

Electric Vehicle AC Charger

Installation Instructions

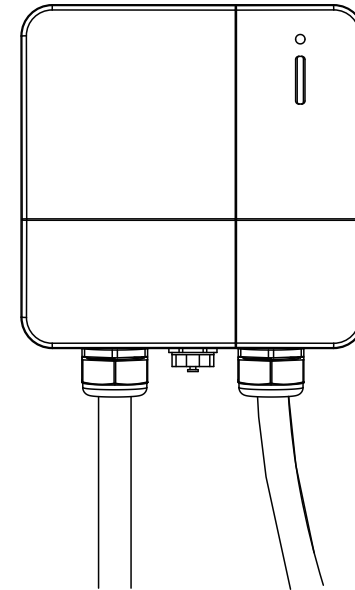


TABLE OF CONTENTS

- 1. IMPORTANT SAFETY INSTRUCTIONS3
- 2. PRODUCT INTRODUCTIONS.....5
- 3. VERIFY CONTENTS7
- 4. GATHER TOOLS8
- 5. PLAN THE MOUNTING9
- 6. MOUNT THE CHARGING STATION 10
- 7. WIRE THE CIRCUIT.....14
- 8. OPERATE YOUR DEVICE.....18
- 9. LIGHT CODES20
- 10. WARRANTY AND MAINTENANCE21
- 11. FCC DECLARATION22

WARNING & CAUTION

1. 1.Important Safety Instructions

1.1 Overall Warnings & Cautions

- ⚠ WARNING:** To avoid fire, injury or death, carefully read and follow the instructions during installation, operation and maintenance.
 - **DO NOT** put fingers into the electric vehicle connector.
 - **DO NOT** use this product if the flexible power cord or EV cable is frayed, insulation-broken, or any other signs of damage.
 - **DO NOT** use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
 - **DO NOT** remove cover or attempt to open the enclosure because of risk of electric shock.
- ⚠ WARNING:** This device should be supervised when used around children.
- ⚠ WARNING:** This device must be grounded.
- ⚠ WARNING:** To avoid a risk of fire or electric shock, do not use this device with an extension cord.

Circuit Breaker Options table			
	Single Phase	Three Phase	Three Phase
Output Amperage (A)	32A	16A	32A
Circuit Breaker Options (A)	40A	20A	40A

⚠ WARNING & CAUTION

1.2 Installation Requirements

- ⚠ WARNING:** Disconnect electrical power prior to installing the charging station.
- ⚠ WARNING:** Be sure to preview the user manual and ensure local building and electrical codes are reviewed before installing the AC charger.
- ⚠ WARNING:** The AC charger should be installed by a qualified technician according to the user manual and local safety regulations.
- ⚠ CAUTION:** Use appropriate protection when connecting to the main power distribution cable.
- ⚠ CAUTION:** Type B, C or D breaker with the rating current for table should be installed in the upstream AC distribution box.
- ⚠ CAUTION:** The device shall be mounted at height between 600 mm and 1200 mm from ground.
- ⚠ CAUTION:** Please keep the charger in a clean area with low humidity. Not recommended to be installed in coastal environments with high humidity or high dust.

1.3 Daily Maintenance

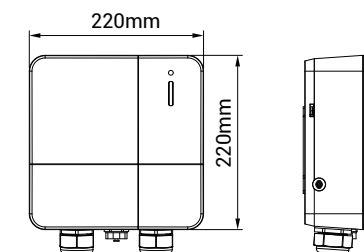
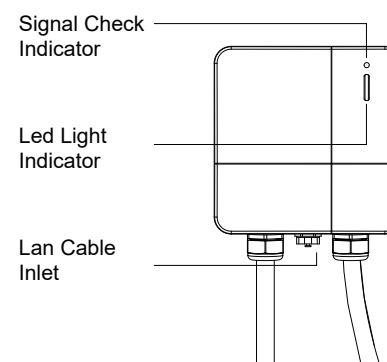
- ⚠ CAUTION:** Avoid moisture or water in the charger. If there is water or moisture ingress in the charger, it is necessary to immediately power off to avoid immediate danger, and notify the professionals to carry out maintenance before next use.
- ⚠ CAUTION:** Please use the charger properly. Do not hit or press hard on the enclosure. If it is damaged, please contact a professional technician.
- ⚠ CAUTION:** Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.
- ⚠ CAUTION:** Do not put heavy objects on the charger to avoid danger.

2. Product Introductions

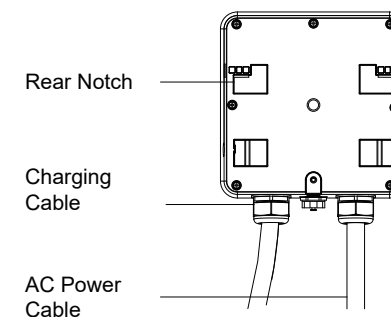
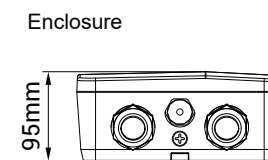


CAUTION: Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.

2.1 Basic Interface



2.2 Basic Dimension

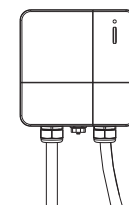


2.3 Specifications

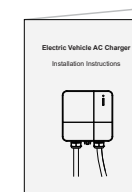
Model Number	EVC27		
Rated Input Voltage	230VAC ± 10% / Single Phase	400VAC ± 10% / Three Phase	
Rated Output Current	32A	16A	32A
Max.Power Output	7KW	11KW	22KW
AC Power Frequency	50 / 60 Hz		
Input Protection	UVP, OVP, RCD (DC 6mA), SPD, Ground Fault Protection		
Output Protection	OCP, OTP, Control Pilot Fault Protection		
Output Interface	IEC 62196-2 AC Charging Connector		
Storage Temperature	-40°C to +80°C		
Operation Temperature	-30°C to +50°C		
Relative Operation Humidity	Up to 95% non-condensing		
Relative Storage Humidity	Up to 95% non-condensing		
Network Connection	LAN Version / Wi-Fi Version		
Internet Function	10M / 100M		
Wi-Fi Function	802.11 b/g/n		
Cable Length	5m Standard (7m Optional)		
Protection Level	IP65 / IK08		
Altitude	2000m		

3. Verify Contents

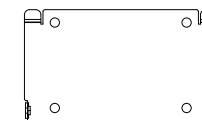
Check the box to ensure you have this installation guide and these parts:



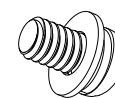
1



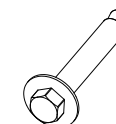
2



3



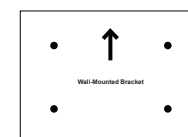
4



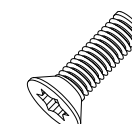
5



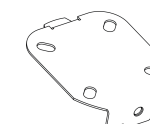
6



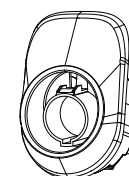
7



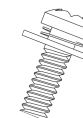
9



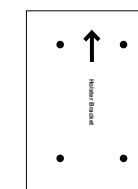
10



11



12



13



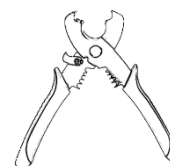
14

No.	Product Name	Quantity	Description
1	AC Charger	1	With attached input power cable and output charging cable
2	User Manual	1	Please read carefully before use
3	Wall-Mounted Bracket	1	For mounting the charging station to the wall/structure
4	M5 Anti-Theft Round Head Screws	2	For securing the charging station to the Mounting Bracket
5	M6 Hexagonal Expansion Screws	8	For installing the Mounting Bracket & Holster Bracket to the wall
6	Allen Wrench	1	For tightening M5 Screws
7	Corrugated Mounting Template	1	For easy drilling of 4 screws holes for wall-mounted bracket
8	M5 Anti-Theft Countersunk Head Screws (Optional)	4	For securing the Plug Holster to the Holster Bracket
9	Holster Bracket (Optional)	1	For mounting the Plug Holster to the wall / structure
10	Plug Holster (Optional)	1	For allowing the plugs to be neatly and safely stored when not in use.
11	Plug Holster Screws (Optional)	1	For mounting the Plug Holster to the Holster Bracket
12	Corrugated Mounting Template (Optional)	1	For easy drilling of 4 screws holes for holster bracket.
13	RFID Card(Optional)	2	Control the charger start/stop

4. Gather Tools

Tools required before installing the Wall-Mounted charger, gather the following tools:

1. Wire stripper
2. Adjustable Wrench
3. Voltmeter or digital multi-meter (for measuring AC voltage at the installation site)
4. Level
5. Pencil or marker
6. Drill



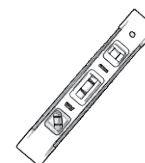
1



2



3



4



5



6

Note: The above tools are very important, please gather them all.

5. Plan The Mounting



WARNING: In areas with frequent thunderstorms, add surge protection at the service panel for all circuits. Ensure all power and ground connections, especially those at the breaker and bus bar, are clean and tight.



CAUTION: Not recommended to be installed in coastal environments with high humidity or high dust.

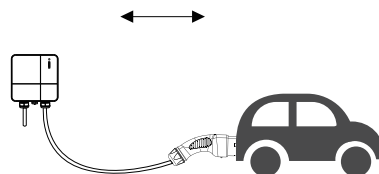
STEP 1

Select the appropriate mounting location with electrical capacity:

I. Ensure the owner has chosen a mounting location that allows the charging cable to reach the car's charging port while still providing slack.

II. The device must be anchored into mounting such as 50mm x 150mm stud or a solid wall.

III. The device shall be mounted at height between 600 mm and 1200 mm from ground.



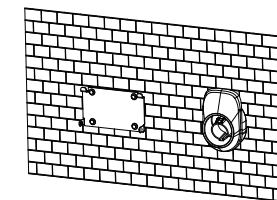
STEP 2 (Holster is optional)

Drill 8 Screw Holes with a diameter of 8.5mm and a depth of 55mm~60mm by using 2 mounting templates. Please drill screw holes in the direction of the template arrow. And use two templates at a horizontal distance around 300mm.

6. Mount the Charging Station

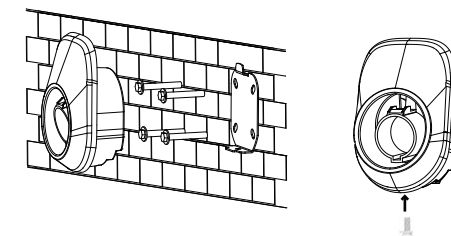
STEP 3 (Holster is optional)

Use 8 pcs of M6 Hexagonal Expansion Screws to secure the wall-mounted bracket and holster bracket on the wall. Then level the brackets.

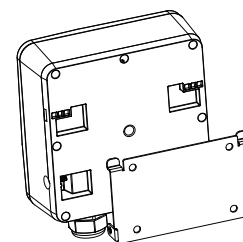


STEP 4 (Holster is optional)

Install the Holster with M5 anti-theft screws as shown in the figure, Tighten one M5 anti-theft screws to complete the installation.

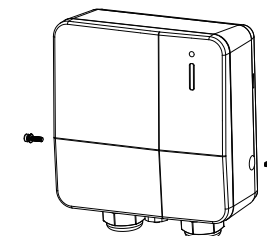


STEP 5



Align the rear notch of charger with the wall-mounted bracket and fit the screw holes of the right and left side.

STEP 6



Tighten two M5 anti-theft screws to complete the installation.

7. Wire The Circuit



WARNING: This device must be grounded. Disconnect electrical power prior to installing the charging station.



WARNING: Improper connection of the equipment-grounding conductor would result in a risk of electric shock. Check with a qualified electrician or serviceman if you are not sure whether the product is properly grounded. Do not modify the plug provided with the product – if it doesn't fit the outlet, have a proper outlet installed by a qualified electrician.



CAUTION: Use appropriate protection when connecting to the main power distribution cable.

7.1 Incoming cable connection

For safe use of electricity

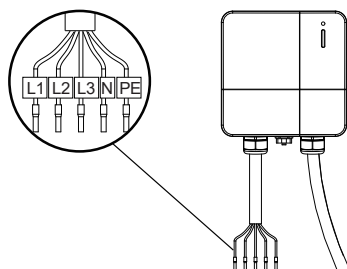
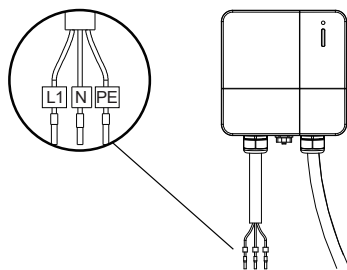
please set circuit breaker protection in the input part of EV Charger. The wiring is not complicated, just need to follow the instructions below:

For Single Phase

Connect the L1 lead to the grid L1, connect the L2 lead to the grid L2, connect the PE lead to the grid PE.

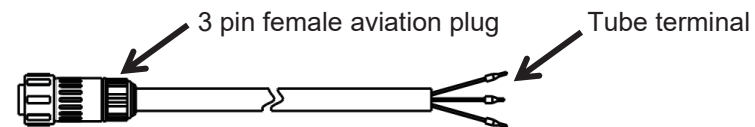
For Three Phase

Connect the L1 lead to the grid L1, connect the L2 lead to the grid L2, connect the L3 to the grid L3, connect the N lead to the grid N, connect the PE lead to the grid PE



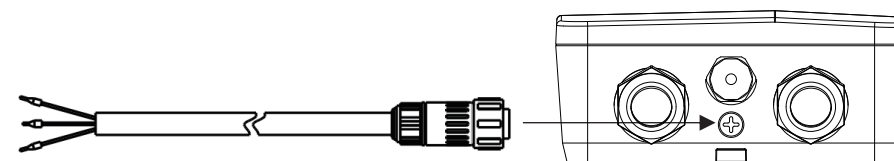
7.2 Load balancing connection (CT-BOX Optional)

Signal wire connection



Signal wire connection

Connect the female aviation plug of the signal wire to the charger's load balancing socket and tighten them.

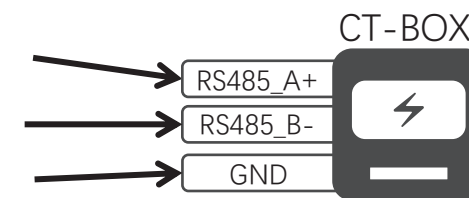
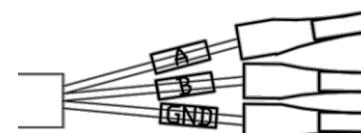


Connect three E0308 tube terminals of the signal wire to the CT BOX according to the number of the terminals.

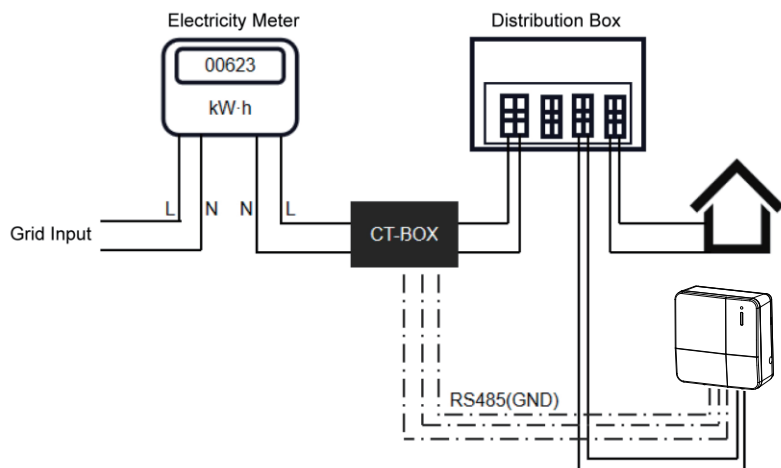
Connect A terminal to RS485_A+

Connect B terminal to RS485_B-

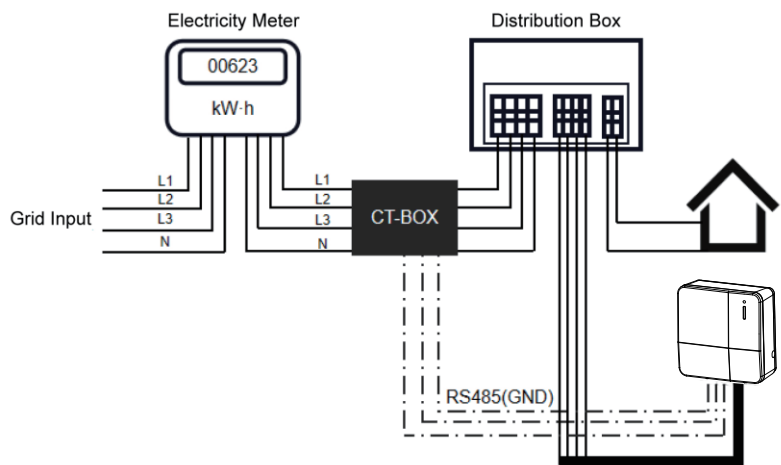
Connect GND terminal to GND



Single Phase

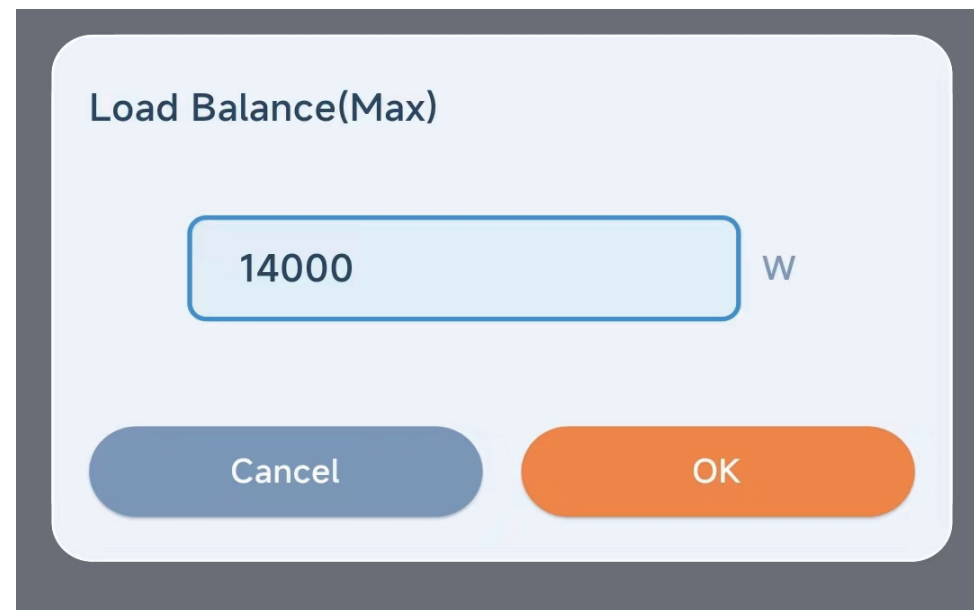


Three Phase



APP settings

After completing the circuit connection, please click gear icon which means advanced settings in the upper right of the app and set the max power. In order to avoid frequent tripping of the main circuit breaker during normal operation, it's recommended to set this value slightly lower than the maximum power supply of the main circuit breaker. For example, if the maximum power supply is 15000W, the maximum power of load balancing can be set to 13000W or 14000W



NOTICE: The settings in the picture are for reference only, please set the maximum power according to the measurement of a professional electrician)

8. Operate Your Device



WARNING: This device should be supervised when used around children.



CAUTION: Please use the charger properly. Do not hit or press hard on the enclosure. If the case is damaged, please contact a professional technician.



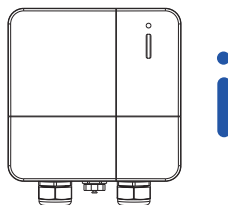
CAUTION: Do not put heavy objects on the charger to avoid danger.

8.1 Operating Steps with Plug and Charge

STEP 1

Standby Mode:

After being powered on, the lights will be all on, blue light (READY), green light (CHARGE) and red light (FAULT). Then the blue light (READY) is constantly on in standby mode.



STEP 2

Plug the Charging Connector:

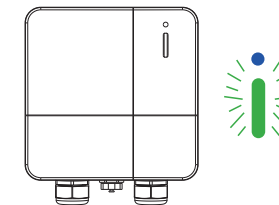
Please plug the charging connector into the vehicle charging inlet.



STEP 3

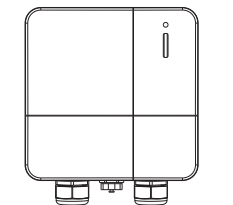
Charging: The green light (CHARGE) turns to flash automatically, charging is in process.

- If the red light (FAULT) is on, plug the vehicle connector again.
- If red light is still on, please refer to "Error and Warning Messages".



STEP 4

Charging finished: When the charging is finished, the green light (CHARGE) is constantly on, please press the button on connector and pull out the charging connector.



8.2 Operating Steps with RFID (Optional)

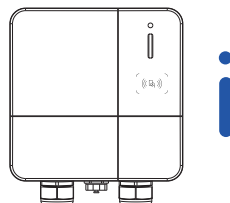


CAUTION: Please keep your RFID card properly to avoid unnecessary loss.

STEP 1

Standby Mode:

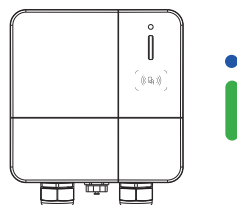
After power-on, blue light (READY), green light (CHARGE) and red light (FAULT) all on. The blue light (READY) is constantly on when in standby mode.



STEP 2

Ready to charge:

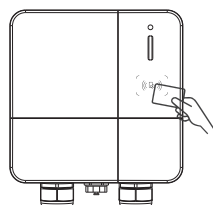
Please plug the charging connector into the vehicle charging inlet. When the green light (CHARGE) is constantly on, the user can swipe the RFID Card



STEP 3

Swipe the RFID Card:

Swipe the RFID card first and plug in the charging connector within 120 seconds, otherwise you need to swipe the RFID card again.

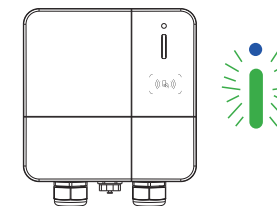


STEP 4

Charging:

The green light (CHARGE) turns to flash automatically, charging is in process.

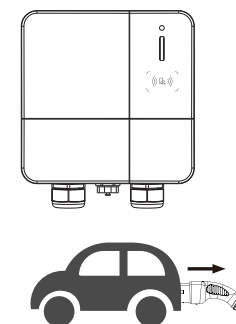
- If the red light (FAULT) is on, plug in the charging connector again.
- If red light is still on, please refer to "Error and Warning Messages".



STEP 5

Charging finished:

When the charging is finished or swipe your RFID card, the green light (CHARGE) is constantly on. Please press the button on connector and pull out the charging connector

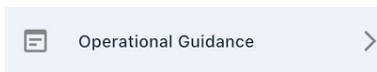


8.3 Smart APP Guide

1. Download 'S-Charge'

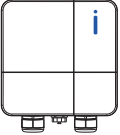
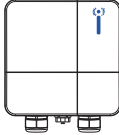
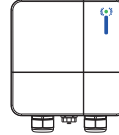
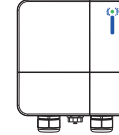

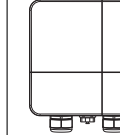


2. Follow the 'Operational Guidance' in 'More' to use



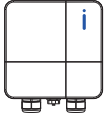
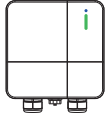
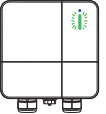
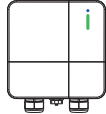
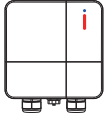
9. Light Codes

9.1 Signal Indicator

Not connected	Internet Connecting	Internet Connected	Connecting to S-charge	Connected with S-charge	Connection failed
					
Solid Blue	Blue blinking	Slow Blink In Green	Quick Blink In Green	Solid Green	Solid Red

Remark: Signal indicator and Status indicator are in same color for Plug&Charge Mode.

9.2 Status Indicator

Standby, waiting to plug in	Waiting to charge, communicating with vehicle	Charging in progress	Finished charging	Fault
				
Solid Blue	Solid Green	Green Blinking	Solid Green	Red Blinking

9.3 Error and Warning Messages

Status	Red	Remark
Input OVP	1 flash followed by 3 sec pause	Auto Recover
Input UVP	2 flashes followed by 3 sec pause	Auto Recover
Output OCP	3 flashes followed by 3 sec pause	Auto Recover
OTP	4 flashes followed by 3 sec pause	Auto Recover
RCD Abnormal	5 flashes followed by 3 sec pause	Auto Recover
Ground Fault	6 flashes followed by 3 sec pause	Auto Recover
Control Pilot Fault	Flicker	Auto Recover
MCU Self-Test Fail	Constantly Bright	Contact Customer Service
RCD Self-Test Fail	Constantly Bright	Contact Customer Service
Relay Self-Test Fail	Constantly Bright	Contact Customer Service
RCD Abnormal Stop Charging	Constantly Bright	Contact Customer Service
Output OCP Stop Charging	Constantly Bright	Contact Customer Service
OTP Stop Charging	Constantly Bright	Contact Customer Service

10. Warranty and Maintenance

- The warranty period for this charger is two years.
- During the warranty period for any malfunction under normal use according to the User Manual and Service Instructions (to be determined by certified maintenance technicians of sellers), the product shall be repaired free of charge. Except for the following situations, the charger shall be subject to the above warranty terms:

1. The warranty certificate cannot be provided or the contents of the warranty certificate are modified or inconsistent with the label indication of the repaired product.
2. Those who are unable to provide valid proof of purchase.
3. Those who exceed the manufacturer's specified warranty period.
4. Those who damage the product due to not following the product service instruction for use, maintenance and storage.
5. Damage or malfunction caused by external object entering.
6. Unauthorized repair, disassembly or modification.
7. . Damage caused by force majeure (such as lightning, excessive voltage, earthquake, fire, flood, etc.).
8. Malfunction and damage caused by other unavoidable external factors. Malfunction and damage caused by improper use of equipment, such as water or other solutions entering into the equipment.
9. Malfunction and damage caused by the grid power supply and voltage which is not specified for use with the charger equipment.

The above guarantees shall be made solely, and no other express or implied warranties shall be made (including the implied warranties of merchant ability, particular and applicable reason- ableness and adaptability, etc.) whether in the contract, civil negligence, or other aspects, the Company shall not be responsible for any special, incidental or consequential damages.

11. FCC Declaration

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

This device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WIFI module: Containing FCC ID:2AC7Z-ESPWROOM32D

LTE module: Containing FCC ID: XMR202008EC25AFXD

To satisfy FCC RF exposure requirements, a separation distance of 20cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.