INSTALLATION GUIDE

V1.4

ECOFLOW GATEWAY (SINGLE-PHASE)



For the latest documents, please scan the QR code or visit:
https://enterprise.ecoflow.com/eu/documentation

IMPORTANT

- Before installing, operating, and maintaining the equipment, read and follow Installation Guide.

CONTENTS

01 **Safety Instructions**
01 Disclaimer
01 Symbols
02 **Regulatory Compliance**
03 **Product Introduction**
03 Product Features
03 Appearance
03 Maintenance Compartment and Wiring Terminals
04 System Deployment
07 Schematic Diagram
07 System Operating Mode
07 Preparing Tools and Instruments
08 **What's In The Box**
09 **System Installation**
09 Installation Space Requirements
09 Wall Mount
10 **Electrical Connection**
10 Preparing Cables
12 Recommended Routing
12 Opening the Maintenance Compartment
12 Connecting Power Grid / Backup household loads / Non-Backup household loads / Generator
13 Installing the Signal Cable
16 **System Commissioning**
16 Check Before Power-On
16 Closing the Maintenance Compartment
17 System Power-On
17 **System Maintenance**
17 System Power-Off
17 Routine Maintenance
18 Bypass Switch Operating Instructions
19 **Technical Parameters**

Safety Instructions

Disclaimer

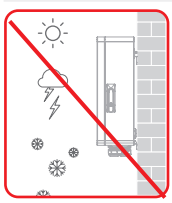
This product includes essential printed documentation required for setup and basic usage. For detailed manuals, resources, and the most up-to-date information about the product, visit https://energy.ecoflow.com/documentation. Fully read and understand the product documentation prior to use. Improper use may result in serious injury, damage, or property loss. By using this product, you agree to and accept all terms outlined in the product documentation. EcoFlow is not liable for losses, damages, or injuries caused by misuse or non-compliance.

Symbols

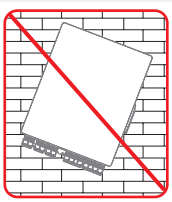
The shell or nameplate of this product includes safety symbols to indicate potential hazards. Please review these signs and their meanings as detailed in the table below:
* “This product” or “the device” refers to the EcoFlow Gateway (Single-Phase) throughout this document.

Symbol	Description
	CAUTION Disconnect the device from all voltage sources before servicing.
	Risk of Electric Shock
	Reading Manual Read the user manual and all safety instructions carefully before installation, operation, and maintenance.
CE	**CE Marking** The device complies with the essential requirements of the relevant EU legislation.
	WEEE Directive Do not dispose of the device as household waste. Follow local electronic waste disposal regulations.

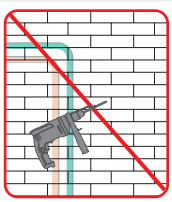
- Before installing, operating, and maintaining the equipment, read and follow Installation Guide.
- All operating and wiring must comply with national and local requirements of the relevant standards.
- Personnel who plan to install or maintain EcoFlow equipment must receive thorough training, understand all necessary safety precautions, and be able to correctly perform all operations.
- Personnel who will install, operate, and maintain the equipment, including operators, trained personnel, and professionals, should possess the local national required qualifications in special operations such as high-voltage operations, working at heights, and operations of special equipment.
- Before connecting cables, ensure that the equipment is intact. Otherwise, electric shocks or fire may occur.
- Before installing, operating, and maintaining the equipment, always disconnect all sources of supply before proceeding.
- Wear proper PPE (Personal protective equipment) before any operations.
- Do not work with power on during installation or maintenance.
- Do not touch the exposed electrical cable or parts with bare hands.
- GROUNDING INSTRUCTIONS: This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.
- Do not use any unofficial or unrecommended components or accessories. For any replacements, please contact EcoFlow for further assistance.
- Please use the preset holes of this product. Do not drill holes or modify the frame yourself. Otherwise, the warranty will be voided.
- Install the product in a tidy, dry, and well-ventilated environment.
- Follow the environment temperature requirements specified in the product specification to use or store the product. Avoid degradation or damage to the product, or risks to personal safety due to excessively high or low temperatures.
- Do not wet the product, or leave it in a humid environment for an extended period of time. Do not allow the junction box or wire connectors to come into contact with liquids.
- Keep the product out of the reach of children and pets.
- Do not pierce the product with sharp objects.
- Do not insert wires or other metal objects into the product to prevent short circuits.
- Do not disassemble, repair, or modify this product by yourself. For any maintenance or service, contact the EcoFlow Customer Service.
- Do not scrawl, damage, or block any warning labels on the product.
- Do not clean the product with flammable or toxic solvents. Wipe it with a dry soft cloth.



AVOID DIRECT SUNLIGHT, RAIN, OR SNOW



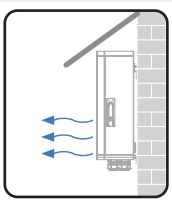
DO NOT MOUNT IN A CROOKED MANNER.



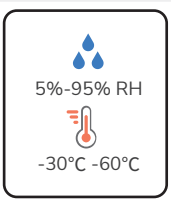
AVOID THE WATER PIPES AND POWER CABLES



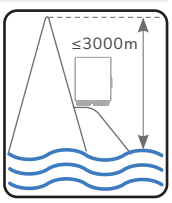
AWAY FROM *SOLVENT/ GASOLINE/HEAT SOURCE/MOISTURE/ EXPLOSIVE MATERIAL/ FLAMMABLE MATERIAL/INFRARED RADIATION*



WELL-VENTILATED AREA ONLY



IP55



ALTITUDE

Regulatory Compliance

CE

English: Hereby, EcoFlow Inc. declares that this product is in compliance with Directives 2014/53/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: eu: http://www.ecoflow.com/eu/eu-compliance .



English: This marking indicates that this product should not be disposed of with other household waste within the EU. Recycle this product properly to prevent possible damage to the environment or a risk to human health via uncontrolled waste disposal and in order to promote the sustainable reuse of material resources. Please return your used product to an appropriate collection point or contact the retailer where you purchased this product. Your retailer will accept used products and return them to an environmentally.

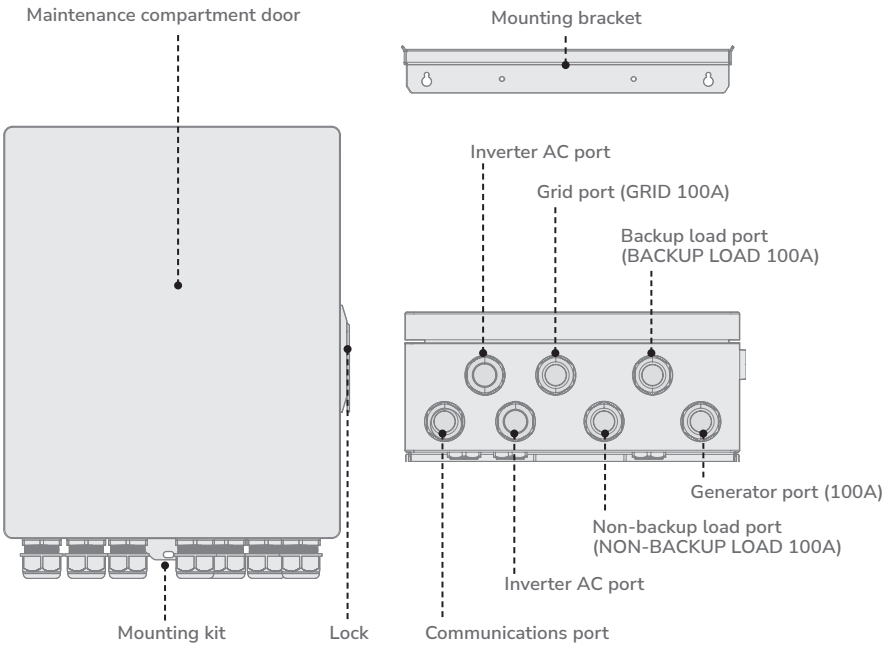
Product Introduction

Product Features

EcoFlow Gateway (single-phase) is a smart backup module that works with EcoFlow single-phase home solar battery systems to build a whole home backup system. In this setup, the inverter controls operation of the system, while the Gateway monitors energy usage and manages the switchover between on-grid and off-grid modes.
Additionally, the Gateway is compatible with ecologically compatible products such as EcoFlow PowerPulse 2 EV Charger, generator and third-party PV system.

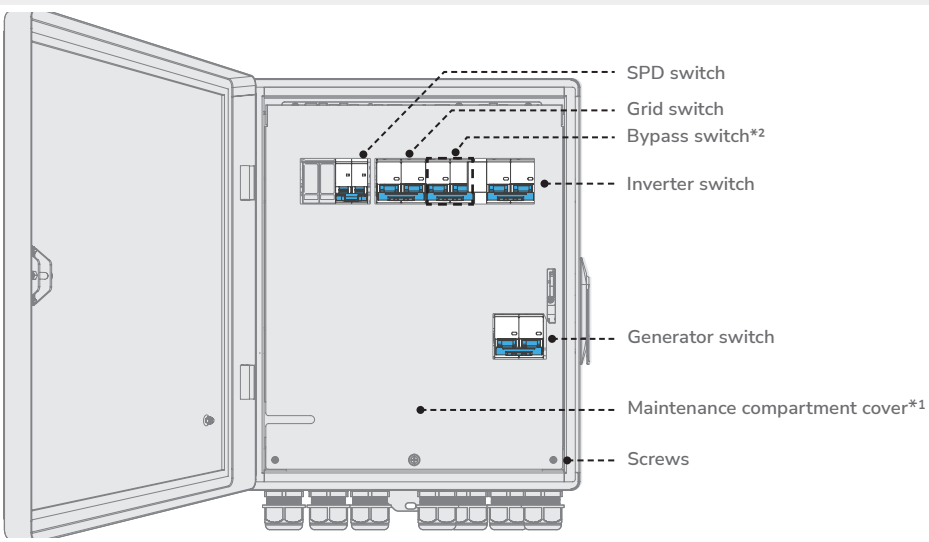
Appearance

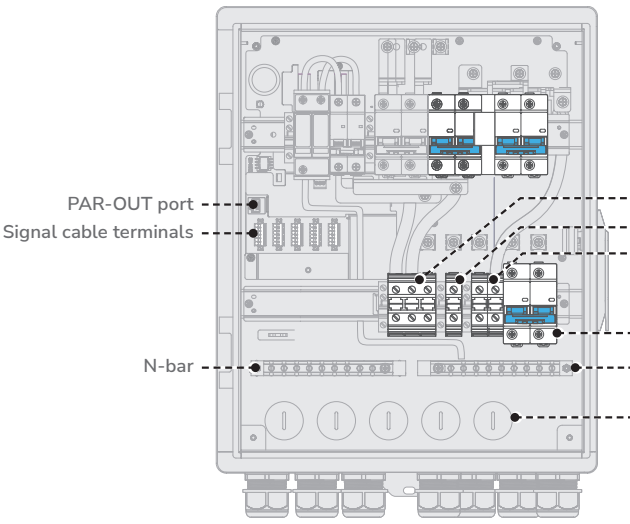
- Before maintenance, power off the main circuit breaker, the inverter, and the DC switches of the inverter and battery.



Maintenance Compartment and Wiring Terminals

- *1 Only authorized personnel can open the maintenance compartment cover to perform electrical connections.
- *2 During deployment and normal use, do not operate the bypass switch. Ensure that the bypass switch is off.
- *3 Use preset cable entries. Do not modify the module frame without permission, otherwise this may void the warranty.





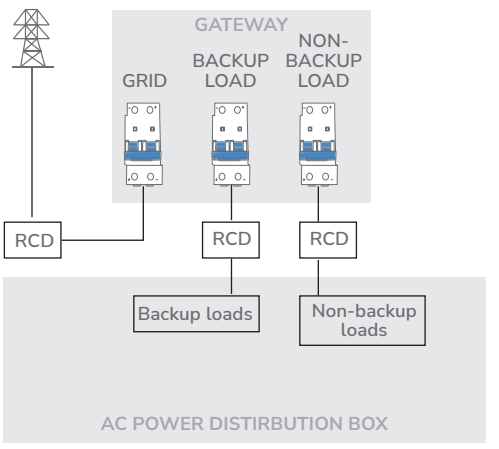
- Remove the protective cover to use the rear cable entries as needed. Waterproof putty are required for wiring, while the protective covers of unused cable entries remain locked, otherwise the IP rating will be affected.

System Deployment

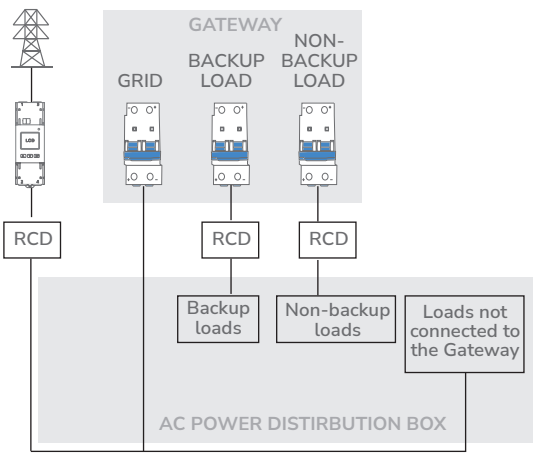
PLAN OF LOADS CONNECTED TO THE GATEWAY

- For a main breaker ≤100A, all loads can be connected to the Gateway. For a main breaker >100A, only some of loads are permitted.
- If the generator deployed in the system runs in off-grid mode, make sure the load power is within the generator capacity, otherwise the generator may shut down due to overload.
- Backup loads exceeding off-grid capacity may trip the inverter. Disconnect loads or move low-priority ones to non-backup ports.

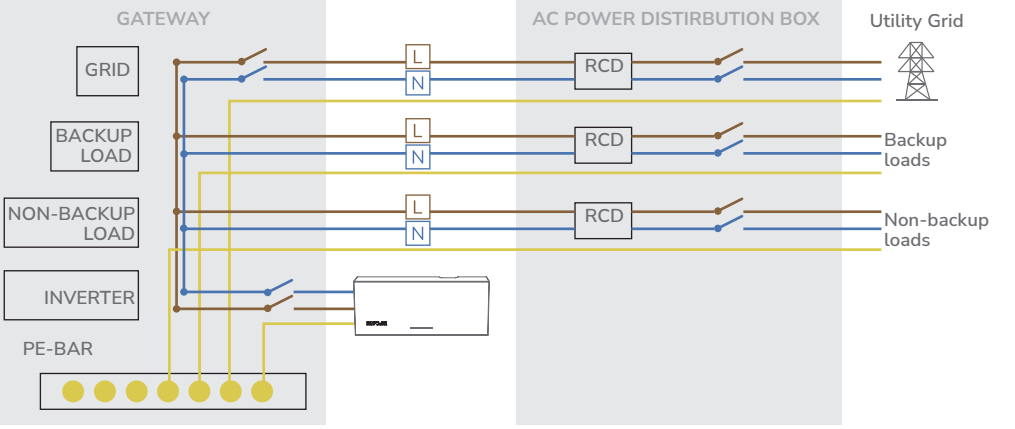
· For a main breaker ≤100A:
all loads connected to the Gateway



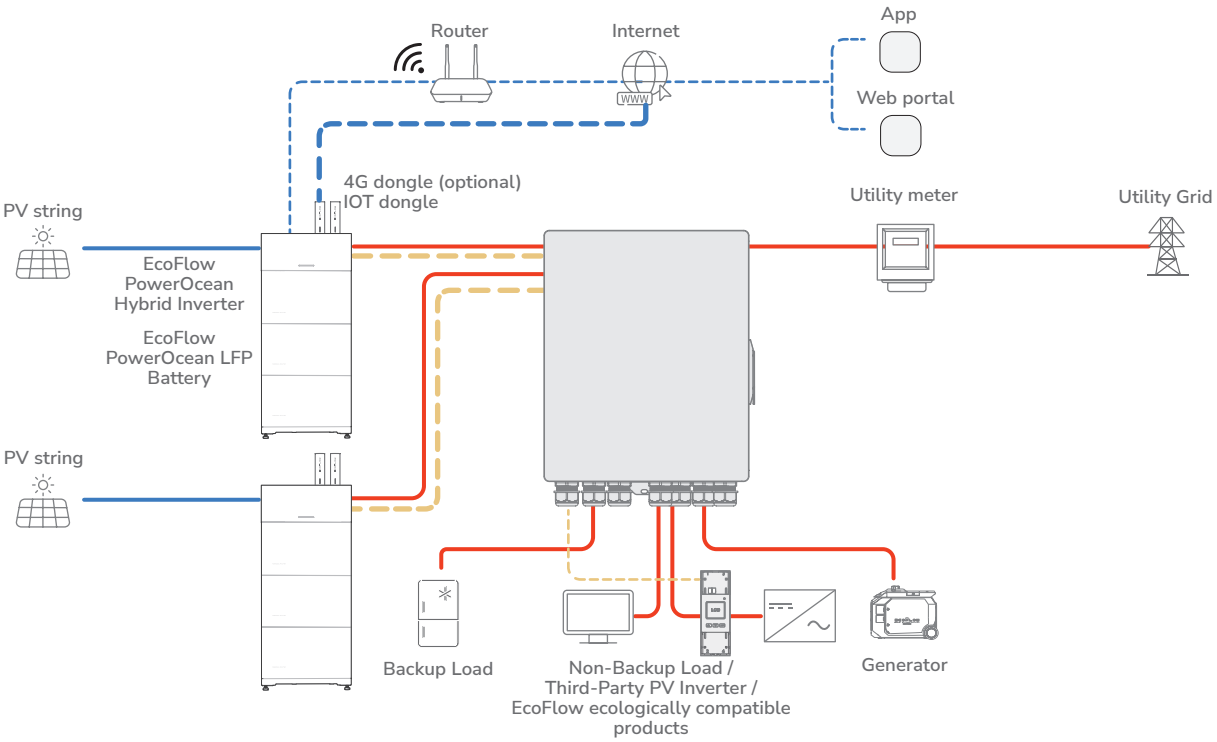
· For a main breaker >100A:
some of loads connected to the Gateway



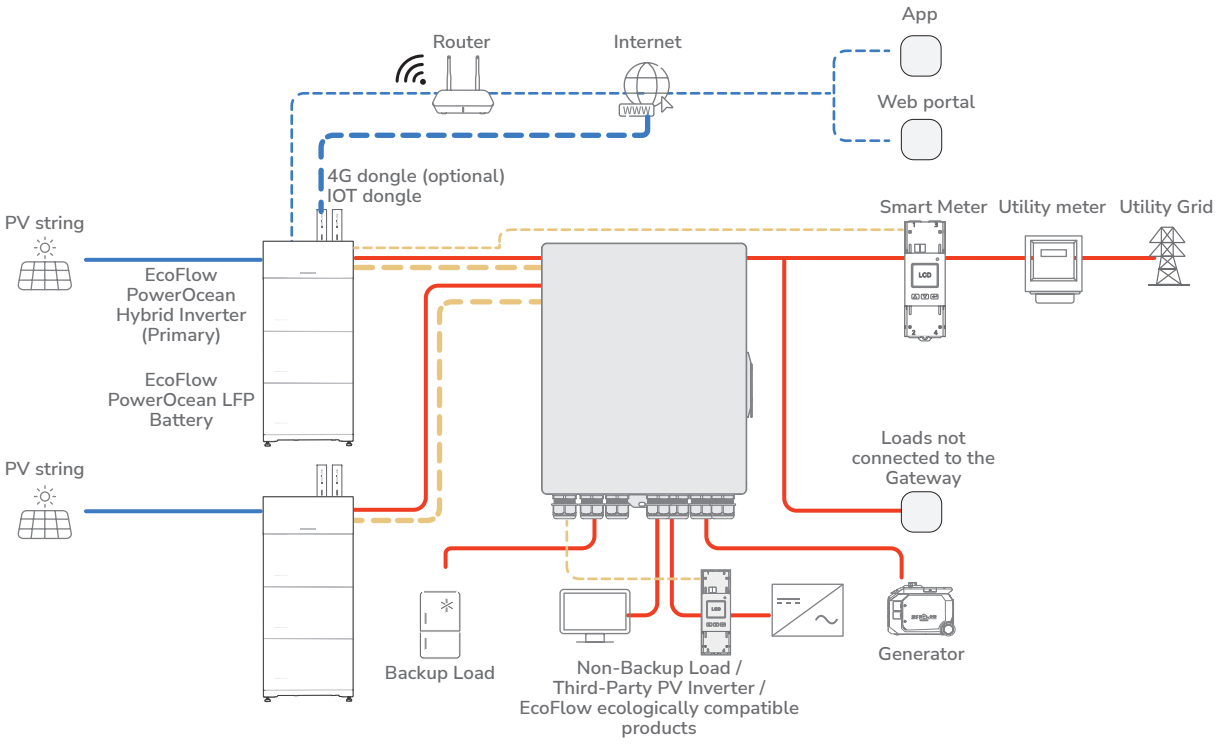
RESIDENTIAL WIRING DIAGRAMS



SYSTEM OVERVIEW (WITH ALL LOADS CONNECTED TO THE GATEWAY)



SYSTEM OVERVIEW (WITH SOME OF LOADS CONNECTED TO THE GATEWAY)

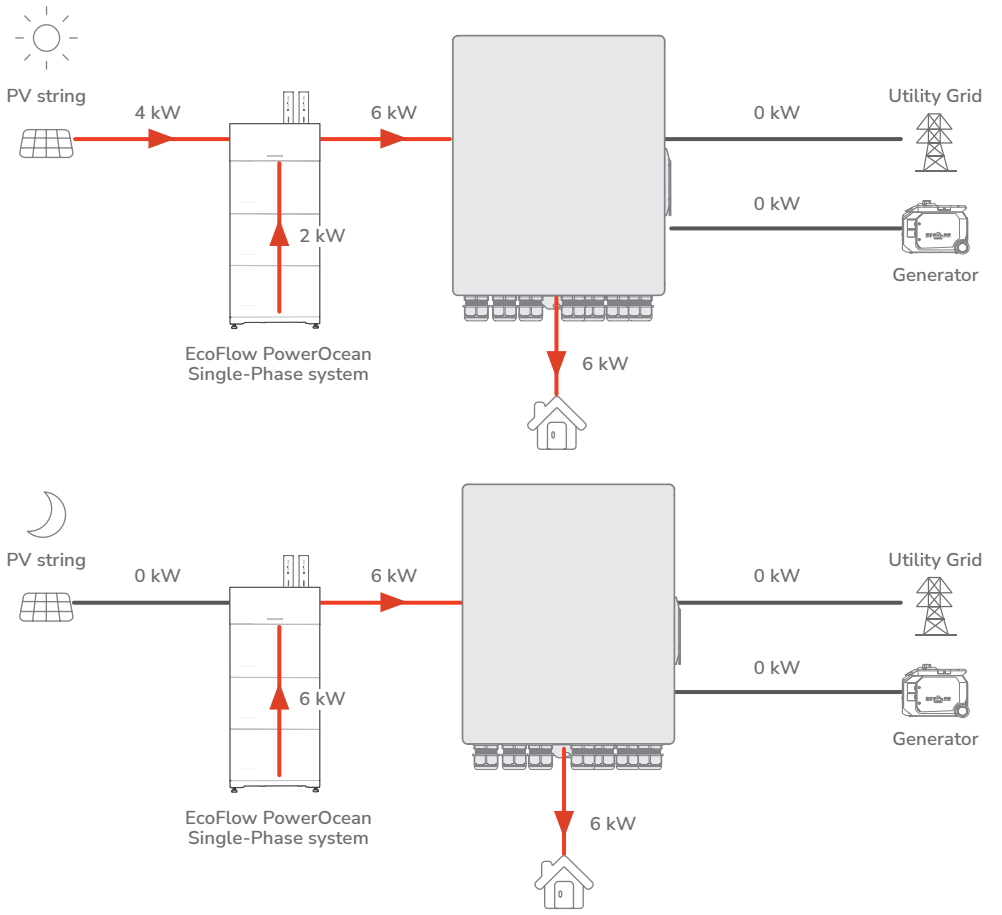


DC
AC
Ethernet
4G (optional)
RS485
CAN
WIFI

OFF-GRID OPERATING CAPACITY

Off-grid max power is capped by the inverter (e.g., 6 kW) and ESS capacity (e.g., 15 kWh).

- When the inverter is off-grid, make sure the peak load current and duration are within the off-grid running capability of the inverter.

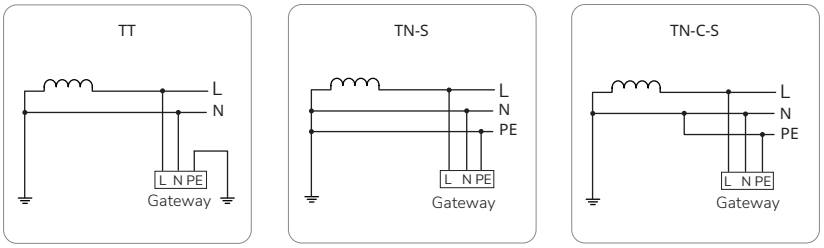


EcoFlow PowerOcean Single Phase Hybrid Inverter	EF HD-P1-3K-S1	EF HD-P1-3.68K-S1	EF HD-P1-4.6K-S1	EF HD-P1-5K-S1	EF HD-P1-6K-S1
Off-grid power (kW)	3	3.68	4.6	5	6

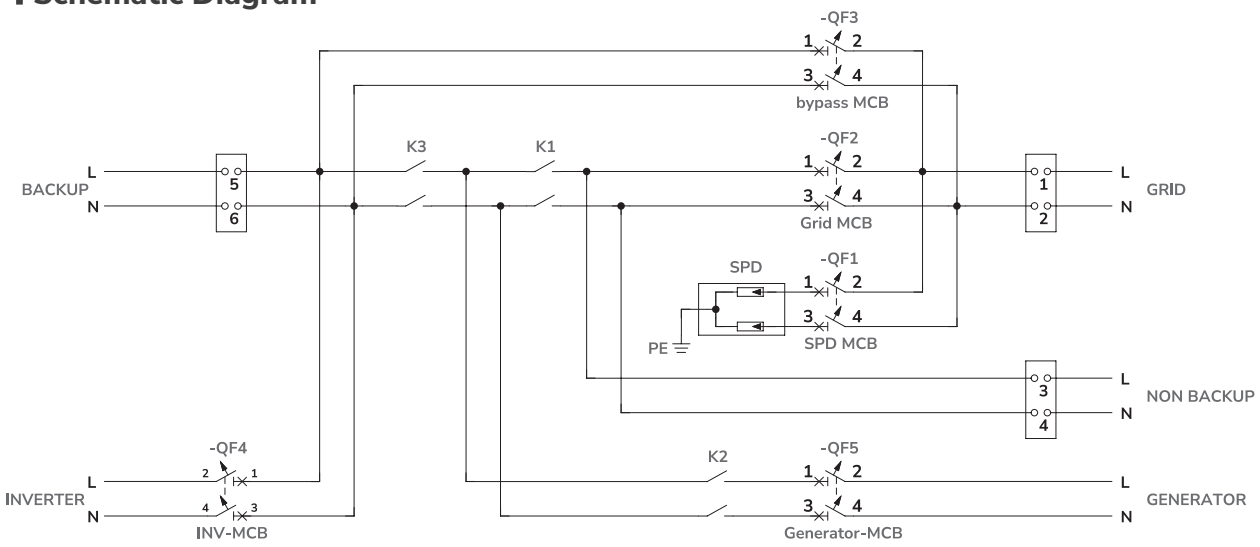
EcoFlow OCEAN 2 Single Phase Hybrid Inverter	EF HD-P1-3K-S2	EF HD-P1-3K68-S2	EF HD-P1-4K6-S2	EF HD-P1-5K-S2	EF HD-P1-5K75-S2	EF HD-P1-6K-S2
Off-grid power (kW)	3	3.68	4.6	5	5.75	6

EcoFlow OCEAN 2 Plus Hybrid Inverter Single Phase	EF HD-P1-6K0-S2, EF HD-P1-6K0-S2F	EF HD-P1-8K0-S2, EF HD-P1-8K0-S2F	EF HD-P1-10K0-S2, EF HD-P1-10K0-S2F	EF HD-P1-12K0-S2, EF HD-P1-12K0-S2F
Off-grid power (kW)	6	8	10	12

SUPPORTED POWER GRID TYPES



Schematic Diagram

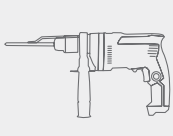


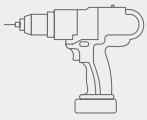
System Operating Mode

During normal operation, circuit breakers QF1, QF2, QF4, and QF5 must be switched ON, while QF3 must be switched OFF.	
On-grid mode	When the utility grid is operating normally, the system will automatically transition to on-grid operation. Relay K1 and K3 will be switched ON automatically while K2 will be switched OFF. In this mode, the utility grid and inverter will supply power to backup/non-backup loads.
Off-grid mode	When the utility grid is abnormal, the system will automatically transition to off-grid operation. Relay K2 and K3 will be switched OFF automatically. In this mode, the backup loads are powered by the inverter, while the non-backup loads lose supply.
Generator backup mode	If the system is equipped with a generator, relay K2 and K3 will be switched ON automatically while K1 will be switched OFF. • Generator Start: If battery SOC < Start Threshold, the generator supplies power to backup/ non-backup loads and charges the battery. • Generator Stop: When battery SOC ≥ Stop Threshold, the generator shuts down, and the inverter supplies power to backup loads only. • Grid Restoration: The system automatically reconnects to the grid, resuming on-grid mode.
If a fault is detected	
Bypass mode	**1.** Power off the EcoFlow Single-Phase system. Refer to the inverter installation guide for details. **2.** Switch on QF1, QF2, and QF3; switch off QF4 and QF5 In this mode, the backup/non-backup loads are powered by the grid only; generator power is unavailable.

Preparing Tools and Instruments

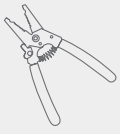
·ESSENTIAL TOOLS

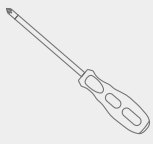

Hammer drill (with a drill bit of 8mm)


Electrical Screwdriver


Multimeter (DC voltage measurement range ≥ 1000 V DC)

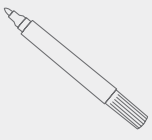

Cable cutter

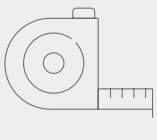

Wire strippers


Screwdriver (PH2)


Crimping tool (for tubular terminal)


Heat gun


Marker


Steel measuring tape


Cable tie


Heat-shrink tubing


Level

·OPTIONAL TOOLS



Safety goggles



Safety shoes



Safety gloves

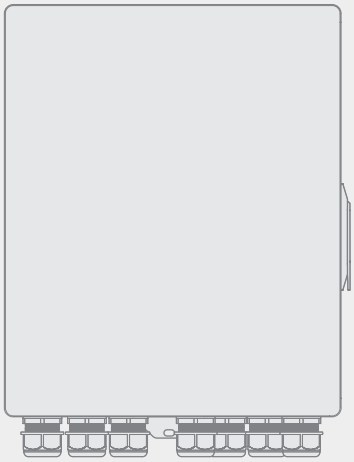


Dust mask

What's In The Box

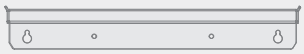
- Check if the deliverables are intact and complete. If any item is missing or damaged, contact the supplier.
- Retain the original packaging and documentation for further needs.

×1



EcoFlow Gateway (Single-Phase)

×1



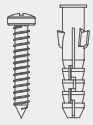
Mounting pieces

×5



Communication Terminal

×5



Screws with expansion tubes

×7



Protective Cover 2

×4



Rubber 4-Hole Grommets

×2



Key

×1



Marking-off Template

×25



Wiring Terminal (For wire gauge 22AWG/0.5mm²)

×6



Wiring Terminal (For wire gauge 10AWG/6mm²)

×4



PE Wiring Terminal

×1

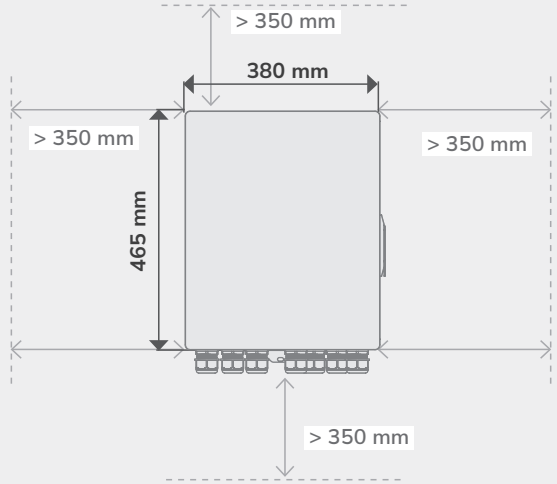


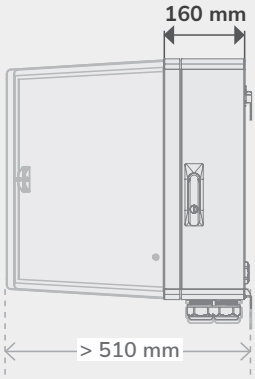
Terminating Resistor

System Installation

Installation Space Requirements

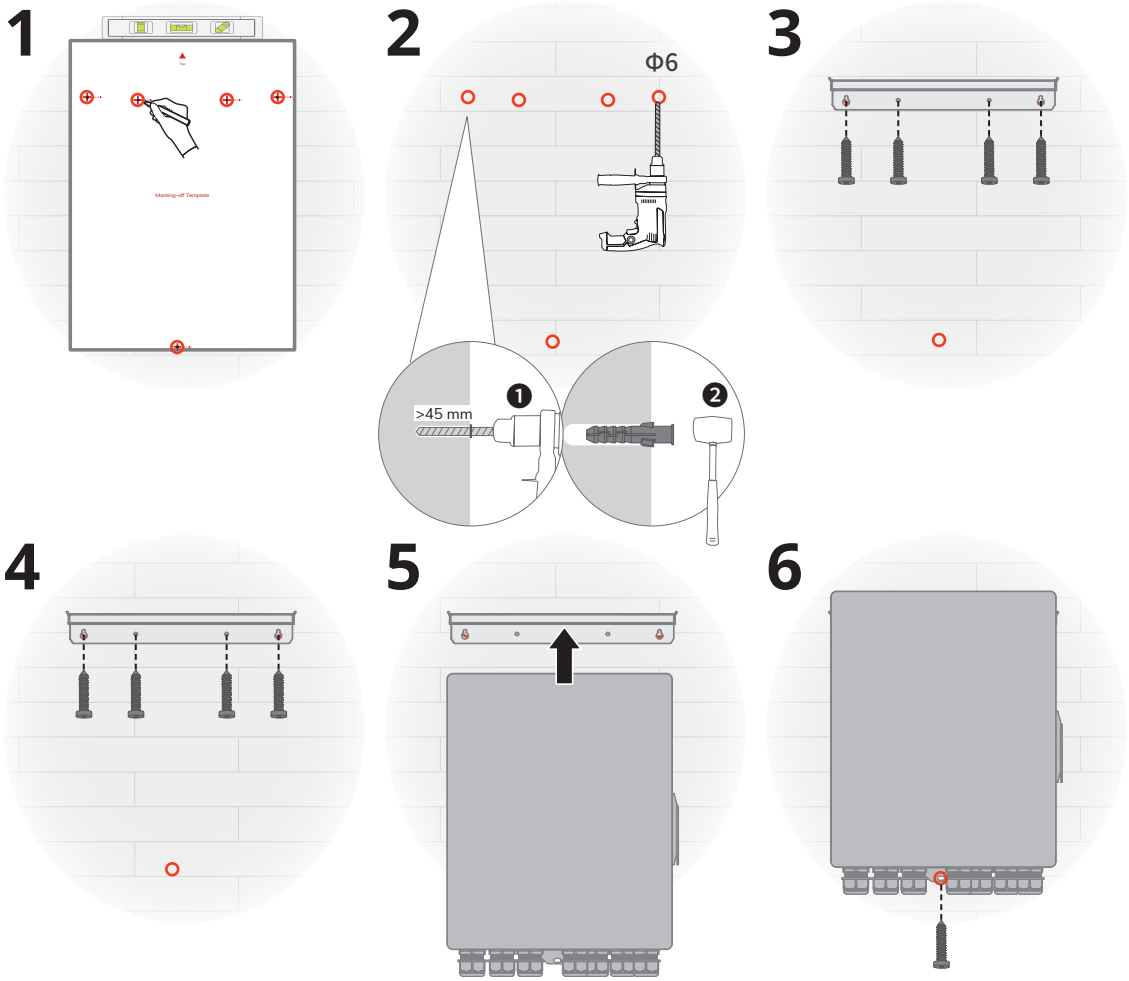
- Reserve sufficient clearance around equipments for installation, operation and heat dissipation.
- Please avoid the inverter's heat dissipation path when deploying the system.





Wall Mount

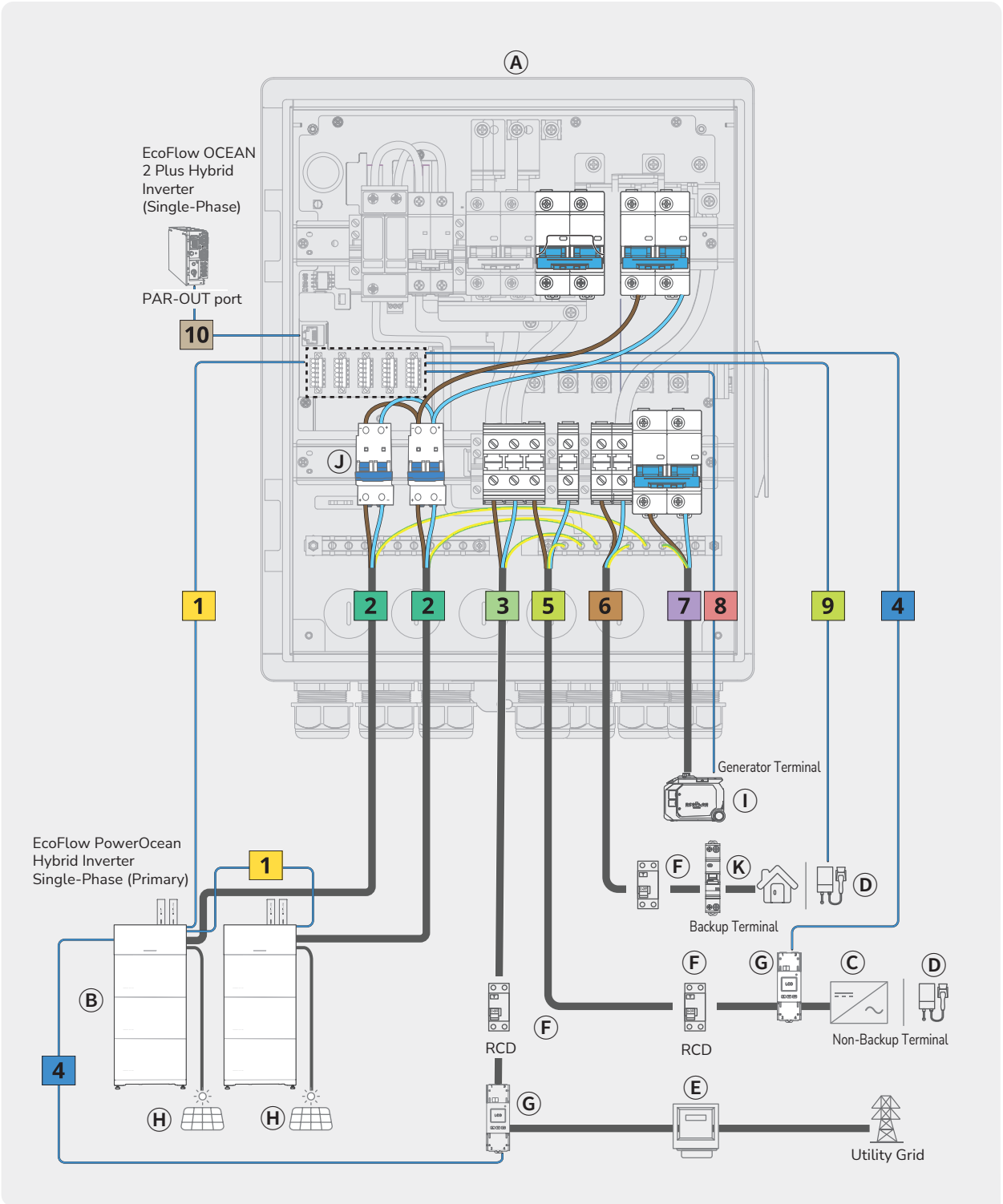
- The mounting structure where the equipment is installed must be fire resistant. Do not install the equipment on flammable building materials.
- Ensure that the installation surface is solid enough to bear the weight of the equipment.



Electrical Connection

- All electrical connections must be carried out by a professionally trained and certified electrician.
- Device damage caused by incorrect cable connections is not covered by the product warranty.
- Before making electrical connections, ensure that the circuit breaker of the Gateway and all connected external switches are in OFF state. Otherwise, it may cause electric shocks.
- Please purchase cables that meet local certification standards.
- The cable colors shown in the figures are for reference only. Select an appropriate cable according to the local standards.
- Wear PPE and use dedicated insulated tools to avoid electric shocks or short circuits.

Preparing Cables

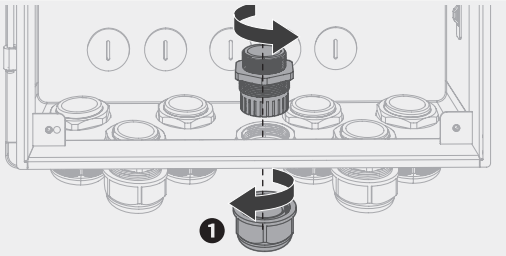


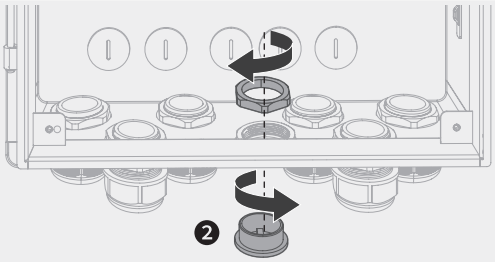
No.	Component	Description	From
Ⓐ	EcoFlow Gateway (Single-Phase)	EF-SG-002	EcoFlow
Ⓑ	EcoFlow PowerOcean Single-Phase system / EcoFlow Ocean 2 Plus Single-Phase system	**EcoFlow PowerOcean Single Phase Hybrid Inverter:** EF HD-P1-3K-S1, EF HD-P1-3.68K-S1, EF HD-P1-4.6K-S1, EF HD-P1-5K-S1, EF HD-P1-6K-S1 **EcoFlow OCEAN 2 Plus Hybrid Inverter Single Phase:** EF HD-P1-6K0-S2, EF HD-P1-6K0-S2F, EF HD-P1-8K0-S2, EF HD-P1-8K0-S2F, EF HD-P1-10K0-S2, EF HD-P1-10K0-S2F, EF HD-P1-12K0-S2, EF HD-P1-12K0-S2F **EcoFlow OCEAN 2 Single Phase Hybrid Inverter:** EF HD-P1-3K-S2, EF HD-P1-3K68-S2, EF HD-P1-4K6-S2, EF HD-P1-5K-S2, EF HD-P1-5K75-S2, EF HD-P1-6K-S2 **Battery:** EF BD-5.1-S1, EF BD-5-S2, EF BD-8-S2 **The Gateway only supports inverters with batteries; those without batteries will not operate properly.**	EcoFlow
Ⓒ	PV Inverter	• Smart meter is required. • Must be connected to the Non-Backup terminal.	A third party
Ⓓ	EcoFlow PowerPulse 2 EV Charger	EF PP-H02-1, EF PP-H02-2, EF PP-H02-3, EF PP-H02-8	EcoFlow
Ⓔ	Utility Meter	/	/
Ⓕ	RCD	An RCD must be installed before the backup load. The rated leakage current must be greater than or equal to the number of inverters multiplied by 100 mA.	A third party
Ⓖ	EcoFlow Smart Meter	ADL200N-CT (120A), YDM201D (80A) • Required: third-party PV inverter connected to the Non-Backup terminal. • Required: only some of the loads are connected to the Gateway, not all of them. • Not required: loads only on the Non-Backup terminal; no other devices (no PV or generator input).	EcoFlow
Ⓗ	PV string	A PV string is composed of the PV modules connected in series.	EcoFlow / A third party
Ⓘ	Generator	Select a generator with a rated power of 20 kW or less based on the residential load power and the Gateway requirements.	EcoFlow / A third party
Ⓙ	Inverter circuit breaker	Recommended: an AC circuit breaker with a rated current of 32 A.	A third party
Ⓚ	OCPD	Recommended: an overcurrent protection device with a rated current of 100 A.	A third party

No.	Cable	Type	Recommended Specifications
1	Inverter signal cable	Two-core **Shielded Twisted Pair** cable	Conductor cross-sectional area: 0.5 mm², cable outer diameter: 5 mm to 9 mm, length ≤ 30m
2	Inverter AC input power cable (INV1/INV2)	Three-core **copper** cable	Conductor cross-sectional area: 10 mm² to 16 mm², cable outer diameter: 13 mm to 25 mm
3	Grid AC output power cable	Three-core **copper** cable	Conductor cross-sectional area: 10 mm² to 16 mm², cable outer diameter: 13 mm to 25 mm
4	Smart meter signal cable	Two-core Shielded Twisted Pair cable	Conductor cross-sectional area: **0.5 mm²**, cable outer diameter: 5 mm to 9 mm, length ≤ 30m
5	AC output power cable for the non-backup load	Three-core **copper** cable	Conductor cross-sectional area: 10 mm² to 16 mm², cable outer diameter: 13 mm to 25 mm
6	AC output power cable for the backup load	Three-core **copper** cable	Conductor cross-sectional area: 10 mm² to 16 mm², cable outer diameter: 13 mm to 25 mm
7	Generator power cable	Three-core copper cable	Conductor cross-sectional area: 10 mm² to 16 mm², cable outer diameter: 13 mm to 25 mm
8	Generator signal cable	Multi-core Shielded Twisted Pair cable	Conductor cross-sectional area: 0.2 mm² to 1 mm², cable outer diameter: 5 mm to 9 mm, length ≤ 30m
9	EV charger signal cable	Two-core Shielded Twisted Pair cable	Conductor cross-sectional area: 0.5 mm², cable outer diameter: 5 mm to 9 mm, length ≤ 30m
10	EcoFlow Ocean 2 Plus Hybrid Inverter Single-Phase signal cable	Network cable	Shielded CAT 5 or higher rating, length ≤ 30m For EcoFlow OCEAN 2 Plus Hybrid Inverter (Single-Phase) only. Not required for EcoFlow PowerOcean Single-Phase Hybrid Inverter.

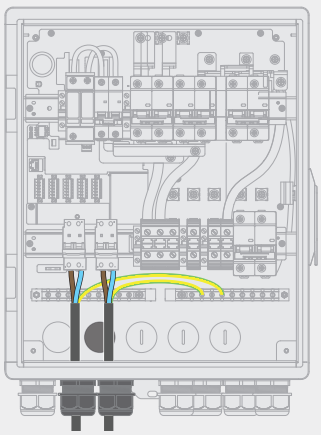
Recommended Routing

If necessary, remove the cable glands and install the included bottom protective covers.

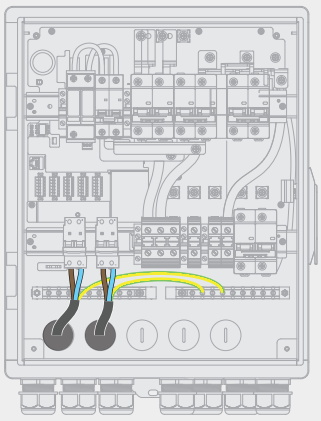




OPTION 1: BOTTOM WIRING

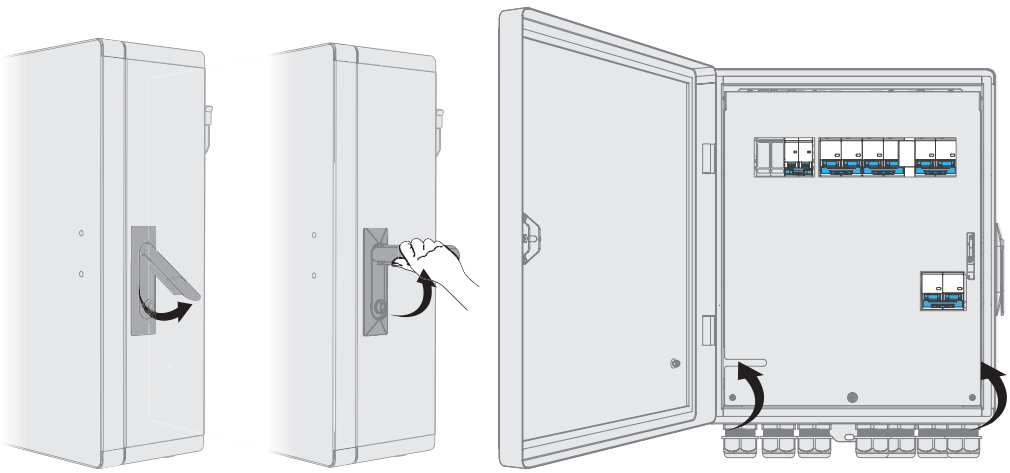


OPTION 2: BACK WIRING
IF THE BACK CABLE ENTRY IS ADOPTED, THE ENTRY HOLE NEEDS TO BE WATERPROOFED.



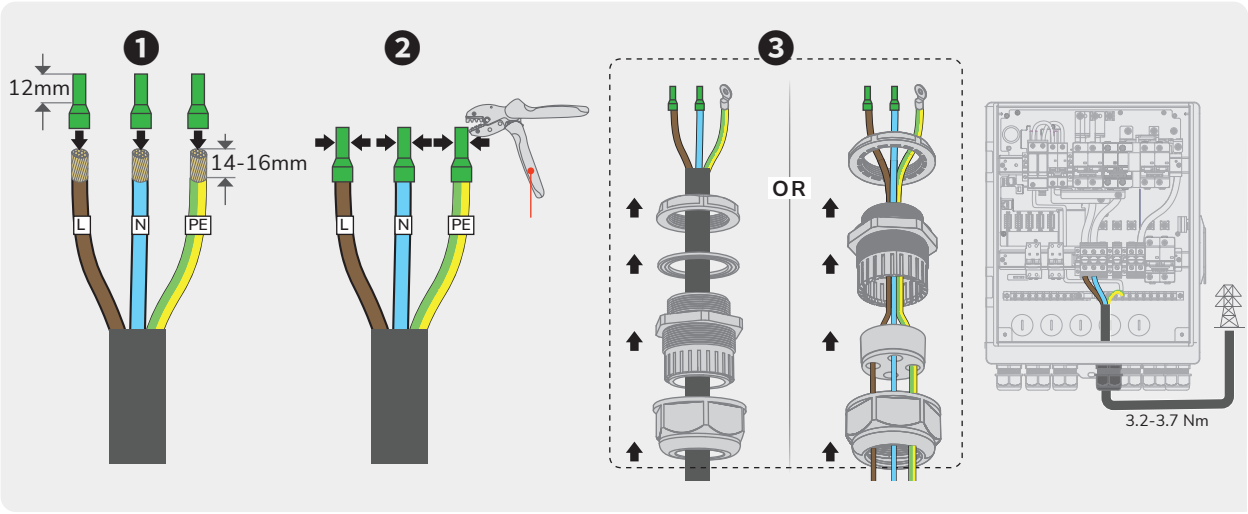
Opening the Maintenance Compartment

- Before maintenance, power off the main circuit breaker, the inverter, and the DC switches of the inverter and battery.
- Do not operate the bypass switch during site deployment or normal use.



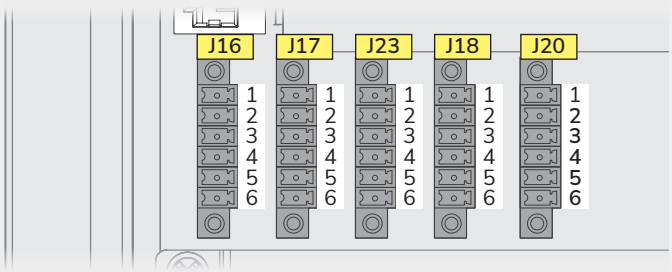
Connecting Power Grid / Backup household loads / Non-Backup household loads / Generator

- Select a waterproof rubber plug with the corresponding cable diameter.



Installing the Signal Cable

COM TERMINAL DEFINITIONS



J16	Definition	Used for
PIN1	RS485A0_B	Ecosystem Appliances
PIN2	RS485A0_A	
PIN3	RS485A1_B	VPP communication
PIN4	RS485A1_A	
PIN5	RS485A2_B	EcoFlow Smart Meter
PIN6	RS485A2_A	

J17	Definition	Used for
PIN1	CAN0H	PCS_CAN
PIN2	CAN0L	
PIN3	CAN1H	EMS_CAN
PIN4	CAN1L	
PIN5	CAN2H	Ecosystem Appliances
PIN6	CAN2L	

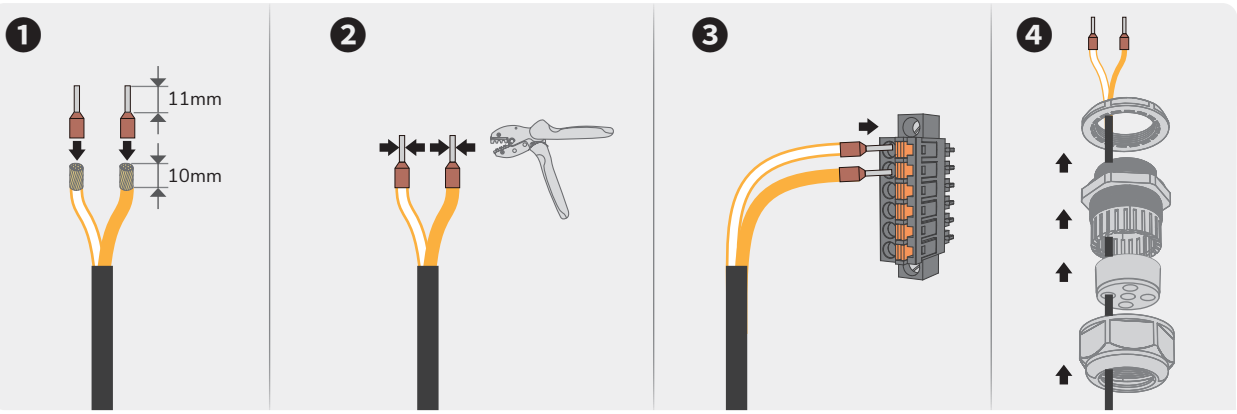
J23	Definition	Used for
PIN1	Backup	On-grid/off-grid switchover signal
PIN2	SYN	Frequency synchronization signal
PIN3	GND	Signal grounding
PIN4	/	/
PIN5	INT-12V	External 12 V input
PIN6	GND-INT	Signal grounding

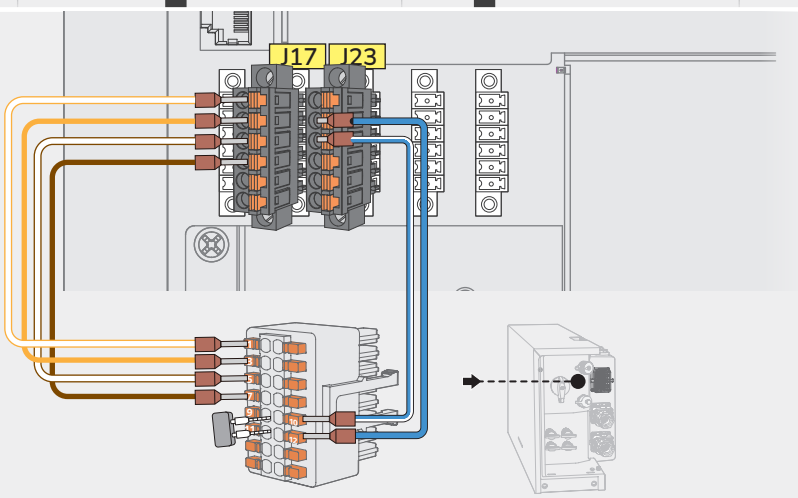
J18	Definition	Used for
PIN1	DO-12	Generator 2-wire start
PIN2	DO-11	
PIN3	DO-22	Dry contact output SG-READY 1
PIN4	DO-21	
PIN5	DO-32	Dry contact output SG-READY 2
PIN6	DO-31	

J20	Definition	Used for
PIN1	DI_IN0	Reserved
PIN2	DI_IN1	ATS
PIN3	DI_IN2	Reserved
PIN4	DI_IN3	
PIN5	DI_IN4	
PIN6	GND	Signal grounding

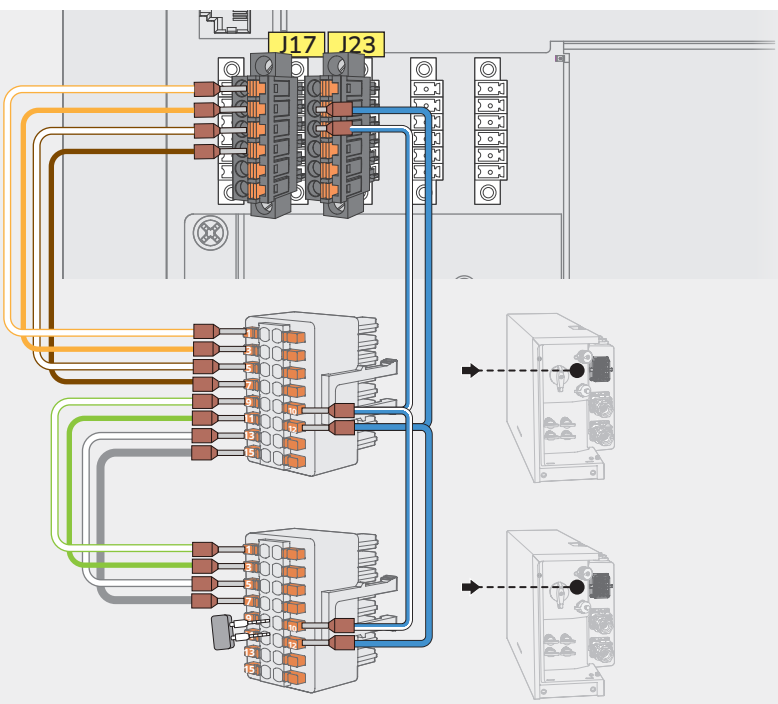
INSTALLING INVERTER (POWEROCEAN)-GATEWAY COMMUNICATION CABLES

- Insert a terminating resistor (included) for proper communication.



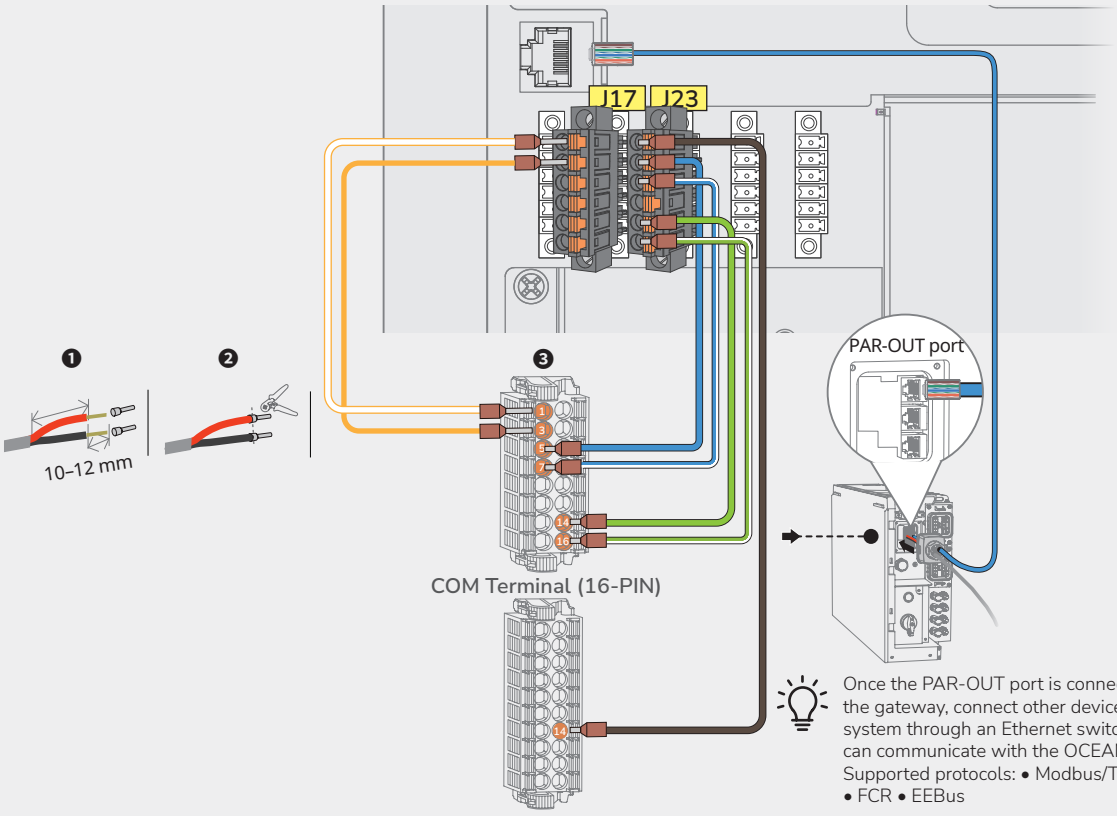


PIN9-11: Terminating Resistor



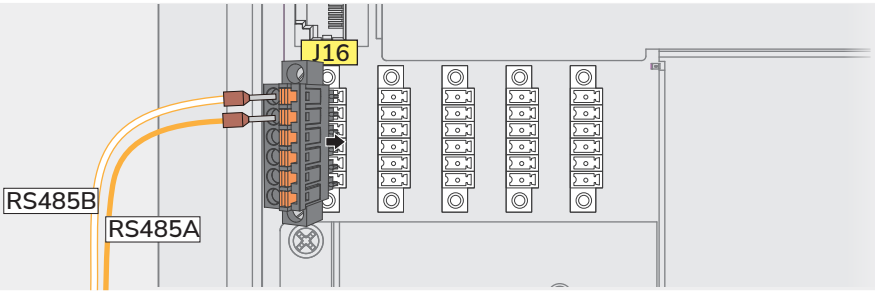
PIN9-11: Terminating Resistor

INSTALLING INVERTER (OCEAN 2 PLUS)-GATEWAY COMMUNICATION CABLES



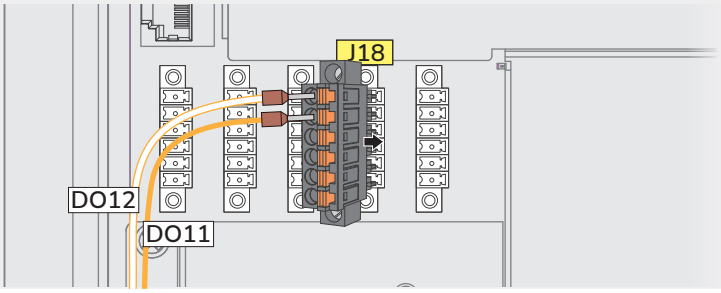
Once the PAR-OUT port is connected to the gateway, connect other devices to the system through an Ethernet switch so they can communicate with the OCEAN 2 Plus. Supported protocols: • Modbus/TCP • FCR • EEBus

INSTALLING THE SIGNAL CABLE OF ECOFLOW EV CHARGER

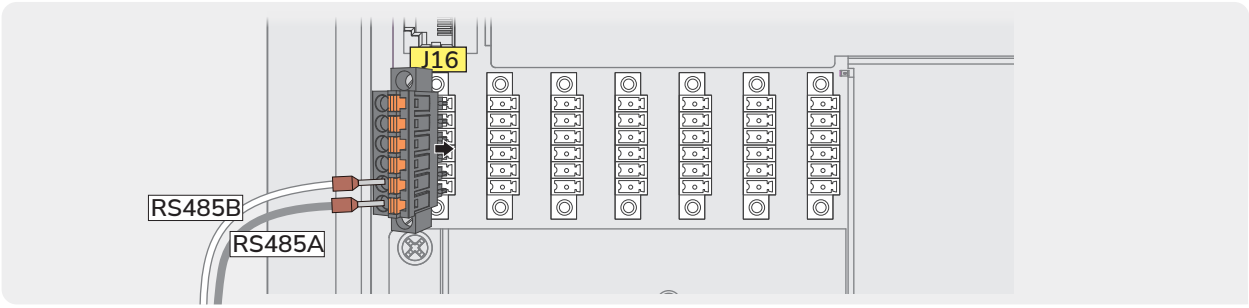


INSTALLING THE GENERATOR START SIGNAL CABLE

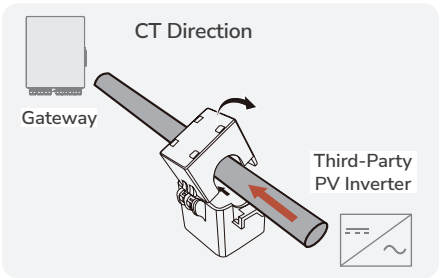
- The generator to be connected must have its N-PE link connected; otherwise, it may cause the RCD to trip.
- When starting with just a generator in an off-grid setup, the EcoFlow Single-Phase system cannot be woken up by the generator. Press and hold the BATTERY ON/OFF button on the inverter for 3 seconds to activate the battery first, then turn on the generator to allow it to take over.
- If the generator's operating frequency fluctuates excessively, the system will switch to off-grid supply for safety reasons.



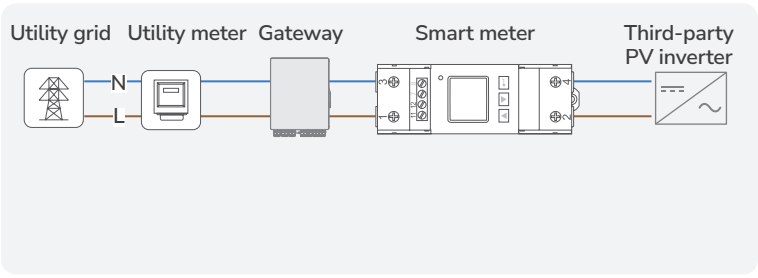
(OPTIONAL) ENERGY METERING INSTALLATION FOR SYSTEM WITH THIRD-PARTY PV INTEGRATION



METER with external CT: ADL200N-CT (120A)



METER without external CT: YDM201D (80A)



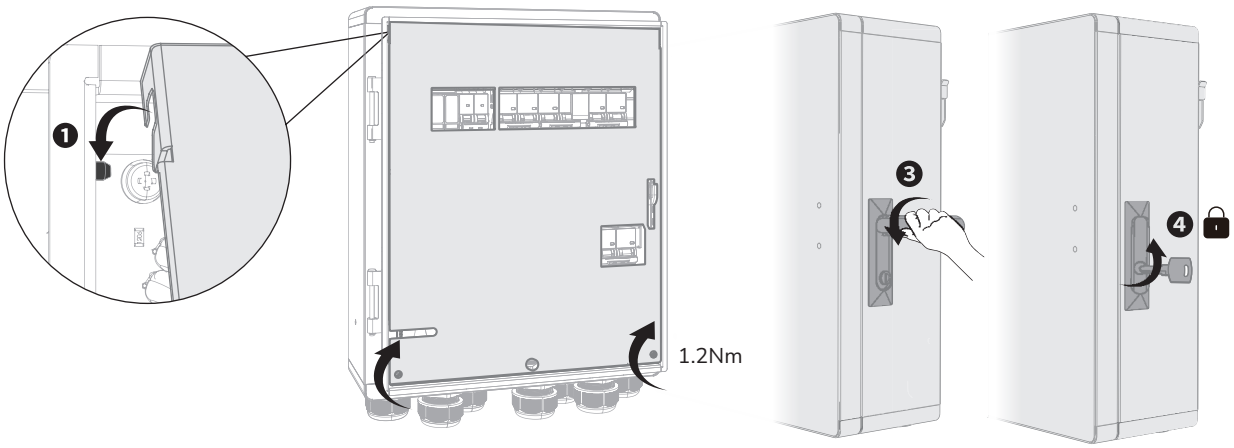
System Commissioning

Check Before Power-On

	Check Item	Acceptance criteria
☐	Equipments	Equipments are installed correctly and securely.
☐	Grounding	The PE cable is connected correctly, securely, and reliably.
☐	Switch	All the switches connecting to the system are in OFF position.
☐	Cable connection	Please make sure there are no exposed cables in the entire system.
☐	Unused terminals and ports	Unused terminals and ports are locked by waterproof glands.

Closing the Maintenance Compartment

- Before closing the maintenance compartment, remove tools and unused screws from the maintenance compartment.
- Keep the delivered keys properly for future use.

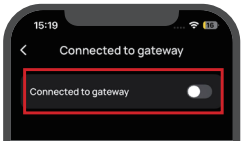


System Power-On

- Wear PPE and use dedicated insulated tools to avoid electric shocks or short circuits.
- Do not operate the bypass switch during site deployment or normal use.

- To ensure you can verify correct installation immediately after setup, install this product only when the utility grid is present and power on the device using grid supply to activate it.

1. Switch on QF1 (SPD).
2. Switch on QF2 (GRID).
3. Switch on QF4 (INVERTER).
4. Switch on QF5 (GENERATOR (if any)).
5. Wait for the inverter and battery to power on; observe the LED to check the inverter and battery operating status.
6. Upon system power-up, access the Pro App for EcoFlow Single-Phase system, navigate to the settings interface, and toggle "**Connected to gateway**" to enable the gateway functionality. This enabling switch is factory-set to the disabled state by default.



System Maintenance

System Power-Off

- Only authorized personnel can open the maintenance compartment cover to perform maintenance operation.
- Before maintenance, power off the main circuit breaker, the inverter, and the DC switches of the inverter and battery.
- Before maintenance, power off backup load circuit breaker, grid AC circuit breaker, and 2 inverter AC circuit breakers.
- After the system powers off, the remaining electricity and heat may still cause electric shocks and body burns. Therefore, put on protective gloves and begin operating the equipment five minutes after the power-off.
- Wait at least 1 minute after a circuit breaker trips (goes OFF) before trying to reset it (switch it ON) to allow the device and circuit to cool down, stabilize, and prevent damage from repeated tripping, which indicates overload or fault. Repeatedly flipping it quickly can cause damage to the device.

1. Shut down the system via EcoFlow App or EPO (if any).
2. Switch off QF5 (GENERATOR (if any)).
3. Switch off QF4 (INVERTER).
4. Switch off QF2 (GRID).
5. Use a multimeter to check that no AC voltage in the gateway is present.

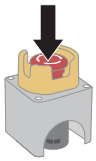
Routine Maintenance

Daily Inspection Items	Appearance Inspection	• Cabinet body without deformation/rust/damage, paint intact • Cabinet door closed tightly, locks and identification in good condition • Grounding terminal connected firmly, grounding wire without breakage
	Operation Status Monitoring	• Voltage within ±5% of rated value • Current not exceeding circuit breaker rated value • No abnormal noise, peculiar smell or overheating • Indicator lights functioning normally (power/operation lights, etc.)
	Key Component Inspection	• Circuit breaker: Contacts without ablation, flexible operation • Contactor: Coil without overheating, contacts without arc marks
Regular Maintenance Content	Weekly Maintenance	• Clean surface of the gateway and debris within 1m radius • Check ventilation openings for blockages, ensure normal heat dissipation • Test residual current device (press test button)
	Monthly Maintenance	• Clean dust inside and outside gateway with brush • Inspect cable joints for overheating discoloration • Tighten connection terminals, clean oxide layer and apply conductive paste
	Quarterly Maintenance	• Inspect capacitor cabinet: capacitors without expansion/leakage, good grounding • Measure grounding resistance (should be ≤4Ω) • Check busbar and lead connection firmness
Special Maintenance Requirements	Safety Device Calibration	Residual current device: Test operation reliability monthly

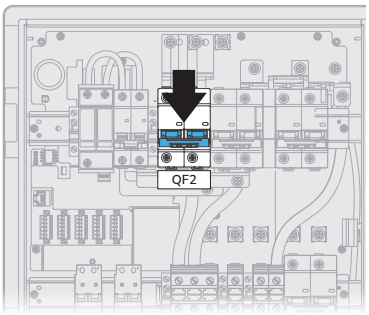
Bypass Switch Operating Instructions

- Wear PPE and use dedicated insulated tools to avoid electric shocks or short circuits.
- Do not operate the bypass switch during site deployment or normal use.
- Do not switch on the bypass switch when the power is on. Otherwise, the high voltage may result in electric shocks and damage to the gateway.
- **DO NOT** switch on the bypass switch (QF3) when the generator (if any) is operating, as it may cause equipment damage or electric shock.
- **The bypass switch can only bypass the grid, not the generator (if any).**

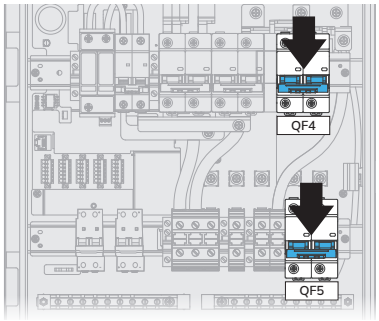
1 Shut down the system via EcoFlow App or EPO (if any).



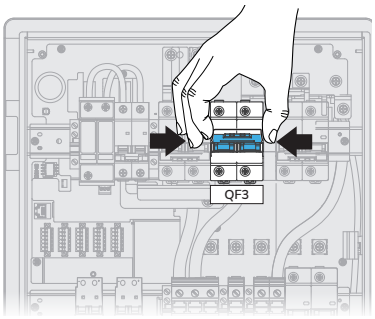
2 Switch off QF2.



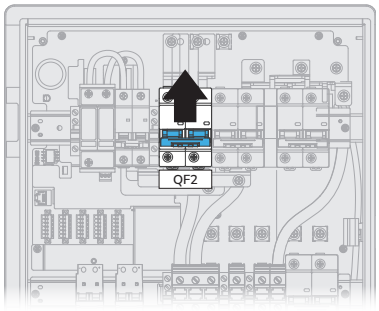
3 Switch off QF4 and QF5.



4 Remove the latch on QF3, then switch on QF3.



5 Switch on QF2.



Technical Parameters

Technical Specification		EF-SG-002
General	Compatible Inverter	**EcoFlow PowerOcean Single Phase Hybrid Inverter:** EF HD-P1-3K-S1, EF HD-P1-3.68K-S1, EF HD-P1-4.6K-S1, EF HD-P1-5K-S1, EF HD-P1-6K-S1 **EcoFlow OCEAN 2 Plus Hybrid Inverter Single Phase:** EF HD-P1-6K0-S2, EF HD-P1-6K0-S2F, EF HD-P1-8K0-S2, EF HD-P1-8K0-S2F, EF HD-P1-10K0-S2, EF HD-P1-10K0-S2F, EF HD-P1-12K0-S2, EF HD-P1-12K0-S2F **EcoFlow OCEAN 2 Single Phase Hybrid Inverter:** EF HD-P1-3K-S2, EF HD-P1-3K68-S2, EF HD-P1-4K6-S2, EF HD-P1-5K-S2, EF HD-P1-5K75-S2, EF HD-P1-6K-S2
	Dimensions (mm)	465 x 380 x 160
	Weight (kg)	Approx. 15.9
	Ingress Protection Rating	IP55
	Noise emission (dB)	< 30
	Installation	Wall mounted
	Low Voltage Ride-Through	Supported
	Bypass Operation Mode	Manual
	Communication	Ethernet / RS485 / CAN / DI/DO
Gird Connection	Grid Connection Type	L/N+PE
	Nominal AC Voltage (V)	220 / 230 / 240
	Nominal AC Current (A)	100
	Nominal AC Power (kW)	22 / 23 / 24
	Nominal AC Frequency (Hz)	50 / 60
	Backup Switchover Time (ms)	0[1]
	Surge Protection	Type II
AC Output to Backup Port	Nominal AC Voltage (V)	220 / 230 / 240
	Nominal AC Current (A)	100
	Nominal AC Power (kW)	22 / 23 / 24
	Nominal AC Frequency (Hz)	50 / 60
	Overvoltage Category	Type III
Generator Port	Nominal AC Voltage (V)	220 / 230 / 240
	Nominal AC Current (A)	100
	Nominal AC Power (kW)	22 / 23 / 24
	Generator 2-Wire Auto-Start	Supported
Adaptability	Cooling Method	Natural Convection[2]
	Relative Humidity Range (RH)	0% to 95%
	Max. Operating Altitude (m)	3000 (derating over 2000)
	Operating Temperature (°C)	-30°C to 60°C[3]
	Storage Temperature (°C)	-30°C to 60°C
	Installation Scenarios	Indoor / Outdoor

1. This parameter denotes the load-side transfer interruption duration. To implement this functionality, the gateway must be used in conjunction with the EcoFlow Single-Phase system. Test Conditions: When the utility grid is in an open-circuit state, the rated power of the EcoFlow Single-Phase system shall exceed the total power consumption of the backup loads.
2. With internal fan.
3. The operating temperature ranges from -30°C to +40°C, and the long-term steady-state current is not derated. When the temperature ranges from 40°C to 60°C, the current is linearly derated from 100 A to 50 A.



Raccolta carta

© 2026 EcoFlow Inc. All rights reserved.