USER MANUAL

11kW AC EV Charger

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V1.0

Table of Contents

1 Notes on this Manual

1.1 Scope of Validity

This manual describes the assembly, installation, commissioning, maintenance and troubleshooting of the following model(s) of products:

L11P

Note

Please keep this manual where it will be accessible at all times.

1.2 Target Group

This manual is for qualified electricians. The tasks described in this manual only can be performed by qualified electricians.

1.3 Symbols used

The types of safety instructions and general information appear in this document areas described below:

WARNING	Warning"indicates a hazardous situation which, if not avoided, could result in death or serious injury.
Note	"Note"provides tips that are valuable for the optimal operation of our product.
	Provides the best operation of the product.

Symbols on the EV Charger

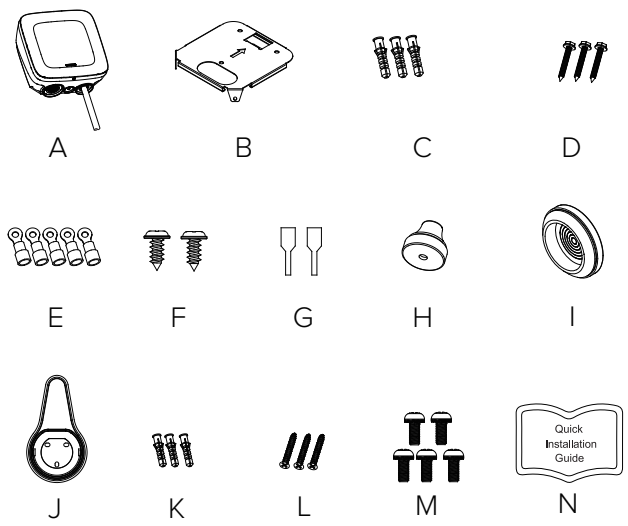
Symbol	Explanation
CE	CE mark. Symbol Explanation CE mark. The charger complies with the requirements of the applicable CE guidelines.
	Beware of hot surface. The charger can become hot during operation. Avoid contact during operation.
	Danger of high voltages. Danger to life due to high voltages in the charger!
UK CA	UKCA mark. Symbol explanation UKCA mark. The charger complies with the requirements of the applicable UKCA guidelines.
	Read the manual.
	The charger can not be disposed together with the household waste.

2 Safety

EV chargers are designed and tested in accordance with international safety requirements. However, certain safety precautions must be taken when installing and operating this. The installer must read and follow all instructions, cautions and warnings in this installation manual.

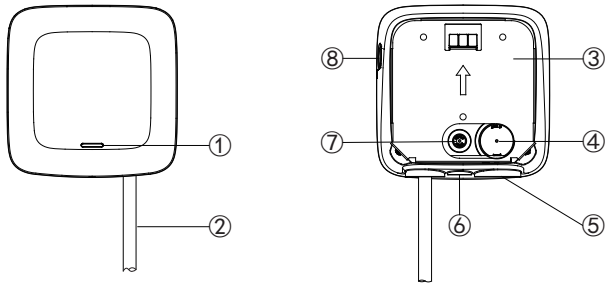
- All operations including transport, installation, start-up and maintenance, must be carried out by qualified, trained personnel.
- The electrical installation & maintenance of the charger shall be conducted by a licensed electrician and shall comply with local wiring rules and regulations.
- Before installation, check the unit to ensure it is free of any transport or handling.
- Unauthorized removal of necessary protections, improper use, incorrect installation and operation may lead to serious safety and shock hazards or equipment damage.
- Do not install the equipment in adverse environmental conditions such as in close proximity to flammable or explosive substances; in a corrosive or desert environment; where there is exposure to extreme high or low temperatures; or where humidity is high.
- Do not use the equipment when the safety devices do not work or are disabled.
- Use personal protective equipment, including gloves and eye protection during the installation.
- Inform the manufacturer about non-standard installation conditions.
- Do not use the equipment if any operating anomalies are found. Avoid temporary repairs.
- All repairs should be carried out using only approved spare parts, which must be installed in accordance with their intended use and by a licensed contractor or authorized service partner.
- Liabilities arising from commercial components are delegated to their respective manufacturers.

3 Packing List



S/N	Name	Quantity
A	EV Charger	1
B	Mounting backplate	1
C	Expansion pipe（Φ8*40）	3
D	Expansion screw（ST6*40）	3
E	OT Terminal（RVN5.5-4L）	5
F	Self-tapping screw（ST4.2*9.5）	2
G	Tubular terminal（E0508）	2
H	Rubber curved coils（M16）	1
I	Rubber curved coils（M40）	1
J	Type 2 Plug holder	1
K	Expansion pipe（Φ6*30）	3
L	Expansion screw（ST4.2*30）	3
M	Screw assembly (M4*10)	5
N	Quick installation guide	1

4 Introduction



①Meaning of lights

- •Green breathing light - standby status
- •Blue Steady - EV Plug inserted status
- •Blue breathing light - charging start status/pause
- •Blue running light - charging status
- •Green Steady - charging end status
- •Red Steady - charger fault, shutdown protection
- •Yellow Steady - locked status

②EV charging cable

③Mounting backplate

④Back entry hole

⑤Bottom entry hole

⑥Bottom communication inlet hole

⑦Back communication inlet hole

⑧Stop button

5 Technical Data

FOX-ESS 11kW AC-CHARGER SPEC	
Model	**L11P**
Input	
Input line	3L/N/PE
Rated voltage	400Vac，±20%
Rated current	16A
Rated frequency	50/60Hz
Output	
Output voltage	400Vac，±20%
Maximum output current	16A
Rated power	11kW
Interaction method	
Charging connection method	Type 2 Plug
Start-up mode	APP/Plug-and-charge
Communication method	
Bluetooth	Operating frequencyrange:2402-2480 MHz RF power control range:-27~18dBm Gain controls the step size:3dBm
WiFi	TX/RX Frequencyband: 2412-2484 MHz
Using environment	
Installation method	Wall mounting/floor-mounted column mounting
Working temperature	-25°C~50°C
Working humidity	5%-95% no condensation
Altitude	≤2000m
Size and weight	
Size	197*196*105 mm
Weight	4.2kg
Safety	
Waterproof rating	IP55
Anti-collision grade	IK08
*RCD	6mA DC
Protection function	Over current protection, Over/Under voltage protection , Over temperature peotection,Ground peotection, Surge peotection
Certification	CE/UKCA
Certification standard	EN/IEC 61851-1: 2019, EN/IEC 61851-21-2: 2021

*Internal RCD-DD meets the trip time characteristics specified in IEC 62955
*External RCCB is required
*Select Type A or Type B according to local regulations.

6 Installation

6.1 Product Handling

To ensure safety, the following points should be paid attention to:

-All accessories are placed separately during transport or handling.

-Avoid violent shock and impact, and take it lightly.

-Avoid inversion.

6.2 Out of the box inspection

-Open the EV Charger packaging, please check the random attachment according to the attachment list.

-Check the EV Charger for damage in transport. If damage or missing parts are found, do not boot up and inform the carrier and dealer. Determine if this machine is the model that you want to purchase.

Note

Please keep the packing boxes and packaging materials for future handling.

6.3 Install

- Pre-installation preparation

The following tools are required for the installation:
Cross screwdriver, special plum screwdriver, stripping pliers, pressing pliers.

- Installation precautions

Please strictly follow the wiring requirements and correct access.

Please confirm that all fasteners are locked to secure the EV Charger .

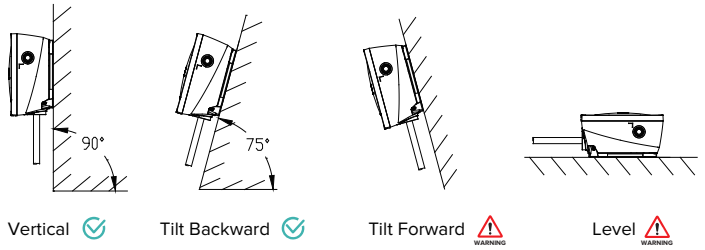
- Installation placement environment and location

- The area where the charger must be placed must be well ventilated, far away from water, combustible gas and corrosive agent.
- Ensure that the ground or installation platform can withstand the weight of the charger.
- If the charger is disassembled and used at low temperature, there may be water droplets condensation phenomenon, be sure to wait for the charger inside and outside completely dry. After dryness can be installed and use, otherwise there is a danger of electric shock.
- Please place the charger near the mains input to disconnect the mains input switch and cut off the power supply in an emergency.

Note

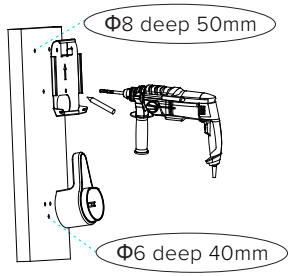
The actual installation needs to comply with local installation requirements and local safety regulations.

Ensure that the wall or column is vertical or positive 15 ° before installation.

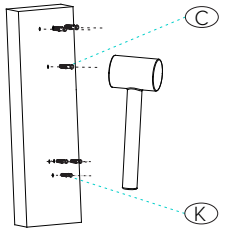


- Wall-mounted installation method

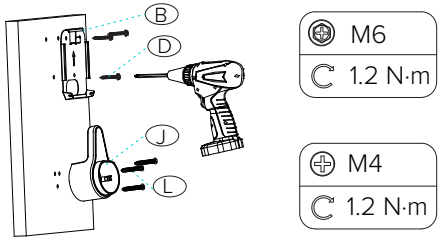
Step 1:
1. Mark 6 holes according to the installation positioning card on the wall.
2. Use an 8mm drill bit to drill holes (with a hole depth of over 50mm).
3. Use an 6mm drill bit to drill holes (with a hole depth of over 40mm).
4. Clean the hole position.



Step 2:
Insert the expansion pipe (C) into the hole and fix it tightly with a rubber hammer.



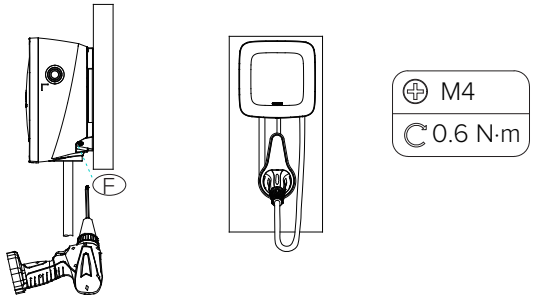
Step 3:
Secure the mounting backplate (B) and Type 2 Plug holder (J) to the wall with screws (D)and(L).



M6
1.2 N·m

M4
1.2 N·m

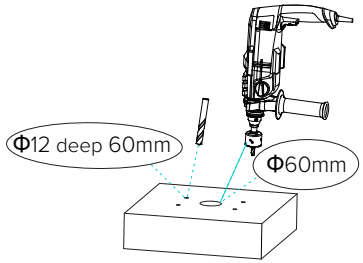
Step 4:
1. Hang the EV Charger into the mounting backplate.
2. Take out screws (F) and secure them to the bottom of the backplane.
3. Insert the charging connector into the holster to complete the installation.



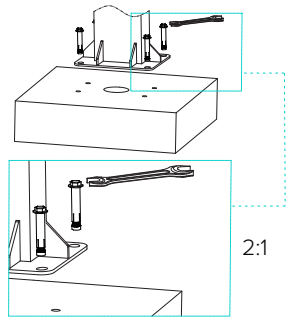
M4
0.6 N·m

- Floor type / Vertical installation method

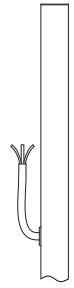
Step 1:
1. Use a 12mm drill bit to drill four 60mm deep holes with a spacing of 170*120mm.
2. Drill one Φ60mm outlet hole in the center.
3. Clean the hole position.



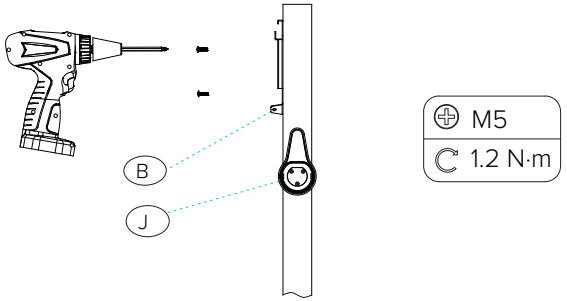
Step 2:
Install the foot screw and fix with a wrench.



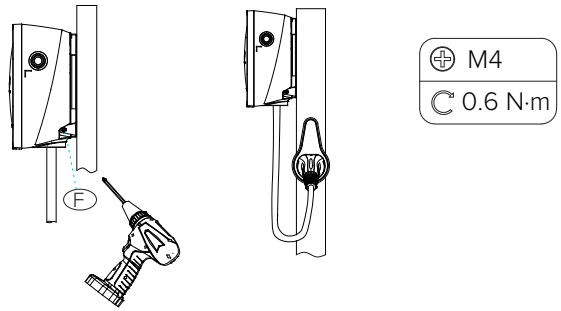
Step 3:
Router the input wire into the column hole through the ottom of the column.



Step 4:
Fix the Mounting backplate (B) and Type 2 Plugholder(J)to the column with screws.

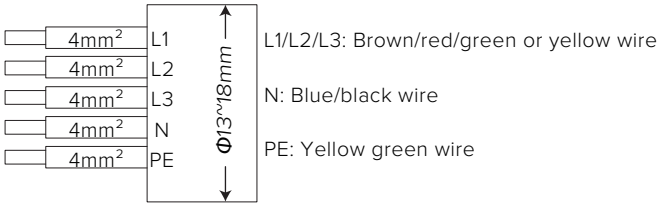


Step 5:
1. Hang the EV Charger into the mounting backplate.
2. Remove the screws (F) and install them on the bottom of the backplate, tighten the screws.
3. Insert the charging connector into the holster to complete the installation.



- Electrical Connections（Bottom entry）

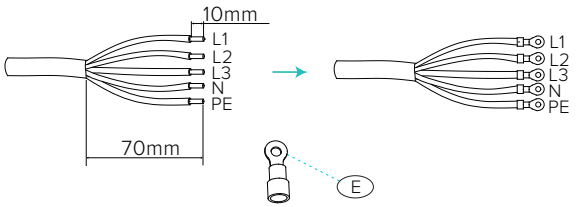
A leakage protection switch needs to be installed. The leakage protection switch should use Type A, Type C20 leakage protection device is recommended, and the input wire should be led out from the leakage protection switch. It is recommended to use 4mm² cable.



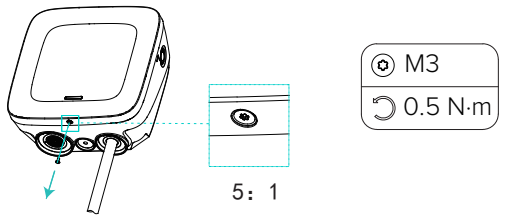
Note

Please refer to the local cable model and color during actual installation.

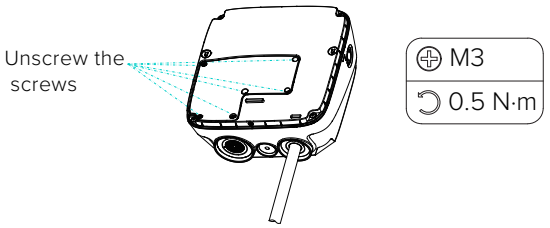
Step 1:
1.Trim the cable sheath to 70mm and leave the conductor exposed for 10mm.
2.Crimp the OT terminal (E) to the wire with crimping pliers.



Step 2:
Unscrew the bottom screws and remove the bottom cover.



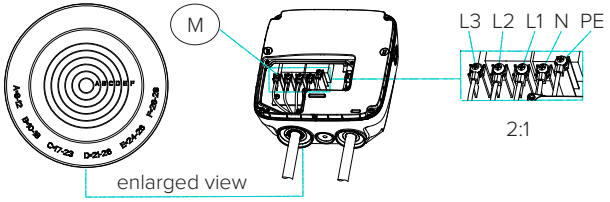
Step 3:
Unscrew the wiring cover screws and open the wiring cover.



Step 4:
1. According to the diameter of the 5-core cable poke through the corresponding position of the rubber arc coil, the following table:

Hole Position	A place	B place	C place	D place	E place	F place
Cable O.D.	Φ8-12mm	Φ10-18mm	Φ17-23mm	Φ21-26mm	Φ24-26mm	Φ26-28mm
Wire(mm^2)		1-6				

2.Pass the cable through the over-wire hole, L1, L2,L3,N, PE to the corresponding terminal block and fix them with screws (M).



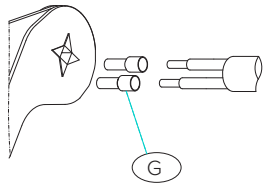
- Communication wiring(Bottom entry, when external meters need to be connected)

Step 5:
Trim all cables (wire diameter 0.3mm^2) to 15mm (as shown in the figure), peel off the insulation sheath to expose the conductor by about 8mm.

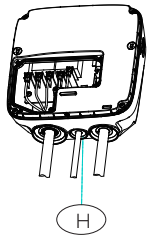
Note

Please refer to the local cable model and color during actual installation.

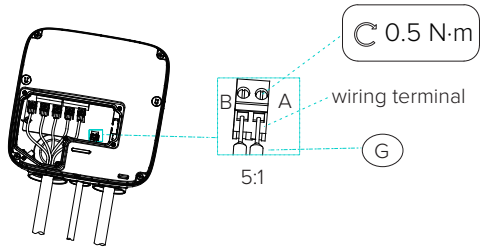
Step 6:
Use crimping pliers to crimp the tubular terminal E0508 (G) and cable.



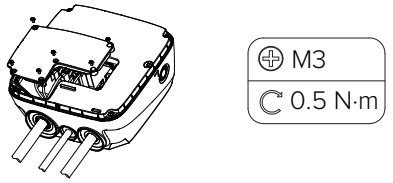
Step 7:
1.Poke the M16 rubber arc ring (H) through the center.
2. Pass the cable wires from the outside through the crossing holes.



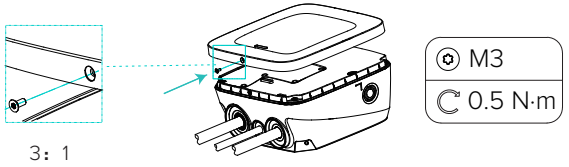
Step 8:
Install the cable wires into the terminals and lock the screws, press the tubular pre-insulated terminal E0508.



Step 9:
Check and make sure the seal is properly installed before locking the terminal cover.



Step 10:
Put on the top cover and tighten the screws to complete the installation.

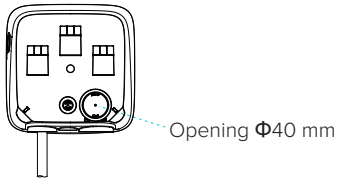


- Electrical Connections（Back entry）

  Complete steps 1, 2, and 3 in electrical connections (bottom entry)steps first, then follow the steps as the following steps.

Step 1:

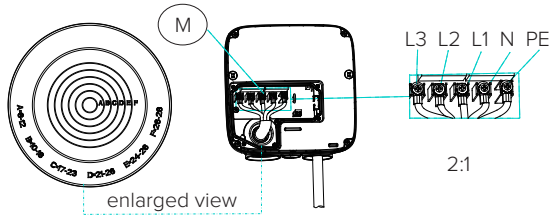
1. At the back of the EV Charger , process a hole of Φ40mm.
2. Clean the hole.
3.Install the M40 rubber arc ring (I), into the hole.



Step 2:
1. According to the diameter of the 5-core cable poke through the corresponding position of the rubber arc coil, the following table:

Hole Position	A place	B place	C place	D place	E place	F place
Cable O.D.	Φ8-12mm	Φ10-18mm	Φ17-23mm	Φ21-26mm	Φ24-26mm	Φ26-28mm
Wire(mm²)		1-6	10			

2.Pass the cable through the over-wire hole, L1, L2,L3,N, PE to the corresponding terminal block and fix them with screws (M).

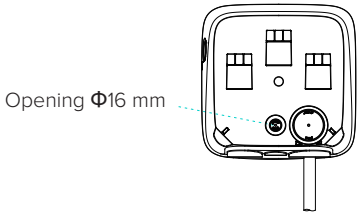


▪ Communication wiring(Back entry, when external meters need to be connected)

Complete steps 5 and 6 according to communication cable (bottom entry), and then perform the following steps.

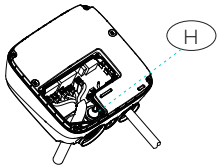
Step3:

1. At the back of the EV Charger , process a hole with diameter Φ16mm.
2. Clean the hole.
3. Install the M16 rubber arc ring (H), into the hole.



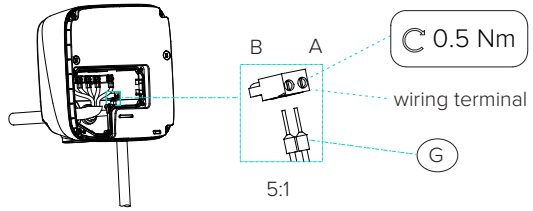
Step 4:

1. Poke the M16 rubber arc coil (H) through the center.
2. Pass the cable wire from the bottom through the crossing hole.



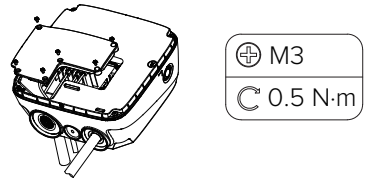
Step 5:

Install the cable wires into the terminals and lock the screws, press the tubular pre-insulated terminal E0508.



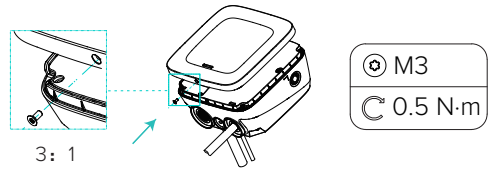
Step 6:

Check and make sure the seal is properly installed before locking the terminal cover.



Step 7:

Put on the top cover and tighten the screws to complete the installation.



7 APP download

Users can scan the QR code (Android and IOS) in the quick installation guide .

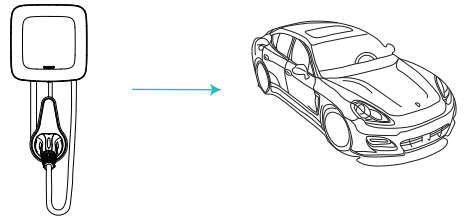
8 Operation

Charging mode and Operation

Users can set three charging modes through the charging mode setting interface of the APP: plug and charge, controlled, locked .

A. Plug and Charge mode

Charging will start automatically after EV plugged in. If you want to stop the charging, just press the stop button on the side of the charger.



- Start Charging:

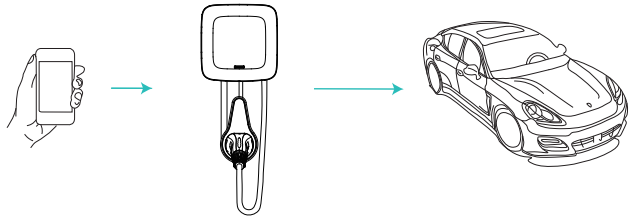
1.Set the charger to the plug and charge mode.
2.Insert the charging plug into the EV.
3.Charging session started.

- Stop Charging:

Press the stop button on the side of the charger.

B. Controlled mode

Initiate or cease charging by using APP on this mode. You can also use APP for reservations.



Controlled mode with APP

- Start Charging:

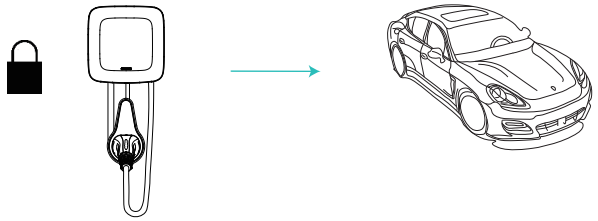
1. Set the charger to the controlled mode.
2. Insert the charging plug into the EV.
3. Click to start the charge on the APP.
4. Charging session started.

- Stop Charging:

1.Click to stop the charge on the APP.
2.Charging session end.

C. Locked mode

On this mode, the charger is locked and cannot be used.



9 Maintenance

Troubleshoot by alarm information on APP or LCD display.
If fault occurs, users can check the fault information on the APP or by blinks of the LED indicator light.

No.	Fault code on app	Solution
1	Electronic lock fault	Set the electronic lock status to the correct position. Or seek help from us.
2	Emergency stop fault	Reset the emergency stop button. Or seek help from us.
3	Abnormal CP voltage	Seek help from us.
4	Abnormal AC output contactor	Seek help from us.
5	Over current	Reduce output current. Or seek help from us.
6	Over voltage	Wait for the grid voltage to return to normal. Or seek help from us.
7	Under voltage	Wait for the grid voltage to return to normal. Or seek help from us.
8	Electric leakage	Seek help from us.
9	Reverse connection of lin N	Correctly connect L and N lines. Or seek help from us.
10	Abnormal frequency	Wait for the grid frequency to return to normal. Or seek help from us.
11	Over temperature of charging interface	Wait for the temperature of charging interface to return to normal. Or seek help from us.

10 Decommissioning

10.1 Dismantling the charger

-Disconnect the charger from AC input and AC output.
-Disconnect communication and optional connection wirings. Remove the charger from the bracket.
-Remove the bracket if necessary.

10.2 Packaging

If possible, please pack the charger with the original packaging. If it is no longer available, you can also use an equivalent box that meets the following requirements.
-Suitable for loads more than 30 kg.
-Contains a handle.
-Can be fully closed.

10.3 Storage and Transportation

Store the charger in dry place where ambient temperatures are always between -40°C - + 70°C.Take care of the charger during the storage and transportation; keep less than 4 cartons in one stack. When the charger or other related components need to be disposed of, please ensure it is carried out according to local waste handling regulations. Please be sure to deliver any charger that needs to be disposed from sites that are appropriate for the disposal in accordance with local regulations.