

POWERTECH

MB3774

300Wh Portable Power Station



Instruction Manual

INTRODUCTION:

The MB3774 portable power stations are the result of years of power supply manufacturing experience combined with extensive user feedback. With its compact design, huge capacity, light weight, high power, and ease of portability, the new design uses an effective lithium battery as the main body of energy storage. It offers you an easy mobile power solution and is widely used in outdoor settings, medical and fire rescue operations, outdoor recreation, emergency conditions, environmental monitoring, and other applications.

FEATURES:

- Intelligent automatic dynamic charge and discharge management platform
- The colour LCD display would show the battery capacity, voltage, output power, and remaining time for charging and discharging.
- Lightweight and compact design
- Pure sine wave, high precision, low ripple, and SPWM (pulse width modulation) voltage output
- Isolated pure sine wave AC 240V output
- Built-in rechargeable power with high capacity, long life, and efficiency lithium-ion battery
- QC3.0, 5V/2A, wireless charging and Type-C output, can be used for charging digital products such as mobile phones;
- AC (AC240V) and DC (DC12V/10A, USB5V/2A, Type-C, can supply power at the same time
- Safety design seven protections: short-circuit protection, over-load protection, over-temperature protection, over-charge protection, overdischarge.

Please note: The power station features built-in protection which prevents the unit from being charged while running the inverter. Only the DC outputs will function to prevent damage to the unit.

PRODUCT SPECIFICATIONS:

Model No.	MB3774
Battery Type	Lithium-ion Battery
Output Power	300W
Peak Power	600W
Output wave	Pure sine wave
Frequency	50Hz±0.5Hz
5.5-2.5mm DC Sockets	12V/4A, 48W Max
Cigarette Lighter Socket	12V/10A, 120W Max
Protection	Short-circuit protection, over-load protection, over-temperature protection, over-voltage protection, over-current protection, under-voltage protection, etc. (with self-recovery function after protection)
AC Charging adapter	19V/4A
Solar Input	11-24V, 100W Max
Battery capacity	14.8V (20.8AH)
Charging time	6-8H
Lifetime	> 800 times
Dimension L*W*H	225*150*170mm
Weight	4kg

WORKING ENVIRONMENT:

Working Temperature:	-20 °C ~ 65 °C
Operating humidity:	0%RH~90%RH
Working air pressure:	50KPa ~ 100KPa

LOAD REFERENCE TIME:

Device Type	Power	Time of Use (14.8V/33.8AH)
Smartphone	2880mAH	150 times
LED light	40W	12 hours
Electric fan	75W	6.5 hours
laptop	40W	12 hours
Computer	170W	3 hours
Rice cooker 2L	300W	1.6 hours
Rice cooker 3L	500W	1 hour
Particle collector	90W	5.5 hours

Note: The above load test usage time is for reference only, and the actual use time will vary depending on the brand of the load product.

PRODUCT LAYOUT:



1. Power Button: Turn on the power button, the LCD display is on, and each output can be operated
2. 5.5-2.5 DC 12V output : DC 12V/8A \pm 0.5Max, 12V/4A*2 power output
3. USB output: Type-C, QC3.0, 5V/2A*2, wireless charging power output
4. AC output: AC power output
5. LED switch : Turn on the LED
6. LED light
7. LCD Display: Showing the input power, voltage, output AC power, battery capacity in real time.
8. Cigar output: DC 12V/10A \pm 0.5 power output
9. USB and Type-c output: Type-C, QC3.0, UBS 5V/2A power output
10. AC output :AC 220V power output
11. 5.5-2.1 DC charge input: Charge the power

CONTENTS:

- | | |
|----------------------------|-----------------|
| 1 x Portable Power Station | 1 x LED lamp |
| 1 x AC adaptor | 1 x User Manual |
| 1 x Car charging cable | |

USAGE INSTRUCTIONS:

Procedure

1. Ensure that the load power is within the rated power of this power station. If not, please choose a higher power station.
2. To begin, press the power button and then the switch. When the indicator is on, the output is turned on, and the device can be charged.
3. After use, please turn off the power button and charge the power station in-time.
4. Charging method: Insert the charger into the DC audio input port, the AC output and DC 12V output will be automatically turned off, but USB charging can be used. After charging to 100%, please continue charging. The charging function will automatically stop when charging is complete.

Please note: Overload, overheating, or low batteries will automatically activate the protection function and shut down the power station.

Operation Precautions

When using the power station, please strictly follow the operation steps:

1. Place in a cool, dry location away from liquids, gases, and oils, with at least 5 cm of space around it to dissipate heat.
2. Equipped with a fully automatic charger, AC output and DC 12V output will be automatically turned off during charging, only the LED lights, USB and wireless charging functions can be used. After charging for 6 to 8 hours, please unplug the charger before use. If it is not in use, please turn it off to save power and recharged it every three months.
3. When no function is used, it will automatically shut down after two minutes. You need to press the power button again to reactivate it.
4. When using USB charging, if the power exceeds 5 watts, the cooling fan will work every 12 minutes; When USB charging current is less than 5 watts and AC power is less than 10 watts, the LCD display will not display the output power.
5. When the temperature inside the power station exceeds 50 degrees Celsius and the load power exceeds 20% of the rated power, the cooling fan kicks in.
6. In general, an AC load device with less than its rated power can be used normally, but the startup power of some devices often exceeds its rated power. For example, the startup power of an inductive load device is generally 6–8 times its rated power, and the startup power of LED lamps is about dozens of times its rated power. If the startup power exceeds the peak power of the power station, over-load protection will be triggered, and the power station will automatically shut down.

APPLICATION SCENARIOS:

Medical Rescue

Outdoor
Workplace

Vehicle
Emergency

Emergency
Communications



Environmental
Monitoring

Power Outage

Camping

Photography

Portable power stations are widely used in medical rescue, emergency communication, environmental monitoring, fire rescue, military camping training, outdoor offices, power outages, no electricity areas, telecom network installation, military information construction, geographic working, oil exploration by miners, architectural design surveys, water conservation and water affairs testing, outdoor photography, field research, etc.

THREE CHARGING METHODS:

Solar Charging

Car Charging

AC Charging

Note: Due to long-term transportation and storage, the battery may be in sleep mode. Please fully charge the product before using it for the first time to avoid inconvenience caused by insufficient power.

TROUBLESHOOTING

Problem	Reason	Solution
DC no power output	Overload	Unplug the load and restart the DC output
USB no power output	USB is protected	Turn off the USB output and wait for a while, then restart the USB output
AC no power output	The internal battery is overheating and becoming overloaded.	Restart the AC output at the ideal operating temperature
Charge failure	The internal battery is overheating, and the charging startup power is excessive.	Try unplugging and plugging in the charger several times
Power failure	The internal battery is overheating, the battery is low.	Restart after the temperature has cooled, or plug in the charger to activate charging.

IMPORTANT SAFETY INFORMATION

1. Please read all the instructions carefully before using the product
2. Do not use the product near a heat source, such as a fire source or a heating furnace.
3. Avoid contact with liquids of any kind. Do not use the product in the rain or in high humidity.
4. Do not put fingers or hands into the product.
5. Do not operate the product with a damaged cord or plug, or a damaged output cable.
6. Do not use the product around strong static electricity or magnetic fields.
7. Do not disassemble the product in any way or puncture it with sharp objects.
8. Do not use unofficial components or accessories to avoid the risk of fire, electric shock or injury to persons.
9. Do not stack any heavy objects on the product.
10. To reduce the risk of injury, close supervision is necessary when the product is used near children.
11. This product is not recommended for powering medical emergency equipment related to personal safety, including but not limited to medical grade ventilators (hospital version CPAP: Continuous Positive Airway Pressure), artificial lungs (ECMO, Extracorporeal Membrane) Please follow your doctor's instructions and consult with the manufacturer for restrictions on the use of the equipment. If used for general medical equipment, please be sure to monitor the power status to ensure that the power does not run out.

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