Charge-M8 Omega

60kW DC EV Charger

Specification and Installation Manual

WARNING: High Voltage Appliance

This 60 kW Omega unit is a high-voltage DC charging station and must only be installed, commissioned, and serviced by qualified electrical personnel in compliance with applicable electrical regulations. Incorrect installation, commissioning, servicing, or operation by unqualified personnel may result in serious injury, equipment damage, or malfunction, and will invalidate the manufacturer's warranty.

Important Notes

Thank you for purchasing a Charge-M8 DC Electric Vehicle Charging Station.
Please read the installation and operating instructions carefully to ensure correct installation, configuration, and safe operation of the charging equipment.

Omega DC chargers must be installed and operated in accordance with applicable electrical standards and regulations, including but not limited to IEC 61851 series standards, and all relevant local electrical laws, regulations, and safety requirements, and the manufacturer's guidance as specified in this manual.

This charging station is a complex electrical device and is not intended for end-user or unauthorised service or maintenance. The unit must only be opened, serviced, or repaired by qualified and authorised personnel. Any unauthorised opening, modification, or servicing of the unit will invalidate the manufacturer's warranty.

This manual is provided as a reference guide. Every reasonable effort has been made to ensure the accuracy of the information contained herein at the time of publication. However, the actual product shall prevail in the event of any discrepancy. Charge-M8 Limited reserves the right to modify product specifications or documentation without prior notice.
Installers must ensure that the operating environment, installation method, power wiring, grounding, and commissioning procedures comply with the requirements described in this manual and relevant local regulations. Only qualified personnel are permitted to install, commission, inspect, or service this charging station.

Once installation is complete, users are advised to retain this manual for future reference and maintenance purposes.
If you have any questions regarding the operation, installation, or maintenance of this DC charging station, please contact Charge-M8 Ltd or an authorised service provider.

Statement of Compliance

The Electric Vehicles (Smart Charge Points) Regulations 2021

Whilst the EVSCP Regulations do not apply to chargers with a power output of 50kW or higher, Charge-m8 Limited hereby declare under our sole responsibility that the following charge point models below comply with the requirements set out under the Regulations. A technical file is available upon request.

Model	Omega DC Charger 60kW ANDCE 1-60 LP
SKU:	450 - 4060
Rating(Input):	Input Voltage: 400 ±10% Vac Input Power: 3P+N+PE (L1, L2, L3, N, PE) Rated Input Current: 92 A
Rating (Output):	Rated Power: 60 kW (2 × 30kW) Output Voltage: 200-1000 Vdc Output Current (Imax): 2 × 100 A (Dual connectors)
Communication:	Charging communication protocol: DIN 70121 / ISO 15118 Background communication protocol: OCPP 1.6
Connection Type:	Charging Connectors: 2 × CCS2 (DC)

This statement of compliance covers all Charge-m8 Omega Charger units rated at 60 kW and further confirms compliance with Schedule 1 of the Regulations (Security).

Signed on behalf of Charge-M8 Limited:

J Smith

Name: Julian Smith

Position: Managing Director

Date: 19th January 2026

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WARRANTY

Thank you for purchasing a Charge-M8® 60kW Omega DC Charger.

Warranty Period
Charge-M8 provide a 3-year warranty against manufacturing defects from the date of purchase, conditional upon the installation and annual servicing requirements being compliant with the manufacturer's instructions and all applicable local regulations.

Warranty Conditions
Upon delivery the product packaging should be inspected for transit damage, and opened to check the product and accessories are both complete and in good condition. Claims for transit damage or missing parts will not be considered unless made within 3 working days of delivery, and supporting images/documentation provided.

Warranty Scope
The Charge-M8 Omega DC Charger range includes Bronze on-site parts & labour engineers support (10 day SLA) for the warranty period, which can be upgraded to Silver (5 day SLA) or Gold (48hr SLA) subject to application and payment of the applicable upgrade rate within 28 days of installation. Contact support for further information.

During the warranty period, Charge-M8 may replace or repair components or the whole unit at our discretion, based upon assessment by our appointed engineers. Warranty on replacement parts & components expire in line with the original warranty period.

Technical support can be obtained by contacting the customer team on sales@charge-m8.com or calling +44 333 242 3328

Signed on behalf of Charge-M8 Limited:

J Smith

Name: Julian Smith

Position: Managing Director

Date: 16th January 2026

1. Product Introduction

1.1 Scope of Application

The electric vehicle DC charger is a special device that provides safe and reliable charging services for electric vehicles with the CCS2 standard interface. The charger communicates with the vehicle battery management system (BMS) in real time during the entire charging process to ensure vehicle charging is smart and safe. It is mainly used in the following scenarios:

- Electric bus depots, public operating charging stations;
- Expressway service areas, electric taxi waiting areas;
- Electric vehicle service operators, commercial fleet operators;
- Electric vehicle infrastructure operators and service providers.

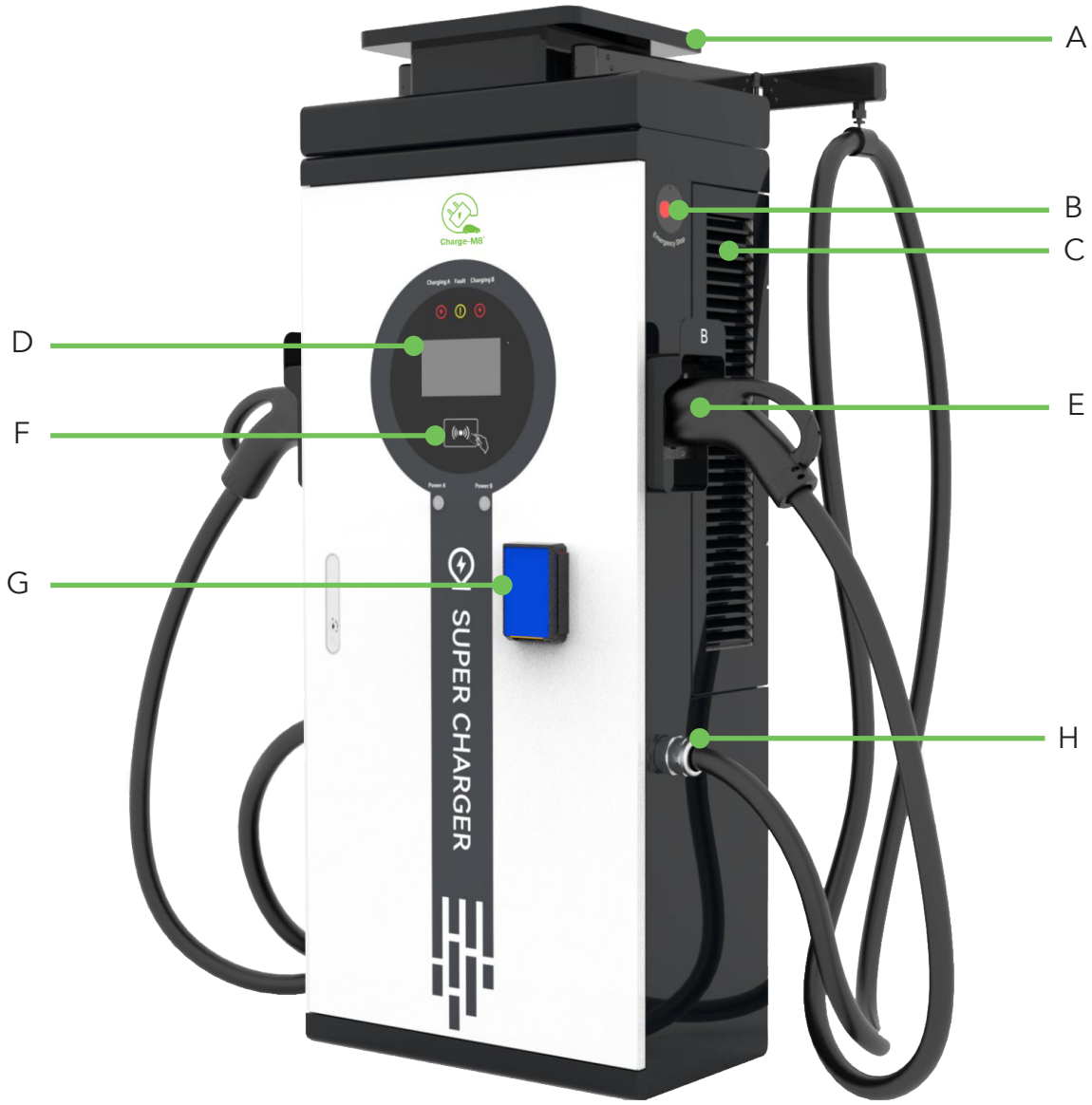
1.2 Product Features

The product adopts advanced soft-switching technology and has the characteristics of high conversion efficiency and stable performance. Adopting a modular design, it features convenient installation, convenient debugging, and convenient maintenance. This product is mainly composed of a signal indicator, human-machine interface, RFID module (swiping card), metering module (watt-hour meter), billing control unit, power conversion module, charging controller, charging connector, emergency stop button, and various protection modules, etc.

The Omega core features include a signal indicator LED, touch screen user interface, RFID module (swipe card), metering module (electricity meter), OCPP control unit, power conversion module, charging controller, charging connector, emergency stop button, and multiple protection modules:

- Signal indicator: display the current operating status of the charger;
- Man-machine interface: you can directly touch the screen to perform related operations, and detailed information of each charging interface and battery can be displayed in real time during the charging process;
- RFID card reader: identify and verify user information, and start or stop charging;
- Metering module: record the power delivered to the vehicle;
- Billing control unit: background interaction, storage and reporting of charging information and fault information, and statistics and reporting of charging fees;
- Power conversion module: convert AC power to DC power to provide DC power for electric vehicles.
- Charge controller: intelligently dispatch power output according to vehicle BMS requirements, and collect, process, and control system charging information;
- Charging connectors: 2 × CCS2 charging interface;
- Emergency stop button: emergency cut off the input power and stop charging;
- Protection module: with multiple protection functions such as over (under) voltage, overload, short circuit, over temperature, anti-reverse, surge, grounding, emergency stop, insulation, leakage, etc.

1.3 Operation



User operating parts and visual indication parts:

A. Cable management system: keeps the cable tidy and off the floor area;
B. Emergency stop button: used to cut off the power in an emergency;
C. Air Filter inlets/outlets containing dust-proof cotton, for heat dissipation and ventilation, detachable;
D. Display module: including 7-inch high-brightness touch screen, status indicator, and card reader;
E. Connector Bracket: for cCCS2 charging connector retention;
F. RFID Card Reader;
G. Credit card payment terminal mounting point (optional);
H. Output cable connector;

Note: Please refer to the technical agreement or actual confirmation for the appearance of the silk-screen effect.

2. Product Performance

2.1 Specification Model Description

ANDCE 1 - 60 LP 2

1 2 3 4 5

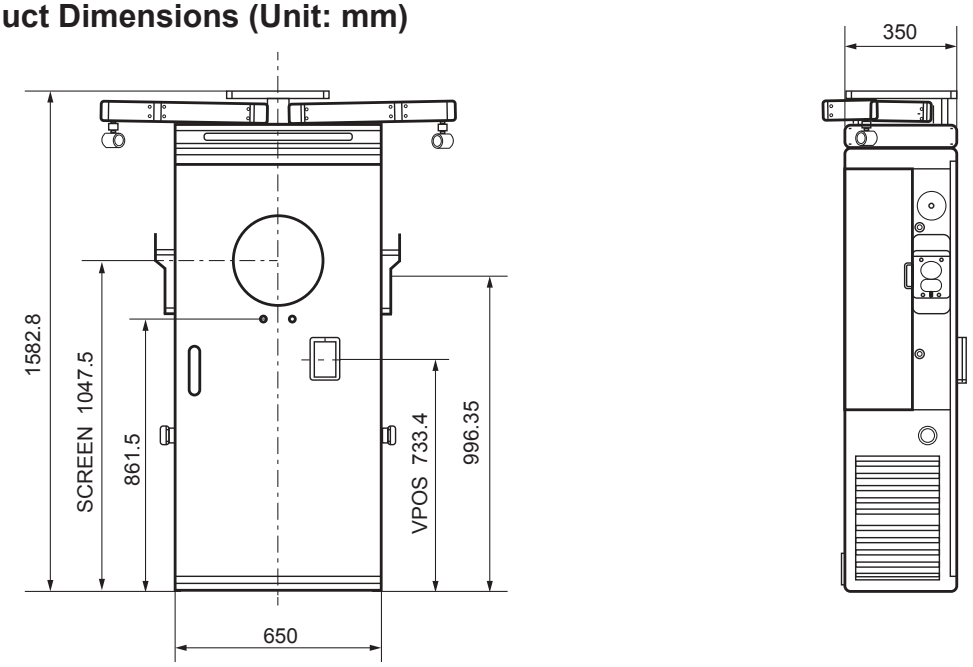
Model No	Model No description
1	Export DC charger
2	CCS2 connector
3	Rated Power (kW)
4	Product Code
5	1: Single connector 2: Dual connector

2.2 Environmental parameters

No.	Item	Specification
1	Protection Level	IP 55
2	Operating Temperature	-30°C to +55°C
3	Storage Temperature	-40°C to +70°C
4	Relative Humidity	5% to 95%, no condensation
5	Altitude	≤ 2000 m
6	Running Noise	≤ 65 dB
7	Cooling Method	Forced air cooling
8	Working Environment	Indoor or outdoor
9	Operating Environment	No conductive dust, no corrosive gas, no explosive gas, no strong vibration
10	Installation Method	Vertical floor installation, inclination angle not more than 5°

2.3 60 kW DC charger - Technical Parameters		
1	Rated Power	60 kW (2×30kW)
2	Output voltage range	200-1000 Vdc
3	Dual connectors simultaneously charge power distribution	1#: 30 kW 2#: 30 kW
4	Output current	2×100 A
5	Rated input current	92 A
6	Recommended input cable (mm^2)	3×35 + 2×16
7	Input power connection	3P+N+PE (L1, L2, L3, N, PE)
8	AC input voltage	400±10% Vac
9	AC input frequency	50/60 Hz
10	Power factor	≥0.99 (full load)
11	Charging efficiency	≥96% (full load)
12	Charging Connectors	IEC 62196-3:2014, CCS 2 (DC) ×2
13	Charging Cable Length	Nominal 5 metres
14	HMI	7-inch LCD touch screen
15	Signal Indicator	Green (power on), Yellow (charging), Red (fault)
16	Electromagnetic Compatibility	IEC 61851-21-2: 2021
17	Safety	EN 61851-23: 2014 & EN 61851-1: 2019
18	Charging Communication Protocol	DIN 70121 / ISO 15118
19	Background Communication Protocol	OCPP 1.6
20	RFID Module	ISO 14443, Type A, Mifare
21	Internet Connection	4G or Ethernet
22	Certificate	CB / CE / TR25
23	Dimensions	Charging station: 650(W) × 350 (D) × 1400 (H) mm Charging station(Includes cable management): 650(W) × 350 (D) × 1600 (H) mm

2.4 Product Dimensions (Unit: mm)

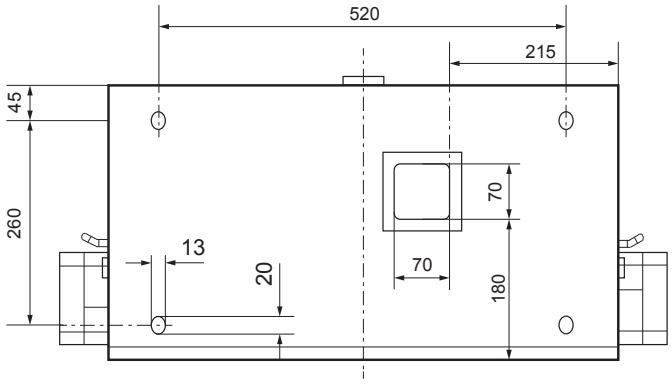


3. Installation and Commissioning

3.1 Unpacking and Inspection

- Packing list is attached to the charger transit carton;
- When unpacking, please refer to the packing list to confirm that all parts are included;
- If there are any damaged or missing parts during transportation, please contact our customer service as soon as possible;

3.2 Installation Base



Unit: mm

Front

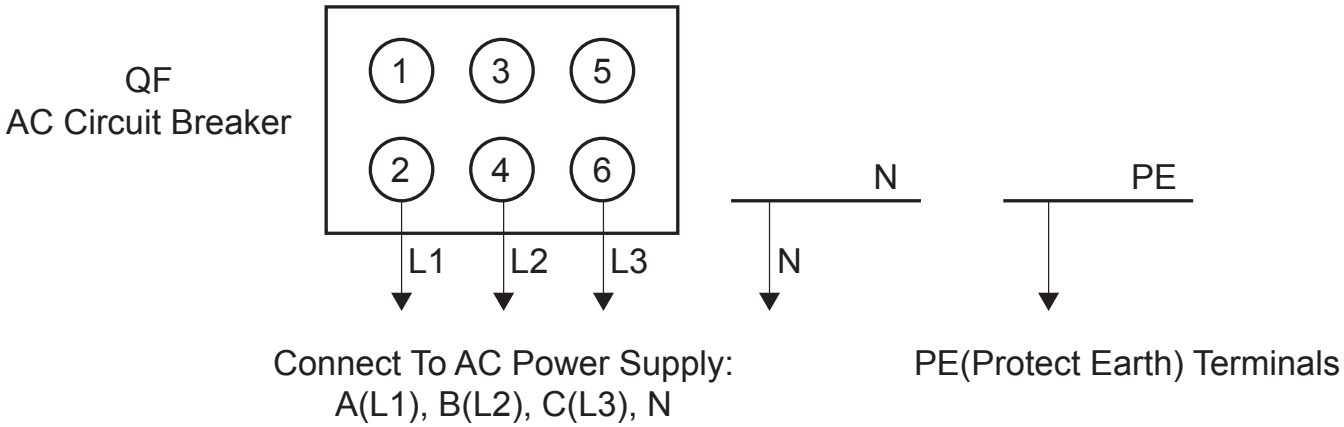
Description:

- The openings at the four corners of the equipment (4-φ13 × 20 waist holes) are the mounting holes for the cabinet anchor bolts;
- There is a 70×70mm square hole at the bottom of the device, serving as a wiring hole for the AC power cord to pass through. After installation, each threading hole needs to be blocked with fireproof sealant to prevent underground moisture Entering the equipment and affecting the performance of the components;
- It is recommended that the height of the base foundation is not higher than 200mm, reference PAS 1899:2022 should be made to ensure accessible charging compliance;

3.3 Charger Installation

- Unpack the outer packing box and move the charger to the prepared base location
- Before installing the charger, please pay attention to the installation position and ensure that the access doors and panels can be opened normally for maintenance and sufficient ventilation;
- During the installation process, the ground fixings and mains connection cable entry points marked on the base plate should be matched with the fixing points at the bottom of the charger;
- After the charger is in place, the angle of its vertical line should be less than 5°;

3.4 Power Supply Wiring



Description:

- Disconnect all circuit breaker switches, and connect the AC power three-phase five-wire system (L1, L2, L3, N, PE) according to the AC terminal of the charger, which requires a licensed electrician or qualified personnel to operate;
- It is recommended that the cross-sectional area of the AC power supply cable is referred to “2.3Technical Parameters-6”;

3.5 Power Up

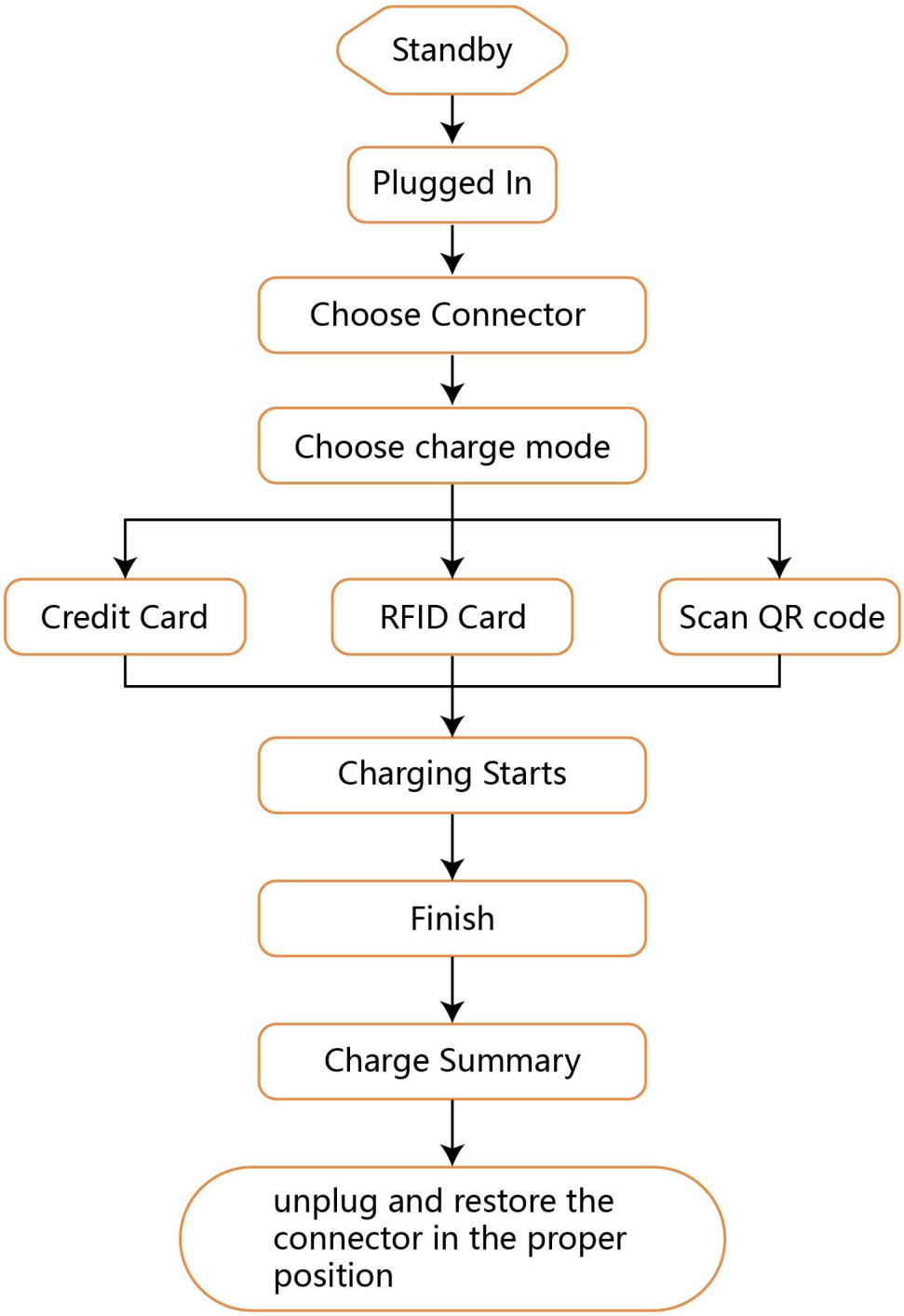
Turn on the surge protection switch (QF2) → auxiliary power switch (QF1) → AC inlet switch (QF) in sequence.

3.6 Installation Inspection Checklist

- Confirm whether the operating environment meets the technical requirements;
- Check the charger is fixed correctly and no obvious looseness or shaking can be seen for either side;
- Check whether the protection level of the equipment meets the requirements, especially whether the cable entrance at the bottom of the equipment is sealed;
- Before starting up, check whether the equipment has loose connection lines, mechanical damage, line breakage, etc.;
- After power on, check whether the LCD touch screen, card reader, meter, etc. are working properly;
- In case of emergency, press the emergency stop button immediately;
- Only qualified personnel can repair the charger;

4. Operating Instructions

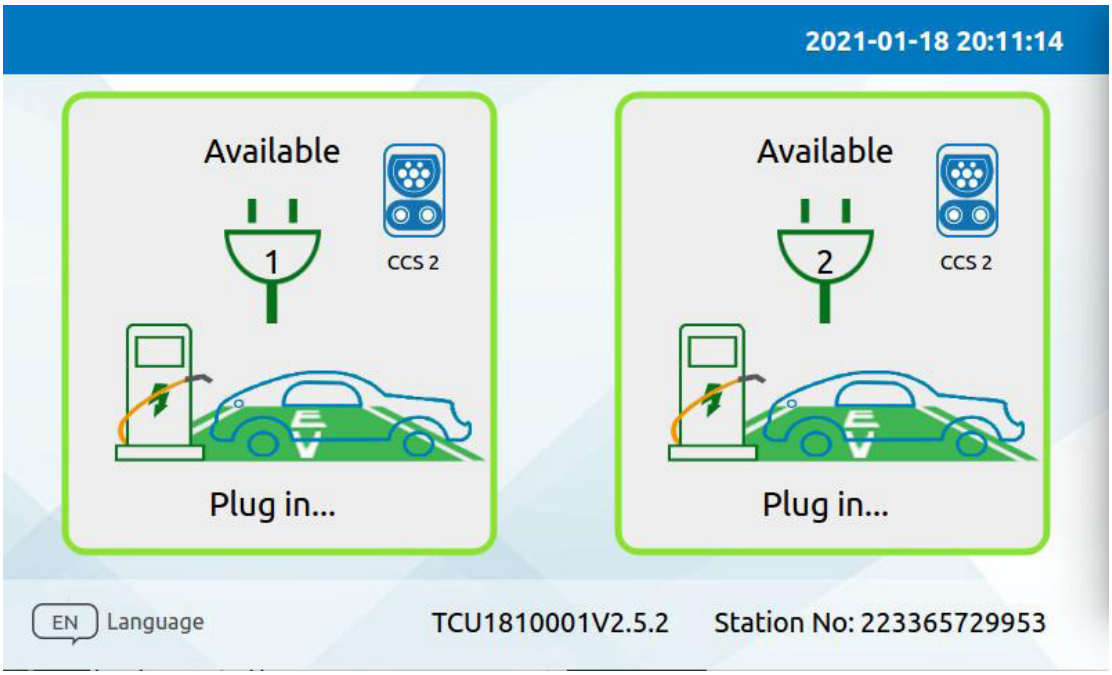
4.1 Operational Processes



4.2 Operation Steps

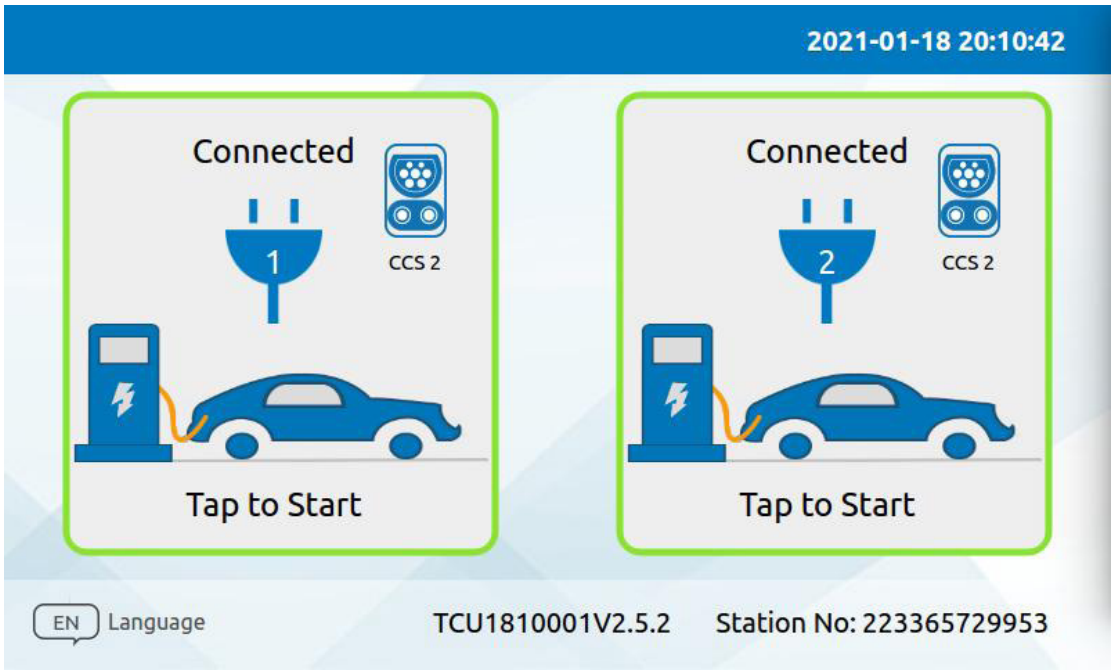
(1) Standby Interface

Indicates that the charger is idle when displaying “Available”.



(2) Connect the Charging Plug

Remove the charging plug from its bracket and connect it to the charging socket of the vehicle. If the charging plug is fully connected to the vehicle socket, the interface displays “Connected”.



Tap the plug on the screen below “Connected” to jump to the start mode selection interface.

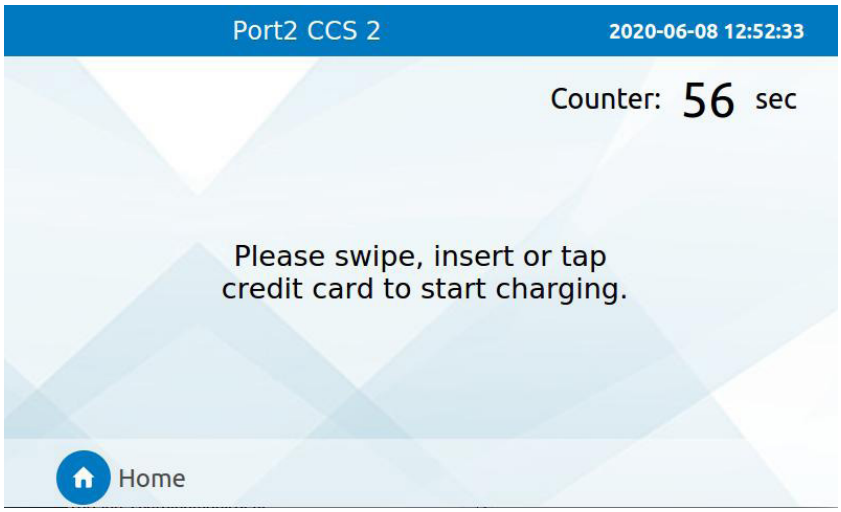
(3) Charge Session Start Method Selection

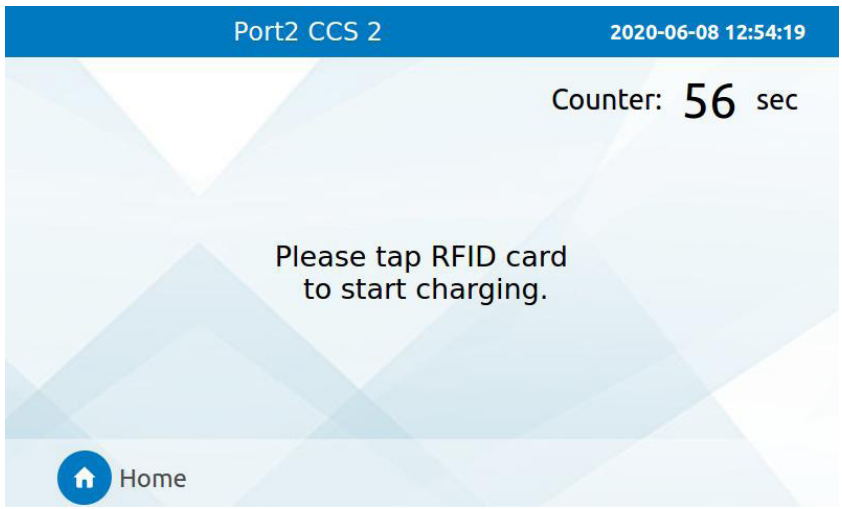
You can now select credit card*, RFID card, use an OCPP APP or scan the QR code to start a charging session.

**If credit card reader is installed - not supplied*

(4) Start Charging

After selecting the payment/authorisation method, the countdown interface is shown giving 60 seconds to complete the authorisation.



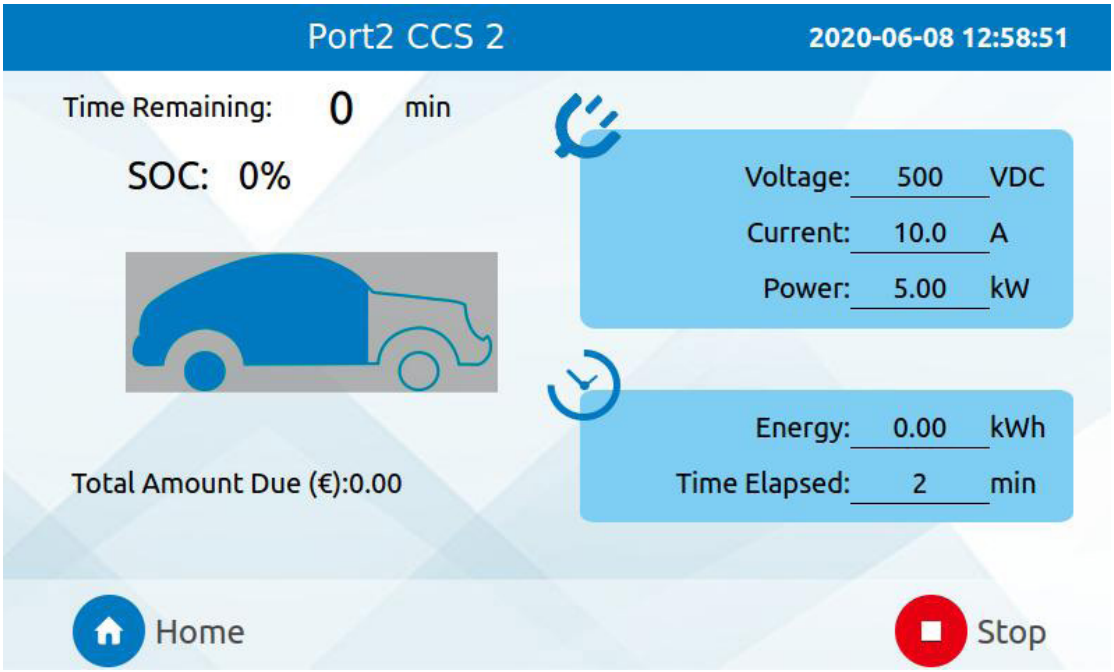


(5) Charging Starts

After swiping the card or scanning the code, enter the charge start countdown interface.

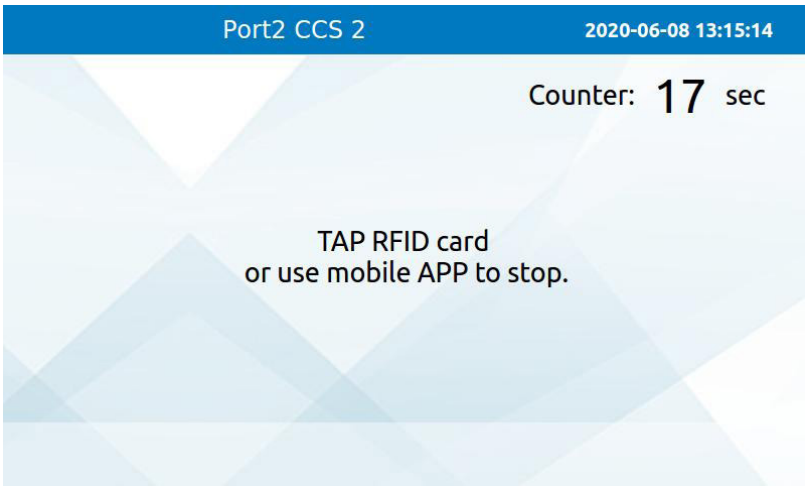
(6) Charging

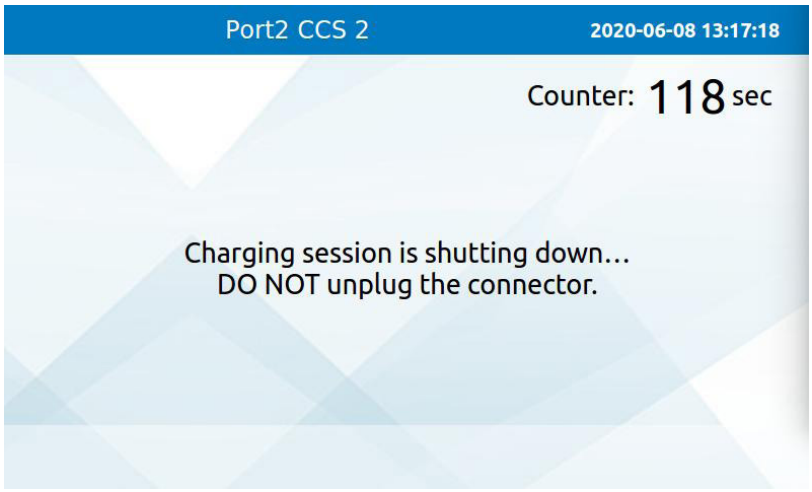
- After the charging session is started, the charging detail screen is displayed.
- The interface displays current charging information such as charging voltage, charging current, charging power, charging energy, charging time, charging cost, battery SOC, remaining charging time, etc.



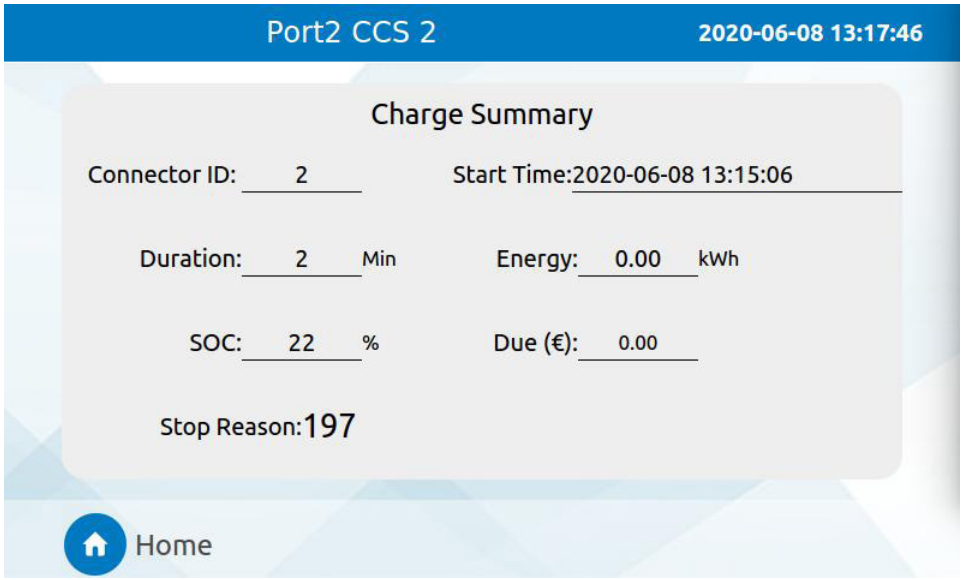
(7) End a Charging Session

- If you want to end charging during the charging process, you can click the red stop button in the lower right corner of the interface to enter the stop charging countdown interface.
- Swipe the RFID Card or APP used to start the session, charging session ends.





After the charging session is completed, the settlement interface displays the relevant information of the charging session, after confirming that the information is correct, please pull out the connector and plug it back into the holster on the charger.



5. Product Maintenance

5.1 Routine Maintenance

To ensure the charger's seamless, long-term operation, regular inspections of the equipment are essential, with the following routine maintenance measures highly recommended:

NO.	Inspection Tasks	Inspection Interval	Inspection Guidance
1	Check the intake and exhaust filters are adequately ventilated and free from blockages.	3 months	1. Verify the flow of air in and out of the intakes and outlets is not obstructed; 2. Examine the filters for the accumulation of dust; should there be any blockage due to grime, proceed with removal for cleaning or replacement if necessary.
2	The charging connector plug and its cable remain in a serviceable condition.	3 months	1. Inspect the charging connector plug for any signs of damage, particularly cracks in the housing; 2. Examine the cable for any damage to the insulation and exposed conductors;
3	Confirm the operational status of the forced air cooling fan.	3 months	During a routine charging session, observe and verify the operation of the forced air heat dissipation fan.
4	Confirm the overall satisfactory performance of the charger.	3 months	1. Observe a charging session and check the display and log files for errors/warnings. 2. Check the charging modules are functioning optimally, with output within the expected range.
5	User touchscreen interface.	3 months	During a routine charging session, verify the satisfactory operation of the touchscreen user interface.
6	Confirm the stability of the earthing components associated with the charging station.	3 months	Check the integrity of each earth grounding connection, identifying potential looseness, insufficient security, or any other complications. Re-torque connections as necessary to 25nm.
7	Emergency stop	3 months	1. Ascertain if the charging procedure ceases instantaneously upon activation of the emergency stop button during the system's regular operations. 2. Following the engagement of the emergency halt, examine whether the visual presentation interface signals any malfunctions of the emergency cessation mechanism.

5.2 Troubleshooting

Code	Fault Name	Troubleshooting Method
0	Emergency Stop	Check whether the emergency stop button is pressed. Turn it clockwise to reset.
2	AC Input Breaker Failure	Check whether the AC input circuit breaker has tripped. Push the breaker handle fully down, then switch it back on to restore operation.
4	DC Output Busbar Fuse Failure	Check whether the DC fuse internal resistance is normal. If the fuse is blown, replace it.
7	SPD Failure	1. Check whether the lightning protection module is loose and ensure it is securely inserted. 2. Check whether the indicator colour of the lightning protection module has changed from green to red. If so, replace the lightning protection device.
8	Insulation Monitoring Failure	1. Check whether the charging module output voltage is normal during the insulation test. 2. Check whether the impedance values of the positive and negative poles to ground are within the normal range.
9	Battery Polarity Reverse Connection	1. Check whether the battery voltage sampling line at the charger terminal is connected in reverse. 2. Check whether the vehicle socket power cable is connected in reverse.
12	Charging Interface Over-Temperature Fault	Unplug the charging connector, wait a few minutes, then reconnect it to resume charging.
14	BMS Communication Failure	1. Check whether the BMS communication connection is loose. 2. Check whether the BMS communication wiring is connected in reverse.
20	Charging Power Module Fault	1. Check whether the CAN communication cable of the charging module is loose. 2. Check whether the charging module fault indicator is illuminated.
33	DC Output Contactor Failure to Operate	Stop charging and power off the system. Check whether the auxiliary contact of the output relay is disconnected.
66	Meter Module Abnormal	1. Check whether the meter address is configured correctly. 2. Check whether the RS485 communication cable of the energy meter is properly connected.

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