

# EV AC Charging Station

Integrated | Floor Standing

22kW | 44kW



**Note:** Please read this instruction manual carefully before using the product.

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## Chapter 1 Product Overview

The arrival of large-scale industrialization of electric vehicle charging station creates a new era of new energy and energy saving. In order to adapt to the development and demand of national new energy electric vehicle charging stations, our company took the lead in the development and development of a series of electric vehicle charging stations supporting new products. This AC charging station is based on international standards and European standards: IEC/EN61851-1-2011 "Conducted charging systems for electric vehicles -- Part 1: General requirements, applicable to AC supply voltage" Part 1: Conducted charging systems for electric vehicles -- Part 1: General requirements, applicable to AC supply voltage.

## Chapter 2 Scope of Application

The AC charging station provides a 220V single phase AC 50Hz, power supply for charging electric vehicles with on-board chargers. It is mainly suitable for the following places:

1. Large, medium and small electric vehicle charging stations;
2. Urban residential areas, shopping squares, electric power business places and other public places with electric vehicle parking spaces;
3. Motorway service area, station wharf and other transportation hub areas;
4. Real estate and project construction acceptance needs.

## Chapter 3 Working Environment

1. The ambient air temperature during operation is  $-25^{\circ}\text{C} \sim +50^{\circ}\text{C}$ , 24h daily average temperature  $35^{\circ}\text{C}$  (Too high or too low temperature will affect the life of the product);
  2. The average relative humidity  $\leq 90\%$  ( $25^{\circ}\text{C}$ ), no condensation on the surface;
  3. Pressure: 80 kpa~110 kpa;
  4. Installation vertical inclination  $\leq 5\%$ ;
  5. Experimental level of Vibration and shock in use  $\leq$  I Level, Inductive strength of an external magnetic field in either direction  $\leq 1.55\text{mT}$ ;
  6. There should be no explosive medium in the place of use, and the surrounding medium does not contain harmful gases and conductive media that corrode metals and damage insulation, and are not allowed to be filled with water vapor and serious mold bacteria;
  7. The place of use should avoid direct sunlight. When installing outdoors, it is recommended to add sunshade facilities to the Charging Station to prolong the service life of the equipment;
- When users have special requirements, please negotiate with our company.

## Chapter 4 Functional Characteristics

1. One installation method: Floor standing mounted;
2. Adopt AC 380VAC input;
3. The main control board uses a single-chip microcomputer with an embedded operating system, the charging mode is divided into automatic charging filling and optional charging time, charging amount and charging electric quantity; RS-485 networking communication interface can be reserved, and optional GPRS, 4G are provided other networking methods;
4. Using a 4.3-inch display screen, which can set the charging mode (the display screen is only

- available in the operating version);
5. Using single-phase electronic electric energy meter for electricity metering, and communicating with the main control board through the RS-485 interface;
  6. The shape adopts sheet metal and part of ABS plastic structure.

## Chapter 5 Product Models & Parameters

### EV AC Charging Station Models

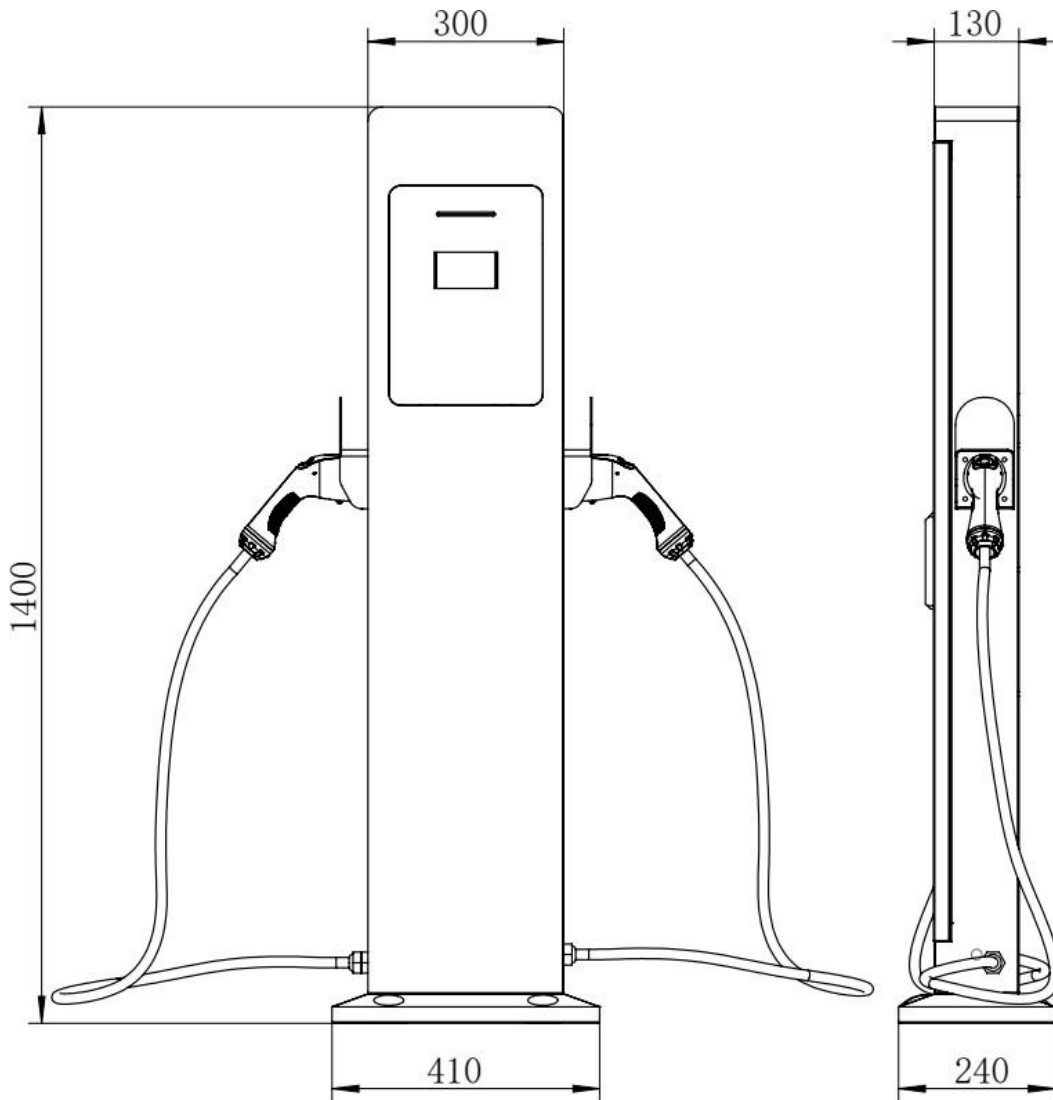
Model No.		AF-AC-22-Y-B-O	AF-AC-44-Y-B-O
Specification	Rated Power	22kW	44kW
Charging Device	Installation Method	Floor standing mounted	
	Feeding Method	Bottom in and bottom out	
	Equipment Dimension	300*150*1400 mm	
	Cable Length	5m (Optional)	
Electrical Indicators	Input Voltage	AC 380V±20%	
	Input Frequency	50±10 Hz	
	Output Voltage	AC 380V±20%	
	Output Current	16 A +16 A	32 A +32 A
	Current Limit Protection Value	≥110%	
	Electrical Indicators	≥11	
	Electrical Error	1.0 Level	
	Metering Accuracy	1.0 Level	
Functional Design	HMI	4.3-inch high-brightness color touch screen, LED indicator strip	
	Charging mode	Automatic charging full / Fixed power / Fixed Amount / Fixed time	
	Charging method	Swipe Card	
	Mode of payment	Credit Card	
	Network way	Ethernet / 4G	
Safety Design	Operative Norm	IEC/EN61851-1-2011	
	Safety Function	Charge gun temperature detection, overvoltage protection, undervoltage protection, overload protection, short circuit protection, grounding protection, over temperature protection, low temperature protection, insulation monitoring protection, polarity reverse protection, lightning protection, emergency stop protection, leakage protection	
Environmental Indicators	Working Temperature	-25℃~+50℃	
	Working Humidity	5%~95% non-condensing frost	
	Working Altitude	<2000m	
	Ingress Protection	IP54	
	Cooling Method	Natural air cooling	
	Noisy Control	≤40dB	
	MTBF	30,000 hours	

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## Chapter 6 Installation Method and Drawing

### 6.1 Overall Dimensions of The Equipment

Figure 6-1-1 Overall Dimensions of The Floor Standing Mounted Device



## 6.2 Installation Of Equipment

### 6.2.1 Check the packing box for the following items before installation (subject to the packing list)

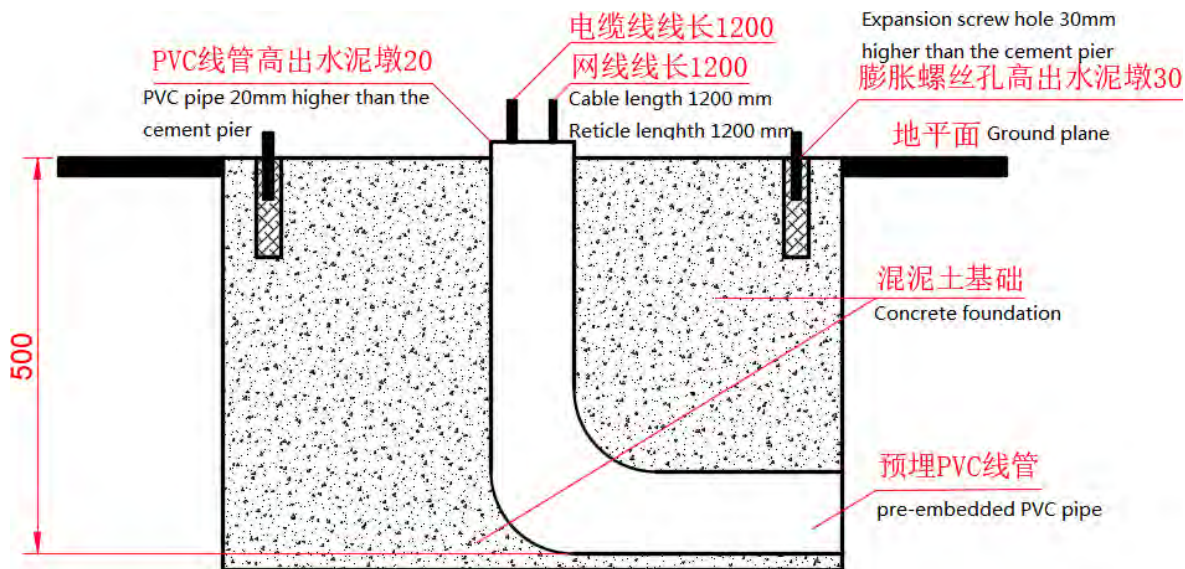
1. Floor standing mounted type AC Charing Station (1 set )
2. Installation instructions (1 set)
3. 1 piece of certificate of quality
4. Install expansion screws (4 pieces)
5. Keys (2 pieces)

### 6.2.2 Installation Environment Requirements

1. The Ingress Protection of this series EV AC Charing Station: IP54;
2. Ambient temperature -25°C to +50°C.

### 6.2.3 Installation Method

1.This series of EV AC Charing Station can be installed Wall-mounted according to the requirements Installation size, as the Figure 6-2-1 and Figure 6-2-1:



Floor standing mounted type with four set M12 expansion screws ( holes with a diameter of 16 )

Figure 6-2-1 Floor Standing Mounted Type Installation Method

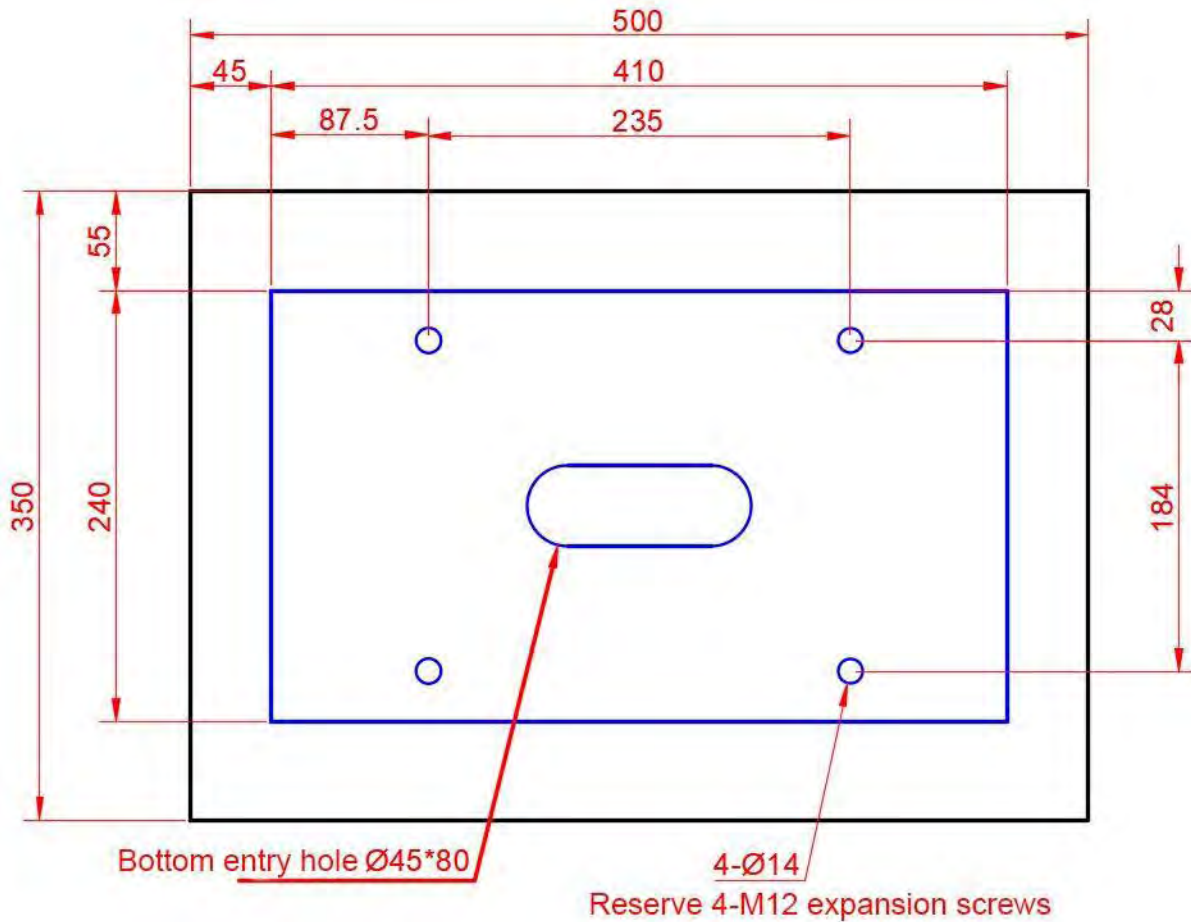
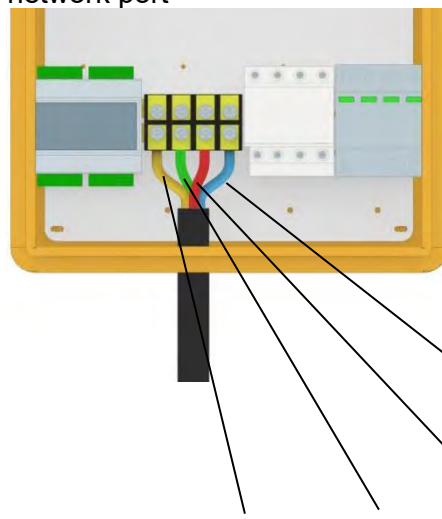


Figure 6-2-2 Floor Standing Mounted Type Installation Method

### 6.3 Cable Access

The AC Charing Station input cable is connected to the wiring row of the main chassis;  
Insert the network cable into the network port



Earth wire from outside connect the bus bar input: A phase B phase C phase N phase

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## Chapter 7 Operation Instructions

1. Connect the power supply to turn on the car charging station, and the boot interface will appear on the screen.



2. Wait for a while and enter the standby page and select the corresponding gun.

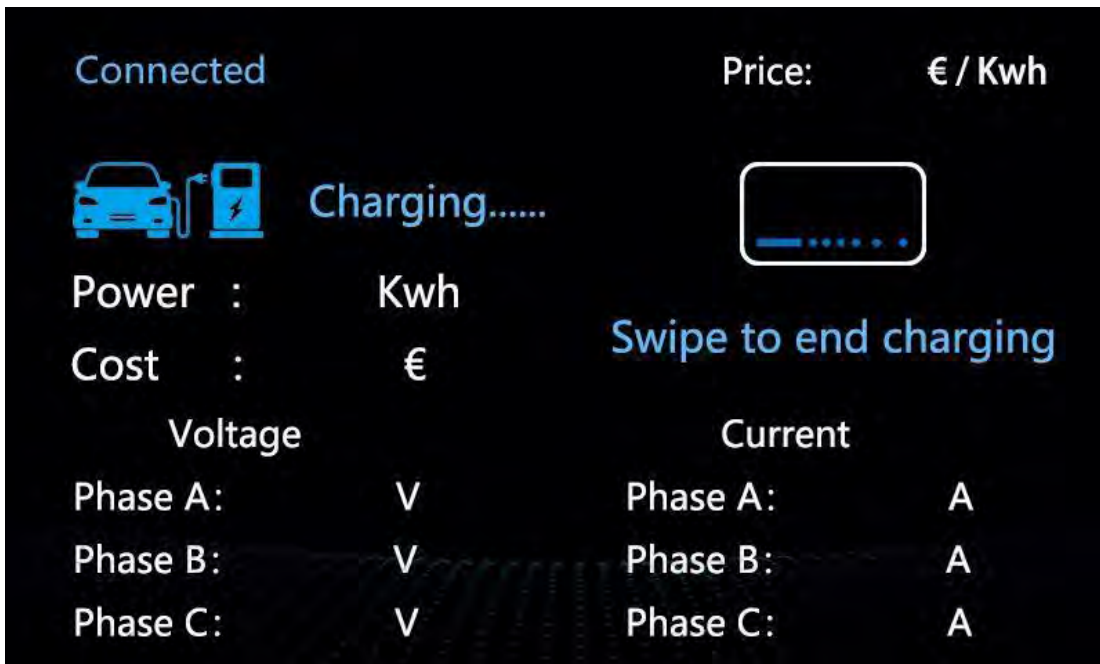




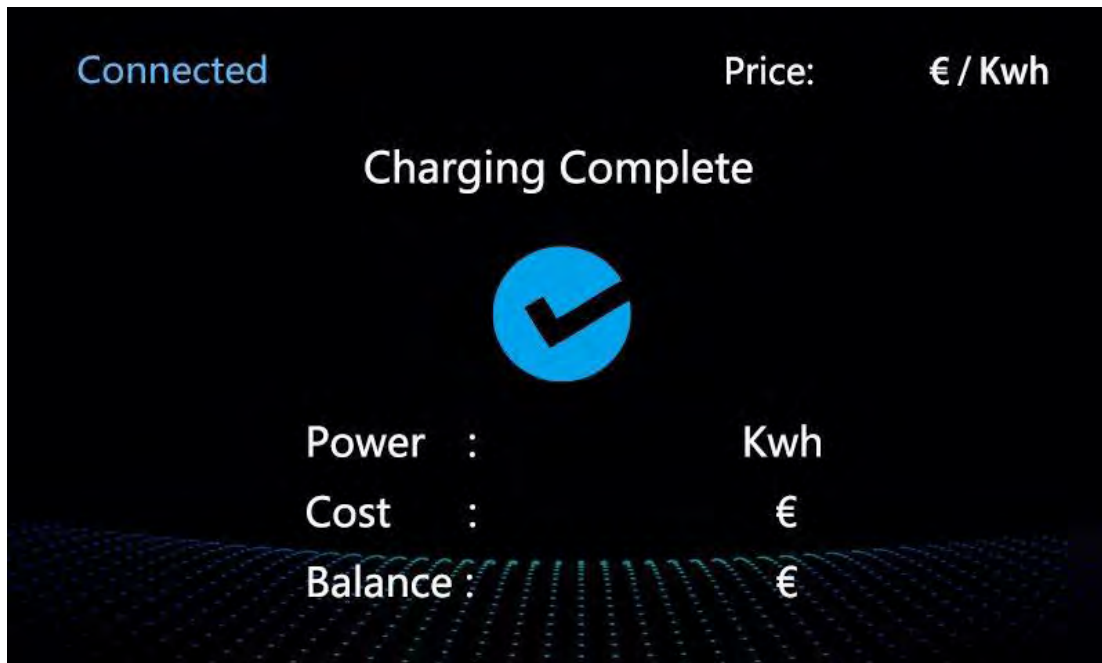
3. After the gun is connected to the electric vehicle, the card interface appears and the charge is opened in the induction area. Please swipe the card in the induction area to start charging.



4. Wait for the server to respond after swiping the card. After swiping the card to start charging, screen displays the charging amount, current voltage and current, end the charging card again, display the charging amount and prompt the gun to pull back.



Charging Interface



End Interface

## Chapter 8 Storage and Transportation

### 8.1 Storage And Transportation Of Equipment

During transportation, the Charging Station body shall be packed firmly and intact in a solid wooden packing box and the direction of loading and unloading shall be marked, and the Charging Station shall not be stored and transported upside down. Corresponding tightening measures must be taken during transportation to avoid strong vibration and bumps from damaging the outer packaging of the equipment. Check whether there is any damage after arrival. If there is any transportation damage, please negotiate with the transporter and our company. After opening the box, check whether the contents of the box are consistent with the packing list.

Packaged equipment should be stored in a room with a relative humidity of  $\leq 80\%$  and an ambient air temperature of  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$ . The storage place should be kept dry, clean and well ventilated, and can prevent the intrusion of various harmful gases. It is strictly forbidden to store it in the same place with corrosive items.

**Note: Non-professionals are strictly prohibited from dismantling equipment components.**

## Chapter 9 Common Faults and Solutions of EV AC Charger Pile

Serial Number	Common Malfunctions	Method Of Exclusion
1	When the gun is inserted into the interface does not show the connection or the information of "Please start charging by swiping your card"	Please check whether the charging gun is reliably connected to the vehicle and whether the gun lock is locked.
2	Swiping the card to start charging, after a while, it stops by itself	Generally, it is a communication problem, so when you finish swiping the card, record it yourself and try again with a different gun. If it happens repeatedly, report it to the manufacturer in time.
3	Locking phenomenon	At the end of charging, remember to swipe the card for settlement. If the card is locked, please swipe the card at the machine that was charged last time, and you can unlock it after the last charging fee is settled.
4	Jumping gun phenomenon	When swiping the card, confirm that the IC card balance is sufficient. If the balance is insufficient during the charging process, the charging will be automatically terminated.
5	After charging, the gun is locked and cannot be pulled out	Restart the charging process and wait for the gun to jump after the power is off. If this method is still unplugged, immediately contact the manufacturer for maintenance.
6	Start charging, the ammeter does not display the working current	Please check whether the phase line and neutral line of the electric energy meter are connected reversely or wrongly.
7	After power on, the display does not light up	If the indicator light is on and the display is not on, replace the display.
8	Not grounded	Under normal grounding conditions: 1. When the gun is not inserted, the auxiliary voltage 12V lights up blue; 2. When the gun is inserted, the auxiliary voltage 6V lights up green.

## Chapter 10 Maintenance and Preservation of EV AC Charging Station

### 10.1 Maintenance

1. Should charge station to do a good shade and rain prevention measures, outdoor recommended installation of shelter.
  2. Check regularly whether all bolts in the charging station are fastened, whether the connection line is loose, and the connection is not firm. Check for short circuit.
  3. Pay attention to lightning protection to ensure effective shielding and reliable grounding of charging stations.
  4. In use, the output voltage and current of the charging station are controlled within the nominal range as far as possible to ensure that the charging station works in the state of maximum efficiency.
  5. When the body stops using, stop charging output, then wrap the cable and put it back in place.
- Note: in the process of charging station transportation, the charging station is packed firmly and the loading and unloading direction is marked. It is forbidden to store and transport the charging station upside down. There should be corresponding fastening measures to avoid strong vibration and turbulence to damage the outer packaging of the equipment.

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**Note: non-professional personnel are strictly prohibited from installing the EV AC charger.**

## **Chapter 11 Warranty Card**

### **Warranty Regulations**

- 1、 The warranty period of this product is 1 year.
- 2、 During the warranty period, according to the instructions for normal use of the failure (determined by the company's regular staff), free maintenance.
- 3、 Charging equipment can enjoy the above warranty terms except for the following problems:
  - 3.1 Cannot provide this warranty and valid purchase certificate;
  - 3.2 Exceeding the warranty period prescribed by the manufacturer;
  - 3.3 If there is no warranty certificate and valid delivery ticket, or the contents of the warranty certificate are inconsistent with the physical identification of the repaired commodity or altered;
  - 3.4 Failure to use, maintain or declare customs in accordance with the requirements of the product instructions;
  - 3.5 The entry of foreign bodies causes damage or malfunction;
  - 3.6 Failure caused by products not manufactured by the Company;
  - 3.7 Failure to bear the damage caused by the demolition of the repairman;
  - 3.8 Damage caused by force majeure (such as lightning, excessive voltage, earthquake, fire, flood and other natural disasters);
  - 3.9 Failure and damage caused by other unavoidable external factors;
  - 3.10 Improper use result to equipment intake with water or other liquid and cause damage;
  - 3.11 Damage caused by voltage using a power supply other than specified.
- 4、 Only make the above warranty without any other warranty, express or implied (which includes implied warranties of merchantability, reasonableness and adaptability to a particular and application), the Company shall not be liable for any special occasional or indirect damage, whether in the contract, civil negligence or otherwise.