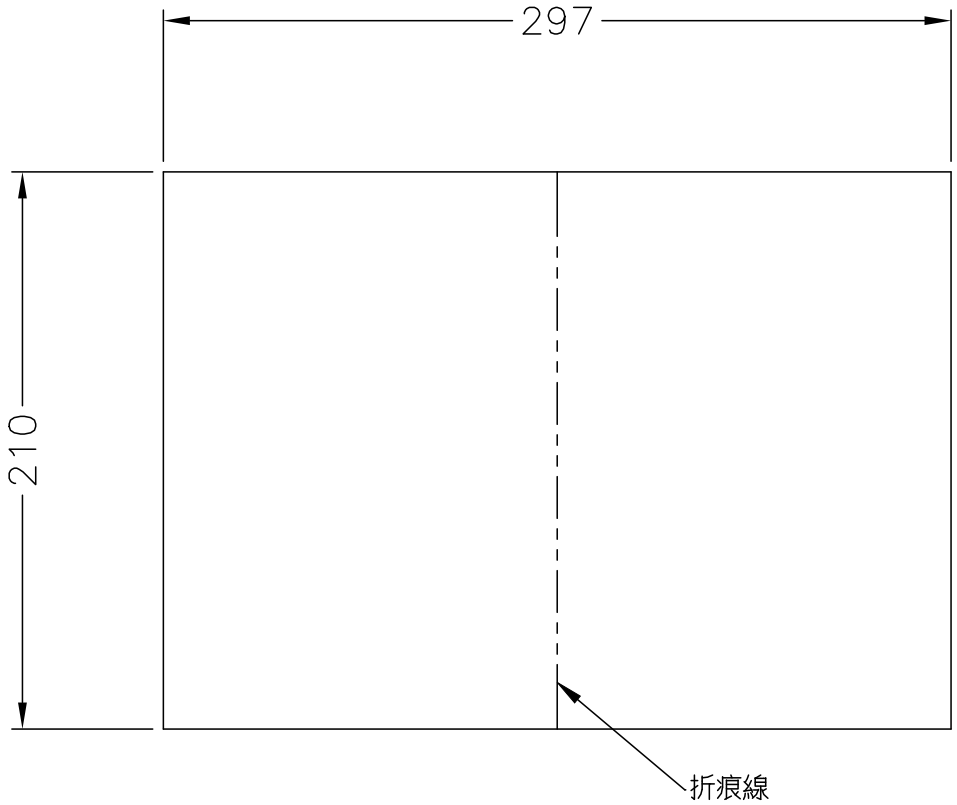
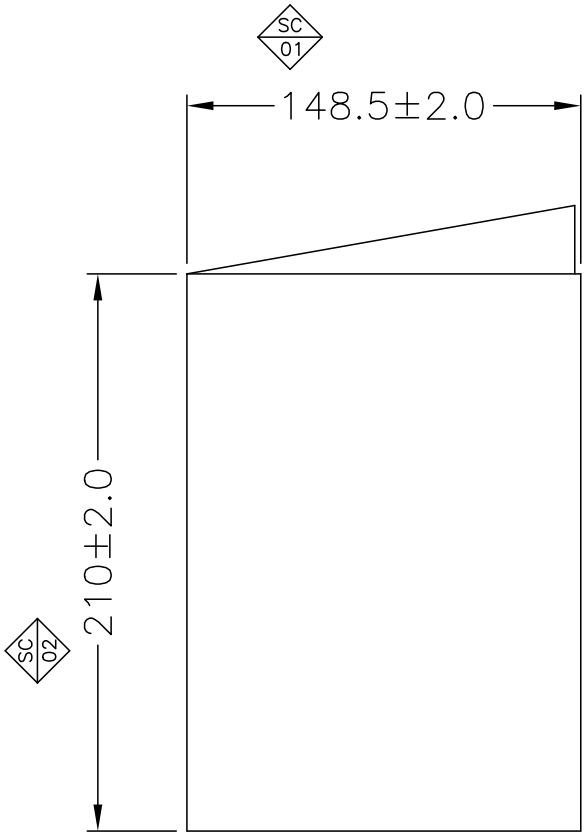
## 印刷尺寸




## 對折後尺寸




詳細印刷內容請參照附件

| REV | DATE | DESCRIPTION | DWN | APPD |
|---|---|---|---|---|
| B1 | 2020 11/26 | INITIAL DESIGN | Hubert | Jason |
| C1 | 2021 10/15 | 內容修改 | Hubert | Jason |
| C2 | 2023 08/16 | 內容修改 | Yunting | June |

法規要求 REGULATORY COMPLIANCE

設計/製造要求 DESIGN/MFG NOTES

1.DIMENSIONS MARKED WITH "CC" REPRESENTS REQUIRED BY SAFETY REGULATIONS AND "SC" REQUIRED BY THE CUSTOMER .
2.白色書面紙 70G
3.四色雙面印刷
4.騎馬釘裝釘
5.THE PARTS MUST WITH THE REQUIREMENT OF HALOGEN FREE.

材料要求 MATERIAL SPECIFICATIONS

| 長度區分 RANGE | 容許公差區分 (MM) COMMON TOLERANCE | | | |
|---|---|---|---|---|
| | A | B | C | D |
| 8 LESS THAN | ±0.05 | ±0.1 | ±0.2 | ±0.4 |
| 8~25 | ±0.08 | ±0.15 | ±0.3 | ±0.6 |
| 25~80 | ±0.12 | ±0.25 | ±0.5 | ±1.0 |
| 80~250 | ±0.25 | ±0.4 | ±0.8 | ±1.5 |
| 250~800 | ±0.5 | ±0.8 | ±1.5 | ±3.0 |
| 800~2500 | ±1.0 | ±1.5 | ±3.0 | ±6.0 |
| ANGULAR | ±0.15~ | ±0.3~ | ±0.5~ | ±0.8~ |

| | | |
|---|---|---|
| 核准 APPROVED | June_Chen 2023/08/16 | |
| 審核 CHECKED | | |
| 設計 DESIGN | Yunting_Liu 2023/08/16 | |
| 製圖 DRAWN | | |
| THIRD ANGLE PROJECTION | | |

| | | |
|---|---|---|
| 公差 TOLERANCE | C | 圖名 DESCRIPTION: 60kW USER MANUAL(EN) DSYE601J0ET2PH-RW 70G 白色書面紙 |
| 比例 SCALE | X | |
| 單位 UNIT | MM | 料號 PART NO.: 84A99900099-HC2 |

CONFIDENTIAL

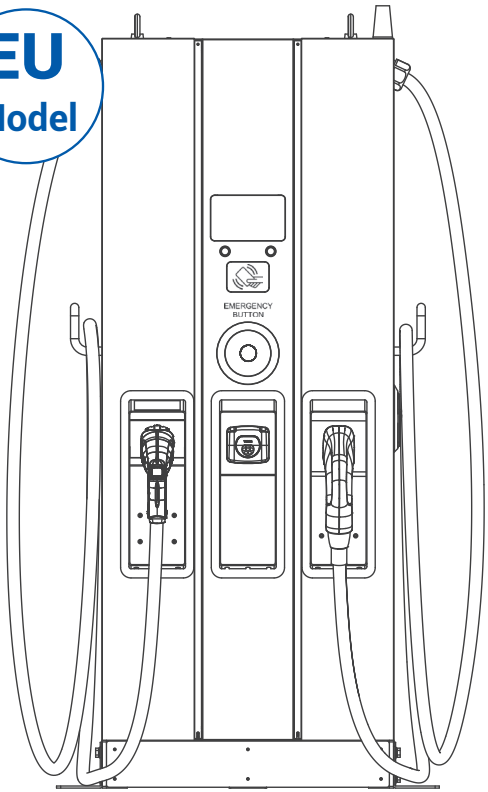
PE-3 297X420'2MM

DS Series

# DC EVSE 60KW Standalone Fast Charger

## User Manual & Installation Instructions

EU Model




W84A99900099-HC2

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# Introductions

The Standalone DC Fast Charger is the top choice to power battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV). It is designed for quick charging in both public and private locations, such as retail and commercial parking spaces, fleet charging stations, highway service areas, workplace, residence, etc.

The Standalone DC Fast Charger has the advantage of easy installation. The wall-mounted design and pluggable power modules realize flexible and cost-effective installation for different types of locations. The DC Standalone charger also has network communication capability. It is able to connect with remote network systems and provide drivers of electric cars real-time information, such as the location of charging stations, charging progress and billing information. The Standalone DC Fast Charger has a clear user interface with function buttons, safety certifications and an excellent waterproof and dust proof design to provide the best choice for outdoor environments.

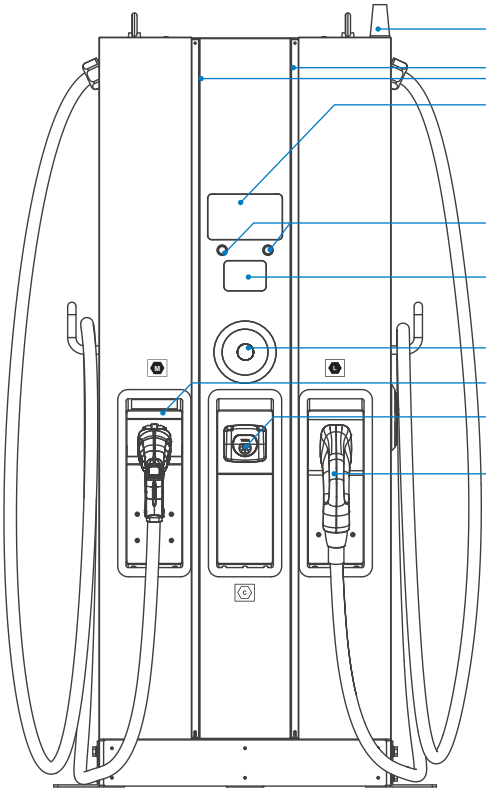
# Features

- Pluggable power modules make installation easy and flexible.
- Offers customers the convenience of start/stop charging control from an authorized RFID smart card or mobile APP.
- Built according to the latest industry standards for DC charging.
- Carries an outdoor rating capable of withstanding solid and liquid intrusions in outdoor settings making the unit more stable and highly reliable.
- Provides a high-contrast, screen interface with multi-function buttons.

# Applications

- Public and Private Parking Areas
- Community Parking Areas
- Parking Areas of Hotels, Supermarkets and Shopping Malls
- Workplace Parking Areas
- Charging Stations
- Highway Rest Areas

# 1. Basic User Interface



Antenna for Wi-Fi & 3G/4G

LED Indication

7" Information Screen

- Charging Status
- Alarm information
- User Authorization

Right Button & Left Button

RFID Card Reader

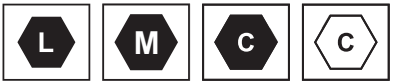
Emergency Stop

Left DC Connector

AC Socket/Connector (Optional)

Right DC Connector

*The connectors installed on the EVSE may vary depending on the model (section 2.2)




**Notice :**
According to EN-17186 requirement, this document lays down harmonized identifiers for power supply for electric road vehicles. The requirements in this standard are to complement the informational needs of users regarding the compatibility between the EV charging stations, the cable assemblies and the vehicles that are placed on the market. The identifier is intended to be visualized at EV charging stations, on vehicles, on cable assemblies, in EV dealerships and in consumer manuals as described (For CE model).

# 2. Specification

## 2.1 Product Specification

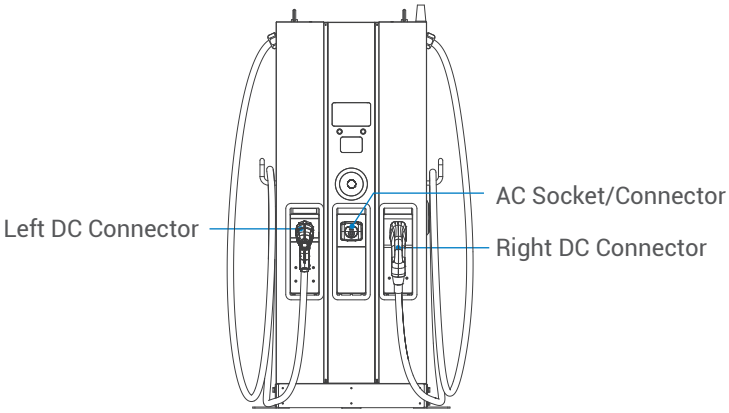
| Model Name | | DSYx601 Series |
|---|---|---|
| AC INPUT | Voltage Rating | ** DC 60KW 380-415Vac (±15%)<br>** DC 60KW+AC 22 KW 380-415Vac (+10%, -15%) |
| | Max. Input Current | 93A @230Vac ,<br>115A @187Vac ,<br>147A @187Vac (60kW+AC 22kW) |
| | Electrical Distribution | 3P+ N+ PE (Wye configuration) |
| | Power Grid System | TN/TT |
| | Frequency | 50/60Hz |
| | Max. Input Power | 65 kVA (60kW)<br>93 kVA (60kW+AC 22kW) |
| | Power Factor | > 0.99 |
| | Efficiency | > 94%, at optimize V/I point |
| DC, AC OUTPUT | Output Voltage Range | DC 150 ~ 950Vdc (CCS)<br>DC 150 ~ 500Vdc (CHAdeMO)<br>DC 150~750Vdc (GB/T)<br>AC 3Φ380 ~ 415Vac |
| | Maximum Output Current | ** CCS<br>Connector Code:<br>Z: 150A@150Vdc ~ 400Vdc when output voltage up to 950Vdc the output current is 63A<br>U/E: 120A@150Vdc ~ 500Vdc when output voltage up to 950Vdc the output current is 63A<br>** CHAdeMO<br>120A@150Vdc ~ 500Vdc<br>** GB/T<br>120A@150Vdc ~ 500Vdc when output voltage up to 750Vdc the output current is 80A<br>** AC 3Φ, 32A |

| | | |
|---|---|---|
| | Maximum Output Power | DC 60kW / AC 22KW |
| | Simultaneously output mode | 0%,50%,100% (for DC)<br>*Each connector will get 50% output power when plug in simultaneously; And one connector will get 100% when another connector finish the charging session or only this connector is plugged in |
| | Voltage Accuracy | ±2% |
| | Current Accuracy | ±2% |
| Electrical Isolation | Isolation between Input and Output | |
| Standby Power | < 100W (for 60kW+AC 22kW <150W) | |
| Communication | External | Ethernet, Wi-Fi and 3G or 4G |
| | Internal | CAN / RS485 |
| Input Protection | ** DC System<br>OVP, OCP, OPP, OTP, UVP, RCD, SPD<br>** AC System<br>OVP, OCP, UVP, RCD, SPD, GMI, CP Fault | |
| Output Protection | ** DC System<br>SCP, OCP, OVP, LVP, OTP, IMD<br>** AC System<br>OVP, OCP, UVP, RCD, GMI, CP Fault | |
| Internal Protection | ** DC System<br>OTP, AC contactor detection, DC contactor detection, Fuse detection<br>** AC System<br>OTP, Relay status monitor, RCD self-test, MCU function fault detection | |
| Load Management | Via OCPP 1.6 JSON | |

| | | |
|---|---|---|
| User Interface & Control | Display | 7-inch LCD |
| | Button | Right Button : Select charging connector.<br>Left Button : Home / Stop charge |
| | User Authentication | **RFID :** Support ISO 14443A/B, ISO 15693, FeliCa Lite-S (RCS966),<br>**OCPP Backend :** 2D Barcode, APP, Mobile Payment |
| | Backend Support | OCPP 1.6 JSON |
| Environmental Conditions | Operation Temperature | -30°C to 50°C (-22°F to 122°F), derating from 50°C (122°F) and above |
| | Storage Temperature | -40°C to 70°C (-40°F to 158°F) |
| | Relative Humidity | 5%~95% RH, non-condensing |
| | Altitude | ≤ 2000m(6560 ft) |
| Regulations | CE model Safety | IEC 61851-1, IEC 61851-23 |
| | CE model EMI/EMC | IEC 61851-21-2 |
| | Charging Interface | CHAdeMO Ver 1.2<br>CCS DIN 70121<br>GB/T 27930<br>AC IEC Type2 |
| Mechanical Specifications | Dimensions (WxDxH) | 700 x 331 x 1800 mm<br>(28 x 13 x 71 inches) |
| | Weight (typ.) | < 235 kg (518 lbs);<br>< 255 kg (563 lbs) For 60kW+AC 22kW |
| | Charging Connector | Refer to Chapter 2.2 Table |
| | Cooling | Forced Air |
| | Ingression Protection | IP55 |
| | Anti-vandalism | IK10, excluding LCD & RFID cover |

## 2.2 DSYx601 Version Description

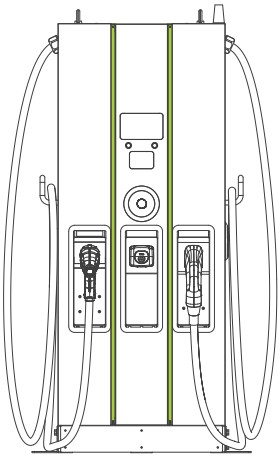
The DSYx601 series are available in different versions depending on the charging connectors, below table shows the available combinations, the coresponding position of charging connectors are indicated from left to right when face to charger.



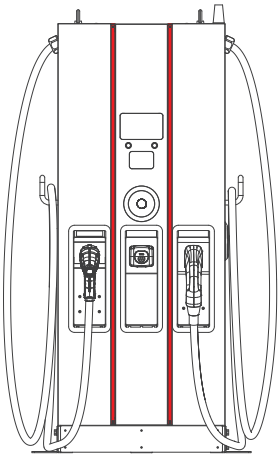

| Version | Left DC Connector | AC Connector | Right DC Connector |
|---|---|---|---|
| DSYx601 JxE | CHAdeMO | Optional Type2 | CCS2 |
| DSYx601 J00 | CHAdeMO | - | - |
| DSYx601 E00 | CCS2 | - | - |
| DSYx601 G0E | GBT | - | CCS2 |
| DSYx601 ExE | CCS2 | Optional Type2 | CCS2 |
| DSYx601 J0U | CHAdeMO | - | CCS1 |
| DSYx601 U00 | CCS1 | - | - |
| DSYx601 U0U | CCS1 | - | CCS1 |

## 2.3 LED Indication and Operation Status

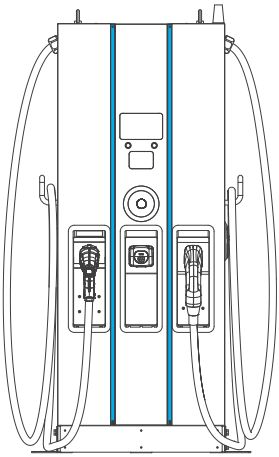
*Left LED for Left Connector, Right LED for Right Connector



Standby



Fault

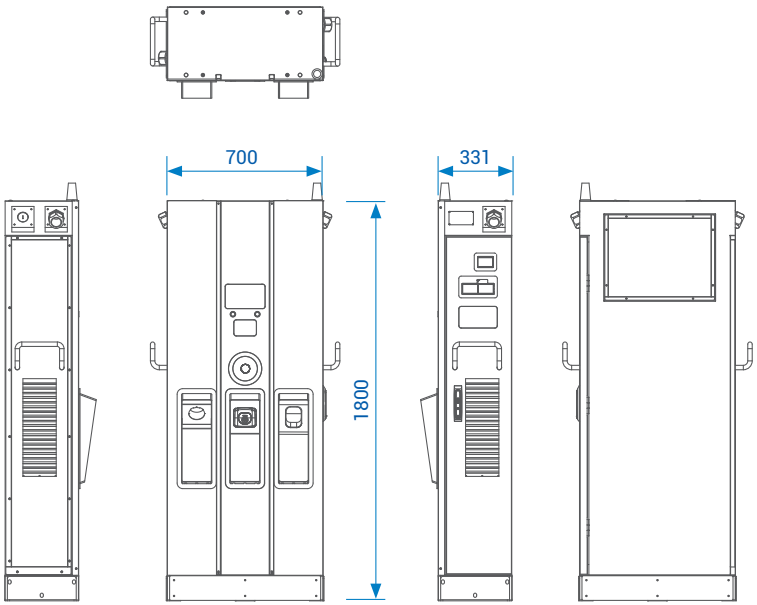


Charging

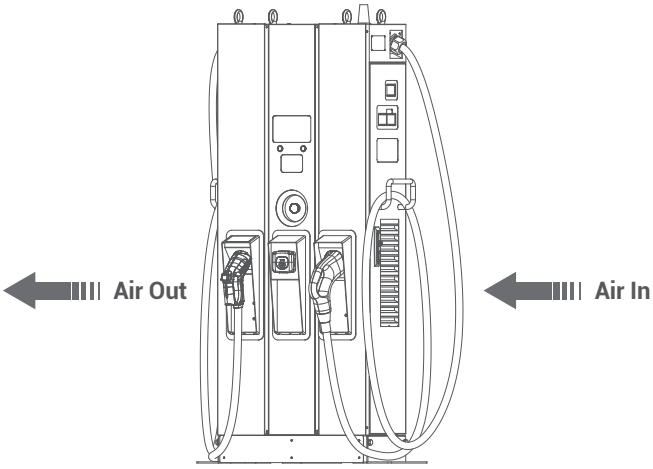
| Status \ LED | Left Indicator | Right Indicator |
|---|---|---|
| Standby | Green | Green |
| Fault | Red | Red |
| Charging | Blue | Blue |

## 2.4 Dimensions

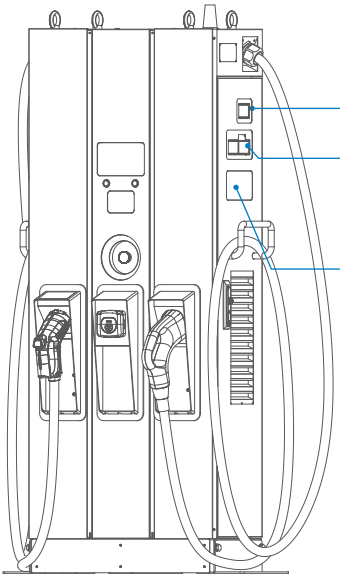
Main Size of Charger: (Unit: mm)




## 2.5 Direction of Cooling Airflow



## 2.6 Meter Display (Optional)



AC Meter for AC Connector

Left AC Meter for PSU #01
Right AC Meter for PSU #02
DC Meter for Left DC Connector

DC Meter for Right DC Connector

* NOTE:
When 2 DC connectors are simultaneously charging, PSU #01 and #02 are assigned to left & right DC connector, respectively.

# 3. Installation Instruction

## 3.1 Before Installation

- Read all the instructions before using and installing this product.
- Do not use this product if power cable or charging cable have any damage.
- Do not use this product if the enclosure or charging connector are broken or open or if there is damage.
- Do not put any tool, material, finger or other body part into the charging connector or EV connector.
- Do not twist, swing, bend, drop or crush the charging cable. Never drive over it with a vehicle.

**WARNING:** The product should be installed only by a licensed contractor and/or licensed technician in accordance with all building codes, electrical codes and safety standards.

**WARNING:** The product should be inspected by a qualified installer prior to initial use. Under no circumstances will compliance with the information in this manual relieve user of his /her responsibilities to comply with all applicable codes and safety standards.

- Power feed must be 3 Phase Wye configuration with TN(-S)/TT grounding systems.
- In the installation of TN(-S) system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is directly connected to the PE of power distribution and separate conductor for PE and neutral (N).
- The capacity of power supply should be higher than 93kVA in order to function correctly.
- The product should be installed in free air area and keep at least 100cm (3 ft. 6 in.) clearance distance to all air vent of the product.
- Recommend to keep not less than 100cm (3 ft. 6 in.) clearance distance from all around the product following NEC table 110.26 condition 2, 151-600V.

**NOTICE**

It is recommended to conduct Wi-Fi and 3G or 4G signal strength while charger installation. The RSSI (Received Signal Strength Indication) value is considered as good as higher than -65dBm. Poor connection quality might interrupt charging process or data transaction.

## 3.1.1 Contractor Safety Guide

Introduction

- A safe work environment for everyone - participants, installation and demolition crews, contractors and subcontractors.
- Ultimately, it is the responsibility of contractors to ensure the safety and safe work practices of their employees and subcontractors who may be working at the site on their behalf.
- This guide provides a simple reference guide with basic rules for implementation. This guide does not outline every single safety standard: it is designed to be a supplement to participants, contractors and subcontractors.
- Contractors, subcontractors and employees should cooperate with their employers and other persons in complying with safety regulations and instructions.

In particular, employees should:

1. Obtain the qualified authorization of the responsible unit in the construction area.
2. Work safely.
3. Not do anything to endanger themselves or other persons.
4. Use personal protective equipment as required and take reasonable care of it when it is not in use.
5. Report unsafe activities immediately to supervisors or the responsible person in control of the workplace.
6. Report all accidents and dangerous occurrences to the supervisor immediately after they happen.

## 1.Requirements for workplace conditions

- Set up suitable fencing to isolate the construction area from outside
- Close and secure all entrances when the site is unattended
- Hang warning notices nearby which show the following information: warning icon and phone number of person in charge
- Install sufficient lighting fixtures

## 2.Cleaning up

- Keep work areas (including accessways) free from debris and obstructions
- Keep ground surfaces tidy and flat, to avoid people tripping or being hurt by tools or other objects
- Stack and store equipment and materials in a tidy and stable manner
- Regularly clean up and dispose of waste
- Remove all surplus materials and equipment after completion of work

## 3.Fire hazards

- Beware of flammable materials and goods. Keep them away from work areas.

## 4.Protection against high temperatures on the worksite

- Erect a sunshade or shed to shelter workers from the heat and sun
- Set up cooling equipment, such as exhaust fans
- Make water dispensers available
- Provide suitable protective clothing such as hat, sunglasses and long sleeves to protect workers from heat stroke and UV rays

## 5.Inclement weather

- Secure all scaffoldings, temporary structures, equipment, and loose materials
- Check and implement SOP to ensure disconnection of gas supplies, electrical circuits and equipment
- Inspect worksites to ensure protection against ingress of water or dust
- Inspect the drainage system for blockages and remove if found
- Stop all outdoor works except for emergency works

## 6.Ladders

- Only use ladders that meet local safety regulations
- Do not use wooden ladders
- When working at height, it is recommended to use platforms instead of ladders
- If using a platform is not practicable, a supervisor should assess the potential risk and provide safety

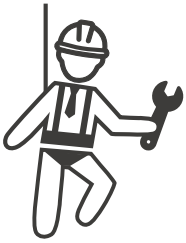
- protection equipment for workers
- Use non-conductive ladders made of glass-fiber or reinforced plastic when carrying out electrical work
- Assign assistants to provide support when working on ladders
- Check all ladders for broken rungs or other defects before use and periodically
- Fully open stepladders when in use
- Do not stand on the top two rungs of a ladder
- Do not overreach when working on a ladder
- Beware of overload restrictions

| Country | Standards |
|---|---|
| British | BS1129,BS2037,EN131,EATS13/1 |
| USA | ANSI A 14.1,ANSI A 14.2,ANSI A 14.5 |
| Australia New Zealand | AS 1892.2-1922,AS/NZS1892.1,AS/NZS 1892.3 |
| Canada | CSA Z11 M81 |

**Common Standards for Ladders**

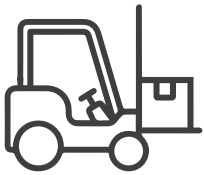
## 7.Working at height

- Avoid working at height by using alternative tools and methods as far as practicable
- It is strongly recommended to build suitable scaffolding or work platforms
- Provide fall arrest systems for workers if it is impracticable to use working platforms
- Secure all materials and tools to prevent them falling from height



## 8.Lifting operations

- Have lifting gear and apparatus regularly inspected and tested by qualified persons
- Isolate and cordon off lifting areas to keep out non-construction personnel
- Ensure that lifting routes do not cross buildings or people, and avoid collision with objects
- Do not exceed safe working load limits



## 9.For on-site workers

- Plan all work
- Turn off power (work with live parts de-energized whenever possible)
- LOTO (Lock Out, Tag Out)
- Live electrical work permit (input terminals with HV after door open)
- Use personal protective equipment (PPE)
- Safe workplace conditions and space
- Adhere to other occupational health, safety and security codes, such as those published by OSHA

## 10.Reference standards

Adhere to the following codes:

- NFPA-70E -2021 Sec 110.3 (Electrical Safety in the Workplace)
- NFPA-70E -2021 Sec 130.4 (Shock Risk Assessment)
- NFPA-70E -2021 Sec 130.5 (Arc Flash Risk Assessment)

## 3.2 Grounding and Safety Requirement

- The product must be connected to a grounded, metal, permanent wiring system. Connections shall comply with all applicable electrical codes. Recommend the ground resistance be less than 10Ω.
- Ensure no power is connected at all times when installing, servicing, or maintaining the charger.
- Use appropriate protection when connecting to main power distribution network.
- Use appropriate tools for each task.

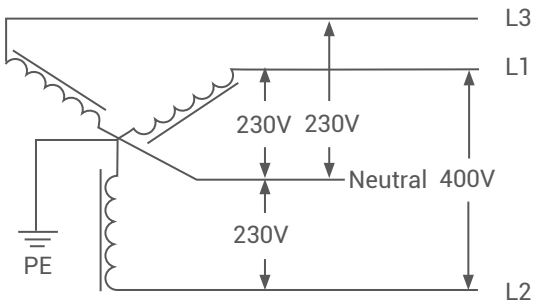
**CAUTION:** The disconnect switch for each ungrounded conductor of AC input shall be provided by installation contractor or technician.

**CAUTION:** A cord extension set or second cable assembly shall not be used in addition to the cable assembly for connection of the EV to the EVSE.

### 3.2.1 Service Wiring

- Ground Connection
  Always connect the Neutral at the service to Earth Ground. If ground is not provided by the electrical service then a grounding stake must be installed nearby. The grounding stake must be connected to the ground bar in the main breaker panel and Neutral connected to Ground at that point.
- 400Vac Three-Phase(Line to Line)

**CAUTION!**
This is feed from Wye-connection power grid, the Standalone DC Fast Charger can connect to L1, L2 or L3, and Neutral. Earth ground must be connected to neutral at only one point, usually at the breaker panel.




400V Three-Phase Wiring Connection

**DANGERS**
Be Aware of High Voltage!

**WARNING!**
Earth Connection is Essential!

## 3.3 Unpack the charger

- The product is direct current (DC) charger and the packing design passed the packaging simulation test. If the packaging damage caused by overturning, falling or external impact during transportation, it may cause the product damage or defects. If there is any serious damage to the packaging when receiving the goods, please notify the supplier about your findings.
- The product is delivered by transport company to warehouse or specified location where it will be handed over. Transporting the charger to its final location (last mile service) is not standard included in the order.

**NOTICE:** The delivery truck unloads the pallet carrying the charger. The movement of the charger to its final location is the responsibility of the customer / contractor.

If the TiltWatch indicator is red (tilted over 80°)

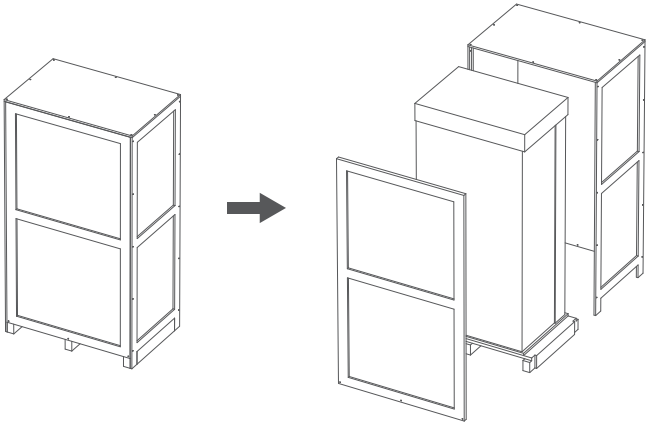
1. Do not refuse the shipment / receipt.
2. Make a notation on the delivery receipt and inspect cabinet for damage.
3. If damage is discovered, leave cabinet in original package and request immediate inspection from carrier within 3 days of delivery.
4. Contact the supplier by mail or phone to address your findings.

**WARNING!**

**60kW:** Charger weight might be 235 kg (518 lbs). Charger with package might be 335 kg (739 lbs).
**60kW+AC 22kW:** Charger weight might be 255 kg (563 lbs). Charger with package might be 355 kg (783 lbs).
Be careful during unpack process.

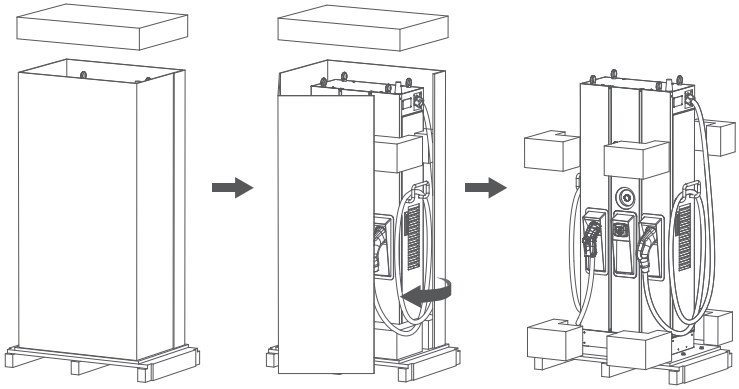
## STEP 1.

Remove the surrounding boards



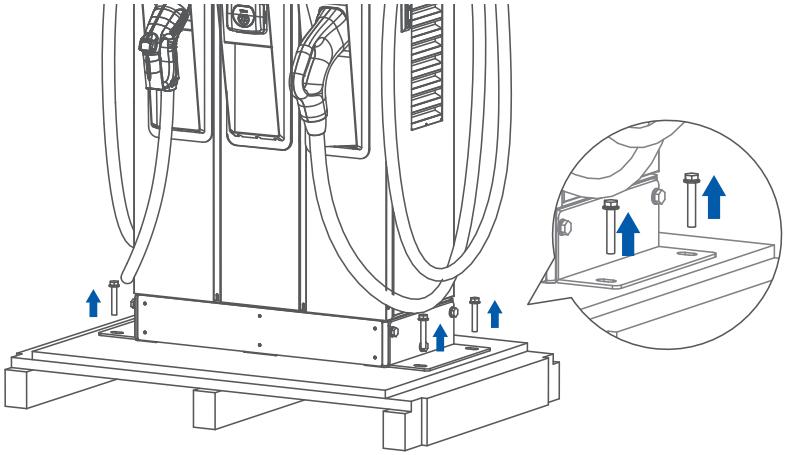
## STEP 2.

Remove the carton and packing cushion and film.



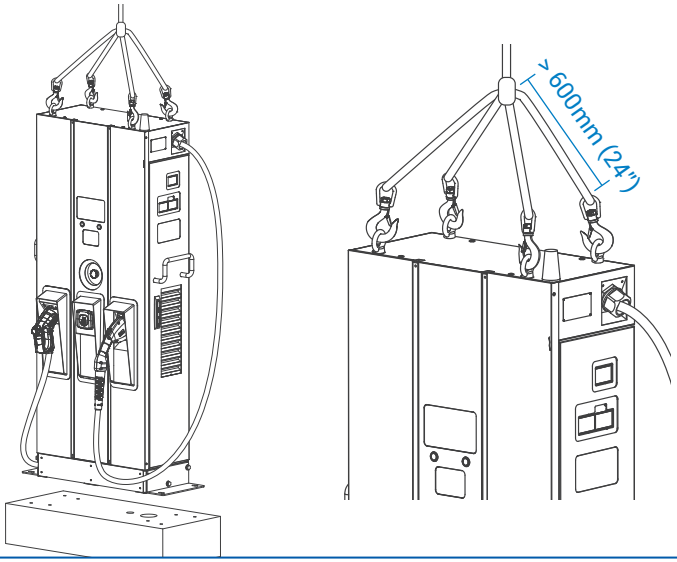
## STEP 3.

Remove these 4 pcs of fixing M12 screws.



## STEP 4.

To use lifting eye bolts to move the EVSE, please apply 6mm (1/4 inches) diameter steel wire rope to the four eye bolts as following picture.

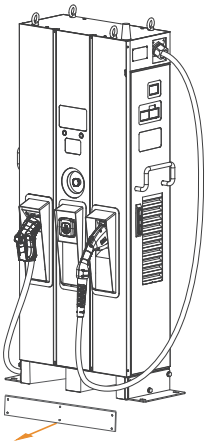


Or use a forklift to move the EVSE.

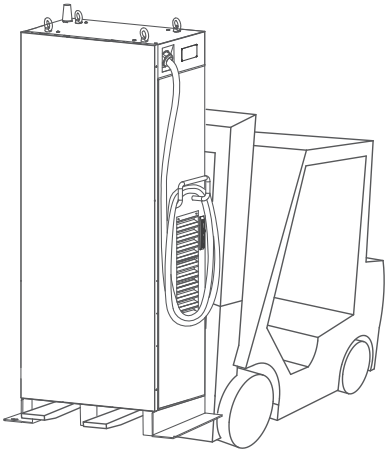
Step 1. Please remove the front and rear bottom trim panels first.

Step 2. Use a forklift to raise the EVSE.

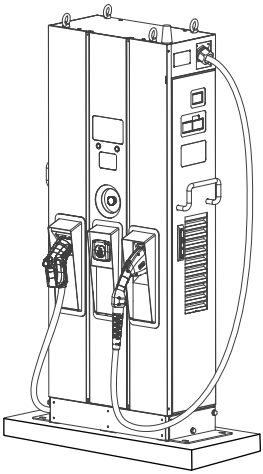
(the forks must be opened to the maximum state)



Step 1



Step 2



## 3.4 Recommended Tools for Installation and Inspection

### 3.4.1 Recommended Tools for Installation

| Type | Description |
|---|---|
| Philips Screwdriver | No. 2 and 3 |
| Shifting Wrench | |
| Socket Screwdriver | No. 8, 10, 17 and 19 |
| Electrical Tape | Black / 15mm (0.6") Width |
| AC Input Cable | For 60kW: at least 50mm² for L1, L2, L3, N, and 35mm² for PE; for 60kW+AC 22kW: at least 95mm² for L1, L2, L3, N, and 50mm² for PE. Recommended using 600V, 75°C, XLPE power cable |
| Ring Terminal | 1. Ring Terminal for L1, L2, L3, N(Inner Diameter: 10.5mm (0.41"), Outer Diameter: 22mm (0.87")) 2. Ring Terminal for PE (Inner Diameter: 6.4mm (0.25"), Outer Diameter: 22mm (0.87")) |
| Crimping Pliers for Ring Terminal | Hexagonal |
| Wire Stripper | |
| Wire Cutters | |
| Crane/ Forklift | >235 kg (518 lbs) for 60kW<br>>255 kg (563 lbs) for 60kW+ AC 22kW |

*Please consult your local electrical technicians for proper installation instructions as installation requirements or conditions may vary on-site.

### 3.4.2 Recommended Tools for Inspection & Commissioning

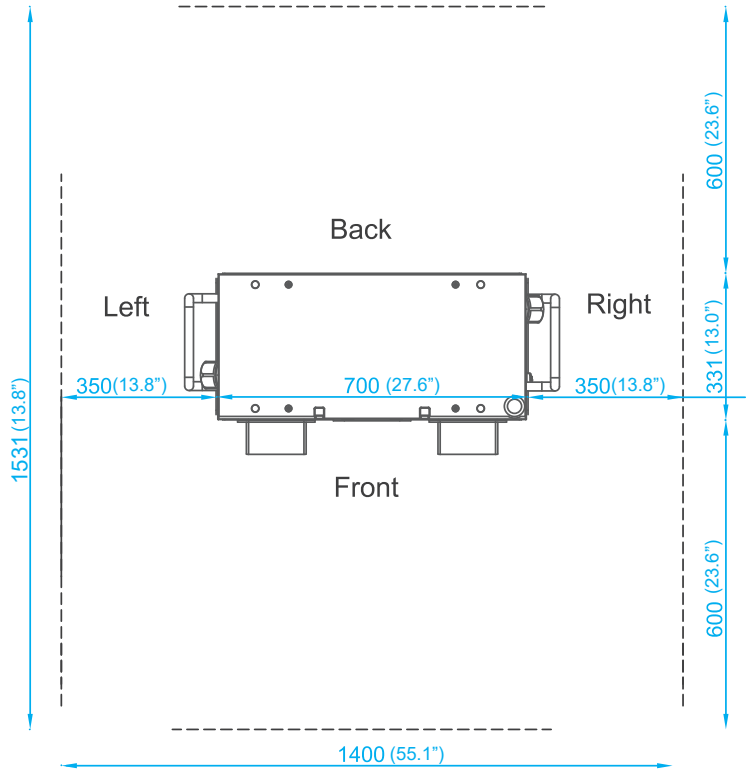
| Type | Description |
|---|---|
| EV or EV Simulator | Meet CHAdeMO/CCS/GB/T Standard |
| Multi-meter | 1000V |
| Current Probe | 200Amp |
| RFID Authorized Card | |
| RFID No Valid Card | |
| Door Key | |
| Needle-Nose Plier | |
| Torque Meter Screwdriver | |
| Laptop & CAT 6 cable | For Charger Configuration |
| Wi-Fi, 3G/4G signal quality checker | If the internet connection is established by a wireless router, for signal stregth consideration, do not leave the router into a metal box |

## 3.5 Installation Procedure

### 3.5.1 Required Space for Placing and Maintaining

Require a min. space of 1400x1531 mm(55.1x60.3 inch).This space is calculated as follows:

- Charger Size W x D x H:700 x 331 x 1800 mm(27.6x13.0x315.4 inch).
- Front side 600 mm(23.6 inch),in order to operate dashboard.
- Left and right side 350 mm(13.8 inch),in order to open left and right door.
- Backside 600 mm(23.6 inch),in order to open the bracket door.

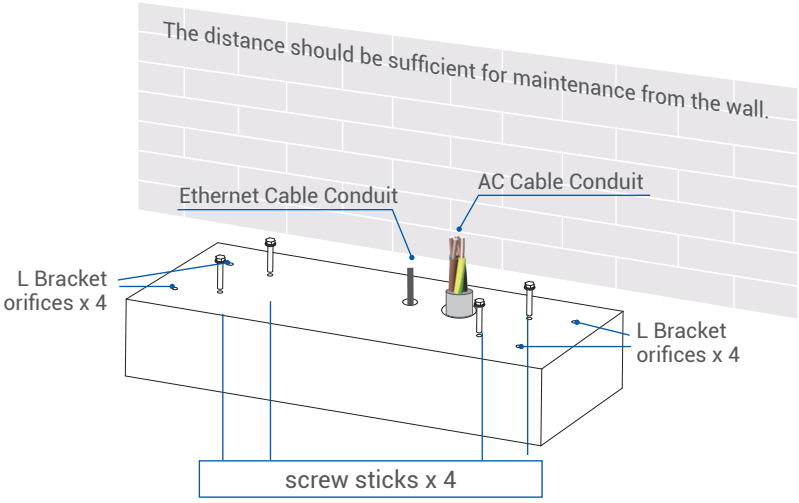


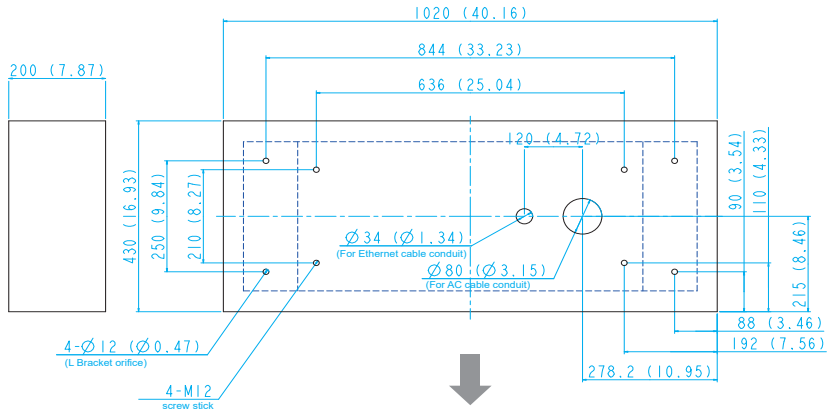

unit: mm (inch)

## 3.5.2 Build Concrete Base

**STEP 1.**

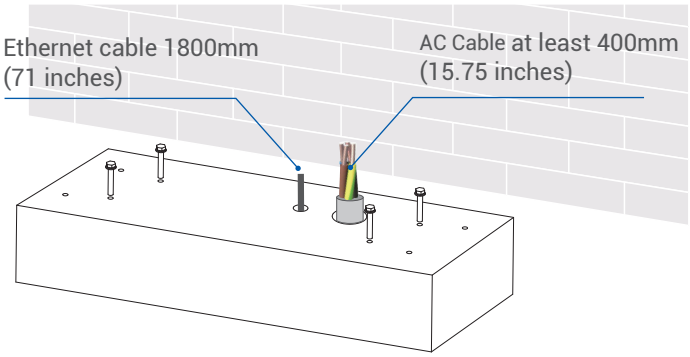
1. Build 1020mm x 430mm x 200mm (40.16" x 16.93" x 7.87") concrete base on the level to stand charger in advance.
2. Implant AC input cable conduit smaller than Φ80 mm (3.15"), eg. Φ2.5" PVC conduit; and SFTP Ethernet cable conduit smaller than Φ34 mm (1.34"), eg. Φ1" PVC conduit.
3. And implant 4 pcs of M12 screw stick out the concrete base for 40 mm (1.57") to fix the charger. The positioning of these 4 pcs of M12 screws should be within ± 2 mm (0.08") in short axis, ± 8 mm (0.32") in long axis according to screw holes of charger.
4. To fit this positioning requirement, a steel plate fixture be suggested. Please create the fixture by the following drawing or order this fixture from your vendor.
5. The other way to fix the charger on concrete base is install 2 of L-brackets accessories outside of charger and drill the screw holes (Φ12 mm (0.47")) on the cement base as drawing below.






## STEP 2.

- Extend 3 phase 5 wires AC input cables from conduit of concrete base, AC cables expose at least 400mm (15.75") and these 5 wires should be with ring terminals (L1, L2, L3 & N: Inner Diameter: 10.5mm (0.41"), Outer Diameter: 22mm (0.87") & PE: Inner Diameter: 6.4mm (0.25"), Outer Diameter: 22mm (0.87")).
- The conductor cross sectional area of input power wires should be at least 50mm² for L1, L2, L3, N, and 35mm² for PE for 60kW; 95mm² for L1, L2, L3, N, and 50mm² for PE for 60kW+AC 22kW. If internet is connected via Ethernet, at least 1800mm (71") of the Ethernet cable must be exposed from the conduit.

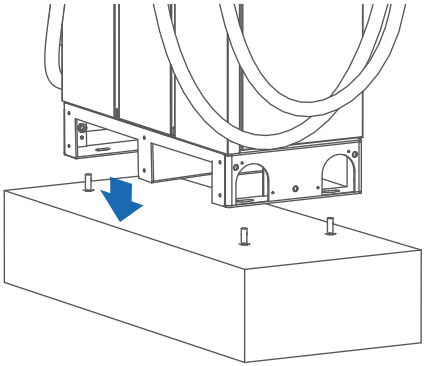


## 3.5.3 Two Methods of Fixing DSWx601 Charger

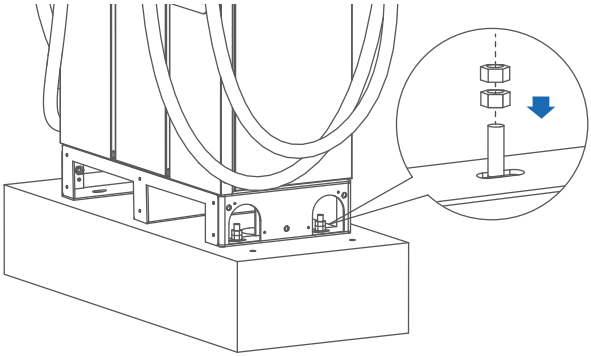
**METHOD 1.**

Lift the charger on concrete base, pull the input cable through bottom hole of charger; fasten 8 pcs of M12 screw nuts and 4 pcs of M12 washers on 4 pcs of M12 screw of concrete base (2 nuts for each screw) to secure the chargers. Then fix the base cover (in the accessory pack) in charger base.

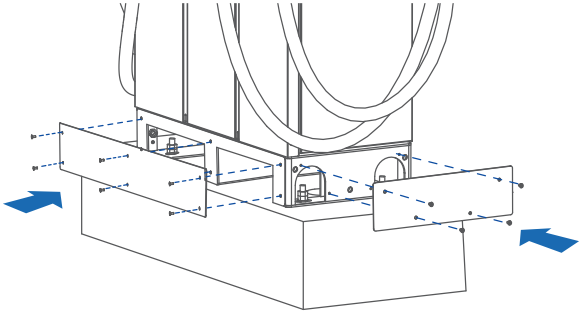
Step 1.



Step 2.

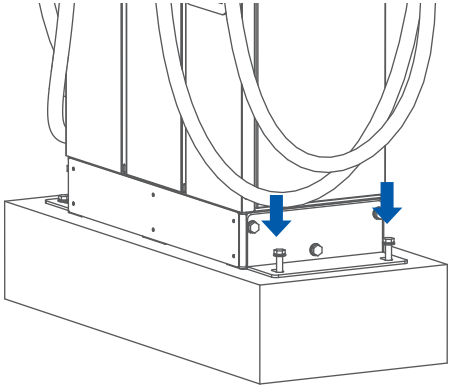


Step 3.



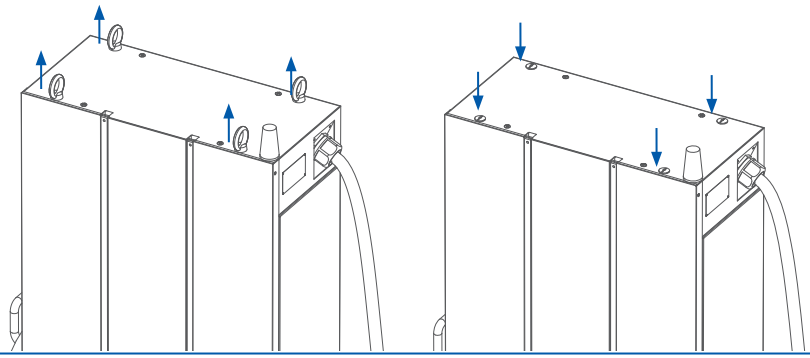
## METHOD 2.

If use L-brackets to fix charger, secure L-brackets on the cement base by 4 pcs of M12 expansion bolts.



**NOTE**

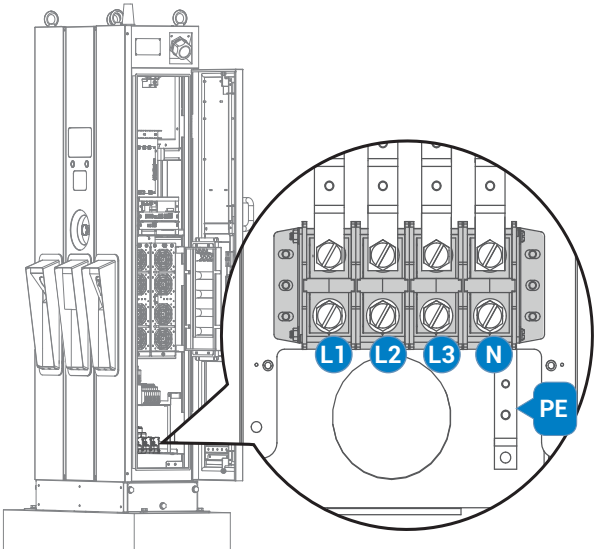
If remove the eye bolts on the top of the cabinet, must assemble the waterproof plastic bolts(in the accessory pack).



## 3.5.4 Installing Cables

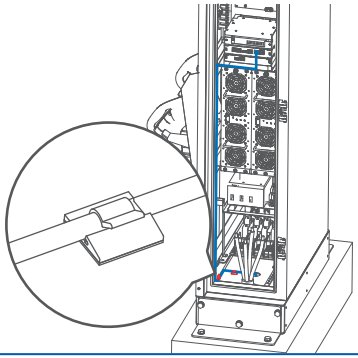
**STEP 1.**

Open Right Cover for Wiring: Connect L1, L2, L3 and N of AC power to 4P terminal. Fasten each wire with proper screw and torque number- 120Kgf. cm/5-15 secs. Connect the PE wire (green with yellow) to grounding position of charger and torque number- 60Kgf.cm.



**STEP 2.**

Pull AC power cables to power distribution box, connect the Protective Earth wire (Green/Yellow) to ground point of power distribution box. Neutral should be shorted with ground point to meet TN(-S) grounding system. Ethernet cable should be connected to charger RJ45 port (refer to pic. of section 4.1) and fixed with adhesive cable ties as the picture below.



**STEP 3.**

Wiring installation of L1, L2, L3 and Neutral wire to an external breaker. Recommended breaker spec.: Max. input current shall be over or equal to 125A for 60kW model; 200A for 60kW+AC 22kW model. B Curve type, Max. residual leakage current (RCD) shall be 30mA.

A breaker with 30mA RCD Type A is recommended.

**STEP 4.**

Do Inspection as section 3.6.1 to 3.6.3 .
Turn on the power source and be ready for operational testing. The power supply of the Standalone DC Fast Charger will be enabled and automatically drive the information screen. Information screen will turn to the charging solution screen within 30 seconds.

Not following installation instruction will cause charger damage.

**STEP 5.**

Use foaming agent to fill the gap in the AC cable conduit and complete the installation.

## 3.5.5 Screw Torque Requirement Table

| Screw in Metric | | | | | | |
|---|---|---|---|---|---|---|
| Screw size | Screw type | Steel Inch-Lbs | Steel Kgf-Cm | Steel N-m | Aluminum Kgf-Cm | Aluminum N-m |
| M2*0.4 | Machine | 3~4.77 | 3.5~5.5 | 0.34~0.54 | 3~4.5 | 0.34~0.44 |
| M2.5*0.45 | Machine | 3~4.77 | 3.5~5.5 | 0.34~0.54 | 3~4.5 | 0.34~0.44 |
| M3*0.5 | Machine | 5.5~9 | 6.5~10.5 | 0.64~1.04 | 5.2~8.4 | 0.51~0.82 |
| M3.5*0.6 | Machine | 8.5~13 | 10~15 | 0.98~1.47 | 8~12 | 0.78~1.18 |
| M4*0.7 | Machine | 13~18 | 15~21 | 1.47~2.06 | 12~17 | 1.18~1.66 |
| M5*0.8 | Machine | 25~34 | 29~39 | 2.84~3.82 | 23~32 | 2.26~3.14 |
| M6*1.0 | Machine | 45·55 | 52~63.5 | 5.1~6.22 | 42~51 | 4.11~5 |
| M6*1.0 | Hex cap | 85~112 | 98~129 | 9.6~12.65 | 78~103 | 7.65~10.1 |
| M8*1.25 | Machine | 106~141 | 122~163 | 11.96~15.98 | 98~130 | 9.61~12.75 |
| M8*1.25 | Hex cap | 205~274 | 237~316 | 23.24~30.98 | 190~253 | 18.63~24.8 |
| M10*1.5 | Hex cap | 212~382 | 245~440 | 24.02~43.15 | 196~351 | 19.22~34.42 |
| M12*1.75 | Hex cap | 372~668 | 430~770 | 42.17~75.49 | 343~615 | 33.63~60.3 |
| Screw in Imperial | | | | | | |
| 2-56 | Machine | 1.5~2 | 1.7~2.3 | 0.17~0.22 | 1.4~1.8 | 0.14~0.18 |
| 4-40 | Machine | 3~4 | 3.5~4.5 | 0.34~0.44 | 2.8~3.6 | 0.27~0.35 |
| 6-32 | Machine | 6~10 | 7~11.5 | 0.68~1.13 | 5.6~9.2 | 0.55~0.9 |
| 8-32 | Machine | 10~15 | 11.5~17 | 1.13~1.66 | 9.2~14 | 0.9~1.37 |
| 10-32 | Machine | 16~24 | 18.5~28 | 1.81~2.74 | 15~22 | 1.47~2.16 |
| 1/4-20 | Machine | 35~46 | 40~53 | 3.92~5.2 | 32~42 | 3.14~4.11 |
| 1/4-20 | Hex cap | 57~77 | 66~89 | 6.47~8.73 | 53~71 | 5.2~6.96 |
| 5/16-18 | Hex cap | 119~158 | 137~182 | 13.43~17.85 | 110~145 | 10.77~14.21 |
| 3/8-16 | Hex cap | 205~274 | 237~316 | 23.24~30.99 | 190~253 | 18.63~24.82 |
| 7/16-14 | Hex cap | 338~451 | 390~521 | 38.24~51.09 | 312~416 | 30.59~40.79 |
| 1/2-13 | Hex cap | 515~686 | 595~792 | 58.35~77.66 | 476~634 | 46.68~62.17 |

## 3.6 Installation Inspection & Commissioning

### 3.6.1 Environmental Check

| Item | Status | Remark |
|---|---|---|
| Ambient Temperature | | |
| Ambient Humidity | | |
| Sunshade | | Recommended but not required. |
| Rain Canopy | | Recommended for better charging experience and maintenance on rainy day. |
| Installation Altitude | | < 2000m (6560 ft) |
| Air Circulation / Drafty | | |
| Dust Level | | |
| Anti-Vandalism Measures | | |

### 3.6.2 External Infrastructure Readiness & Check

| Item | Status | Remark |
|---|---|---|
| Input Wirings & Terminals | | Type/ Length/ Cross Section |
| Key & Lock of Cabinet Door | | |
| Fixing Screws | | Type / No. |
| MCCB (Moulded Case Circuit Breaker) | | Current rating of MCCB shall be higher than or equal to 125A for 60kW model; 200A for 60kW+AC 22kW model, 4Port(for L1,L2,L3,N wire) |
| Residual Current Device | | Maximum RCD residual current shall not excess 30mA |
| Input Electricity Capacity | | |
| Input Electricity Configuration | | Wye |
| Grounding Resistance | | <10Ω |
| Grounding System | | TN/TT |
| Grid Voltage & Frequency | | |
| Network Connection & Quality | | Wi-Fi , 3G/4G > -65dBm |

### 3.6.3 EVSE Check – Static (Non-Powered)

| Item | Status | Remark |
|---|---|---|
| Outlook | | No dent, rust ,or scratch |
| Labeling & Warning Signs | | |
| Package (Accessory) List | | |
| Robustness of Input Wirings & connection | | Refer to 3.5.5 Screw Torque Requirement Table |

**WARNING:**
Improper connection of the EVSE grounding conductor can result in a risk of electric shock. Please ensure the EVSE is properly grounded prior to energize it.

### 3.6.4 EVSE Check - Power On

| Item | Status | Remark |
|---|---|---|
| Power On | | |
| Screen On | | |
| Acoustic Noise | | |
| Screen Display & Function | | |
| Time Display Correctly | | |
| Network Connection Quality | | |
| Cooling Fans Operation & Noise | | |
| Led Status Indication | | |
| EVSE Setting | | |
| Function of Engineer Mode | | |
| Version of H.W. & F.W. | | |
| Remote Control & Monitoring | | |
| Backend Server Connection | | |
| Network Connection & Quality | | Wi-Fi , 3G/4G > -65dBm |

### 3.6.5 EVSE Check - Charging

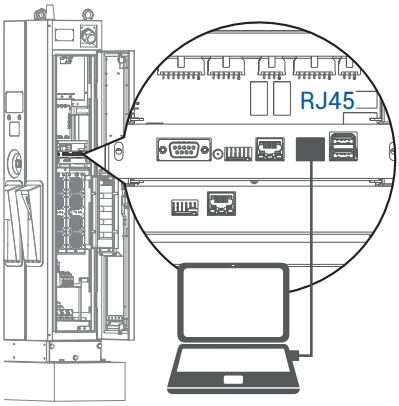
| Item | Status | Remark |
|---|---|---|
| User Authorization –RFID | | |
| User Authorization –QR Code | | |
| User Authorization –Others. | | |
| Waiting Time of Connection Check | | |
| Reading of Each Display Item | | |
| Temperature Reading | | |
| Full Charge Test | | Temperature Reading |
| Function of Electronic Lock | | |
| Reading of Engineer Mode | | |
| Airflow & Noise of Cooling Fan | | |
| Charging Record ( log ) Upload | | |
| Remote Control & Monitoring | | |

### 3.6.6 EVSE Check – System Power Button

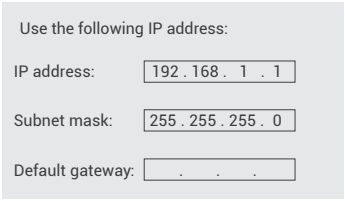
| Item | Status | Remark |
|---|---|---|
| Emergency Stop Button<br>& Recovery | | Set the rated load state, press the emergency stop button, the charger should be cut off output immediately.<br>1. The charger stops charging and alarm when press the emergency stop button.<br>2. When the button is released and the gun is pulled, the EVSE returns to standby status. |

# 4. Network Setting

## 4.1 Wi-Fi Network Setting

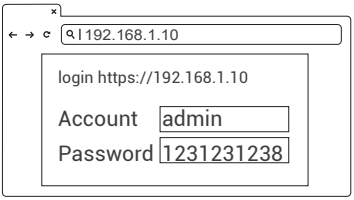



- Laptop with RJ45 interface.
- Connect RJ45 cable from Laptop to charger's RJ45 port.
- Setup parameters in the Webservice.
- Input RJ45 connector port is for engineer use for maintance.




**Step 1.**

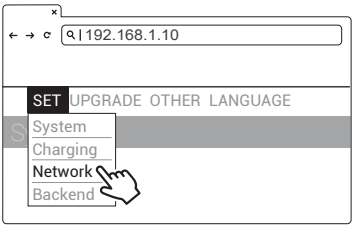
Before opening web browser, please enter network setting to set your IPV4 static IP to 192.168.1.1 in PC




**Step 2.**

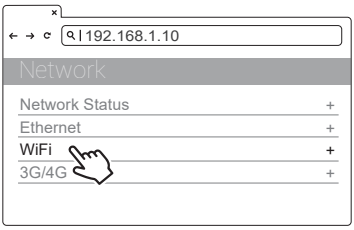
Open web service browser, type the IP address of charger"192.168.1.10" into the URL bar to access the web page of charger.

- Account: admin
- Password: 1231231238




**Step 3.**

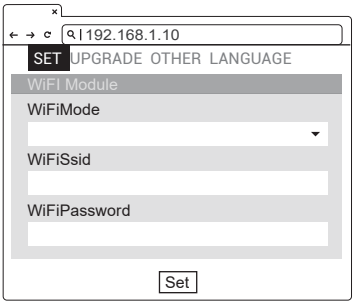
SET -> Network.




**Step 4.**

Select Wi-Fi Module

Select Wi-Fi modes and fill in SSID and Password according to your application, if not required, just keep default.

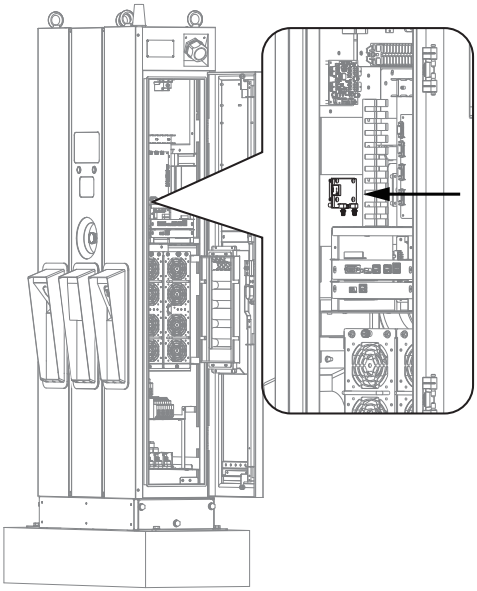



| Wi-Fi Setting | Description |
|---|---|
| Wi-Fi SSID | Service Set Identifier, SSID |
| Wi-Fi Password | Password to access to Wi-Fi |
| Wi-Fi Dhcp Server | DHCP server of Wi-Fi |
| Wi-Fi Dhcp Client | DHCP client of Wi-Fi |
| Wi-Fi Ip Address | Wi-Fi IP address |
| Wi-Fi Submask Address | Wi-Fi submask address |
| Wi-Fi Gateway Address | Wi-Fi gateway address |

**WARNING:** Due to the different environmental conditions, it is recommended to conduct Wi-Fi and 4G module network signal tests before installation. The RSSI (Received Signal Strength Indication) value suggest to be higher than -65 dBm. If it is lower than this value, it may cause the risk of abnormal Wi-Fi or 4G connection quality or disconnection since the influence of external interference in the environment.

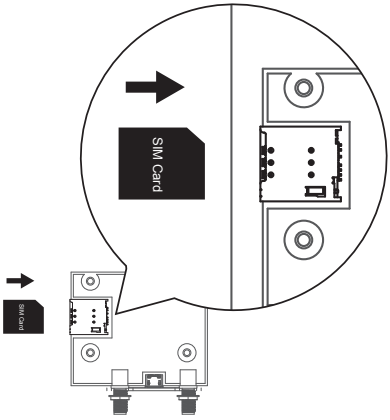
## 4.2 3G/4G Setting

### 4.2.1 SIM Card Installation



**Step 1.**

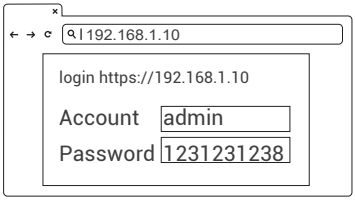
Open the right door. And you can see the 4G/Wi-Fi module inside the cabinet.




**Step 2.**

Before insert 3G/4G Micro SIM card in the tray, PIN of SIM card should be disable, ensure the gold contacts are facing down and the notch is located in the upper right corner. Note the tray might be damaged if insert SIM card in wrong direction.

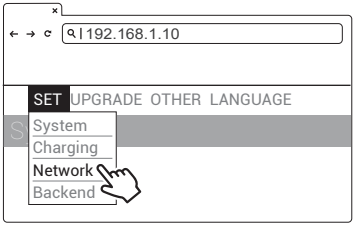
### 4.2.2 Setting and Enable 3G/4G Module.




**Step 1.**

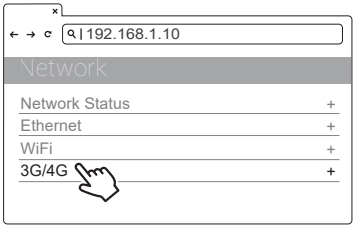
- Please contact your SIM provider to get the APN, PPP ID and password.

  *Note: PPP ID and password maybe options depend on your SIM provider.
- Open the web page of charger and sign-in.



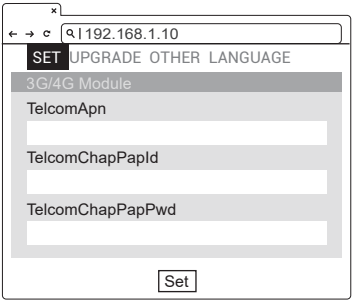

**Step 2.**

SET -> Network.




**Step 3.**

- Network -> 3G/4G Module to fill corresponding information into TelcomApn, TelcomChapPapid and TelcomChapPapPwd.
- Please contact your SIM provider to get the APN, PPP ID and password if necessary.
- Click "Set" to finish the setup process. The 3G/4G will be activated in shortly.




| TelcomApn | APN Setting |
|---|---|
| TelcomChapPapId | Login ID authentication |
| TelcomChapPapPwd | Login password authentication |
| TelcomIpAddress | IP address |

## 4.3 Time Setting

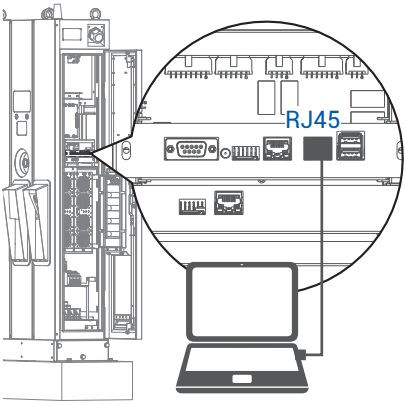
**Automatic setting :** The time will be adjusted automatically when the charger connects to internet.

Time server :

- time.windows.com
- cn.ntp.org.cn
- tock.stdtime.gov.tw

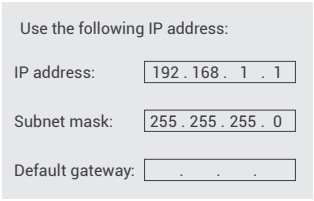
Note:Firewall and network environment may influence the time server connection

**Manual setting :**



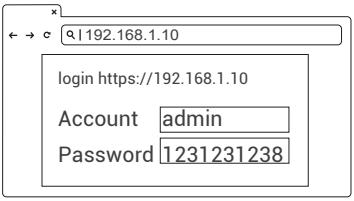

**Step 1.**

- Laptop with RJ45 interface.
- Connect RJ45 cable from Laptop to charger's RJ45 port.
- Setup parameters in the Webservice.
- Input RJ45 connector port is for engineer use for maintance.




**Step 2.**

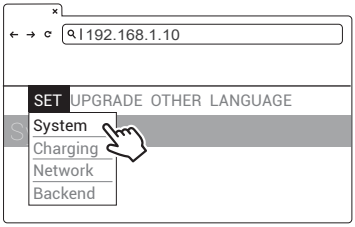
Before opening web browser, please enter network setting to set your IPV4 static IP to 192.168.1.1 in PC




**Step 3.**

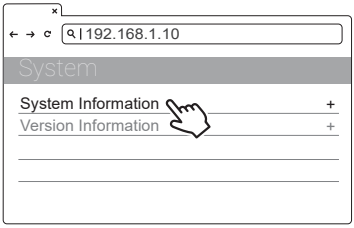
Open web service browser, type the IP address of charger"192.168.1.10" into the URL bar to access the web page of charger.

- Account: admin
- Password: 1231231238



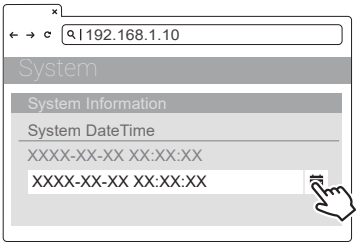

**Step 4.**

SET -> Network.



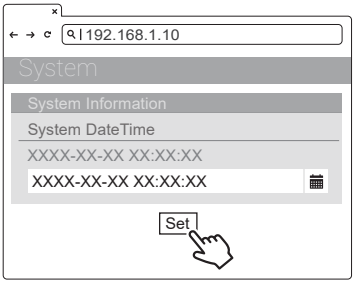

**Step 5.**

Click "System information".




**Step 6.**

Click system date time.
Click the calendar button on the right to set the current time.




**Step 7.**

After the setting is completed, click SET and wait until the setting completion window appears.

# 5. Operation Process

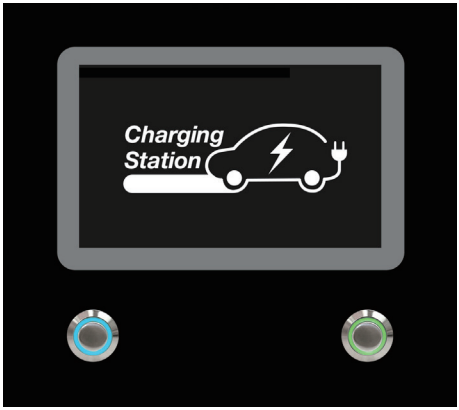
## 5.1 Operating Sequence

- System Initialization
- User Authorization
- Plug in Charging Connector
- Preparing for Charging
- In Charging
- Charging Terminated
- Status Messages

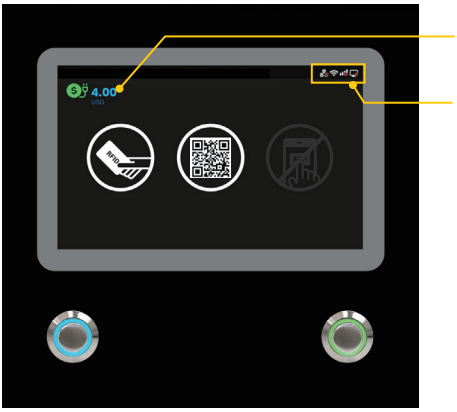
## 5.2 Operating Procedure

### 5.2.1 System Initialization

- When the charger is powered on, it start with the “Charging Station” Initializing page.
- You will see the below image on the screen after powering on and the system is initializing.
- The initializing process will take around 2 minutes, then shows home page.




Initializing page




Home page

Unit and currency if billing function is enabled

- Ethernet Backend Status

Connection Dis-Connection

- Wi-Fi Status

Connection Dis-Connection

- 3G/4G Status

Connection Dis-Connection

- OCPP Backend Status

Connection Dis-Connection

### 5.2.2 User Authorization

- After the system is initialized the screen will stay at Home page as below illustrated.
- Use your RFID card or mobile app to authorize the use of the EVSE.

Home page

User authorization Method: RFID, QR code and mobile APP.

- Unauthorized method(s) will be darker on the screen if the method is disable.

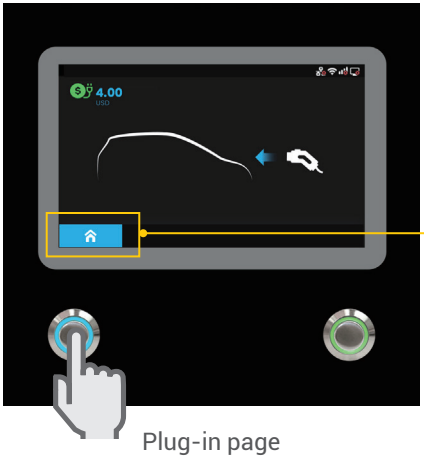
User authorizing

User authorized.

Authorization failed

## 5.2.3 Plug in Charging Connector

- After authorization the screen will ask the user to plug the charging connector into the EV charging inlet as below illustrated.
- Take the Charging connector from the charging cable holder and plug the connector into EV charging inlet. The charger will automatically detect the type of the charging connector.
- It will normally take less than 10 seconds to start the process after completing the physical connection of charging connector to charging inlet. To terminate this session, please press the left button to return to the Home page



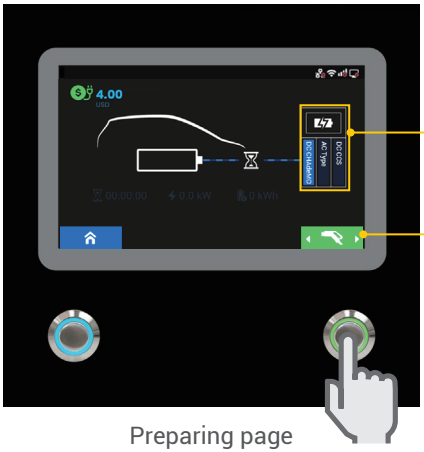

Plug-in page

Press left button to terminate this charging session and then return to Home page.

The left connector will always have the charging priority when plug in 2 or 3 connectors simultaneously.

## 5.2.4 Prepare for Charging

- After authorization and plug-in process, the charger will start communicating with the vehicle and the screen will show the Preparing page as below illustrated.




Information of Selected Charging Connector

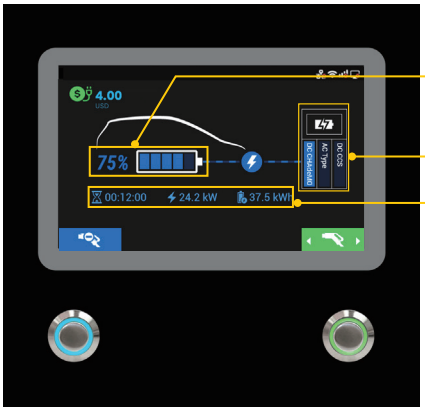
Connector Select Button

Press right button to select the charger connector that the user would like to use.

Preparing page

## 5.2.5 In Charging

- The screen will show the Charging Page as below illustrated once the charger goes into the ready to charge stage.




EV battery SOC (Only for DC charging. AC charging will not show battery SOC)

Show the selected connector in use

Charging information area

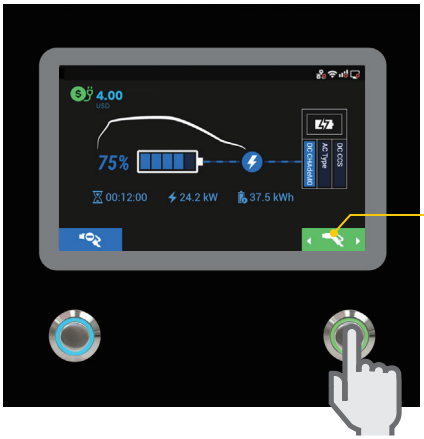
Charging duration,

Charging power

Energy

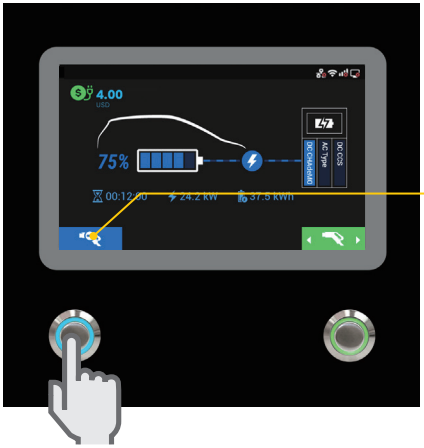
Charging page

- When the battery has been fully charged or reaches the limit of the setting it will stop charging automatically and go to the next process.




Press right button to select the charger connector that the user would like to stop.

- User also can tap the RFID to stop charging.




Tap RFID card or push stop button to stop

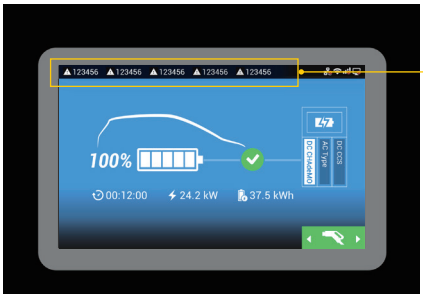
## 5.2.6 Charging Terminated

- After charging is terminated the charger system will show the Charging Summary page as below illustrated and the charging connector will automatically unlock.
- Unplug the charging connector from charging inlet of the EV and return the charging connector to charging cable holder.
- The screen will go back to the Home Page or the other charging connector's Charging Page if unplugged from the charging connector.
- During simultaneous charging the screen will go to the other charging connector's Charging Page if either charging connector is unplugged.

Charging summary page

## 5.2.7 Status Messages

- When problems occur with this charger or the charging process a status code will display on screen as below illustrated. Please follow the troubleshooting table to solve the problem.



## 5.3 Troubleshooting

- Please follow the instruction in the table when errors occur during the charging process.
- Or please connect the EVSE to the Internet and then contact the EVSE provider for further instructions.
- Please provide the EVSE information including serial number, model name, status code, failure behavior and time, and also connect the EVSE to the Internet for remote diagnostics and upgrading.
- If an emergency occurs push the Emergency Stop Button to stop charging immediately.

### 5.3.1 Troubleshooting Guide for End User

When charging fault occurs, user may eliminate fault status by following steps.

| Conditions | Troubleshooting guide |
|---|---|
| Black screen | Please contact your dealer. |
| Stuck on boot or service screen | Please contact your dealer. |
| Card tapping or QR code scanning failed | 1. Invalid RFID card or insufficient balance.<br>2. Card reader failure or other faults; please contact your dealer. |
| Indication page returns from cable plugging to selection | 1. Please make sure the charging cable selection is correct<br>2. Please make sure the charging cable has been plugged in completely with a “clicking” sound, and the gun button cannot be pressed.<br>3. Please check the charge port indicator or meter whether the charge function is failed.<br>4. Please try again with other chargers. If the situation keeps the same, the EV perhaps unable to charge, please send the EV for service.<br>5. Charging cable or control guide invalided, please contact your dealer. |

| Conditions | Troubleshooting guide |
|---|---|
| Indication page transfer from charging preparation to settlement directly | 1. Please unplug the charging cable and try again.<br>2. Please check the EV charge port indicator or meter whether the target charging limit has been done or terminated before default charging time.<br>3. Drive the EV away for few meters / feet and return, then try again.<br>4. Please contact your dealer. |
| Indication page transfer from charging preparation to settlement directly | 1. Please unplug the charging cable and try again.<br>2. Please check the EV charge port indicator or meter whether the target charging limit has been done or terminated before default charging time.<br>3. Drive the EV away for few meters / feet and return, then try again.<br>4. Please contact your dealer. |
| Stuck on SOC 100% or 0% settlement page without charging | 1. Please check EV charge port indicator or meter, whether full charged, the target charging limit is done or stopped before default charging time. *<br>2. Please unplug the charging cable and try again.<br>3. Please contact your dealer. |
| Charging complete but the charger did not release EV | 1. Please unlock the EV, press the button of HV charging port cover, and try to unplug again*.<br>2. Turn the startup switch on and off, then try to unplug again.<br>3. Lock the EV doors and release, then try to unplug again.<br>4. Turn the EV air conditioner off, then try to unplug again.<br>5. Please release by EV manual unlock switch.<br>6. If there is no manual unlock, please turn off or reset the charger.<br>7. Contact your EV company or dealer. |

## 5.3.2 Troubleshooting - No Status Code

| Conditions | Troubleshooting guide |
|---|---|
| Black screen | 1. Incorrect input power or connection fault, please supply power correctly and reset the power.<br>2. Charger auxiliary power, display, or other faults. Please contact your dealer. |
| Stuck on boot or service screen | 1. System is in update or self-check procedure, please wait.<br>2. Other faults of charger, please reset the power or restart the charger.<br>3. Please contact your dealer. |
| Card tapping or QR code scanning failed | 1. Invalid RFID card or insufficient balance.<br>2. Contact management staff to check internet connection between charger and Back-End server.<br>3. Code scanning or Back-End authorization failed; please contact management staff.<br>4. Card reader failure or other faults; please contact your dealer. |
| Indication page returns from cable plugging to selection | 1. Please make sure the charging cable selection is correct.<br>2. Please make sure the charging cable has been plugged in completely with a “clicking" sound, and the gun button cannot be pressed.<br>3. Please check the charge port indicator or meter whether the charge function is failed.<br>4. Please try again with other chargers. If the situation keeps the same, the EV perhaps unable to charge, please send the EV for service.<br>5. Charger control guide failed. Please turn off and restart the charger.<br>6. Charging cable or control guide invalided, please contact your dealer. |

| Conditions | Troubleshooting guide |
|---|---|
| Indication page transfer from charging preparation to settlement directly | 1. Please unplug the charging cable and try again.<br>2. Please check the EV charge port indicator or meter whether the target charging limit has been done or terminated before default charging time. *<br>3. Drive the EV away for few meters / feet and return, then try again.<br>4. Charger handshaking failed, please reset, or turn off and restart the charger.<br>5. Please contact your dealer. |
| Stuck on SOC 100% or 0% settlement page without charging | 1. Please check EV charge port indicator or meter, whether full charged, the target charging limit is done or stopped before default charging time. *<br>2. Please unplug the charging cable and try again.<br>3. EV messages load failed. Please turn off and restart the chager.<br>4. Please contact your dealer. |
| Charging complete but the charger did not release EV | 1. Please unlock the EV, press the button of HV charging port cover, and try to unplug again. *<br>2. Turn the startup switch on and off, then try to unplug again.<br>3. Lock the EV doors and release, then try to unplug again.<br>4. Turn the EV air conditioner off, then try to unplug again.<br>5. Please release by EV manual unlock switch.<br>6. If there is no manual unlock, please turn off or reset the charger.<br>7. Contact your EV company or dealer. |

*Each model of EV contains different charging condition and gun release method, please refer to your user manual.

### 5.3.3 (011-XXX) Troubleshooting - Error Code

011-XXX contains charger's parts or connection fault message; please unplug charging connector, turn power off, reconnect the issued part and then power on the unit. If same error code be displayed, then must be serviced by qualified technician. Please contact your dealer.

## 5.3.4 Troubleshooting - Warning Code Form

| Status Code | Conditions | Troubleshooting methods |
|---|---|---|
| 012200<br>↓<br>012214 | Abnormal input voltage | 1. Charging can be enabled after electrical grid supply regularly.<br>2. Please check the input power or turn off and restart the charger.<br>3. Please contact your dealer. |
| 012223<br>↓<br>012232 | Abnormal environment or devices temperature | 1. Keep the air flow inlet and outlet clear or remove heat sources, charging will be enabled after cooling down.<br>2. Maloperation of over temperature protection or devices over temperature. Please contact your dealer. |
| 012241<br>↓<br>012244 | External network disconnected | 1. Code scanning or app authorize application are unavailable for the moment, please change to RFID or other authorizations.<br>2. Please contact network management staff for network inspection. |
| 012251 | Emergency switch is pressed | 1. Please release the emergency switch by rotating, charging will be enabled after warning code is removed. (Meanwhile, if it shows service page, please rotating back the switch, turn off and restart the charger)<br>2. Please contact your dealer or turn off and restart the charger. |
| 012252 | The cabinet door has been opened | 1. Please close the cabinet door, charging will be enabled after warning code is removed.<br>2. Door open sensor is shifted, please screw the sensor on the fixed position.<br>3. Maloperation of door open sensor, pleasecontact your dealer for further instruction. |
| 012304 | Communication error between power and charging gun cabinet | 1. Please make sure the ethernet cable connection between cabinets to be reliable.<br>2. If there is no green light solid on power cabinet, please reset it.<br>3. Please contact your dealer for further instruction. |

## 5.3.5 (013-XXX) Troubleshooting-Message Code from Charger

Code 013-XXX contains setup, maintenance, or reference hint messages, generally there is no impact on charging. Please charging with general process and contact your dealer.

## 5.3.6 (023-XXX) Troubleshooting - Message Code from EV

023-XXX contains messages from EV, it means communication or charging procedure error, these errors cause charging or cable unplug cannot be proceeded. Please refer to your EV manual for charging setup or backup procedure, then eliminate fault status by following steps, or contact charger management staff.

1) Unplug the charging cable and wait for 5 more seconds. Plug the charging cable completely with a “clicking” sound and try the charging procedure again.
2) Unplug the charging cable, try with the other one or charger.
3) Unplug the charging cable, drive the EV away for few meters / feet and return, stop the EV, unplug the key, and try again.
4) After unplugging the charging cable, check the EV whether charging mode and time limit have been enabled.
5) If the charging process cannot be started and EV meter or charging indicator shows abnormal status or error messages, please follow your EV user manual for troubleshooting.
6) After unplugging the charging cable, contact management staff to turn off restart the charger and try again.
7) If charging terminated but the charging cable cannot be unplugged, please follow the EV user manual, press release button (on EV or remote controller) or manual unlock switch. If all these methods are unavailable, please contact management staff to turn off and restart the charger.

| Status Code | Conditions | Troubleshooting methods |
|---|---|---|
| 23758 | EV side feedback code procedure error | 1. Please unplug the charging cable, release EV side charging limit, and try again.<br>2. Please follow step 1~7 for troubleshooting. |
| 23809 | Charger missed the first message from EV | 1. Charging cable is not locked by EV side, please unplug, and plug the charging cable completely with a “clicking" sound.<br>2. Please follow step 1~7 for trouble shooting |
| 23814 | EV side hand shaking feedback incorrect | 1. Please unplug the charging cable, restart BMS on EV side, and try again.<br>2. Please follow step 1~7 for troubleshooting. |
| 23844 | EV side V2G communication time out | 1. Please unplug the charging cable, restart BMS on EV side, and try again.<br>2. Please follow step 1~7 for troubleshooting. |
| 23847 | Charging cable insulation test time out | 1. Please unplug the charging cable and try again.<br>2. Please unplug the charging cable, restart the charger, and try again. |
| 23889 | Noise interference or charging terminated from EV side causes control guide status error | 1. Please unplug the charging cable, restart BMS on EV side, and try again.<br>2. Please follow step 1~7 for troubleshooting. |
| 23891 | Charger not ready | 1. Please unplug the charging cable, wait for 5 more seconds, and try again.<br>2. Please unplug the charging cable, restart the charger, and try again. |
| 23983 | Charging terminated by unknown request from | 1. Check whether charging target or time is limited.<br>2. Follow the EV operating indication for troubleshooting.<br>3. Please unplug the charging cable, restart BMS on EV side, and try again.. |

### 5.3.7 (033-XXX) Troubleshooting-Message Code from Charger Network

033-XXX contains messages from charger control server which is running intelligent remote control. Please follow the remote procedure or contact management staff to arrange for charging.

| Status Code | Conditions | Troubleshooting methods |
|---|---|---|
| 033900<br>033901<br>033902 | Back-End disconnected for the moment | 1. Code scanning and app authorization is unavailable for the moment, please change to RFID or others authorization.<br>2. Please contact management staff to check Back-End server connectivity.<br>3. If the connection cannot be restored after router or AP restart, please restart the main/ sub cabinets.<br>4. If the connection cannot be restored after main/ sub cabinet restart, please turn off the whole charger and restart.<br>5. Please contact your dealer. |
| 033903 | Charging started by remote control | 1. Remote authorization passed, please plug in the charging cable for charging.<br>2. Contact management staff for further instructions. |
| 033904 | Charging stopped by remote control | 1. Charging meets setup time, Watt-Hour or amount, charging terminated by remote control.<br>2. Contact management staff for further instructions. |
| 033905 | Restart by remote control | 1. Charger reset and maintain process by remote control, charging terminated.<br>2. Contact management staff for further instructions. |

## 5.4 Status Codes

*For latest status code, please visit our website. (V0.48)

| Status Code | Description |
|---|---|
| 011001 | CHAdeMO output fuse blew |
| 011002 | CCS output fuse blew |
| 011003 | GB output fuse blew |
| 011004 | RCD/CCID self-test fail |
| 011005 | AC input contactor 1 welding |
| 011006 | AC input contactor 1 driving fault |
| 011007 | AC input contactor 2 welding |
| 011008 | AC input contactor 2 driving fault |
| 011009 | AC output relay welding |
| 011010 | AC output relay  driving fault |
| 011011 | CHAdeMO output relay welding |
| 011012 | CHAdeMO output relay driving fault |
| 011013 | CCS output relay welding |
| 011014 | CCS output relay driving fault |
| 011015 | GB output relay welding |
| 011016 | GB output relay driving fault |
| 011017 | AC connector temperature sensor broken |
| 011018 | CHAdeMO connector temperature sensor broken |
| 011019 | CCS connector temperature sensor broken |
| 011020 | GB connector temperature sensor broken |
| 011021 | WiFi module broken |
| 011022 | 3G/4G module broken |
| 011023 | Aux. power module broken |
| 011024 | Relay control module /smart box broken |
| 011025 | CHAdeMO connector lock fail |
| 011026 | GB connector lock fail |
| 011027 | AC connector lock fail |
| 011028 | CHAdeMO module broken |
| 011029 | CCS module broken |
| 011030 | GBT module broken |

| Status Code | Description |
|---|---|
| 011031 | PSU module broken |
| 011032 | RCD/CCID module broken |
| 011033 | Maximum Output Current setup error |
| 011034 | Shutter fault |
| 011035 | Ble module broken |
| 011036 | Rotary switch fault |
| 011037 | CCS liquid chiller water level fault |
| 011038 | Chiller temperature sensor broken |
| 011039 | Parallel relay welding |
| 011040 | Parallel output relay driving fault |
| 012200 | System L1 input OVP |
| 012201 | System L2 input OVP |
| 012202 | System L3 input OVP |
| 012203 | System L1 input UVP |
| 012204 | System L2 input UVP |
| 012205 | System L3 input UVP |
| 012206 | PSU L1 input OVP |
| 012207 | PSU L2 input OVP |
| 012208 | PSU L3 input OVP |
| 012209 | PSU L1 input UVP |
| 012210 | PSU L2 input UVP |
| 012211 | PSU L3 input UVP |
| 012212 | System L1 input drop |
| 012213 | System L2 input drop |
| 012214 | System L3 input drop |
| 012215 | System AC output OVP |
| 012216 | System AC L1 output OCP |
| 012217 | System CHAdeMO output OVP |
| 012218 | System CHAdeMO output OCP |
| 012219 | System CCS output OVP |
| 012220 | System CCS output OCP |
| 012221 | System GB output OVP |

| Status Code | Description |
|---|---|
| 012222 | System GB output OCP |
| 012223 | System ambient/inlet OTP |
| 012224 | System critical point OTP |
| 012225 | PSU ambient/inlet OTP |
| 012226 | PSU critical point OTP |
| 012227 | Aux. power module OTP |
| 012228 | Relay board/smart box OTP |
| 012229 | CHAdeMO connector OTP |
| 012230 | CCS connector OTP |
| 012231 | GB connector OTP |
| 012232 | AC connector OTP |
| 012233 | RCD/CCID trip |
| 012234 | CHAdeMO GFD trip |
| 012235 | CCS GFD trip |
| 012236 | GB GFD trip |
| 012237 | SPD trip |
| 012238 | Main power breaker trip |
| 012239 | Aux. power breaker trip |
| 012240 | PSU communication fail |
| 012241 | WiFi module communication fail |
| 012242 | 3G/4G module communication fail |
| 012243 | RFID module communication fail |
| 012244 | Bluetooth module communication fail |
| 012245 | LCM module communication fail |
| 012246 | Aux. power module communication fail |
| 012247 | Relay control boaed/smart box communication fail |
| 012248 | CCS module communication fail |
| 012249 | CHAdeMO module communication fail |
| 012250 | GBT module communication fail |
| 012251 | Emergency stop |
| 012252 | Door open |
| 012253 | System fan decay |

| Status Code | Description |
|---|---|
| 012254 | Fail to create share memory |
| 012255 | CSU initialization failed |
| 012256 | AC Ground Fault |
| 012257 | MCU self-test Fault |
| 012258 | Relay self-test Fault |
| 012259 | CHAdeMO groundfault detection timeout (GFD) |
| 012260 | CCS groundfault detection timeout (GFD) |
| 012261 | GB groundfault detection timeout (GFD) |
| 012262 | System AC L1 output Circuit Short |
| 012263 | PSU Duplicate ID |
| 012264 | PSU Output Short Circuit |
| 012265 | PSU Discharge Abnormal |
| 012266 | PSU Dc Side ShutDown |
| 012267 | PSU Failure Alarm |
| 012268 | PSU Protection Alarm |
| 012269 | PSU FanFailure Alarm |
| 012270 | PSU Input UVP |
| 012271 | PSU Input OVP |
| 012272 | PSU WalkIn State |
| 012273 | PSU Power Limited State |
| 012274 | PSU Id Repeat |
| 012275 | PSU Severe Uneven Current |
| 012276 | PSU Three Phase Input Inadequate |
| 012277 | PSU Three Phase Onput Imbalance |
| 012278 | PSU Ffc Side ShutDown |
| 012279 | NO PSU Resource |
| 012280 | Self test Failed due to communication of Relayboard failure |
| 012281 | Self test Failed due to communication of Fanboard failure |
| 012282 | Self test Failed due to communication of Primary failure |
| 012283 | Self test Failed due to communication of Chademoboard failure |
| 012284 | Self test Failed due to communication of CCSboard failure |
| 012285 | Self test Failed due to AC Contact failure |

| Status Code | Description |
|---|---|
| 012286 | Self test Failed due to communication of PSU failure |
| 012287 | Self test Failed due to Model name is none match |
| 012288 | CCS output UVP |
| 012289 | Chademo output UVP |
| 012290 | GBT output UVP |
| 012291 | Self test Failed due to communication of GBTboard failure |
| 012292 | Self test Failed due to communication of AC failure |
| 012293 | Self test Failed due to communication of Ledboard failure |
| 012294 | AC input ovp |
| 012295 | AC input uvp |
| 012296 | CHAdeMO groundfault detection - warning |
| 012297 | CCS groundfault detection - warning |
| 012298 | GB groundfault detection - warning |
| 012299 | System AC L2 output OCP |
| 012300 | System AC L3 output OCP |
| 012301 | System AC L2 output Circuit Short |
| 012302 | System AC L3 output Circuit Short |
| 012303 | CCS liquid chiller water level warning |
| 012304 | disconnected from power cabinet |
| 012305 | Meter communication timeout |
| 012306 | The dip switch of the PSU may be incorrect |
| 012307 | Psu Fault : Fuse Burn-Out |
| 012308 | Psu Fault : Pfc And Dcdc Communication Fault |
| 012309 | Psu Fault : Bus Voltage Unbalance |
| 012310 | Psu Fault : Bus Over Voltage |
| 012311 | Psu Fault : Bus Voltage Abnormal |
| 012312 | Psu Fault : Bus Under Voltage |
| 012313 | Psu Fault : Input Phase Loss |
| 012314 | Psu Fault : Fan Full Speed |
| 012315 | Psu Fault : Temperature Power Limit |
| 012316 | Psu Fault : Ac Power Limit |
| 012317 | Psu Fault : Dcdc Eeprom Fault |

| Status Code | Description |
|---|---|
| 012318 | Psu Fault : Pfc Eeprom Fault |
| 012319 | Psu Dcdc Over Voltage |
| 012320 | System CHAdeMO output UCP |
| 012321 | System CCS output UCP |
| 012322 | System GBT output UCP |
| 012323 | System Chiller output OTP |
| 012324 | Connector 1 detects abnormal voltage on the output line |
| 012325 | Connector 2 detects abnormal voltage on the output line |
| 012326 | System task is lost |
| 012327 | System DC input ovp |
| 012328 | System DC input uvp |
| 012329 | Psu Fault : Psu Can Communication Fault |
| 012330 | Psu Fault : Psu Dc to Dc OTP |
| 012331 | Psu Fault : Psu Dc to Dc OVP |
| 012332 | Chiller Tube OTP |
| 012333 | Psu Fault : DC input ovp (Phase OVP) |
| 012343 | Tilt sensor self-test failed |
| 012344 | Meter IC communication timeout |
| 012345 | Pilot negative error |
| 012346 | Psu Communication error with CSU |
| 012347 | AC: Local power sharing communication error (Slave disconnect from Master) |
| 012348 | Chiller Alarm Failure |
| 012352 | Payment system communication timeout |
| 012353 | Meter Slave Los Link |
| 012354 | Meter Sync Time Error |
| 012355 | Meter Start Transaction Error |
| 012356 | Meter Stop Transaction Error |
| 012357 | Meter Get Transaction Ocmf Error |
| 013600 | Normal stop charging by user |
| 013601 | Charging Time's up |
| 013602 | Replace system air filter |

| Status Code | Description |
|---|---|
| 013603 | Reach to CHAdeMO max. plugging times. |
| 013604 | Reach to CCS max. plugging times. |
| 013605 | Reach to GB max. plugging times. |
| 013606 | Reach to AC max. plugging times. |
| 013607 | CSU fimrware update fail |
| 013608 | CHAdeMO Module fimrware update fail |
| 013609 | CCS Module fimrware update fail |
| 013610 | GB Module fimrware update fail |
| 013611 | Aux. power module fimrware update fail |
| 013612 | Relay control module fimrware update fail |
| 013613 | LCM module fimrware update fail |
| 013614 | Bluetooth module fimrware update fail |
| 013615 | WiFi module fimrware update fail |
| 013616 | 3G/4G module fimrware update fail |
| 013617 | SMR fimrware update fail |
| 013618 | RFID module fimrware update fail |
| 013619 | configured by USB flash drive |
| 013620 | configured by backend |
| 013621 | configured by webage |
| 013622 | disconnected from Internet through Ethernet |
| 013623 | disconnected from Internet through WiFi |
| 013624 | disconnected from Internet through 3G/4G |
| 013625 | disconnected from AP through WiFi |
| 013626 | disconnected from APN through 3G/4G |
| 013627 | WiFi disabled (separated charger only) |
| 013628 | 4G disabled (separated charger only) |
| 013629 | PSU quantity not match |
| 023700 | CHAdeMO EV communication Fail |
| 023701 | CCS EV communication Fail |
| 023702 | GB EV communication Fail |
| 023703 | AC: pilot fault |
| 023704 | CHAdeMO:  battery malfunction |

| Status Code | Description |
|---|---|
| 023705 | CHAdeMO: no charging permission |
| 023706 | CHAdeMO: battery incompatibility |
| 023707 | CHAdeMO: battery OVP |
| 023708 | CHAdeMO: battery UVP |
| 023709 | CHAdeMO: battery OTP |
| 023710 | CHAdeMO: battery current difference |
| 023711 | CHAdeMO: battery voltage difference |
| 023712 | CHAdeMO: shift position |
| 023713 | CHAdeMO: battery other fault |
| 023714 | CHAdeMO: charging system error |
| 023715 | CHAdeMO: ev normal stop |
| 023716 | CHAdeMO: connector temperature sensor broken |
| 023717 | CHAdeMO: connector lock fail |
| 023718 | CHAdeMO: d1 on no receive |
| 023719 | CHAdeMO: bms k to j on timeout |
| 023720 | CHAdeMO: bms charge allow timeout |
| 023721 | CHAdeMO: wait groundfault timeout (Output short circuit) |
| 023722 | CHAdeMO: bms ev relay on timeout |
| 023723 | CHAdeMO: bms req current timeout |
| 023724 | CHAdeMO: bms k to j off timeout |
| 023725 | CHAdeMO: bms ev relay off timeout |
| 023726 | CHAdeMO: adc more than 10v |
| 023727 | CHAdeMO: adc more than 20v |
| 023728 | CHAdeMO: bms charge before stop |
| 023729 | CHAdeMO: charger get normal stop cmd |
| 023730 | CHAdeMO: charger get emergency stop cmd |
| 023731 | CHAdeMO: isolation result fail |
| 023732 | CHAdeMO: mother board miss link |
| 023733 | CHAdeMO: output voltage more than limit |
| 023734 | CHAdeMO: req current more than limit |
| 023735 | CHAdeMO: re capability bms eqr current exceed |
| 023736 | CHAdeMO: charge remaining count done |

| Status Code | Description |
|---|---|
| 023737 | CCS_EVCC_EVErrorCode_FAILED_RESSTemperatureInhibit |
| 023738 | CCS_EVCC_EVErrorCode_FAILED_EVShiftPosition |
| 023739 | CCS_EVCC_EVErrorCode_FAILED_ChargerConnectorLockFault |
| 023740 | CCS_EVCC_EVErrorCode_FAILED_EVRESSMalfunction |
| 023741 | CCS_EVCC_EVErrorCode_FAILED_ChargingCurrentdifferential |
| 023742 | CCS_EVCC_EVErrorCode_FAILED_ChargingVoltageOutOfRange |
| 023743 | CCS_EVCC_EVErrorCode_FAILED_ChargingSystemIncompatibility |
| 023744 | CCS_EVCC_EVErrorCode_FAILED_EmergencyEvent |
| 023745 | CCS_EVCC_EVErrorCode_FAILED_Breaker |
| 023746 | CCS_EVCC_EVErrorCode_FAILED_NoData |
| 023747 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_DIN_A |
| 023748 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_DIN_B |
| 023749 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_DIN_C |
| 023750 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_ISO_1 |
| 023751 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_ISO_2 |
| 023752 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_ISO_3 |
| 023753 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_OEM_1 |
| 023754 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_OEM_2 |
| 023755 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_OEM_3 |
| 023756 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_OEM_4 |
| 023757 | CCS_EVCC_EVErrorCode_FAILED_reserved_by_OEM_5 |
| 023758 | CCS_SECC_ResponseCode_FAILED_SequenceError |
| 023759 | CCS_SECC_ResponseCode_FAILED_SignatureError |
| 023760 | CCS_SECC_ResponseCode_FAILED_UnknownSession |
| 023761 | CCS_SECC_ResponseCode_FAILED_ServiceIDInvalid |
| 023762 | CCS_SECC_ResponseCode_FAILED_Payment SelectionInvalid |
| 023763 | CCS_SECC_ResponseCode_FAILED_IdentificationSelectionInvalid |
| 023764 | CCS_SECC_ResponseCode_FAILED_ServiceSelectionInvalid |
| 023765 | CCS_SECC_ResponseCode_FAILED_CertificateExpired |
| 023766 | CCS_SECC_ResponseCode_FAILED_CertificateNotYetValid |
| 023767 | CCS_SECC_ResponseCode_FAILED_CertificateRevoked |
| 023768 | CCS_SECC_ResponseCode_FAILED_NoCertificateAvailable |

| Status Code | Description |
|---|---|
| 023769 | CCS_SECC_ResponseCode_FAILED_CertChainError |
| 023770 | CCS_SECC_ResponseCode_FAILED_CertValidationError |
| 023771 | CCS_SECC_ResponseCode_FAILED_CertVerificationError |
| 023772 | CCS_SECC_ResponseCode_FAILED_ContractCanceled |
| 023773 | CCS_SECC_ResponseCode_FAILED_ChallengeInvalid |
| 023774 | CCS_SECC_ResponseCode_FAILED_WrongEnergyTransferMode |
| 023775 | CCS_SECC_ResponseCode_FAILED_WrongChargeParameter |
| 023776 | CCS_SECC_ResponseCode_FAILED_ChargingProfileInvalid |
| 023777 | CCS_SECC_ResponseCode_FAILED_TariffSelectionInvalid |
| 023778 | CCS_SECC_ResponseCode_FAILED_EVSEPresentVoltageToLow |
| 023779 | CCS_SECC_ResponseCode_FAILED_PowerDeliveryNotApplied |
| 023780 | CCS_SECC_ResponseCode_FAILED_MeteringSignatureNotValid |
| 023781 | CCS_SECC_ResponseCode_FAILED_NoChargeServiceSelected |
| 023782 | CCS_SECC_ResponseCode_FAILED_ContactorError |
| 023783 | CCS_SECC_ResponseCode_FAILED_ CertificateNotAllowedAtThisEVSE |
| 023784 | CCS_SECC_ResponseCode_FAILED_GAChargeStop |
| 023785 | CCS_SECC_ResponseCode_FAILED_AlignmentError |
| 023786 | CCS_SECC_ResponseCode_FAILED_ACDError |
| 023787 | CCS_SECC_ResponseCode_FAILED_AssociationError |
| 023788 | CCS_SECC_ResponseCode_FAILED_EVSEChargeAbort |
| 023789 | CCS_SECC_ResponseCode_FAILED_NoSupportedApp-Protocol |
| 023790 | CCS_SECC_ResponseCode_FAILED_ContractNotAccepted |
| 023791 | CCS_SECC_ResponseCode_FAILED_MOUnknown |
| 023792 | CCS_SECC_ResponseCode_FAILED_OEM_Prov_CertificateRevoke |
| 023793 | CCS_SECC_ResponseCode_FAILED_OEM_SubCA1_ CertificateRevoked |
| 023794 | CCS_SECC_ResponseCode_FAILED_OEM_SubCA2_ CertificateRevoked |
| 023795 | CCS_SECC_ResponseCode_FAILED_OEM_RootCA_ CertificateRevoked |
| 023796 | CCS_SECC_ResponseCode_FAILED_MO_Prov_CertificateRevoked |

| Status Code | Description |
|---|---|
| 023797 | CCS_SECC_ResponseCode_FAILED_MO_SubCA1_ CertificateRevoked |
| 023798 | CCS_SECC_ResponseCode_FAILED_MO_SubCA2_ CertificateRevoked |
| 023799 | CCS_SECC_ResponseCode_FAILED_MO_RootCA_ CertificateRevoked |
| 023800 | CCS_SECC_ResponseCode_FAILED_CPS_Prov_CertificateRevoked |
| 023801 | CCS_SECC_ResponseCode_FAILED_CPS_SubCA1_ CertificateRevoked |
| 023802 | CCS_SECC_ResponseCode_FAILED_CPS_SubCA2_ CertificateRevoked |
| 023803 | CCS_SECC_ResponseCode_FAILED_CPS_RootCA_ CertificateRevoked |
| 023804 | CCS_SECC_ResponseCode_FAILED_reserved_1 |
| 023805 | CCS_SECC_ResponseCode_FAILED_reserved_2 |
| 023806 | CCS_SECC_ResponseCode_FAILED_reserved_3 |
| 023807 | CCS_SECC_ResponseCode_FAILED_reserved_4 |
| 023808 | CCS_SECC_ResponseCode_FAILED_reserved_5 |
| 023809 | CCS_SECC_TIMEOUT_SLAC_TT_EVSE_SLAC_init |
| 023810 | CCS_SECC_TIMEOUT_SLAC_TP_match_response |
| 023811 | CCS_SECC_TIMEOUT_CM_START_ATTEN_CHAR_IND |
| 023812 | CCS_SECC_TIMEOUT_SLAC_TT_EVSE_match_MNBC |
| 023813 | CCS_SECC_TIMEOUT_SLAC_TP_EVSE_avg_atten_calc |
| 023814 | CCS_SECC_TIMEOUT_SLAC_CM_ATTEN_CHAR_RSP |
| 023815 | CCS_SECC_TIMEOUT_SLAC_CM_VALIDATE_REQ_1ST__CM_SLAC_ MATCH_REQ |
| 023816 | CCS_SECC_TIMEOUT_SLAC_TT_EVSE_assoc_session |
| 023817 | CCS_SECC_TIMEOUT_SLAC_TT_EVSE_vald_toggle |
| 023818 | CCS_SECC_TIMEOUT_SLAC_CM_MNBC_SOUND_IND |
| 023819 | CCS_SECC_TIMEOUT_SLAC_CM_VALIDATE_REQ_2ND__CM_SLAC_ MATCH_REQ |
| 023820 | CCS_SECC_TIMEOUT_SLAC_reserved_3 |
| 023821 | CCS_SECC_TIMEOUT_SLAC_reserved_4 |
| 023822 | CCS_SECC_TIMEOUT_SLAC_reserved_5 |

| Status Code | Description |
|---|---|
| 023823 | CCS_SECC_TIMEOUT_SLACC_SDP_UDP_TT_match_join |
| 023824 | CCS_SECC_TIMEOUT_SLACC_SDP_TCP_TT_match_join |
| 023825 | CCS_SECC_TIMEOUT_SLACC_SDP_TP_amp_map_exchange |
| 023826 | CCS_SECC_TIMEOUT_SLACC_SDP_TP_link_ready_notification |
| 023827 | CCS_SECC_TIMEOUT_SLACC_SDP_reserved_1 |
| 023828 | CCS_SECC_TIMEOUT_SLACC_SDP_reserved_2 |
| 023829 | CCS_SECC_TIMEOUT_SLACC_SDP_reserved_3 |
| 023830 | CCS_SECC_TIMEOUT_SLACC_SDP_reserved_4 |
| 023831 | CCS_SECC_TIMEOUT_SLACC_SDP_reserved_5 |
| 023832 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ SupportedAppProtocolRes |
| 023833 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ SessionSetupRes |
| 023834 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ ServiceDiscoveryRes |
| 023835 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ ServicePaymentSelectionRes |
| 023836 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ ContractAuthenticationRes |
| 023837 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ ChargeParameterDiscoveryRes |
| 023838 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ PowerDeliveryRes |
| 023839 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ CableCheckRes |
| 023840 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_PreChargeRes |
| 023841 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ CurrentDemandRes |
| 023842 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ WeldingDetectionRes |
| 023843 | CCS_SECC_TIMEOUT_V2G_Msg_Performance_Time_ SessionStopRes |
| 023844 | CCS_SECC_TIMEOUT_V2G_Sequence_Time |
| 023845 | CCS_SECC_TIMEOUT_V2G_ReadyToCharge_Performance_Time |

| Status Code | Description |
|---|---|
| 023846 | CCS_SECC_TIMEOUT_V2G_CommunicationSetup_Performance_Time |
| 023847 | CCS_SECC_TIMEOUT_V2G_CableCheck_Performance_Time (Output short circuit) |
| 023848 | CCS_SECC_TIMEOUT_V2G_CPState_Detection_Time |
| 023849 | CCS_SECC_TIMEOUT_V2G_CPOscillator_Retain_Time |
| 023850 | CCS_SECC_TIMEOUT_V2G_PreCharge_Performace_Time |
| 023851 | CCS_SECC_TIMEOUT_V2G_reserved_2 |
| 023852 | CCS_SECC_TIMEOUT_V2G_reserved_3 |
| 023853 | CCS_SECC_TIMEOUT_V2G_reserved_4 |
| 023854 | CCS_SECC_TIMEOUT_V2G_reserved_5 |
| 023855 | CCS_CAN_TIMEOUT_TP_GET_EV_TARGET_INFO |
| 023856 | CCS_CAN_TIMEOUT_TT_GET_EV_TARGET_INFO |
| 023857 | CCS_CAN_TIMEOUT_TP_GET_EV_BATTERY_INFO |
| 023858 | CCS_CAN_TIMEOUT_TT_GET_EV_BATTERY_INFO |
| 023859 | CCS_CAN_TIMEOUT_TP_EV_STOP_EVENT |
| 023860 | CCS_CAN_TIMEOUT_TT_EV_STOP_EVENT |
| 023861 | CCS_CAN_TIMEOUT_TP_EVSE_STOP_EVENT |
| 023862 | CCS_CAN_TIMEOUT_TT_EVSE_STOP_EVENT |
| 023863 | CCS_CAN_TIMEOUT_TP_GET_MISC_INFO |
| 023864 | CCS_CAN_TIMEOUT_TT_GET_MISC_INFO |
| 023865 | CCS_CAN_TIMEOUT_TP_DOWNLOAD_REQUEST |
| 023866 | CCS_CAN_TIMEOUT_TT_DOWNLOAD_REQUEST |
| 023867 | CCS_CAN_TIMEOUT_TP_START_BLOCK_TRANSFER |
| 023868 | CCS_CAN_TIMEOUT_TT_START_BLOCK_TRANSFER |
| 023869 | CCS_CAN_TIMEOUT_TP_DATA_TRANSFER |
| 023870 | CCS_CAN_TIMEOUT_TT_DATA_TRANSFER |
| 023871 | CCS_CAN_TIMEOUT_TP_DOWNLOAD_FINISH |
| 023872 | CCS_CAN_TIMEOUT_TT_DOWNLOAD_FINISH |
| 023873 | CCS_CAN_TIMEOUT_TP_ISOLATION_STATUS |
| 023874 | CCS_CAN_TIMEOUT_TT_ISOLATION_STATUS |
| 023875 | CCS_CAN_TIMEOUT_TP_CONNECTOR_INFO |

| Status Code | Description |
|---|---|
| 023876 | CCS_CAN_TIMEOUT_TT_CONNECTOR_INFO |
| 023877 | CCS_CAN_TIMEOUT_TT_RTC_INFO |
| 023878 | CCS_CAN_TIMEOUT_TP_RTC_INFO |
| 023879 | CCS_CAN_TIMEOUT_TP_EVSE_PRECHARGE_INFO |
| 023880 | CCS_CAN_TIMEOUT_TT_EVSE_PRECHARGE_INFO |
| 023881 | CCS_CAN_TIMEOUT_MSG_Sequence |
| 023882 | CCS_CAN_MSG_Unrecognized_CMD_ID |
| 023883 | CCS_SECC_DIN_Msg_Decode_Error |
| 023884 | CCS_SECC_DIN_Msg_Encode_Error |
| 023885 | CCS_SECC_ISO1_Msg_Decode_Error |
| 023886 | CCS_SECC_ISO1_Msg_Encode_Error |
| 023887 | CCS_SECC_ISO2_Msg_Decode_Error |
| 023888 | CCS_SECC_ISO2_Msg_Encode_Error |
| 023889 | CCS_SECC_CP_State_Error |
| 023890 | CCS_SECC_Unexpected_60V_Before_Charing_Error |
| 023891 | CCS_SECC_Not_Ready_For_Charging |
| 023892 | CCS_SECC_TIMEOUT_QCA7000_COMM (The firmware code of QCA7000 may not be installed, yet) |
| 023893 | CCS_SECC_FAIL_QCA7000_SETKEY |
| 023900 | GBT_LOS_CC1 |
| 023901 | GBT_CONNECTOR_LOCK_FAIL |
| 023902 | GBT_BATTERY_INCOMPATIBLE |
| 023903 | GBT_BMS_BROAA_TIMEOUT |
| 023904 | GBT_CSU_PRECHARGE_TIMEOUT |
| 023905 | GBT_BMS_PRESENT_VOLTAGE_FAULT |
| 023906 | GBT_BMS_VOLTAGE_OVER_RANGE |
| 023907 | GBT_BSM_CHARGE_ALLOW_00_10MIN_COUUNTDONE |
| 023908 | GBT_WAIT_GROUNDFAULT_TIMEOUT |
| 023909 | GBT_ADC_MORE_THAN_10V |
| 023910 | GBT_ADC_MORE_THAN_60V |
| 023911 | GBT_CHARGER_GET_NORMAL_STOP_CMD |
| 023912 | GBT_CHARGER_GET_EMERGENCY_STOP_CMD |

| Status Code | Description |
|---|---|
| 023913 | GBT_ISOLATION_RESULT_FAIL |
| 023914 | GBT_MOTHER_BOARD_MISS_LINK |
| 023915 | GBT_OUTPUT_VOLTAGE_MORE_THAN_LIMIT |
| 023916 | GBT_REQ_CURRENT_MORE_THAN_LIMIT |
| 023917 | GBT_OUTPUT_VOLTAGE_MORE_THAN_10_PERCENT |
| 023918 | GBT_OUTPUT_VOLTAGE_DIFF_BCS_5_PERCENT |
| 023919 | GBT_STOP_ADC_MORE_THAN_10V |
| 023920 | ERROR_CODE_GBT_BMS_BROAA_NO_VOLTAGE_TIMEOUT |
| 023921 | ERROR_CODE_GBT_BMS_BROAA_TO_BRO00_ERROR |
| 023930 | GBT_CEM_BHM_TIMEOUT |
| 023931 | GBT_CEM_BRM_TIMEOUT |
| 023932 | GBT_CEM_BCP_TIMEOUT |
| 023933 | GBT_CEM_BRO_TIMEOUT |
| 023934 | GBT_CEM_BCL_TIMEOUT |
| 023935 | GBT_CEM_BCS_TIMEOUT |
| 023936 | GBT_CEM_BSM_TIMEOUT |
| 023937 | GBT_CEM_BST_TIMEOUT |
| 023938 | GBT_CEM_BSD_TIMEOUT |
| 023939 | GBT_CEM_BEM_OTHER_TIMEOUT |
| 023940 | GBT_BEM_CRM_TIMEOUT |
| 023941 | GBT_BEM_CRMAA_TIMEOUT |
| 023942 | GBT_BEM_CTS_CML_TIMEOUT |
| 023943 | GBT_BEM_CRO_TIMEOUT |
| 023944 | GBT_BEM_CCS_TIMEOUT |
| 023945 | GBT_BEM_CST_TIMEOUT |
| 023946 | GBT_BEM_CSD_TIMEOUT |
| 023947 | GBT_BEM_BEM_OTHER_TIMEOUT |
| 023950 | GBT_BST_SOC_GOAL |
| 023951 | GBT_BST_TOTAL_VOLTAGE_GOAL |
| 023952 | GBT_BST_CELL_VOLTAGE_GOAL |
| 023953 | GBT_BST_GET_CST |
| 023954 | GBT_BST_ISOLATION |

| Status Code | Description |
|---|---|
| 023955 | GBT_BST_OUTPUT_CONNECTOR_OTP |
| 023956 | GBT_BST_COMPONEN |
| 023957 | GBT_BST_CHARGE_CONNECTOR |
| 023958 | GBT_BST_OTP |
| 023959 | GBT_BST_OTHER |
| 023960 | GBT_BST_HIGH_V |
| 023961 | GBT_BST_CC2 |
| 023962 | GBT_BST_CURRENT |
| 023963 | GBT_BST_VOLTAGE |
| 023964 | GBT_GET_BST_NO_REASON |
| 023970 | GBT_BSM_CELL_OVER_VOLTAGE |
| 023971 | GBT_BSM_CELL_UNDER_VOLTAGE |
| 023972 | GBT_BSM_OVER_SOC |
| 023973 | GBT_BSM_UNDER_SOC |
| 023974 | GBT_BSM_CURRENT |
| 023975 | GBT_BSM_TEMPERATURE |
| 023976 | GBT_BSM_ISOLATE |
| 023977 | GBT_BSM_OUTPUT_CONNECTOR |
| 023979 | CCS_EV full charging |
| 023980 | ERROR_CODE_CHADEMO_BMS_CHARGE_ALLOW_ERROR |
| 023981 | ERROR_CODE_CHADEMO_OUTPUT_VOLTAGE_MORE_THAN_10_PERCENT |
| 023982 | ERROR_CODE_CHADEMO_ADC_LESS_THAN_10V |
| 023983 | CCS_ STOP by EV with unknow reason |
| 023984 | STOP by EVSE condition (Config or OCPP) |
| 033900 | disconnected from backend through Ethernet |
| 033901 | disconnected from backend through WiFi |
| 033902 | disconnected from backend through 3G/4G |
| 033903 | Remote start charging by backend |
| 033904 | Remote stop charging by backend |
| 033905 | Remote reset by backend |
| 041004 | RCD/CCID self-test fail |

| Status Code | Description |
|---|---|
| 041005 | AC input contactor 1 welding |
| 041006 | AC input contactor 1 driving fault |
| 041007 | AC input contactor 2 welding |
| 041008 | AC input contactor 2 driving fault |
| 041009 | AC output relay welding |
| 041010 | AC output relay  driving fault |
| 041017 | AC connector temperature sensor broken |
| 041021 | WiFi module broken |
| 041022 | 3G/4G module broken |
| 041023 | Aux. power module broken |
| 041024 | Relay control module /smart box broken |
| 041031 | PSU module broken |
| 041032 | RCD/CCID module broken |
| 041033 | Maximum Output Current setup error |
| 041034 | Shutter fault |
| 041035 | Ble module broken |
| 041036 | Rotary switch fault |
| 042200 | System L1 input OVP |
| 042201 | System L2 input OVP |
| 042202 | System L3 input OVP |
| 042203 | System L1 input UVP |
| 042204 | System L2 input UVP |
| 042205 | System L3 input UVP |
| 042206 | PSU L1 input OVP |
| 042207 | PSU L2 input OVP |
| 042208 | PSU L3 input OVP |
| 042209 | PSU L1 input UVP |
| 042210 | PSU L2 input UVP |
| 042211 | PSU L3 input UVP |
| 042212 | System L1 input drop |
| 042213 | System L2 input drop |
| 042214 | System L3 input drop |

| Status Code | Description |
|---|---|
| 042223 | System ambient/inlet OTP |
| 042224 | System critical point OTP |
| 042225 | PSU ambient/inlet OTP |
| 042226 | PSU critical point OTP |
| 042227 | Aux. power module OTP |
| 042228 | Relay board/smart box OTP |
| 042232 | AC connector OTP |
| 042233 | RCD/CCID trip |
| 042237 | SPD trip |
| 042238 | Main power breaker trip |
| 042239 | Aux. power breaker trip |
| 042240 | PSU communication fail |
| 042241 | WiFi module communication fail |
| 042242 | 3G/4G module communication fail |
| 042244 | Bluetooth module communication fail |
| 042246 | Aux. power module communication fail |
| 042247 | Relay control boaed/smart box communication fail |
| 042251 | Emergency stop |
| 042252 | Door open |
| 042253 | System fan decay |
| 042254 | Fail to create share memory |
| 042255 | CSU initialization failed |
| 042257 | MCU self-test Fault |
| 042258 | Relay self-test Fault |
| 042262 | System AC L1 output Circuit Short |
| 042263 | PSU Duplicate ID |
| 042264 | Psu Fault : Output Short Circuit |
| 042265 | PSU Discharge Abnormal |
| 042266 | PSU Dc Side ShutDown |
| 042267 | PSU Failure Alarm |
| 042268 | PSU Protection Alarm |
| 042269 | Psu Fault : Fan Fault |

| Status Code | Description |
|---|---|
| 042270 | PSU Input UVP |
| 042271 | PSU Input OVP |
| 042272 | PSU WalkIn State |
| 042273 | Psu Fault : Power Limited State |
| 042274 | Psu Fault : Id Repeat |
| 042275 | Psu Fault : Severe Uneven Current |
| 042276 | PSU Three Phase Input Inadequate |
| 042277 | PSU Three Phase Onput Imbalance |
| 042278 | PSU Ffc Side ShutDown |
| 042279 | NO PSU Resource |
| 042280 | Self test Failed due to communication of Relayboard failure |
| 042281 | Self test Failed due to communication of Fanboard failure |
| 042282 | Self test Failed due to communication of Primary failure |
| 042283 | Self test Failed due to communication of Chademoboard failure |
| 042284 | Self test Failed due to communication of CCSboard failure |
| 042285 | Self test Failed due to AC Contact failure |
| 042286 | Self test Failed due to communication of PSU failure |
| 042287 | Self test Failed due to Model name is none match |
| 042291 | Self test Failed due to communication of GBTboard failure |
| 042292 | Self test Failed due to communication of AC failure |
| 042293 | Self test Failed due to communication of Ledboard failure |
| 042294 | AC input ovp |
| 042295 | AC input uvp |
| 042299 | System AC L2 output OCP |
| 042300 | System AC L3 output OCP |
| 042301 | System AC L2 output Circuit Short |
| 042302 | System AC L3 output Circuit Short |
| 042304 | disconnected from dispenser |
| 042305 | Meter communication timeout |
| 042306 | The dip switch of the PSU may be incorrect |
| 042307 | Psu Fuse Burn-Out |
| 042308 | Psu Pfc And Dcdc Communication Fault |

| Status Code | Description |
|---|---|
| 042309 | Psu Bus Voltage Unbalance |
| 042310 | Psu Bus Over Voltage |
| 042311 | Psu Bus Voltage Abnormal |
| 042312 | Psu Bus Under Voltage |
| 042313 | Psu Input Phase Loss |
| 042314 | Psu Fan Full Speed |
| 042315 | Psu Temperature Power Limit |
| 042316 | Psu Ac Power Limit |
| 042317 | Psu Dcdc Eeprom Fault |
| 042318 | Psu Pfc Eeprom Fault |
| 042319 | Psu Dcdc Over Voltage |
| 042326 | System task is lost |
| 042327 | DC input ovp |
| 042328 | DC input uvp |
| 043600 | Normal stop charging by user |
| 043601 | Charging Time's up |
| 043602 | Replace system air filter |
| 043607 | CSU fimrware update fail |
| 043611 | Aux. power module fimrware update fail |
| 043612 | Relay control module fimrware update fail |
| 043614 | Bluetooth module fimrware update fail |
| 043615 | WiFi module fimrware update fail |
| 043616 | 3G/4G module fimrware update fail |
| 043617 | SMR fimrware update fail |
| 043618 | RFID module fimrware update fail |
| 043619 | configured by USB flash drive |
| 043620 | configured by backend |
| 043621 | configured by webage |
| 043622 | disconnected from Internet through Ethernet |
| 043623 | disconnected from Internet through WiFi |
| 043624 | disconnected from Internet through 3G/4G |
| 043625 | disconnected from AP through WiFi |

| Status Code | Description |
|---|---|
| 043626 | disconnected from APN through 3G/4G |
| 043627 | WiFi disabled (separated charger only) |
| 043628 | 4G disabled (separated charger only) |
| 043629 | PSU quantity not match |

# 6. Maintenance

## 6.1 Before Maintenance

To meet NFPA-70E, OSHA 1910.333 and other Health/safety/security codes, please adhere to the notice and get the permit needed in advance as below:

1) Turn off power (Work de-energized whenever possible)
2) Lockout/Tagout (LOTO)
3) Live work permit (Input terminals with HV after door open)
4) Plan the Work/Permit To Work
5) Use Personal Protective Equipment (PPE)
6) Safe workplace condition & space

### 6.1.1 Maintenance Check List

Please refer to Appendix for more details.

## 6.2 General Maintenance

- The DC Fast Charger is cooled by forced air. Please keep charger in a ventilated location and do not block the air vents of the DC Fast Charger.
- Please clean or replace the air filters regularly to ensure the DC Fast Charger works properly.
- The housing was made of welding process and surface painting. It is necessary to keep the exterior clean all the time. It's easy to get rusty if not keeping the exterior clean especially in corrosion sensitive environment. Slightly rusty will not affect charger performance, but if charger is serious rusty during or exceed the warranty period, please contact local vendor for instruction.
- Clean the DC fast Charger at least three times a year, keep the exterior clean at all times.
- Clean the outside of the cabinet with damp cloth or wet cotton towel, only use low-pressure tap water and cleaning agents with PH level between 6 to 8.
- Do not apply high-pressure water jets.
- Do not use cleaning agents with abrasive components and do not use abrasive tools. Improper cleaning agents might spoiled coating, painting, surface, brightness and durability of all exterior parts.
- If there is water intruding into the DC Fast Charger then please cut off the power source immediately and contact the DC Fast Charger provider for repair.
- Please make sure the charging connector is returned to the holder of the charging connector after charging to prevent damage.

- If there is damage to the charging connector, charging cable or holder of the charging connector then please contact the DC Fast Charger provider.
- When using the DC Fast Charger please handle properly. Do not strike or scrape the cabinet or screen.
- If the enclosure or screen is broken, cracked, open or shows any other indication of damage then please contact the Standalone DC Fast Charger provider.

**WARNING:** Danger of electrical shock or injury. Turn OFF power at the panelboard or load center before working on the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is turned OFF.

- Disconnect electrical power to the DC Fast Charger before any maintenance work to ensure it is separated from the supply of AC mains. Failure to do so may cause physical injury or damage to the electrical system and charging unit.

Note:

- Before switching off main breaker to begin maintenance, please record the status code number on the LCD monitor.
- After maintenance door opened or MCCB of charger turned off the charger is still hazardous. Only visual inspection can be operated.
- Maintenance of the DC Fast Charger shall be conducted only by a qualified technician.
- After opening the front door of the DC Fast Charger, turn off the main breaker and auxiliary breaker before any maintenance work.
- Replace the ventilation filter every six to twelve months.
- Please confirm the main power junctions are tightened every month, and rotate cables testing when the power off. If any main power screw is loose will be resulted in damage on charger or smoke on the connections. Please confirm screw torque requirement table.
- Charging cable maintenance: Do not twist, bend the charging cable. The metal contact should not fade or be rusty.
- Please provide the EVSE information including  serial number, model name, status code, failure behavior and timing, and also connect the EVSE to the Internet before remote diagnostics and upgrading

## 6.3 Replacement Kits and Accessories

The DC EVSE offers the following replacement kits and accessories.

| Replacement Kit List |
| --- |
| 7-inch LCD |
| Emergency Stop Button |
| 30kW DC PSU G-1K0100 |
| MW Aux. Power HEP-100-12A |
| MW Aux. Power HEP-600-24A |
| Control & Supervisory Unit (CSU3.0) |
| Surge Protection Device (SPD) |
| DC Fan |
| Air Filters |
| RFID Readers |
| Fuse |
| Relay board |
| Fan board |
| LED board |
| 4G/Wi-Fi board |
| DC Relay |
| AC Contactor |
| MCCB & RCD |
| AC/DC Meter (optional) |
| AC Module and AC Socket/Cable (optional) |

# 7. Limited Product Warranty

The warranty period of this charger is according to purchasing contract; two years typically.

Replacement and repair parts manufactured by alternative manufacturers to those on the maintenance parts are only allowed if authorized by Suppier.

The housing was made of welding process and surface painting. It is necessary to keep the exterior clean all the time. It's easy to get rusty if not keeping the exterior clean especially in corrosion sensitive environment. Slightly rusty will not affect charger performance, but if charger is serious rusty during or exceed the warranty period, please contact local vendor for instruction.

Warranty Exclusions:

- Damage or rendered non-functional as a result of power surges, lighting,earthquake, fire, flood, pest damage, abuse, accident, misuse, negligence or failure to maintain the product or other event beyond Suppier's reasonable control or not arising from normal operating condition.
- Cosmetic or superficial defect, dents, marks or scratches after use.
- Components which are separate from the product, ancillary equipment and consumables, such as door key, RFID card, air filter, fuse, cable, wires and connectors.
- Damage as a result of modifications, alterations or disassembling which were not pre-authorized in writing by Suppier.
- Damage due to the failure to observe the applicable safety regulations governing the proper use of the product.
- Installed or operated not in strict conformance with the documentation, including without limitation, not ensuring sufficient ventilation for the product as described in Suppier installation instruction.

If a defect in the product arises and valid claim is received within the warranty period, your sole and exclusive remedy will be for Suppier, at its sole discretion and to extent permitted by law, to

1. Repair the defect in the product at no charge, using new or refurbished parts.
2. Exchange the product with new or refurbished product that is functionally equivalent to the original product.

Any remedy hardware product will be warranted for the remainder of the original warranty period or 90 days from delivery to the customer, whichever is longer.

In order to receive the remedy set for above, you must contact your supplier during the warranty period and provide the model number, series number, proof of purchase, and date of purchase.

This warranty does not cover the damages caused by adapter usage accident or by other unauthorized operation/service.

# Appendix 1 - Package List

| Item | Description | No. | Remark |
|---|---|---|---|
| 1 | EVSE | 1 | |
| 2 | User Manual | 1 | |
| 3 | EVSE Approved Certificate | 1 | |
| 4 | OQC Report | 1 | |
| 5 | RFID Card | 2 | |
| 6 | Door Key | 1 | |
| 7 | Waterproof Plastic Bolts | 4 | |
| 8 | Base Cover | 2 | |
| | | | |
| A | Cable Management | 1 | Optional |
| B | Bracket set for payment system | 1 | Optional |

# Appendix 2 - Preventive Maintenance Check List

| No. | Item | Description | 0.5 year | 1st year | 2nd year | 3rd year | 4th year | 5th year |
|---|---|---|---|---|---|---|---|---|
| 1 | Preventive Maintenance | | I | I | I | I | I | I |
| 2 | Appearance inspection | Appearance visual inspection | I | I | I | I | I | I |
| 3 | System fan | Fan clean and spinning smoothly check | I | I | I | R | I | R |
| 4 | Air filter | Air filter, air inlet and outlet clean | I | I | R | I | I | R |
| 5 | Charging cable | Appearance clean | I | I | I | R | I | I |
| 6 | PCBA | Visible section clean | -- | I | I | I | I | R |
| 7 | SPD | SPD status indication check | I | I | I | I | I | R |
| 8 | DC output bolts torque | Bolts torque check | -- | I | I | I | I | I |
| 9 | AC input bolts torque | Bolts torque check | -- | I | I | I | I | I |
| 10 | LCD display | Display sharpness and backlight check | -- | I | I | I | I | R |
| 11 | Selection button | Indication light and function check | -- | I | I | I | I | R |
| 12 | RFID reader | Function check | -- | I | I | I | I | R |
| 13 | Emergency stop button | Function check | -- | I | I | I | I | R |
| 14 | Breaker and RCD | Function check | -- | I | I | I | I | R |
| 15 | Aux power supply | No maintenance requirement | -- | -- | -- | -- | -- | R |
| 16 | PSU module | No maintenance requirement | -- | -- | -- | -- | -- | R |

**Note:**
I: Inspection
R: Replacement or refill
--: No maintenance needed

# NOTES

# NOTES

Manufacturer Contact Info Sticker