



# **Installation Manual**

## **22kW Dual Socket**

# Page Legend

## 1) Installation

- 1.1: Wall Mounting
- 1.2: Ground Mount Pole
- 1.3: Connecting the Power Cables

## 2) Operation Instructions

- 2.1: Outlook and Main Parts
- 2.2: LED Legend

## 3) indications for Network Status

- 3.1: Independent indications for each socket

## 4) Operation Manual

- 4.1: Bond to EV Charging Point
- 4.2: Connection to Internet

## 5) Charging Process

- 5.1: Plug in the gun
- 5.2: Authentication

## 6) Charging Status

## 7) Stop Charging

## 8) Automatic Stop

## 9) Manual Stop

## 10) Pull Out the Gun

## 11) Intelligent Functions

- 11.1: Household Load Balancing
- 11.2: Non-Peak Charging and Random Delay
- 11.3: Share

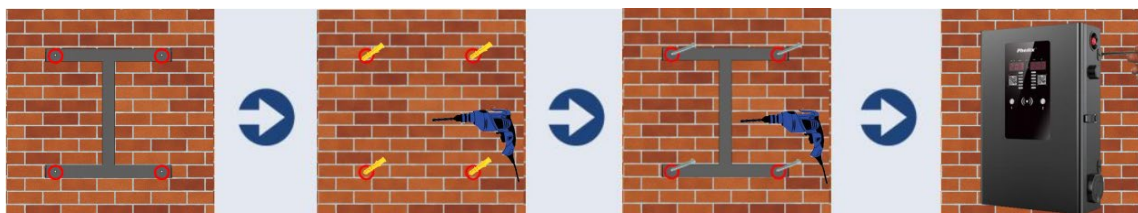
## 12) Troubleshooting

## 13) Error Codes List

# Installation

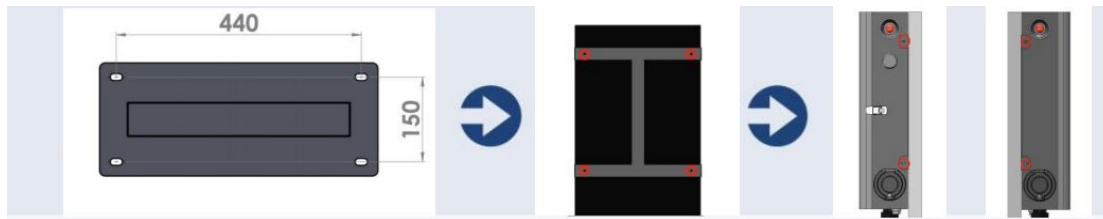
## 1. Installation

### 1.1 Wall mounting:



- Please ensure the unit bracket is fixed to an exterior brick wall or suitable wooden frame
- Choose a suitable location for the unit by checking the signal on a mobile phone to ensure a Wi-Fi connection can be established. Should the signal strength not be sufficient, the system may require a Wi-Fi booster or hard-wired RJ45 (Recommend using Ethernet connection for commercial devices)
- Put the bracket on the wall, mark the wall where the holes are indicated
- Drill holes into the wall on the marked position, place the wall plugs provided into the drilled holes
- Place the bracket back to the wall and insert the CS screws into the wall plug
- Fix the EV charge point onto the bracket and ensure the holes on the enclosure body match the holes on the bracket (The enclosure and bracket have 4 holes, 2 on each side)

## 1.2 Ground mounting



- Drill 4 holes in the ground using a 14mm diameter percussion drill (Position according to the image below). The depth of the hole should be 130mm.
- After the input cable pass through the pole, install expansion bolts (M10\*150) to fix the pole
- Using M5\*14 screws, fix the bracket on the pole
- Using M5\*10 security screws, fix the box on the bracket (On the sides of the unit)

### 1.3. Connect the Power Cables (Live, Neutral and Earth)

#### Input Power Cables

The unit 2x32A dual Sockets/Guns connect to power with 5\***16mm<sup>2</sup>** cable.

**L1 supply = Brown**

**L2 supply = Black**

**L3 supply = Grey**

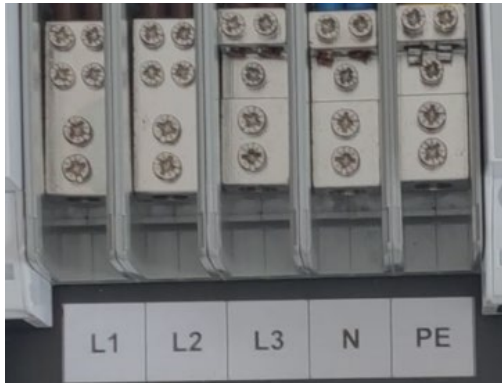
**Neutral cable = Blue**

**PE cable = Green/Yellow**

- The unit requires an 80amp three phase MCB for main circuit switching and protection from sub-distribution board.
- Ensure the power source sub-distribution board is OFF.
- Open the enclosure box, connect the power cables via the cable gland to the indicated input position below
- Connect the cables to marked 'L1', 'L2', 'L3', 'N' and 'PE' terminals (See image below)
- Tighten the Live, Neutral and PE cables firmly into the corresponding terminal

Connectors

**Torque Value for L1/L2/L3/N/PE Cables: 3NM**



**3. Tighten the cable gland with the locknut to ensure the input cables are fixed well.**

**4. Install a 3V CR1220 battery.**

**5. Lock the enclosure.**

(If using Ethernet connection, users can lock the enclosure. If using Wi-Fi connection, users need to configure Wi-Fi with the app after powering on, and then lock the enclosure)

**6. Connect the input cable to the dedicated supply on the consumer unit.**

**7. Check the emergency stop button is at a normal open status, then turn on the power supply.**

# Operation Instructions

## 2. Introduction

### 2.1 Outlook and Main Parts



## **2.2 LED Legend**

### **Swipe Card Area**

Swipe RFID card at the Swipe Card Area

### **Indicator Lights**

The indicator light's status corresponds to the charging station status.

### **Emergency Stop Button**

Pressing the emergency stop button will stop the charging within 15ms. Rotate the emergency stop button clockwise to exit the emergency stop.

### **WIFI Antenna**

There should be no obstructions near the WIFI antenna as it may affect the signal.

### **QR Code**

QR code can be scanned through the App to bind the charging station and authenticate the charging process.

### **Door Lock**

Prevent the charging station door from opening.

### **Socket or Gun Holster**

Gun Holster is where the gun connects with the charging station.

### **RFID Button**

Before swiping the RFID card, press this button to select the charging gun that needs to be authenticated.

### **Led Screen**

Display Voltage/Ampere/kW Charging process details

### 3. Indications for Network Status



1. The WIFI light is a WIFI indicator light that turns green when the network is successfully connected.
2. The WLAN light is an Ethernet indicator light that turns green when the network is successfully connected.
3. The 4G light is an optional 4G network indicator light that turns green when the network is successfully connected.
4. The OCPP light is an OCPP indicator light that turns green when the connection to the OCPP server is successful.
5. The BT light is a Bluetooth indicator light that turns green when Bluetooth is in operation

#### 3.1 Independent Indications for each Socket

FAULT indicator light turns red when the charging gun experiences a fault.

LOCK indicator light turns green when the electronic lock locks the charging gun.

READY indicator light turns green when the charging gun is idle.

CHARGE indicator light turns green when the charging process is in progress.

FINISH indicator light turns green when the charging process is completed.

RFID indicator light turns green when the corresponding RFID button on the charging gun is pressed for card authentication.

#### Display screen instructions:

- When the charging gun is not in use, the display will show 0 in electric quantity,



and the KW green light will be on.

- During charging, the display will cycle between displaying charging power (KW light on) and charging quantity (KWH light on).
- Once charging is complete, the display will show the total charging quantity and the KWH light will be green.
- In the event of a fault, the display will show a fault code. Refer to the fault code table for details.

## 4 Operation Manual

### 4.1 Bond the EV Charging point

After installing the charging pile, power it on and refer to the Pheilix "APP User Manual" to scan the QR code on the charging pile and bind it. Once the binding process is successful, the "My Piles" interface will display the pile number.

Note: The abbreviation "APP" will be used to refer to the Pheilix smart mobile application throughout.

### 4.2 Connection to Internet

There are two methods for network connection:

#### Method A WIFI network configuration

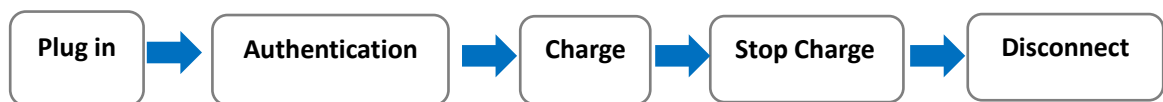
1. Disconnect the network cable of the charging pile.
2. Open the charging pile door and press the emergency stop switch twice. Note that the following steps require the emergency stop switch to be pressed continuously. If it is released, the network configuration process should restart from step 1.
3. Press and hold the touch switch or micro switch on the main board of the charging pile for 3-10 seconds and then release it.
4. Once the WIFI indicator on the panel starts flashing, the charging pile enters the WIFI network configuration mode.
5. Follow the network configuration process in the APP, as described in the "APP User Manual."
6. When the network configuration is complete, the WIFI indicator will stop flashing. Wait for a few seconds until the WIFI is connected to the APP, and then it will remain lit.

7. Release the emergency stop switch and close the charging pile's door.
8. If the WIFI network needs to be reconfigured, repeat steps (1) to (7).

#### Method B Network connection via network cable

1. Connect the network cable to the network port.
2. After the successful connection, the "My Piles" interface will display "Online".

### 5 Charging Process



#### 5.1 Plug in the Gun

Please follow these steps to connect your electric vehicle to the charging pile:

1. Connect the charging gun to the charging pile.
2. Connect the other end of the charging gun to the electric vehicle.
3. Observe the status indicator lights on the charging pile or check the "My Piles" status on the APP to confirm that the charging gun connection is successful, and the charging can be authorized.

Note:

If the APP prompts an electronic lock fault after connecting the gun, please reconnect the charging gun to the charging pile.

If the APP prompts that the vehicle is suspended after connecting the gun, please reconnect the charging gun to the vehicle.

If the APP prompts a communication fault with the electric vehicle after connecting the gun, please reconnect the charging gun to both the charging pile and the vehicle.

## 5.2 Authentication

Authentication must be performed when the charging station is in the "gun inserted" state. The authentication methods are as follows:

### Method A: APP Authentication

Click "Start Charging" or "Begin Charging" on the "My Station" interface on the APP to start charging.

### Method B: QR code authentication

Scan the QR code on the charging station with the APP to start charging.

### Method C: RFID card authentication

Use an RFID card to authenticate the charging. Press the RFID button under the corresponding gun number, wait for the corresponding RFID indicator light to turn on, and then swipe the card in the card swipe area of the charging station. After swiping the card, the buzzer will beep once or twice.

Note:

1. To use RFID card authentication, the card needs to be bound to the APP account. Please refer to the "APP User Manual" for the binding process.
2. If a single beep is heard, the RFID card authentication has failed; if two beeps are heard, the authentication is successful.
3. To use RFID cards for commercial charging stations, the commercial function for RFID cards needs to be activated in the APP. Please refer to the "APP User Manual" for the operation process.

After successful authentication, the charging can begin immediately. The charging status can be checked on the APP home page. However, if the charging station is set to non-peak charging mode and it is during peak hours, the station will enter the "station suspension" state. Please refer to section 11. of the manual for specific operation instructions for peak charging.

Note:

If an RFID card is lost, click "Report Loss" in "My Cards" to unbind the card from the charging station. If the card is found, click "Remove Loss" in "My Cards" to re-bind the card to the station.

## 6. Charging Status

The APP homepage provides real-time access to the "Charging Station" information, including the station ID, charging status and time, charging power, charging quantity, and actual cost. For home charging stations, users can also view this information on the "My Station" interface. The status light on the station will display "Charging in progress". If there are any questions about charging fees, users can call the after-sales hotline for assistance.

## 7. Stop Charging

The charging station can be stopped in two ways: automatically or manually.

## 8. Automatic Stop

When the charging current is less than 0.1A, the station will automatically stop charging and the status light or APP will display "Charging complete" indicating that the vehicle is fully charged. If there is any malfunction during the charging process that requires termination of charging, the station will automatically stop charging and the status light and APP will display "Fault status".

## 9. Manual Stop

During charging, users can manually stop the charging process by clicking "Stop Charging" on the APP. In case of RFID card authentication charging, users can also use the corresponding authorized RFID card and select the corresponding gun number on the RFID button. The RFID card indicator light will come on and then swipe the card to stop charging. In case of emergency, customers can press the emergency stop button to stop charging. The station will stop charging within 15ms and the status light and APP will display "Fault - Emergency Stop". To exit emergency, stop mode, turn the emergency stop button clockwise.

Once charging has been stopped, the electronic lock on the charging gun will unlock automatically.

## 10. Pull out the Gun

After stopping the charging process, the charging gun can be unplugged from the charging station. If the unplugging process is difficult, users can attempt to unplug it several times. The electronic lock on the station will continuously unlock automatically until successful, allowing the gun to be removed.

Once the gun has been unplugged, the status LED lights, and APP status will return to the "Idle and Waiting" status.

Note: If the charging gun cannot be unplugged after multiple attempts, customers may call the after-sales service hotline for assistance.

## 11. Intelligent Functions

### 11.1 Household Load Balancing

Based on the total current of the household incoming line, the maximum household load current needs to be set through the APP. Please refer to the "APP User Manual" for the specific process. The household load balancing function requires the installation of the "CT485 Control Box" to be used.

### 11.2 Non-Peak Charging and Random Delay

- Customers can set the charging station to not charge during peak electricity hours according to the local power grid conditions. Please refer to the "APP User Manual" for the specific process.
- After setting, when the station is in peak period, the APP can select "start charging" authentication. Once authentication is successful, the station will enter the "suspended at station end" status, waiting for the end of peak period. Then the station enters random delay (default 0-600s), and at the same time, it will enter "gun inserted" random delay status, waiting for the countdown to end, and then the station starts charging automatically. The APP can also choose "immediate charging" authentication, in which case the station will skip the high peak waiting period and start charging immediately. With an RFID authentication, swiping the card once will enter the high peak waiting for charging process. If the customer does not want to wait, they can swipe the same RFID card again to start charging immediately.

**Note:** The maximum value of the random delay can be modified in the "My Station" settings on the APP. Please refer to the "APP User Manual" for the specific operation.

### 11.3 Share

The home charger can be shared with others for use. Please refer to the "APP User Manual" for specific steps on how to do this.

## 12. Troubleshooting

In the event of a failure in the charging station displayed through LED indicators or the mobile application, a general fault can be cleared by pressing and holding the emergency stop button. If the fault persists, the user can report the issue by selecting the 'Maintenance' option on the mobile application or call the after-sales service hotline for repair.

### 13. Error Codes List

Error codes	Fault Description	Treatment
E01	Ground Failure	Check grounding connection and re-start the unit
E02	Emergency Stop	Check Emergency stop button
E03	LN RCD Self-test Failure	Auto
E04	PE RCD Self-test Failure	Auto
E05	LN RCD Failure	Auto
E06	PE RCD Failure	Auto
E07	LN Power Switch Failure(welding)	Auto
E08	LN Power Switch Failure	Call service center
E09	Connector Lock Failure	Auto
E10	Connector Lock Failure	Auto
E11	RFID Reader Failure	Re-start
E12	Power Meter Failure	Check wiring of the meter and re-start if fault still exist call service center
E13	Over Voltage	Auto
E14	Under Voltage	Auto
E15	Over Current Failure (1)	Auto
E16	Over Current Failure (2)	Auto
E17	Temperature sensor Loss	Auto
E18	LN Reverse Failure (1)	Auto

E19	LN Reverse Failure (2)	Auto
E20	Over Current Failure (3)	Auto
E21	Power Switch Failure (PE)	Auto
E22	Power Switch Failure (PE)	Call service center
E23	Power Switch Failure	Auto
E24	Power Switch Failure	Call service center
E25	High Temperature Failure (1)	Auto
E26	High Temperature Failure (2)	Auto
E27	High Temperature Failure (3)	Auto
E28	High Temperature Failure (4)	Auto
E29	Door Open (Anti-tamper)	Check the door closed well

# Contact Us

## **Moss Electrical Co. Ltd**

Maxmor House, Sandpit Road

Dartford

Kent

DA1 5BU

01322 282 700

[sales@mosselectrical.co.uk](mailto:sales@mosselectrical.co.uk)

## **Moss Electrical Co. Ltd (SW)**

Waterton Ind. Estate, Horsefair Road

Bridgend

CF31 3YN

01656 765 300

[sales@mosselectricalsw.co.uk](mailto:sales@mosselectricalsw.co.uk)

## **Moss Electrical Co. Ltd (NW)**

Unit 18, Europa Way, Trafford Park

Manchester

M17 1JZ

01618 482 468

[sales@mosselectricalnw.co.uk](mailto:sales@mosselectricalnw.co.uk)