

EV Solutions

Electric Vehicle Charging Products & Services



Electric Vehicle Charging Dock

UE2 Series

User's & Installation Manual

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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.

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:** 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.

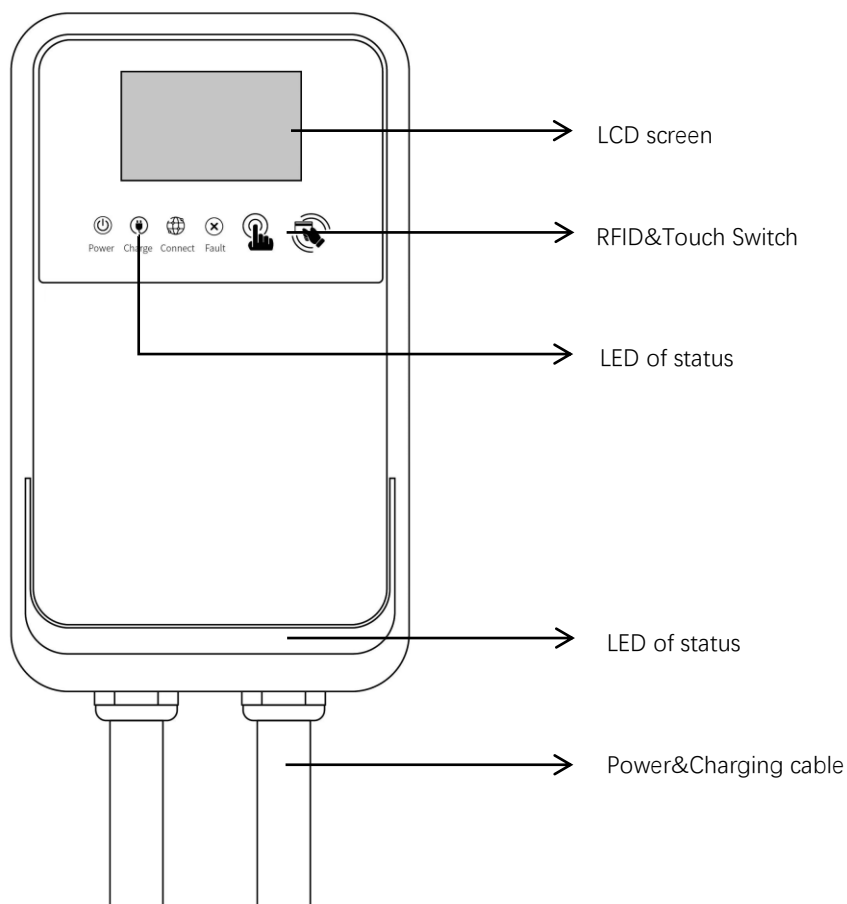
| Circuit Breaker Options Table | | | |
|-------------------------------|--------------|-------------|-----|
| | Single Phase | Three Phase | |
| Output Amperage (A) | 32A | 16A | 32A |
| Circuit Breaker Options (A) | 40A | 20A | 40A |

2. Product Introductions

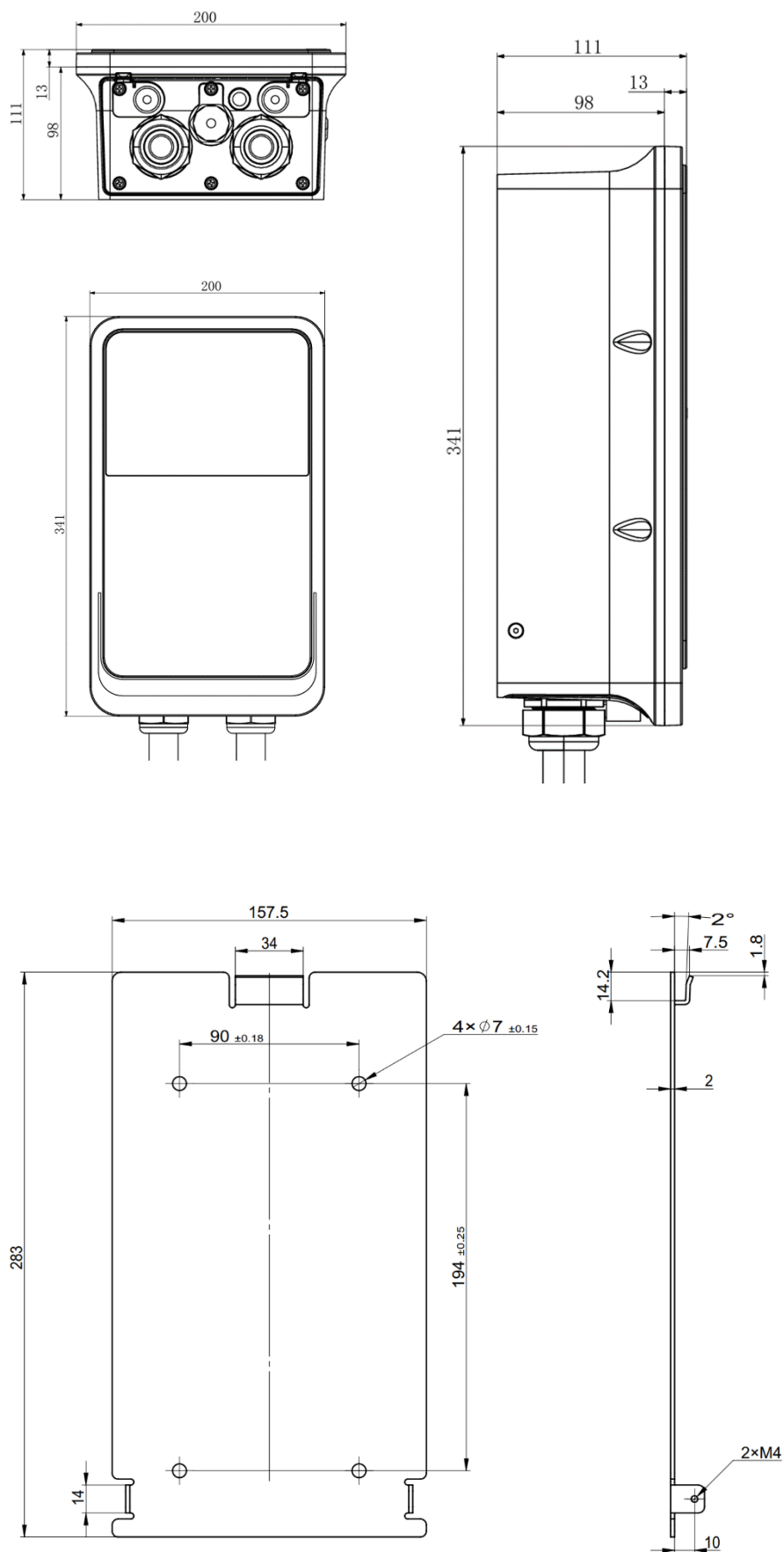


CAUTION: Avoid placing the charger near hot objects and at high temperature locations and keep it away from dangerous substances such as flammable gases and corrosive materials.

2.1 Basic Interface



2.2 Basic Dimension



2.3 Specifications

| | | |
|--------------------------------|---|--------------------------------|
| Product Model | UE2 | |
| Rated Input Voltage | 230VAC \pm 10% / Single Phase | 400VAC \pm 10% / Three Phase |
| AC Power Frequency | 50/60 Hz | |
| Rated Output Power | 7kW | 11/22kW |
| Rated Output Current | 32A | 16/32A |
| Input Protection | UVP, OVP, RCD, SPD, Ground Fault Protection | |
| Output Protection | OCP, OTP, Control Pilot Fault Protection | |
| Output Interface | IEC 62196-2 Compliant, Type 2 | |
| Storage Temperature | -40° C to +85° C | |
| Operating Temperature | -30°C ~ 55°C | |
| Relative Operation Humidity | 95% RH Maximum | |
| Relative Storage Humidity | 95% RH Maximum | |
| RFID Authentication | LAN Version / Wi-Fi Version | |
| RJ45 Cable Inlet ^{*1} | 10M / 100M Base-T | |
| Wi-Fi Function ^{*2} | 802.11 b/g/n | |
| Cable Length | 5m Standard, 7m Optional | |
| IP/IK Level | IP65/IK08 | |
| Installation Type | Wall-Mounted | |
| Altitude | 2000m | |
| Status Indication | Red, Green, Blue LED | |
| Display | 4.3"color LCD | |

*1 LAN Version or Wi-Fi Version

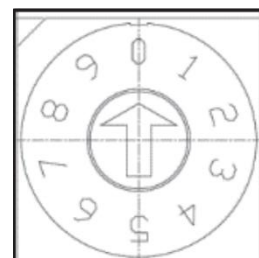
*2 Wi-Fi Version

2.4 Dial Switch Setup Instructions

The maximum output current can be adjusted by dial switch


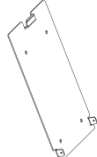
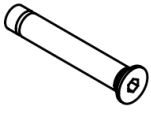

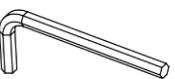




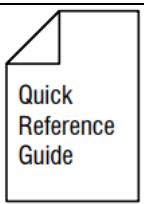

0:16A

1:32A



3. Packing List

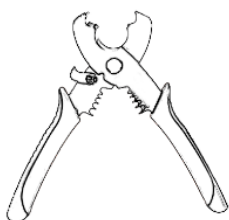
Upon receiving the product, please inspect the packaging to ensure you have received this installation guide and the following components.

| | | | |
|-------------------------|---|---------------------------------------|---|
| Charging Station |  | Mounting Back Plate |  |
| Screw (M6 x 50) 4PCS |  | Screw (M4 x 16) 2PCS |  |
| M4 Allen Wrench |  | M6 Allen Wrench |  |
| Screw(M4 x 25) 3PCS |  | Expansion Tube Bolt (M6 x 50) 3PCS |  |
| EV Charger Holster |  | Quick Reference Guide |  |
| Auxiliary Sticker A |  | | |

4. Installation Tools

Installation of this wall-mounted charging station requires the following tools:

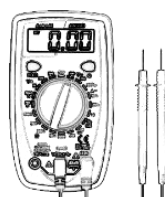
1. Wire stripper
 2. Adjustable wrench M6
 3. Voltmeter or digital multi-meter (for measuring AC voltage at the installation site)
 4. Level
 5. Pencil or marker
 6. Drill
7. The input cable should meet the best waterproof performance. It is recommended to use 3 core 7AWG cable (XLPE or equivalent cable) to pull the cable from the distribution box.



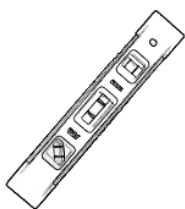
①



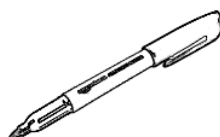
②



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.



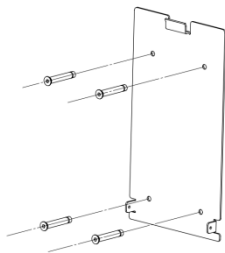
CAUTION: An equipment-grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the product. not recommended to be installed in coastal environments with high humidity or high dust.

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 a 50mm x 100mm pedestal or a solid wall.
- III. The device shall be mounted at height between 600 mm and 1200 mm from ground.

STEP 2



Drill four screw holes with a diameter of 8mm and a depth of 50mm on the mounting plate. Drill the screw holes in the arrow direction on that plate. After drilling the screw holes, fix the back plate with screws (M6x50).

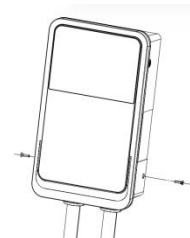
6. Installation of Charging Station

STEP 3



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

STEP 4



Tighten two M4 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



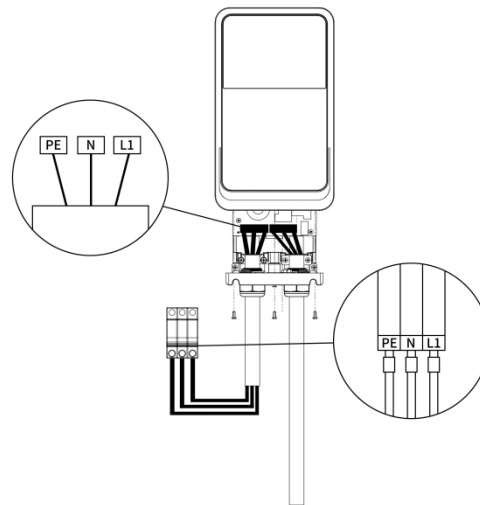
CAUTION: Use appropriate protection when connecting to the main power distribution cable.

STEP 5

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

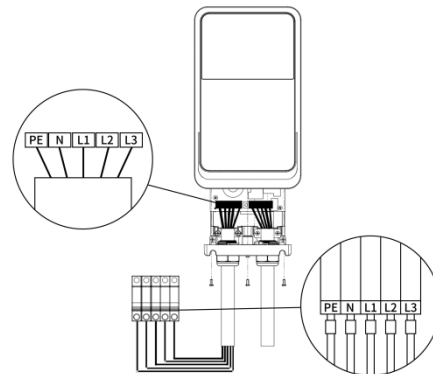
For Single Phase

Connect the L1 lead to the grid L1, connect the N lead to the grid N, 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.



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.



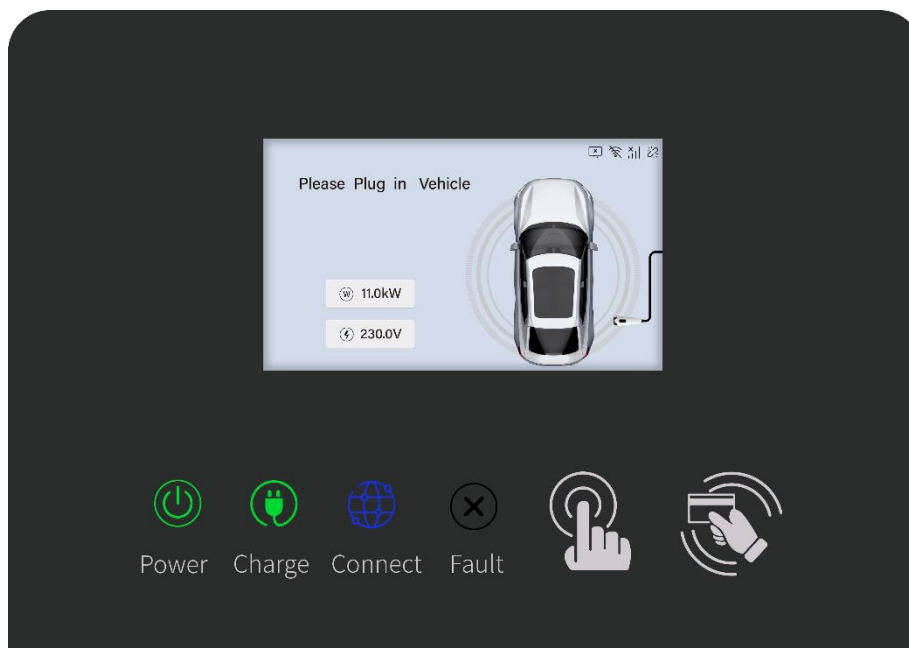
CAUTION: Do not put heavy objects on the charger to avoid danger.

9. Operating Steps with Plug and Charge

STEP 1

Standby Mode:

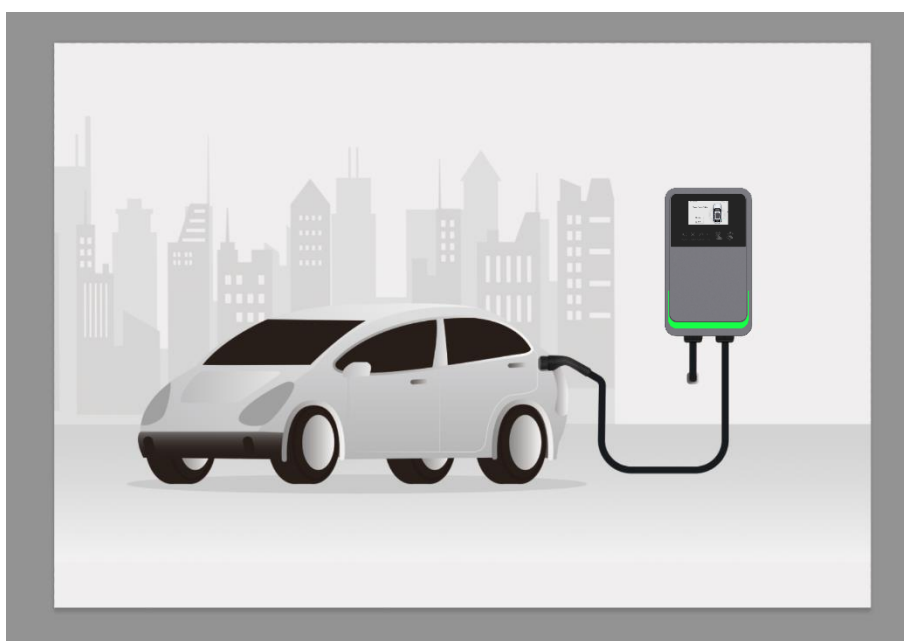
After the product enters the standby mode, the "Power" indicator and the "Charge" indicator will be green and stay on.



STEP 2

Plug the Charging Connector:

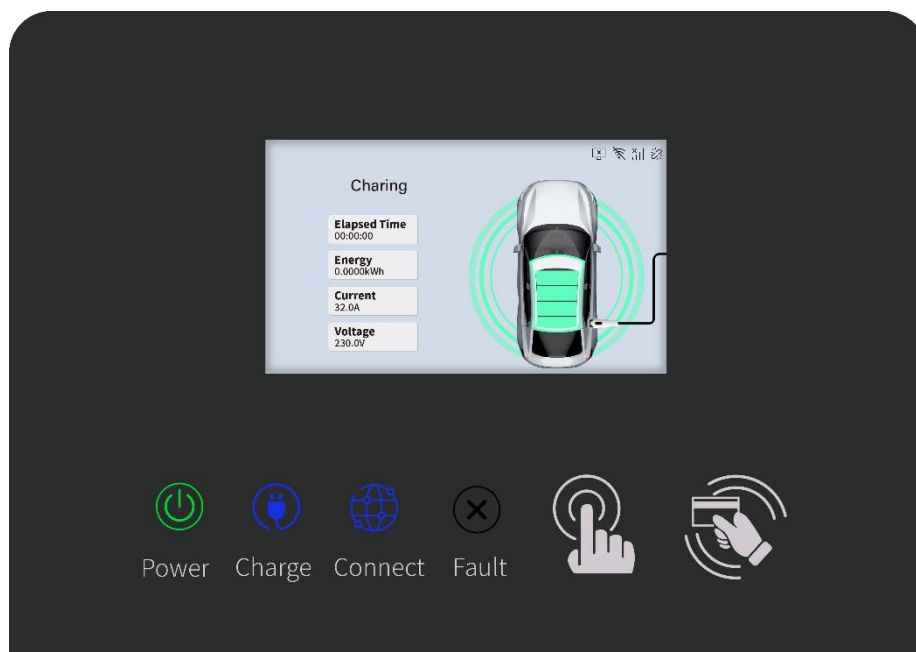
Please plug the charging connector into the vehicle charging inlet.



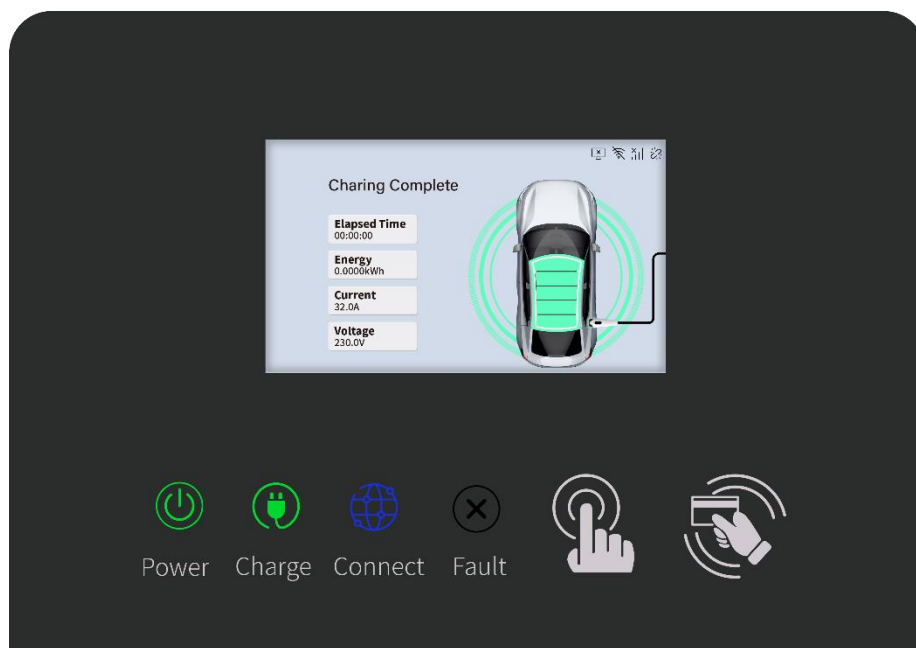
STEP 3**Charging:**

The charging state indicator is blue and stays on, and charging is in progress.

- If the red light (Fault) is on, please try unplugging and re-plugging the charging plug to resolve the issue
- If red light is still on, please refer to section 11.3 of the “Troubleshooting Table” below for further assistance.

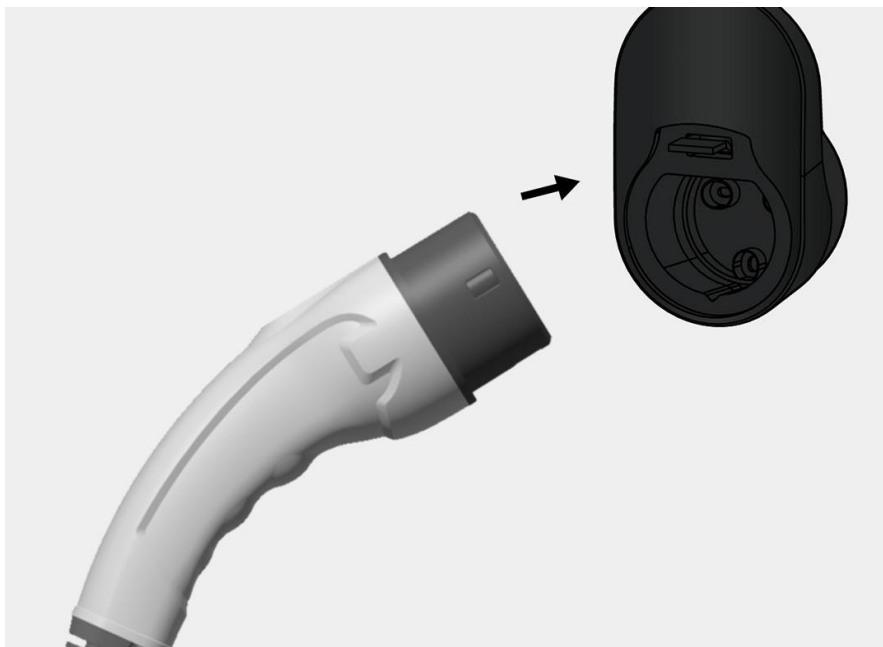
**STEP 4****Charging finished:**

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



STEP 5**Re-plug the charging connector:**

when you finish the charging process, please re-plug the charging connector back to the holster, you will hear a “click” sound.



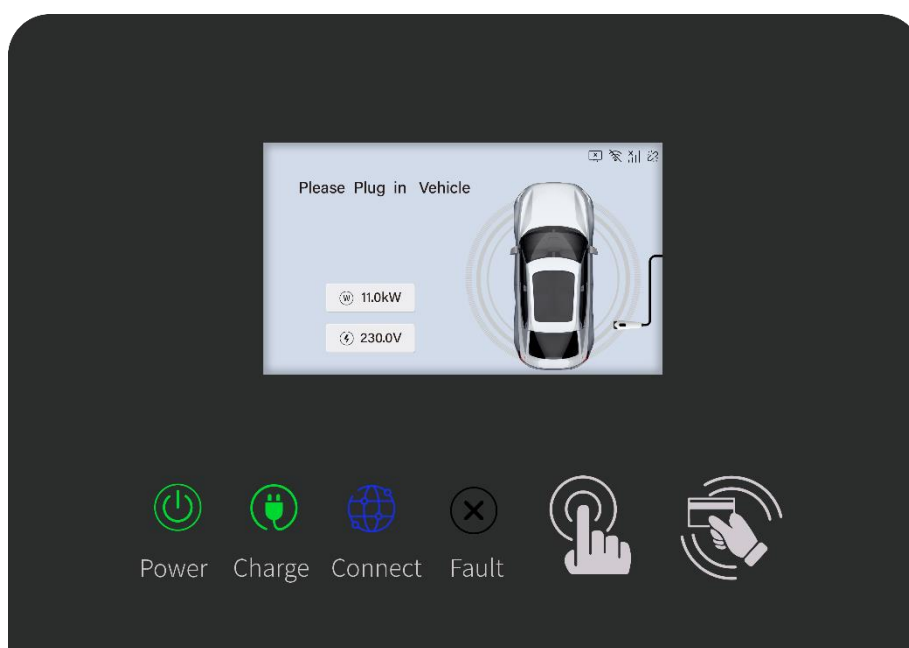
10. Operating Steps with RFID



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

STEP 1**Standby Mode:**

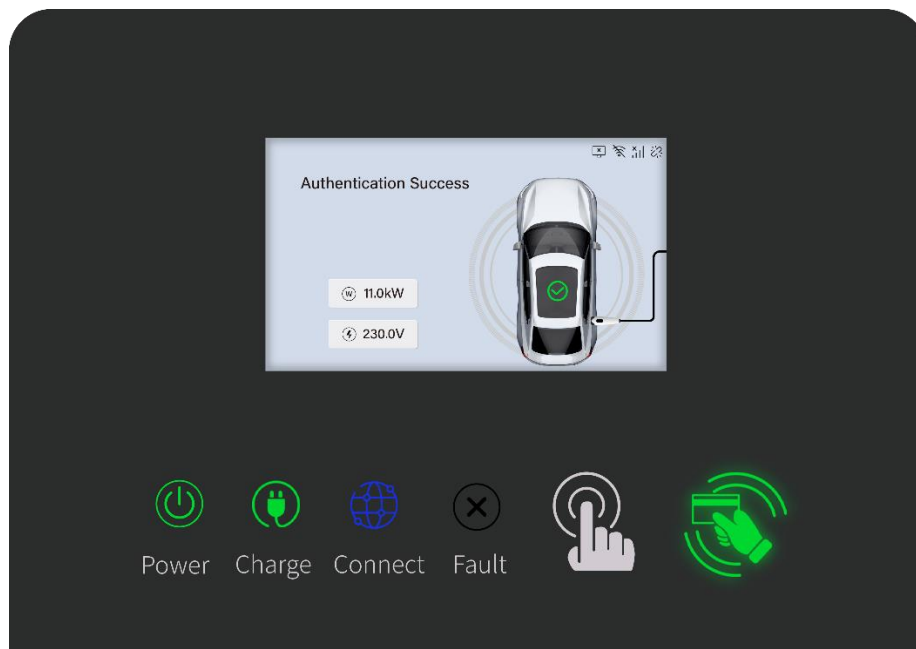
After the product enters the standby mode, both the “Power” light and the “Charge” light will be green and stay on.



STEP 2**Swipe the RFID Card:**

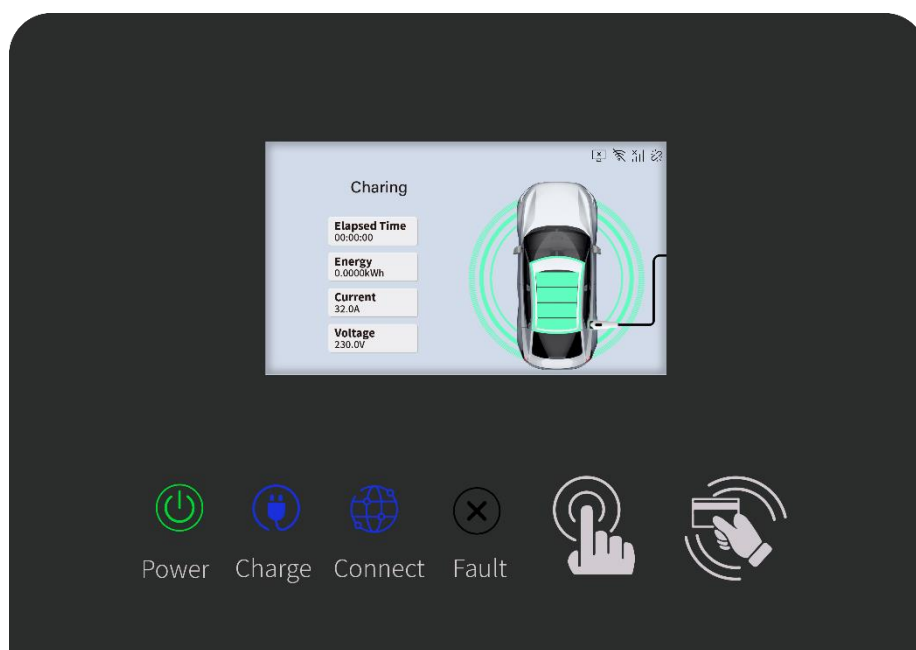
Insert the EV charger into the Vehicle charging port. Next, swipe the RFID card.

When "Authentication Success" appears on the screen, it means the cards wiping is successful.

**STEP 3****Charging:**

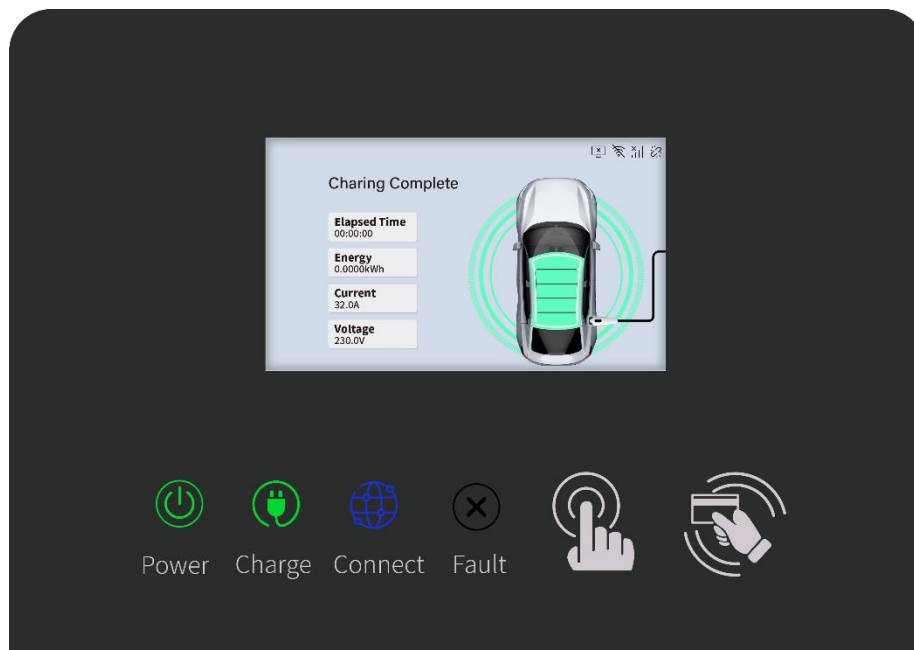
The blue light (Charge) turns to flash automatically, charging is in process.

- If the red light (Fault) is on, please try unplugging and re-plugging the charging plug to resolve the issue.
- If red light is still on, please refer to section 11.3 of the "Troubleshooting Table" below for further assistance.

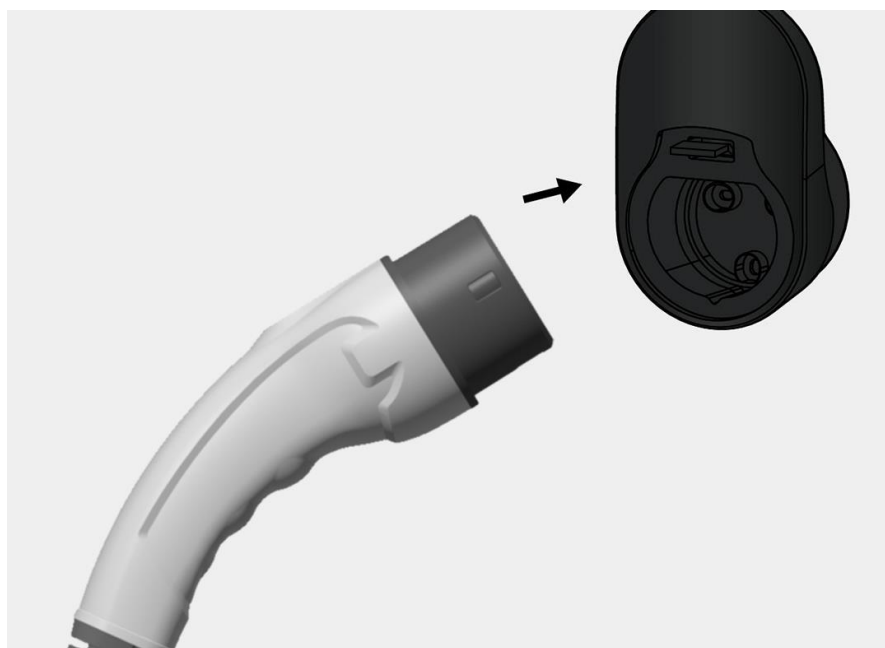


STEP 4**Charging finished:**

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





















**STEP 5****Re-plug the charging connector:**

when you finish the charging process, please re-plug the charging connector back to the holster, you will hear a "click" sound.



11. Light Codes

11.1 After Start UP

| | |
|--|--|
| Standby, waiting to plug in |     Power Charge Connect Fault |
| Waiting to charge, communicating with vehicle |     Power Charge Connect Fault |
| Charging in progress |     Power Charge Connect Fault |
| Charging finished |     Power Charge Connect Fault |
| Fault |     Power Charge Connect Fault |

11.2 Error and Warning Messages

| Status | Fault Code | Fault Indicator State | Charge |
|----------------------------|------------|-------------------------------------|---------------------------------|
| Ground Fault | E01 | 4 flashing cycles of the red light | Red light continuously flashing |
| RCD Abnormal Stop Charging | E03 | 9 flashing cycles of the red light | Red and stays on |
| Fault of Relay N | E04 | 8 flashing cycles of the red light | Red and stays on |
| Fault of Relay L | E05 | 8 flashing cycles of the red light | Red and stays on |
| RCD Self-Test Fault | E07 | 10 flashing cycles of the red light | Red and stays on |
| Metering Fault | E08 | 7 flashing cycles of the red light | Red and stays on |
| CP Fault | F00 | 5 flashing cycles of the red light | Red light continuously flashing |
| Overcurrent Fault | F02 | 3 flashing cycles of the red light | Red light continuously flashing |
| Overvoltage Fault | F03 | 2 flashing cycles of the red light | Red light continuously flashing |
| Undervoltage Fault | F04 | 1 flashing cycles of the red light | Red light continuously flashing |
| Overtemperature Fault | F05 | 6 flashing cycles of the red light | Red light continuously flashing |
| Emergency stop Fault | L00 | Red and stays on | Red and stays on |
| Down State | L02 | Red and stays on | Red and stays on |

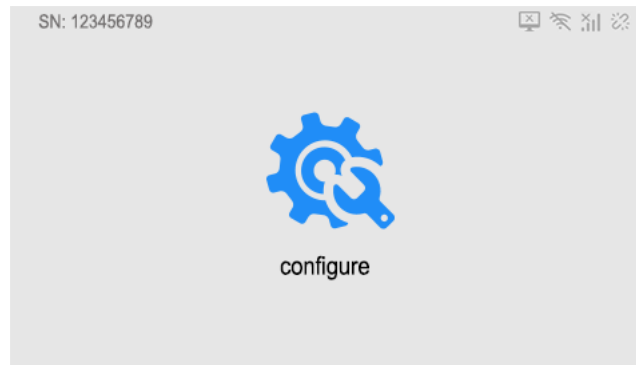
11.3 Troubleshooting Table

| Status | Fault Code | Possible Solution |
|----------------------------|------------|--|
| Ground Fault | E01 | If grounding is not done properly, install a protective ground conductor. |
| RCD Abnormal Stop Charging | E03 | Pull out the EV charger for restoration. |
| Fault of Relay N | E04 | Please contact the after-sales department. |
| Fault of Relay L | E05 | Please contact the after-sales department. |
| RCD Self-Test Fault | E07 | Please contact the after-sales department. |
| Metering Fault | E08 | Please contact the after-sales department. |
| CP Fault | F00 | Please contact the after-sales department. |
| Overcurrent Fault | F02 | The output current is too large. Make adjustments until it reaches the correct charging current. |
| Overvoltage Fault | F03 | The input voltage is abnormally higher. Wait for voltage recovery. |
| Undervoltage Fault | F04 | The input voltage is abnormally lower. Wait for voltage recovery. |
| Overtemperature Fault | F05 | The internal temperature is higher. Wait for the temperature to drop and recovery. |
| Emergency stop Fault | L00 | Please contact the after-sales department. |
| Down State | L02 | OTA is upgrading. Wait until upgrading is completed. |

12. Button Features

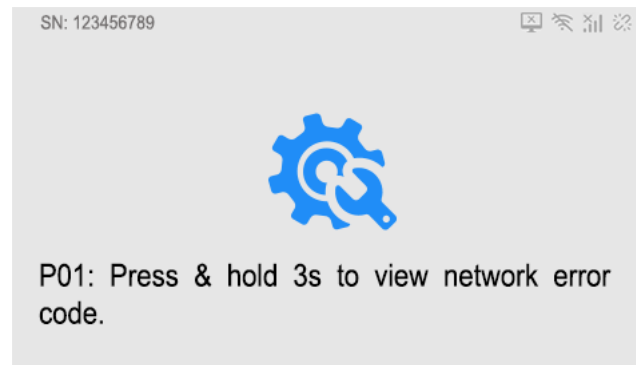
12.1 When the screen is in sleep mode: tap the button once to activate the screen.

12.2 Enter the configuration mode: swipe the privilege card to enter the configuration mode.



12.3 After entering the configuration mode, click to select options.

P01: Select the appropriate option to view the network error code.



Press and hold for 3 seconds to enter the network error code display interface shown as follows:



WIFI Fault:

- 101: startup failure
- 102: Failure to acquire the version information
- 103: Failure to create a hotspot
- 104: No Mac address
- 105: Connection failure
- 106: Disconnected

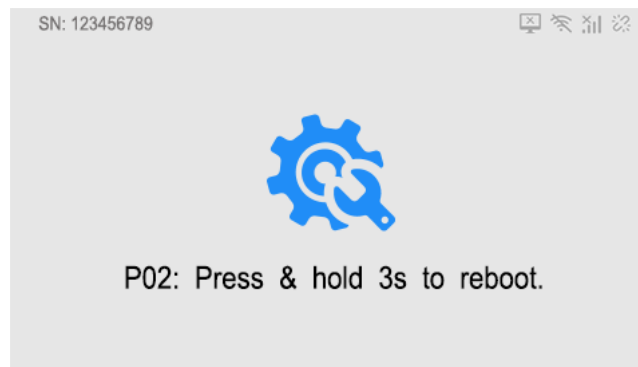
4G Fault:

- 201: startup failure
- 202: IMEI query failure
- 203: SIM card detection failure
- 204: Failure to obtain IMSI
- 205: Failure to obtain ICCID
- 206: Weak signal intensity
- 207: Failure to obtain the IP address
- 208: Connection failure

Platform Fault (PLTF):

- 301: Socket connection failure
- 302: Handshake failure
- 303: The boot notification sent for the first
- 304: Heartbeat timeout
- 305: Web socket disconnected

P02: Press and hold for 3 seconds to restart the charging station.



P03: Press and hold for 3 seconds to restore factory defaults.



12.4 Exit the configuration mode: If there is no operation in the configuration mode within 5 seconds, the product will exit the configuration mode.

13. Design Standards

IEC61851-1: Electric vehicle conductive charging system - Part 1: General requirements

IEC 61851-21-2-2021: Electric vehicle conductive charging system

Part 21-2: Electric vehicle requirements for conductive connection to an ACDC supply- EMC requirements for off board electric vehicle charging systems

IEC 62196-2 Plugs, socket-outlets, vehicle connectors and vehicle

Inlets-Conductive charging of electric vehicles -Part 2: Dimensional compatibility requirements for Ac pin and contact-tube accessories

IEC 62955-2018 Residual direct current detecting device (RDC-DD) to be used for mode 3 charging of electric vehicles



14. Warranty and Maintenance

- The warranty period for this charger is three 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 reasonableness 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.