



کاتالوگ جامع بلوتی

پاور استیشن های قابل حمل و پرتابل

مدل AC50P



درباره کالاصنعتی



گروه کالاصنعتی با هدف تعریف چارچوبی حرفه‌ای و راهبردی برای پاسخ به نیازهای بنیادین صنایع، کارخانجات و واحدهای تولیدی کشور شکل گرفته است. کالاصنعتی امروز فراتر از یک ساختار فروشگاهی سنتی عمل می‌کند و به‌عنوان یک زنجیره‌ی تأمین یکپارچه و تخصصی B2B در صنعت ایران شناخته می‌شود؛ مجموعه‌ای که بر پایه‌ی پیوند میان ظرفیت‌های بازرگانی و نیازمندی‌های واقعی بدنه‌ی اجرایی صنعت بنا شده است

اصل بنیادین عرضه و سامان‌دهی تأمین منطق کاری کالاصنعتی بر این اصل استوار است که تجهیزات

و کالاهای سنگین صنعتی باید در کوتاه‌ترین زمان ممکن، با اصالت تضمین‌شده و به‌صورت مستقیم از سوی تولیدکنندگان و بازرگانان معتبر، به خطوط تولید کارخانجات کشور برسند. کالاصنعتی با اتکا به زیرساخت دیجیتال و زنجیره‌ی لجستیک تخصصی خود، نقشی محوری در این سامان‌دهی و مدیریت یکپارچه‌ی زنجیره‌ی تأمین بر عهده دارد؛ فرایندی که نتیجه‌ی مستقیم آن، ساده‌سازی خریدهای پیچیده‌ی صنعتی، کاهش توقف و خطا در تأمین، و در نهایت افزایش بهره‌وری صنایع کشور است

وجوه تمایز و ارزش‌های ما

راهکارهای مهندسی و مشاوره‌ی فنی جامع: ارزش واقعی تأمین تجهیزات صنعتی، فراتر از تحویل صرف کالا، در ارائه‌ی مشاوره‌ی دقیق فنی-مهندسی و متناسب با شرایط خطوط تولید نهفته است. کارشناسان متخصص ما با ارائه‌ی دیتاشیت و نقد و بررسی فنی، خریدی آگاهانه و پایدار را برای مدیران فنی و تدارکاتی رقم می‌زنند؛ چرا که آموزش و اطلاع‌رسانی درست را بخشی جدایی‌ناپذیر از تأمین مسئولانه می‌دانیم

تأمین مسئولانه و روابط پایدار: همکاری مستمر با صنایع بزرگ فولاد، سیمان، پتروشیمی و مجموعه‌های دستگاه‌سازی سراسر کشور، حاصل تعهد ما به تأمین مسئولانه، تضمین اصالت و پایش دقیق کالا تا لحظه‌ی تحویل به خط تولید است

سبد جامع محصولات و دیپارتمان‌های تخصصی کالاصنعتی

گروه کالاصنعتی با هدف تعریف چارچوبی حرفه‌ای و راهبردی برای پاسخ به نیازهای بنیادین صنایع، کارخانجات و واحدهای تولیدی کشور شکل گرفته است. کالاصنعتی امروز فراتر از یک ساختار فروشگاهی سنتی عمل می‌کند و به‌عنوان یک زنجیره‌ی تأمین یکپارچه و تخصصی B2B در صنعت ایران شناخته می‌شود؛ مجموعه‌ای که بر پایه‌ی پیوند میان ظرفیت‌های بازرگانی و نیازمندی‌های واقعی بدنه‌ی اجرایی صنعت بنا شده است

اصل بنیادین عرضه و سامان‌دهی تأمین

منطق کاری کالاصنعتی بر این اصل استوار است که تجهیزات و کالاهای سنگین صنعتی باید در کوتاه‌ترین زمان ممکن، با اصالت تضمین‌شده و به‌صورت مستقیم از سوی تولیدکنندگان و بازرگانان معتبر، به خطوط تولید کارخانجات کشور برسند. کالاصنعتی با اتکا به زیرساخت دیجیتال و زنجیره‌ی لجستیک تخصصی خود، نقشی محوری در این سامان‌دهی و مدیریت یکپارچه‌ی زنجیره‌ی تأمین بر عهده دارد؛ فرایندی که نتیجه‌ی مستقیم آن، ساده‌سازی خریدهای پیچیده‌ی صنعتی، کاهش توقف و خطا در تأمین، و در نهایت افزایش بهره‌وری صنایع کشور است

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کالاصنعتی با پوشش گسترده‌ی نیازهای صنعت، سبد کالایی و خدمات مهندسی خود را در قالب هشت دیپارتمان تخصصی عرضه می‌کند

1. دیپارتمان تخصصی الکتروموتور: تأمین و توزیع جامع انواع الکتروموتورهای صنعتی و خانگی؛ شامل الکتروموتورهای تک‌فاز و سه‌فاز (پوسته‌ی آلومینیومی و چدنی)، ضدانفجار، ترمزدار، تخت، موتورهای کولری و نسل جدید موتورهای کم‌مصرف و هوشمند (CDLB)، به‌همراه کلیه‌ی لوازم جانبی

2. دیپارتمان تخصصی گیربکس‌های صنعتی: ارائه‌ی طیف وسیعی از تجهیزات انتقال قدرت؛ شامل گیربکس‌های حلزونی، هلیکال (شافت مستقیم)، بول‌هلیکال، چندمحوره و روسی، گیربکس‌های سنگین اکسترودر، بالابر، جک‌اسکرو، کتابی و انواع کاهنده‌های سرعت خطوط تولید

3. دیپارتمان تخصصی پمپ و تجهیزات سیالات: پاسخگویی جامع به مصارف خانگی، کشاورزی و صنعتی؛ با ارائه‌ی پمپ‌های خانگی، کشاورزی، استخری، دنده‌ای، لجن‌کش، کفکش، سیرکولاتور، جتی، بشقابی، شناور، وکیوم، کارواش، دوزینگ‌پمپ (تزریق)، مونوپمپ، پمپ‌های مگنتی، دیافراگمی، ساید چنل و انواع موتورپمپ‌های دیزلی و بنزینی

4. دپارتمان تجهیزات برق صنعتی و اتوماسیون: مدیریت و هوشمندسازی خطوط صنعتی؛ شامل انواع اینورترهای تک فاز و سه فاز (درایوهای صنعتی و آسانسوری)، سیستم‌های کنترلی CLP، تجهیزات فرمان و کلیدزنی، کنتاکتورها و انواع موتور و بیرره‌های استاندارد و فلانچ دار
5. دپارتمان تخصصی انرژی: تأمین راهکارها و تجهیزات جامع تبدیل و ذخیره‌سازی انرژی؛ شامل انواع موتور برق، ژنراتورهای صنعتی، باتری‌های تخصصی، سیستم‌های برق اضطراری و یوپی‌اس (SPU) و توسعه‌ی راهکارهای نوین انرژی خورشیدی (سولار)
6. دپارتمان تخصصی فن و تهویه صنعتی: پشتیبانی، طراحی و ارائه‌ی دامنه‌ی گسترده‌ای از سیستم‌های تهویه و جریان هوا؛ شامل انواع فن‌های صنعتی، هواکش‌ها، دمنده‌ها، مکندوها و تجهیزات تخصصی تهویه مطبوع کارگاهی و کارخانجاتی
7. دپارتمان قطعات صنعتی و قطعات یدکی: تأمین قطعات استراتژیک خطوط تولید؛ شامل انواع بلبرینگ‌های شیار عمیق، خودتنظیم و کف‌گرد، رولبرینگ‌های کروی، انواع یاتاقان‌های صنعتی و کوپلینگ‌های تخصصی (دنده‌ای، لقمه‌ای، دیسکی، میل‌پینی و xepue-N)
8. دپارتمان تخصصی ابزارآلات صنعتی: تأمین و تجهیز جامع کارگاه‌ها و واحدهای صنعتی با ارائه‌ی دامنه‌ی گسترده‌ای از ابزارآلات دستی، برقی، بادی و کارگاهی تخصصی؛ فراتر از مصارف عمومی و ابزارهای شارژی، جهت پشتیبانی کامل فرایندهای ساخت، مونتاژ، تعمیرات و نگهداری (ORM) در خطوط تولید





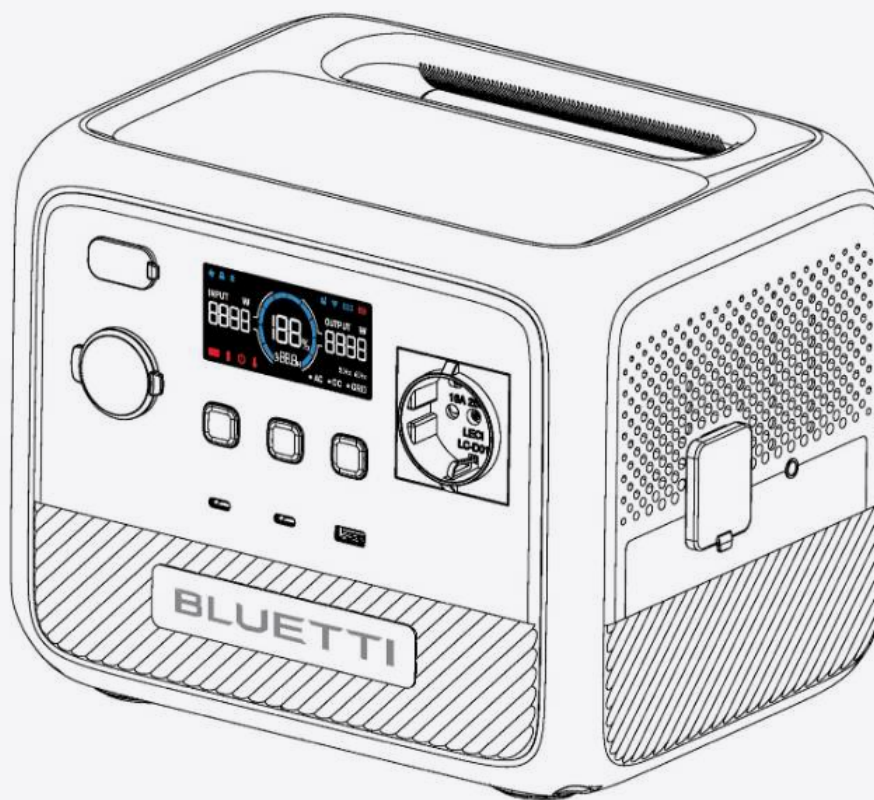
AC50P

Portable Power Station

User Manual v1.0

Please Read This Manual Before Use And Follow Its Guidance.
Keep This Manual For Future Reference.





⚠ Warning

1. Charge the unit before first use.
2. Do not use solar panels with open circuit voltage higher than 28V. Solar input voltage range for the unit is 12V-28V.
3. Charge the unit immediately when the SoC drops below 5%. If the SoC drops to 0, power off the unit and charge it for at least 30 minutes before restarting.
4. The unit is for off-grid use only. Do not connect its AC output to the grid.
5. 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.

Thank You

Thank you for making BLUETTI a part of your family.

From the very beginning, BLUETTI has tried to stay true to a sustainable future through green energy storage solutions while delivering an exceptional eco-friendly experience for our homes and our world.

That's why BLUETTI makes its presence in 100+ countries and is trusted by millions of customers across the globe.



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Notice

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The contents of this manual are subject to change without notice. Please get the latest version from: <https://www.bluettipower.eu/pages/manuals>

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

Symbol Conventions

This manual uses the following symbols to highlight important information:

Symbol	Category	Description
	Warning / Attention	It indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Notice	It indicates a potentially hazardous situation which, if not avoided, could cause substantial damage to property and the environment.

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1. Safety Instructions

Read this manual for instructions on the proper use and safety information for the product. The safety instructions provided herein are for illustrative purposes that include but are not limited to those listed in this manual. Actual operation shall comply with all applicable safety standards. If you have any questions, feel free to contact BLUETTI support or your local BLUETTI dealers.

1.1 Statement

To ensure a safe operation, it's crucial to observe and adhere to the following conditions:

- Always operate or store the product in the conditions specified in this manual.
- The installation and ambient conditions must comply with the requirements in the relevant international, national, or regional standards.
- Avoid unauthorized disassembly, component replacement, or modification of software codes.

BLUETTI shall not be liable for the following circumstances:

- Damage resulting from force majeure events such as earthquakes, fires, storms, floods, or mudslides.
- Damage caused by the customer's own transportation.
- Damage resulting from inadequate storage conditions as specified in the manual.
- Damage caused by customer negligence, improper operation, or intentional actions.
- System damage caused by third parties or customers, including but not limited to improper handling and installation not in accordance with the instructions in this manual.
- The product doesn't fulfill power supply needs for power-reliant equipment in critical sectors like atomic energy, aviation, medical, and other domains where safety is paramount. BLUETTI assumes no liability for incidents involving personal safety, fire, equipment malfunction, or any adverse aftermath resulting from using this product with such equipment.
- Damage caused by adjustments, changes, or removal of labels in violation of this manual.
- This product is not intended for use with devices that require a high-performance Uninterruptible Power Supply (UPS), including but not limited to data servers, workstations, medical equipment, and other similar devices. BLUETTI shall not be liable for any data loss, equipment damage, or personal injury resulting from the violation of this requirement.

1.2 General Requirements

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

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

- Read all the instructions before using the product.
- To reduce the risk of injury, close supervision is necessary when the product is used near children.
- Do not put fingers or hands into the product. And do not insert foreign objects into any ports of the product.
- Use of an attachment not recommended or sold by the manufacturer may result in a risk of fire, electric shock, or injury to persons.
- 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 use a battery pack or appliance that is damaged or modified, as they may exhibit unpredictable behavior resulting in fire, explosion, or personal injury.
- Do not operate the product with a damaged cord or plug, or a damaged output cable.
- Do not attempt to replace the internal battery or any other component of the product by anyone other than authorized personnel. There are no end-user serviceable components. Do not disassemble the product, take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
- To reduce the risk of electric shock, unplug the product from the outlet before attempting any instructed servicing.
- **WARNING - RISK OF EXPLOSIVE GASES.** To reduce the risk of battery explosion, follow these instructions and those published by the battery manufacturer and manufacturer of any equipment you intend to use in the vicinity of the battery. Review cautionary markings on these products and engines.
- **PERSONAL PRECAUTIONS**
 - a. Wear complete eye protection and clothing protection. Avoid touching eyes while working near the battery.
 - b. Never smoke or allow a spark or flame in the vicinity of the battery or engine.
 - c. Be extra cautious to reduce the risk of dropping a metal tool onto the battery. It might spark or short-circuit the battery or other electrical parts which may cause an explosion.
- When charging the internal battery, work in a well ventilated area and do not restrict ventilation in any way.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not expose the product to fire or excessive temperature. Exposure to fire or temperature above 130°C (266°F) may cause an explosion.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that safety is maintained.

- Do not stack anything on top of the product while in storage or use. Do not move the product while operating as vibrations and sudden impacts may lead to poor connections to the hardware inside.
- In case of fire, use only a dry powder fire extinguisher appropriate for the product.
- WARNING - RISK OF ELECTRIC SHOCK. Never use the product to supply power tools to cut or access live parts or live wirings, or materials that may contain live parts or live wirings inside, such as building walls, etc.
- The cigarette lighter port, categorized as PS3 according to the IEC 62368-1 standard, should take into account the fire safety measures of the connected devices or accessories (such as fire-resistant casings).

1.3 Grounding Instructions

This product must be grounded when connected to the grid. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ WARNING - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product - if it does not fit the outlet, have a proper outlet installed by a qualified electrician.

1.4 Handling Requirements

During transportation or storage, take care to avoid dropping, violently impacting, or tilting the product as it may result in internal damage. If necessary, use mechanical assistance such as carts or adjustable height workbenches to ensure safe handling.

Recommended Number of People Based on the Weight of Product

Weight	Number of people
<18kg (39.7lbs)	1
18kg-32kg (39.7lbs-70.5lbs)	2
32kg-55kg (70.5lbs-121.3lbs)	3
>55kg (121.3lbs)	4 or a cart

1.5 User Maintenance and storage Instructions

- When the SoC drops to 5%, please charge the product immediately.
- Before storing the product, charge it to 40% to 60% SoC to keep it in optimal condition. In addition, power off the product and disconnect all electrical connections from it.

- Store the product in a cool and dry place, keeping it away from flammable or combustible materials and gases.
- The product can be safely stored within a temperature range of -20°C to 40°C (-4°F to 104°F). However, if the storage duration exceeds one month, it's recommended to maintain an ideal storage temperature of around 30°C (86°F).
- Fully cycle the product every 3 months to maintain the battery's health. It's NOT recommended to store the product for extended periods of time, as it may affect its performance and overall lifespan.

 If the SoC drops to 0 (during storage or upon startup), take the following actions to safely restart the product:

- Shut down immediately.
- Charge within 48 hours.
- Keep it at an ambient temperature of 5°C to 35°C (41°F to 95°F) for 6 hours before charging. It's recommended to charge the product via an AC source. If charging via solar energy, ensure that your solar system provides an output of more than 100W.

  The symbol displayed is intended to remind you to read the instructions in the literature accompanying the product before operation and maintenance.

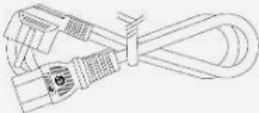
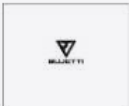
- Connect the product to a socket-outlet that has an earthing connection using the power cord provided.
- The socket-outlet should be installed near the product and easily accessible for safety purposes.
- Never dispose of a battery by throwing it into fire or a hot oven, or by mechanically crushing or cutting it, as these may cause it to explode.
- Avoid leaving batteries in extremely high-temperature environments, as this can result in an explosion or the leakage of flammable liquid or gas.
- The battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.
- Attention should be drawn to the environmental aspects of battery disposal.
- Please refer to the information on the exterior enclosure for electrical and safety information before installing or operating the apparatus.

SAVE THESE INSTRUCTIONS

 BLUETTI shall not be liable for any equipment damage caused by the violation of the above instructions.

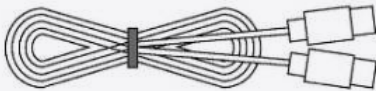
2. Packing List

Standard Packaging

Item	Picture	Qty.
Portable Power Station		1
AC Charging Cable		1
Car Charging Cable		1
Solar Charging Cable		1
Grounding Screws		1
User Manual		1
Warranty Card		1

Optional Accessories

(Available on the official BLUETTI website: <https://www.bluettipower.com>)

Item	Picture
USB-C to USB-C Cable (Output)	
Cigarette Lighter to DC5521 Cable (For 12V devices with DC5521 port, such as routers, cameras, etc.)	

3. Product Introduction

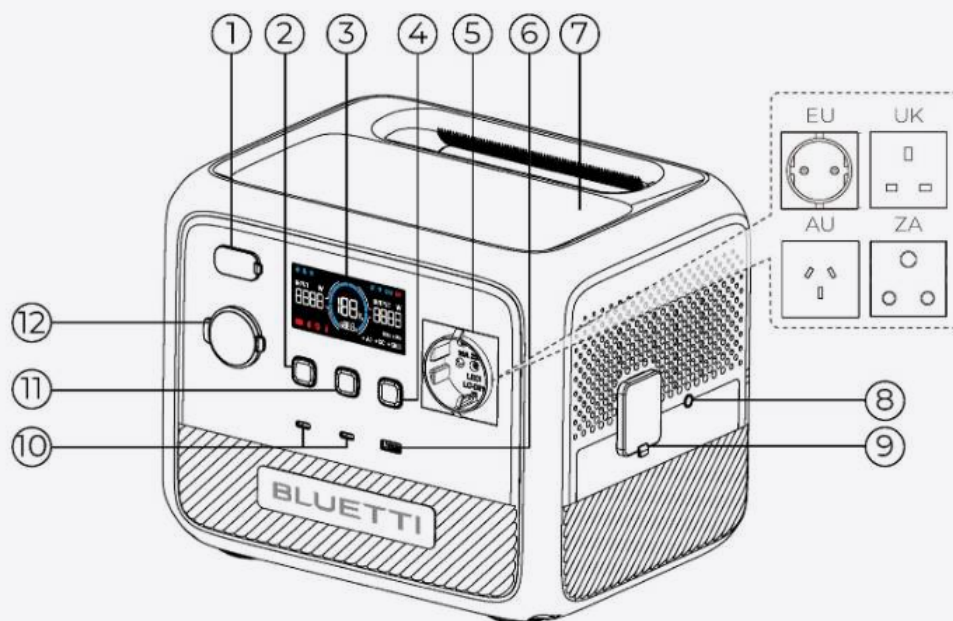
Introducing the AC50P portable power station—a reliable power solution with a 700W pure sine wave inverter and a 504Wh lithium iron phosphate (LiFePO_4) battery. Engineered for safety, portability, and reliability, it's ideal for keeping essential devices like car fridges, water heaters, fans, and laptops charged during your journeys.

Designed for efficiency, the AC50P features Turbo charging, allowing it to reach an 80% charge in just 50 minutes at a room temperature of 25°C with proper ventilation. Achieving a full charge takes roughly 80 minutes. If solar charging is your preference, it can fully charge in 3 hours. The AC50P is your practical and efficient power solution for on-the-go energy needs.

Attention:

Do not connect the AC output of AC50P to the grid.

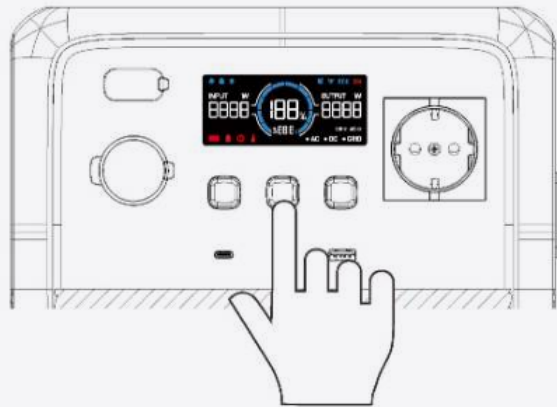
4. Product Overview



- | | |
|-------------------|--------------------------|
| ① DC Input | ⑦ Wireless Charging |
| ② DC Power Button | ⑧ Grounding Terminal* |
| ③ LCD Display | ⑨ AC Input |
| ④ AC Power Button | ⑩ USB-C Port |
| ⑤ AC Outlet | ⑪ POWER Button |
| ⑥ USB-A Port | ⑫ Cigarette Lighter Port |

* Refer to Appendix 3 for specific grounding guidelines.

5. Power ON/OFF



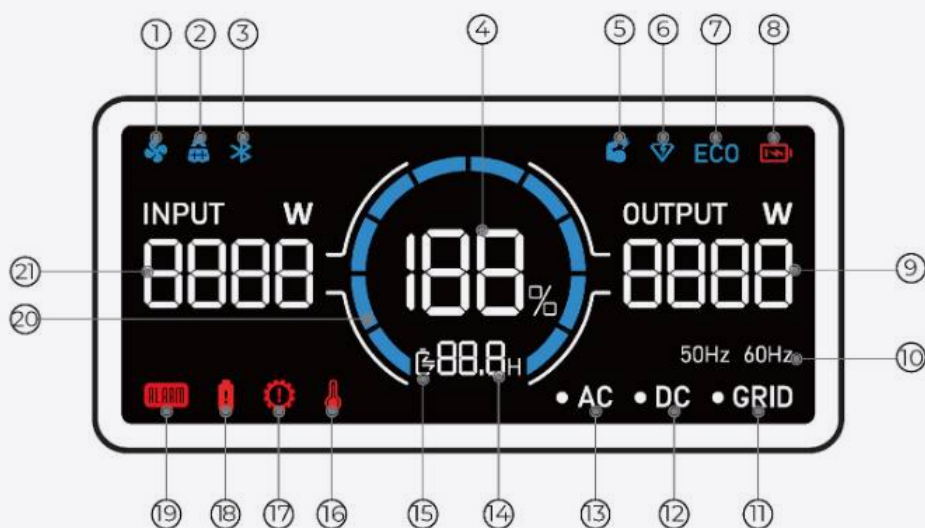
- **Power ON:** Press and hold () for about 2 seconds, the button lights up indicating that the AC50P is now on standby.
- **Power OFF:** Press and hold () for about 2 seconds to turn off the unit.
- **AC ON / OFF:** When the AC50P is on, press the AC power button to turn it on / off.
- **DC ON / OFF:** When the AC50P is on, press the DC power button to turn it on / off.
- **Restart:** Power off the AC50P first, then press and hold () for about 2 seconds to restart.

Notice:

When the AC50P is on, you can activate the LCD display by interacting with any of the buttons.

6. LCD Display

The AC50P features an informative LCD display that offers easy access to all the essential information about the unit's status and performance. When you power on the unit, the LCD display lights up, and when you power off the unit, the display turns off as well.



- ① Fan Status
- ② PV Input
- ③ Bluetooth Connection
- ④ Battery Capacity (SoC)
- ⑤ Power Lifting Mode
- ⑥ Turbo Charging
- ⑦ ECO Mode
- ⑧ Low Battery Alert
- ⑨ Output Power
- ⑩ AC Output Frequency
- ⑪ Grid Connection
- ⑫ DC Output
- ⑬ AC Output
- ⑭ Charge / Discharge Remaining Time
- ⑮ Charge / Discharge Status
- ⑯ Temperature Abnormal
- ⑰ Overload Alert
- ⑱ Overcurrent Alert
- ⑲ Fault Alert
- ⑳ Charge / Discharge Progress
- ㉑ Input Power

LCD Instructions		
Fan on or abnormal		displays or flashes
PV input		displays
Bluetooth connected		displays
State of Charge		
Power Lifting Mode enabled		displays
Turbo Charging enabled		displays
ECO Mode enabled		displays
Battery low (below 5%)		displays
AC/DC output power		
AC output frequency		displays
AC input		displays
DC output enabled		displays
AC output enabled		displays
Remaining charge / discharge time (hour)		displays
 : Charging;  : Discharging		displays
Battery / unit overheating		displays
Overload		displays
Overcurrent		displays
Error report		displays
Remaining battery level (10% per bar)		
Input power		

7.Charging

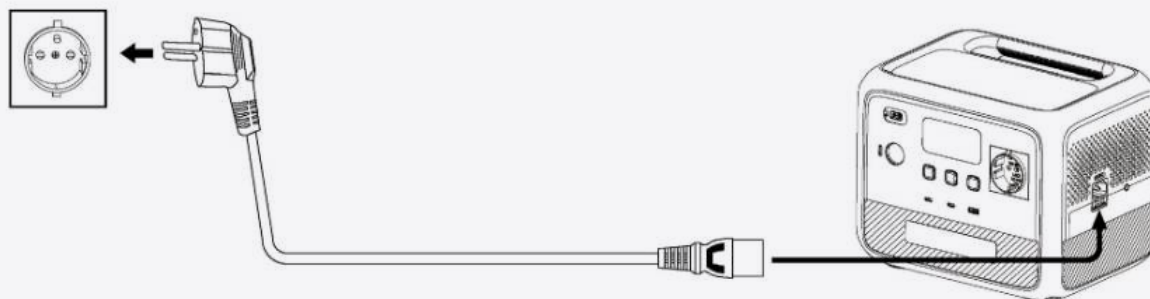
AC50P supports four charging methods: AC, solar, car, and generator.

⚠ Attention:

- Double-check that all cables are firmly plugged in.
- Avoid getting the plug and socket wet to prevent any potential damage.

7.1 AC Charging

Plug the AC50P into a standard wall outlet and start charging. Once it's fully charged, the AC50P automatically stops charging to prevent overcharging. For a fast charge, you can enable Turbo Charging in the BLUETTI app, which allows for an 80% capacity in just 50 minutes at an ambient temperature of 25°C (77°F).



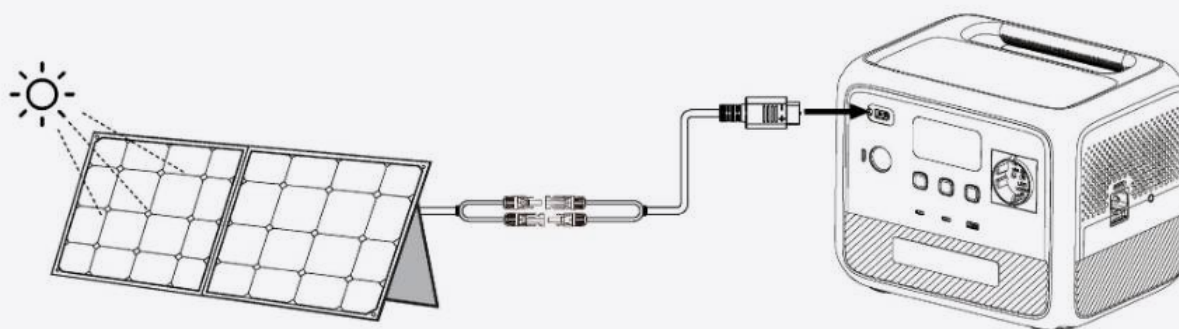
7.2 Solar Charging

Connect the solar panels (in series or parallel) to AC50P via the solar charging cable. When receiving a continuous input of 200W, the AC50P will automatically stop charging within 3 hours. However, please be aware that the charging time may vary based on weather conditions, sunlight intensity, panel orientation, and other variables.

📖 Notice:

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

Voc: 12V-28V Current: 8.5A Max. Power: 200W Max.

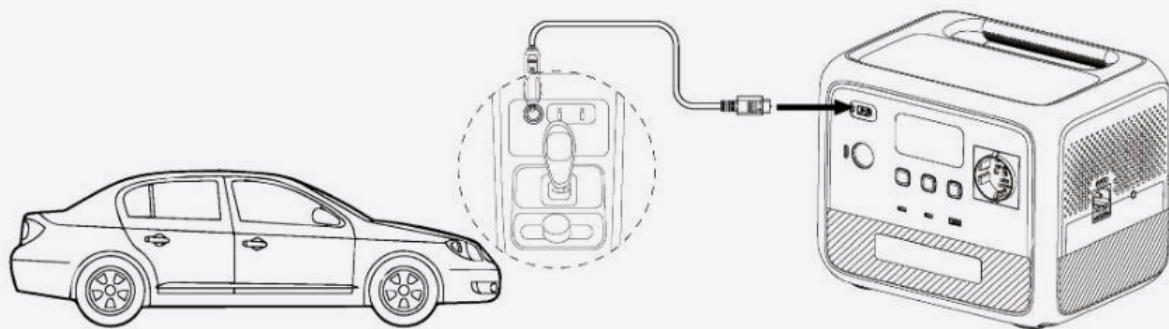


7.3 Car Charging

Connect the AC50P to the vehicle's 12V / 24V cigarette lighter port via the car charging cable. The AC50P also automatically stops charging when it's fully charged. On average, it takes about 5-7 hours to refill the AC50P using a 12V port and 3-4 hours with a 24V port at an ambient temperature of 25°C (77°F).

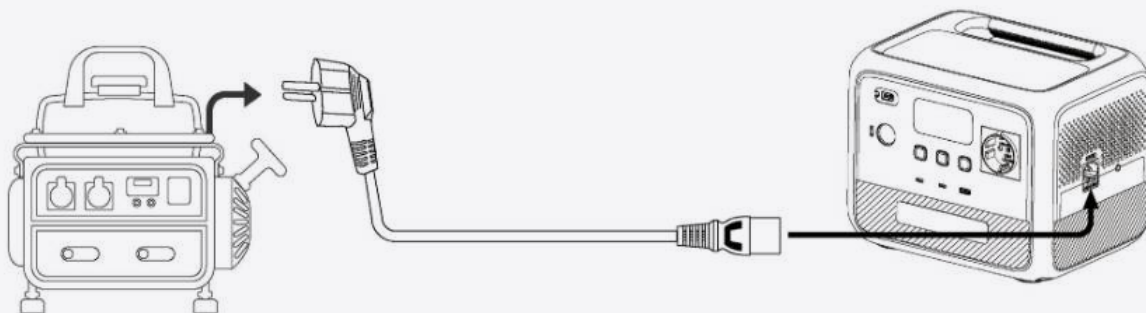
Notice: Make sure your vehicle meets the following conditions for charging:

- The vehicle is capable of supplying power.
- The vehicle's engine is running during the charging process.



7.4 Generator Charging

Connect the AC50P to a generator via the AC charging cable. The AC50P also automatically stops charging when it's fully charged. It takes approximately 1.2 hours to reach a full charge at an ambient temperature of 25°C (77°F) if the generator output is stable.



Notice:

- Make sure your generator delivers pure sine wave AC output with charging voltage and frequency that meet AC50P's specifications.
- If the total power demand of your connected devices exceeds the generator's output capacity, please turn on the Grid Self-adaption Mode to ensure a seamless charging experience.
- For stable and efficient charging, avoid using unreliable power sources like wind turbines.

8. Discharging

8.1 AC Discharging

Item	Specifications	Compatible Loads
AC Outlet	230V 50Hz / 60Hz	Appliances up to 700W power.

Notice:

Do not apply AC50P to loads higher than 700W, as this may cause damage to AC50P and your devices.

8.2 DC Discharging

Item	Specifications	Compatible Loads
1 × Cigarette Lighter Port	12V / 10A	12V DC appliances up to 120W power. e.g. car refrigerator
1 × USB-A Port	5V / 3A	Mobile phones and other small loads.
2 × USB-C Port	5 / 9 / 12 / 15 / 20V, 3A; 20V / 3.25A	Mobile phones, laptops, etc.

Notice:

To ensure optimal performance, avoid short-circuiting the ports and keep them dry during use or storage. Additionally, do not block or cover the ports while ensuring proper ventilation.

9. Settings

The AC50P offers the convenience of adjusting its settings either via physical buttons or the BLUETTI app. With the buttons located on the device itself, you have direct control over various settings such as ECO Mode, output frequency, charging modes, and other functionalities. Additionally, by using the BLUETTI app, you can access a user-friendly interface on your phone to conveniently monitor and control the AC50P.

9.1 Enter Setting Mode

When the display is on and the AC output is off, press and hold the AC and DC power buttons for about 2 seconds till the output frequency flashes to enter the Setting Mode.

9.2 Frequency Switching

The current output frequency (50Hz / 60Hz) is displayed in the lower right corner of the display. In the Setting Mode, press the DC power button to navigate to page P01, and the frequency will appear. Then, press the AC power button to switch the frequency options based on your requirements.

9.3 AC Charging Mode

The AC50P supports 3 AC charging modes - Standard, Turbo, and Silent, all configurable via the app. Alternatively, in the Setting Mode, press the DC power button to navigate to page P03, and the () icon will start flashing on the screen. Then, press the AC power button to enable or disable the Turbo charging mode.

Mode	Charging Power			Recharging Time	Note	Icon
	AC	PV	AC+PV			
Standard	310W	200W	310W	2 hours	More friendly to AC50P's battery.	None
Turbo	600W	200W	600W	80% charge in 50 minutes; full charge in 80 minutes	Comes in handy when recharging time is a priority.	
Silent	190W	190W	208W	3 hours	Offers a quiet, low-power operation for long battery life.	None

9.4 Power Lifting Mode

Power Lifting Mode allows AC50P to handle high-power resistive loads up to 1,200W, including electric blankets, kettles, hairdryers, and other heating devices. To enable it, access the Setting Mode, press the DC power button to navigate to page P04, and the () icon will appear. Then, press the AC power button to enable or disable the mode.

Notice:

- The Power Lifting Mode is not enabled by default and is only suitable for resistive loads with a power rating between 700W-1,200W.
- Although the AC50P can handle higher power demands, its actual operating power remains at 700W.

9.5 ECO Mode

ECO Mode is a power-saving mode that is enabled by default. When operating on ECO Mode, the AC / DC output will automatically turn off if the AC50P is bearing low (default 10W for AC, 5W for DC) or no load for a while. You can adjust these thresholds using the app if needed.

Notice:

When connecting a small power device, disable the ECO Mode for a successful and uninterrupted charge experience.

In the Setting Mode, press the DC power button to navigate to page P05, and the (**ECO**) icon will appear. Then, press the AC power button to enable or disable the mode.

9.6 Bluetooth On/Off

In the Setting Mode, press the DC power button to navigate to page P06, and the () icon will start flashing on the screen. Then, press the AC power button to turn the Bluetooth on or off.

9.7 Grid Self-adaption Mode

If you're charging the AC50P using an unstable generator or grid voltage, or the total power demand of your connected devices exceeds the AC50P's input power, it is recommended that you enable the Grid Self-adaption Mode through the BLUETTI app to ensure a stable, safe charging experience for both the AC50P and your devices.

9.8 Exit Setting Mode

To save your AC50P settings and exit the Setting Mode, press and hold both the AC and DC power buttons at the same time.

Notice:

If you do not perform any operation in 1 minute, the AC50P will automatically exit the Setting Mode, and no changes will be saved.

10. BLUETTI App

Scan the QR code below or search "BLUETTI" in the App Store or Google Play to download the BLUETTI app.



For more details, please refer to *AC50P App User Manual*.

11.Specifications

AC50P				
Country / Region	JP	US	CN	EU/UK/AU/SA
Battery Capacity	504Wh / 22.5Ah			
Cell Type	Lithium Iron Phosphate (LFP)			
AC + DC Input	600W Max.			
Net Weight	About 6.9 kg / 15.21 lbs			
Dimensions (L × W × H)	280mm × 200mm × 220mm / 11in × 7.9in × 8.7in			
Charging Temperature	0°C to 40°C / 32°F to 104°F			
Discharging Temperature	-20°C to 40°C / -4°F to 104°F			
Storage Temperature	-20°C to 40°C / -4°F to 104°F			
Working Humidity	10% to 90%			
AC Output				
Power	700W Max.			
Voltage	100VAC	120VAC	220VAC	230VAC
Current	7A	5.8A	3.2A	3.0A
Frequency	50Hz / 60Hz			
DC Output				
Cigarette Lighter Port × 1	12V / 10A			
USB-A × 1	5V / 3A			
USB-C × 2	5 / 9 / 12 / 15 / 20V, 3A; 20V / 3.25A (Per Port)			
Wireless Charging	5W / 7.5W / 10W / 15W			
AC Input				
Voltage	100VAC	120VAC	220VAC	230VAC
Max. Current	9A	9A	4.9A	4.8A
Frequency	50Hz / 60Hz			
UPS	Switching time ≤20ms			
Charging Power	600W Max. (0%-80% in 50 minutes @ 25°C / 77°F)			
DC Input				
Interface	XT60PM-M			
Power	200W Max.			
Current	8.5A Max.			
Voltage	12V to 28V			
Radio Frequency				
	Operating Frequency	Maximum Transmit power	Modulation mode	
BLE5.0	2402MHz~2480MHz	-2.26dBm	GFSK	

12. Troubleshooting

In the Setting Mode, press and hold the DC power button for more than 2 seconds until the error code appears on the display. Please refer to the table below for helpful guidance.

Error Code	Description	Troubleshooting
E001	Inverter overload	Check if the power consumption of your devices is too high. Reduce the load if necessary.
E002	Temperature protection	Check if any of your devices are overheating. Allow them to cool down before use.
E003	Inverter short circuit	Check if the power consumption of your devices is too high. Reduce the load if necessary.
E004	Output failure	Ensure the output voltage is within $\pm 10\%$ of the rated voltage or proper grid connection.
E016	Fan failure	Check if the fan is blocked, unplugged, or not functioning properly. Ensure proper ventilation.
E033	PV overvoltage	Make sure the PV input voltage is within the range of 12V to 28VDC.
E065	Cigarette lighter port short circuit	Check if the power consumption of your devices is too high. Reduce the load if necessary.
E068	Cigarette lighter port overtemperature	Wait for the device connected to the cigarette lighter port to cool down.
E085	Charging temperature too high	Wait for the unit to cool down before charging.
E086	Charging temperature too low	Make sure the unit is placed in an ambient temperature of 0°C to 40°C (32°F to 104°F).
E087	Discharging temperature too high	Wait for the unit to cool down before discharging.
E088	Discharging temperature too low	Make sure the unit is placed in an ambient temperature of -20°C to 40°C (-4°F to 104°F).
E113	Grid overvoltage	Check if the grid voltage is too high. Contact your local power provider if necessary.
E114	Grid undervoltage	Check if the grid voltage is too low. Contact your local power provider if necessary.
E115	Grid overfrequency	Check if the grid frequency is too high. Contact your local power provider if necessary.
E116	Grid underfrequency	Check if the grid frequency is too low. Contact your local power provider if necessary.
E117	Grid oscillation	Disconnect the grid input and contact BLUETTI support for further assistance.
Others	/	Please contact BLUETTI support for assistance.

Appx. 1 Estimating Operation Time

Operation time = Battery Capacity (Wh) x DoD x η ÷ (Load Power + AC50P Self-consumption)

Notice:

DoD refers to the depth of discharge. AC50P works at 90% DoD for longer battery life.

η is the conversion efficiency of the inverter, typically over 85% for AC50P.

The self-consumption of AC50P is approximately 9W.

E.g. If you have a 40W refrigerator, you can run it for about 6.8 hours.

Operation time = 504Wh × 90% × 85% ÷ (40W + 9W) ≈ 7.4 hours.

 **Notice:** Please keep in mind that the estimated operation time provided is for reference purposes and may vary based on actual usage conditions. Factors such as low temperature and excessive loads can significantly affect the battery capacity, leading to a reduction in the average operation time.

Appx. 2 FAQs

Q1: How do I know whether my devices will work well with this product?

A: Please evaluate the total constant load of your devices. If it doesn't exceed the Max. output power of AC50P (700W), you can use this power station to run your devices.

Note: Some devices with built-in motors or compressors may start at 2-4 times the rated power, which can easily overload the AC50P.

Q2: Can I use third-party solar panels to charge this product?

A: Yes, you can. However, make sure your solar panels have an open circuit voltage of 12V-28V and are equipped with MC4 connectors. It's also important not to mix different types of solar panels.

Q3: What is ECO Mode and can I turn it off?

A: ECO Mode is a power-saving mode that is enabled by default. When operating on ECO Mode, the AC / DC output will automatically turn off if the AC50P is bearing low (default 10W for AC, 5W for DC) or no load for a while. You can adjust these thresholds using the app if needed. When connecting a small power device, disable the ECO Mode for a successful and uninterrupted charging experience.

Q4: Can it charge and discharge at the same time?

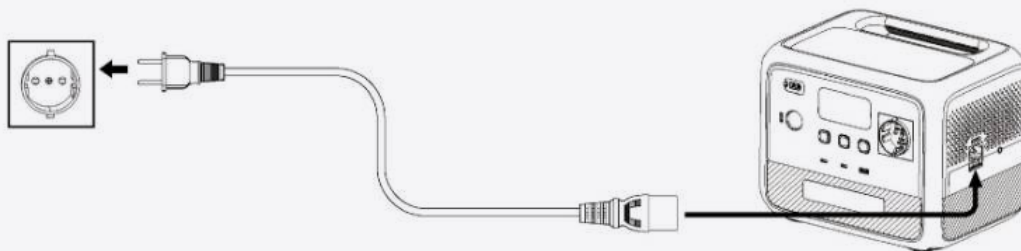
A: Yes. It supports pass-through charging. The AC50P comes with the premium LiFePO₄ battery and proprietary Battery Management System to ensure that it can charge and discharge at the same time.

Q5: Why is the charging power often too low?

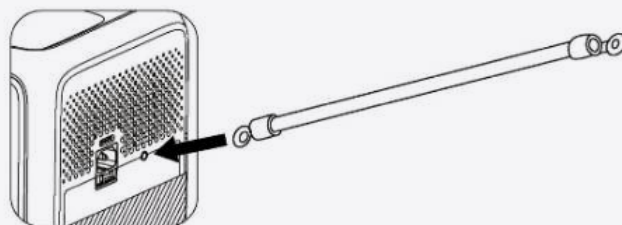
A: AC50P has a built-in intelligent BMS that automatically adjusts the charging power in response to the battery temperature and SoC, thus protecting the battery and extending its service life.

Appx. 3 Grounding Guidelines

Only use the grounding terminal when the AC50P is connected to the home grid using a 2-pin cable, or if the wall outlet's grounding is ineffective, and the connected device features a metal case.

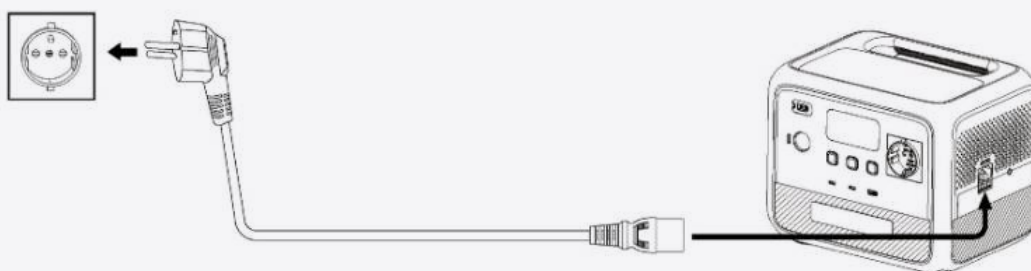


Use a cable with OT terminals for grounding. Connect one end to the grounding terminal with a grounding screw and the other end to the wall outlet or home distribution box ground.



The grounding terminal is unnecessary in the following scenarios:

- When connecting the AC50P to the wall outlet with a 3-pin cable, it's already grounded effectively.



- When the AC50P is not connected to the grid, touching its case won't cause an electrical shock.

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1. Sicherheitshinweise

Studieren Sie dieses Handbuch, um sich über den vorschriftsmäßigen Gebrauch des Produkts und diesbezügliche Sicherheitshinweise zu informieren. Die darin aufgeführten Sicherheitsanforderungen dienen der Veranschaulichung, erheben jedoch keinen Anspruch auf Vollständigkeit. Der tatsächliche Betrieb muss allen geltenden Sicherheitsnormen entsprechen. Bei Fragen wenden Sie sich bitte an den BLUETTI Support oder an Ihren BLUETTI Händler.

1.1 Erklärung

Zur Gewährleistung eines sicheren Betriebs müssen die folgenden Bedingungen beachtet und eingehalten werden:

- Betreiben oder lagern Sie dieses Produkt stets unter den in dieser Anleitung genannten Bedingungen.
- Die Installations- und Umgebungsbedingungen müssen den Anforderungen der einschlägigen internationalen, nationalen oder regionalen Normen entsprechen.
- Vermeiden Sie die unbefugte Demontage, den unbefugten Austausch von Bauteilen und die unbefugte Änderung von Softwarecodes.

BLUETTI haftet nicht für die folgenden Umstände:

- Schäden infolge höherer Gewalt wie Erdbeben, Brände, Stürme, Überschwemmungen oder Erdbeben.
- Schäden, die durch den eigenen Transport des Kunden verursacht wurden.
- Schäden, die auf unzureichende Lagerungsbedingungen gemäß den Angaben im Handbuch zurückzuführen sind.
- Schäden, die durch Fahrlässigkeit, unsachgemäße Bedienung oder vorsätzliche Handlungen des Kunden verursacht wurden.
- Systemschäden, die durch Dritte oder Kunden verursacht wurden, einschließlich, aber nicht beschränkt auf unsachgemäße Handhabung und Installation, die nicht den Anweisungen in diesem Handbuch entsprechen.
- Das Produkt erfüllt nicht die Anforderungen an die Stromversorgung von stromabhängigen Geräten in kritischen Bereichen wie der Atomenergie, der Luftfahrt, der Medizin und anderen Bereichen, in denen Sicherheit an erster Stelle steht. BLUETTI übernimmt keine Haftung für Vorfälle, die die Sicherheit von Personen, Brände, Fehlfunktionen von Geräten oder andere nachteilige Folgen betreffen, die sich aus der Verwendung dieses Produkts mit solchen Geräten ergeben.
- Schäden, die durch Einstellungen, Änderungen oder das Entfernen von Aufklebern unter Missachtung dieser Anleitung verursacht werden.
- Dieses Produkt ist nicht für die Verwendung mit Geräten vorgesehen, die eine leistungsstarke unterbrechungsfreie Stromversorgung (USV) benötigen, einschließlich, aber nicht beschränkt auf Datenserver, Workstations, medizinische Geräte und andere ähnliche Geräte. BLUETTI haftet nicht für Datenverluste, Geräteschäden oder Personenschäden, die aus der Verletzung dieser Anforderung resultieren.

1.2 Allgemeine Anforderungen

HINWEISE BEZÜGLICH DER GEFAHR VON BRAND, STROMSCHLAG ODER VERLETZUNG
WICHTIGE SICHERHEITSANWEISUNGEN

 **WARNUNG:** Bei der Verwendung dieses Produkts sollten immer grundlegende Vorsichtsmaßnahmen beachtet werden, z. B.:

Stöße zu schlechten Verbindungen mit der Hardware im Inneren führen können.

- Verwenden Sie im Brandfall nur einen für das Produkt geeigneten Trockenpulver-Feuerlöscher.
- **WARNUNG - GEFAHR EINES STROMSCHLAGS.** Verwenden Sie das Produkt niemals, um Elektrowerkzeuge zum Schneiden von oder zum Zugang zu stromführenden Teilen oder stromführenden Leitungen oder zu Materialien, die stromführende Teile oder stromführende Leitungen enthalten können, wie z. B. Gebäudewände usw., zu versorgen.
- Der Anschluss des Zigarettenanzünders, der gemäß der Norm IEC 62368-1 als PS3 eingestuft ist, sollte die Brandschutzmaßnahmen der angeschlossenen Geräte oder des Zubehörs berücksichtigen (z. B. feuerfeste Gehäuse).

1.3 Anweisungen zur Erdung

Das Produkt ist für den mobilen Einsatz konzipiert und muss normalerweise nicht geerdet werden. Wenn Sie das Gerät jedoch an das Stromnetz anschließen, müssen Sie aus Sicherheitsgründen auf eine ordnungsgemäße Erdung achten. Im Falle einer Fehlfunktion oder eines Ausfalls bietet die Erdung einen Weg des geringsten Widerstands für den elektrischen Strom, um das Risiko eines Stromschlags zu verringern. Dieses Produkt ist mit einem AC-Netzkabel mit einem Erdungsleiter sowie einem Erdungsstecker ausgestattet. Der Stecker muss in eine ordnungsgemäß installierte und geerdete Steckdose eingesteckt werden, die allen örtlichen Vorschriften entspricht.

⚠️ WARNUNG: Bei unsachgemäßem Anschluss des Erdungsleiters für das Gerät besteht die Gefahr eines Stromschlags. Wenden Sie sich an einen qualifizierten Elektriker, wenn Sie Zweifel haben, ob das Gerät richtig geerdet ist. Ändern Sie den mit dem Produkt gelieferten Stecker nicht. Wenn er nicht in die vorhandene Steckdose passt, lassen Sie von einem qualifizierten Elektriker eine geeignete Steckdose installieren.

1.4 Anforderungen an die Handhabung

Achten Sie beim Transport und bei der Lagerung darauf, das Gerät nicht fallen zu lassen, gewaltsam zu stoßen oder zu kippen, da dies zu inneren Schäden führen kann. Verwenden Sie bei Bedarf mechanische Hilfsmittel wie Wagen oder höhenverstellbare Werkbänke, um eine sichere Handhabung zu gewährleisten.

Empfohlene Personenanzahl nach Produktgewicht

Gewicht	Anzahl Personen
<18 kg	1
18 kg ~ 32 kg	2
32 kg ~ 55 kg	3
>55 kg	4 oder ein Wagen

1.5 Aufbewahrungshinweise

- Wenn der Ladezustand auf 5 % fällt, laden Sie das Produkt umgehend auf.
- Laden Sie das Produkt vor der Lagerung auf einen Ladezustand von 40 bis 60 % auf, um es in optimalem Zustand zu halten. Schalten Sie außerdem das Produkt aus und trennen Sie alle elektrischen Verbindungen vom Produkt.