



IC – CPD (In Cable Control and Protection Device)

**EV CHARGER**



[evbgroup.pl](http://evbgroup.pl)

# User Manual

Model: EVAxxB series  
Rev. 1.0

## Important:

Read this User Manual before you start using the device!

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## SAFETY INFORMATION

Any other use will be deemed improper and may result in severe injury or damage to property. The manufacturer and dealers will not accept any liability for damage caused by improper use. What's more, the equipment warranty becomes void in such cases.








### WARNING

Failure to observe these warnings can lead to electric shock or fire, or damage the charging equipment.

- ◆ If damage occurs while charging, disconnect the charging equipment immediately from the power mains, if possible by switching off the mains fuse/circuit breaker. Do not touch any electrically live parts.
- ◆ Never operate the device near explosive vapours or gases, switching operations within the device can generate tiny electric.
- ◆ Never touch the contact surfaces of the charging equipment. Do not insert any objects into the charging equipment connector faces.
- ◆ Do not attempt to modify or repair your charging equipment in any way yourself. Never open the housing, and do not make any changes to the adapters and/or extension cables.
- ◆ Do not plug the device into power outlets through which water could ingress the device. Do not immerse the charging equipment in water.
- ◆ Never disconnect the device connectors while the device is electrically live (i. e. while charging a vehicle), As this can lead to fouling of the connector plug contacts and damage the charging electronics. Always stop the charging process first at the controls inside the vehicle.
- ◆ Protect the plug connectors and power sockets against humidity and moisture. Always keep the plugs and the vehicle end coupling dry. Unplugged connectors are not watertight. Always cover them with the protective caps when not in use.
- ◆ Do not let children play with the packaging material or the charging equipment.

## PRODUCT INFORMATION



-  UK plug (max. 13A)     NEMA 14-50
-  Schuko (max. 16A)     CEE16/32(1-phase)
-  CEE16/32(3-phase)

-  Type 1(SAEJ1772 North American Standard)
-  Type 2 (IEC62196-2 European Standard)
-  Type GB (GB/T20234 China Standard)

### Model number definition

EVA            

①            ②            ③            ④

	Classification	Symbol	Meaning of the symbol
①	Basic type	EVA	A series EV charger
②	Rated power	03	1-phase 16A
		07	1-phase 32A
		10	1-phase 40A
		11	3-phase 16A
③	Charging modes	B	Mode 2
④	Charging interface	Blank	Type2(IEC62196-2)
		U	Type1(SAE J1772)
		G	GB(GB/T20234)

### Specifications

#### Electrical Specifications

Phase Number	1-phase			3-phase
	Product Model	EVA03B	EVA07B	EVA10B
Rated Voltage	AC110V/230V			AC400V
Input Frequency	50/60Hz			
Max.output Current	16A	32A	40A	16A
Max.output Power	3.7kW	7.4kW	9.6kW	11kW
Cable Specification	3x2.5mm <sup>2</sup>	3x6mm <sup>2</sup>	9AWG	5x2.5mm <sup>2</sup>

#### Protection

Over voltage protection	Yes
Under voltage protection	Yes
Over load protection	Yes
Short circuit protection	Yes
Leakage protection	Yes
Over-temp protection	Yes
Lightning protection	Yes

#### Function and Accessory

LED indicators	30 RGB LED lights
Display Screen	1.3-inch OLED screen
RCD	Type B
Current adjustment	Yes
Delay charging adjustment	Yes
Ethernet/WIFI/4G/Bluetooth	No

#### Working environment

Protection degree	IP 67
Operation temperature	-30℃ ~60℃
Relative humidity	≤95%RH
Operating elevation limit	≤2000m
Cooling	Natural air cooling
Standby power consumption	<0.5W

#### Mechanical parameters

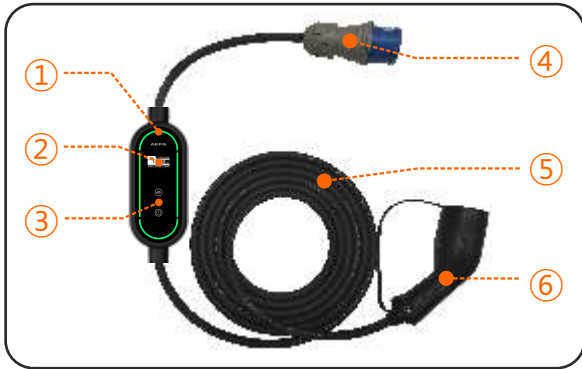
Charging cable	5m (Standard configuration)
Control box	HxWxD=200mm*90mm*52mm
Weight	≤2.9kg
Colour&Material	Black; Tempered Glass, PC

#### Standard&Certificate

Standard	IEC 62752 ; GB/T18487
Certificate	CE

# OPERATION

## Overview



- ① LED indicators
- ② OLED screen
- ③ Touch keys
- ④ Mains connector
- ⑤ Electric cable
- ⑥ Vehicle connector

## LED indicators

Status	Power On			Charging Standby	Setting Mode
Indicator Light	Light	Light	Meteor	Breathing	Light
Status	Delay Charging	Waiting Car Signal	Charging Finished	Charging Mode	Fault Mode
Indicator Light	Meteor	Breathing	Light	Meteor	Flashing

## Touch keys

Button Description	
	Setting Current
	Delay Charging

## OLED screen

**Charging Standby**

32A 00:00:00  
230V 8888.88kWh

**Charging Mode**

32A 01:12:00  
230V 32.0A 7.4kW

**Fault Mode**

32A ERR:0010  
Leakage Fault  
230V 0.0A 0.0kW

**Setting Current**

32A 00:00:00  
230V 0.0A 0.0kW

**Delay Charging**

32A 00:00:00  
230V 0.0A 0.0kW

**Charging Countdown**

32A 4:59:58  
230V 0.0A 0.0kW

## Setting Current

1. Press the button ( **before plugging the vehicle-end connector into the vehicle's charging socket** ).

The yellow LED begins to light, and the OLED screen displays the amperage, indicating that the device is ready to change the charge intensity.


2. Press the button as many times as necessary until the screen is at the desired amperage.
3. The selected setting will be saved automatically after approx.3 seconds, then the device enters charging standby. The upper left corner of the screen displays the set amperage.

## Delay charging

1. Press the  button ( **before plugging the vehicle-end connector into the vehicle's charging socket** ).




The yellow LED begins to light, and the OLED screen displays the time, indicating that the device is ready to change the delay charging time.

2. Press the  button as many times as necessary until the screen is at the desired time.
3. The selected setting will be saved automatically after approx.3 seconds, then the device enters the countdown state. Wait for the countdown to end and enter charging mode.





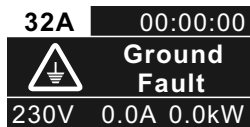
The green LED begins to circle like a meteor, and the OLED screen displays the countdown, indicating that the device has set the delay charge successfully.

## Exit delay charging

If you want to exit the delay charging, press and hold down the  button for approx.3 seconds. Then the device returns to charging standby.


## Ungrounded emergency charging

The device plug is not grounded, Press the  or  button, ignore the ground fault and enter the charging standby.



The red LED flashes all the time, and the OLED screen displays grounding fault. Indicates that the equipment plug ground is not connected.



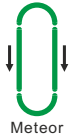
The green LED breathes, and the  icon appears above the OLED screen.

## Start charging

1. Connect the power plug of the charger to a grounded outlet, wait for the device to enter charging standby.
2. Set the charging current or delay charging. If you don't need these settings, you can skip this step.
3. Couple the vehicle-end connector of the device to the vehicle's charging socket.
4. Wait for the vehicle authorization signal, and then enter the charging mode.



Waiting Car Signal



Charging Mode

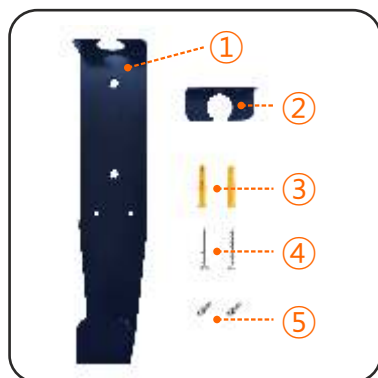


Charging finished, the green LED is always on, and the OLED screen displays the time and amount of electricity used for charging.

## Stop charging

1. Stop the charging process at the controls inside the vehicle, this releases the lock on vehicle's charging coupling.
2. First disconnect the connector coupled to the vehicle, then unplug the connector plug from the power socket or the charging station.

## INSTALLATION (optional)



- ① Wall Bracket
- ② Bottom Bracket
- ③ Expansion Plugs
- ④ Self-tapping Screws
- ⑤ Combination Screws

Material: 5mm thick aluminum plate, anodized

### Installation steps



Step1



Step2



Step3






Step 1: Put the **wall bracket** in a proper position on the wall, mark the position of the top two screw holes on the wall using a pencil.




Step 2: Put down the wall bracket and drill the holes just marked. Insert the **expansion plugs** and fix the wall bracket to the wall using **self-tapping screws**.

Step 3: First insert the device into the upper mounting hole of the wall bracket. Then into the round hole of the **bottom bracket** and fix it on the wall bracket using **combination screws**.

## FAULT HANDLING

The device is automatically protected in the event of the fault. The fault information and handling methods are as follows.

Fault information	Handling method
Both the LED and OLED screen are not on	<ul style="list-style-type: none"> <li>◆ Check whether the power supply and distribution are normal.</li> <li>◆ Check breaker is tripped, and close the breaker after troubleshooting.</li> </ul>
LED on, and OLED screen not on	<ul style="list-style-type: none"> <li>◆ OLED connection cable is loose or OLCD is damaged.</li> </ul>
Waiting car signal for a long time	<ul style="list-style-type: none"> <li>◆ Battery of car is full, the car is in the reservation delay charging mode, or the vehicle connector is not properly connected.</li> <li>◆ Disconnect and reconnect the vehicle connector.</li> </ul>
<div style="border: 1px solid black; padding: 2px;"> <p>32A 00:00:00</p> <p> <b>Ground Fault</b></p> <p>230V 0.0A 0.0kW</p> </div>	<ul style="list-style-type: none"> <li>◆ The device is not grounded, check the input power cable.</li> </ul>
<div style="border: 1px solid black; padding: 2px;"> <p>32A ERR:0002</p> <p> <b>RCD Fault</b></p> <p>230V 0.0A 0.0kW</p> </div>	<ul style="list-style-type: none"> <li>◆ The RCD is damaged and needs to be returned to the factory for repair.</li> </ul>
<div style="border: 1px solid black; padding: 2px;"> <p>32A ERR:0004</p> <p> <b>Over voltage</b></p> <p>230V 0.0A 0.0kW</p> </div>	<ul style="list-style-type: none"> <li>◆ Check whether the input cable is connected correctly.</li> <li>◆ Check whether the input voltage is abnormal.</li> </ul>
<div style="border: 1px solid black; padding: 2px;"> <p>32A ERR:0008</p> <p> <b>Under voltage</b></p> <p>230V 0.0A 0.0kW</p> </div>	<ul style="list-style-type: none"> <li>◆ Check whether the input cable is reliably connected.</li> <li>◆ Check whether the input voltage is abnormal.</li> </ul>
<div style="border: 1px solid black; padding: 2px;"> <p>32A ERR:0010</p> <p> <b>Leakage Fault</b></p> <p>230V 0.0A 0.0kW</p> </div>	<ul style="list-style-type: none"> <li>◆ Check whether the vehicle connector and its cable are damaged or wet.</li> <li>◆ Recover after pulling out the mains connector.</li> </ul>

Fault information	Handling method
<b>32A</b> ERR:0020  <b>Over Current</b> 230V 0.0A 0.0kW	<ul style="list-style-type: none"> <li>◆ Check whether the vehicle connector is correctly connected.</li> <li>◆ Check whether the on-board charger is normal.</li> </ul>
<b>32A</b> ERR:0040  <b>CP voltage Fault</b> 230V 0.0A 0.0kW	<ul style="list-style-type: none"> <li>◆ Check the vehicle connector and charging socket of EV.</li> <li>◆ Disconnect and reconnect the vehicle connector.</li> </ul>
<b>32A</b> ERR:0080  <b>Short circuit Fault</b> 230V 0.0A 0.0kW	<ul style="list-style-type: none"> <li>◆ Check whether the vehicle connector and it's cable are damaged or wet.</li> </ul>

## MAINTENANCE

- ◆ Check whether the join point of the input terminal is in good contact and whether there is any abnormality.
- ◆ If plugs get wet, allow them to dry before using them.
- ◆ Always fit the device with the protective caps when not plugged in.



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