

ZBENY

EV Charger Monitoring Device



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For the latest version of specification, please refer to www.beny.com or contact to benyi@zjbeny.com
We reserve the right to explain the terms of specification.



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BCP-MH-01 EV Charger Monitoring Device

1. Product introduction

1.1. BCP-MH-01, EV charger monitoring device, is an independently researched and developed device. The product complies with the relevant national standards, thus possessing the top-grade quality. Meanwhile, this product is suitable for both single-phase EV chargers and three-phase ones. This product has many monitoring functions. It can simultaneously monitor multiple EV chargers and intelligently distribute current based on the usage of each EV charger. Therefore, it safely prevents overload. Meanwhile, it can also monitor the fault of the EV charger and the RS485 communication status to improve the use efficiency.

Important note: BCP-MH-01 devices only support D series and N series EV charger, please refer to the following table for specific supported models.

Product Series	Product Models
D Series	BCP-A1D-L,BCP-A2D-L,BCP-B1D-L,BCP-B2D-L
N Series	BCP-A1N-L,BCP-A2N-L,BCP-B1N-L,BCP-B2N-L,BCP-AT1N-L,BCP-AT2N-L,BCP-BT1N-L,BCP-BT2N-L

2. Technical parameter

Product Model	BCP-MH-01
Rated Working Voltage	AC230V/400V(AC85V~450V)
Communication Mode	RS485 bus
Numbers of Communication Loops	3 independent loops for simultaneous communication
The Maximum On-load EV Charger per loop	64
The Maximum Communication Distance	1000 meters
Polling Speed	4 times per second is for each channel, and 12 times per second can be achieved when three channels work simultaneously.
Display Mode	LCD screen and indicator light
Interactive Mode	Touch screen and RFID authentication
Total maximum number of standby	192

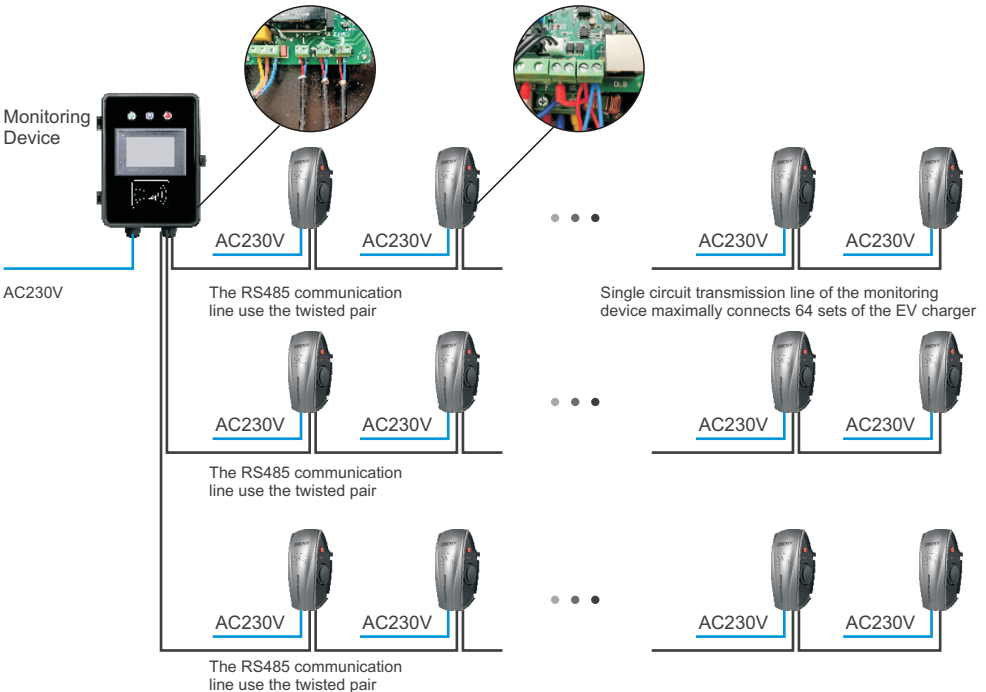
BCP-MH-01 EV Charger Monitoring Device

3. Method of Achieving the Load Balancing

- 3.1. Connect the RS485 communication line of the EV charger to the monitoring device, and register the EV charger.
- 3.2. Set the installation phase of each registered EV charger on the EV charger monitoring device.
- 3.3. The users input the maximum value supported by the 3-phase load of the EV charger into the monitoring device and save it.
- 3.4. The monitoring device will automatically adjust the charging current of each registered EV charger, thus avoiding overload of any phase within the 3-phase load.

4. Wiring Method

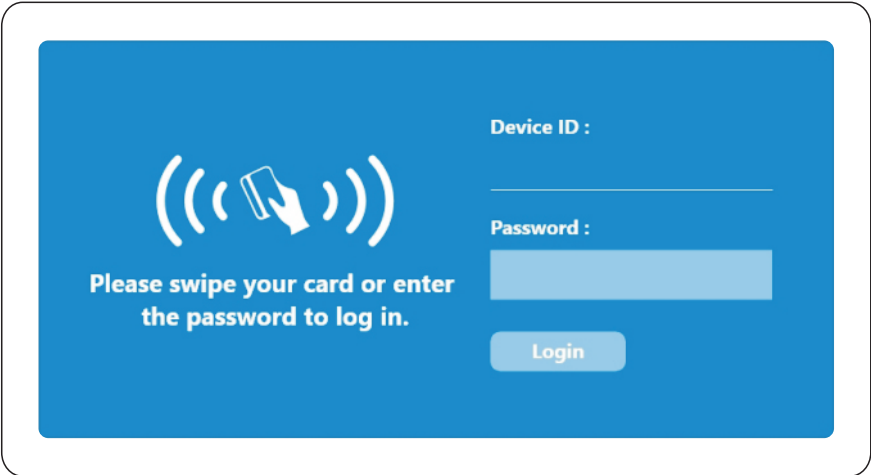
- 4.1. The RS485 communication mode adopts the hand-in-hand connection, where users should wire the cable from the bus A and B to the corresponding socket A and B.



5. Instructions

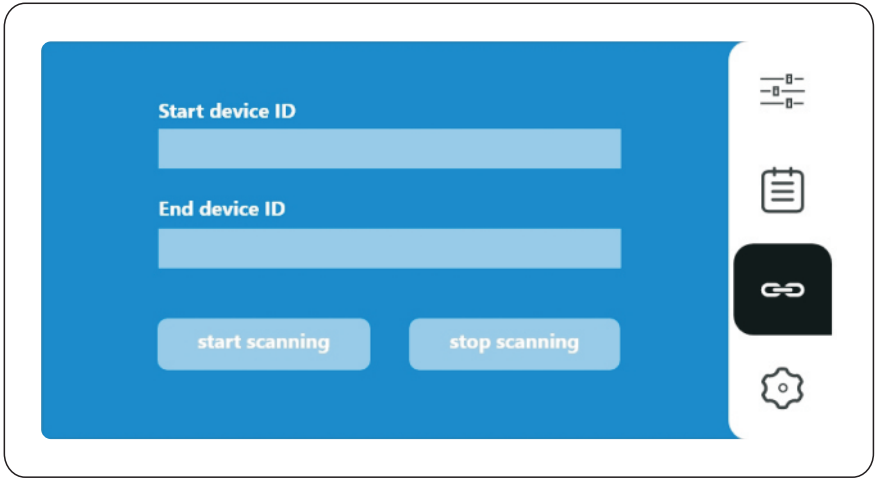
5.1. How to Unlock the Administrator Privilege

5.1.1. As shown in the picture below, if you want to operate the device, you can swipe the card or log in to the device with a password. Because the password is not set before the device out of the factory , you can directly click the "Login" button to log in to the device without entering it.



5.2 How to Register the EV Charger to the Monitoring Device

- 5.2.1. Connect the RS485 cable of the EV charger to the monitoring device, and ensure that the EV charger is in power-up state. Meanwhile, turn on the DLB function of the EV charger.
- 5.2.2. Open the registration page of the monitoring device, and enter the EV charger number (The number is recorded on the nameplate of the EV charger). Please click the scan button, therefore the monitoring device automatically retrieving and registering the EV charger.
- 5.2.3. If you want to register EV chargers in batches, please enter the start number in the start number box, and enter the end number in the end number box. The system will scan and register EV charger within this range.



5.2.4. The corresponding number and related parameters of the registered EV charger will be registered in the following list.



5.3. Set Installation Phase of EV Charger

5.3.1. Click the phase bottom in the connection list to enter the following interface. For the 1-phase EV charger, you can choose the phase that you want to connect in the option of select installation location. For the 3-phase EV charger, you needn't to choose the phase due to the default mode. This interface can also view parameters such as voltage, current, version number, etc.

EV Charger Information

Software :
Version :
Hardware :
Version :
Device ID :
Installation Location :

Status Information

Status :
Voltage :
Current :
Power :
Electricity :

Select installation location

A PhaseB PhaseC Phase

Start charging

Stop charging

Previous

Next

Delete device

5.4. Set the Maximum value of 3-Phase Current

5.4.1. In this interface, you can set the current maximum value of each phase within the three phases. After completely setting, please click "delivery configuration" bottom to save the setting.If the setting is successful, the monitoring device will beep for a time.

A Phase

C Phase

B Phase

Configure Load

Enter a new password

Reset Password

5.5. Reset the Administrator Password

5.5.1. In this interface, you can reset the password of the EV charger.
5.5.2. If the setting is successful, the monitoring device will beep for a time.

A Phase

C Phase

B Phase

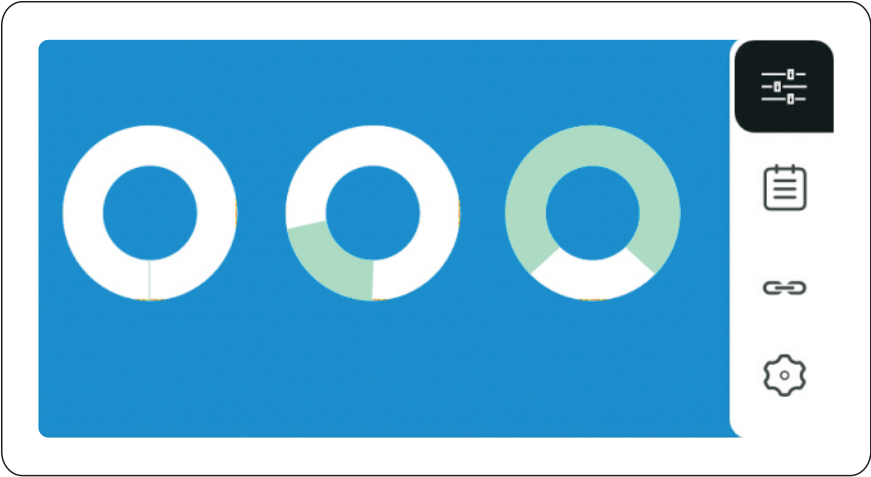
Configure Load

Enter a new password

Reset Password

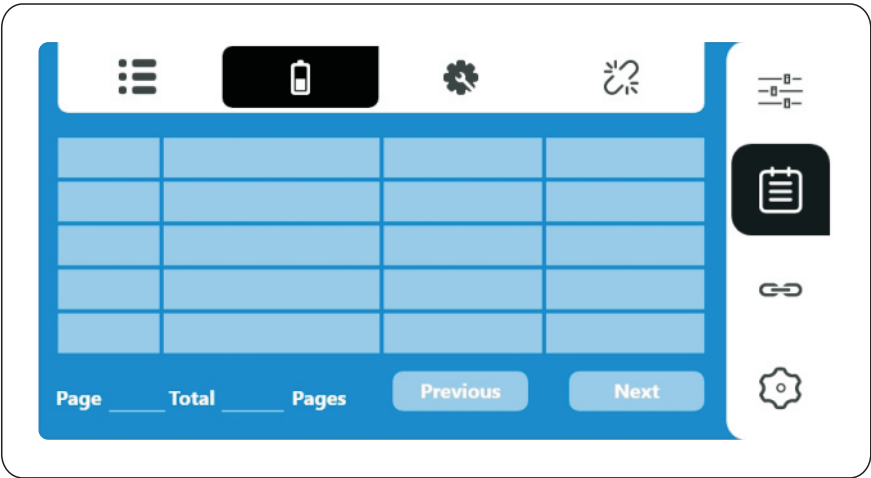
5. 6. Check the Current Condition of Load

5.6.1. In this interface, you can monitor the load condition of each phase in real time.

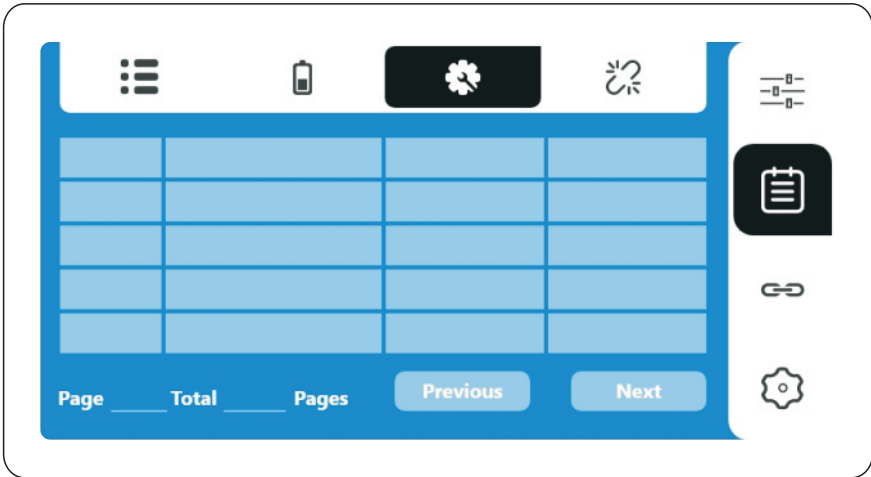


5. 7. Dynamic Monitoring of EV Charger

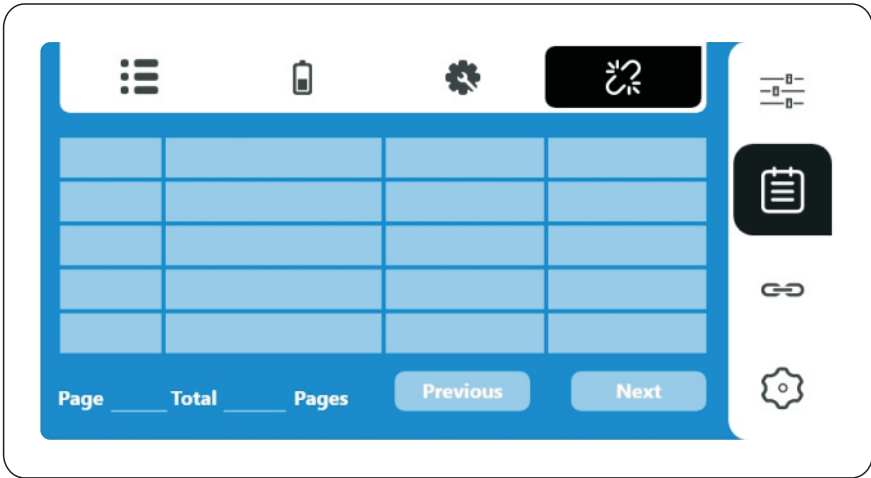
5.7.1. In this interface, you can check the charging status of each EV charger.



5.7.2. In this interface, you can check the fault status of the EV charger.



5.7.3. In this interface, you can view the EV charger's offline status of RS485 communication.



6. Installation instructions

6. 1. In the box



EV charger monitoring device

X1



Mounting plate

X1



Mounting plate fastening screws(M4)

X1



RFID card (optional)

X2



M25×1.5Water-proof cover(with nut)

X2



key

X2



8x40 flat head screws and anchorings

X4

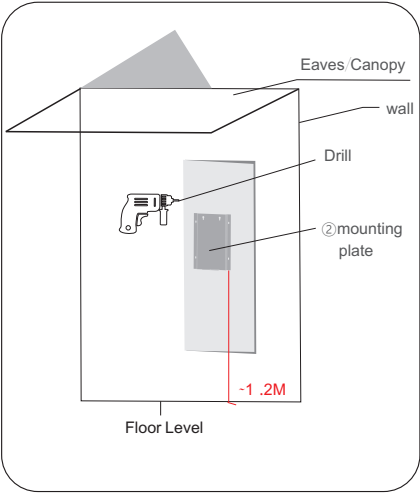


M25×1.5 cable gland (For 8mm~16mm casing)

X2

6. 2. Installation instructions

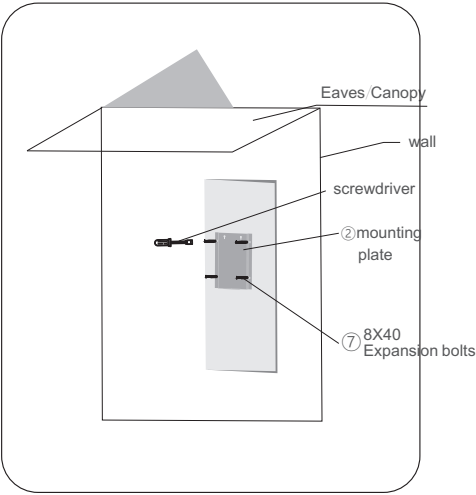
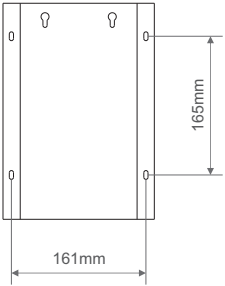
6.2.1. To ensure IP54 waterproof capability,it is recommended to install the device under eaves and canopies indoors or outdoors.



Step 1

②The holes of the mounting plate are drilled, and the drill size is 8mm.

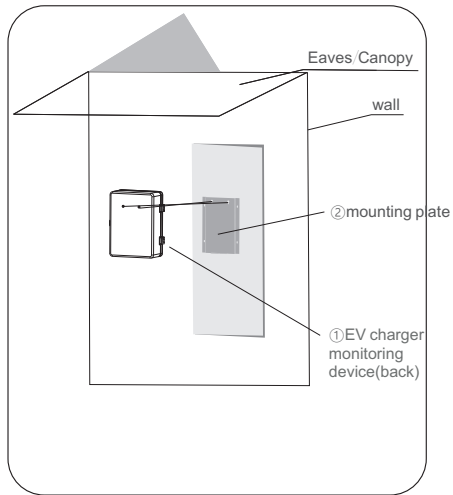
The hole spacing is as shown in the figure below.



Step 2

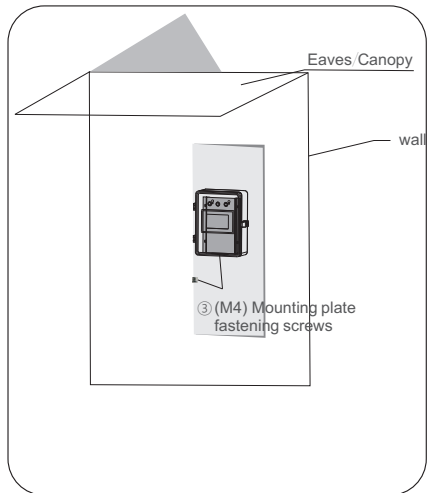
Install the Mounting bracket

Put the 8*40 Socket head screws' anchoring into the holes, and use the screw driver make the 4pcs 8*40 Socket head screws to fix the Mounting bracket on the wall .



Step 3

Install the hook of the EV charger monitoring device (back) corresponding to the hanging hole of the mounting plate



Step 4

Use ③ (M4) mounting plate fastening screws Fix the EV charger monitoring device on the mounting plate.
(Tightening torque: $0.8\text{N}\cdot\text{m} \sim 1.5\text{N}\cdot\text{m}$)