VERDEXON

BORN FROM EARTH, BUILT FOR TOMORROW

Installation, Operation & Maintenance Guide.

Earth Prime Series AC Charger

7kW/11kW/22kW

Table of Contents

1. Introduction and general information

1.1 Disclaimer and Warranty Conditions

The equipment manufacturer shall not be liable for any damages, losses, costs or expenses resulting from improper handling, installation and use of the products described in this document, in particular losses resulting from failure to comply with the instructions of this document and other applicable regulations and standards, such as installation, transport, occupational health, digital safety and other safety standards.

1.2 Purpose of this document

This document applies to the owner of the charging station, the installation engineer and a description of the owner's responsibilities.

This document applies to these devices (including all variants and options): NEAM series, with the aim of providing the safety information needed to accomplish the following tasks:

- Transportation and storage equipment
- Install the device
- Operate the equipment
- Perform basic maintenance tasks

1.3 Language

The original description of this document was written in English (EN-US). All other language versions are translations of the original instructions and the manufacturer is not responsible for errors in the translation. If in doubt, please refer to the original English version.

1.4 Illustration

This file does not show the configuration of all charging stations. Therefore, the illustrations in this file only show typical settings. They are for illustrative and descriptive purposes only.

1.5 How to use this document

Make sure you understand the structure and content of this document. Read the safety section and make sure you understand all the instructions. Follow the steps in the program exactly and in the correct order.

1.6 Abbreviation

Abbreviations	Definition
AC	Communication
CPU	Central Processing Unit
HMI	Human-Machine Interface
EV	Electric Vehicle
EVSE	Electric Vehicle Power Supply Equipment
MCB	Miniature Circuit Breakers
MID	Measuring Instruments Directive
RFID	Radio Frequency Identification
OCPP	Open Charging Protocol
OR	Protective Grounding
PPE	Personal Protective Equipment

1.7 Term

Term	Definition
Cabinets	The housing of the charging pile, including the internal parts.
Contractor	A third party engaged by the owner or site operator to carry out engineering, civil and electrical installation work.
Grid providers	The company responsible for the transportation and distribution of electricity.

Term	Definition
Local regulations	All regulations that apply to charging stations throughout their entire life cycle. Local regulations also include national laws and regulations.
Open charging protocol	An open standard for communicating with charging stations.
Owner	The legal owner of the charging station.
On-site operators	The entity responsible for the day-to-day control of the charging station. The site operator is not necessarily the owner.
User	Electric vehicle owners who use charging stations to charge their electric vehicles.

1.8 General Signs and Signal Words

In manuals and on equipment, hazardous or hazardous areas, components are identified by symbols, icons, or labels to indicate the precautions to be followed during installation, operation, and maintenance of equipment. The safety symbols are shown in the following table:

Symbol	Description
	General Risks With the signal word "dangerous": failure to follow instructions could result in injury or death. With the signal word "warning": Failure to follow instructions may result in injury. With the signal word "Caution": Failure to follow instructions may result in damage to EVSE or other property.
	Voltage with a risk of electric shock
	Hot surfaces can lead to the risk of burn injury
	With the signal word "Attention": Caution provides more data and makes the step easier to perform
	Information about the condition of the EVSE before starting the program
	Requirements for the personnel required to perform a procedure
	General safety guidance for the procedure
	Information on spare parts required for the procedure
	Supporting device information required by the program
	Information on supplies (consumables) required for the procedure
	Make sure to disconnect the power supply to the EVSE
	Electrical technical expertise is required according to local regulations
	Protective Ground (PE)
	Waste of electrical and electronic equipment

2. Security

2.1 General Safety Instructions

• The warnings contained in this document and related documents do not replace your responsibility to apply common sense to work on charging stations.

• You can only perform the programs shown in the relevant file and the procedures that you are eligible to perform.

• Follow local regulations and instructions in this manual. To the extent permitted by law, in the event of any inconsistency or contradiction between any requirements or procedures contained in this document and any such local regulations, the stricter provisions shall prevail in both the requirements and procedures set forth in this document and the local regulations.

2.2 Owner's Responsibilities

An owner is a person who operates a charging station for his or her own commercial purposes or leaves it for use by a third party. In the course of its operation, he has a legal responsibility to protect users, other employees or third parties. The owner must comply with the following instructions:

• Understand and enforce the laws and regulations of the country and region where you are located.

• Identify hazards posed by on-site working conditions (based on risk assessment).

• The charging station should be operated with a protective device installed.

• An emergency plan should be developed that guides people on what measures to take in case of an emergency.

• Make sure there is enough space around the charging station to carry out maintenance and installation work safely.

• After installation or maintenance work is complete, ensure that all protective devices are installed.

• Make sure the installer is qualified to work on high voltage and high current electrical installations.

• If the owner does not perform these tasks, it should be determined that the site operator is responsible for performing them.

2.3 Personal Protective Equipment

Personal protective equipment (PPE) refers to clothing or equipment designed to protect and reduce an employee's exposure to workplace hazards and injuries.

Symbol	Description
	Protect the garment
	Safety gloves
	Safety shoes
	Protect your eyes
	Work hard hats

2.4 Safety Instructions

• Follow the steps indicated in this manual to perform the procedure.

• You may perform any services as a qualified installer or for a user of the device only if you are fully qualified.

2.4.1 Safety Instructions - Installation of Equipment

• Installation engineers are qualified to work in high-voltage and high-current electrical installations.
• The installation engineer must be fully aware of the charging station and its safe installation instructions.

• Wear the correct personal protective equipment.

• Before proceeding with any installation activities, make sure that there is no voltage on the input cable.
• During installation, ensure that untrained personnel maintain a safe distance.

• Use wires of sufficient specifications and insulation to handle the rated current and voltage requirements.
• Ensure that the load capacity of the grid meets the requirements of the equipment.
• Adopt designated safety devices and protective equipment in accordance with local regulations.
• Ensure that the connection to the charging station complies with all applicable local regulations.

2.4.2 Safety Instructions - Grounding Specifications

• Make sure the charging pile is reliably grounded.
• Ensure that the charging infrastructure connection complies with local standards and specifications.

2.4.3 Safety Instructions - Maintenance of Equipment

• Wear the correct personal protective equipment.
• Throughout the cleaning or maintenance process, make sure that there is no supply voltage on the input cable.

• During cleaning or maintenance, ensure that unauthorized personnel keep a safe distance.
• If safety or protective devices must be removed for cleaning or maintenance, restore them to their original condition as soon as the work is complete.

2.4.4 Safety Instructions - Use of Charging Piles

• Prohibit the use of equipment with malfunctions or disabled tags.
• Unless expressly stated otherwise, the appliance or parts of the appliance may not be connected to other machines or equipment.
• It is strictly forbidden to arbitrarily modify the operating parameters in order to change their performance or change their isolation.

• If there are potential safety hazards in the equipment or environment, do not use: thunderstorms and other bad weather; damage to the safety fence; The EV charging cable or connector is damaged; There is a risk of an accident or fire in the vicinity of the charging station; Water got into the device; The device shows signs of impact, lightning strike, or other damage.

2.5 Discard the device or parts of the device

Equipment and parts can contain hazardous substances, and improper waste disposal can have a negative impact on the environment and human health. Proper disposal of used equipment and parts helps to promote the reuse and recycling of materials and protect the environment.

- Comply with local laws and regulations when discarding parts, packaging materials, or charging stations.
- According to the relevant specifications for the treatment of waste electrical and electronic equipment, electrical equipment and electronic equipment should be separated for processing.
- At the end of use, please do not mix or dispose of the device with household waste, and should hand over the device to a waste collection point in the local community for recycling.
- For more information, please contact your country's government waste management department.

2.6 Network Security

Charging stations are connected and transmit information and data via a network interface, and it is the sole responsibility of the owner to provide and continuously ensure a secure connection between the charging station and the owner's network or any other network. The Owner uses the Embedded Software at its own risk and is responsible for the quality, accuracy and performance.

3. Product Description

3.1 Briefing

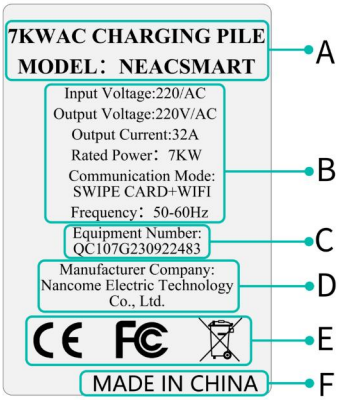
NEAM is an AC charging station that supplies power to electric vehicles, integrating human-computer interaction, charging control, metering and billing, fee payment, remote communication and intelligent safety protection. The product series has a variety of power configurations, and the charging interface has different standard configurations such as national standard, European standard, American standard and Japanese standard, and single and double guns are optional.

3.1.1 Product Model Description

Example: NE-A-M-7-S

NE: Vendor A: AC Output M: Commercial grade Power: 7/11/14/22/44kW S: Single plug D: Dual plugs

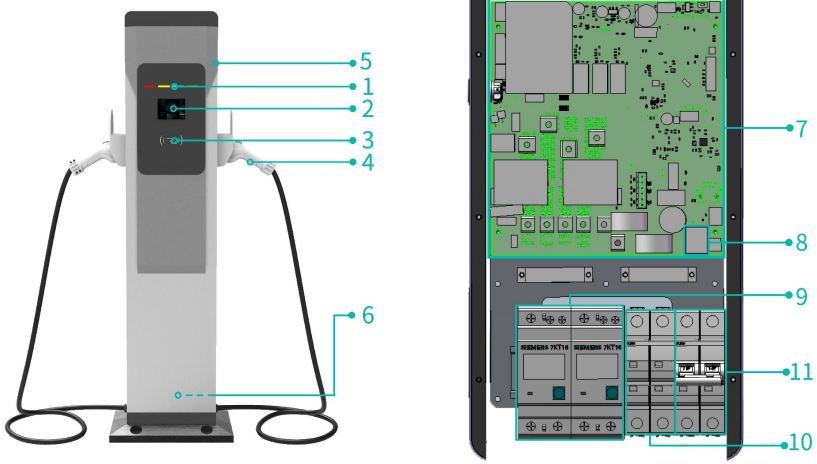
3.1.2 Model nameplate - Device Identification



Numbering	Description
A	The model name of the electric vehicle power supply equipment
B	The main technical parameters of the power supply equipment of electric vehicles
C	The serial number of the electric vehicle power supply equipment
D	Manufacturer
E	Certification mark
F	Producer

Note:
Please find the nameplate on your Electric Vehicle Charging Equipment (EVSE) to view the relevant data.

3.2 Product Overview and Main Components



Ref.	Parts	Function
1	Indicator Light	Different colors and flashing patterns provide users with information about the status of the EVSE device
2	Touchscreen Display	Control and monitor charging sessions
3	RFID Readers	Read information from RFID cards
4	Charging Connector	Connect to the EV charging port, and the charging pile will provide power to the EV

5	Panic Button	In an emergency, press the emergency stop button quickly to immediately stop the charger operation
6	AC Cable Inlet	Grid AC cable entry
7	Core Control Board	The motherboard of the core control system for the work of the charging pile
8	Ethernet Port	Connect to a local Ethernet or 4G router
9	AC Meters	The AC current value is read to be sent to the meter reading unit
10	Molded Case Circuit Breaker	Isolate the AC input voltage
11	Surge Protective Device	To protect electrical equipment from voltage spikes and transient over-voltages

3.3 Charging Indicator

• Solid red: The device is in standby state

• Solid green light: The corresponding charging terminal is working, do not pull the charging gun out

• Yellow light: The device is faulty and the service is suspended.

3.4 Mode of Operation

This device can support modes such as local charging, WIFI control, and remote operation:

• Local Authorization

• Remotely manage software licenses

3.5 Metering Function

The energy charged by an electric vehicle is metered, and a precision energy meter is configured to measure the total energy consumption of the charging pile and the electric vehicle.

3.6 Charging Function (Optional)

Devices can be charged based on radio frequency identification (RFID), POS payment terminals, or by external companies that provide authorized solutions through OCPP.

3.7 Communication Methods (Optional)

Support Ethernet, 4G wireless, WIFI and other network methods for communication. Support for the Open Charging Point Protocol (OCPP) enables integration with management systems.

3.8 Self-test and Self-recovery Function

The equipment has self-test and fault alarm functions. After troubleshooting, the function can be automatically restored, but charging will not be automatically restored. The non-volatile memory charger is equipped with a power-off recording function for field data, which can prevent the loss of charging data in the event of an unexpected power failure.

3.9 Security Protection Function

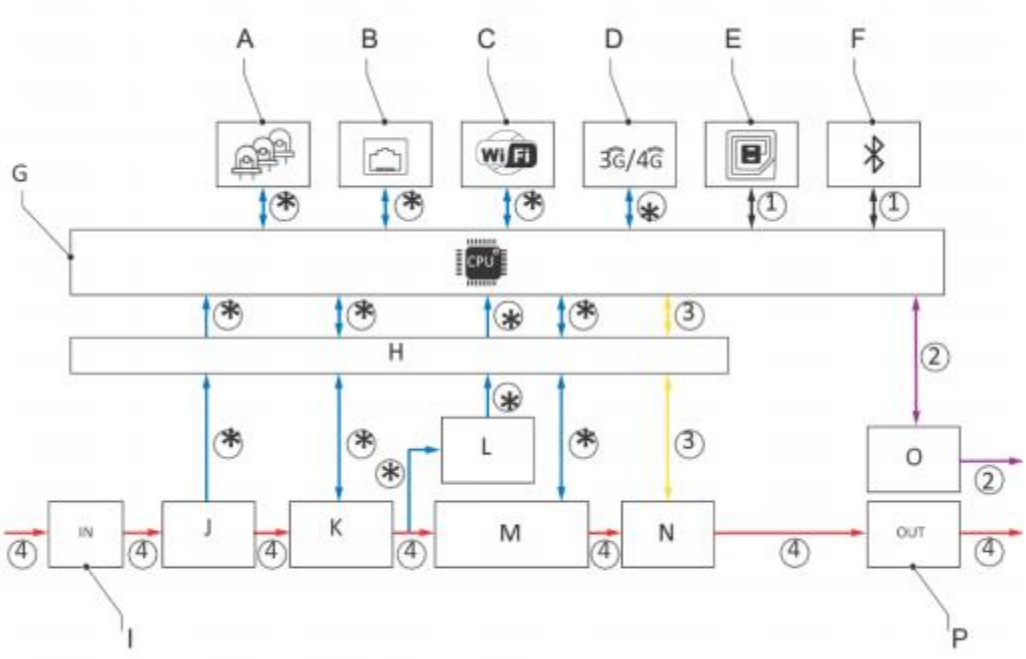
It is equipped with functions such as emergency stop, reverse connection, anti-misoperation, over-voltage, under-voltage, abnormal charging, over-current, short circuit, leakage, over-temperature protection, lightning protection and other safety protection functions.

3.10 DLB (Dynamic Load Balancing) Function (Optional).

Many devices share a maximum capacity grid connection. The total power demand of devices connected to the grid using the grid must not exceed the capacity of the grid. The sequential charging feature prevents the system from exceeding grid capacity and prevents fuse damage. When the current demand is high, the device will pause the charging process. When the grid is available, the charging process will start again. In addition, the sequential charging function ensures that the available load is shared in the best possible way.

3.11 How it Works

Working principle diagram of the equipment:



A	LED	I	AC input
B	Ethernet	J	Power module
C	WiFi	K	Surge protection
D	3G/4G	L	Ground fault protection
E	RFID	M	AC input metering
F	Bluetooth	N	AC isolation relays
G	CPU system	O	Control indication device
H	isolation	P	AC output

1. The user initiates a charging process request (black line).
2. The charging station verifies the status of the electric vehicle (purple line).
3. The charging pile is turned on, and the AC power enters the electric vehicle (yellow line).
4. The charging process begins. AC power flows from the grid to the electric vehicle (red line).
5. The electrical interface of the charging pile communicates with the on-board computer (blue line).

(*): The connection between the charging station part and the CPU system. The arrows indicate the direction of the input and output signals.

4. Technical Data

Model	Specification	NE-AM7S	NE-AM7D	NE-AM11S	NE-AM11D	NE-AM22S	NE-AM22D
AC Input Specification	Input power connection	1Ph + N + PE(L1, N, PE)		3Ph + N + PE(L1, L2, L3, N, PE)			
	Rated power	7KW	14KW	11KW	22KW	22KW	44KW
	AC input voltage	220 VAC ± 15%		400VAC± 15%			
	AC input frequency	50 / 60 Hz					
	Maximum input current	32A	64A	16A	32A	32A	64A
AC Output Specification	Charging port	GB/T Type2 Type1					
	Output voltage	220 VAC ± 15%		400VAC± 15%			
	Maximum output current	32A	64A	16A	32A	32A	64A
	Number of connectors	1	2	1	2	1	2
	Charging gun cable length	standard length is 5 meters (optional).					
	Single-gun power rating	7KW		11KW		22KW	
HMI	Optional	4.3-inch LCD touch screen					
Signal indicator	Standard	Yes					
RFID		Optional					
Internet connection	Optional	Ethernet/4G/WIFI					
size		Product Main body: 300*170*1440mm Pedestal：400*300*40 Package: 450*350*1500mm					
weight		G.W:~27kg N.W:~25kg					
Ingress protection		IP55					
Environmental conditions	Operating temperature	-25℃ ~ +50℃					
	Storage temperature	-40℃~+65 ℃					
	relative humidity	5% ~ 95%, non-condensing					
	Use elevation	≤ 2000 m					
	Use environment	Indoor or outdoor					
Compliance/ safety standards		IEC/ EN 61851-1:2019 IEC/ EN61851-21-2:2021 EN60335-1:2012+A15:2021EN 60335-2-65:2003+A12:2022					
Security		Over-current, over-voltage, under-voltage protection, comprehensive surge protection, grounding fault protection					
Cooling method		Air-cooled					

5. Storage and Transportation

5.1 Storage

Please store the device in accordance with the relevant specifications of this manual: do not expose the charging pile equipment to places with adverse weather conditions (such as rain, snow or high humidity environments), and avoid storing it in environments containing alkaline or other corrosive or explosive gases.

5.2 Transportation and Handling

The equipment must be packaged in complete condition before leaving the factory, and must be operated in accordance with the requirements of the specification during transportation, loading and unloading, so as to avoid strong shock and vibration to prevent damage to the outer packaging of the product. It is the sole responsibility of the transporter to deliver the charging station equipment to the vicinity of the site and move the equipment to its final location.

5.3 Inspection of Packaging Specifications

• Check and follow the instructions of the symbol on the package:

Symbol	Description
	Handle with care
	Fragile
	Keep dry
	Do not stack

• Read and follow the handling and safety instructions marked on the package.

• Inspect the outer packaging of the product for damage or scratches.

After receiving the goods, if you find that the outer packaging of the equipment is damaged or crushed, please do the following:

• Inspect the equipment, unpacking it if necessary to check the extent of damage to the equipment, and take photos as evidence.

• Record the damage on the shipping documents (e.g. CMR/bill of lading or AWB/air waybill) before receiving the goods.

• Accept the equipment with the reservation and return the shipping documents with the reservation of the damage indication to the carrier.

6. Installation

6.1 Unpacking Inspection

6.1.1 Inspection Content

• Check whether all product accessories are complete, and the packing list is as follows:

SN	Name	Quantity	Remark
1	AC charging pile	1	The contents of this packing list refer to the equipment and materials included in the box
2	Factory Report	1	
3	Instructions	1	
4	RFID card	2 (only available for off-	
5	key	1	
6	Assemble screws and plugs	A	

• Inspect the appearance of the product for abnormalities such as scratches, rust, cracks, or deformation.

• Check that the display and charging connector are in good condition, and that the charging connector cable is not damaged or scratched.

6.2 Execution After Inspection

If the inspection finds that the device is damaged or the accessories don't match the list, do the following:

• Notify the transporter immediately and contact the local dealer or manufacturer's service department.

• Take photos as evidence of damage.

6.3 Prepare Cables and Tools

The selection of cables should comply with the relevant specifications of the electrical industry and the requirements of this manual.

Please refer to the following table to determine the cable, the cable selection in the table is for reference only, please refer to the judgment of the professional construction qualification unit:

Product Power	Enter the Cable		
	The Name of the Cable	Location	Cable Specifications
7KW	AC single-phase L	MCCB L	≥6mm²
	AC input N	MCCB N	≥6mm²
	AC PE line	MCCB PE	≥4mm²
14KW	AC single-phase L	MCCB L	≥10mm²
	AC input N	MCCB N	≥10mm²
	AC PE line	MCCB PE	≥6mm²
11KW	AC three-phase A	MCCB L1	≥6mm²
	AC three-phase B	MCCB L2	≥6mm²
	AC three-phase C	MCCB L3	≥6mm²
	AC input N	MCCB N	≥6mm²
	AC PE wire	MCCB PE	≥4mm²
22kw	AC three-phase A	MCCB L1	≥10mm²
	AC three-phase B	MCCB L2	≥10mm²
	AC three-phase C	MCCB L3	≥10mm²
	AC input N	MCCB N	≥10mm²
	AC PE wire	MCCB PE	≥6mm²
44kw	AC three-phase A	MCCB L1	≥16mm²
	AC three-phase B	MCCB L2	≥16mm²
	AC three-phase C	MCCB L3	≥16mm²
	AC input N	MCCB N	≥16mm²
	AC PE line	MCCB PE	≥10mm²

6.4 Mechanical Installation

6.4.1 Precautions

There is high voltage and high current inside the charging equipment, in order to ensure personal safety, the relevant regulations should be complied with when installing:

• Only those who have been trained in charging equipment and have sufficient knowledge of DC chargers should install this equipment.

• Safety precautions and local safety regulations should always be observed during installation.

• Ensure that the operating area is not open to unauthorized persons and that those involved in handling the EV charger are fully aware of the safety measures to be taken when handling the EV charger and keep a sufficient distance away from the moving EV charger.

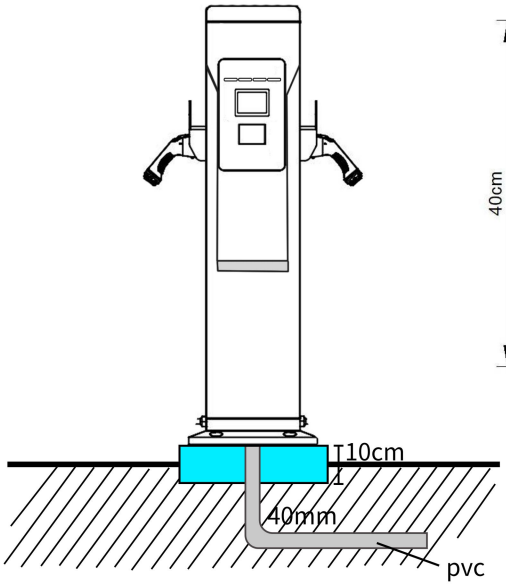
• If operating inside the charger, make sure that the device is not charged.

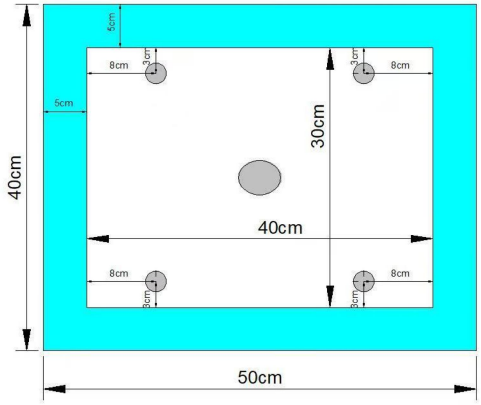
6.4.2 Foundation Construction

The equipment must be installed on the cement base suitable for supporting the weight of the equipment, and the cement base needs to reserve a suitable space during the construction, and after the charging pile is installed, there is no obstacle on the front, 100mm away from the obstacle behind the back, and 1000mm away from the obstacle on the left and right sides.

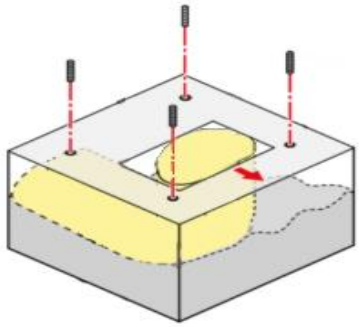
The thickness of the cement base shall not be less than 100mm, the size of the platform shall be greater than the length and width of the charging equipment by more than 50mm, and the base shall be 50mm higher than the floor.

Schematic diagram of cement base construction dimensions:





6.4.3 Cabinet installation



• Seal the necessary cables, such as AC cables and network cables, through the cable duct inlet: the cable needs to be left with sufficient slack.

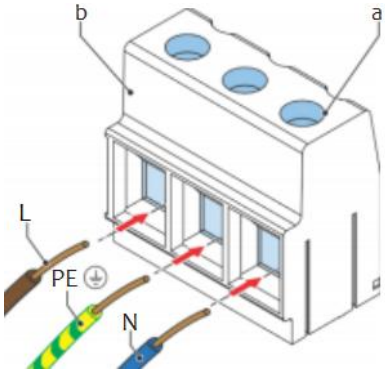
• Move the charger to the cement base, adjust the position so that the charger installation fixing hole is aligned with the cement base embedded stud.

• Pass the cable through the cable inlet at the bottom of the device, and block the incoming wire with rat mud to ensure tightness.

• Install bolts, fix the device.

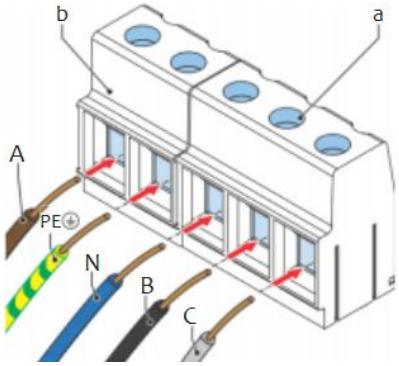
6.5 Electrical Installation

6.5.1 Connect the AC Input cable (Single Phase)



1. Loosen the screws (a) in the three holes.
2. Strip the wire and insert the cable connector into the terminal strip (B).
3. Connect the following wires:
   - Grounding Wire (PE)
   - Neutral Line (N)
   - Fire Wire (L)
4. Make the tightening screw (a)

6.5.2 Connecting AC Input Cables (3 Phase)



1. Loosen the screws (a).
2. Insert the cable connector into the terminal strip (b).
3. Connect the following wires:
   - Grounding Wire (PE)
   - Neutral Line (N)
   - L1 (A)
   - L2 (B)
   - L3 (C)
4. Tighten the screws (a)

6.6 Internet Connection

Ethernet connection: Connect one end of the Ethernet cable to a PC, router, or gateway, and the other end to the device through the device's internal Ethernet port.

4G connection: You need to purchase an industrial router that meets the local telecom communication standards and a SIM provided by the local telecom operator, and insert the SIM into the router card slot; Connect the router to the device through the device's internal Ethernet port.

6.7 Post-Installation Checks

- Check that the cabinet installation is horizontal, vertical and stable;
- Check whether the cabinet is damaged or painted. If there is paint loss, the paint part needs to be repaired immediately with anti-rust paint to prevent corrosion;
- Check that all cable connections are firm and reliable, and that all circuit breaker and cable models are correct;
- Internet access is available via cellular (default) or wired Ethernet connection.

7. Operations

7.1 Power On

• Close the circuit breaker that supplies power to the charging pile and energize the charging pile.

• The device starts a series of self-tests to ensure that the charger is working properly and safely: if the charger detects a fault, the fault LED lights up and an error code is displayed on the platform or screen.

Warn:
Be careful when using electricity for electric shock, please protect and operate according to regulations.

7.2 Tuya APP Functions

Download and install the TUYA APP through the app store on your mobile phone to complete the registration.

7.2.1 Binding Devices

Open the Tuya Smart APP, log in to the main page, click the device to be bound, and add it. A 2.4GHz Wi-Fi is required to add a device.

Note: If you can't search for the device for a long time, first check whether the mobile phone is linked to 4GWIFI, and finally you can press the emergency stop 5 times in a row, exit the APP and try to configure the network again;

7.2.2 Tuya unbinding/resetting settings

Continuously press to trigger and recover the emergency stop fault five times to unbind Tuya WIFI, which will not clear the data stored in the pile, and will only be unbound by Tuya WIFI.

7.2.3 APP Function Settings

7.2.3.1 Device Number Settings

After the device is bound, you can enter the settings page and modify the device number.

7.2.3.2 Setting the Interface Definition

• Card binding: After the device is bound, the user can select the card swiping function, open the card binding item in the APP settings interface, and enter the charging card number to be bound (the charging card number is valid for 16 digits), and then the bound charging card can be used for offline charging (swipe mode).

• OCPP IP address/OCPP ID: The OCPP IP column is written to the URL OF THE OCPP PLATFORM to be connected, and the OCPP ID column is written to the device number.

• DLB value: When the load balancing function is enabled, the DLB is set to the group load balance or home load balance, that is, the maximum current value that can be supported on the bus, and the DLB value ranges from 0 to 999A.

7.2.3.3 Remote Upgrade

When the software is upgraded, users need to click the edit icon in the upper right corner to enter the Tuya APP management interface. Click the Device Upgrade button, and if there is a version update, click Start to upgrade the software.

7.2.3.4 Shared Devices

Enter the Tuya APP management interface, click Device Sharing, and share the device with other accounts through the WeChat link or Tuya Smart Account for joint use of the device.

7.3 Testing

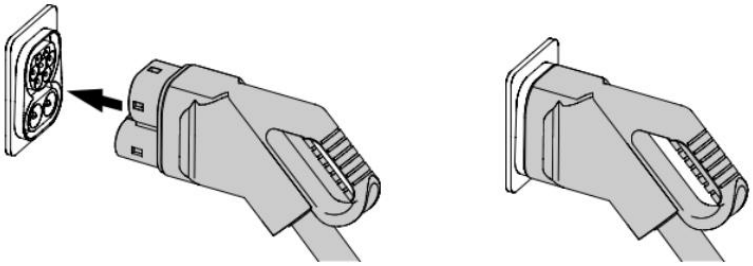
• Provide an electric vehicle with a compatible connection entrance to test the functionality of the charging station.

• The emergency shutdown test is a necessary test before production.

7.4 Charging Process

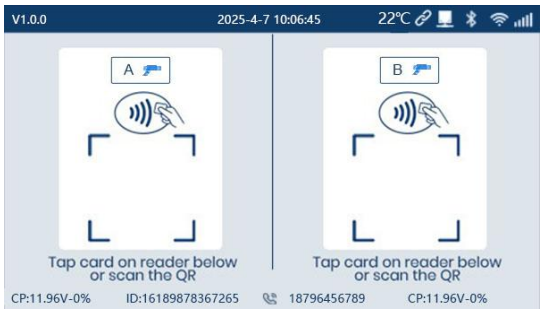
7.4.1 Start a charging session

- Park your EV where the charging station has access to the connector.
- Remove the charging gun from the case and plug it into the EV charging outlet.



Danger: Dangerous voltage
During the charging phase, the charging connector will be locked in place to prevent unplugging

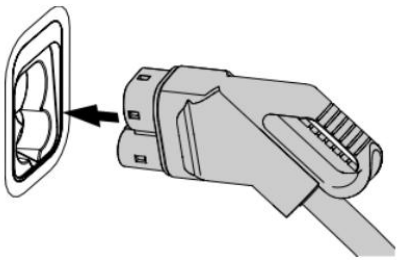
- Follow the on-screen instructions to authorize the use of the charging station using your RFID card or mobile app, and the charging station will start charging the electric vehicle.



- The device charges the electric car and displays the charging status on the display.

7.4.2 Stopping a Charging Session

- The battery will automatically stop when it is fully charged, the indicator light will be on, and the mobile phone app and display screen will show that the electric vehicle is fully charged.
- Use your RFID card or mobile app to authorize the stop from using the charging station and complete the payment as required.
- Insufficient balance, malfunction, and other reasons are stopped.
- Remove the connector from the vehicle and place it back on the stand.



The reason and code for the charging pile to stop charging are detailed in the following table:

Reason for stopping	Stop the Code
Pull out the gun and stop	WAY 0001
Swipe to stop	WAY 0002
Full stop	WAY 0003
Failure stop	WAY 0004

Stopped in the background	WAY 0005
Timeout stop	WAY 0006
Failed to start	WAY 0007
The balance is insufficient	WAY 0008

7.4.3 Indicator Status

State	Blue	Green	Red
Not powered on	Extinguish	Extinguish	Extinguish
Standby	Bright	Extinguish	Extinguish
Plugging in the gun (not activated)	Extinguish	Bright	Extinguish
Charging	Extinguish	Flashing (1.5S on, 1.5S off)	Extinguish
Full	1 Fast and 1 Slow	Extinguish	Extinguish
Fault	Extinguish	Extinguish	Bright

7.4.4 Emergency stop of the charging session

The manufacturer has installed an emergency stop button on the right side of the charging station, if there is an emergency, please do the following:

• Press the emergency stop button. The device stops running and the display will turn red.

If the emergency stop button is accidentally pressed:

• Confirm that the situation is safe.

• Pull the emergency stop button out by twisting the button. The device reactivates and returns to normal operation after a few seconds.

7.5 Precautions for use

• It is strictly forbidden to directly plug and unplug the charging gun head during charging.

• It is forbidden to pull or twist the charging cable too hard.

• When plugging in or unplugging the charging gun, pay attention to the force and avoid using excessive force.

• In non-emergency situations, please do not press the panic button at will.

• In the event of abnormal noise, vibration, sparks, smoke or other serious conditions during operation, the emergency button should be pressed immediately.

• When charging is complete, remember to put the charging gun back in place.

8. Maintenance and Cleaning

8.1 Maintenance Schedule

Task	Frequency
Clean the cabinet cover and enclosure of the charging pile	Every three months
Inspect the cabinet with the naked eye for damage	Before each use
Visually inspect EV charging cables or sockets and connectors for damage	Before each use

Danger: Dangerous voltage

Do not use high-pressure water to flush the charging pile. Water will leak into the cabinet.

8.2 Inspect the Cabinet

• Check these parts for damage:

Part	Damage
Charging Cables, Sockets, and Connectors	Cracks or Cracks
	The internal wires of the cable can be seen
Display Screen	Break
Cabinet Coating	Cracks or Cracks

• If damage is found, suspend use of the device and contact your local dealer or manufacturer's service center.

9. Troubleshooting

9.1 Troubleshooting Procedures

• With the help of the information in this document, try to find a solution to the problem.

• If you can't find a solution to the problem, contact your local dealer or manufacturer's service center.

9.2 Troubleshooting Form

issue	Possible causes	Possible solutions
Failed to start charging properly	There is a problem with the charging pile	Make sure the power to the charging station is turned on
		Check whether the charging pile is working properly
		Restart the charging station and operate the charging process again.
		If that doesn't work, don't use the charging station. Contact the manufacturer's service center or a qualified electrical contractor.
	The vehicle connection or authorization process failed	Check the mobile app and the charging LED to make sure the charging process is authorized.
The vehicle connection or authorization process failed	The EV charging cable is not connected correctly	Check the EV charging cable connection
		If the EV charging cable is defective, contact the manufacturer's service center or a qualified electrical contractor.
	There is a problem with the RFID card	Make sure you are using the RFID card provided by the manufacturer
	There is no internet connection	Make sure you have an active internet connection
There is no internet connection	The internet connection between the charger and the router is lost	Connect the charger to the internet correctly
	The RJ45 cable or plug is defective	Please contact a qualified electrical contractor
	No WiFi	Check the WiFi signal strength in the field
	There is no 3G/4G connection	Check the connection of the Nano-SIM card
		Check the 3G/4G signal strength in the field
The current is too high	The side of the electric car is overloaded	Contact the manufacturer's service center or a qualified electrical contractor
The AC input voltage is too high or too low	L is reversed to N	Please contact a qualified electrical contractor
The electrical connection is faulty		
The charging pile is overheating	The ambient temperature exceeds the operating temperature specification	The charging station will reduce the current output
		Check that the charging pile is installed in an environment with a suitable ambient temperature
	The AC power input voltage is too high	Perform the steps described for the "AC input voltage too high" issue
	The internal charger is faulty	Restart the charging station and operate the charging process again.
		If that doesn't work, don't use the charging station. Contact the manufacturer's service center or qualified electrical contractor.
The AC input cable is overheating	The cable specifications are insufficient	Please contact a qualified electrical contractor
An error that says "Grounded device not found" is displayed	The charging pile is not properly grounded	Please contact a qualified electrical contractor

9.3 Overview of Error Codes

If EVSE detects a fault, the error LED lights up and the screen displays an error code.

Fault Codes	Fault	Fault Light Language
ERR 0001	Leakage self-test failed	[Red] 5 fast and 1 slow
ERR 0002	Emergency stop	[Red] 1 fast and 1 slow
ERR 0003	Creep-age	[Red] 3 fast and 1 slow
ERR 0004	CP abnormality	[Red] 2 fast and 2 slow
ERR 0005	Measure	[Red] 1 fast and 2 slow
ERR 0007	Over-current	[Red] 2 fast and 1 slow
ERR 0008	Over-voltage	[Red] 4 fast and 1 slow
ERR 0009	Under-voltage	[Red] 3 fast and 2 slow
ERR 0010	Contact welding	[Red] 6 fast and 2 slow
ERR 0011	Short circuit	[Red] 5 fast and 2 slow
ERR 0012	Ungrounded	[Red] 7 fast and 1 slow
ERR 0013	The card reader is abnormal	[Red] 4 fast and 2 slow
ERR 0014	Over-temperature	[Red] 2 fast and 3 slow
ERR 0017	The meter communication is abnormal	[Red] 1 fast and 2 slow
ERR 0018	The output status is abnormal	[Red] 5 fast and 3 slow
NET 0001	The 4G module is faulty	Blue light 2s + flash green 3 times
NET 0002	Failed to find the SIM card	Blue light 2s + flash green 1 time
NET 0004	GPRS network registration failed	Blue bright 4s + flash green 2 times
NET 0003	Failed to connect to the background	Blue light 2s + flash green 2 times

9.4 Disconnect the Power Supply from the Charging Pile

- Disconnect the external circuit breaker connected to the charging pile.
- Wait at least 1 minute.

10. Appendix

10.1 Quality Assurance

Please keep the invoice, warranty card and other information of the purchased equipment, which are valid proof of equipment warranty.

During the warranty period, if the equipment has non-human failure, the manufacturer, dealer or designated after-sales service provider will provide free accessories and remotely guide the maintenance service or replace the new equipment. Reasonable time should be reserved for maintenance services according to the distance and equipment damage. If the equipment is replaced with a new one, the unqualified equipment after replacement shall be disposed of by the manufacturer or distributor.

If the equipment fails or is damaged due to the following circumstances, the manufacturer has the right not to carry out quality assurance, and the manufacturer can provide paid maintenance services if the customer has maintenance needs:

- The device has exceeded the free warranty period.
- Failure to transport, store, install, use, and maintain in accordance with the specifications and standards required by this manual.
- Failure to operate and use in accordance with the safety specifications and standards applicable to the installation site.
- Repairing, altering, or disassembling the device without the manufacturer's authorization.
- Damage caused by abnormal natural environment.

10.2 Precautions

- The manufacturer shall not be liable for any damages caused by the configuration software product supplied with the product.
- It is forbidden to use part or all of the data of the firmware or software developed by the manufacturer for commercial purposes in any way.
- It is forbidden to decompile, decrypt or otherwise destroy the original program design of the software developed by the manufacturer.