



DC

iONiX Light 25 Wallbox iONiX Medium 25 Wallbox iONiX Supreme 25 Wallbox

Charging point for electric vehicles according to CCS2 standard



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1 Installation quick-start guide

In addition to this quick-start guide for mechanical and electrical installation, additional documents, such as the manual, are available for download on the product page of the device.

Product
page



Mounting
video



Indication of important instructions

**DANGER**

Indicates a high risk of danger that will result in death or serious injury if not avoided.

**WARNING**

Indicates a medium risk of danger that can lead to death or serious injury if not avoided.

**CAUTION**

Indicates a low-level risk that can result in minor or moderate injury or damage to property if not avoided.

**ADVICE**

Indicates important facts that are not associated with the risk of immediate injury. They can lead to malfunctions in situations in which the device is handled incorrectly, for example.

1.1 Scope of delivery

The DC Wallbox is delivered as a complete device, upright, in a package on a pallet. Included in the scope of delivery:

- 1x DC Wallbox including cable cover
- 1x mounting rail
- 5x screws (8 x 60) according to DIN 571 (type 107 with associated plugs for mounting on a concrete wall)
- 1x key set with 3x keys
- 1x key tag
- 1x screw for the cable cover
- 1x TPE Uni insert (seal for power supply)
- 1x washer
- 1x nut
- 1x drilling template
- 1x Installation quick-start guide

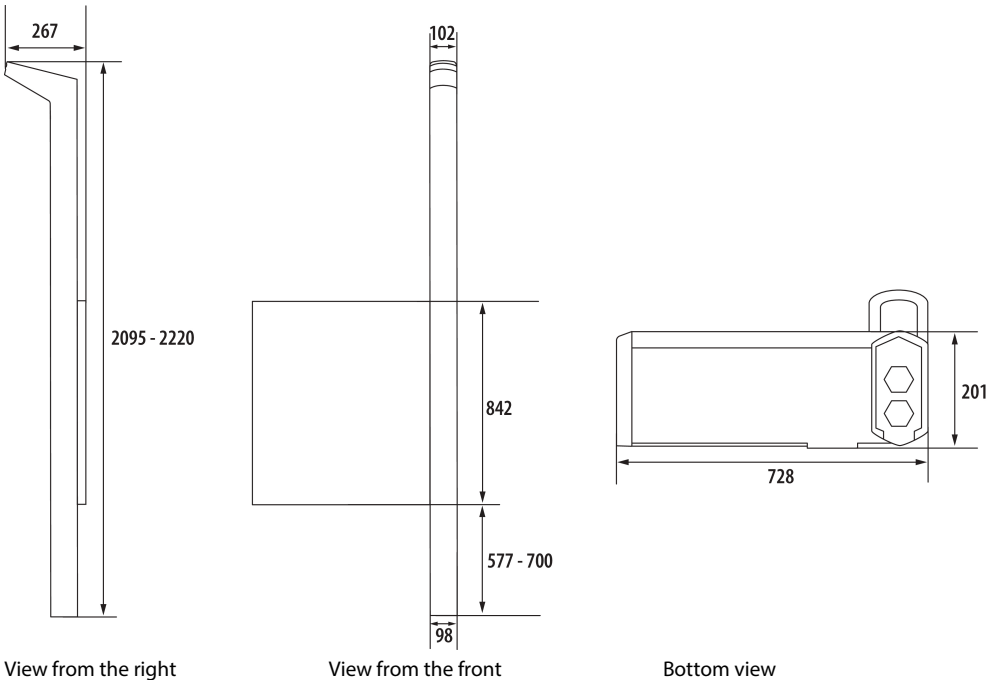
**ADVICE**

For a concrete wall, use the screws supplied. If the wall is not a concrete wall, the appropriate screws must be used.

1.2 Dimensions

Device dimensions

Dimensions in mm



1.3 Requirements



DANGER *Electric shock*

Danger to life

The electrical supply line, which is supplied from the sub-distribution, must be de-energised during the entire mechanical mounting process and electrical installation. The galvanic connection to the low-voltage network may only be established after the mounting process and electrical installation have been completed.

For proper and safe operation, the following conditions must be met:

- The wall on which the DC Wallbox is to be installed must be designed for its weight (see “Technical data”, page 12).
- To ensure good ventilation, clearance of at least 500 mm to the left and right of the DC Wallbox must be planned.
- The installation site must be chosen in compliance with the locally applicable regulations for noise emissions.
- Heating from external sources must be avoided.

- If the installation site is outside a protected area of a building, additional lightning protection measures must be taken.
- The ceiling height of the installation site should be at least 2.30 m.
- Protect the power cord for the supply as follows:
 - Residual current circuit breaker (RCD type A)
 - Overvoltage protection, type 1 (SPD type 1, normally part of the building power supply)
 - ≤ 50 A circuit breaker
 - Earth terminal at least 10 mm^2 Cu
 - Permissible cross-section of the connection in the Wallbox: max. 10 mm^2 flexible with ferrule; max. 16 mm^2 rigid conductor
- Permissible network types: TT, TN-S, TN-C-S
- Connectivity: Ethernet, GSM/LTE, WiFi

**ADVICE**

Before establishing the electrical connection, ensure that the device is dry (e.g. no condensation). If necessary, the device can be dried using an external hot air blower ($T_{\text{max}}=50^\circ$).

1.4 Mechanical installation

1.4.1 Tools

Tools needed

- Lifting table: Adjustment range from 570 mm to 700 mm
- Lifting aid (designed for at least 90 kg)
- Impact drilling machine
- Masonry drill bit $\varnothing 10$ mm
- Spirit level
- Pencil
- Rubber mallet
- Open-end spanner (width across flats 12 mm) and/or socket spanner with extension and corresponding socket

**CAUTION** *Lifting the DC Wallbox without an aid*

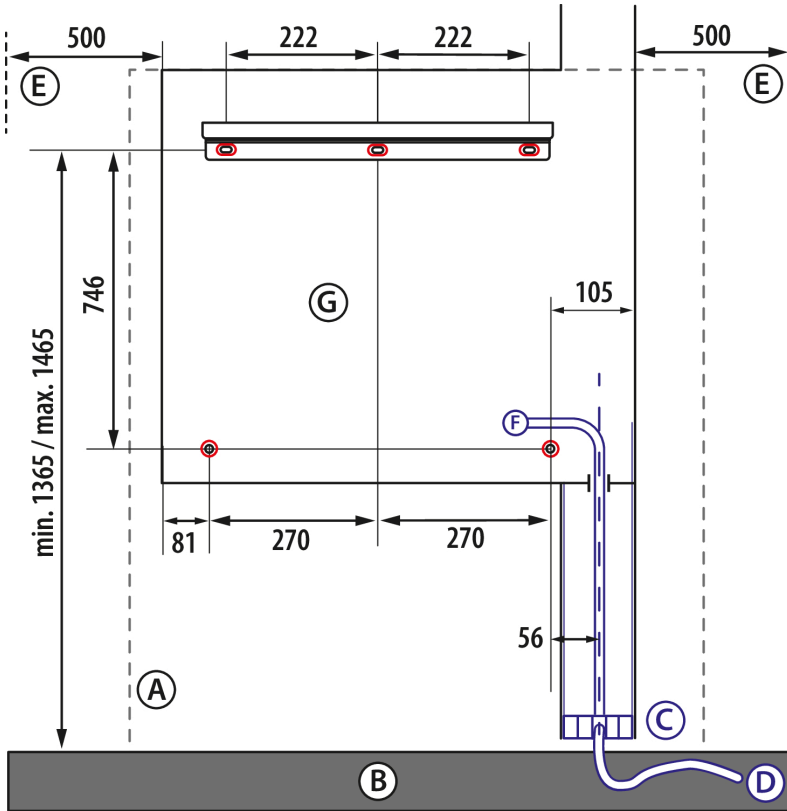
Injury

Using a lifting aid for wall mounting

1.4.2 Mounting dimensions

Mounting dimensions

Dimensions in mm

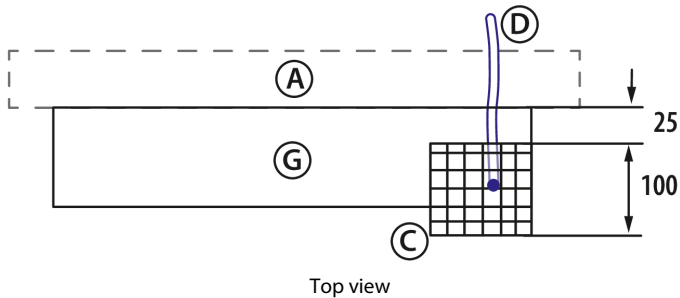


View on mounting surface and mounting rail

- A Wall
- B Floor
- C Interface area
- D Infrastructure cable (cable length above ground at least 1000 mm)
- E Clearance of at least 500 mm on the left and right
- F Network connection
- G Outline of DC Wallbox with holding rail, cable cover and cut of upper status and lighting mast
- Red Drilling holes (top)
Attachment points (bottom)
- Blue Positioning area for the network connection

Dimensions of infrastructure of network connection

Dimensions in mm



- A Wall
- C Interface area
- D Infrastructure cable (cable length above ground at least 1000 mm)
- G Outline DC Wallbox

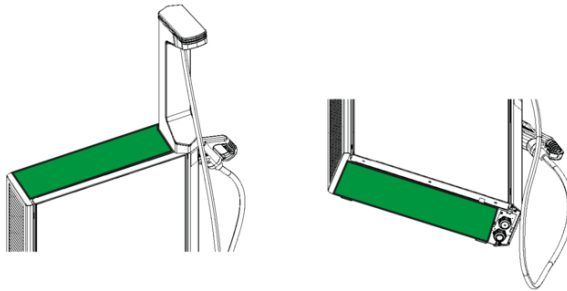
1.4.3 Procedure



ADVICE

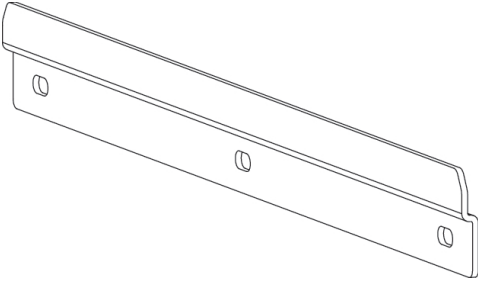
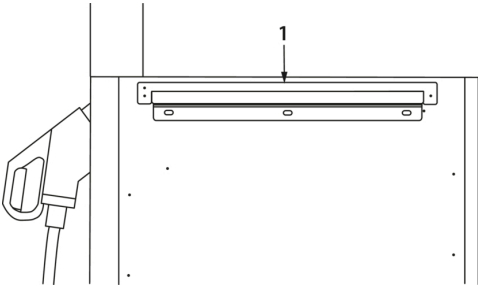
Wearing safety shoes and gloves is recommended.

Holding surfaces

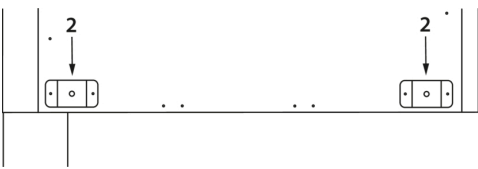
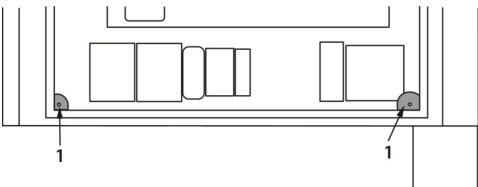


Surface	Colour	Enclosure element
Surfaces that may be touched	Green	Top and bottom
Surfaces that may not be touched	White	Door (glass) Side parts (plastic in some cases) Status and ambient lighting Status and lighting mast

Mounting, top

 <p>View of the mounting rail</p>		<p>Mounting rail for attachment to the wall</p>
		<p>1: Retaining lug, top (outside)</p>

Mounting, bottom

		<p>2: Spacer for attachment points, bottom (outside)</p>
 <p>View with the door of the DC Wallbox open</p>		<p>1: Attachment points, bottom (inside)</p>

Action steps

1. Remove the top cardboard sleeve
2. Check the scope of delivery
3. Attach the drilling template to the desired location of the charging station
4. Use a spirit level to check the horizontal alignment of the drilling template
5. Mark the drill holes
6. Drill
7. Use a rubber mallet to hammer in the dowels
8. Use an open-end spanner or socket spanner with a width across flats of 12 mm to screw on the mounting rail
9. Place the lifting table on the wall below the mounting rail
10. Use a fork lift or lifting aid to place the DC Wallbox on the lifting table and align it on the wall
11. Adjust the height of the lifting table to hang the DC Wallbox on the mounting rail
12. Use a key to unlock the DC Wallbox and unlatch it; the lock and lever for unlatching are recessed at the bottom of the right front side of the enclosure
13. Open the door
14. Check that the lower fastening hole of the DC Wallbox is accurately aligned with the holes in the enclosure; correct any horizontal offset and remove plugs if necessary
15. Use socket spanner with width across flats of 12 mm to screw on the DC Wallbox
16. Remove the lift table and other packaging

1.5 Electrical installation



All work on the DC Wallbox, such as mounting, installation, servicing and dismantling, may only be carried out by a qualified electrically skilled person in accordance with DIN VDE 0100-10 who is also certified to work on the DC Wallbox.

Refrain from any operation that impairs the safety of the DC Wallbox.



ADVICE

Only installation companies registered in the installation directory of the respective system operator are allowed to connect the DC Wallbox to the power supply (Section 13 of Germany's Low-Voltage Connection Ordinance – NAV).

Only trained personnel are authorised to commission the device. To be able to carry out work on the IONIX Wallbox, the installer needs to obtain the certification issued by the Bender Academy or a system partner.

Installation guidelines of the respective system operator must be observed.

1.5.1 Tools

Tools needed

- Stripping tool
- Open-end spanners with width across flats 10 mm, 40 mm and 43 mm

1.5.2 Procedure



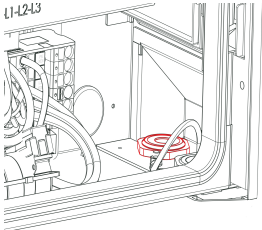
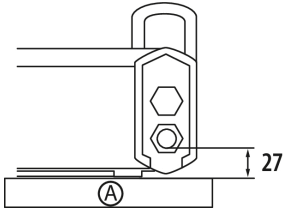
WARNING

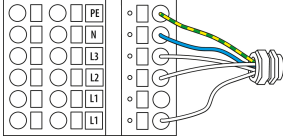
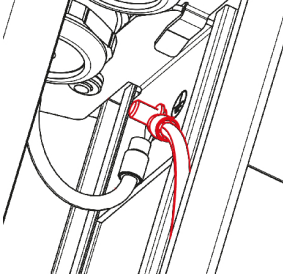
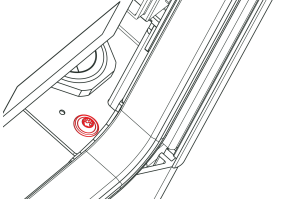
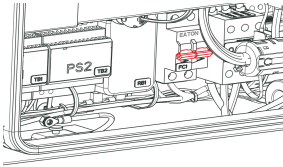
Before starting work, make sure that the cables for the power supply of the DC Wallbox are dead and secured against being switched on again. The five safety rules according to DIN VDE 0105-100 must be observed!

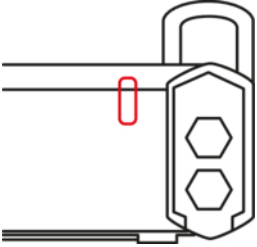



ADVICE

Before installing the DC Wallbox, check that the connectors are correctly joined, as connectors can come loose during transport. If a plug has come loose, press it in again to ensure the correct fit of the plug in the plug tray.

1.	Strip the cables for L1, L2, L3, N and PE: 18 mm to 20 mm	
2.	Insert the power cord from below into the DC Wallbox through the rear cable gland and secure it; loosen with an open-ended spanner if necessary.	 <p>Figure 1-1: Cable gland position View inside the DC Wallbox bottom right</p>
		 <p>Figure 1-2: A: Wall Network connection wiring / View from below / Dimensions in mm</p>

3.	Connect the cables to the terminal strip according to the terminal labelling	 <p>Figure 1-3: Terminals</p>
4.	Check for secure contact in the terminals by pulling on the individual lines	
5.	Connect and secure the protective earthing	 <p>Figure 1-4: Position of the protective earthing View of the DC Wallbox from the bottom rear</p>
6.	Use a washer and nut to connect the cable cover to the protective earthing	
7.	Slide the cable cover onto the enclosure and fix it with the screw	 <p>Figure 1-5: Position of the screw View inside the DC Wallbox bottom right</p>
8.	Activate the circuit breaker	 <p>Figure 1-6: Circuit breaker position</p>
9.	Latch and lock the door	

10.	Use the operator securing mechanism to seal the door	 <p>Figure 1-7: Position of operator securing mechanism</p>
11.	Restore the power supply  <i>The display becomes active after a few minutes</i>	



ADVICE

After you start the DC Wallbox, drying is started by default and can last up to 30 min. While this is happening, charging is not possible.

If you are sure that the DC Wallbox is dry, you can stop the drying process in the configuration settings of the charge controller (see chapter “Initial commissioning” in the manual).

It can be assumed that the DC Wallbox is dry if one of the following criteria applies:

- The device was stored in a dry place with a room temperature higher than the ambient temperature during installation. The time between leaving the warehouse and starting the DC Wallbox may not exceed 1 hour.
- No more than 1 hour has passed since the last drying.
- Visual inspection of the interior of the DC Wallbox does not reveal any moisture.

1.6 Commissioning

For commissioning of the DC Wallbox, refer to chapter “Initial commissioning” in the manual.

1.7 Technical data



ADVICE

This document contains only an excerpt of the most important tabular data. The complete array of tabular data can be found in the manual.

Tabular data

General

Dimensions (H x W x D)	
With cable cover	2,094 mm × 726 mm × 270 mm
Without cable cover	1,540 mm × 726 mm × 270 mm
Weight	Approx. 90 kg

Noise emissions*	54.6 dB(A)**
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- * Max. sound pressure level at a distance of 1 m
** At 25 kW power and 18 °C ambient temperature

Charging

Charging point	1 x DC
Max. charging power	25 kW
Charging voltage	200 V _{DC} to 1000 V _{DC}
Charging cable length	3.3 m
Vehicle inlet	CCS2

Installation

Network type	TT, TN-S, TN-C-S
Short-circuit current to EVSE	50 kA
Characteristic of the upstream 3-phase circuit breaker	B
Trigger threshold of the upstream 3-phase circuit breaker	≤ 50 A
Power supply system	3NAC 230/400 V
Conductor cross-section L1, L2, L3, N	6 mm ² to 16 mm ² (10 mm ²)*
Conductor cross-section PE	10 mm ² to 16 mm ² (10 mm ²)*
Stripping of L1, L2, L3, N, PE	18 mm to 20 mm
Nominal frequency	50 Hz
Rated current (with max. reactive power compensation)	AC 43 A
Cable feed	Bottom
Mounting type	Wall mounting
Overvoltage category according to DIN EN 60664-1	III
Rated insulation voltage of network connection	AC 400 V
Rated voltage of network connection phase to N	AC 230 V
Rated voltage and rated insulation voltage of charging connection	DC 1000 V

- * Cables rigid or flexible (with ferrule)

Operating conditions

Ambient temperature	-25 °C to 40 °C *
Relative ambient humidity	5% to 95%, condensing
Protection class	I

Degree of protection IEC 60529 + A1 + A2	IP54
Radiant heat	< 1090 W/m ²
UV index	< 10
EMC according to IEC 61851-21-2	
Interference sensitivity class	A
Interference emission class	B
Impact resistance according to IEC 62262	IK 10
Installation height	< 2000 m AMSL

* Up to 50 °C with power reduction

Classification of climatic conditions acc. to IEC 60721

Operation (IEC 60721-3-4)	4K26, 4Z14, 4B2, 4C3, 4M11
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Communication

Interfaces

Ethernet	
(IEEE: 802.3i, 1990)	10 Mbit/s
(IEEE: 802.3u, 1995)	100 Mbit/s
Max. connection cable length	100 m
Plug connector	Keystone RJ45 socket

1.8 Approvals





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