

Instructions for Portable DC Charger

Technical document name: 30kW mobile DC charger manual

Device model: THGZQW-CCS2-1000V-120A-YD-G45-11-DC

Safety Caution

- 1) Do not put inflammable, explosive or combustible materials, chemicals, combustible steam and other dangerous articles near the charger.
- 2) Children cannot approach or use the charger during the charging process to avoid injury.
- 3) In case of rain and thunder, please charge carefully.
- 4) It is strictly forbidden to use the charger under the condition that the charging gun or the charging cable is defective, cracked, worn, broken, or the charging cable is exposed. If any, please contact the staff in time.
- 5) Please keep the charging gun head clean and dry. If there is any dirt, please wipe it with a clean, dry cloth. It is forbidden to touch the charging gun core with your hand when charged.
- 6) Do not attempt to disassemble, repair or modify the charger. Please contact the staff if there is any need for maintenance or modification. Improper operation may cause equipment damage, water leakage and electricity leakage.
- 7) In case of any abnormal situation during use, press the emergency stop button immediately to cut off all input and output power.
- 8) During the charging process, the vehicle is forbidden to run and can only be charged when it is stationary.
- 9) Please turn off the electric hybrid electric car before charging it.

I. Basic Introduction

1.1 Appearance

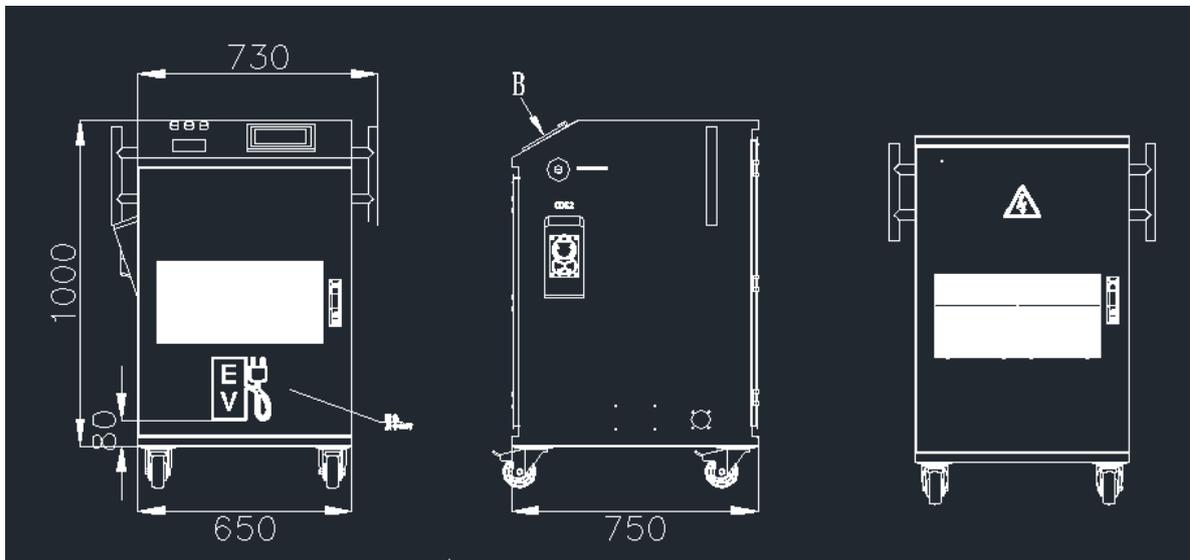


Figure 1-1-1

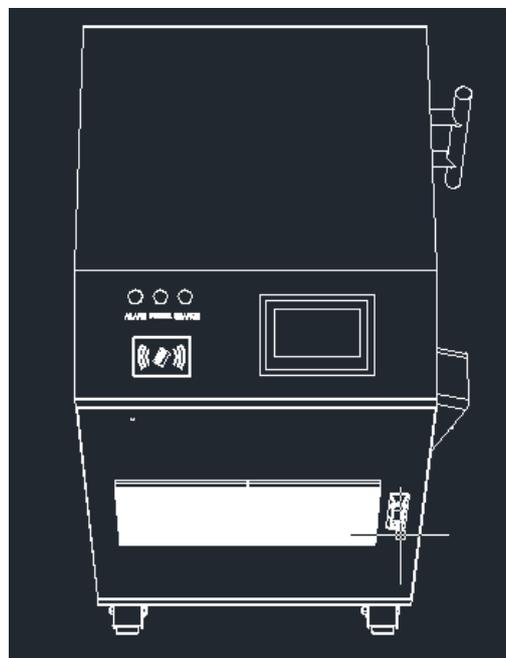


Figure 1-1-2

1.2 Appearance introduction



1.3 Normal use conditions

- The altitude does not exceed 2000m.
- The ambient air temperature during the operation of the equipment is not higher than 70°C and not lower than -30°C.
- The daily average relative humidity is not more than 95%, and the monthly average relative humidity is not more than 90%.
- There is no strong vibration and impact at the installation and use site, no strong electromagnetic interference, and the external magnetic field induction intensity must not exceed 0.5mT.
- The vertical inclination of installation does not exceed 5%.
- There should be no explosive dangerous medium in the place of use, and the surrounding medium does not contain harmful gases that corrode metals and conductive medium.
- The AC input adopts three-phase five-wire system, and the voltage asymmetry does not exceed 5%.
- The AC input voltage should be a sine wave, and the non-sinusoidal content should not exceed 5%

II Charger instructions

2.1 Operating instructions of Charger

2.1.1 System wiring

- The system is connected to a three-phase five-wire system. Connect the input line to the input terminal and the ground bar according to the system wiring diagram. Ensure that the circuit breaker at the power end and all circuit breakers in the cabinet are in the off position during wiring.
- After the input cables are connected, unpack the module, insert the module into the module enclosure, and install the upper baffle bar.

2.1.2 Power Supply

- Check whether all internal fasteners are loose during transportation, and whether electrical components are intact and loose.
- The system is properly grounded and all switches are in the off position.
- Use a multimeter to check whether the input power is AC380V.
- Turn on the power control circuit breaker and check whether the input voltage of the system is correct.
- Turn on the input switch, the system is powered on, the module is in standby state, the monitoring screen is started, and the power indicator is on.
- Set the module address, which corresponds to the label and is set to 1 and 2. (**ATTENTION: the module address must set corresponding to the yellow label “M1” and “M2”**)
- Module Setup description

Display Tube Description

a) Red, 3 bits

b) Display Content: voltage、current、address、version、fault code

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c) push button qty 2 pcs

d) Push button remark: ▲ (up) ▼ (down)

e) Press the button to switch display content and set module parameters

f) Operation Methods

1. In display page, short press ▲ or ▼, switch display pages in turn;

2. In set page, short press ▲ or ▼ to increase or decrease the set value;

3. In display page, long press ▲ or ▼ about 2.5 s to enter into set page;

4. In set page, long press ▲ or ▼ about 2.5 s to save the current settings and go back to the display

Module Status	LED status	Status Description
Normal work	green light is always on	normal charging status
Standby status	Green light flashes	To be charged
Limit power	The yellow light is always on	When the module reaches the power limit condition, the module will automatically limit power
Abnormal communication		The monitoring communication between the module and the upper computer is interrupted for 5S, and then the module automatically shuts down and reports the communication failure
Output over/under voltage		The output voltage is lower than the set undervoltage alarm value
Input abnormal shutdown		Input overvoltage, undervoltage, phase absence
Fan fault shutdown		Fan rotation resistance and failure
Over-temp shutdown		Automatic shutdown protection when the ambient temperature or the internal radiator temperature of the module exceeds the set value, and automatic recovery to the standby state after the temperature is lowered, and it is necessary to issue the power-on command again before starting to work.
Output overvoltage	red light is always on	Triggered hardware protection, locked

2.1.3 HMI configuration mode

The charger has been configured with the program at the factory, so the monitor can be used without special configuration.

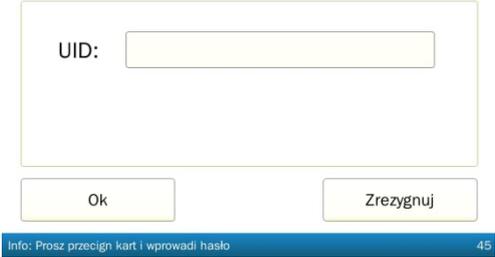
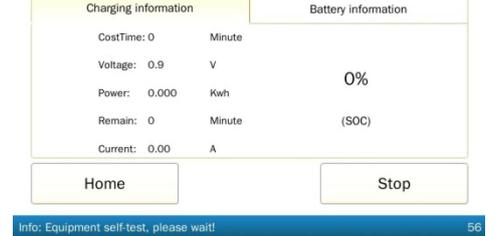
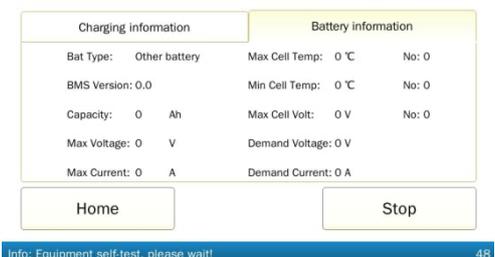
III Instructions for the charger

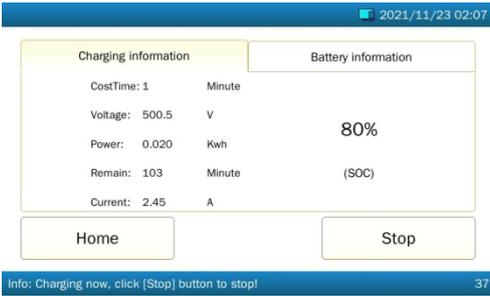
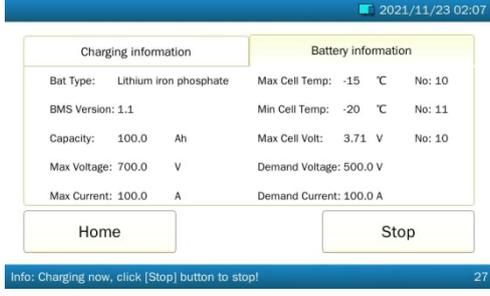
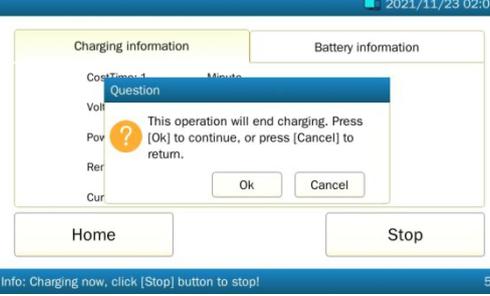
3.1 Powered on

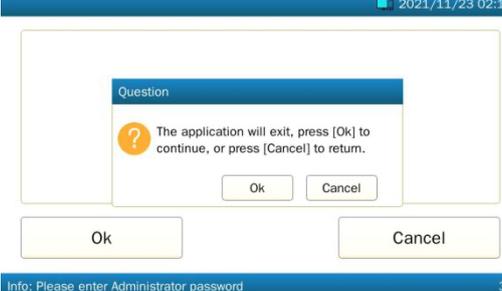
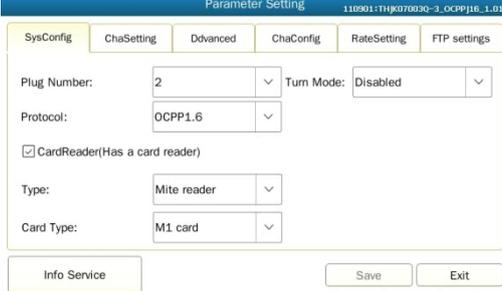
1. Confirm that the above inspection items meet the requirements;
2. After the circuit breaker of the upper distribution box is closed, open the front door of the charger, and close the charging circuit breaker JK1 and micro circuit breaker QF1.
3. Power on: it takes about 1 minute to start the self-check, and the indicator lights are displayed alternately green, yellow and red for 1 second each. The screen lights up.
4. After the power-on self-test is complete, observe the LED indicator status.
 - **Standby: The yellow indicator is steady on**
 - **Charging: The green light lights up when the gun is connected, and the green light lights up during charging**
 - **Device fault: The red light is steady on**

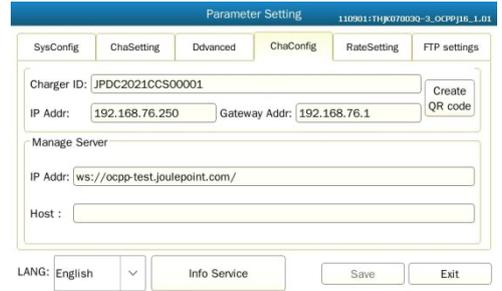
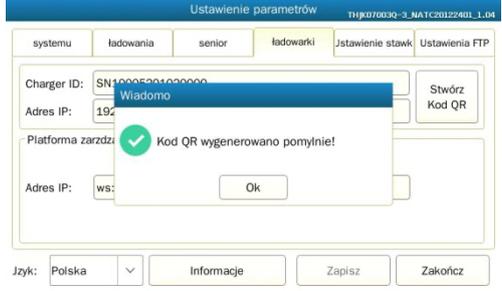
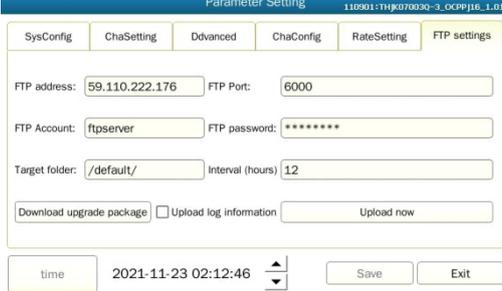
3.2 Basic operation

Steps		
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<p>1</p>		<p>Display interface in idle state of the charger (interface A and B represent two guns, display content can be set, subject to actual display)</p>
<p>2</p>		<p>Swipe card interface.</p>
<p>3</p>		<p>Card swiped interface. In this interface, you can see the card number. Click OK to enter the next step.</p>
<p>4</p>		<p>Interface of charging preparation</p>
<p>5</p>		<p>Charging information</p>

		
6		BMS information
8		The main page during charging
9		Manual stop charging
10		Charging bill

<p>11</p>		<p>Bill home page</p>
<p>12</p>		<p>Continuously tap the upper left corner of the screen to enter the Settings screen and enter the administrator password. The initial password is 84726890.</p>
<p>13</p>		
<p>14</p>		
<p>15</p>		

<p>16</p>		
<p>17</p>		
<p>18</p>		<p>Successful generation of charging QR code interface</p>
<p>19</p>		
<p>20</p>		

21		Charging information query interface
22		Charging card query interface

IV Daily maintenance method

- After use, the charging gun should be returned to its position and inserted into the gun seat in front of the cabinet to prevent rain from entering.
- A charger without a background management system requires regular site maintenance.
- After 2 months of work, the dust resistant cotton should be dismantled and cleaned, dried, and then installed and used. If the dust-proof cotton is not cleaned for a long time, it will cause difficulty in air intake, increase the load of the module, and easily damage the module.

Items	Operation (Every three months)	Operation (Every year)
Cleaning of cabinet (exterior and interior baseplates)	Clean dust and dirt	/
Connectors	Clean dust and dirt	Clean dust and dirt; Insulation and fastening
Cables	Clean dust and dirt	Clean dust and dirt ; Insulation and fastening
Air outlet filter screen	Check the dust accumulation and replace the filter screen	/

	according to the running condition of the equipment	
Structural fastener	/	Check for looseness
Device Function Check	/	Charging control functions include man-machine interface, electrical control, safety protection and etc