

Apex 300

Portable Power Station

User Manual v1.0

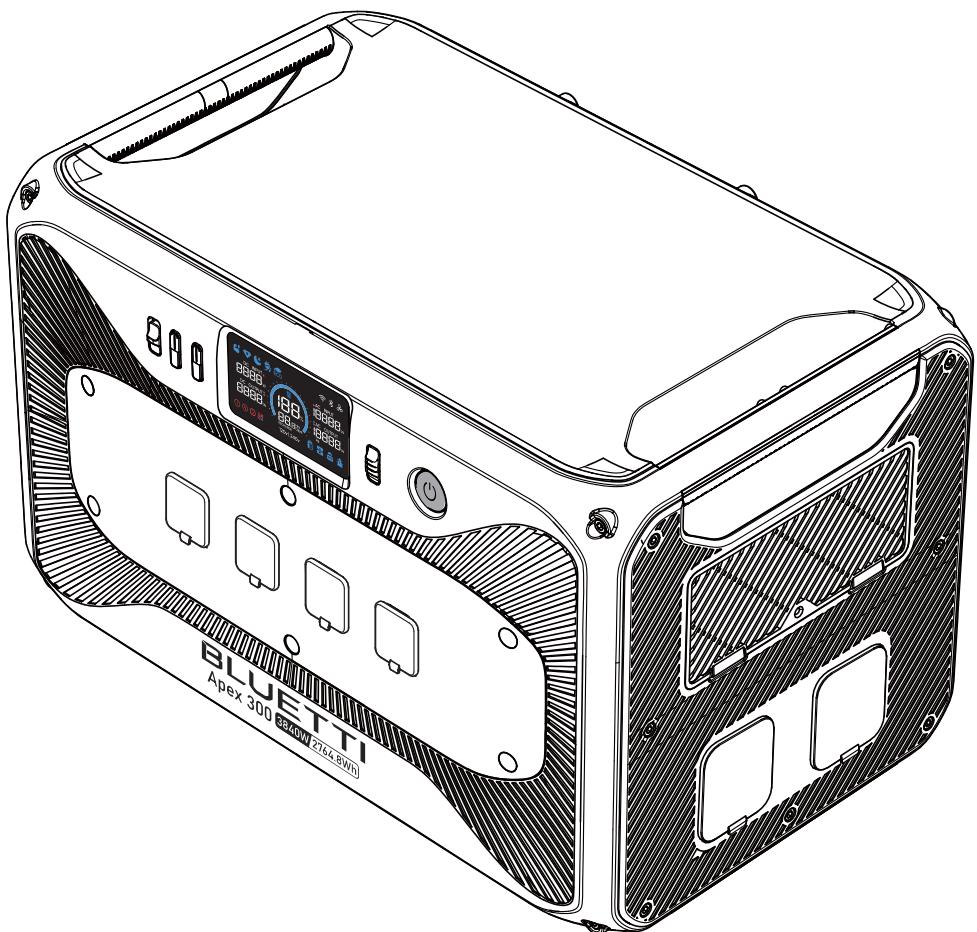
Important Instructions

For optimal performance, update your unit to the latest firmware before first use.

See the appendix "Update Firmware via BLUETTI App" for guidance.

Read and understand this manual before use and keep it handy for future reference.





⚠ Tips

1. Fully charge the unit before first use.
2. Do not use solar panels with open circuit voltage higher than 60V. Solar input voltage range for the unit is 12V-60V.
3. If the unit's SoC falls below 5%, please recharge the unit in time. If the SoC drops to 0, power off the unit and charge it for at least 30 minutes before restarting.
4. If not used for more than 3 months, charge the unit to 40%-60% SoC and store it with the power off. For optimum battery life, discharge and charge the unit every 3 months. It's recommended to charge via an AC source; if using solar energy, ensure an input of over 100W.

Legal Information

Notice

BLUETTI's products and services are subject to the terms and conditions agreed upon during purchase. Some aspects described in this manual may not be available under your purchase contract. Unless otherwise specified in the contract, BLUETTI makes no express or implied representations or warranties regarding the contents of this manual.

The contents of this manual are subject to change without notice. Please obtain the latest version from BLUETTI official website.

If you have any questions or concerns about this manual, please contact BLUETTI support for further assistance.

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1. Safety Information

INSTRUCTIONS PERTAINING TO RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

WARNING - When using the product, basic precautions should always be followed, including the following:

- Read all the instructions before using the product.
- Handle the product with care, avoiding drops, violent impacts, or tilting.
- To reduce the risk of injury, close supervision is necessary when the product is used near children.
- Do not put fingers or foreign objects into the product's ports.
- Use of an attachment not recommended or sold by the manufacturer may result in a risk of fire, electric shock, or injury to persons.
- Do not move the product during operation to avoid poor connections.
- Do not expose the battery to high temperatures, as this may cause an explosion or leakage of flammable liquids or gases.
- Do not use the product in the rain or high humidity environments.
- Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.
- Handle the product with caution in low air pressure environments to prevent explosions or leaks.
- Charge the product in a well-ventilated area.
- Under abusive conditions, liquid may be ejected from the product's battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Battery liquid may cause irritation or burns.
- In case of fire, use a dry powder fire extinguisher appropriate for the product.
- Never dispose of the product's battery in fire, hot ovens, or by cutting it.
- Do not operate the product with a damaged cord, plug, or output cable.
- To reduce the risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the product.
- Do not disassemble the product; take it to a qualified service person if service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
- Unplug the product before any servicing to reduce the risk of electric shock.
- Power off the unit before unplugging.

- **WARNING - RISK OF EXPLOSIVE GASES.** Follow these instructions and those published by manufacturer of any equipment you intend to use in vicinity of the product to reduce risk of battery explosion.
- **WARNING - RISK OF ELECTRIC SHOCK.** Never use the product to power tools to cut or access live parts, wirings, or materials containing them, such as building walls.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.

  The symbols on the unit and its accessories are intended to remind you to read the instructions in the literature accompanying the product before operation and maintenance.

- The socket-outlet should be installed near the product and easily accessible for safety purposes.
- When charging with lead-acid batteries or using the product to charge them, follow these safety precautions:
 - a. Wear complete eye and clothing protection; do not touch eyes when working near a battery.
 - b. No smoking, sparks, or flames near the battery or engine.
 - c. Avoid dropping metal tools onto the battery to prevent sparks or short circuits.

Disposal and Recycling

1. Take old electronic components and batteries to designated recycling centers. This prevents improper disposal and supports material recovery.
2. If possible, fully discharge the batteries and then place them in designated battery recycling boxes. The batteries in this product contain hazardous chemicals. Do not dispose of them with regular household waste. Please follow local laws and regulations for proper battery disposal.
3. If a battery cannot fully discharge due to product malfunction, do not place it in the battery recycling box. Instead, contact a professional battery recycling organization for safe handling.

Grounding Instructions (For AC charging only)

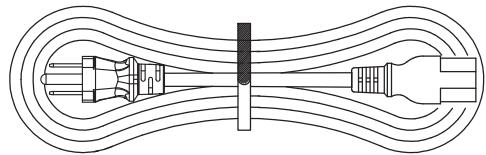
- This product must be grounded when connected to the grid. If this product should malfunction, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.
- The product is equipped with an AC charging cable having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- **WARNING** - Improper connection of the grounding conductor can result in a risk of electric shock. Check with a qualified electrician if you're in doubt as to whether the product is properly grounded. Don't modify the plug provided with the product—if it'll not fit the outlet, have a proper outlet installed by a qualified electrician.

SAVE THESE INSTRUCTIONS

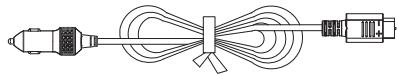
2. What's in the Box



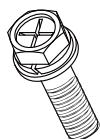
Apex 300
Portable Power Station



AC Charging Cable
(5.91ft / 180cm)



Car Charging Cable
(Cig lighter - XT60, 2.41ft / 73.5cm)



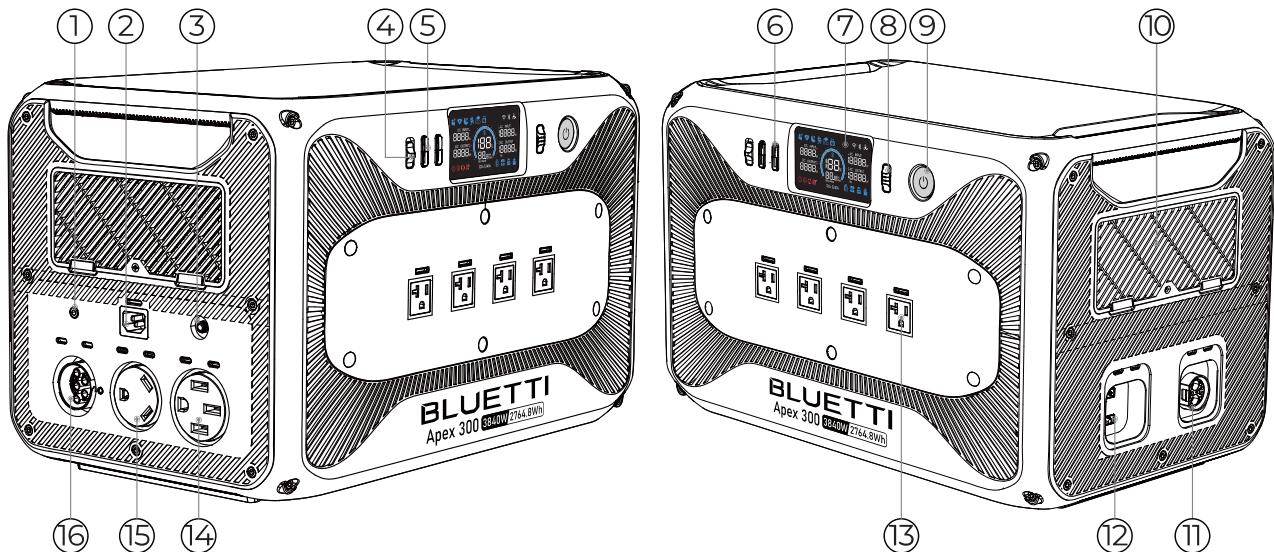
Grounding Screw
(M5*10)



User Manual & Warranty Card

3. Get to Know Your Apex 300

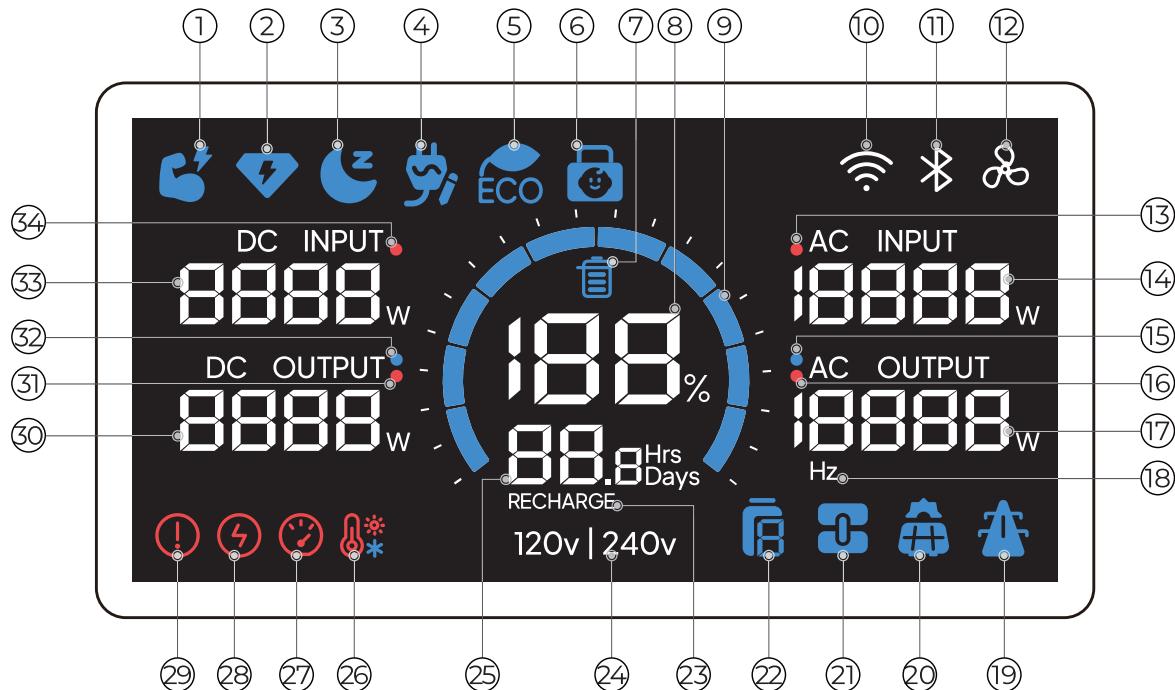
3.1 Apex 300 Overview



- ① Grounding Terminal*
- ② AC Input Outlet
- ③ Circuit Breaker
- ④ AC Output Voltage Selector
- ⑤ ECO Mode Button
- ⑥ AC Power Button
- ⑦ LCD Display
- ⑧ Charging Mode Selector
- ⑨ Power Button
- ⑩ Removable Dust Filter
- ⑪ Battery Expansion Port
- ⑫ DC Input
- ⑬ AC Outlet (NEMA 5-20R)
- ⑭ AC Outlet (NEMA 14-50R)
- ⑮ AC Outlet (NEMA TT-30R)
- ⑯ AC Input/Output Outlet (P050A)

* Used for grounding when powering certain appliances. For assistance, contact us or seek guidance from the appendix "Grounding Guidelines (Minimum cross-sectional area: 8AWG)".

3.2 LCD Display



- ① Power Lifting Mode
- ② Turbo Charging
- ③ Silent Charging
- ④ AC Output Restore*
- ⑤ ECO Mode
- ⑥ Child Lock
- ⑦ Charge/Discharge Limits*
- ⑧ State of Charge (SoC)
- ⑨ Progress Bar*
- ⑩ WiFi
- ⑪ Bluetooth
- ⑫ Fan*
- ⑬ AC Input Alarm
- ⑭ AC Input Power
- ⑮ AC Output*
- ⑯ AC Output Alarm
- ⑰ AC Output Power
- ⑱ AC Output Frequency
- ⑲ AC Input*
- ⑳ DC Input*
- ㉑ Parallel Connection
- ㉒ Expansion Batteries*
- ㉓ Charge Reminder*
- ㉔ AC Output Voltage
- ㉕ Remaining Time*
- ㉖ High/Low Temp
- ㉗ Overload
- ㉘ Overcurrent
- ㉙ System Fault
- ㉚ DC Output Power
- ㉛ DC Output Alarm
- ㉜ DC Output*
- ㉝ DC Input Power
- ㉞ DC Input Alarm

* AC Output Restore: When the battery is depleted or reaches the SoC low value which causes the unit to shut down, the AC output status will be saved and automatically restored once connected to grid power.

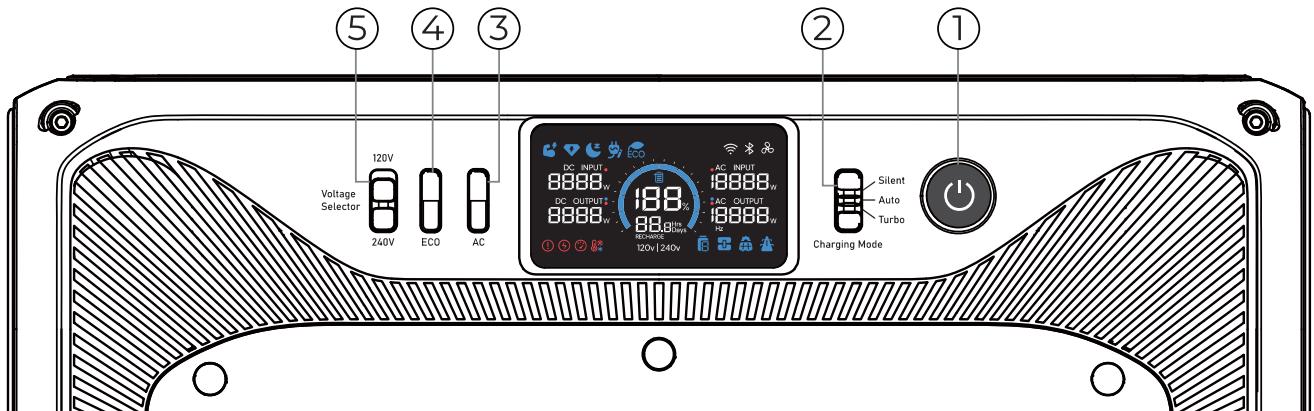
Charge/Discharge Limits: Charging or discharging stops when the set limit is reached.

Progress Bar: Indicates charging progress (fills up during charging or pass-through charging, depletes during discharging).

- * Fan: Flashes when the fan is malfunctioning.
- DC/AC Output: Indicates active output.
- AC Input: Shows Apex 300 charges via wall outlet or generator.
- DC Input: Shows Apex 300 charges via solar panels, cars, or lead-acid batteries.
- Expansion Batteries: Displays the number of connected expansion batteries.
- Charge Reminder: SoC below 5%. Charge the unit in time.
- Remaining Time: Shows the time remaining for charging or discharging.

4. Use Your Apex 300

4.1 Power On/Off



① Power On

Press the power button; the lit button indicates that the Apex 300 is on standby.

Power Off

Long press the power button for about 2 seconds to turn off the unit.

② Charging Mode Selector

Silent	Auto (Standard)	Turbo

③ AC Output On/Off

Press the AC power button to turn on when Apex 300 is on. Press again to turn it off.

④ ECO Mode On/Off

Press the ECO mode button to turn on when Apex 300 is on. Press again to turn it off.

⑤ AC Output Voltage Selector

Push up for 120V output or down for 240V output. This switch is unavailable in parallel mode, where the output is set to 240V by default.

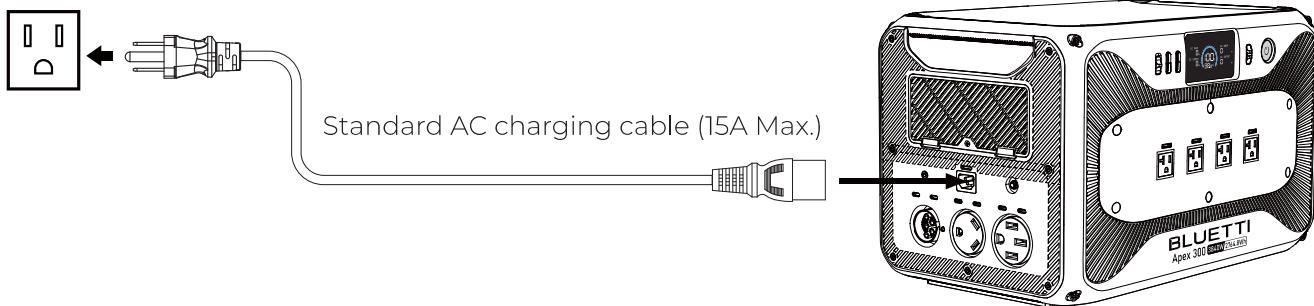
Notes:

- To set the charging mode via the app, select "Auto" charging mode.
- When connected in parallel, set all units to "Auto" for the app to control the charging mode.
- When Apex 300 is on, press any button to activate the LCD display.
- Switching between 120V and 240V output voltage cuts off the AC output.

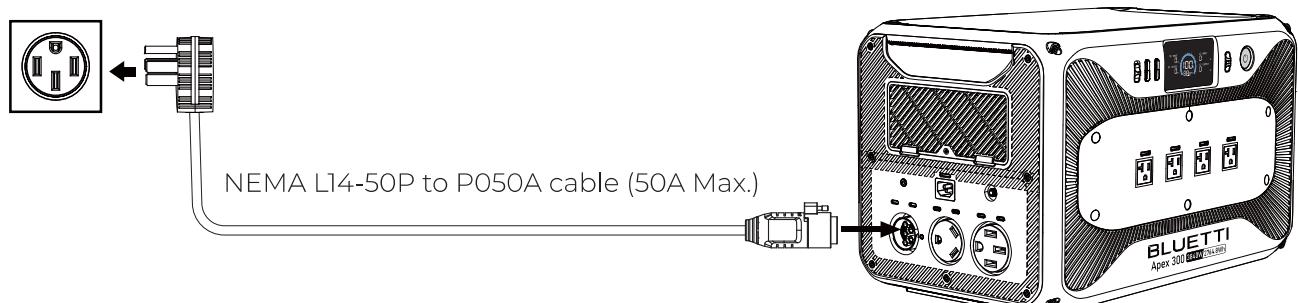
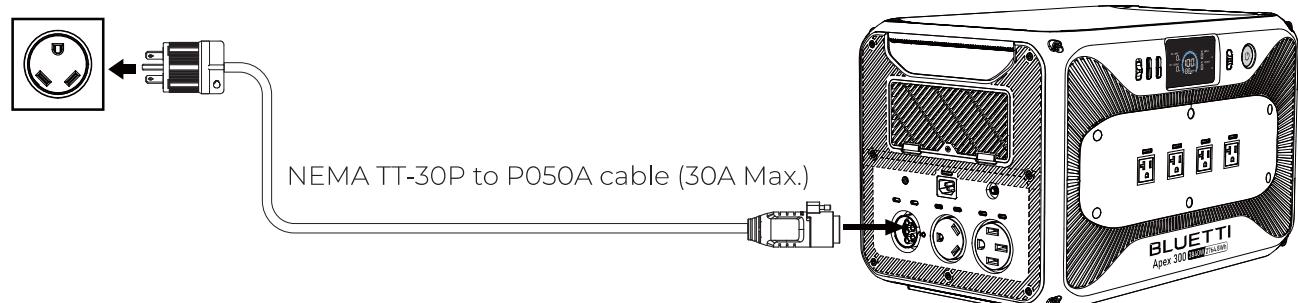
4.2 Charging Options

4.2.1 Wall Outlet

Plug the Apex 300 into a standard wall outlet. The charging stops once it's fully charged.



For quicker charging, enable Turbo Charging mode using the charging mode selector or the app. Connect the Apex 300 to a wall outlet through the P050A port with the optional NEMA TT-30P to P050A or NEMA L14-50P to P050A cable. This allows the Apex 300 to reach 80% charge in about 45 minutes at an ambient temperature of 77°F (25°C).



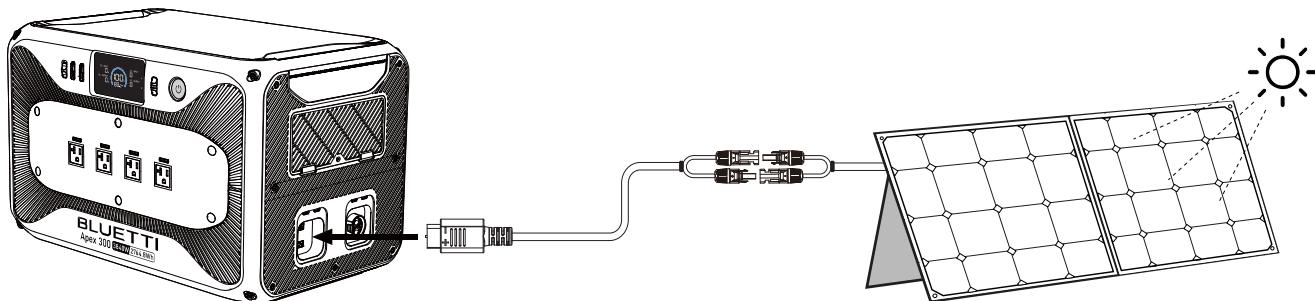
Note: Do not plug the unit's AC charging cable into its own AC outlets, as this could damage the connected device.

4.2.2 Solar Panel

Connect your solar panel(s) to the Apex 300 with the solar charging cable (sold separately).

Note: Make sure your solar panel(s) meet the following requirements:

Voc: 12V-60V Current: 20A Max. Power: 1,200W Max.



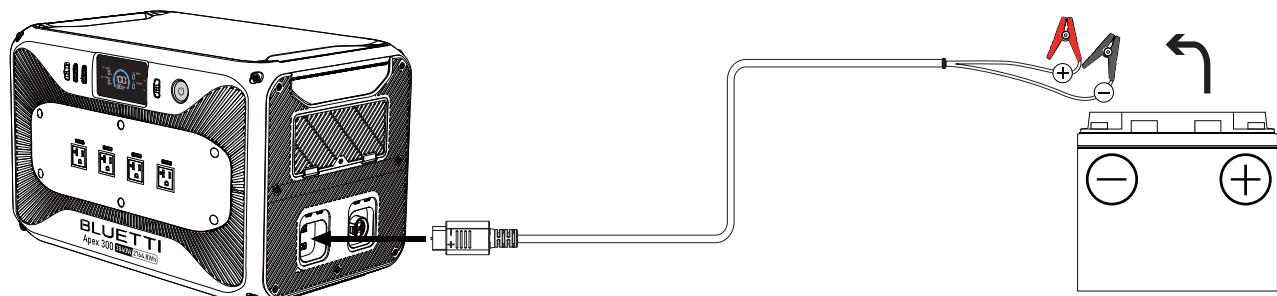
In the advanced mode of the APP, the DC input current can be adjusted.

DC Input Source	Non-Advanced Mode Settings	Advanced Mode Settings
PV	$12V \leq U^* \leq 30V, I^* \leq 8.2A$ $30V < U \leq 60V, I \leq 20A$	$12V \leq U \leq 16V, I \leq 8.2A$ $16V < U \leq 60V, I \leq 20A$

* U: Solar input voltage; I: Input current

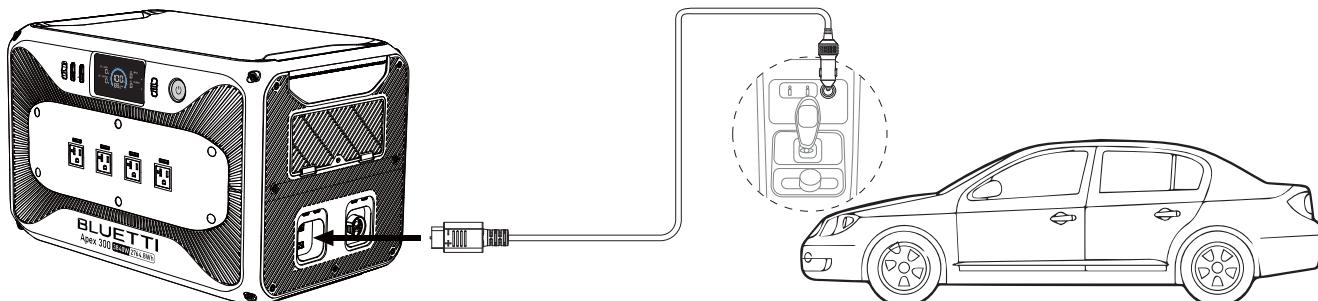
4.2.3 Lead-acid Battery

Connect the Apex 300 to a lead-acid battery using the optional lead-acid battery charging cable. Ensure the red cable is connected to the positive terminal and black to the negative. The maximum charging current is 20A (Use a 24V lead-acid battery and set to PV input mode.).

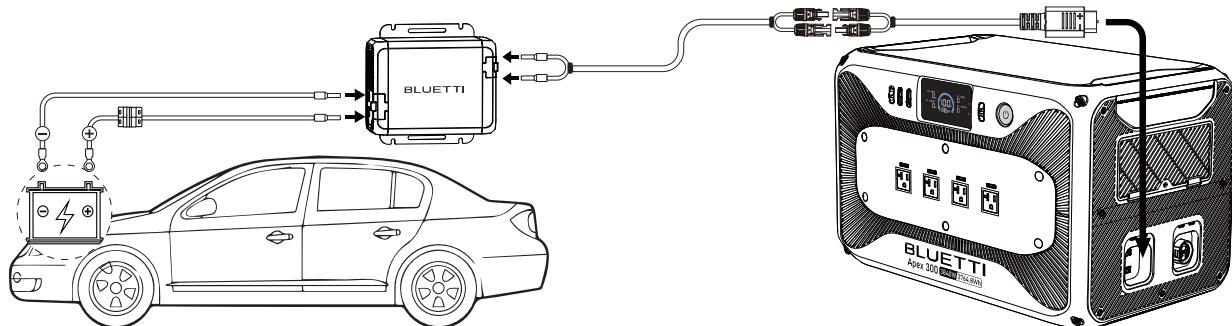


4.2.4 Car

Connect the Apex 300 to your car's 12V or 24V cigarette lighter port using the car charging cable. It charges at up to 96W with a 12V port and 192W with a 24V port, automatically stopping when fully charged.



For faster charging, you can use the optional BLUETTI Charger 1. For details, refer to *CHARGER 1 DC-DC Charger User Manual*.



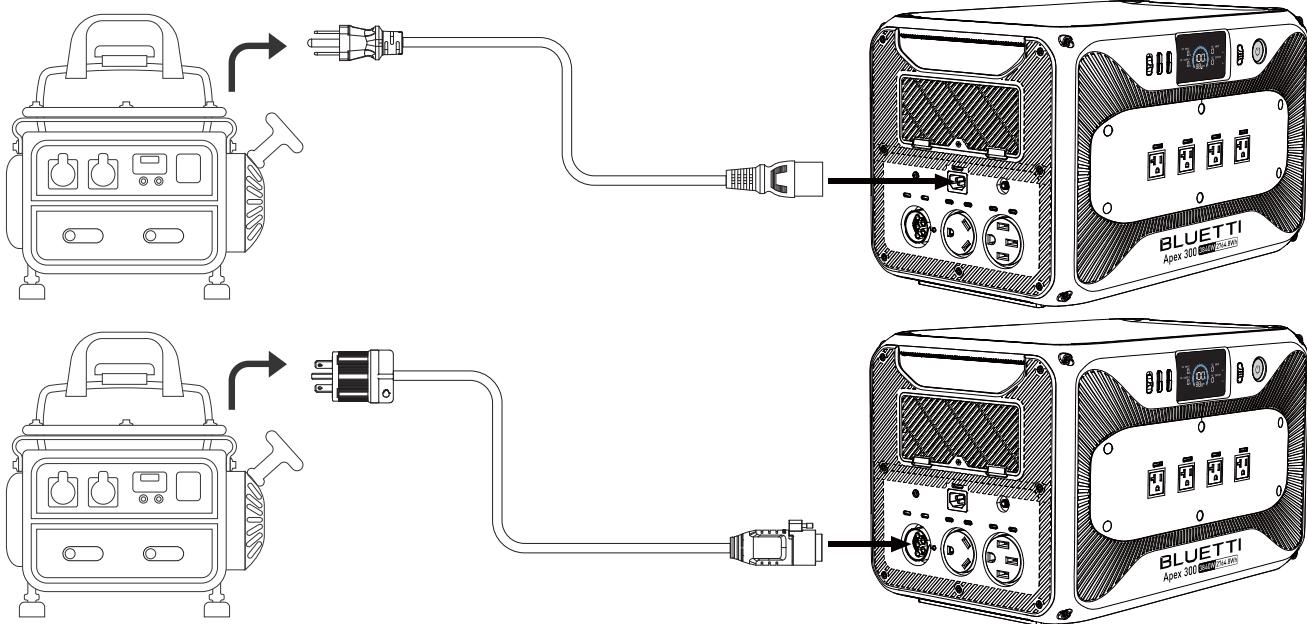
Note: Make sure your car has power and the engine is running while charging to prevent over-discharging the car battery.

4.2.5 Generator

Connect the Apex 300 to a gasoline, propane, or diesel generator using the AC charging cable. The charging stops automatically when fully charged.

Notes:

- Make sure the generator delivers a pure sine wave output with matching voltage and frequency.
- Ensure the generator's output power exceeds the Apex 300's charging requirements.
- It's recommended to enable the Grid Self-Adaption mode when charging the Apex 300 with a generator.

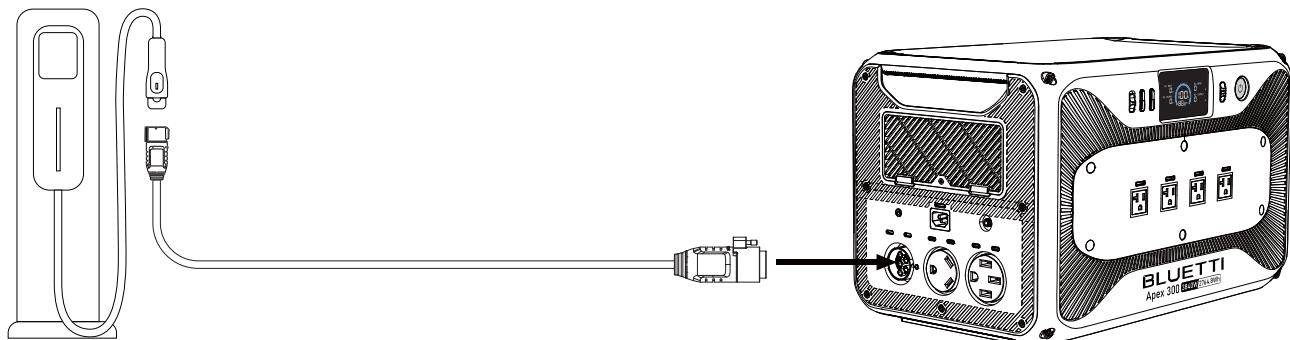


4.2.6 EV Charging Station

Connect the Apex 300 to an EV charging station using the optional EV charging cable (sold separately).

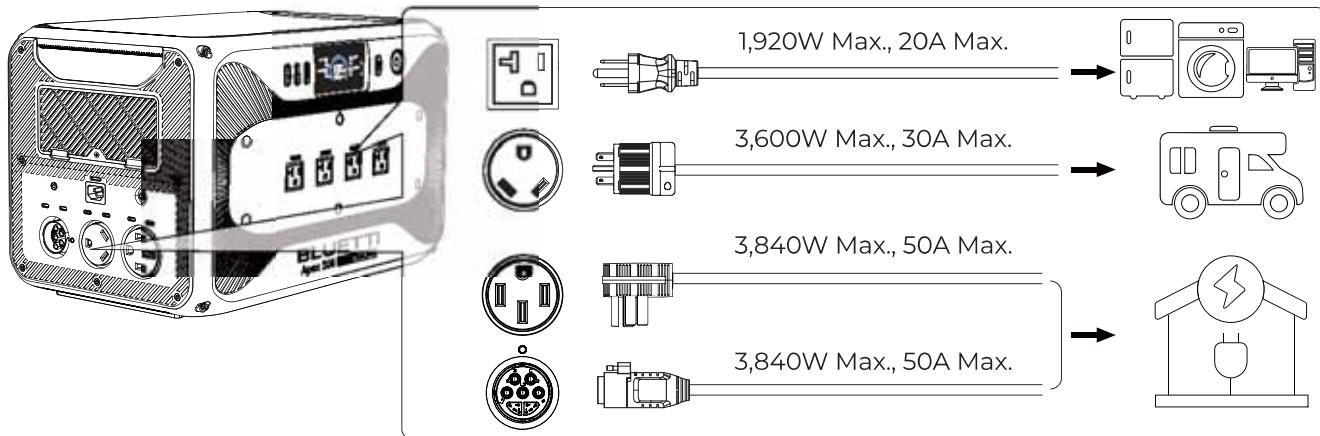
Notes:

- Make sure the EV charging station delivers a pure sine wave output with matching voltage and frequency.
- Ensure the EV charging station's output power exceeds the Apex 300's charging requirements.
- It's recommended to enable the Charging Station in the app's Advanced Settings.



4.3 Power Your Devices

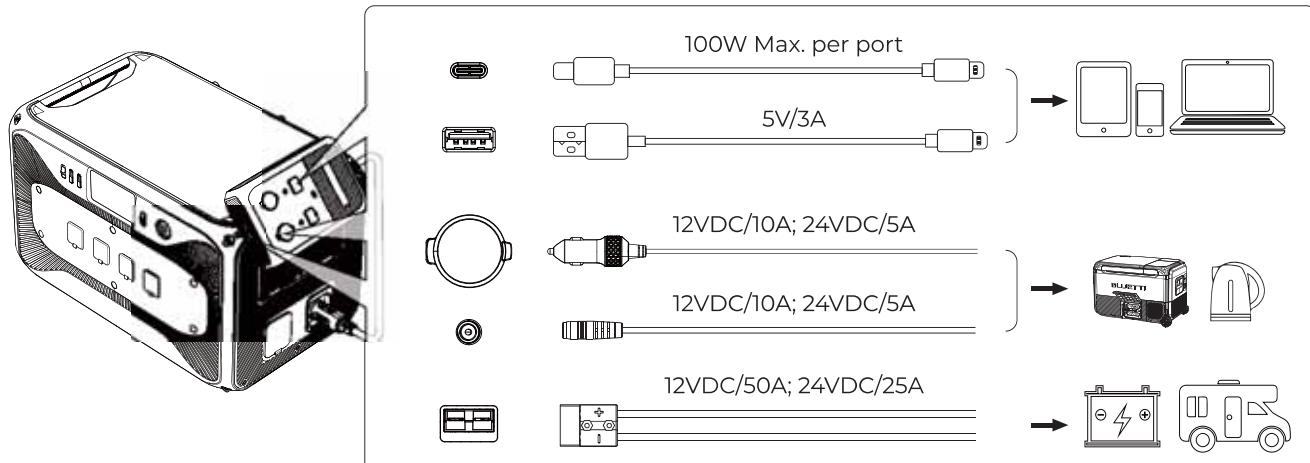
AC Output



Note: When servicing the devices connected to the unit, remember to unplug them from the outlets. Even if the AC output is turned off, physically unplugging the devices is necessary for complete disconnection.

TT-30 can only output 16A Max. when the AC output voltage is switched to 240V.

DC Output



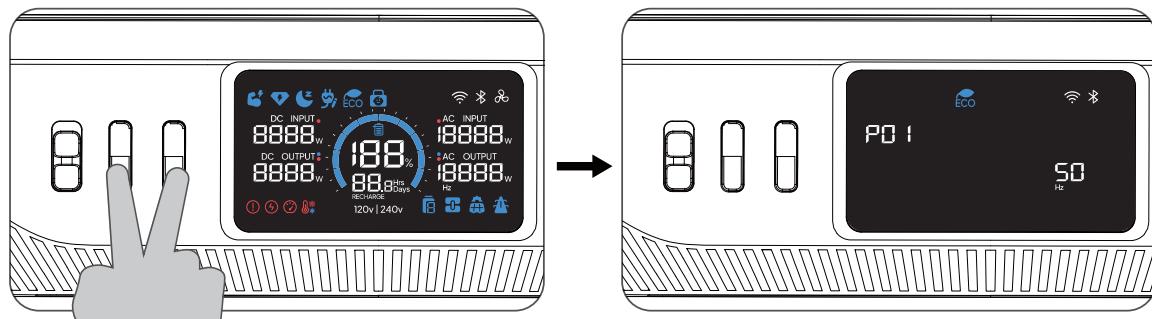
Note: A Hub D1 is required. For details, please refer to the *Hub D1 DC Power Hub User Manual*.

5. Configure Your Apex 300

Use the buttons on the unit or the app to switch frequencies, toggle WiFi and Bluetooth, and activate modes like Power Lifting, Turbo and Silent Charging, and ECO. For advanced settings and features - such as Grid Self-Adaption mode, UPS mode, adjusting maximum grid input current, and detailed ECO mode settings - use the BLUETTI app. Refer to the app manual for more details.

5.1 Settings Mode

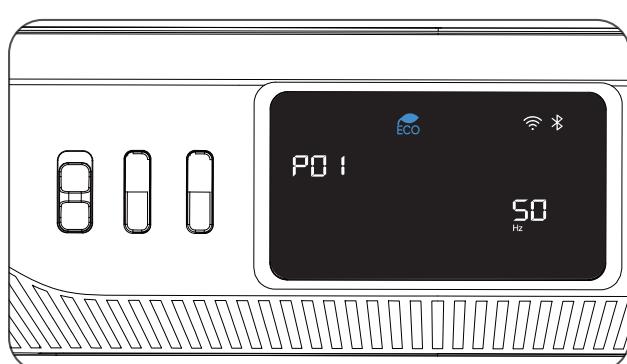
Enter the Mode: Press and hold the AC power and ECO mode buttons simultaneously for about 2 seconds. The frequency icon flashes.



Exit the Mode: Press and hold both the AC power and ECO mode buttons again. If left idle for 1 minute, the Apex 300 automatically exits without saving any changes.

Adjust settings in Settings Mode.

- Turn off AC output before setting the frequency.
- Press the ECO mode button to navigate through the items, and press the AC power button to adjust.



Page Code	Setting
P01	Frequency
P03	Charging Mode
P04	Power Lifting Mode
P05	ECO Mode
P06	Bluetooth
P07	WiFi
P08	Child Lock

5.2 AC Charging Mode

The Apex 300 offers three charging modes: Standards, Turbo, and Silent. By default, the unit charges in Standard mode.

Mode	AC Input	Solar Input	AC + Solar Input	Note
Standard	1,440W Max.	1,440W Max.	1,440W Max.	Battery-friendly
Turbo	3,840W Max.	2,400W Max.	3,840W Max.	Quick recharge
Silent	500W Max.	500W Max.	500W Max.	Quiet and low-power operation

Note: The data above is for reference only.

5.3 Power Lifting Mode

Power Lifting Mode is disabled by default. It allows Apex 300 to power up to 7,680W pure resistive loads like kettles, electric blankets, hairdryers, and similar heating devices.

Notes:

- This mode is only for pure resistive loads rated 3,840W-7,680W.
- In this mode, the actual operating power of the connected device will be lower than its rated power.

5.4 ECO Mode

AC-ECO and DC-ECO modes are enabled by default. The Apex 300 shuts off the AC or DC output after a period of low (default 4 hours with 10W for AC, 5W for DC) or no load.

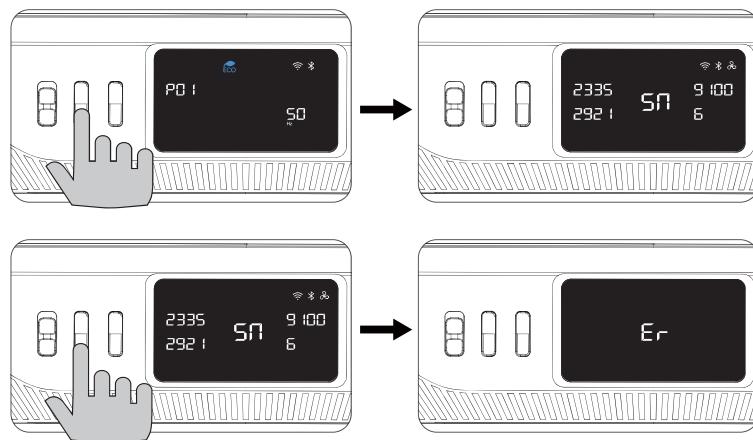
Notes:

- AC-ECO Mode is not available when charging with AC power.
- Press the ECO mode button to turn on/off AC-ECO and DC-ECO modes together, and use the BLUETTI app to control them separately.
- Disable the ECO mode when connecting small devices under 60W or critical appliances such as lights and refrigerators.

6. View Device Information

View device information in Settings Mode, too.

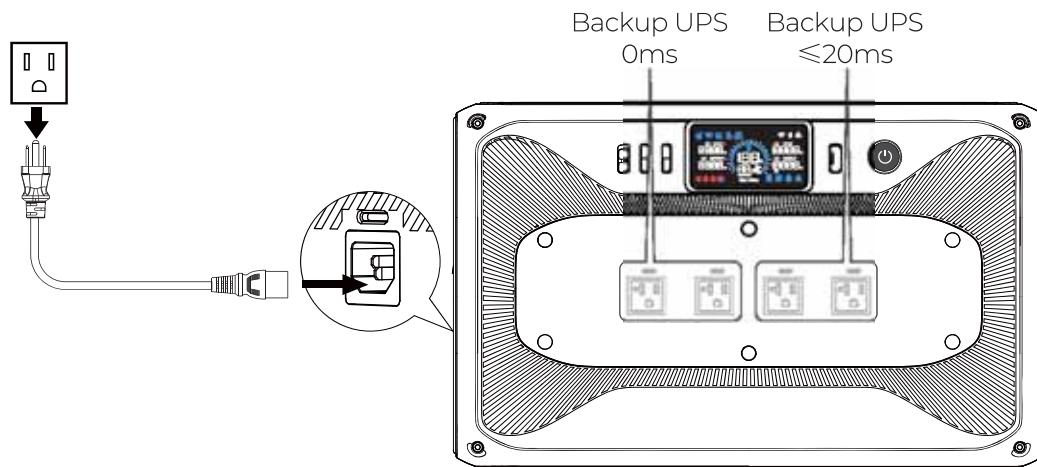
- Go to the P01 frequency page and long press the ECO mode button to view the unit's SN.
- To navigate through the settings, press and hold the ECO mode button again for about 2 seconds.
- When on Fault History page, long press the AC power button for about 2 seconds, then release to clear the history.



Page Code	Information
SN	Serial Number (SN)
Er	Error Code
HI	Fault History
UE	Version

7. UPS Feature

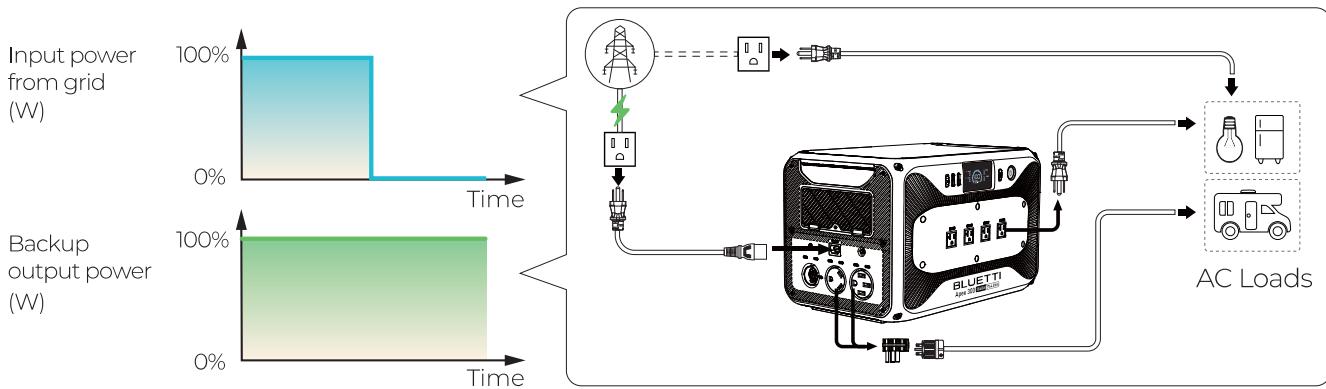
Connect Apex 300 to the wall, and it directly draws power from the outlet to operate connected devices. It switches to battery power instantly (within 0 ms or 20ms with specific outlets) during an outage when connected to specific outlets. Set UPS modes in the app.



Note: When the output voltage switches to 240V, the 20A socket has a difference of 0ms and 20ms. When the output voltage switches to 120V, both are 20ms.

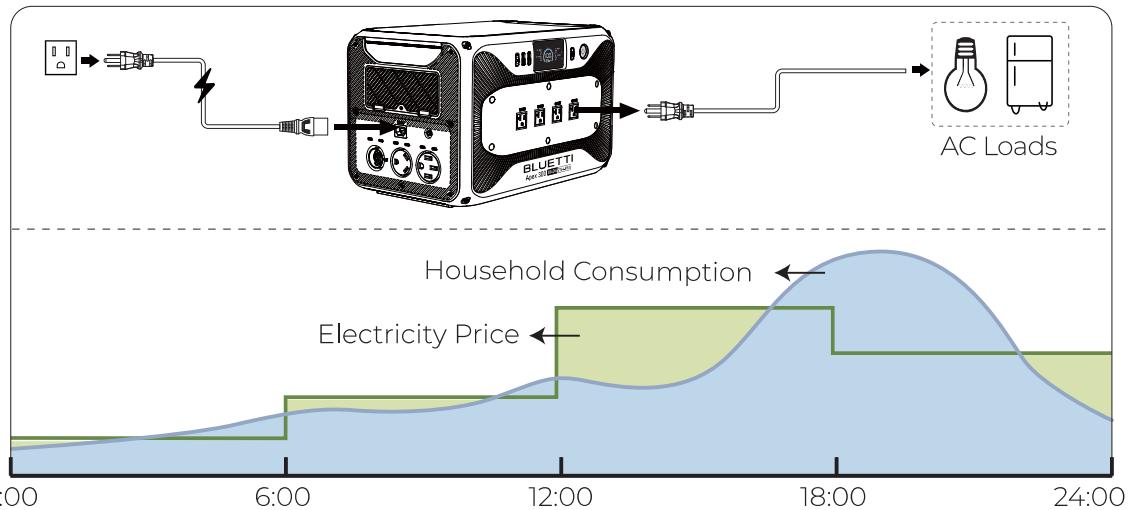
• Backup

Apex 300 charges using available solar and grid power, with a priority on solar.



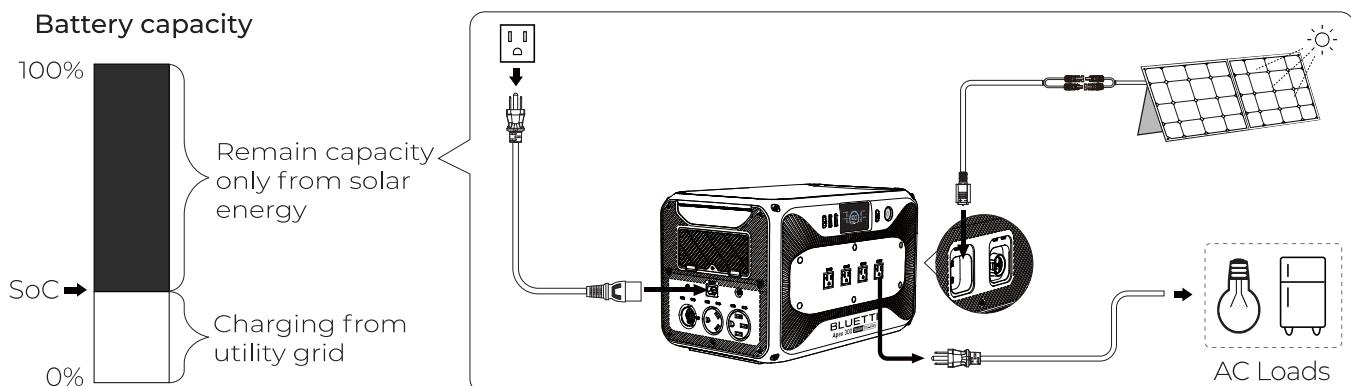
• Time of Use

Save costs by scheduling Apex 300 to charge during off-peak hours and power devices during peak hours.



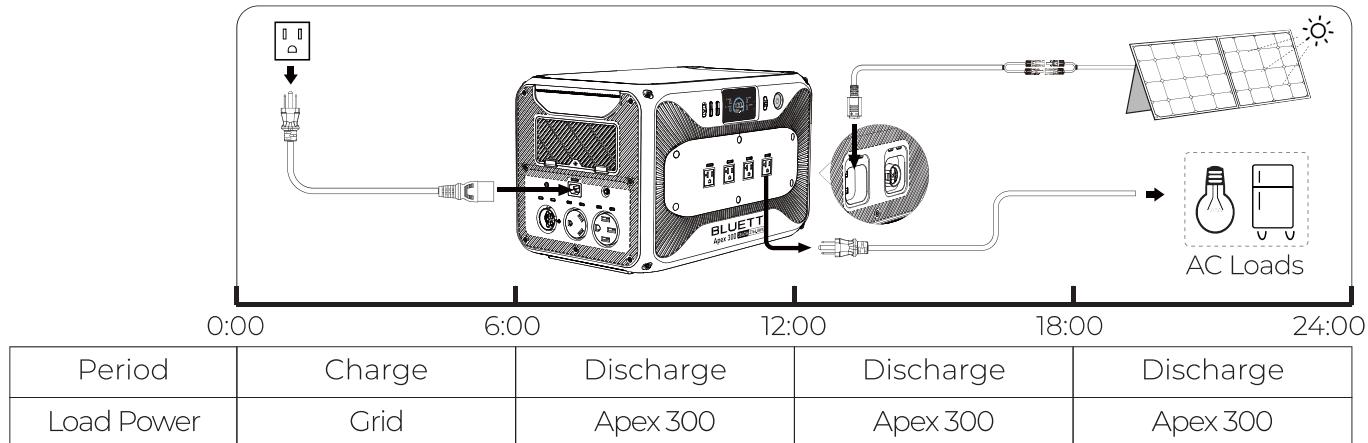
• Self-consumption

Efficiently uses solar energy. Apex 300 initially charges from the grid to a set SoC and seamlessly switches to solar replenishment.



• Custom

Personalize charging/discharging schedule, set battery SoC limits, and control the schedule and grid input switches.

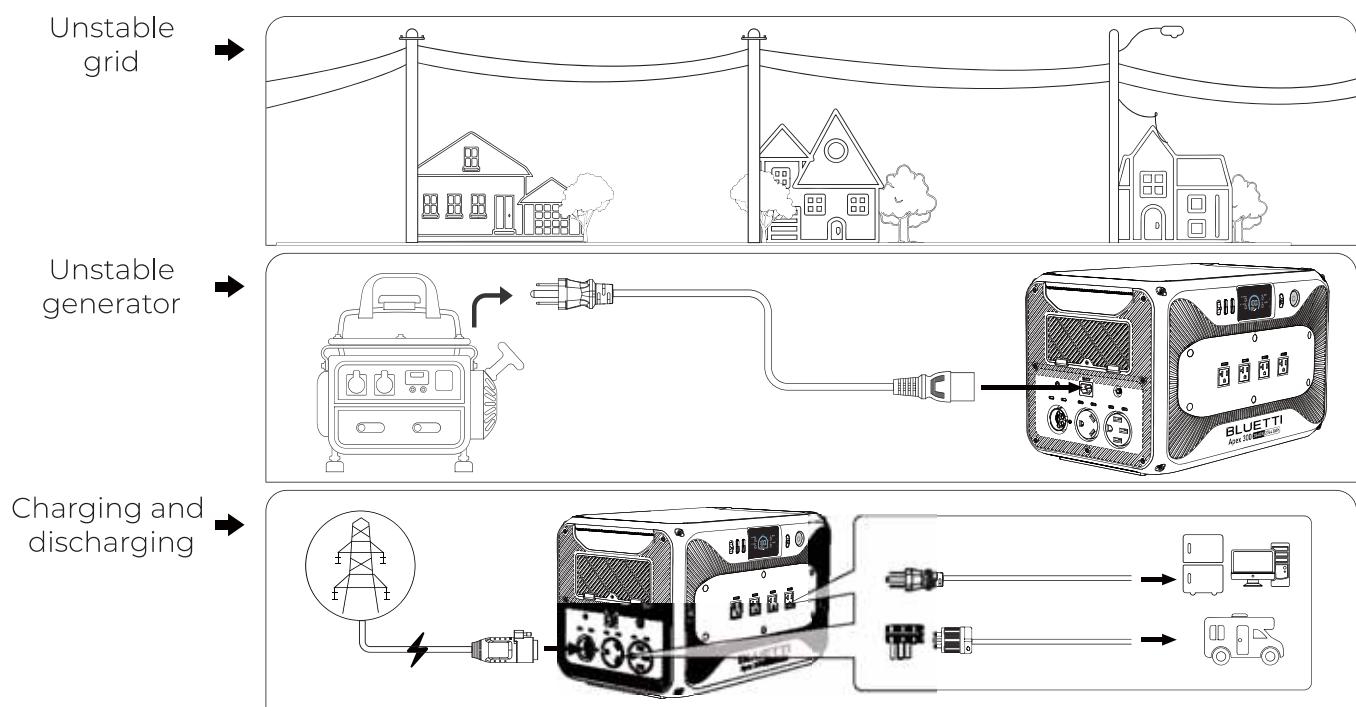


Attention: Not for devices like data servers or workstations that require high-performance UPS. BLUETTI assumes no liability for issues arising from violating this restriction.

Notes: For a seamless 0ms UPS switchover, set the voltage to 240V and connect to the grid via the 15A AC input. Then, plug essential loads into the two left AC outlets.

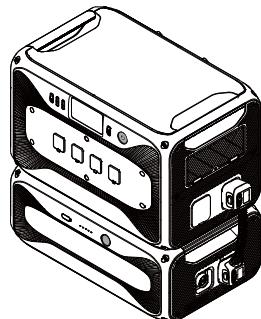
8. Grid Self-Adaption Mode

When charging with an unstable generator or grid power, or if consumption power exceeds charging power, enable this mode in the app. The Apex 300 automatically adjusts to handle power fluctuations, protecting the unit and connected devices from potential issues due to variations in power quality.

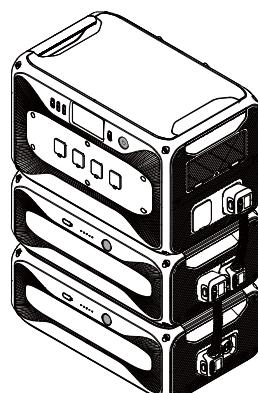


9. Connect Expansion Battery

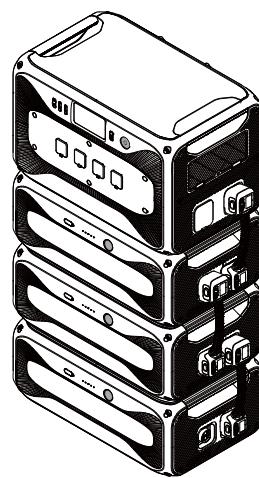
Use the battery expansion cables to connect to up to 6 B300K batteries for a maximum capacity of 19,353.6Wh.



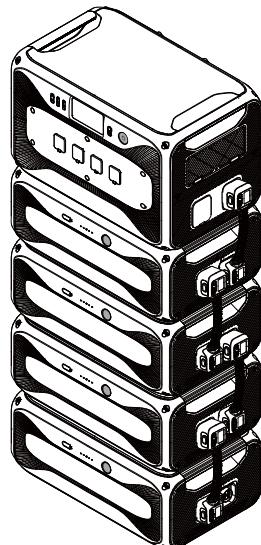
Apex 300 + 1*B300K



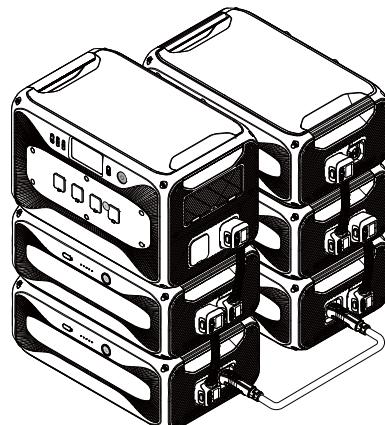
Apex 300 + 2*B300K



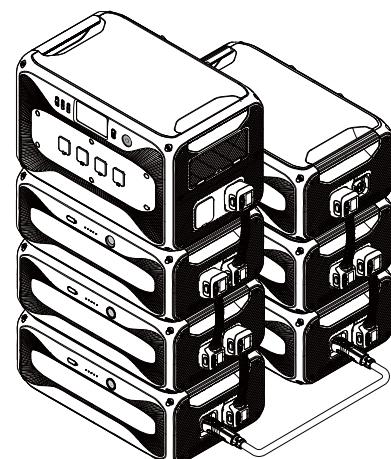
Apex 300 + 3*B300K



Apex 300 + 4*B300K



Apex 300 + 5*B300K



Apex 300 + 6*B300K

Notes:

- Power off all units before connecting.
- Power on the Apex 300, and the battery activates automatically. Stacking the units is recommended.
- When connecting two or more B300K batteries, it's recommended to securely mount the units to the wall using metal brackets and screws.
- The Apex 300 is compatible with both B300 and B300S battery packs, but mixing them is not recommended.
- Both ends of all battery cables must be locked for normal charging and discharging.
- The P090D cable needs to be purchased separately.