

USER MANUAL

V1.1

EcoFlow

Smart

Meter



Support

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ENGLISH

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Please read the product documentation thoroughly and ensure you understand it before using the product. Improper use may cause serious injury, product damage, or property loss. Always refer to the most up-to-date documentation available at <https://www.ecoflow.com/support/download/>. This documentation takes precedence over all other versions. By using this product, you acknowledge and agree to all terms and conditions stated in the documentation. EcoFlow is not liable for losses caused by improper use or failure to adhere to the provided instructions. Subject to applicable laws and regulations, EcoFlow reserves the right to the final interpretation of this document and all documents related to the product.

Safety Instructions

▲ CAUTION!

- Danger of electrocution. Mounting/installation of the device to the power grid has to be performed with caution by a qualified electrician.
- Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage present at device terminals.
- Use the device only with a power grid and appliances which comply with all applicable regulations. A short circuit in the power grid or any appliance connected to the device may damage it.
- Do not connect the device to appliances exceeding the given max load!
- Connect the device only in the way shown in these instructions. Any other method could cause damage and/or injury.
- Do not install the device where it can get wet.
- Plug in or unplug the LAN cable only when the device is powered off! The LAN cable must not be metallic in the parts touched by the user to plug it in or unplug it.
- Do not allow children to play with the buttons/switch connected to the device. Keep the devices for remote control of EcoFlow products away from children.
- Only current transformers (CTs) compliant with local regulations and standards should be used with this device.
- Before operating the current transformer (CT), ensure that the power supply is completely disconnected and the circuit is de-energized.
- RECOMMENDATION: Connect the device using solid single-core cables with increased insulation heat resistance not less than PVCT105°C (221°F).
- The protection provided by the device may be impaired when the device is not used in accordance with the manufacturer's instructions.
-  Indoor Use Only

Safety Symbols



CAUTION

Disconnect the device from all voltage sources before servicing.



CAUTION! RISK OF ELECTRIC SHOCK

Do not remove the cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.



READING MANUAL

Read the user manual and all safety instructions carefully before installation, operation, and maintenance.



DOUBLE INSULATION

Equipment protected throughout by double insulation or reinforced insulation



WEEE DIRECTIVE

Do not dispose of the device as household waste. Follow local electronic waste disposal regulations.



CE Marking

The device complies with the essential requirements of the relevant EU legislation.

Maintenance

- Periodically inspect and clean the device. As part of routine maintenance, regularly check the device status via the EcoFlow app or inspect the Power Status LED Indicator to ensure it is functioning normally. If the device is faulty, refer to the in-app instructions for troubleshooting or contact EcoFlow technical support.
- Clean the device surfaces with a dry cloth and keep them free from dust.

Disposal

- If the device cannot work anymore, dispose of it in accordance with the local disposal requirements for electrical equipment waste. The device cannot be disposed of together with household waste.

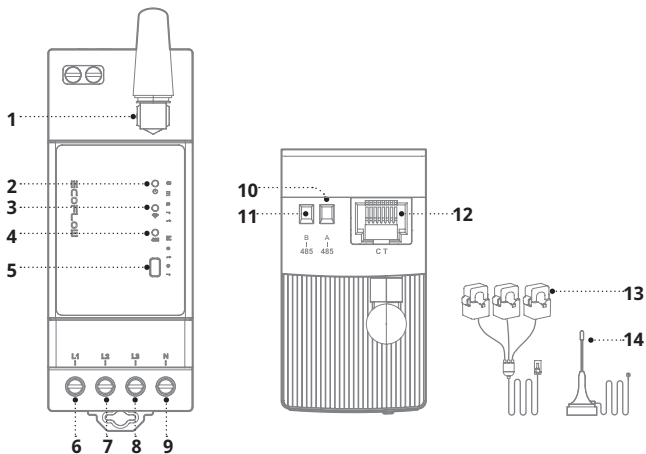
Technical Parameters

Model	EF-EM-P3-120
Dimensions	90×66×36 mm (antenna included)
Mounting	DIN rail
Operating Temperature	-25°C to 70°C
Storage Temperature	-40°C to 85°C
Operating Altitude	≤ 3000 m
Relative Humidity	5%-95%
Voltage Input	400V/230V 3N~, CAT III 300V
Power Input	100-276V~, 50/60Hz, < 3W
Current Input	48mA
Conductor Cross-section	0.5-2.5 mm ² / 20-14AWG (solid wire, stranded wire, and ferrule)
Conductor Stripping Length	6-7 mm
Pollution Degree	PD2
IP Rating	IP30
Compatible Current Transformer	48mA, 0.1%In~In, 0.1%In
Wi-Fi	- Frequency: 2400-2495 MHz (for EU) - Maximum Output Power: <20 dBm (for EU)
Bluetooth	- Frequency: 2402-2480 MHz (for EU) - Maximum Output Power: <20 dBm (for EU)

Introduction

EcoFlow Smart Meter (The device) is a DIN rail mountable three-phase energy meter. It can be controlled and monitored through Wi-Fi connection. Bluetooth connection can be used for the inclusion process. The device reports accumulated energy as well as voltage, current, and power factor data in real-time. It stores data in non-volatile memory for later retrieval at least 60 days of 1 min data resolution.

Appearance



- 1

Detachable antenna
- 2

Power Status Indicator
- 3

Wi-Fi Status Indicator
- 4

RS485 Status Indicator
- 5

Reset Button
- 6

Voltage L1 Input and Device Power Supply Input
- 7

Voltage L2 Input
- 8

Voltage L3 Input
- 9

Neutral Input
- 10

RS485 A (+) Terminal
- 11

RS485 B (-) Terminal
- 12

CT (Current Transformer) Port
- 13

External CT Cable
- 14

Extension Antenna

** Images are for demonstration purposes only. Refer to the actual product received.*

Button and LED Indicators

Reset Button	- o Press and hold for 5–10 seconds to start device pairing. - o Press and hold for over 10 seconds to restart the device.
Power Status Indicator	- o Off: The device is powered off. - o Solid Green: The device is powered on and functioning normally. - o Solid Orange: Indicates one of the following conditions: 1. The current household load is too low to be measured. 2. The CT (Current Transformer) is not detected. Ensure the CT is properly installed and clamped.
Wi-Fi Status Indicator	- o Off: The device is not connected to a wireless network. - o Solid green: The device is connected to the internet via a wireless network. - o Breathing green: The device is upgrading the firmware. - o Solid orange: The device is connected to a wireless network, but internet access is unavailable.
RS485 Status Indicator	o The RS485 terminals and LED indicator are reserved for factory use.

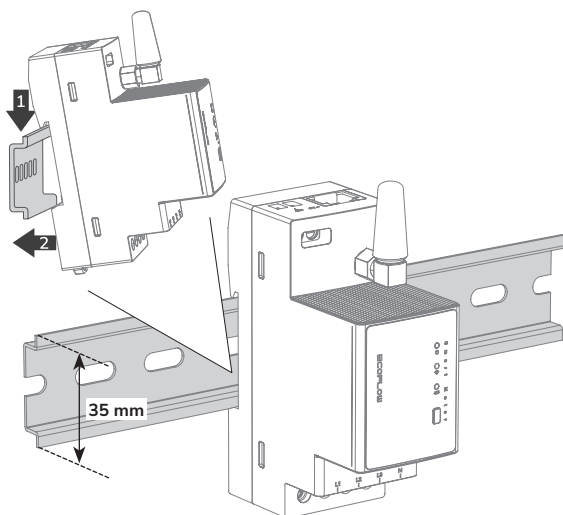
Installation

I Mounting

▲ CAUTION!

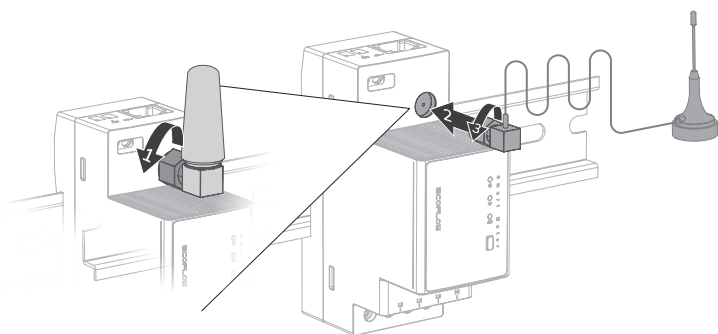
- For safety, turn off the relevant circuit breakers and verify zero voltage at their terminals using a phase tester or multimeter before beginning installation.
- Always wear appropriate insulating gloves during installation.

Mount the device onto the distribution box DIN rail and ensure it is securely fastened.



I Antenna Replacement (If Necessary)

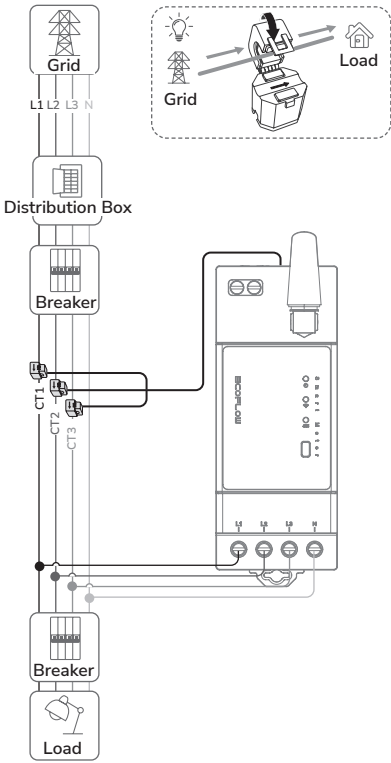
If the installation site has weak or unreliable wireless signal reception, replace the smart meter's antenna with the supplied extension antenna to improve performance.



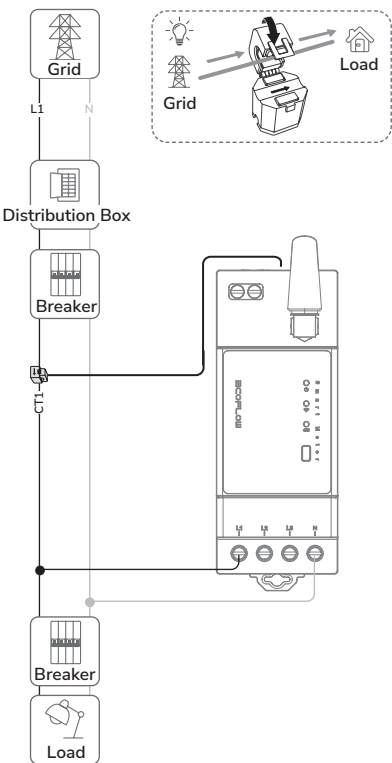
Electrical Connection

Follow the diagram below to complete the electrical connection.

Use as a Three-phase Smart Meter

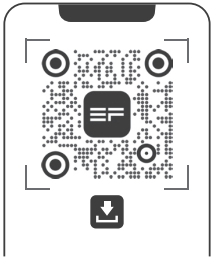


Use as a Single-phase Smart Meter



Initial Inclusion

Download the EcoFlow app, register an account, log in, and follow the in-app instructions to bind the device. Once bound, you can monitor and control the device via the app.





Hereby, EcoFlow Inc. declares that this product is in compliance with Directives 2014/35/EU, 2011/65/EU(RoHS), (EU) 2015/863(RoHS). The full text of the EU Declaration of Conformity is available at the following Internet addresses:

Hiermit erklärt EcoFlow Inc., dass dieses Produkt mit den Richtlinien 2014/35/EU, 2011/65/EU(RoHS), (EU) 2015/863(RoHS) übereinstimmt. Den vollständigen Text der EU-Konformitätserklärung finden Sie unter den folgenden Internetadressen:

Par la présente, EcoFlow Inc. déclare que ce produit est conforme aux directives 2014/35/EU, 2011/65/EU(RoHS), (EU) 2015/863(RoHS). Le texte intégral de la déclaration de conformité UE est disponible aux adresses web suivantes :

<http://www.ecoflow.com/eu/eu-compliance>



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by EcoFlow Inc. is under license. Other trademarks and trade names are those of their respective owners.

Warnings and safety information

For all information on handling and use, please refer to the instruction manual or product label. Before using the products, read its contents and follow the instructions contained therein.

Also read the following information before use:

Safety of use

1. Use measuring tools for their intended purpose. Do not use measuring tools for tasks for which they were not designed to avoid damage or erroneous measurement results.
2. Always make sure a tool is in good working condition before using it. Damaged tools, such as cracked cases or damaged displays, can lead to incorrect measurements or risk of accidents.
3. Calibrate measuring tools regularly to ensure accuracy and reliability of measurements. Incorrectly calibrated devices can lead to erroneous results.

Precautions

1. Use appropriate eye protection, especially when working with measuring tools that may emit radiation.
2. Keep measuring tools away from children and untrained people to prevent accidental damage or misuse.
3. Avoid using measuring tools in extreme conditions of temperature, humidity or in an atmosphere with a high concentration of dust, which can affect their accuracy and functionality.
4. Be careful not to damage delicate measuring components (e.g., sensors, probes) when working with measuring tools.

Safe use

1. Always make sure that the measuring tool is properly aligned and fixed to avoid measurement errors or damage.
2. Use measuring tools only in designated areas that provide adequate stability and minimize the risk of accidents, such as slippery or uneven surfaces.
3. Never take measurements on live components or in conditions that may pose a safety hazard.

Rules for use in appropriate conditions

1. Store measuring tools in a dry, cool place, away from moisture and direct sunlight, which can damage the devices or affect their accuracy.
2. When using measuring tools, make sure they are well seated and will not be subjected to shocks or impacts that can damage them.
3. Avoid using measuring tools in areas with extreme conditions, such as high vibration, hot surfaces, dust, or moisture, unless the tool is rated for this by the manufacturer.

Maintenance instructions

1. Regularly check the condition of measuring tools, especially measuring components (e.g., sensors, probes, displays) and batteries.
2. Follow the cleaning instructions provided by the manufacturer. Use appropriate cleaning materials (e.g., soft cloths) to avoid damaging delicate components.
3. Calibrate measuring tools regularly, according to the manufacturer's recommendations, to maintain measurement accuracy.

Safe disposal

1. Dispose of used or damaged measuring tools in accordance with current environmental and electronics recycling regulations.
2. Do not dispose of measuring tools in regular waste containers, as they may contain elements harmful to the environment.
3. Contact local authorities or recycling companies for information on proper disposal of used measuring tools.

Statement of compliance

The products have been designed in accordance with the safety requirements of **Regulation (EU) 2023/988** on general product safety, ensuring their compliance with applicable standards for the safety and health protection of users.

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