

## 180kW DC Quick EV Charger



Installation Manual

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## INTRODUCTION

The DC Quick EV Charger is the top choice to power battery electric vehicles (BEV) today. It is designed for quick charging in retail and commercial parking spaces, fleet charging stations, highway rest areas, etc.

The DC Quick EV Charger has network 4G, WIFI, Ethernet communication capability and is able to be controlled by mobile phone to check charger's information through your OCPP server, such as the location of charging stations, charging progress and billing information. DC Quick EV Charger has a clear and straight forward user interface and safety system of power supply to provide the best choice for drivers charging their cars. It can also integrate with renewable energy, such as solar power to provide the most energy saving infrastructure for EV system development.

### Features

- 1) Provides a high-contrast, 10 inch touch LCD screen interface to easy operation and view status.
- 1) Offers customers the convenience of full start and stop charging control from an authorized RFID smart card.
- 2) Obvious signal light shows charging status.
- 3) Emergency button to stop immediately.
- 4) Multi-connectors are suitable for all the EV cars.
- 5) Charge modules be inserted easily.

### Applications

Public and private parking areas  
Community parking areas  
Parking areas of hotels, supermarkets and shopping malls  
Charging stations  
Highway rest areas

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## IMPORTANT SAFETY AND GROUNDING

### INSTRUCTIONS Safety and Compliance

1. Read the manual before installation or usage of device.
2. Do not put tools, material or body parts into the electric vehicle connector.
3. Do not use the DC Quick EV Charger if the chassis, power cord or charging cable are frayed, have broken insulation, or any other signs of damaged.
4. Do not install or use the DC Quick EV Charger if the enclosure is broken, cracked, open or has any other indications of damage.
5. The DC Quick EV Charger should be installed only by a qualified technician.
6. Make sure that the materials used and the installation procedures follow local building codes and safety standards.
7. The information provided in this manual in no way exempts the user of responsibility to follow all applicable codes or safety standards.
8. The manufacturer is not responsible for physical injury, damage to property or equipment caused by the installation of this device.
9. This document provides instructions for the DC Quick EV Charger and should not be used for any other product. Before installation or use of this product, you should review this manual carefully and consult with a licensed contractor, licensed electrician, or trained installation expert to make sure of compliance with local building codes and safety standards.

### Grounding Instructions

An equipment grounding conductor or a grounded, metal, and permanent wiring system is required for the DC Quick Charger connection. This should be run with circuit conductors and connected to the equipment grounding bar or lead on the DC Quick Charger.

#### Notes:

**Do not install charging station in locations where it may be exposed to direct sunlight and inclement weather. Recommend waterproof shed for EV charger.**

If the charging station is to be stored, keep it in its original packaging in an appropriate place:

- On dry base ground
- Sheltered from dust, inclement weather, and sunlight;
- storage temperature: -30°C to 70°C
- Humidity: 5–95%

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## BEFORE INSTALLATION

### Safety Requirements

Be sure to preview the standard operating procedures (SOP) and ensure local building and electrical codes are reviewed before installing the DC Quick Charger.

The DC Quick Charger should be installed by a trained technician according to the instruction manual and local safety regulations.

Use appropriate protection when connecting to the main power distribution cable.

### Recommended Tools

The following tools are recommended for the DC Quick Charger installation:

- (1x) No.2 Philips screw driver
- M12 expansion bolts
- (1x) Concrete drill
- (1x) Wire cutters
- (1x) Torx® Tamper-Resistant TH30 screwdriver
- (1x) 16mm ratcheting wrench for the base
- (3x) Ring terminal (TERM, SOLIS R 50mm<sup>2</sup>, M8) for models with 380V, or 400V input
- (1x) Ring terminal (TERM, SOLIS R 35mm<sup>2</sup>, M10) for ground wire

### Important Safety Instructions

#### Save these Instructions

The DC Quick Charger should be installed only by a licensed contractor, and/or a licensed electrician in accordance with all applicable state, local and national electrical codes and standards.

Before installing the DC Quick Charger, review this manual carefully and consult with a licensed contractor, licensed electrician and trained installation expert to ensure compliance with local building practices, climate conditions, safety standards, and state and local codes.

#### **WARNING!**

Danger of electrical shock or injury. Turn OFF power by emergency button before working inside the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is turned OFF.

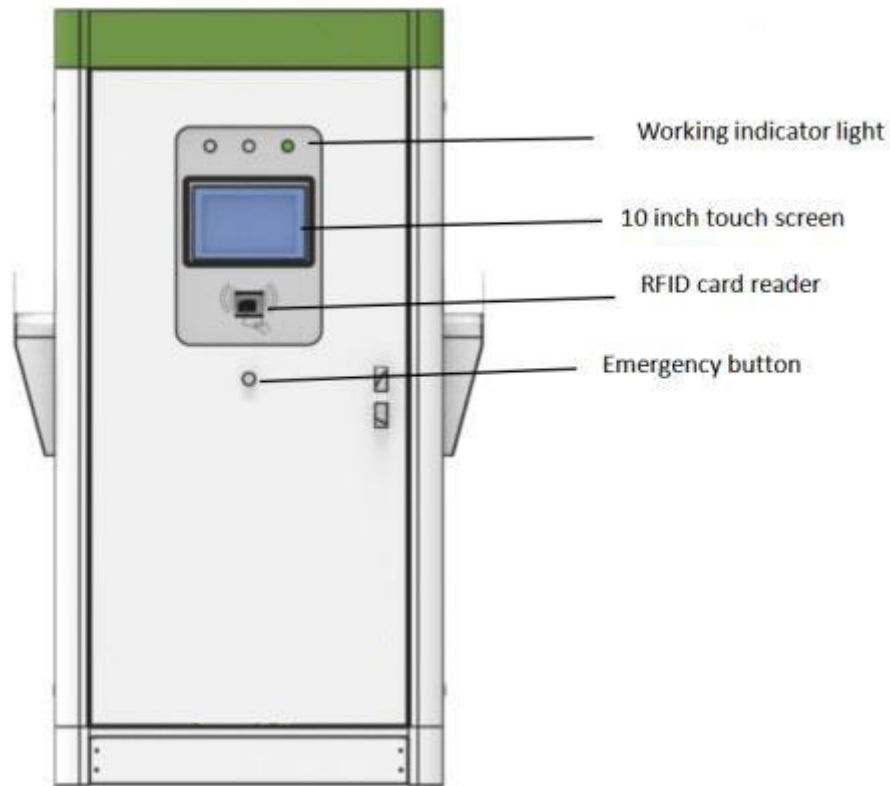
#### **CAUTION!**

TO AVOID DAMAGE TO THE CHARGER OR PERSONAL INJURY, MAKE SURE THE INSTALLATION LOCATION IS ABLE TO SUPPORT THE WEIGHT OF THE DC QUICK CHARGER.

## GENERAL SPECIFICATION

	Item	Specifications	Remark
AC Input	Rated voltage	3 phase 400VAC	
	Voltage fluctuation range	400V +/- 10%	
	Number of phases	Three-phase and four-line +PE	
	Rated frequency	50Hz or 60 Hz	
	Frequency fluctuation range	+/- 5%	
	Input power factor	0.99	
	Input Power	180kW +10%	
	Grounding detection	30mA	
	Harmonic current	less 5%	
DC Output	Rated Output Capacity	150kW	
	Voltage variable range	150 to 1000VDC	
	Output max current	210A	
	Current variable range	0 to 210A	
	Efficiency	96% or more	
	Ripple voltage	1%	
Structure	Degree of Protection IP	IP54	
	Ambient temperature	-20 °C ~ 50°C	
	Storage temperature	-30°C ~ 70 °C	
	Chassis dimensions LxWxH	H1600*W800*L550MM	
	Package Weight	350KG	
OTHERS	Certification	CE/IEC 61851	
	Safety	Emergency stop button	
	Vehicle connector	CCS2+CCS2/CHAdemo	
	Battery communication protocol	CAN / PLC	
	Management system	OCPP 1.6	
	Network communication	WIFI, Ethernet,4G	
Cooling method	Force air cooling		

## PRODUCT PRESENTATION



Item	Description
Charging plug place	Plug storage box (DC Connector) CCS / CCS
Charging cable place	Cable can be hanged here
Wire hole	Charging cable from this wire hole
Air hole	Forced air cooling through fans and air hole
Work indicator light	AC input ON-GREEN DC OUTPUT ON-GREEN Alarm- Red
10" touch screen	LCD Touch screen: Operating states such as remaining charging time and failure information, if a failure occurred, can be displayed. Setting parameter, view charging status, etc.
RFID card reader	Tap RFID card here to start and stop charging. ISO / IEC 14443 Standards.
Emergency button	Emergency Stop Button: Use this emergency circuit-breaker in order to stop the quick charger in case of emergency

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## INSTALLATION

### Location

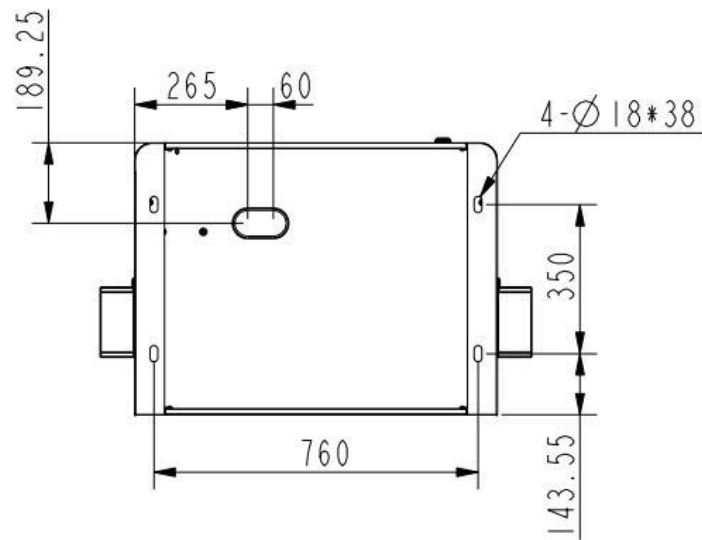
- ① For the best operating conditions and longest life, take care in selecting an installation site.

Operating life and performance will be influenced by charger location.

- ② Select a dry and well-ventilated location.
- ③ Do not install charging station in locations where it may be exposed to direct sunlight and inclement weather. Recommend to install waterproof shed.
- ④ The front of the charger must remain unobstructed for serviceability.

### Installation Procedure

- ① The chassis must be fixed on a concrete base.  
And AC input wiring on the base through the chassis.



Bottom mounting hole size ( Confirmed again before installation)

- ② Insert the Modules. (If 4 modules, please put 4 into charger.)





③Wiring Instructions.



AC input:

Number	Terminal Assignment
A	Phase 1 (item L1)
B	Phase 2 (item L2)
C	Phase 3 (item L3)
N	Neutral
EAR	Earth

**Output Cable (CCS combo 2) DC connection:**

Every cable has been stick different label, you can connect them according to matching cables. Please check each cable label carefully.

1. CCS2 +CCS2 connector



Pin No.	Line number	CCS definition	Function description
1	1	DC+	DC output -Positive
2	2	DC-	DC output -Negative

Open the door, 4G SIM card place is in the back of screen.

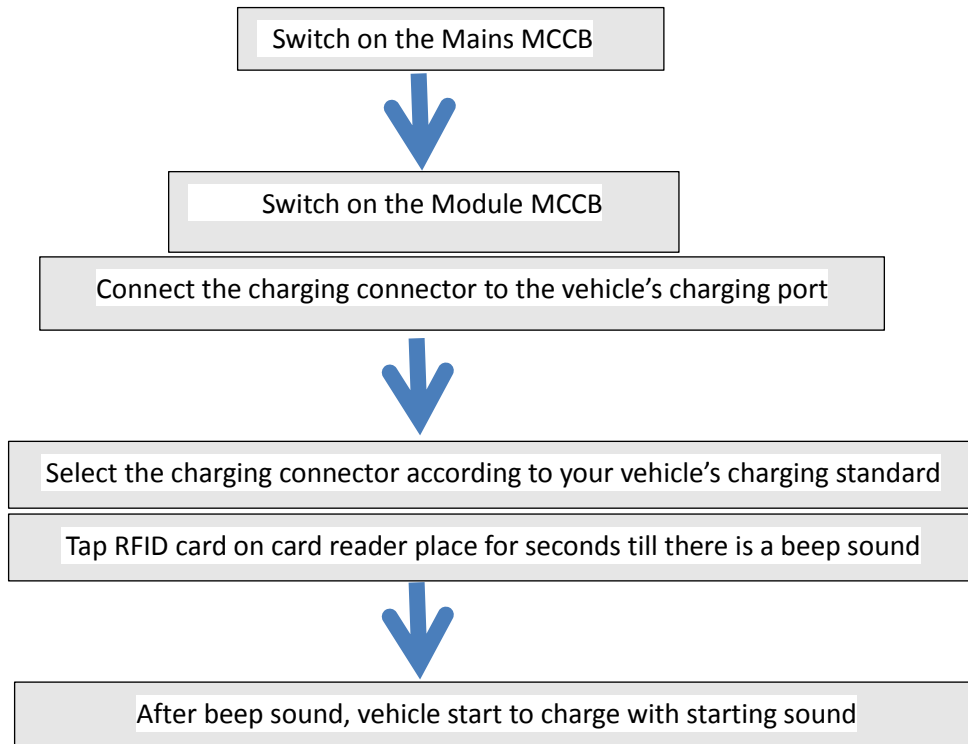


4G slot

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## Charging Simple Process

Make sure DC quick EV charger has been installed and connection wires correctly according to this manual before operation.



## Operation

### ① Front door open

-Press button under handle and turn handle clockwise in the following order, then front door will open.



### ② Switch ON main circuit breaker

-Check whether the status LED for AC power is ON.  
-Check module status.  
-Check screen for card authentication.

Main MCB



Module MCB



③ Closing door

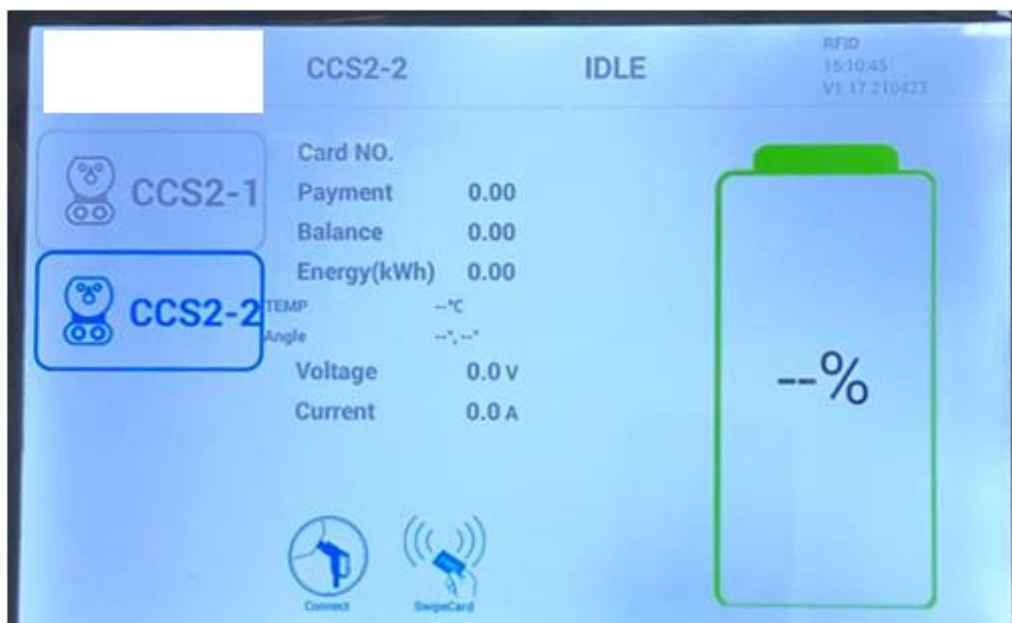
If the above process is completed, make sure to close door before charging for safety.

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## Charging Process Details

### Select the charging connector

The screen interface shows EV charger is idle status, insert the charging connector to vehicle's charging port accordingly and fixedly. Select the connector on the screen interface accordingly. Tap the RFID card at card read place for several second till there is a beep. Then vehicle starts charging with sound. You can check charging battery's power status with OCPP 1.6 system.



### Stop charging

When the charging is not finish, and you want to stop charging, please tap RFID card at card reader place to stop charging.



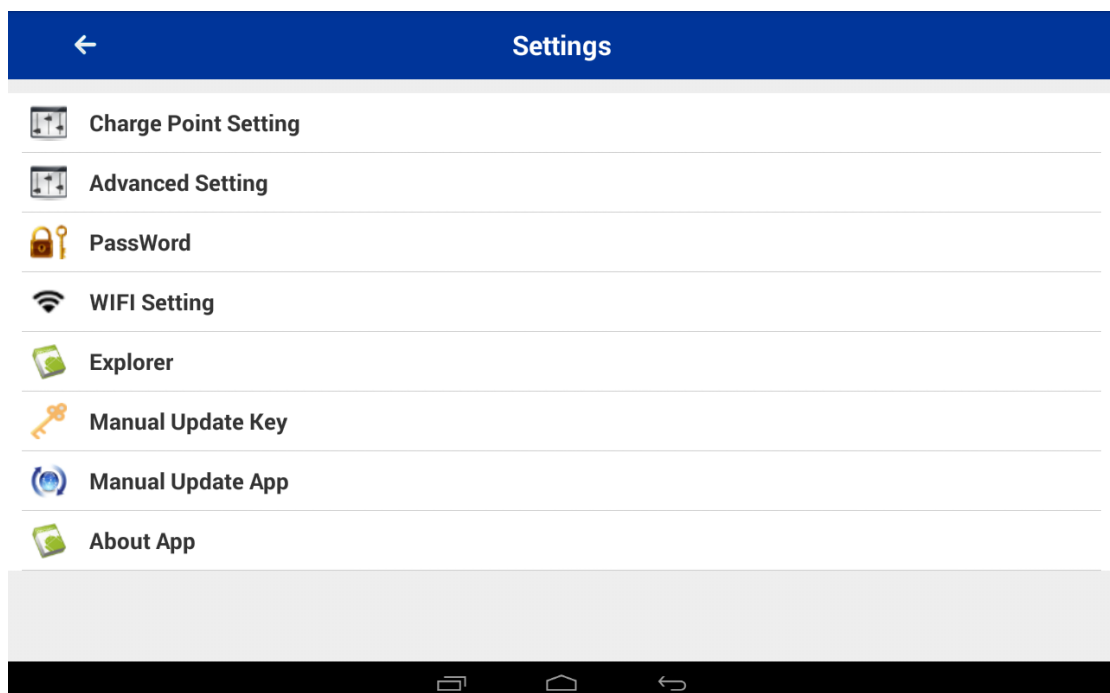
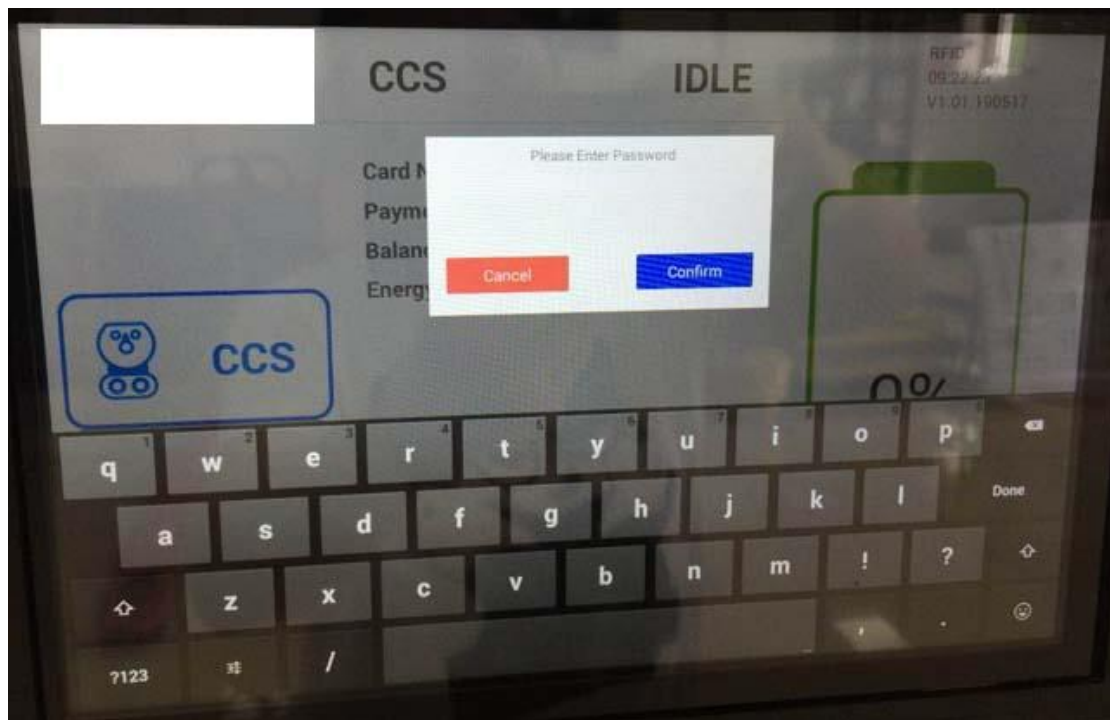
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## Setting

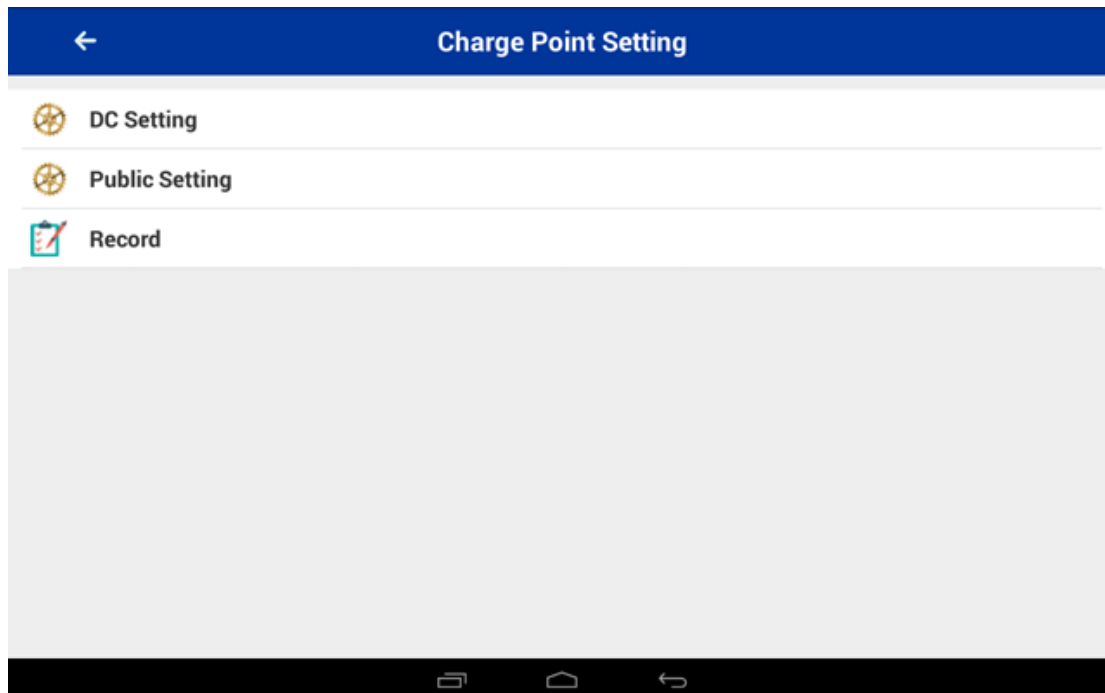
Setting includes: charging point setting, passwords, network (WIFI,4G) and languages and etc.

### Enter setting interface

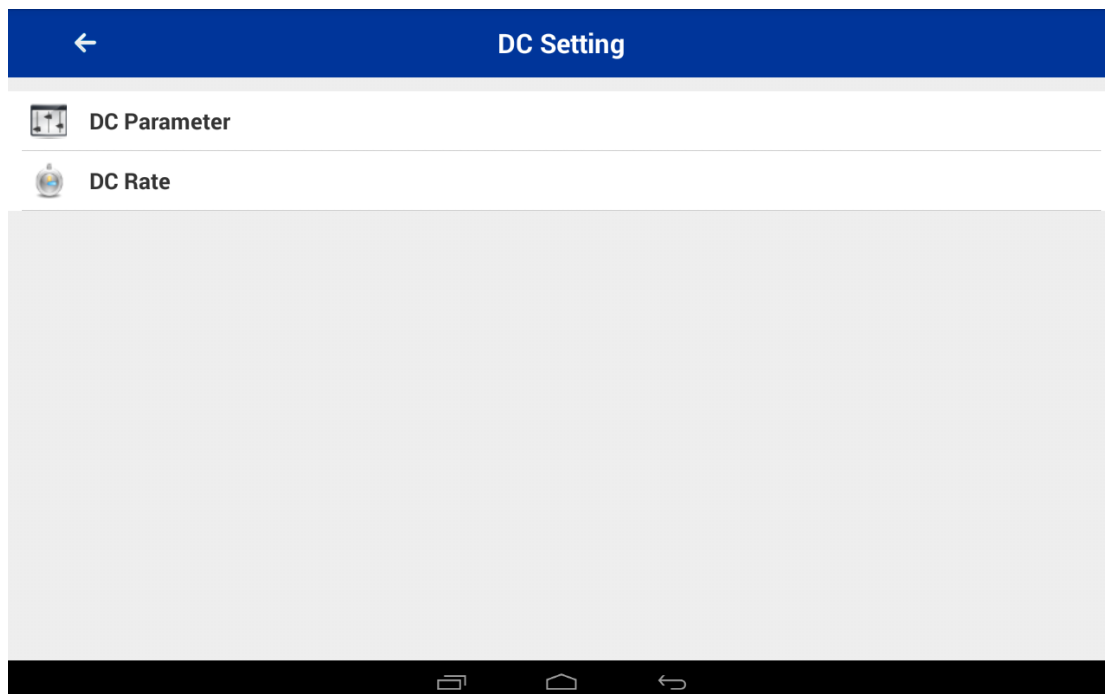
Firstly, please click **GERSAN logo**, and enter password interface, type password (88888888 in default) to enter into **setting** interface.



**Charging point setting:**



**DC setting:**



We will make it setting default. Once you can set max voltage 1000V, min voltage 300V, max current **100A**, number of modules: **2** and click "Save". And click ← back



to DC setting interface.

**Note: Please don't change this parameter on this EV charger, let it in default. Once you add modules in future, then need to change parameter.**

Parameter	Value
Max Voltage	1000
Min Voltage	300
Max Current	120
Number of Modules	2
Stop Charging SOC	100

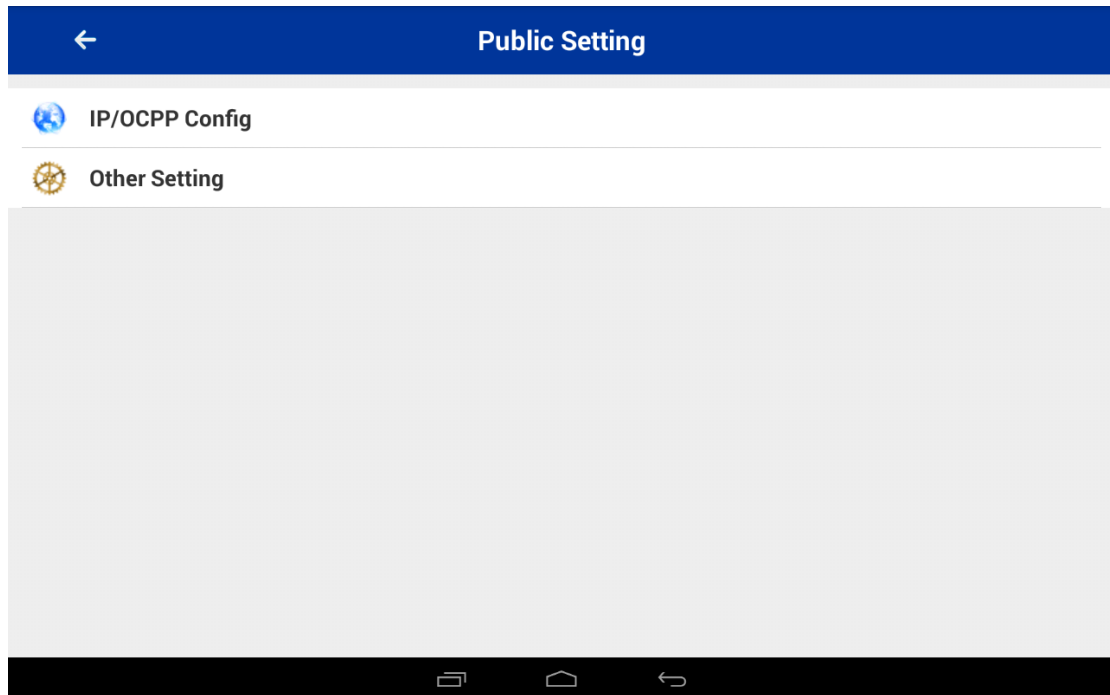
Module Type

Save

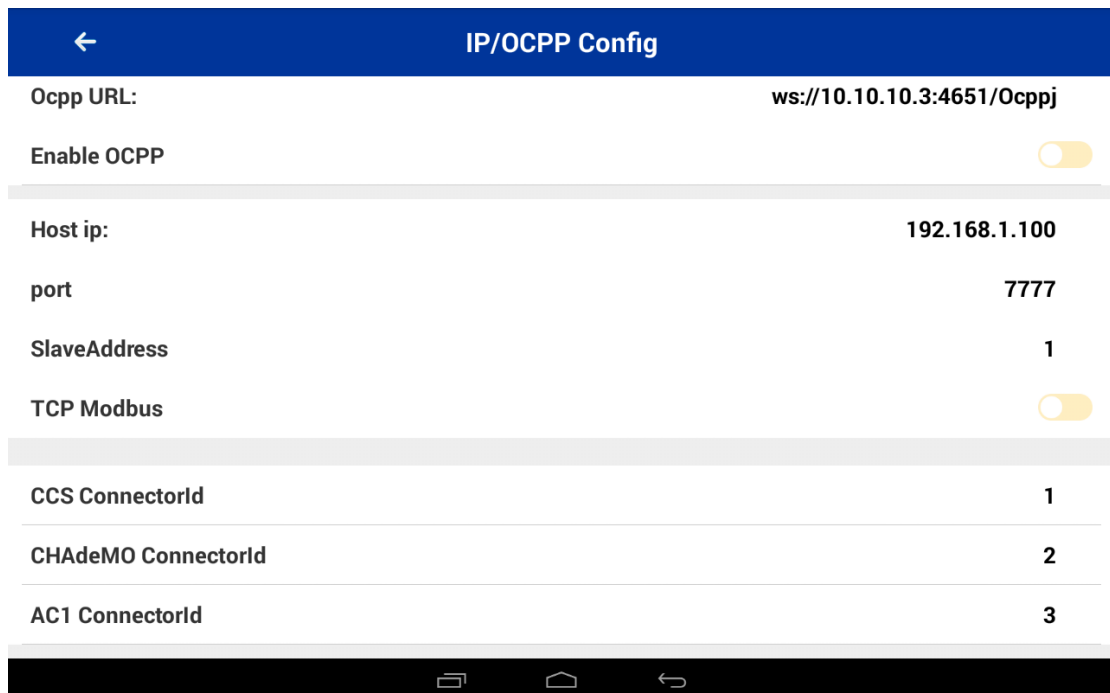
DC Rate setting:

Rate Period	From (Hour)	From (Min)	To (Hour)	To (Min)	Rate
Rate period 1	0	0	5	59	1.0
Rate period 2	6	0	11	59	


**Public setting:**



If you want to use OCPP server, make sure setting your OCPP server URL here and select OCPP valid. If you want to choose TCP Modbus, you can select it enable.



**Other Setting**

 **Advance payment** **25**

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**Card Time Interval(Second):** **1200**

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**Output AC or DC Only**

**Button Start/Stop**

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Logo SETEC Import

Save

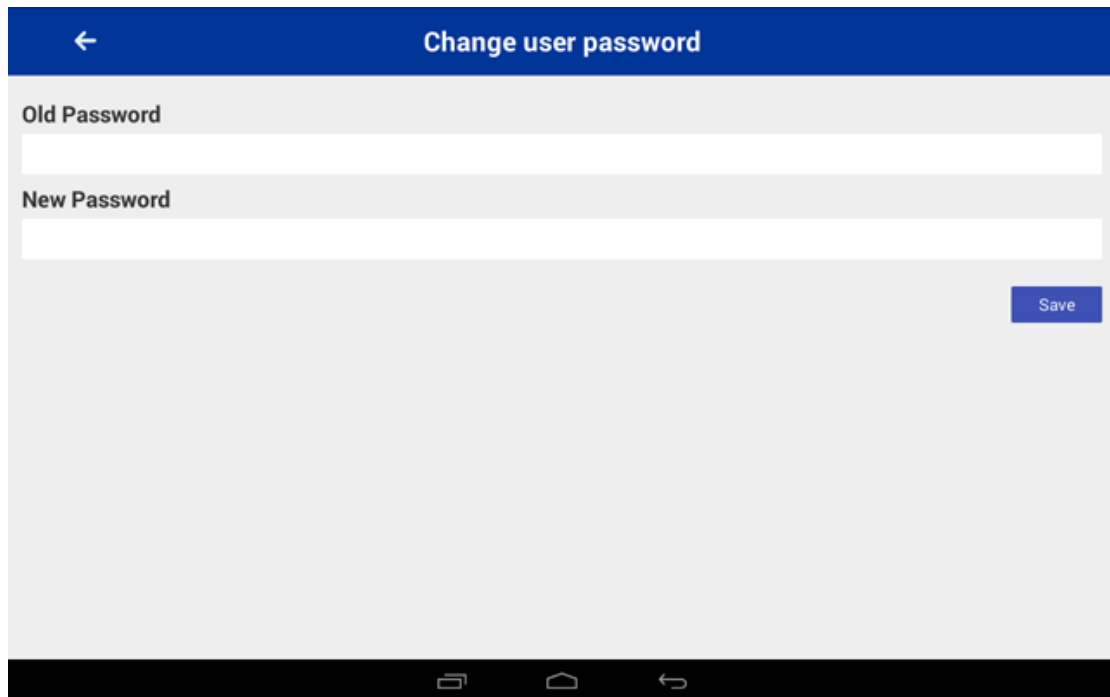
**History Record:**

**Record**




NO.	ConnectorId	Start Time	Stop Time	idTaq	Payment	Energy(kWh)	Time(Minutes)
80	1	2021-03-28 22:57:34	2021-03-28 22:57:54	6C114D53	0.04	0.04	0.30
81	1	2021-03-28 22:59:00	2021-03-28 22:59:24	6C114D53	0.04	0.04	0.35
82	1	2021-03-28 23:00:29	2021-03-28 23:00:45	6C114D53	0.02	0.02	0.20
83	1	2021-03-28 23:01:50	2021-03-28 23:02:15	6C114D53	0.04	0.04	0.40
84	1	2021-03-30 03:56:26	2021-03-30 03:56:56	6C114D53	0.05	0.05	0.45
85	1	2021-03-30 04:09:49	2021-03-30 04:10:06	6C114D53	0.02	0.02	0.25
86	1	2021-03-30 04:48:03	2021-03-30 04:48:17	B5FAF5F2	0.00	0.00	0.20
87	1	2021-03-30 04:54:22	2021-03-30 04:54:43	B5FAF5F2	0.02	0.02	0.30
88	1	2021-03-30 05:00:51	2021-03-30 05:01:09	B5FAF5F2	0.02	0.02	0.25
89	1	2021-03-30 05:07:19	2021-03-30 05:07:40	B5FAF5F2	0.02	0.02	0.25

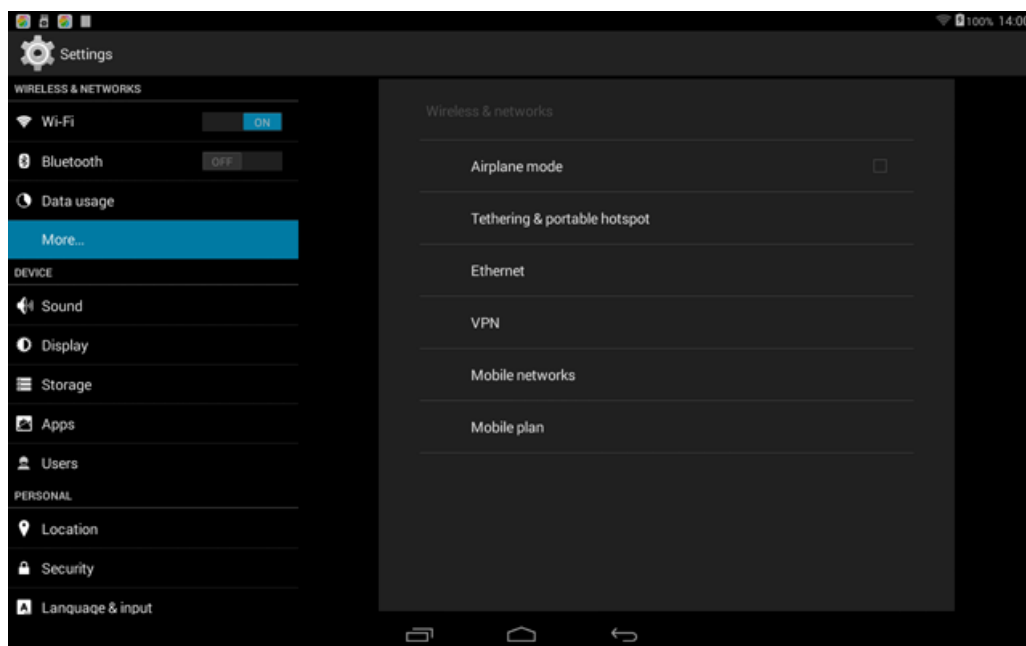
**Change user password:**



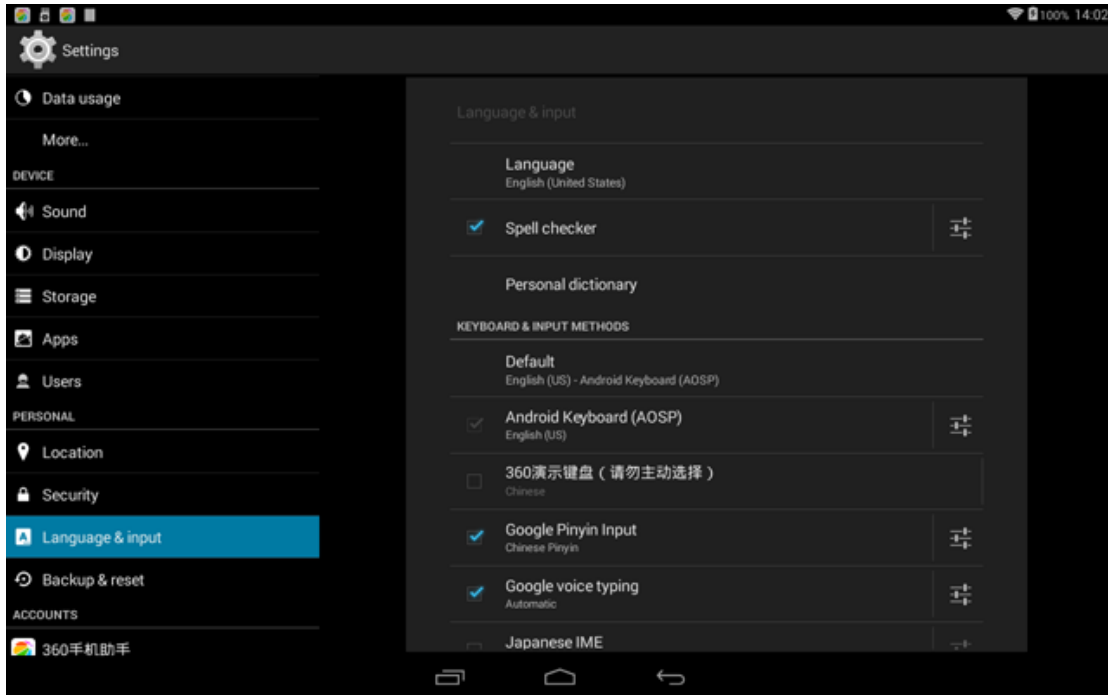
## Network setting

WIFI selection:

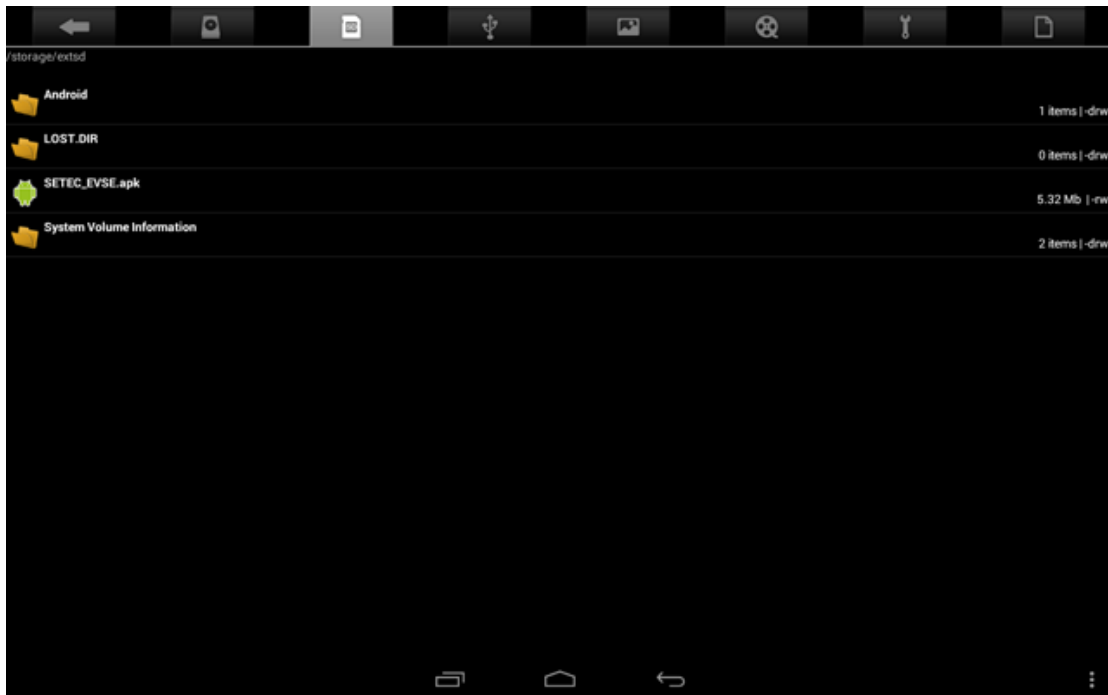
Mobile networks ( insert 4G card):



Language selection (English, Russian and Chinese for charging setting):



Explorer:



Upgrade charging APP:

