

User Manual

EV DC Charger

HEVDC-(12,25)S2C5



Copyright Notice

- Copyright© 2024 Qingdao NaHui Intelligent Technologies Co.,Ltd. All Rights Reserved.
- Description in this document may contain predictive statements regarding financial and operating results, product portfolio, new technology, configurations and features of product. Several factors could cause difference between actual results and those expressed or implied in the predictive statements. Therefore, description in this document is provided for reference purpose only and constitutes neither an offer nor an acceptance. Qingdao NaHui Intelligent Technology Co., Ltd. may change the information at any time without notice.

Contents

Overview	3
Chapter 1 Safety Precautions	4
Chapter 2 Product Introduction	6
2.1 Model Designation	6
2.2 Description	7
2.3 Product Appearance	7
2.4 Label Description	8
2.5 Typical Networking	9
Chapter 3 Location Requirements	11
Chapter 4 Equipment Installation and Connection	13
Chapter 5 How to Use	13
5.1 LED Indicator Status	13
5.2 Haier Smart Cube Download and Login	14
5.3 Binding RFID Card	15
5.4 Use of Equipment	15
5.4.1 App-managed or RFID Card-based Charging Mode (Recommended)	16
5.4.2 Unauthenticated Charging Mode	17
5.4.3 Stop Charging	17
5.5 Other Settings of Haier Smart Cube	18
Chapter 6 Routine Maintenance	18
Chapter 7 Appendix	18
7.1 Technical Parameter	18

Overview

Introduction

This document mainly describes product information, networking, and system operation and maintenance of HEVDC-12S2C5 and HEVDC-25S2C5 (hereafter referred to as EV DC Charger).

Readers

This document is suitable for product users and professionals

Sign Definition

The following signs may be used in the document to indicate security precautions or key information. Before installation and operation, familiarize yourself with signs and their definitions.

Signs	Definition
 Danger	Danger. Failure to comply may result in death or serious personal injury.
 Warning	Danger. Failure to comply may result in serious personal injury or property damage.
 Caution	Caution. Failure to comply may result in property damage.
Tips	Important or key information, and supplementary operation tips.

Chapter 1 Safety Precautions

Basic Information

Before installing, operating, and maintaining the equipment, familiarize yourself with this document.

The "Danger ", "Warning", "Caution" items described in this manual are only supplementary to all precautions.

The Company shall not be liable for equipment damage or property loss caused by the following reasons:

- Failure to obtain approval from the national, regional power authority.
- The installation environment does not meet international, national, or regional standards.
- Failure to observe local laws, regulations and norms when operating and maintaining equipment.
- The installation area does not meet the requirements of the equipment.
- Failure to follow the instructions and precautions in this document.
- Failure to follow the warning labels on equipment or tools.
- Negligent, improper operation or intentional damage.
- Damage caused by your or a third party's replacement of our equipment.
- The equipment is damaged because the your or a third-party company fails to use the accessories supplied with the packing box or purchase and install accessories of the same specification.
- Equipment damage caused by improper operations such as disassembling, replacing, or modifying the software code without authorization.
- Equipment damage caused by force majeure (such as war, earthquake, fire, storm, lightning, flood, debris flow, etc.).
- Damage caused by the failure of the natural environment or external power parameters to meet the standard requirements of the equipment during actual operation (for example, the actual operating temperature of the equipment is too high or too low).
- The equipment was stolen.
- The equipment is damaged after the warranty period.

Safety Requirements

Danger

- Do not expose the equipment to high temperature or heat sources, such as ignition sources, heaters, etc.
- Do not clean or soak the equipment with water, alcohol, or oil to avoid power leakage or battery pack leakage.
- Do not leave liquid in the charging connector or socket.
- Do not knock or impact the equipment. In case of an accident, please stop using the equipment immediately and contact your sales agent. The equipment shall be inspected and evaluated by professional personnel before continuing to use.
- Do not use the equipment in bad weather, such as heavy rain or snowstorm, when installed outdoors.
- Do not extend sharp objects or fingers into the equipment.

Warning

- The heat sink is hot when the equipment is operating. Do not touch it.
- Do not drop the charging connector.
- Please put the charging connector and charging cable in the designated location and avoid contamination or moisture on the charging connector or damage to the charging connector cable due to crushing by heavy loads such as vehicles.

Caution

- Do not use the equipment with faults. If the equipment appears abnormal, contact your sales agent.
- Do not connect cables or adapters that are not required for installing this equipment.
- Do not use the equipment for any purposes other than vehicle charging.
- Do not use a private generator as the power source for the equipment.
- Do not forcedly bend or knock components on the equipment.
- Carbon dioxide fire extinguishers and ABC dry powder fire extinguishers are recommended at home.
- If the equipment cannot be charged, please contact your sales agent in time.
- The radio waves generated when using the equipment may affect the normal use of implantable medical devices or personal medical devices, such as pacemakers, implantable defibrillators, hearing AIDS, etc. Consult with your medical device manufacturer about the restrictions of using the equipment before use.

Do not use the equipment in the following situations:

- When connected to public infrastructure systems.
- When connected to emergency medical equipment.
- When connected to elevators and other control devices.
- Any other critical systems.

Chapter 2 Product Introduction

2.1 Model Designation

EV DC Charger includes the following models:

- HEVDC-12S2C5
- HEVDC-25S2C5

Fig.1-1 Model designation (example)

HEVDC-12S2C5

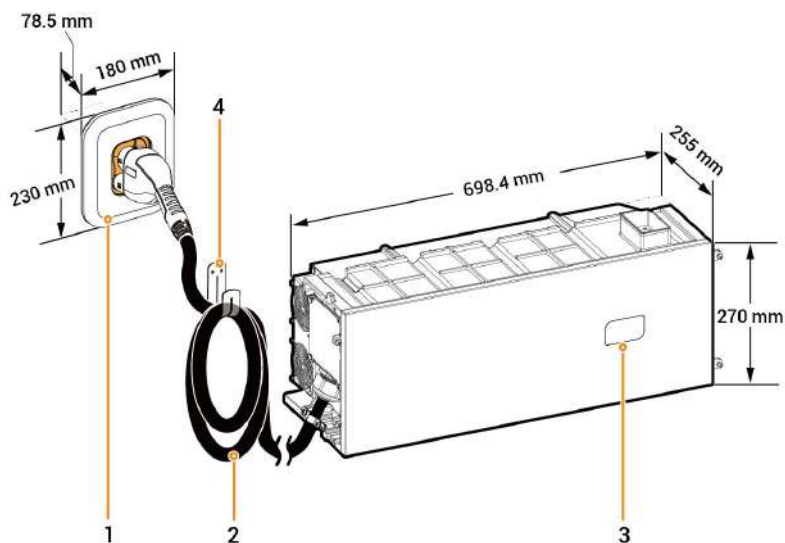
1 2 3 4 5

S/N	Definitions	Description
1	Product series	Haier
2	Charger type	EVDC: DC charger
3	Power range	12: 12.5kW; 25: 25kW
4	Connector type	S2: CCS2, that is, IEC62196-1 configuration FF, a European standard DC charging connector
5	Length of charging connector cable	C: cable ; 5: 5m lenght

2.2 Description

EV DC Charger is a bidirectional DC/DC charging & discharging system and can be used with our Energy Controller, as well as battery pack Battery to charge and discharge power Battery of electric vehicles.

2.3 Product Appearance



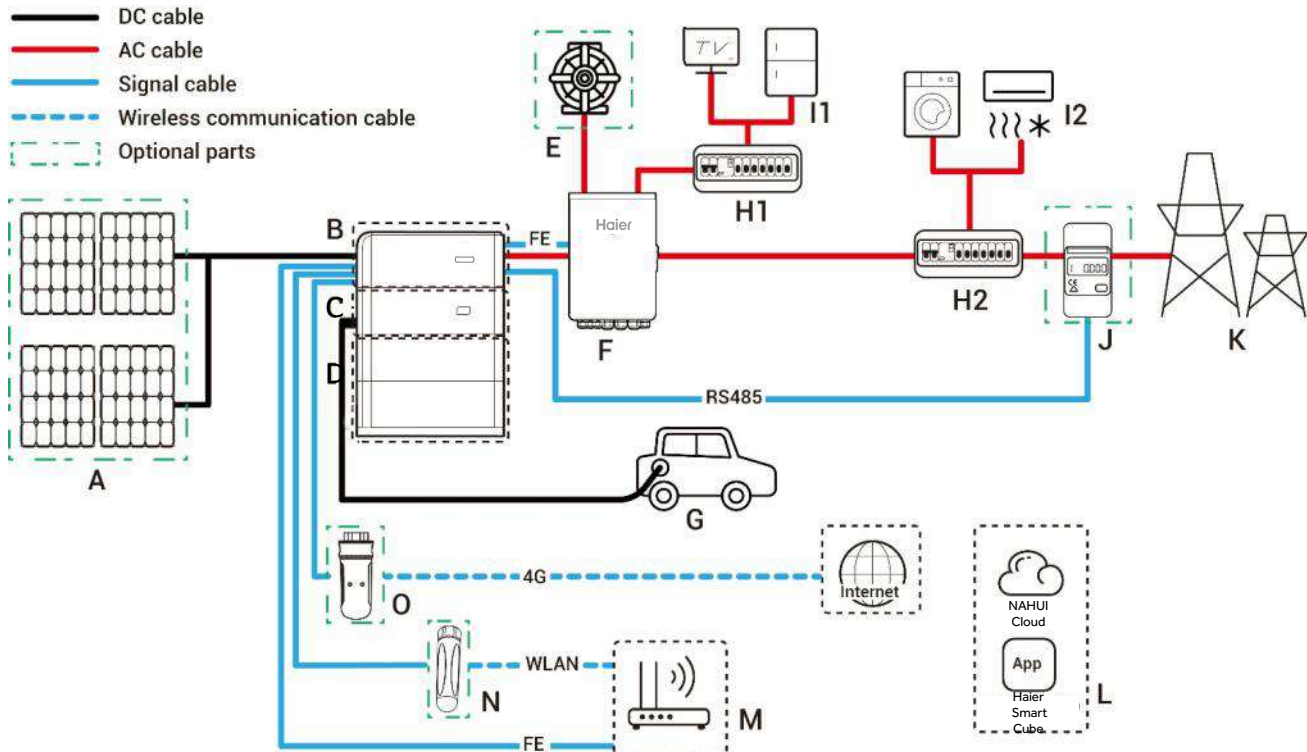
S/N	Description
1	Charging connector holder for placing the charging connector
2	Charging connector cable
3	RFID card reading area
4	Cable holder for storing the charging cable

2.4 Label Description

Symbols	Definition
	Danger! High Voltage High voltage exists inside the equipment when powered on. Do not open the casing when the equipment is running. Any maintenance or servicing operations must be performed by trained and skilled electrical engineers.
	Warning! Life at risk. The equipment has potential hazards after running. Take proper protection when operating the equipment.
	After the equipment is powered off, the discharge of internal components is delayed. Wait 5 minutes until the equipment is fully discharged according to the label time.
	Warning! Risk of burns. The surface of the heat dissipation area is hot when the equipment is running. Do not touch it to avoid burns.
	Please refer to the instructions to operate the equipment.
	Earthing mark

2.5 Typical Networking

(PV) Storage and Charging Networking

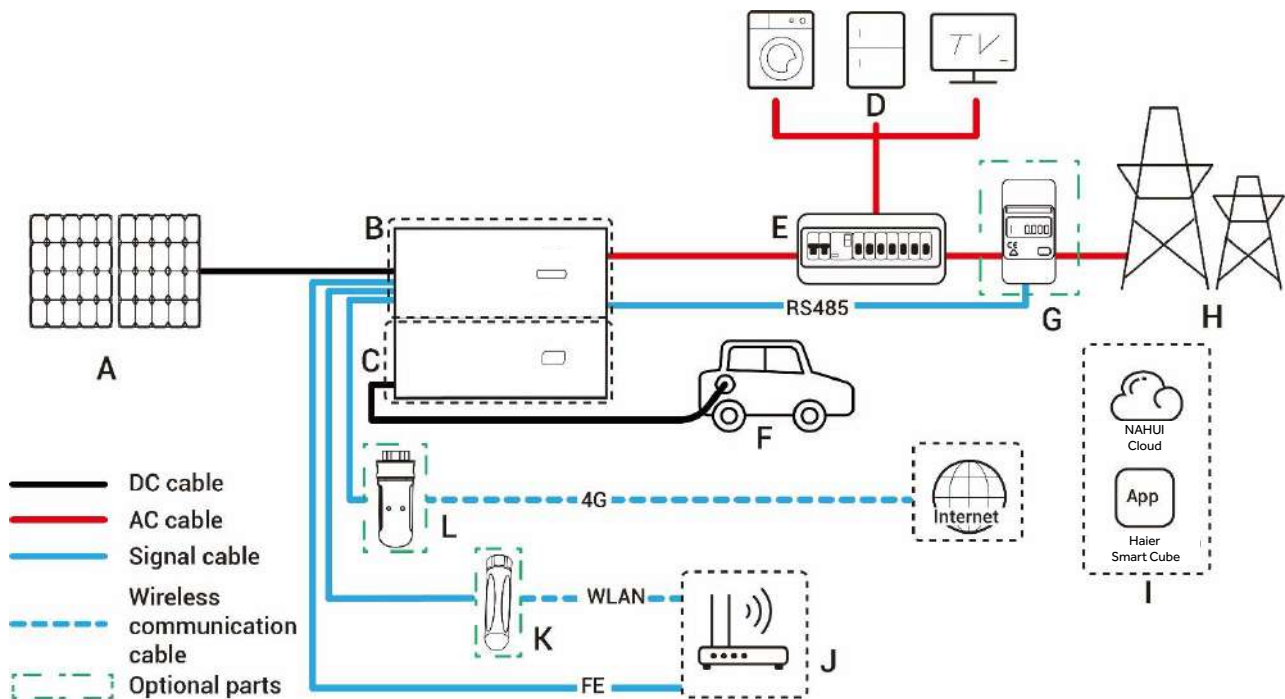


- | | | |
|-------------------------------------|---|--------------------------------|
| A. Solar Panel | B. Energy Controller | C. EV DC Charger |
| D. Battery | E. Diesel Generator | G. Vehicle |
| H1. Backup Power Distribution Panel | F. Gateway | H2. Non-backup Power Equipment |
| I1. Backup Power Equipment | I2. Non-backup Power Distribution Panel | |
| J. Power Sensor | K. Power Grid | L. Haier Smart Cube App |
| N. Antenna | M. Router | |
| O. CommMod | | |

Tips

- J features data collection from grid-connected points to realize zero power grid connection. For partial backup, J can be left un-configured. In the case of partial backup + zero-power grid connection control, J is configured.
- As a backup energy source for long-term off-grid applications, the diesel generator can work in tandem with the Gateway to provide a smooth transition between PV, energy storage, and diesel power generation.
- It is recommended to use FE and WLAN for communication methods. If CommMod is used, users must top up their own 4G data plan after 2 years.

PV and Charging Networking



- | | | |
|--------------------|-------------------------|------------------|
| A. Solar Panel | B. Energy Controller | C. EV DC Charger |
| D. Power Equipment | E. Distribution Panel | F. Vehicle |
| H. Power Grid | I. Haier Smart Cube App | J. Router |
| L. CommMod | K. Antenna | |

Tips

It is recommended to use FE and WLAN for communication methods. After creating new systems, users must top up their own 4G data plan for CommMod after 2 years.

Chapter 3 Location Requirements

Tips

The warranty applies when the equipment has been installed properly for its intended use and in accordance with the operating instructions.

Installation Environment Requirements

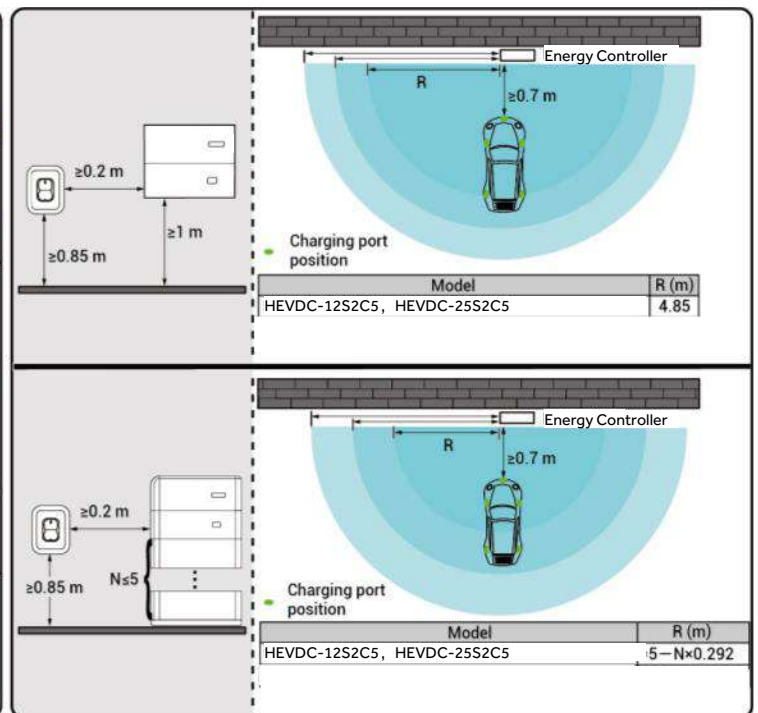
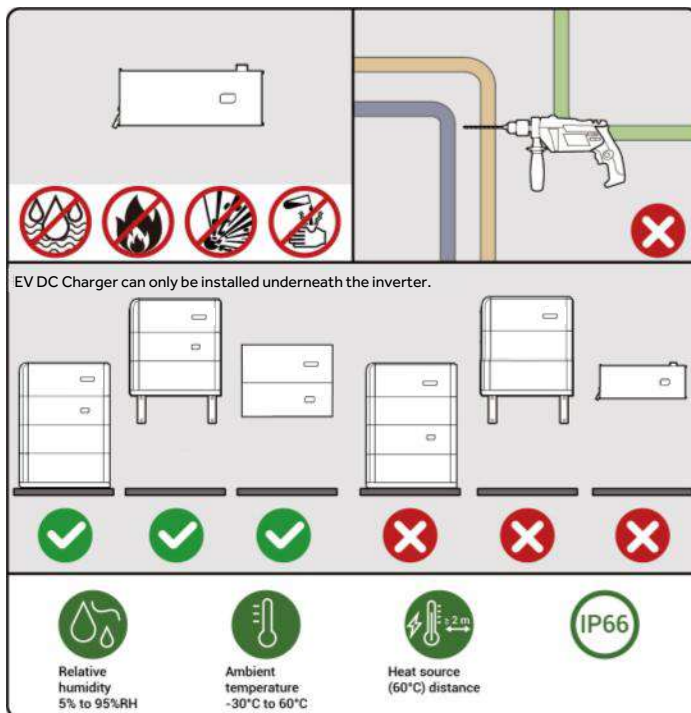
- Do not install the equipment in smoky, flammable, explosive, or corrosive environments.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. Install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, earthquakes, and typhoons.
- Do not install the equipment in an environment with strong electromagnetic interference.
- Ensure that the temperature and humidity of the installation environment comply with the equipment's requirements.
- The equipment should be installed in an area that is at least 500 m away from corrosion sources that may result in salt damage or acid damage (corrosion sources include but are not limited to seaside, thermal power plants, chemical plants, smelters, coal plants, rubber plants, and electroplating plants).

Installation Position Requirements

- Do not tilt or overturn the equipment to ensure that it is installed horizontally.
- Do not install the equipment in a place easily touched by children.
- Do not install the equipment in places with fire or damp (including but not limited to kitchen, tea room, toilet, shower room, laundry room, etc.).
- Please keep away from the daily work and living places (including but not limited to living room, bedroom, studio, lounge, study, etc.)
- Do not install the equipment in areas with difficult access (including but not limited to attic, basement, etc.).
- Do not install the equipment in mobile scenarios such as RVS, cruise ships, and trains.
- You are advised to install the equipment in a position that is easy to operate, maintain, and view indicator status.
- When installing the equipment in the garage, do not install the equipment in the position where the vehicle passes through to avoid collision.
- Install the equipment near the parking space. Refer to the figure for the installation distance.

Mounting surface

- Do not install the equipment on a flammable carrier.
- The installation carrier must meet load-bearing requirements. Solid brick-concrete structure, concrete walls are recommended.
- The surface of the installation carrier must be smooth and the installation area must meet the installation space requirements.
- No water or electricity is routed inside the carrier to prevent drilling hazards during equipment installation.



Tips

- There will be errors in the actual distance under different installation environments, and the figure is for reference only.

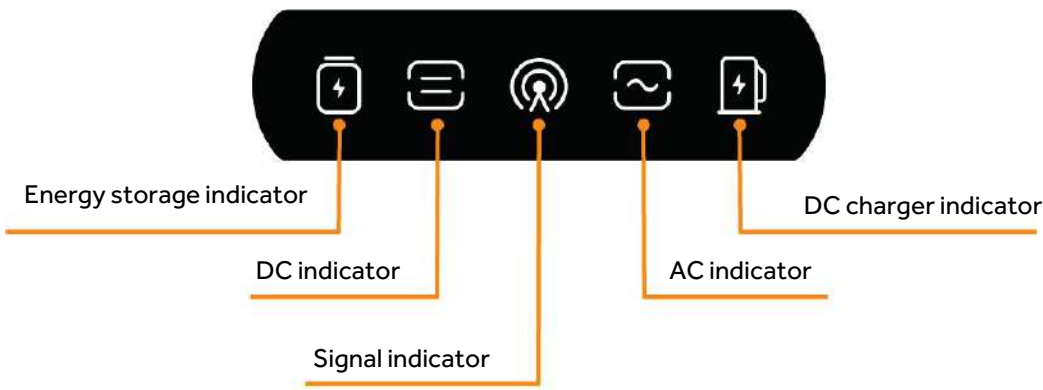
Chapter 4 Equipment Installation and Connection

Equipment installation and connection must only be completed by the installer certified by the Company. For more information, refer to EV DC Charging Module Installation Guide.

Chapter 5 How to Use

5.1 LED Indicator Status

The status of EV DC Charger is indicated by the DC charger indicator on the front of the inverter.



Indicator	Color	Status	Status of EV DC Charger
		Off	Not powered on.
		Steady on	Powered on but the charging connector not connected to the vehicle.
		Steady on	- The charging connector connected to the vehicle. - Charging completed.
		Blink	Charging.
		Steady on	Alarming.
		Steady on	Equipment failure.

5.2 Haier Smart Cube App

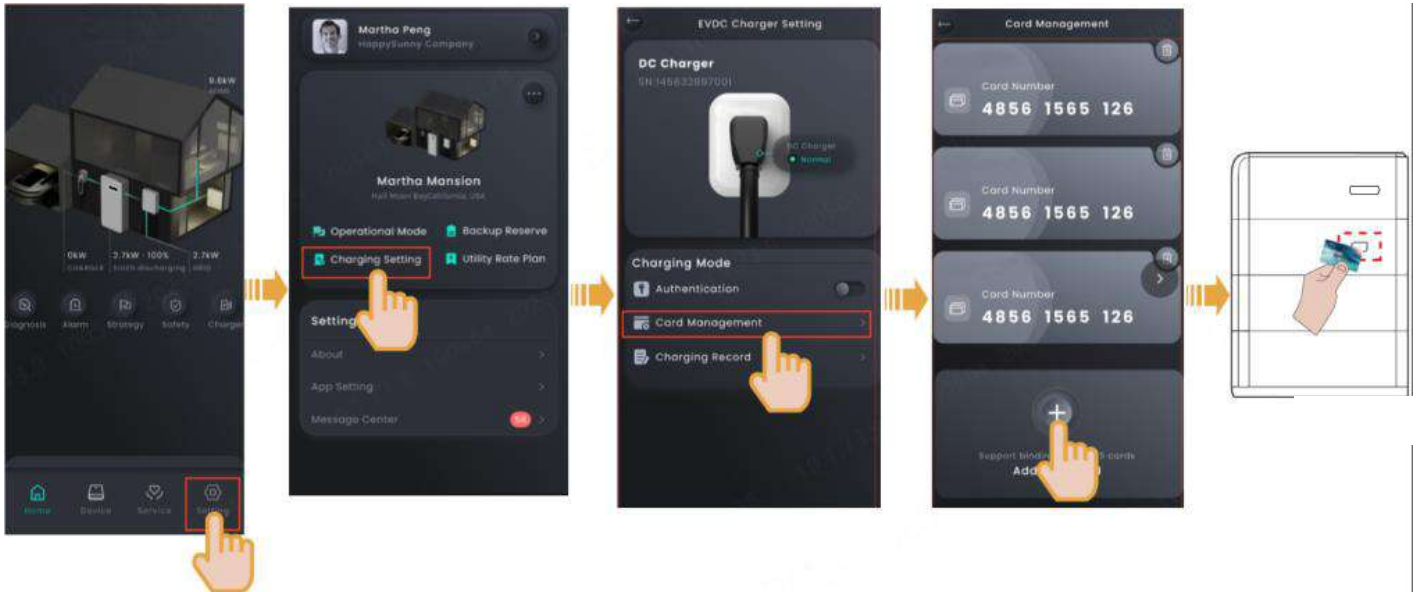
1. Download the app.



2. Provide your email account to the installer for signing up.
3. After signing up your account, the installer will ask you to activate your account.
4. Please check the email sent from the "NAHUI Cloud" account in your inbox, set your initial password, and activate your account.
5. Log in to the app.

5.3 Binding RFID Card

Go to "Setting" → "Charging Setting" → "Card Management" and bind your RFID Card.



Tips

- If an error occurs when you bind the RFID Card, you can click  and delete the RFID Card on the "Card Management" page.

5.4 Use of Equipment

EV DC Charger supports app-managed charging mode, RFID Card-based charging mode, and unauthenticated charging mode.

Caution

Please carefully read vehicle-related precautions and requirements before charging vehicles.

5.4.1 App-managed or RFID Card-based Charging Mode (Recommended)

1. Install the charging connector in place.

2. Start charging on the equipment.

- **Method 1: App-managed charging mode**

Start charging from "Charger"→"Start."

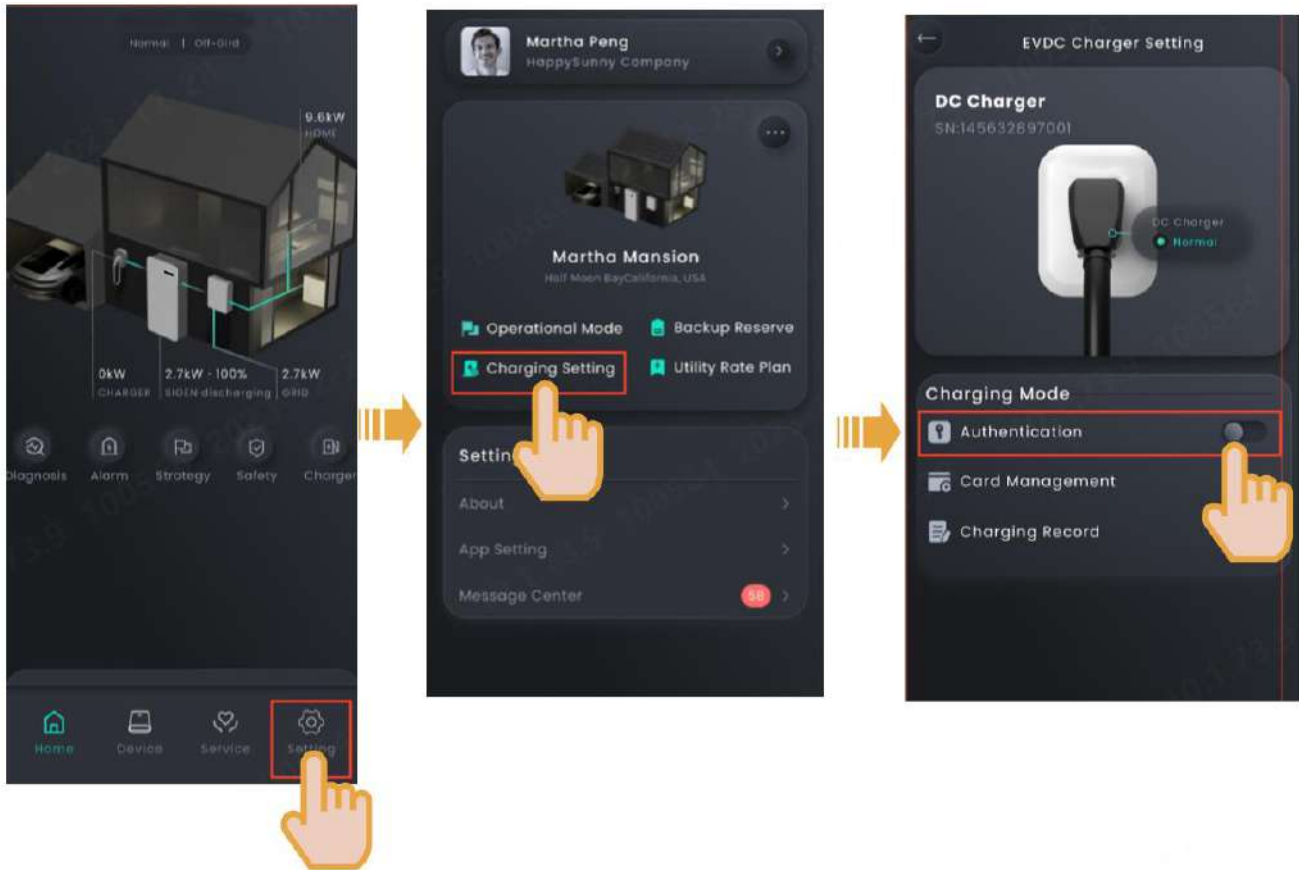


- **Method 2: RFID Card-based charging mode**

Swipe the RFID Card.

5.4.2 Unauthenticated Charging Mode

1. On the "Setting"→"Charging Setting" page, turn "Authentication" off, that is,



2. Install the charging connector in place.

Tips

- It should be noted that when the unauthenticated charging mode is enabled, any vehicles can use this equipment for charging.

5.4.3 Stop Charging

Charging completed

The equipment will automatically stop charging when the vehicle is fully charged.

During charging

Method 1: Read your RFID Card to stop charging.

Method 2: Stop charging from "Charger"→"Stop".

5.5 Other Settings of Haier Smart Cube

For more information about the app settings, refer to Haier Smart Cube User Manual.

Chapter 6 Routine Maintenance

To ensure the long-term running of the equipment, you are advised to perform routine maintenance according to this section.

Inspection content	Inspection method	Power off or not	Maintenance cycle
System cleaning	Regularly check the equipment for blocking out or dust contamination. If so, clean it up. Do not use tools that may cause electric shock or insulation damage, such as wire brushes during the cleaning process.	Yes	Once every three months.
System running state	Check whether the equipment is damaged or deformed. Listen for any abnormal noises during the operation of the equipment. When the equipment is running, check whether the equipment parameters are correctly set.	No	Once every six months.

Chapter 7 Appendix

7.1 Technical Parameter

For details about equipment parameters, see the Datasheets of the product.

Haier



Official website of NAHUI



Haier Smart Cube

Qingdao Nahui Intelligent Technology Co., Ltd.

📍 Room 205-2, Building 4, No. 7 Keji 1st Road, Aoshanwei Street Office,
Jimo District, Qingdao City, Shandong Province, P.R. China

🌐 www.eur.nahui-newenergy.com

20240509_V1.0