User Manual & Installation Manual

MG HUB 7kW& 22kW Charger

Contents

1 Copyright and disclaimer

1.1 Disclaimer

- This manual was carefully reviewed by experts before it was published. It will be updated regularly to include any necessary changes or additions.
- The information in this manual is for informational purposes only.
- This manual, related manuals, and warnings do not replace your responsibility to use common sense when working with the Electric Vehicle Supply Equipment (EVSE).
- StarCharge has done its best to make sure the manuals are accurate and up to date, but they are not responsible for any problems or damage that may come from using the information in them.
- StarCharge is not responsible for any direct, indirect, special, or consequential damages (including loss of profits) that may come from any errors or omissions in this manual. All of StarCharge's obligations are stated in the relevant contracts. StarCharge reserves the right to change this manual from time to time.
- Any changes to the EVSE, including but not limited to user-specific modifications to the EVSE (such as placing stickers, SIM cards, or using different colors), hereinafter referred to as "Customization", may affect the final product's user experience, appearance, quality, and/or lifespan.
- StarCharge is not responsible for any damage to or caused by the product "Customization" and is not responsible for any damage, losses, costs, or expenses resulting from the improper handling of the product.
- Contact your dealer for more information on "Customization" versus the default product.
- StarCharge is committed to manufacturing high-quality products. This product has completely passed the CE certification and meets the requirements of RED Directive 2014/53/EU and Low Voltage Directive 2014/35/EU. You can find more details r by consulting your dealer or service provider.

1.2 Copyright

2 Safety

2.1 Safety precautions

- Before using the equipment, please carefully read the attached documents carefully and familiarize yourself with all safety instructions and regulations.
- This product is designed and tested in accordance with international standards.
- This product can only be limited to its design purpose.
- This product is AC charger that can charge electric powered vehicles (for example, an electric car) in indoor and outdoor areas.
- The installation, maintenance and repair of this product may only be performed by a trained electrician.
- Improper installation or maintenance may be dangerous to users of this product.
- Any installation and maintenance operations must be carried out under the condition of power failure.
- All parts of the product cannot be repaired by the user. Do not attempt to repair the charger yourself.
- Do not install this product in potentially explosive environments, areas with high electromagnetic radiation and areas susceptible to flooding.
- Ensure that this product is used only under proper operating conditions.
- Before storing or transporting this product, make sure that the main power supply has been disconnected;
- Do not use adapters or converting adapters.
- Do not use cable extension kits.
- Make sure the power cord connected to the charger is routed from the dedicated Type A RCBO or MCB+ Type A RCD in the distribution box. The Type A RCBO or MCB+ Type A RCD must match the capacity of the charging cable used.
- Equipment for locations with non-restricted access.

The installer must always ensure that the installation of the charger complies with local regulations.
StarCharge is not responsible for any damage that occurs if this product is shipped in packaging that is different from when the product was originally supplied. Please store this product in a dry environment, the storage temperature must be between -40°C and +85°C.

2.2 Disposal

In accordance with the European Directive 2012/19/EU, Waste Electrical and Electronic Equipment (WEEE) and its implementation in national law, the electrical devices including chargepoints which are used must be collected separately and recycled in an environmentally responsible manner. We recommend that you return your used device to your dealer or obtain information regarding a local, authorized collection and disposal system. Failure to comply with this EU Directive may result in a negative impact on the environment.

2.3 Safety symbols

Symbols	Meanings
	Electric hazard: This symbol indicates that there is a danger of electric shock. Failure to pay attention to the procedures, practices or improper implementation may cause injuries or death.
	Caution: This symbol indicates that there is a hazard that could damage the product.
	Warning: This symbol calls attention to an act or condition which CAN lead to serious personal injury or death if not avoided.
	Tips: This symbol indicates that the information is helpful or provides useful advice. It does not contain any information about danger or harm.
	Garbage disposal: This symbol indicates that the electrical and electronic equipment and their accessories should be disposed of separately from household waste.
	Grounding indicates ground protection. The charger has the function of grounding protection. Once the ground fails or there is no grounding, the charger will report fault and stop charging.
	User manual indicates using instruction. Users can scan a QR code using the APP to view the user manual.
	CE indicates CE certification. The charger is compliant with the standards of CE certification.
	CE indicates RCM certification. The charger is compliant with the standards of RCM certification.

3 Product parameters

- It is suitable for all vehicles that meet IEC 62196-2 standards.
- The output power is adjustable.
- Charge an Electric Vehicle (EV) by scanning the charging QR code or swiping the RFID card.
- The charger supports the OCPP1.6J communication protocol, that is, the charger can be connected to the data service platform and management platform (cloud platform) of OCPP1.6J.
- The charger can be normally used in indoor and outdoor environments with protection levels of IP55 and IK10.
- The device has the following protection functions:
  - Lightning protection
  - Over-load protection
  - Residual current protection
  - Over-temperature protection
  - Grounding protection
  - Over-voltage protection
  - Under-voltage protection

3.1 Technical specifications

3.1.1 Technical specifications

Model	7kW: AC0070EN04005 22kW: AC0220EN04005
Dimensions (H x L x W)	440 mm×295 mm×167 mm
Weight	7kW:About 5.1kg 22kW:About 6.1kg
Installation method	Wall mounting Pole mounting (optional)
Certification	IEC 61851-1:2019 IEC 61851-21-2:2018 EN 300 328 V2.2.2 EN 300 330 V2.1.1 EN 301 908-1 V13.1.1 EN 301 908-2 V13.1.1 EN 301 908-13 V13.1.1 EN 301 511 V12.5.1 EN 301 489-1 V2.2.3 EN 301 489-3 V2.1.1 EN 301 489-17 V3.2.4 EN 301 489-52 V1.1.0 EN 50665:2017 & EN 62311:2008/IEC62955-2018

3.1.2 Operating conditions

Operating ambient temperature	-30℃ ~ +50℃
Relative humidity	5% ~ 95% (No condensation)
Altitude	≤3000m
Electrical safety level	I
Overvoltage Category	OVC III
Protection level	IP55
Anti-collision level	IK10

If the temperature is out of the maximum allowable value, the charger will automatically activate over-temperature protection (OTP) measures.

3.1.3 Input parameters

Recommended cable for input terminal	Copper wire cable, with a wire gauge of 6mm². It is recommended that adapter terminals are crimped on the power cable conductor
Rated input voltage	230/400Vac (+/- 10%)
Limitation of input power	7kW: Single-phase input: with the maximum value of 32A 22kW: Three -phase input: with the maximum value of 32A per phase
Operating frequency	50/60 Hz
Grounding system	TN system TT system IT system
Parent device protection	The electrical protection devices and wire gauges used must comply with requirements of local codes and limitations of electrical installations. In particular, the selected protective device must not only meet the requirements of IEC 61851-1 ed 3.0 The parent RCBO, MCB and RCD must match the capacity of charging cable: • MCB: curve C, with a margin of about 25% reserved for the rated current value • RCD: Type A, with an operating current value of rated residual current of 30mA • RCBO: It has the same performance as MCB+RCD For high outdoor lightning activity levels, it is recommended to equip each charger with a lightning arrester.

3.1.4 Output of the charger

Connection method to vehicles	Type 2 connector, which meets the standard IEC62196-2
Output voltage	230/400Vac (+/- 10%)
Maximum charging current	7kW: Single-phase output: with the maximum value of 32A 22kW: Three-phase output: with the maximum value of 32A per phase
Maximum output power	7kW/22kW
Stand-by power consumption	Less than 5W

3.1.5 Protection features and integrated components for safety

Residual current protection	DC leakage current detection: 6mA (has complied with IEC62955:2018 certification)
Power switch relay	Integrated in the hardware circuit, linked on and off
Over-current protection	The current reaches 110%-125% of the rated current, and the circuit is disconnected for 5s Disconnect the circuit as soon as the current is greater than 125% of the rated current
Over/Under-voltage protection	Over-voltage protection: 276Vac Under-voltage protection: 161Vac

Install it in accordance with the standards and regulations of the region where the equipment is located. These parameters are based on the actual operation of the charging site, provided all prerequisites are met.

3.1.6 Charging and access

Charging mode	Mode 3
Status indicator	Indicated by LED
Card reader	ISO/IEC 14443A&MIFARE Classic ISO/IEC 14443B ISO/IEC 18003-3 ISO/IEC 18092 ISO/IEC 15693
Network communication	Cellular Network/ Ethernet/ Wi-Fi/Bluetooth5.0
Communication protocol	OCPP 1.6 (JSON)

3.1.7 Network communications

4G module

Band	TX(Hz)	RX(Hz)
Bluetooth	2402~2480	2402~2480
WIFI2.4G	2412~2472	2412~2472
WIFI5G	5470~5725	5470~5725
ME3630 E1C		
E-GSM900	880~915	925~960
DCS 1800	1710~1785	1805~1880
WCDMA Band I	1920~1980	2110~2170
WCDMA Band VIII	880~915	925~960
LTE B1	1920~1980	2110~2170
LTE B3	1710~1785	1805~1880
LTE B7	2500~2570	2620~2690
LTE B8	880~915	925~960
LTE B20	832~862	791~821
ME3630 A1C		
E-GSM900	880~915	925~960
DCS 1800	1710~1785	1805~1880
WCDMA Band I	1920~1980	2110~2170
WCDMA Band VIII	880~915	925~960
LTE B1	1920~1980	2110~2170
LTE B3	1710~1785	1805~1880
LTE B7	2500~2570	2620~2690
LTE B8	880~915	925~960
LTE B28	703~749	758~803
LTE B40	2300~2400	2300~2400
RFID:13.56Hz		
EIRP	Bluetooth(AC0070EN02632)	0.40dBm
	Bluetooth(AC0110EN02535)	7.50dBm
	WIFI2.4G	16.83dBm
	WIFI5G	16.89dBm
	ME3630 E1C	
	WCDMA Band I	23.89
	WCDMA Band VIII	23.37
	LTE B1	23.79
	LTE B3	23.98
	LTE B7	23.98
	LTE B8	23.38
	LTE B20	23.29

EIRP	ME3630 A1C	
	GPRS 900	33.32
	DCS 1800	29.54
	WCDMA Band I	21.56
	WCDMA Band VIII	22.61
	LTE B1	23.00
	LTE B3	21.80
	LTE B7	23.60
	LTE B8	23.90
	LTE B28	23.90
	LTE B40	23.00
RFID: far less than 20mW		

Wi-Fi module

Standard	2.4G: IEEE802.11 b/g/n radio 5G: IEEE802.11 a/n/ac radio
Frequency	WLAN: 2.4G: 2412~2484MHz 5G: 5470~5725MHz,5725~5850 MHz
Transmit power	18dBm (Maximum) 12dBm (Minimum)
Profiles	WIFI-AP (access point) WIFI-Station

The following frequencies have usage restrictions.
5470~5725MHz: Indoor and outdoor installations are not allowed on road vehicles, trains and aircraft as well as unmanned aerial systems.

Bluetooth module

Standard	Bluetooth 5.0
Frequency range	2402~2480MHz
Output power	+10dBm

3.1.8 Output power adjustment

Support output power adjustable (Maximum output current set by rotary switch, single-phase 6A-32A and three-phase 6-16A).

Rotary switch / Power rate	0	1	2	3	4	5	6	7	8	9
7kW	32	6	8	10	13	16	20	25	32	32
22kW	32	6	8	10	13	16	20	25	32	32

3.2 External view

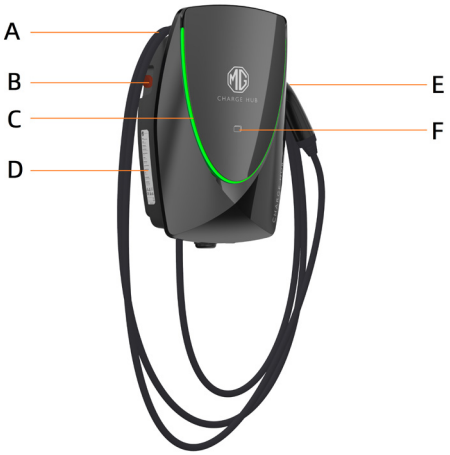


Figure 3-1 External view of MG HUB

A Cable winding trough
B Emergency button
C LED status indicator
D Nameplate
E Charging connector holder
F RFID card swiping area

When the EVSE is not used, the charging cable should be rolled up and put back into the cable winding through in position A and the charging connector should be inserted into the designated position E for safe storage.

According to the provisions of EN 17186:2019, this label has been added to the charging connector head for easy identification by consumers.

3.3 Status of the indicator

Lighting effects	Status	Meaning	Subsequent operation
	Steady green	Charger in standby	Correctly connect the charging connector to the vehicle end (swap RFID to charge). Correctly connect the charging connector to the EV end and start charging (plug and play).
	Green flashing (4 times per 1s)	Firmware upgrading	Wait for upgrading until the indicator turns to steady green.
	Steady blue	Charging connector inserted into the EV	Start charging by swiping the RFID card.
	Blue flashing quickly (8 times per 1s)	RFID card detected	Wait for authentication to complete.
	Blue breathing	Charging in progress	The EV is being charged.
	Blue flashing slowly (4 times per 1s)	The EV/EVSE charging suspended	Check the vehicle screen for failure: If any failure is found, replace the charger to charge; if the failure is still displayed, please consult the vehicle dealer. If not, the grid side has limited charging.
	Steady white	Starting up	Wait for the charger standby.
	Steady yellow	The OCPP is not started and the connector is not inserted	Wait for the OCPP standby.
	Yellow flashing	The OCPP is not started and the connector is inserted	
	Steady red	CP fault/Electric meter fault	Remove the faults according to the troubleshooting measures in the "Troubleshooting" section; if the problem cannot be removed, please contact your dealer or service provider.
	Red flashing	CP fault/Electric meter failure	
	Red flashing (1 time)	The emergency stop is pressed	
	Red flashing (2 times)	Ground fault	
	Red flashing (3 times)	Under-voltage	
	Red flashing (4 times)	Over-voltage	
	Red flashing (5 times)	Adhesion of relay	

Lighting effects	Status	Meaning	Subsequent operation
	Red flashing (6 times)	Over- temperature	
	Red flashing (7 times)	Leakage fault	
	Red flashing (10 times)	Over-current	
	Red flashing continuously	No configuration ID	

4 Installation

4.1 Safety

4.1.1 General rules of safety

- Please follow the instructions in this chapter, and familiarize yourself with all safety instructions and regulations.
- The installer must always ensure that the installation of the charger complies with local regulations.

4.1.2 Electrical safety

Prevent incorrect operation steps, practices or execution that can cause personal injury or death.

- The installation, maintenance and repair of this product can only be performed by a trained electrician.
- Improper installation or maintenance can be dangerous to users of this product.
- Any installation and maintenance operations must be carried out under the condition of power failure.
- All parts of the product cannot be repaired by the user. Do not attempt to repair the charger yourself.
- Do not install this product in potentially explosive environments, areas with high electromagnetic radiation and areas susceptible to flooding.
- Before installing this product, make sure that the main power supply has been disconnected.
- Do not use adapters or converting adapters.
- Do not use cable extension kits.
- Make sure that the power cable connected to the charger is le d out from the special Type A RCBO or MCB+ Type A RCD in the distribution box. The Type A RCBO or MCB+ Type A RCD must match the capacity of the charging cable used.
- Where underground cable is to be installed for reticulation of electricity supply from the main intake switchboard to individual chargers in public area, care shall be taken to prevent possible damage to existing underground cables or services.
- The electricity transmission licensee shall be consulted prior to the commencement of any earthworks (for the purpose of installing structure, cables, earthing system, etc.) to prevent damage to any underground electricity cables under the management of the electricity transmission licensee.

4.1.3 Requirements for installation personnel

Only authorized technicians can install and maintain the product, and also they should possess the following qualifications.

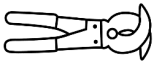
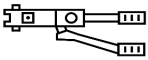
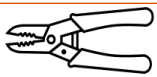
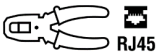
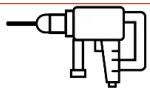
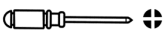
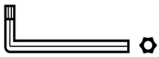
- Understand and follow the safety instructions and sections related to product installation in this Manual.
- Understand and abide by governing local, national and international laws and regulations.
- Be able to identify the possible hazards of the product and to take necessary measures to protect personal and property safety.
- EVCS's owner or operator who has been trained, certified and has sufficient knowledge of TR 25 and relevant standards and requirements for the safe operation of the EVCS.

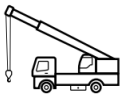
4.1.4 Safety protection measures

- Protective measures (PPE): Please wear personal protective equipment (PPE) when conducting installation work.
- Please wear insulating gloves when installing wires and electrical components to avoid damage arising from electrostatic discharge.
- Please wear the anti-static safety shoes of Level S3.
- Please wear goggles while drilling a hole to prevent dust or other particles from getting into eyes.
- Please wear safety earmuffs while drilling a hole to protect ears from noise.

4.2 Preparation for installation

4.2.1 Installation tools

Category	Name	Usage	Picture
Cable preparation tool	Electrician knife	Stripping of insulating sheath	
	Cable cutter	Cable cutting	
	Hydraulic tongs	Terminal crimping	
	Wire stripping pliers	Stripping of insulating sheath	
	Hot air gun	Thermal shrinkage of insulating materials	
	Network cable pliers	Crimping of RJ45 connector	
Installation tool	Percussion drill	Drilling hole	
	Open-end wrench (full set)	Installing and removing nuts	
	Cross screwdriver (PH2)	Installing and removing screws	
	Torx screwdriver (full set)	Installing and removing screws	
	Hammer	Knocking	

Category	Name	Usage	Picture
Measurement tool	Spirit level	Horizontal measurement	
	Tape measure	Distance measurement	
	Multimeter	Measurement of voltage, current, etc.	
	Megger	Measurement of resistance	
Marking tool	Maker pen	Position making	
Handling tool	Forklift	Equipment handling	
Hoisting tool	Crane	Equipment hoisting	

Note: The above tools shall be selected based on the actual situations on site.

4.2.2 Installation environment

The environmental conditions listed in the following table should be met while selecting a installation site for the product.

Ambient temperature	-30℃ ~ +50℃
Altitude	≤3000m
Relative humidity	5% ~ 95% (no condensation)
Degree of dust	≤1mg/m³
Corrosive substances	No pollutants, such as salt, acid, smoke, etc.
Vibration	≤1.5mm/s
Insects, pests, vermins, termites	None
Mould	None
Moisture	Rain prevention
Fire prevention	No flammable substances on the top and bottom of the EVSE

4.2.3 Power supply requirements

4.2.3.1 Power supply requirements of product

- Rated input voltage: 230/400Vac (+/-10%)
- Operating frequency of the system: 50/60Hz
- Limitation of input power:
  - 7kW: Single -phase input; maximum: 32A.
  - 22kW: Three -phase input; maximum: 32A per phase
- The power inlet cable is recommended for input terminal:
  - 7kW: copper core cables with a wire gauge of 3*6mm² can be selected
  - 22kW: copper core cables with a wire gauge of 5*6mm² can be selected

  A flexible wire shall be used for wall mount type, and the flexible wire should be crimped to the terminal.
- Recommended supply Type A RCBO or MCB+ Type A RCD for charger:
  - 7kW: Ue=230V, In=40A, 2P
  - 22kW: Ue=400V, In=40A, 4P

4.2.3.2 Grounding system

- TN system
- TT system
- IT system

4.2.3.3 Electrical system diagram

- Electrical system of 7kW product:

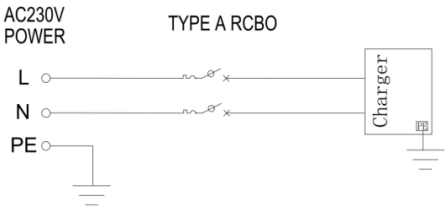


Figure 4-1 7kW electrical system

- Electrical system of 22kW product:

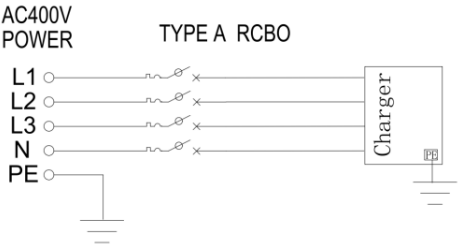


Figure 4-2 22kW electrical system

4.2.3.4 List of cables

List of cables for wall mounting:

- Inlet power cable
  - 7kW: 3*6mm² copper core cable (outer diameter of 13-18mm)
  - 22kW: 5*6mm² copper core cable (outer diameter of 15-22mm)

  It is recommended to use a flexible cables, If the incoming line is 6mm² Flexible wire, KST E6012 pin type terminal or equivalent terminal is recommended; If the incoming line is 10mm² Flexible wire, KST E10-12 pin type terminal or equivalent terminal is recommended.
- Network cable: CAT5

  Use only when Ethernet communication is required.

4.3 Installation steps

4.3.1 Unpacking inspection

4.3.1.1 Unpacking list

No.	Item	QTY.	Picture
1	AC charger	1	
2	Decorative cover A	1	
3	Decorative cover B	1	
4	RFID card	2	
5	Mounting accessory	1	
6	Mounting pacakge	1	
7	Postion cardboard	1	
8	Charging connector holder	1	
9	User Manual	1	/
10	Factory report	1	/
11	Certificate	1	/

4.3.2 Installation

4.3.2.1 Wall mounting

The general assembly drawing is shown in Figure 4-3.

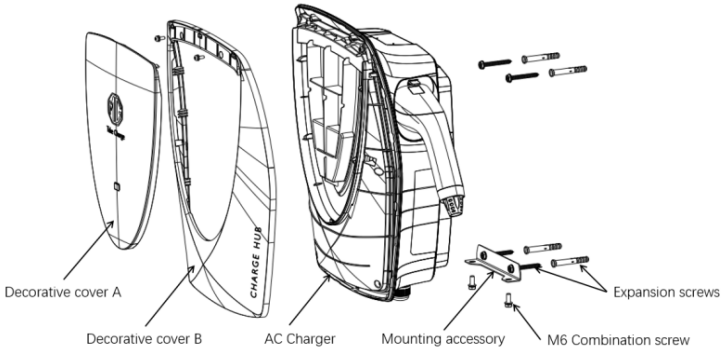


Figure 4-3 General assembly drawing of wall mounting

(1) Confirm the installation height

1) Place the drill template at the desired location as shown in Figure 4-4.

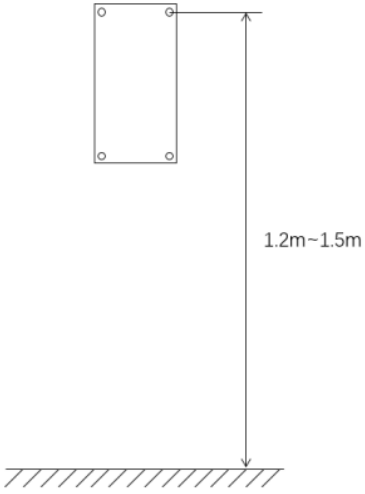


Figure 4-4 Mark the drill holes

2) Use a spirit level to verify the drill template is levelled.
3) Use the drill template to mark the drill holes by a pencil.
4) Use ϕ8 drill to make four holes at the marked points and push expansion tubes into the four drill holes.

5) Put self-tapping screws into the upper two expansion tubes.

Note: The top two self-tapping screws flange end distance is reserved about 7mm from the wall.

Use the other two self-tapping screws to fix the mounting accessory as shown in Figure 4-5.

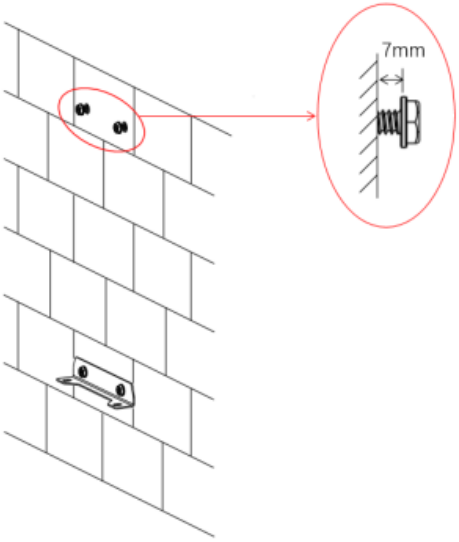


Figure 4-5 Install expansion screws and the mounting accessory

(2) Fix the EVSE

1) Install the EVSE from top to bottom and hang the EVSE on the two expansion screws above.

2) Fix the bottom of the EVSE on the mounting accessory with two M6 combination screws.

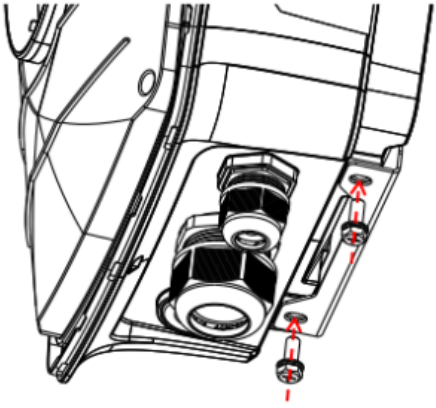


Figure 4-6 Fix the EVSE

4.3.2.2 Installation of power cables

(1) Remove six screws on the middle housing and take off the middle housing.

(2) Route the power cable and network cable through the waterproof joint at the bottom of the EVSE.

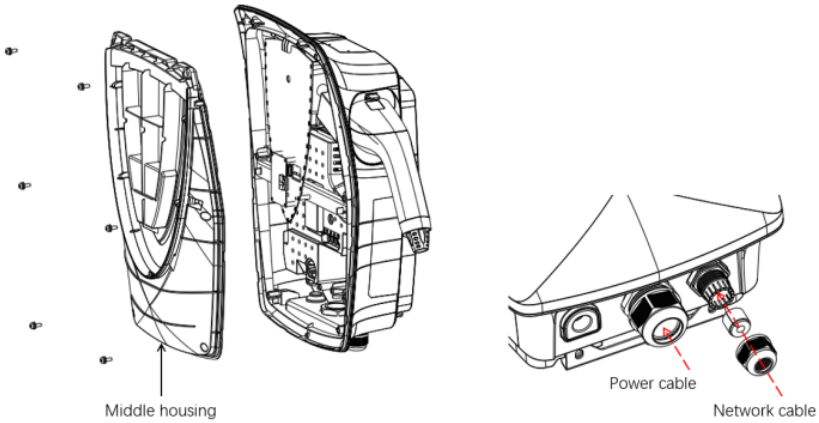
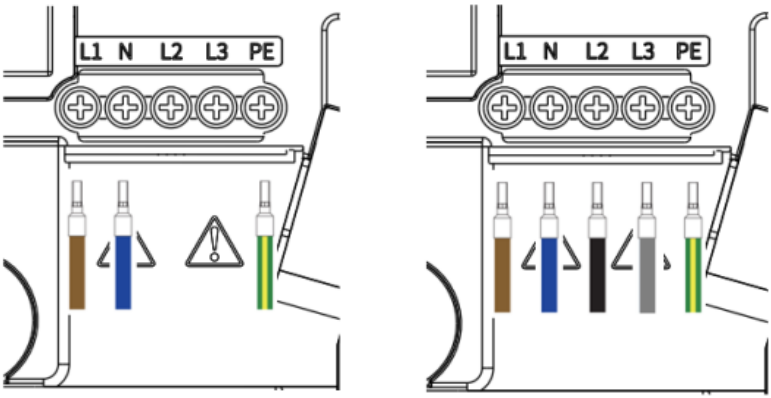


Figure 4-7 Take off the middle housing

(3) If cable has flexible conductors, it is recommended to use ferrules on stranded wires. Use correct tools to press them. Connection mode of 7kW and 11kW is as shown in Figure 4-8.



(a) 7kW (b) 11&22kW

Figure 4-8 Wire stripping

1) Different wiring modes of 7kW inlet lines are shown in the following figures.

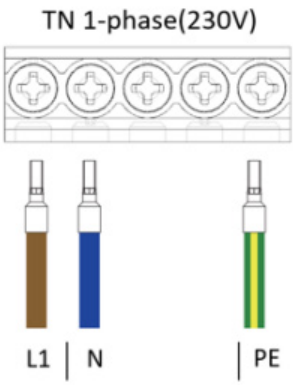


Figure 4-9 TN 1-phase

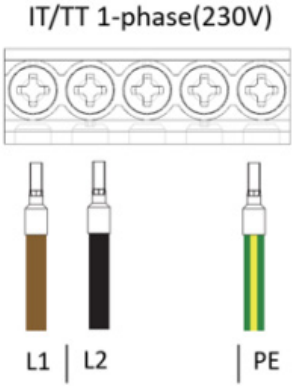


Figure 4-10 IT/TT 1-phase

2) Different wiring modes of 11&22kW inlet lines are shown in the following figures.

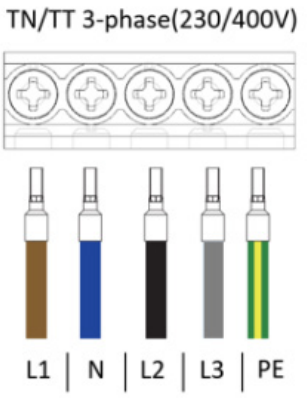


Figure 4-10 TN/TT 3-phase

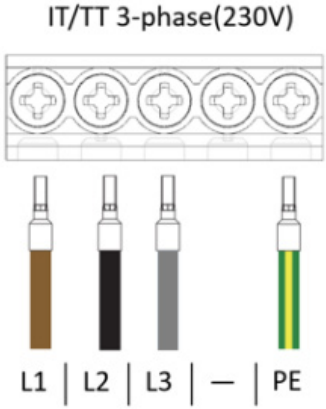


Figure 4-11 IT/TT 3-phase

- Before attaching the charger, pull each wire to double check that they are connected properly.
- It is recommended to follow the existing color codes used in the installation. Depending on national standards, the colors of the cables can vary from the illustrations. The illustrations in this manual follow the IEC 60446 standard.
- Before turning on the power, make sure the wires are properly connected and tightened. Test this by pulling on each wire.

When the incoming cable is affected by the surge or wrong wiring sequence, the device will be out of power for protection. Search the support from the professional for the wiring sequence checking or other abnormal interference. Power on after checking above is finished.

(4) Insert the network cable into the Ethernet cable port and install the SIM card.

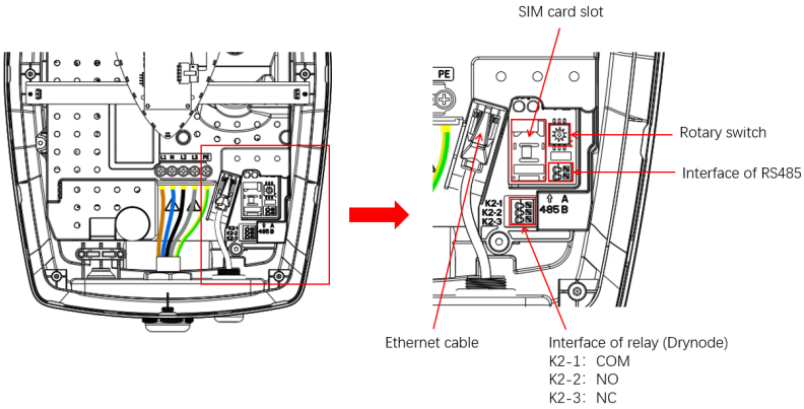


Figure 4-12 Ethernet cable port and SIM card slot

If you want to adjust the power of the EVSE by adjusting the rotary, refer to Chapter 3.1.8.

(5) Check the sealing rubber is properly installed and reinstall the middle housing. Install the decorative cover B with two M4 torx screws, press the buckles around in place to make it closely fit with the EVSE.

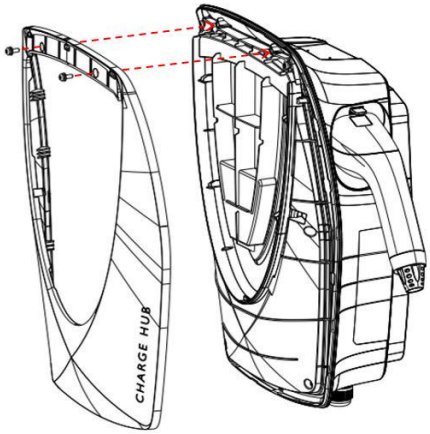


Figure 4-13 Install decorative cover B

(6) Insert the square hole at the bottom of decorative cover A into the corresponding position of the charger, and press the buckles around in place to make it closely fit with the EVSE.

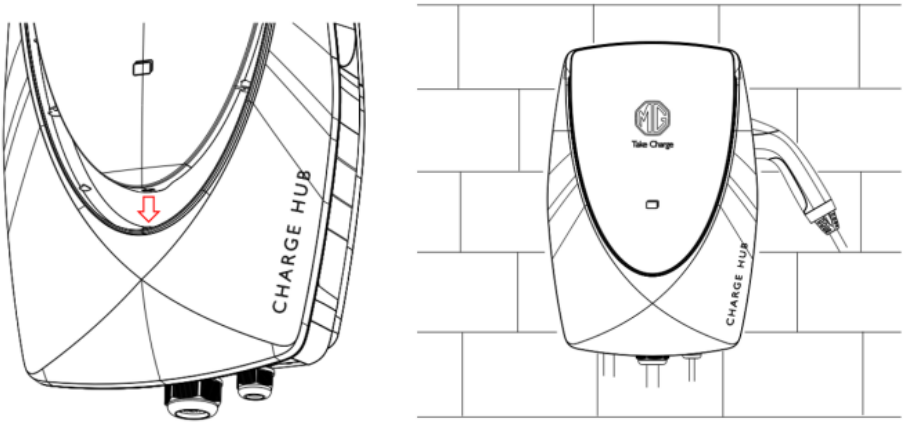


Figure 4-14 Install decorative cover A

(7) Install the charging connector holder with two expansion screws.

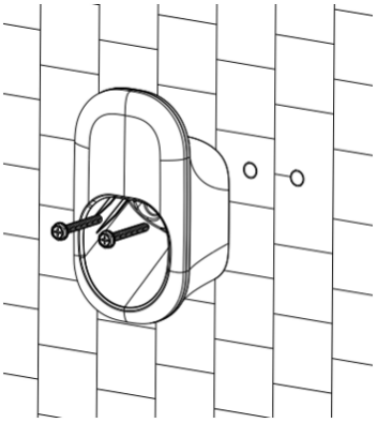


Figure 4-15 Install the charging connector holder

4.3.2.3 Pole mounting (optional)

The general assembly drawing is shown in Figure 4-16.

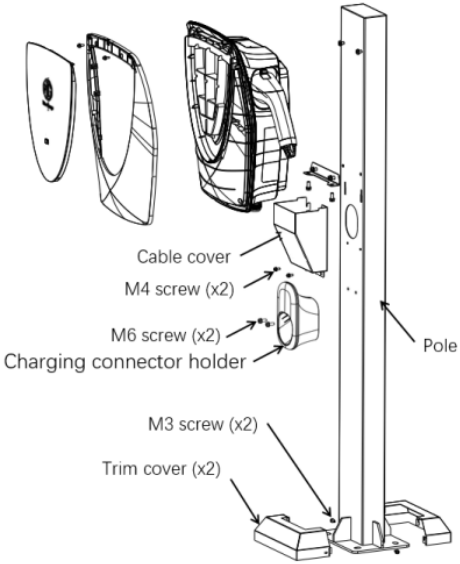


Figure 4-16 General assembly drawing of pole mounting

(1) Install the pole

1) Remove the trim cover and cable cover from the pole.
2) Lay the pole flat on the ground.
3) Run the cables through the designated inlet and outlet holes.

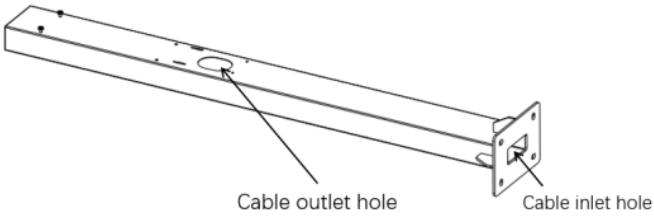


Figure 4-17 Lead the cable into the pole

4) Fix the pole to the ground using M10×120 expansion screws, and tighten the grounding nut M6.

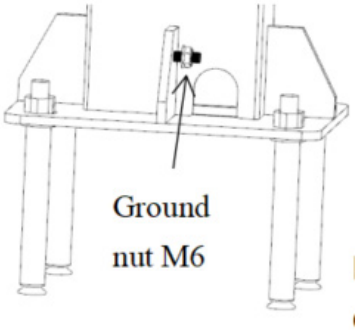


Figure 4-18 Install the pole

(2) Install the EVSE

1) Remove the decorative cover by inserting the cover key.
2) Hang the EVSE onto the top two screws on the pole.
3) Secure the bottom of the EVSE to the mounting accessory with two M6 combination screws.

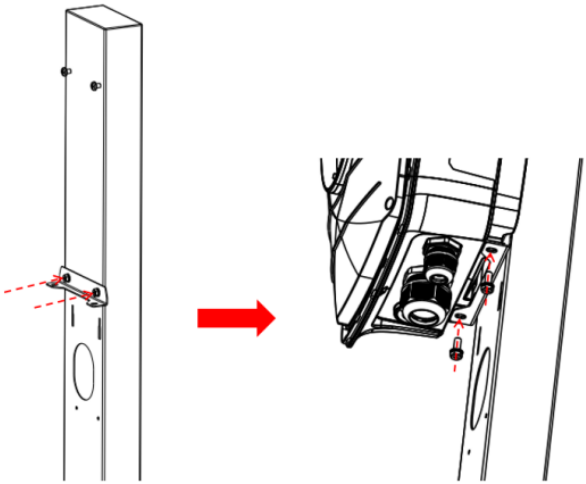


Figure 4-19 Install the EVSE

(3) Wiring

1) Remove six screws on the middle housing and take off the middle housing.
2) Route the power cable and network cable through the waterproof joint at the bottom of the EVSE.

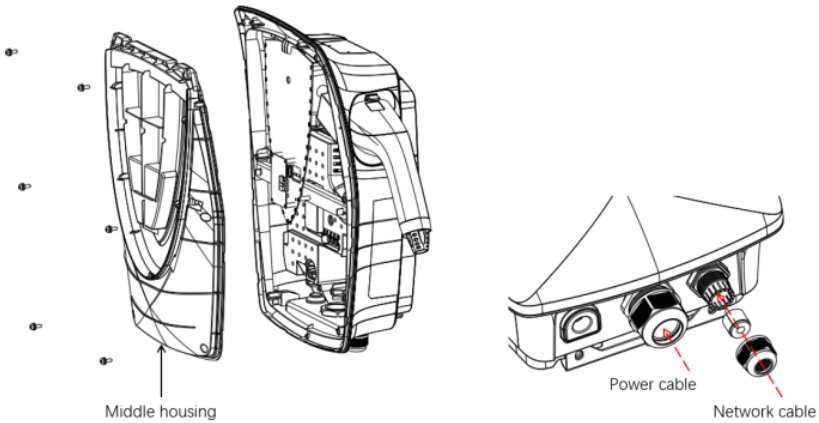


Figure 4-20 Take off the middle housing

(4) Complete the installation

1) Check the sealing rubber is properly installed, reinstall the middle housing, decorative cover A and B.

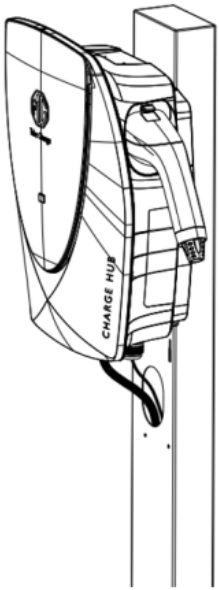


Figure 4-21 Reinstall the EVSE

2) Install the cable cover with two M4 screws.

3) Install the charging connector holder with four M6 screws, Install the trim cover with two M3 screws.

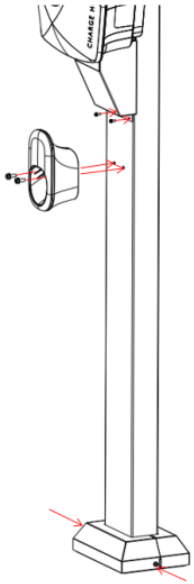


Figure 4-22 Complete the installation

4.4 Check after installation

4.4.1 Clean up

- Dispose of all shipping and packaging materials in accordance with local regulations.
- Clean the charging station and surrounding debris, such as small cables, straps, screws, etc. Do not leave the installation tools on site or in the charting station (record the type and quantity of tools to prevent omission).
- Wipe the insulation with an anti-static cloth. Do not use any corrosive solvents.

4.4.2 Inspection

- Verify that the base is secure and properly sealed.
- Ensure all internal components of the device are securely fastened.
- Use a multimeter to check whether the electrical connection and wiring are correct, complete and secure.
- Check if the protection level of the device meets the requirements, especially at the cable inlet at the bottom of the EVSE.
- Inspect the overall appearance, markings, completeness, and cleanliness of the EVSE.

5 Commissioning

5.1 Pre-power on checks

- Insulation Resistance (IR): Measure the insulation resistance with a multimeter. It should be greater than 1 MΩ (1 megohm).
- Connections: Verify that all screws and electrical connections are secure.
- Wiring: Ensure proper connection of all phase wires and data cables.
- Voltage Verification: Before activating the EVSE's protection device, measure the voltage on the applied RCBO or MCB+ Type A RCD. The voltage between the phase(s) and neutral should be within 10% of 230V.

5.2 Power on and startup

- Power on: Switch on the power to the circuit where the EVSE is installed.
- EVSE Startup: The EVSE will initiate and the LED will illuminate green.

5.3 Network connection method

There are three methods for network connection: data traffic, Wi-Fi, and Ethernet.

Note: If Ethernet communication is required, a network cable connection is mandatory.

If the network cable is not connected during installation, it is recommended to configure the EVSE by APP configuration method.

5.4 Configuration of the EVSE

5.4.1 Web configuration of connecting network cable

5.4.1.1 Login into web configuration

Via Ethernet cable (A laptop with a network port and an Ethernet cable needed)

Note: Please refer to the product instructions to correctly connect the power supply.

(1) Once you've connected the cable, click the Network icon in the bottom right corner of your Windows desktop.

(2) Click **Network**.

(3) Click **Edit**.

(4) Change the IP Settings to **Manual**.

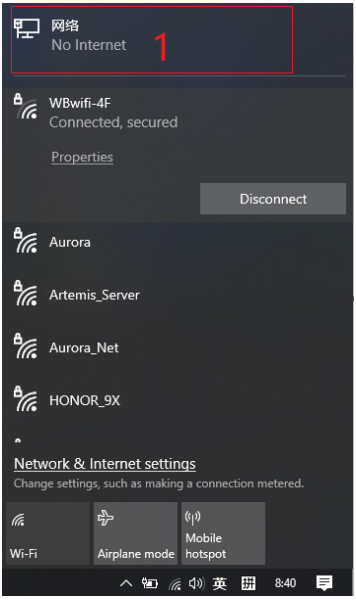
(5) Set the IP address to 192.168.88.6, Subnet Prefix Length to 24, gateway to 192.168.88.206.
Note: The default subnet mask is 255.255.255.0.

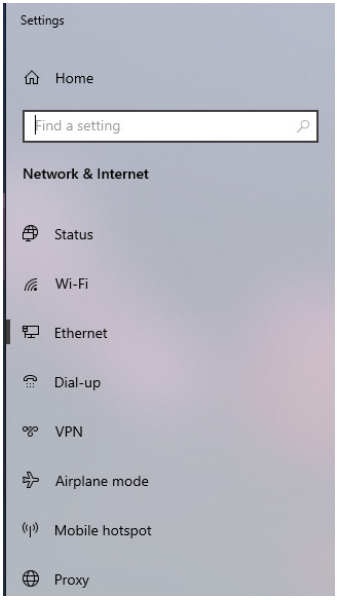
(6) Click **Save**.

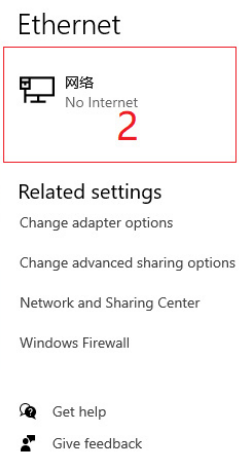
(7) Use Chrome browser and visit http://192.168.88.206.

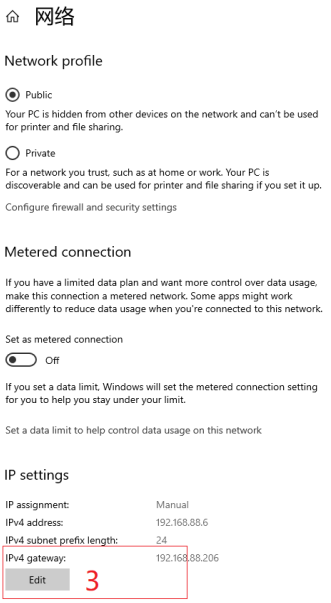
(8) Log in with user name **Admin** and password **1234**.

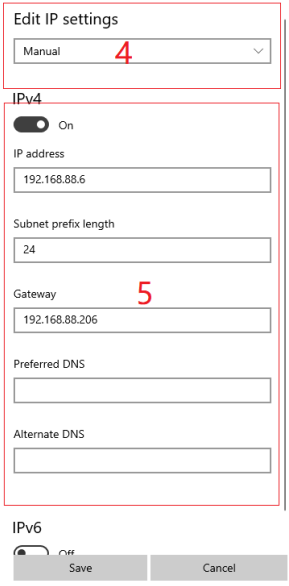
(9) If you cannot access the web page, it must be the IP address which is not set correctly or the network cable is not plugged in properly.

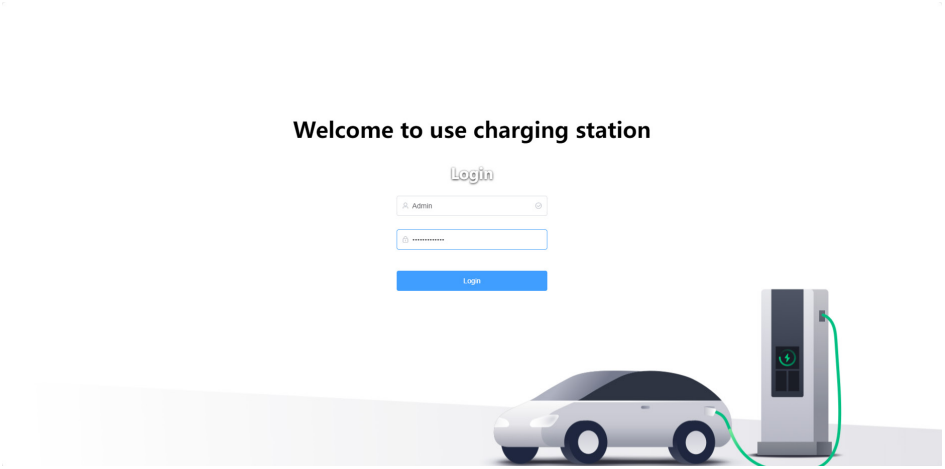

网络
No Internet
1
WBwifi-4F
Connected, secured
Properties
Disconnect
Aurora
Artemis_Server
Aurora_Net
HONOR_9X
Network & Internet settings
Change settings, such as making a connection metered.
Wi-Fi
Airplane mode
Mobile hotspot
英
8:40


Settings
Home
Find a setting
Network & Internet
Status
Wi-Fi
Ethernet
Dial-up
VPN
Airplane mode
Mobile hotspot
Proxy


Ethernet
网络
No Internet
2
Related settings
Change adapter options
Change advanced sharing options
Network and Sharing Center
Windows Firewall
Get help
Give feedback


网络
Network profile
Public
Your PC is hidden from other devices on the network and can't be used for printer and file sharing.
Private
For a network you trust, such as at home or work. Your PC is discoverable and can be used for printer and file sharing if you set it up.
Configure firewall and security settings
Metered connection
If you have a limited data plan and want more control over data usage, make this connection a metered network. Some apps might work differently to reduce data usage when you're connected to this network.
Set as metered connection
Off
If you set a data limit, Windows will set the metered connection setting for you to help you stay under your limit.
Set a data limit to help control data usage on this network
IP settings
IP assignment: Manual
IPv4 address: 192.168.88.6
IPv4 subnet prefix length: 24
IPv4 gateway: 192.168.88.206
Edit
3


Edit IP settings
Manual
4
IPv4
On
IP address
192.168.88.6
Subnet prefix length
24
Gateway
5
192.168.88.206
Preferred DNS
Alternate DNS
IPv6
Save
Cancel



Use WiFi AP (need a cell phone or laptop. Take cell phones for example)

(1) The MG HUB EVSE support Wi-Fi. The default work mode of the MG HUB is AP. After the EVSE is powered on for 1 minute, connect the hot spot with your mobile phone. The hotspot SSID is MG Charger HUB and the password is Wb123456789.

(2) Visit http://192.168.87.136 via your phone's browser.

(3) Fill in user name **Admin** and password **1234**.

(4) Click **Sign me in**.

Note: You are now entering the configuration page.

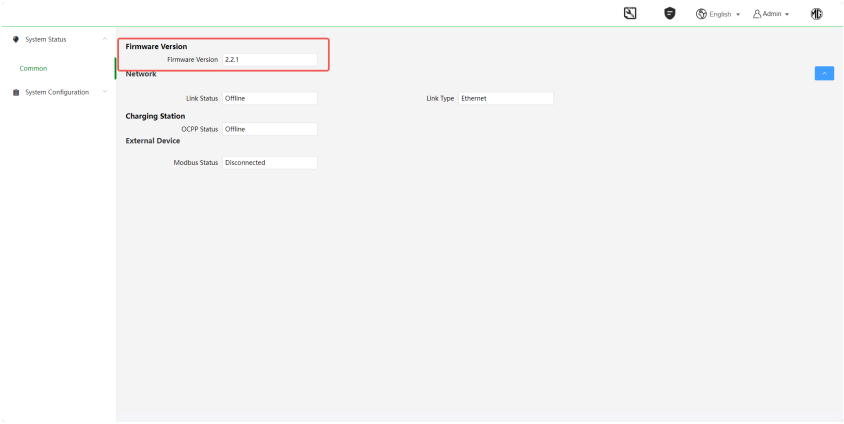
It should be noted that some mobile phones will give priority to using mobile data to connect to the Internet when WiFi is unable to connect to the Internet, so that they can't access the web page, so they can access it normally by turning off mobile data.

5.5 System status

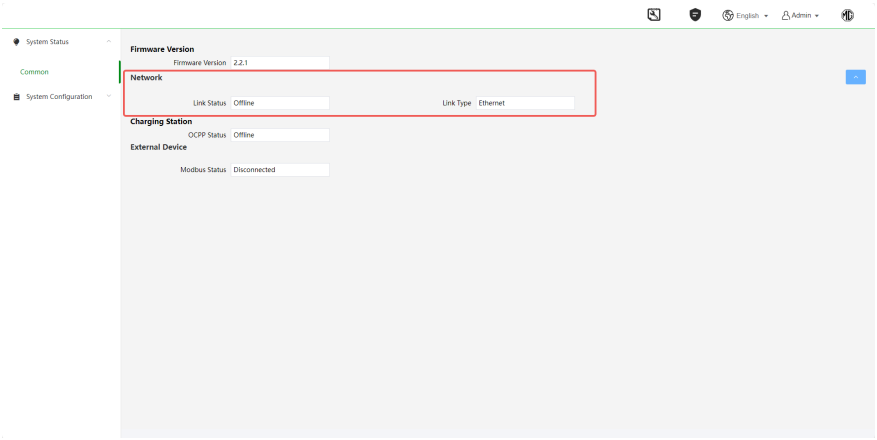
This section is used to tell the user the current firmware version of the charging station, the status of the connected network and the connected platform.

5.5.1 Common

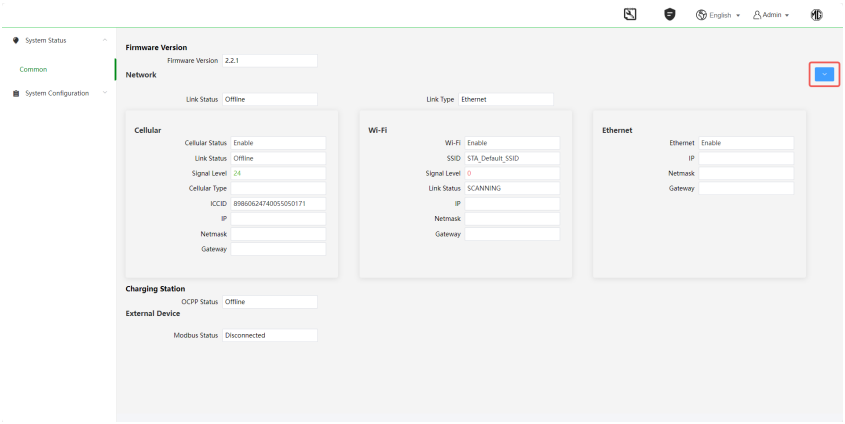
- **Firmware Version:** The current software version number is displayed and can be used to confirm whether the upgrade is successful.



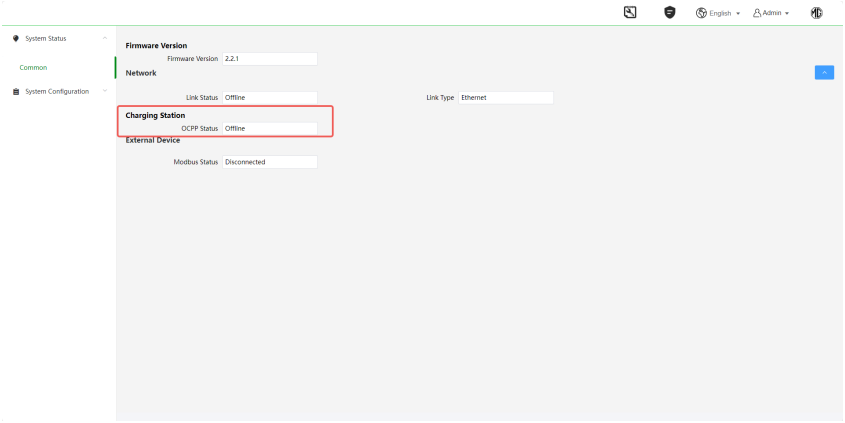
- **Network**: **Link Status** is the networking status of the charging station, and **Link type** is the networking type of the charging station, including Wi-Fi, 4G and Ethernet.



Note: Click on the blue arrow to see the details.



- **Charging Station**: Displays the connection status of the OCPP platform.



5.6 System configuration

5.6.1 Basic configuration

5.6.1.1 OCPP Configuration

Functional Description: OCPP is a communication protocol between charge stations and back-end platforms. Charge stations and platforms of different manufacturers that conform to this protocol can communicate with each other. The platform can connect multiple charging stations to manage charging stations, including information viewing, remote upgrade, user authentication, remote control and so on. If you want to connect to the OCPP platform, your charge station must be able to connect to the network, and then refer to the following method to set up the OCPP.

OCPP Settings:

(1) Click **Basic Configuration**.

(2) Click the pencil icon.

(3) Fill corresponding OCPP configuration. If website of OCPP back-end platform is not written into the port, the default HTTP/WS port is 80, and the default HTTPS/WSS port is 443. For example:

1) http:// 218.93.7.106:3400/steve/websocket/CentralSystemService

- **IP or Domain Name**: 218.93.7.106
- **Path**: /steve/websocket/CentralSystemService
- **Port**: 3400
- **SSL**: Disable

2) http://www.osb-prefytuyu.com:80/miugigyu-ws/ocpp16

- **IP or Domain Name**: osb-prefytuyu.com
- **Path**: /miugigyu-ws/ocpp16
- **Port**: 80
- **SSL**: Disable

3) https://blog.csdn.net/luo_boke/article/details/114220450

- **IP or Domain Name**: blog.csdn.net
- **Path**: /luo_boke/article/details/114220450
- **Port**: 43
- **Enable**: Disable

Note: If the URL uses the HTTPS protocol, SSL must be enabled here.

(4) Click **Save** to complete the OCPP Settings, then check the connection status of OCPP back-end platform by referring to Status Check. If online is displayed, the connection is successful.

- About **Customer Number**:

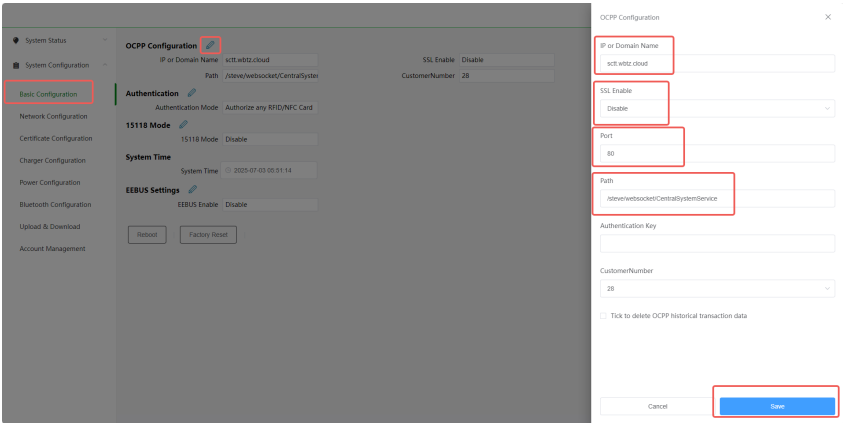
This page displays the factory default customer number for the charging station, which can be modified, but it is generally sufficient to keep the factory mode settings.

- About **Authentication Key**:

Usually it is not necessary to fill in, when it is necessary to fill in, the platform will give it.

- About **Tick to delete OCPP historical transaction data**:

Check the option to delete order data.



5.6.1.2 Authentication

There are four authentication modes.

- **Authorize registered RFID/NFC Card**: The card with the correct key and registered on the OCPP platform
- **Authorize any RFID/NFC Card**: The card with the correct key
- **No Authentication Required**: Plug and charge
- **Authentication with EV MAC Address**: Charging “MAC”(Currently only stations with 15118 can be used)

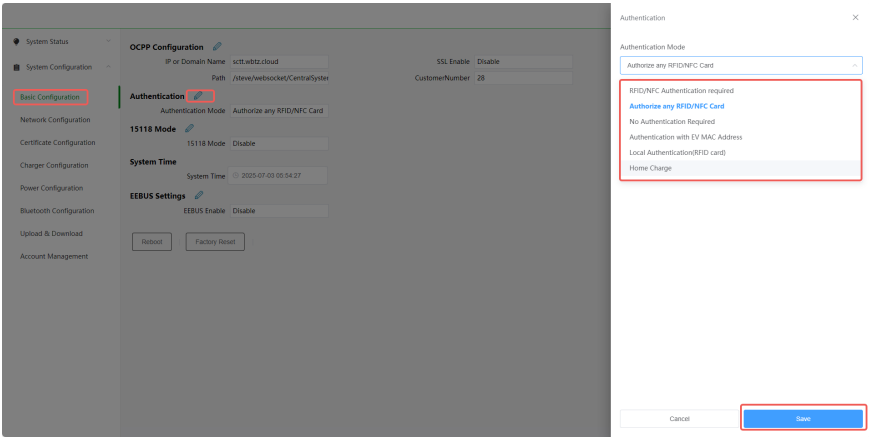
(1) Click **Basic Configuration**.

(2) Click the pencil icon.

(3) Select the **Authentication Mode**.

Note: Do not change the Disable status of Update Local Data, QR-Code Process, Private Data. Enable does not work for the AC charging station.

(4) Click **Save**.

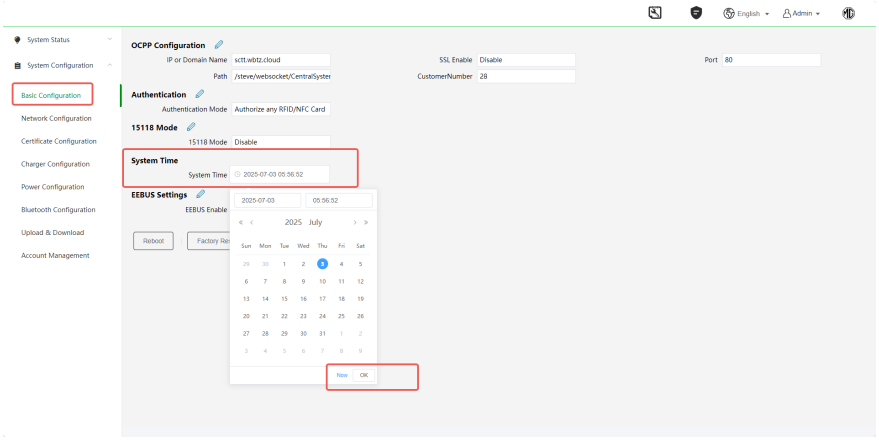


5.6.1.3 System time

Set the system time of the EVSE to keep it consistent with platform time when off-line.

(1) Click **System Configuration > Basic Configuration** in the left navigation panel.

(2) In **System Time**, set the time and click **OK**.



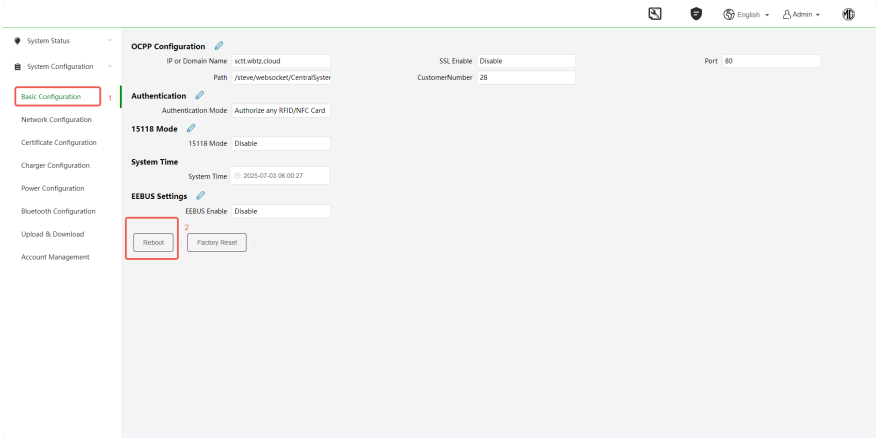
5.6.1.4 Reboot

(1) Click **System Configuration > Basic Configuration** in the left navigation panel.

(2) Click **Reboot**.

Note: If reboot during charging process, the charging order will be stopped.

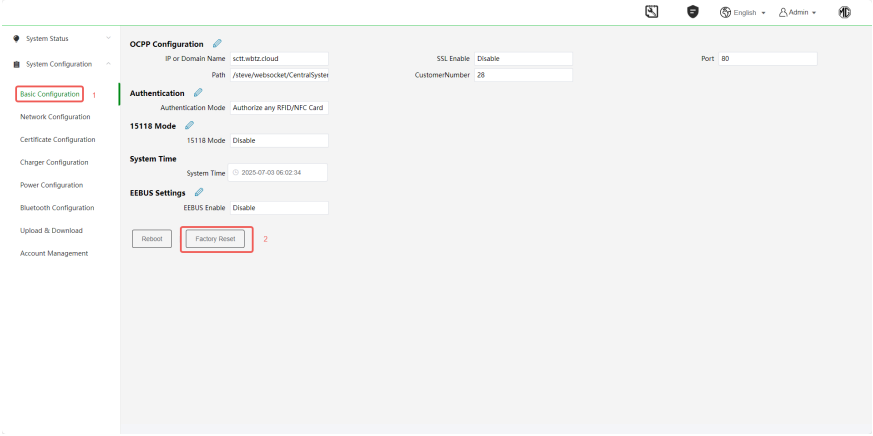
After you configure and save the parameter and reboot the EVSE, the parameter will not return back to default.



5.6.1.5 Factory reset

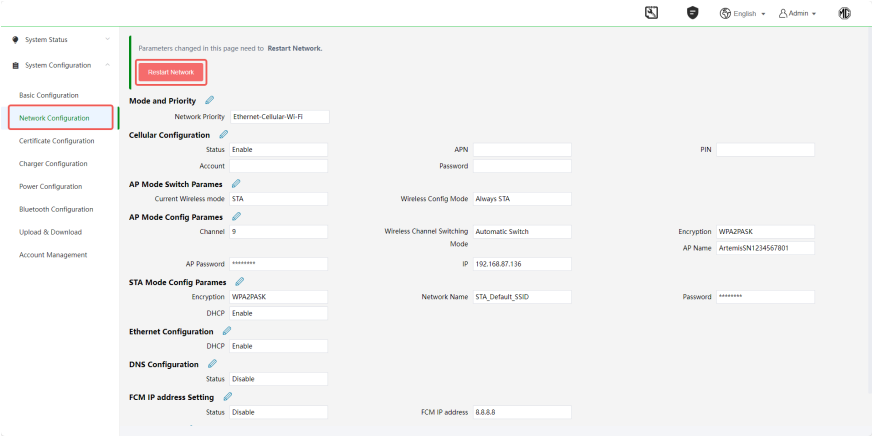
- This button is used to restore factory Settings. Be extremely careful when performing this operation.
- This function is only available if the EVSE is not in use.

(1) Click **System Configuration > Basic Configuration** in the left navigation panel.
(2) Click **Factory Reset**.



5.6.2 Network configuration

Click **Restart Network** after you change the configuration every time. The network configuration will only take effect after the network is restarted.
Note: After a network reboot, the system will return to the login page. Please wait until the network reboot is complete before logging in again.



5.6.2.1 Mode and Priority

Note: Default Priority: **Cellular** >**Wi-Fi** >**Ethernet**

(1) Click **System Configuration** > **Network Configuration** in the left navigation panel.

(2) In **Mode and Priority**, click the pencil icon to configure the priority for different networking methods.

(3) Set the priority.

For example Wi-Fi-->Ethernet-->Cellular is set as below:

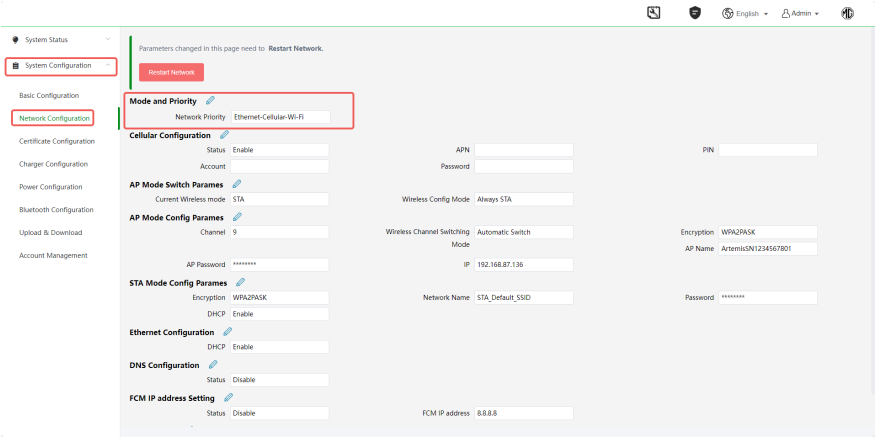
1) Tick the Wi-Fi box in the UnSelected area.

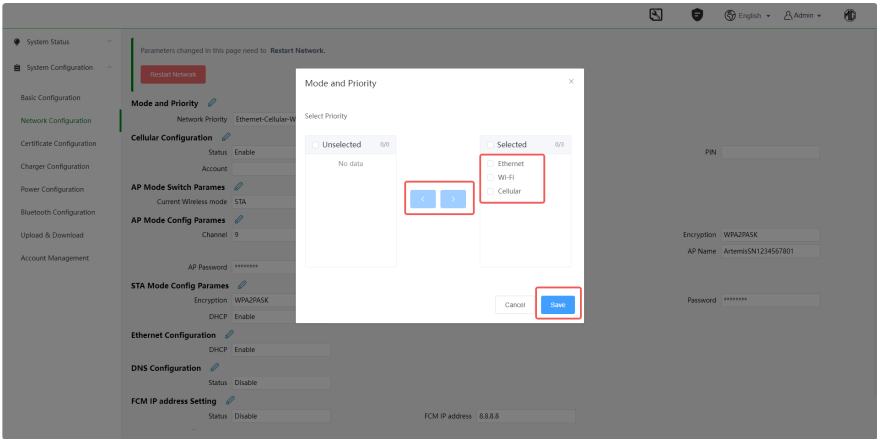
2) Click on the blue arrow to enter the selected area.

3) Repeat this for the remaining two.

Note: The network priority decreased from top to bottom.

(4) Click **Save**.





5.6.2.2 Cellular

Prerequisite: Insert the SIM before you power on the EVSE. If the EVSE is already on, restart it after the SIM is inserted. In some countries or regions, when the 4G card is used for network connection, APN must be set. The APN can be obtained from the local network carrier.

(1) Click **Network Configuration**.

(2) Click the pencil icon.

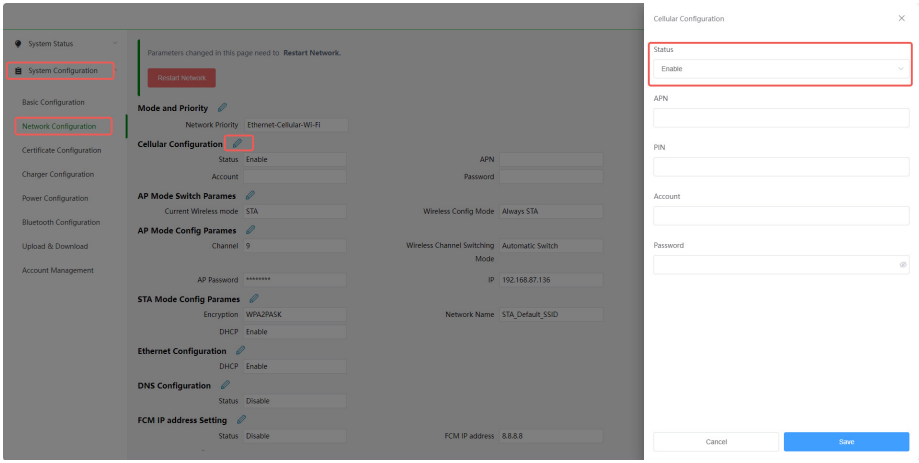
(3) Make sure the status is **Enable**.

(4) Fill in corresponding **APN** data.

Note: The maximum length of the access station name, username and password is 64 digits, and the maximum length of the PIN is 6 digits.

(5) Click **Save**.

Note: If no signal is displayed on the 4G card, check whether the 4G card is properly and then restart the EVSE.



5.6.2.3 Wi-Fi configuration

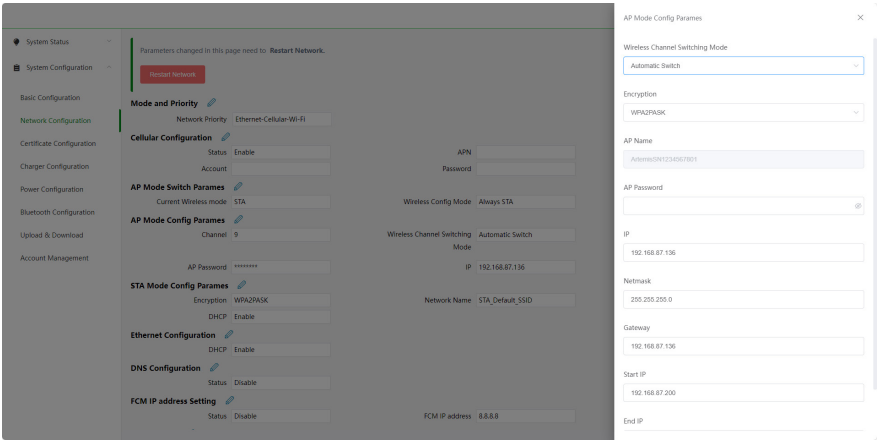
The Wi-Fi of the charging station has two modes: STA mode and AP mode. The station can only be in one of them at the same time. The AP is used for web configuration and the STA is used to connect to the OCPP platform on the extranet. In order to enable the station to connect to the external network and configure the station parameters, a function of maintaining AP mode for a few minutes after the charging station is powered on is added to provide customers with the opportunity to configure. If there is no customer connection into webconfig within this period of time, then switch STA mode networking, if there is a customer connection, wait for the customer configuration and then switch STA mode networking.

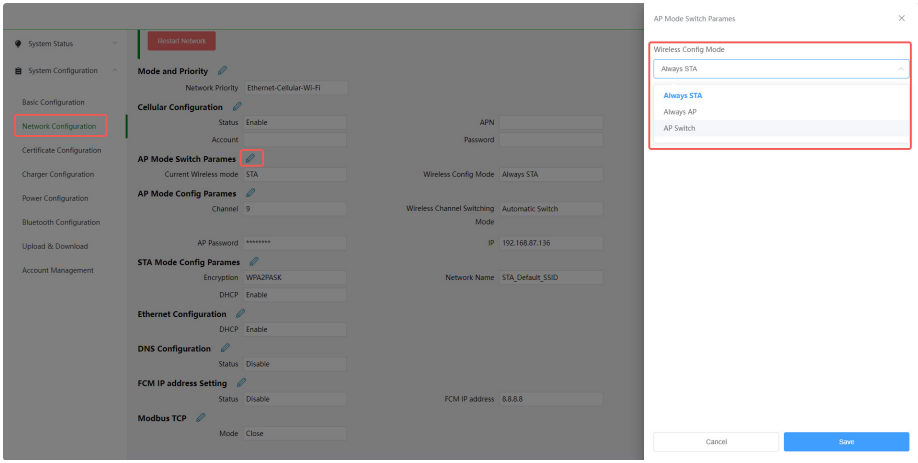
- **Current Wireless mode**: The mode of the current Wi-Fi
- **Automatic Enable AP**: Whether to switch to STA mode automatically
- **Automatically Close AP**: Whether to automatically disable the AP mode
- **Always AP**: The Wi-Fi of the charging station will always be AP.
- **Always STA**: The Wi-Fi of the charging station will always be STA.

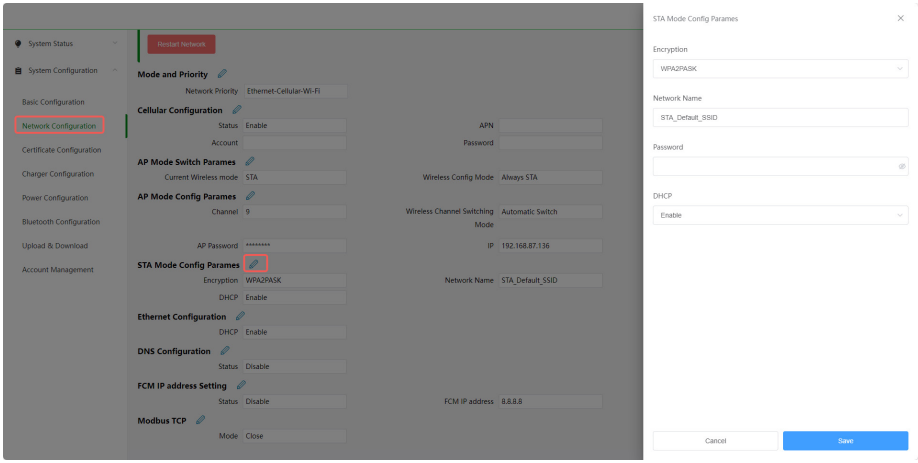
- **AP Switch**: The Wi-Fi mode of the charging station will remain in AP mode for a few minutes before switching to STA mode.
- **AP Duration(min)**: Duration of AP mode
- **Channel**: Wi-Fi channel in AP mode
- **Wireless Channel Switching**: Whether to automatically switch the Wi-Fi channel in AP mode
- **Encryption**: Encryption mode in AP mode
- **AP Password**: Wi-Fi password in AP mode
- **IP**: IP address in AP mode
- **AP Name**: SSID in AP mode
- **Encryption**: Encryption mode in STA mode
- **Network Name**: SSID in STA mode
- **Password**: Wi-Fi password in STA mode
- **DHCP**: Whether DHCP can be enabled in STA mode.

(1) Click **System Configuration** > **Network Configuration** in the left navigation panel.
(2) Set Wi-Fi parameters.
(3) Click **Restart Network**.
(4) Power off and restart.

The Wi-Fi of the charging station will be in AP mode within the first five minutes after power-on, with the SSID being ArtemisSN1234894801. You can use ipad or laptop to visit https://192.168.1.136/ and enter the configuration page of webconfig to configure parameters for the charging station. If you do not enter webconfig within five minutes, the Wi-Fi of the charging station will switch to STA mode and try to connect to a Wi-Fi hotspot with an SSID of xxj15.




System Status
System Configuration
Basic Configuration
Network Configuration
Certificate Configuration
Charger Configuration
Power Configuration
Bluetooth Configuration
Upload & Download
Account Management
Restart Network
Mode and Priority
Network Priority Ethernet-Cellular-Wi-Fi
Cellular Configuration
Status Enable
APN
Account
Password
AP Mode Switch Parames
Current Wireless mode STA
Wireless Config Mode Always STA
AP Mode Config Parames
Channel 9
Wireless Channel Switching Mode Automatic Switch
AP Password ********
IP 192.168.87.136
STA Mode Config Parames
Encryption WPA2PASK
Network Name STA_Default_SSID
DHCP Enable
Ethernet Configuration
DHCP Enable
DNS Configuration
Status Disable
FCM IP address Setting
Status Disable
FCM IP address 8.8.8.8
Modbus TCP
Mode Close
AP Mode Switch Parames
Wireless Config Mode
Always STA
Always STA
Always AP
AP Switch
Cancel
Save


System Status
System Configuration
Basic Configuration
Network Configuration
Certificate Configuration
Charger Configuration
Power Configuration
Bluetooth Configuration
Upload & Download
Account Management
Restart Network
Mode and Priority
Network Priority Ethernet-Cellular-Wi-Fi
Cellular Configuration
Status Enable
APN
Account
Password
AP Mode Switch Parames
Current Wireless mode STA
Wireless Config Mode Always STA
AP Mode Config Parames
Channel 9
Wireless Channel Switching Mode Automatic Switch
AP Password ********
IP 192.168.87.136
STA Mode Config Parames
Encryption WPA2PASK
Network Name STA_Default_SSID
DHCP Enable
Ethernet Configuration
DHCP Enable
DNS Configuration
Status Disable
FCM IP address Setting
Status Disable
FCM IP address 8.8.8.8
Modbus TCP
Mode Close
STA Mode Config Parames
Encryption
WPA2PASK
Network Name
STA_Default_SSID
Password
DHCP
Enable
Cancel
Save

5.6.2.4 IP configuration (Ethernet)

After you have successfully set the priority of networking mode, connect the router and charging point with a network cable and check the network connection status according to the **System Status**. If the network connection fails, refresh the web page or check the network cable connection and restart the charging point. Generally, the setting is set to **Enable** DHCP.

If you want to set the IP address manually, please follow the steps below:

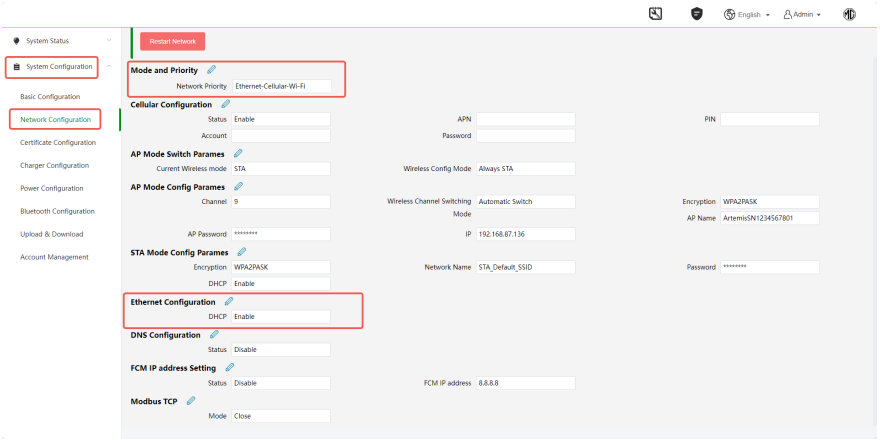
(1) Click **System Configuration** > **Network Configuration** in the left navigation panel.

(2) Click the pencil icon.

(3) Make sure the status is **Enable**.

(4) Fill in corresponding **IP, NetMask, Gateway** (fill in by yourself, the picture is for reference only).

(5) Click **Save**.



5.6.2.5 DNS configuration

Generally, the factory setting **Disable** is maintained. If you want to change it, please follow the steps below:

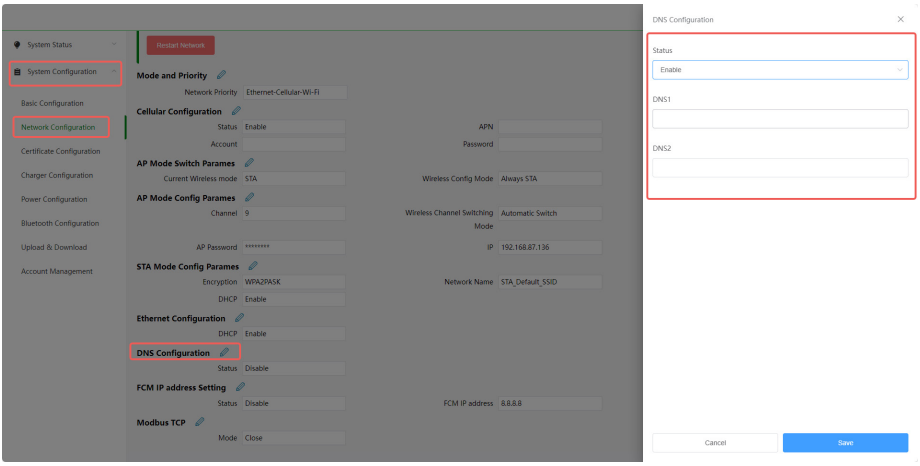
(1) Click **System Configuration** > **Network Configuration** in the left navigation panel.

(2) Click the pencil icon.

(3) Make sure the status is **Enable**.

(4) Fill in the **DNS** (fill in by yourself, the picture is for reference only).

(5) Click **Save**.



5.6.3 Certificate configuration

5.6.3.1 OCPP certificate management

View or download the uploaded certificate, or upload a new certificate.

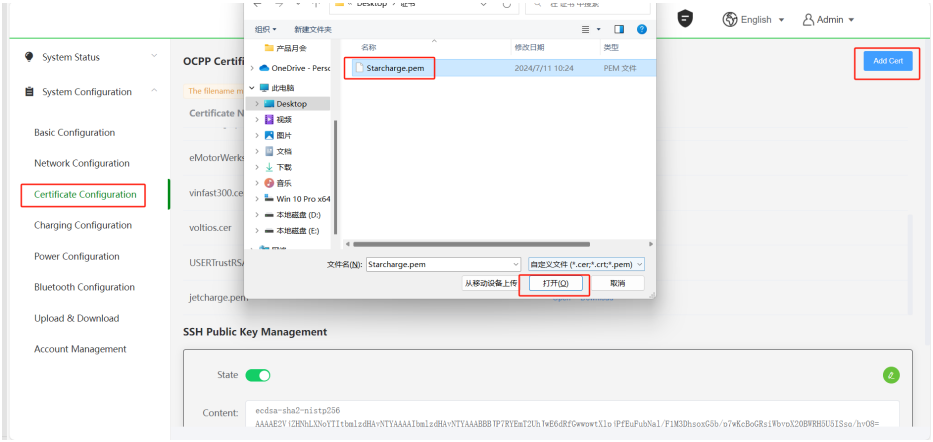
(1) Click **Certificate Configuration.**

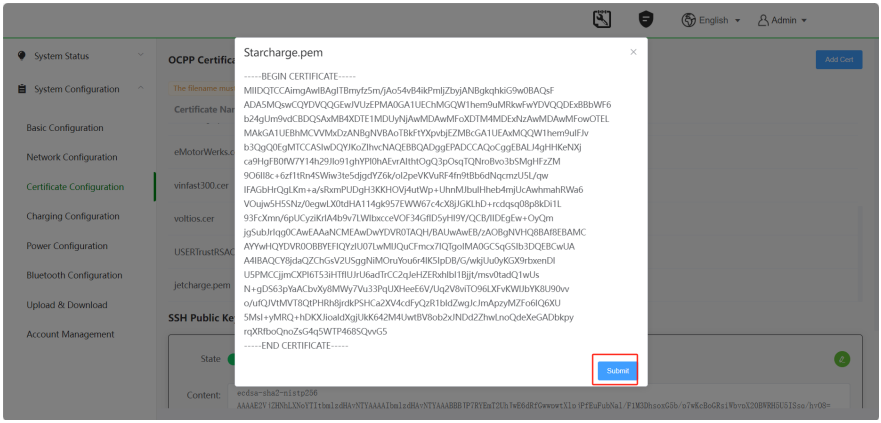
(2) Click **Add Cert** to add the certificate file.

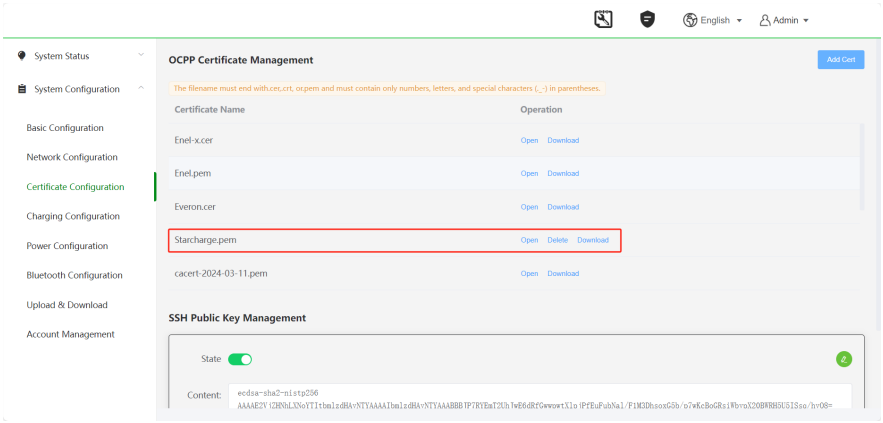
(3) Confirm and click **Submit**.

(4) After submitting, you can see the certificate you just uploaded on the OCPP Certificate Management page, and you can delete or download it.

Note: Only *crt, *cer, *pem formats are supported.

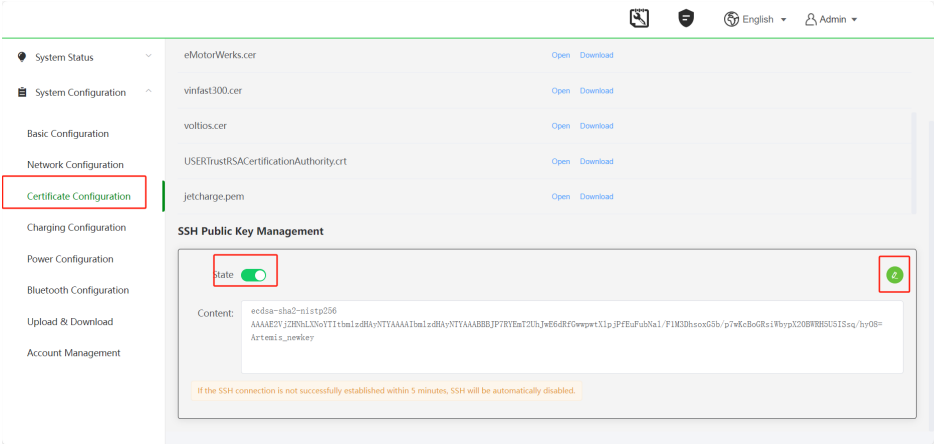



English
Admin
System Status
System Configuration
Basic Configuration
Network Configuration
Certificate Configuration
Charging Configuration
Power Configuration
Bluetooth Configuration
Upload & Download
Account Management
OCPP Certifica
Add Cert
Starcharge.pem
-----BEGIN CERTIFICATE-----
MIIDQTCCAimgAwIBAgITBmyfz5m/jAo54vB4ikPmljZbyjANBgkqhkiG9w0BAQsF
ADA5MQswCQYDVQQGEwJVUzEPMA0GA1UEChMGQW1hem9uMRkwFwYDVQQDExBBbWF6
b24gUm9vdCBDQSAxMB4XDTE1MDUyNjAwMDAwMFoXDTM4MDExNzAwMDAwMFowOTEL
MAkGA1UEBhMCVVMxDzANBgNVBAoTBkFtYXpvbjEZMBcGA1UEAxMQQW1hem9uIFJv
b3QgQ0EgMTCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBALJ4gHHKeNXj
ca9HgFB0fW7Y14h29JIo91ghYPl0hAEvrAIthtOgQ3pOsqTQNroBvo3bSMgHFzZM
9O6II8c+6zf1tRn4SWiw3te5djgdYZ6k/oI2peVKVuRF4fn9tBb6dNqcmzU5L/qw
IFAGbHrQgLKm+a/sRxmPUDgH3KKHOVj4utWp+UhnMJbulHheb4mjUcAwhmahRWa6
VOujw5H5SNz/0egwLX0tdHA114gk957EWW67c4cX8jJGKLhD+rcdqsq08p8kDi1L
93FcXmn/6pUCyziKrlA4b9v7LWIbxcceVOF34GflD5yHI9Y/QCB/IIDEgEw+OyQm
jgSubJrIqg0CAwEAAaNCMEAwDwYDVR0TAQH/BAUwAwEB/zAOBgNVHQ8BAf8EBAMC
AYYwHQYDVR0OBBYEFIQYzIU07LwMlJQuCFmcx7IQTgoIMA0GCSqGSIb3DQEBCwUA
A4IBAQCY8jdaQZChGsV2USggNiMOruYou6r4IK5IpDB/G/wkjUu0yKGX9rbxenDI
U5PMCCjjmCXPI6T53iHTfIUJrU6adTrCC2qJeHZERxhlbI1Bjjt/msv0tadQ1wUs
N+gDS63pYaACbvXy8MWy7Vu33PqUXHeeE6V/Uq2V8viTO96LXFvKWUbYK8U90vv
o/ufQJVtMVT8QtPHRh8jrdkPSHCa2XV4cdFyQzR1bIdZwgJcJmApzyMZFo6IQ6XU
5Msl+yMRQ+hDKXJioaldXgjUkK642M4UwtBV8ob2xJNDd2ZhwLnoQdeXeGADbkpy
rqXRfboQnoZsG4q5WTP468SQvvG5
-----END CERTIFICATE-----
Submit
State
Content:
ecdsa-sha2-nistp256
Open
Download
Delete
SSH Public Key Management


English
Admin
System Status
System Configuration
Basic Configuration
Network Configuration
Certificate Configuration
Charging Configuration
Power Configuration
Bluetooth Configuration
Upload & Download
Account Management
OCPP Certificate Management
Add Cert
The filename must end with.cer,.crt, or.pem and must contain only numbers, letters, and special characters (,_-) in parentheses.
Certificate Name
Operation
Enel-x.cer
Open
Download
Enel.pem
Open
Download
Everon.cer
Open
Download
Starcharge.pem
Open
Delete
Download
cacert-2024-03-11.pem
Open
Download
SSH Public Key Management
State
Content:
ecdsa-sha2-nistp256

5.6.3.2 SSH public key management

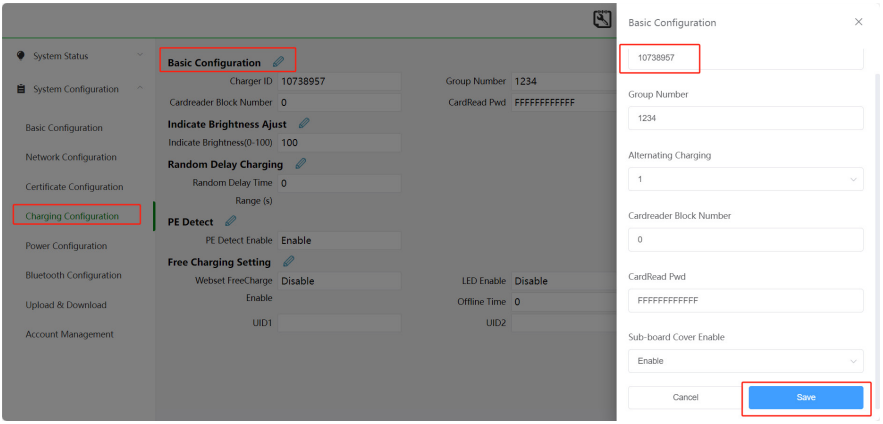
Application Scenario: The charging stations from our factory do not come with SSH pre-installed. If you wish to use SSH, please upload your public key here and proceed to pair it with the private key.
The specific operation is as follows:
You can use the State button to enable or disable the SSH Public Key Management function. Once opened, add the certificate by clicking the pencil icon. Finally, remember to click **Submit**.



5.6.4 Charging configuration

5.6.4.1 Basic configuration

Functional Description: This part is the basic settings of the charging station.It is possible to modify EVSE ID, Group Number, Equipment type, etc. as well as to enable screen, sub-board Cover, and QR code.
Parameter explanation:
EVSE ID: The station number of the charging station, initialized as the station number of the baseboard, maximum support 40 digits.
Group Number: Grouping number of the charging station.
Alternating Charging: Equipment type,1-single connector .
Card reader Block Number: That is the card sector block,a specific area used to store and access data on a card. The default setting here is 0.
Card Read Pwd: The password for the card reader. All 0xFF, meaning no card number.
(1) Click **System Configuration** > **Charging Configuration** in the left navigation panel.
(2) Click the pencil icon.
(3) Make changes according to your actual needs.
(4) Click **Save**.
Note: If you find that your charging station ID is not changed successfully after reboot, please check if **Sub-board Cover Enable** is enabled.



5.6.4.2 Indicate brightness adjust

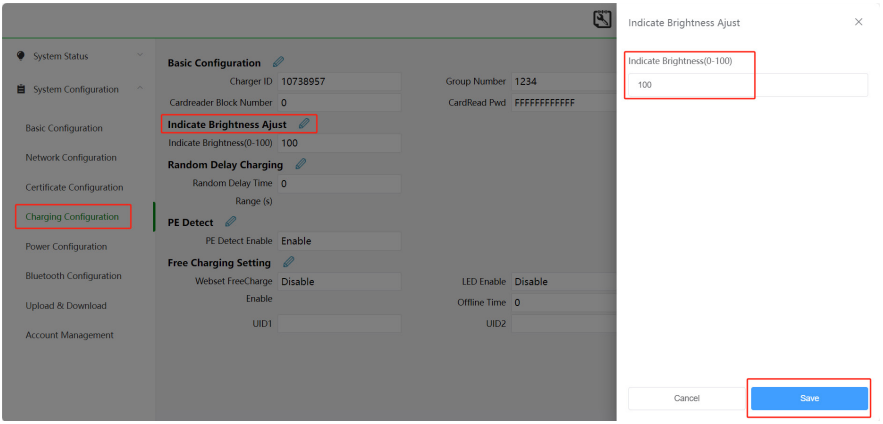
Adjust the brightness of the light. The factory default display brightness is 100.

(1) Click **System Configuration** > **Charging Configuration** in the left navigation panel.

(2) Click the pencil icon.

(3) Fill in the display brightness (0-100).

(4) Click **Save**.



5.6.4.3 Random delay charging

Functional Description: Before initiating charging (card swipe, platform, Bluetooth, etc.), the system will randomly select a number(between 0 and the number you set) for the delay.

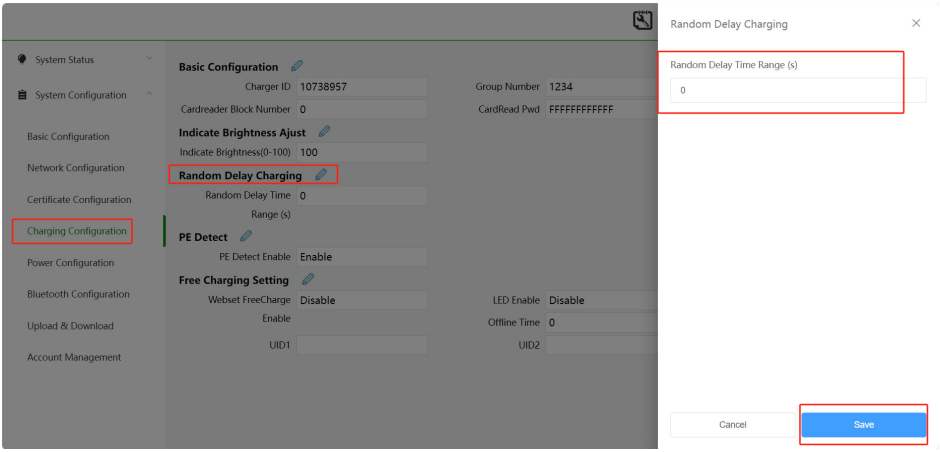
Note: The plug and charge mode does not support this function.

(1) Click **System Configuration** > **Charging Configuration** in the left navigation panel.

(2) Click the pencil icon.

(3) Set the upper limit of the random delay (need to be between 0 and 1800).

(4) Click **Save**.



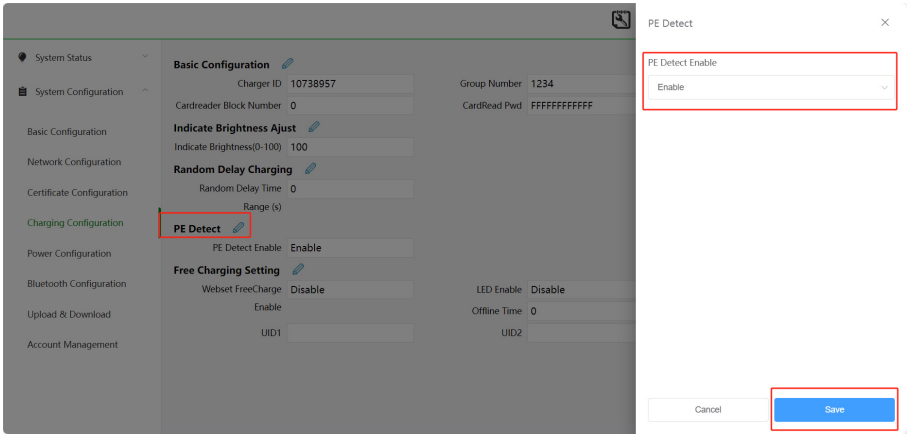
5.6.4.4 PE Detect

(1) Click **System Configuration** > **Charging Configuration** in the left navigation panel.

(2) Click the pencil icon.

(3) Select whether to enable or disable PE detect. If the PE detect is disabled it also means that no further ground faults will be reported.

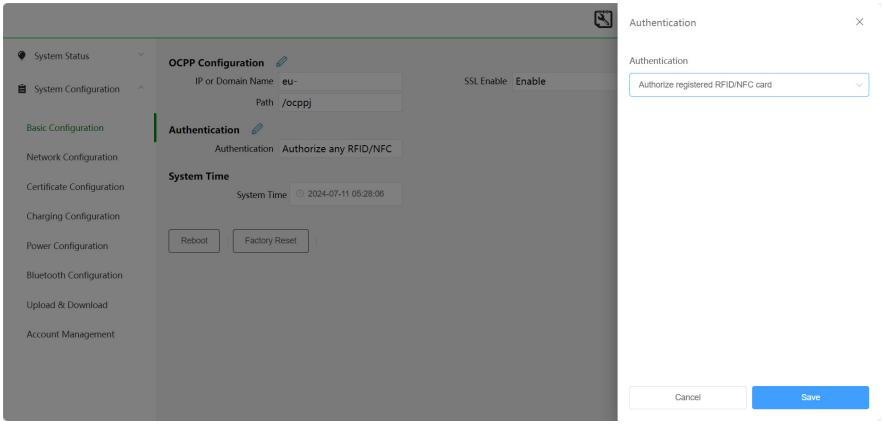
(4) Click **Save**.

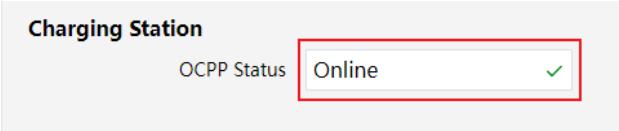


5.6.4.5 Free charging setting

Prerequisite:

- The authentication mode must be **Authorize registered RFID/NFC card**.
- Connected to the OCPP platform.

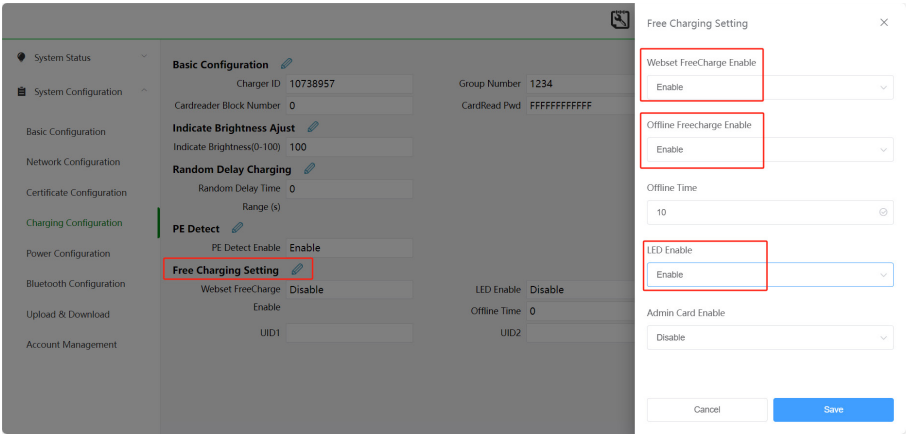




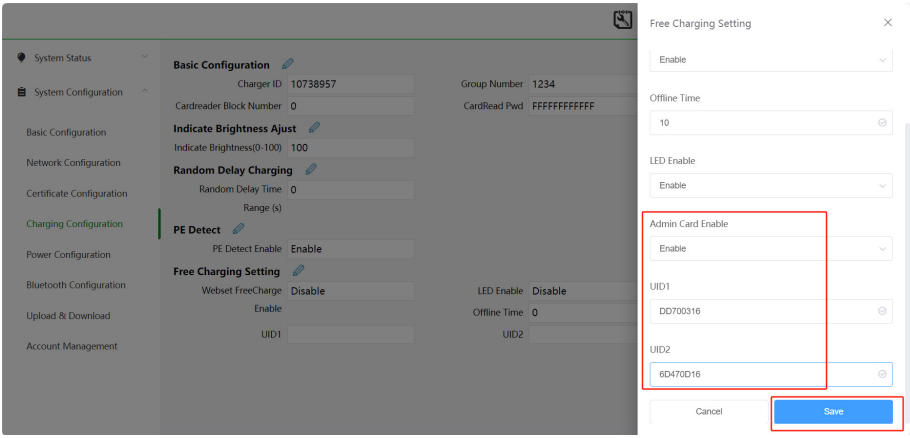
Functional Description: This function simply means that no authentication is required which is equivalent to plug-and-play mode.

Note: Starting/stopping charging must be done by plugging and unplugging the connector.

- **Webset Free Charge Enable**: Enable Free Charge mode when online.
- **Offline Free charge Enable**: Enable Free Charge mode when offline and you can also set the offline time(Unit: seconds).
- **LED Enable**: If enabled, it will turn on a special light effect for Free Charge mode, provided your charging station has this feature.



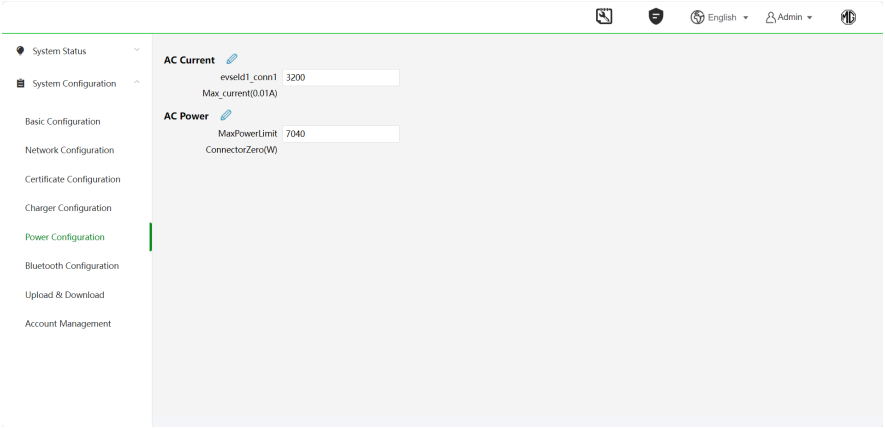
- **Admin Card Enable:** After using the Admin Card to authenticate, the subsequent charging station will always be in Free charge mode (reboot does not affect).
  - It is possible to bind two idTags at the same time, but of course it is possible to bind only one (only support 0-9, A-F, a-f).
  - If two cards are bound, the two cards do not need to correspond to each other, which means that if Freecharge mode is enabled by card A, it can be cancelled through card B as well.



5.6.5 Power configuration

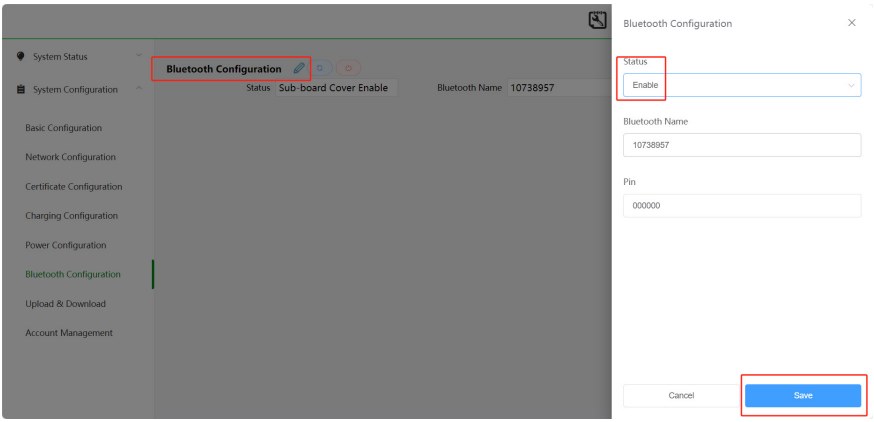
5.6.5.1 AC current and AC Power

(1) Click **System Configuration** > **Power Configuration** in the left navigation panel.
(2) Click the pencil icon.
(3) Set the maximum rechargeable current of the charging station, in 0.01A.
(4) Click **Save**.



5.6.6 Bluetooth configuration

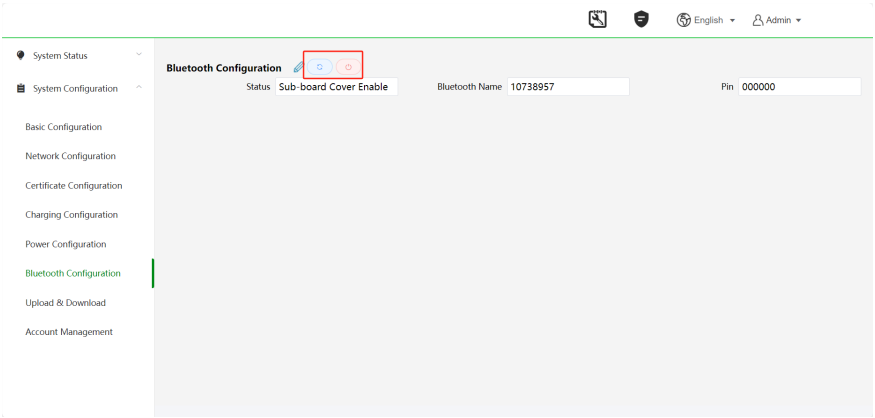
(1) Click **System Configuration** > **Bluetooth Configuration** in the left navigation panel.
(2) Click the pencil icon.
(3) The status is selected as **Enable** or **Sub-board Cover Enable**.
(4) Set the **Bluetooth Name** (needs to be 8 digits).
This entry is ignored if the status selection is Enable “Daughterboard Cover” (i.e. Bluetooth name uses charging station ID).
(5) Setting the **Pin** (must consist of 6 digits or letters).
(6) Click **Save**.



If you want to restore the default pin code: 000000, follow the steps:

(1) Click on the red button **Reset**.

(2) Then click on the blue button **Refresh**.



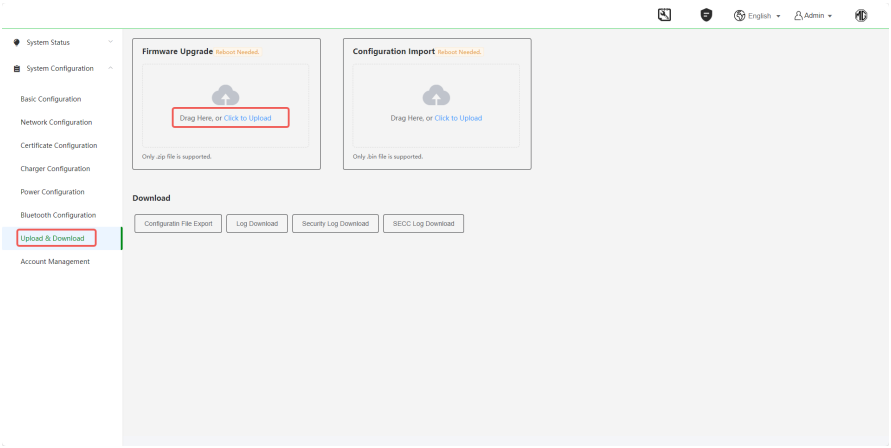
5.6.7 Upload & Download

5.6.7.1 Firmware Upgrade

(1) Click **System Configuration** > **Upload & Download** in the left navigation panel.
(2) Drag the zip upgrade package into the firmware upgrade box or click to upload it.
(3) The **Update Infotips** prompting frame will pop up, click **Save** to start uploading upgrade packages.
(4) Wait for the progress bar to load to 100%, and at this halfway station, whenever you want to cancel the upload, just click the '×'.
(5) Once loaded, it will start verifying and will be upgraded if the verify is successful.
(6) During the update process, the charging station will restart and the network connection will be disconnected. You can try to refresh the page of the web configuration and check the version information after you enter the web page. If the version number changes, the firmware upgrade is complete.

Note:

- Only .zip file is supported.
- Firmware package is not allowed to be upgraded during charging.

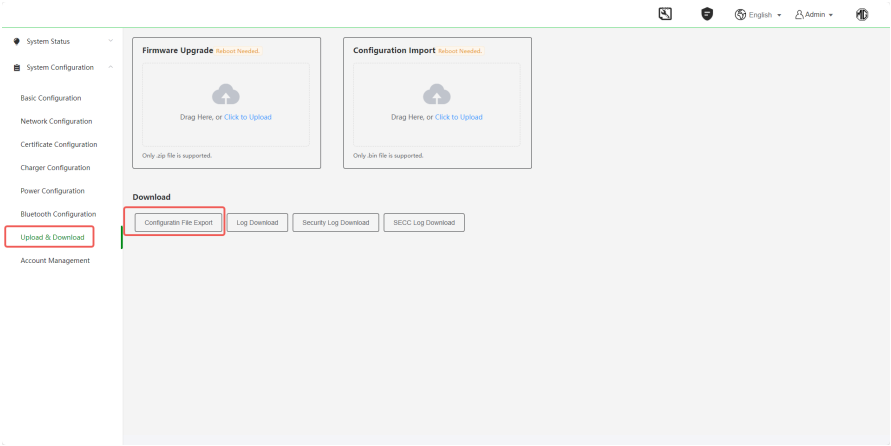


5.6.7.2 Download

Configuration File Export

(1) Click **System Configuration** > **Upload & Download** in the left navigation panel.

(2) Click **Configuration File Export**, and then configuration file (bin file) will be immediately downloaded to local.



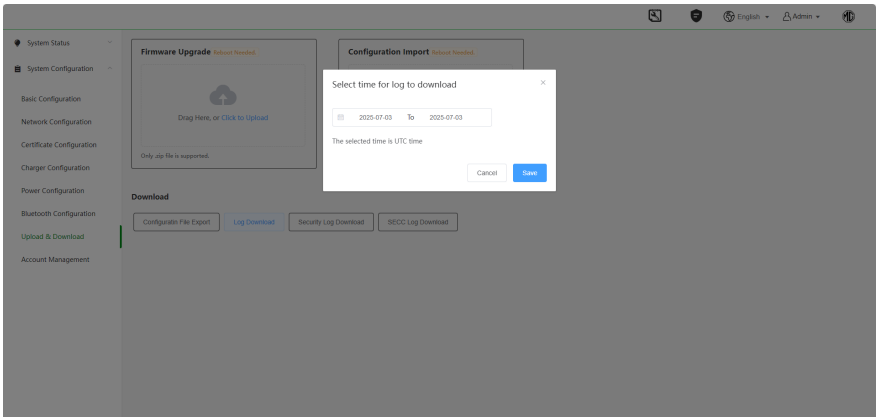
Log Download

(1) Click **Upload & Download**.

(2) Click **Log Download**.

(3) Enter the **Select time for log to download** page to set the date you want to get the log.

(4) Click **Save** and the log will begin to download, and subsequently you can find it in the download centre.



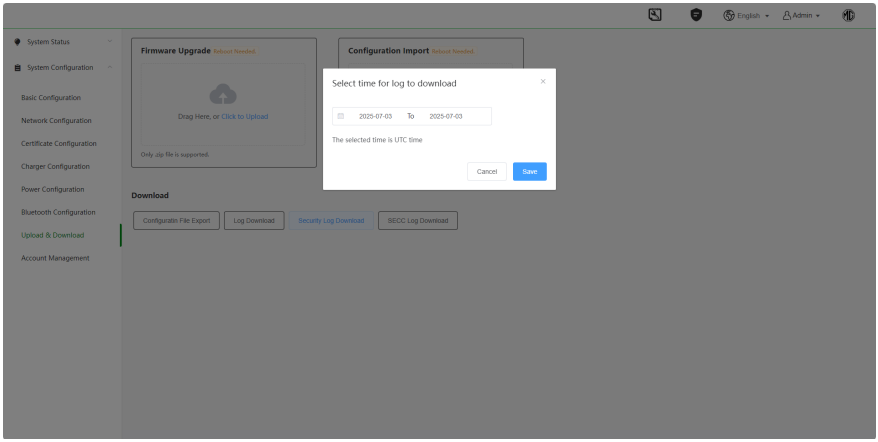
Security Log Download

(1) Click **Upload & Download**.

(2) Click **Security Log Download.**.

(3) Enter the **Select time for log to download** page to set the date you want to get the log.

(4) Click **Save** and the security log will begin to download, and subsequently you can find it in the download centre.



SECC Log Download

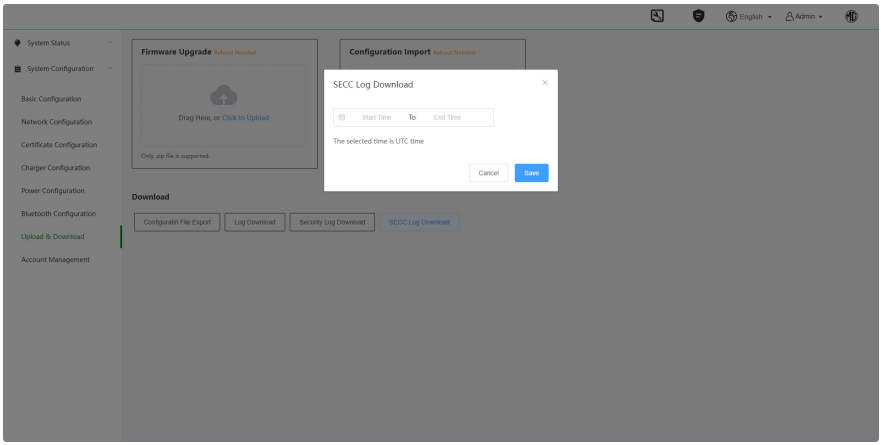
Applicable objects: Only for Charging stations with the 15118 function.

(1) Click **Upload & Download**.

(2) Click **SECC Log Download.**.

(3) Enter the **SECC Log Download** page to set the time range you want to view the log for.

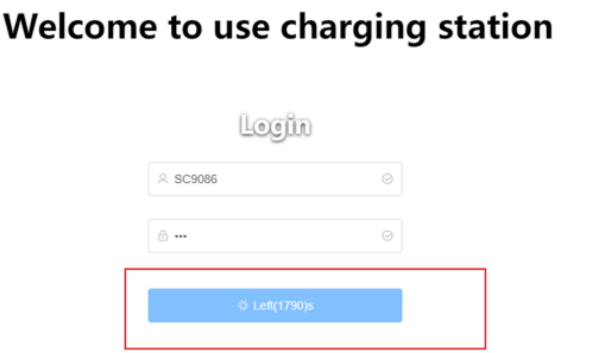
(4) Click **Save** and wait for the download to start, then you can view it locally.



5.7 Other notes

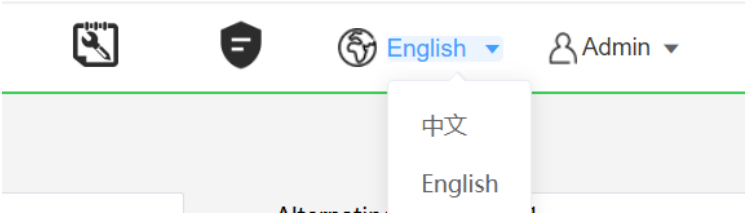
5.7.1 About login

(1) Default user name & password:
User name: **Admin**
Password: **1234**
(2) Maximum number of login errors: **6**
Note: Once the limit is exceeded, your account will be locked for 1800s.



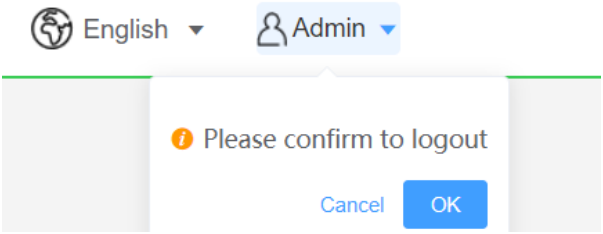
5.7.2 Language settings

You can switch between English and Chinese in the upper right corner of the web page.



5.7.3 User set

Click **User Set** in the upper right corner of the web page to enter the user information setting interface or log out.



6 Operation instructions

6.1 Activation

(1) RFID card

- Please find the RFID card in the package of the EVSE.

(2) Special charging App

- Please download the special charging App from the location provided by your dealer or service provider.
- Please register and log into your account in the special charging App. For detailed information, please contact your dealer.

6.2 Charging

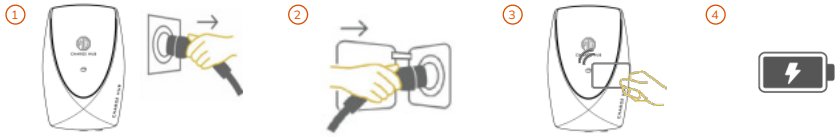
Preconditions

- The charging connector is not plugged into the EV.
- The EVSE is ready (the LED indicator turns green and is flashing with cycle time 4s).

Do not violently pull a mechanically-locked connector plugged into the vehicle out of the socket.

6.2.1 Charging with RFID card

- Start charging



(1) Pull out the charging connector from the EVSE.

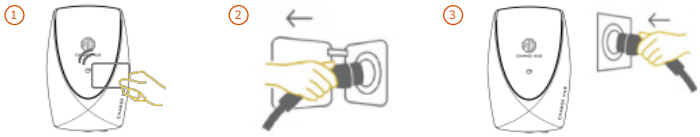
(2) Connect the charging connector to the EV. The charging connector is correctly connected once the status indicator on the EVSE is blue solid on.

(3) Authorize the charging process by RFID card.

Note: The charging process is successfully authorized once the status indicator on the EVSE is flashing blue for 4 times every 1s.

(4) The EVSE will start charging process when the blue is breathing.

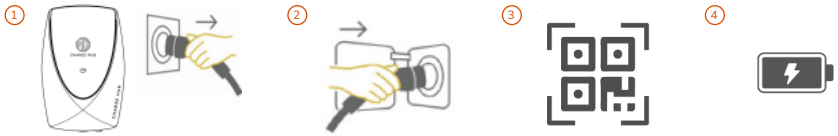
- Stop charging



(1) Place the RFID card before RFID reader until the blue is flashing 4 times per 1s.
Note: If the EV has been fully charged, the EVSE will automatically stop without swiping the card.
(2) Disconnect the charging connector from the EV.
(3) Wrap the charging cable around the cable winding trough and return the charging connector to the holder.

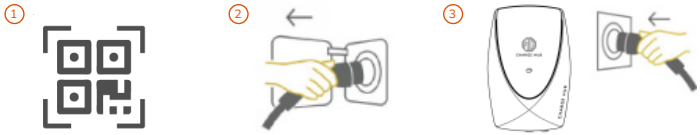
6.2.2 Charging with QR code

- Start charging



(1) Pull out the charging connector from the EVSE.
(2) Connect the charging connector to the EV. The charging connector is correctly connected once the status indicator on the EVSE is blue solid on.
(3) Open the charging APP to scan the QR code, and then tap **Start Charging**.
(4) The EVSE will start charging process when the blue is breathing.

- Stop charging



(1) Open the charging APP and tap **Stop charging**.
Note: If the EV has been fully charged, the EVSE will automatically stop without opening the APP.
(2) Disconnect the charging connector from the EV.
(3) Wrap the charging cable around the cable winding trough and return the charging connector to the holder.

6.2.3 Free charging

- Start charging

(1) Pull out the charging connector from the EVSE.
(2) Connect the charging connector to the EV. The charging connector is correctly connected once the status indicator on the EVSE is blue solid on.
(3) The EVSE will start charging process when the blue is breathing.

- Stop charging

(1) Disconnect the charging connector from the EV.
(2) Wrap the charging cable around the cable winding trough and return the charging connector to the holder.

7 Troubleshooting

Follow the instructions below to tackle the problems.

Failure	Possible causes	Troubleshooting
The power LED is not on	No power supply	• Check if the parent MCB+ Type A RCD or Type A RCBO have been turned off. • Make sure that the input power cable is intact and has been properly and securely connected to the EVSE. • Check whether the power voltage on the grid side is within the operating range (400±10%Vac) of EVSE with a voltage tester. • Turn off the EVSE by shutting off the parent circuit breaker and restart the EVSE in about 20s. • When the incoming cable is affected by the surge or wrong wiring sequence, the device will be out of power for protection. Searching the support from the professional for the wiring sequence checking or other abnormal interference. Power on after above checking is finished.

Failure	Possible causes	Troubleshooting
Failure to start charging process	The connector is not inserted correctly.	Plug and unplug the charging connector again and confirm that the connector connection has succeeded.
	Failure to execute charging process correctly.	Please follow the instructions in 6.2 Charging.
	The connector may be stained or damaged in the locking area.	Clean or replace the connector.
Failure to start charging flow by scanning QR code	The EVSE is still in starting process.	Wait for about 2-5 minutes until the EVSE starts.
	There is a problem or bug in the special charging APP.	• Restart the special charging App. Force the App to stop running and ensure that the App is not running in the background. • If the problem still exists, delete the special charging App from the mobile device and reinstall the App. • If the problem still exists, restart the device using the special charging App.
	4G or Wi-Fi connection failure.	Re-connect the 4G or Wi-Fi on in place with a better signal.
Failure to start charging flow by swiping the RFID card	The EVSE is still in starting process.	Wait for about 2-5 minutes until the EVSE starts.
	The RFID card account is not activated.	Please contact your dealer or service provider to activate the RFID card account.
The vehicle is not fully charged or the charging time increases	The current decreases due to high temperature of vehicle or EVSE.	• Visually check whether the connectors are stained, worn or damaged. • If necessary, please contact your dealer or service provider.
	Power is limited due to external control devices (power supply device, PV device).	N/A

The failure status LED becomes red	Failure	• Turn off the charger by shutting off the parent circuit breaker and restart the charger in about 20s. It takes about 2-5 minutes to restart the charger
		• If the problem still exists, find possible causes:
		  ○ Check whether under-voltage (≤161Vac) or over-voltage (≥276Vac) happens to the power voltage on the grid side with a voltage tester
		  ○ Check whether the grounding of device is loose, damaged or removed. Measure whether the grounding resistance of charger exceeds the standard (the grounding resistance is generally within 100Ohms) with a tester (e.g. multimeter).

	Damage	• Please contact your dealer or service provider.

8 Routine maintenance

8.1 Cleaning

It is recommended that the housing of the EVSE is regularly cleaned with a wet cloth. In addition, there should be no plants growing on or around the EVSE.

- Do not clean the product with a high-pressure water pipe.
- Do not clean the product with corrosive cleansers.
- Do not clean the inside of the product.

8.2 Regular maintenance

If it is necessary to change the maintenance cycle according to the standards and regulations of the country where the charging device is installed and used, please comply with the local relevant laws and regulations. The recommended maintenance cycle is shown in the table below.

Check Item	Maintenance cycle	Method
Cable	Yearly	Check whether the cable is tightly connected with the switch, whether the cable is hot or damaged, whether the insulation resistance of cable meets the provisions, whether the sealing measures of cable for entering the cabinet are intact, and whether holes are blocked tightly.
LED indicator	Yearly	Check whether the indicator lamp works normally and whether it is faulty.

9 Contact information

Company address: MG Motor Australia & New Zealand (Level 19, 100 Arthur Street, North Sydney NSW 2060)
Website: mgmotor.com.au & mgmotor.co.nz
Company E-mail: anz.evsupport@smil.com
Hotlines: 1800 642 277 (in Australia); 0508 647 6837 (in New Zealand)