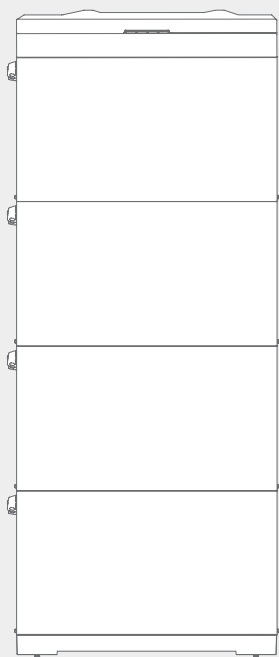


## ECOFLOW OCEAN 2 LFP BATTERY 8kWh



For the latest documents, please scan the QR code.

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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 <http://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.

## Safety Instructions

### I Symbol Conventions

| Symbol                                                                                           | Description                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>DANGER</b>  | Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.                                                                                                                         |
|  <b>CAUTION</b> | Indicates a risk of electric shock.                                                                                                                                                                                                 |
|  <b>WARNING</b> | Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.                                                                                                                      |
|  <b>CAUTION</b> | Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.                                                                                                                        |
|  <b>NOTICE</b>  | Indicates a potential hazard which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results.<br><b>NOTICE</b> is used to address practices not related to personal injury. |
|                 | Indicates additional information that promotes understanding of the product or a topic.                                                                                                                                             |

### I Safety Symbols

| Icon                                                                                          | Name                              | Meaning                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | Caution                           | Caution, risk of danger.                                                                                                                                                                                                                                                                                                    |
|            | Electric shock warning            | Caution, risk of electric shock.                                                                                                                                                                                                                                                                                            |
| <br>5 perc | Delayed discharge                 | Danger to life due to high voltages in the inverter; observe a waiting time of 5 minutes.<br>High voltages that can cause lethal electric shocks are present in the live components of the inverter.<br>Prior to performing any work on the inverter, disconnect it from all voltage sources as described in this document. |
|            | Burn warning                      | Do not touch a running equipment because the enclosure is hot when the equipment is running.                                                                                                                                                                                                                                |
|            | Refer to documentation            | Reminds operators to refer to the documents delivered with the equipment.                                                                                                                                                                                                                                                   |
|            | Grounding                         | Indicates the position for connecting the protective earthing (PE) cable.                                                                                                                                                                                                                                                   |
|            | Symbol of a crossed-out trash can | WEEE designation<br>Do not dispose of the product together with the household waste but in accordance with the disposal regulations for electronic waste applicable at the installation site.                                                                                                                               |
|            | CE marking                        | The product complies with the requirements of the applicable EU directives.                                                                                                                                                                                                                                                 |

# I Important safety instructions

## • GENERAL REQUIREMENTS

### DANGER

1. Do not work with power on during installation.

### CAUTION

2. The battery must only be operated with EcoFlow Hybrid Inverter (Single/Three-Phase). The customer or a third party is not allowed to use the batteries beyond the inverters specified by EcoFlow.
3. The customer or a third party is not allowed to use the batteries beyond the scenarios specified by the Company: such as connecting extra loads to the battery, or using with other batteries, including but not limited to batteries of other brands, or batteries of different rated capacities, etc.
4. Installation, operation and maintenance must be carried out by trained and qualified personnel who understand all safety precautions, are capable of performing all operations correctly, and hold all legally required national qualifications for special operations, such as high-voltage operation, working at heights, and the operation of special equipment.
5. Before installing, operating, and maintaining the equipment, always disconnect it from all power sources.
6. Wear proper PPE (Personal protective equipment) before any operations.
7. If the power cord of this equipment is damaged, it must be replaced by the manufacturer, customer service department or qualified personnel to prevent a safety hazard.
8. Do not touch the exposed cable with your hands.
9. Tighten the screws to the specified torque using tools when installing the equipment.
10. After installing the equipment, remove the remnants of the device installation area, such as cardboard boxes, foam, plastic, wire ties, stripped insulation materials, etc.
11. All warning label and nameplates on the equipment should be visible after installation is complete. Do not scrawl, damage, or block any warning label on the device.
12. Understand the components and functioning of a grid-tied PV power system and relevant local standards.
13. Do not reverse engineer, decompile, disassemble, adapt, add code to the device software or alter the device software in any other way. Any other operation that violates the original design specifications of the device hardware and software is not allowed.
14. Do not touch the energized equipment, as the enclosure is hot.
15. The battery system is not suitable for power supplying life-sustaining medical devices. It cannot guarantee backup power in all circumstances.

## • ELECTRICAL SAFETY REQUIREMENTS

### Grounding

1. For the equipment that needs to be grounded, install the ground cable first when installing the equipment and remove the ground cable last when removing the equipment.
2. Ground the junction box for cascading batteries.
3. Do not damage the grounding conductor.
4. Do not operate the equipment in the absence of a properly installed grounding conductor.
5. Ensure that the equipment is connected permanently to the protective ground. Before operating the equipment, check its electrical connection to ensure that it is securely grounded.

### General Requirements

### DANGER

Before connecting cables, ensure that the equipment is intact. Otherwise, electric shocks or fire may occur.

1. Ensure that all electrical connections comply with local electrical standards.
2. Obtain approval from the local electric utility company before using the equipment in grid-tied mode.
3. Ensure that the cables installer prepared meet local regulations.
4. Use dedicated insulated tools when performing high-voltage operations.
5. Before connecting a power cable, check that the label on the power cable is correct. When fabricating cables and installing connectors on site, follow the respective instructions in this manual and the requirements of local laws and regulations.
6. Before operating the equipment, disconnect all power to the equipment and wait for the corresponding delayed discharge time to ensure that the equipment is completely deenergized.

### Cabling

1. The cabling path must avoid the equipment cooling system and parts.
2. When routing cables, ensure that a distance of at least 30 mm exists between the cables and heat-generating components or areas. This prevents damage to the insulation layer of the cables.
3. Bind cables of the same type together. Mutual entanglement or cross-deployment is not allowed.

## • INSTALLATION ENVIRONMENT REQUIREMENTS

1. The installation and use environment must meet relevant international, national, and local standards for lithium batteries, and are in accordance with the local laws and regulations.
2. Ensure that the battery is not accessible to children and away from daily working or living areas.
3. When installing the battery in a garage, keep it away from the drive way.
4. Install the battery in a dry and well-ventilated environment. Secure the battery on a solid and flat surface.
5. Install the battery in a sheltered place or install an awning over it to avoid direct sunlight or rain.
6. Install the battery in a clean environment that is free from sources of strong infrared radiation, organic solvents, and corrosive gases.
7. For areas prone to natural disasters such as floods, debris flows, earthquakes, and typhoons/hurricanes, take corresponding precautions for installation.
8. Keep the battery away from fire sources and heat sources. Do not place any flammable or explosive materials around the battery.
9. Keep the battery away from water sources such as taps, sewer pipes, and sprinklers to prevent water seepage.
10. Do not install the battery in a position where it is easy to touch as the temperature of the chassis and heat sink is high when the battery is running.

11. To prevent fire due to high temperature, ensure that the vents and the cooling system are not blocked when the battery is running.
12. Do not expose the battery to flammable or explosive gas or smoke. Do not perform any operation on the battery in such environments.
13. This battery is designed for residential scenarios. Do not install the battery on a moving object, such as ship, train, or car.
14. Do not install the battery outdoors in salt-affected or the sand areas because it may corrode. A salt-affected area refers to the region within 500 meters from the coast or prone to sea breeze.
15. The operation and service life of the battery depend on the operating temperature. Install the battery at a temperature equal to the ambient temperature.
16. The operating temperature of the battery ranges from  $-20^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$ . If the battery is installed in a cold environment, the built-in thermal control system starts to heat the battery to achieve better performance. The heating process consumes rechargeable power, which reduces the system energy efficiency for a short time in cold weather.
17. If the battery is stored in a cold environment (for example,  $0^{\circ}\text{C}$ ) before installation, the battery needs some time ( $< 30\text{mins}$ ) to heat up before it can be charged.
18. When the ambient temperature of the battery is higher than  $+40^{\circ}\text{C}$  or lower than  $0^{\circ}\text{C}$ , the battery charge and discharge power will be derated..

## • EQUIPMENT AND PERSONNEL SAFETY REQUIREMENTS

### Move the inverter and battery

1. When moving the equipment by hand, wear protective gloves to prevent injuries.
2. Move the equipment with precaution as it is heavy. Two or more people are needed to assist in moving the equipment.
3. Handles must be used while lifting the battery or use a lifting device.
4. Always be aware of the weight of the inverter and the battery.
5. Avoid dropping the inverter or battery, or subjecting them to mechanical impact.
6. Do not place the inverter or battery directly on a hard surface. Place protective materials such as a sponge pad or foam cushion underneath to prevent damage to the metal enclosure.
7. Lift the inverter and the battery by holding both sides or its handles. Do not hold the terminals directly. Place protective materials, such as a sponge pad or foam cushion, underneath the terminals to prevent damage.
8. Move and install the battery in an upright position. Do not place the battery upside down or tilt it.
9. Do not release your the battery or inverter until it is secured.

### Drilling Holes

1. Wear goggles and protective gloves when drilling holes.
2. When drilling holes, protect the equipment from shavings or dust. After drilling, clean up any shavings or dust that have accumulated at the installation site in a timely manner, otherwise, it may block the drilled hole.

## • BATTERY SAFETY

1. After system installing and connecting electrical, power on the battery system in a timely manner to avoid capacity loss or irreversible damage to the batteries.
2. Correctly set the battery operation management parameters.
3. Battery operating environment or external power parameters MUST meet environment requirements: such as the actual operating temperature of the battery meets the specifications; the power grid is stable, etc.) to avoid damage to the battery.
4. Batteries shall not be frequently over-discharged.
5. Batteries shall be correctly expanded.
6. Batteries shall not fully charged for a long time.
7. Maintain batteries based on the this manual, such as check battery terminals regularly.
8. Do not use batteries that have exceeded the warranty period.
9. Do not expose batteries at high temperatures or around heat-generating sources. The battery may cause a fire if overheated.
10. Do not disassemble, alter, or damage batteries. For example, do not insert foreign objects into batteries or place batteries in water or other liquids.
11. The fire hazard of the battery energy storage system is high. Consider the following safety risks before handling batteries:
  - Battery electrolyte is combustible, toxic, and volatile.
  - Battery thermal runaway can generate flammable gas and harmful gas such as CO and HF.
  - The concentration of flammable gas generated from battery thermal runaway may cause deflagration and explosion.
12. Obvious battery abnormalities, such as electrolyte leakage and structural deformation, indicate potential safety risks. Contact your installer or professional personnel to remove and replace the battery.
13. The batteries must be stored separately inside the packaging. Do not store batteries together with other materials or in the open air.
14. Do not remove the battery packaging before use.
15. Protect batteries from impact.
16. Do not perform welding or grinding work around batteries to prevent fire caused by electric sparks or arcs.
17. Do not use damaged batteries (such as damage caused when a battery is dropped, bumped, or dented on the enclosure). Damaged batteries may release flammable gases. Do not store damaged batteries near undamaged products.
18. Do not place damaged batteries in close proximity to flammable materials. Do not approach the damaged batteries unless you are a professional.
19. Monitor damaged batteries during storage for signs of smoke, flame, electrolyte leakage, or heat.
20. Do not place irrelevant objects on the top of the equipment or insert them into any position of the equipment.
21. To prevent electric shock, remove any metal objects from yourself before operating batteries, such as watches and rings.
22. Do not place the battery module in a fire, water or other liquids.
23. Do not use water to clean electrical components of the equipment.

## • BATTERY EMERGENCY MEASURES

1. Avoid contact with leaked liquids or gases in the case of battery leakage or abnormal odor. Do not approach the battery. Contact professionals immediately. Professionals must wear safety goggles, rubber gloves, gas masks, and protective clothing.
2. Electrolyte is corrosive and can cause irritation and chemical burns. Should you come into direct contact with the battery electrolyte, do as follows:
  - Inhalation: Evacuate contaminated areas, get fresh air immediately, and seek immediate medical attention.
  - Eye contact: Immediately flush your eyes with water for at least 15 minutes, do not rub your eyes, and seek medical attention immediately.
  - Skin contact: Wash the affected areas immediately with soap and water and seek medical attention immediately.

- Ingestion: Seek immediate medical attention.
- 3. If the battery catches fire, extinguish the fire with sand, carbon dioxide, or dry powder fire extinguishers.
- 4. Do not contact with high-voltage components during fire fighting to prevent the risk of electric shock.
- 5. If any part of the batteries is submerged in water, do not touch the batteries to avoid electric shock.
- 6. Do not use batteries that have been soaked in water. Contact a battery recycling company for disposal.
- 7. If a battery pack is dropped or violently impacted during installation, internal damage may occur. Do not use such battery packs; otherwise, safety risks such as cell leakage and electric shock may arise. Contact the professionals to transfer the battery to an open and safe place, or contact a recycling company for disposal.

- **TRANSPORTATION REQUIREMENTS**

1. The batteries cannot be transported by rail or air.
2. Comply with maritime transport & road transport rules.
3. Protect the packing case with the product from the following situations:
  - Being dampened by rains, snows, or falling into water
  - Falling or mechanical impact
  - Being upside-down or tilted.

- **DISPOSAL**

For information on the disposal of electrical and electronic equipment, please refer to the following website:  
<https://eu.ecoflow.com/pages/electronic-devices-disposal>

## I Function

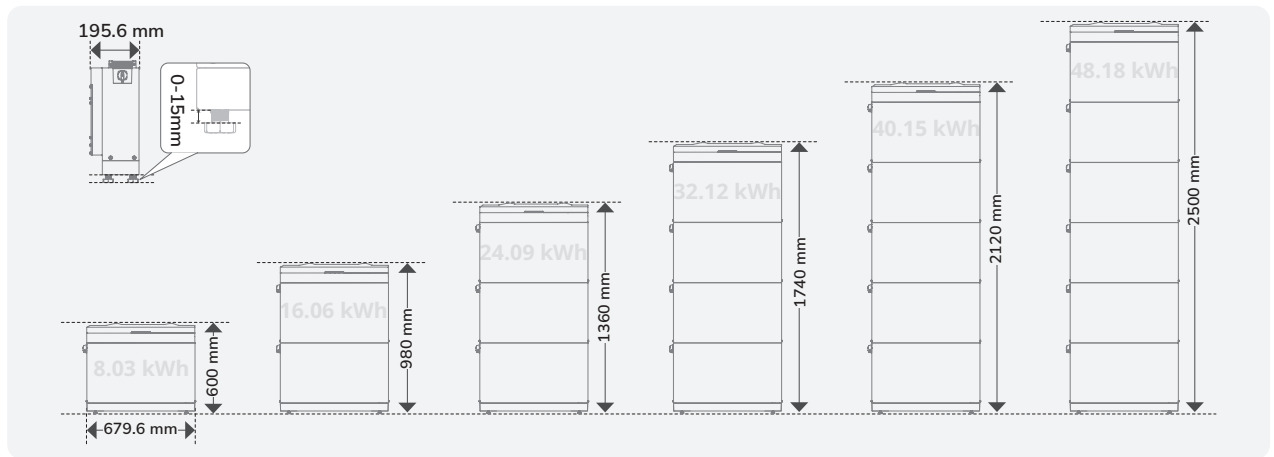
This battery system consists of a battery junction box, battery expansion modules and a battery base. It can store and release electric energy based on the requirements of the inverter management system. The input and output ports of the battery are high-voltage direct current (HVDC) ports.

**Battery charge:** The junction box connects to the battery terminals (BAT+ and BAT-) of the inverter. Under the control of the inverter, the system charges the batteries and stores excessive PV energy in batteries.

**Battery discharge:** When the PV energy is insufficient to supply power to the loads, the system controls the batteries to supply power to the loads. The battery energy is output to the loads through the inverter.

## I Battery Capacity Description

The battery supports power and capacity expansion. Up to 4 junction boxes can be connected in parallel. One junction box supports a maximum of 6 battery expansion modules.

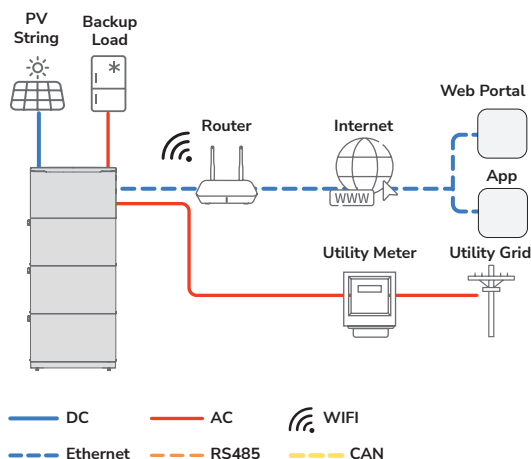


## I Networking Application

EcoFlow OCEAN 2 LFP Battery 8kWh is a parallel connected high voltage battery system, compatible with our three-phase / single-phase hybrid inverters. There are two types of EcoFlow inverters: modular separated designs and integrated stackable designs. For modular separated designs, a battery junction box is required to connect the inverter to the battery system. For integrated stackable designs, the inverter stacks directly with the battery—no battery junction box is needed.

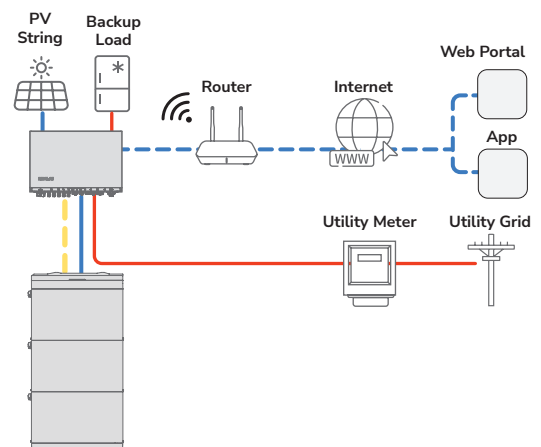
### 1. INTEGRATED STACKABLE DESIGNS: BATTERY JUNCTION BOX NOT REQUIRED

- EcoFlow OCEAN 2 Hybrid Inverter Three-Phase
- EcoFlow OCEAN 2 Plus Hybrid Inverter Single-Phase
- EcoFlow PowerOcean Single-Phase Hybrid Inverter
- EcoFlow OCEAN 2 Single-Phase Hybrid Inverter



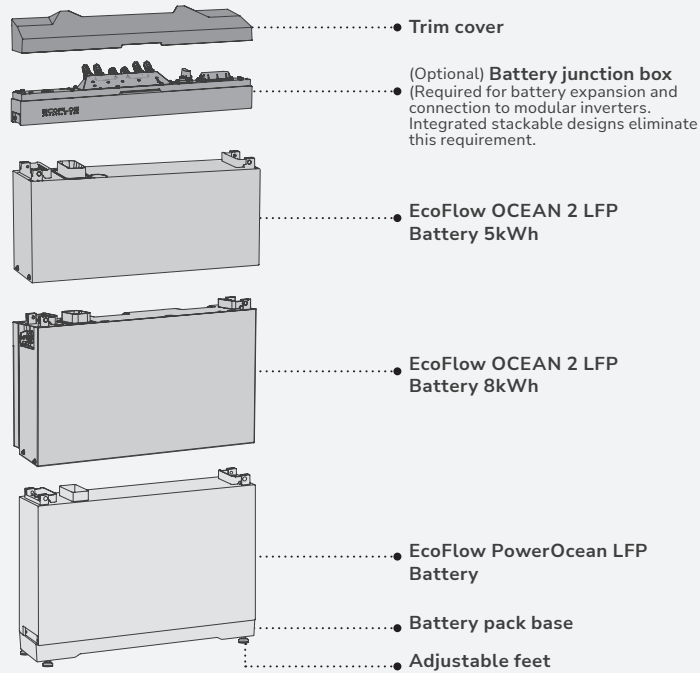
### 2. MODULAR SEPARATED DESIGNS: BATTERY JUNCTION BOX REQUIRED

- EcoFlow PowerOcean Three-Phase Hybrid Inverter
- EcoFlow PowerOcean Plus Three-Phase Hybrid Inverter



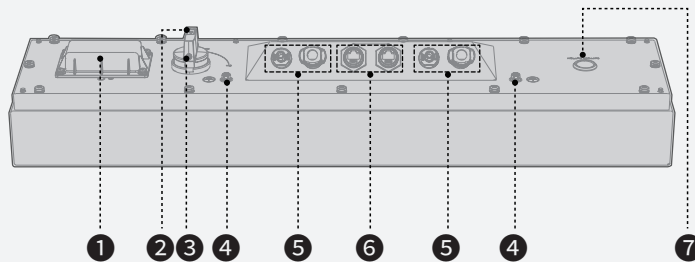
## HYBRID STACKING OF EcoFlow OCEAN 2 LFP Battery and EcoFlow PowerOcean LFP Battery

EcoFlow OCEAN 2 LFP Battery 8kWh is compatible with EcoFlow OCEAN 2 LFP Battery 5kWh and EcoFlow PowerOcean LFP Battery; both the OCEAN 2 Battery and the PowerOcean Battery support power expansion, capacity scaling, and mixed stacking installation.



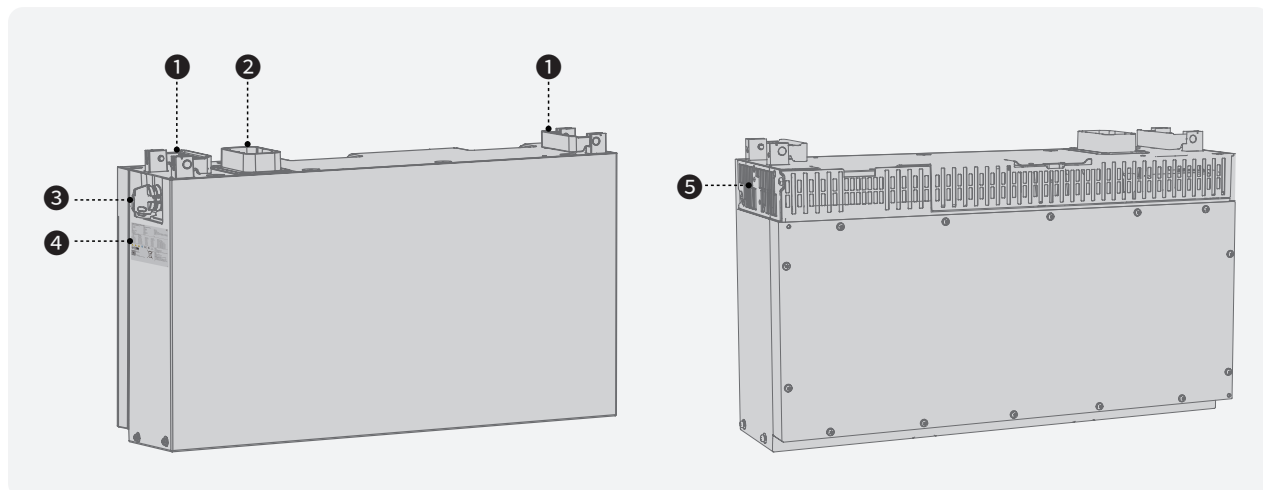
## I Appearance Overview

### • ECOFLOW BATTERY JUNCTION BOX



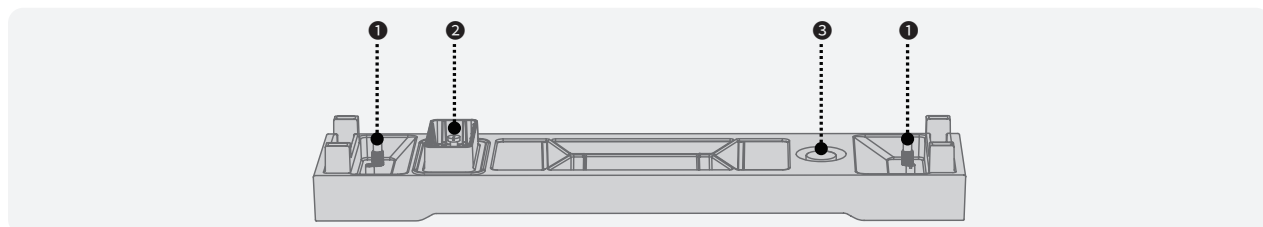
| No. | Part Name                    | Description                                                                                                     |
|-----|------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 1   | Fuse                         | See the section <b>Replacing a Fuse</b> .                                                                       |
| 2   | Lock hole button             | press and hold to reveal the lock hole and lock to prevent accidental startup.                                  |
| 3   | BATTERY SWITCH               | Used for battery-inverter connection control (disconnect/reconnect).                                            |
| 4   | Ground point                 | Used for connecting ground wire.                                                                                |
| 5   | Battery terminal (BAT-/BAT+) | Used for battery power cable connection.                                                                        |
| 6   | Communication port (B-COM)   | Used for communication between battery junction box and inverter.                                               |
| 7   | BATTERY ON/OFF               | Press and hold for 3 seconds to turn on the batteries; Press and hold for 10 seconds to turn off the batteries. |

## • ECOFLOW OCEAN 2 LFP BATTERY 8KWH



| No. | Part Name                                  | Description                                                                                                                                                      |
|-----|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Handles                                    | Hold the handles to move the battery                                                                                                                             |
| 2   | Click-on terminal                          | Stacking terminal                                                                                                                                                |
| 3   | BATTERY SWITCH<br>(Australia version only) | Used for battery-inverter connection control (disconnect/reconnect)                                                                                              |
| 4   | Nameplate                                  | Containing essential information including brand, model, serial number, technical specifications, safety instructions, and regulatory compliance certifications. |
| 5   | Air exhausts                               | Do not block air exhausts during operation. Restricted airflow may cause overheating and activate power derating protection.                                     |

## • ECOFLOW OCEAN 2 LFP BATTERY BASE



| No. | Part Name         | Description                                            |
|-----|-------------------|--------------------------------------------------------|
| 1   | Adjustable feet   | Used for leveling the base                             |
| 2   | Click-on terminal | Stacking terminal                                      |
| 3   | Spirit Level      | Used to determine if the base is perfectly horizontal. |

## I Features

### • MULTI-SCENARIO AND MULTI-WORKING MODE

1. Supports multiple working modes such as grid-tied, power backup scenario, self-consumption mode.
2. Allows users to query the total discharge capacity in the product life cycle in real time.

### • INTELLIGENT AND SIMPLE OPERATION

1. Works with the inverter, supports plug-and-play, and integrates the mobile phone app.

### • EASY INSTALLATION AND REPLACEMENT

1. Standard battery DC terminals are used for system connection.
2. Modular design is adopted for batteries, which are stacked and connected without external cables.
3. Modular design is adopted for battery junction box, which is designed for easy connection to the inverter.
4. Sleek Design saves installation space.

### • FLEXIBLE SCALABILITY

1. The battery system supports power expansion, battery capacity expansion, and hybrid use of old and new batteries.

- The battery system supports isolation of failed battery modules to ensure that the energy storage system can still operate normally.

#### • INTELLIGENT OPERATION AND MAINTENANCE

- The factory defaults meet the requirements of target markets and the battery can be started by pressing only one button and supports black startup.
- The LED indicator shows the status. You can also use the EcoFlow app to perform local and remote operations and manage the battery anytime and anywhere.

#### • SAFE AND EFFICIENT

- BMS module is embedded within every battery pack, achieving a compact design with no extra power module on top of batteries.
- Active aerosol fire protection module in every battery pack to secure maximum safety.

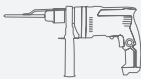
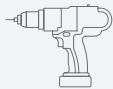
## Technical Specification

| Technical Specifications |                                            | EF BD-8-S2                                                                                                                                                                                                                                                                                                                                        | EF BD-8-S2A                                                            |
|--------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Performance              | Battery Nominal Capacity (kWh)             | 8.03                                                                                                                                                                                                                                                                                                                                              |                                                                        |
|                          | Battery Usable Capacity <sup>1</sup> (kWh) | 7.76                                                                                                                                                                                                                                                                                                                                              | 8.03                                                                   |
|                          | Battery Cell Type                          | LiFePO <sub>4</sub>                                                                                                                                                                                                                                                                                                                               |                                                                        |
|                          | Nominal Charging Power (W)                 | 4100                                                                                                                                                                                                                                                                                                                                              |                                                                        |
|                          | Nominal discharging Power (W)              | 4100                                                                                                                                                                                                                                                                                                                                              |                                                                        |
|                          | Maximum discharging Power <sup>2</sup> (W) | 6400                                                                                                                                                                                                                                                                                                                                              |                                                                        |
|                          | Nominal Voltage (V)                        | 400 / 800                                                                                                                                                                                                                                                                                                                                         |                                                                        |
|                          | Operating Voltage Range (V)                | 360-520 / 720-960                                                                                                                                                                                                                                                                                                                                 |                                                                        |
| Compliance               | Safety Standard                            | IEC/EN 62619, IEC/EN 62040-1, IEC/EN 62477-1, ISO 13849-1, VDE-AR-E 2510-50, SA TS 5398                                                                                                                                                                                                                                                           |                                                                        |
|                          | Delivery Standard                          | UN38.3                                                                                                                                                                                                                                                                                                                                            |                                                                        |
|                          | EMC                                        | EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4                                                                                                                                                                                                                                                                                            |                                                                        |
| General Data             | Dimension (WxDxH) (mm)                     | 679.6×195.6×378                                                                                                                                                                                                                                                                                                                                   |                                                                        |
|                          | Weight (kg)                                | Approx. 67.5                                                                                                                                                                                                                                                                                                                                      |                                                                        |
|                          | Installation                               | Floor Stand: Up to 6 batteries per tower, maximum 4 towers in parallel                                                                                                                                                                                                                                                                            | Floor Stand: Up to 5 batteries per tower, maximum 4 towers in parallel |
|                          |                                            | Wall Mounted: Up to 3 batteries per tower, maximum 4 towers in parallel                                                                                                                                                                                                                                                                           |                                                                        |
|                          | Operating Temperature <sup>3</sup> (°C)    | -20 to 55                                                                                                                                                                                                                                                                                                                                         |                                                                        |
|                          | Storage Temperature (°C)                   | -25 to 60                                                                                                                                                                                                                                                                                                                                         |                                                                        |
|                          | Max. Operating Altitude <sup>4</sup> (m)   | 3000                                                                                                                                                                                                                                                                                                                                              |                                                                        |
|                          | Cooling Method                             | Active Air Cooling (Fan-assisted)                                                                                                                                                                                                                                                                                                                 |                                                                        |
|                          | Relative Humidity                          | 0%-100%                                                                                                                                                                                                                                                                                                                                           |                                                                        |
|                          | IP Rated                                   | IP66                                                                                                                                                                                                                                                                                                                                              |                                                                        |
|                          | Anti-theft                                 | Supported                                                                                                                                                                                                                                                                                                                                         |                                                                        |
|                          | Communication Method                       | CAN                                                                                                                                                                                                                                                                                                                                               |                                                                        |
|                          | Protection                                 | Over-charge/over-discharge protection, over-voltage/under-voltage protection, over-current protection, short-circuit protection, reverse-polarity protection, temperature protection, thermal-runaway protection, leakage-current protection, insulation protection, over-pressure protection, automatic power-off protection, emergency shutdown |                                                                        |

- Under laboratory test conditions at 25°C ambient temperature with the device stabilized at 25°C, the battery undergoes 0.2C charge/discharge cycling at 100% depth of discharge (DoD) during beginning of life (BOL).
- At 25°C ambient and device temperature under laboratory conditions, the discharge duration at the specified power is limited to a maximum of 30 minutes.
- Power may be derated when the temperature exceeds 40°C.
- Power may be derated above 2000 m.

# Preparing Tools and Instruments

## • ESSENTIAL TOOLS

|                                                                                                                                |                                                                                                                                      |                                                                                                               |                                                                                                                                                       |                                                                                                                                                                         |                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <br>Hammer drill<br>(with a drill bit of 8mm) | <br>Electrical screwdriver                          | <br>Torque socket of<br>10mm | <br>Multimeter<br>(DC voltage measurement<br>range $\geq 1000$ V DC) | <br>Mallet                                                                            | <br>Screwdriver<br>(PH3) |
| <br>Cable cutter                              | <br>Open barrel crimping tool<br>(for PV terminals) | <br>Wire strippers           | <br>RJ45 crimping tool                                               | <br>Square crimping tool<br>(for tubular terminals 0.5, 10<br>or 16 mm <sup>2</sup> ) | <br>Heat-shrink tubing   |
| <br>Marker                                    | <br>Steel measuring tape                            | <br>Cable tie                | <br>Heat gun                                                         |                                                                                                                                                                         |                                                                                                             |

## • OPTIONAL TOOLS

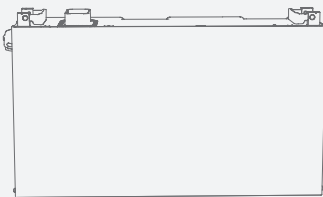
|                                                                                            |                                                                                                     |                                                                                                     |                                                                                                   |                                                                                                     |                                                                                                  |
|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <br>Level | <br>Vacuum cleaner | <br>Safety goggles | <br>Safety shoes | <br>Safety gloves | <br>Dust mask |
|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|

# What's in the Box

### NOTICE

- Before unpacking, check the outer packing for damage, such as holes and cracks, and check the equipment model. If any damage is found, do not unpack the package and contact the supplier as soon as possible.
- After unpacking, check that the deliverables are intact and complete. If any item is missing or damaged, contact the supplier.
- It is recommended to keep the original package for further needs.

## • ECOFLOW OCEAN 2 LFP BATTERY 8kWh

|                                                                                                                                         |                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>B1</b> ×1<br><br>EcoFlow OCEAN 2 LFP Battery 8kWh | <b>B2</b> ×2<br><br>Battery T-shaped/L-shaped mounting piece |
| <b>B3</b> ×2<br><br>Expansion bolt<br>(M6*60)        | <b>B4</b> ×4<br><br>Screw<br>(M5*12)                         |

# System Installation

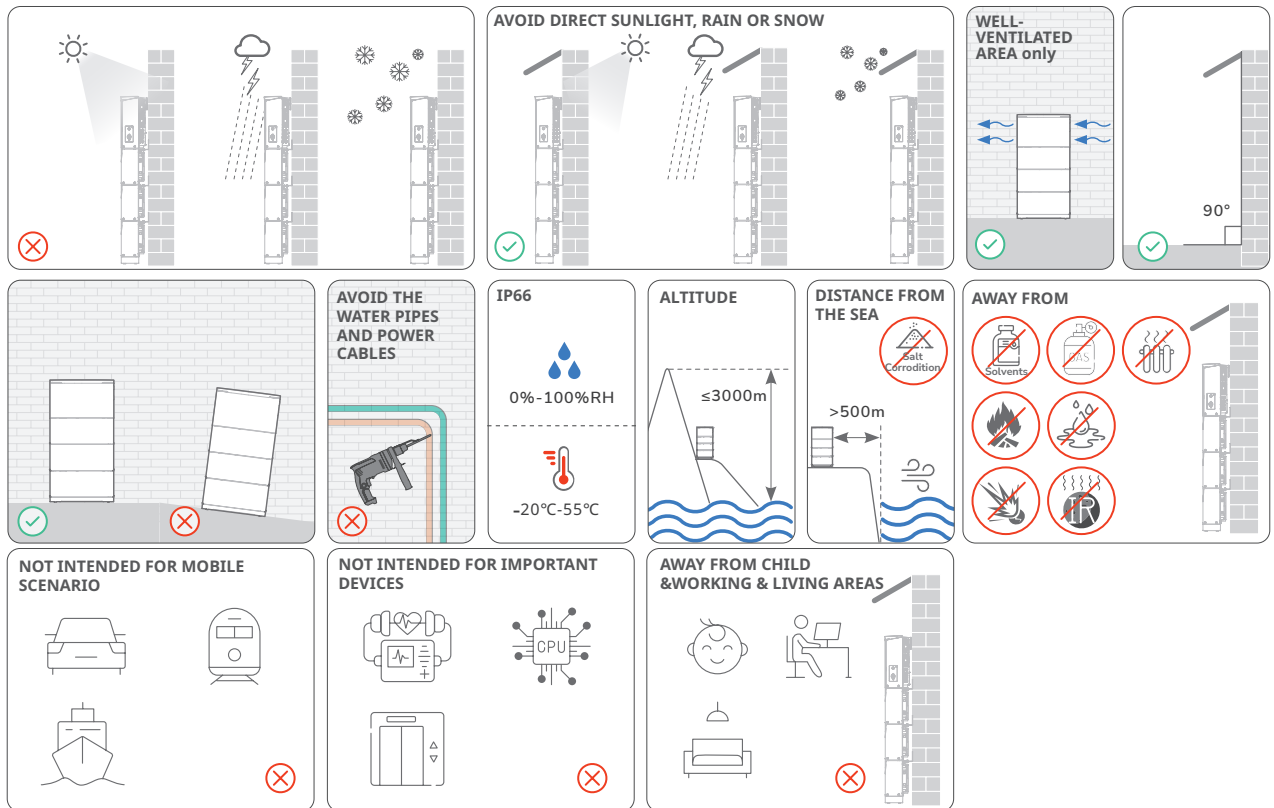
## I Installation Environment Requirements

### WARNING

- The installation and operation environment must meet relevant international, national, and local standards for lithium batteries and the inverter.

### NOTICE

- When installing the equipment in a garage, keep it away from the drive way.
- The mounting structure where the equipment is installed must be fire resistant. Do not install the equipment on flammable building materials. Suitably non-combustible materials are: brick or masonry block, concrete.
- The material shall have no vents or perforations within the zone required to be covered by the barrier.
- Ensure that the installation surface is solid enough to bear the weight of the equipment.
- Suitable locations for installation may include garages, storage rooms, a dedicated battery system room and verandas.
- The system shall not be installed:
  - in restricted locations, as defined for switchboards in AS/NZS 3000;
  - within 600 mm of any exit;
  - within 600 mm of any vertical side of a window or building ventilation that ventilates a habitable room;
  - within 600 mm of any hot water unit, air conditioning unit or any other appliance not associated with the pre-assembled integrated BESS;
  - within 900 mm below any of the items included in Items (b), (c) and (d);
  - in ceiling spaces;
  - in wall cavities;
  - on roofs, except where specifically deemed suitable;
  - under stairways;
  - under access walkways;
  - in an evacuation route or escape route.



## I Installation Clearance Requirements

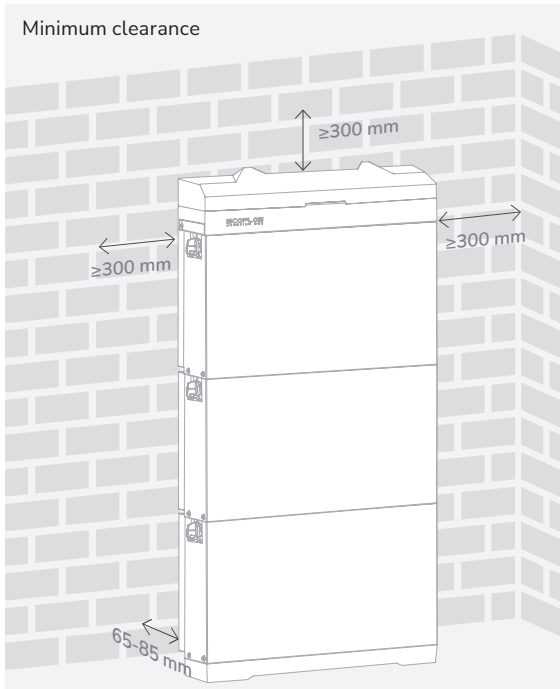
### WARNING

- Reserve enough clearance around equipments to ensure sufficient space for installation and heat dissipation.
- Do not block air exhausts during operation. Restricted airflow may cause overheating and activate power derating protection.

**NOTICE**

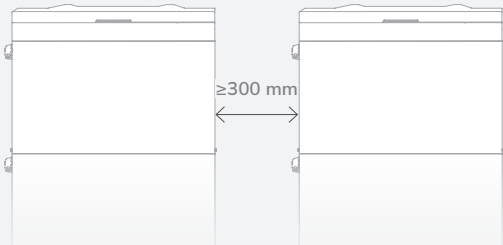
- Ensure there is enough space on both sides of the battery to facilitate the locking operation of the screws on the side of the battery.
- Battery system installed in any corridor, hallway, or lobby shall ensure sufficient clearance from the battery system for safe egress and be no less than 1 m.

Minimum clearance



Minimum clearance between parallel battery stacks

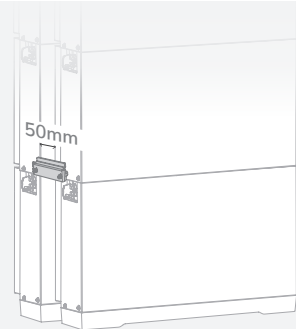
Option 1: Side-by-side arrangement



Option 2: Front-to-back arrangement



The mounting bracket is sold separately. For the quick guide, please scan the QR code.



## I Installing Battery

**⚠ DANGER**

- When drilling holes, avoid the water pipes and power cables buried in the wall and under the floor.
- When drilling holes, protect the battery base and batteries from shavings or dust.
- Before installing the battery, make sure that the click-on terminals on the top and bottom of the battery are free of foreign objects or any liquid.

**⚠ CAUTION**

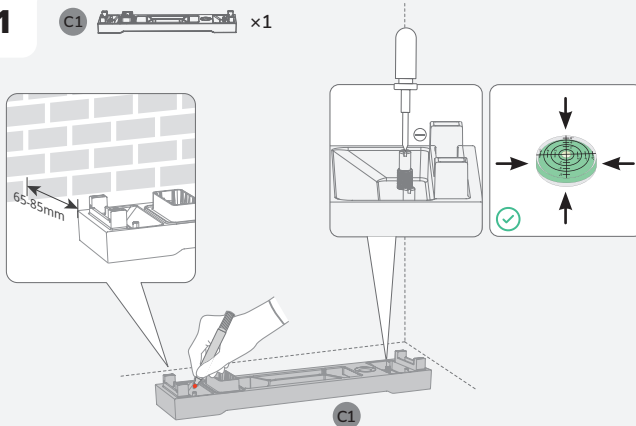
- Ensure the batteries are mounted on the wall to avoid falling over, tipping, or seismicity.
- Assign enough personnel (two or more) to move battery to avoid personal injury and battery damage.
- When moving battery, hold handles on top of the battery module.

**NOTICE**

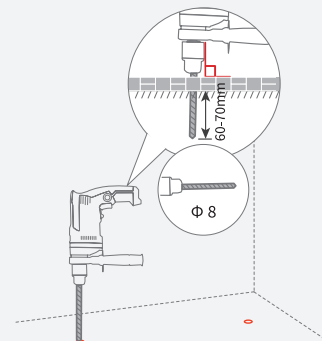
- The two M6×60 expansion bolts supplied with each battery may be used either to secure the battery itself or to fasten the battery base—options include fastening the battery with 1 bolt and fastening the base with 2 bolts, or fastening the battery with 2 bolts and leaving the base unfastened. Decide on-site according to actual installation conditions.

### METHOD 1: FLOOR MOUNTED

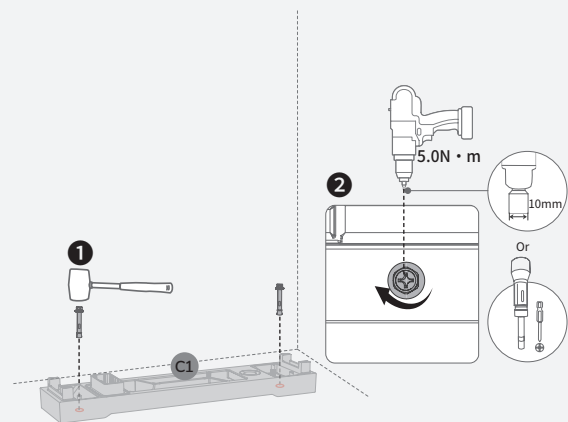
#### 1 ×1



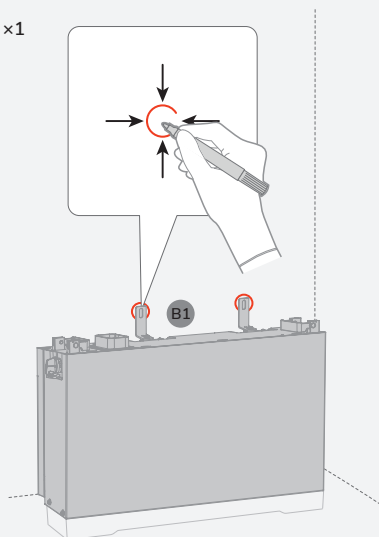
#### 2



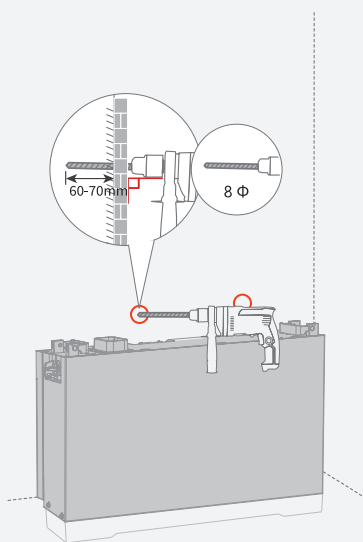
3 B3 x2



4 B2 x1

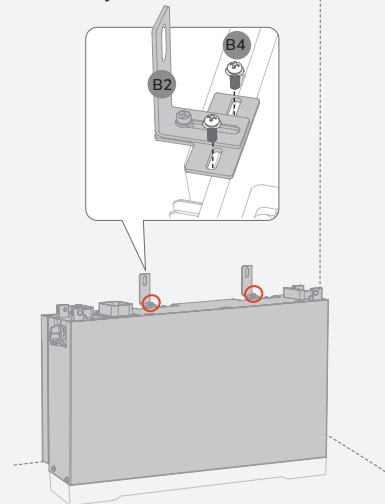


5



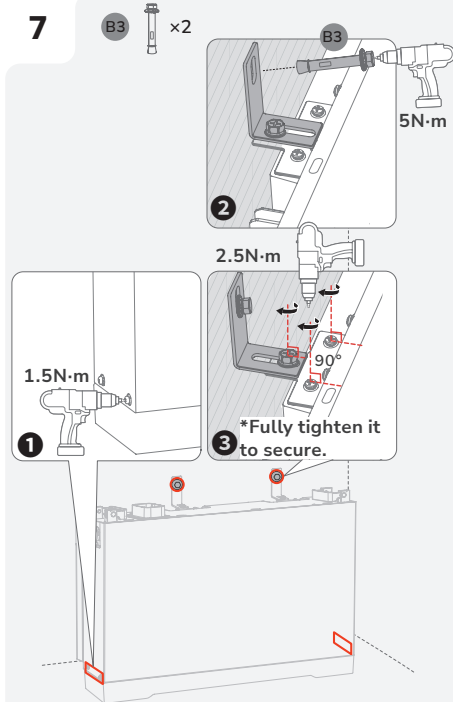
6 B1 x1 B2 x2 B4 x4

\*Do not fully tighten to allow for following adjustment.

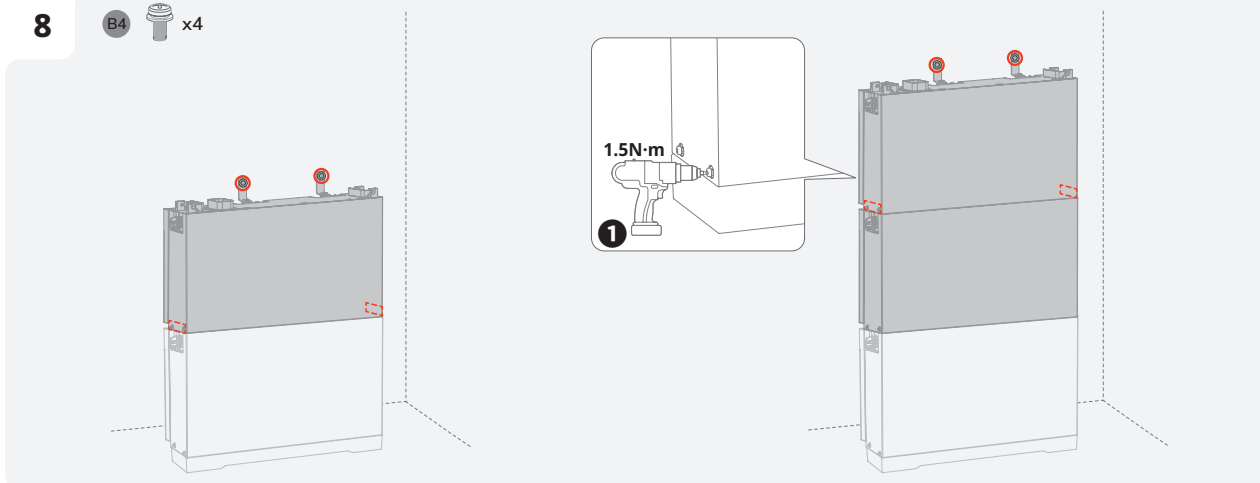


7

B3 x2

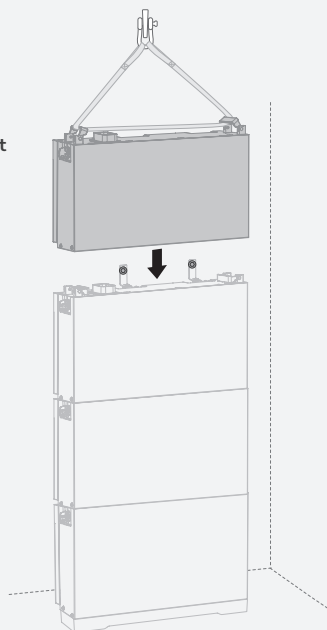


8 B4 x4

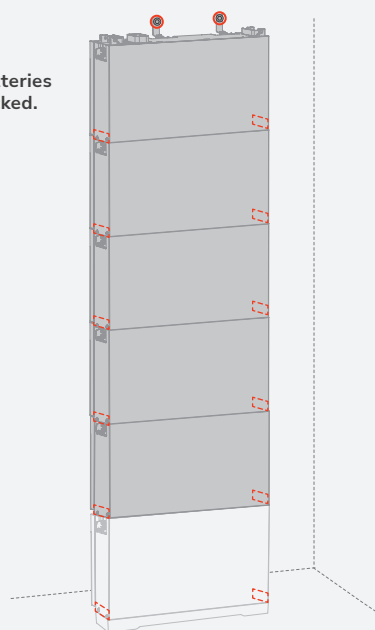


**CAUTION**

For installation of 4, 5, or 6 battery stacks, use appropriate lifting equipment (e.g., chain hoist or forklift). During handling, keep the battery unit horizontal and position it vertically.



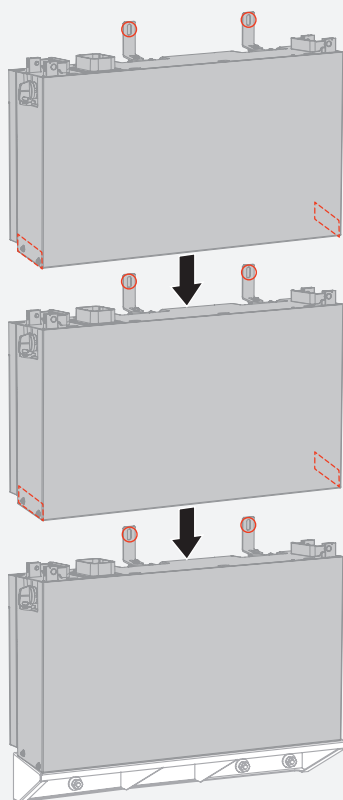
Up to 6 batteries can be stacked.



## • METHOD 2: WALL MOUNTED (OPTIONAL)

**NOTICE**

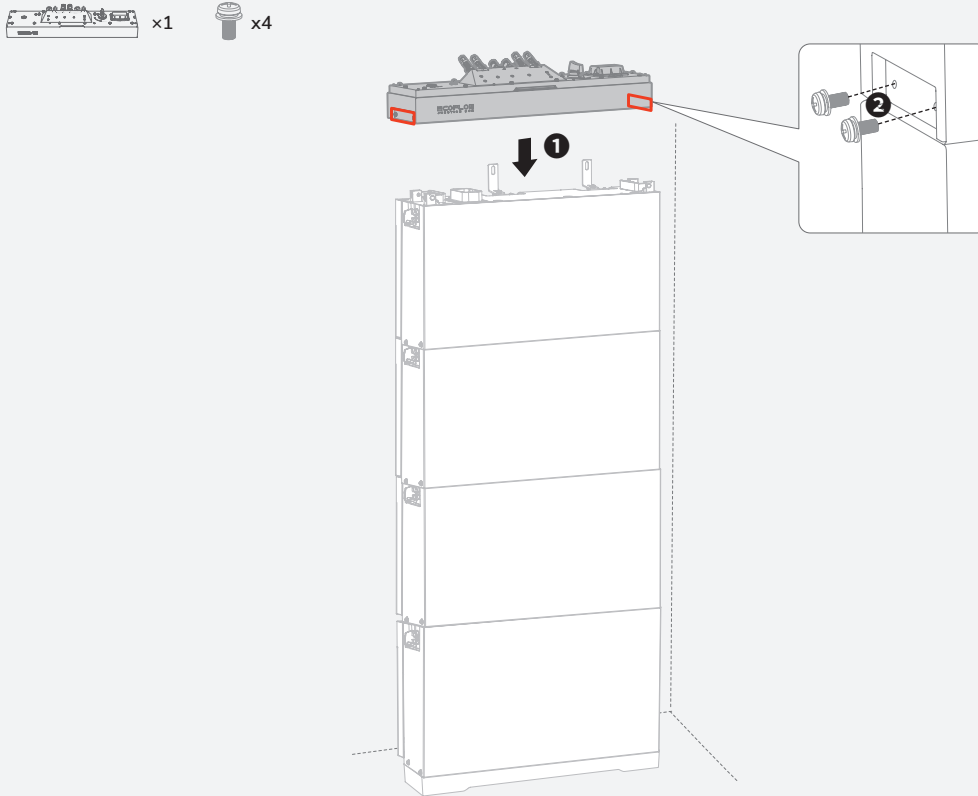
- For details about wall mounted installation, see the installation guide that comes together with the EcoFlow Wall-Mounted Battery Base. Then, install the remaining batteries and the inverter as shown in the method 1.
- The wall-mounted battery base (sold separately) supports stacking of up to 3 batteries.



## (Optional) Installing Battery Junction Box

### NOTICE

- Battery expansion and connections to standalone inverters require a battery junction box. Stackable integrated designs eliminate this requirement.



## CAUTION

- All electrical connections must be carried out by a professionally trained and certified electrician.

## NOTICE

- Prepare cables that meet local certification standards.
- Do not remove the protective cap of unused terminals. Otherwise, the IP rating of the inverter will be affected.
- The cable colors shown in the figures are for reference only. Select an appropriate cable according to the local standards.
- Based on the installation environment and mechanical performance requirements, rigid cables or flexible cables can be used.
- Battery expansion and connections to standalone inverters require a battery junction box. Refer to the corresponding installation guide for wiring instructions between the battery junction box and the inverter.

## LEGEND

1

**Ground cable**

10 mm<sup>2</sup>

3

**Battery power cable**

6-10 mm<sup>2</sup> with a rated voltage greater than or equal to 1000V DC

2

**Communication terminals**

Cat 5e or higher shielded network cable

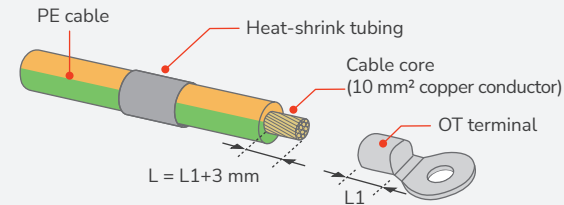
## I Connecting PE Cables

### NOTICE

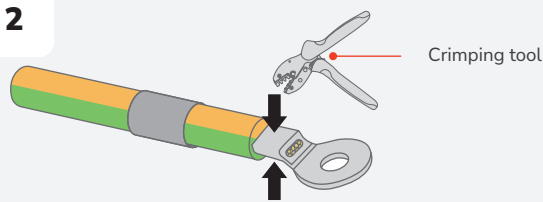
- Ensure that the PE cable is connected securely.
- Wrap the wire crimping area with heat shrink tubing or insulation tape. The heat shrink tubing is used as an example.
- When using a heat gun, protect the equipment from being scorched.
- It is recommended that silica gel or paint be used around the ground terminal after the PE cable is connected.

1

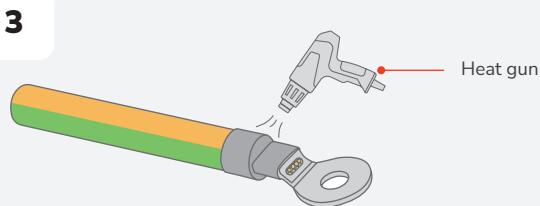
A14 ×2



2

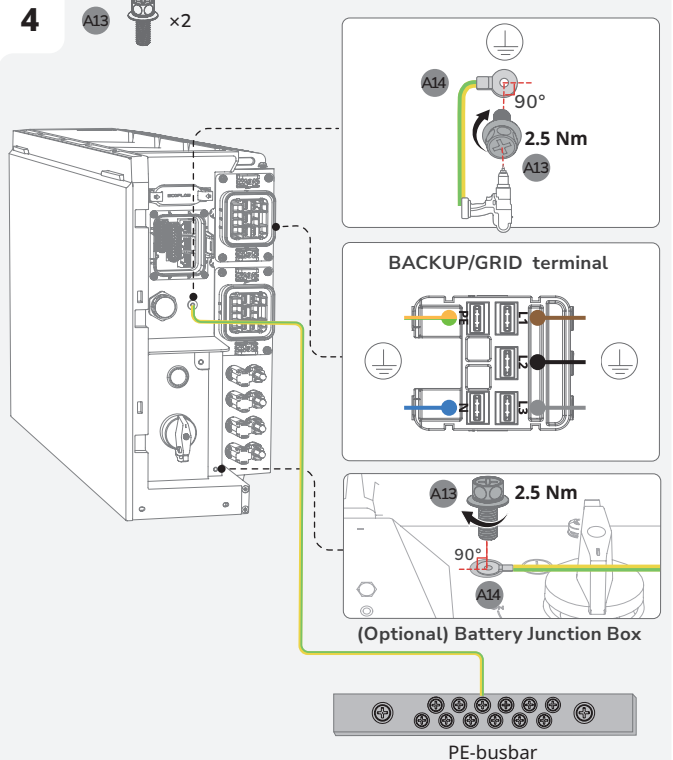


3



4

A13 ×2

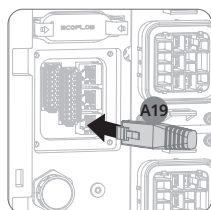


## I Cascading Batteries

## NOTICE

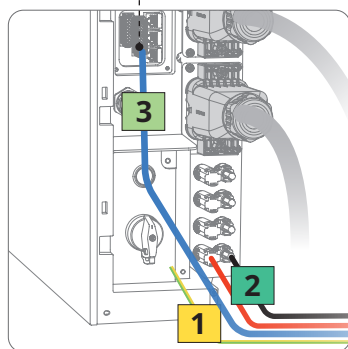
- One battery junction box supports a maximum of 6 battery packs.
- Up to 12 battery packs can be cascaded.
- Do not remove the protective cap of unused DC input terminals. Otherwise, the IP rating of the equipment will be affected.

- **INVERTERS WITH INTEGRATED/STACKABLE DESIGNS.**



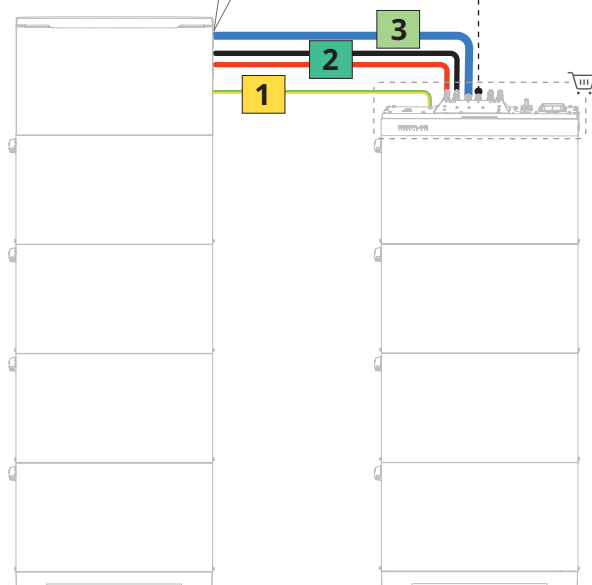
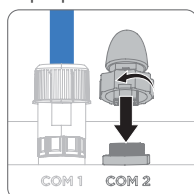
## NOTICE

- B-COM port: Please install a terminating resistor to the unused B-COM terminal for proper communication.



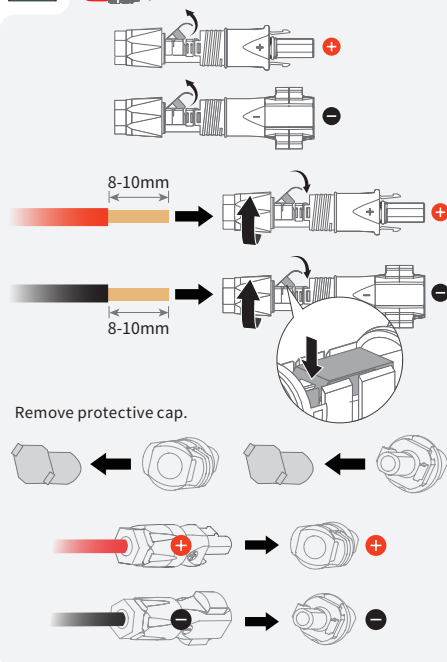
## NOTICE

- B-COM port: Please install a terminating resistor to the unused B-COM terminal for proper communication.



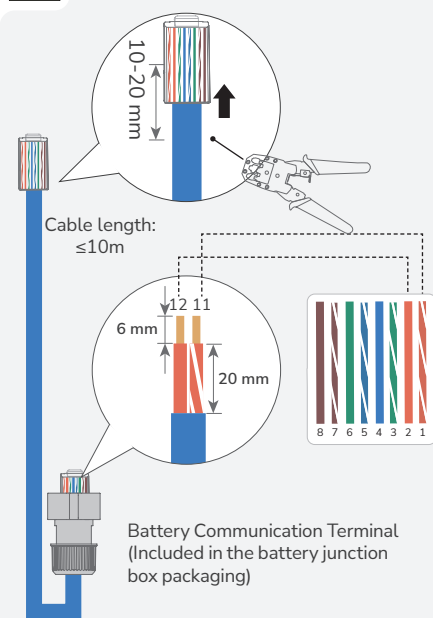
2

- Battery Power Cables (Included in the battery junction box packaging)



3

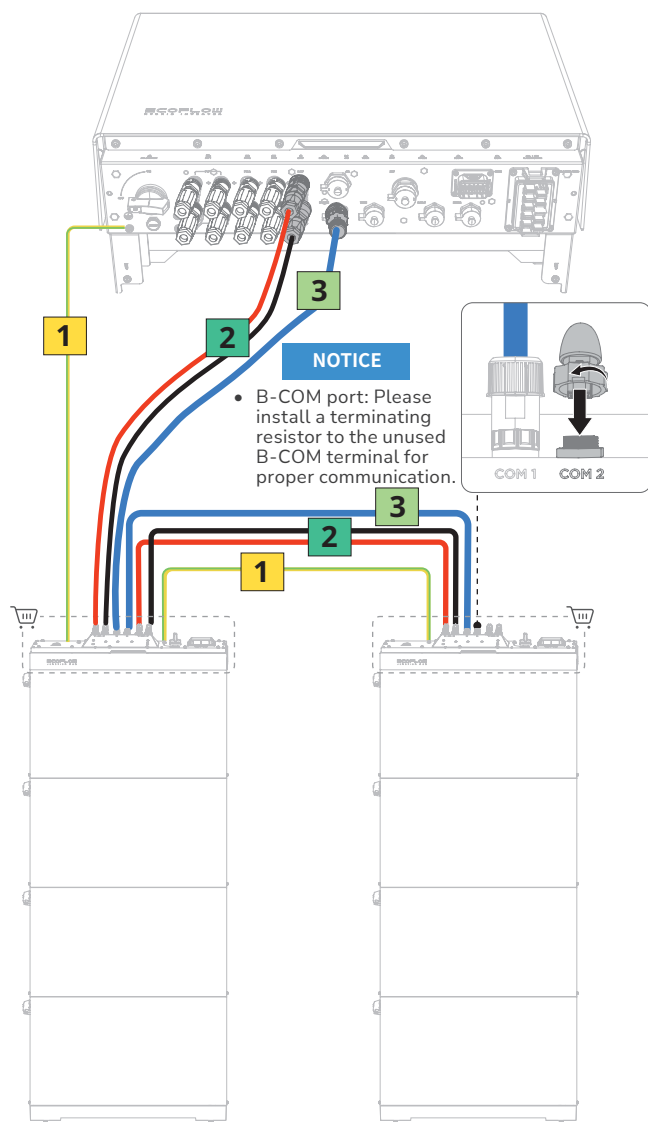
- A17**  **x1** Preparing battery communication cables



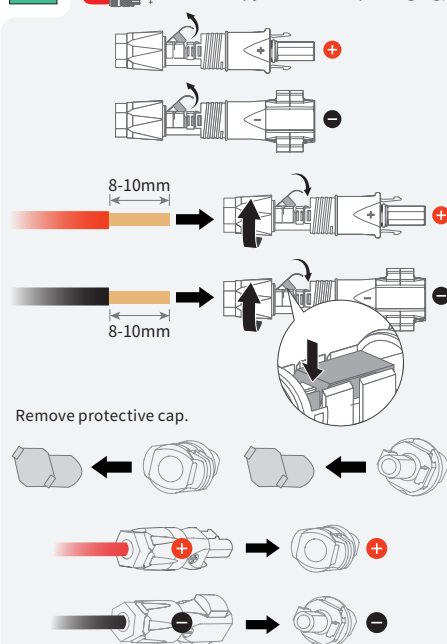
1

For details about connecting grounding terminals between the battery junction boxes, see the section **Connecting PE Cables** in this guide.

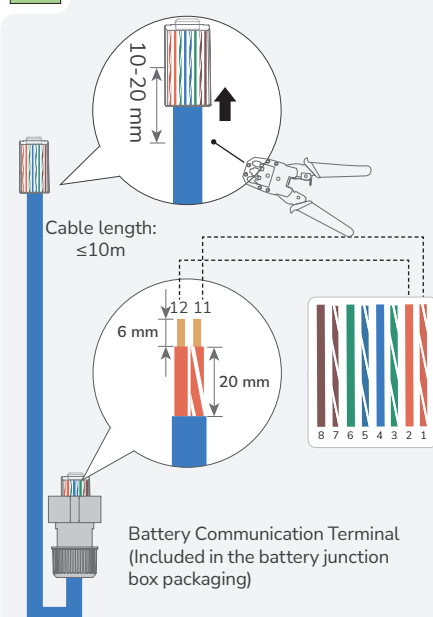
## • INVERTERS WITH MODULAR/SEPARATED DESIGNS



### 2 Battery Power Cables (Included in the battery junction box packaging)



### 3 A17 x1 Preparing battery communication cables



**1** For details about connecting grounding terminals between the battery junction boxes, see the section **Connecting PE Cables** in this guide.

# System Commissioning

Battery system commissioning must be performed after the inverter has been powered on and connected to the App. Through the App, users can view and configure the battery system parameters, as well as perform remote monitoring, data logging, and near-end maintenance of the battery system.

## I Checking before Power-On

| Check Item               | Acceptance criteria                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------|
| Equipments               | Equipments are installed correctly and securely.                                                               |
| Cables routing           | Cables are routed properly as required by the customer.                                                        |
| Cable tie                | Cable ties are evenly distributed and no burr exists.                                                          |
| Grounding                | The PE cables are connected correctly, securely, and reliably.                                                 |
| Switch                   | All the switches connecting to the system are OFF.                                                             |
| Cable connection         | The AC/DC power cable, battery cable, and communication cable are connected correctly, securely, and reliably. |
| Unused terminal and port | Unused terminals and ports are locked by watertight covers.                                                    |
| Installation environment | The installation space is proper, and the installation environment is clean and tidy.                          |

## I System Power-On

• **PROCEDURE (PV module configured)**

5. Set the BATTERY SWITCH (Australian version only) to ON position.
6. Set the PV SWITCH to ON position.
7. Turn on the AC switch between the inverter and the power grid.
8. Observe the LED to check the operating status.

• **PROCEDURE (no PV modules and no grid power)**

1. Set the BATTERY SWITCH (Australian version only) to ON position.
2. Set the PV SWITCH to ON position.
3. Turn on the AC switch between the inverter and the power grid.
4. After commissioning, press and hold for 3 seconds the BATTERY ON/OFF button.
5. Observe the LED to check the operating status.



Suitable for applications with battery junction box.

|                                                                                              |                                   | Discharge Status                                                                    |                                 | Description    |
|----------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|---------------------------------|----------------|
|  Blinking |                                   |  | On                              |                |
|                                                                                              |                                   |  | Off                             |                |
|           |                                   |                                                                                     |                                 | Carousel white |
| Charge Status                                                                                | Description                       |                                                                                     |                                 |                |
|            | 0-25%                             |  | <5%                             |                |
|            | 25-50%                            |  | 5-25%                           |                |
|            | 50-75%                            |  | 25-50%                          |                |
|            | 75-99%                            |  | 50-75%                          |                |
|            | 100%                              |  | 75-100%                         |                |
| Firmware Upgrading Status                                                                    | Description                       | Faulty Status                                                                       |                                 | Description    |
|            | Firmware Upgrading is in progress |  | Electrical connection is faulty |                |
|                                                                                              |                                   |  | Communication is faulty         |                |
|                                                                                              |                                   |  | Battery is faulty               |                |
|                                                                                              |                                   |  | Battery junction box is faulty  |                |

## ⚠ WARNING

- Only qualified professionals are allowed to install, operate, and maintain the equipment.
- Before maintaining the equipment, power it off and follow the instructions on the delayed discharge label to ensure that the equipment is powered off.
- Before moving or reconnecting the equipment, disconnect the mains and batteries and wait for five minutes until the equipment powers off. Before maintaining the equipment, check that no dangerous voltages remain in the DC terminals to be maintained by using a multimeter.
- Place temporary warning signs or erect fences to prevent unauthorized access to the maintenance site.
- The equipment can be powered on only after all faults are rectified. Failing to do so may escalate faults or damage the equipment.
- When replacing batteries, replace them with batteries of the same type.
- Take out all tools and parts from the equipment after maintenance is complete.
- When not in use for extended periods, store and recharge batteries according to this document.

## I System Power-Off

### ⚠ WARNING

- Tap shutdown command via the app.
- Turn off the AC switch between the inverter and the power grid.
- Set the PV SWITCH to OFF position.
- (Optional) Secure the PV SWITCH with a lock to prevent accidental startup. The lock is prepared by the customer.
- Set the BATTERY SWITCH (Australian version only) to OFF position.
- (Optional) Secure the BATTERY SWITCH (Australian version only) with a lock to prevent accidental startup. The lock is prepared by the customer.
- Press and hold the BATTERY ON/OFF button for 10 seconds, until the indicator is off.
- Sequentially disconnect GRID cables, PV input cables, battery cables, communication cables and all modules connecting to the system.

## I Routine Maintenance

To ensure the long-term operating of the equipment, you are advised to perform routine maintenance according to this section.

### ⚠ WARNING

- Power off the system and follow the instructions on the delayed discharge label to ensure that the equipment is powered off.
- Wear proper PPE before any operations.

| Check Item            | Check Method                                                                                                                                                                                                                                                                                                                                                                                                                    | Power off or not | Maintenance Cycle                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------|
| System cleanliness    | <ul style="list-style-type: none"> <li>Periodically check that the heat sinks are free of dust and obstructions, and ensure proper ventilation and heat dissipation for the equipment.</li> <li>Clean the equipment surface with a dry, soft cloth if there is dust or dirt. Do not use liquids, abrasive materials, or hard objects for cleaning.</li> </ul>                                                                   | Yes              | Once every 6 months                                                                           |
| System running status | <ul style="list-style-type: none"> <li>Check that the equipment is not damaged or deformed.</li> <li>Check that the equipment operates with no abnormal sound.</li> <li>Check that all equipment parameters are correctly set during operation.</li> <li>Check for abnormal noise from the fan during operation and ensure that there are no objects obstructing the fan. If foreign objects are found, remove them.</li> </ul> | No               |                                                                                               |
| Electrical connection | Check that all cables are properly secured and undamaged.                                                                                                                                                                                                                                                                                                                                                                       | Yes              | Check once every 6 months after creating new systems and once every 6 to 12 months thereafter |
| Grounding reliability | Check that ground cables are securely connected.                                                                                                                                                                                                                                                                                                                                                                                | Yes              |                                                                                               |
| Seal ability          | Check that all unused terminals and ports are properly sealed with waterproof covers as supplied.                                                                                                                                                                                                                                                                                                                               | Yes              |                                                                                               |

## I Battery Storage Requirements

### • FOR INSTALLER

- Place batteries according to the signs on the packing case during storage. Do not put batteries upside down or sidelong.
- Stack battery packing cases by complying with the stacking requirements on the external package.
- Handle batteries with caution to avoid damage.
- The storage environment requirements are as follows:
  - Ambient temperature: -25°C-60°C; recommended storage temperature: 0°C-35°C
  - Relative humidity: 0% to 100%
  - Place batteries in a dry and clean place with good ventilation.
  - Place batteries in a place that is away from corrosive organic solvents and gases.

- Keep batteries away from direct sunlight.
  - Keep batteries at least 3 meters away from heat sources and vibration source.
- The batteries in storage must be disconnected from external devices. The indicators on the battery junction box should be off.
  - If a dropped battery has obvious deformation, leakage or damage and no abnormal odor, smoke, or fire occurs, contact the professionals to transfer the battery to an open and safe place, or contact a recycling company for disposal.

#### • FOR HOMEOWNER

- If the battery is not used for a long period of time, it is recommended to be stored intact in a semi-charged state (60% SOC). The battery is recommended to be discharged to 30% and then recharged to 60% every three months.
- If the power level of the battery is lower than 1% after use, recharge it to 30%-60% before storage. If the battery has been idle for a long time when the power is seriously insufficient, it will cause irreversible damage to the cells and shorten the service life of the battery.
- If the battery has been idle for a long time and the power level is severely low, it will enter a deep sleep protection mode. In such a case, recharge the battery before using it again.

## I Battery Recharge Requirements

### ⚠ WARNING

- Battery recharge operations should be carried out by EcoFlow only. Please contact the EcoFlow technical support team for battery recharge service.

## I Replacing a fuse

The Battery junction box has a built-in DC 1500 Vd.c./32A replaceable fuse. Under normal operating conditions, there is no risk of fuse blowing. When an external short circuit occurs and the battery management system is not protected in time, the fuse will blow immediately to protect the battery. When a short circuit occurs and the battery cannot be charged or discharged, the fuse must be replaced. Replacement procedure is as follows:

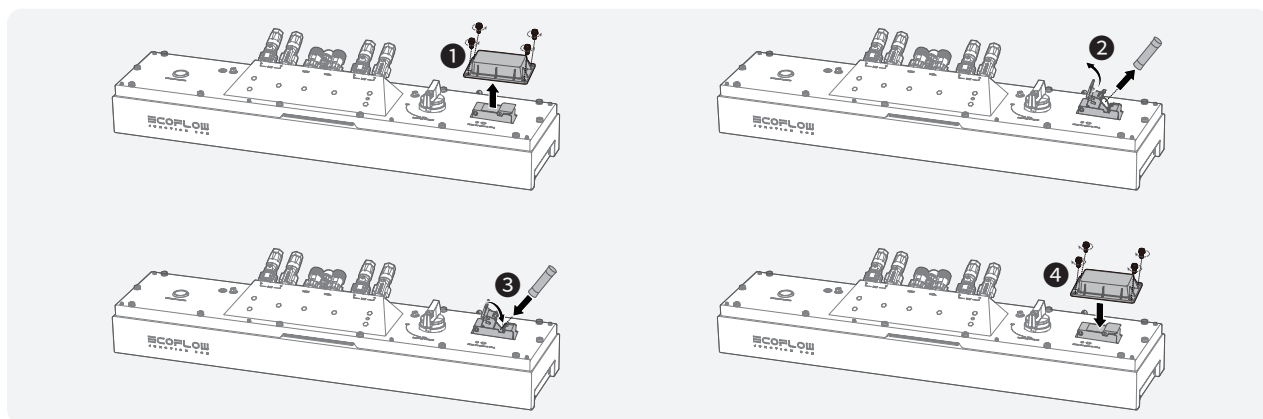
### NOTICE

- Please use fuses with local certification standards
- Power off the system. For details, see chapter: System Power-Off.

### ⚠ WARNING

- After the system is powered off, the remaining electricity and heat still exist in the chassis, which may cause electric shocks or burns. Therefore, you need to wear protective gloves and perform operations 5 minutes after the system is powered off.
- Only qualified professionals are allowed to replace a fuse.

- Loosen the screws on the fuse shell.
- Lift the fuse box opening, remove the fuse, insert a new fuse of the same specification as the old one into the slot, and close the fuse box.
- Lock the fuse shell with screws.



| Fuse type                            | Fast blow fuse   |
|--------------------------------------|------------------|
| Rated voltage                        | 1500 Vd.c.       |
| Rated current                        | 32 A             |
| Breaking capacity                    | 10 kA@1500 Vd.c. |
| Nominal fusing heat I <sup>2</sup> T | 640-6270         |
| Cold resistance value                | 0.00253~0.00379Ω |
| Dimensions                           | 14.2*51 mm       |
| Fuse model                           | A842320b00       |

## I Replacing The Fan

### WARNING

- Only professionals with appropriate qualifications are allowed to perform the replacement activities.
- Wear proper PPE before any operations.
- Do not use any unofficial or unrecommended components or accessories. For any replacements, please contact EcoFlow for further assistance.

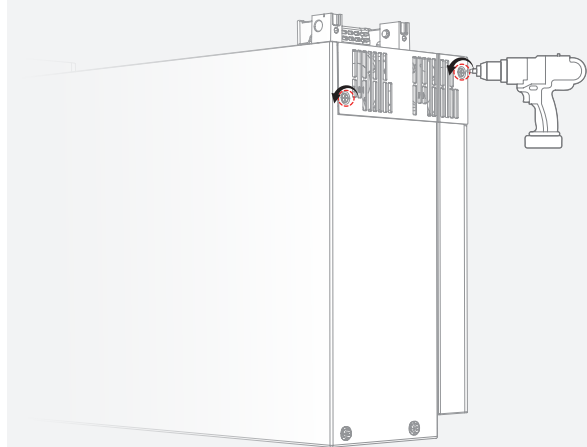
### • REMOVING THE FAN

#### NOTICE

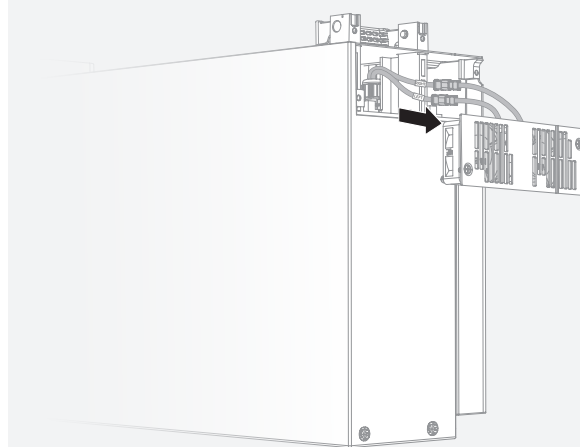
- You can only replace the whole fan module instead of the individual fan.

To remove the fan:

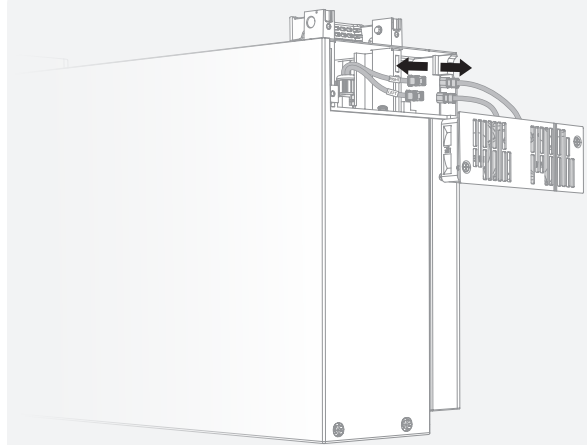
- 1 Loosen the screws using a Phillips screwdriver.



- 2 Remove the fan-equipped exhaust shutter.



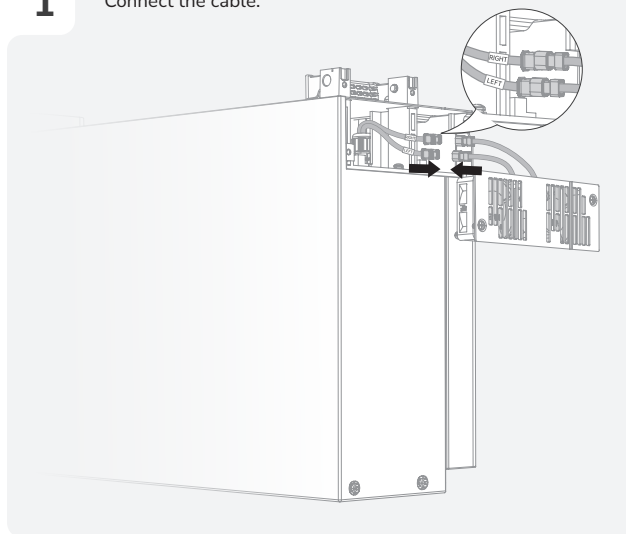
- 3 Disconnect the cable.



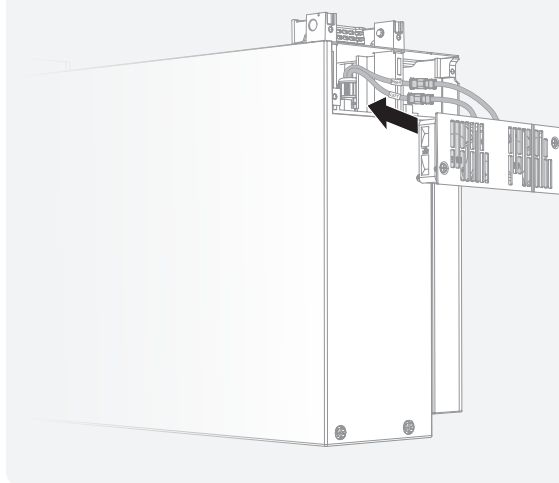
Prepare a new fan and install it on the inverter. To install a new fan:

**1**

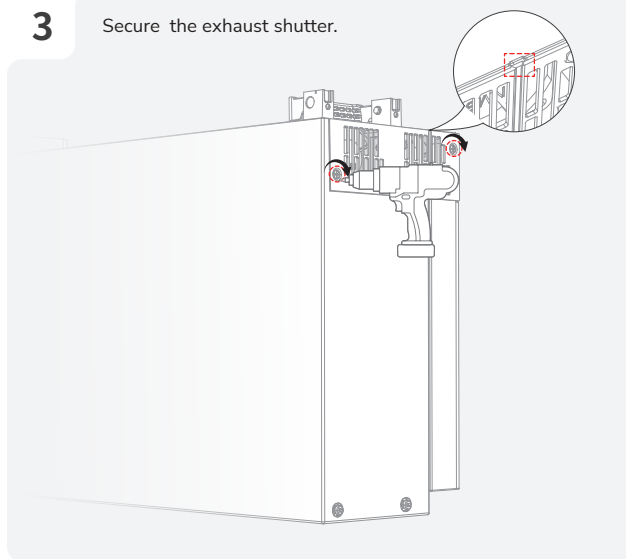
Connect the cable.

**2**

Align the locating pins and place the fan module into the fan position.

**3**

Secure the exhaust shutter.



## Used Batteries Disposal

- When conditions permit, be sure to completely discharge the battery before placing the battery in the designated battery recycling bin. This product contains batteries. Batteries are dangerous chemicals and should not be disposed of in ordinary trash bins. For details, follow the local battery recycling and disposal laws and regulations.
- If the battery cannot be completely discharged due to battery failure, do not dispose of the battery directly in the battery recycling bin, and contact a professional battery recycling company for further processing.
- If the battery cannot start after being discharged, dispose of it according to local laws and regulations on battery recycling and disposal.
- Hereby, our products have met the regulations of BattG in Germany.



Raccolta carta

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