1403011325

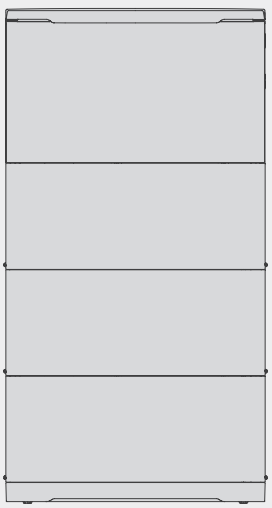
ECOFLOW

INSTALLATION GUIDE

V1.0

Issue Date: 2026-01-21

ECOFLOW OCEAN 2 THREE-PHASE
Solar Battery Storage Solution



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

IMPORTANT

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

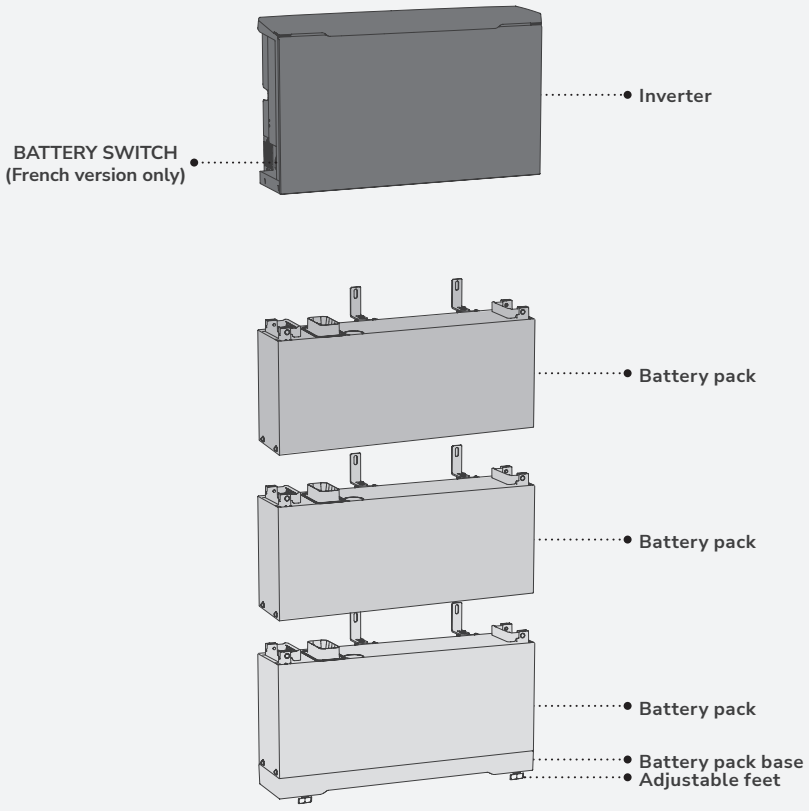
CONTENTS

Safety Instructions

Symbol	Description
DANGER	Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
CAUTION	Caution, risk of electric shock.
WARNING	Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. **NOTICE** is used to address practices not related to personal injury.

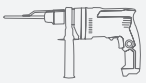
DANGER

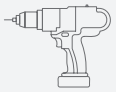
- Before installing, operating, and maintaining the equipment, read and follow up the product documents.
- Personnel who plan to install or maintain EcoFlow equipment must receive thorough training, understand all necessary safety precautions, and be able to correctly perform all operations.
- Personnel 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 it from all power**.
- Wear proper PPE (Personal protective equipment) before any operations.



Preparing Tools and Instruments

- **ESSENTIAL TOOLS**


Hammer drill
(with a drill bit of 8mm)


Electrical screwdriver

Torque socket of 10mm


Multimeter
(DC voltage measurement range ≥ 1000 V DC)


Mallet


Screwdriver
(PH3)


Cable cutter


Open barrel crimping tool
(for PV terminals)

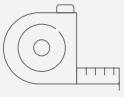

Wire strippers


RJ45 crimping tool

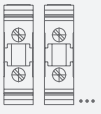

Square crimping tool
(for tubular terminals 0.5, 10 or 16 mm²)


Heat-shrink tubing


Marker


Steel measuring tape


Cable tie


Feed-through terminal blocks 6-8 pcs


Heat gun

- **OPTIONAL TOOLS**


Level


Vacuum cleaner


Safety goggles


Safety shoes


Safety gloves


Dust mask

- **CABLES**


16 mm^2 grounding cable
(copper conductor)


4-6 mm^2 PV input cable
(black, red)


16 mm^2 UL10269 power cable
(black, brown, blue, grey)


Cat 5e or higher shielded network cable


2*0.5 mm^2 twist pair cable

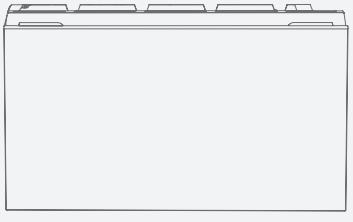
What's in the Box

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 HYBRID INVERTER THREE-PHASE**

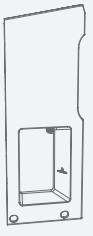
A1 ×1


EcoFlow OCEAN 2 Hybrid Inverter Three-Phase

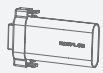
A2 ×1


Top trim cover

A3 ×1


Side trim cover

A4 ×1



WIFI module
(Model: EF HD-P3-WIFI-S2)

A5 ×3

PV terminal (+)

A5 ×3

PV terminal (–)

A6 ×2

Disassembly and assembly tool

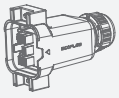
A7 ×1

Communication terminals (20-pin)

A8 ×1

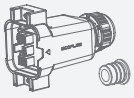
Communication terminals (16-pin)

A9 ×1



Grid connector

A10 ×1



Backup connector

A11 ×1

Marking-off template

A12 ×1

Expansion bolt
(M6*60)

A13 ×3

Grouding screw
(M5*12)

A14 ×2

OT terminal

A15 ×10

Wire Ferrule
(for wire gauge 16 mm²)

A16 ×18

Wire Ferrule
(for wire gauge 0.5mm²)

A17 ×3

Communication terminal

A18 ×1

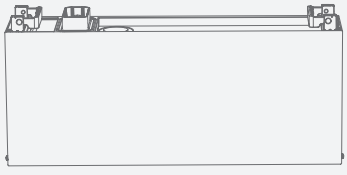
Mounting bracket

A19 ×1

Terminating resistor

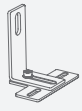
- **ECOFLOW OCEAN 2 LFP BATTERY**

B1 ×1



EcoFlow OCEAN 2 LFP Battery

B2 ×2



Battery T-shaped/L-shaped mounting piece

B3 ×2

Expansion bolt
(M6*60)

B4 ×4

Screw
(M5*12)

- **ECOFLOW OCEAN 2 LFP BATTERY BASE**

C1 ×1

Battery base

System Installation

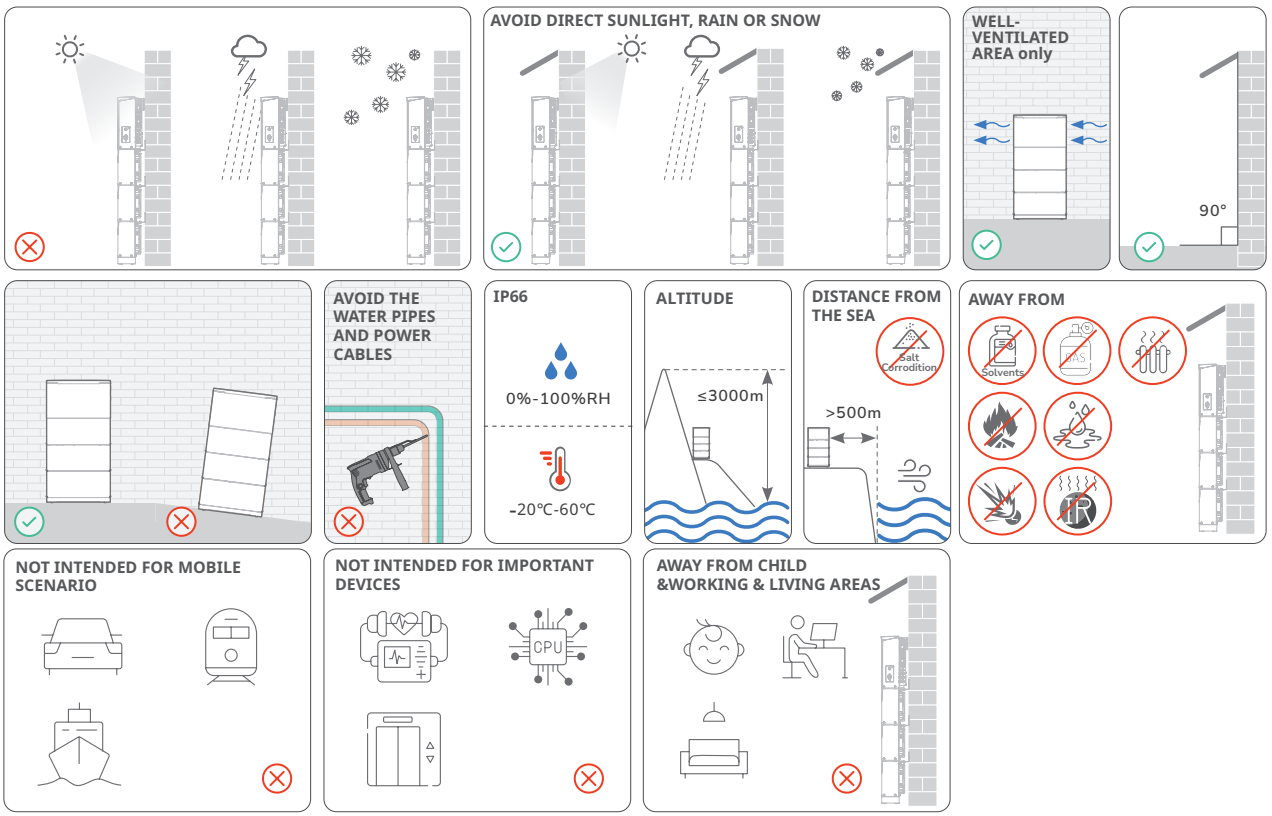
Installation Environment Requirements

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:
  (a) in restricted locations, as defined for switchboards in AS/NZS 3000;
  (b) within 600 mm of any exit;
  (c) within 600 mm of any vertical side of a window or building ventilation that ventilates a habitable room;
  (d) within 600 mm of any hot water unit, air conditioning unit or any other appliance not associated with the pre-assembled integrated BESS;
  (e) within 900 mm below any of the items included in Items (b), (c) and (d);
  (f) in ceiling spaces;
  (g) in wall cavities;
  (h) on roofs, except where specifically deemed suitable;
  (i) under stairways;
  (j) under access walkways;
  (k) in an evacuation route or escape route.



Installation Clearance Requirements

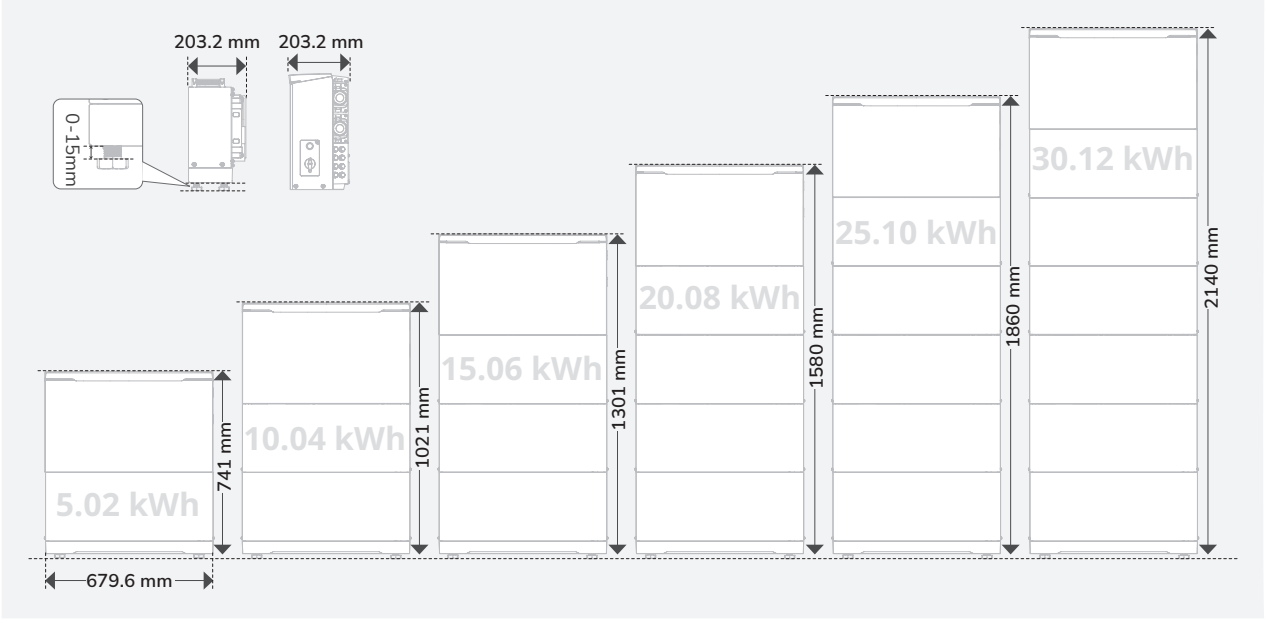
WARNING

- Reserve enough clearance around equipments to ensure sufficient space for installation and heat dissipation.
- To prevent fire due to high temperature, ensure that the ventilation vents or heat dissipation system are not blocked.

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.

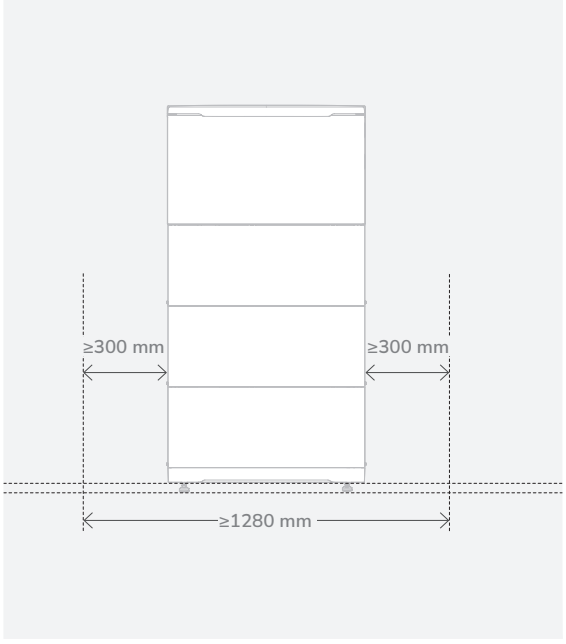
- **DIMENSIONS**



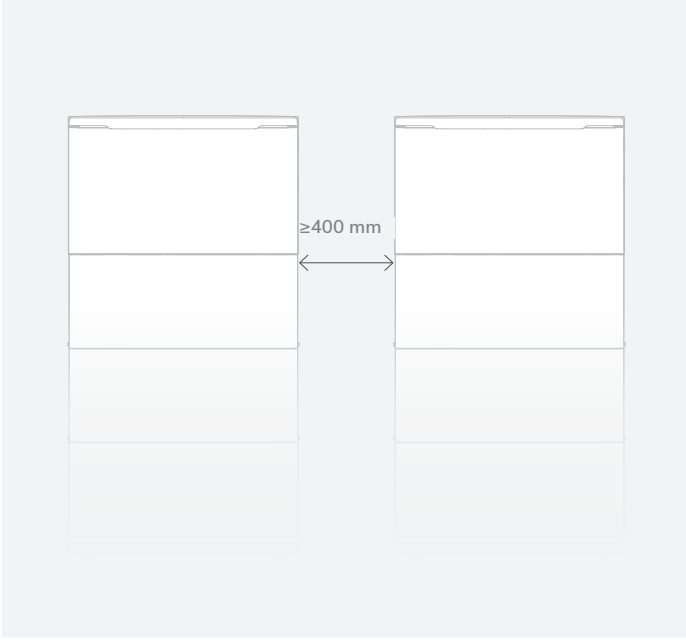
- **MINIMUM CLEARANCE**

WARNING

- Minimum clearance should be maintained for good ventilation.
- DO NOT block the air exhaust on the left side of the inverter during operation.



- **MINIMUM CLEARANCE OF CASCADING INSTALLATION**



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 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.

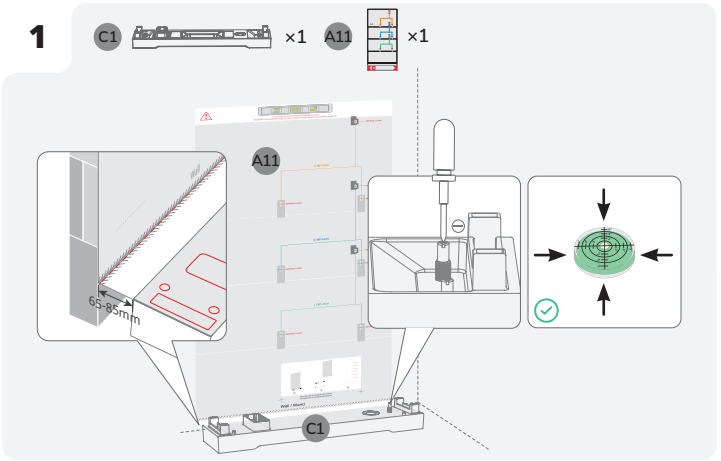
CAUTION

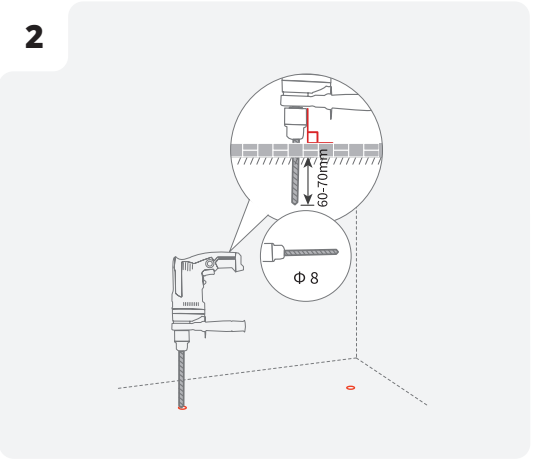
- Ensure the batteries are mounted on the wall to avoid falling over, tipping, or seismicity.
- Assign enough personnel (two or more) to move battery to avoid personal injury and battery damage.
- When moving battery, hold handles on top of the battery module.

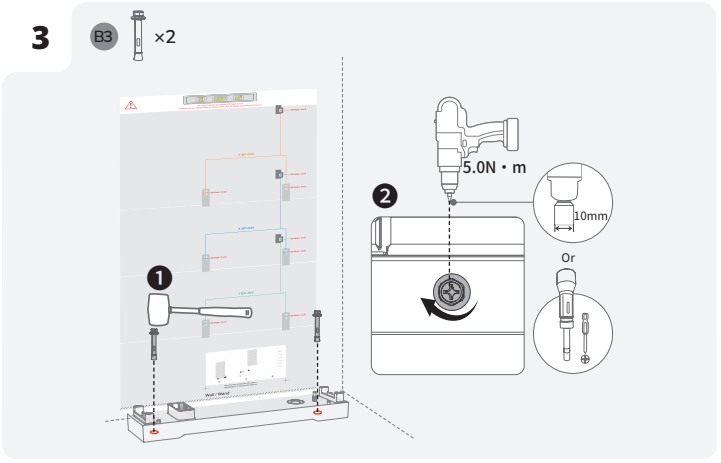
NOTICE

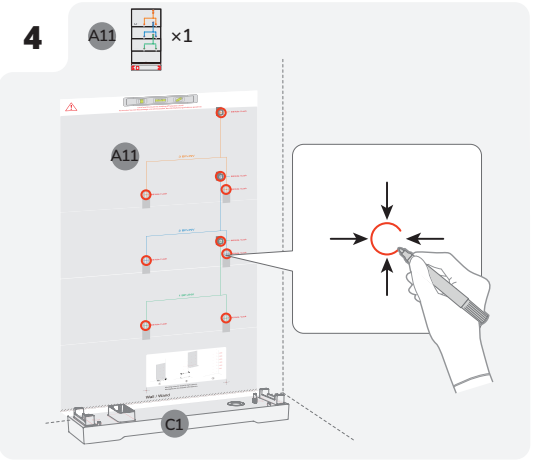
- The two M6×60 expansion bolts supplied with each battery may be used either to secure the battery itself or to fasten the battery base—options include fastening the battery with 1 bolt and fastening the base with 2 bolts, or fastening the battery with 2 bolts and leaving the base unfastened. Decide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

METHOD 1: FLOOR MOUNTED

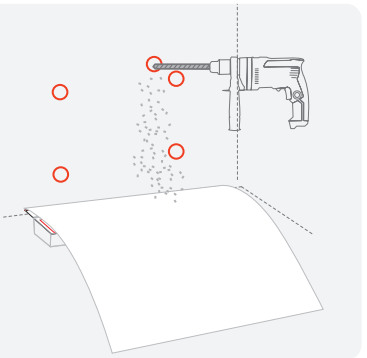








When drilling holes, protect the battery base from shavings or dust. You are advised to cover the base with the marking-off template for protection.



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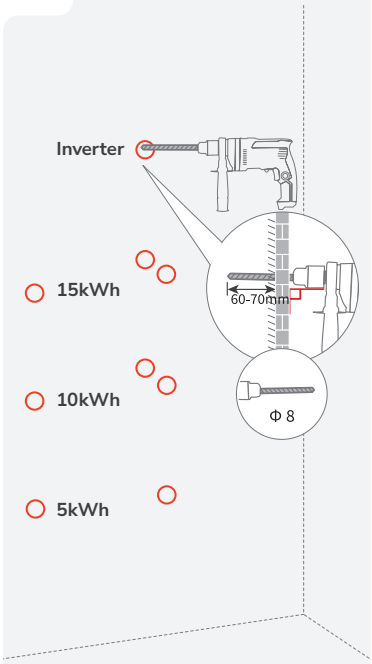
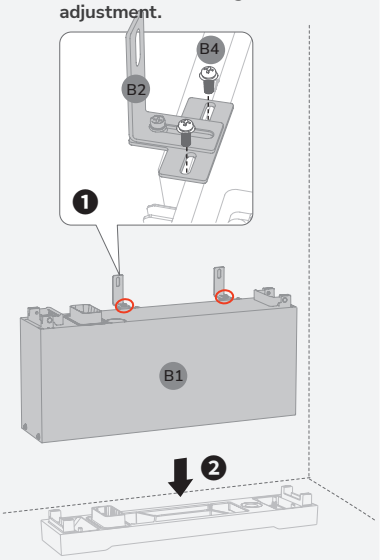


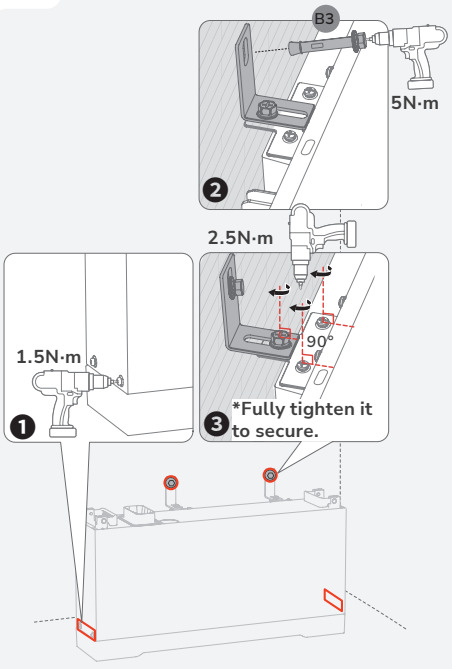
6

B1 ×1 B2 ×2 B4 ×4



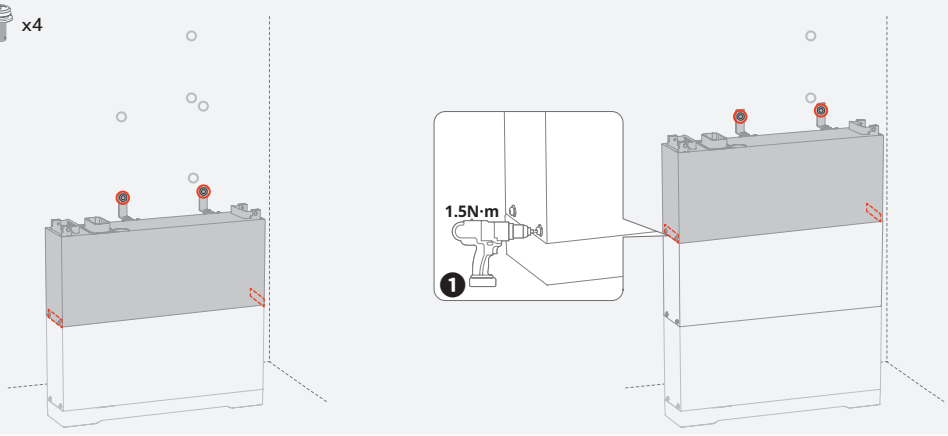
7

B3 ×2

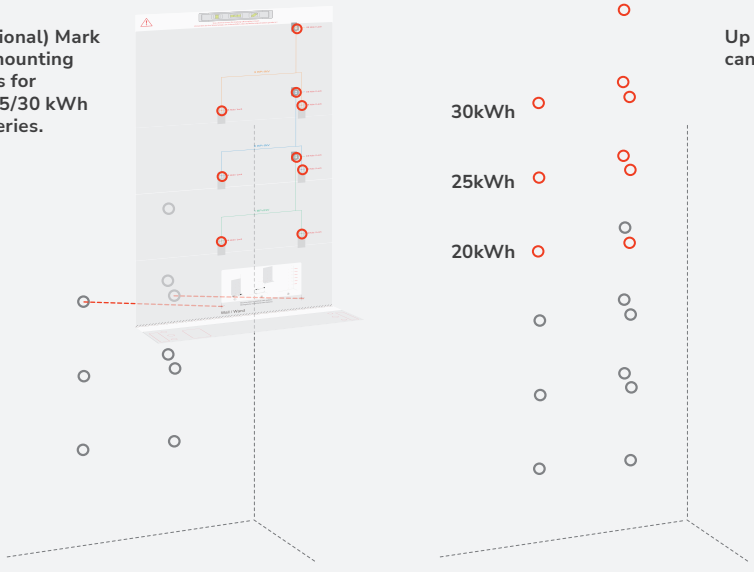


8

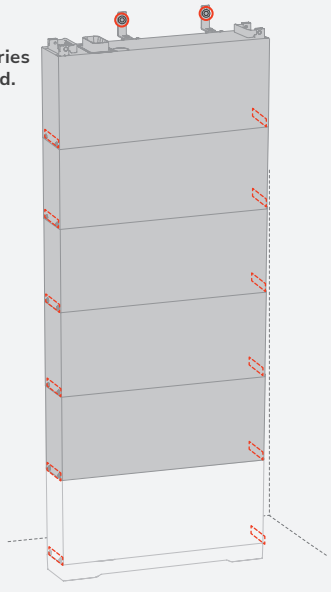
B4 ×4



(Optional) Mark off mounting holes for 20/25/30 kWh batteries.



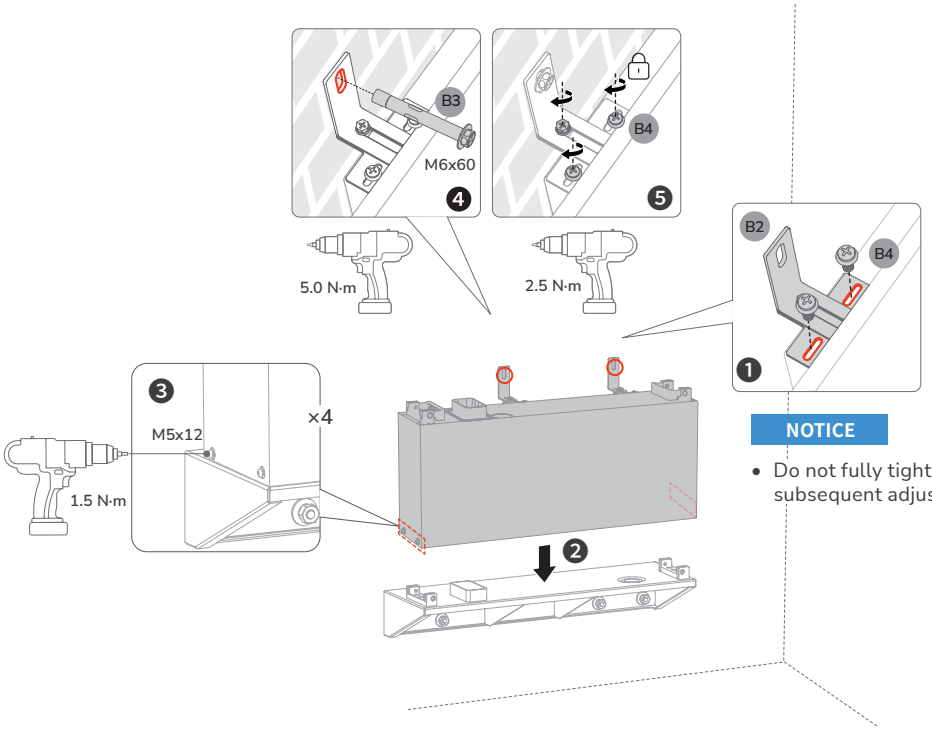
Up to 6 batteries can be stacked.



METHOD 2: (OPTIONAL) WALL MOUNTED

NOTICE

- For details about wall mounted installation, see the installation guide that comes together with the EcoFlow PowerOcean Wall-Mounted Battery Base.
- The battery base (sold separately) supports stacking of up to three batteries.

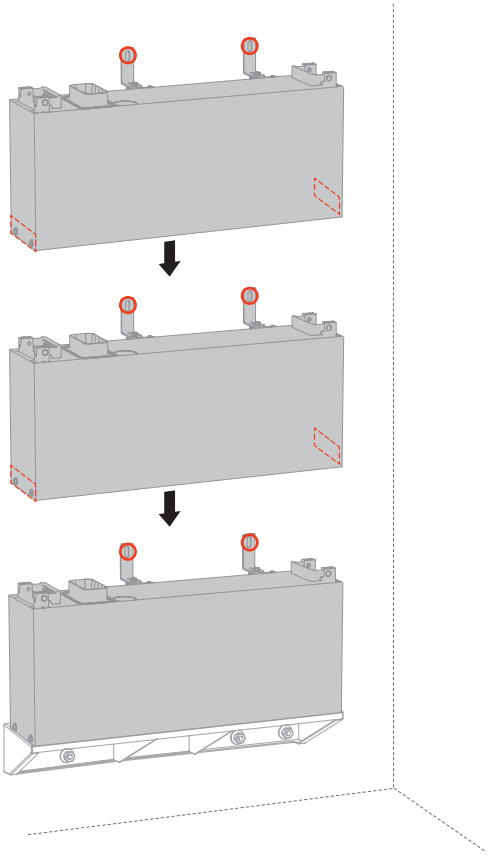


NOTICE

- Do not fully tighten to allow for subsequent adjustments

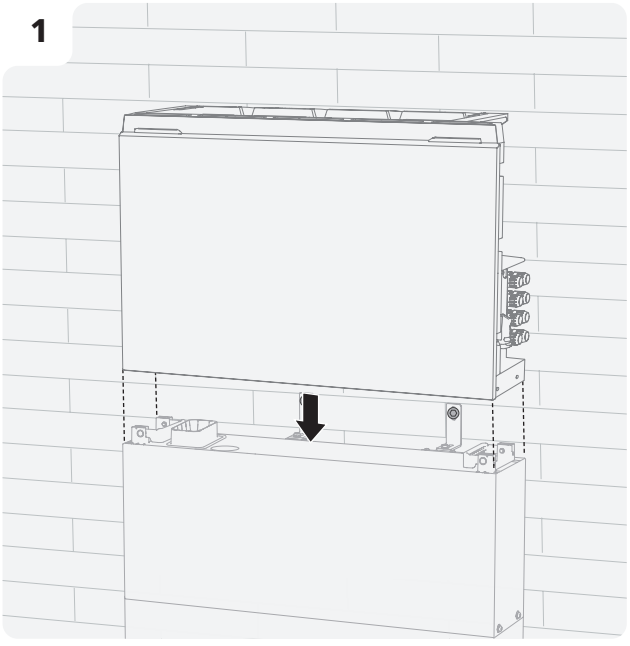
NOTICE

- Install the remaining batteries and the inverter as shown in the method 1.



Installing Inverter

1



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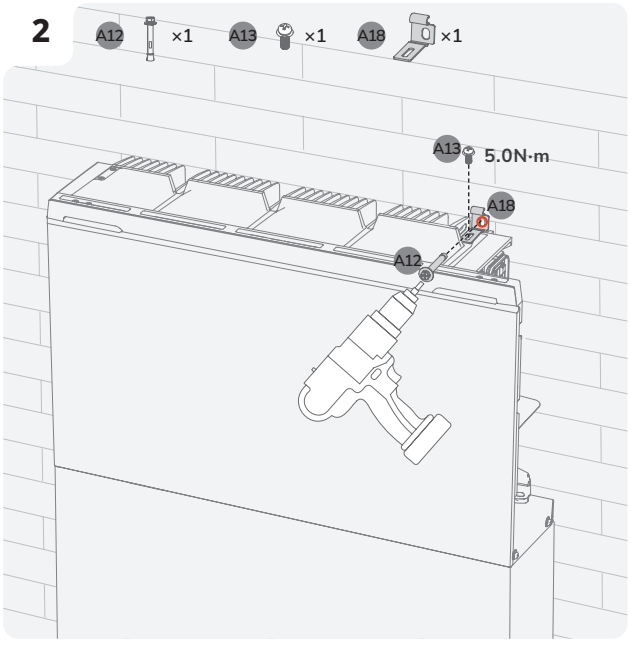

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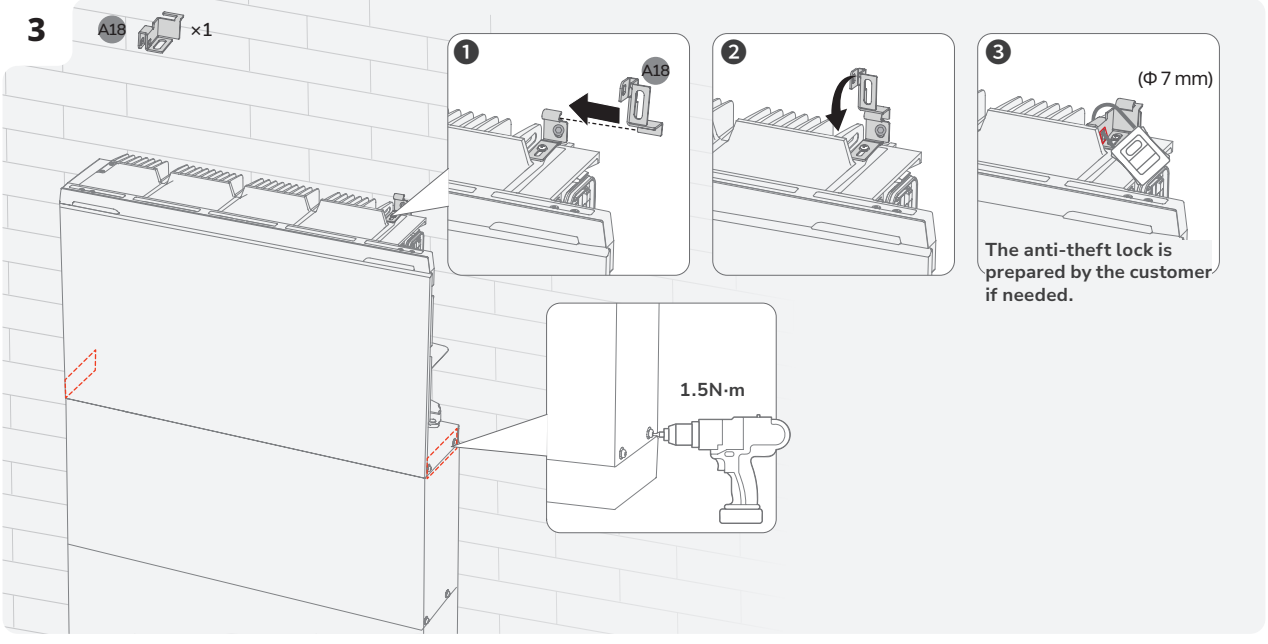
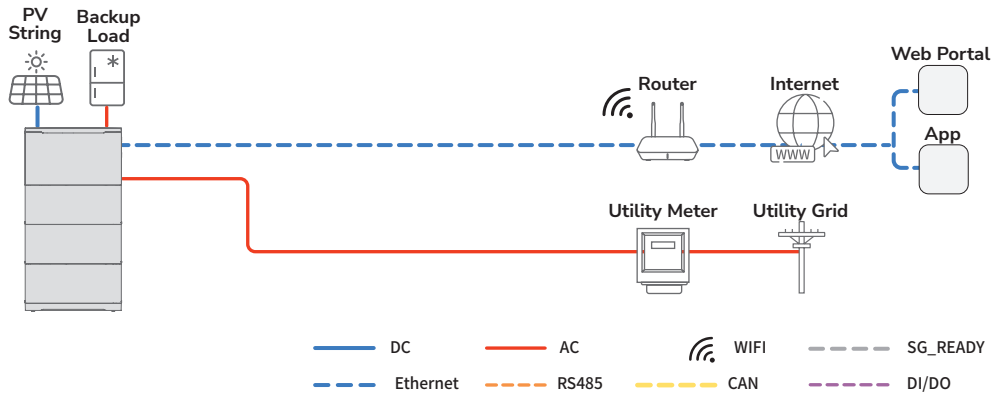


Application Scenarios

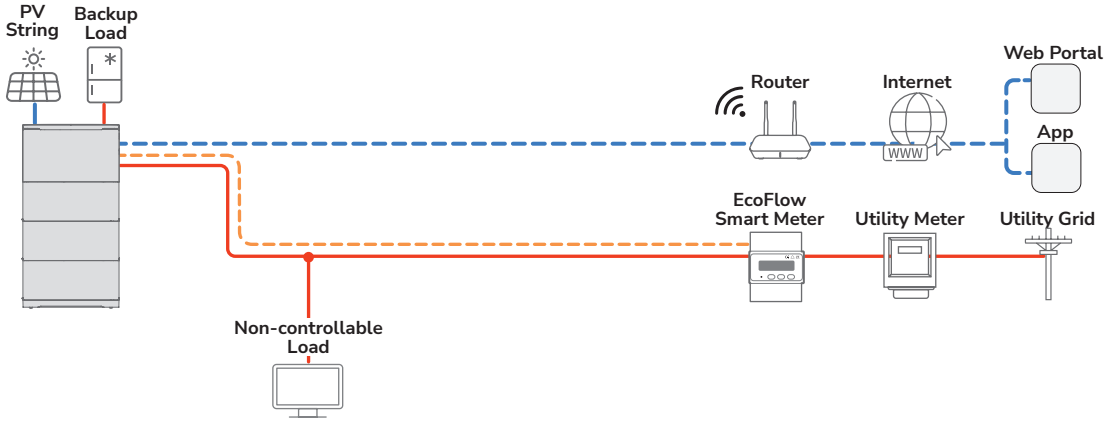
The wiring scheme described in this manual is based on the latest version of the APP software and firmware released in December 2025, which is subject to change with software updates. If you have any questions, please contact your local EcoFlow after-sales service.

Single Inverter Setup

- **WHOLE HOME BACKUP SYSTEM**

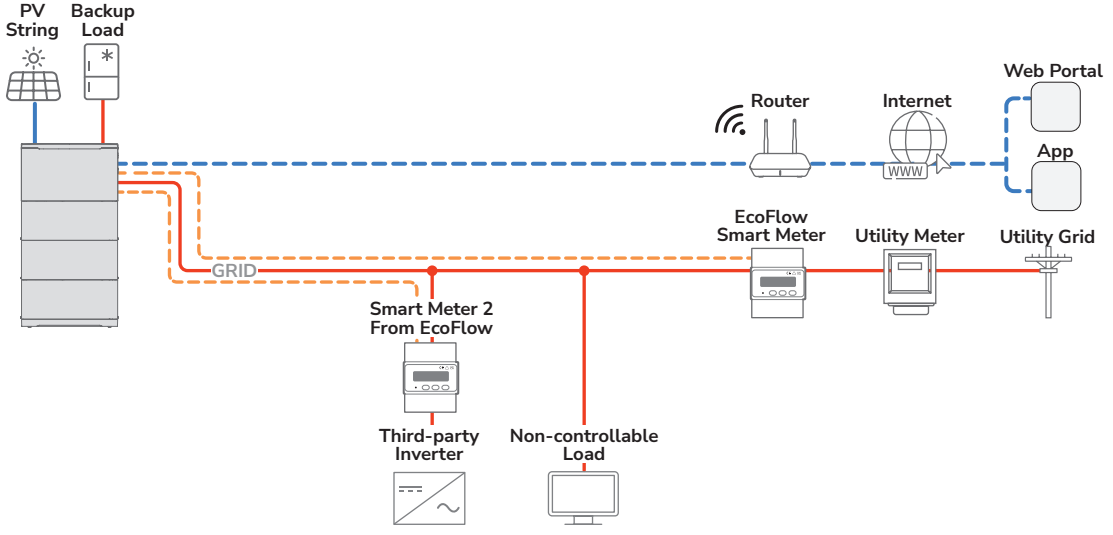


- **PARTIAL HOME BACKUP SYSTEM**



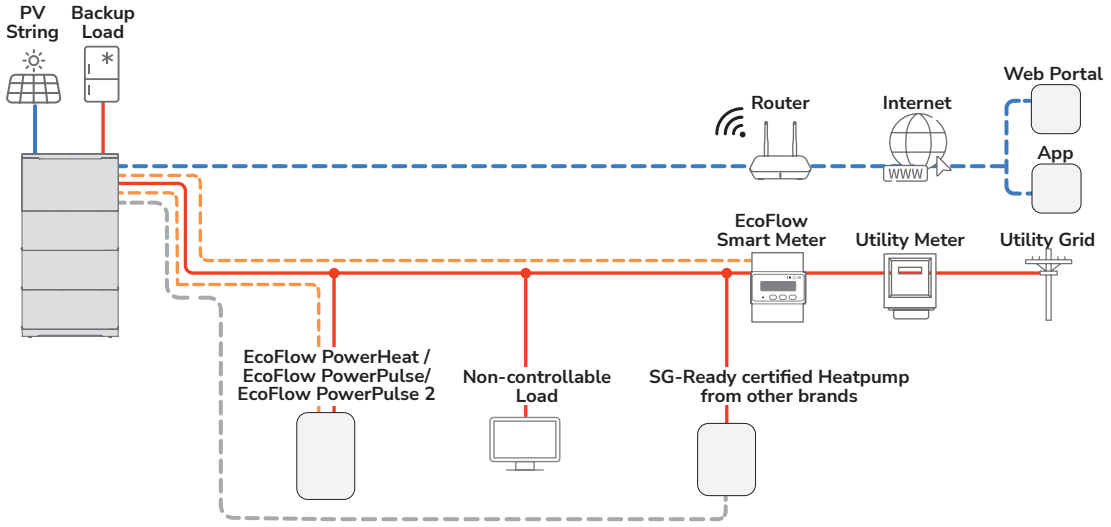
- **USE WITH EXISTING PV SYSTEM**

EcoFlow Ocean 2 system is compatible with any single/three-phase PV grid-tied system. For three-phase inverter connection, its rated power shall not exceed the rated power of the GRID port. For single-phase inverter connection, its rated power shall not exceed one-third of the GRID port's rated power. The power generation from the existing PV inverter will be firstly provided to the loads and then charge the battery.



- **USE WITH SG-READY CERTIFIED HEATPUMP OR EV CHARGER**

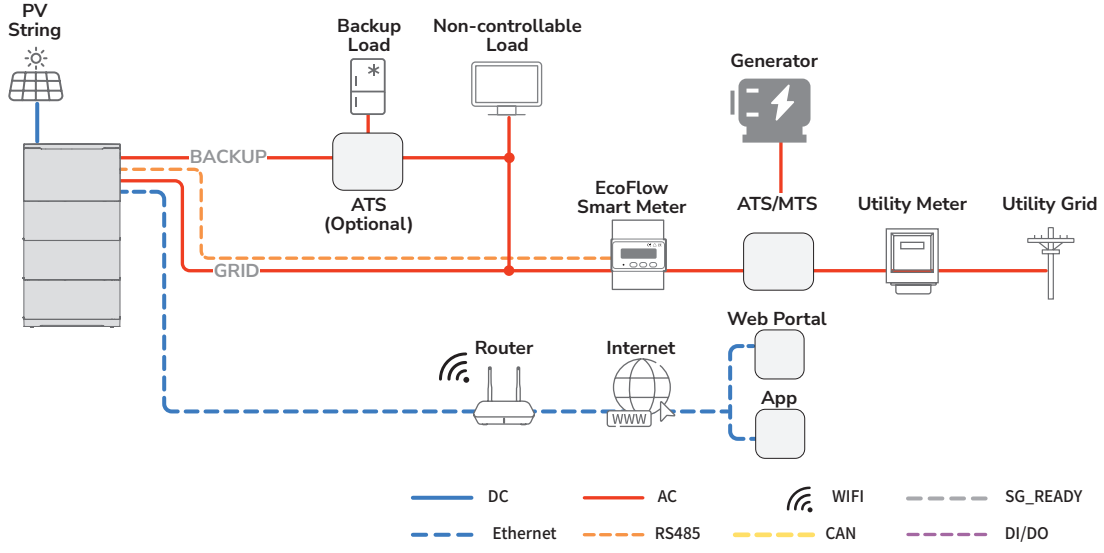
EcoFlow Ocean 2 system is compatible with EcoFlow EV Charger (PowerPulse 2), Heatpump (PowerHeat), any other SG-Ready certified Heatpump. When connected with the Ocean 2 system, a SG-Ready certified Heatpump or EV Charger will be powered by PV strings, battery and utility grid. With the self-powered mode of the EcoFlow Ocean 2 system, the self-consumption rate of the new system will be greatly improved, reducing electricity costs.



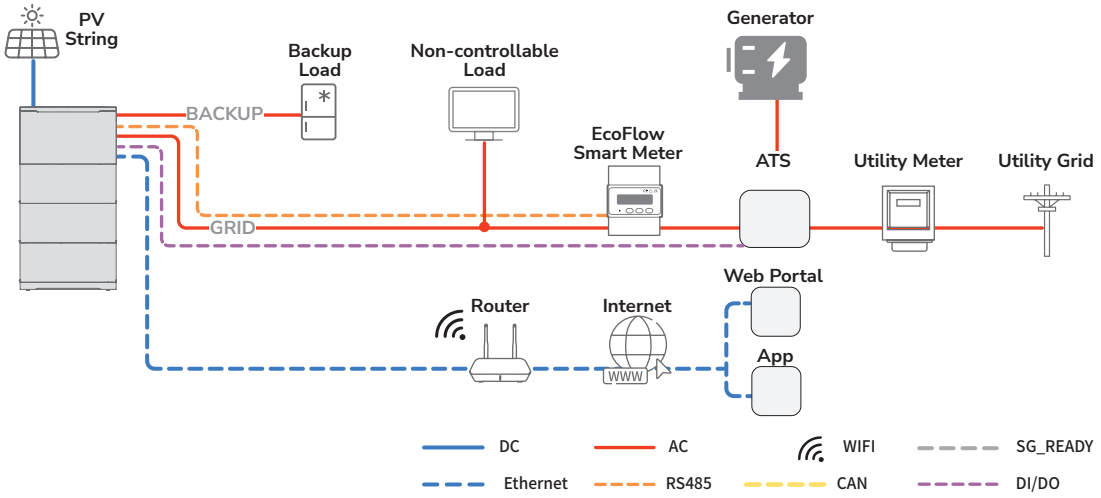
- **USE WITH GENERATOR**

EcoFlow Ocean 2 system is compatible with generator, users therefore can use use thisOcean 2 system and generator to build a instant backup system and enhance home's energy efficiency.

- Without dry contact connection



- With dry contact connection

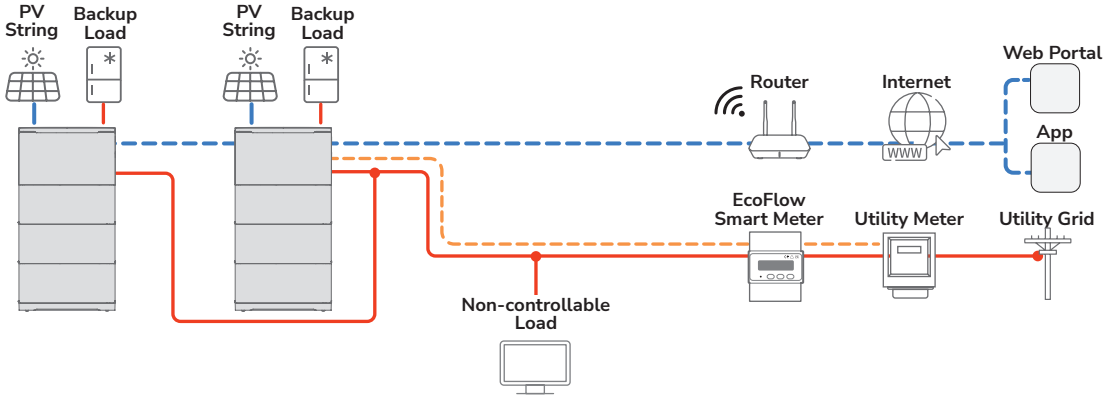


Multi Inverters Setup

- **2 INVERTERS CASCADING (SEPARATE LOADS)**

WARNING

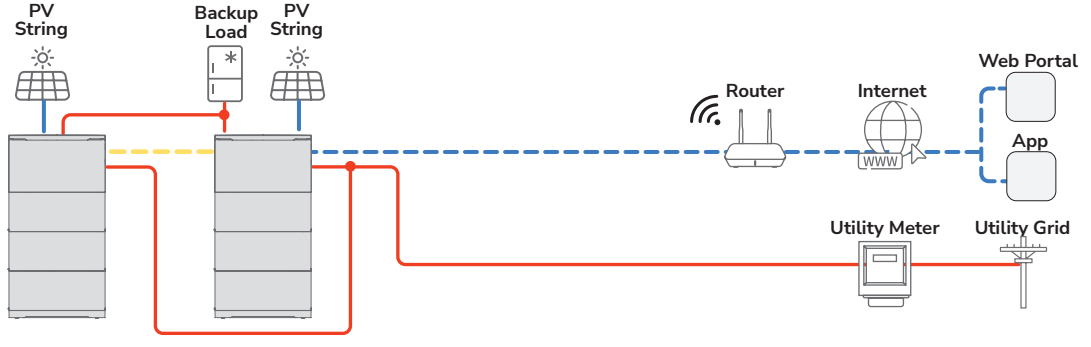
- Only cascading of inverters of the same model is supported.
- Cascading different Ocean 2 products is not supported.
- The BACKUP port remains inactive during off-grid operation of cascaded inverters without battery modules.



- **2 INVERTERS CASCADING (SHARING LOADS)**

WARNING

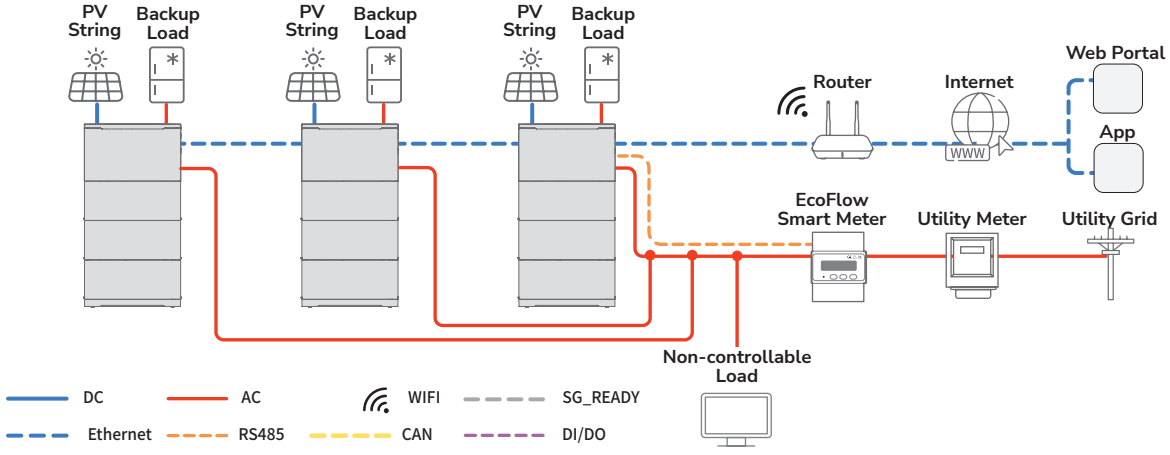
- Only cascading of inverters of the same model is supported.
- Cascading different Ocean 2 products is not supported.
- Both BACKUP ports are required to be connected together even if they are not connected with loads, otherwise, it will cause the system to fail.



- **3 INVERTERS CASCADING (SEPARATE LOADS)**

⚠ WARNING

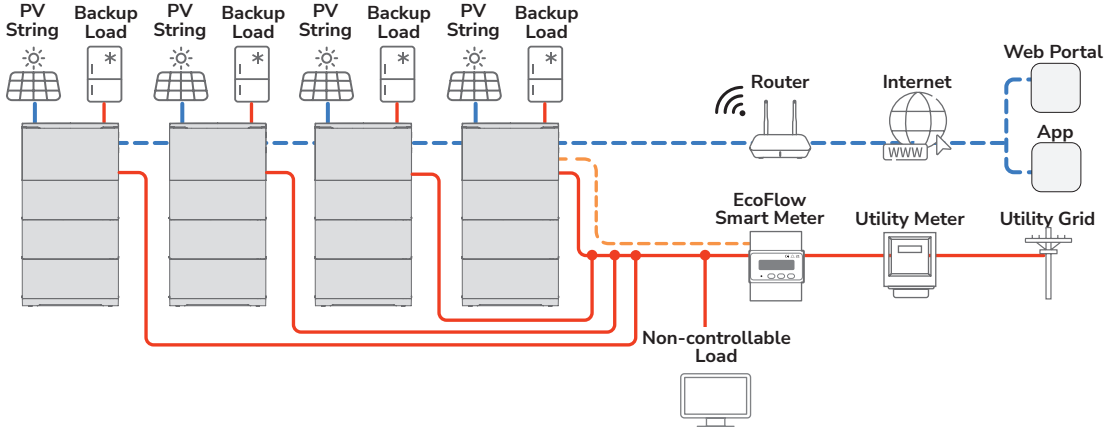
- Only cascading of inverters of the same model is supported.
- Cascading different Ocean 2 products is not supported.
- The BACKUP port remains inactive during off-grid operation of cascaded inverters without battery modules.



- **4 INVERTERS CASCADING (SEPARATE LOADS)**

⚠ WARNING

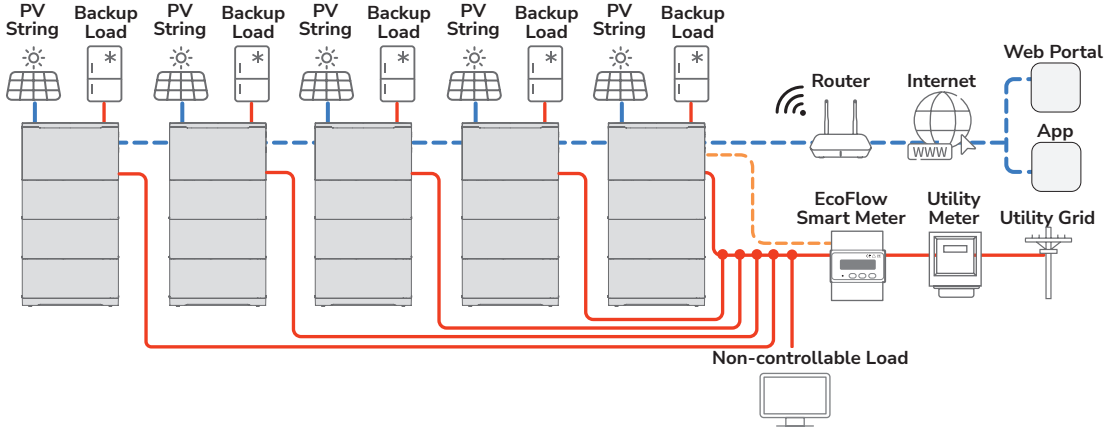
- Only cascading of inverters of the same model is supported.
- Cascading different Ocean 2 products is not supported.
- The BACKUP port remains inactive during off-grid operation of cascaded inverters without battery modules.



- **5 INVERTERS CASCADING (SEPARATE LOADS)**

⚠ WARNING

- Only cascading of inverters of the same model is supported.
- Up to 5 inverters can be cascaded.
- Cascading different Ocean 2 products is not supported.
- The BACKUP port remains inactive during off-grid operation of cascaded inverters without battery modules.



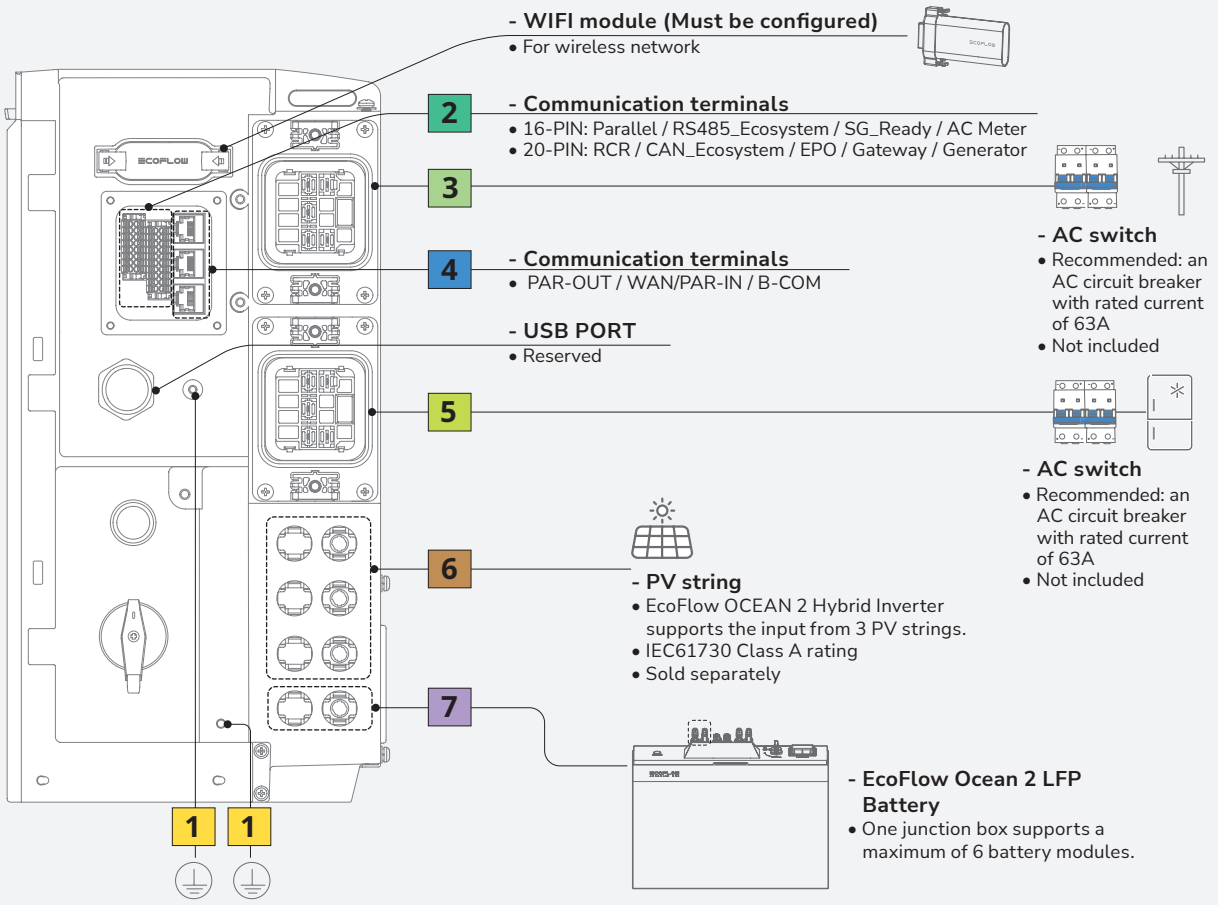
Electrical Connection

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.



LEGEND

1 **Ground cable**
10 mm²

2 **Communication terminals**
Shielded Twisted Pair 2*0.5mm²

3 **Grid power cable**
16 mm² cable rated for 63 A. Select the appropriate conductor size based on the grid service current, local electrical code, and inverter specifications.

4 **Communication terminals**
Cat 5e or higher shielded network cable

5 **Backup load power cable**
16 mm² cable rated for 63 A. Select the appropriate conductor size based on the grid service current, local electrical code, and inverter specifications.

6 **PV input cable**
4-6 mm² with a rated voltage greater than or equal to 1000V DC

7 **Battery power cable**
6-10 mm² with a rated voltage greater than or equal to 1000V DC

Wiring Diagram

NOTICE

- N and PE wiring via GRID and BACKUP terminals of the inverter vary based on the regulation requirements of different regions. Refer to the specific requirements of local regulations.
- A 63A Manual Transfer Switch (MTS) is highly recommended for switching the power supply between the grid and the inverter in the whole home backup system.
- Installing surge protective devices (SPD) before connecting the PV strings and before connecting to the power grid are recommended.
- RCDs (Type A) with a rated residual operating current are recommended to install, 300mA on the AC-GRID side, and 30mA on the AC-BACKUP side, while the use of an RCD with a lower rated residual operating current is also permitted if it is required by the specific local electrical codes.

- **N AND PE CABLES ARE SEPARATELY WIRED IN THE MAIN PANEL.**

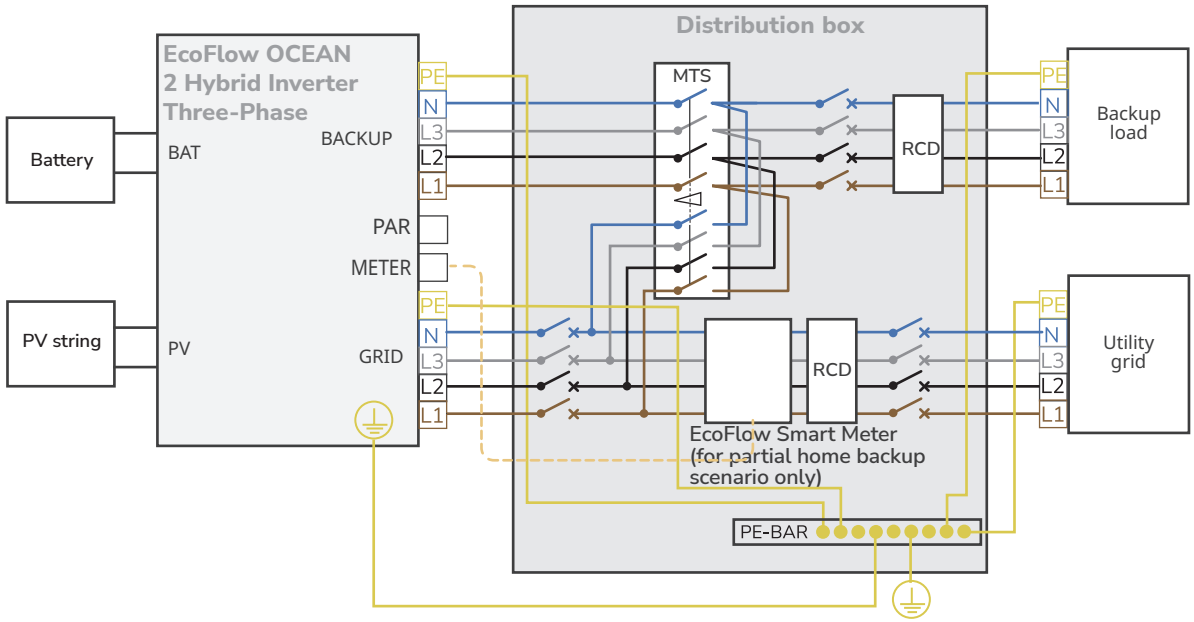
⚠ CAUTION

- Do not connect the N busbar to the N-wire between the inverter and grid, otherwise the inverter operation may be abnormal.

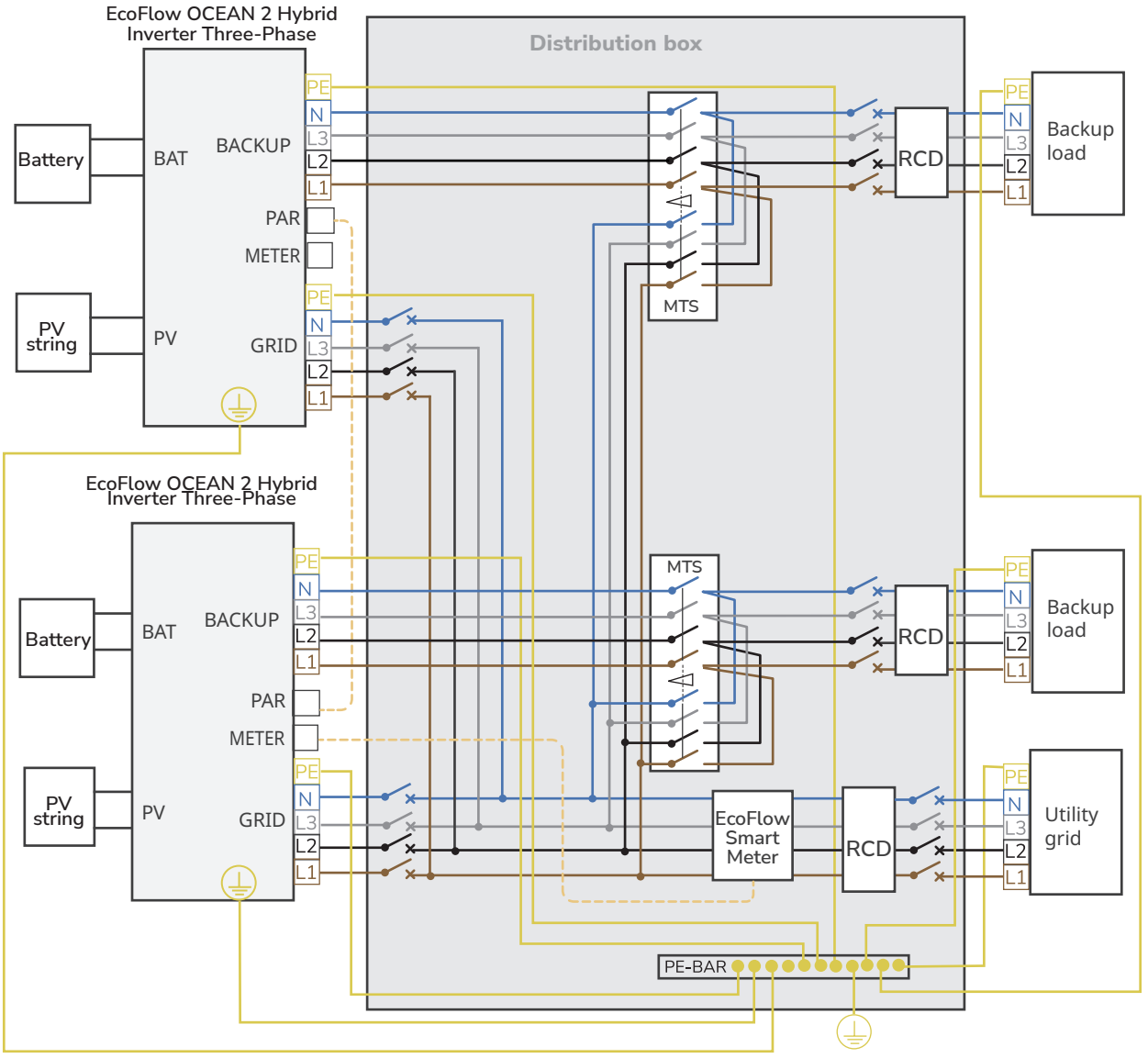
NOTICE

- Do not connect the N-wires of the AC-backup side and AC-grid side, otherwise the system may operate abnormally. If connected in some houses, try disconnecting the N busbar from the grid and connecting the AC-GPID N terminal of inverter directly to the N terminal of the grid.

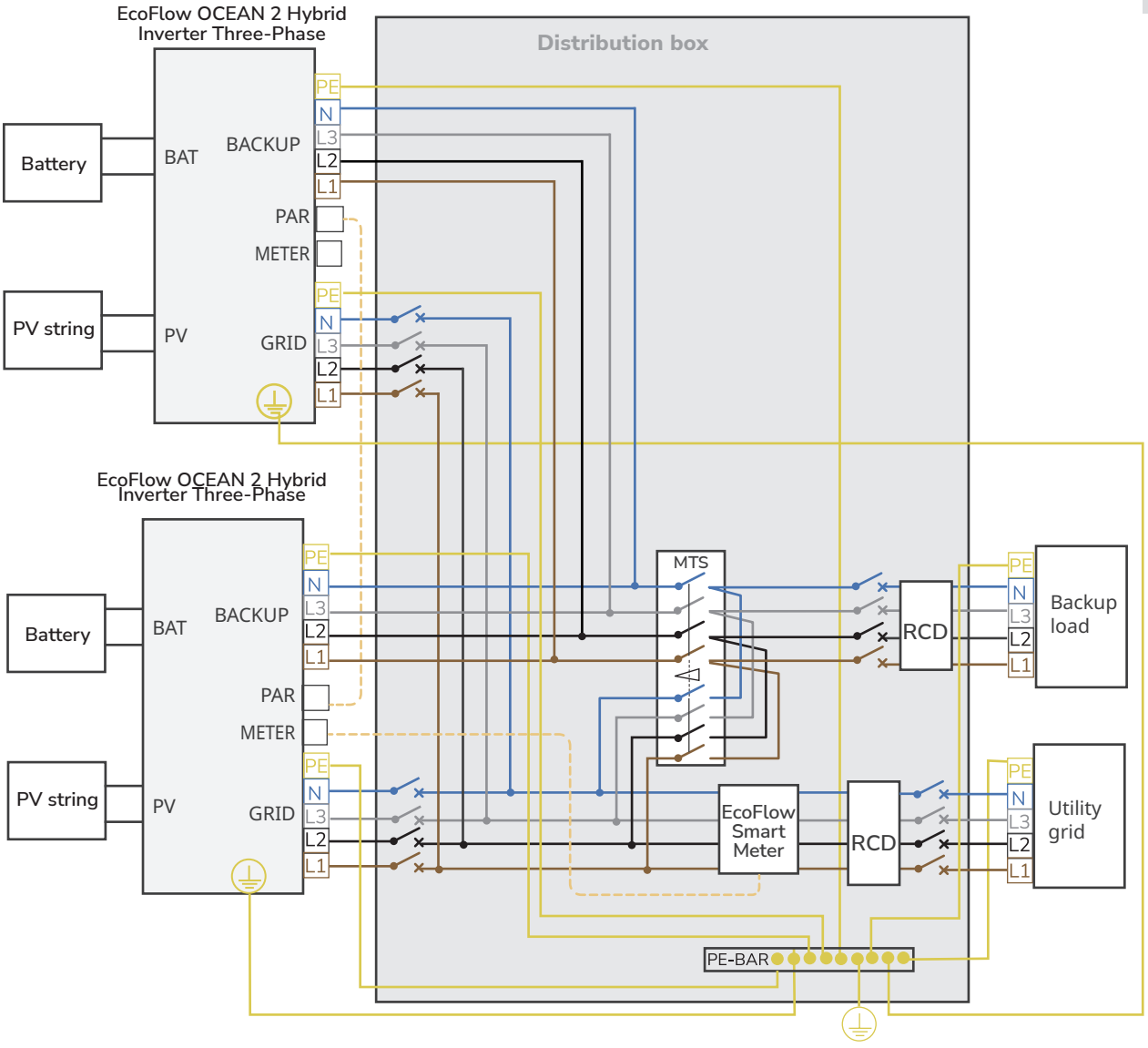
- Single inverter



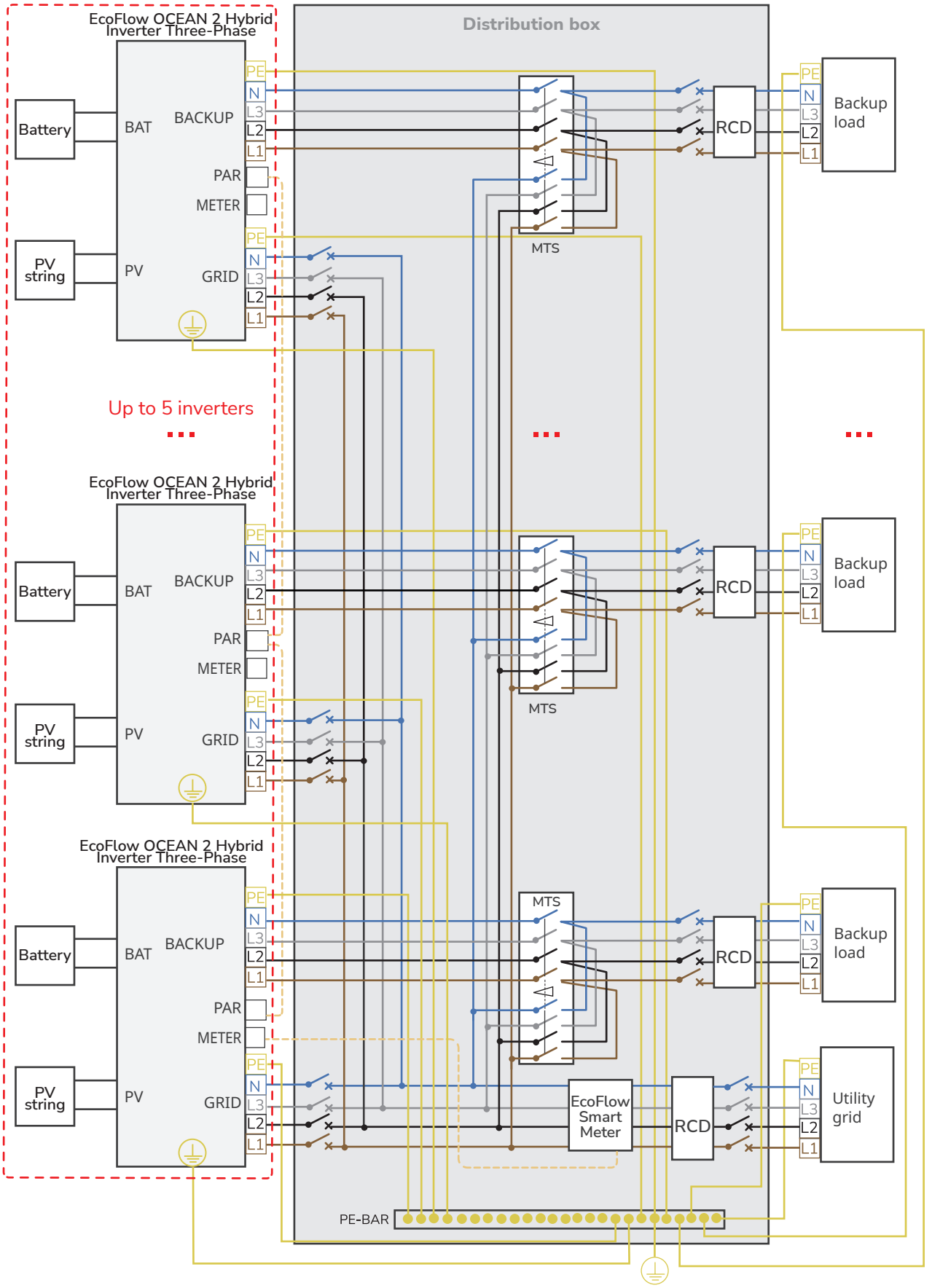
- 2 Inverters Cascading (separate loads)



- 2 Inverters Cascading (sharing loads)



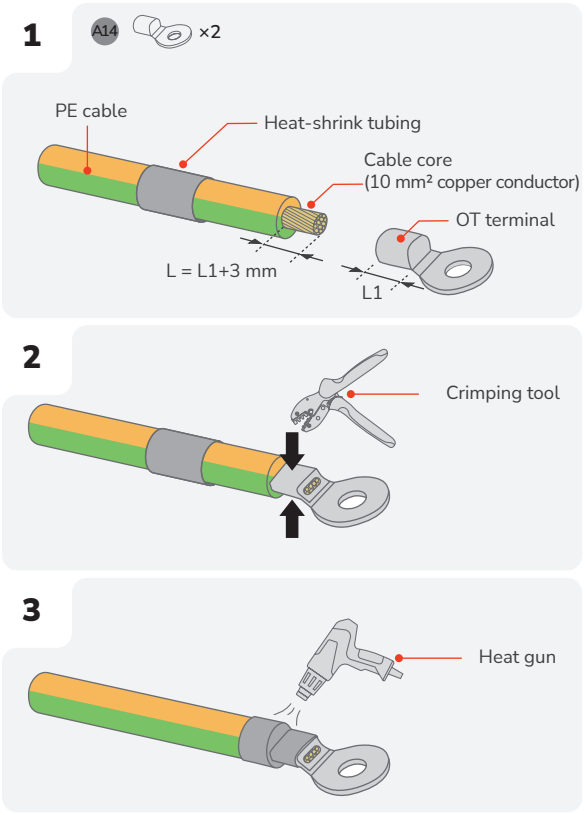
- 3/4/5 Inverters Cascading (separate loads)

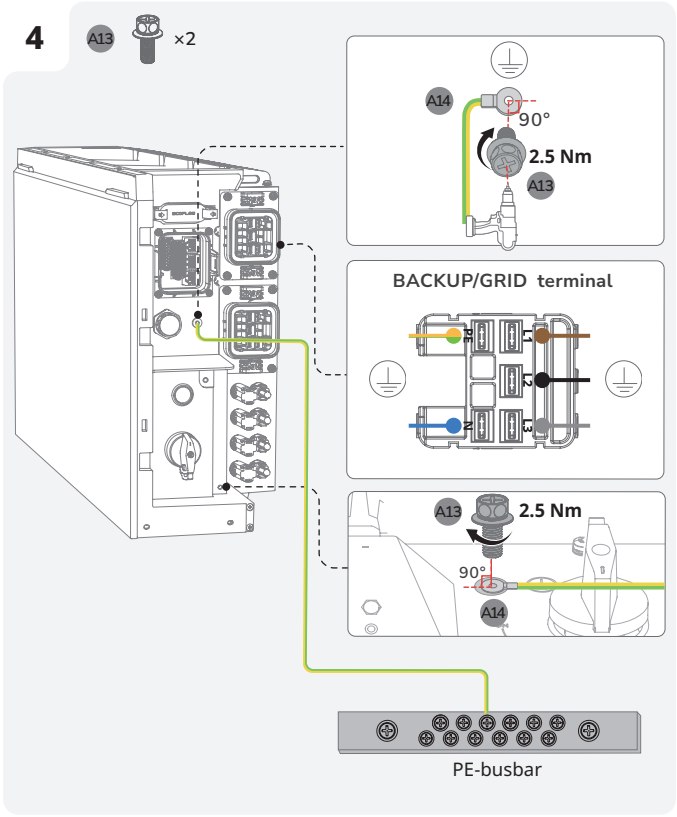


Connecting PE Cables

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.





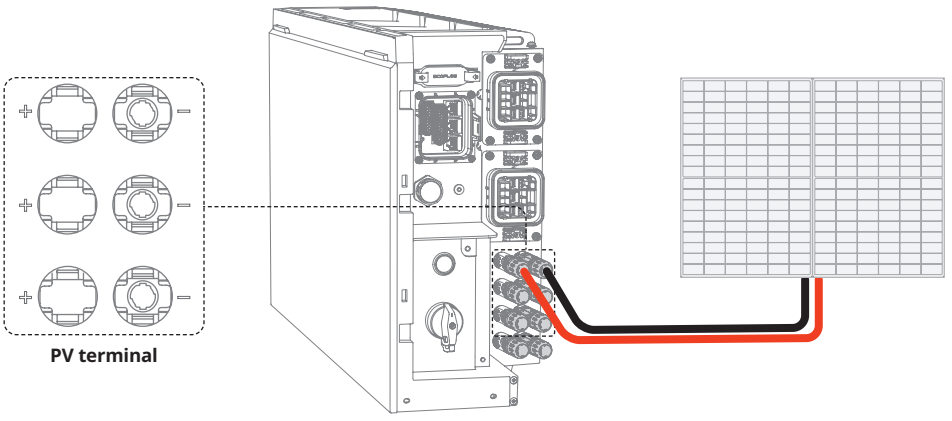
Connecting PV Input Cables

DANGER

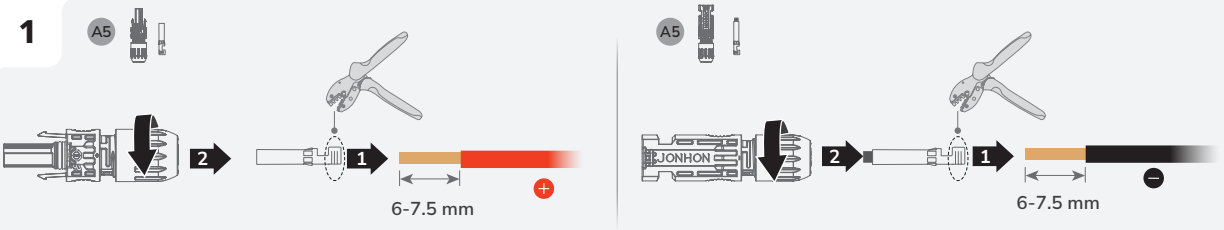
- Before connecting the PV input cables, ensure AC switch connected to the inverter and the PV SWITCH on the inverter are OFF. Failing to do so may result in electric shocks.
- The PV string will generate lethal high voltage when exposed to sunlight. Disconnect the PV cable of PV string before connecting DC power.
- Before connection, ensure the polarity of the output of the PV array matches "PV+"/"PV-" symbols.
- Before connecting the PV input cables, ensure that the impedance between the positive/ negative terminals of the PV string and earth are larger than 1 MΩ. Do not ground the PV array positive/negative hole.
- When the inverter is running, it is not allowed to work on the PV input cables, such as connecting or disconnecting a PV string or a PV module in a PV string. Failing to do so may cause electric shocks.
- Do not remove the protective cap from the unused PV input terminal. Otherwise, the IP rating of the inverter will be affected.
- Ensure that the maximum DC voltage and the maximum short-circuit current of any string do not exceed the allowed range specified in the "Technical Parameters" of the User Manual.

NOTICE

- In order to avoid malfunction, please do not connect any PV modules that have a risk of leakage current to the inverter.
- In order to avoid lightning damage to the inverter, it is recommended to add a surge protection switch at the PV junction box.
- After the positive and negative connectors snap into place, slightly pull the PV input cables back to ensure that they are connected securely.
- It is not recommended that connect different brands or models of PV modules to one MPPT circuit, or connect PV modules of different orientation or angles to one PV string.

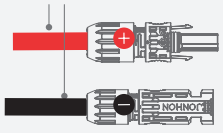


1

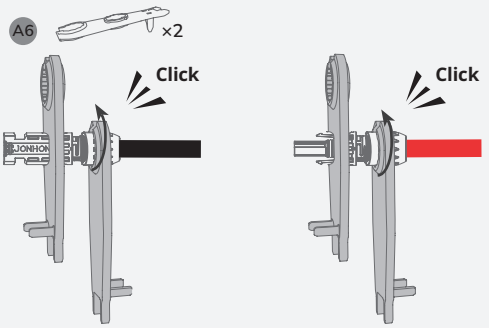


2

DANGER!
Pull back to comfirm the connection is secure

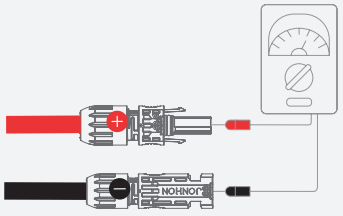


3

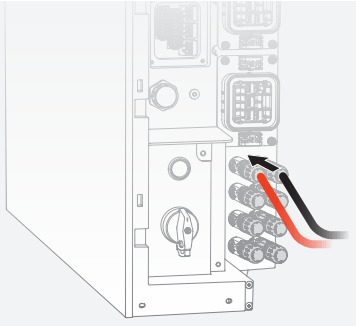


4

Ensure that the cable polarities are correct.



5

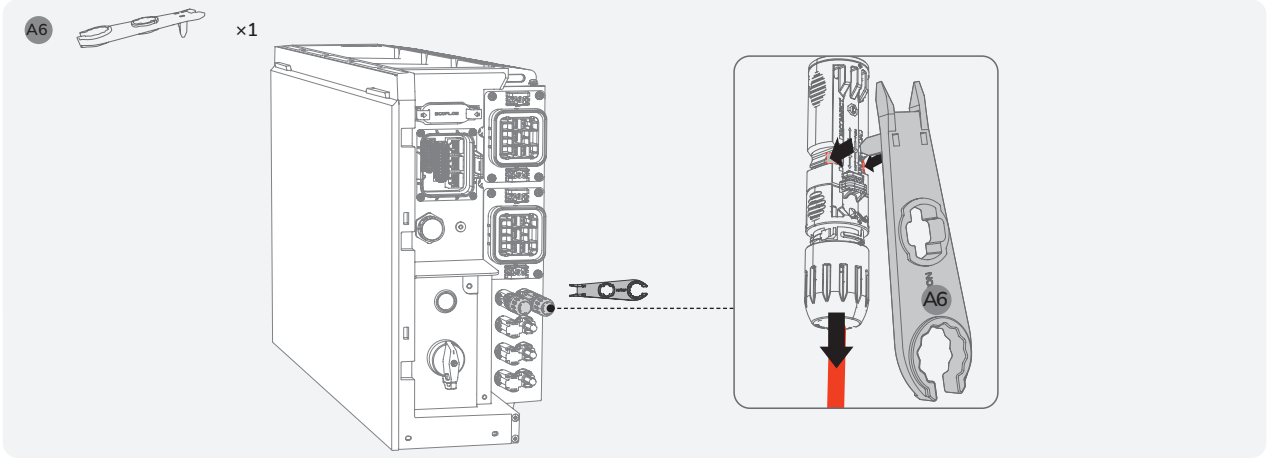


- Set the multimeter to DC gear to measure the voltage at the DC position. If the voltage is a negative value, the PV input polarity is incorrect and needs correction. If the voltage is greater than 1000 V, too many PV modules are configured to the same string. Remove some PV modules.
- If the PV input cable is reversely connected and the PV SWITCH is set to ON, first set the PV SWITCH to the OFF position, then remove the positive and negative connectors, and correct the polarities of the PV input cables.

- **REMOVING THE PV TERMINAL**

WARNING

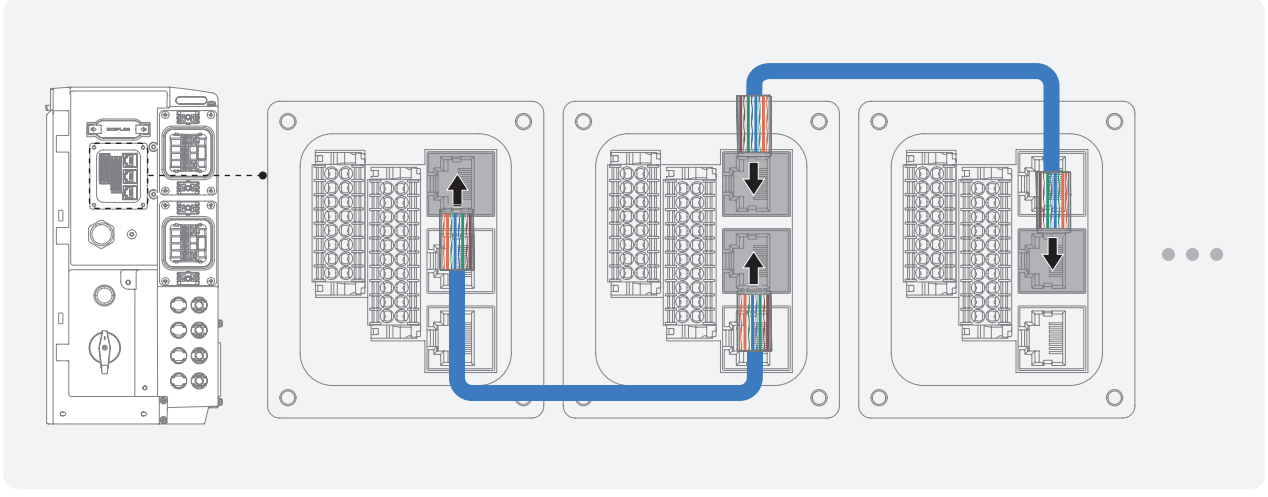
- Before removing the positive and negative connectors, ensure that the PV SWITCH is OFF.



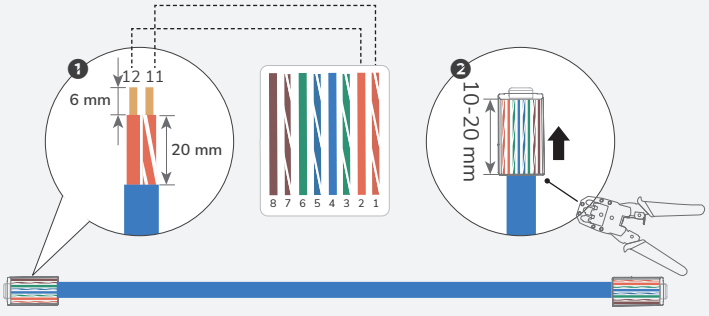
Communication Between Cascaded Inverters

NOTICE

- Up to 5 inverters can be cascaded.
- On-grid parallel communication cable length: ≤100m; Off-grid parallel communication cable length: ≤10m
- Grid-tied: up to 5 inverters; off-grid: up to 2 inverters.



A17 ×2



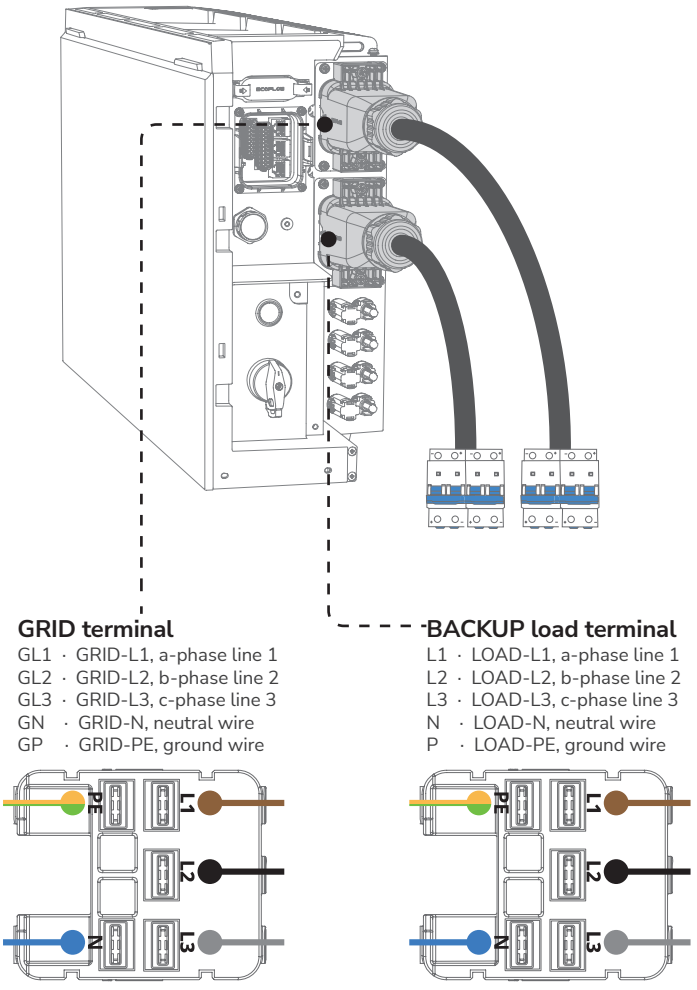
Connecting GRID/BACKUP Cables

DANGER

- Straighten the conductors. If any conductor is left outside the wire jacket, a short circuit may occur.
- Make sure to pull back the cable to confirm connection before holding terminal block in place.

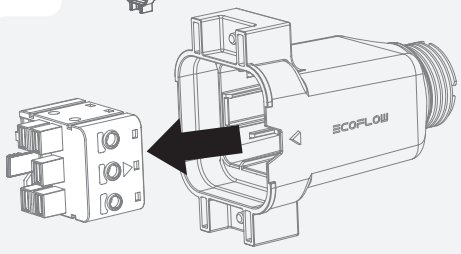
CAUTION

- Before installing, operating, and maintaining the equipment, always disconnect it from all power.
- Do not connect loads between the inverter and the AC switch that directly connects to the inverter.
- Ground the PE pole of GRID connector and the equipment enclosure.
- Do not connect the GRID conductors to the BACKUP load terminal of the inverter, and do not connect the BACKUP load conductors to the GRID terminal.
- Please ensure the wiring is correct; otherwise, it may cause device malfunction or even damage.



1

A9 ×1



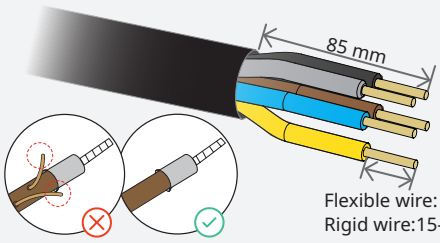
2

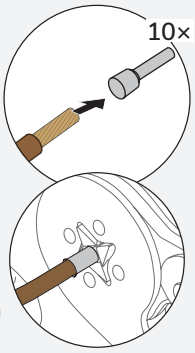
A15

Flexible wire

Rigid wire

NO FERRULES ON RIGID WIRES



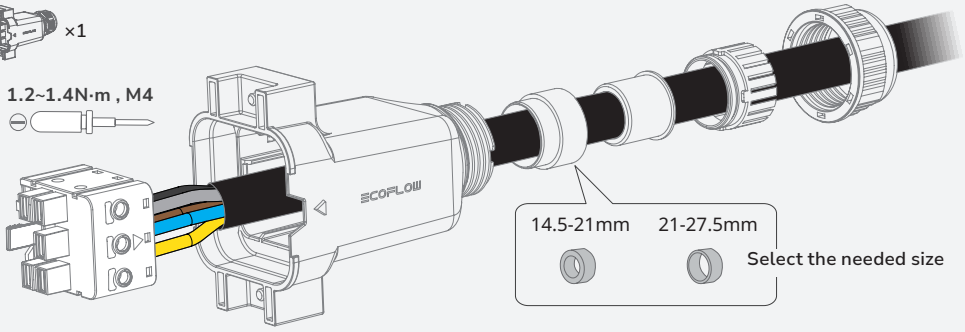


Flexible wire: 20-23 mm
Rigid wire:15-20 mm

3

A9 ×1

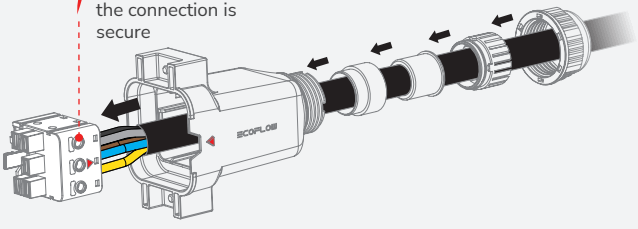
1.2~1.4N·m , M4



Select the needed size

4

DANGER!
Pull back to comfirm the connection is secure



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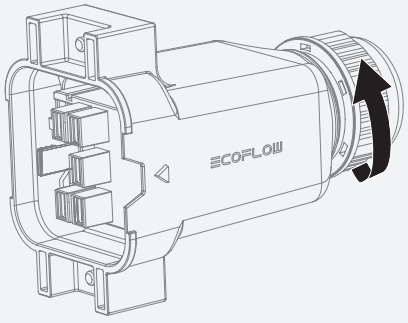
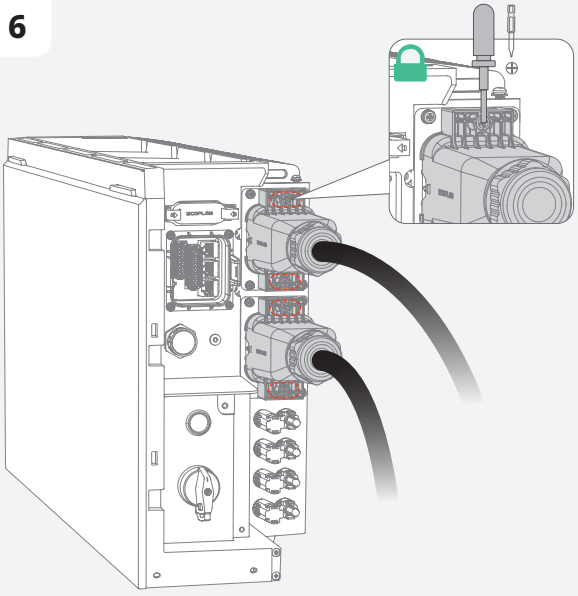


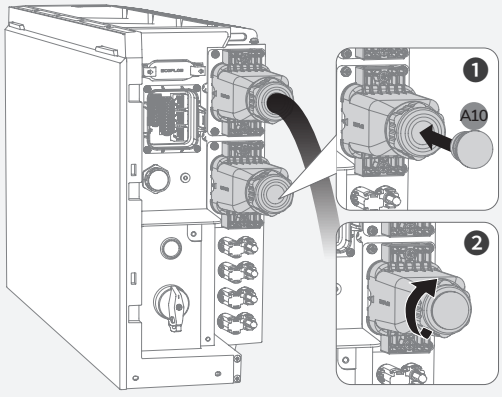
6



A10 ×1

CAUTION

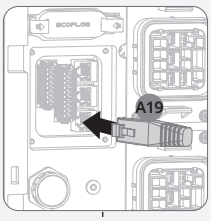
- Even when not in use, the BACKUP terminal must be fitted with the BACKUP connector and an electrical safety plug (included) to completely isolate live parts, preventing personnel from electric shock or damage caused by incorrect external device connection.



Cascading Batteries

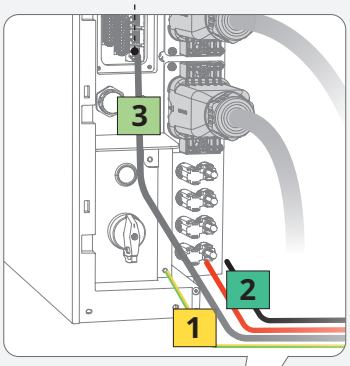
NOTICE

- One battery junction box supports a maximum of 6 battery packs.
- Up to 12 battery packs (maximum 60 kWh) can be cascaded.
- Do not remove the protective cap of unused DC input terminals. Otherwise, the IP rating of the inverter will be affected.
- For the battery clearance, see the section Installation Space Requirements in this guide.



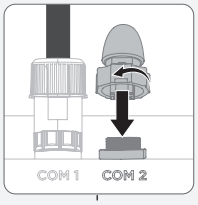
NOTICE

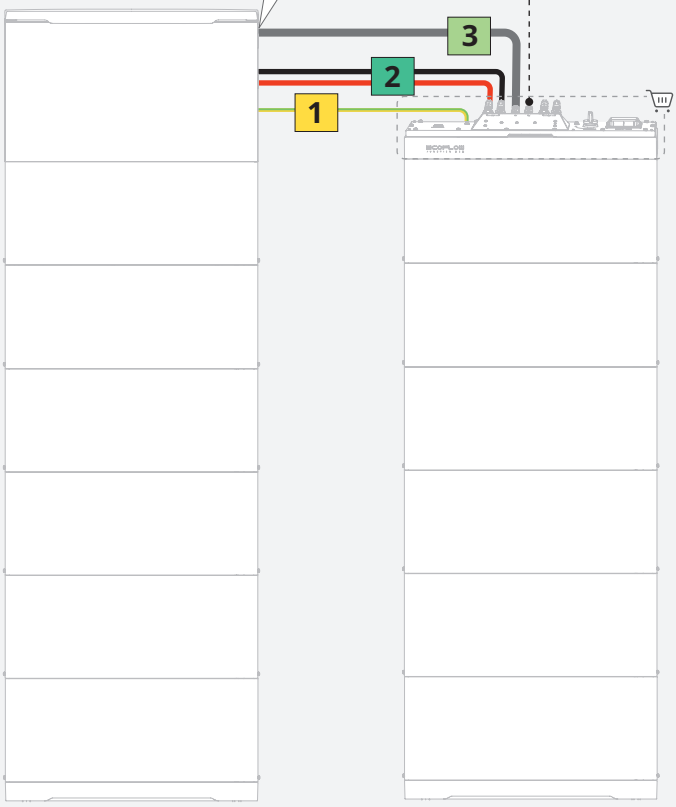
- B-COM port: Please install a terminating resistor to the unused B-COM terminal for proper communication.



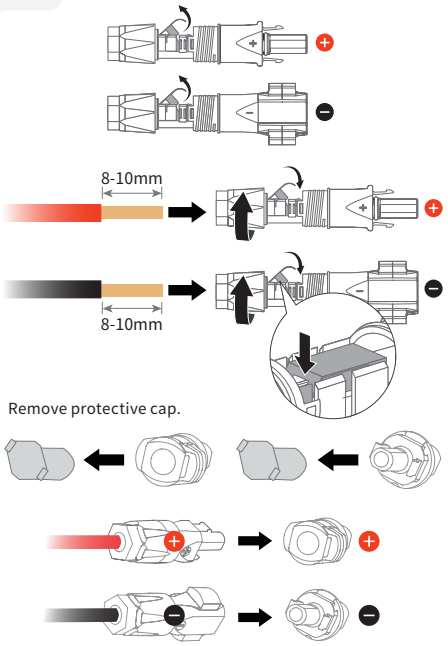
NOTICE

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

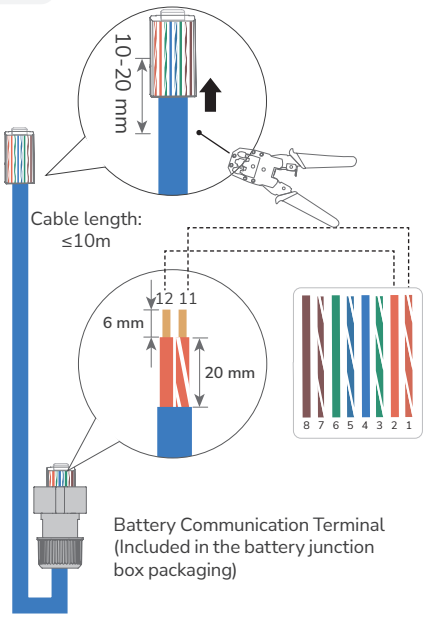




2 Battery Power Cables (Included in the battery junction box packaging)



3 A17 ×1 Preparing battery communication cables



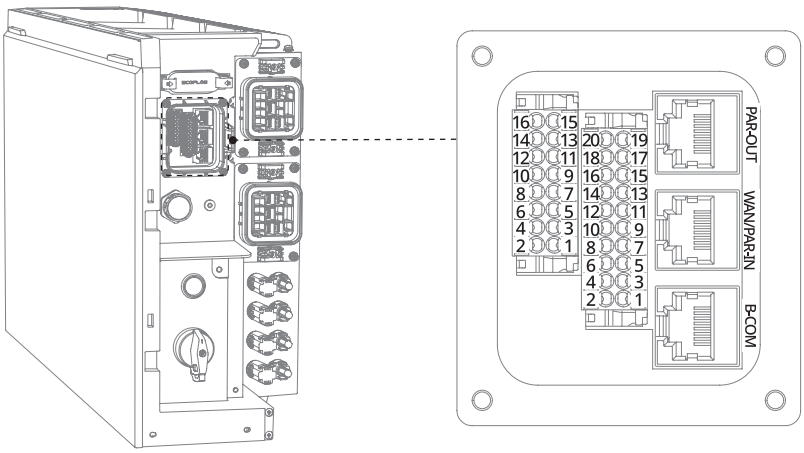
LEGEND

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

Installing COM Terminal With Shorting Wire

NOTICE

- COM terminal supports logic interface connection. Logic interface is required by some local regulations that can be operated by a simple switch or contactor.
- When the switch is switched on, the inverter can operate normally. When the switch is switched off, the inverter will reduce its active power to zero.
- DRM only be supported in Australia and New Zealand.
- Relay Contact rating of SG_Ready pins: 30V/2A. The recommended load should be rated ≤24V/2A for safe operation.

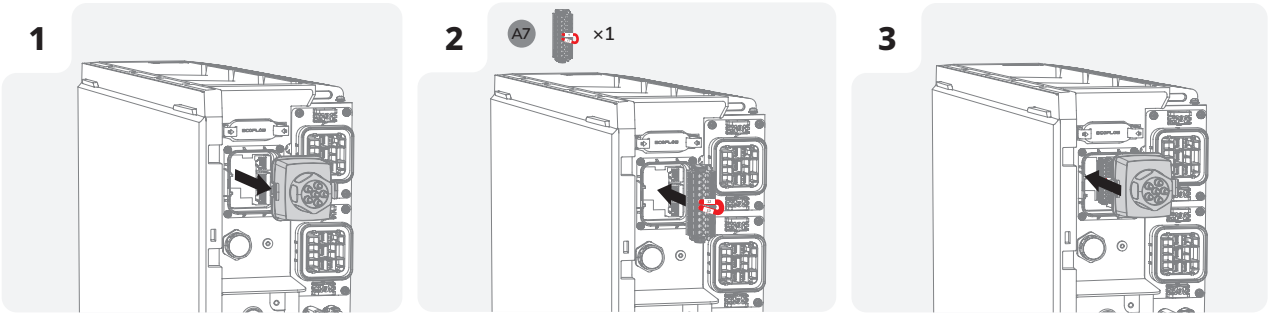


• 16-PIN COM TERMINAL DEFINITION

Parallel Communication		RS485 Communication for Ecosystem Appliances	
1	PARA_CAN_0H	2	ECO_485_B1
3	PARA_CAN_0L	4	ECO_485_A1
5	PARA_12V_SYN	6	ECO_485_B2
7	PARA_AGND	8	ECO_485_A2
SG_Ready		AC Coupled Meter	
9	SG_READY_21	10	METER_485_B3
11	SG_READY_22	12	METER_485_A3
13	SG_READY_11	DC Output	
15	SG_READY_12	14	12V_OUT
		16	12V_AGND

• 20-PIN COM TERMINAL DEFINITION

Ripple control receiver (RCR) Communication			
1	PE	2	RCR_REF_2
3	Reserved	4	RCR_REF_1
5	RCR_DI_3	6	RCR_DI_1
7	RCR_DI_4	8	RCR_DI_2
CAN Communication for Ecosystem Appliances		Emergency Stop Input	
9	ECO_CAN_3H	10	EPO
11	ECO_CAN_3L	12	EPO_GND
CAN Communication for Gateway		DI Communication for Gateway	
13	GATEWAY_CAN_4H	14	GATEWAY_DI_1
15	GATEWAY_CAN_4L	16	GATEWAY_DI_2
DI Communication for Generator		DO Communication for Generator	
17	GEN_DI_1	18	GEN_DO_1
19	GEN_DI_2	20	GEN_DO_2



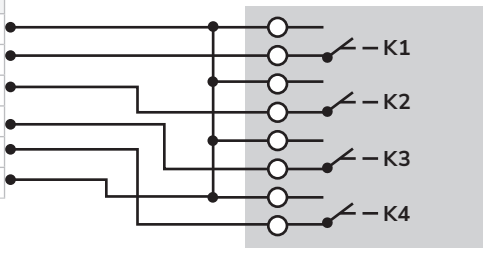
- **RIPPLE CONTROL RECEIVER (RCR)**

Ripple control receiver (RCR) is an interface between a PV system and power grid company that enables the grid operator to reduce the feed-in power if necessary. Generally, if the grid is overloaded, the utility company will specify whether the PV system should reduce their feed-in power to 0%, 30%, 60% of their rated power. If the grid is not overloaded, the PV system will be allowed to input 100% of the power. These control commands will be directly sent to the installer and then realized by the RCR.
The RCR haS four relays (K1-K4). The relays are potential-free make contacts. The relays are interlocked with each other. Furthermore, each of these relays represents one of the following control stages:

No.	K1	K2	K3	K4	System Setpoint
1	0	0	0	0	100%
2	0	0	0	ON	0%
3	0	0	ON	0	30%
4	0	0	ON	ON	0%
5	0	ON	0	0	60%
6	0	ON	0	ON	0%
7	0	ON	ON	0	30%
8	0	ON	ON	ON	0%
9	ON	0	0	0	100%
10	ON	0	0	ON	100%
11	ON	0	ON	0	100%
12	ON	0	ON	ON	100%
13	ON	ON	0	0	100%
14	ON	ON	0	ON	100%
15	ON	ON	ON	0	100%
16	ON	ON	ON	ON	100%

Please enable the RCR by shorting PIN2 and PIN4 of 20-PIN terminal, in this case, the feed-in power limitation will be disabled. The inverter is connected to the ripple control receiver as follows:
DI_1(PIN6): 100%
DI_2(PIN8): 60%
DI_3(PIN5): 30%
DI_4(PIN7): 0%

RCR Status Detection	
1	**REF_1**
2	**DI_1**
3	**DI_2**
4	**DI_3**
5	**DI_4**
6	**REF_2**



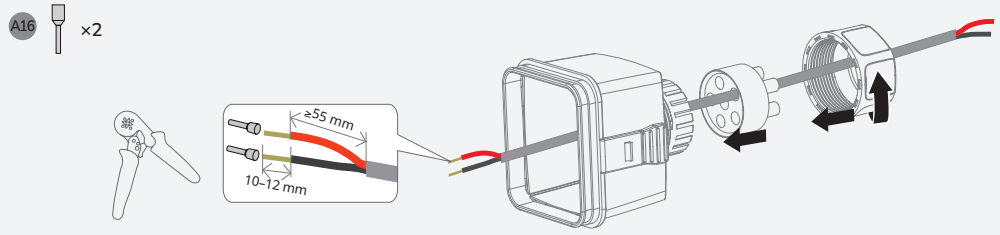
(Optional) To disconnect cables from PAR-OUT / WAN/PAR-IN / B-COM ports, first remove the 16-pin/20-pin communication terminals.

(Optional) Installing Emergency Stop (EPO)

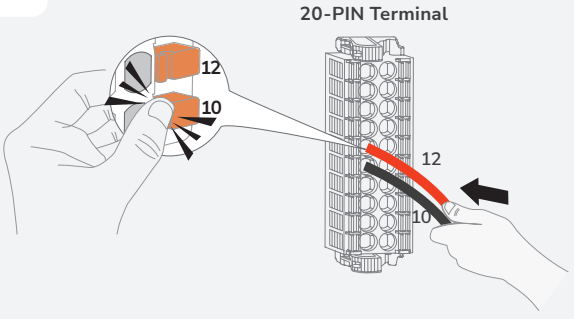
NOTICE

- Before installing EPO, remove the shorting wire between PIN10 and PIN12.

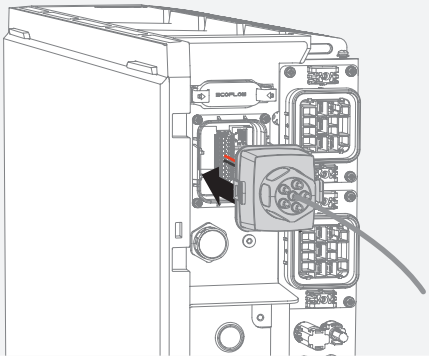
1



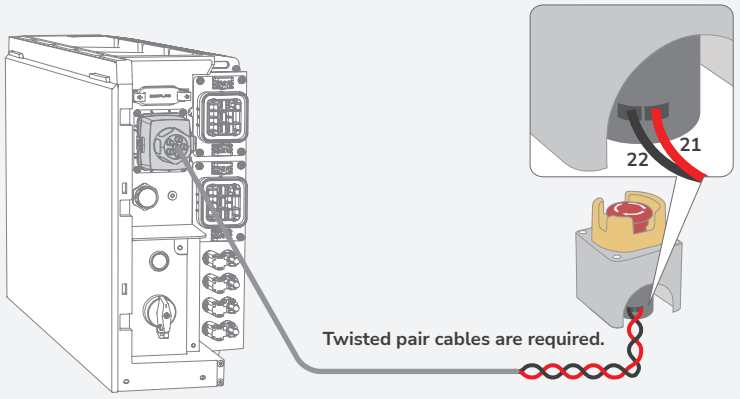
2



3



4

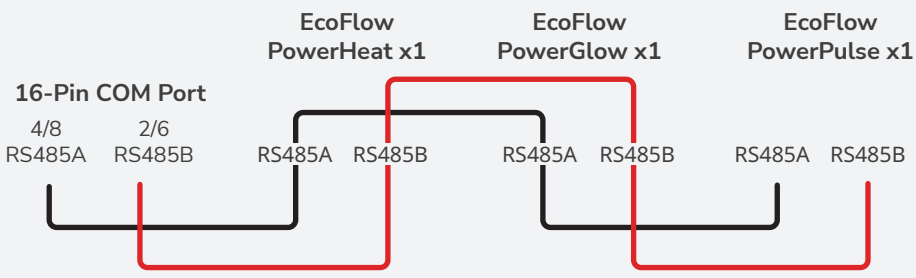


Connecting Ecosystem Appliances

EcoFlow Ocean 2 supports connecting with EcoFlow PowerHeat, EcoFlow PowerGlow, EcoFlow PowerPulse, EcoFlow PowerPulse 2 via the COM interface.

Refer to the procedure in the section "(Optional) Installing Emergency Stop (EPO)" and connect the wires in accordance with the PIN definition of the COM interface. Check the instruction of the corresponding products.

RS485 communication cable length: ≤50m



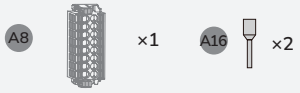
I (Optional) Energy Metering Installation for Partial Backup System

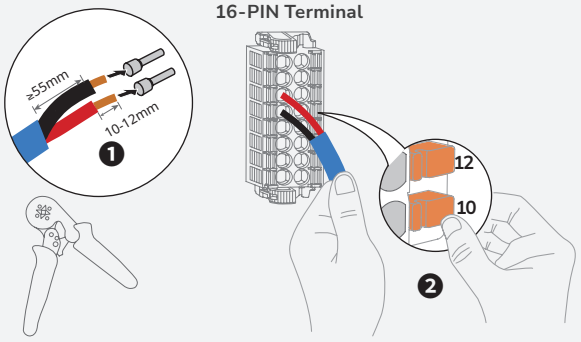
NOTICE

- Smart meter is sold separately, which has been preset parameters before delivered. Do not modify the relevant parameters.
- The compatibility of this product with smart meters may vary by regions and versions. For detailed instructions on the installation and wiring scheme of the smart meter for this product, please refer to the guide that comes together with the meter.
- The cable colors shown in the figures are for reference only. Select an appropriate cable according to the local standards.
- RS485 communication cable length: ≤50m
- No external meter is required for whole-home backup applications.

- **WITH CT**

1





2

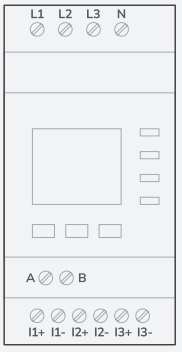
METER SAMPLING

Find the home mains and connect the smart meter as shown in the diagram.

3

METER COMMUNICATION

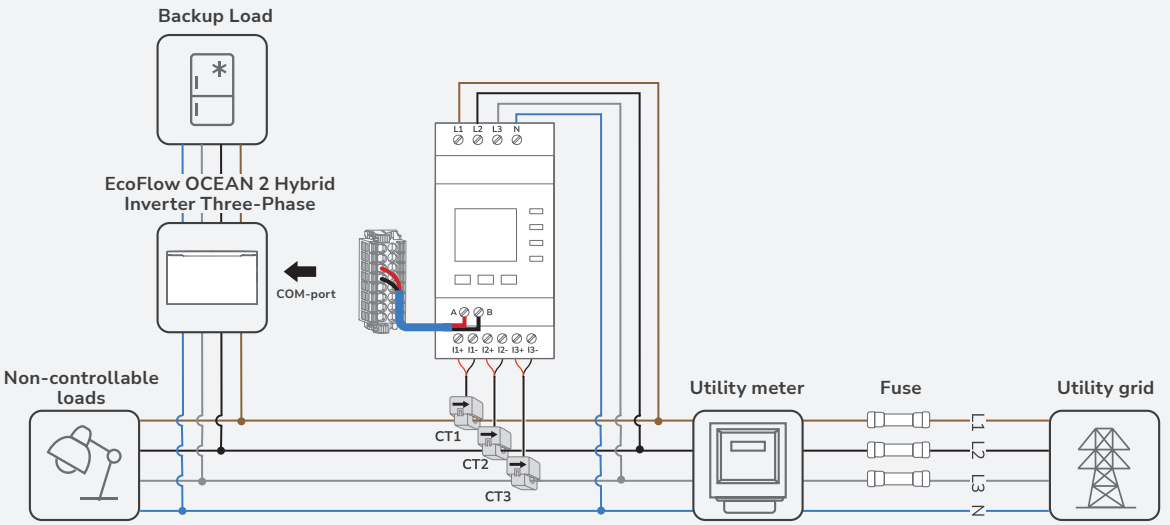
Find communication port A,B on the meter and connect with the inverter.



L1	Grid L1
L2	Grid L2
L3	Grid L3
N	Grid N
A	RS485A
B	RS485B
I1+ / I1-	Grid L1 CT
I2+ / I2-	Grid L2 CT
I3+ / I3-	Grid L3 CT

4

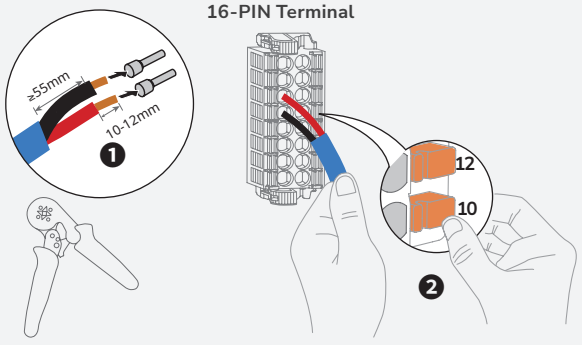
COMMUNICATION WIRING DIAGRAM



- **WITHOUT CT**

1

A8 ×1 A16 ×2

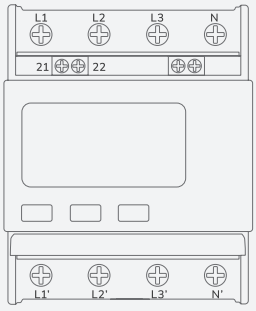


2 METER SAMPLING

Find the home mains and connect the smart meter as shown in the diagram.

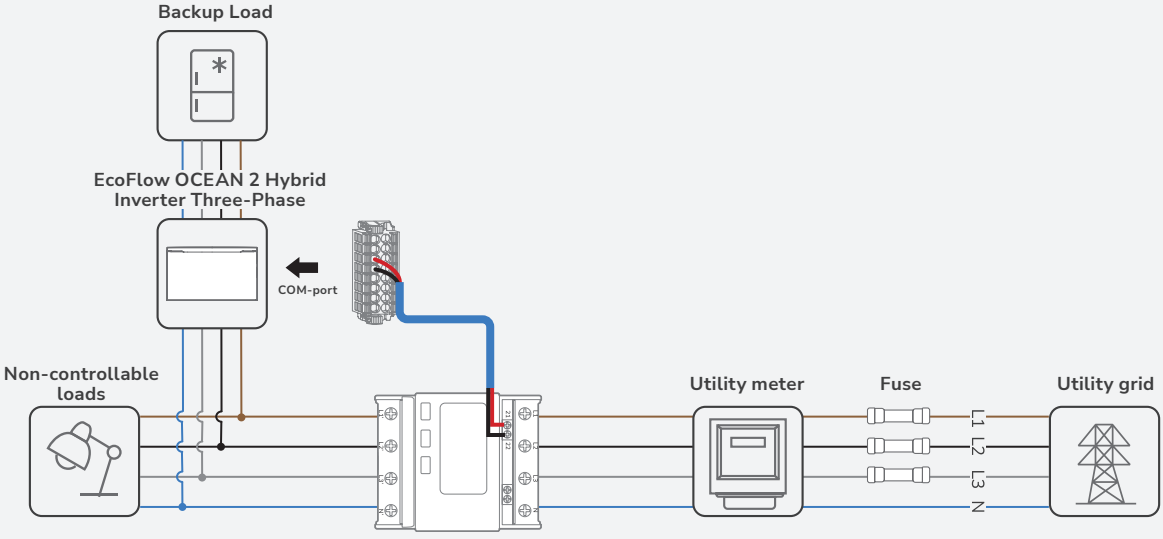
3 METER COMMUNICATION

Find communication port A,B on the meter and connect with the inverter.



L1	Grid L1
L2	Grid L2
L3	Grid L3
N	Grid N
21	RS485A
22	RS485B
L1'	Load L1
L2'	Load L2
L3'	Load L3
N'	Load N

4 COMMUNICATION WIRING DIAGRAM



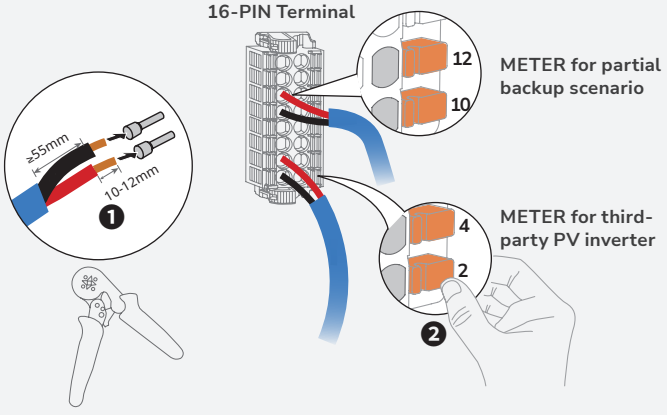
I (Optional) Energy Metering Installation for System with Third-Party PV Integration

NOTICE

- It is recommend to use of CAT5 or higher rating network cable.
- Smart meter is sold separately, which has been preset parameters before delivered. Do not modify the relevant parameters.
- The compatibility of this product with smart meters may vary by regions and versions. For detailed instructions on the installation and wiring scheme of the smart meter for this product, please refer to the guide that comes together with the meter.
- If the existing third-party PV system already has its own grid-tied meter, its meter configuration and wiring remain unchanged when the EcoFlow OCEAN 2 three-phase system is added.

- **METER WITH CT**

1



2

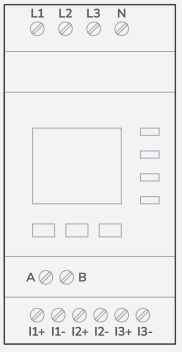
METER SAMPLING

Find the home mains and connect the smart meter as shown in the diagram.

3

METER COMMUNICATION

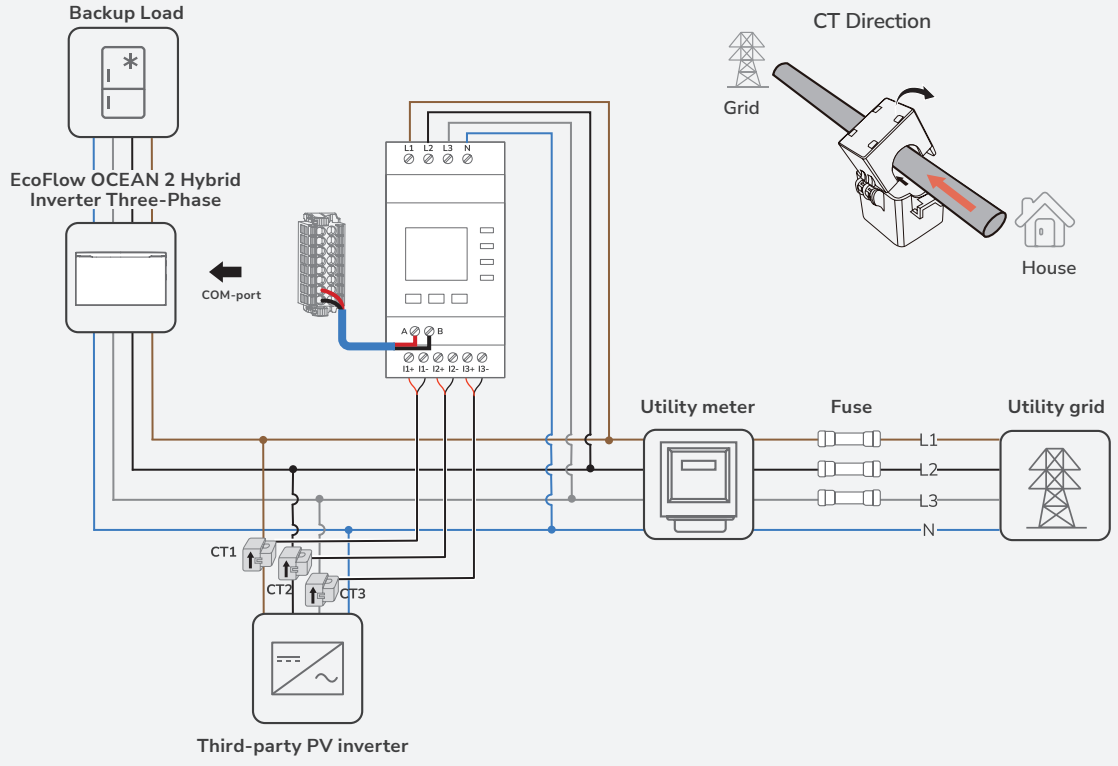
Find communication port A,B on the meter and connect with the inverter.



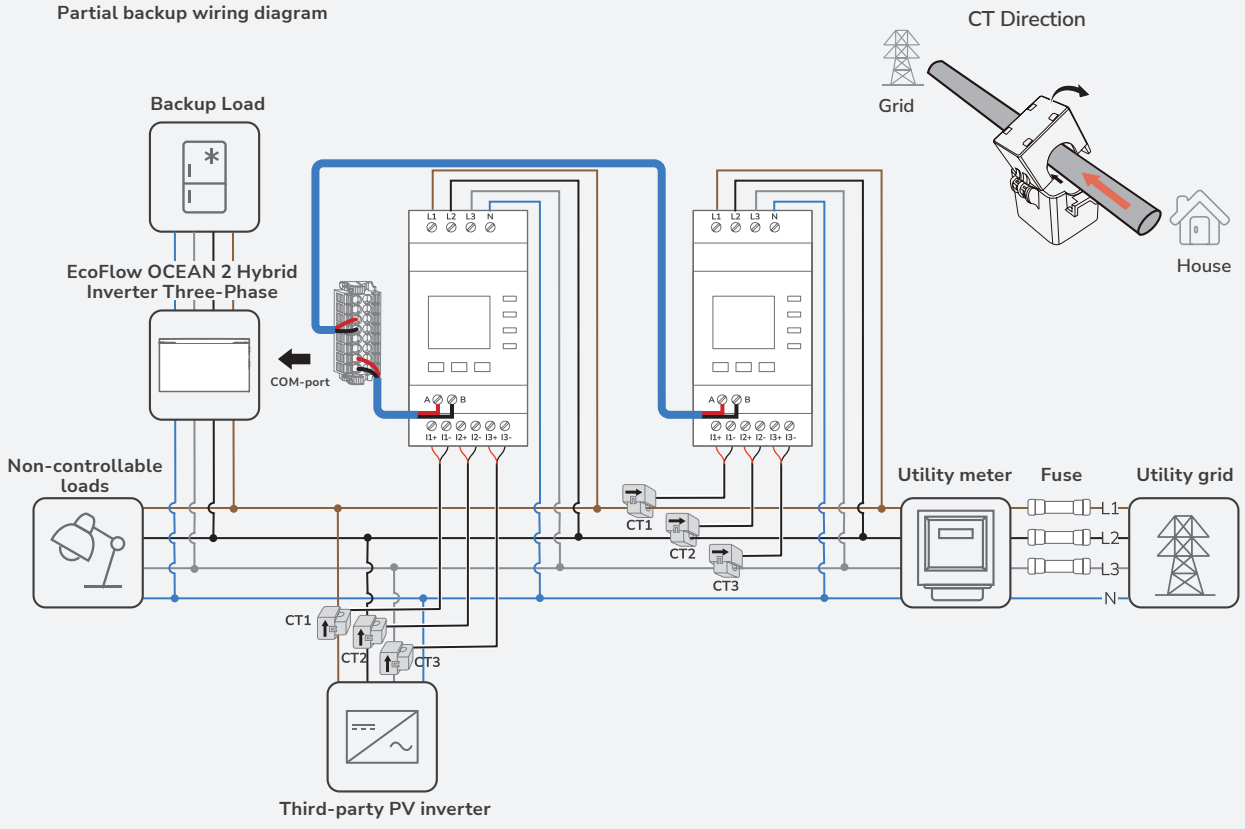
L1	Grid L1
L2	Grid L2
L3	Grid L3
N	Grid N
A	RS485A
B	RS485B
I1+ / I1-	Grid L1 CT
I2+ / I2-	Grid L2 CT
I3+ / I3-	Grid L3 CT

4

Whole-home backup wiring diagram



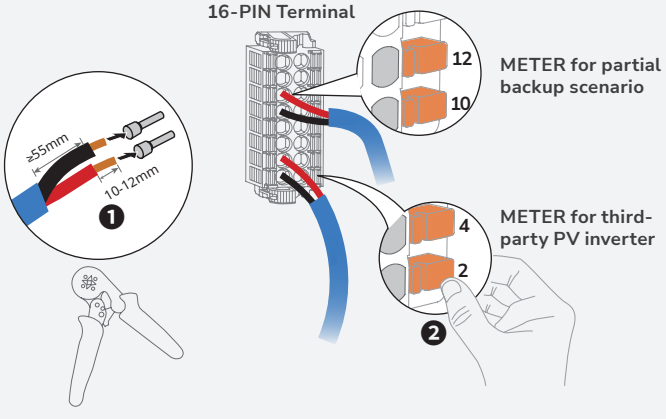
Partial backup wiring diagram



- **WITHOUT CT**

1

A8 ×1 A16 ×2

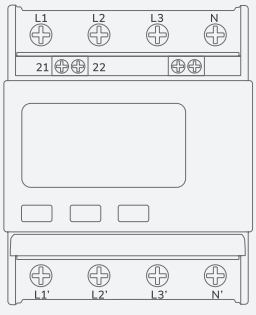


2

METER SAMPLING
Find the home mains and connect the smart meter as shown in the diagram.

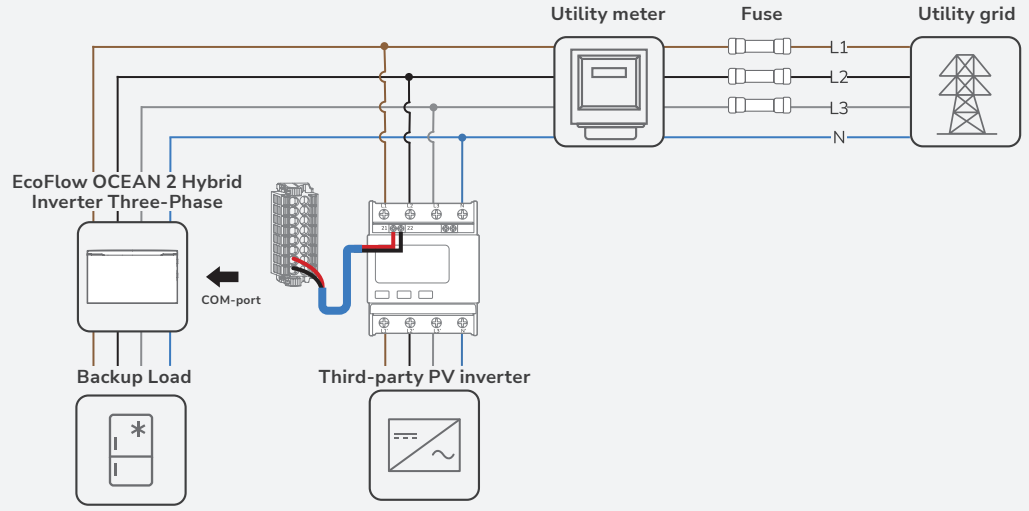
3

METER COMMUNICATION
Find communication port A,B on the meter and connect with the inverter.

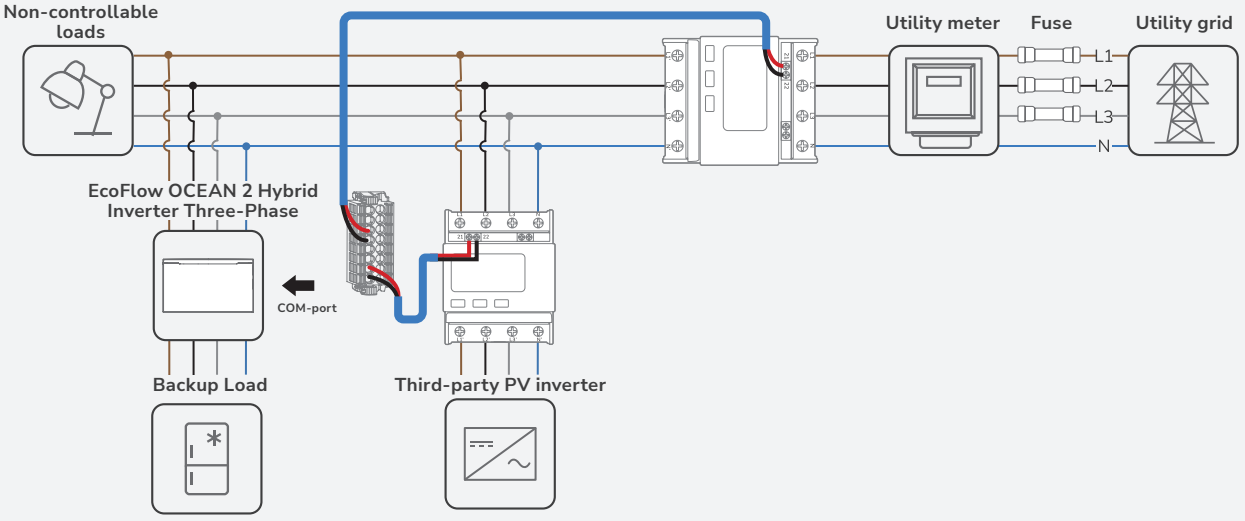


L1	Grid L1
L2	Grid L2
L3	Grid L3
N	Grid N
21	RS485A
22	RS485B
L1'	Load L1
L2'	Load L2
L3'	Load L3
N'	Load N

4 Whole-home backup wiring diagram



Partial backup wiring diagram

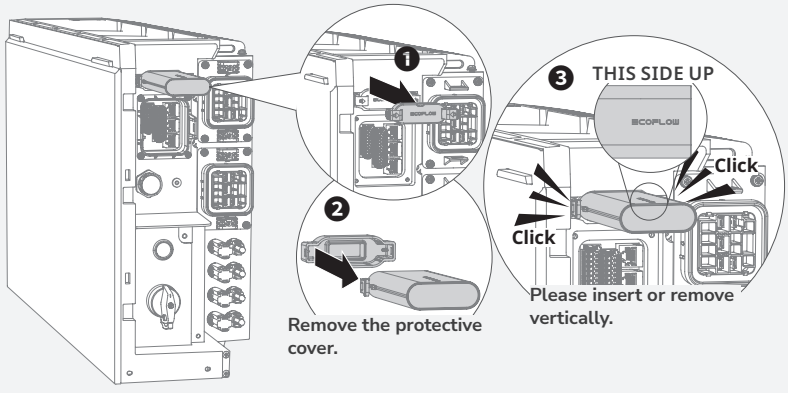


Connecting to the Internet

NOTICE

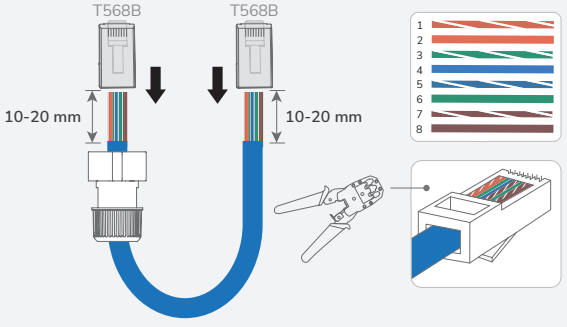
- Use shielded CAT 5 or higher rating network cable for stable connection.
- For more details about EcoFlow OCEAN 2 Dongle, please please visit following website to access user manual: https://homebattery.ecoflow.com/eu/documentation
- The WIFI dongle is used for wired and wireless WLAN or Bluetooth communication between inverters and EcoFlow app, which is required for a single inverter or each of cascaded inverters.

- **METHOD 1: VIA A WIRELESS NETWORK**

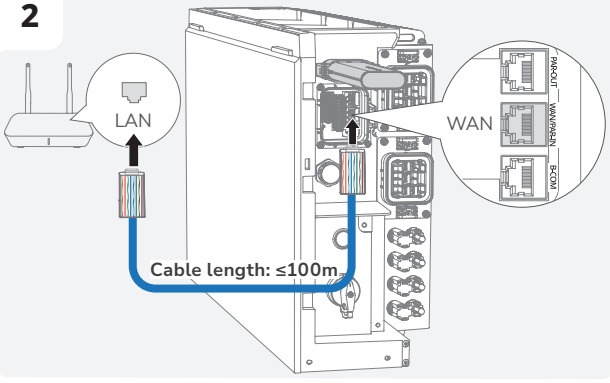


- **METHOD 2: VIA A WIRED NETWORK**

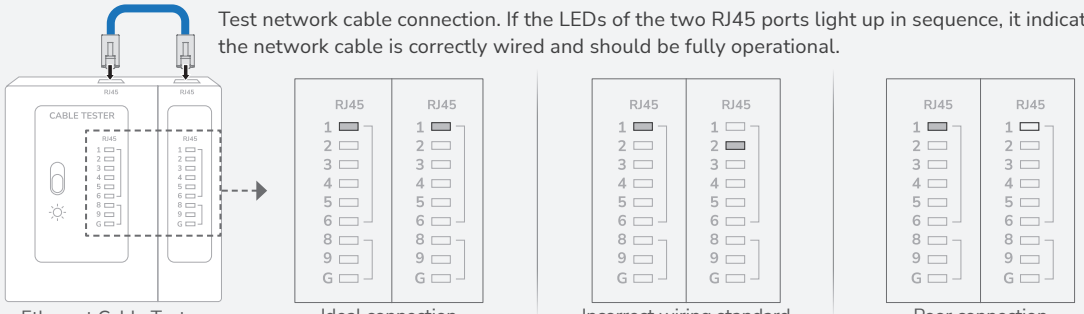
1 Both ends of the network cable use the T568B wiring standard.



2

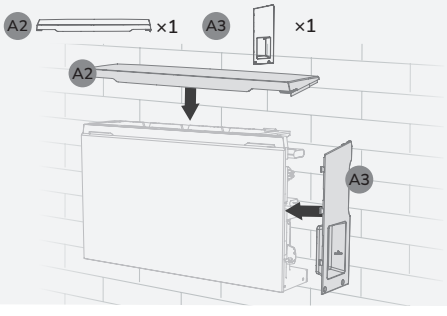


Test network cable connection. If the LEDs of the two RJ45 ports light up in sequence, it indicates that the network cable is correctly wired and should be fully operational.

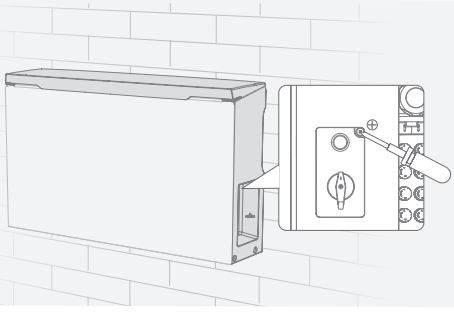


Installing trim covers

1



2



System Commissioning

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.

System Power-On

- **PROCEDURE (PV MODULE CONFIGURED)**

1. Set the BATTERY SWITCH (French 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. Observe the LED to check the operating status.

- **PROCEDURE (NO PV MODULE CONFIGURED)**

1. Set the BATTERY SWITCH (French 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 three seconds the BATTERY ON/OFF button.
5. Observe the LED to check the operating status.

System Power-Off

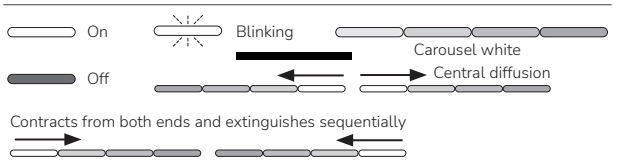
Before installing, operating, and maintaining the equipment, always disconnect it from all power.

⚠ WARNING

- 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.

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

LED Indicators



- **DAILY USE**

Power On	Description
	Startup
Power Off	**Description**
	Shutdown
Charge Status	**Description**
	0-25%
	25-50%
	50-75%
	75-100%
	100%
Discharge Status	**Description**
	1-10% (Low battery)
	11-24%
	25-49%
	50-74%
	75-100%

- **INSTALLATION/COMMISSIONING**

Over-the-air Updates / Self-Check Status	Description
	Over-the-air update or self-check ongoing.
Wi-Fi Setup Status	**Description**
First breathing white then blinking	Wi-Fi pairing ongoing

- **ABNORMAL/FAULT**

Faulty Status	Description
	Electrical connection fault detected
	Communication fault detected
	Battery fault detected
	Converter fault detected

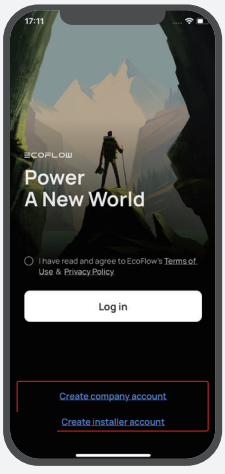
System Commissioning

1 DOWNLOAD AND INSTALL ECOFLOW PRO APP (FOR INSTALLER ONLY)

Scan the QR code or download at:
https: //download.ecoflow.com/ecoflowproapp

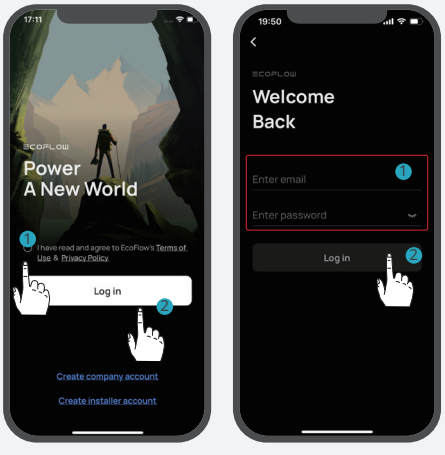
2 CREATE ACCOUNT

Create your company or installer account



3 LOG IN

Enter the installer account and password.

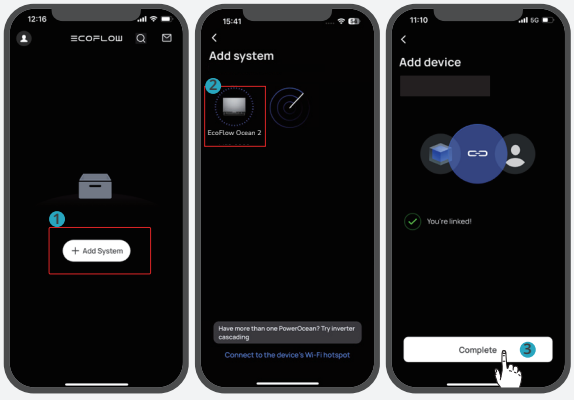


4 ADD SYSTEM

You can connect to the system via Bluetooth or Wi-Fi.

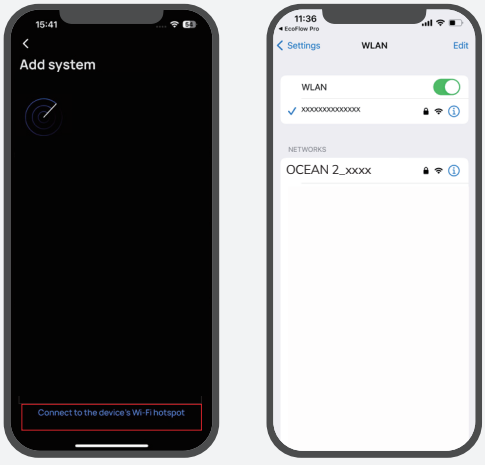
·Via Bluetooth

Tap **Add System** to automatically search for bluetooth devices nearby, tap **EcoFlow Ocean 2** to connect, and then tap **Complete** to proceed.



·Via Wi-Fi

1. Tap **Add System**, and tap **Connect to the device's Wi-Fi hotspot** to access to your phone's Wi-Fi settings.
2. Tap "**EcoFlow Ocean 2**" and enter the password for the Wi-Fi. The password is the last 8 digits of the serial number of the inverter, found in the product nameplate.



5 COMMISSIONING

After bound device successfully, the device enters the four-step commissioning process.

Step 1: Internet Setup

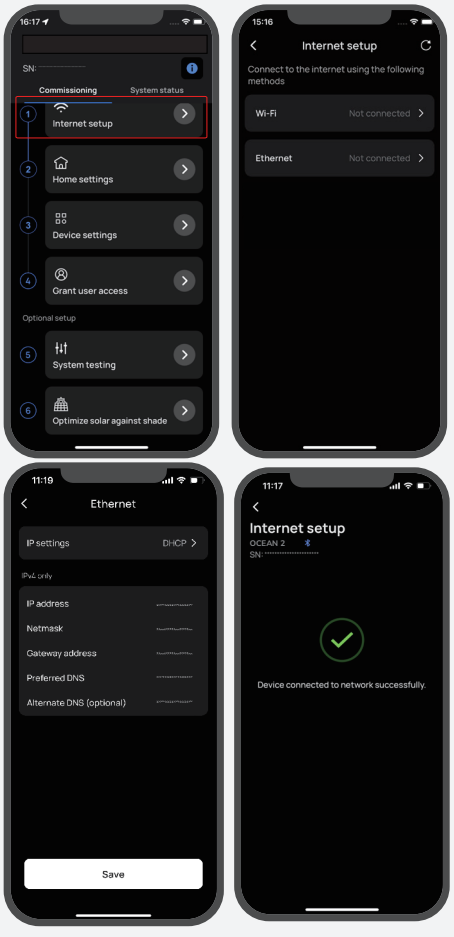
Tap **Internet Setup** to start the network configuration.

• Wi-Fi

Select **WiFi** select the appropriate **network** and enter the password.

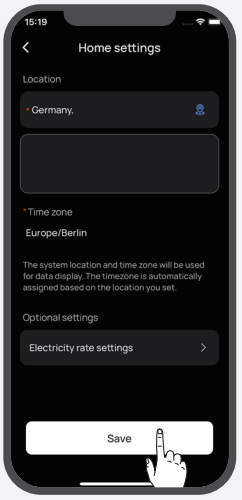
• Ethernet

Connect the system to a router using a network cable in the DHCP or Static mode.
- In the default DHCP mode, the device obtains IP address automatically (recommended).
- In the Static mode, network administrator (homeowner) should set a valid IP address to the device. To avoid IP address conflict, check the IP addresses of other devices on the network by accessing router's settings.



Step 2: Home Setting

Tap **Home Setting** to enter the corresponding house address and set the electricity rate if needed.

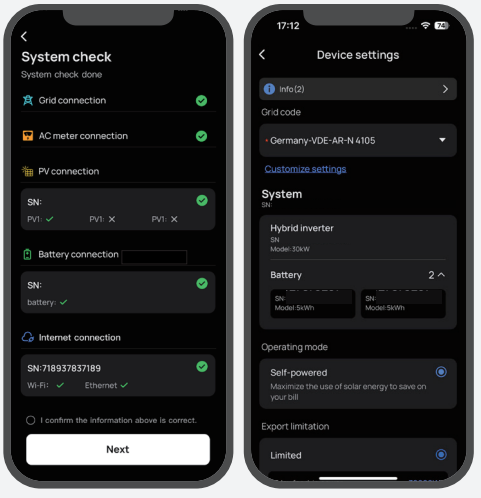


Step 3: Device Setting

Tap **Device Setting** to verify that the devices in the device list match the connected devices.

- Perform system check to comfirm connection (during the initial commissioning)
- Update firmware (recommended)
- Set the grid code, system work mode, feed-in power limitation, etc.
- Set connection parameters, voltage protection parameters, etc. in **Customize Settings**.

Follow local regulations if you need to change any of these parameters, and contact your local power organization first.



Step 4: Grant User Access

Tap **Grant User Access** to generate an access QR code for the home owner to bind the system after the home owner adds the device in the EcoFlow app.

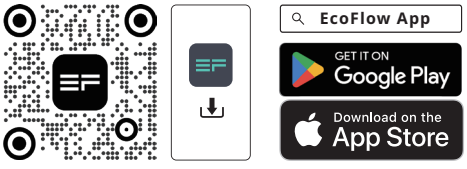
Step 5: Optional Setup

- System testing for on-grid or off-grid feature and Dl active scheduling.
- Optimize solar against shade.

Help Home Owner for App Initial Setup

1. Download and install EcoFlow App

Scan the QR code or download at:
https://download.ecoflow.com/app



2. Create new account and log in.

3. Add device manually or use Bluetooth.

4. Scan user grant QR code

Home owner scans the system QR code displayed on the installer's phone to bind the device.

Appendix

Important Information about Inverter Cascading

⚠ WARNING

- Turn off the grid power and press EPO (if any) before cascading inverters.
- Flip the circuit breakers of loads to the OFF position, otherwise the wiring self-check might be faulty.
- Ensure the firmware version is up to date before performing cascading.

NOTICE

- Only cascading of inverters of the same model is supported.
- Cascading different Ocean 2 products is not supported.

Check whether the cascading installation is completed according to the following items.

Check Item	Note
Power cable connection	Refer to "Wiring Diagram". Connect NS protection before wiring to the utility grid according to local regulation.
Communication	Use the inverter cascading cable to connect 2 PAR ports of inverters, and plug the remaining 2 PAR ports with termination resistors. Refer to "Communication Between Cascaded Inverters".
Metering	Connect an EcoFlow smart meter for partial backup scenario. Refer to **(Optional) Energy Metering Installation for Partial Backup System**.
Connecting to Internet	An EcoFlow OCEAN 2 dongle is required for a single inverter or each of cascaded inverters. Refer to **Connecting to the Internet**.
System commissioning	Perform system commissioning and wiring check in the EcoFlow Pro app in the following step. Otherwise, the system may be damaged. Before commissioning, make sure all loads are disconnected. 1. Go to **Home settings** > **Device settings** to perform system check (for each inverter). 2. Turn on the load-side circuit breaker of the secondary inverter. 3. Tap **Add device** > I**nverter cascading setup**, and tap Next for wiring check (for inverter cascading). 4. Go to **Home settings** > **Device settings** to perform system check AGAIN (for each inverter). 5. After setup, reset EPO, tap Refresh in the app, and turn on the load-side circuit breaker of backup loads. The inverter indicator will turn white.

PAP

Raccolta carta