

50kw DC Quick EV Charger

OCPP 1.6



[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

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%

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 50mm², M8) for models with 380V, or 400V input
- (1x) Ring terminal (TERM, SOLIS R 35mm², 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.

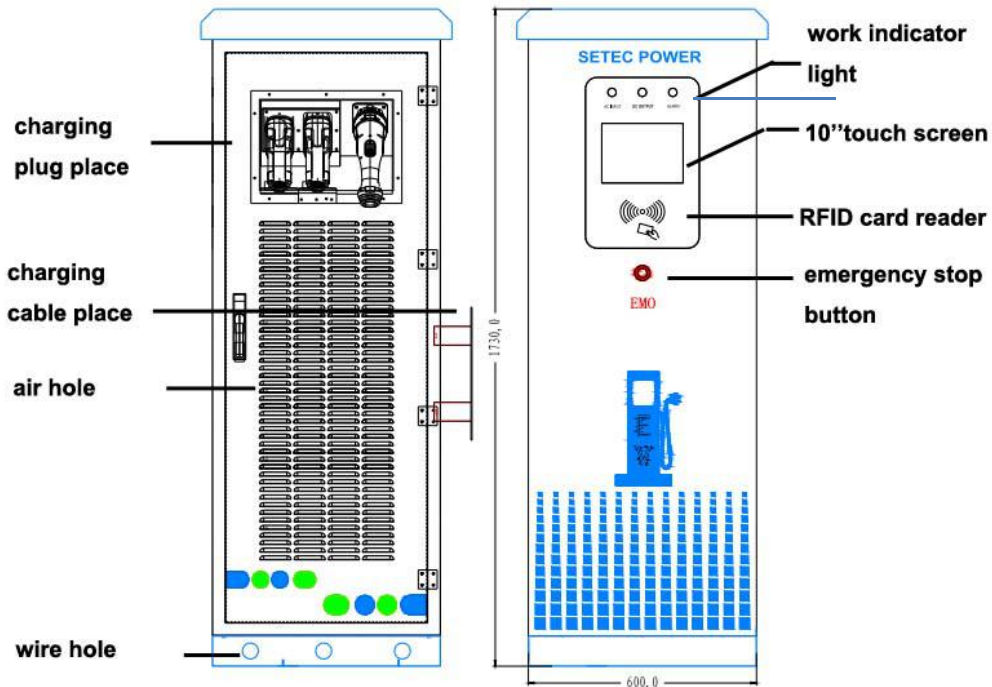
CAUTION!

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 380VAC	
	Voltage fluctuation range	380V +/- 10%	
	Number of phases	Three-phase and four-line +PE	
	Rated frequency	50 or 60 Hz	
	Frequency fluctuation range	+/- 5%	
	Input power factor	0.99	In rated operation
	Input power	50kw +10%	
	Grounding detection	30mA	
	Harmonic current	Total 5% or less	
DC Output	Rated Output Capacity	50kw	
	Voltage variable range	50 to 500VDC	
	Output current	100ADC	
	Current variable range	0 to 100A	
	Efficiency	96% or more	
	Ripple current	6.0Ap-p or less	
Structure	Degree of Protection IP	IP54	Better use waterproof shed
	Ambient temperature	-20 ℃ ~ 50℃	
	Storage temperature	-30℃ ~ 70 ℃	
	Chassis dimensions LxWxH	1730*660*660mm	
	Package Weight	280KG	Include 2 plugs and cables and modules
OTHERS	Certification	CE/IEC 61851	
	Safety	Emergency stop button	
	Vehicle connector	ChadeMO+CCS	GB/T and type 1/type2 (optional)
	Battery communication protocol	CAN / PLC	
	Management system	OCPP 1.6	
	Network communication	4G, Ethernet	WIFI (optional)
	Cooling method	Force air cooling	

PRODUCT PRESENTATION



Item	Description
Charging plug place	Plug storage box (DC Connector) CCS / ChadeMO/ AC type 2/type1 (optional)
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 power ON-GREEN DC OUTPUT ON-GREEN Fault- 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
Emergency stop button	Emergency Stop Button: Use this emergency circuit-breaker in order to stop the quick charger in case of emergency

INSTALLATION

Location

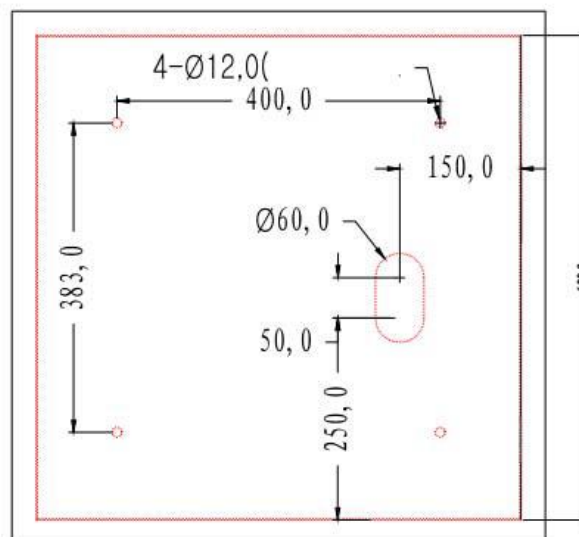
- ① For the best operating conditions and longest life, take care in selecting an installation site.

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.

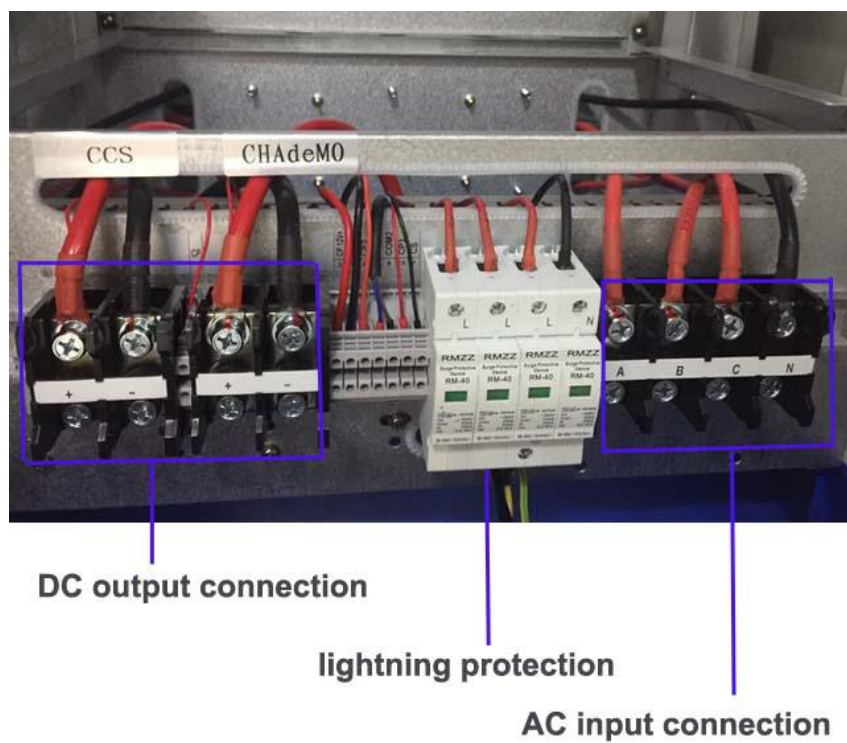


Bottom mounting hole size

② Insert the Modules.



③ Wiring Instructions.





AC input:

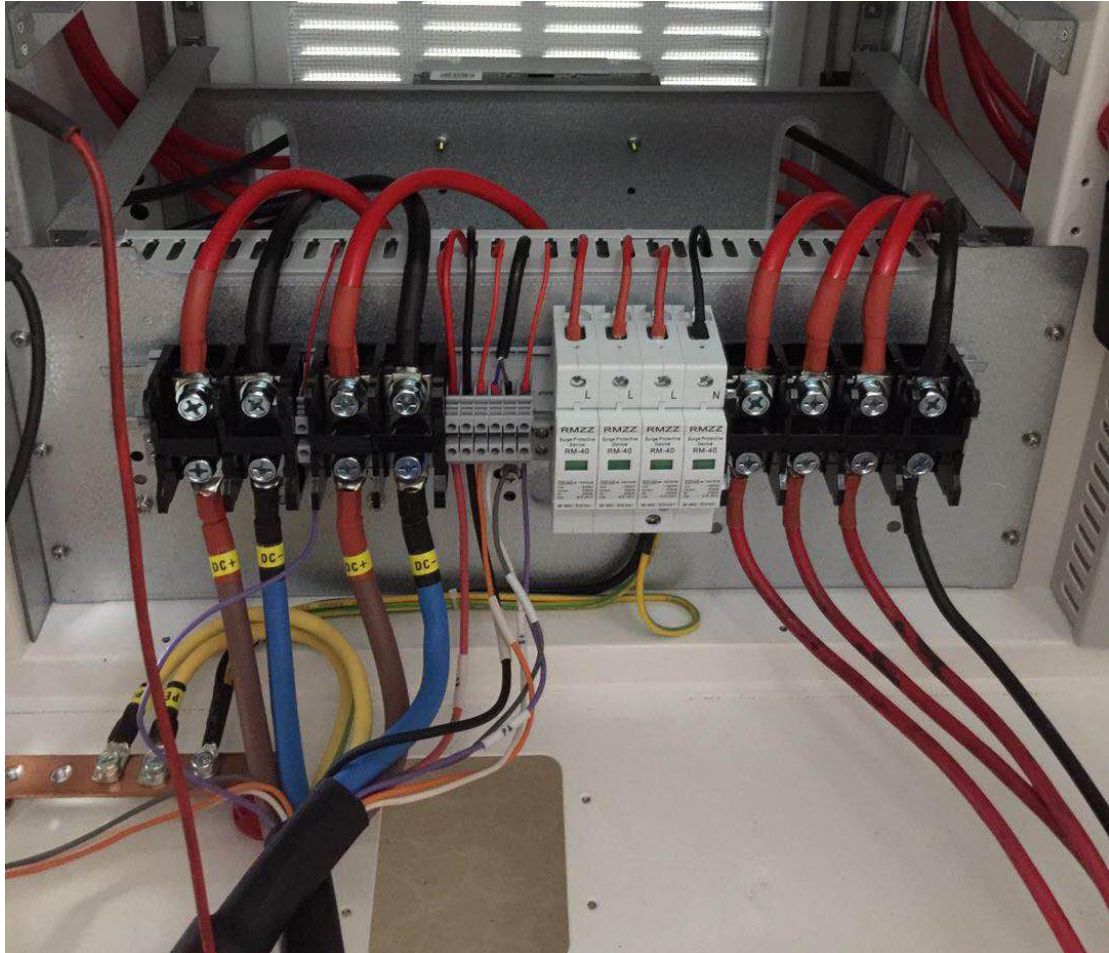
Number	Terminal Assignment
A	Phase 1 (item L1)
B	Phase 2 (item L2)
C	Phase 3 (item L3)
N	Neutral
EAR	Earth

DC connectors: (CCS & CHADEMO)

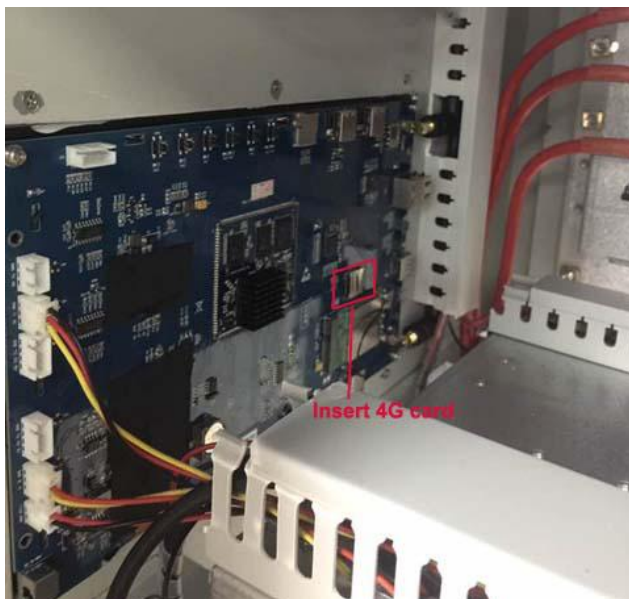


Cable Connection:

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

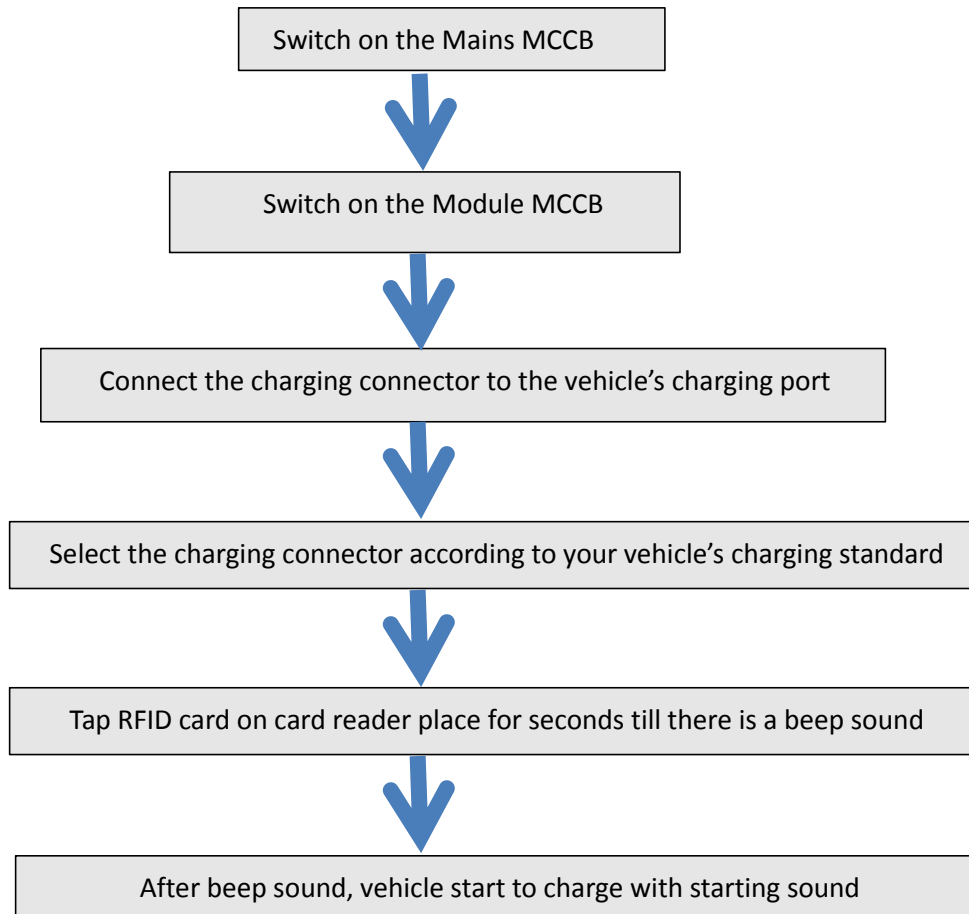


Open the door, 4G card place is in the back of screen.



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.a



③ Closing door

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

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.

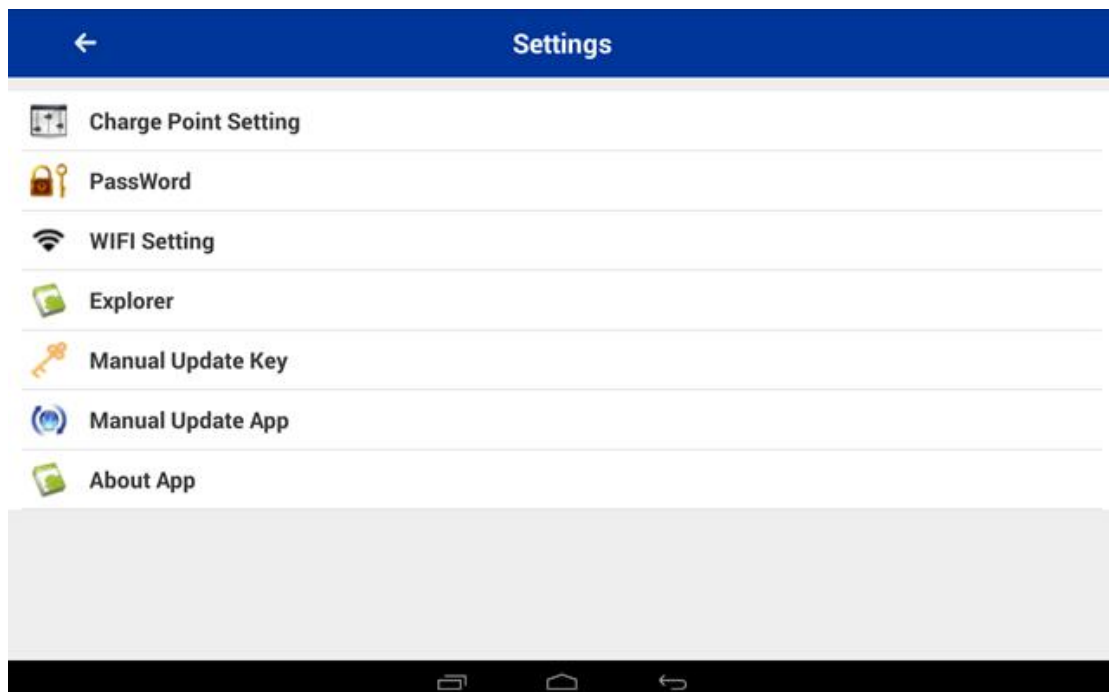
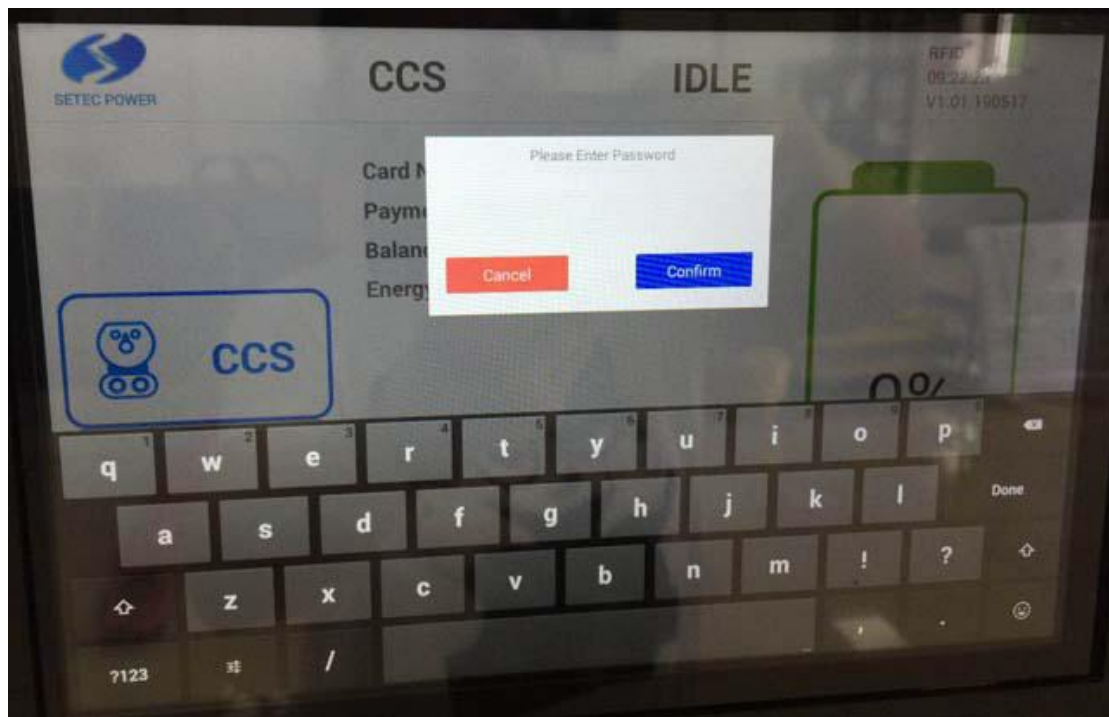


Setting

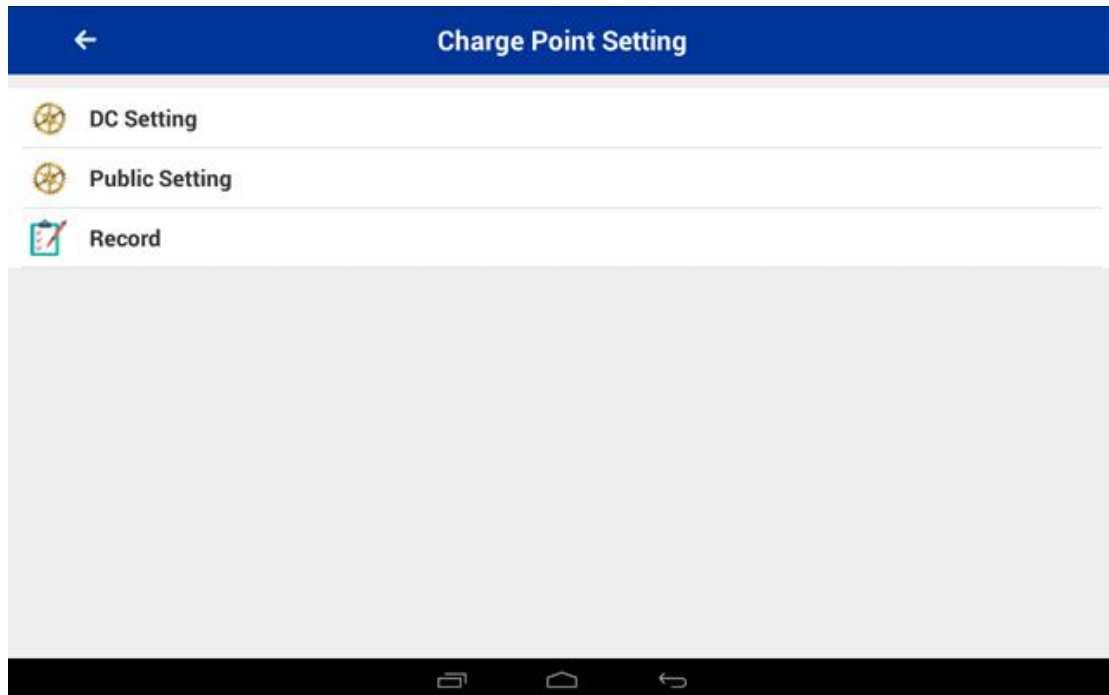
Setting includes: charging point setting, passwords, network (WIFI, 4G) and languages and etc.

Enter setting interface

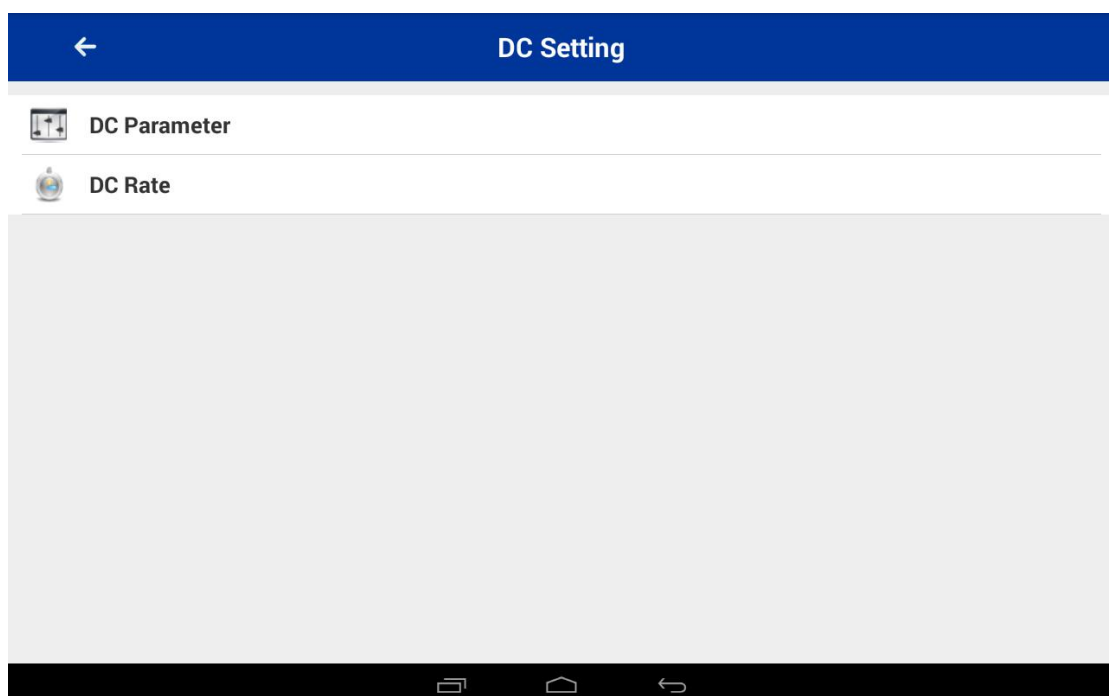
Firstly, please click **SETEC logo**, and enter password interface, type password (88888888 in default) to enter into **setting** interface.



Charging point setting:







DC setting:



You can set max voltage 750V, min voltage 500V, max current 50A, number of

modules: 5 and click "Save". And click  back to DC setting interface.


← DC Parameter

	Max Voltage	750
	Min Voltage	500
	Max Current	50
	Number of Modules	5


Save

DC Rate setting:


← DC Rate

 **Rate period 3 To:**

Hour	17	Min	59
Rate	1.0		

 **Rate period 4 From:**

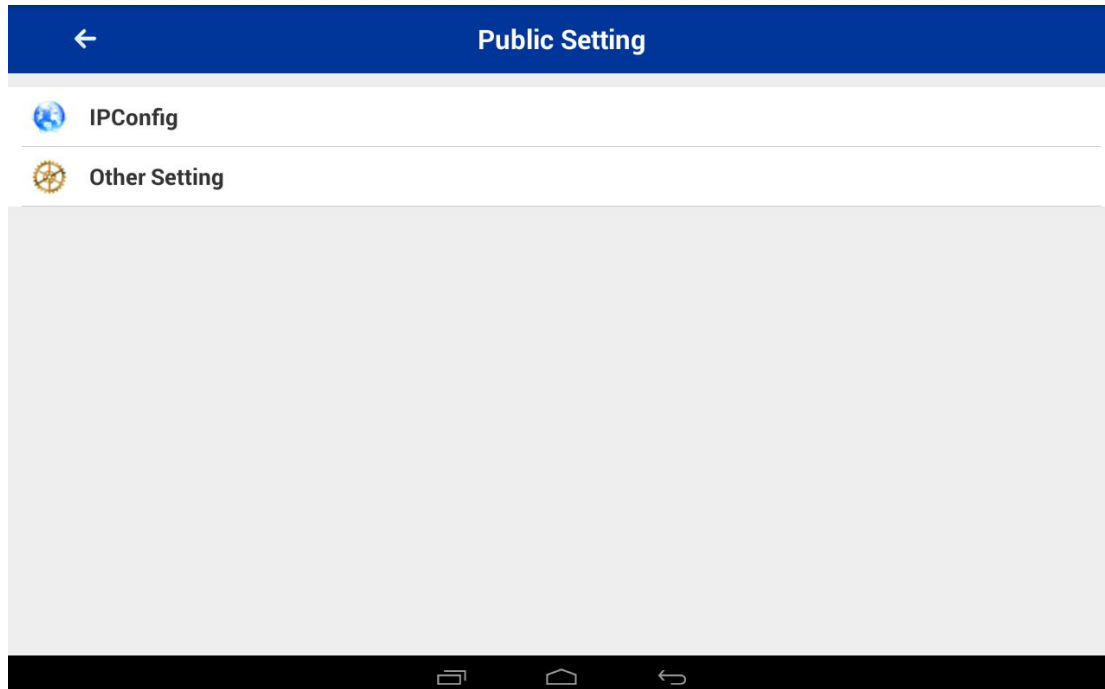
Hour	1	Min	0
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 **Rate period 4 To:**

Hour	23	Min	59
Rate	1.0		

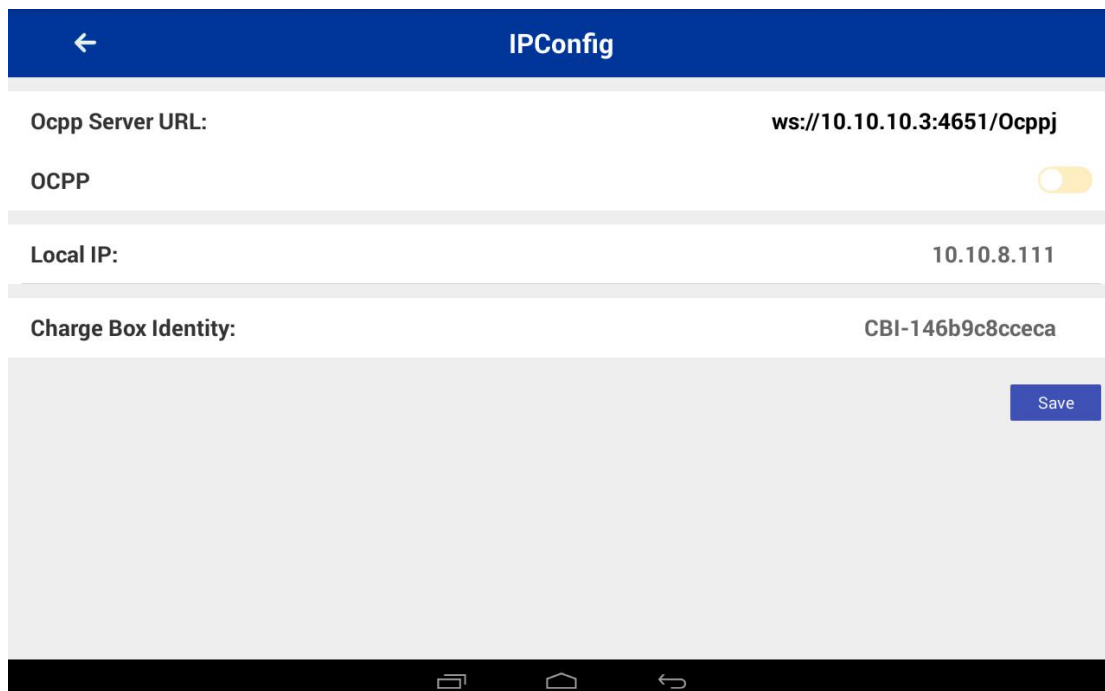
Save

Public setting:



The screenshot shows a mobile application interface for 'Public Setting'. At the top is a blue header bar with a white back arrow on the left and the text 'Public Setting' in the center. Below the header, there are two menu items: 'IPConfig' with a globe icon and 'Other Setting' with a gear icon. The main content area is a large, empty light gray rectangle. At the bottom, there is a black navigation bar with three white icons: a square, a house, and a back arrow.

If you want to use OCPP server, make sure setting your OCPP server URL here and select OCPP valid.



The screenshot shows a mobile application interface for 'IPConfig'. At the top is a blue header bar with a white back arrow on the left and the text 'IPConfig' in the center. Below the header, there are three configuration fields: 'Ocpp Server URL:' with the value 'ws://10.10.10.3:4651/Ocppj', 'OCPP' with a toggle switch that is currently turned on (yellow), and 'Local IP:' with the value '10.10.8.111'. Below these fields is a 'Charge Box Identity:' field with the value 'CBI-146b9c8cceca'. At the bottom right of the form area is a blue 'Save' button. The bottom of the screen features a black navigation bar with three white icons: a square, a house, and a back arrow.

←
Other Setting

Advance payment

25

Card Time Interval(Second):
1200


Save


History Record:


←
Record
×


NO.	ConnectorId	Start Time	IdTag	Payment	Energy	Times
1	1	2019-05-16 18:42:35	2C59AFC0	0.02	0.02	0.20
2	1	2019-05-16 16:45:51	2C59AFC0	0.04	0.04	0.40
3	1	2019-05-16 19:52:00	9CC20DF0	0.02	0.02	0.20


AC setting:

 Charge Point Setting


 AC Setting


 Public Setting


 Record




AC Parameter:


 AC Parameter


 Max Current 10





AC Rate:


 AC Rate

 Rate period 3 To:

Hour17


Min59

Rate1.0

 Rate period 4 From:

Hour1

Min0

 Rate period 4 To:


Hour23

Min59

Rate1.0

Save

Change user password:

 Change user password

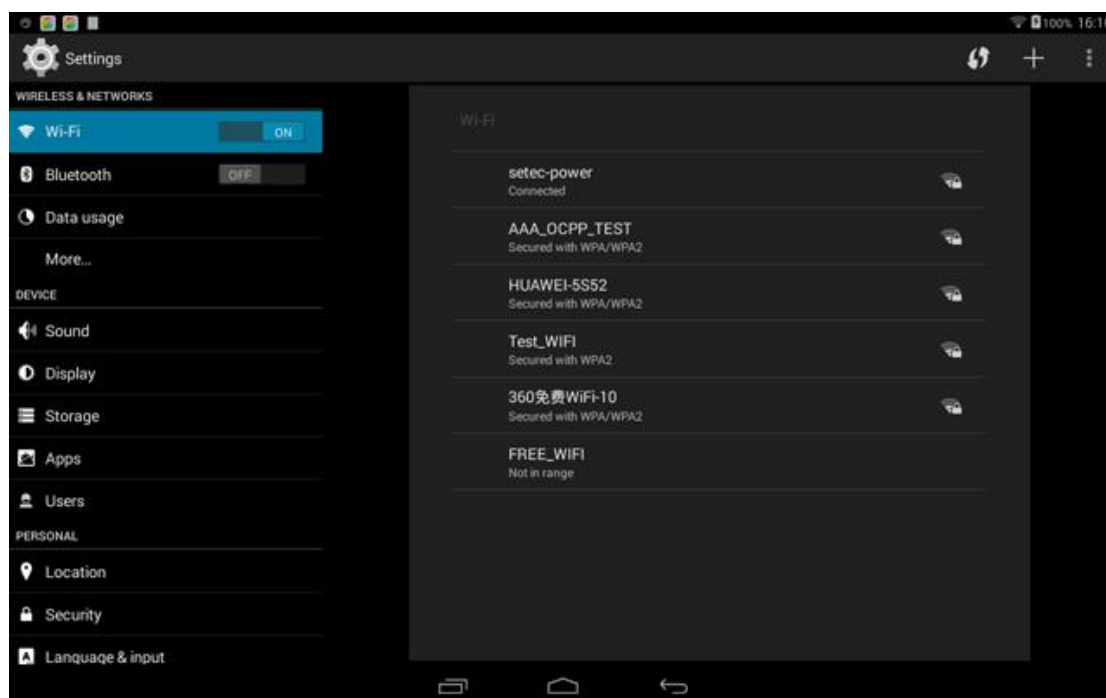
Old Password

New Password

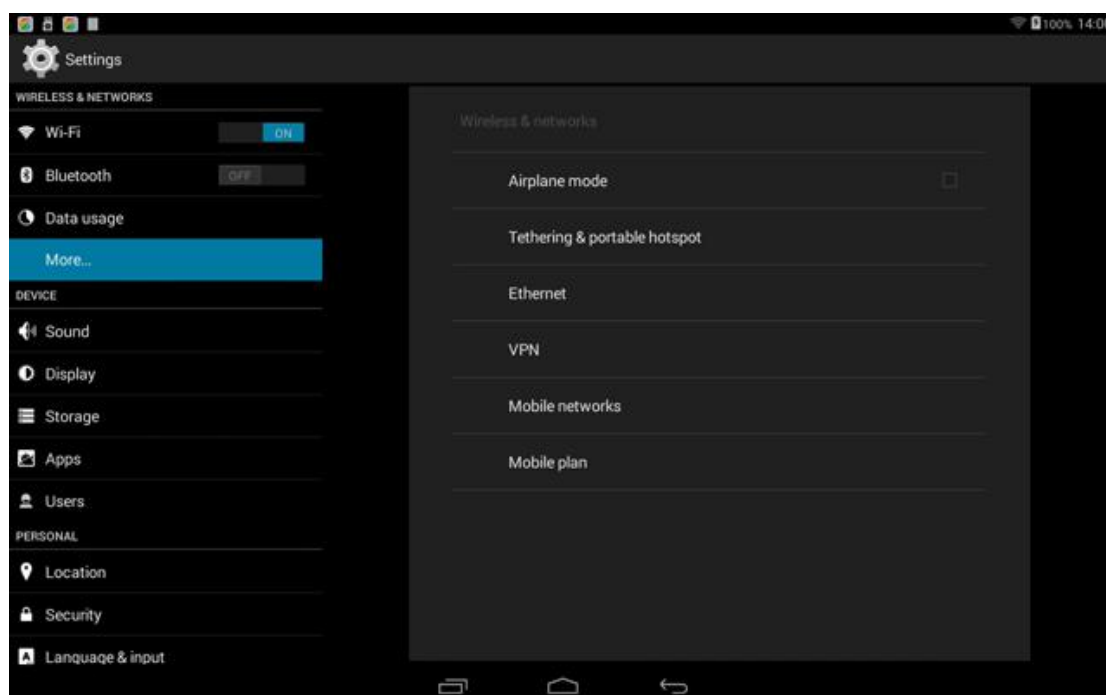
Save

Network setting

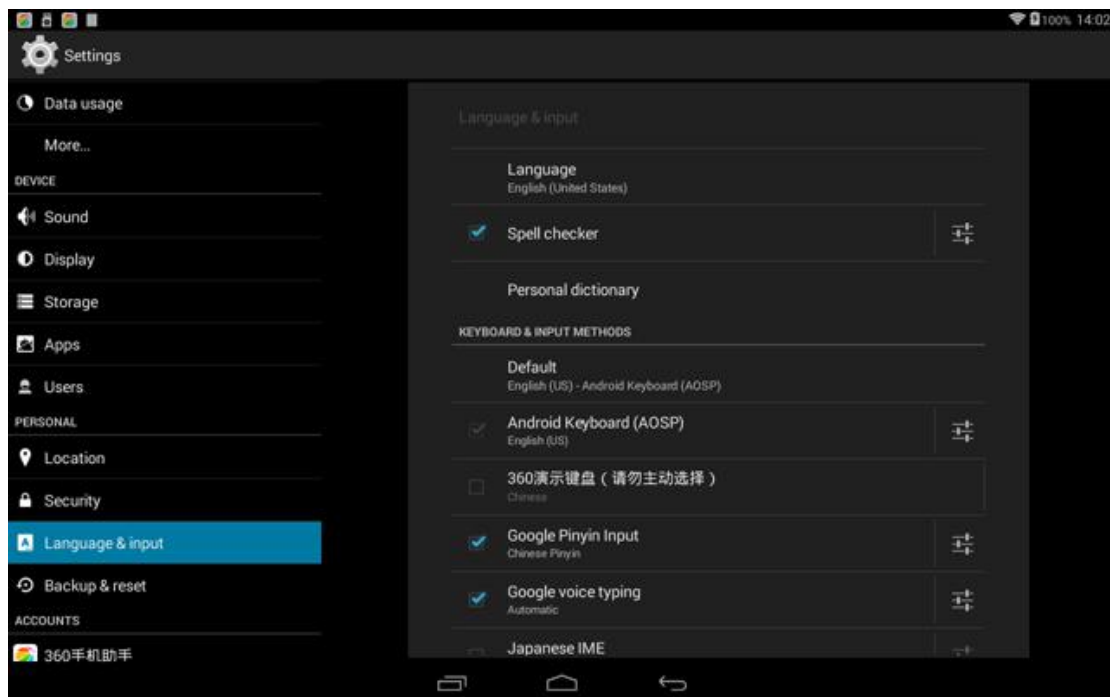
WIFI selection:



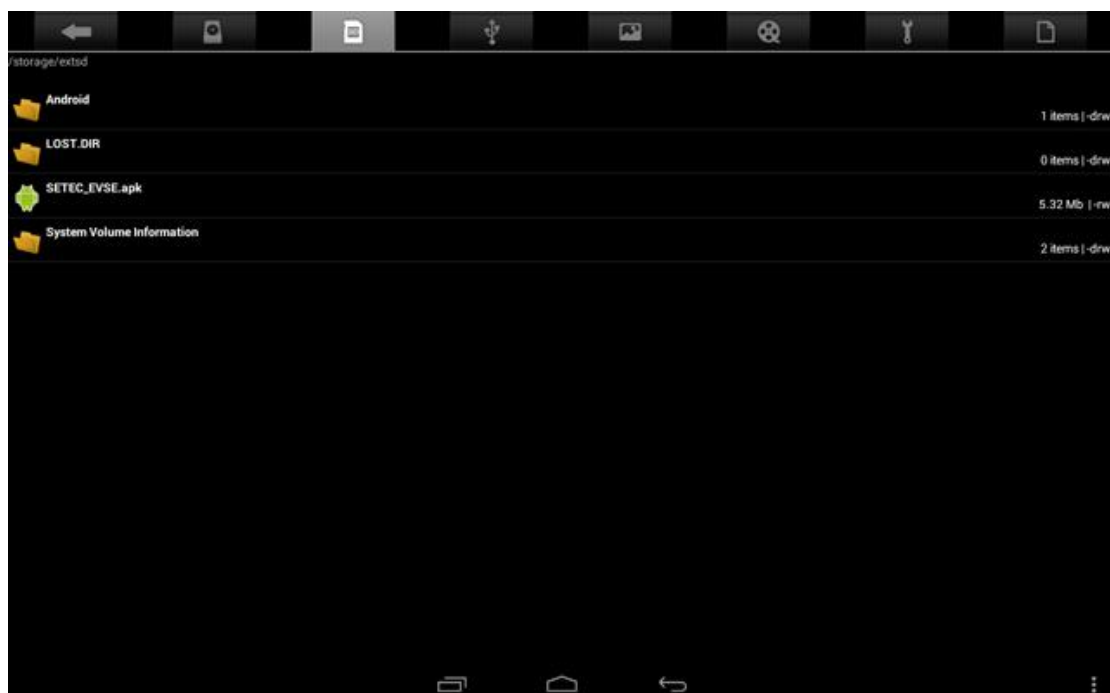
Mobile networks (insert 4G card):



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



Explorer:



Upgrade charging APP:

