

Installation Guide

General Safety Regulations

Important information

Thank you for choosing MIDEA. Of course, you have made an excellent choice, and we are sure you will be delighted with the features. Before using or maintaining this product, it is important to read the following safety instructions. Failure to follow and apply all the instructions and procedures covered in the guide will invalidate the warranty and cause AC EV Charger and direct partners to waive all liability and claims for compensation.

Warning Notices



DANGER

This warning notice indicates imminent danger **that will result in death or severe injuries.**



WARNING

This warning notice indicates a dangerous situation **that can result in death or severe injuries.**



CAUTION

This warning notice indicates a dangerous situation **that can result in minor injuries.**



ATTENTION

This warning notice indicates a dangerous situation **that can result in material damage.**



DISPOSAL

Recycling options for private households

The product can be deposited free of charge at the collection points operated by the public waste management authorities or at the disposal points established in accordance with Directive 2012/19/EU.



SYMBOLS USED

The activities marked with this symbol may only be carried out by a qualified electrician.



This symbol indicates an important note.



This symbol is used to point out supplemental, useful information.

Safety Regulations/Notes



- **Target groups**

This document provides information for the qualified electrician and the operator. Knowledge of electrical engineering is required for certain tasks. These tasks, which is identified by the “qualified electrician” symbol, should only be carried out by a qualified electrician.

- **Qualified electricians**

A qualified electrician is a person who, based on his or her professional education, knowledge and experience as well as knowledge of relevant provisions, can assess the work assigned to him or her and identify possible hazards.

- **Intended use**

The product is intended for use in private areas.

The product is intended exclusively for the charging of electric and plug-in hybrid vehicles, hereinafter referred to as “vehicle”.

Charging according to Mode 3 pursuant to IEC 61851 for vehicles with non-gassing batteries.

Plugs and sockets according to IEC 62196.

Vehicles with gassing batteries cannot be charged. The product is intended exclusively for permanent wall mounting or mounting on a stand system provided by MIDEA, for indoor and outdoor use. In some countries, there is a requirement for a mechanical switching element to disconnect the charging point from the mains if a load contact on the product is welded (welding detection). The requirement can be implemented, for example, by means of a shunt release. The product may only be operated taking into account all international and national regulations. Observe the following international regulations or the respective national transposition:

IEC 61851-1/ IEC 62196-1/ IEC 60364-7-722/ IEC 61439-7

- **Improper use**

Using the product is safe only when used as intended. Any other use or changes to the product is considered improper use and therefore not permitted. The qualified electrician or user is responsible for any personal injury or material damage arising from improper use. MIDEA accepts no liability for any consequences arising from improper use.



ATTENTION



Material damage due to unsuitable ambient conditions

Unsuitable ambient conditions can damage the product.

- Protect the product from a direct water jet.
- Avoid direct sunlight.
- Ensure adequate ventilation of the product. Adhere to minimum distances.
- Keep the product away from heat sources.
- Avoid large temperature fluctuations.

Safety Regulations/Notes

- **Do not use a damaged product**

People can be seriously injured or killed if a damaged device is used.

- Mark a damaged product to ensure that no one uses it.
- Arrange for a qualified electrician to rectify the damage without delay.
- Take the product out of service if necessary.

- **Carry out maintenance properly**

Improper maintenance can affect the safety of the product and cause accidents.

This can seriously injure or kill people.

- **Pay attention to supervisory duties**

Individuals who are not fully able to assess potential hazards as well as animals pose a danger to themselves and others.

- Keep persons at risk away from the product, e.g. children.
- Keep animals away from the product.

- **Proper use of charging cable**

Improper handling of the charging cable can cause hazards such as electric shock, short circuit or fire.

- Avoid loads and impacts.
- Do not pull the charging cable over sharp edges.
- Do not allow the charging cable to become knotted and avoid kinks.
- Do not use adapter plugs or extension cables.
- Unroll the charging cable completely when charging.
- Do not expose the charging cable to tensile stress.
- Pull the charging plug from the charging socket.
- After using the charging cable, put the protective cap on the charging plug.

- **Supply line fuse (e.g. miniature circuit breaker, NH fuse)**

National regulations must be observed (e.g. IEC 60364-7-722 (in Germany DIN VDE 0100-722)) The fuse for the supply line must be designed for the product, taking account, among other considerations, of the rating plate, the required charging power and the supply line (line length, cable cross-section, number of outer conductors, selectivity).

- **Residual Current Device(RCD)**

A Residual Current Device(RCD), according to EN 61008-1 and IEC 62955, is integrated in the AC Charger. This will switch off the current to the electrical vehicle if a residual current of 4-6 mA DC and/or 20-30mA AC occurs. The RCD is reset by unplugging the charging cable and plugging it in again. The integrated RCD is automatically tested and calibrated at regular intervals by the AC Charger. The integrated RCD has no influence on the function of external protective devices. For other installation scenarios local wiring regulations may vary and must be consulted. No other circuits may be connected to the residual current circuit breaker.

General Specification

Charging Mode (IEC 61851-1)	3
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Dimension(without cable)	316mm*197mm*93mm
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Operating Temperature	-30°C to 50°C
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Storage Temperature	-40°C to 80°C
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Relative Humidity (non-condensing) [%]	95
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Altitude [m above sea level]	2,000
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Standards	CE mark(LVD 2014/35/EU, EMC 2014/30/EU) IEC 61851-1, IEC 61851-22, IEC 62196-2, IEC 62955
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General Specification

Charging Power	7,4kW(1P)	11kW(3P)	22kW(3P)
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Rated Voltage AC	230V	400V	400V
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Cable Section	3×6mm ²	5×2.5mm ²	5×6mm ²
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Rated Frequency	50Hz/60Hz		
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Ingress Protection	IP55		
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Over Voltage Category	CATⅢ		
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External RCCB required per local regulations	TypeA or TypeB		
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Residual Current Protection	30mA TypeA+6mA DC		
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Protection Against Electric Shock	CLASS I		
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Tools

Required Tools



① Hammer



② Electric Drill



③ Pencil



④ Cutting Pliers



⑤ Utility Knife



⑥ Measuring
Tape



⑦ Ratchet Crimping Pliers



⑧ Screwdriver



⑨ Screwdriver
20lrp Torxplus Recess
5 Lobe



⑩ Power Cable Terminals



⑪ Ethernet Crimping Pliers

Parts

Included Accessories



[1] ST5 × 60 mm
Screw



[2] Anchor



[3] Installation Guide



[4] Quick Start Guide



[5] Opening Tool



[6] RFID Card

Wall Bracket Mounting Accessories (Optional)



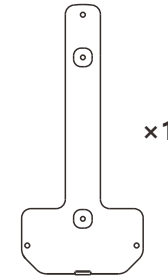
[7] $\phi 5 \times 8$ mm
Screw



[8] ST5 × 60 mm
Screw



[9] Anchor

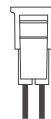


[10] Wall Bracket

Dynamic Load Balancing Accessories (Optional)



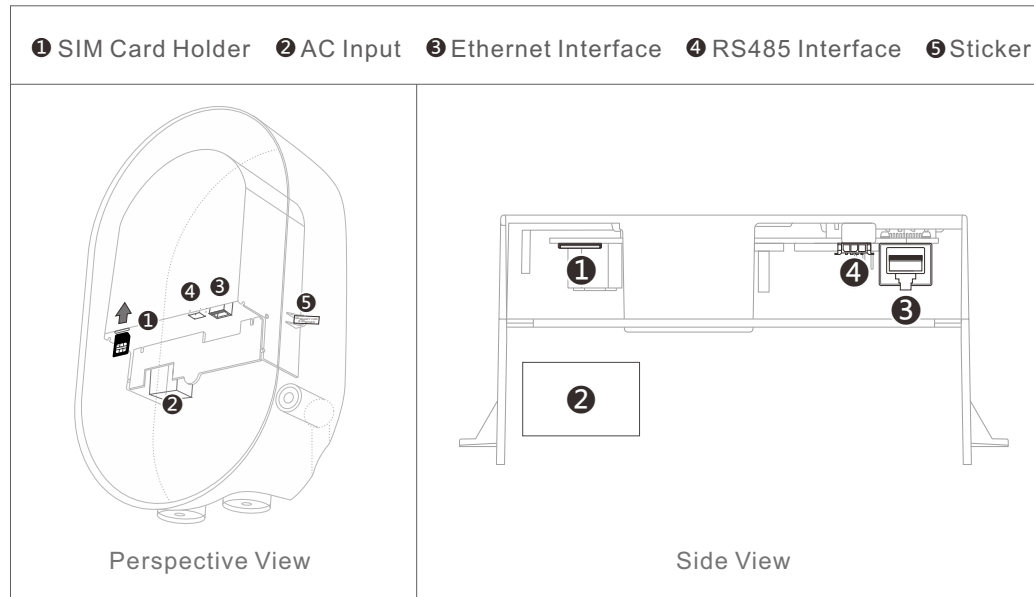
[11] Smart Meter



[12] RS485 Connector

Wiring Overview

The wiring overview of the AC Charger demonstrates which of following shall be connected/wired according to the type and optional function of the AC Charger you purchased.



- 01** *Only applied to 4G version!*
- If you purchased the 4G version, please insert the SIM card into the SIM card holder (position ①). After power on, please set the APN of SIM card in MIDEA APP. (Please refer to APP guide.)
- 02** *Applied to all versions!*
- AC power supply interface(position ②), Please identify your grid system and wire accordingly, referring to page16-17.
- 03** *Applied to all versions but only wired Internet connection available!*
- If you intend to use Ethernet, please set your router to DHCP mode. Plug the Ethernet cable into the Ethernet port of your Charger & router (position ③). (Please refer to page11 for installation steps.)
- 04** *Only applied to Charger with Dynamic Load Balancing option!*
- If you have purchased the optional Dynamic Load Balancing function, please plug the RS485 cable from the supplied smart meter into the RS485 interface (position ④). (Please refer to page12 for installation steps.)



CAUTION



Never tear/damage/remove the warranty sticker (position ⑤), otherwise the warranty will void.

Wiring Overview

	No Wall Bracket	Wall Bracket	RS485 Interface	Ethernet Interface	Installation Step
4G/WiFi Version	●				Step1-5-6
	●		●		Step1-3-5-6
	●			●	Step1-2-5-6
	●		●	●	Step1-2-3-5-6
		●			Step1-4-6
		●	●		Step1-3-4-6
		●		●	Step1-2-4-6
		●	●	●	Step1-2-3-4-6



DANGER



Risk of explosion and fire

If the product is operated in potentially explosive areas, explosive substances may be ignited by sparking of product components. There is a risk of explosion and fire.

- Do not use the product in potentially explosive atmospheres (e.g. gas filling stations).

Fire hazard due to overload

If the upstream electrical installation is flawed (e.g. supply line), there is a fire hazard.

- Design the upstream electrical installation according to the applicable regulatory standards and the technical data and configuration of the product.



The tasks described in this section may only be carried out by a qualified electrician.



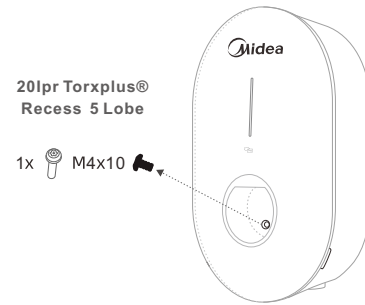
ATTENTION



For 4G version, insert a 4G SIM card into the SIM card slot (position ①) for Internet connection!

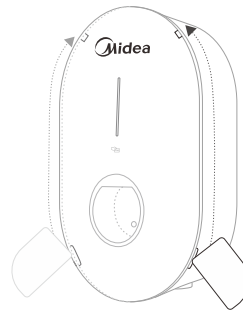
1-Uncover The Charger

Applied to all!



01

Unscrew the safety screw shown in the picture.



02

Insert the opening card into the notches on both sides and slide it up along the product gap to the position shown in the figure.



03

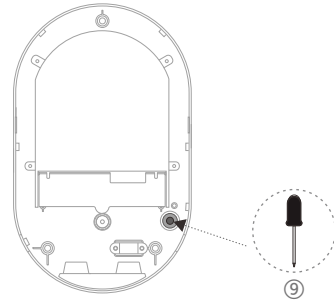
Loosen the buckles and remove the front panel.



The tasks described in this section may only be carried out by a qualified electrician.

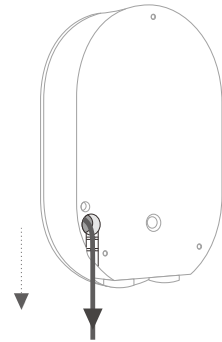
2-Connect Ethernet Cable

Applied when only Ethernet connection is available!



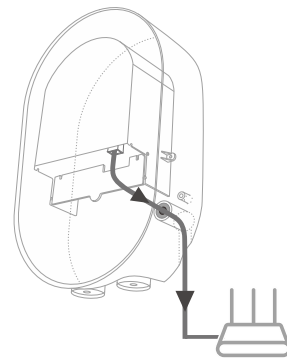
01

Use sharp tools to puncture the waterproof plug of the wire.



02

Thread the Ethernet cable(without Jack) from hole into the enclosure of the Charger, then crimps the RJ45 connector and connect to Ethernet Interface (position ③) of the Charger.



03

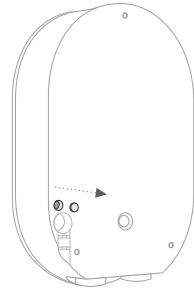
Connect the other end of the Ethernet cable to the router. Make sure the DHCP mode of the router is turned on.



The tasks described in this section may only be carried out by a qualified electrician.

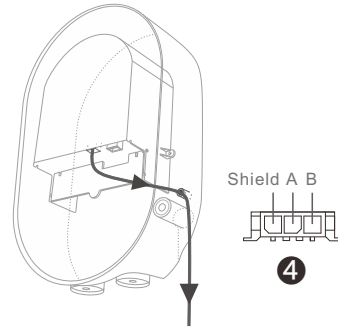
3-Connect RS458 Harness

Only for Charger with optional Dynamic Load Balancing!



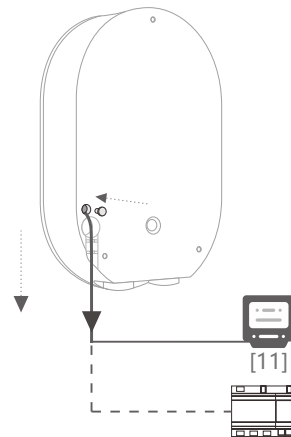
01

Remove the waterproof plug in the direction of the arrow.



02

Please use the RS485 connector provided by the manufacturer. Connect the RS485 connector to the RS485 Interface (position ④) of the Charger, go through the hole shown in the picture.



03

Fix the RS485 harness in the back recess and put the waterproof plug back in original position.

Dynamic Load Balancing Mode:

Connect the other end of the RS485 harness to the smart meter.

Energy Storage Charging Mode:

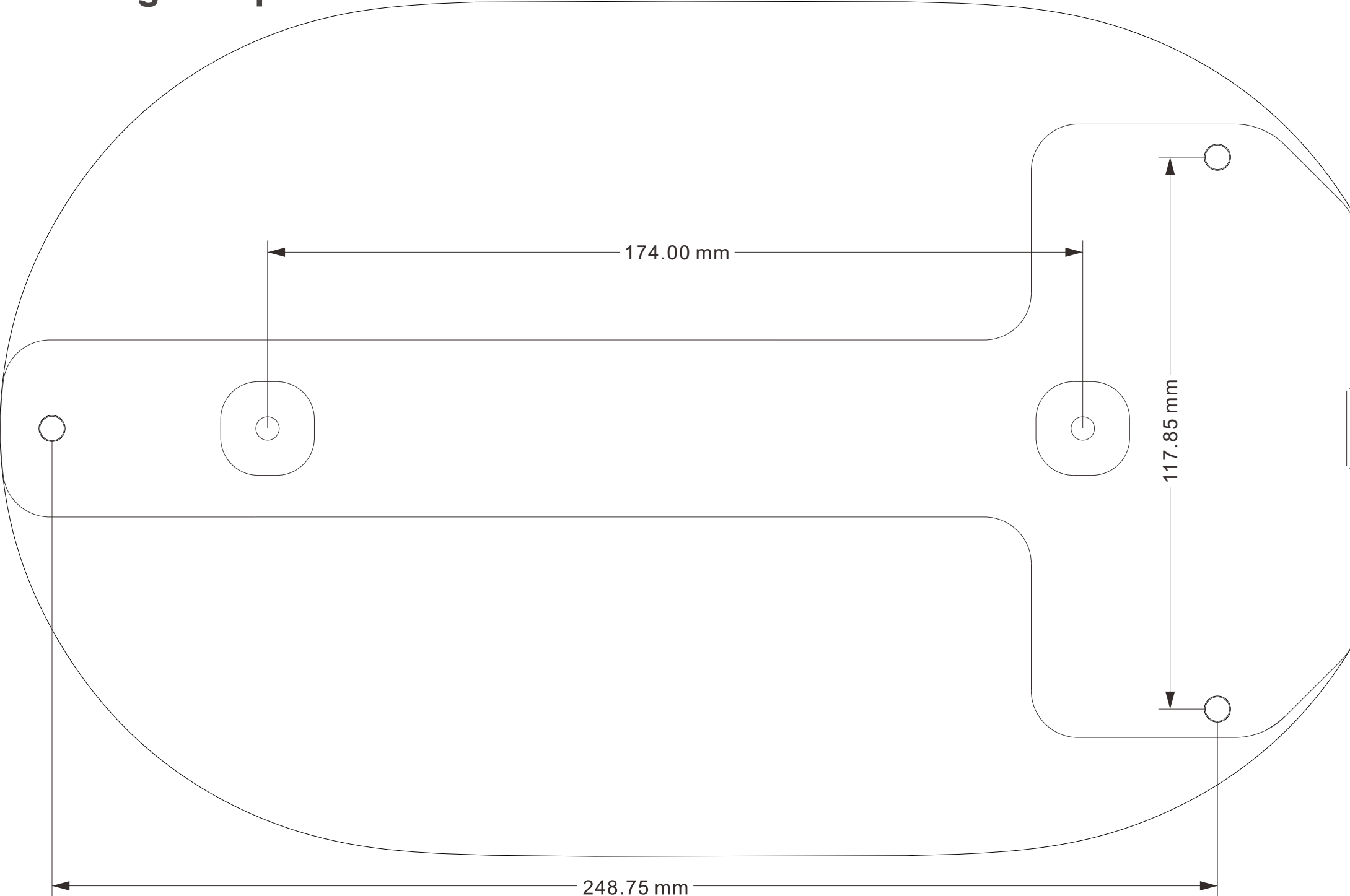
Connect the other end of the RS485 harness to the Midea smart M0.

Make sure the RS485 cable harness is connected correctly. Please refer to the APP User Guide.



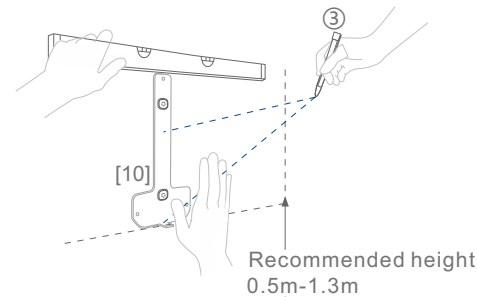
The tasks described in this section may only be carried out by a qualified electrician.

Drilling Template



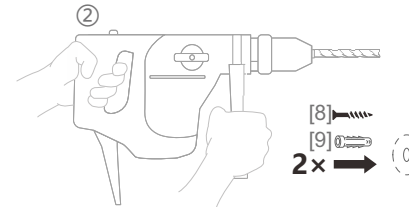
4-Wall Bracket Installation

*Applied only to Charger with optional wall bracket! *



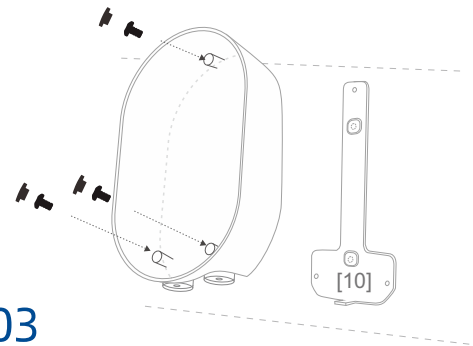
01

Level the drilling template and mark the fixing points on the wall. Suggested height is 0.5m-1.3m from ground level, please adjust according to your own requirement.



02

Drill holes at place the fixing points are marked, insert the anchor screws into the fixing holes.



03

Fix the AC Charger on the wall bracket, insert and tighten the screws, then insert the T-type hole plugs.

3x [7]  M5*8

3x 

! ATTENTION !

Installing the product on the wall

Material damage due to uneven surface

Installing on an uneven surface can cause the housing deformation, so that the protection class is no longer guaranteed. Consequential damage of electronic components can occur.

- Only install the product on an even surface.
- If necessary, level out uneven surfaces with suitable measures.

Material damage due to drilling dust

Consequential damage of electronic components can occur if drilling dust gets into the product.

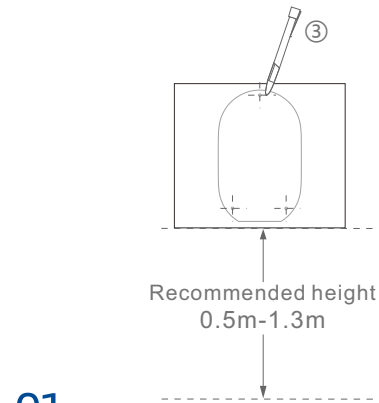
- Make sure that drilling dust does not get into the product.
- Do not use the product as a drilling template and do not drill through the product.
- Create the drill holes using the drilling template (included in the delivery contents) or first mark the drill holes using the illustration "Drilling dimensions [mm]" and then drill. The diameter of the holes depends on the chosen mounting hardware.



The tasks described in this section may only be carried out by a qualified electrician.

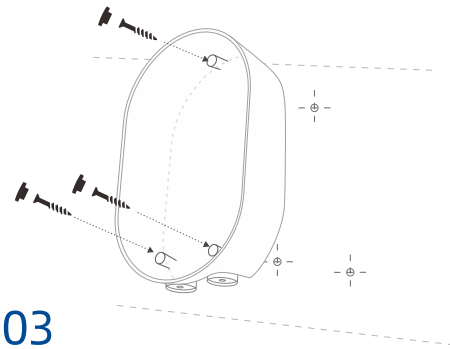
5-Install Charger On The Wall

*Applied only to Charger without wall bracket! *



01

Level the drilling template and mark the fixing points on the wall. Suggested height is 0.5m-1.3m from ground level, please adjust according to your own requirement.

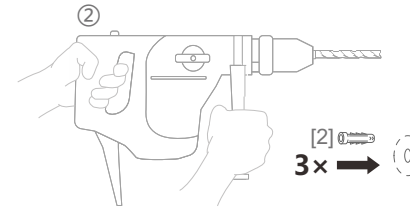


03

Fix the AC Charger on the wall, insert and tighten screws, then insert the T-type hole plugs.

3x [1]  ST5*60

3x 



02

Drill holes on the marked fixing places. Insert the anchor screws into the fixing holes.

! ATTENTION !

Installing the product on the wall

Material damage due to uneven surface

Installing on an uneven surface can cause the housing deformation, so that the protection class is no longer guaranteed. Consequential damage of electronic components can occur.

- Only install the product on an even surface.
- If necessary, level out uneven surfaces with suitable measures.

Material damage due to drilling dust

Consequential damage of electronic components can occur if drilling dust gets into the product.

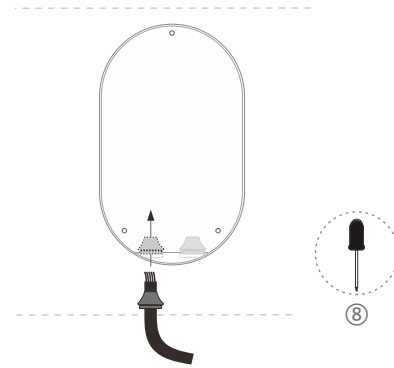
- Make sure that drilling dust does not get into the product.
- Do not use the product as a drilling template and do not drill through the product.
- Create the drill holes using the drilling template (included in the delivery contents) or first mark the drill holes using the illustration "Drilling dimensions [mm]" and then drill. The diameter of the holes depends on the chosen mounting hardware.



The tasks described in this section may only be carried out by a qualified electrician.

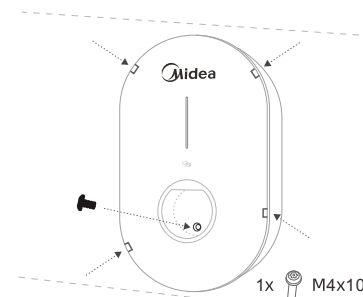
6.a-AC Wiring

Applied to all!



01

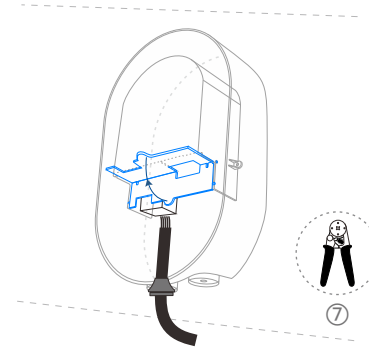
Make an incision on the rubber grommet for the power supply cable, insert the power supply cable through the grommet.



*Recommended tightening torque: $1.5\text{Nm} \pm 0.5\text{Nm}$ *
20IPR TORXPLUS® RECESS 5 LOBE

03

Align the buckles and press the front panel and enclosure tightly. Make sure each buckle is engaged.



02

Crimp the power cable terminals using the crimp pliers. Open the protective cap and connect the AC power cable. Please flip down the protective cap after AC wiring. Please refer to page 16-17 for the connection of the power cable.

! ATTENTION !

Material damage due to missing sealing plugs

If the screws in the housing are not covered, or are not adequately covered with the sealing plugs provided, the specified protection class is no longer guaranteed. This can lead to consequential damage of electronic components.

- Cover the screws in the enclosure with the provided sealing plugs.
- Check the product for firm and secure attachment.

Insert the supply line into the product through the respective cable entry point together with the control / data line (if applicable)

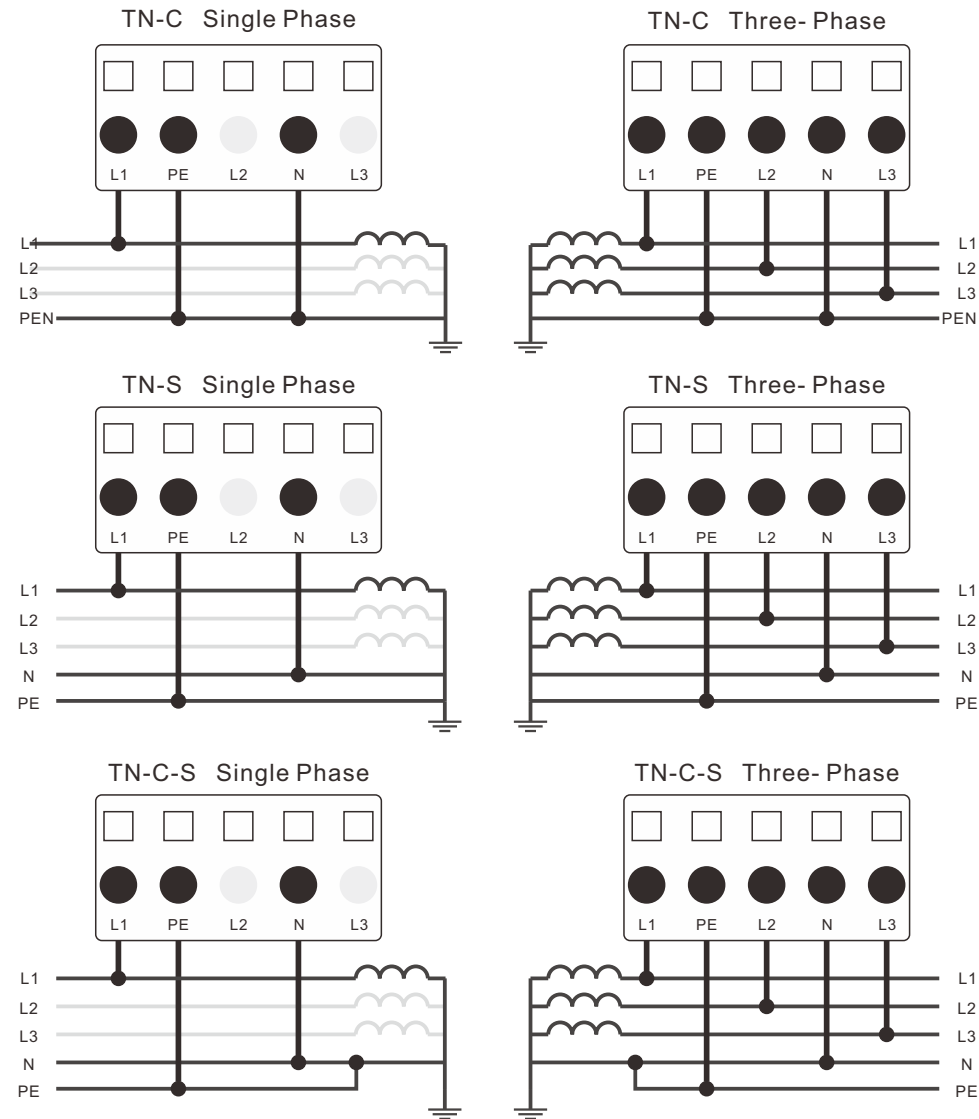
i Approx. 15 cm of cable are required for the supply line inside the product.

Fasten the product to the wall using dowels, screws and sealing plugs. Select the tightening torque according to the building material of the wall.



The tasks described in this section may only be carried out by a qualified electrician.

6.b-Electrical Wiring



ATTENTION

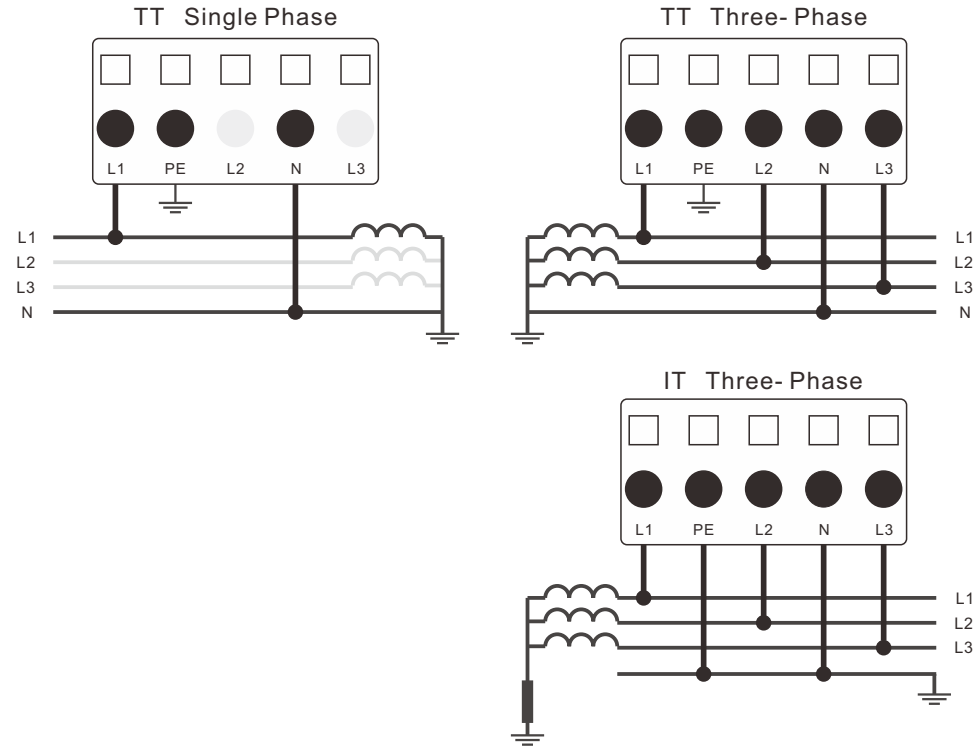


Ensure that the maximum voltage is less than 276 V between L & N inputs.



Independent Grounding

6.c-Electrical Wiring



ATTENTION



Ensure that the maximum voltage is less than 276 V between L & N inputs.



Independent Grounding

LED Status Display

Charger Status	LED Color	LED Status
Standby	Green	Steady
Plugged	Blue	Breathing
Charging	Green	Breathing
Charging Complete	Blue	Steady
Authorized	Orange	Steady
Fault	Red	Steady
OTA	White	Breathing

Standby: Charger is in standby mode

Plugged: Charger connector is plugged into EV charging inlet

Charging: Charging in progress

Charging Complete : The charging is complete

Authorized: Charging authorization has been conducted through RFID or APP

Fault: Charger error, check the APP for information.

OTA: Charger is upgrading software

Unlock 22kW Power

Only for 22kW Charger!

For safety and regulation reasons, the 22kW Charger is locked to 11kW (output power) at factory. In some countries, 22kW Charger installation requires special utility provider permission.

In case 22kW Charger is intended to be installed and used as is, please make sure the electrical requirements are met and the utility provider permission is granted for a 22kW Charger.

In order to unlock the 22kW power, the installation electrician has to request on MIDEA App after installation and App registration.

(Please refer to the App Guide “**Unlock 22kW Power**”.)

After receiving the unlock request, MIDEA will review the submitted application. Once approved, MIDEA will unlock the 22kW power of the Charger remotely.



ATTENTION



In order to unlock a 22kW Charger, the charger has to be connected to Internet.



The tasks described above may only be carried out by a qualified electrician

Service



ATTENTION



Material damage due to improper cleaning

Improper cleaning can damage the housing.

- Wipe the housing with a dry cloth or a cloth lightly moistened with water or spirit (94 % vol.).
- Do not use running water.
- Do not use high-pressure cleaning devices.



DANGER



Risk of electric shock due to damaged product

If a damaged product is used people can be seriously injured or killed due to an electric shock

- Do not use a damaged product.
- Mark a damaged product to ensure that no one uses it.
- Arrange for a qualified electrician to rectify the damage without delay.
- Have the product taken out of service by a qualified electrician if necessary.
- Check the product for operational readiness and external damage daily or on each charging process.

Examples of damage:

- Defective housing
- Defective or missing components
- Illegible or missing safety labels



A maintenance contract with a responsible service partner guarantees regular maintenance.

Maintenance intervals



The tasks described above may only be carried out by a qualified electrician

Select the maintenance intervals with due consideration of the following aspects:

- Age and condition of the product
- Environmental influences
- Mechanical stress
- Last test reports

Perform maintenance at least in the following intervals.

Service

Every 6 months:

Component	Maintenance work
Housing exterior	<ul style="list-style-type: none"> • Visually inspect for defects and damage. • Check product and clean if necessary.
Housing interior	<ul style="list-style-type: none"> • Check product for foreign objects and remove if necessary. • Visually inspect for dryness, remove any foreign objects from the seal and allow the product to dry. Carry out a function test if necessary. • Check the fastening on the wall and tighten the screws if necessary.
Protective devices	<ul style="list-style-type: none"> • Visually inspect for damage.
LED information panel	<ul style="list-style-type: none"> • Check LED indicator for function and readability.
Charging cable	<ul style="list-style-type: none"> • Check the charging cable for damage (e.g. kinks, cracks). • Check the charging cable for cleanliness and foreign objects, clean and remove foreign objects if necessary.

Annually:

Component	Maintenance work
Terminals	<ul style="list-style-type: none"> • Check terminals of the power supply and retighten if necessary.
Electrical system	<ul style="list-style-type: none"> • Inspection of the electrical system in accordance with IEC 60364-6 and the respective applicable national regulations (e.g. DIN VDE 0105-100 in Germany). • Repetition of measurements and tests according to IEC 60364-6 and the applicable national regulations (e.g. in Germany: DIN VDE0105-100). • Carry out a functional test and charging simulation (e.g. using a MIDEA test box and standard-compliant test equipment).



DANGER



Risk of electric shock due to improper cleaning

The product contains electrical components that carry high voltage. In case of improper cleaning, people can be seriously injured or killed due to electric shock.

- Clean only the outside of the housing.
- Do not use running water.

Charger must powered off for cleaning and removal operations.



The tasks described in this section may only be carried out by a qualified electrician.

RF Function	Frequency Range	Maximum Transmit Power
With Module (MEV-AC22-WIFI/MEV-AC11-WIFI/MEV-AC007-WIFI)		
WIFI(2.4G)	2412~2472MHz	17.5±2dBm
BLE	2402~2480MHz	5.65dBm
RFID	13.56MHz	20.25 dBμA/m @ 3m
With Module (MEV-AC22-4G/MEV-AC11-4G/MEV-AC007-4G)		
4G(LTE)	703~2620MHz	23±2dBm
WIFI(2.4G)	2412~2472MHz	17.5±2dBm
BLE	2402~2480MHz	5.65dBm
RFID	13.56MHz	20.25 dBμA/m @ 3m

