical data

Mechanical data	
Dimensions (H x W x D)	770 mm x 585 mm x 300 mm / 30.32” x 23.03” x 11.81”
Weight	70 kg / 154.32lbs
Volume	0,135 m3
Dimensions including packaging (H X W x D)	650 mm x 1200 mm x 800 mm /25.6” x 47.25” x 31.5”
Weight including packaging	80 kg / 176.37 lbs.
Mechanical impact protection	IK10

8.3 Environment

Environmental data	
Ingression protection	IP54, NEMA 3S; indoor and outdoor
Temperature range – Operation	-35°C to + 55°C /-31F to + 131F (derating applies between 45°C and 55°C / 113F-131F)
Temperature range - Storage	-40 °C to +70 °C / -40F to +158F
Humidity	20% - 95% RH - non-condensing
Operational noise level	55 dBA @25°C
Altitude	2500 m max.

8.4 Certifications

EMC: EN 61000-6-4 Class A emission; EN 61000-6-3 Class B emission; EN 61000-6-2 immunity.

LVD: IEC 61851-23, IEC 61851-1, IEC 62196

RFID: ETSI EN 300 330

- **UL 2202**
- **CSA STD C22.2 No. 107.1**
- **FCC Part 15 Class A**

9 Contact information

NOTICE
In case of problems
Please contact your local ABB Service organization or Service partner for first line problem analysis and solving. In case they cannot solve the problem, they will contact the second line Service organization.

ABB in your country

Please contact ABB in your country for sales, delivery and service information.

ABB EV Infrastructure USA

ABB Inc.
950 E Elliott Rd
Tempe, AZ 85284 Suite 100
United States
Phone: 800-435-7365
E-mail: US-evci@us.abb.com

ABB EV Infrastructure Canada

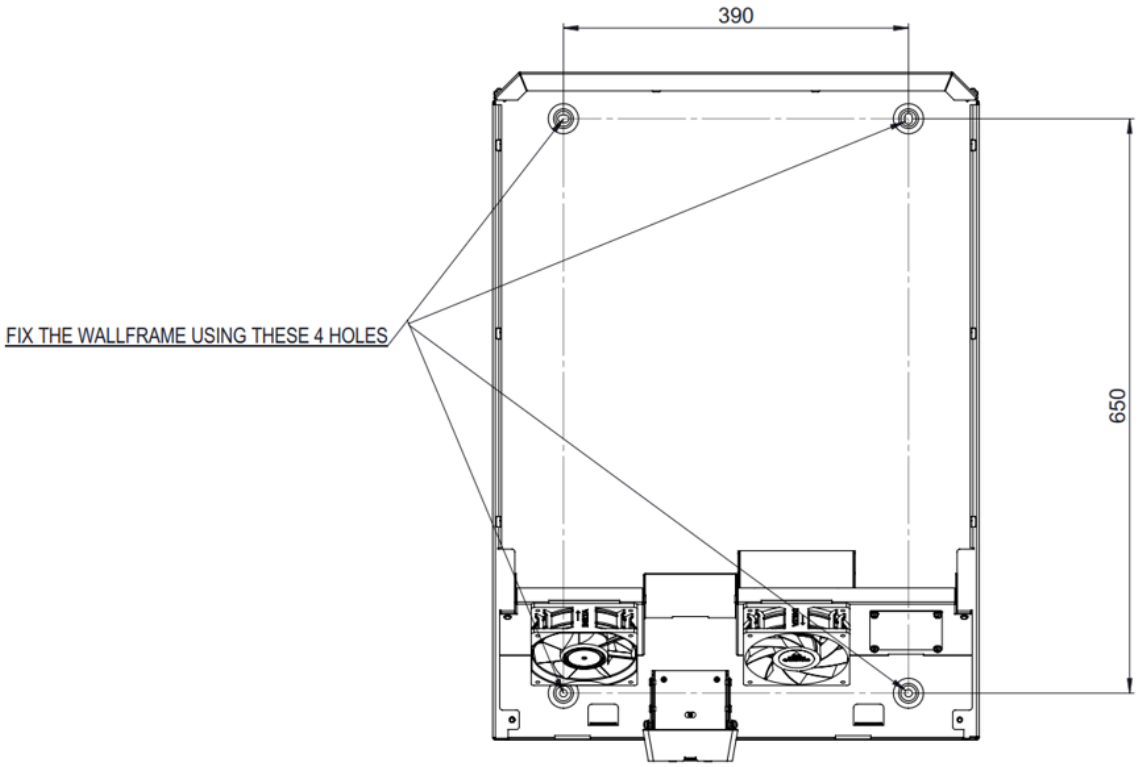
ABB Inc.
800 Hymus Boulevard
Saint-Laurent, QC H4S 0B5
Canada
Phone: 800-435-7365
E-mail: CA-evci@abb.com

ABB EV Infrastructure Global

Address	Heertjeslaan 6 2629 JG, Delft The Netherlands
Telephone	+31 70 307 62 00
Mail	info.evi@nl.abb.com

10 Appendix A – Mounting points

10.1 Terra DC Wallbox Charger wall mounting



11 Appendix B - Disposal instruction

11.1 Directive on Waste Electrical and Electronic Equipment (WEEE – 2012/19/EU)

ABB

ENGLISH

Electrical and electronic equipment to be separately collected in compliance with the Directive on waste electrical and electronic equipment (WEEE - 2012/19/EU)

The symbol (crossed out wheeled-bin) on your product indicates that the product shall not be mixed or disposed with your household waste, at their end of use.

This product shall be handed over to your local community waste collection point for the recycling of the product.

For more information, please contact your Government Waste-Disposal department in your country.

Inappropriate waste handling could possibly have a negative effect on the environment and human health due to potential hazardous substances. With your cooperation in the correct disposal of this product, you contribute to reuse, recycle and recover the product and our environment will be protected.

FRANÇAIS

Équipements électriques et électroniques collectés séparément conformément à la Directive relative aux déchets d'équipements électriques et électroniques (WEEE - 2012/19/EU)

Ce symbole (poubelle interdite) apposé sur le produit indique qu'en fin de vie ce produit ne doit pas être traité avec les déchets ménagers.

Il doit être remis à un point de collecte approprié pour le recyclage des appareils électriques et électroniques.

Pour de plus amples informations, veuillez contacter le service de collecte des déchets ménagers local.

Ce produit contient des substances potentiellement dangereuses qui peuvent avoir des effets néfastes sur l'environnement et la santé humaine. En veillant à la mise au rebut correcte de ce produit, vous contribuerez à assurer le traitement, la récupération et le recyclage de ce produit et à protéger l'environnement.

ESPAÑOL

Aparatos eléctricos y electrónicos recopilados de modo separado en conformidad con la Directiva sobre residuos de aparatos eléctricos y electrónicos (WEEE - 2012/19/EU)

Los productos identificados con este símbolo (papelera tachada) no deben eliminarse como residuos domésticos una vez finalizada su vida útil.

Este producto debe entregarse a un punto de recogida de la comunidad local para su recuperación y reciclado.

Para mayor información, sírvase ponerse en contacto con el Departamento de Disposición de Desechos de su Ayuntamiento.

El manejo inadecuado de los residuos supone riesgos para la salud humana o el medio ambiente. Con la reutilización, el reciclado de los materiales u otras formas de valorización de tales productos usted contribuye de manera importante a la protección de nuestro medio ambiente.

NEDERLASNDS

Elektrische en elektronische apparatuur worden afzonderlijk ingezameld in naleving van de vereisten van de Richtlijn betreffende afgedankte elektrische en elektronische apparatuur (WEEE - 2012/19/EU)

Het symbool (doorgekruisde afvalbak op wielen) op het product geeft aan dat het product aan het einde van haar levensduur niet samen met of in de vorm van huishoudafval mag worden weggegooid.

Het product moet naar een verzamelplaats (milieudepot) worden gebracht waar dergelijke producten worden gerecycled.

Neem voor meer informatie contact op met de relevante overheidsafdeling voor afval/vuilnis die in uw land bestaat.

Het kan nadelige gevolgen hebben op voor mens en milieu als afval op een verkeerde manier wordt behandeld waardoor potentieel schadelijke stoffen vrij komen. Door uw medewerking te verlenen en dit product op de juiste wijze wegwerpt, kunt u een bijdrage leveren aan het herstellen, hergebruiken en recyclen van dit product om zo ons milieu te beschermen.

DANSK

Elektrisk og elektronisk udstyr indsamles særskilt i overensstemmelse med direktiv om affald af elektrisk og elektronisk udstyr (WEEE - 2012/19/EU)

Symbolet (en overstreget affaldsspand med hjul) på produktet angiver, at produktet ikke må blandes med eller bortskaffes sammen med almindeligt husholdningsaffald, når det er udtjent.

Produktet skal afleveres til det lokale affaldsindleveringssted til genbrug.

Kontakt venligst afdelingen for bortskaffelse af affald i din kommune angående yderligere information.

Uhensigtsmæssig bortskaffelse af affald kan have en negativ virkning på miljøet og folks helbred, da det kan indeholde potentielle, farlige substanser. Med din medvirken i henseende til forskriftsmæssig bortskaffelse af dette produkt, kan du bidrage til genbrug, recirkulere og genindvinde produkterne og samtidigt medvirke til, at vores miljø vil blive beskyttet.

DEUTSCH

Elektro- und Elektronikgeräte sind getrennt zu sammeln in Einklang mit der Richtlinie über Elektro- und Elektronik-Altgeräte (WEEE - 2012/19/EU)

Dieses Symbol (ausgekreuzte Mülltonne) auf dem Produkt bezeichnet, dass Altgeräte usw.

nicht wie normaler Haushaltsabfall in den Müll gegeben werden dürfen, sondern zum Recycling an einer hierfür vorgesehenen Annahmestelle abzugeben ist.

Für nähere Informationen wenden Sie sich bitte an die für Müllentsorgung zuständigen örtlichen Behörden.

Bei unsachgemäßer Entsorgung besteht das Risiko nachteiliger Auswirkungen auf Umwelt und Gesundheit durch potentiell gefährliche Substanzen. Durch Ihre Kooperation zur ordnungsgemäßen Entsorgung fördern Sie die Wiederverwendung, das Recycling und die Rückgewinnung von Stoffen und tragen zum Umweltschutz bei.

ITALIANO

Apparecchiatura Elettrica ed Elettronica oggetto di raccolta differenziata in conformità alla Direttiva sui Rifiuti di apparecchiature Elettriche ed Elettroniche (WEEE - 2012/19/EU)

Il simbolo (un bidone sbarrato da una croce) indica che il prodotto non deve essere smaltito con i rifiuti domestici, alla fine della sua vita.

Questo prodotto deve essere consegnato al punto di raccolta rifiuti della propria comunità locale per il suo riciclaggio.

Per ulteriori informazioni, rivolgersi all'organo statale preposto allo smaltimento dei rifiuti nel proprio paese.

Uno smaltimento dei rifiuti inappropriato può avere effetti negativi sull'ambiente e sulla salute umana a causa di sostanze potenzialmente pericolose. Collaborando allo smaltimento corretto di questo prodotto, si contribuisce al riutilizzo, al riciclaggio e al recupero del prodotto, e alla protezione del nostro ambiente.

PORTUGUÊS

Equipamentos Eléctricos e Electrónicos recolhidos seletivamente de acordo com a Diretiva relativa aos resíduos de equipamentos elétricos e eletrónicos (WEEE - 2012/19/EU)

O símbolo (caixote de lixo de rodas com uma linha cruzada) em seu produto indica que o produto, no fim da sua vida útil, não deve ser misturado ou eliminado com o lixo doméstico comum.

Este produto deverá ser entregue a uma estação de recolha de lixo da comunidade local para a reciclagem do produto.

Para mais informações, entre em contacto com o Departamento de Tratamento de Lixo do Governo do seu país.

O tratamento de lixo incorrecto poderia provocar um efeito negativo no meio ambiente e saúde humana devido a substâncias potencialmente perigosas. Com a sua cooperação para a eliminação correcta deste produto, contribuirá para a reutilização, reciclagem e recuperação do produto, e nosso meio ambiente será protegido.

SVENSKA

Elektriska och elektroniska produkter ska samlas in separat i enlighet med direktivet om avfall som utgörs av eller innehåller elektrisk eller elektronisk utrustning (WEEE - 2012/19/EU)

Denna symbol (en överkorsad soptunna) på produkten innebär att produkten ej ska blandas eller slängas med ditt hushållsavfall när den är förbrukad.

Produkten ska lämnas till en lokal insamlingsplats för denna slags produkter för återvinning.Kontakta kommunkontoret för närmare detaljer om var du finner sådana insamlingsplatser.

Olämplig avfallshantering kan få negativa effekter på miljön och på mänsklig hälsa då en produkt kan innehålla farliga ämnen.

Vi ber om ditt samarbeta i bortskaffningen av denna produkt för att bidra till återvinning, återanvändning och en hälsosammare miljö.

SUOMI

Sähkö- ja elektroniikkalaitteet on kierrätettävä erikseen sähkö- ja elektroniikkalaiteromusta annetun direktiivin (WEEE - 2012/19/EU) mukaisesti

Tuotteeseen merkitty symboli (yliviva ruksattu jätesäiliö) osoittaa, että tuotetta ei saa sekoittaa eikä hävittää talousjätteiden kanssa.

Tuote on luovutettava sopivaan tällaisten laitteiden kierrätyksestä huolehtivaan keräyspisteeseen.

Pyydä lisätietoja jäteasioista vastaavilta paikallisilta viranomaisilta.

Tämän tuotteen asianmukaisen hävittämisen varmistamisella autetaan estämään sen mahdolliset ympäristöön ja terveyteen kohdistuvat haittavaikutukset, jotka voi aiheutua muussa tapauksessa tämän tuotteen epäasianmukaisesta käsittelystä. Hävittämällä tuotteen asianmukaisesti autat varmistamaan, että tuote uudelleenkäytetään, kierrätetään ja kerätään ja ympäristöä suojellaan.

ČESKY

Elektrická a elektronická zařízení, která se shromažďují odděleně v souladu se Směrnicí o elektrickém a elektronickém odpadu (WEEE - 2012/19/EU)

Symbol (přeškrtnutá popelnice na kolečkách) na Vašem výrobku označuje, že výrobek se po ukončení jeho používání nesmí míchat a vyhazovat společně s běžným odpadem z domácností.

Tento výrobek je třeba odložit na určené sběrné místo ve vaší oblasti pro provedení recyklace tohoto výrobku.

Pro další informace se obraťte na místní orgány státní správy zabezpečující sběr a likvidaci odpadů.

Nesprávné nakládání s odpady by mohlo mít za následek negativní vliv na životní prostředí a lidské zdraví z důvodu možného vzniku škodlivých látek. Pomocí vaší spolupráce při správném způsobu znehodnocení tohoto výrobku přispějete ke znovu využití, recyklaci a obnově výrobku přičemž naše životní prostředí bude ochráněno.

POLSKI

Sprzęt Elektryczny i Elektroniczny podlegający selektywnej zbiórce zgodnie z Dyrektywą (WEEE - 2012/19/EU)

Symbol (przekreślony kosz) na Twoim produkcie oznacza, że produkt nie powinien być mieszany lub usuwany z Twoimi odpadami pochodzącymi z gospodarstwa domowego, po jego zużyciu.

Produkt ten powinien zostać dostarczony do lokalnego komunalnego punktu zbiórki odpadów, w celu recyklingu produktu.

W celu uzyskania większej ilości informacji, prosimy o skontaktowanie się z krajowym Wydziałem Zarządzania Gospodarką Odpadami w Twoim kraju.

Niewłaściwe manipulowanie odpadami może negatywnie oddziaływać na środowisko i zdrowie ludzi, wskutek potencjalnych substancji niebezpiecznych. Współpracując przy prawidłowym usunięciu tego produktu, przyczyniasz się do ponownego użycia, recyklingu i odzysku produktu i w ten sposób nasze środowisko będzie chronione.

SLOVENŠČINA

Električna in elektronska oprema se zbira ločeno v skladu z Direktivo o odpadni električni in elektronski opremi (WEEE - 2012/19/EU)

Oznaka (prekrižan smetnjak na kolesih) na vašem izdelku označuje, da se tega izdelka po končani uporabi ne sme mešati ali odvreči z ostalimi gospodinjskimi odpadki.

Ta izdelek je potrebno oddati vaši lokalni deponiji z odpadki za predelavo takšnih izdelkov.

Za podrobnejše podatke se obmite na državni urad za odstranjevanje odpadkov v vaši državi.

Zaradi nevarnih snovi ima lahko napačno upravljanje z odpadki negativne posledice na okolje in zdravje ljudi. Z vašim sodelovanjem pri pravilnem odstranjevanju tega izdelka, pripomorete k ponovni uporabi, recikliranju in nadomestitvi izdelka. Naše okolje bo tako zavarovano.

EESTI

Elektri- ja elektroonikaseadmed tuleb koguda eraldi kooskõlas elektri- ja elektroonikaseadmete direktiiviga (WEEE - 2012/19/EU)

Sümbol (ristiga maha tõmmatud vagun) tootel osutab, et käesolevat toodet ei tohi peale selle kasutuskõlbmatuks muutumist visata ära koos muu majapidamises tekkiva prügiga.

Käesolev toode on ümbertöödeldav ning tuleb viia kohalikku prügikogumis- või ümbertöötlemiskeskusesse.

Täpsema informatsiooni saamiseks palume pöörduda selle riigiasutuse poole Teie riigis, mis tegeleb prügimajandusse puutuvate regulatsioonidega.

Käesoleva toote vale käsitlemine selle kõrvaldamisel võib põhjustada võimalikest riskiainetest tulenevat negatiivset mõju nii keskkonnale kui ka Teie tervisele. Toote korrektne käsitsemine ka peale selle kasutuskõlbmatuks muutumist ja Teie kaasabi käesoleva toote korduvkasutusse või ümbertöötlusesse saatmisel aval Teile lisavõimaluse kaitsta ühist loodukeskkonda.

SRPSKI

Električna i elektronska oprema koju treba sakupiti zasebno u skladu sa Direktivom o odbačenoj električnoj i elektronskoj opremi (WEEE - 2012/19/EU)

na vašem proizvodu označava da se proizvod po isteku svog radnog veka ne sme pomešati, niti bacati zajedno sa otpadom iz domaćinstva.

Ovaj proizvod se mora predati na mestu za prikupljanje otpada za reciklažu u vašoj lokalnoj zajednici.

Za dodatne informacije molimo kontaktirajte nadležni organ za odlaganje otpada u vašoj zemlji.

Nepravilno rukovanje otpadom može negativno da utiče na životnu sredinu i zdravlje ljudi, zbog potencijalno opasnih supstanci. Vašom saradnjom na pravilnom odlaganju ovog proizvoda, Vi doprinosite ponovnom korišćenju, recikliranju i sakupljanju proizvoda što će zaštititi vašu životnu sredinu.

MAGYAR

A leselejtezett elektromos és elektronikus berendezéseket az elektromos és elektronikus berendezések hulladékairól szóló (WEEE - 2012/19/EU) irányelv értelmében külön kell gyűjteni

A készüléken lévő szimbólum (keresztben áthúzott kuka) azt jelzi, hogy a terméket használat után ne keverje, illetve ne helyezze el háztartási hulladékkal.

A terméket újbóli hasznosításra le kell adnia a kijelölt hulladékgyűjtő helyen.

További információért kérjük, forduljon az országában lévő illetékes általami hulladékelhelyezési szervhez. Nem megfelelő hulladékkezelésnek potenciálisan veszélyes anyagok miatt negatív hatása lehet a környezetre és az emberi egészségre.

A termék helyes elhelyezésében való közreműködéssel Ön hozzájárul annak újrafelhasználásához, újrafeldolgozásához és visszanyeréséhez, és védi a környezetünket.

SLOVENČINA

Elektrické a elektronické zariadenia, ktoré sa zbierajú separovane v súlade so smernicou o odpade z elektrických a elektronických zariadení (WEEE - 2012/19/EU)

Symbol (prečiarknutý odpadkový kôš) na výrobku znamená, že daný výrobok nie je možné po skončení používania zmiešať a vyhodiť spolu s bežným domácim odpadom.

Výrobok je nutné odovzdať do zberne odpadu vo vašej lokalite, kde dôjde k jeho recyklácii.

Presné informácie Vám poskytne úrad štátnej správy zodpovedný za zber a likvidáciu odpadu.

Nesprávna likvidácia odpadu môže mať negatívny dopad na životné prostredie a ohroziť ľudské zdravie nebezpečnými látkami. Naopak správnym postupom pri likvidácii odpadu umožníte jeho

opätovné použitie, recykláciu a obnovenie výrobku, čím prispejete k ochrane životného prostredia.

LIETUVIŲ

Laikantis Direktyvos (WEEE - 2012/19/EU) dėl elektros ir elektroninės įrangos atliekų, elektros ir elektroninė įranga turi būti surenkama atskirai

Simbolis (perbraukta šiukšlių dėžė su ratukais), esantis ant jūsų įsigytos įrangos, reiškia, kad įranga, pasibaigus jos naudojimui, negali būti mišioma ar šalinama kartu su buitin ėmis atliekomis.

Tokia įranga turi būti perduota jūsų vietos bendruomenės atliekų surinkimo centrui, kad būtų panaudota kaip antrinė žaliava.

Daugiau informacijos galite gauti jūsų šalies vyriausybės atliekų tvarkymo departamente.

Netinkamas atliekų šalinimas gali neigiamai veikti aplinką ir žmonių sveikatą, nes atliekose gali būti pavojingų medžiagų. Teisingai šalindami šią įrangą jūs prisidedate prie pakartotinio įrangos panaudojimo, perdirbimo ir regeneracijos ir taip apsaugote aplinką.

LATVIEŠU

Elektriskās un elektroniskās iekārtas ir jāsavāc atsevišķi saskaņā ar Direktīvu par elektrisko un elektronisko iekārtu atkritumiem (WEEE - 2012/19/EU)

Simbols (pārsvītrota atkritumu tvertne), uz jūsu produkta, nozīmē, ka produktu nedrīkst izmest, pēc derīguma termiņa beigām, kopā ar parastajiem mājas atkritumiem.

Šis produkts tiks nodots vietējā kaitīgo atkritumu savākšanas punktā tā pārstrādāšanai.

Lai iegūtu plašāku informāciju, lūdzu, sazinieties ar jūsu Valsts atkritumu pārstrādes nodaļu.

Nepareiza attīrīvošanas no šī produktavar atstāt negatīvu ietekmi uz apkārtējo vidi un cilvēku Veselību potenciālā kaitīgā sastāva dēļ. Ar jūsu sadarbību šī produkta pareizā pārstrādē, jūs palīdzat aizsargāt apkārtējo vidi un atbalstāt produktu vairākkārtēju izmantošanu.

ΕΛΛΗΝΙΚΑ

Ο ηλεκτρικός και ηλεκτρονικός εξοπλισμός πρέπει να συλλέγεται ξεχωριστά σύμφωνα με την Οδηγία για τα απόβλητα ηλεκτρικού και ηλεκτρονικού εξοπλισμού (WEEE - 2012/19/EU)

Το σύμβολο (διαγραμμένος τροχήλατος κάδος απορριμμάτων) πάνω στο προϊόν σας υποδεικνύει ότι αυτό το προϊόν, με τη λήξη της χρήσης του, δεν πρέπει να αναμιχθεί ή να απορριφθεί μαζί με οικιακά απορρίμματα.

Αυτό το προϊόν πρέπει να παραδοθεί στο σημείο συλλογής αποβλήτων της περιοχής σας για την ανακύκλωσή του.

Για περισσότερες πληροφορίες, παρακαλούμε να επικοινωνήσετε με τη Δημόσια Υπηρεσία Διάθεσης Αποβλήτων της χώρας σας.

Η μη ορθή διαχείριση των αποβλήτων μπορεί να έχει αρνητικές επιπτώσεις στο περιβάλλον και στην ανθρώπινη υγεία λόγω της ενδεχόμενης ύπαρξης επικίνδυνων ουσιών. Με τη συνεργασία σας στη σωστή διάθεση αυτού του προϊόντος, συμβάλλετε στην επαναχρησιμοποίηση, ανακύκλωση και αξιοποίηση του προϊόντος και προστατεύετε το περιβάλλον.

12 Appendix C – Pedestal requirements

Any pedestal solution designed for Terra DC Wallbox needs to fulfill the specific ISO standards for civil constructions (note: specific local regulations may apply).

Additionally, whereas no specific constraint is provided by local regulations, the minimum set of requirements necessary to provide a safe installation are listed in the table below to be verified in the temperature range between -50°C - +60°C:

Minimum Wind load resistance	100km/h
Minimum compression load capability (applied on center of mass of the WB)	4kN
Side / Back / frontal impact MAX (applied on the pedestal/WB) higher point	3kN
Pulling /Pushing force applied (to gun holders if they are mechanically connected to same structure and external to the WB area)	3kN
Min / Max distance of gun holder from WB (if mechanically connected to pedestal structure)	300mm / 1000mm
Rust protection paint	Yes
Minimum clearance areas side / top / bottom around the charger	300mm
Recommended foundation requirements (min tilting torque)	To be designed considering the max loads in each direction
Vibration test required on the full system	According to procedure described in IEC 60068-2-27: 2008 and IEC 60068-2-6: 2007
Electrical ground connection	To the chassis of the DCWB

INSTALLATION MANUAL NORTH AMERICA

Terra DC Wallbox

North America Three-phase Version

Revision 2.9

Revision level	Change	Date
2.1	Added revision level to document and added revision table	04-15-2021
2.2	Added bulletin to make sure L1,L2,L3,N,PE are all connected prior to powering up	08-05-2021
2.3	Added new gun holder standard pictures	10-22-2021
2.4	Changed new DC Wallbox figures	10-22-2021
2.5	Added GID for optional gun holster – different connector type	03-16-2022
2.6	Added GID for minimal gun holster spare codes	03-31-2022
2.7	Added instruction to mounting gun holster	04-05-2022
2.8	Changed AC circuit breaker and Input current values	10-20-2022
2.9	Energy Star logo on the cover page	05-05-2023
3.0	Par. 5.4.1 note about number of people required to lift the DCWB	06-20-2023

Notice

This document contains information about one or more ABB products and may include a description of or a reference to one or more standards that may be generally relevant to the ABB products. The presence of any such description of a standard or reference to a standard is not a representation that all of the ABB products referenced in this document support all of the features of the described or referenced standard. In order to determine the specific features supported by a particular ABB product, the reader should consult the product specifications for the particular ABB product.

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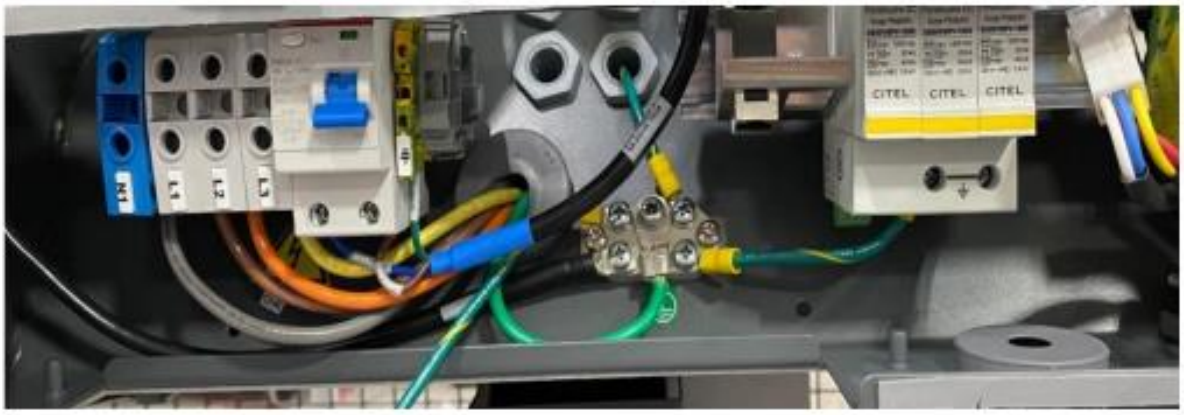
ATTENTION:

YOU **MUST** CONNECT L1, L2, L3, N AND PE WIRES BEFORE POWERING UP THIS CHARGER.

FAILURE TO DO SO WILL CAUSE DAMAGE TO THE CHARGER AND VOID WARRNTY

L1, L2, L3, N AND PE LABELS ARE ON THE TERMINAL BLOCK



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Contents

1 Introduction 7
1.1 Preface 7
1.2 Intended document users 7
1.3 Terra DC Wallbox hardware ordering details 7
1.4 Signs 8
1.4.1 Owner responsibilities 9
1.4.2 Tilting and handling 9
1.4.3 Sharp edges 9
1.4.4 Electric hazards 9
1.4.5 Installation safety 10
1.5 Environment and disposal of waste 10

2 Description of the product 11
2.1 Overview of the system 11
2.1.1 Complete overview 11
2.1.2 External view 12
2.1.3 Inside view 13

3 Installation Planning and Design 14
3.1 Internet connection 14
3.1.1 Internet via cellular connection 14
3.1.2 Internet via ethernet connection 14
3.2 Electrical requirements 15
3.2.1 Required electrical grid configuration 15
3.2.2 Overcurrent protection device 16
3.2.3 Conduit for power input wires 16
3.2.4 Specification for power input wires 16
3.2.5 Conduit for ethernet cable 17
3.2.6 Specification for ethernet cable 17
3.3 DC Wallbox placement 17
3.3.1 Charging cable reach 17
3.3.2 DC Wallbox position with respect to parking space 18
3.3.3 Required space for installing and maintaining the DC Wallbox 19
3.3.4 Ventilation and airflow required for the DC Wallbox 19
3.3.5 Considerations for where to position DC Wallbox vertically 20

4 Installation instructions 20
4.1 About construction 20
4.2 Instruction for a wall bearing 20
4.2.1 Mounting on a pedestal 20
4.3 Power feed 21
4.4 Internet connection 21

5 Receiving, Placing and connecting 21
5.1 Receiving the Wallbox 21
5.2 Unpacking the charging and mounting preparations 22
5.2.1 Unpacking 22
5.2.2 Mounting preparations 23
5.3 Move cabinet to position 23

5.3.1 Options 23
5.4 Mounting the Terra DC Wallbox 23
5.4.1 Mounting the Terra DC Wallbox 24
5.4.2 Install cable gland(s) or connect conduit to the unit. 27
5.5 Connect cables 29
5.5.1 Connect PE of power cable 29
5.5.2 Connect power cable 29
5.6 Instruction for Mounting the DC Wallbox Gun Holders 30
5.6.1 General 30
5.6.2 General description 30
5.6.3 Mounting instructions 30

6 Commissioning 32
6.1 Commissioning preparation 32

7 Maintenance and Cleaning of the cabinet 33
7.1 Recommended Periodic maintenance 33
7.2 Cleaning of the cabinet 33

8 Technical Data 34
8.1 Electrical data 34
8.2 Mechanical data 35
8.3 Environment 35
8.4 Certifications 35

9 Contact information 36

10 Appendix A – Mounting points 37
10.1 Terra DC Wallbox Charger wall mounting 37

11 Appendix B - Disposal instruction 38
11.1 Directive on Waste Electrical and Electronic Equipment (WEEE – 2012/19/EU) 38

12 Appendix C – Pedestal requirements 39

Glossary

AC
Alternating Current.

CCS
Combined Charging System. This is the name of the charging protocol of European and North American car makers.

CHAdeMO
DC fast charging method for electric vehicles.

Contractor
Entity hired by the owner / site operator to do engineering, civil and electrical installation work.

DC
Direct Current.

EV
Electric Vehicle.

Grid provider
Company responsible for the transportation and distribution of electricity.

HMI
Human Machine Interface; the display/screen on the charger.

NOC
ABB Network Operating Centre; remotely checks the correct functioning of the charger.

Owner
The legal owner of the charger.

OCPP
Open Charge Point Protocol. Open standard for communication with charge stations.

PE
Protective Earth.

PPE
Personal Protective Equipment.
Equipment such as safety shoes, helmet, glasses, gloves.

RCD
Residual Current Device. Breaks the connection if a residual current is detected.

RFID
Radio-Frequency IDentification. RFID is a communication technology by means of radio waves to transfer data over a very short distance between a reader and an electronic tag or card.

Site operator
This entity is responsible for the day to day control of the charger. The site operator can be the owner, but not necessarily.

User
The owner of an electric vehicle, who uses the Charge Station to charge that vehicle.

1 Introduction

1.1 Preface

This guide provides an overview for the installation of the Terra DC Wallbox.
The Terra DC Wallbox charging station is an easy to install DC fast charger for electric vehicles. Fast chargers 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). Local regulations shall take precedence if they list different installation requirements than prescribed in this Installation Manual.

The Terra DC Wallbox is offered in a variety of configurations and with multiple connector types. The different versions are described in section 1.3.

Before installing the Terra DC Wallbox, read this installation guide carefully and attentively. Be sure to follow all instructions when installing the charger. ABB is not responsible for any damage caused by not following or incorrectly executing the instructions described in this manual.

1.2 Intended document users

This document is intended to be used by:

- Customers who have purchased a Terra DC Wallbox or customers in the process of ordering and require additional details on installation.
- Contractors who are responsible for site preparation and/or installation of a Terra DC Wallbox.
-

1.3 Terra DC Wallbox hardware ordering details

ABB's Terra DC Wallbox single-phase is offered in the following configurations:

- Terra DC Wallbox C UL
- Terra DC Wallbox CJ UL

Where:

C CCS-1 (Combo) standard
J CHAdeMO standard
CJ CCS-1 (Combo) standard and CHAdeMO standard

All variations are offered with charging cable lengths of 7 meters (23 ft).
The Terra DC Wallbox comes with the standard connector holsters as shown.

Charging cable type	**ABB order code** (*)
CCS-1	ABB6AGC076604
CCS-1 (**)	ABB6AGC109619
CHAdeMO	ABB6AGC102972

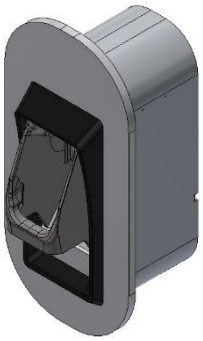
(*) the codes are referred to the spare parts. Minimal gun holster is included in the packaging

(**) CCS-1 minimal holster to be use in combination with products:

ABB6AGC107062	TWB UL 24 C 7TM-7M-0-0
ABB6AGC107061	TWB UL 24 C 3TM-7M-0-0
ABB6AGC107315	TWB UL 24 CJ 7TM-7M-0-0

Optional connector holsters shown below may be purchased separately with the order code details shown below.

Charging cable type	ABB order code
CCS-1	ABB6AGC076604
CCS-1 (*)	ABB6AGC109619
CHAdeMO	ABB6AGC076601



(*) CCS-1 optional holster to be use in combination with products:

ABB6AGC107062	TWB UL 24 C 7TM-7M-0-0
ABB6AGC107061	TWB UL 24 C 3TM-7M-0-0
ABB6AGC107315	TWB UL 24 CJ 7TM-7M-0-0

1.4 Signs

The following signs are used on the equipment and in this manual:

DANGER
Hazardous voltage
Identifies a hazard that could result in severe injury or death through electrocution.

WARNING
Various
Identifies a hazard that could result in severe injury or death.

WARNING
Rotating parts
Identifies a hazard that could result in injury due to the presence of rotating or moving parts.

WARNING
Pinch Hazard
Identifies a hazard that could result in injuries, in which some body parts are pinched or crushed.

CAUTION
Various
Identifies a hazard that could result in damage to the machine, other equipment, and/or environmental pollution.

CAUTION
Environmental damage
Identifies a hazard that could result in environmental damage and/or environmental pollution.

NOTICE
Contains remarks, suggestions or advice.

1.4.1 Owner responsibilities

The owner and site operator are required to:

- Operate the charge station with the protective devices installed and to ensure all protective devices are correctly installed after carrying out installation or maintenance work.
- Write an emergency plan that instructs people what to do in case of emergency.
- Prepare the site where the charge station will be installed according to the requirements described in this guide.
- Ensure there is sufficient space around the charger to carry out maintenance work.
- Appoint a person responsible for the safe operation of the charge station and for the coordination of all work.

The owner is cautioned that changes or modifications not expressly approved by ABB could void the owner's authority to operate the equipment and ABB's warranty policy.

Neither ABB nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs or expenses incurred by purchaser or third parties as a result of: an accident, misuse or abuse of this product or unauthorized modifications, repairs or alterations to this product, or failure to strictly comply with ABB's operating and maintenance instructions.

1.4.2 Tilting and handling

WARNING
Heavy equipment
The Terra DC Wallbox weighs approximately 70 kg. Follow the handling Instructions:
1. Two people are recommended for the installation and wall-mounting of a Terra DC Wallbox.
2. Do not drop the Terra DC Wallbox.

1.4.3 Sharp edges

WARNING
Sharp metal edges
There could be sharp metal edges inside the Terra DC Wallbox. It is recommended to wear mash protecting gloves when working inside the charger.

1.4.4 Electric hazards

DANGER
Hazardous voltage
The Terra DC Wallbox contains conductors under hazardous electrical voltages. The grid terminals on the internal DIN rail may carry hazardous voltages, even if all circuit breakers are switched off.

1.4.5 Installation safety

DANGER
Hazardous voltage
Instructions:
1. Always switch off the input circuit feeding the unit, (external disconnect or breaker) before performing any installation, disassembly, repair or replacement of components. Follow appropriate requirements for safe work practices, including but not limited to NFPA-70e.
2. Perform a voltage check to ensure electrical power is disconnected from the system.
3. Only ABB certified technicians should commission the Terra DC Wallbox.
4. When the system is in an open or dangerous condition, do not allow unqualified persons to go near it. Instruct and warn people about the potentially harmful high voltages.
5. The installation and maintenance personnel must supply their own lighting equipment because the Terra DC Wallbox has no lights inside the cabinet.
6. Always connect the Protective Earth (PE) first, before connecting the other power input wires.
7. Be sure to properly and securely reassemble the Terra DC Wallbox's enclosure after installation or service operations.
8. When handling the equipment, a proper lifting device should be used in accordance with your local EHS policies.

1.5 Environment and disposal of waste

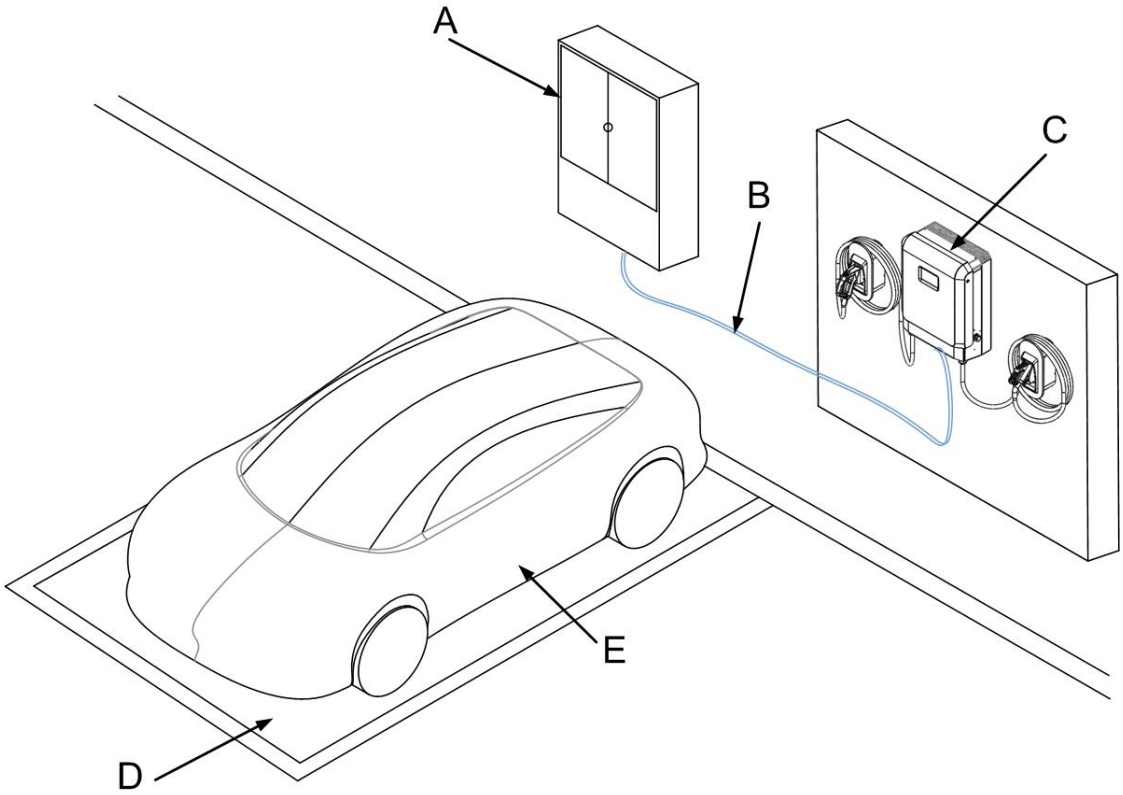
NOTICE

Always follow the local rules and regulations regarding disposal of any (non-reusable) Terra DC Wallbox parts.

2 Description of the product

2.1 Overview of the system

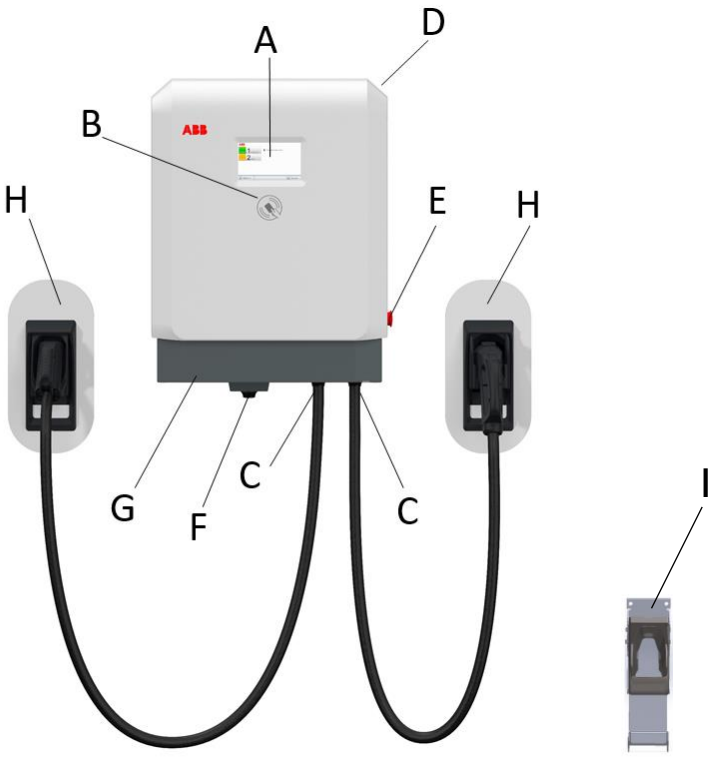
2.1.1 Complete overview



Example of a complete installation

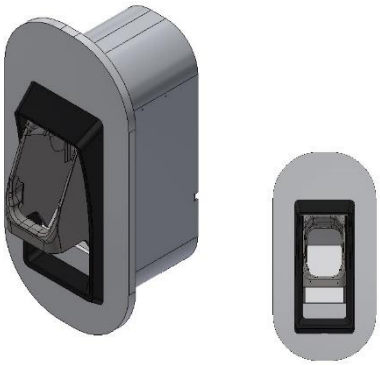
A	Power distribution board of the owner
B	Cables in conduit
C	Terra DC Wallbox
D	Parking space for charging
E	Electric vehicle

2.1.2 External view



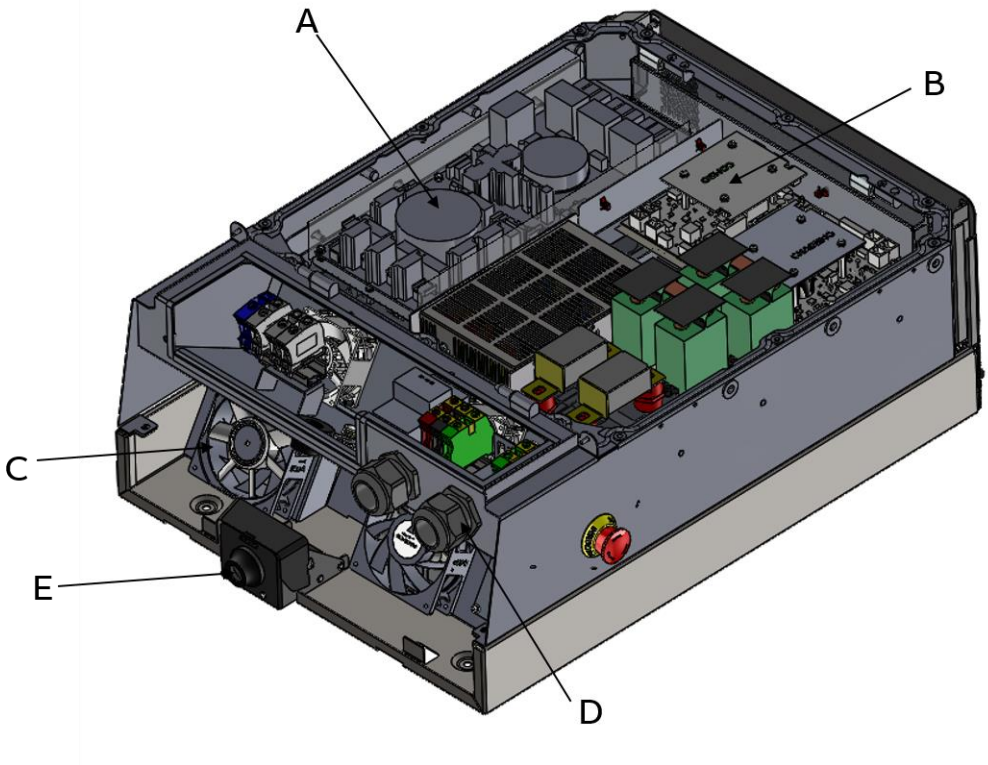
A	Display / HMI	E	Emergency stop button
B	RFID card reader	F	AC input connection point for Conduit
C	DC Charging cable	G	Air inlet
D	Air outlet	H	Optional Holster (purchased separately)
		I	Standard Holster (included)

Standard charging cable holster supplied with DC wallbox



Optional charging cable holster sold separate from DC wallbox

2.1.3 Inside view



A	AC input board	D	Cable gland for DC output(2x)
B	CPI and IMI boards	E	Cable gland for AC input
C	External Fan (2x)		

3 Installation Planning and Design

This section provides several considerations for the DC Wallbox installation planning and design, which are to be made by the customer to ensure a successful project.

3.1 Internet connection

ABB requires an internet connection to the DC Wallbox to conduct remote service operations including, oversight of the product during the warranty period, diagnosis and troubleshooting of issues, and performing software firmware update. Not having internet connection to the DC Wallbox may severely impact, or even void, the product warranty and/or ABB's service level agreement (SLA).

It is the installer's responsibility to ensure reliable internet connection to the DC Wallbox is made. Contingency planning and the associated costs are the responsibility of the installer.

3.1.1 Internet via cellular connection

The preferred method of establishing internet connection to the charger is using the charger's standard featured hardware with ABB's Charger Connect service offering, which provides internet access via Vodafone's 4G LTE wireless network.

In the USA, Vodafone primarily roams on the AT&T and T-Mobile 4G LTE networks. It is expected that a cellular availability test is performed prior to construction to ensure there is reasonable signal quality to at least one of the AT&T and T-Mobile 4G LTE bands 2 (1900 MHz), 4 (1700/2100MHz), or 12 (700 MHz).

The signal strength must be greater than -85dbm and should be measured with a cellular network signal meter, such as a Squid-4G or Sure Call device. Handheld mobile phones are not recommended for assessing signal strength since they are not reliable measuring devices.

The DC Wallbox only supports SIM cards provided by ABB. Customer procured SIM cards are not supported.

3.1.2 Internet via ethernet connection

Internet connection to the charger may be performed by connecting an ethernet cable to the charger from other on-site IT infrastructure. However, due to the scope of work required for integrating this solution to ensure secure communication, this method is typically not preferred.

ABB may require additional commissioning fees if ethernet cable method for establishing internet is used, depending on the situation. Please contact your ABB sales representative for more details.

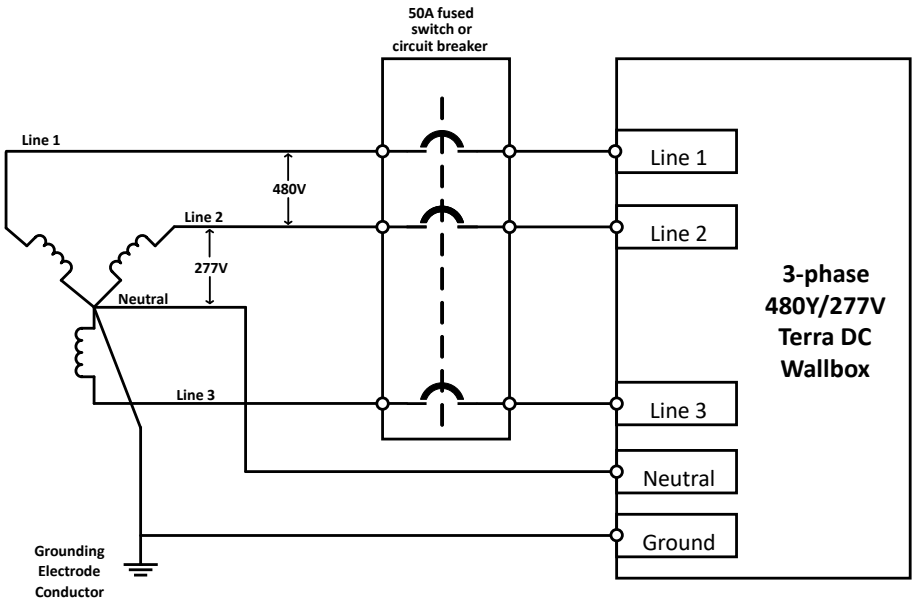
See sections 3.2.5 and 3.2.6 for more details on connection of conduit carrying ethernet cable and specification of the ethernet cable.

3.2 Electrical requirements

CAUTION
The installation company is responsible to design and install the electrical installation according to the local regulations.

3.2.1 Required electrical grid configuration

It is essential that the DC Wallbox 3-phase input variant is installed in the proper electrical grid configuration. The allowable grid configuration is shown in the figure below.



Electrical grid configuration required for 3-phase, DC Wallbox UL variant (3ø, 480Y/277V input)

NOTICE:

The grid connections shown for the various configurations of the DC Wallbox are mandatory. Failure to adhere to these instructions may partially or fully void the product warranty, result in a costly site visit to reconfigure the grid configuration, and/or cause several site visits for the DC Wallbox commissioning. ABB is not responsible for scheduling delays and additional costs from not properly planning the installation. If ABB is contracted to perform the DC Wallbox commissioning, ABB observes the right to charge additional money for more than one site visit required for the commissioning due to an initial, improper installation of the DC Wallbox.

Important steps to ensure project success include:

1. Identify the grid configuration at the location where the DC Wallbox will be installed. If the grid configuration available is not okay for use with the DC Wallbox, then determine how to establish the required grid connection. A transformer solution offered by ABB is available to derive the required grid configuration when the required grid configuration is not available. Contact your local ABB sales representative for more details.

2. Select the 1-phase or 3-phase variant of the DC Wallbox according to Section 1.3 titled Terra DC Wallbox hardware ordering details based on Step 1 above.

3. Carefully execute a project plan to ensure the correct variant of DC Wallbox is used on the project and that the project site's grid configuration is compatible with the DC Wallbox.

4. Verify the actual grid configuration the DC Wallbox is installed in matches the described criteria during the DC Wallbox commissioning.

3.2.2 Overcurrent protection device

Each variant of the DC Wallbox is recommended to be fed by the circuit breaker or fuse ratings shown below.

- 3-phase, 480Y/277V DC Wallbox variant: 3-pole, 50A circuit breaker or fuses

3.2.3 Conduit for power input wires

Each variant of the DC Wallbox supports up to a 1-1/4" trade size conduit connection.

3.2.4 Specification for power input wires

The exact size and type of wires used must be defined by the customer and be protected by customer provided overcurrent protection according to local codes and regulations.

The input terminals for 3-phase UL variants of the DC Wallbox accept a range of wire sizes from 10 AWG to 0 AWG. Wire terminals are rated 75C.

The 3-phase UL variant DC Wallbox requires Three (3) phase wires, One (1) neutral wire, and One (1) wire for protective earth. (3W+N+G)

All wires for 3-phase variants of the DC Wallbox may connect directly to the ABB provided terminals, with exception to the protective earth wire. The protective earth wire requires for the installer to crimp a terminal onto it using the terminal manufacturer's recommended crimp procedure and tool.

The integrity of the electrical grounding is essential. Ensure that the equipment grounding terminal is used in the device and an actual grounding conductor is installed to provide a path back to the source upstream panel. (Do not use the conduit or raceway as the sole equipment grounding conductor).

3.2.5 Conduit for ethernet cable

The DC Wallbox does not have a hole designated for a conduit carrying only an ethernet cable to connect to. If ethernet cable solution is required for an installation, please contact your ABB sales contact person to review ethernet cable entry solutions.

3.2.6 Specification for ethernet cable

If the cellular connection is not available, ethernet connection must be made to the charger using a shielded 8P+PE ethernet cable with RJ45 connectors. Additional recommendations include:

- Maintain distance of 75 meters or less. Distances over 75 meters require a custom engineered solution.
- Minimum bandwidth:
  upload: 128 kb/s
  download: 4 Mb/s
- 99.9% availability
- 600V rated cable that may route beside input power wires for short distances

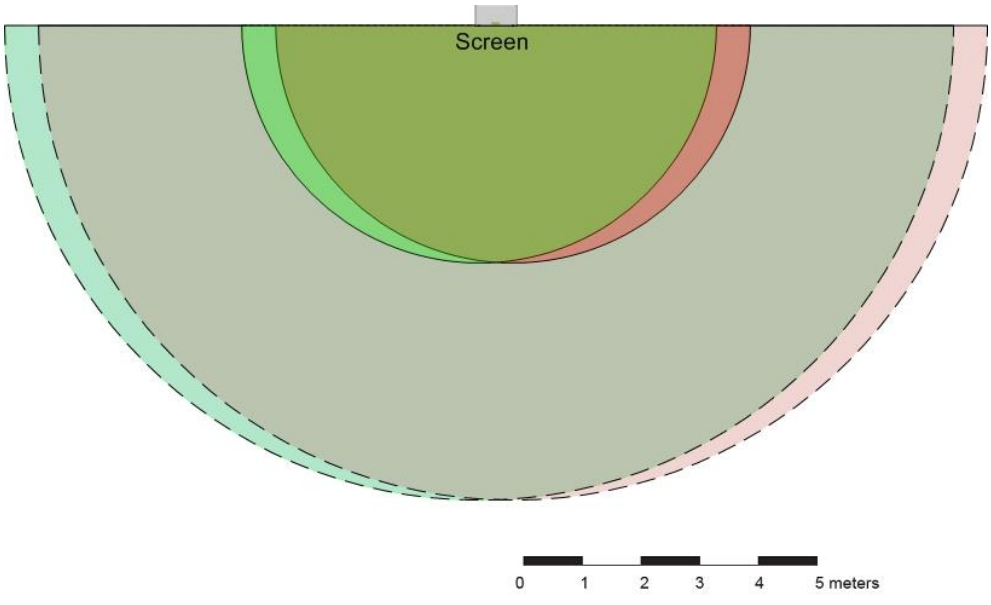
3.3 DC Wallbox placement

Placement of the Terra DC Wallbox must be carefully determined by accounting for charging cable reach, DC Wallbox position with respect to parking space, bollards and wheel stops, ventilation and working clearances, and other local codes and regulations (e.g. ADA requirements in the USA).

3.3.1 Charging cable reach

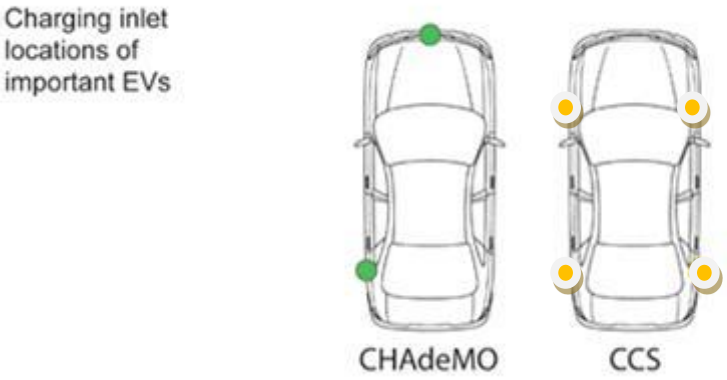
The Terra DC Wallbox charging cables are available in lengths of 3.5 or 7 meters. The charging cables exit the charger enclosure on both the right and left sides. The cables and the connectors mounted on the cables are different depending on the charging standard and vary in flexibility.

The figure below shows an example of a dual connector charger with both types of connector and the corresponding reach area. The green circle with a continuous line describes the CHAdeMO cable 3.5m and the red circle with a continuous line describes the CCS cable 3.5m. The broken lines indicate the same cable types with a length of 7 meters (23 ft).

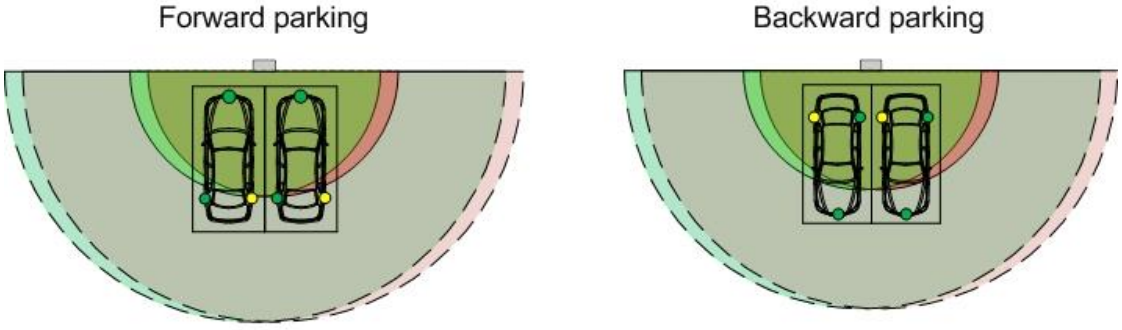


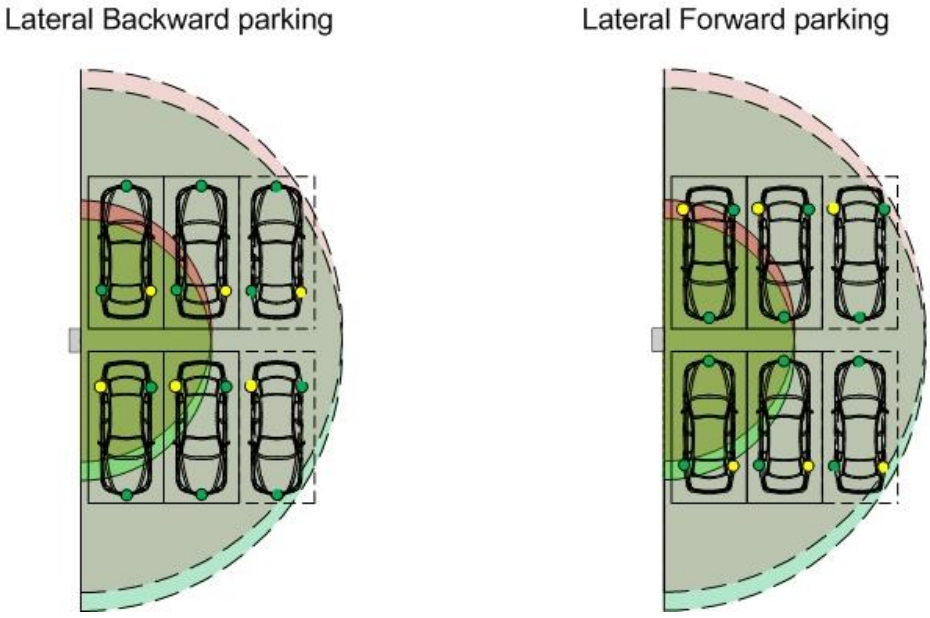
3.3.2 DC Wallbox position with respect to parking space

The charging inlets on a vehicle can be located at different positions depending on the manufacturer. The most common vehicles have inlets located either on the front or in the back on either the left or right side.



This makes some charger placements with respect to the parking space more favorable than others. Keep this in mind when designing a site. Below are examples of possible situations:





3.3.3 Required space for installing and maintaining the DC Wallbox

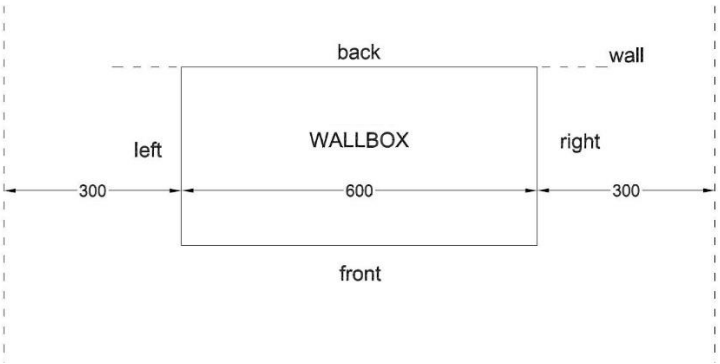
The Terra DC Wallbox requires a minimum space of 36” x 48”. This space is calculated as follows:

- Charger size (H x W x D): 30.3 x 23 x 11.8 in

- Bottom side 23.6” (15.75” from the Terra DC Wallbox in order to avoid obstacles for the electrical connection).

- Left and right side 300mm/12”, in order to operate without obstacles on the lateral side of the Terra DC Wallbox.

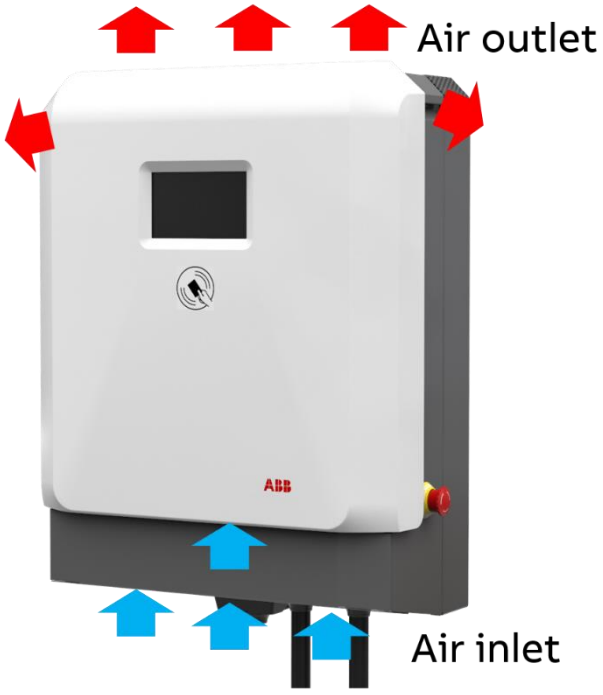
Note: The below dimensions are shown in millimeters.



3.3.4 Ventilation and airflow required for the DC Wallbox

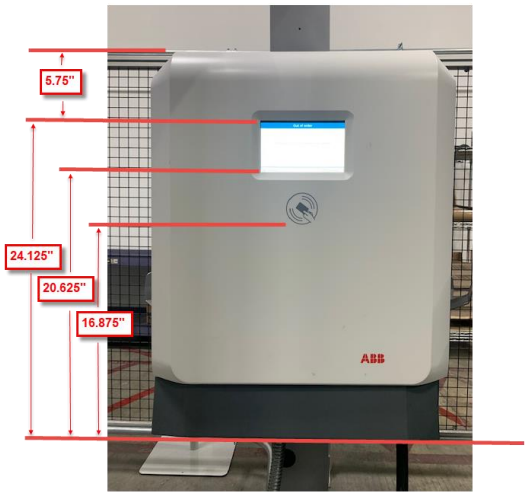
The Terra DC Wallbox has an air inlet on the bottom side and an outlet on the top side.

NOTICE
Free air flow
If necessary, take precautions to prevent snow or objects from blocking the inlets and outlets.



3.3.5 Considerations for where to position DC Wallbox vertically

The below picture shows the height of the operable parts and display screen from the top and bottom of the DC Wallbox' s enclosure (not accounting for piece on enclosure where the customer conduits connect to). It is the installer's responsibility to use this information to define the height at which to install the DC Wallbox from the ground and to ensure compliance to local codes and regulations (**e.g. ADA requirements in the USA).**



4 Installation instructions

4.1 About construction

The construction phase includes all work required to prepare the location and ensure it is ready for the placement and connection of the Terra DC Wallbox charger. The construction phase can start when:

- The wall preparation work is done.
- All necessary permits are granted.
- The grid connection is available.

4.2 Instruction for a wall bearing

1. Drill and tap 4 holes and insert the plug for fixation in the wall at the indicated positions (refer to technical drawing in the Appendix A par. 10.1). For safety purposes, the number of recommended fixing screws is 4xST7.3x70. This is assuming the appropriate type of wall plugs are used (depends on wall's characteristics, structure and type). It is the installer's responsibility to choose an appropriate wall plug and to plan for a load of 820 N on each plug.
2. When selecting the area along the wall for installation, ensure the required free spaces for the Terra DC Wallbox cables are available (refer to section 3.4).

4.2.1 Mounting on a pedestal

The Terra DC Wallbox can also be mounted on a pedestal. In order to achieve a safe installation, the minimum set of requirements are included in Appendix C – Pedestal requirements). For the ABB pedestal solution, contact your local ABB sales representative.

4.3 Power feed

The power cable enters the charger from below. Use conduit, foam, or proper cable lugs and glands to prevent animals from entering the AC or Ethernet cable inlets. (Reference Section 3.2 for feeder specifications)

4.4 Internet connection

The preferred method of communication is the wireless 4G modem integrated into the charger. A customer SIM card is not required. A subscription for the SIM card is provided by ABB for select countries.

If there is no wireless signal available, a standard wired internet connection is required. (Reference Section 3.1, 3.2.5 and 3.2.6 for wiring and connection methods)

- The connection must be available for the ABB service engineer and the NOC (Network Operation Center).
- Please contact ABB (800.825.2556 option 2) for a specific configuration.

If a separate internet connection is not used, please ensure the cable entry hole is closed to retain the IP54 grade of the cabinet and prevent insects and small animals from entering the cabinet.

5 Receiving, Placing and connecting

5.1 Receiving the Wallbox

The product is delivered by a transport company to a warehouse where it will be handed over.

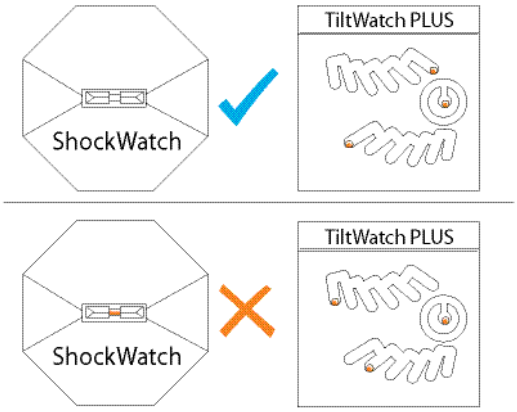
Transporting the Terra DC Wallbox to its final location (last mile service) is not included standard in the order.

NOTICE

The delivery truck unloads the pallet carrying the Terra DC Wallbox. The movement of the Terra DC Wallbox to its final location is the responsibility of the customer / contractor.

Ensure the Terra DC Wallbox has not been shaken or tilted.

- The cabinet is equipped with Shock Watch and Tilt Watch indicators.



Checking the Shock Watch and Tilt Watch PLUS sensors:

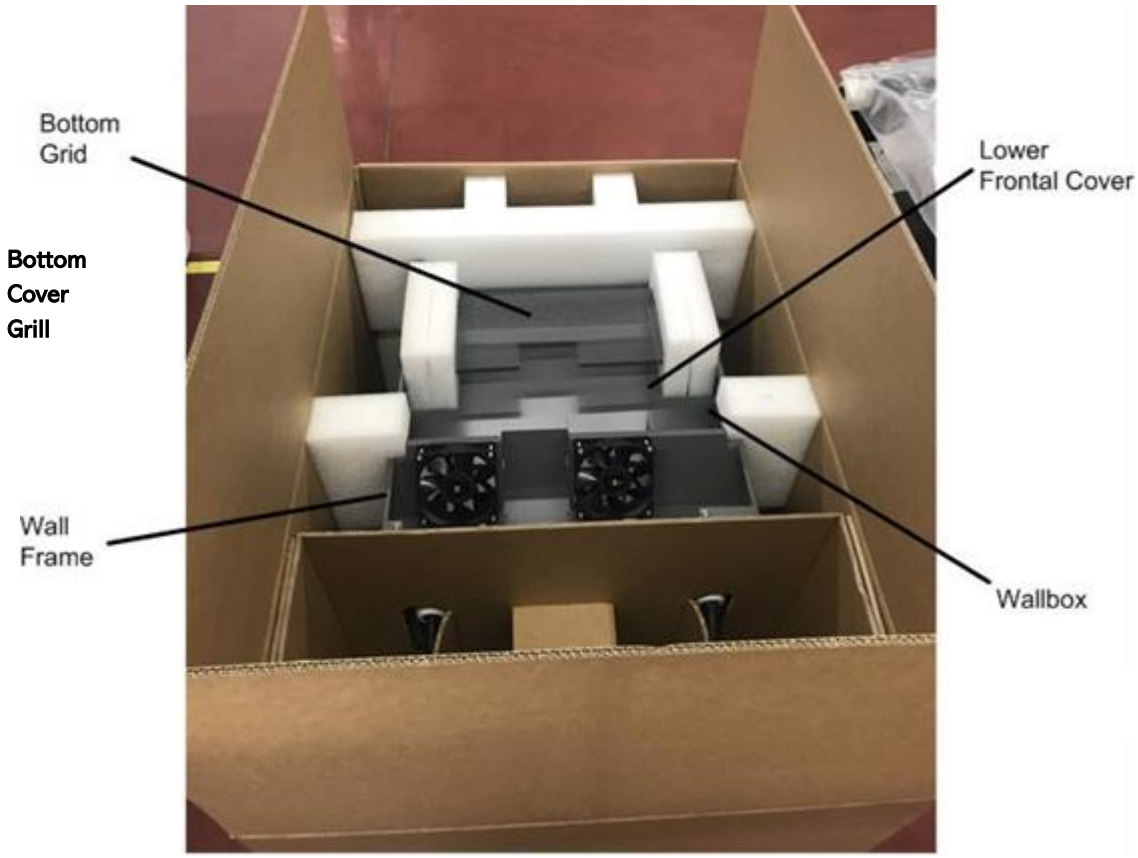
If the Shock Watch indicator is red, or the Tilt Watch PLUS indicator is tilted over 30°:

1. Do not refuse the delivery / receipt.
2. Make a notation on the delivery receipt and inspect cabinet for damage.
3. If damage is discovered, leave cabinet in original package and request immediate inspection from carrier within 3 days of delivery.
4. Contact your local ABB office.

5.2 Unpacking the charging and mounting preparations

5.2.1 Unpacking

The packaging of the Terra DC Wallbox can be removed without the use of tools. Follow local regulations on disposal of packaging material.



1. Remove the plastic protection profiles.
2. Remove the bottom air grate grill and the lower frontal cover.
3. Remove the wall frame.
4. Remove the Terra DC Wallbox. (USE CAUTION TO NOT DAMAGE THE E-STOP BUTTON ON THE SIDE OF THE ENCLOSURE)
5. Remove the AC ferrite core link to the outlet gun cable (assembly position shown at paragraph 5.4.2)
6. For all components above, remove the shrink wrap.

5.2.2 Mounting preparations

Unpack the IP BOX and verify all the following items are present:

- Wall frame
- Frontal cover
- Bottom grid cover

5.3 Move cabinet to position

5.3.1 Options

A properly rated lifting devices should be used to move the Terra DC Wallbox from the delivery truck to the installation location.

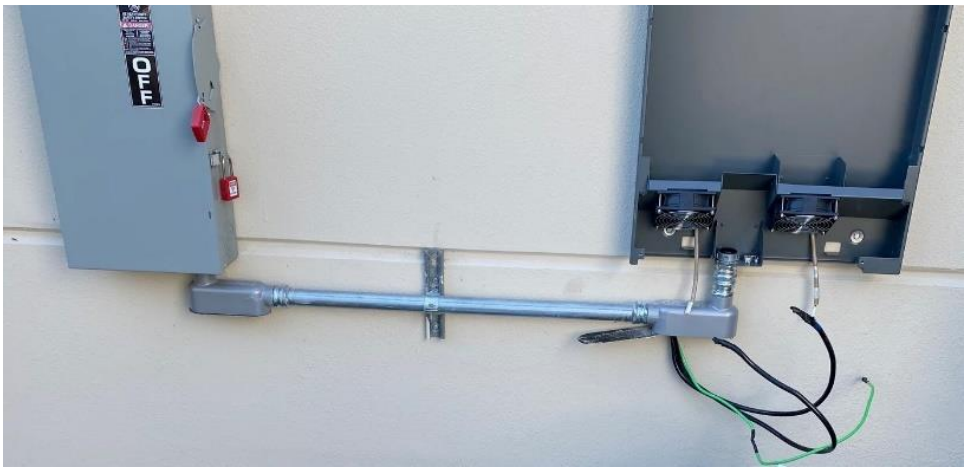
DANGER
Hazardous voltage
Ensure the product's power supply group main switch is set to the OFF position. Perform a voltage check to verify there is no electrical power on the cables or on the system. Secure the product from resetting.

NOTICE
Warranty
Damage due to moving the cabinet to its position is not considered a warranty issue.

5.4 Mounting the Terra DC Wallbox

Preconditions:

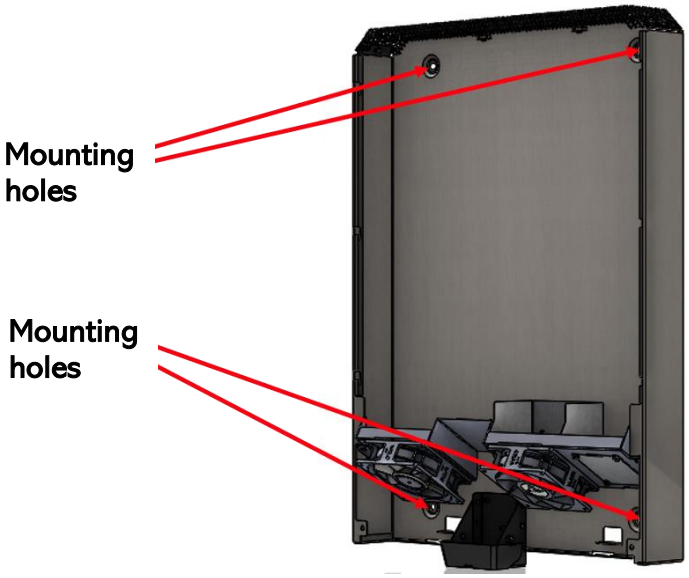
- Tools: Spanner/Wrench size 17.
- Guide the power cable through the central cable gland, and the Ethernet cable if required, through the smaller gland. Install the power wiring in the conduit/raceway that is connected to the unit. See below image for a typical conduit install make ready for installation of the Wallbox.



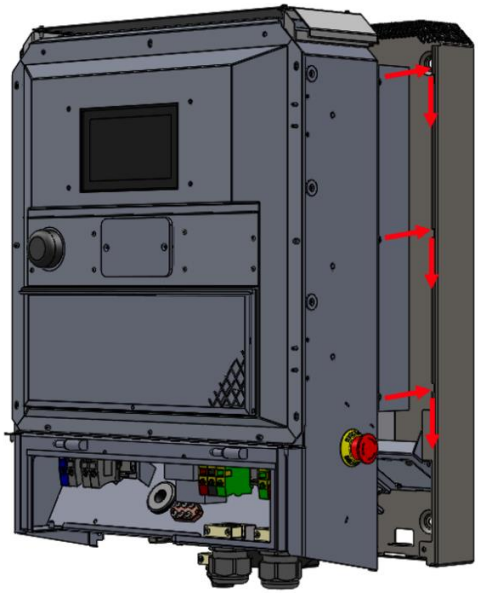
5.4.1 Mounting the Terra DC Wallbox

NOTICE
The minimum number of people required to lift and install the Terra DC Wallbox must be determined based on the relevant local regulation with taking into account the maximum allowed weight per person as well as the usage of the appropriate and suitable lifting equipment. The definition of the exact lifting equipment and working method for lifting is the responsibility of the installation contractor.

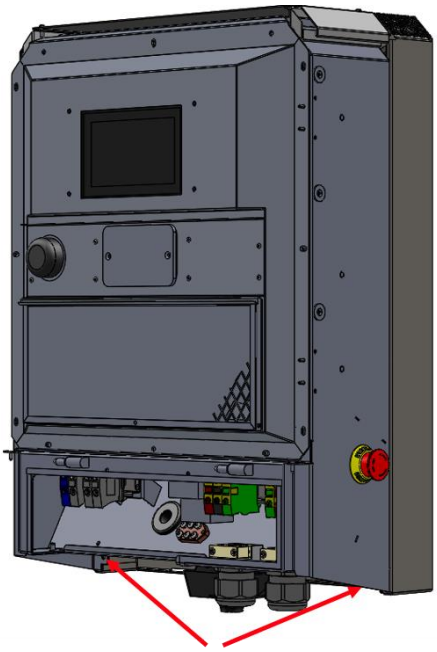
1. Carefully lower the Terra DC Wallbox onto its location.
2. Ensure cable(s) are not entrapped.
3. Place the wall frame in the correct position on the wall bearing by aligning the four holes of the charger with the corresponding holes on the wall bearing.
4. Tighten the four screws with stainless steel 8.8 hexagonal bolts.



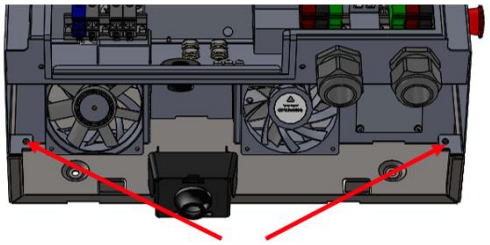
5. Place the unit on the wall frame by correctly aligning the 6 bolts (3 for each lateral side).



6. Tighten the two M5 bolts on the lower side of the unit. Pay attention to the internal fan power supply cable. CAUTION: DO NOT SET SMALL OBJECTS ON TOP MESH COVER, ITEMS MAY FALL INTO THE COOLING FINS OR FAN COMPONENTS.

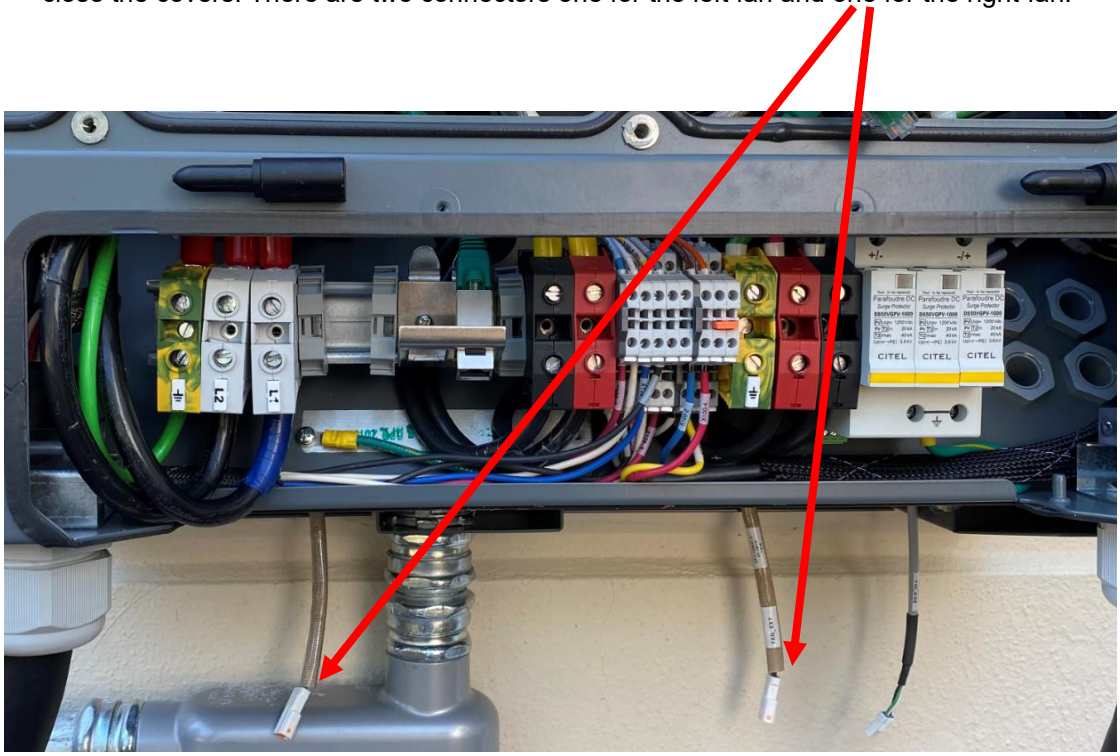


DETAIL
(BOTTOM VIEW)

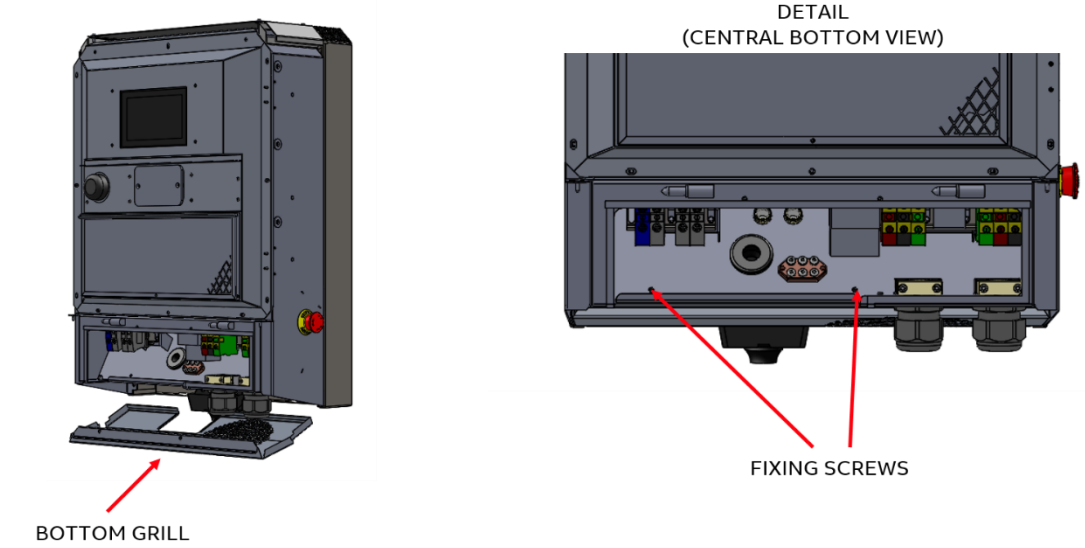


7. Let the auxiliary power supply cable pass through the central gland and tighten it.

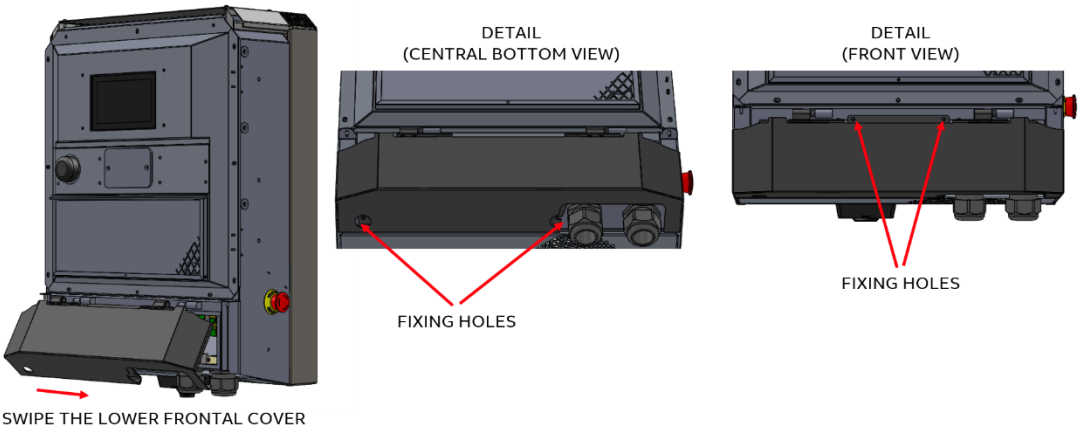
8. IMPORTANT, connect both of the cooling fans to their power connections before proceeding to close the covers. There are two connectors one for the left fan and one for the right fan.



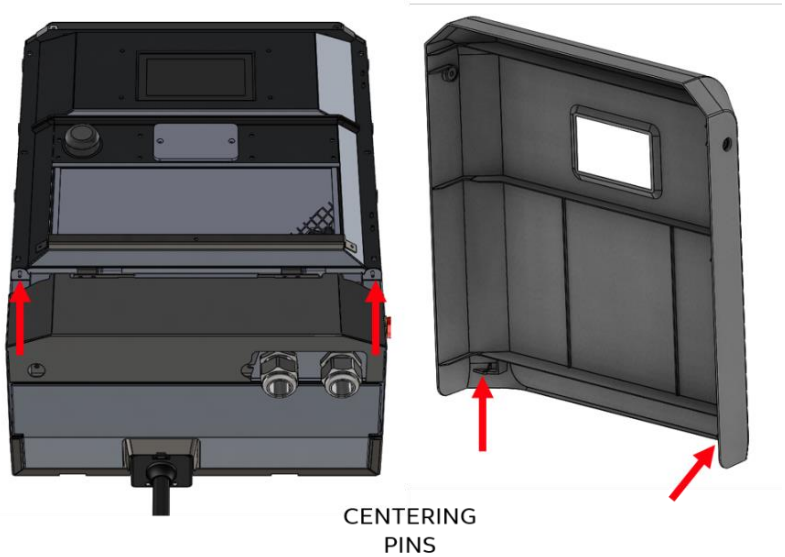
9. AFTER the completing wiring terminations, take the bottom cover grill and put it on the lower side of the unit and fix it by tightening two screws as shown in the following picture. Please note the 3-phase and 1-phase versions have a slightly different bottom grill assembly



10. Take the lower frontal cover and place it on the lower side of the unit. Secure it in place by tightening the two screws.



11. Center the holes on the plastic cover with the pins on the box.



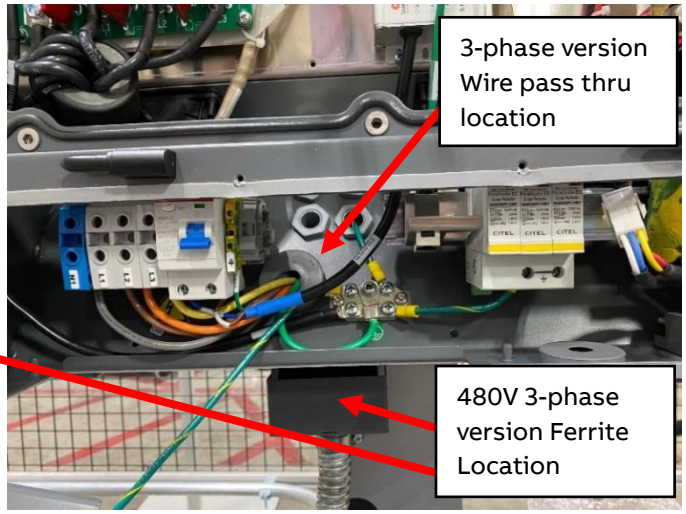
12. Place the central cover on the unit and secure it in place by tightening the two screws located on the left and right side of the cover. Center the bottom pins, rotate the cover, and tighten the 2 lateral screws.

5.4.2 Install cable gland(s) or connect conduit to the unit.

The maximum diameter of the grid cable is 32 mm. The opening is pre-punched for a 1.25” trade size conduit. The minimum diameter of the grid cable is 22 mm with the standard fitted cable gland insert.

Conduit Install shown as a comparison

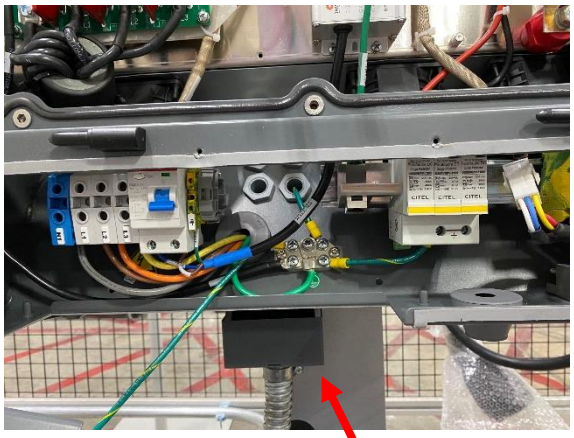
1. Slide the cable inside the grommets, ensure at least 10mm of cable external jacket inside the box (see notes at the end of this section, before sliding the cable inside the grommet. Allow at least 24 inches of wire from the conduit entry point to allow enough wire to route thru the internal grommet/cable glands and wrap around to the terminal blocks. (For the 3-phase version, remember to route the wires thru the ferrite)



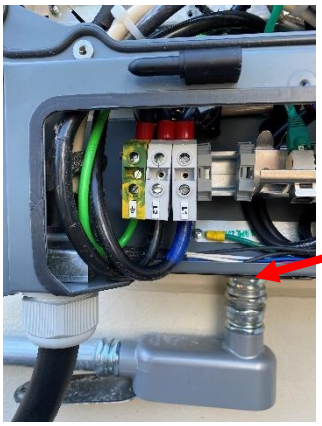
NOTE 1: For 3-phase versions a ferrite core is provided with the Wallbox (plastic bag within the package or strapped to the CCS-1 cable) and needs to be installed in commissioning phase. The Ferrite needs to be inserted in the AC in cable and located in the screw cable cover (see picture above, left). ***THE FERRITE IS REQUIRED TO MAINTAIN THE WARRANTY.***

NOTE 2: Two floating grounding cables are provided that are connected to the ground node. One cable must be connected between the to the wall frame PEM the other to the front lower cover in order to guarantee equal ground potential (see picture above, right).

2. Push the cables back through the gland plate, until sufficient cable length is left to reach the cable terminals. Ensure the PE cable is longer than the other cables.



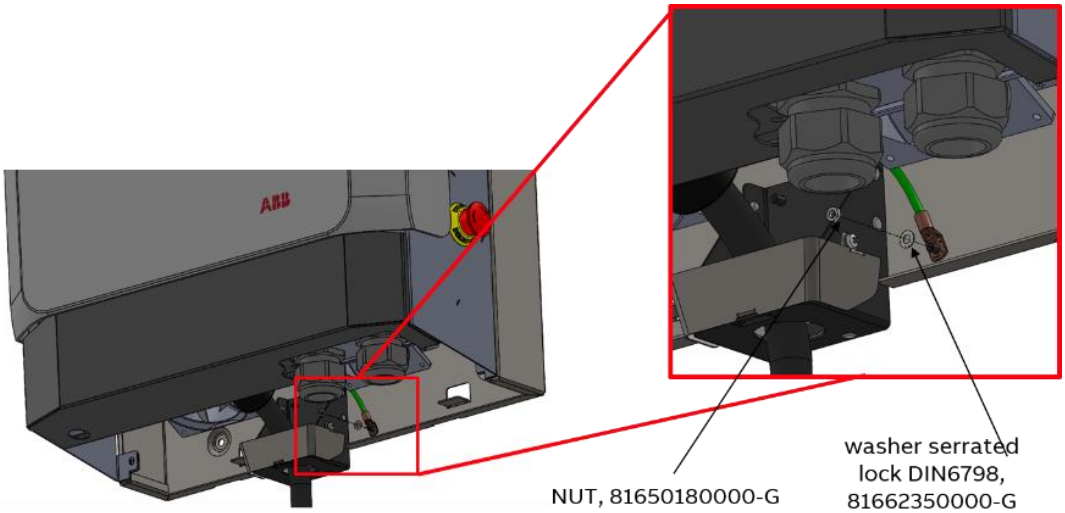
3-Phase Connection using flexible



Conduit Installation 1.25“ secured to bottom mounting area. 1-phase Version Shown

3. Slide the cable cover and tighten the two screws.

If a wired internet connection is not used, please ensure the cable entry hole is closed, to assure the IP54 grade of the cabinet, and prevent insects and small animals to enter the cabinet.



5.5 Connect cables

5.5.1 Connect PE of power cable

Preconditions:

- Tools: Wire stripper pliers; wire-end lug pliers; wire-end lug.

DANGER
Hazardous voltage
Make sure that the main switch of the power supply group for the product is set to the OFF position. Perform a voltage check and make sure that the electrical power is disconnected from the system. Follow recommended ***NFPA-70e*** procedures.

1. Cut the PE wire of the power cable to the correct length (longer than the other phases) to reach the PE connector.

NOTICE

For safety, it is recommended that the PE wire is longer than the phase wires. This ensures the PE wire will be the last wire connected if the Terra DC Wallbox is moved by a collision.

2. Use wire stripper pliers to remove 0.75 (20 mm) of the insulation from the end of the PE wire and attach the cable lugs.
3. Pull the cover away from the connectors and remove them.
4. Loosen the bolts of the PE connector on the ground block.
5. Attach the PE wire onto the PE block.
6. Tighten the bolts. The advised torque value is 2 Nm.

5.5.2 Connect power cable

Preconditions:

- Tools: Wire stripper pliers; wire-end lug pliers; wire-end lugs.

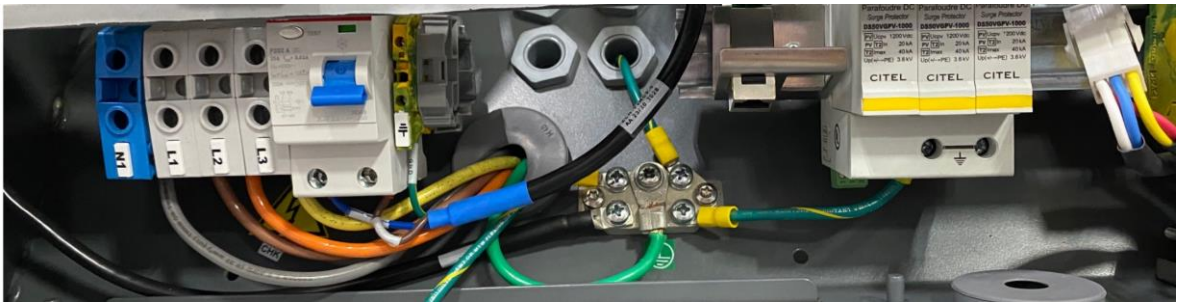
DANGER
Hazardous voltage
Ensure the product's power supply group's main switch is set to the OFF position. Perform a voltage check and ensure the electrical power is disconnected from the system.

7. Cut the 3 phase wires and the neutral wire of the power cable to the correct lengths to reach the connectors.
8. Use wire stripper pliers to remove 0.75 in (20 mm) of the insulation from the ends of the wires insert and terminate on the appropriate terminal block
9. Pull the covers away from the connectors and remove them.
10. Loosen the bolts of the connectors.

11. Attach the four wires on to their connectors as indicated on the label on the relative terminal block (see the following picture as example).

- From left to right for the 3-phase unit (as showed in the following picture):

  N - terminal block blue, L1 - terminal block grey, L2 - terminal block grey, L3 - terminal block grey



12. Tighten the bolts. The advised torque value is 2.9Nm.

5.6 Instruction for Mounting the DC Wallbox Gun Holders

5.6.1 General

This document is intended to provide an instruction for service team / installers in order to be able to properly install the terra DC wallbox gun holders.

5.6.2 General description

The Terra DC wallbox is provided with two types of gun holders. A standard gun holder is provided with all the DC wallboxes. The standard Terra DC wallbox gun holder is illustrated in Fig.1 and Fig.2. An optional gun holder is also available as an optional / spare part and can be ordered as external kit. The optional gun holder is illustrated in Fig. 3 and 4. All the above described gun holders include adapters for CCS or Chademo charging guns.

5.6.3 Mounting instructions

The gun holders described above are intended for a very simple installation. Standard gun holder is provided with 3 holes for wall hooking while optional one is provided with a wall mounted hooking bar (10 in Fig.3) to be mounted to wall. The recommended dowels to be used are of 10 size for both cases.

Figure 1: Series production Terra DC wallbox gun holder (Chademo model).

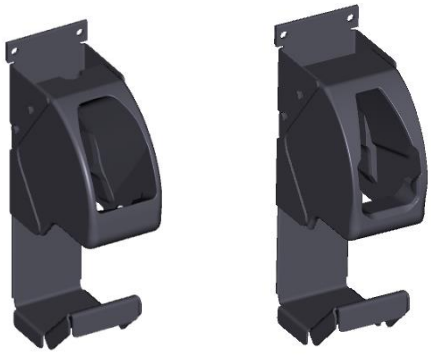


Figure 2: Series production Terra DC wallbox gun holder (CCS model).

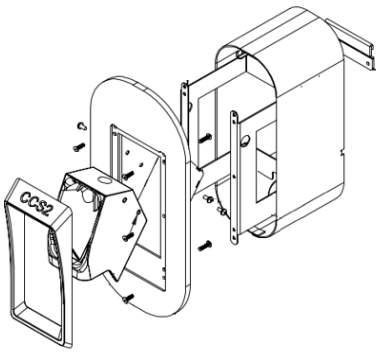
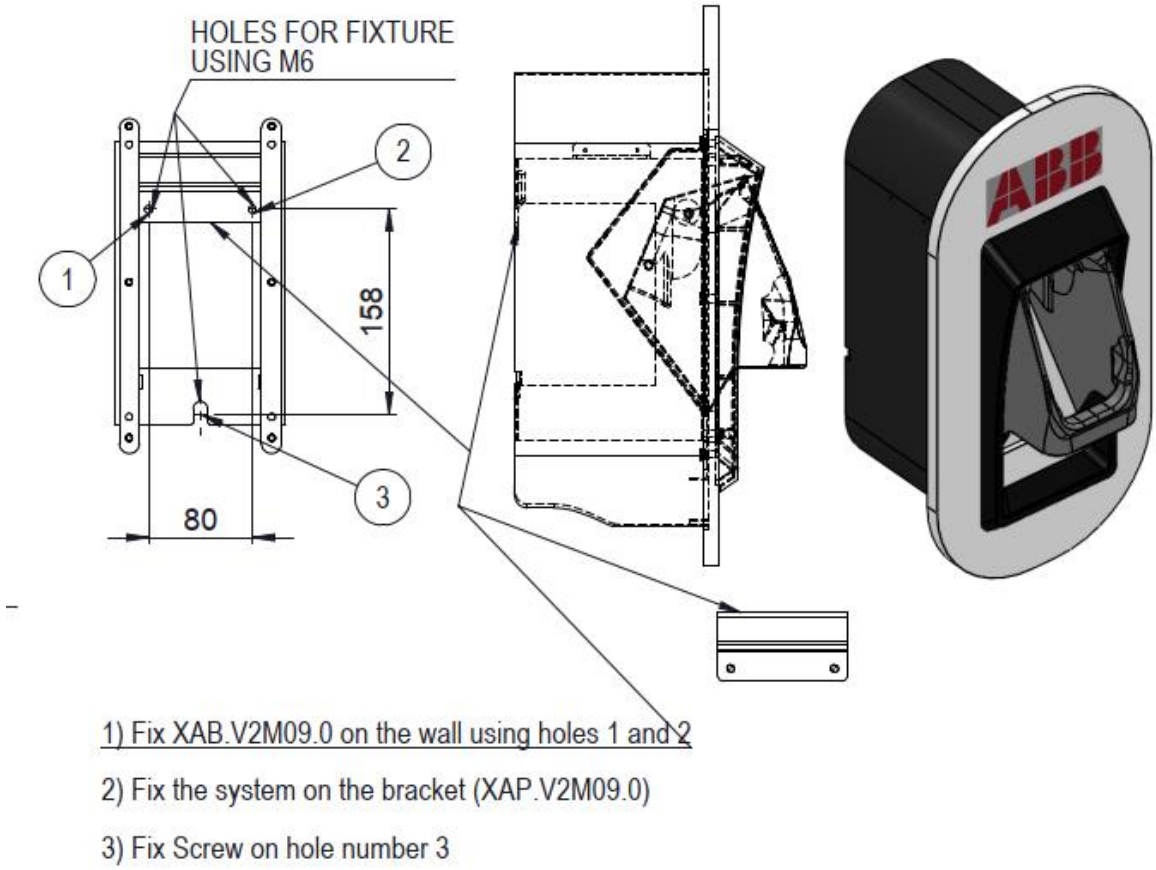


Figure 3: Terra DC wallbox optional gun holder.

Figure 4: Terra DC wallbox optional Gun holder; front and side view.



1) Fix XAB.V2M09.0 on the wall using holes 1 and 2

2) Fix the system on the bracket (XAP.V2M09.0)

3) Fix Screw on hole number 3

6 Commissioning

6.1 Commissioning preparation

Commissioning is the last phase necessary to get the Terra DC Wallbox operational. The purpose is to check the safe functioning of the charger for its operational purpose.

A certified service engineer from the ABB Service department or a trained engineer by ABB is required to perform the commissioning. During this commissioning, the safety and the functioning of the charger will be tested. ABB Form Titled "**SI-TWBCE-001 UL CSAT Procedure DC Wallbox**", (Charger System Acceptance Test) should be used for the commissioning process as it contains the checklist and contact information for activation of the charger warranty.

Before the service engineer can start, the following conditions must be met:

- All work described in Preparation, Construction and Placement and connection is complete with Power available.
- A local technician is present for assistance and to switch on the power.
- Internet access must be available in case 4G is not functional.
- A Combo compliant electric vehicle must be available for testing CCS charging.
- A CHAdeMO compliant electric vehicle must be available for testing the CHAdeMO charging.
- Any electric vehicle for instructing the site operator.

NOTICE
Warranty : It is not allowed to move the Terra DC Wallbox, after it is commissioned. In case the Terra DC Wallbox is moved without approval from ABB, the warranty will be considered void. In case of relocation please contact the local ABB Service department.

Commissioning is executed according to the CSAT checklist, this check list can be found in the Helios Suite Service tool that is available to the certified commissioning engineers or their supervising ABB organization. The following data is required for input:

- End-user Contact person (Create a contact if it doesn't exist).
- Charger address (Check the site address, it will be the address the charger was shipped to).
- Coordinates longitude and latitude for plots on the maps. If there are more chargers on 1 location, make sure the coordinates are slightly different (at least 0,0001 degrees) to prevent being displayed on the same location.
- Site name if this is useful for better recognition (example: Shell petrol station Amsterdam).
- External fuse of the charger.
- SAT (Site Acceptance Test) date.

  Location remarks (any special remarks about the site, e.g. behind a gate, no photo cameras allowed etc.). Add a picture of the surrounding of the charger, upload the local CAF document A4 on the page of the charger in PDF. Change Deliver status to <SAT>.

After completing the Site Acceptance Test, ABB's Network Operation Center will be triggered to perform a final check on the connection and configuration of the charger.

Upon approval the charger will be operational and initialized for use.

7 Maintenance and Cleaning of the cabinet

7.1 Recommended Periodic maintenance

A. Following ***NFPA-70e*** procedures, de-energize unit, open cover, inspect air filter, clean or replace as needed.

B. Check input connections and terminations for proper toque values

C. Check Grounding resistance

D. Exercise input breaker and output DC breakers

E. Open HMI cover, inspect capacitors and fuse connections.

F. Clean interior with a HEPA vacuum.

G. Blow out rear cooling fins and remove any debris

H. Reassemble unit, energize verify input voltage, perform a charging session.

I. Using the connected network verify charging session details.

7.2 Cleaning of the cabinet

The Terra DC Wallbox Charger is powder coated. This coating must be kept in good condition.

Clean the Terra DC Wallbox Charger three times a year in the following way:

- Remove rough dirt by spraying with low-pressure tap water.
- Apply a neutral or weak alkaline cleaning solution and let it soak.
- Remove dirt by hand with a non-woven nylon hand pad.
- Rinse thoroughly with tap water.
- Do a check on the coating and on the front cover for damage.

NOTICE

When the Terra DC Wallbox Charger is exposed to rain, it is sufficient to clean it twice a year.

CAUTION

Do not apply high-pressure water jets. Water may leak into the Terra DC Wallbox Charger. If a high-pressure water jet has been used, ensure the inside of the Terra DC Wallbox Charger is dry.

- Only use cleaning agents with a pH value between 6 and 8.
- Do not use cleaning agents with abrasive components.
- Do not use abrasive tools.

8 Technical Data

8.1 Electrical data

AC Input	
AC input voltage range	480 V_{AC} +/- 10% (60Hz)
AC input power connection	3-phase, 480Y/277 V_{AC}: L1, L2, L3, N, GND
Nominal input current and input power rating	32 A / 26.6 kVA at 480V, peak input current: 35 A / 26.6 kVA at 432V
Recommended upstream overcurrent protection device rating	50 A
Power factor	> 0.96
Efficiency	94% at nominal output power
DC output	
Maximum DC output power	24 kW peak; 22.5 kW continuous
DC output voltage range	CCS1: 150 - 920 VDC CHAdeMO: 150 – 500 VDC
Maximum DC output current	60 ADC

General	
DC connection standard	EN61851-23 / DIN 70121 CCS 2 CHAdeMO 1.0
DC cable length	3.5 meters or 7 meters (12 feet or 23 feet)
DC plug type	CCS 1 / CHAdeMO
RFID data	ISO/IEC14443A/B, ISO/IEC15693, NFC reader mode, Mifare, Calypso
RFID system	FeliCa™1, NFC reader mode
Network connection	GSM / 4G modem 10/100 Base-T Ethernet

8.2 Mechanical data

Mechanical data	
Dimensions (H x W x D)	770 mm x 585 mm x 300 mm / 30.32” x 23.03” x 11.81”
Weight	70 kg / 154.32lbs
Volume	0,135 m^3
Dimensions including packaging (H X W x D)	650 mm x 1200 mm x 800 mm /25.6” x 47.25” x 31.5”
Weight including packaging	80 kg / 176.37 lbs.
Mechanical impact protection	IK10

8.3 Environment

Environmental data	
Ingression protection	IP54, NEMA 3S; indoor and outdoor
Temperature range – Operation	-35°C to + 55°C /-31F to + 131F (derating applies between 45°C and 55°C / 113F-131F)
Temperature range - Storage	-40 °C to +70 °C / -40F to +158F
Humidity	20% - 95% RH - non-condensing
Operational noise level	55 dBA @25°C
Altitude	2500 m max.

8.4 Certifications

EMC: EN 61000-6-4 Class A emission; EN 61000-6-3 Class B emission; EN 61000-6-2 immunity.

LVD: IEC 61851-23, IEC 61851-1, IEC 62196, IEC 60950, EN 61010, EN 60335 (see certificates)

RFID: ETSI EN 300 330

- **UL 2202**
- **CSA STD C22.2 No. 107.1**
- **FCC Part 15 Class A**

9 Contact information

NOTICE
In case of problems
Please contact your local ABB Service organization or Service partner for first line problem analysis and solving. In case they cannot solve the problem, they will contact the second line Service organization.

ABB in your country

Please contact ABB in your country for sales, delivery and service information.

ABB EV Infrastructure USA

ABB Inc.
950 E Elliott Rd
Tempe, AZ 85284 Suite 100
United States
Phone: 800-435-7365
E-mail: US-evci@us.abb.com

ABB EV Infrastructure Canada

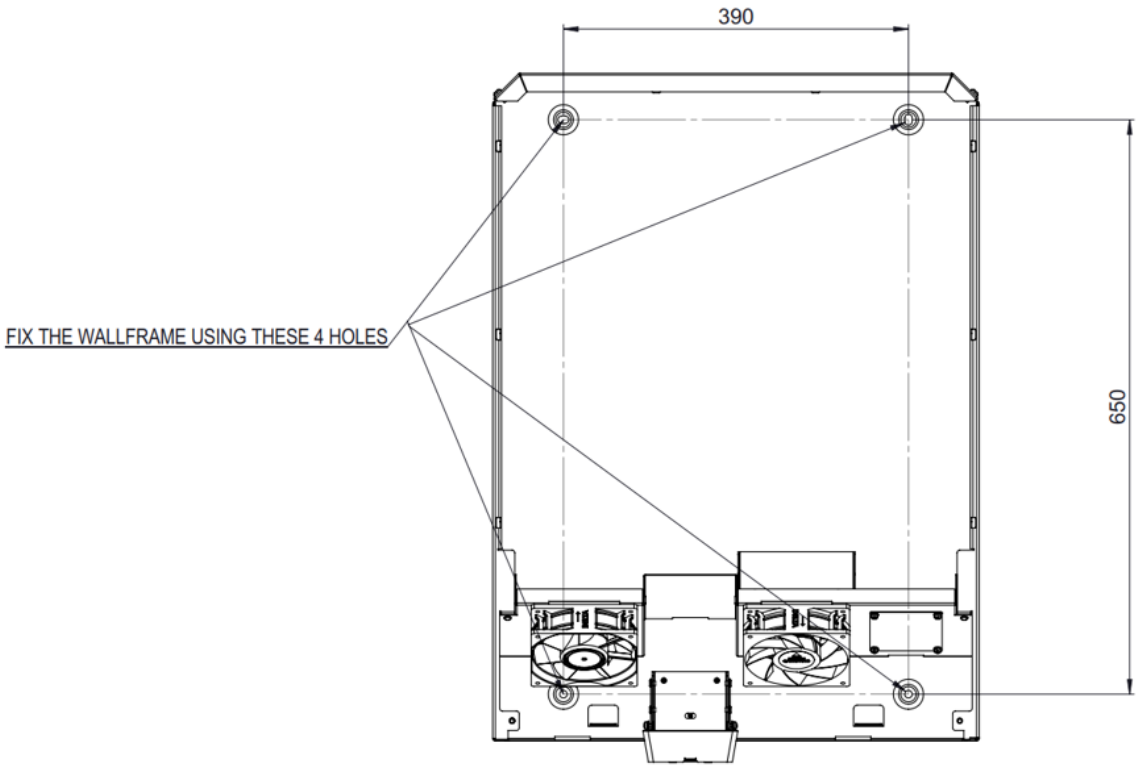
ABB Inc.
800 Hymus Boulevard
Saint-Laurent, QC H4S 0B5
Canada
Phone: 800-435-7365
E-mail: CA-evci@abb.com

ABB EV Infrastructure Global

Address	Heertjeslaan 6 2629 JG, Delft The Netherlands
Telephone	+31 70 307 62 00
Mail	info.evi@nl.abb.com

10 Appendix A – Mounting points

10.1 Terra DC Wallbox Charger wall mounting



11 Appendix B - Disposal instruction

11.1 Directive on Waste Electrical and Electronic Equipment (WEEE – 2012/19/EU)

ABB

ENGLISH

Electrical and electronic equipment to be separately collected in compliance with the Directive on waste electrical and electronic equipment (WEEE - 2012/19/EU)

The symbol (crossed out wheeled-bin) on your product indicates that the product shall not be mixed or disposed with your household waste, at their end of use.

This product shall be handed over to your local community waste collection point for the recycling of the product.

For more information, please contact your Government Waste-Disposal department in your country.

Inappropriate waste handling could possibly have a negative effect on the environment and human health due to potential hazardous substances. With your cooperation in the correct disposal of this product, you contribute to reuse, recycle and recover the product and our environment will be protected.

FRANÇAIS

Équipements électriques et électroniques collectés séparément conformément à la Directive relative aux déchets d'équipements électriques et électroniques (WEEE - 2012/19/EU)

Ce symbole (poubelle interdite) apposé sur le produit indique qu'en fin de vie ce produit ne doit pas être traité avec les déchets ménagers.

Il doit être remis à un point de collecte approprié pour le recyclage des appareils électriques et électroniques.

Pour de plus amples informations, veuillez contacter le service de collecte des déchets ménagers local.

Ce produit contient des substances potentiellement dangereuses qui peuvent avoir des effets néfastes sur l'environnement et la santé humaine. En veillant à la mise au rebut correcte de ce produit, vous contribuerez à assurer le traitement, la récupération et le recyclage de ce produit et à protéger l'environnement.

ESPAÑOL

Aparatos eléctricos y electrónicos recopilados de modo separado en conformidad con la Directiva sobre residuos de aparatos eléctricos y electrónicos (WEEE - 2012/19/EU)

Los productos identificados con este símbolo (papelera tachada) no deben eliminarse como residuos domésticos una vez finalizada su vida útil.

Este producto debe entregarse a un punto de recogida de la comunidad local para su recuperación y reciclado.

Para mayor información, sírvase ponerse en contacto con el Departamento de Disposición de Desechos de su Ayuntamiento.

El manejo inadecuado de los residuos supone riesgos para la salud humana o el medio ambiente. Con la reutilización, el reciclado de los materiales u otras formas de valorización de tales productos usted contribuye de manera importante a la protección de nuestro medio ambiente.

NEDERLASNDS

Elektrische en elektronische apparatuur worden afzonderlijk ingezameld in naleving van de vereisten van de Richtlijn betreffende afgedankte elektrische en elektronische apparatuur (WEEE - 2012/19/EU)

Het symbool (doorgekruisde afvalbak op wielen) op het product geeft aan dat het product aan het einde van haar levensduur niet samen met of in de vorm van huishoudafval mag worden weggegooid.

Het product moet naar een verzamelplaats (milieudepot) worden gebracht waar dergelijke producten worden gerecycled.

Neem voor meer informatie contact op met de relevante overheidsafdeling voor afval/vuilnis die in uw land bestaat.

Het kan nadelige gevolgen hebben op voor mens en milieu als afval op een verkeerde manier wordt behandeld waardoor potentieel schadelijke stoffen vrij komen. Door uw medewerking te verlenen en dit product op de juiste wijze wegwerpt, kunt u een bijdrage leveren aan het herstellen, hergebruiken en recyclen van dit product om zo ons milieu te beschermen.

DANSK

Elektrisk og elektronisk udstyr indsamles særskilt i overensstemmelse med direktiv om affald af elektrisk og elektronisk udstyr (WEEE - 2012/19/EU)

Symbolet (en overstreget affaldsspand med hjul) på produktet angiver, at produktet ikke må blandes med eller bortskaffes sammen med almindeligt husholdningsaffald, når det er udtjent.

Produktet skal afleveres til det lokale affaldsindleveringssted til genbrug.

Kontakt venligst afdelingen for bortskaffelse af affald i din kommune angående yderligere information.

Uhensigtsmæssig bortskaffelse af affald kan have en negativ virkning på miljøet og folks helbred, da det kan indeholde potentielle, farlige substanser. Med din medvirken i henseende til forskriftsmæssig bortskaffelse af dette produkt, kan du bidrage til genbruge, recirkulere og genindvinde produkterne og samtidigt medvirke til, at vores miljø vil blive beskyttet.

DEUTSCH

Elektro- und Elektronikgeräte sind getrennt zu sammeln in Einklang mit der Richtlinie über Elektro- und Elektronik-Altgeräte (WEEE - 2012/19/EU)

Dieses Symbol (ausgekreuzte Mülltonne) auf dem Produkt bezeichnet, dass Altgeräte usw.

nicht wie normaler Haushaltsabfall in den Müll gegeben werden dürfen, sondern zum Recycling an einer hierfür vorgesehenen Annahmestelle abzugeben ist.

Für nähere Informationen wenden Sie sich bitte an die für Müllentsorgung zuständigen örtlichen Behörden.

Bei unsachgemäßer Entsorgung besteht das Risiko nachteiliger Auswirkungen auf Umwelt und Gesundheit durch potentiell gefährliche Substanzen. Durch Ihre Kooperation zur ordnungsgemäßen Entsorgung fördern Sie die Wiederverwendung, das Recycling und die Rückgewinnung von Stoffen und tragen zum Umweltschutz bei.

ITALIANO

Apparecchiatura Elettrica ed Elettronica oggetto di raccolta differenziata in conformità alla Direttiva sui Rifiuti di apparecchiature Elettriche ed Elettroniche (WEEE - 2012/19/EU)

Il simbolo (un bidone sbarrato da una croce) indica che il prodotto non deve essere smaltito con i rifiuti domestici, alla fine della sua vita.

Questo prodotto deve essere consegnato al punto di raccolta rifiuti della propria comunità locale per il suo riciclaggio.

Per ulteriori informazioni, rivolgersi all'organo statale preposto allo smaltimento dei rifiuti nel proprio paese.

Uno smaltimento dei rifiuti inappropriato può avere effetti negativi sull'ambiente e sulla salute umana a causa di sostanze potenzialmente pericolose. Collaborando allo smaltimento corretto di questo prodotto, si contribuisce al riutilizzo, al riciclaggio e al recupero del prodotto, e alla protezione del nostro ambiente.

PORTUGUÊS

Equipamentos Eléctricos e Electrónicos recolhidos seletivamente de acordo com a Diretiva relativa aos resíduos de equipamentos elétricos e eletrónicos (WEEE - 2012/19/EU)

O símbolo (caixote de lixo de rodas com uma linha cruzada) em seu produto indica que o produto, no fim da sua vida útil, não deve ser misturado ou eliminado com o lixo doméstico comum.

Este produto deverá ser entregue a uma estação de recolha de lixo da comunidade local para a reciclagem do produto.

Para mais informações, entre em contacto com o Departamento de Tratamento de Lixo do Governo do seu país.

O tratamento de lixo incorrecto poderia provocar um efeito negativo no meio ambiente e saúde humana devido a substâncias potencialmente perigosas. Com a sua cooperação para a eliminação correcta deste produto, contribuirá para a reutilização, reciclagem e recuperação do produto, e nosso meio ambiente será protegido.

SVENSKA

Elektriska och elektroniska produkter ska samlas in separat i enlighet med direktivet om avfall som utgörs av eller innehåller elektrisk eller elektronisk utrustning (WEEE - 2012/19/EU)

Denna symbol (en överkorsad soptunna) på produkten innebär att produkten ej ska blandas eller slängas med ditt hushållsavfall när den är förbrukad.

Produkten ska lämnas till en lokal insamlingsplats för denna slags produkter för återvinning.Kontakta kommunkontoret för närmare detaljer om var du finner sådana insamlingsplatser.

Olämplig avfallshantering kan få negativa effekter på miljön och på mänsklig hälsa då en produkt kan innehålla farliga ämnen.

Vi ber om ditt samarbeta i bortskaffningen av denna produkt för att bidra till återvinning, återanvändning och en hälsosammare miljö.

SUOMI

Sähkö- ja elektroniikkalaitteet on kierrätettävä erikseen sähkö- ja elektroniikkalaiteromusta annetun direktiivin (WEEE - 2012/19/EU) mukaisesti

Tuotteeseen merkitty symboli (yliviva ruksattu jätesäiliö) osoittaa, että tuotetta ei saa sekoittaa eikä hävittää talousjätteiden kanssa.

Tuote on luovutettava sopivaan tällaisten laitteiden kierrätyksestä huolehtivaan keräyspisteeseen.

Pyydä lisätietoja jäteasioista vastaavilta paikallisilta viranomaisilta.

Tämän tuotteen asianmukaisen hävittämisen varmistamisella autetaan estämään sen mahdolliset ympäristöön ja terveyteen kohdistuvat haittavaikutukset, jolta voi aiheutua muussa tapauksessa tämän tuotteen epäasianmukaisesta käsittelystä. Hävittämällä tuotteen asianmukaisesti autat varmistamaan, että tuote uudelleenkäytetään, kierrätetään ja kerätään ja ympäristöä suojellaan.

ČESKY

Elektrická a elektronická zařízení, která se shromažďují odděleně v souladu se Směrnicí o elektrickém a elektronickém odpadu (WEEE - 2012/19/EU)

Symbol (přeškrtnutá popelnice na kolečkách) na Vašem výrobku označuje, že výrobek se po ukončení jeho používání nesmí míchat a vyhazovat společně s běžným odpadem z domácnosti.

Tento výrobek je třeba odložit na určené sběrné místo ve vaší oblasti pro provedení recyklace tohoto výrobku.

Pro další informace se obraťte na místní orgány státní správy zabezpečující sběr a likvidaci odpadů.

Nesprávné nakládání s odpady by mohlo mít za následek negativní vliv na životní prostředí a lidské zdraví z důvodu možného výskytu škodlivých látek. Pomocí vaší spolupráce při správném způsobu znehodnocení tohoto výrobku přispějete ke znovu využití, recyklaci a obnově výrobku přičemž naše životní prostředí bude ochráněno.

POLSKI

Sprzęt Elektryczny i Elektroniczny podlegający selektywnej zbiórce zgodnie z Dyrektywą (WEEE - 2012/19/EU)

Symbol (przekreślony kosz) na Twoim produkcie oznacza, że produkt nie powinien być mieszany lub usuwany z Twoimi odpadami pochodzącymi z gospodarstwa domowego, po jego zużyciu.

Produkt ten powinien zostać dostarczony do lokalnego komunalnego punktu zbiórki odpadów, w celu recyklingu produktu.

W celu uzyskania większej ilości informacji, prosimy o skontaktowanie się z krajowym Wydziałem Zarządzania Gospodarką Odpadami w Twoim kraju.

Niewłaściwe manipulowanie odpadami może negatywnie oddziaływać na środowisko i zdrowie ludzi, wskutek potencjalnych substancji niebezpiecznych. Współpracując przy prawidłowym usunięciu tego produktu, przyczyniasz się do ponownego użycia, recyklingu i odzysku produktu i w ten sposób nasze środowisko będzie chronione.

SLOVENŠČINA

Električna in elektronska oprema se zbira ločeno v skladu z Direktivo o odpadni električni in elektronski opremi (WEEE - 2012/19/EU)

Oznaka (prekrižan smetnjak na kolesih) na vašem izdelku označuje, da se tega izdelka po končani uporabi ne sme mešati ali odvreči z ostalimi gospodinjskimi odpadki.

Ta izdelek je potrebno oddati vaši lokalni deponiji z odpadki za predelavo takšnih izdelkov.

Za podrobnejše podatke se obrnite na državni urad za odstranjevanje odpadkov v vaši državi.

Zaradi nevarnih snovi ima lahko napačno upravljanje z odpadki negativne posledice na okolje in zdravje ljudi. Z vašim sodelovanjem pri pravilnem odstranjevanju tega izdelka, pripomorete k ponovni uporabi, recikliranju in nadomestitvi izdelka. Naše okolje bo tako zavarovano.

EESTI

Elektri- ja elektroonikaseadmed tuleb koguda eraldi kooskõlas elektri- ja elektroonikaseadmete direktiiviga (WEEE - 2012/19/EU)

Sümbol (ristiga maha tõmmatud vagun) tootel osutab, et käesolevat toodet ei tohi peale selle kasutuskõlbmatuks muutumist visata ära koos muu majapidamises tekkiva prügiga.

Käesolev toode on ümbertöödeldav ning tuleb viia kohalikku prügikogumis- või ümbertöötlemiskeskusesse.

Täpsema informatsiooni saamiseks palume pöörduda selle riigisutuse poole Teie riigis, mis tegeleb prügimajandusse puutuvate regulatsioonidega.

Käesoleva toote vale käsitlemine selle kõrvaldamisel võib põhjustada võimalikest riskiainetest tulenevat negatiivset mõju nii keskkonnale kui ka Teie tervisele. Toote korrektne käsitsemine ka peale selle kasutuskõlbmatuks muutumist ja Teie kaasabi käesoleva toote korduvkasutusse või ümbertöötlusesse saatmisel avab Teile lisavõimaluse kaitsta ühist looduskeskkonda.

SRPSKI

Električna i elektronska oprema koju treba sakupiti zasebno u skladu sa Direktivom o odbačenoj električnoj i elektronskoj opremi (WEEE - 2012/19/EU)

na vašem proizvodu označava da se proizvod po isteku svog radnog veka ne sme pomešati, niti bacati zajedno sa otpadom iz domaćinstva.

Ovaj proizvod se mora predati na mestu za prikupljanje otpada za reciklažu u vašoj lokalnoj zajednici.

Za dodatne informacije molimo kontaktirajte nadležni organ za odlaganje otpada u vašoj zemlji.

Nepravilno rukovanje otpadom može negativno da utiče na životnu sredinu i zdravlje ljudi, zbog potencijalno opasnih supstanci. Vašom saradnjom na pravilnom odlaganju ovog proizvoda, Vi doprinosite ponovnom korišćenju, reciklaranju i sakupljanju proizvoda što će zaštititi vašu životnu sredinu.

MAGYAR

A leselejtezett elektromos és elektronikus berendezéseket az elektromos és elektronikus berendezések hulladékairól szóló (WEEE - 2012/19/EU) irányelv értelmében külön kell gyűjteni

A készüléken lévő szimbólum (kereszttben áthúzott kuka) azt jelzi, hogy a terméket használat után ne keverje, illetve ne helyezze el háztartási hulladékkal.

A terméket újbóli hasznosításra le kell adnia a kijelölt hulladékgyűjtő helyen.

További információért kérjük, forduljon az országában lévő illetékes általami hulladékelhelyezési szervhez. Nem megfelelő hulladékkezelésnek potenciálisan veszélyes anyagok miatt negatív hatása lehet a környezetre és az emberi egészségre.

A termék helyes elhelyezésében való közreműködéssel Ön hozzájárul annak újrafelhasználásához, újrafeldolgozásához és visszanyeréséhez, és védi a környezetünket.

SLOVENČINA

Elektrické a elektronické zariadenia, ktoré sa zbierajú separovane v súlade so smernicou o odpade z elektrických a elektronických zariadení (WEEE - 2012/19/EU)

Symbol (prečiarknutý odpadkový kôš) na výrobku znamená, že daný výrobok nie je možné po skončení používania zmiešať a vyhodiť spolu s bežným domácim odpadom.

Výrobok je nutné odovzdať do zberne odpadu vo vašej lokalite, kde dôjde k jeho recyklácii.

Presné informácie Vám poskytne úrad štátnej správy zodpovedný za zber a likvidáciu odpadu.

Nesprávna likvidácia odpadu môže mať negatívny dopad na životné prostredie a ohrozť ľudské zdravie nebezpečnými látkami. Naopak správnym postupom pri likvidácii odpadu umožníte jeho opätovné použitie, recykláciu a obnovenie výrobku. Čím prispejete k ochrane životného prostredia.

LIETUVIŲ

Laikantis Direktyvos (WEEE - 2012/19/EU) dėl elektros ir elektroninės įrangos atliekų, elektros ir elektroninė įranga turi būti surenkama atskirai

Simbolis (perbrauktа šiukšlių dėžė su ratukais), esantis ant jūsų įsigytos įrangos, reiškia, kad įranga, pasibaigus jos naudojimui, negali būti maišoma ar šalinama kartu su buitin ėmis atliekomis.

Tokia įranga turi būti perduota jūsų vietos bendruomenės atliekų surinkimo centrui, kad būtų panaudota kaip antrinė žaliava.

Daugiau informacijos galite gauti jūsų šalies vyriausybės atliekų tvarkymo departamente.

Netinkamas atliekų šalinimas gali neigiamai veikti aplinką ir žmonių sveikatą, nes atliekose gali būti pavojingų medžiagų. Teisingai šalindami šią įrangą jūs prisidedate prie pakartotinio įrangos panaudojimo, perdirbimo ir regeneracijos ir taip apsaugote aplinką.

LATVIEŠU

Elektriskās un elektroniskās iekārtas ir jāsavāc atsevišķi saskaņā ar Direktīvu par elektrisko un elektronisko iekārtu atkritumiem (WEEE - 2012/19/EU)

Simbols (pārsvītrota atkritumu tvertne), uz jūsu produkta, norāda, ka produktu nedrīkst izmest, pēc derīguma termiņa beigām, kopā ar parastajiem mājas atkritumiem.

Šis produkts tiks nodots vietējā kaitīgo atkritumu savākšanas punktā tā pārstrādāšanai.

Lai iegūtu plašāku informāciju, lūdzu, sazinieties ar jūsu Valsts atkritumu pārstrādes nodaļu.

Nepareiza atbrīvošanas no šī produktavar atstāt negatīvu ietekmi uz apkārtējo vidi un cilvēku veselību potenciālā kaitīgā sastāva dēļ. Ar jūsu sadarbību šī produkta pareizā pārstrādē, jūs palīdzat aizsargāt apkārtējo vidi un attiecīgi produktu vairākkārtēju izmantošanu.

ΕΛΛΗΝΙΚΑ

Ο ηλεκτρικός και ηλεκτρονικός εξοπλισμός πρέπει να συλλέγεται ξεχωριστά σύμφωνα με την Οδηγία για τα απόβλητα ηλεκτρικού και ηλεκτρονικού εξοπλισμού (WEEE - 2012/19/EU)

Το σύμβολο (διαγραμμένος τροχήλατος κάδος απορριμμάτων) πάνω στο προϊόν σας υποδεικνύει ότι αυτό το προϊόν, με τη λήξη της χρήσης του, δεν πρέπει να αναμιχθεί ή να απορριφθεί μαζί με οικιακά απορρίμματα.

Αυτό το προϊόν πρέπει να παραδοθεί στο σημείο συλλογής αποβλήτων της περιοχής σας για την ανακύκλωσή του.

Για περισσότερες πληροφορίες, παρακαλείσθε να επικοινωνήσετε με τη Δημόσια Υπηρεσία Διάθεσης Αποβλήτων της χώρας σας.

Η μη ορθή διαχείριση των αποβλήτων μπορεί να έχει αρνητικές επιπτώσεις στο περιβάλλον και στην ανθρώπινη υγεία λόγω της ενδεχόμενης ύπαρξης επικίνδυνων ουσιών. Με τη συνεργασία σας στη σωστή διάθεση αυτού του προϊόντος, συμβάλλετε στην επαναχρησιμοποίηση, ανακύκλωση και αξιοποίηση του προϊόντος και προστατεύετε το περιβάλλον.

12 Appendix C – Pedestal requirements

Any pedestal solution designed for Terra DC Wallbox needs to fulfill the specific ISO standards for civil constructions (note: specific local regulations may apply).

Additionally, whereas no specific constraint is provided by local regulations, the minimum set of requirements necessary to provide a safe installation are listed in the table below to be verified in the temperature range between -50°C - +60°C:

Minimum Wind load resistance	100km/h
Minimum compression load capability (applied on center of mass of the WB)	4kN
Side / Back / frontal impact MAX (applied on the pedestal/WB) higher point	3kN
Pulling /Pushing force applied (to gun holders if they are mechanically connected to same structure and external to the WB area)	3kN
Min / Max distance of gun holder from WB (if mechanically connected to pedestal structure)	300mm / 1000mm
Rust protection paint	Yes
Minimum clearance areas side / top / bottom around the charger	300mm
Recommended foundation requirements (min tilting torque)	To be designed considering the max loads in each direction
Vibration test required on the full system	According to procedure described in IEC 60068-2-27: 2008 and IEC 60068-2-6: 2007
Electrical ground connection	To the chassis of the DCWB