

20kW/30kW/40kW DC Charger

National Standard

User Manual & Installation Instructions



Comercial Use DC Series

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Introductions

DC Fast Charger 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.

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 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 Wall Mount 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.

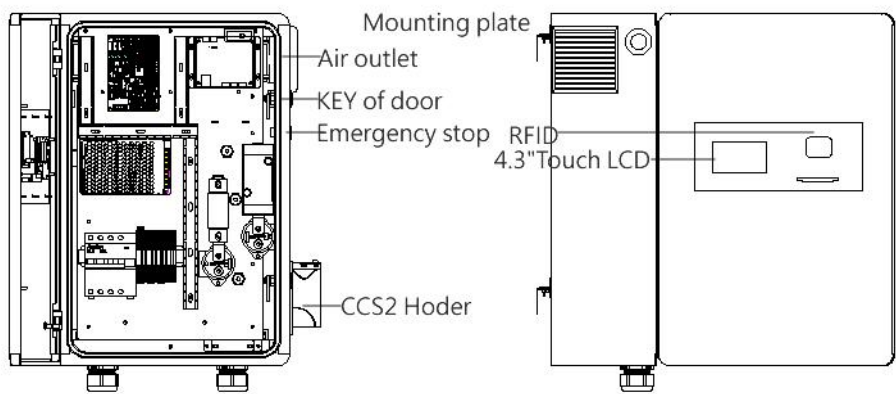
Features

- Wall-Mounted design and 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 on 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



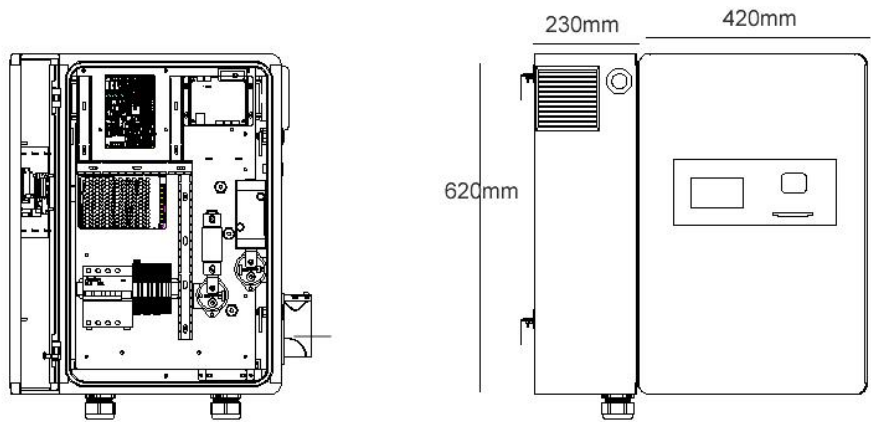
1. Specification

1.1 Product Specification

Model	SECEM-20KW	SECEM-30KW	SECEM-40KW
Technical features			
Max Power	Up to 20KW	Up to 30KW	Up to 40KW
Input/Output power	400VAC±10%-50/60Hz-3phase	400VAC±10%-50/60Hz-3phase	400VAC±10%-50/60Hz-3phase
Power factor	0.98		
Efficiency	>95%		
Measuring accuracy	Level 0.5		
Output voltage range	CCS: 200~1000VDC		
Output current range	0-67A	0-100A	0-125A
Communication	Ethernet/4G/OCPP 1.6 J (TLS)		
User interface	RFID card and APP		
Display	LCD 4.3 inch Touch Screen		
Versatility	IEC61851/IEC62196/ISO1511/DIN70121/EN61000-6-4:2007		
Energy Meter	CE certified		
RCD	Type A or Type B(optional)		
Security design	Over/under voltage protection, overload protection, current leakage protection, grounding protection,lightening surge protection		
DC Plugs	CCS2/CCS1/GBT/NACS Cable 5M		
Physical properties			
Warranty	2 years		
Application place	Indoor/Outdoor		
Installation method	Wall mount, pedestal mount (optional)		
Sound noise	<55DB in all directions		
Operating temperature	-20℃ to +50℃		
Humidity	Max.95%(non-regulating)		
Dimensions	420* 230*620mm		
Package Dimension	830*570*480mm		
Net Weight	38Kg	40Kg	43Kg
Gross Weight	45Kg	48Kg	50Kg

2.2 Dimmensions (Unit: mm)

Main Size of Charger



2. Installation Instruction

2.1 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.



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)/ IT/ 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).
- In the installation of IT system: the neutral of the power distribution system is isolated from the earth. The PE of the charger equipment is isolated to the PE of power distribution to the earth.
- In the installation of TT system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is isolated to the PE of power distribution to the earth.
- The capacity of power supply should be higher than 33.0kVA in order to function correctly.
- The product should be installed in free air area and keep at least 30cm clearance distance to all air vent of the product.
- Need sufficient space for product installation and maintenance, please keep not less than 60cm clearance distance from all around the product. The product should be installed in free air area and keep at least 30cm clearance distance to all air vent of the product.

2.2 Grounding and Safety Requirement

- The product must be connected to a grounded, metal, permanent wiring system. Connections shall comply with all applicable electrical codes.
- 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.

2.2.1 Service Wiring

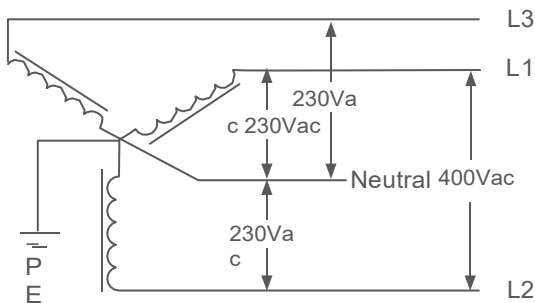
- Ground Connection

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(Line to Line) Three-Phase



CAUTION! This is feed from Wye-connection power grid, the Wall Mount DC FastCharger 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!

2.3 Unpack the charger

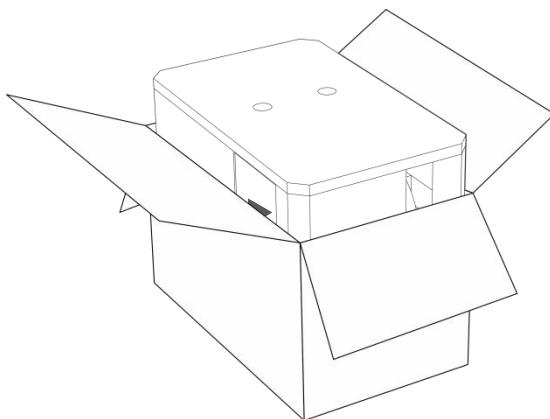


WARNING!

Charger weight might >80Kg!
Be careful during unpack process.

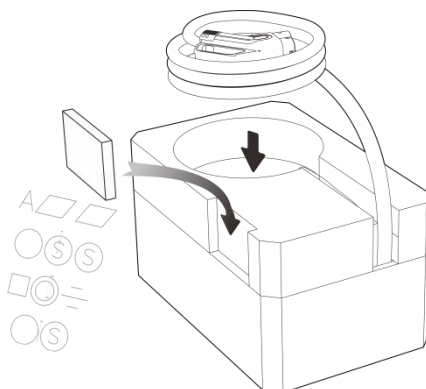
STEP 1.

Remove the surrounding boards



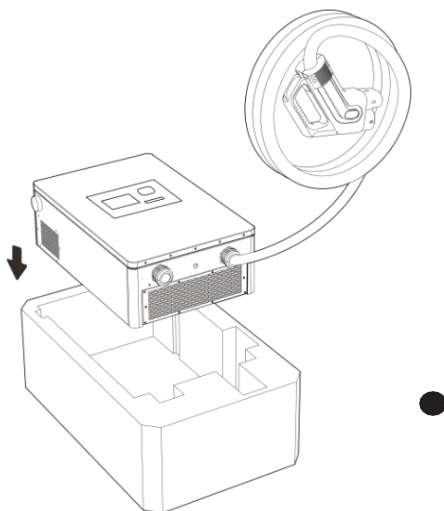
STEP 2.

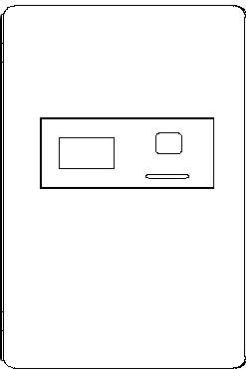
Remove the packaging film and the paper cover. Accessories (wall mount) are packed in a carton.



STEP 3.

Remove the surrounding cardboard and film. Take out the Charger and Gun holders.



			
	User Manual (x1)	φ6 Expansion Pipe (x6)	M4*40 Screw (x6)
			
Wallbox(x1)	RFID CARD (x2)	Key (x2)	SD card(x1)

2.4 Recommended Tools for Installation and Inspection

2.4.1 Recommended Tools for Installation

Type	Description
Philips Screwdriver	No. 2 and 3
Shifting Wrench	8" (24mm)
Ball-Head Hex Key	2.5mm and 5mm
Socket Screwdriver	No. 8 ,10 and 17
Electrical Tape	Black / 15mm Width
AC Input Cable of 30KW	16mm² Cable x 5 (L1,L2,L3,N,PE)
AC Input Cable of 40KW	25mm² Cable x 5 (L1,L2,L3,N,PE)
AC Input Cable of 20KW	16mm² Cable x 5 (L1,L2,L3,N,PE)
Crimping Pliers for Ring Terminal	Applied for 16- 25mm ²
Machine Drill	
Wire Cutters	
Level Ruler	

2.4.2 Recommended Tools for Inspection & Commissioning

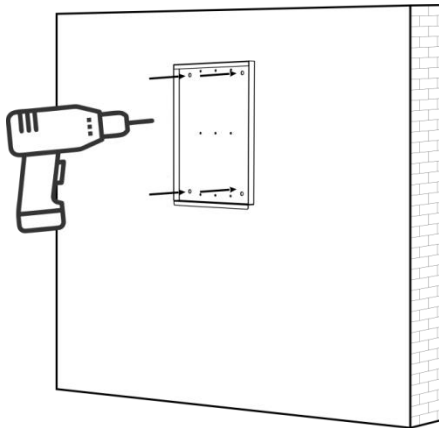
Type	Description
EV or EV Simulator	Meet CCS2 standard
Multiple Meter	1000V
Current Probe	100Amp
RFID Authorized Card	
RFID No Valid Card	
Door Key	
Needle-Nose Plier	
Laptop or PC & CAT6 cable	For Charger Configuration

2.5 Installation Procedure

Taking 30KW as an example

STEP 1.

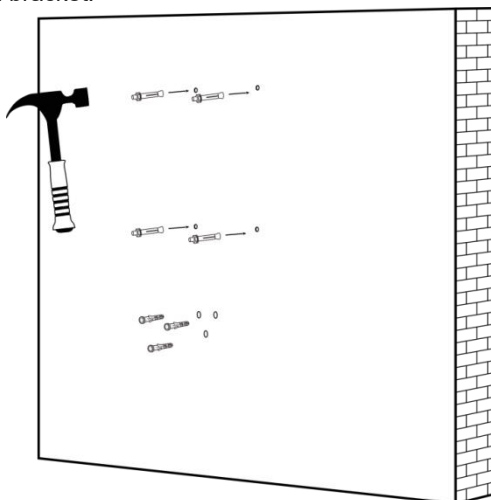
Place the wall-mounted bracket between 600mm (24 inches) and 1.2m (4 feet) above the floor, and then attach 4 pcs 3/8" expansion screws to the wall-mounted bracket. (Unit: mm)



Unit: mm

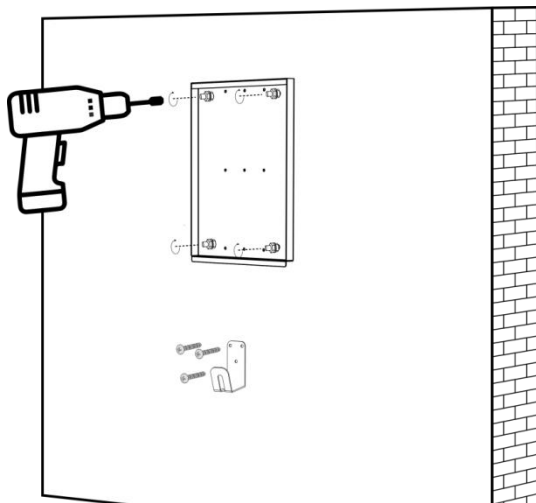
STEP 2.

Install the four tenons on the rear side of the charger into the grooves on the wall-mounted bracket.



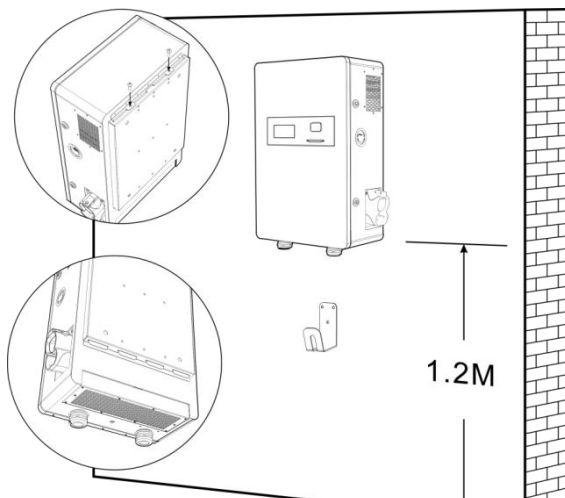
STEP 3.

Screw 2 sets M6 screws to the bottom of the charger to fix the charger on the bracket.



STEP 4.

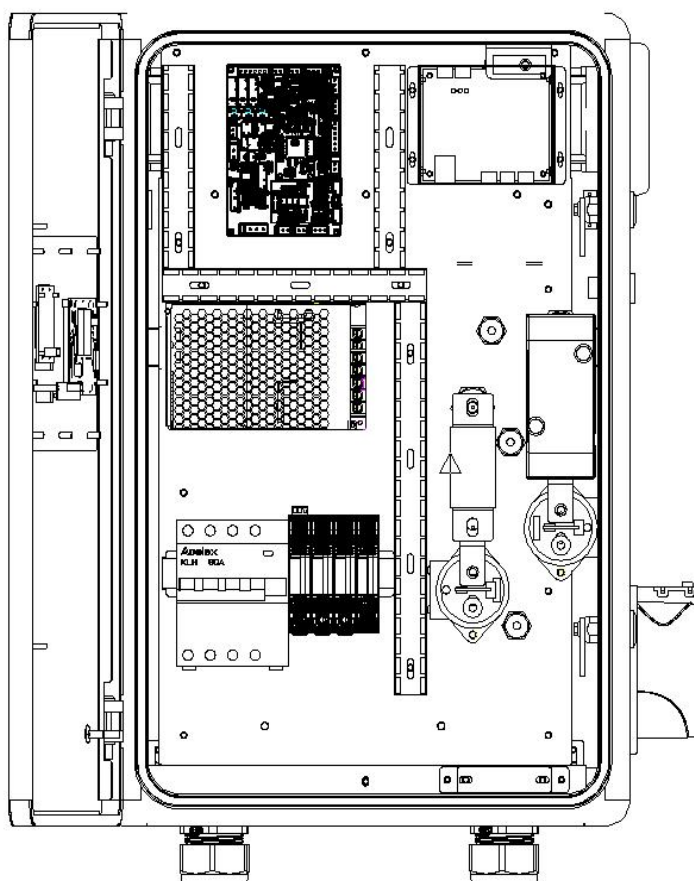
Keep the hook-shape holders as cable holder or disassemble them if not necessary.



Installing the AC Input Connect

STEP 5.

Please use XLPE power cables or equivalent for AC input connection, power cable outer diameter is between 32 and 40mm. Each wire shall be crimped with the corresponding terminal before feeding. And then feeding the cable from bottom side and passing through the cable gland. L1, L2, L3, N, and PE are connected to the docking terminals as shown in the figure below.



2.6 Installation Inspection & Commissioning

2.6.1 Environmental Check

Item	Status	Remark
Ambient Temperature		
Ambient Humidity		
Sunshade		Recommended but not required.
Rain Canopy		Recommended but not required.
Air Circulation / Drafty		
Dust Level		
Anti-Vandalism Measures		

2.6.2 External Infrastructure Readiness & Check

Item	Status	Remark
Input Wirings & Terminals		Type/ Length/ Cross Section
Key & Lock of Cabinet Door		
Fixing Screws		Type / No
No Fuse Breaker (NFB)		Notice: Current rating of NFB shall be higher than 63 Amp
Residual Current Device (RCD)		Notice: Maximum RCD residual current shall not excess 30mA
Input Electricity Capacity		
Input Electricity Configuration		Wye
Grounding Resistance		<50Ω
Grounding System		
Input Voltage & Frequency		
Network Connection & Quality		LAN/ Wi-Fi/4G

2.6.3 EVSE Check — Static (Non-Powered)

Item	Status	Remark
Outlook		
Labeling & Warning Signs		
Package (Accessory) List		
Robustness of Input Wirings		

2.6.4 EVSE Check - Power On

Item	Status	Remark
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		

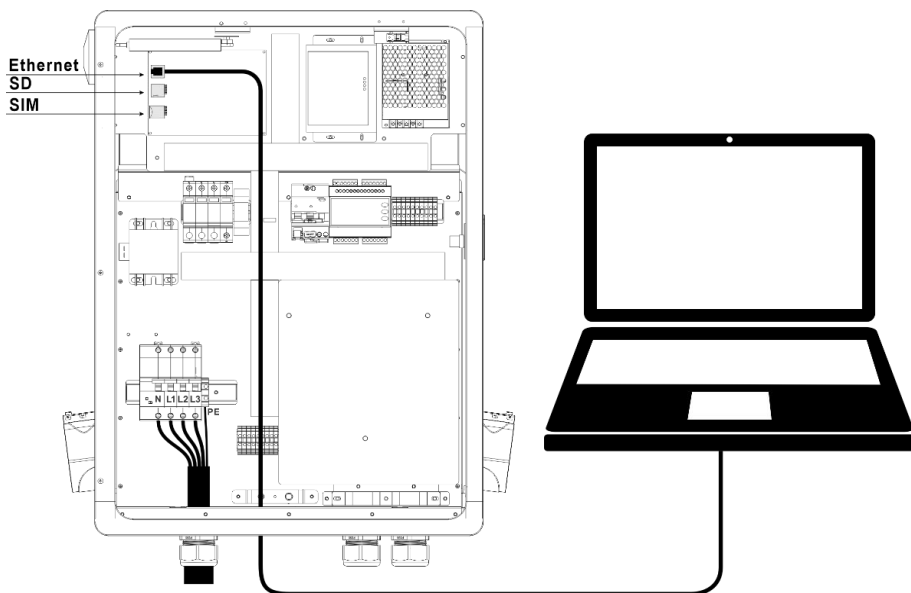
2.6.5 EVSE Check -Charging

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

2.6.6 EVSE Check –System Power Button

Item	Status	Remark
Emergency Stop Button		

3. Network Setting



4. Operation Process

4.1 RGB LED indicators

Charger status	LED performance
Standby	green
Network fault	Red flashing
charging	Light green breath
Fault status	Red

4.2 LCD indicators

the Charger config a 5-inch LCD screen, which is mainly used to display various status information of the charging station.

■Icons or instructions in each display area



Fig. 1-2 Display of icons and instructions

In Fig. 1-2, there are three areas to display icons or instructions, with the specific meanings as follows:

Icon	Description
	Connected a network through 4G cellular
	Connected a network through WIFI
	Connected a network through Ethernet
Version	Software version
SN	Serial number of EVSE
status	EVSE status information
Settings	Set charging station parameters

■As shown in Fig. 1-3,1-4,1-5,1-6, the LCD screen displays 4 types picture in normal state.

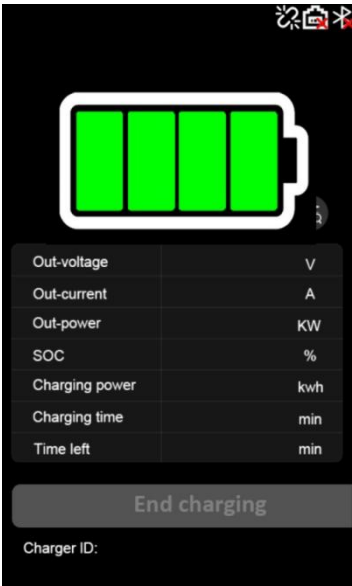


Fig. 6-3 Display of Preparing

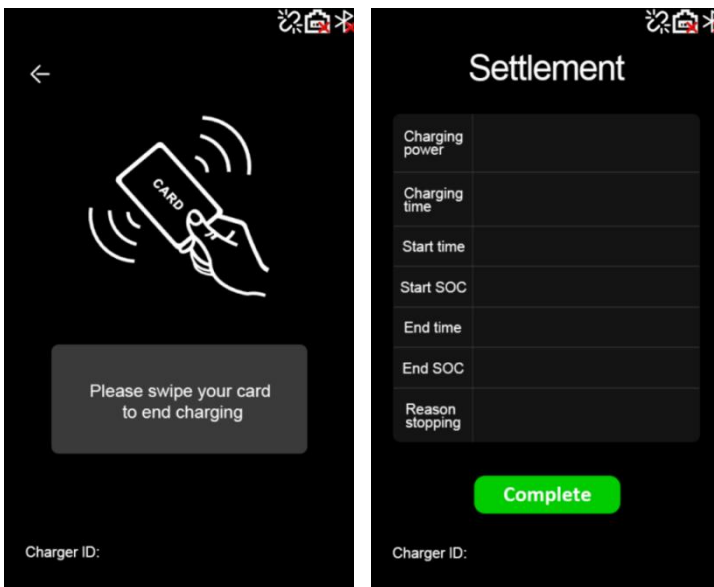


Fig. 6-4 Display of swipe card end Charging

■Click the settings icon three times to enter the settings interface, the picture displayed on the LCD screen is shown in Fig. 6-5.

■Enter password: 1234

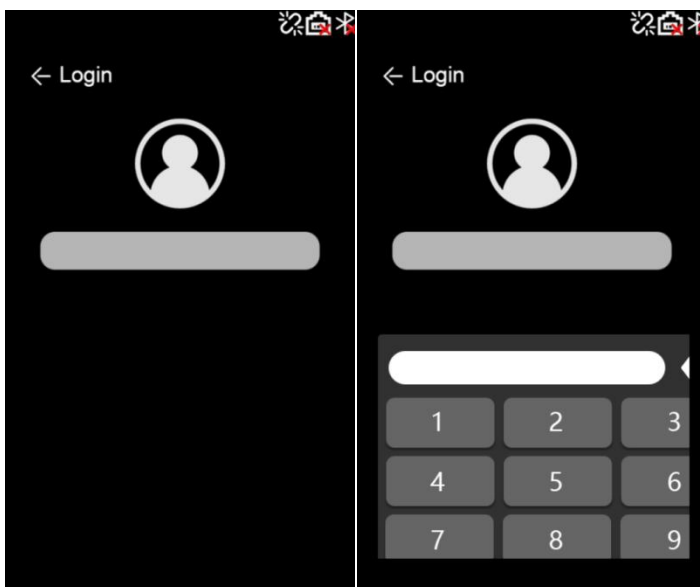


Fig. 6-5 Display of Keyboard

■Enter the correct password to enter the management page, the picture displayed on the LCD screen is shown in Fig. 6-6.

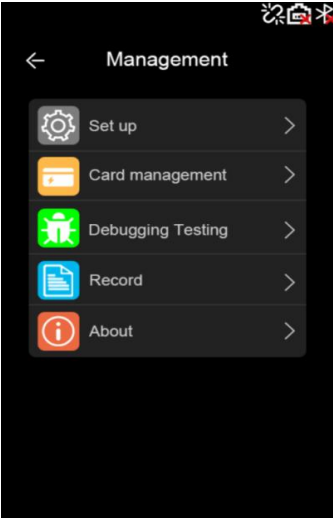


Fig. 6-6 Display of Management

■Setup->>Basic Setting the pictureis shown in Fig.6-7.

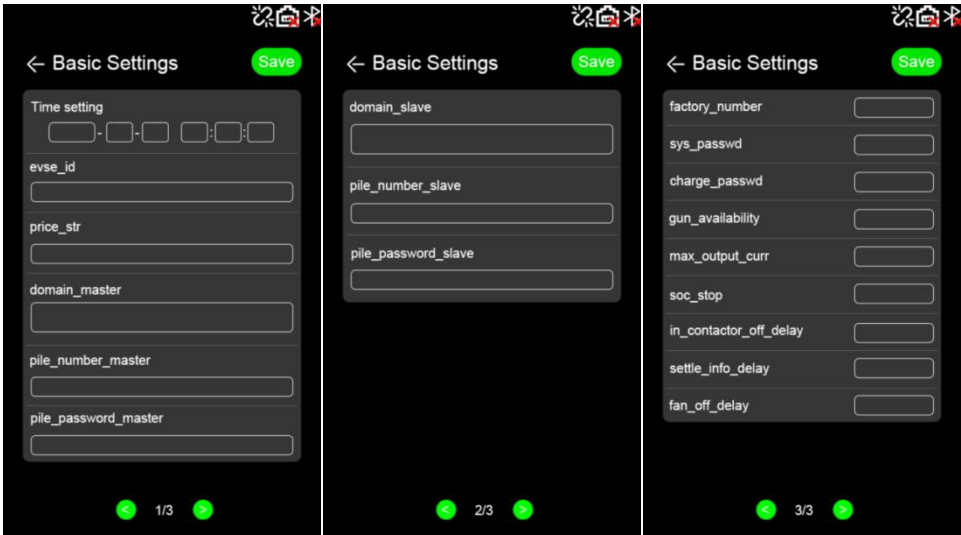


Fig. 6-7 Display of Network Setting

(1) evse_id DE*CIQ*AAAAAAAAAAAA*1

(2) price_str 0.34 EUR/kWh : Price can be entered

(3) domain_master---such as wss://ocpp.sswl.com,If you want to connect to another server, enter the corresponding server address

(4) pile_number : Please enter the corresponding charging station number to ensure that your device has been registered to the server

(5) pile_password :authentication key,If your server requires an encryption key, enter the corresponding encryption password

(6) domain_slave : address of the second server

(7) pile_number_slave : Please enter the corresponding charging station number to ensure that your device has been registered to the server

(8) pile_password_slave :authentication key,If your server requires an encryption key, enter the corresponding encryption password

3/3

(1) factory_number :chargePointVendor ,Different manufacturers can change the name

(2) sys_passwd : System password

(3) charge_passwd:charge password

(4) gun_availability: Set this parameter to 1 if you want to maintain the device when it is not in use

(5) max_output_curr : charger limit current

(6) Soc stop : Enter 80 if you want to stop charging at soc 80

(7) in_contactor_off_delay :

(8) settle_info_delay

(9) fan_off_delay : You can set the delay stop fan time

■Device Configuration Parameter setting operation, the picture is shown in Fig. 6-7.



Fig. 6-7 Display of Device Setting

Devices are set before delivery and do not need to be changed 1/4

- (1)plug_and_charge_en 0
- (2)card_entry_en 1
- (3)qr_code_en 0
- (4)pos_auth_en 0
- (5)dual_charge_en 0
- (6)btn_start_en 0
- (7)access_ctrl_en 1
- (8)flood_detect_en 0
- (9)emer_mode_en 1
- (10)compat_mode_en 0

2/4

- (1)fan_en 1
- (2)elect_locker_en 1
- (3)in_contactor_en 1
- (4)in_contactor_det_en 1
- (5)dc_contactor_det_en 0
- (6)lightning_det_en 1
- (7)passwd_charge_en 1

3/4

- (1)tz_code_type
- (2)meter_type
- (3)card_reader_type
- (4)pile_work_type_pro
- (5)gun_protocol_type
- (6)led_type
- (7)language_type
- (8)leak_curr_check_type
- (9)bt_type

4/4

- (1)bms_power_type 0
- (2)screen_type 0
- (3)voice_device_type 0
- (4)gun_temp_det_type 0
- (5)load_type 0
- (6)pm_type

■ Net Setting:

← Net Settings Save

Communication type

Whether to enable DHCP ☐

Local IP address

. . .

Gateway address

. . .

Subnet mask

. . .

MAC address

: : : : :

< 1/2 >

← Net Settings Save

APN name

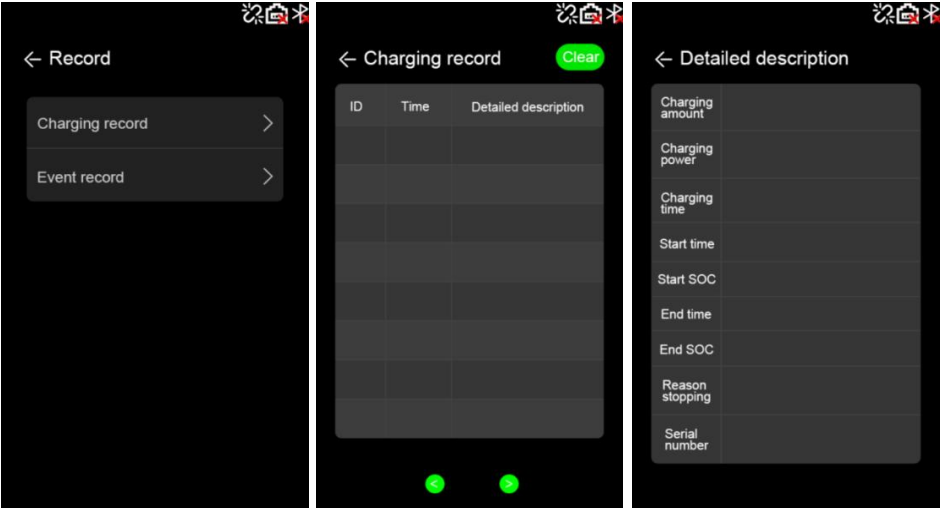
APN User name

APN password

< 1/2 >

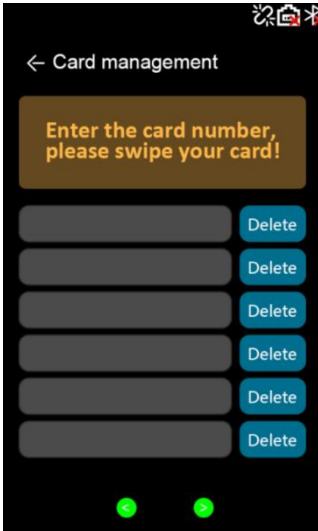
- (1)com_type : Communication type selection four G, Ethernet,wifi etc..
- (2)dhcp : Automatically obtain dhcp
- (3)local ip adress
- (4)Gateway address
- (5)Subnet mask
- (6)MAC address
- (7)APN name:4G apn
- (8)APN user name:
- (9)APN password:

■ charging records



If necessary, Please check the event history and charging history

■ Card Management



- If the red light is displayed during the installation, check the fault information and rectify the fault as prompted
- Such as: (1) EPO Fault--Please check whether the emergency stop button switch of the device is pressed and rotate to release the emergency stop button
- (2) Door Open-----Please close the door for safety

5. Maintenance

5.1 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.
- 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

- 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, bright- ness 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 touchscreen.
- If the enclosure or touch screen is broken, cracked, open or shows any other indi- cation 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 remov- ing 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 switching off the key switch the circuit before the main terminal 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.

Limited Product Warranty

The warranty period for this charger is two years.

Any spare parts provided used as replacements for repair are covered by a two-year guarantee.

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

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 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 .
- 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 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 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 during the warranty period and provide the model number, series number, proof of purchase, and date of purchase.

Appendix - Package list

Item	Description	Quantity	Remark
1	EV Charger	1	
2	User Manual	1	
3	CE Report	1	
4	RFID Card	2	
5	Key of Cabinet	2	
6	Wall-Mounted Bracket	1	
7	Gun Holder	-	Single Gun*1pcs
8	5/16" Expansion Screw	4	Each Gun Holder*2pcs
9	3/8" Expansion Screw	4	Wall-Mounted Bracket*4pcs
10	M6 Screw	2	Wall-Mounted Bracket*2pcs
11	2.5mm Ball-Head Hex Key	1	