3. EP800 Product introduction

3.EP800 Product introduction

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3.1 Residential Energy storage system road map

3.2 Production function and system introduction

3.3 High lights of EP800

3.4 Application of EP800 energy storage system

3.5 Question and Answer

3.1 BLUETTI Residential Energy storage system road map

·AC500

·EP600

·EP900

·EP800

·13kW EP1300
·IB500

·NEW Version for USA/JP

2014 2021 2022 2023 2024 May September

3.EP800 Product introduction

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3.1 Residential Energy storage system road map

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3.3 High lights of EP800

3.4 Application of EP800 energy storage system

3.5 Question and Answer

3.2 Residencial energy storage system introduction

EP800 off-gird residential energy storage system solutions prioritize high security and practicality, modular design that is easy to install, operate, and boasts high-quality performance.

All in one residential energy storage system includes:

- EP800 :

  Solar PV MPPT Controller + PCS + EMS

- B500: Energy storage batteries (BMS)
- Sub panel (build in a manual transfer switch)
- IOT (Smart APP)

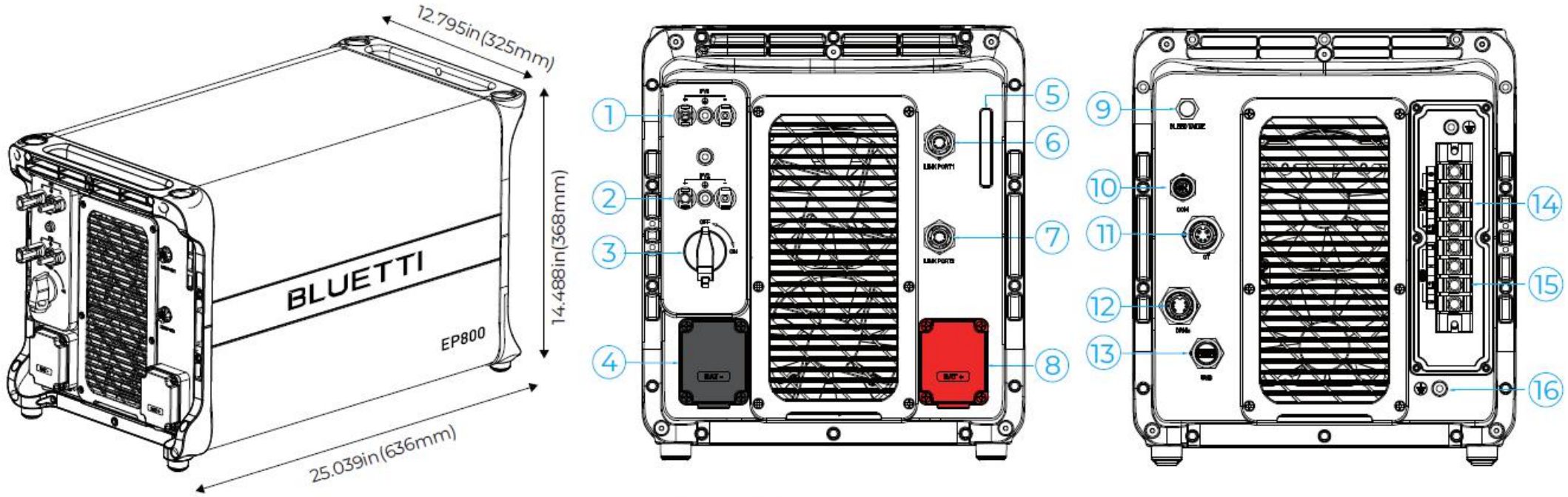
.....

3.2 Residencial energy storage system introduction

EP800 is with an impressive 10-20kWh energy storage capacity and up to 7600W of continuous output power, the EP800 can meet all your daily BACKUP needs. It provides safe, reliable power during utility power outages. Power all your 120V and 240V appliances .

item	Parameter
Rated power	7.6kW (BACKUP output）, Split system , each phase 3800W
AC output voltage	120/240VAC，L1/L2/N/PE
AC frequecy	60Hz
MPPT channel	2 (3000W(PV1) + 6000W(PV2))
MPPT Voltage range	150V~500V
Battery model	B500
Battery quantity	2~4
Protection Grade	NEMA 4X
Noise	≤50dB
Dimensions (L*W*H)	24.645in x12.79in x14.488in 626mm × 325mm × 368mm

3.2 Residencial energy storage system introduction



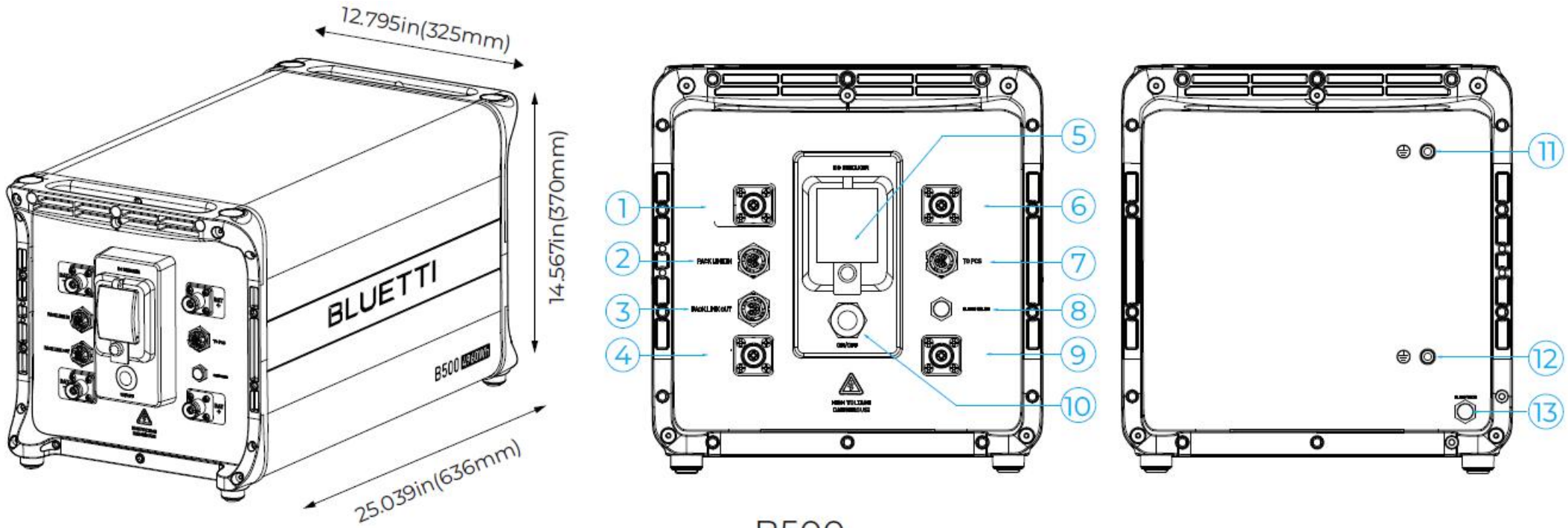
1	PV input 1	5	LED indicator	9	Bleed valve	13	USB port
2	PV input 2	6	IoT signal port (Link Port 1)	10	COM Port (NC)	14	BACKUP Terminal
3	DC switch	7	Battery signal port (Link Port 2)	11	CT	15	GRID Terminal
4	BAT- terminal	8	BAT+ terminal	12	DRMs port (Generator Input)	16	GND Terminal (Grounding)

3.2 Residencial energy storage system introduction

B500 is a battery pack specially developed for EP800 and EP900. The main technical parameters are shown as follows:

Item	Parameter
Battery Type	LiFePO4
Rated Capacity	4.96kWh
Cell Capacity	50Ah
Rate battery voltage	99.2V
Discharging Temperature	-20℃~40℃/ -4℉~104℉
Charging Temperature	0℃~40℃/32℉~104℉ (off-grid PV charging)
	-20℃~40℃/ -4℉~104℉ (when Inverter connect to the grid)
Noise	25dB
Protection Grade	NEMA 4X/ IP65
Net Weight	58kg/127.868 lb
Dimensions (L*W*H)	636mm×325mm×337mm 25.04in x12.80in x13.27in

3.2 Residencial energy storage system introduction



B500

1	BAT- terminal 1	6	BAT+ terminal 1	11	Grounding port 1
2	Pack link-in	7	To Pcs (Inverter signal port)	12	Grounding port 2
3	Pack link-out	8	Bleed valve 1	13	Bleed valve 2
4	BAT- terminal 2	9	BAT+ terminal 2		
5	Main switch	10	Power button		

3.2 Residencial energy storage system introduction

Select Quantity

EP800+2*B500

EP800+3*B500

EP800+4*B500

3.2 Residencial energy storage system introduction

Parts for backup and maintenance

EP900/EP800 Home Integration Kit

US$299.00

BUY NOW Quick Look

https://www.bluettipower.com/products/ep900-smart-home-panel-connect-the-ep900-system-to-the-home-main-panel

Note: this transfer sub panel is used for maintenance , if there are some error happens on EP800/EP900 , it is easy to transfer to the Utility Grid.

3.2 Residencial energy storage system introduction

Parts for backup and maintenance (Provided by BLUETTI)

EP900/EP800 Home Integration Kit

US$299.00

BUY NOW Quick Look

https://www.bluettipower.com/products/ep900-smart-home-panel-connect-the-ep900-system-to-the-home-main-panel

Note:

1. This manual transfer sub panel is used for maintenance , if there are some error happens on EP800/EP900 , it is easy to transfer to the Utility Grid.
2. Please connect the Backup side of EP900/EP800 to the top right side of transfer sub panel,and turn on the breakers on the top right side of this sub panel after turning on the ESS system.
3. There are automatic transfer switch in the EP900/EP800 , it will automatic transfer to the Batteries supply ,if power outage happens.

3.2 Residencial energy storage system introduction

Parts for backup and maintenance (Provided by BLUETTI)

EP900/EP800 Home Integration Kit

US$299.00

BUY NOW Quick Look

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Note:

1. This manual transfer sub panel is used for maintenance , if there are some error happens on EP800/EP900 , it is easy to transfer to the Utility Grid.
2. Please connect the Backup side of EP900/EP800 to the top right side of transfer sub panel,and turn on the breakers on the top right side of this sub panel after turning on the ESS system.
3. There are automatic transfer switch in the EP900/EP800 , it will automatic transfer to the Batteries supply ,if power outage happens.
4. We can make an easy and cheaper connecting the exsting sub panel to this maintenance transfer sub panel with 50A 2P breakers , which total power is less than 7600W.

3.2 Residencial energy storage system introduction

Parts for outdoor installation

Power Shelter For EP800/EP900

0.0 (reviews) | Ask a question

US$799.00

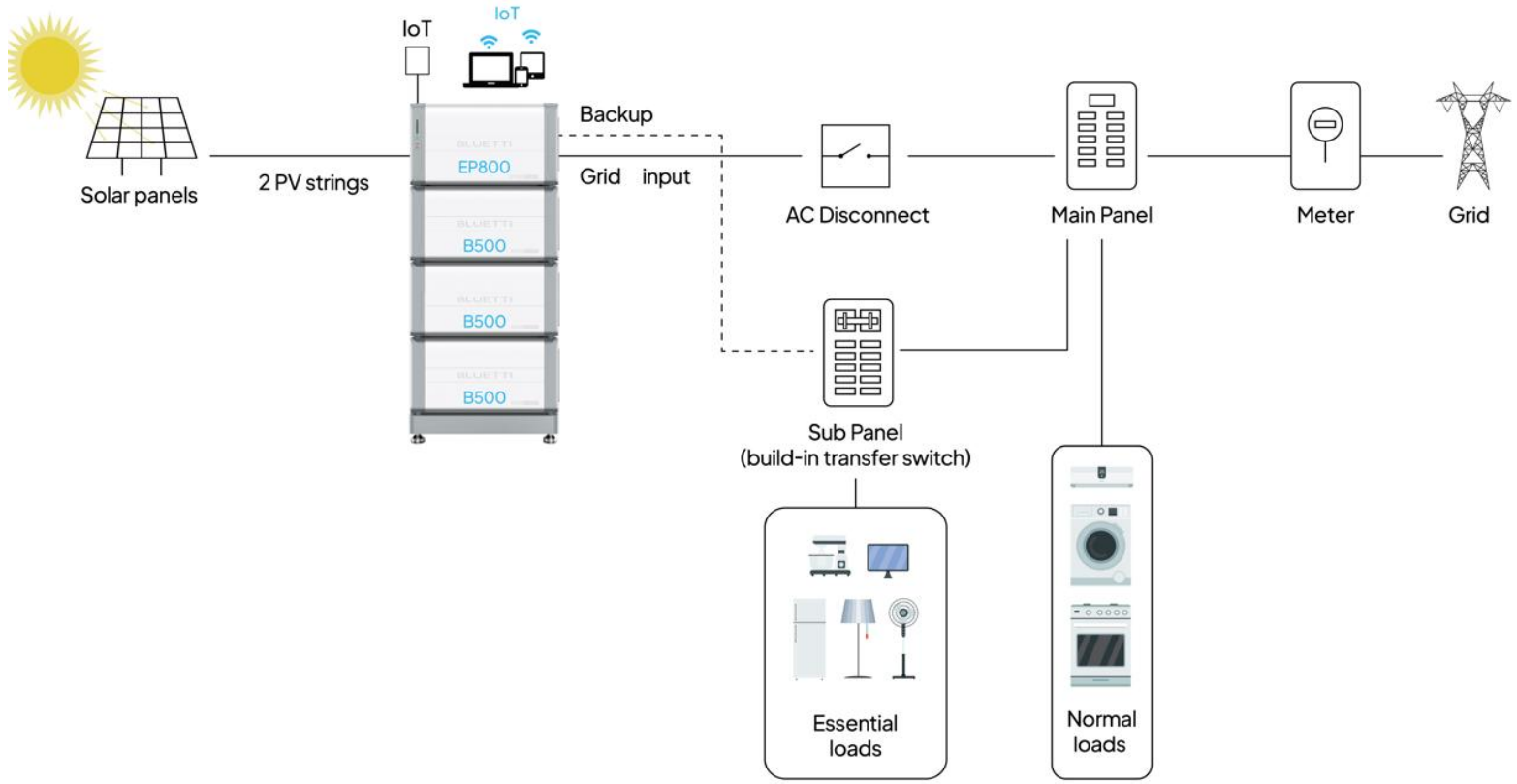
Citi Pay® Credit – Special financing available. Learn More

Starting at $50/mo with affirm. See if you qualify

Used for the outside installation
https://www.bluettipower.com/products/power-shelter-for-ep900

3.2 Residencial energy storage system introduction

Solution1 : for new installation solar panels

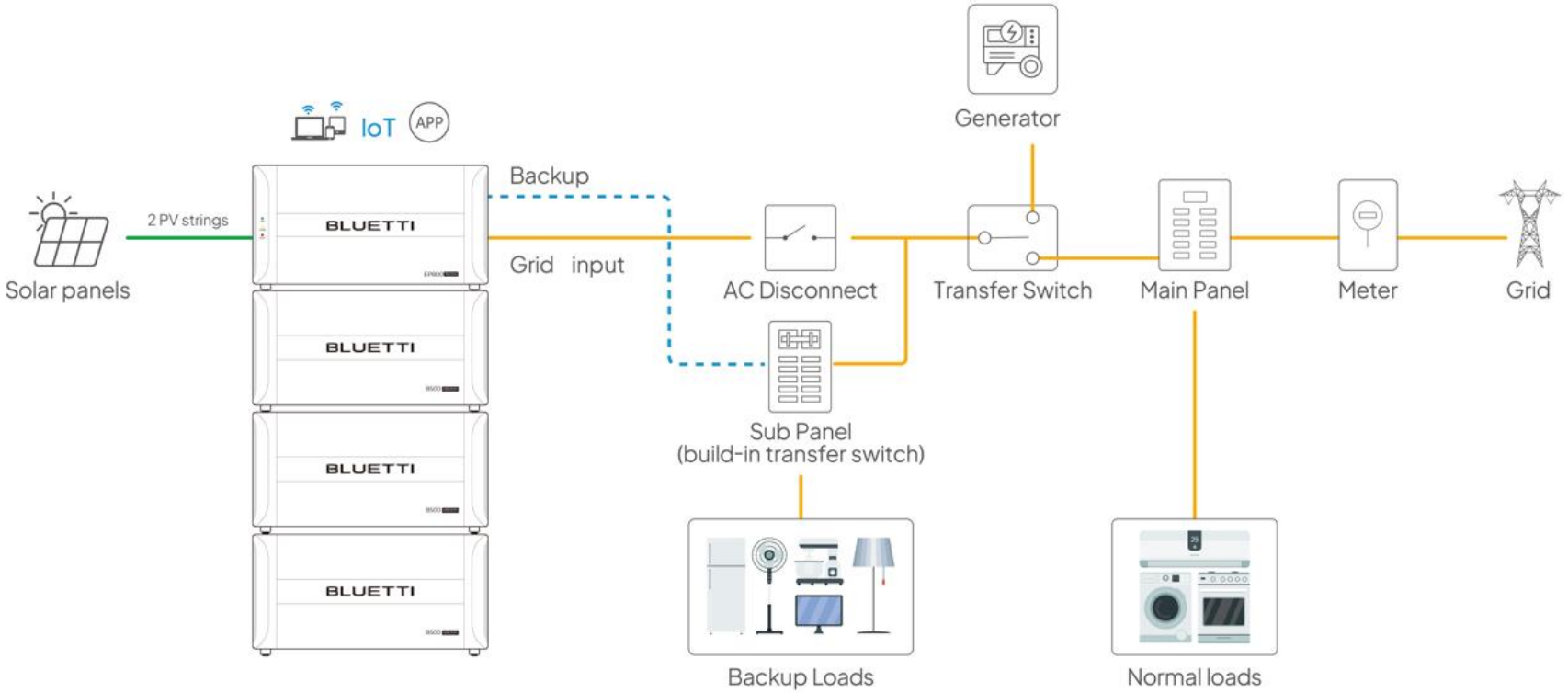


Note:
It is necessary for maintenance to install a manual transfer sub panel,which is build in a manual transfer switch and is provided from bluetti.

Brand : Reliance , 50A split phase

3.2 Residencial energy storage system introduction

Solution2 : Charging from generator and new solar system

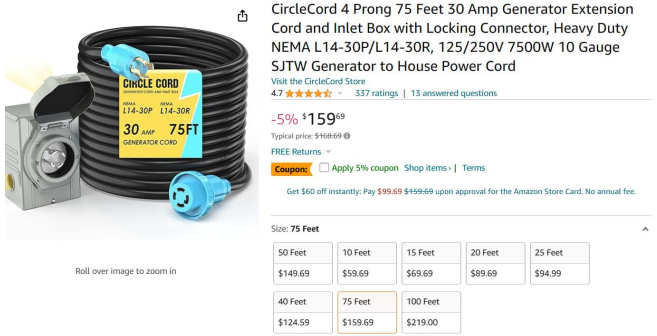


Note:
It is necessary for maintenance to install a manual transfer sub panel,which is build in a manual transfer switch and is provided from Bluetti.

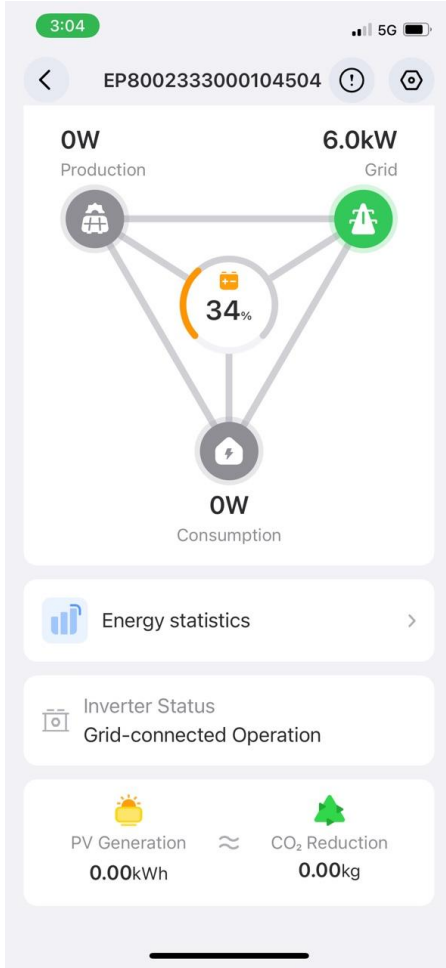
Brand : Reliance , 50A split phase

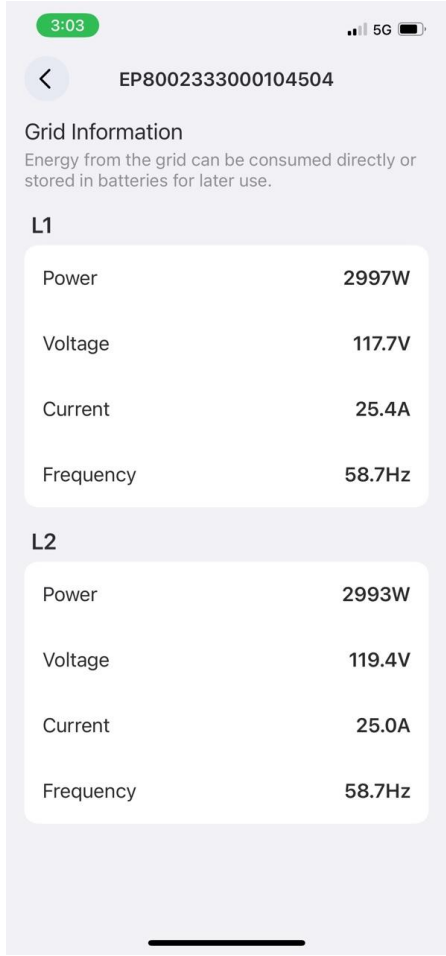
3.2 Residencial energy storage system introduction

Solution2 : Charging from generator and new solar system



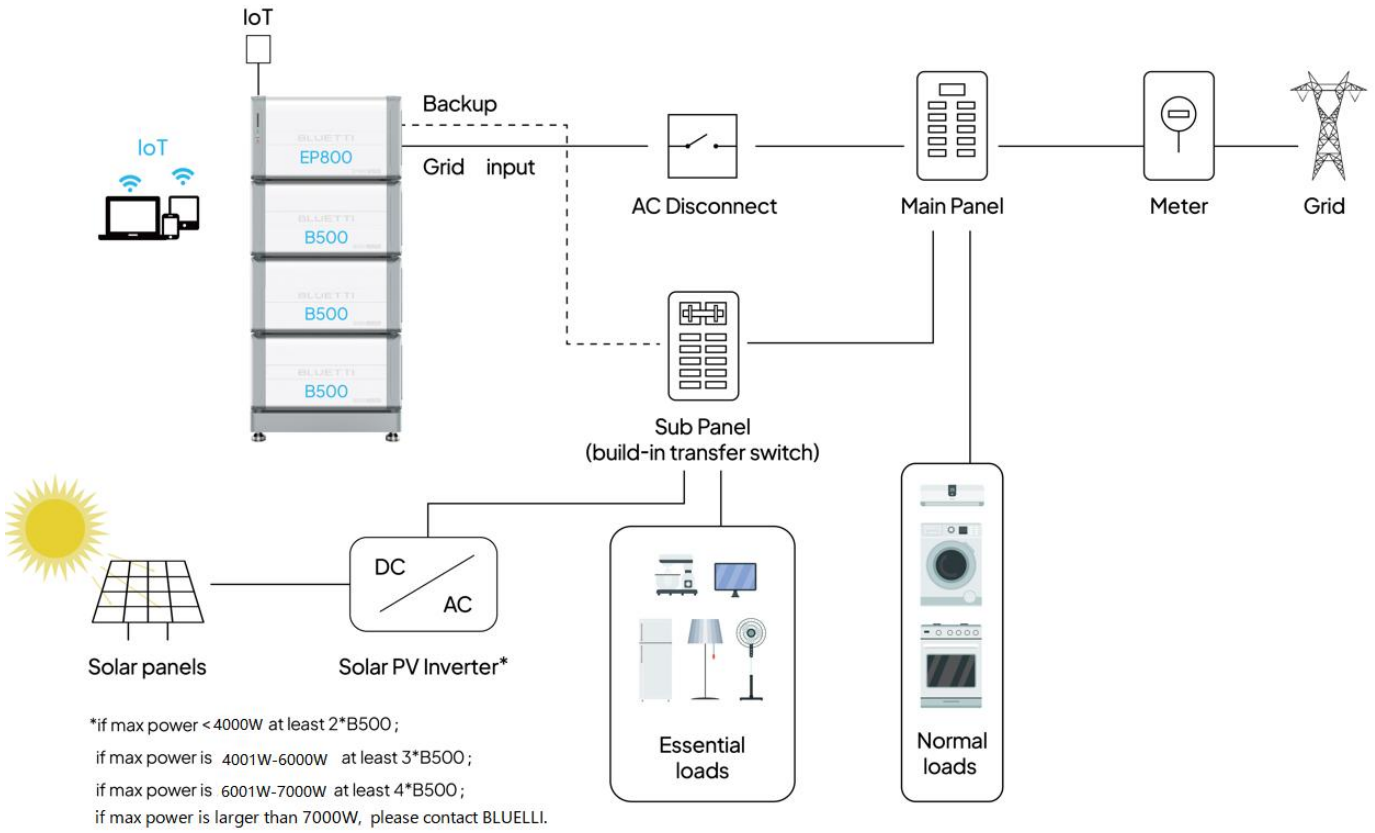
https://www.amazon.com/gp/aw/d/B08RBQJHXX/?_encoding=UTF8&pd_rd_plhdr=t&aaxitk=6a03ef3c0faba3471007004b077cc31a&hsa_cr_id=0&qid=1700453824&sr=1-3-9e67e56a-6f64-441f-a281-df67fc737124&ref_=sbx_be_s_sparkle_mcd_asin_2_img&pd_rd_w=CGJYr&content-id=amzn1.sym.417820b0-80f2-4084-adb3-fb612550f30b%3Aamzn1.sym.417820b0-80f2-4084-adb3-fb612550f30b&pf_rd_p=417820b0-80f2-4084-adb3-fb612550f30b&pf_rd_r=8PX4QSXJRVG7J1BCAH2D&pd_rd_wg=0crU6&pd_rd_r=4637cef4-1ffc-4a58-8b93-73e3306ccbdb&th=1





3.2 Residencial energy storage system introduction

Solution3 : for existing solar panels , PV inverter connected to the sub panel



Note :

1. Solar system is owned by the homeowner and there is no contract with electricity company.

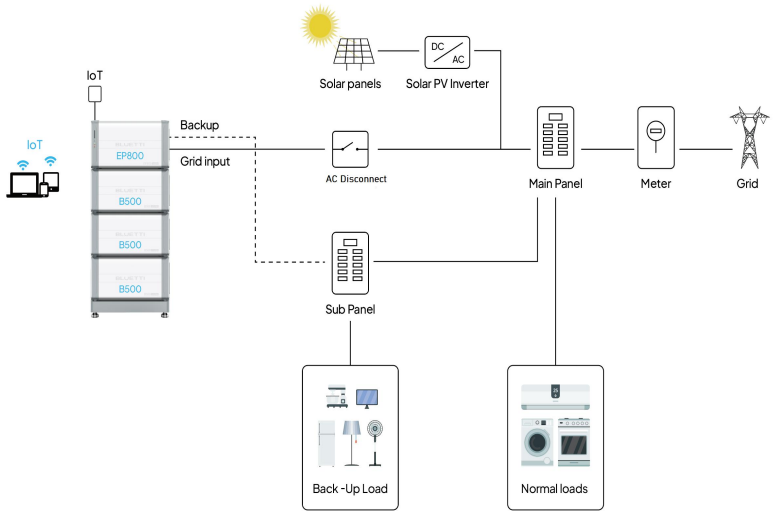
2. Support Enphase Micro inverters IQ7 and IQ6

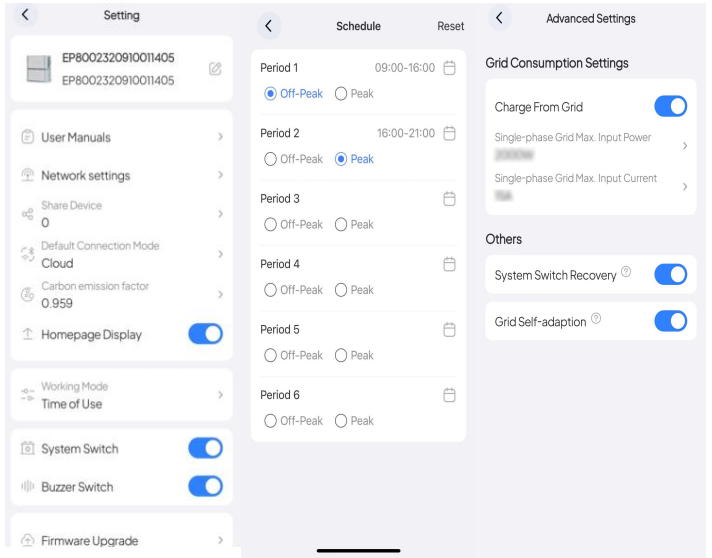
3. It is necessary for maintenance to install a manual transfer sub panel,which is build in a manual transfer switch and is provided from Bluetti.

4. For all solutions that include existing solar systems, We should note that changing the system may require updating the permits and designs with the utility company/local government. This can affect warranty + rebate cost (SGIP).

3.2 Residencial energy storage system introduction

Solution4 : for existing solar panels , PV inverter connected to the grid





Note : Only use for the area where not much utility outage, EP800 can be charged from the existing solar system ,but APP don't show how many energy generated by the solar.

1. Use Time of Use Mode to charge the batteries ,but charging current or power is constant and must less than the average solar current or power ,in the cloudy weather , the batteries will be charged from the utility grid. If you want charge 100% from solar ,we need use EP900.

2. The Batteries will not be charged during power outage ,because of the islanding protection of PV inverter.

3. Turn on “charge from grid” in the advanced setting , set the charging power and current on the basis of the solar system avarage generated power.

4. For all solutions that include existing solar systems, We should note that changing the system may require updating the permits and designs with the utility company/local government. This can affect warranty + rebate cost (SGIP).

3.EP800 Product introduction

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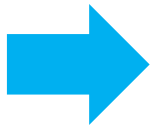
3.2 Production function and system introduction



3.3 High lights of EP800

3.4 Application of EP800 energy storage system

3.5 Question and Answer

3.3 System Highlights

EP800 HARDWARE

The EP800 is a solar residential energy storage system that provides up to 7.6kW powerful electricity when the grid is outage.

Outdoor rating	Power	Warranty
NEMA 4X	7.6kW/15.2kW*	10 years

3.3 System Highlights

EP800 HARDWARE

9000W solar PV input and up to 7.6 kW Power output allows you to generate and use electricity for your home, save your energy costs.

Solar PV input 9000W	UPS (switchover time<20ms)	Remote Control (Wi-Fi & Bluetooth)

3.3 System Highlights

EP800 SOFTWARE

Four Operation Modes (Self-consumption--Time of Use—Backup--Custom) can meet your personalized needs and save money for you.

Self-consumption	Time of Use	Backup	Custom

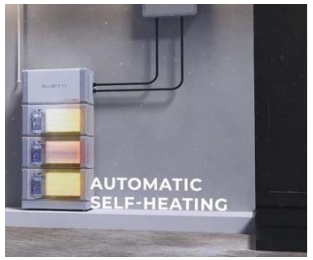
3.3 System Highlights

B500 HARDWARE

It is very easy to install , it is modularized , in steps of 4.96kWh, it is expandable up to 19.84kWh each set.

Support charging at - 20 ℃ by intelligent battery heating management system.

Operation Temperature	Safety and Long cycle life	Expandable up to	Warranty
-20℃ to +40 ℃	$LiFePO_4$	19.9kWh/39.6kWh	10 years



Polymer cells

3.EP800 Product introduction

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3.5 Question and Answer

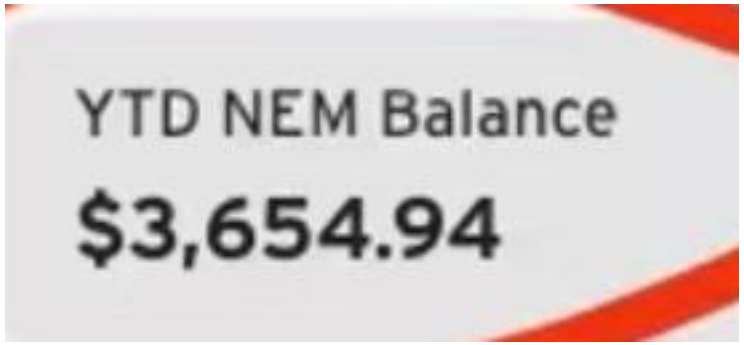
3.4 Applicable scenarios (existing solar PV system or new solar panels)

Scenario 1:Self-Consumption.

Because electricity consumption is too high and the cost of electricity is too high during the peaking princing time.

Solution :Use solar energy during the day when it's available and store the excess electricity to power your home when solar is not available as a way to save peak energy pricing electricity bills.

Interval UOM	Minute(s)
Reading Start	10/26/2022 00:00
Reading End	10/26/2023 23:45
Total Duration	366 Days
Total Usage	14465.0300000001
UOM	kWh
Meter Number	Date
05454260	10/26/2022



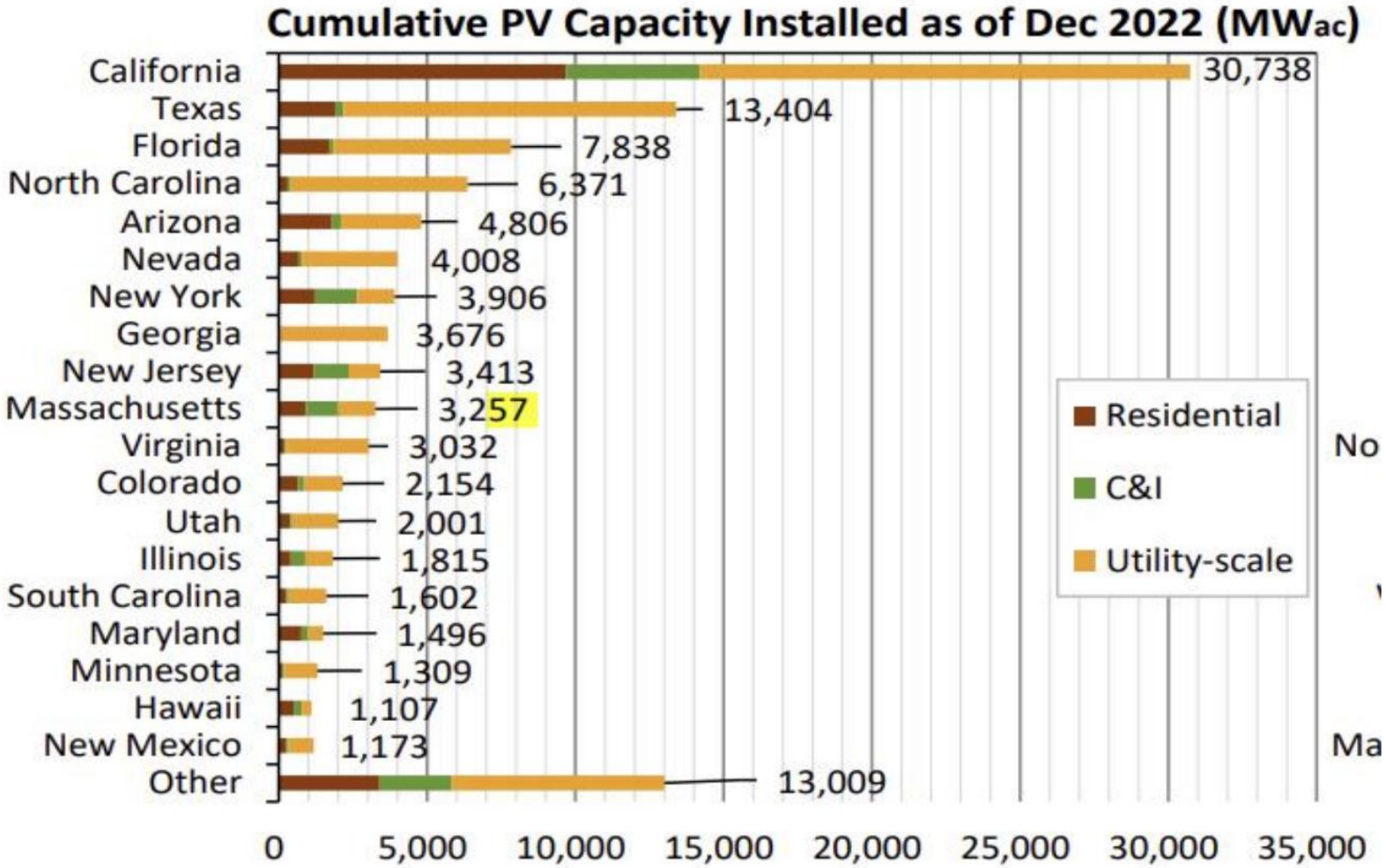
Start Time	Duration	Consumption	Generation	Net
12:00 AM	15	0.2200	0.0000	0.2200
12:15 AM	15	0.2050	0.0000	0.2050
12:30 AM	15	0.2550	0.0000	0.2550
12:45 AM	15	0.2250	0.0000	0.2250
1:00 AM	15	0.2550	0.0000	0.2550
1:15 AM	15	0.2200	0.0000	0.2200
1:30 AM	15	0.5050	0.0000	0.5050
1:45 AM	15	0.5750	0.0000	0.5750
2:00 AM	15	0.2550	0.0000	0.2550
2:15 AM	15	0.2300	0.0000	0.2300
2:30 AM	15	0.2400	0.0000	0.2400
2:45 AM	15	0.2600	0.0000	0.2600
3:00 AM	15	0.4000	0.0000	0.4000
3:15 AM	15	0.6200	0.0000	0.6200
3:30 AM	15	0.6500	0.0000	0.6500
3:45 AM	15	0.9700	0.0000	0.9700
4:00 AM	15	1.2500	0.0000	1.2500
4:15 AM	15	1.2400	0.0000	1.2400
4:30 AM	15	1.1450	0.0000	1.1450
4:45 AM	15	1.4400	0.0000	1.4400
5:00 AM	15	1.1550	0.0000	1.1550
5:15 AM	15	0.8850	0.0000	0.8850
5:30 AM	15	0.8750	0.0000	0.8750
5:45 AM	15	0.8500	0.0000	0.8500
6:00 AM	15	1.3800	0.0000	1.3800
6:15 AM	15	0.8800	0.0000	0.8800
6:30 AM	15	0.8950	0.0000	0.8950
6:45 AM	15	0.9700	0.0000	0.9700

6:15 AM	15	0.8800	0.0000	0.8800
6:30 AM	15	0.8950	0.0000	0.8950
6:45 AM	15	0.9700	0.0000	0.9700
7:00 AM	15	0.9150	0.0000	0.9150
7:15 AM	15	0.9500	0.0000	0.9500
7:30 AM	15	1.0850	0.0000	1.0850
7:45 AM	15	1.6550	0.0000	1.6550
8:00 AM	15	1.2550	0.0000	1.2550
8:15 AM	15	1.0700	0.0000	1.0700
8:30 AM	15	0.9550	0.0000	0.9550
8:45 AM	15	0.8050	0.0000	0.8050
9:00 AM	15	0.6600	0.0000	0.6600
9:15 AM	15	0.1750	0.0650	0.1100
9:30 AM	15	0.0700	0.0950	-0.0250
9:45 AM	15	0.0000	0.1700	-0.1700
10:00 AM	15	0.0350	0.2050	-0.1700
10:15 AM	15	0.0050	0.3300	-0.3250
10:30 AM	15	0.0000	0.4000	-0.4000
10:45 AM	15	0.0000	0.4650	-0.4650
11:00 AM	15	0.0000	0.4750	-0.4750
11:15 AM	15	0.0000	0.5500	-0.5500
11:30 AM	15	0.2900	0.2800	0.0100
11:45 AM	15	0.0000	0.6150	-0.6150
12:00 PM	15	0.1550	0.1800	-0.0250
12:15 PM	15	0.2500	0.0100	0.2400
12:30 PM	15	0.0000	0.4600	-0.4600
12:45 PM	15	0.3350	0.2200	0.1150
1:00 PM	15	0.0000	0.3650	-0.3650
1:15 PM	15	0.0000	0.4200	-0.4200
1:30 PM	15	0.0300	0.2550	-0.2250

3.4 Applicable scenarios (existing solar PV system or new solar panels)

Scenario 1:Self-Consumption.

Use cleaner energy generated from your rooftop solar system and store it in your home battery day or night to increase energy independence .



3.4 Applicable scenarios (existing solar PV system or new solar panels)

Scenario 2: Off-grid living, completely off-grid application, Generator/Generator + solar panels, possibly no grid.

Hunting cabin

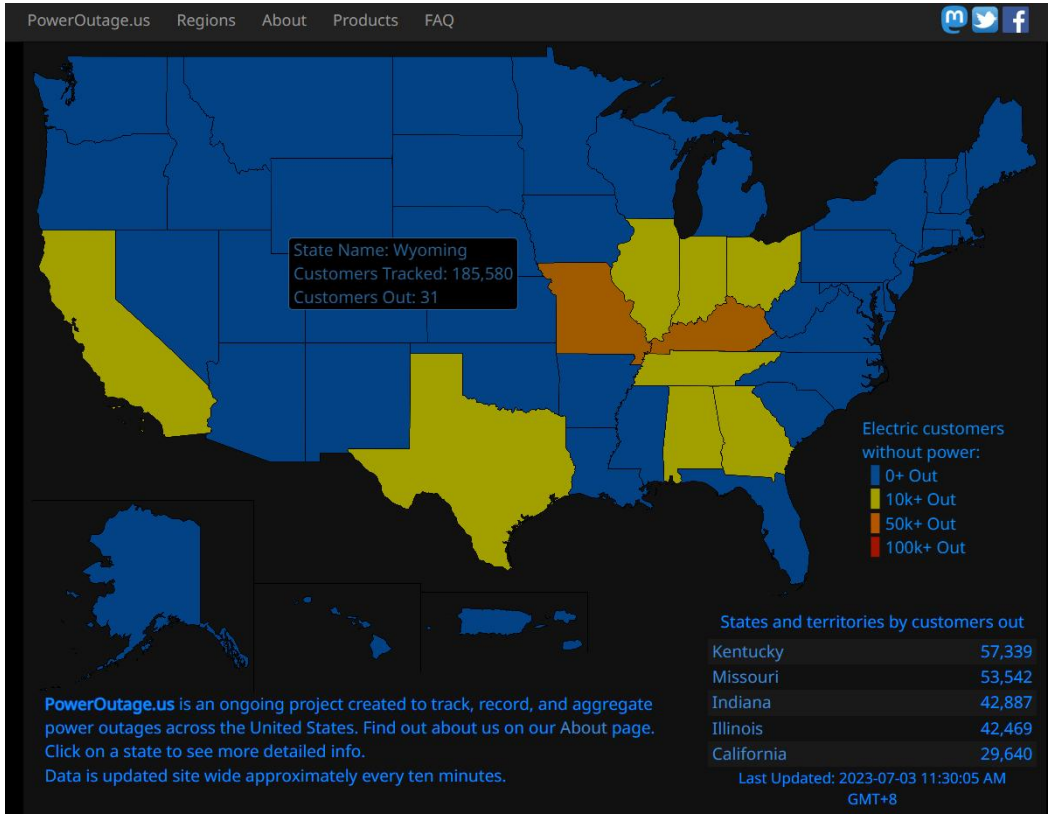
For customers who want to ：

- Use for split phase AC 120V/240V home appliances.
- Make an emergency backup system.

3.4 Applicable scenarios (existing solar PV system or new solar panels)

Scenario 3: Backup to keep a good life when grid outage happens.

If there is a prolonged utility power outage, hundreds or even thousands of dollars of food goes bad, as well as water outages, no lighting, no telecommunication services, and an impact on the quality of life.
Install an EP800 energy storage system can keep a good life when utility outage happens.



For customers who want to :

- Use for split phase AC 120V/240V home appliances.
- Make an emergency backup system.

3.4 Applicable scenarios (existing solar PV system or new solar panels)

Scenario 3: Backup to keep a good life when grid outage happens.

Fridgerator

Family room

Kitchen

Clothes Washer and Clothes Dryer

Pool /Well pump

Garage

3.EP800 Product introduction

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3.1 Residential Energy storage system road map

3.2 Production function and system introduction

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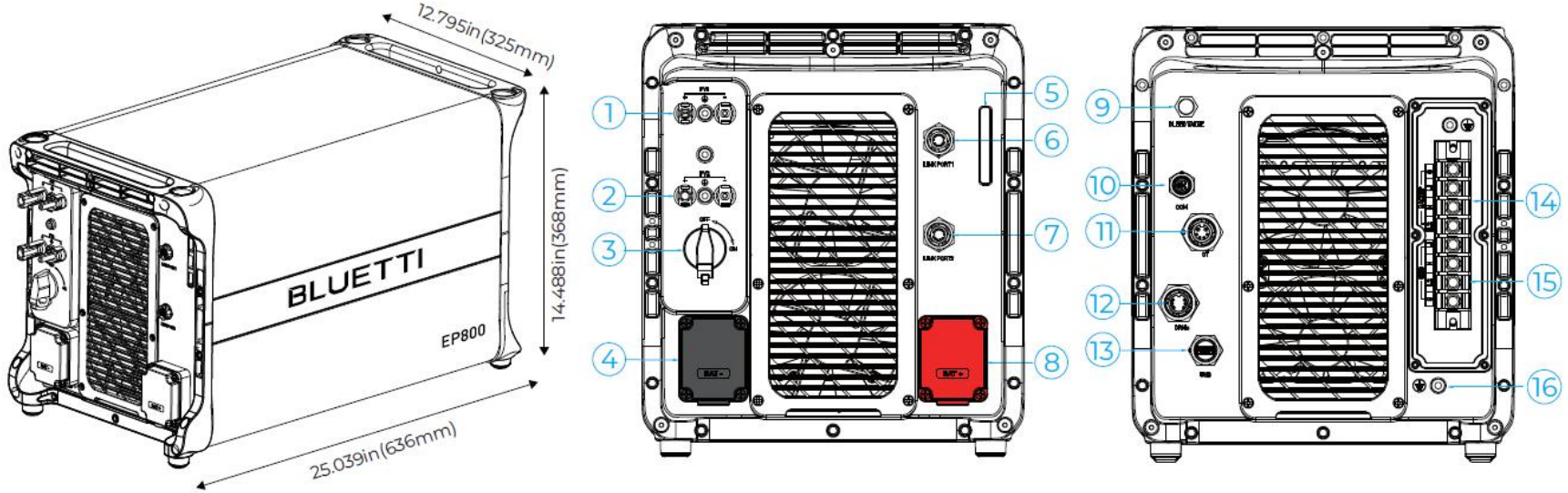
3.5 Question and Answer

Q&A

1. There are two solar PV input , which one is 3000W input , Which one is 6000W input

Answer: PV input 1 is 3000W, PV input 2 is 6000W



EP800

1	PV input 1	5	LED indicator	9	Bleed valve	13	USB port
2	PV input 2	6	IoT signal port (Link Port 1)	10	COM Port (NC)	14	BACKUP Terminal
3	DC switch	7	Battery signal port (Link Port 2)	11	CT	15	GRID Terminal
4	BAT- terminal	8	BAT+ terminal	12	DRMs port (Generator Input)	16	GND Terminal (Grounding)

2.How much gap we need to mount the EP800/ EP900 ?

Answer:

Please keep more than 40 in from the window or door, and keep about 15 in from the wall on the left and right side .

3. How to use and storage the batteries ?

Answer:

a. If there's no power input and the SoC drops to 1%, switch off all battery main switches to prevent over-discharging. Only restart the system when recharging from the grid or solar system.

b. Charge the batteries when the SoC is below 5% and maintain it at least at 5% for continuous operation.

c. For long-term storage, charge the batteries to 40%-60% SoC and perform a full cycle at least every 3 months.

4. What is the operating and storage temperature condition?

Answer:

Operating Temperature	Charging	Off-grid: 0°C to 40°C / 32°F to 104°F On-grid: -20°C to 40°C / -4°F to 104°F
	Discharging	-20°C to 40°C / -4°F to 104°F
Storage Temperature	-20°C to 0°C / -4°F to 32°F (Fully cycle monthly) 0°C to 35°C / 32°F to 95°F (Fully cycle every 3 months)	

Q&A

5.What is the type of generator that can charge an EP800/EP900?

Answer:

The generator must be 120V/240V split phase and its power is greater than 5kw , for example : Champion 8750-Watt DH Series or 6250-Watt

.

Champion Power Equipment 100520 8750-Watt DH Series Open Frame Inverter, Electric Start

Visit the Champion Power Equipment Store

4.6 ★★★★½ 534 ratings

Amazon's Choice in Outdoor Generators by Champion Power Equipment

$1,149.00

Get $50 off instantly: Pay $1,099.00 upon approval for Amazon Visa.

Delivery & Support

Select to learn more

Ships from Amazon.com | Eligible for Refund or Replacement | Customer Support

Brand: Champion Power Equipment

Wattage: 8750 watts

Champion Power Equipment 100519 6250-Watt Open Frame Inverter with Quiet Technology

Visit the Champion Power Equipment Store

4.5 ★★★★½ 570 ratings

$959.00

Get $50 off instantly: Pay $909.00 upon approval for Amazon Visa.

Delivery & Support

Select to learn more

Ships from Amazon.com | Eligible for Refund or Replacement | Customer Support

- Quiet technology and extended run time: 69 dba noise level is great for your next project or home backup, with 6250 starting watts and 5000 running watts for up to 12.5 hours run time on gasoline
- Advanced open frame inverter design: 50% quieter and 20% lighter than a traditional Champion 5000-watt generator

Q&A

6.How to charge the EP800/EP900 with a generator?

Answer:

Firstly ,we need make sure the generator is with 120V/240V split phase, and more than 5000W output power .

Secondly ,we need connect the gird and generator with a transfer switch of 50A 2P.

Thirdly , we need setting the APP as following

1)Turn off the System Switch.

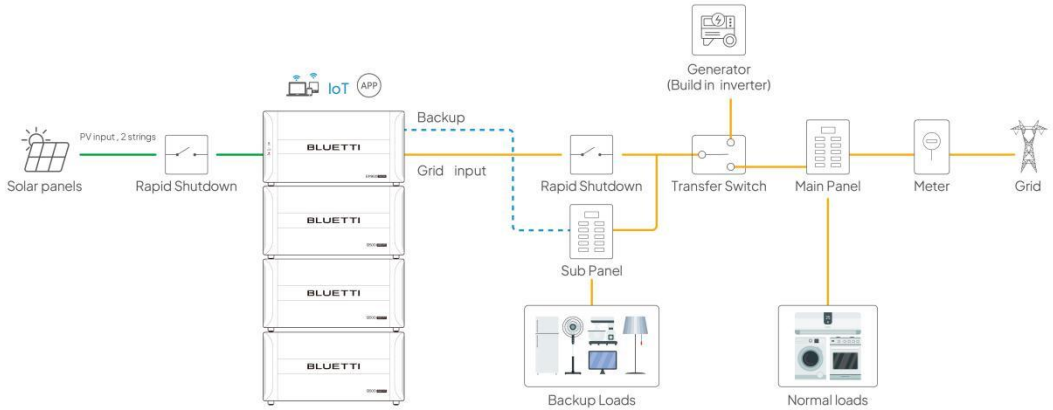
2)Advanced setting:

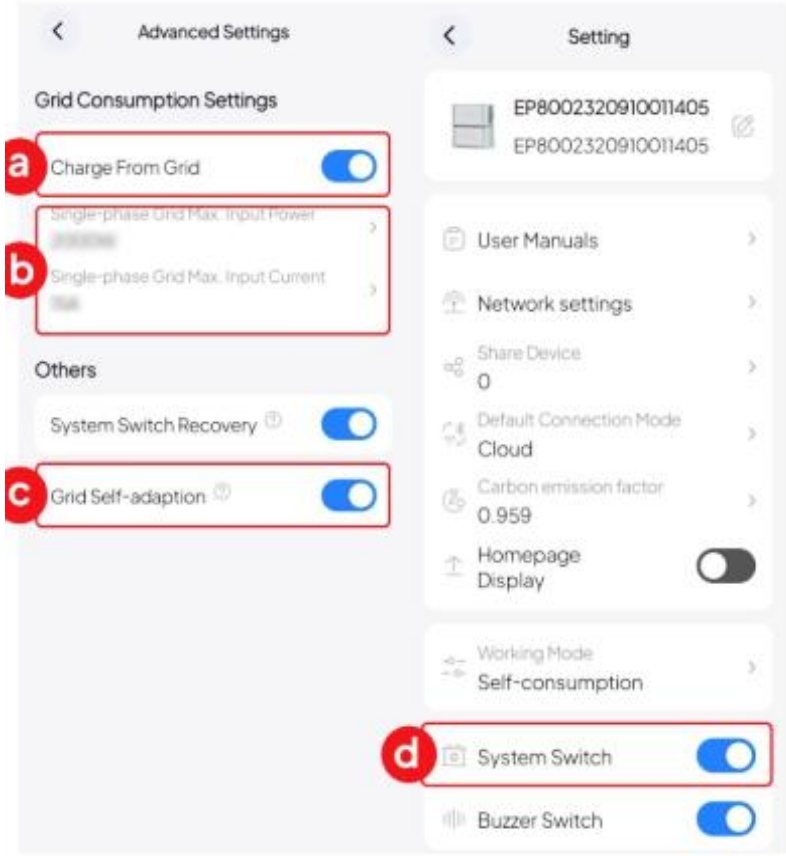
a.Turn on the Charge from Grid.

b.setting the Single phase Max. Input power or current ,such as 500w or 1000W.

c.Then Turn on Grid Self-adaption.

d.Turn on the System Switch.





Q&A

7.Is there a local installer? Who can do installation? What would rough cost for system and installation?

Answer:

The EP800 system is very easy to install , it must be installed by a certificated electrician or installer.
Certified installers are currently available, you can contact sales manager
West coast : Longman 702 985 6786
East Coast Brain 8324529868

It's more better that you can find an electrician with certificated perform the installation.For a safe and efficient installation of the EP800 or any solar energy storage system, it is strongly recommended to engage a qualified and certified professional installer who specializes in PV and energy storage installations. These professionals are familiar with the technical requirements, safety standards, and local regulations that govern such installations.

The cost is about $1500-$3000,different installation situation different cost.

8.How large of a capacity will we need for our solar system (13.5kWp) and to allow to off set demand pricing ($1600-$2000 monthly) and provide backup power if the grid is offline?

Answer:

You have a 13.5kWp solar system. I recommend purchasing 2 sets of EP800 with six B500 battery packs to increase your total capacity to 30 kWh.

Q&A

9.Can I use the just the batteries with a third party inverter?

Answer:

Sorry,the B500 is a battery pack specially developed for EP800 and EP900,so it can not be used for another inverter.

10.Does the EP800 support Split Phase 240V output or would that require 2 units?

Answer:

No, the EP800 supports Split Phase 240V output without requiring two units. It can provide both 120V and 240V power, making it versatile for various applications.

11.What is the max voltage input allowed from DC coupled solar panels?Need full spec sheet.

Answer: recommend the solar string Voc between 240V to 500V.

Q&A

12.Is there a special breaker box for the EP800/EP900, so we can provide power to the BACKUP house appliances when the grid goes down?

Answer:

Yes, we have.

https://www.bluettipower.com/products/ep900-smart-home-panel-connect-the-ep900-system-to-the-home-main-panel

EP900/EP800 Home Integration Kit

0.0 (reviews) | Ask a question

US$299.00

Starting at $27/mo with affirm. Prequalify now

Function : Connect the EP900 energy storage system to the home's main panel.

Compatibility : EP900 and EP800

Quantity : 1

4 interest-free installments, or from **$26.99**/mo with shop Pay
View sample plans

ADD TO CART | Buy with shop Pay

More payment options

Free Local Shipping | 1-year Hassle Free Warranty | Lifetime Customer Support

Q&A

13.If we need buy a SolarEdge inverters for EP900/EP800 ? how many panels connections are there?

Answer:

The inverter is build in the EP800 or EP900. if you new install the solar system , We do not need any other inverters ,we have two solar PV input channels,max PV input is 9kw, PV1 channel is Max. 3000W, PV2 is Max. 6000W which need two strings connected in parallel.

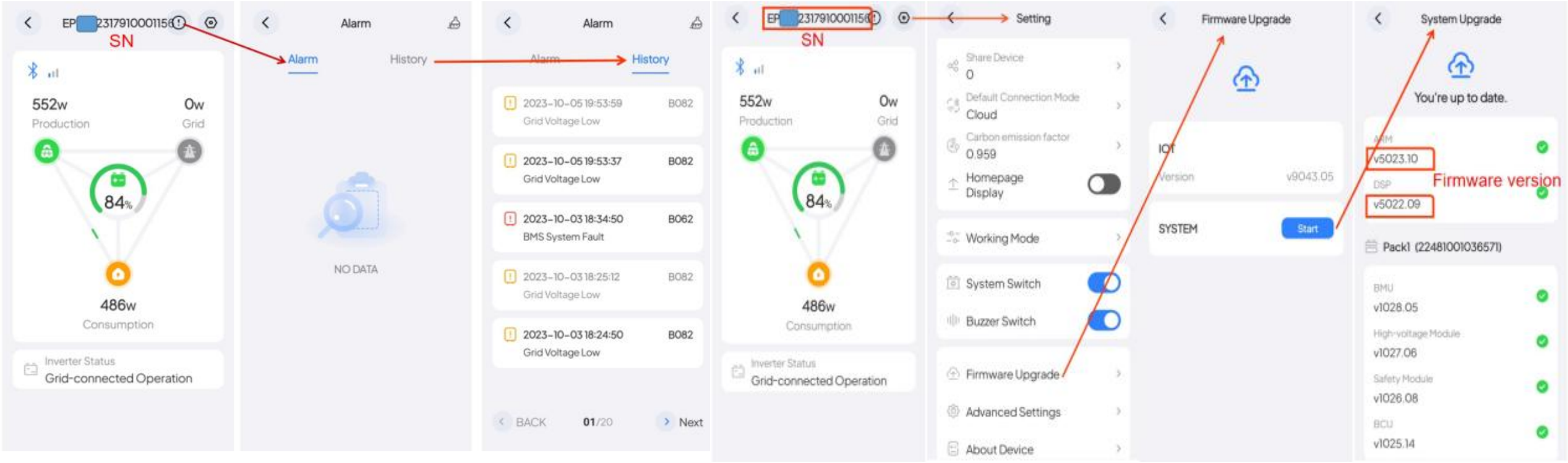
PV Input		
Item	Description	Note
Maximum Input Power	9000W	
MPPT Channel	2	3000W+ 6000W
Array In Series	1+2	
Maximum Input Voltage	550V	
MPPT Voltage Range/Rated	150V~500V/360V	
Single MPPT Maximum Input Current	12.5A/25A	
Single MPPT Maximum Short-circuit Current	15A/30A	

Q&A

14.What information do we need from customer if there are any issues on EP800/EP900?

Answer:

Please provide the following information: Serial NO. Alarm, History, and firmware version information.



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Thanks for watching