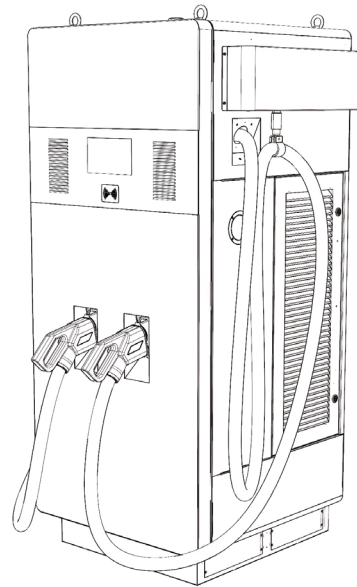


Electric Vehicle DC Charger  
Installation Instructions  
EVD100-060/090/120/150/180(NA)

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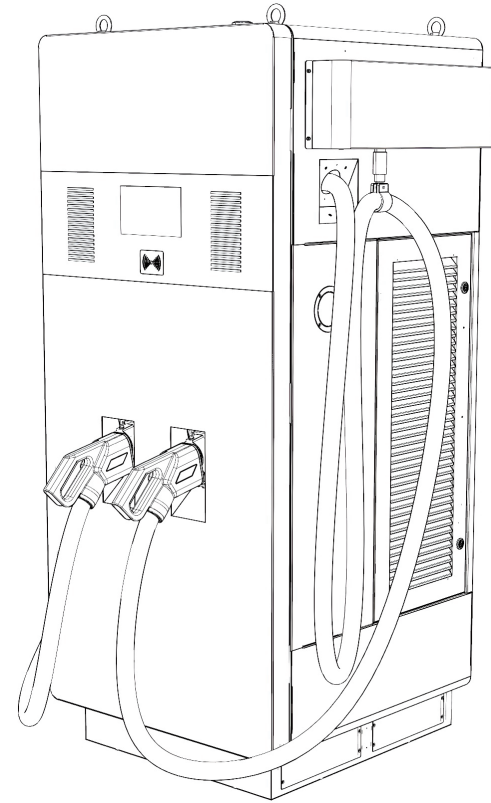
- 技术要求:
- 成品规格: 148 x 210 mm;
  - 印刷方式:  单面印刷 ;  双面印刷;
  - 装订方式:  骑马钉;  单面对折;
  - 材质:  70g双胶纸;  108g铜板纸;
  - 印刷颜色:  单黑色;
  - 有条码的话, 刷码等级需达到B级;
  - 检验工具: 卷尺, 尺寸单位均为mm

				线条图提供者		设计者	
				吴斌源	2023.3.23	吴斌源	2023.3.23
				排版者		审核者	日期
				庄妍妍	2023.3.23	吴旭	2023.3.23
				文件翻译者		批准者	日期
				陈凌云	2023.3.21	吴斌源	2023.3.23
版本号	修订原因	修订人	修订日期	签名	日期	签名	日期
变更栏							

说明书				视图/ VIEW			
				<input type="checkbox"/> <input checked="" type="checkbox"/>			
零件名称							
图纸图号							
产品名称		EVD100/180(NA)					
产品型号							
比例	单位	版次	次料/REG.%				
1:1	mm	1.0					
		厦门佳因特科技有限公司					

# Electric Vehicle DC Charger

Installation Instructions  
EVD100-060/090/120/150/180(NA)



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**⚠ WARNING & CAUTION**

## 1. Important Safety Instructions

### 1.1 Overall Warnings & Cautions

- ⚠ WARNING:** To avoid fire, injury or death, carefully read and follow the instructions during installation, operation and maintenance.
  - **DO NOT** put fingers into the electric vehicle connector.
  - **DO NOT** use this product if the flexible power cord or EV cable is frayed, insulation-broken, or any other signs of damage.
  - **DO NOT** use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
  - **DO NOT** remove cover or attempt to open the enclosure because of risk of electric shock.
  
- ⚠ WARNING:** This device should be supervised when used around children.
  
- ⚠ WARNING:** This device must be grounded.
  
- ⚠ WARNING:** To avoid a risk of fire or electric shock, do not use this device with an extension cord.
  
- ⚠ WARNING:** The suitability of the use of flexible cord in accordance with CE code, part I, rule 4-012, is to be determined by the local inspection authority.
  
- ⚠ WARNING:** To reduce the risk of fire, connect only to a circuit provided branch circuit over-current protection in accordance with the CSA C22.1–15 Canadian Electrical Code, Part 1 (Canada) or NOM-001-SEDE Electrical installations (utility) (Mexico) or ANSI / NFPA 70 National Electrical Code (USA).

## 1.2 Installation Requirements

- ⚠ WARNING:** Disconnect electrical power prior to installing the charging station.
- ⚠ WARNING:** Be sure to preview the user manual and ensure local building and electrical codes are reviewed before installing the DC charger.
- ⚠ WARNING:** The DC charger should be installed by a qualified technician according to the user manual and local safety regulations.
- ⚠ CAUTION:** Use appropriate protection when connecting to the main power distribution cable.
- ⚠ CAUTION:** Please keep the charger in a clean area with low humidity.

## 1.3 Daily Maintenance

- ⚠ CAUTION:** Avoid moisture or water in the charger. If there is water or moisture ingress in the charger, it is necessary to immediately power off to avoid immediate danger, and notify the professionals to carry out maintenance before next use.
- ⚠ CAUTION:** Please use the charger properly. Do not hit or press hard on the enclosure. If it is damaged, please contact a professional technician.
- ⚠ CAUTION:** Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.
- ⚠ CAUTION:** Do not put heavy objects on the charger to avoid danger.

## 2. Product Introductions

### 2.1 Introductions

#### 2.1.1 function

##### Charge

- Quickly and accurately respond to the current and voltage requirements of the vehicle-side battery management system (BMS) during normal charging through charge control pilot.

##### Metering

- Dc meter metering function, Accuracy 1%

##### Communication

- Support Ethernet access, 3G/4G, and wireless communication networking and other access methods.

##### Protection

- OVP, UVP, OLP, Short Circuit Protection, Ground Fault Protection, OTP, Insulation Fault Protection, RVP, SPD, Emergency Stop, RCD.

##### Payment

- The charger provides charging time and power information to the operation background, and support various payment methods such as card and code.

##### Self-inspection and self-repair

- The charger performs regular system self-inspection every day. When power-on operation, the charger first conducts a self-inspection to check the working environment of the equipment, power supply, data storage space, etc.
- Fault information is recorded and uploaded to the higher-level monitoring management system.
- Automatic monitoring of the working condition of key components, including but not limited to self-test of charging gun connectivity, contactor adhesion, power unit status, etc.

**Remote IOT function**

- The charger has the function of IOT with the equipment cloud platform to monitor numerous parameters in real time. It can provide perfect remote diagnosis, remote service and remote upgrade service, which can timely find and locate the actual problems in the actual operation process, solve the problems of end users and realize unattended operation.
- Diagnosis includes: whether the charging pile cabinet door is opened, whether the emergency stop button is pressed, whether the leakage protector is disconnected, whether the vehicle is connected, whether the gun head is locked, whether the gun head temperature is too high, whether the insulation detection is normal, whether the vehicle communication protocol is correct, and the errors reported by the vehicle.

**2.1.2 Features**

**Safe**

- It is equipped with pre-charge protection, main circuit safety detection, remote diagnosis management and other safety mechanisms.
- It has SPD, over-voltage, over-current, short-circuit, connection failure, emergency stop and other basic protection measures.
- Perfect charging protection function and mechanism effectively protect personnel safety, prevent vehicle overcharging and ensure operational safety.

**Smart**

- Intelligent IOT connection between terminal charging pile and cloud platform enables it to realize real-time sensing of more than 100 underlying operating parameters.
- Remote diagnosis, remote reset, and remote upgrade. It can diagnose and repair faults online to realize unattended.
- 200-1000V of wide range to charge various EVs.

**Convenient**

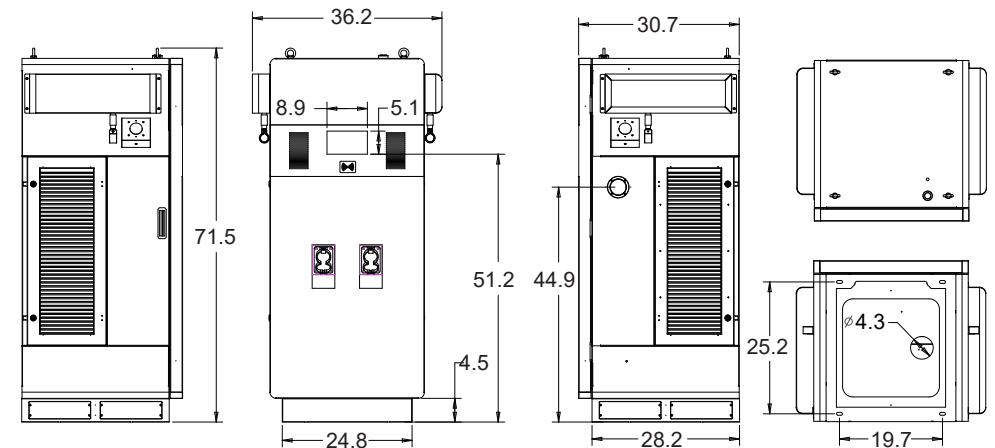
- Wireless or wired communication mode, flexible networking
- 10 "touch screen LCD display, friendly interactive interface
- DIN70121 Plug and charge function
- Pull-out power module, easy to maintain

**2.1.3 Applications**

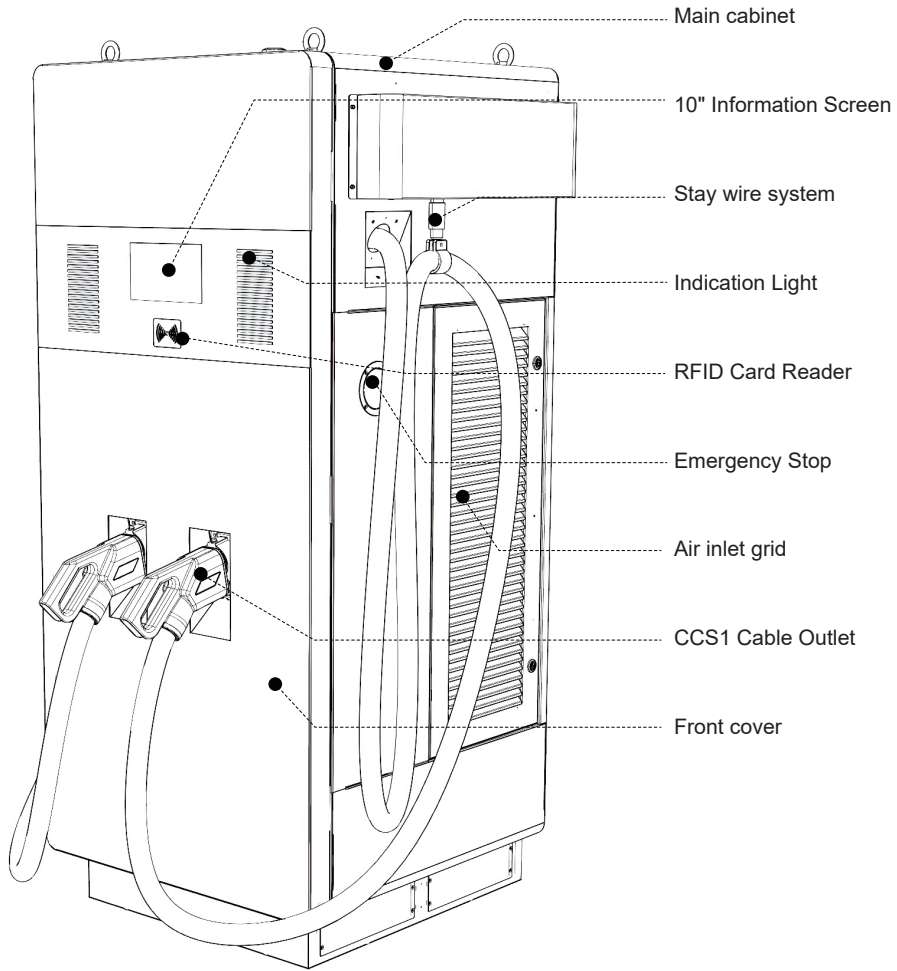
- Public and private parking areas
- Community parking areas
- Parking areas of hotels, supermarkets and shopping malls
- Workplace parking areas
- Charging stations
- Highway rest areas

**2.2 Dimensions**

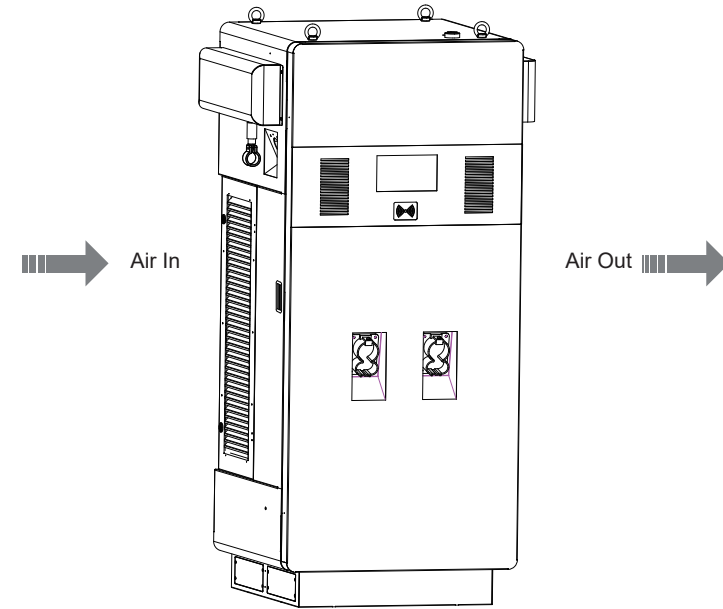
unit: inch



### 2.3 Basic Interface



### 2.4 Direction of Cooling Airflow



### 2.5 Light Codes

Status	LED
Stand by	Solid Green
Charging	Green Blinking
Finished charging	Solid Green
Fault	Solid Red

## 2.6 Specification

Model No.		EVD100/060	EVD100/090	EVD100/120	EVD100/150	EVD100/180
AC Input	Number of phase / wire	3ph / L1, L2, L3, N, PE				
	Voltage Rating	480Vac (+10%, -15%)				
	Max. Input Amperage	75A	113A	150A	188A	226A
	Frequency	50~60Hz				
	Power factor	PF≥0.98@Rated load				
	Efficiency	>96%				
DC Output	Maximum Power	60KW	90KW	120KW	150KW	180KW
	Voltage Operating Range	200-1000V				
	Maximum Current	120A	200A	200A	200A	200A
	Connector and Cable	CCS1 with 13ft cable				
<b>Function</b>						
	EV Communication	DIN 70121				
	User Authentication	Plug & Play / RFID / QR Code				
	Display	10 inch touch screen				
	Network	Ethernet, LTE, Wi-Fi				
	Connectivity	OCPP 1.6 J				
<b>Protection &amp; Standard</b>						
	Certificate	ETL, FCC				
	Safety Compliance	UL2202,UL2231-1,UL2231-2				
	Multiple Protection	OVP, UVP, OPP, OTP, SPD, RCD, IMD, OCP				
	Warranty	2 years				
<b>Environmental</b>						
	Storage Temperature	-40°F to 158°F				
	Operating Temperature	-22°F to 122°F				
	Anti-vandalism	IK10 (not include LCD & RFID cover)				
	Ingression	NEMA 3R				
	Relative Humidity	Up to 95% non-condensing				
	Cooling	Forced Air				
	Operating noise level	≤65dB				
	Altitude	≤6561ft				

## 3. Installation

### 3.1 Preparing the Foundation

#### STEP 1

#### Site Selection and Hole Digging

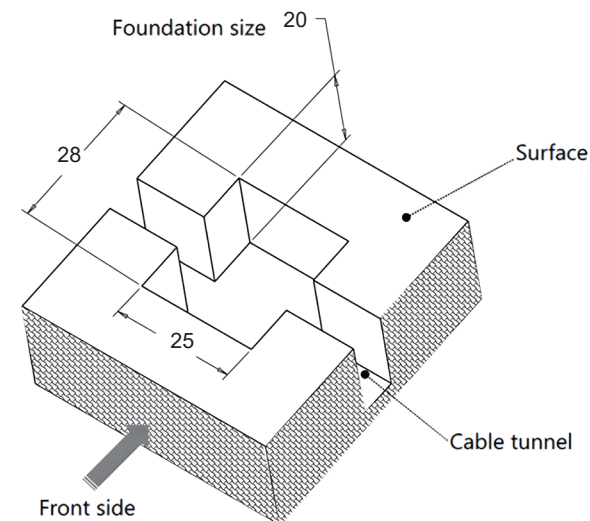
1. Make sure that the location where the charging pile is to be installed meets the following dimensions:

- Front side of the Charger ≥ 32 inch, ensure normal switch of the front door and smooth related operations.
- Left side of the Charger ≥ 20 inch, ensure smooth airflow from the air outlet.
- Right side of the Charger ≥ 20 inch, ensure smooth airflow in the charging module maintenance space and air inlet.
- Rear side of the Charger ≥ 4.4 inch, ensure left and right side door opening and closing are not blocked.

2. On the ground where the charging pile is to be installed, dig a hole based on the foundation size.

3. The minimum sizes of the Charger are 25x28x20 inch.

unit: inch



**STEP 2**

**Cable Installation**

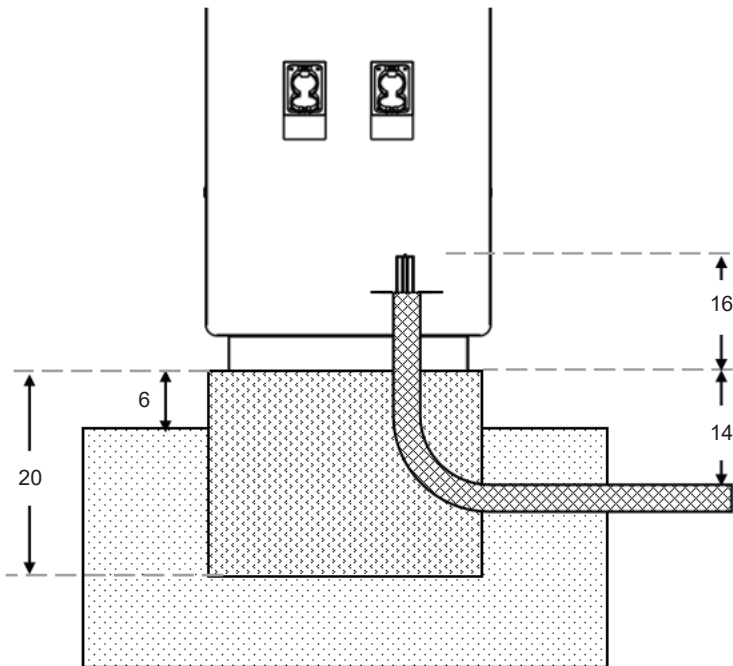
- Pour the concrete into the hole. Make sure that the cable duct / conduit is in the correct position.
- AC cable expose at least 16 inch and these 5 wires should be with ring terminals.
- If internet connection is via Ethernet, a 59 inch Ethernet cable is necessary to install via the conduit to the charger.

**STEP 3**

**Concrete Pouring**

At the dug hole, use cement to pour out the concrete foundation as shown in the figure below. It is recommended that the base of the charging pile should be at least 16 inch above the ground, which can effectively reduce the risk of flooding.

unit: inch

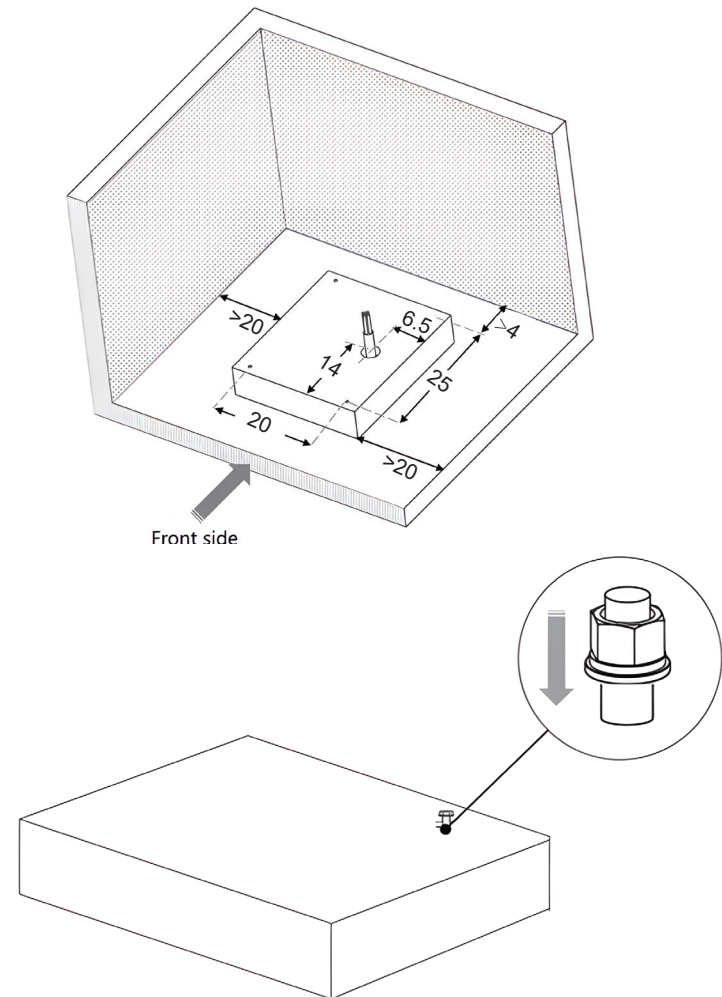


**STEP 4**

**Mounting holes positioning**

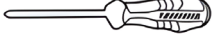






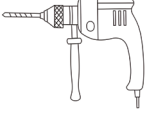

According to the requirements of the installation hole position in the figure below, four M12 stainless steel bolts are pre-buried on the installation surface, and the threads of the bolts are exposed to the ground by 1.2 inch.

unit: inch





### 3.2 Gather Tools

NO.	Type	Description	diagram
1	Philips Screwdriver	No. 2 and 3	
2	Shifting Wrench	8" (24mm)	
3	Ball-Head Hex Key	2.5mm and 5mm	
4	Wire stripper		
5	Voltmeter or digital multi-meter		
6	Ring Terminal		
7	Crimping Pliers for Ring Terminal		
8	Machine Drill		
9	Level Ruler		

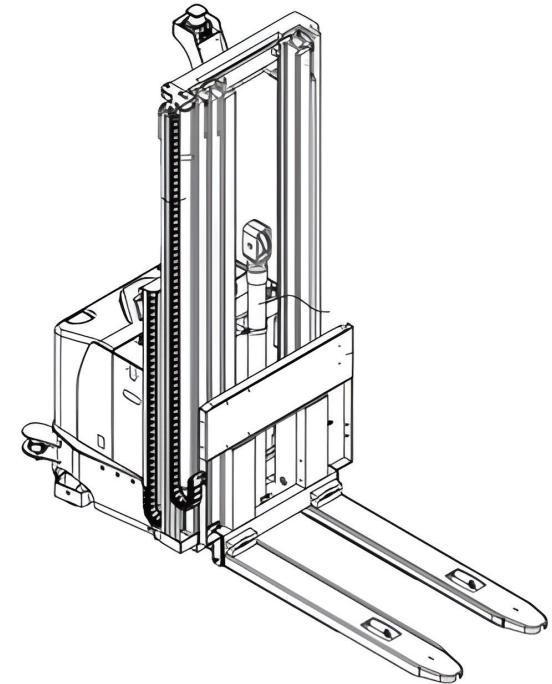
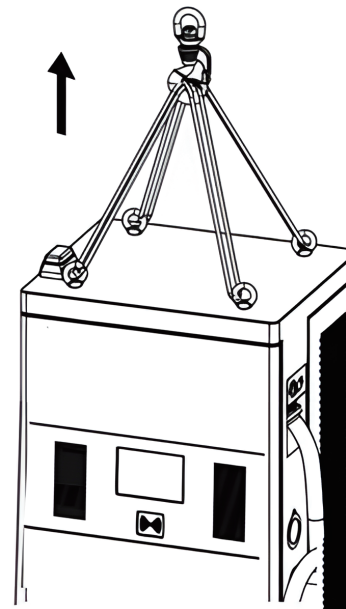
### 3.3 Installation Procedure

#### STEP 1

##### Moving the Cabinet to the Site

There are two ways to move the cabinet to the installation site:

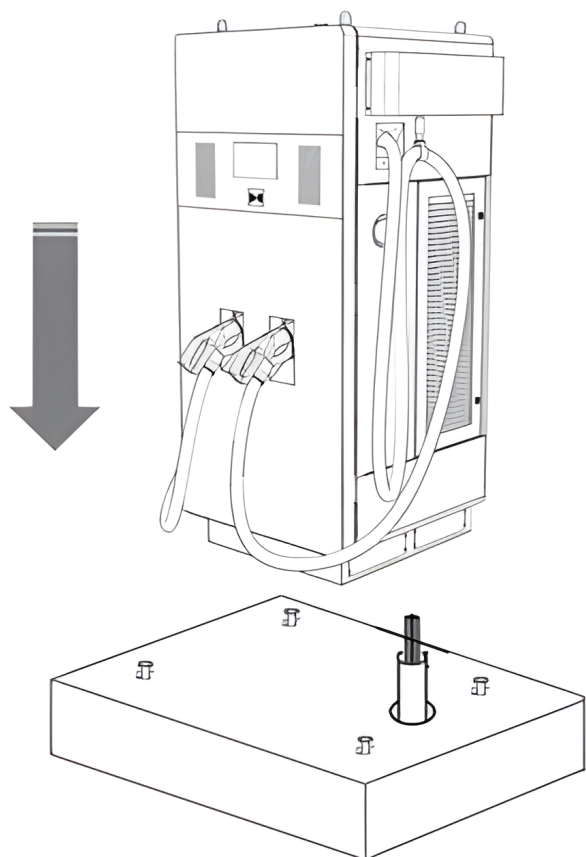
- Method 1: Hoist
- Method 2: Forklif



**STEP 2**

**Placing the Cabinet on the Base**

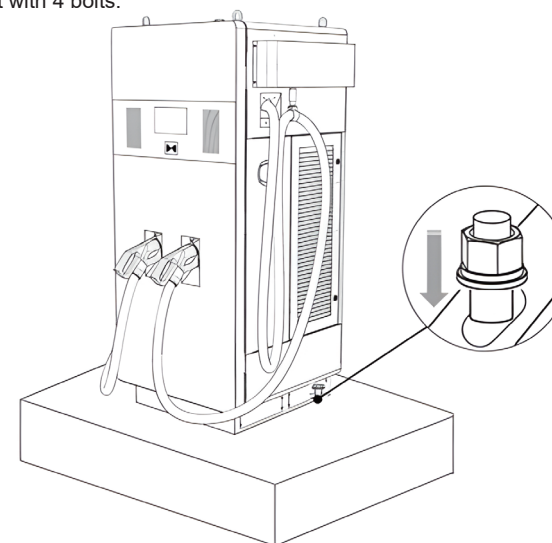
Lift the cabinet with the hoisting equipment at 20 inch above the foundation. Pull all the cables out of the foundation and guide the cables through the base of the cabinet.



**STEP 3**

**Installing the Cabinet**

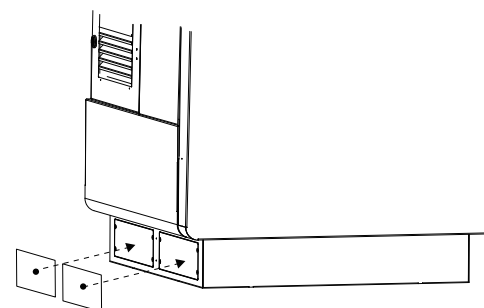
Carefully lower the cabinet on the foundation. Make sure that the cabinet is aligned with the installation holes. Fix the Cabinet with 4 bolts.



**STEP 4**

**Fix base cover**

Tighten the base covers using a screwdriver.

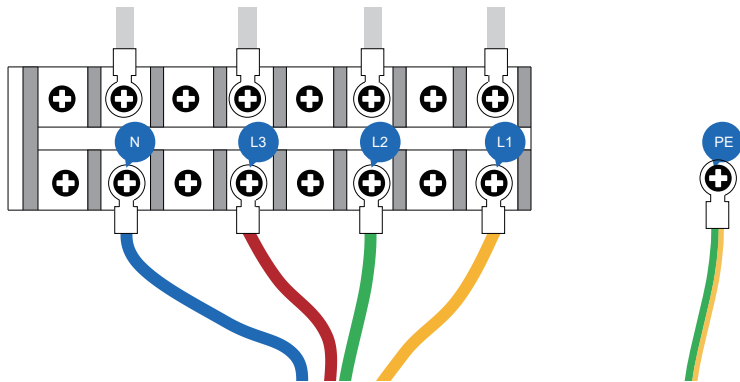


**STEP 5**

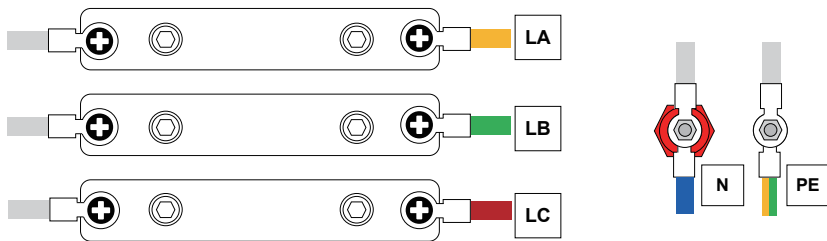
**Installing the AC Input Connection**

Open Front Cover for Wiring: Connect L1, L2, L3 and N of AC power to 4P terminal. Fasten each wire with proper screw. Connect the PE wire (green with yellow) to grounding position of charger .

**60kw**



**120 / 150 / 180KW**



## 4. Operate Your Device

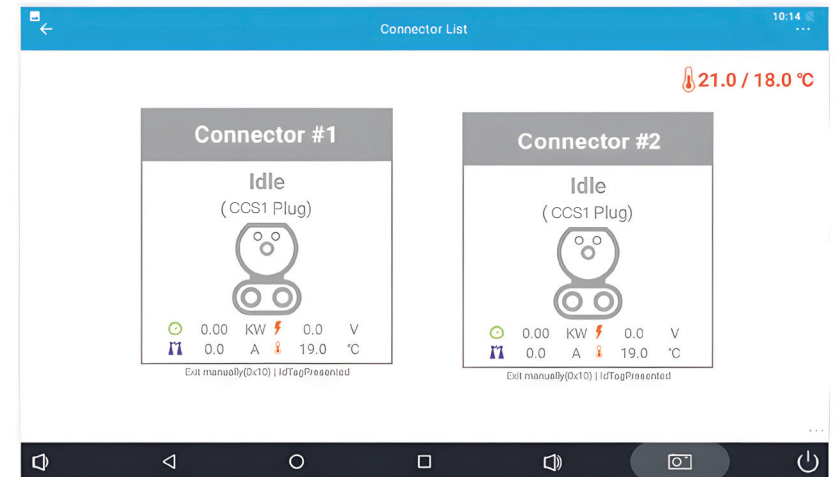
### 4.1 starting up

**STEP 1**

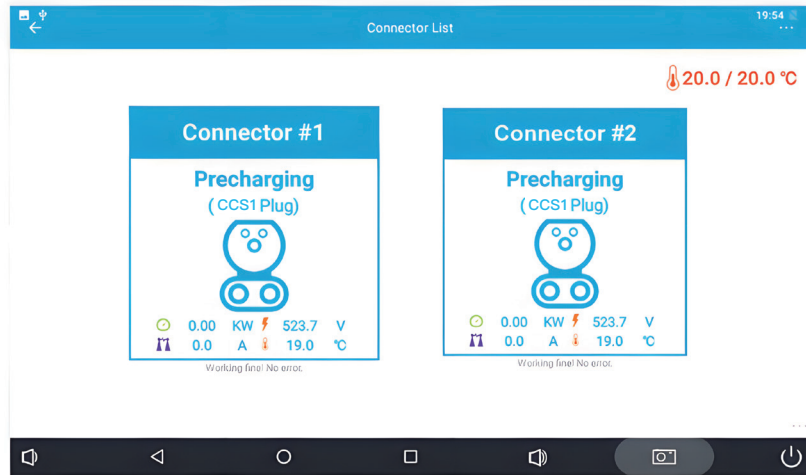
System Initialization.



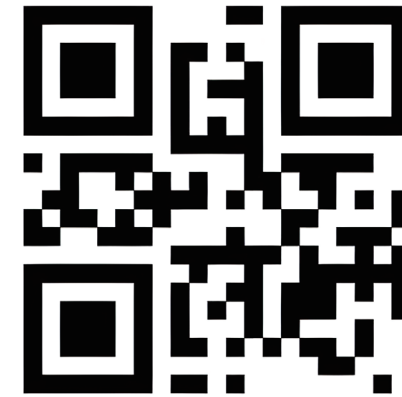
Waiting For Plug in Connector.



Plug in DC Charging Connector.



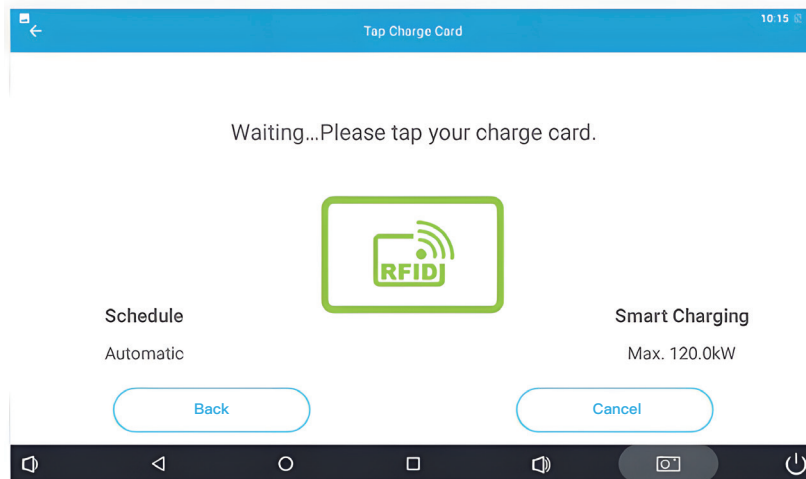
Model2: Scan QR code



**STEP 2**

**User Authorization**

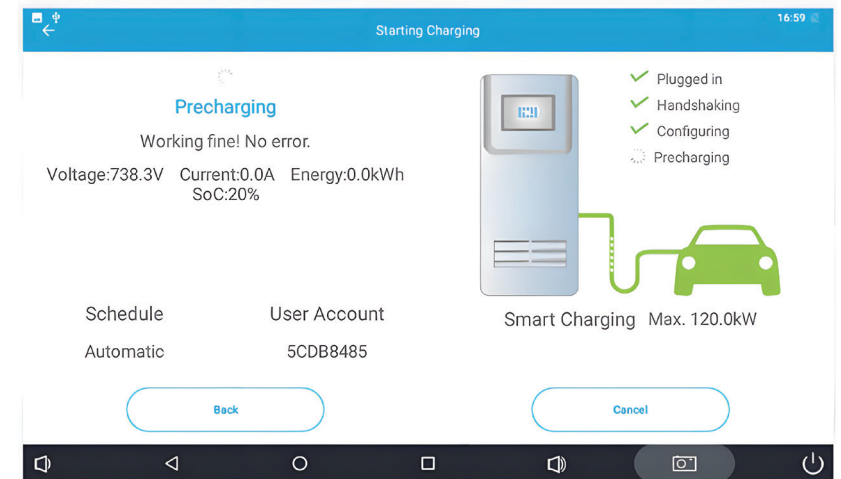
Model1: Use RFID Card.



**STEP 3**

**Prepare for Charging**

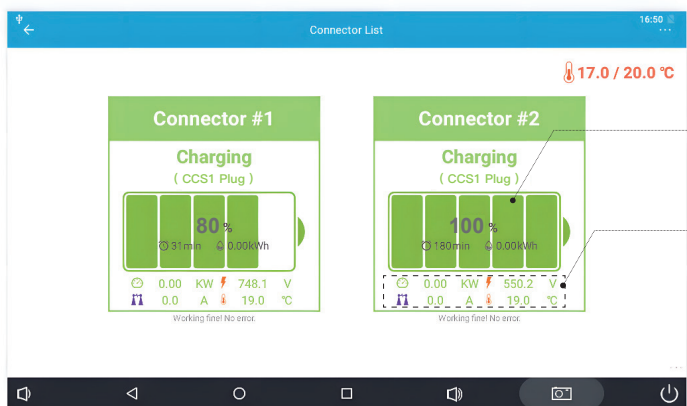
After authorization and plug-in process, the charger will start communicating with the vehicle.



**STEP 4**

**In Charging**

- After successful communication with the car, enter the formal charging state.
- Charging respond to the needs of BMS in real time.
- The screen shows the charging progress.



EV battery SOC

Charging information area includes charging duration, energy.

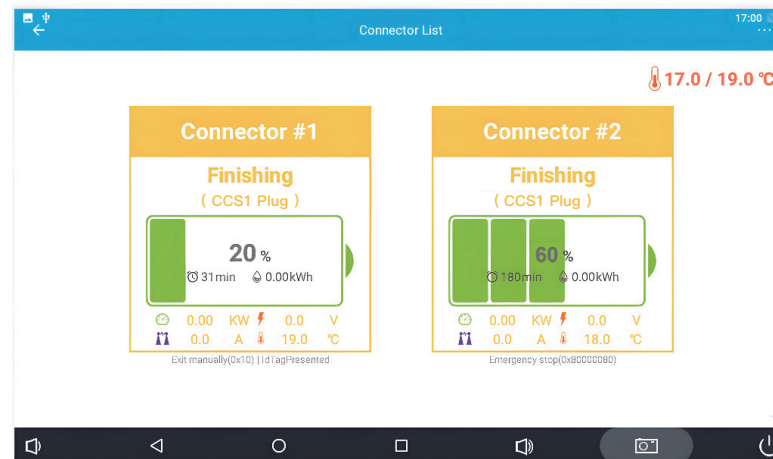
Do not remove the charging connector during charging process!

There is danger to get arc burn when forced to pull out the charging connector during charging.

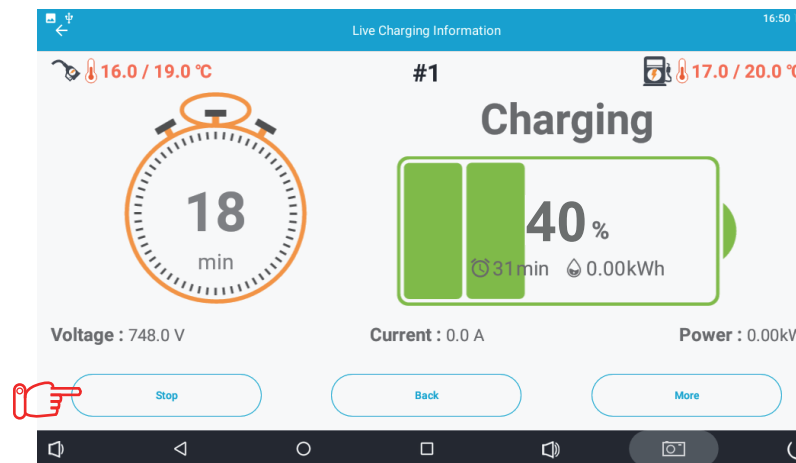
**STEP 5**

**Stop Charging**

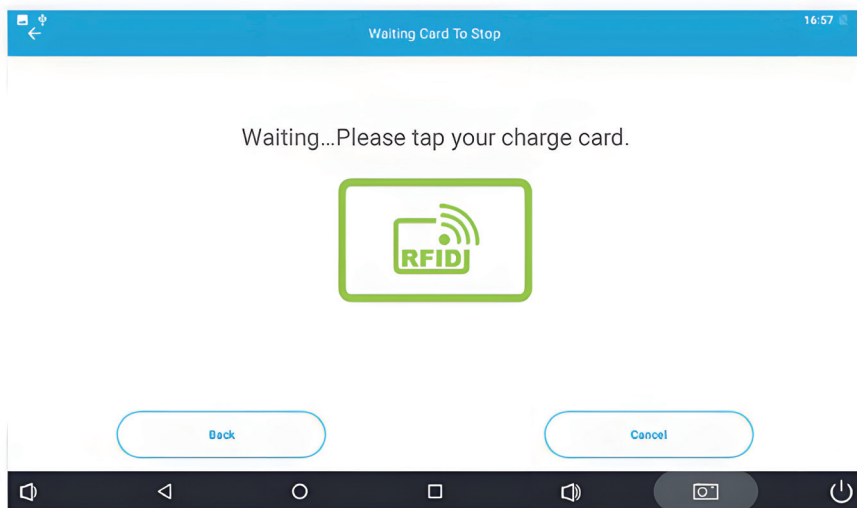
**state 1:** When the battery has been fully charged or reaches the limit of the setting it will stop charging automatically and go to the next process.



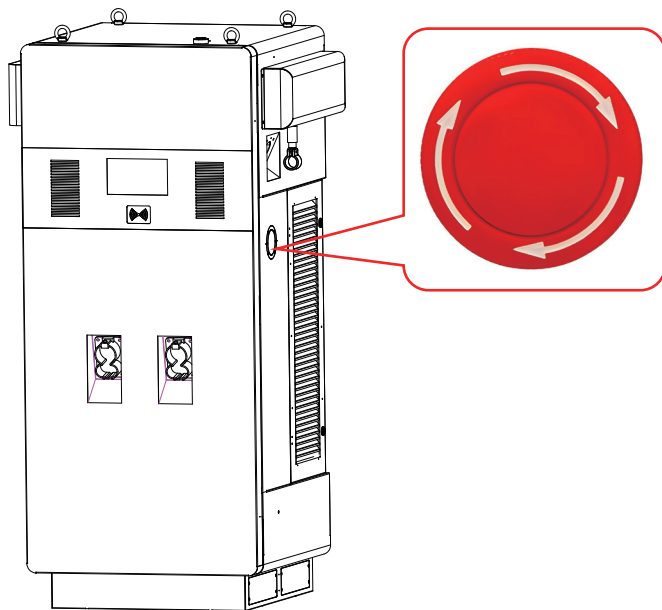
**state 2:** Tap the Stop button on the screen.



User also can tap the RFID or mobile app to stop charging.

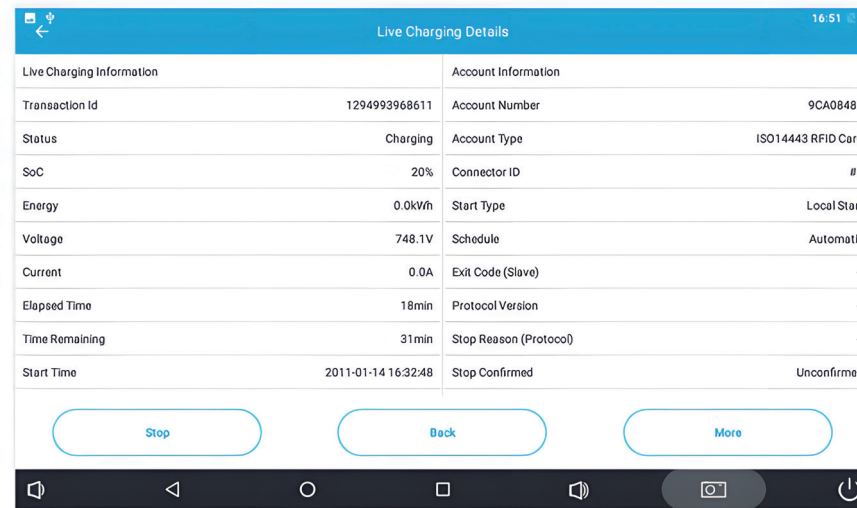


**state 3:** If an emergency occurs push the Emergency Stop Button to stop charging immediately.

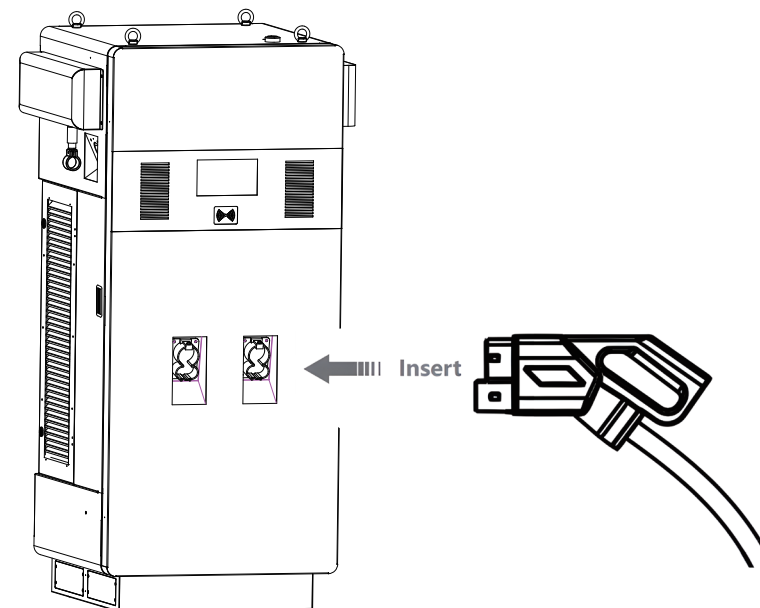


**state 4:** Finish Charging

When charging is finished, your order details will appear.



Unplug the charging connector from charging inlet of the EV and return the charging connector to charging cable holder.



## 5. Troubleshooting and Warranty

### 5.1 General Troubleshooting

NO.	Fault phenomenon	Solution
1	No display	<ul style="list-style-type: none"> <li>● Open the rear door to check the power supply wiring and contact.</li> <li>● Open the front door to check the touch screen 2-pole power connector contact.</li> <li>● Open the rear door and check the 10A fuse at the bottom of the cabinet by multimeter.</li> </ul>
2	Unable to charge	<ul style="list-style-type: none"> <li>● Check the emergency stop button. If it is pressed, release it in the direction of the arrow.</li> <li>● Check the charging connector is in a good contact to EV.</li> <li>● Open the front door and observe whether the POWER indicator of the power module is always light.</li> <li>● Open the rear door and check whether the input power of the power module is in a good contact.</li> <li>● Check the corresponding circuit breaker of power module at the bottom of the cabinet tripping or not.</li> </ul>
3	No output under charging process	<ul style="list-style-type: none"> <li>● Open the rear door and check the corresponding DC contactor failure of the charging connector by multimeter.</li> <li>● Open the rear door and check the corresponding fuse of the charging connector by multimeter.</li> </ul>
4	Insulation error	Check whether the insulation of the DC bus is in a normal status.
5	Electricity meter communication failure	Open the rear door and check whether the RS485 connector of the meter is in good contact.
6	Upriver power supply tripping frequently	<ul style="list-style-type: none"> <li>● Check whether the upriver circuit breaker is in a good condition.</li> <li>● Replace the upriver circuit breaker to a larger rated current if the rated current is too small.</li> </ul>
<p><b>Warning:</b>                      Withdraw the charging connector before electrical maintenance work!                      Be sure to cut off the circuit breaker of the charger cabinet and the upriver circuit breaker before electrical maintenance work!</p>		

### 5.2 Warranty

- The warranty period for this charger is two years.
- During the warranty period for any malfunction under normal use according to the User Manual (to be determined by certified maintenance technicians of sellers), the product shall be repaired free of charge. Except for the following situations, the charger shall be subject to the above warranty terms:
  1. The warranty certificate cannot be provided or the contents of the warranty certificate are modified or inconsistent with the label indication of the repaired product.
  2. Those who are unable to provide valid proof of purchase.
  3. Those who exceed the manufacturer's specified warranty period.
  4. Those who damage the product due to not following the product service instruction for use, maintenance and storage.
  5. Damage or malfunction caused by external object entering.
  6. Unauthorized repair, disassembly or modification.
  7. Damage caused by force (such as lightning, excessive voltage, earthquake, fire, flood, etc.).
  8. Malfunction and damage caused by other unavoidable external factors. Malfunction and damage caused by improper use of equipment, such as water or other solutions entering into the equipment.
  9. Malfunction and damage caused by the grid power supply and voltage which is not specified for use with the charger equipment.

The above guarantees shall be made solely, and no other express or implied warranties shall be made (including the implied warranties of merchant ability, particular and applicable reason- ableness and adaptability, etc.) whether in the contract, civil negligence, or other aspects, the Company shall not be responsible for any special, incidental or consequential damages.