IC-CPD (In Cable Control and Protection Device)

EV CHARGER

evbgroup.pl

User Manual

Model: EVB-LPxxB 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 ex-plosive 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 euipment.

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

EVB-LP □□ □ □
① ② ③ ④

	Classification	Symbol	Meaning of the symbol
①	Basic type	EVB-LP	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	EVB-LP03B	EVB-LP07B	EVB-LP10B	EVB-LP11B
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^2	3x6mm^2	9AWG	5x2.5mm^2

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/Bluetootht	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

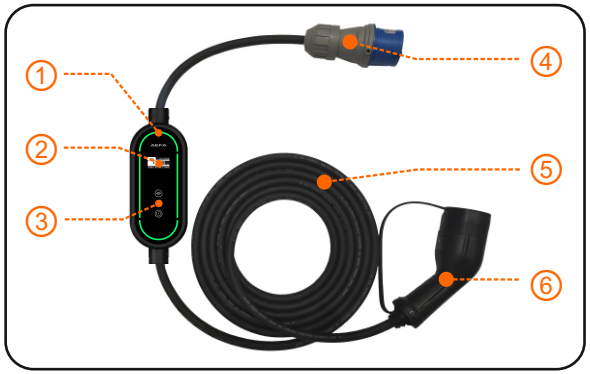
Charging cable	5m (Standard configuration)
Control box	HxWxD=200mm*90mm*52mm
Weight	⩽2.9kg
Colour&Material	Black;Tempered Glass,PC

Standard&Certificate

Standard	IEC 62752 ; GB/T18487
Certificate	CE

OPERATION

Overview



LED indicators

OLED screen

Touch keys

Mains connector

Electric cable

Vehicle connector

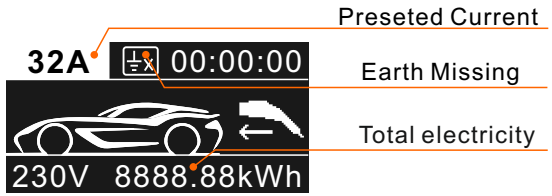
LED indicators

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

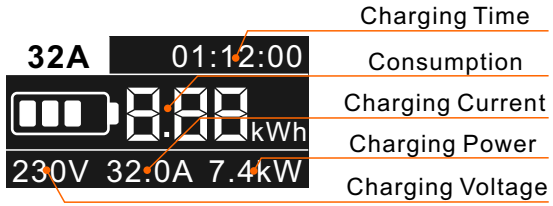
Button Description			
	Setting Current		Delay Charging

OLED screen



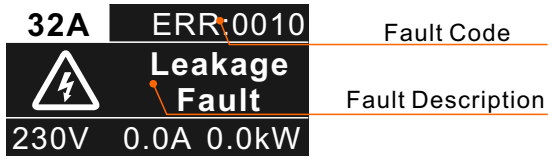
Charging Standby

Setting Current



Charging Mode

Delay Charging



Fault Mode

Charging Countdown

Setting Current

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

Light

The yellow LED begins to light, and the OLED screen displays the am perage, 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)**.

Light

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.

Meteor

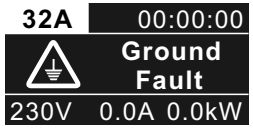
The green LED begins to circle like a meteor, and the OLED screen displays the countdown, indicating that the device has set the delay charge successfully.

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.



Flashing

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

Breathing

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.

Breathing

Waiting Car Signal

Meteor

Charging Mode

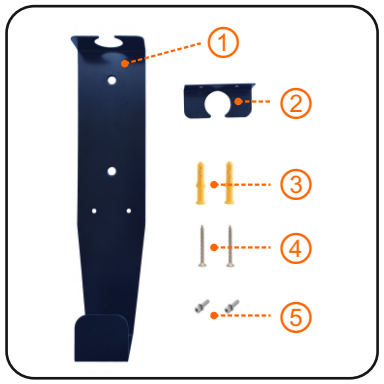
Light

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)



Wall Bracket

Bottom Bracket

Expansion Plugs

Self-tapping Screws

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.

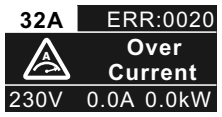
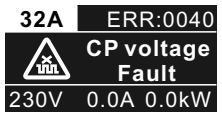
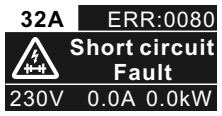
Step 2: Put down the wall bracket and drill the holes just marked. Insert the **expansion plugs** and fix the wall bracket to the wall using **self-tapping screws**.

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 handing methods are as follows.

Fault information	Handling method
Both the LED and OLED screen are not on	Check whether the power supply and distribution are normal. Check breaker is tripped, and close the breaker after troubleshooting.
LED on,and OLED screen not on	OLED connection cable is loose or OLCD is damaged.
Waiting car signal for a long time	Battery of car is full, the car is in the reservation delay charging mode, or the vehicle connector is not properly connected. Disconnect and reconnect the vehicle connector.
32A 00:00:00 Ground Fault 230V 0.0A 0.0kW	The device is not grounded, check the input power cable.
32A ERR:0002 RCD Fault 230V 0.0A 0.0kW	The RCD is damaged and needs to be returned to the factory for repair.
32A ERR:0004 Over voltage 230V 0.0A 0.0kW	Check whether the input cable is connected correctly. Check whether the input voltage is abnormal.
32A ERR:0008 Under voltage 230V 0.0A 0.0kW	Check whether the input cable is reliably connected. Check whether the input voltage is abnormal.
32A ERR:0010 Leakage Fault 230V 0.0A 0.0kW	Check whether the vehicle connector and it's cable are damaged or wet. Recover after pulling out the mains connector.

Fault information	Handling method
	Check whether the vehicle connector is correctly connected. Check whether the on-board charger is normal.
	Check the vehicle connector and charging socket of EV. Disconnect and reconnect the vehicle connector.
	Check whether the vehicle connector and it's cable are damaged or wet.

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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