BLUETTI

Just Power On

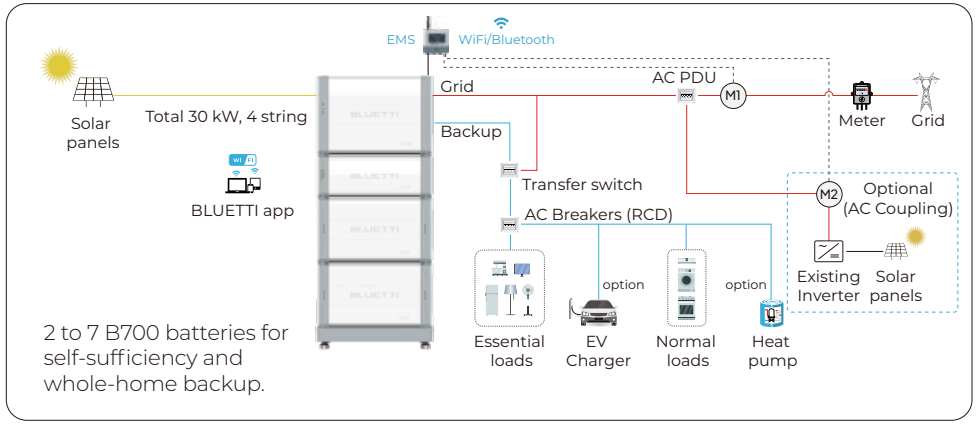
BLUETTI EP2000

Quick Guide V2.0

Contents

1. Overview

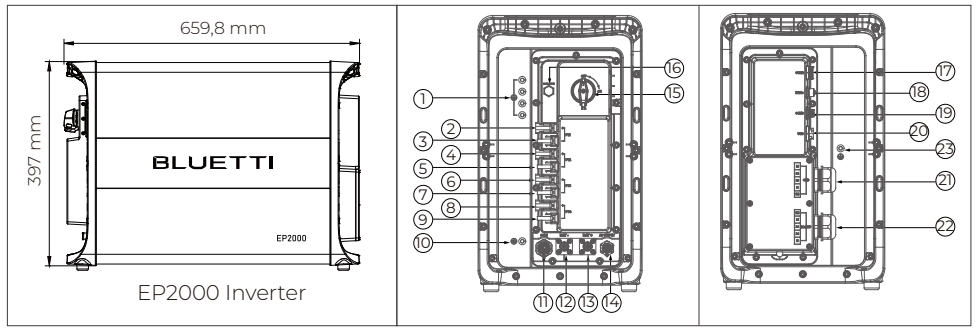
1.1 overview



NOTES:

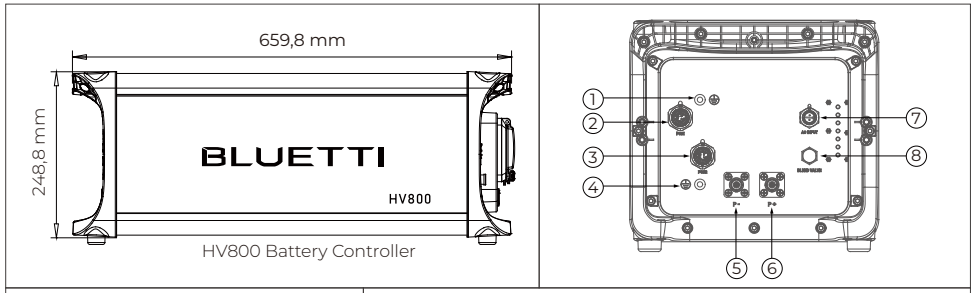
1. This document is for quick guidance installation only. For details, please refer to the User Manual.
2.The warranty does not cover any damage to the equipment caused by violation of the guide.

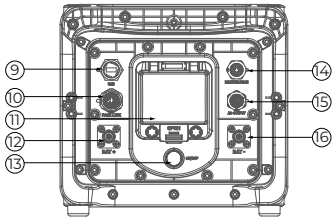
1.2 EP2000 Inverter

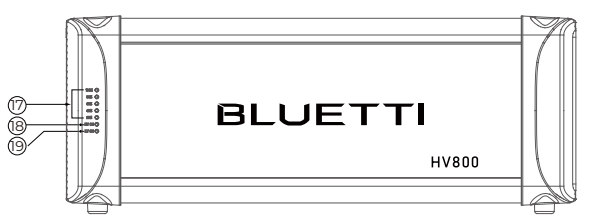


1	GroundingTerminals (To PV)	6	PV3+ Input	11	COM1 Port	16	Bleed Valve	21	GRID Block
2	PV1+ Input	7	PV3- Input	12	BAT- Terminal	17	COM2 Port	22	BACKUP Block
3	PV1- Input	8	PV4+ Input	13	BAT+Terminal	18	DRMs Port	23	System Grounding Terminal
4	PV2+ Input	9	PV4- Input	14	AC Output	19	COM3 Port		
5	PV2- Input	10	GroundingTerminal (To HV800)	15	PV Input Switch	20	USB Port		

1.3 HV800 Battery Controller

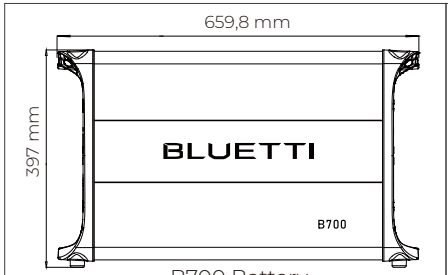


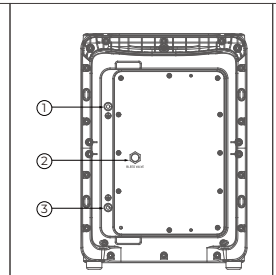


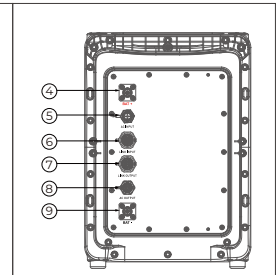


1	Grounding Terminal 1	8	Bleed Valve	15	AC Output (To Battery)
2	EP2000 COM Port	9	Reserved Port	16	BAT- Terminal
3	Third-party Inverter COM Port	10	Battery Signal Port	17	SoC Indicators
4	Grounding Terminal 2	11	Circuit Breaker	18	High Voltage Power-on Indicator
5	Negative Terminal (To PCS)	12	BAT+ Terminal	19	Low Voltage Power-on Indicator
6	Positive Terminal (To PCS)	13	Power Button		
7	AC Input (To PCS)	14	Reserved Port		

1.4 B700 Battery



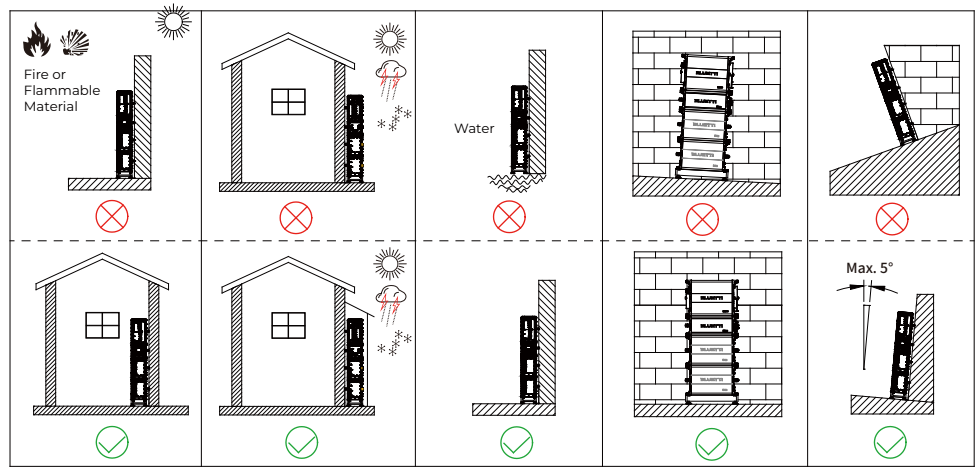


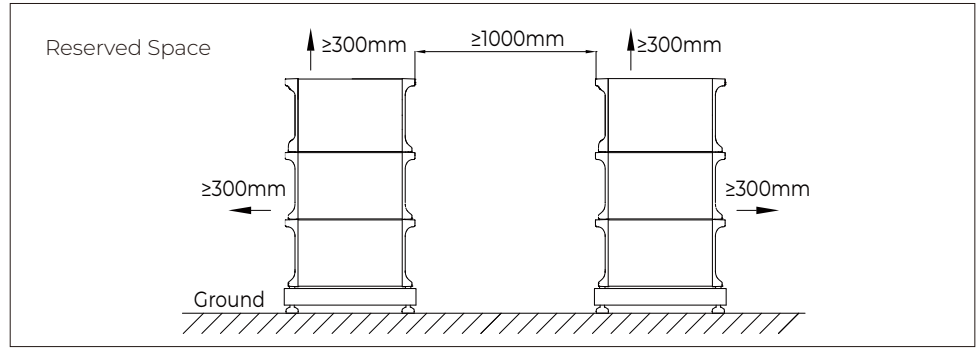


1	Grounding Terminal 1	4	BAT+ Terminal	7	Pack LINK OUTPUT
2	Bleed Valve	5	AC Input	8	AC Output
3	Grounding Terminal 2	6	Pack LINK INPUT	9	BAT- Terminal

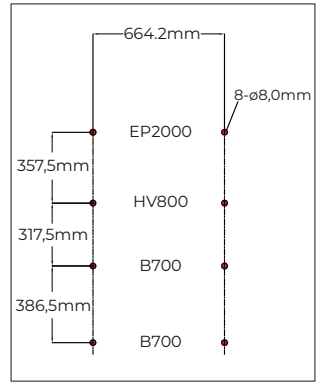
2. Installation

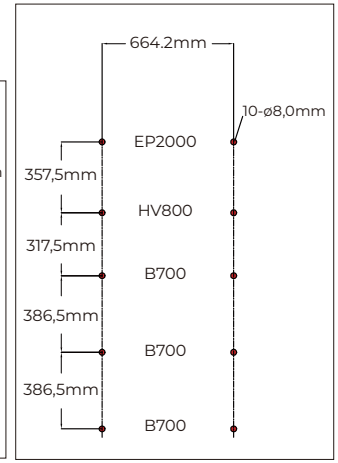
2.1 Installation requirements

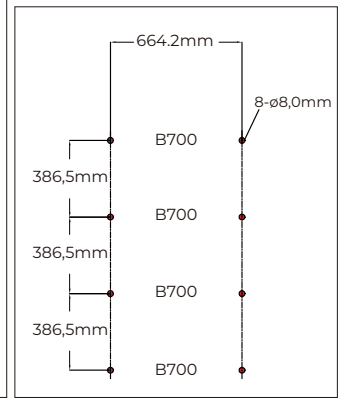


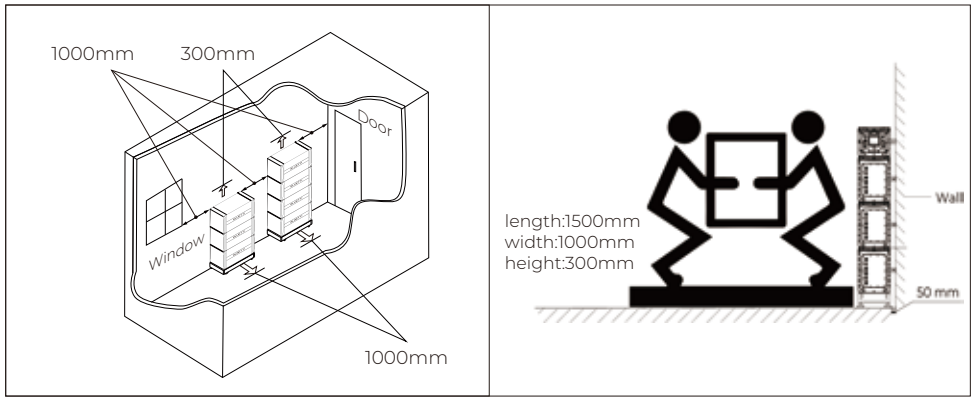


Wall drilling location





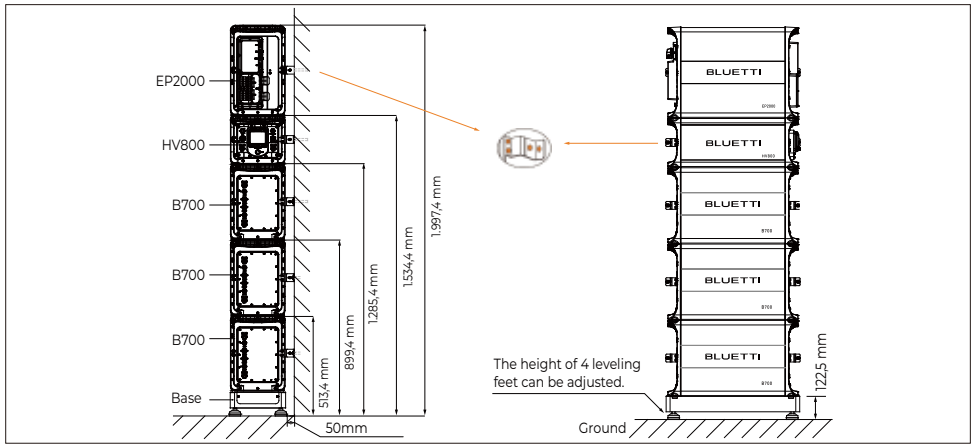




NOTES:

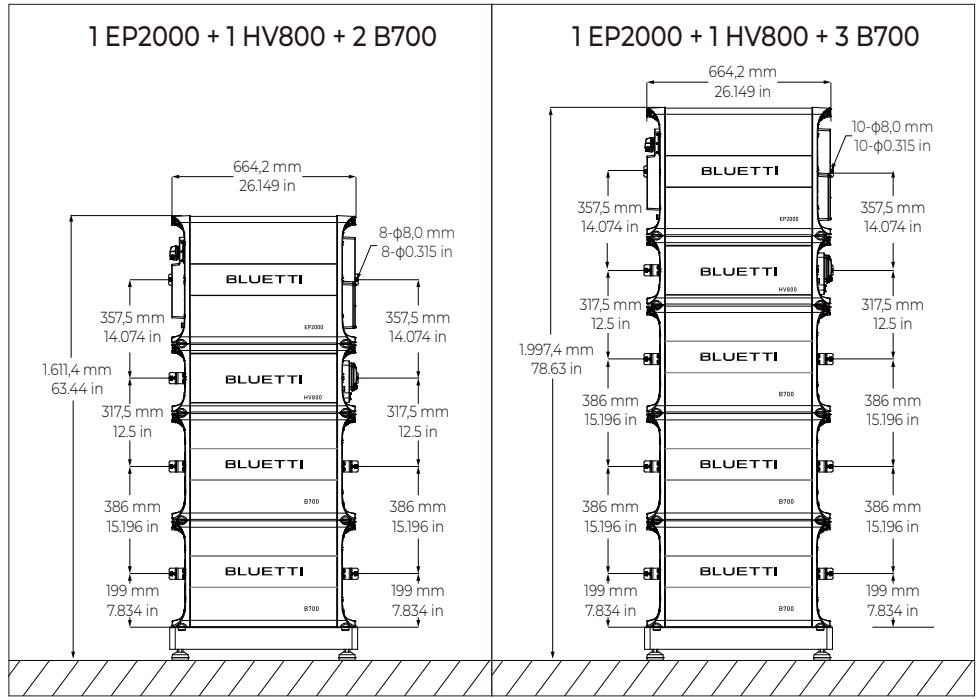
1.Please ensure that the distance from the EP2000 energy storage system to the distribution box is less than 2500mm.
2.Place the base on the ground and adjust the height of leveling feet so that the base stands stably on the ground. Don't forget to tighten the nuts to secure the leveling feet.
3.To ensure a smooth installation of your energy storage system, secure each layer from the bottom up before proceeding to the next. When installing the three battery packs,Please use sturdy and reliable supports with dimensions of 1500mm in length, 1000mm in width, and 300mm in height.

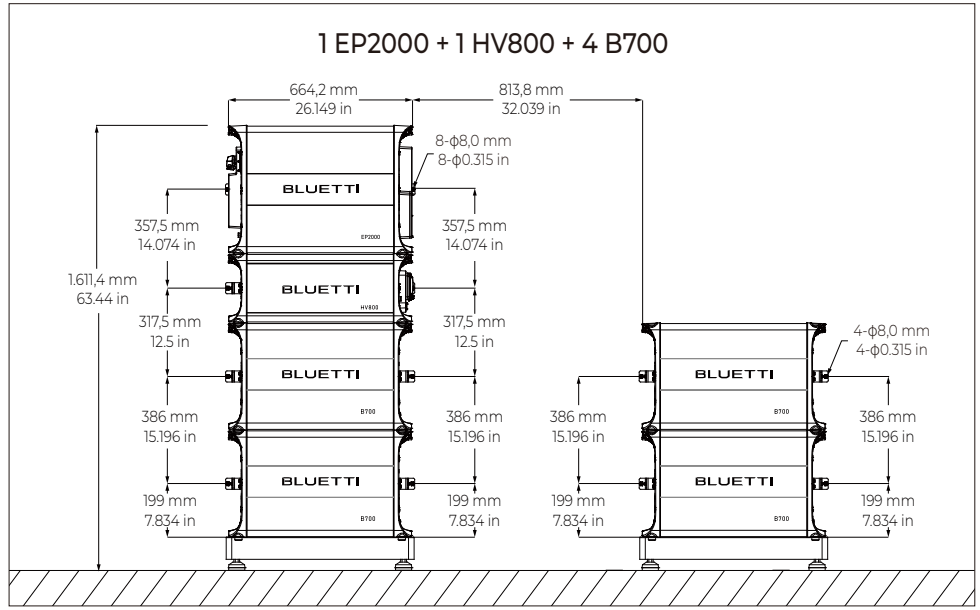
2. 2 Wall mounting

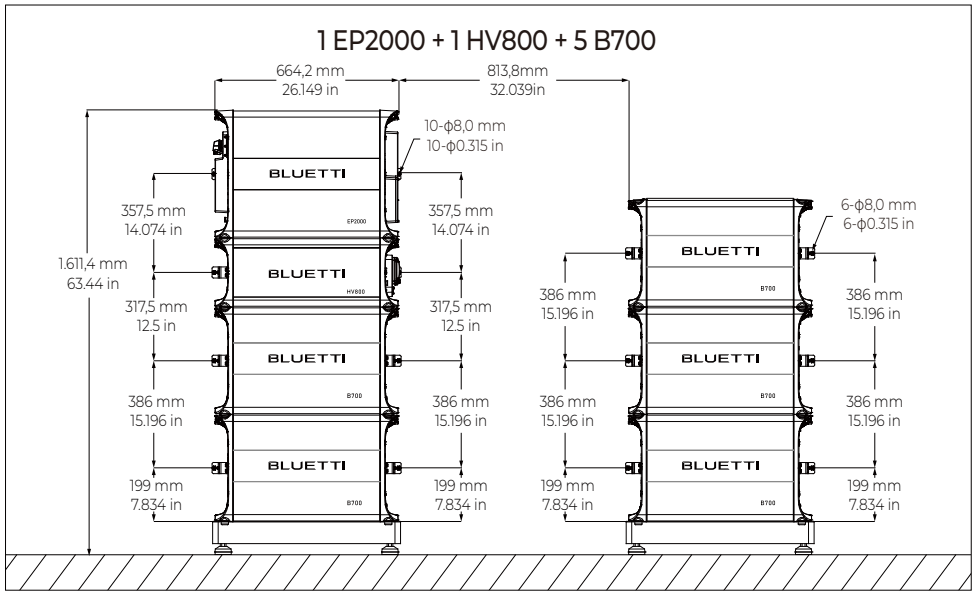


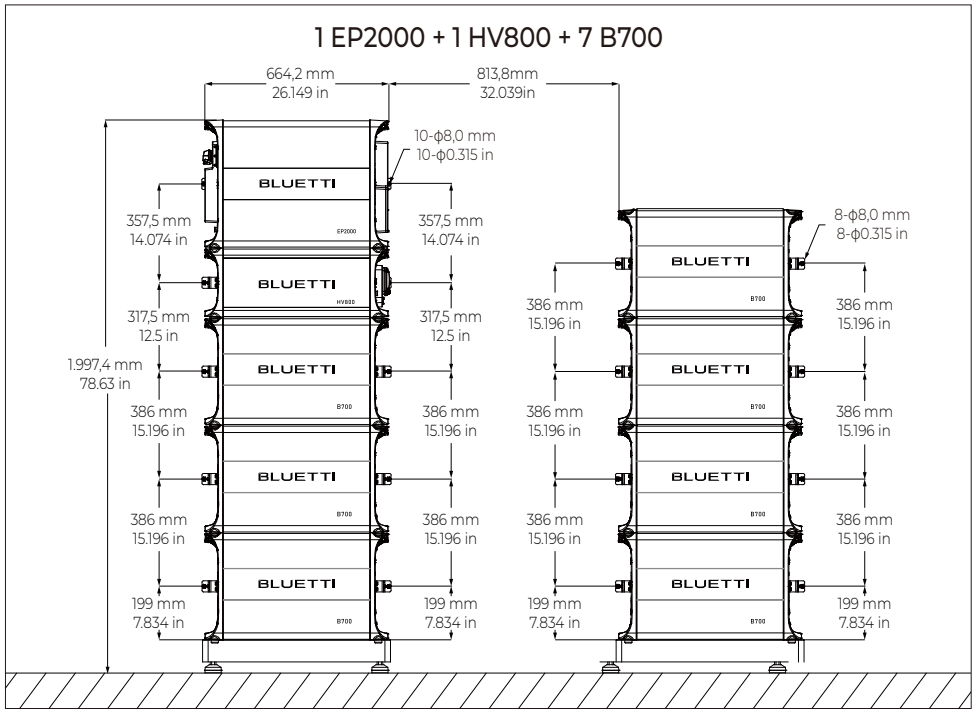
NOTES:

For safety, secure the system to the wall after stacking.







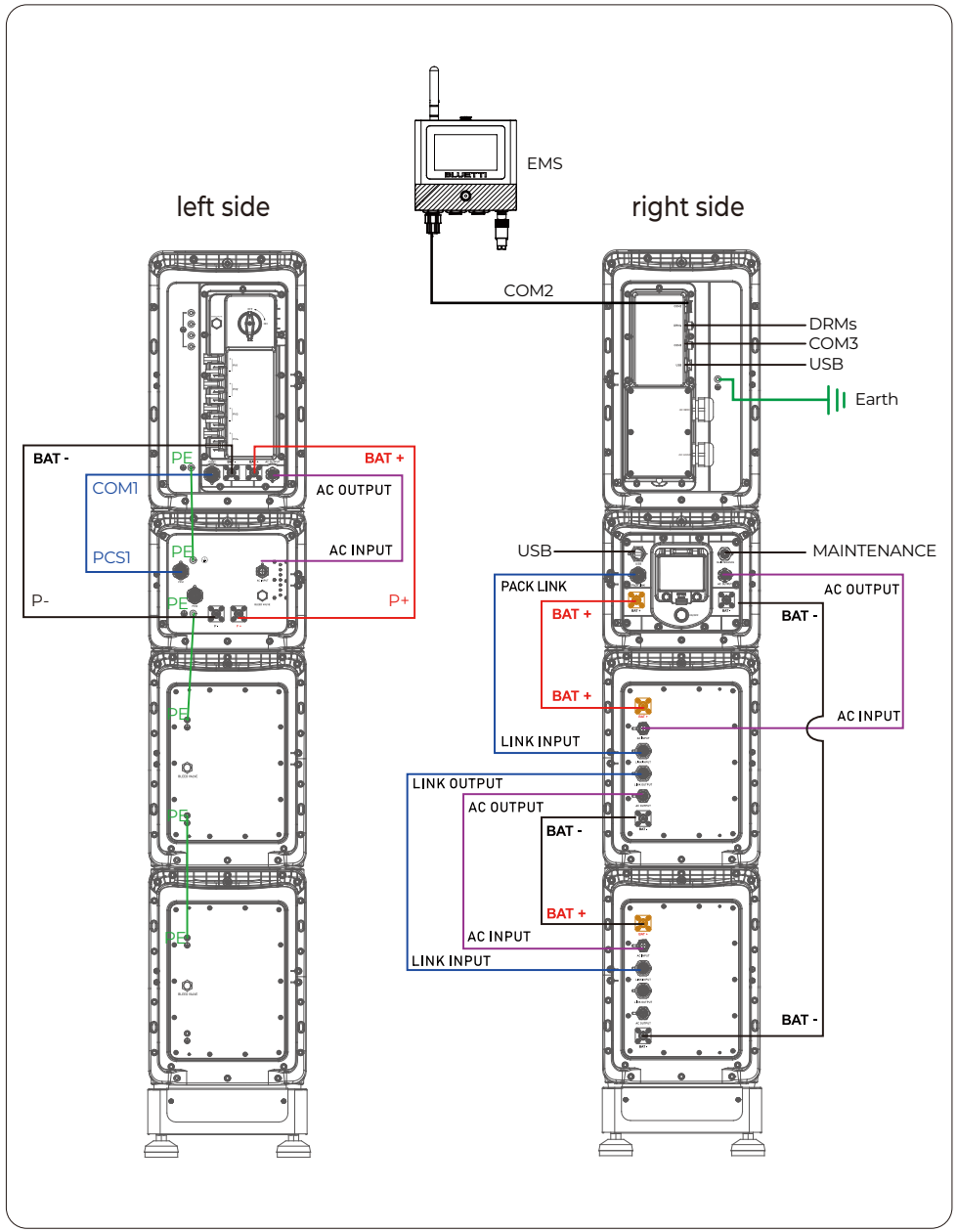


NOTES:

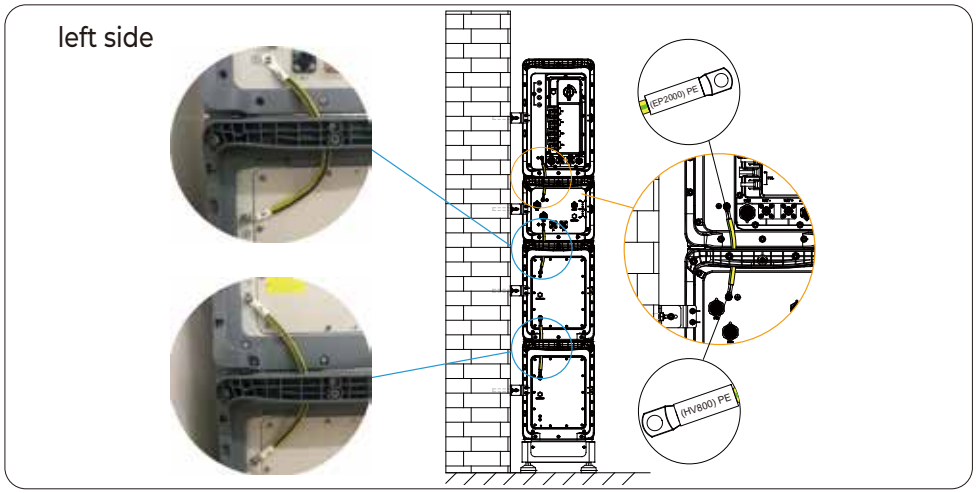
1 EP2000 + 1 HV800 + 6 B700, 3 B700 on the left side, 3 B700 on the right side.

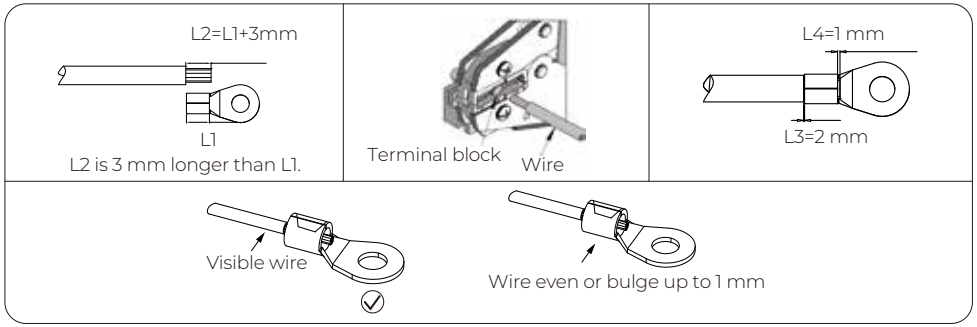
3. Electrical connection

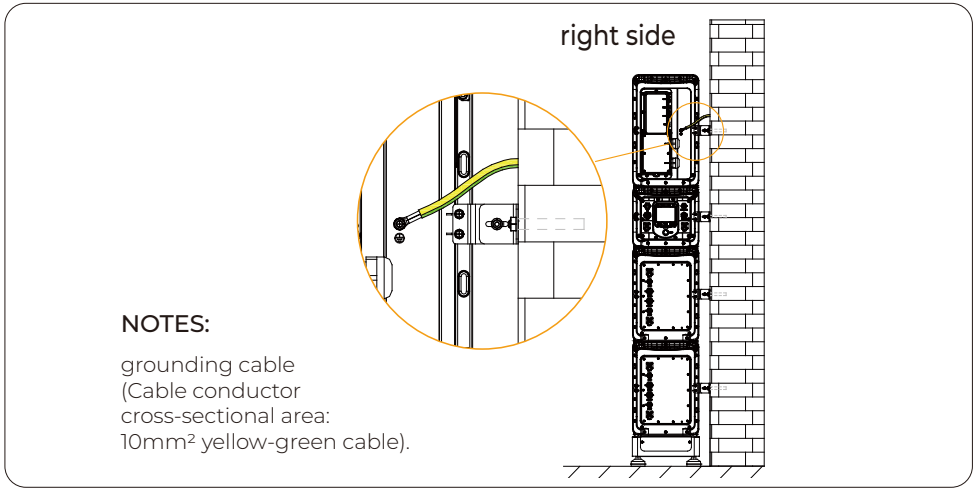
3.1 overview



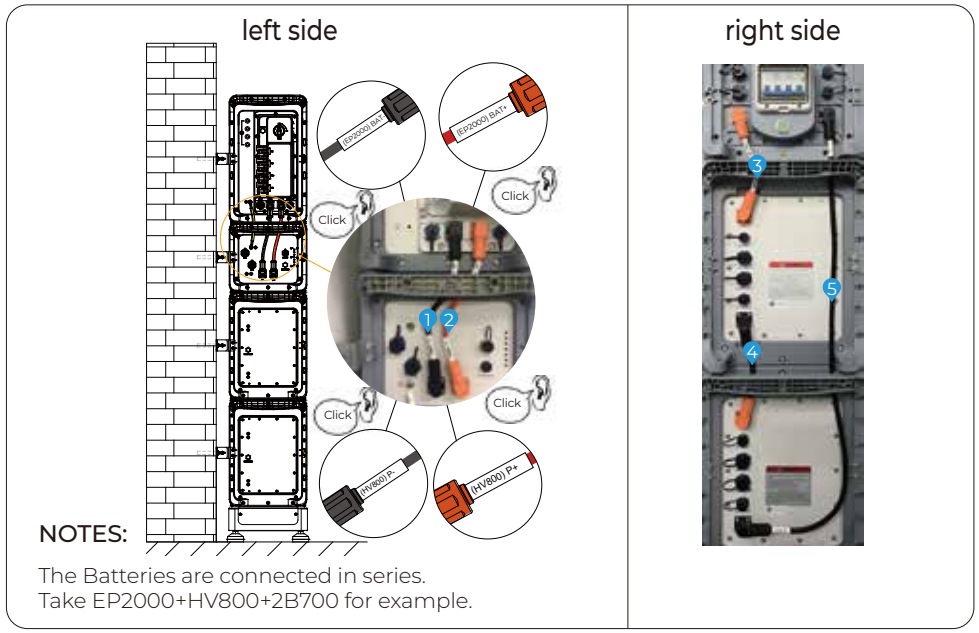
3.2 Connect the Ground Cables



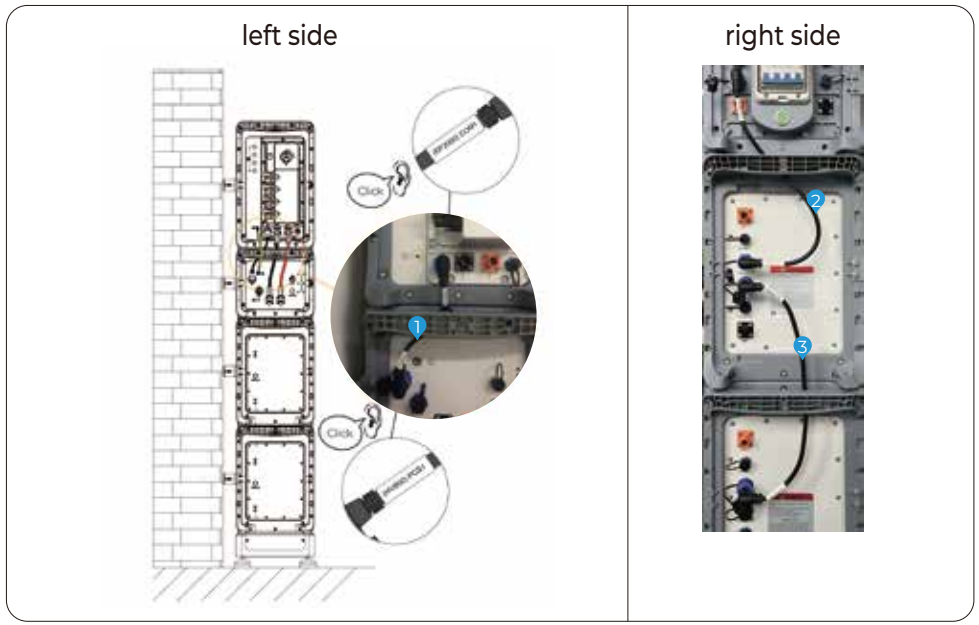




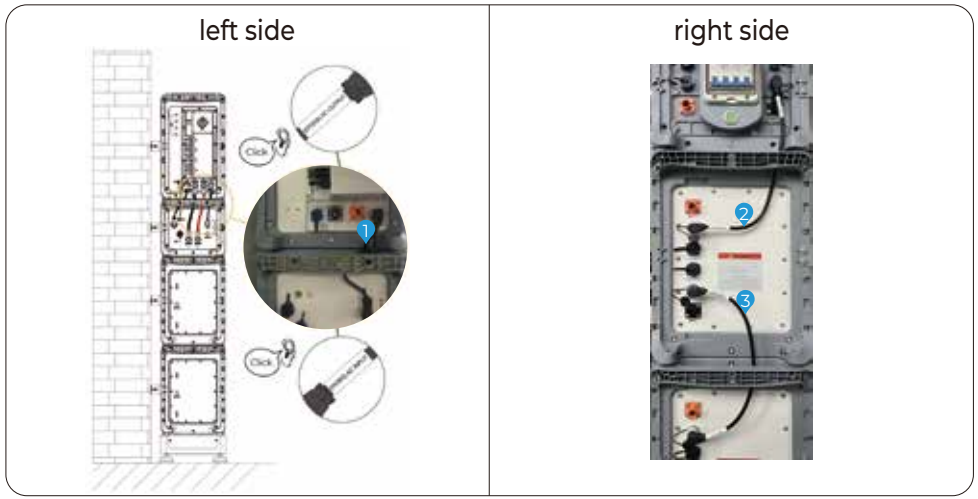
3.3 Connect the Power Cables



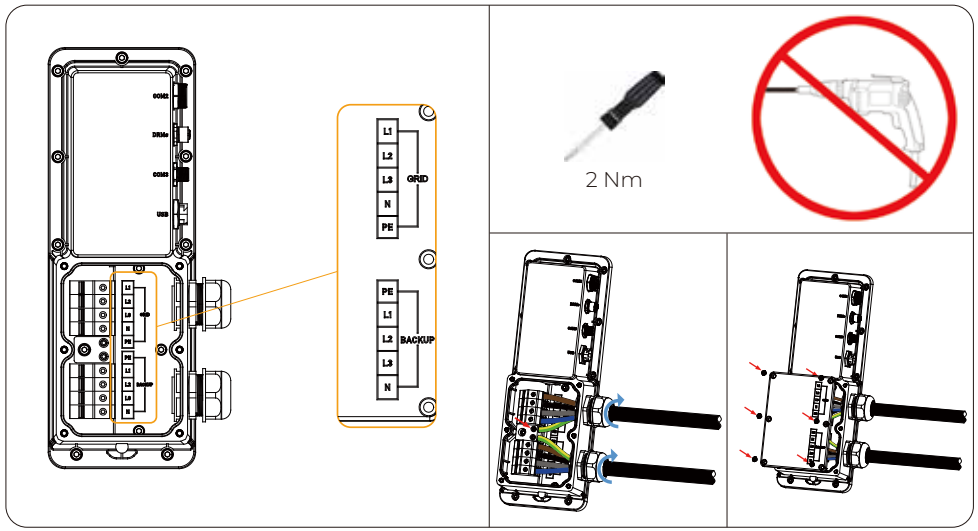
3.4 Connect the Communication Cables



3.5 Connect the AC Power Cables



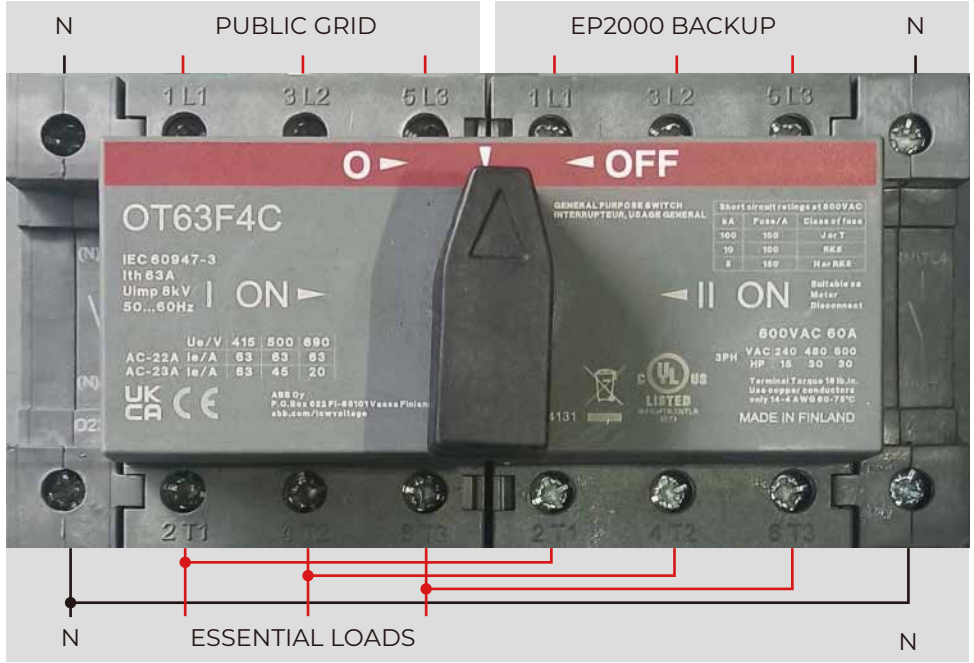
3.6 Connect the GRID and BACKUP Cables



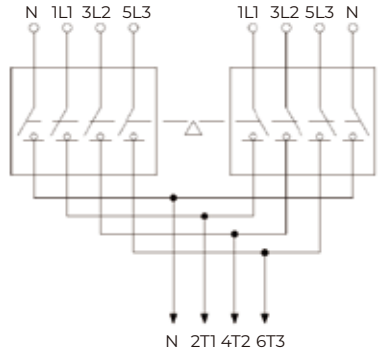
NOTES:

1.Installation in Electrical Conduit: Maximum current 50A; Installation in Air: Maximum current 60A.
2.Please use a 5-core 10mm² copper cable (5 x 10mm² power cable: 5 cores, 10mm² cross-section per core).
3.When connecting the GRID and BACKUP cables, please avoid using electric tools. Instead, use a manual H3 hex screwdriver to securely tighten the locking screws. The recommended torque is 2 Nm.

3.7 Connection Transfer Switch



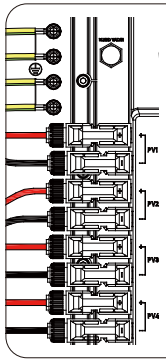
	Wire	Transfer Switch
Public grid	L1	1L1
	L2	3L2
	L3	5L3
	N	N
EP2000 BACKUP terminal	L1	1L1
	L2	3L2
	L3	5L3
	N	N
Essential loads	L1	2T1
	L2	4T2
	L3	6T3
	N	N



NOTES:

1.The neutral cable from the BACKUP terminal of EP2000 cannot be connected to the neutral cable of the public grid.
2.Connect the L1/L2/L3/N wires from EP2000 BACKUP terminal and public grid to the top side of the transfer switch, and the bottom side to the essential loads.
3.If the grid is stable, turn to "I" to use the BLUETTI EP2000 and public grid to power the loads; otherwise turn to "II" to use EP2000 Backup mode to avoid the inconvenience caused by power outage.
4.If EP2000 ESS fails, turn to "I" use utility grid and contact BLUETTI Customer Support.

3.8 Connect PV cables



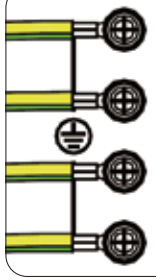
PE：PV1 to Solar panel ground
PV1+：To solar panel positive
PV1-：To solar panel negative

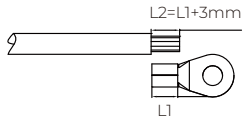
PE：PV2 to Solar panel ground
PV2+：To solar panel positive
PV2-：To solar panel negative

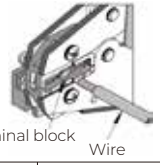
PE：PV3 to Solar panel ground
PV3+：To solar panel positive
PV3-：To solar panel negative

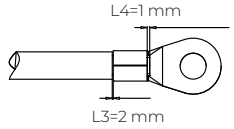
PE：PV4 to Solar panel ground
PV4+：To solar panel positive
PV4-：To solar panel negative

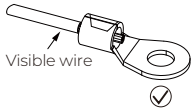
Cable conductor cross-sectional area: 2.5-4mm²

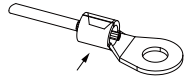


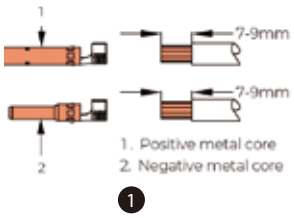


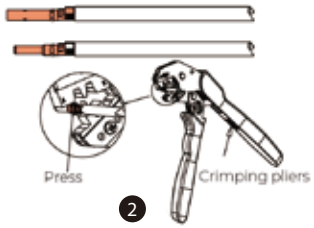


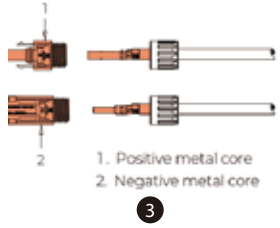


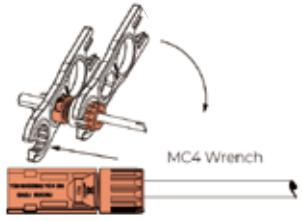


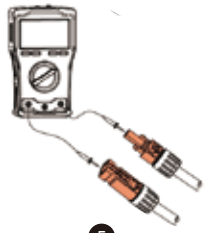


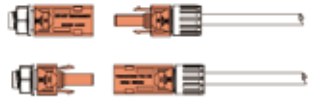








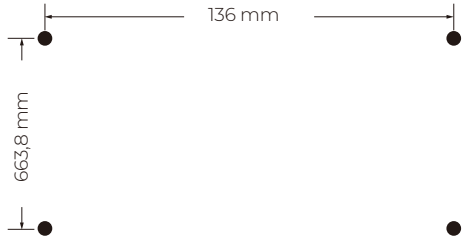


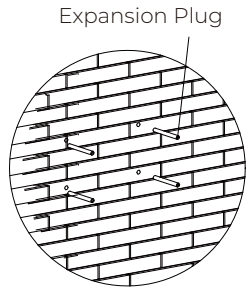


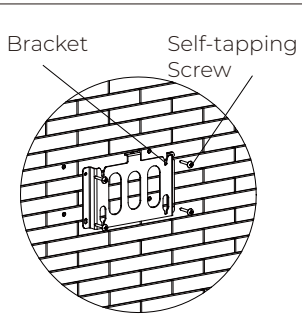
NOTES:

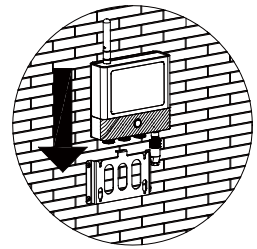
Please check the open circuit voltage of the PV arrays, which should be between 240V and 1000V.

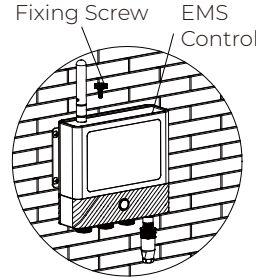
3. 9 EMS Connection and Operations

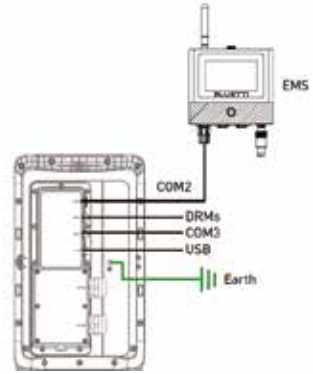










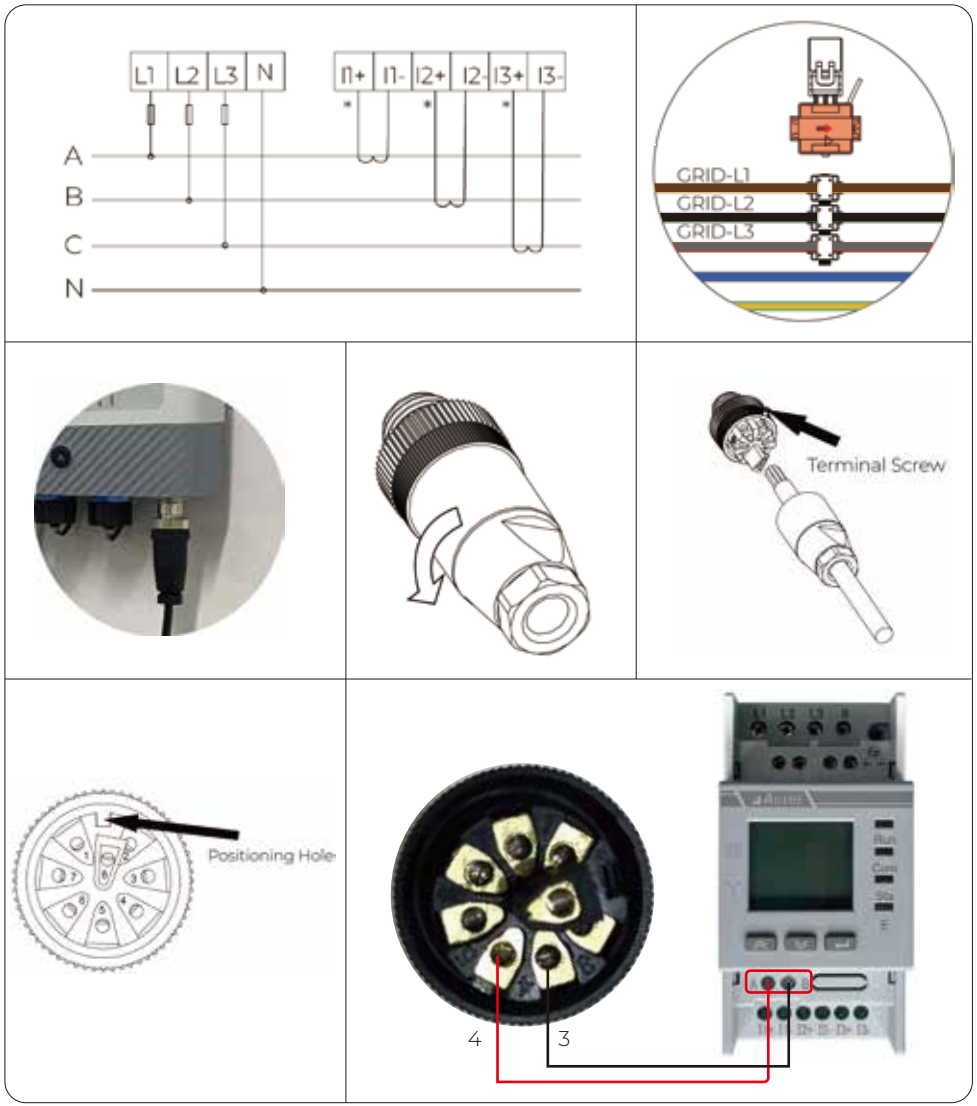


Connector	Function	Note (Meter RS485 communication)
3	RS485-B1	Connects to grid meter and AC PV meter RS485-B- (black)
4	RS485-A1	Connects to grid meter and AC PV meter RS485-A+ (red)

NOTES:

Make sure the router is set to IEEE 802.11 b/g/n 2.4GHz.

3.10 Connect the METER

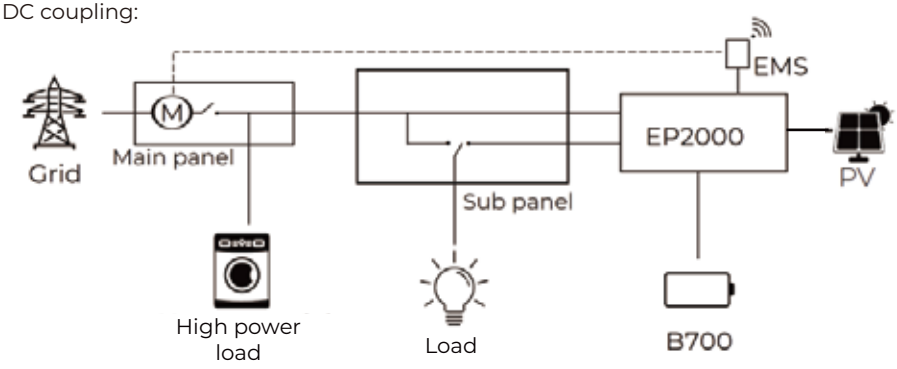


NOTES:

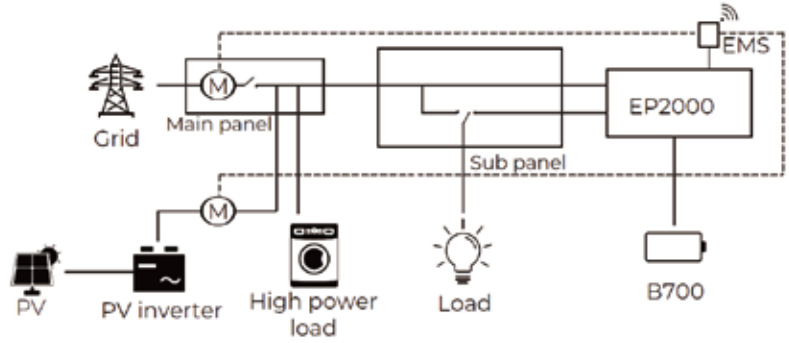
1. The arrow inside the CT points to the grid.
2. Phase sequence: L1 to GRID-L1, L2 to GRID-L2, L3 to GRID-L3.
3. The CT should be tied to the L1, L2 and L3 cables of the main circuit breaker of the grid.
4. Please connect the red wire (4) to pin A, black wire (3) to pin B. Use shielded twisted pair cable.

3.11 Typical Application Scenarios

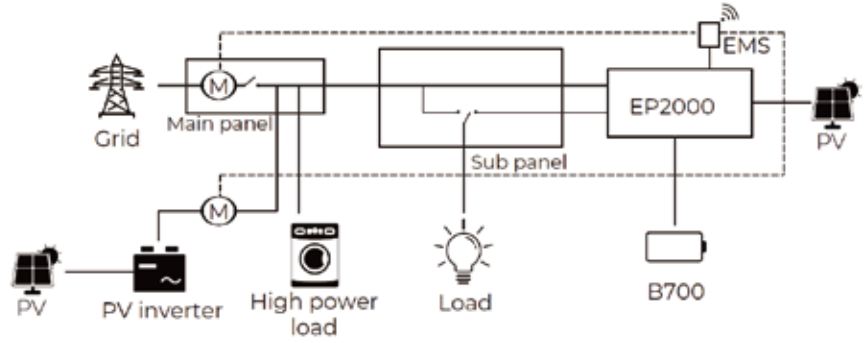
DC coupling:



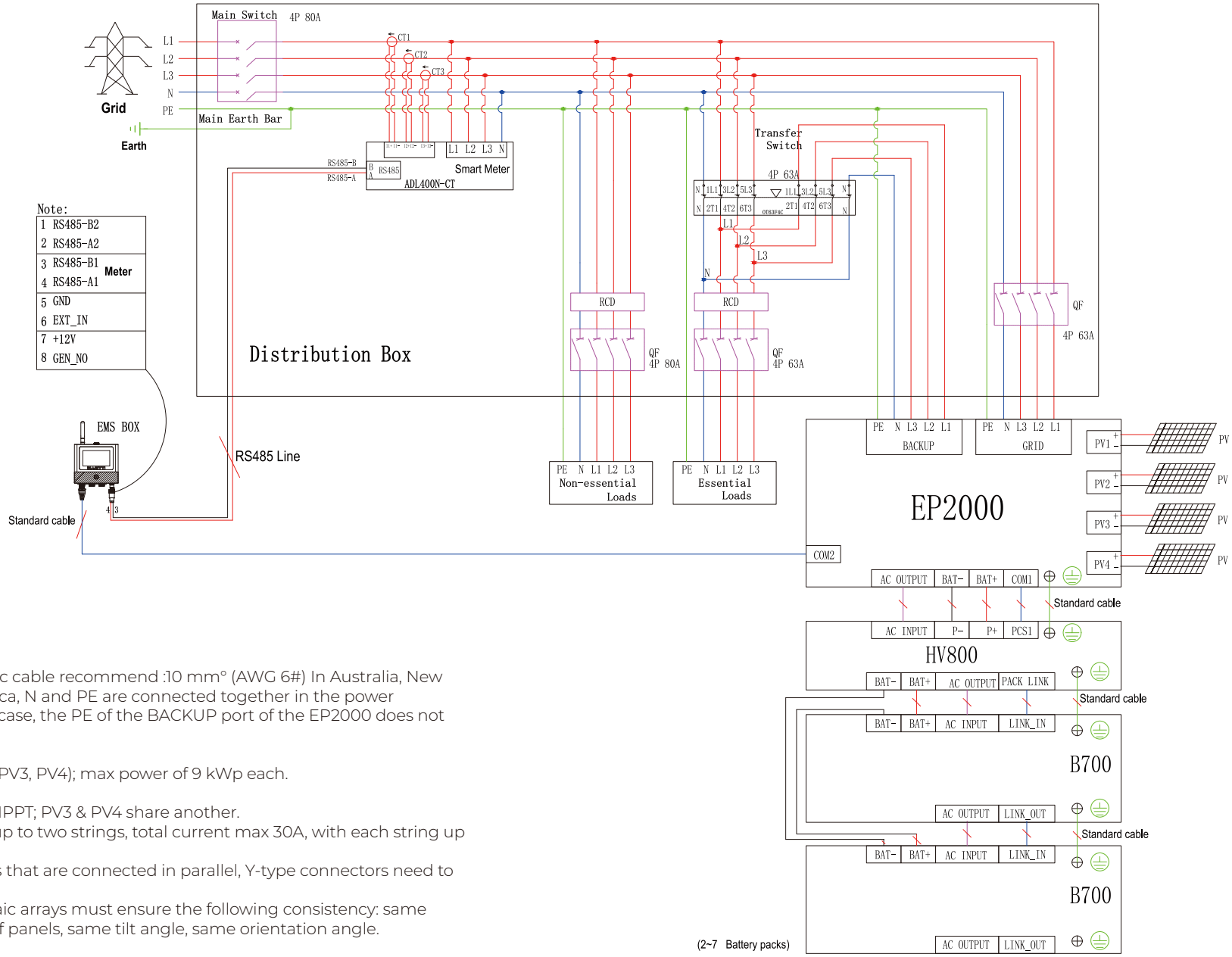
AC Coupling:



AC + DC Coupling:



3.12 Electrical connection mode: DC coupling, for new installation solar panels



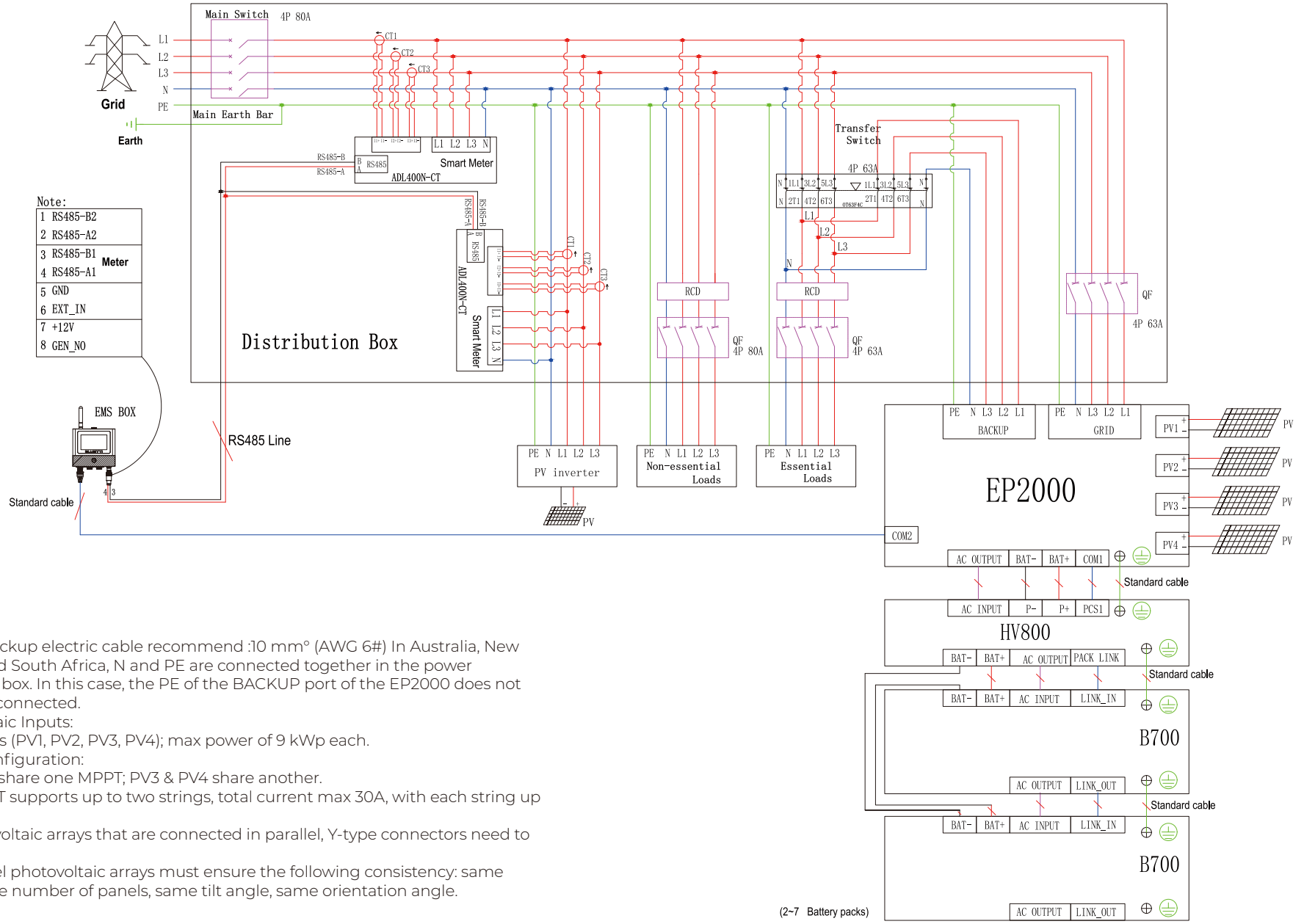
NOTES:

Grid and Backup electric cable recommend :10 mm° (AWG 6#) In Australia, New Zealand, and South Africa, N and PE are connected together in the power distribution box. In this case, the PE of the BACKUP port of the EP2000 does not need to be connected.

1. Photovoltaic Inputs:
- Four inputs (PV1, PV2, PV3, PV4); max power of 9 kWp each.

2. MPPT Configuration:
- PV1 & PV2 share one MPPT; PV3 & PV4 share another.
- Each MPPT supports up to two strings, total current max 30A, with each string up to 20A.
- For photovoltaic arrays that are connected in parallel, Y-type connectors need to be selected.
- The parallel photovoltaic arrays must ensure the following consistency: same model, same number of panels, same tilt angle, same orientation angle.

3.13 Electrical connection mode: AC coupling, for existing solar roof



NOTES:

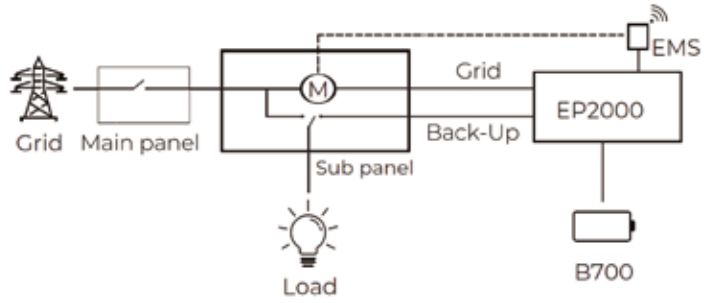
Grid and Backup electric cable recommend :10 mm° (AWG 6#) In Australia, New Zealand, and South Africa, N and PE are connected together in the power distribution box. In this case, the PE of the BACKUP port of the EP2000 does not need to be connected.

1. Photovoltaic Inputs:
- Four inputs (PV1, PV2, PV3, PV4); max power of 9 kWp each.

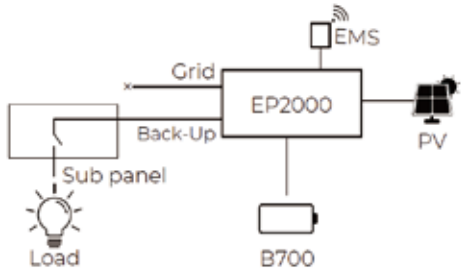
2. MPPT Configuration:
- PV1 & PV2 share one MPPT; PV3 & PV4 share another.
- Each MPPT supports up to two strings, total current max 30A, with each string up to 20A.
- For photovoltaic arrays that are connected in parallel, Y-type connectors need to be selected.
- The parallel photovoltaic arrays must ensure the following consistency: same model, same number of panels, same tilt angle, same orientation angle.

3.14 Other Typical Application Scenarios

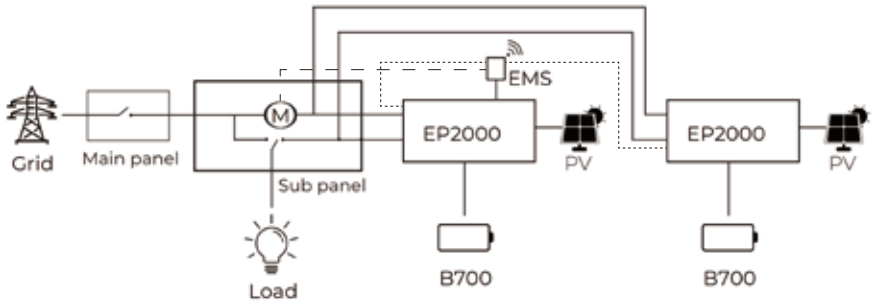
Backup power:



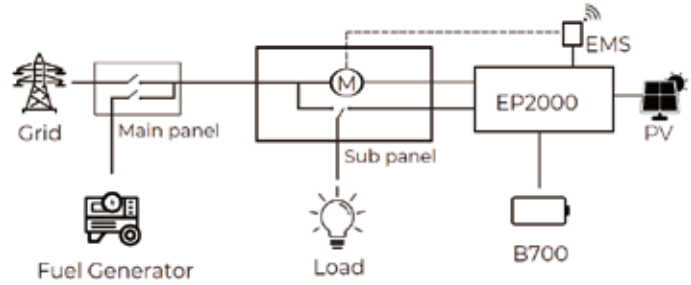
Off-grid:



Parallel connection on the backup side:



Integration with Manual Diesel Generator:

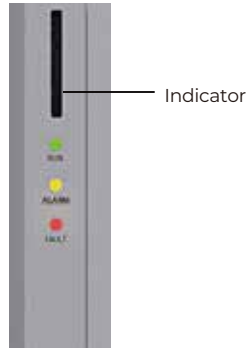


NOTES:

For further information, please contact BLUETTI Customer Support.

4. Power on

Step 1: Switch on the PV input switch on the EP2000 inverter.
Step 2: Switch the circuit breaker on the HV800 to "ON". Press and hold the power button on the HV800 till the indicator on the button lights up green.
Step 3: Wait about 40 seconds for the inverter indicator to stay steady green.
Step 4: Switch on the AC circuit breakers for the inverter's GRID block.
Step 5: Turn on "System Switch" in the BLUETTI app. For details, please refer to the BLUETTI App User Manual.
Step 6: Check the output voltage of the BACKUP block.
Step 7: Switch on the AC circuit breakers for the inverter's BACKUP block.
Step 8: Monitor EP2000 system status using the BLUETTI app.



Situation	Run	Alarm	Fault
Normal	ON	/	/
Alarm	ON	ON	/
Fault	/	/	ON
Alarm and fault	/	ON	ON

For more information, please visit:

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@ BLUETTI Official

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