M3P Series

AC EV Charging Station



User Manual

UM2203.HP203.A5A0

About this User Manual

Read carefully before installation, maintenance and operation!

- > Failure to read this manual carefully may lead to improper operation.
- ▶ Failure to follow the safety notes may lead to a danger of death, injury and damage to the device, supplier cannot accept any liability for claims resulting from this.

Thank you very much to use our AC EV Charging Station.

▶ This manual describes the installation, use and maintenance of AC EV Charging station. This manual is intended for installation and maintenance personnel.

Article	Model Number
1-phase,3.5kW, Case B	M3P116ENB-P
1-phase,7kW, Case B	M3P132ENB-P
3-phase,11kW, Case B	M3P316ENB-P
3-phase, 22kW, Case B	M3P332ENB-P
1-phase,3.5kW, Case C	M3P116EN-P
1-phase,7kW, Case C	M3P132EN-P
3-phase,11kW, Case C	M3P316EN-P
3-phase, 22kW, Case C	M3P332EN-P

▶ The text and illustrations in this user manual are general explanations of these type of equipment, and the actual product may be inconsistent with this manual in detail.

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1. ABBREVIATIONS

S/N	Abbreviations	Description		
1	IEC	International Electrotechnical Commission		
2	EV	Electrical Vehicle, this can be BEV (battery EV) or PHEV (plug-in hybrid EV)		
3	EVSE	Electric Vehicle Supply Equipment [IEC61851-1]		
4	ОВС	On-board charger (of an EV)		
5	LCD	Liquid Crystal Display		
6	LED	Light-emitting Diode		
7	RFID	Radio Frequency Identification		
8	CMS	Central Management System		
9	ОСРР	Open Charge Point Protocol		
10	IP	Ingress Protection		
11	HMI	Human-Machine Interface		
12	RCMU	Residual Current Monitoring Unit		
13	МСВ	Miniature Circuit Breaker		
14	TN	"T" — indicates the connection between earth and the power supply is direct connection of a point with earth (French: Terre). "N" — the earth connection is supplied by the electricity supply network, either separately to the neutral conductor (TN-S), combined with the neutral conductor (TN-C), or both (TN-C-S). TN-S system TN-C system 230/400VAC TN-C-S system 230/400VAC TN-C-S system 230/400VAC Device TN-C bevice TN-C system 230/400VAC Device		
15	PE	Protective Earth. The conductor that connects the exposed metallic parts of the consumer's electrical installation		
16	PEN	PEN line is accurately and well ground the original neutral line, and connect the shell of the equipment to be protected to the PEN line		

2. SAFETY NOTES

2.1. Safety signs used

The following warning signs, mandatory signs and information signs are used in this manual, on and in the AC EV Charqing station.



CAUTION: Warning of electrical hazards.

This sign is intended to alert the user that severe personal injury or substantial property damage can result if the device is not operated as requested.



ATTENTION: Warning of a danger spot or dangerous situation.

This sign is intended to alert the user that minor personal injury or material damage can result, if the device is not operated as requested.



CAUTION: Do not touch by hands in case of ESD.

Indicates the possible consequences of touching electrostatically sensitive components.



CAUTION: Warning of combustion.



No access for unauthorized persons.



No access for persons wearing pacemakers.



Use protective footwear.



Must wear a safety helmet.



Indicates important texts, notes or tips.



Indicates recycling information.



Indicates assemblies or parts that must be disposed of properly.

Do not dispose of them in the household waste.

2.2. Environment



- EV Charging station should be installed on the incombustible such as concrete; otherwise, hazardous fire may result.
- EV Charging station should not be installed in the area that contains explosive gas; otherwise, hazardous blast may result.
- Leave no inflammable or explosive substances near the EV Charging station; otherwise, hazardous blast may result.



- EV Charging station should be installed in a place with no conductive dust and insulation-destructive gas or vapor.
- EV Charging station should be installed in a place with no violent vibration and impact; for good ventilation, mount the charging station vertically.
- The installation foundation shall be higher than the ground level, and drainage ditch shall be set around the EV Charging station, otherwise the equipment may be damaged.

2.3. Installation





Safety protection must be done when installing the EV Charging station.



- Installation and wiring should be done by personnel with professional qualification, otherwise, hazardous electric shock may result.
- Make sure input power supply is entirely disconnected before wiring; otherwise, hazardous electric shock may result.
- PE terminal of the EV Charging station must be grounded securely; otherwise, hazardous electric shock may result.
- The lead nose of the charging station must be securely attached or there is a risk of damaging the equipment.
- Leave no metals such as bolts, gaskets into the inside of the EV Charging station; otherwise, hazardous blast and fire may result.



- Main loop terminal of the EV Charging station should be firmly connected with the wiring ends; otherwise, damage to property may result.
- Bare parts of wiring ends of electrical cables must be wrapped with insulating tape; otherwise, hazardous fire and property loss may result.

2.4. Operation



- Strictly forbidden for minors or persons of restricted capacity to approach the charging station to avoid injury.
- $\begin{tabular}{ll} \hline \end{tabular} Forced charging is strictly forbidden when the electric vehicle or charging station fails. \\ \hline \end{tabular}$
- ▷ It is strictly prohibited to use the charging station when the charging adapter or charging cables are defective, cracked, worn, broken or the charging cables is

AC EV Charging Station



exposed. If you find any, please contact the supplier in time.



Do not charge in rainy and thunderous weather.

2.5. Maintenance





Personnel must always use protective footwear when maintenance work.

Caution ESD to avoid damaging electronic devices, especially to protect microchips on PCBA.



Accessory replacement must be done by qualified personnel, thrums or metals are prohibited to be left in the controller; otherwise, hazardous blast and fire may result.



- After replacing main PCBA, parameters must be adjusted and matched before operation; otherwise, property loss may result.
- ▷ It is recommended that routine safety inspection visits to charging station be conducted at least once a week.

3. STANDARDS COMPLIANCE

3.1. Charging mode

Conformed to EN IEC 61851-1:2019



Charging mode:

method for connection of an EV to the supply network to supply energy to the vehicle

■ The Charging mode of M3P series product is Mode 3



Mode 3 is a method for the connection of an EV to an AC EV supply equipment permanently connected to an AC supply network, with a control pilot function that extends from the AC EV supply equipment to the EV.

3.2. Charging connection

■ According to EN IEC 61851-1:2019, M3P series products meet the Case B connection.



Case B:

Connection of an EV to a supply network with a cable assemble detachable at both ends.

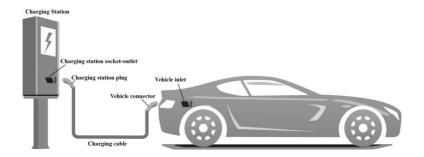


Fig. 3-1 Schematic diagram of CASE B connection

■ According to EN IEC 61851-1:2019, M3P series products meet the Case C connection.



Case C:

Connection of an EV to a supply network utilizing a cable and vehicle connector permanently attached to the EV charging station.

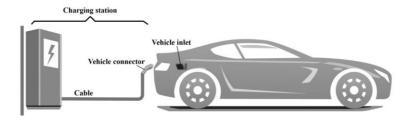


Fig. 3-1 Schematic diagram of CASE C connection

3.3. Charging interface

■ The charging connector of M3P series products meet IEC 62196-2, Type 2 plug (with charging cable).



Fig. 3-2-1 Type 2 plug on M3P1 series products



Fig. 3-2-2 Type 2 plug on M3P3 series products

M3P series products provide a Type 2 female plug with charging cable, it only charging an EV with a
 Type 2 vehicle inlet.

4. PRODUCT INFORMATION

4.1. General

Welcome to use AC EV Charging station produced by our company.

The shape & dimensions of AC EV charging station shown as Fig. 4-1.

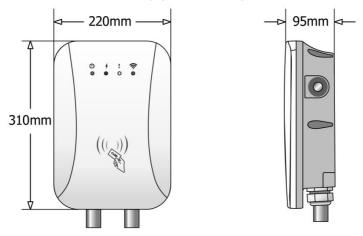


Fig. 4-1 The shape & dimensions of M3P series

■ The block diagram of AC EV charging station is shown as Fig. 4-2.

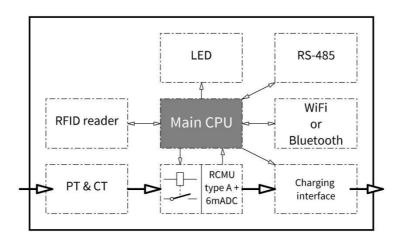


Fig. 4-2 Block diagram of products

It is widely used in all kinds of household electric vehicle charging, as well as various charging stations, parking lots, community garages and public electric vehicle charging places.

4.2. Model number definition

The model number definition of charging station follows the rules as shown in Fig. 4-3.

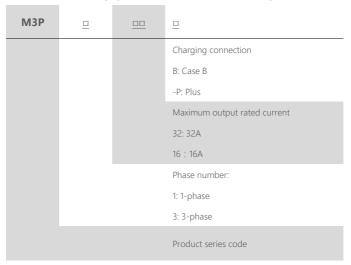


Fig. 4-3 Model number definition

4.3. Specifications

4. 3. 1. Electrical specifications

Model Number	M3P116EN-P	M3P132EN-P	M3P316EN-P	M3P332EN-P	
ModerNumber	M3P116ENB-P	M3P132ENB-P	M3P316ENB-P	M3P332ENB-P	
Rated Voltage	230V, 50/60Hz	230V, 50/60Hz	400V, 50/60Hz	400V, 50/60Hz	
Rated Current	16A	32A	16A	32A	
Rated Power	3.5kW	7kW	11kW	22kW	
Recommended	242	2(F., 4-2-2	F., Carara 2	
supply cable	3×4mm², copper	3×6mm², copper	5×4mm², copper	5×6mm², copper	
MCB	Dedicated circuit,	Dedicated circuit,	Dedicated circuit,	Dedicated circuit,	
recommended	25A, 2-Pole	40A, 2-Pole	25A, 3-Pole	40A, 3-Pole	
Input Terminals	L1/ N/ PE		L1/ L2/ L3/ N/ PE		
Charging interface	Type 2 plug (meet IEC 62196-2) with 5m cable				
Charging interface	Note: That cord extension sets are not be used		d		

4. 3. 2. Functional description

Model series	M3P series
Charging Mode	Mode 3
Charging Control	Remote: "APP-controlled"
	Local: "Button-controlled" or "Card-controlled"
La Parte a Parte	4 LED lights;
Indicator Lights	Indicate 4 statuses include standby, charging, fault and network
Note a discrete force	WiFi (2.4GHz / 5G Hz), and support OCPP 1.6J Protocol (Optional)
Networking interface	Bluetooth version: 5.2
Cofet Bootselfer	Surge protection, over temperature, over/under voltage, over current, leakage
Safety Protection	fault, ground protection for TN system (TN-C, TN-S and TN-C-S)
RCD Built-in	Yes, RCMU (Type A 30mA + DC 6mA, meet IEC 62955) built-in

4. 3. 3. Ambient conditions

Model series	M3P series
Altitude	≤ 2000m
Storage temperature	-40 ~ 75°C
Operation temperature	-30 ~ 55℃
Relative humidity	≤ 95%RH, no water droplet condensation
Vibration	< 0.5G, no acute vibration and impaction
Installation location	Indoor or outdoor, good ventilation, no flammable, explosive gases

4. 3. 4. Mechanical parameters

Model series	M3P 1-phase series	
Mounting	Wall-mounted or pole-mounted (mounting pole is optional)	
Net Weight	≤ 8 kg	
Dimension	H×W×D = 310mm × 220mm × 95mm	
Color & Material	Front cover: White, PC; Back cover: Gray, PC	
IP Code	IP65	
IK Code	IK10	

4.4. Nameplate

On the wallbox shell, there is a nameplate identifying the model and specification of the charging station, the content is shown as Fig. 4-4.

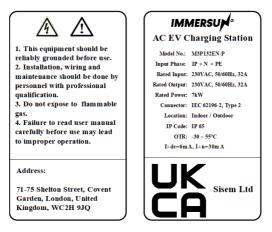


Fig. 4-4 the nameplate for M3P series product

5. INSTALLATION

5.1. Unpacking

5. 1. 1. Packing list

Package	Quantity
AC EV Charging Station	1 pc
Empty socket	1 pc
RFID card	2 pcs
Wall-mounting accessories (including A+B+C+D as Fig. 5-1 shown)	1 set
User manual	1 pc
Quality certificate	1 pc

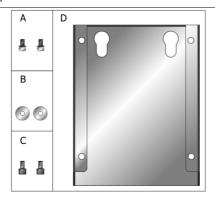


Fig. 5-1 Wall-mounting accessories

5. 1. 2. Inspection & confirm

When unpacking, please carefully confirm the following points:

- Whether the accessories are missing according to the packing list.
- Whether there is any damage during transportation.
- Whether the model and specification of the machine's nameplate are consistent with the order requirements.



- ▶ If any damage or missing parts are found, please do not start the machine and contact the supplier as soon as possible.
- ▷ Please keep the packing box and packing materials 1 month for future handling.



> The paper packaging is recyclable.

5.2. Prepare

When transporting or moving the charging station, pay attention to the following points to ensure product safety:



- > This product is electrical equipment. It should be handled with care to avoid violent vibration and impact.
- ightharpoonup The charging station shall not be transported by dragging the charging connector and the charging cable.
- In order to ensure the long-term stable operation of the product, it is recommended to avoid installing charging stations in extreme weather as far as possible, especially low or high ambient temperature

may affect the installation effect due to thermal expansion and cold contraction.

- The electrical power supply cable must be prepared. Please refer to Clause 4.3.1 to select the power cable.
- Space requirement: When the charging station is fixed on the wall, the minimum space requirements are shown in Fig. 5-2.

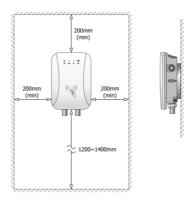
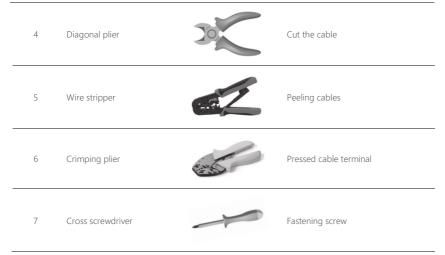


Fig. 5-2 Minimum space requirements for wall mounting

- It is suggested that the charging station should be installed in a place with good ventilation, no direct sunlight and shelter from wind and rain. In order to ensure good ventilation condition, you should mount the charging station vertically and leave enough space.
- Tools for installation

Prepare the following tools at least before installing the AC EV charging station.

Sr No.	Tools' Name	Schematic Picture	Main Uses
1	Multimeter		Check the electrical connection and measure the voltage
2	Electric Impact drill		Drill fixing holes in the wall
3	Wrench		Fastening bolt



5.3. Installation steps

Install the Charging station on the wall follow the steps as below.

■ Step 1: Mount the accessories-D

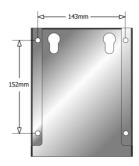


Fig. 5-5 The fixing holes of accessories-D

Drill 4 holes with diameter of 10mm and depth of at least 50mm on the wall with spacing of 143mm \times 152mm, and secure the accessories-D to the wall with expansion screws.

■ Step 2: Wiring

As shown in Fig. 5-6, unscrew the total 6 screws with mark [A] to open the front cover of wallbox before wiring.

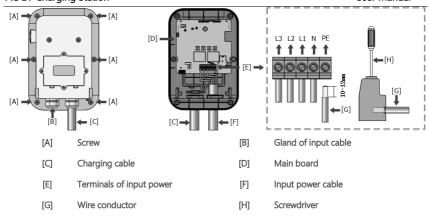


Fig. 5-6 Open the wallbox and wiring

- Loosen the gland [B], pass the prepared power cable through it.
- ➤ Remove 10~12 mm of insulation from the wire conductor [G].
- > Loosen the screw with a screwdriver[H], plug the wire conductors into each terminal, tighten the screw with a screwdriver[H] to make sure every wire conductor is reliable connect with terminal.
- Screw the total 6 screws with mark [A] to reset the front cover of wallbox.
- > Tighten the gland of input cable.

■ Step3: Fixed the wallbox



Fig. 5-7 Mounting the wallbox on the accessories-D

As shown in Fig. 5-7, secure mounting accessories[A]+[B] to the charging station; follow the arrow, and hold the wallbox on accessories [D].

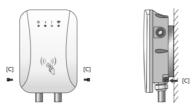


Fig. 5-8 Fixed the wallbox

Tighten the accessories [C] on the left and right ends to fixed the wallbox as Fig.5-8 shown.

5.4. Empty socket

M3P series AC EV charging station config a type 2 charging connector. When the charging station is in standby state, please plug the charging connector in the empty connector socket in order to protect the charging connector. Please use expansion screws to fix this empty socket at a suitable position beside the charging station.



Fig. 5-9 Empty socket

6. OPERATION

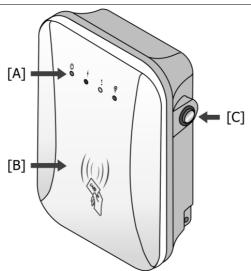
6.1. Power on

After the charging station has been installed and confirmed, switch on the power supply. The ${\bf O}$ indicator light lights up and the charging station switches to standby state.

6.2. Human-Machine Interface

6. 2. 1. Overview

As shown in Fig. 6-1, M3P series product is configured with multiple human-machine interfaces.



- [A] 4 LED lights: Indicate 4 statuses, include standby, charging, fault, and network
- [B] Swipe card area: Swipe the RFID card to charging
- [C] Charging control button: Start or stop charging by press for Button-controlled charging

Fig. 6-1 HMI of AC EV Charging Station

6. 2. 2. LED indicators

The LED indicators on the panel are used to indicate the status of the charging station and the various combinations of indicators are described as below.

No.	lcon	Indicator Color	Indicator Status	Connotation
1	ds	ds a	ON	Standby status
1 ()	Green	Twinkle	Ground fault status	
2	∳ Red	ON	connected to an EV	
		Twinkle	Start charging state	
		BLN control	Charging status	

3	!	Yellow	Twinkle	Fault status Twinkle frequency indicates the fault code
	(î:-	Blue	OFF	Unconnected network
4			ON	Connected to the network
			Slow twinkle	Exchange data with CMS via network.
			Fast twinkle	Configure WiFi network status

6. 2. 3. RFID reader

In general, the charging station is equipped with RFID card reader as standard, and the charging process can be started and stopped by using the RFID card (shown as Fig. 6-2) configured with the host. The special customized card swiping function is not separately described here.



Fig. 6-2 RFID card

6. 2. 4. Charging control button

You can press the button to control charging, when M3P work in button-controlled mode.

- Start charging: plug the charging connector into EV socket, press button to start charging.
- Stop charging: press button again will end the charging, when EV is in charging.

6.3. Configure parameters

Taking the configuration of charging station parameters by laptop as an example, it is introduced as follows (the method of setting parameters by mobile phone is similar and will not be repeated):

■ Step 1: connect to WiFi hotspot

Keep your laptop in a state where it can connect to WiFi hotspots. Within two minutes after power on, the

charging station provides a WiFi hotspot as the access entrance for parameter configuration. Connect a WiFi hotspot with a name is similar to "EVSE-12345678" in the "WiFi network" of the laptop. It is no password to connect the hotspot.



Fig. 6-3 Connect the WiFi in Windows OS

■ Step 2: login to setting

Enter 192.168.4.1 in the address bar of Google Chrome or Microsoft Edge, you can access the EVSE CONFIGURATION shown in Fig. 6-4, and Microsoft IE cannot access this IP address.



Fig. 6-4 Login of EVSE CONFIGURATION

■ Step 3: Config your EV Charging station

Enter the correct login password (default is 12345678) to enter the page shown in Fig. 6-5. Please change anew password at the first time. As shown in Fig. 6-5, set the parameters on this page.

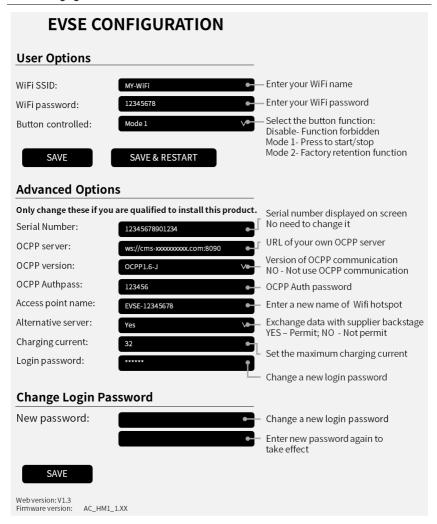


Fig. 6-5 Set parameters to config the EV charging station

After setting, click the "SAVE" button to save the settings, and click the "SAVE & RESTART" button to save and restart charging station for settings take effect. Enter your WiFi name and password in the page. After it takes effect, the charging station can access Internet via your WiFi.

6.4. Start Charging

a) Park your EV into place, turn off, and put the EV under braking.

- b) Pick off the charging connector form empty socket of EV charging station.
- c) As shown in Fig.6-6, plug the charging connector into the AC charging socket of the EV.
- d) For the charging control mode of "Button-controlled", press the button after EV connector plug in, the charging will start automatically.



Fig. 6-6 Plug into EV socket

e) For the charging control mode of "Card-controlled" or "APP-controlled", you can control charging process by swipe RFID card or APP after charging connector plug in.





WE E-Charge

▷ For Android phone, search "WE E-Charge" in Google Play Store or scan the QR code on the right to install APP.





▷ For iPhone, search "WE E-Charge" in APP Store or scan the QR code on the right to install APP.





6.5. Normally stop charging

- a) The charging station will automatically stop when the electric vehicle is fully charged.
- b) For the charging control mode of "Button-controlled", you can stop charging by press button again,

when EV is in charging.

- c) For the charging control mode of "Card-controlled", you can stop charging by swipe your RFID card again, when EV is in charging.
- d) For the charging control mode of "APP-controlled", click the stop button on your APP, the charging will stop.
- e) When the charging is end, please unplug the charging connector and plug back to the empty socket of charging station.

6.6. Abnormally stop charging

- a) Forced fault stop: A fault stop initiated by the onboard charger of vehicle.
- b) Automatic fault stop: A fault stop initiated by the charging station.

7. FAULT HANDLING AND MAINTENANCE

7.1. Fault Handling

The charging station is automatically protected in the event of the fault. The fault information and handling methods are as follows.

LED indicator	Fault code	Handling method
All LED are not on	-	 Check whether the power supply and distribution are normal; Check whether the branch breaker is tripped, and close the breaker after troubleshooting; Check whether the connection is correct, if the cable comes off, should be properly connected to tighten the cable.
LED flashes: 1×slow, 1×fast	Fault code 11: CP voltage anomaly	Check the connection of charging connector and EV socket. Disconnect and reconnect the charging connector.

AC EV Charging Static	711	Oser Manual
LED indicator information	Fault code	Handling method
v	Fault code 13:	• Check whether the input cable is reliably connected.
■ LED flashes: ■ 1×slow, 3×fast	Undervoltage input	Check whether the input voltage is abnormal.
•	Fault code 14:	• Check whether the input cable is connected correctly.
■ LED flashes: ■ 1×slow, 4×fast	Overvoltage input	Check whether the input voltage is abnormal.
•	Fault code 15:	• Check whether the charging station is covered or
LED flashes:	Over-temperature	installed in a high temperature environment.
● 1×slow, 5×fast	protection	
	Fault code 16:	Power off and restart the device.
■ LED flashes: ■ 1×slow, 6×fast	Metering fault	
- 1×Slow, 0×last		
V	Fault code 17:	• Check whether the charging connector and its cable
■ LED flashes: ■ 1×slow, 7×fast	Leakage protection	are damaged or wet.
T INSIGW, F Muse		Recover after pulling out the adapter.
V	Fault code 18:	Check whether the charging adapter and its cables are
LED flashes:	Output shortage	damaged or wet.
● 1×slow, 8×fast		
_	Fault code 19:	• Check whether the charging connector is correctly
LED flashes:	Output overcurrent	connected.
• 1×slow, 9×fast		• Check whether the OBC is normal.
		Check the set of output current.
LED flashes:	Fault code 21:	Battery of EV is full. Or the charging connector is not
• 2×slow, 1×fast	EV response	properly connected.
	timeout	Disconnect and reconnect the charging connector.

LED indicator information	Fault code	Handling method
LED flashes: • 2×slow, 2×fast	Fault code 22: EV not supported	This EV does not meet the IEC standards and cannot be charged.
LED flashes: • 2×slow, 3×fast	Fault code 23: Relay sticking	The device is damaged and needs to be returned to the factory for repair.
LED flashes: • 2×slow, 4×fast	Fault code 24: ● RCD fault	The RCD is damaged and needs to be returned to the factory for repair.
LED flashes: ● 2×slow, 5×fast	Fault code 25: Ground fault	Charging station is not grounded; input power cable needs to be checked.
LED flashes: 2×slow, 6×fast	Fault code 26: Ground leakage current	The ground cable has leakage current, and the charging pile needs to be restarted

7.2. Maintenance

To ensure the long-term stable operation of the equipment, please maintain the equipment regularly (usually every month) according to the operating environment.

- a) The equipment is maintained by professionals.
- b) Check whether the equipment is well grounded and safe.
- c) Check whether there are potential safety hazards around the charging pile, such as whether there are high temperature, corrosion or inflammable and explosive articles close to the charging station.
- d) Check whether the join point of the input terminal is in good contact and whether there is any abnormality. Check whether other terminal points are loose.

WARRANTY AGREEMENT

- 1. The scope of warranty refers to the product itself.
- The warranty period is 24 months. During the warranty period, the company will repair
 the product free of charge in case of failure or damage (determined by the company's
 technical personnel) under normal use.
- 3. The starting time of warranty period is the date of product manufacture.
- 4. Even in the warranty period, a certain maintenance fee will be charged in case of the following situations.
 - ① Equipment failure caused by not following the user's manual.
 - 2 Equipment damage caused by fire, flood, abnormal voltage, etc.
 - 3 Equipment damage caused by using the product for abnormal functions.
 - 4 Equipment damage caused by foreign matter entering.
 - ⑤ Equipment damage caused by other human external factors.
- The service fee shall be calculated according to the actual cost. If there is another contract, the contract shall prevail.
- Please be sure to keep this card and show it to the maintenance personnel during the warranty period.
- 7. If you have any questions, please contact the agent or our company directly.

After sales service center

We provide customers with all-round technical support.



Any change without prior notice.