# **ECOFRONTS** SMART EV CHARGING SOLUTIONS PRODUCT GUIDE 3.0

ZHEJIANG POPU ELECTRIC CO., LTD www.popu-elec.com



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## Factory Profile

#### **About Us**

Rooted in Yuqing, Wenzhou, Zhejiang Province in China, Zhejiang Popu Electric Co., Ltd is at the forefront of the smart EV charger manufacturing. Since early 2015, we started heavy investment in the R&D of the EV charging solutions. Thanks to our dedicated efforts and unraveling commitment to bring safer, more reliable and robust products to the market, we have successfully developed series of high quality EV charging solutions for our customers, such as wall boxes, portables, charging cables and adapters etc. Our dedication in research and development and implementation of LEAN Six Sigma in the manufacturing process have made our products outstanding and fueled our fast business growth. Our EV charging solutions have been sold to more than 30 countries across the world.

#### Our Mission

Our mission is to bring fast, convenient, and affordable EV charging solutions to customers across the globe.

We believe our customers always deserve better, whether it's product offerings, costs, delivery lead time or the swift response from our account team. We are committed to constantly innovating in the smart EV charging technology and meanwhile to driving the efficiency of our operations and supply chain to new levels. And we strive to provide the very best customer services along with the expertise that we have gained from our manufacturing and operations in the smart EV charger industry for over 10 years.



#### **Our Advantages**

- Dedication in product innovation
- Lean six-sigma implementation in manufacturing
- Superior customer services
- Best possible affordability

We are the experts in the OEM/ODM services of smart EV charging solutions. Drop us a line and we will be happy to help you find a solution.

#### **Contact Us**

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## **Factory Tour**

#### Product Testing Center



Sub-assembly workshop



#### | Final Assembly Workshop









#### Product Certificates

All of our products are tested and in compliance with relevant standards (CE, CB, UKCA, TUV, RoHS, REACH, where applicable).





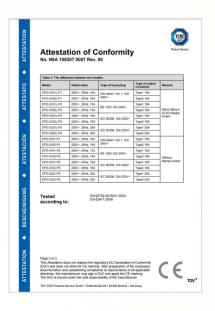




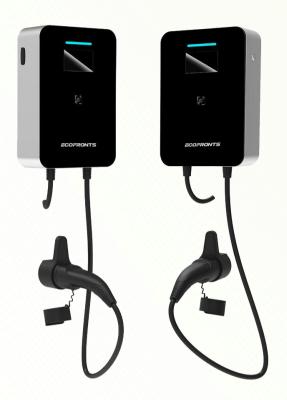












## Ecofronts Wallbox PM Series (metal enclosure)

- Robust design for outdoor use
- Sleek, appealing appearance
- Easy to use interface
- Aluminum enclosure, built to last
- Excellent waterproof performance
- Safe and durable

Wallbox Model	PM 132EN	PM 316EN	PM 332EN
Rated Power	7 kW	11 kW	22 kW
Rated Current	1P 32 A	3P 16 A	3P 32 A
Working Voltage	AC 230V	AC 400V	AC 400V
Electric Protection	Earth leakage, short circuit, overload, over voltage, undervoltage, lightning, over temperature	Earth leakage, short circuit, overload, over voltage, undervoltage, lightning, over temperature	Earth leakage, short circuit, overload, over voltage, undervoltage, lightning, over temperature
Operating Temperature	-30 °C to +50 °C	-30 °C to +50 °C	-30 °C to +50 °C
Operating Humidity	5 ~ 95%	5 ~ 95%	5 ~ 95%
Protection Degree	IP65	IP65	IP65
Cable Length	5 M	5 M	5 M
Dimensions	H 355mm x W 250mm x D 93mm	H 355mm x W 250mm x D 93mm	H 355mm x W 250mm x D 93mm
Unit Weight	8.95 Kg	9.95 Kg	9.95 Kg
Enclosure	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Installation	Wall or pedestal	Wall or pedestal	Wall or pedestal
Optional features	Blue tooth, Wi-Fi, Ethernet, 4G, OCPP1.6	Blue tooth, Wi-Fi, Ethernet, 4G, OCPP1.6	Blue tooth, Wi-Fi, Ethernet, 4G, OCPP1.6
In Compliance with	EN IEC 61851-1:2019, EN IEC 61851-21-2:2021 EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019 EN IEC 61000-3-2:2019 + A1:2021 EN 61000-3-3:2013 + A1: 2019 +A2:2021		
Certificates	CE		



## Ecofronts Wallbox PM Series (Plastic Enclosure)

- Simple and practical appearance
- User-friendly design
- Easy to install
- Safe and durable
- Better affordability

Wallbox Model	PM 3-7KWP	PM 3-7KWS	
Rated Power	7 kW	7 kW	
Rated Current	1P 32 A	1P 32 A	
Working Voltage	AC 230V	AC 230V	
Electric Protection	Earth leakage, short circuit, overload, over voltage, undervoltage, lightning, over temperature	Earth leakage, short circuit, overload, over voltage, undervoltage, lightning, over temperature	
Operating Temperature	-20 °C to +50 °C	-20 °C to +50 °C	
Operating Humidity	5 ~ 95%	5 ~ 95%	
Noise control	≦ 60dB	≦60dB	
Protection Degree	IP54	IP54	
Display	4.3 inch LED	N/A	
Communication Protocals	Ethernet, 4G	N/A	
Charging method	Swipe card or scan code	Plug in or swipe card to charge	
Payment method	Credit card, scan code	N/A	
Cable Length	5 M	5 M	
Dimensions	H 390mm x W 260mm x D 125mm	H 390mm x W 260mm x D 125mm	
Unit Weight	5.55 Kg	5.55 Kg	
Enclosure	Plastic	Plastic	
Installation	Wall or pedestal	Wall or pedestal	
Optional features	Blue tooth, Wi-Fi	Blue tooth, Wi-Fi	
In Compliance with	EN IEC 61851-1:2019, EN IEC 61851-21-2:2021 EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019 EN IEC 61000-3-2:2019 + A1:2021 EN 61000-3-3:2013 + A1: 2019 +A2:2021		
Certificates		CE	



## Ecofronts Wallbox PN Series

- Trendy industrial design
- Operate with ease and peace of mind
- Suitable for indoor and outdoor installation
- Secure and reliable

Wallbox Model	PN-232-TC2	PN-416-TC2	PN-432-TC2
Rated Power	7.2 kW	11 kW	22 kW
Rated Current	1P 32 A	3P 16 A	3P 32 A
Working Voltage	AC 230V	AC 400V	AC 400V
Electric Protection	Earth leakage, short circuit, overload, over voltage, undervoltage	Earth leakage, short circuit, overload, over voltage, undervoltage	Earth leakage, short circuit, overload, over voltage, undervoltage
Communication Protocals	Wi-Fi via TUYA APP, Ethernet	Wi-Fi via TUYA APP, Ethernet	Wi-Fi via TUYA APP, Ethernet
Operating Temperature	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C
Operating Humidity	5 ~ 95%	5 ~ 95%	5 ~ 95%
Protection Degree	IP55, IK08	IP55, IK08	IP55, IK08
Cable Length	5 M	5 M	5 M
Dimensions	H 440mm x W 290mm x D 134mm	H 440mm x W 290mm x D 134mm	H 440mm x W 290mm x D 134mm
Unit Weight	5.10 Kg	5.14 Kg	6.44 Kg
Enclosure	Plastic	Plastic	Plastic
Installation	Wall mounting	Wall mounting	Wall mounting
Optional features	DLB, RFID Reader, OCPP 1.6, LCD screen	DLB, RFID Reader, OCPP 1.6, LCD screen	DLB, RFID Reader, OCPP 1.6, LCD screen
In Compliance with		EN IEC 61851-1:2019 EN IEC 61008-1:2010 EN IEC 62955:2018 EN 62196-2:2017	
Certificates		CE, CB, RoHS	



#### **Ecofronts Wallbox** PN Series (socket version)

- Trendy industrial design
- Operate with ease and peace of mind
- Suitable for indoor and outdoor installation
- Secure and reliable

Wallbox Model	PN-2322-FC	PN-4162-FC	PN-4322-FC
Rated Power	7.2 kW	11 kW	22 kW
Rated Current	1P 32 A	3P 16 A	3P 32 A
Working Voltage	AC 230V	AC 400V	AC 400V
Electric Protection	Earth leakage, short circuit, overload, over voltage, undervoltage	Earth leakage, short circuit, overload, over voltage, undervoltage	Earth leakage, short circuit, overload, over voltage, undervoltage
<b>Communication Protocals</b>	Wi-Fi via TUYA APP, Ethernet	Wi-Fi via TUYA APP, Ethernet	Wi-Fi via TUYA APP, Ethernet
Operating Temperature	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C
Operating Humidity	5 ~ 95%	5 ~ 95%	5 ~ 95%
Protection Degree	IP55, IK08	IP55, IK08	IP55, IK08
Dimensions	H 440mm x W 290mm x D 134mm	H 440mm x W 290mm x D 134mm	H 440mm x W 290mm x D 134mm
Unit Weight	3.70 Kg	3.80 Kg	3.92 Kg
Enclosure	Plastic	Plastic	Plastic
Installation	Wall mounting	Wall mounting	Wall mounting
Optional features	DLB, RFID Reader, OCPP 1.6, LCD screen	DLB, RFID Reader, OCPP 1.6, LCD screen	DLB, RFID Reader, OCPP 1.6, LCD screen
In Compliance with		EN IEC 61851-1:2019 EN IEC 61008-1:2010 EN IEC 62955:2018 EN 62196-2:2017	
Certificates		CE, CB, RoHS	

#### **ECOFRONTS** Portable

#### **Ecofronts Portable** PM Series

- Compact, streamlined design
- Simple and practical appearance
- Excellent waterproof performance
- Easy to connect
- Safe and durable



Portable Model	PM-116ENF	PM-116ENF-P	PM-132ENF	PM-132ENF-P
Rated Power	3.5 kW	3.5 kW	7.0kW	7.0kW
Rated Current	1P 16 A	1P 16 A	1P 32 A	1P 32 A
Working Voltage	AC 230V	AC 230V	AC 230V	AC 230V
Earth Leakage Protection	30mA type A RCD + 6mA DC	30mA type A RCD + 6mA DC	30mA type A RCD + 6mA DC	30mA type A RCD + 6mA DC
LED Display	no LED	2.8 inch LED	no LED	2.8 inch LED
LED Indicator Light	Yes	Yes	Yes	Yes
Intelligent Power Adjustment	Yes	Yes	Yes	Yes
Operating Temperature	-25 °C to +50 °C	-25 °C to +50 °C	-25 °C to +50 °C	-25 °C to +50 °C
Operating Humidity	5 ~ 95%	5 ~ 95%	5 ~ 95%	5 ~ 95%
Protection Degree	IP65	IP65	IP65	IP65
Cable Length	5 M	5 M	5 M	5 M
Dimensions	H 200mm x W 90mm x D 55mm	H 200mm x W 90mm x D 55mm	H 230mm x W 110mm x D 60mm	H 230mm x W 110mm x D 60mm
Unit Weight	2.45 Kg	2.45 Kg	3.5 Kg	3.5 Kg
Input Plug Type	All types	All types	All types	All types
In Compliance with		EN IEC 61000-6-2:201 EN IEC 61000-3	EN IEC 61851-21-2:2021 9, EN IEC 61000-6-4:2019 -2:2019 + A1:2021 3 + A1: 2019 +A2:2021	
Certificates			CE	

#### **ECOFRONTS** Portable

#### **Ecofronts Portable** PN Series

- Compact, streamlined design
- Simple and practical appearance
- Excellent waterproof performance
- Easy to connect
- Safe and durable



Portable Model	PN-2162L	PN-2322L	
Rated Power	3.6 kW	7.2 kW	
Rated Current	8A $^{\sim}$ 16 A, adjustable	8A ~ 30 A, adjustable	
Earth Leakage Protection	30mA type A RCD + 6mA DC	30mA type A RCD + 6mA DC	
Display	0.96 inch OLED	0.96 inch OLED	
Operating Temperature	-25 °C to +45 °C	-25 °C to +45 °C	
Operating Humidity	5 ~ 95%	5 ~ 95%	
Protection Degree	IP55, IK08	IP55, IK08	
Calble Length	5 M	5 M	
Dimensions	H 200mm x W 100mm x D 55 mm	H 200mm x W 100mm x D 55 mm	
Unit Weight	2.72 Kg	3.66 Kg	
Input Plug Type	All types	All types	
	EN/IEC 627	52:2016 / A1: 2020	
In Compliance with	EN/IEC 62955: 2018		
m compliance with	EN/IEC 62196-1:2014		
	EN/IEC 62196-2:2016		
Certificates	CE, CB	, Rohs, REACH	

#### **ECOFRONTS** Charging Cables

Having a backup cable during your travel ensures greater convenience and better mobility. Our Ecofronts charging cables are fully tested and certified to meet your requirements.



Charging Cable Model	EVC-M2F2-116	EVC-M2F2-132	EVC-M2F2-316	EVC-M2F2-332
Charging Power Accepted	3.7 kW	7.2 kW	11 kW	22 kW
Max AC Current	16 A	32 A	16 A	32 A
No. of Phases	1P+N+E	1P+N+E	3P+N+E	3P+N+E
Wire	3*2.5mm² + 2*0.5mm²	3*6mm² + 2*0.5mm²	5*2.5mm² + 2*0.5mm²	5*6mm² + 2*0.5mm²
Operating Temperature	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C	-25 °C to +45 °C
Operating Humidity	5 ~ 95%	5 ~ 95%	5 ~ 95%	5 ~ 95%
Protection Degree	IP54	IP54	IP54	IP54
Cable Type	Straight / Spiral	Straight / Spiral	Straight / Spiral	Straight / Spiral
Color	Grey / Green	Grey / Green	Grey / Green	Grey / Green
Length	5.0M / 7.5M	5.0M / 7.5M	5.0M / 7.5M	5.0M / 7.5M
Unit Weight	2.77 Kg	2.90 Kg	2.72 Kg	3.74 Kg
Enclosure		PC+PBT for the plug,	BASF TPU for the cable	
		EN/IEC 61	.851-2:2019	
In Compliance with	EN/IEC 61008-1:2010			
copiidilee Willi		•	2955:2018	
		•	196-2:2017	
Certificates		CE, CB, R	ohs, UKCA	

#### **Adapters**

Our charging adapters ensure the efficient connections between your vehicle and the charging stations.

Adapter Type	TYPE2-TESLA	TYPE2-J1772	CCS2-TESLA
Image			
Color	Black	Black	Black
Connector	Type 2 (AC)	Type 2 (AC)	CCS2 Type 2 (AC+DC)
Rated Power	Up to 8 KW	Up to 7 KW	Up to 200 KW
Current	Up to 32 A	Up to 32 A	Up to 200 A
Operating Voltage	110 V ~ 250 V AC	250 V AC	300 V ~ 1000 V DC
Insulation Resistance	>1000 mΩ	>1000 mΩ	>1000 mΩ
Contact Resistance	<0.5 mΩ	<0.5 mΩ	<0.5 mΩ
Flame Retardant Grade	UL 94-V0	UL 94-V0	UL 94-V0
Operating Temperature	-35°C ~ +50°C	-35°C ~ +50°C	-35°C ~ +50°C
Storage Temperature	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C
Protection Class	IP54	IP54	IP54
Temperature Rise Protection Feature	Dual temperature kill switch stops charging when adapter reaches 90°C	Dual temperature kill switch stops charging when adapter reaches 90°C	Dual temperature kill switch stops charging when adapter reaches 90°C
Pin Material	Silver plated copper alloy	Silver plated copper alloy	Silver plated copper alloy
Housing Material	Plastic (PC+ABS)	Plastic (PC+ABS)	Plastic (PC+ABS)
Service Life	>10000 times	>10000 times	>10000 times
Certificate	CE	CE	CE

#### **Adapters**

Adapter Type	CCS2-TYPE2	CCS2-CCS1
Image		
Color	Black	Black
Connector	CCS2 (DC)	CCS1 (DC)
Rated Power	Up to 86 KW	Up to 200 KW
Current	Up to 210 A	Up to 200 A
Operating Voltage	410 V DC	1000 V DC
Insulation Resistance	>1000 mΩ	>1000 mΩ
Contact Resistance	<0.5 mΩ	<0.5 mΩ
Flame Retardant Grade	UL 94-V0	UL 94-V0
Operating Temperature	-35°C ~ +50°C	-35°C ~ +50°C
Storage Temperature	-40°C ~ +85°C	-40°C ~ +85°C
Protection Class	IP54	IP54
Temperature Rise Protection Feature	Dual temperature kill switch stops charging when adapter reaches 90°C	Dual temperature kill switch stops charging when adapter reaches 90°C
Pin Material	Silver plated copper alloy	Silver plated copper alloy
Housing Material	Plastic (PC+ABS)	Plastic
Service Life	>10000 times	>10000 times
Certificate	CE	CE, FCC



We are the experts in the OEM/ODM services of smart EV charging solutions. Drop us a line and we will be happy to help you find a solution.

#### **Contact Us**

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