EV Charger Selection Guide

1-Phase from 1.3kW to 7.4kW
3-Phase from 4.1kW to 22kW

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BCP Series EV chargers have an IP65 patented designcase for outdoor and indoor use.

The type 2 (IEC 62196-2) charging connector makes highly flexible and compatible with all electric vehicles.

Plug and start to charge automatic. (RFID card for option)

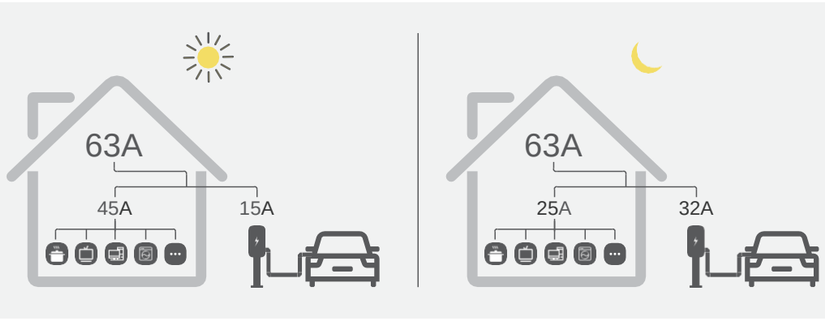
The EV charger output power can be adjusted from 6A all the way up to 32A.

Model Number

EV Charger Selection Guide

EV Charger Model

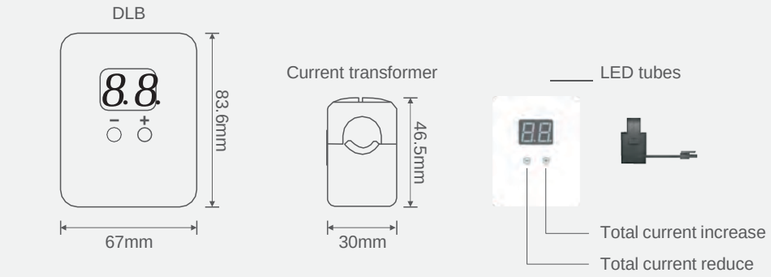
iEB	CP	-	AT	1	S	-	L	-	16
Company	Application		Categories	Classification	Classification		Reserved		Max Current
iEB: iEngineering	CP: Home Charging		A: 1-Phase Tethered B: 1-Phase Socket AT: 3-Phase Tethered BT: 3-Phase Socket	1: Autostart 2: With RFID	None: Without The Following Functions D: With DLB Function S: Smart Version N: Smart Version with DLB Function		Reserved		Blank: 32A 16: 16A



Dynamic Load Balancing

DLB (Dynamic Load Balancing) is available in the BCP series AC EV Charger for home use, when the EV charger is working with other household appliances at the same time, the DLB box can maintain the dynamic balance of the total household current and ensure the safety of electricity to avoid home over load.

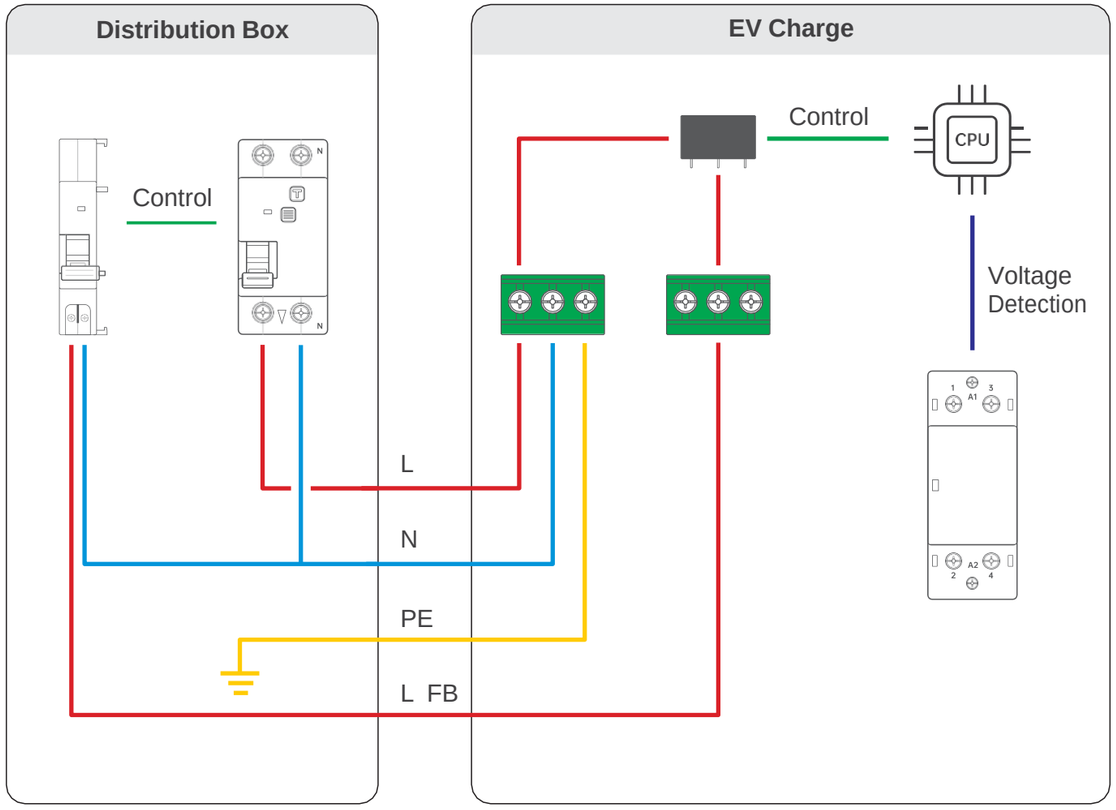
Set the Max current value of the main line on the DLB box. The charger will read this current value and automatically adjust the charging current (6A-32A) according to the idle load quota, so that the total household current will not be overloaded due to charging. This function can effectively use the power supply without providing additional power for the charging or home line update.



RFID (Radio Frequency identification Card)

RFID card reader enabled to start up charging function while approaching the swipe area.

Contactor Adhesion Protection



- Single-Phase

- Three-Phase

About contactor adhesion protection and why?

When the contactor in the charger is stuck due to current or short-circuit failure, the charger gun or the wires in the socket type charger will be live, brings the danger of electric shock to people.

The charger with contactor adhesion protection can avoid the danger.

How contactor adhesion protection works?

The main control chip of the charger keeps detecting the voltage of the contactor output.

If there is an AC voltage is detected at the output of the contactor when the charger is not in operating.

Then the charger will run the fault protection routine to alarm the lights and control the on-board relay to close.

As shown in the figure, the trip unit will drive the leakage protector to trigger and disconnect the power supply.

Functions Explain

EV Charger Selection Guide

Smart APP

- The EV charger can be controlled by smart APP via WIFI or Bluetooth connection:
- One to one binding EV charger by reset the password, prevent the EV charger being stolen.
- View charging data and status.
- Set up various charging configurations, charging currented modemed.
- Scheduled charging.
- View historical charging records.
- Setting monthly maximum charging values;
- Firmware update.

Specifications

EV Charger Selection Guide

Electrical

Charging Capacity	1.3kW – 7.4kW / 4.1kW – 22kW
Charge Mode	Mode 3 (IEC 61851-1)
Output Power	Selectable 1-phase or 3-phase, 230-400V 6A -32A, 50-60Hz
Connector Options	Fixed cable type 2 plug or type 2 Socket
Fixed Cable Length	6m (18 ft)
Cable Entry	Rear or bottom

Protection and certification

Build-in RCD	TYPE A + DC6mA leakage sensor built-in
With Cable	IP65, IK10
Socket	IP55, IK10
Housing Fire Ratings	V0
Operating Temperature	-25~+55℃
Compliance	IEC61851-1, IEC61851-21-2, IEC61000-4 CE EMC EU/2014.CE Low Voltage EU/2014/35
Certificate	RCM, CB, CE, UKCA

Connectivity

Authorization	Auto-start standard / RFID card option
Status Indication	LED ring
WLAN Communication	Wi-Fi / Bluetooth 4.2 option

Mechanical

Housing	Polycarbonate
Dimension	W169 x H380 x D151 mm
Mounting	Wall or Pole

Specifications

EV Charger Selection Guide

WIFI

Operating Frequency Range	2412 - 2484MHz
WI-FI Protocols	IEEE 802.11 b/g/n
Channels	13
TX Power	<20dbm
EIRP	0.459
TX bandwidth	20MHz/40MHz
Modulation type	OFDM & DSSS
Transmitting Duty Cycle	10%

Bluetooth BLE

Sensitivity @30.8% PER	-93 dbm
Co-channel C/I	+10db
RF Power Control Range	-12 ~ 9dbm

NFC

Modulation Type	ASK
Operating Frequency	13.56MHz
H-field strength	21.31 dBuA/m@3m distance
Antenna Type	Coil Antenna

Model Selection

EV Charger Selection Guide

1-Phase Un-smart Version

Wallbox Models	iEBCP-A1-L	iEBCP-A2-L	iEBCP-B1-L	iEBCP-B2-L
				
Categorization	Un-smart Version			
Maximum Power	7.4kW			
Input Voltage /Output voltage	AC230 1-Phase			
Input Frequency	50/60Hz			
Meter	Metering Chip			
Display	LED Lights			
RFID	✗	✓	✗	✓
DLB	✗	✗	✗	✗
Wi-Fi	✗	✗	✗	✗
APP	✗	✗	✗	✗
Bluetooth	✗	✗	✗	✗
Over Voltage &Under Voltage Protection	✓	✓	✓	✓
Emergency Stop	✓	✓	✓	✓
Over Current Protection	✓	✓	✓	✓
CP Signal Short Circuit Protection	✓	✓	✓	✓
Over Temperature Protection	✓	✓	✓	✓
Lightning Protection	✓	✓	✓	✓
Contactor Adhesion Protection	✓	✓	✓	✓
Protection Degree	IP65	IP65	IP55	IP55
Environment Temperature	-25℃~+55℃			
Maximun Altitude	< 2000m			

✓ : Standard ✗ : Without

Model Selection

EV Charger Selection Guide

1-Phase Un-smart Version

Wallbox Models	iEBCP-A1D-L	iEBCP-A2D-L	iEBCP-B1D-L	iEBCP-B2D-L
				
Categorization	Un-smart Version			
Maximum Power	7.4kW			
Input Voltage /Output voltage	AC230 1-Phase			
Input Frequency	50/60Hz			
Meter	Metering Chip			
Display	LED Lights			
RFID	✗	✓	✗	✓
DLB	○	○	○	○
Wi-Fi	✗	✗	✗	✗
APP	✗	✗	✗	✗
Bluetooth	✗	✗	✗	✗
Over Voltage &Under Voltage Protection	✓	✓	✓	✓
Emergency Stop	✓	✓	✓	✓
Over Current Protection	✓	✓	✓	✓
CP Signal Short Circuit Protection	✓	✓	✓	✓
Over Temperature Protection	✓	✓	✓	✓
Lightning Protection	✓	✓	✓	✓
Contactor Adhesion Protection	✓	✓	✓	✓
Protection Degree	IP65	IP65	IP55	IP55
Environment Temperature	-25℃~+55℃			
Maximum Altitude	< 2000m			

✓ : Standard ○ : Optional ✗ : Without

Model Selection

EV Charger Selection Guide

1-Phase Smart Version

Wallbox Models	iEBCP-A1S-L	iEBCP-A2S-L	iEBCP-B1S-L	iEBCP-B2S-L
				
Categorization	Smart Version			
Maximum Power	7.4kW			
Input Voltage /Output voltage	AC230 1-Phase			
Input Frequency	50/60Hz			
Meter	Metering Chip			
Display	LED Lights			
RFID	✗	✓	✗	✓
DLB	✗	✗	✗	✗
Wi-Fi	✓	✓	✓	✓
APP	✓	✓	✓	✓
Bluetooth	✓	✓	✓	✓
Over Voltage &Under Voltage Protection	✓	✓	✓	✓
Emergency Stop	✓	✓	✓	✓
Over Current Protection	✓	✓	✓	✓
CP Signal Short Circuit Protection	✓	✓	✓	✓
Over Temperature Protection	✓	✓	✓	✓
Lightning Protection	✓	✓	✓	✓
Contactor Adhesion Protection	✓	✓	✓	✓
Protection Degree	IP65	IP65	IP55	IP55
Environment Temperature	-25℃~+55℃			
Maximum Altitude	< 2000m			

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Model Selection

EV Charger Selection Guide

1-Phase Smart Version

Wallbox Models	iEBCP-A1N-L	iEBCP-A2N-L	iEBCP-B1N-L	iEBCP-B2N-L
				
Categorization	Smart Version			
Maximum Power	7.4kW			
Input Voltage /Output voltage	AC230 1-Phase			
Input Frequency	50/60Hz			
Meter	Metering Chip			
Display	LED Lights			
RFID	✗	✓	✗	✓
DLB	○	○	○	○
Wi-Fi	✓	✓	✓	✓
APP	✓	✓	✓	✓
Bluetooth	✓	✓	✓	✓
Over Voltage &Under Voltage Protection	✓	✓	✓	✓
Emergency Stop	✓	✓	✓	✓
Over Current Protection	✓	✓	✓	✓
CP Signal Short Circuit Protection	✓	✓	✓	✓
Over Temperature Protection	✓	✓	✓	✓
Lightning Protection	✓	✓	✓	✓
Contactor Adhesion Protection	✓	✓	✓	✓
Protection Degree	IP65	IP65	IP55	IP55
Environment Temperature	-25℃~+55℃			
Maximun Altitude	< 2000m			

✓ : Standard ○ : Optional ✗ : Without

Model Selection

EV Charger Selection Guide

3-Phase Smart Version

Wallbox Models	iEBCP-AT1S-L	iEBCP-AT2S-L	iEBCP-BT1S-L	iEBCP-BT2S-L
				
Categorization	Smart Version			
Maximum Power	22kW			
Input Voltage /Output voltage	AC400 3-Phase			
Input Frequency	50/60Hz			
Meter	Metering Chip			
Display	LED Lights			
RFID	✗	✓	✗	✓
DLB	✗	✗	✗	✗
Wi-Fi	✓	✓	✓	✓
APP	✓	✓	✓	✓
Bluetooth	✓	✓	✓	✓
Over Voltage &Under Voltage Protection	✓	✓	✓	✓
Emergency Stop	✓	✓	✓	✓
Over Current Protection	✓	✓	✓	✓
CP Signal Short Circuit Protection	✓	✓	✓	✓
Over Temperature Protection	✓	✓	✓	✓
Lightning Protection	✓	✓	✓	✓
Contactor Adhesion Protection	✓	✓	✓	✓
Protection Degree	IP65	IP65	IP55	IP55
Environment Temperature	-25℃~+55℃			
Maximun Altitude	< 2000m			

✓ : Standard ✗ : Without

Model Selection

EV Charger Selection Guide

3-Phase Smart Version

Wallbox Models	iEBCP-AT1N-L	iEBCP-AT2N-L	iEBCP-BT1N-L	iEBCP-BT2N-L
				
Categorization	Smart Version			
Maximum Power	22kW			
Input Voltage /Output voltage	AC400 3-Phase			
Input Frequency	50/60Hz			
Meter	Metering Chip			
Display	LED Lights			
RFID	✗	✓	✗	✓
DLB	○	○	○	○
Wi-Fi	✓	✓	✓	✓
APP	✓	✓	✓	✓
Bluetooth	✓	✓	✓	✓
Over Voltage &Under Voltage Protection	✓	✓	✓	✓
Emergency Stop	✓	✓	✓	✓
Over Current Protection	✓	✓	✓	✓
CP Signal Short Circuit Protection	✓	✓	✓	✓
Over Temperature Protection	✓	✓	✓	✓
Lightning Protection	✓	✓	✓	✓
Contactor Adhesion Protection	✓	✓	✓	✓
Protection Degree	IP65	IP65	IP55	IP55
Environment Temperature	-25℃~+55℃			
Maximun Altitude	< 2000m			

✓ : Standard ○ : Optional ✗ : Without

OCPP EV Charger

BCP Series EV chargers have an IP65 patented designcase for outdoor and indoor use.

The type 2 (IEC 62196-2) charging connector makes highly flexible and compatible with all electric vehicles.

Plug and start to charge automatic.(RFID card for option)

The EV charger output power can be adjusted from 6A all the way up to 32A.

Charging protocol
OCPP1.6-J

Model Selection

EV Charger Selection Guide

Wallbox Models	iEBCP-A2N-L	iEBCP-B2N-L	iEBCP-AT2N-L	iEBCP-BT2N-L	iEBCP-DT2S-L
					
Maximum Power	7.4kW		22kW		2x22kW
Input Voltage /Output voltage	AC230 1-Phase		AC400 3-Phase		AC400 3-Phase
Input frequency	50/60Hz				50/60Hz
Tethered/Socket	Tethered	Socket	Tethered	Socket	2xSocket
Meter	Metering Chip				MID Meter
Display	LED Lights				LCD Screen+LED Lights
RFID	✓	✓	✓	✓	✓
DLB	○	○	○	○	✗
Wi-Fi	✓	✓	✓	✓	✓
Ethernet	✗	✗	✗	✗	○
4G	✗	✗	✗	✗	○
Over Voltage & Under Voltage Protection	✓	✓	✓	✓	✓
Emergency Stop	✓	✓	✓	✓	✓
Over Current Protection	✓	✓	✓	✓	✓
CP Signal Short Circuit protection	✓	✓	✓	✓	✓
Over Temperature Protection	✓	✓	✓	✓	✓
Lightning Protection	✓	✓	✓	✓	✓
Contactor Adhesion Protection	✓	✓	✓	✓	✓
Protection degree	IP65	IP55	IP65	IP55	IP55
Environment temperature	-25℃ ~ +55℃				
Maximum altitude	<2000m				