

EP600

Energy Storage System

Installation SOP

Please Read This Manual Before Use And Follow Its Guidance.

Keep This Manual For Future Reference.



Contents

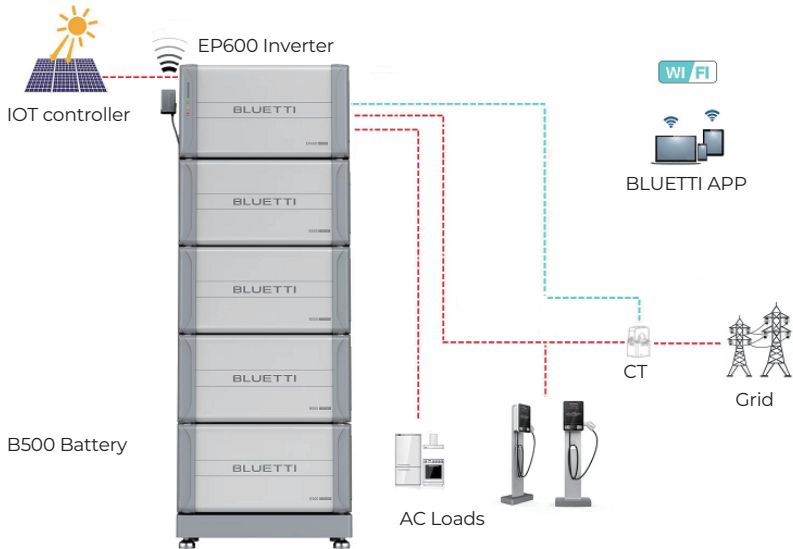
1	Declaration	04
2	EP600 ESS (Energy Storage System) overview	04
2.1	DC coupling	05
2.2	AC coupling	06
2.3	AC-DC coupling	07
3	Stacking EP600 ESS	08
3.1	Place the base firmly on the ground	08
3.2	Move units onto the base	08
3.3	Attach the mounting brackets	08
4	Electrical connections	10
4.1	Connect the grounding cables	10
4.2	Connect the GRID and BACKUP cables	10
4.3	Install the AC cable protection case	12
4.4	Connect the CT signal cable	12
4.5	Connect the battery power cables	13
4.6	Connect the communication cables between EP600 (LINK PORT2) and B500 (TO PCS)	15
4.7	Connect the battery expansion cables between B500s	16
4.8	Install the IoT controller	17
4.9	Connect the PV cables	18
4.10	Attach the plastic covers to EP600	19
4.11	Connect to the main panel	19
5	Power on the ESS	26
6	BLUETTI App control	26
6.1	Introduction	26
6.2	Firmware upgrade	27
7	More information	27

1. Declaration

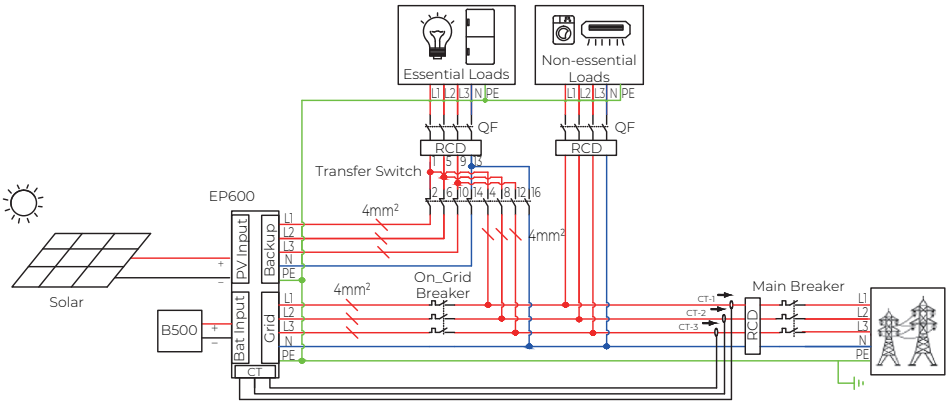
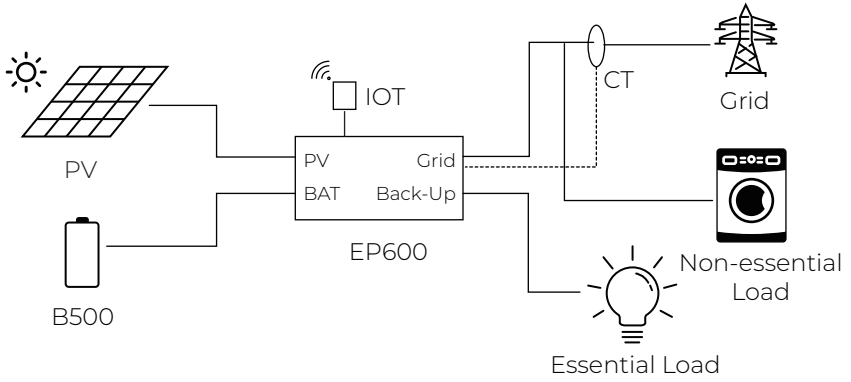
- The installation should be performed by a licensed electrician. Improper installation may result in death or serious injury and property damage.
- This document is provided for reference ONLY and does not constitute legal advice. Please consult the local licensed electrician for details.

BLUETTI shall not be liable for any damage or injury caused by improper installation of the system.

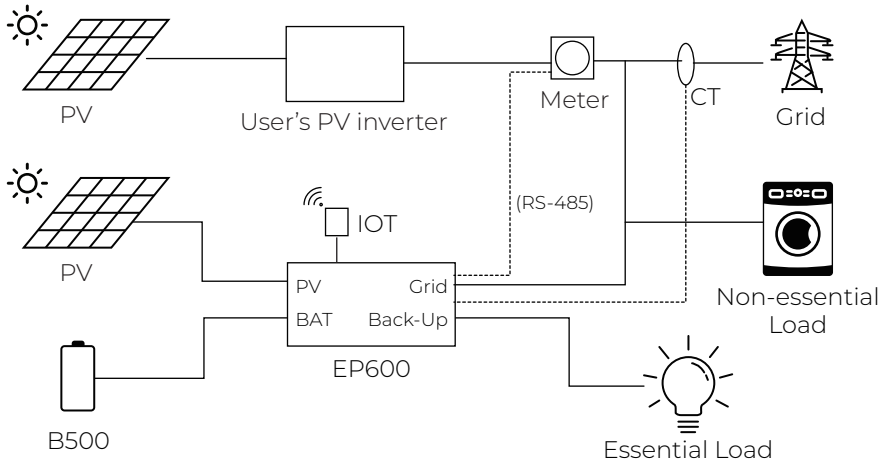
2. EP600 ESS (Energy Storage System) overview



2.1 DC coupling



2.3 AC-DC coupling



Notes:

Whether you're building the EP600 ESS via AC or DC coupling, please connect the following loads to the GRID terminal of EP600.

1. Single-phase appliances with a rated power greater than 2000W.
2. Three-phase appliances with a total power greater than 6000W.

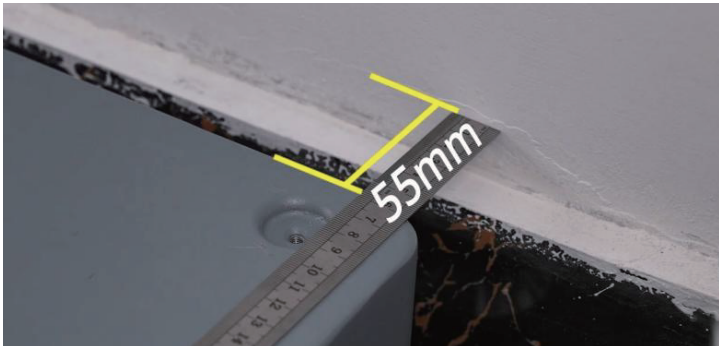
e.g.

- When you run a 2500W single-phase appliance with the EP600 ESS, it will be powered via the EP600 ESS and the grid at the same time (2000W from the EP600, and 500W from the grid).
- When you apply EP600 ESS to a 6500W three-phase appliance, the appliance will be powered via the EP600 ESS and the grid, too (6000W from the EP600, and 500W from the grid).

3. Stacking EP600 ESS

3.1 Place the base firmly on the ground

Note: Keep a distance of 55mm between the base and wall.



3.2 Move units onto the base



3.3 Attach the mounting brackets

Step 1 Assemble the brackets.



Step 2 Mark the drilling positions. Remove all units from the base and drill holes in the wall.

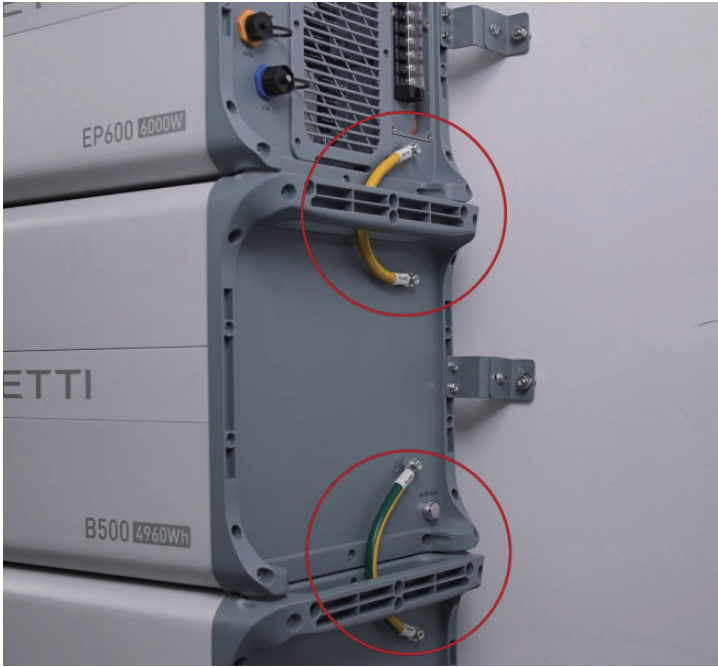


Step 3 Place units back and secure the mounting brackets.



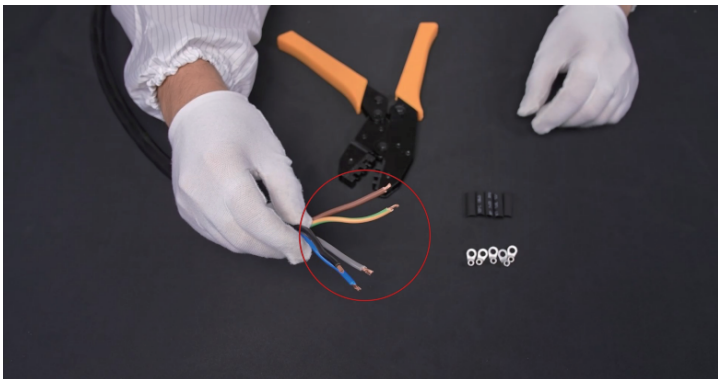
4. Electrical connections

4.1 Connect the grounding cables

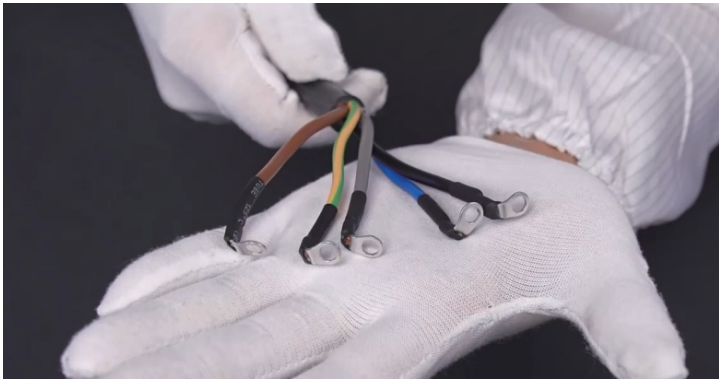


4.2 Connect the GRID and BACKUP cables

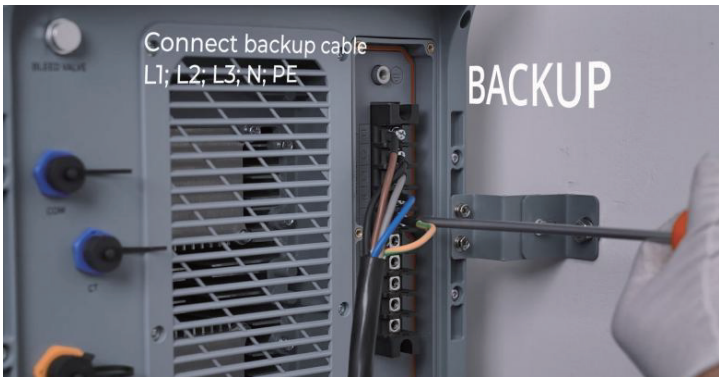
Step 1 Strip the cables.



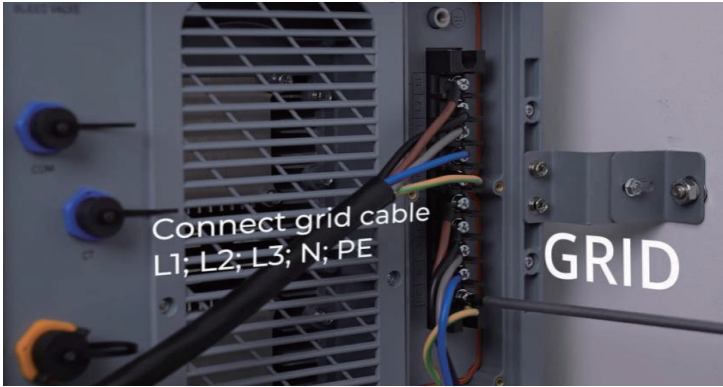
Step 2 Install the OT terminals.



Step 3 Connect the BACKUP cables (Sequence: L1, L2, L3, N, PE).



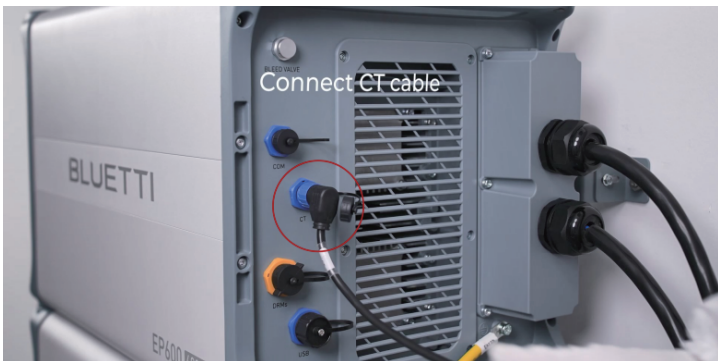
Step 4 Connect the GRID cables (Sequence: L1, L2, L3, N, PE).



4.3 Install the AC cable protection case



4.4 Connect the CT signal cable



4.5 Connect the battery power cables between EP600 and B500

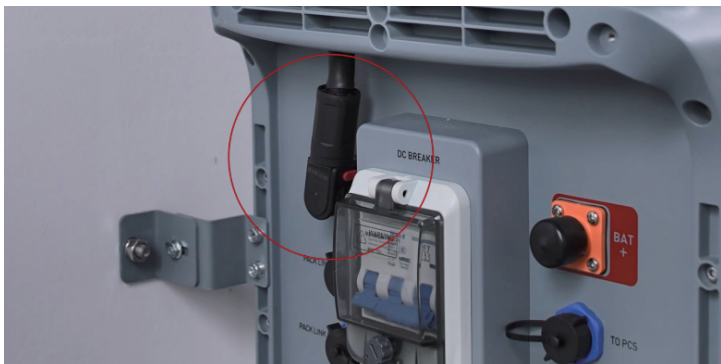
Step 1 Connect the black battery power cable (BAT-) to EP600.



Step 2 Attach the black protection cover (BAT- Input) to EP600.



Step 3 Connect the black battery power cable to B500.



Step 4 Connect the red battery power cable from EP600 to B500.



4.6 Connect the communication cables between EP600 (LINK PORT2) and B500 (TO PCS)

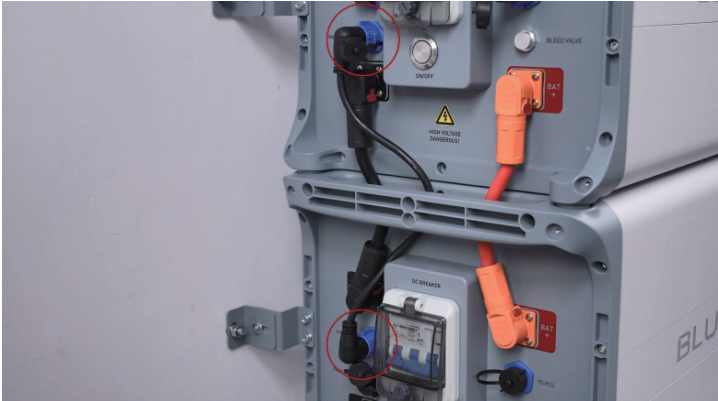


4.7 Connect the cables between B500s

Step 1 Connect the battery expansion cables.



Step 2 Connect the communication cables between B500s.



4.8 Install the IoT controller

Step 1 Connect the signal cable to LINK PORT1 on EP600.

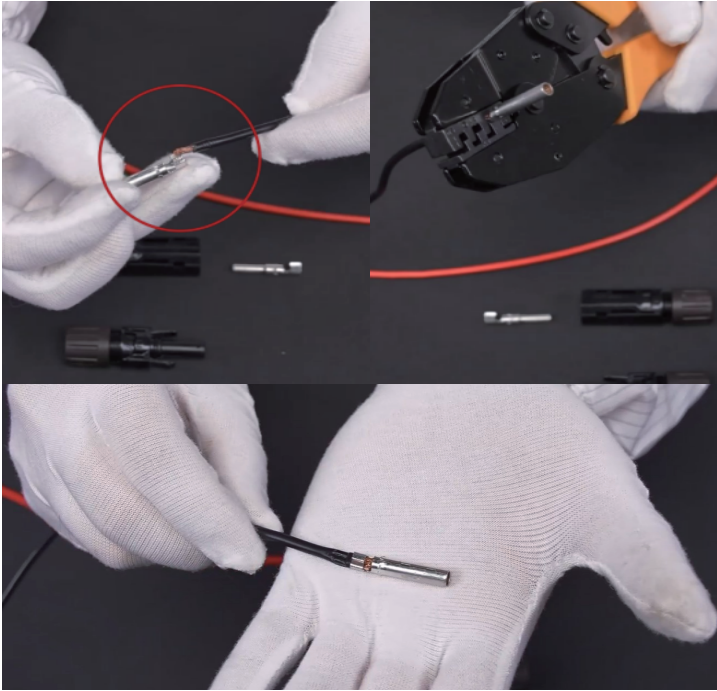


Step 2 Mount the IoT controller to intended location.

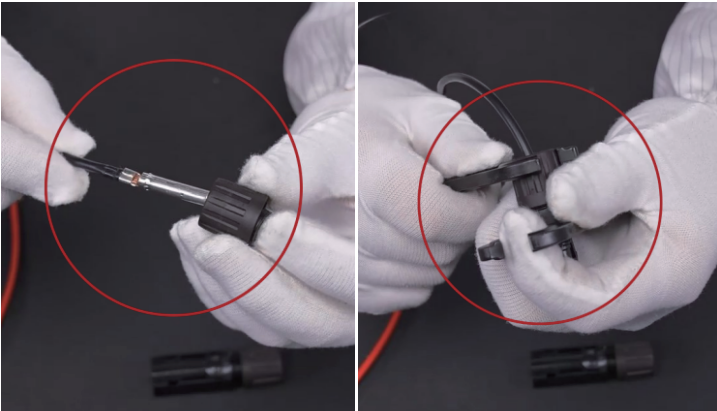


4.9 Connect the PV cables

Step 1 Crimp the metal core to the PV-/PV+ cable.

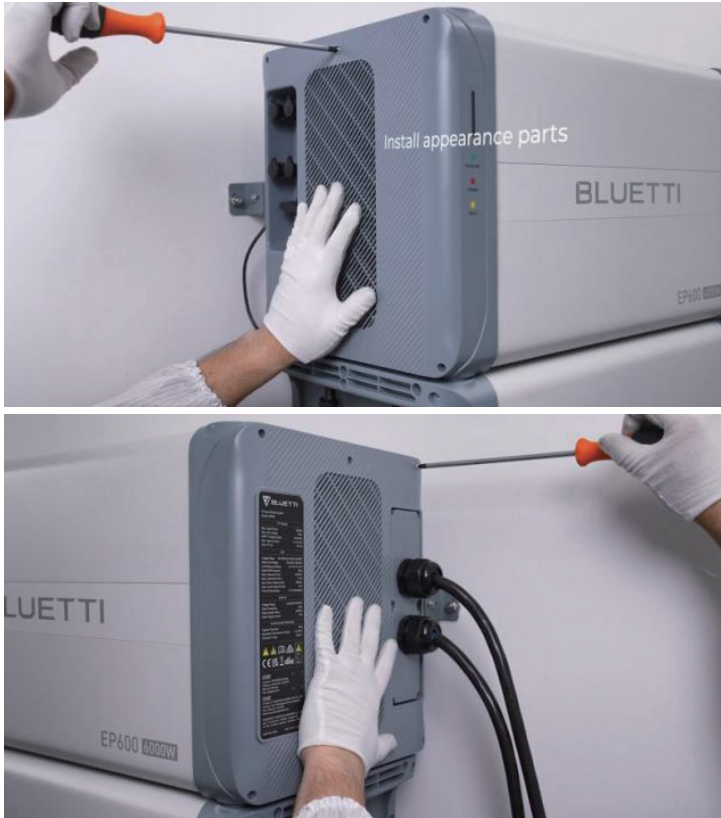


Step 2 Attach the plastic housing to the PV-/PV+ cable.



Step 3 Connect the PV cables to EP600.

4.10 Attach the plastic covers to EP600.



4.11 Connect to the main panel

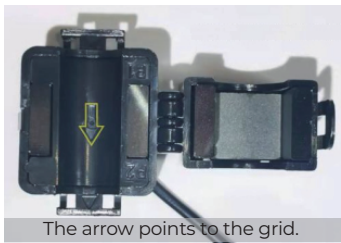
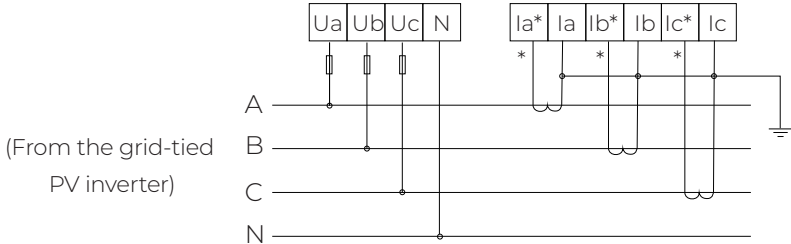
It makes sense to have home backup to keep your family safe and comfortable during an outage. Connected to EP600's BACKUP terminal, your essential loads will run as usual when the grid fails. EP600 is capable of delivering 2000W single-phase and 6000W three-phase power. If you use it for single-phase loads, distribute the loads evenly and reasonably among the phases.

e.g. Load distribution for each phase (single-phase power $\leq 2000\text{W}$).
 Recommended connecting appliances: refrigerator and indoor lights.

PHASE ONE		PHASE TWO		PHASE THREE	
Appliance	Power	Appliance	Power	Appliance	Power
Refrigerator	800W	TV	400W	Computer	200W
Indoor Lighting	800W	Vacuum Cleaner	1000W	Kettle	1600W
Total	1600W	Total	1400W	Total	1800W

4.11.1 Connect the Meter communication cables to the COM Port (For EP600 ESS with grid-tied PV inverter only)

- 1) Connect the cables of UA/UB/UC/UN to the L1/L2/L3/N of the PV inverter.
- 2) Connect the CT to the Meter and tie them to the PV inverter AC output cables.
- 3) Please connect the 485-A red wire to pin 21, 485-B black wire to pin 22.

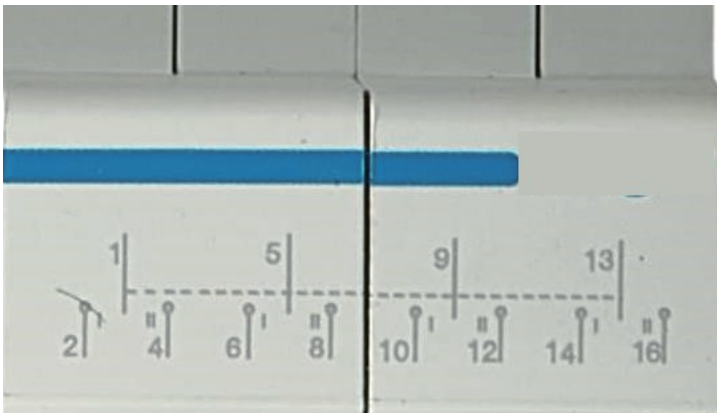
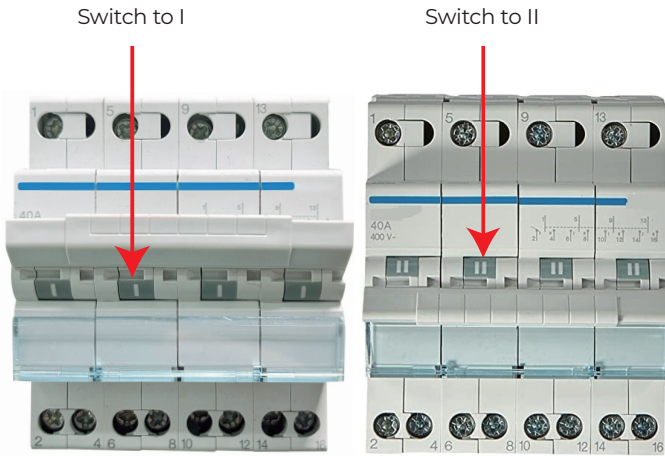


4.11.2 Install the transfer switch

The transfer switch allows you to easily switch between the EP600 ESS (I) and the grid (II).

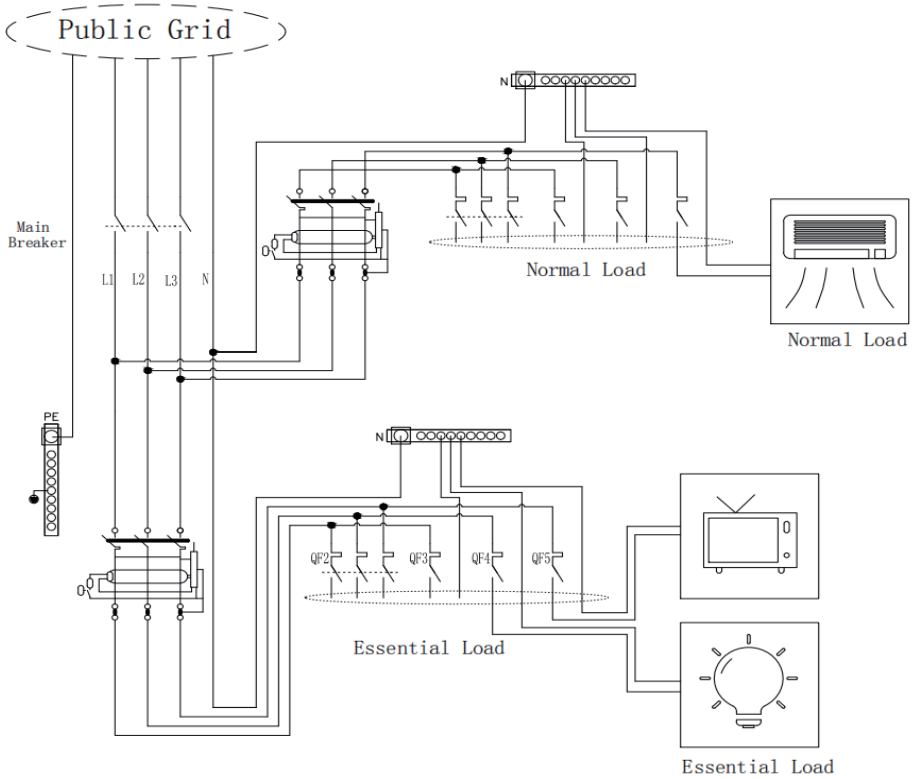
1) If the grid is stable, please turn to "II" to use the public grid to power the loads; If the grid is unstable, please turn to "I" to use EP600 UPS mode to avoid the inconvenience caused by power outage.

2) If EP600 ESS fails, please turn to "II" and contact the BLUETTI Customer Support.

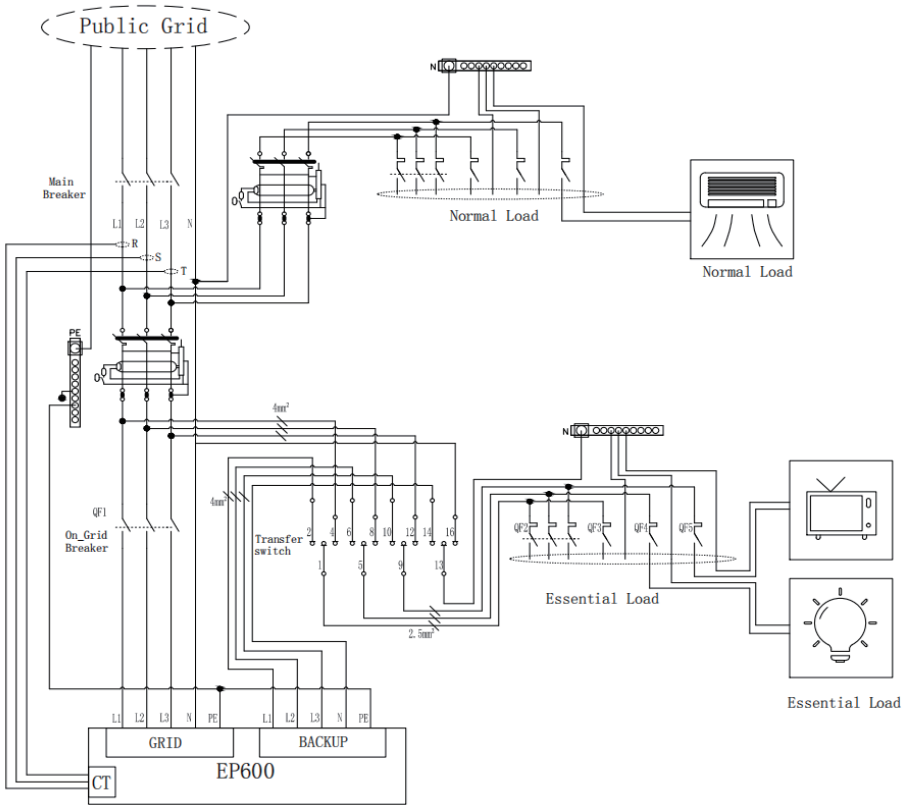


4.11.3 Connect the transfer switch to the residential circuit

Residential circuit before EP600 ESS installed

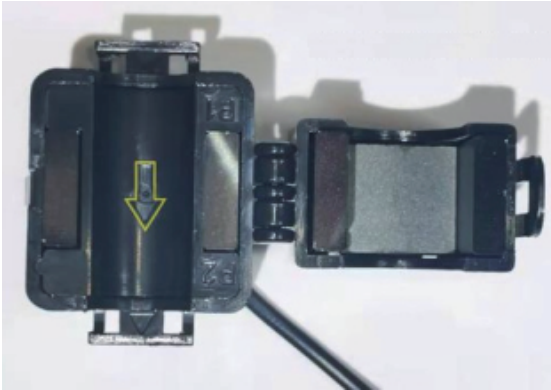


Residential circuit with EP600 ESS

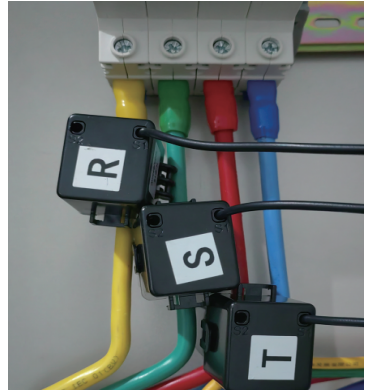


	Wire	Transfer switch
EP600 BACKUP terminal	L1	Pin 2
	L2	Pin 6
	L3	Pin 10
	N	Pin 14
Public grid	L1	Pin 4
	L2	Pin 8
	L3	Pin 12
	N	Pin 16
Essential loads	L1	Pin 1
	L2	Pin 5
	L3	Pin 9
	N	Pin 13

4.11.4 Attach the CT to grid power cables



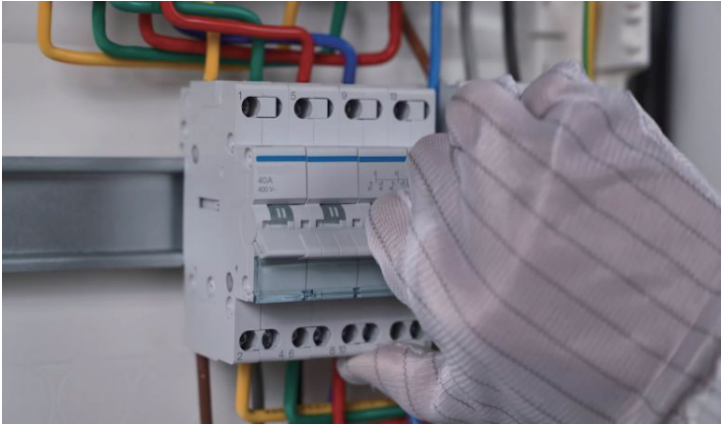
The arrow points to the grid.



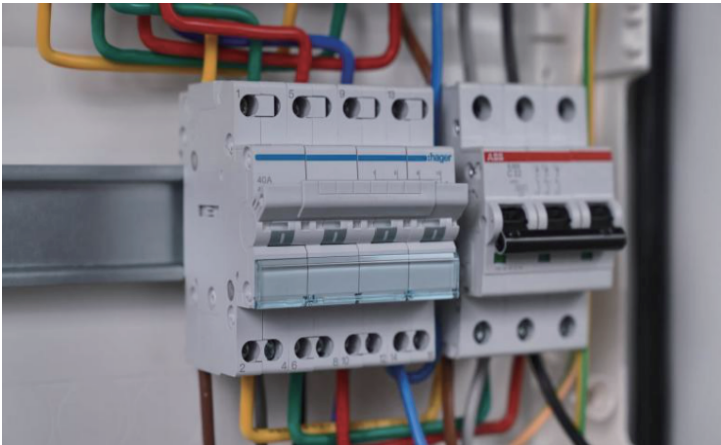
Phase sequence: L1 to R, L2 to S, L3 to T.

4.11.5 Turn on the transfer switch

- Turn the transfer switch to "II". Current flows from the grid to loads.



- Turn the transfer switch to "I". Current flows from EP600 to loads.



5. Power on the ESS

Step 1 Switch on the DC circuit breakers on EP600.

Step 2 Switch on the DC circuit breakers on B500 battery packs. Press and hold the power button of any battery pack for about 3 seconds, and the green indicator on the button will light up.

Step 3 About 40 seconds later, the indicator on EP600 will stay green.

Step 4 Switch on the AC circuit breakers connected to the EP600 GRID terminal.

Step 5 Power on the system via BLUETTI app.

6. BLUETTI App control

6.1 Introduction

BLUETTI App allows you to monitor and control the EP600 ESS in the palm of your hand via Bluetooth or WiFi, with features like Real-time Alarm, Error Message, Data Collection, Operation Status, Parameter Configuration, and Firmware Upgrade.

Scan the QR code to download the BLUETTI app. Or search for the app from App Store or Google Play Store.



Note:

Operating system: Android 8.0 or above, iOS 11.0 or above.

Bluetooth is available on your phone.

EP600 ESS supports 2.4GHz WiFi (IEEE 802.11 b/g/n) only.

BLUETTI recommends a router with WPA or WPA2_PSK encryption. EP600 ESS doesn't support enterprise encryption (commonly used on public WiFi networks that require user authentication, like airport hot spots) and WEP and WPA TKIP encryption.

6.2 Firmware upgrade

Step 1 Bind and connect to EP600 via Bluetooth.

Step 2 Go to “My BLUETTI” page and tap the Bluetooth icon under your EP600 ESS's name.

Step 3 Tap the icon  in the upper right corner.

Step 4 Tap “Firmware Upgrade” and tap “Start” to upgrade. Once the upgrade is completed, it'll prompt that “You're up to date”.

Note: This feature is only available when you connect to the EP600 ESS via Bluetooth.

For more details, refer to the EP600 App User Manual.

7. More information

Website: WWW.bluettipower.eu

Email: sale-eu@bluettipower.com sale-uk@bluettipower.com



BLUETTI



Just Power On