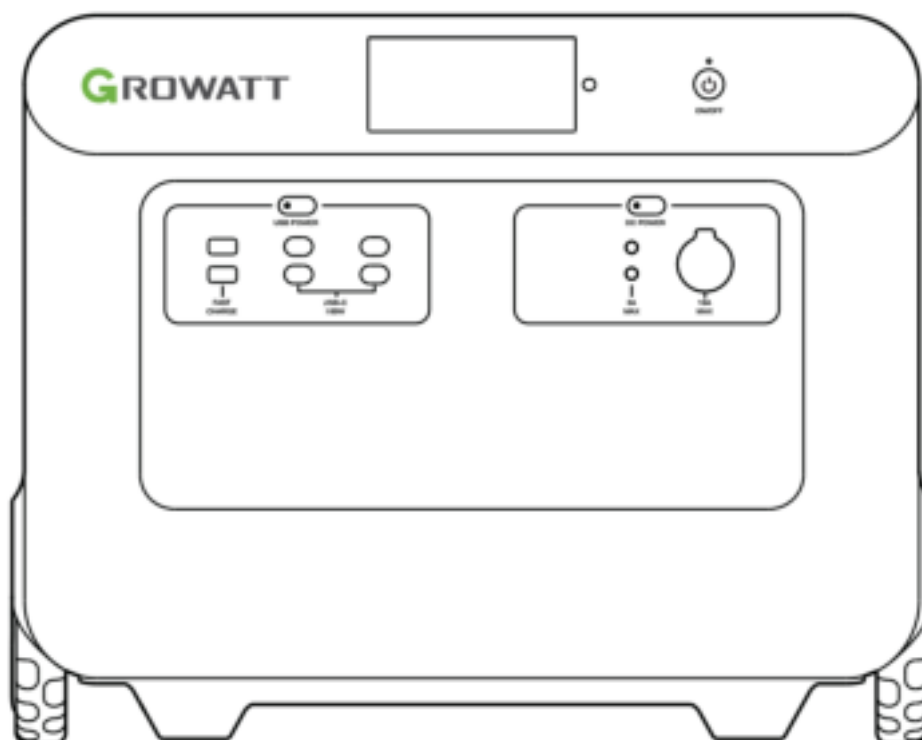




HELIOS 3600

Expansion Battery User Manual

Contact us

www.growattportable.com

1. Keep it dry and do not place heavy objects on the HELIOS 3600 Expansion Battery.
2. Do not dismantle, punch, shake, hit, or burn it.
3. Recycle and place HELIOS 3600 Expansion Battery according to local policies.

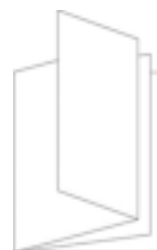
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PACKAGE CONTENT



HELIOS 3600
Portable Power Station



User Manual & Quick Start Guide
& Warranty Card



Rubber Foot x 2



Expansion Battery Cable

IMPORTANT SAFETY INSTRUCTION



Please read the User Manual carefully before you use the product to ensure that you completely understand the product and can correctly use it. After reading, please keep the User Manual properly for future reference. If you use this product incorrectly, you risk significant injury to yourself or others, as well as product damage and property loss. Once you use this product, you are deemed to have understood, approved, and accepted all the terms and content of this document. Users promise to be responsible for their actions and all consequences arising therefrom. Growatt is not responsible for any damage caused by using the product not in accordance with the User Manual.

Subject to the laws and regulations, the company reserves the right of final interpretation of this document and all related documents of this product. Please visit Growatt's website for the latest product information. Updated, revised, or terminated without notice.

When using this product, it is critical to take the following precautions.

I. How to Use

1. Avoid exposing the product to water. Do not immerse the product in water or get it wet. Do not use the product in rain or humid environment, otherwise the battery may catch fire or explode.
2. The use of unofficial component is strictly prohibited. For replacement, please check the relevant purchase information on the Growatt official website. Growatt is not responsible for product accidents and malfunctions caused by the use of products not officially provided by Growatt.
3. Make sure the machine is turned off before installing or unplugging any modules of the machine. Do not unplug other modules when the machine power is on, otherwise the power interface may be damaged.
4. Do not use the product in an environment of strong static electricity or magnetic field, where abnormal operation may occur. Otherwise, it may cause the product to malfunction or serious damage.

5. If you accidentally drop the product into water while using it, please stay away from the product and keep it in a safe open area until the product is completely dry. The dried product should not be reused again and should be disposed of properly according to the disposal guide in this manual. If the product catches fire, it is recommended to use fire extinguishing equipment according to the following priorities: water, or fog, sand, fire blanket, dry powder, carbon dioxide fire extinguisher.
6. Do not use wires or other metal objects to cause product short circuit.
7. Do not hit the machine. Do not stack any heavy objects on the product.
8. If foreign matter is found on the interface, clean it with a dry cloth; otherwise, it will cause poor contact, resulting in energy loss or failure to charge.
9. Do not use the product after it has been hit by a strong force or dropped from a height.
10. When in use, power supply products will generate electromagnetic fields, which are likely to affect the normal operation of medical implants or personal medical equipment such as pacemakers, cochlear implants, hearing aids, defibrillators etc. If these types of medical equipment are being used, please contact the manufacturer to inquire about any restrictions on the use of such equipment. These measures are fundamental to ensure a safe distance between the medical implants (for example, pacemakers, cochlear implants, hearing aids defibrillators etc.) and this product while in use.
11. When charging, please place the machine on a ground with no flammable or combustible materials around it such as cement. Please keep an eye on the product when it is being charged to prevent accidents.
12. The operating environment temperature of this product is from -20°C (-4°F) to 45°C(113°F). Temperatures above 45°C(113 °F) can potentially cause batteries to catch fire or even explode, while temperatures below -20°C(-4 °F) can diminish product performance and prevent it from meeting normal use requirements. However, returning to a normal temperature can restore product functionality.
13. To reduce the risk of injury, close supervision is necessary when the product is used near children.
14. Do not put fingers or hands into the product. DO NOT insert foreign objects into any ports of the machine.
15. Use of an attachment not recommended or sold by power pack manufacturer may result in a risk of fire, electric shock, or injury to persons.
16. To reduce risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the power pack.
17. 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.
18. Do not operate the power pack with a damaged cord or plug, or a damaged output cable.
19. Do not disassemble the power pack, 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.
20. To reduce the risk of electric shock, unplug the power pack form the outlet before attempting any instructed servicing.
21. WARNING – RISK OF EXPLOSIVE GASES.
 - 1) To reduce risk of battery explosion, follow these instructions and those published by battery manufacturer and manufacturer of any equipment you intend to use in vicinity of the battery. Review cautionary marking on these products and on engine.
22. PERSONAL PRECAUTIONS:
 - 1) Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
 - 2) Wear complete eye protection and clothing protection. Avoid touching eyes while working near battery.
 - 3) If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 10 minutes and get medical attention immediately.
 - 4) NEVER smoke or allow a spark or flame in vicinity of battery or engine.
 - 5) Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause explosion.
23. When charging the internal battery, work in a well-ventilated area and do not restrict ventilation in any way.
24. 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.
25. Do not expose a power pack to fire or excessive temperature. Exposure to fire or temperature above 130°C may cause explosion. The temperature of 130°C can be replaced by the temperature of 265°F.

27. Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
28. Risk of Electric Shock. Never use power pack to supply power tools to cut or access to live parts or live wirings, or materials that may contain live parts or live wirings inside, such as building walls, etc.
29. Attach output cables to a battery and chassis as indicated below. Never allow the output clamps to touch one another.
 - 1) Instructions shall include step by step directions for the proper use of the booster function detailing the correct steps to connect and disconnect the booster cables to the battery.
 - 2) Each step shall be a different numbered item.
30. The unit used indoors.

II. Storage and Transportation

1. Keep the HEIOS 3600 out of the reach of children and pets. If your child accidentally swallows product parts, seek medical help right away.
2. If it prompts that the battery is too low after use, please charge it before storing it. Otherwise, long-term storage with low power may cause damage to the battery inside the product. If the machine's battery is seriously low and idle for too long, the battery will enter deep sleep mode. To wake the battery from deep sleep, please recharge the portable power station.
3. It is prohibited to place the machine near a heat source, such as in a car under direct sunlight, next to a fire source, or a heating stove.
4. It's important to keep the environment where the machine is stored dry. Never put the machine in water or in places where there's a possibility of water leakage. To prolong the battery life, when storing for a long time, make sure the power is between 30% and 80%. Turn off the main switch and keep the machine indoors. It's recommended to charge it to 80% every three months.
5. Never transport a machine with a battery charge higher than 30% by air.

III. Disposal Guide

1. Be sure to completely discharge the machine battery before placing the machine battery in the proper disposal location as per local rules and regulations. Batteries are hazardous chemicals and should not be disposed of in ordinary trash cans. Follow local laws and regulations for battery recycling and disposal.
2. If the product itself fails and the battery cannot be fully discharged, please do not dispose of the battery directly in the battery recycling box. Contact a professional battery recycling company for further processing.
3. Please dispose of overcharged batteries

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This equipment complies with the FCC/IC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux radiations FCC/IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

ISED Statement

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

The digital apparatus complies with Canadian CAN ICES-3 (A)/NMB-3(A).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian

Information on RF exposure and compliance.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

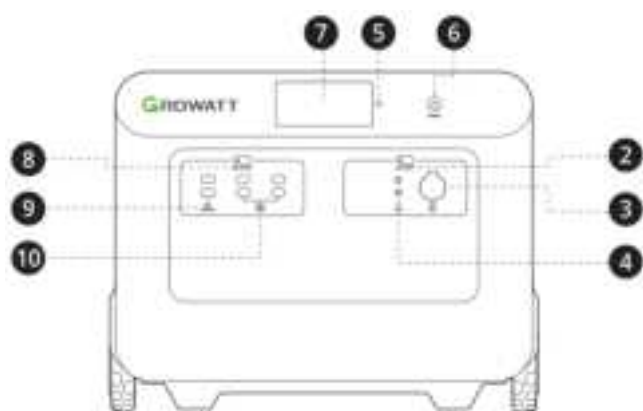
This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

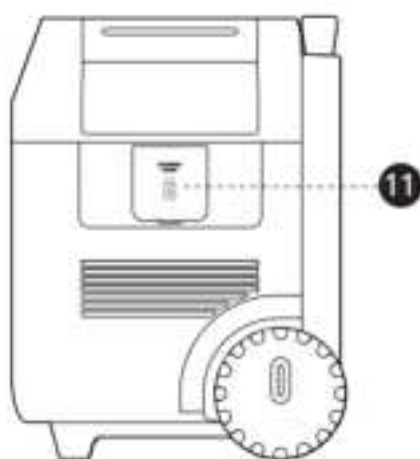
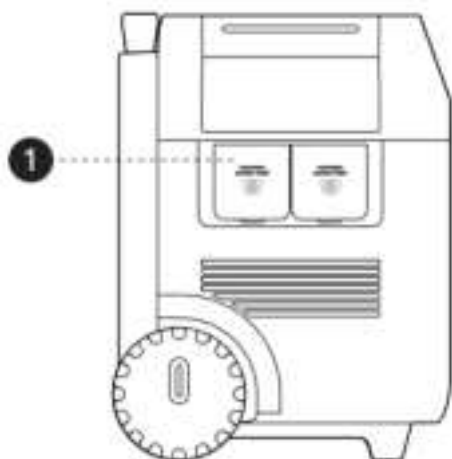
The device complies with RF field strength limits. Users can obtain Canadian information on RF exposure and compliance.

Le présent appareil est conforme de ce matériel aux conformités ou aux limites d'intensité de champ RF, les utilisateurs peuvent sur l'exposition aux radio fréquences et la conformité d'acquérir les informations correspondante.

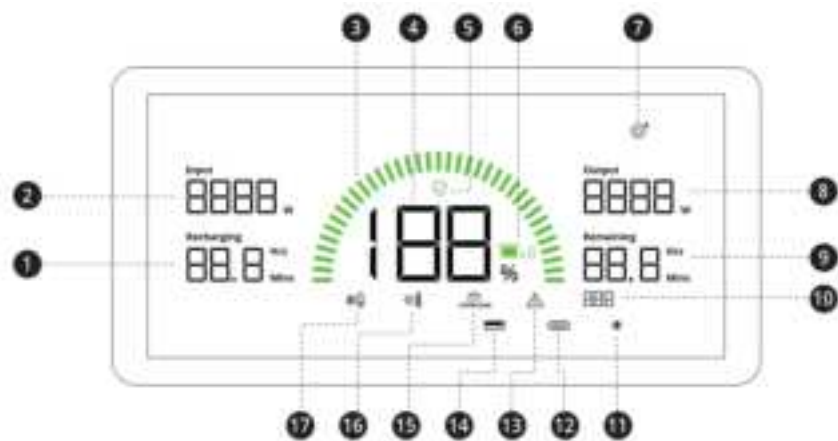
PORTS AND BUTTONS



1. Expansion Battery Port
2. DC Power Button/Indicator
3. Car Cigarette Lighter Output Port
4. DC 5521 Output Port
5. Ambient Light Detector
6. Main Power Button/Indicator
7. LCD Display
8. DC Power Button/Indicator
9. USB-A Fast Charge Output Port
10. USB-C Output Port
11. Charging Input Port



LCD SCREEN



	Indicator	Description
1	Remaining Charge Time	The remaining charge time is calculated by the system based on the current power consumption, accurate to 1 minute.
2	Input Power	The total AC and DC input power charged to the battery.
3	Battery Level Indicator	Displays the current battery level. The battery level indicator flashes while charging.
4	Remaining Battery Percentage	Display the current remaining battery percentage in real-time. When the battery power drops below 5%, it should be recharged as soon as possible.
5	Battery Protection Enabled	This protection icon will appear when battery protection (lower discharge limit) is triggered.
6	Number of Expansion Batteries Connected	This Expansion Battery is currently connected to the HELIOS 3600.
7	Firmware Upgrade Indicator	HELIOS 3600 Expansion Battery is in the process of online firmware upgrade
8	Output Power	Display real-time HELIOS 3600 Expansion Battery total output power.
9	Remaining Discharge Time	The remaining discharge time is calculated by the system based on the current power consumption, accurate to 1 minute.
10	Errors Codes	The product experiences a warning or a fault.
11	DC 5521 & Car Cigarette Lighter Indicator	HELIOS 3600 Expansion Battery is supplying power to external devices via the car cigarette lighter or/and the DC5521 ports
12	USB-C Output Indicator	HELIOS 3600 Expansion Battery is supplying power to external devices via USB-C port(s).
13	System Alert	The HELIOS 3600 Expansion Battery system is currently experiencing an abnormality, The corresponding function icons will flash at the same time and the error code will be displayed.
14	USB-A Fast Charge Output Indicator	HELIOS 3600 Expansion Battery is supplying power to external devices via USB-A port(s).
15	Overload Warning	HELIOS 3600 Expansion Battery is overloaded.
16	High Temperature Warning	The temperature of HELIOS 3600 Expansion Battery is too high. Please place the product in an open area for cooling.
17	Low Temperature Warning	The current battery temperature is low, and the charging efficiency will be reduced. Keep using the product, and the charging efficiency will return to normal as the temperature rises.

HOW TO USE

HOW TO CONNECT

1. Helios 3600 Expansion Battery can be connected to Helios 3600 through the expansion battery cable in the accessory box. A single Helios 3600 can be connected to up to 4 Helios 3600 EBMs and expanded to 18kWh.
2. After the Helios 3600 Expansion Battery is connected to the Helios 3600, the two Helios 3600s can still be connected through the split-phase socket strip for split-phase output. At this time, the maximum expandable capacity of the system is 36kWh.
3. Helios 3600 Expansion Battery can be used alone and provides USB-A, USB-C, and DC12V cigarette lighter output.

BASIC INSTRUCTION

Before use, please put the HELIOS 3600 on clean and flat ground to ensure that the machine will not be in contact with liquid or tilted, and check whether there are foreign objects on the body.

Product ON/OFF

- A) Press and hold the power button for 3 seconds to turn on HELIOS 3600 Expansion Battery, the screen will light up with a beep.
- B) Press and hold the power button for 3 seconds to shut down. You'll hear a prompt sound and see "OFF" displayed.

DC ON/OFF

- c) Short press the DC power button to turn on the DC output ports (including car output, DC 5521 output, and Anderson output). You will hear a "beep" and see the DC power indicator light on. Short press the DC power button again to turn off the DC output.
- D) When the output power of a single DC interface exceeds the following rated power, an overload alarm is triggered, the system will shut down, and the DC output will be cut off. Unplugging the car cigarette lighter and DC 5521 loads will clear the alarm and restore normal DC output.

The maximum power output of the car cigarette lighter and DC 5521 output port is 132W when used simultaneously.

The maximum output power of the Anderson output port is 396W..

USB ON/OFF

- I) Short press the USB power button to turn on USB-A fast charge and USB-C with a prompt sound. Short press the USB power button again to turn off the USB output.
- J) When the output power of a single USB interface exceeds the following rated power, an overload alarm is triggered, the system will shut down, and the USB output will be cut off. Unplugging the USB loads will clear the alarm and restore normal USB output.

The maximum output power of a single USB-A fast charge port is 18W

The maximum output power of the USB-C port is 100W.

HOW TO CHARGE

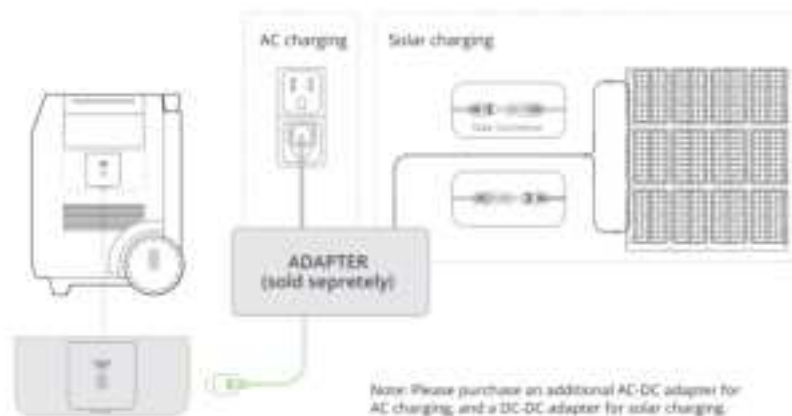
Notice Before Charging

Do not charge this product immediately after it is fully discharged. For the sake of battery life and safety, wait for 2-3 hours to cool down before charging. If you charge it immediately after discharge, a high temperature warning will be displayed, which is normal.

I) AC-DC ADAPTER CHARGING

You can use the Growatt AC-DC charging adapter to connect the XT60 port on the side of the HELIOS 3600 expansion battery to charge the HELIOS 3600 expansion battery at a maximum charging power of 500W.

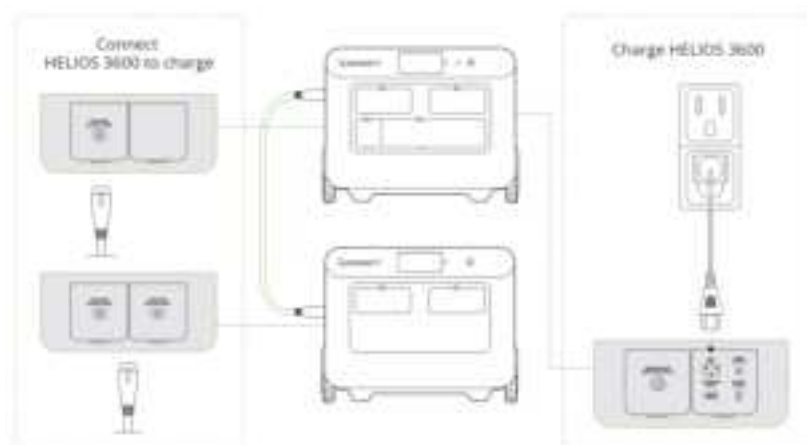
* Please note that the XT60 cable that comes with the HELIOS 3600's accessory box will not respond when connected.



AC-DC Adapter Charging

II) CONNECT HELIOS 3600 TO CHARGE

After the HELIOS 3600 expansion battery is connected to the HELIOS 3600, the entire system can be quickly charged through the AC charging port of the HELIOS 3600. This charging method supports a maximum input of 3600W.



CONNECT HELIOS 3600 TO CHARGE

ADVANCED FEATURES

COLD STARTUP

When the battery temperature is -30~-20°C (-22~-4°F) and connected to a solar panel under sunshine or AC input, the portable power station can automatically heat the battery to operating temperature for normal use.

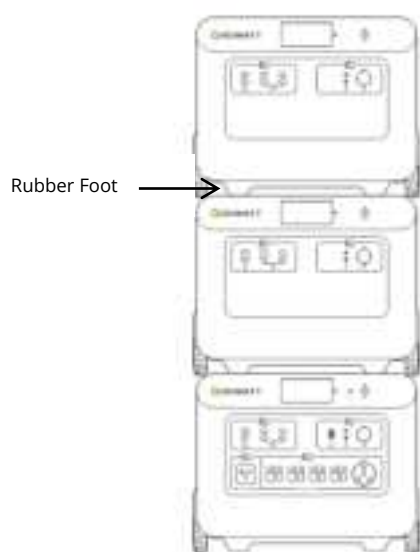
Battery temperature	Remaining heating time/min
-30°C (-22°F)	55
-25°C (-13°F)	47
-20°C (-4°F) (minimum discharging temperature)	39
-15°C (5°F)	31
-10°C (14°F)	24
-5°C (23°F)	16
0°C (32°F) (minimum charging temperature)	8
5°C (41°F)	0

*Notice:

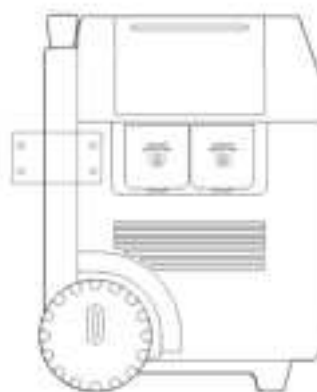
1. This remaining heating time is calculated under optimal charging efficiency and is for reference only. The heating function will stop after the battery temperature reaches 5°C (41°F).
2. Remaining heating time: the time required to heat the current battery temperature to 5°C (41°F). For example, if the current battery temperature is -20°C (-4°F), the time required to heat to 5°C (41°F) is 39 minutes.

INSTALLATION OF ACCESSORIES

1. The two rubber feet in the accessory box can be installed on the bottom of the product to increase stability when multiple units are stacked one on top of the other. Up to three units can be stacked on top of each other.
2. There are fixing holes on both sides of the product. You can use appropriate tools to fix the expansion battery pack against the wall, in the RV or other locations to prevent the product from shaking or slipping.



Stacking Multiple Units



Fixed Installation

APP CONFIGURATION

The expansion battery pack does not support APP connection when used independently. You can connect the expansion battery pack to HELIOS 3600 and view the expansion battery pack information through the HELIOS 3600 device page in the mygro APP.

TECHNICAL SPECIFICATIONS

Basic Information

Net Weight	≈37.8kg (83lbs)
Dimensions (L*W*H)	518*313*419mm (20.4*12.3*16.5in)

Input

DC Input	58.4V~, 500W MAX
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Output

USB-A Fast Charge (X2)	5V~,2.4A;9V~,2A;12V~,1.5A,18W MAX TOTAL 36W
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USB-C (x4)	5V/9V/12V/15V/20V~,5A,100W MAX,TOTAL 400W
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Car Cigarette Lighter	13.2V~,10A,132W MAX
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DC 5521 Port (x2)	13.2V~,3A,TOTAL 6A
-------------------	--------------------

Battery

Capacity	51.2V*72Ah (3686.4Wh)
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Battery Material	LFP (Lithium Iron Phosphate)
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Protection Types	Overheat Protection, Low Temperature Protection, Over-discharge Protection, Over-charge Protection, Overload Protection, Short Circuit Protection, Over Current Protection
------------------	--

Operating Temperature

Optimal Operating Temperature	20~30°C /68~86°F
-------------------------------	------------------

Charging Temperature	0~45°C /32~113°F
----------------------	------------------

Discharge Temperature	-20~45°C /-4~113°F
-----------------------	--------------------

Storage Temperature	-20~45°C /-4~113°F
---------------------	--------------------

FAQ

Can I take HELIOS 3600 on a plane?

No, you can't. This product is a lithium battery product. According to international air transport regulations, lithium battery products exceeding 100Wh cannot be carried on the plane.

Why does HELIOS 3600 not work properly when the total output power of the device is within the rated power of HELIOS 3600?

First, please check whether the battery capacity of the product is too low and charge it sufficiently prior to use. Secondly, check if the surge power usage of the equipment exceeds the surge peak power of HELIOS 3600. Enabling the Watt+ feature may resolve the issue. If not, you should choose a Growatt model with a higher-rated power.

Why does the HELIOS 3600 make noise when in use?

The product contains an air cooling system, and the built-in fan helps the product to dissipate heat. A slight noise when the product is in use is normal.

Will HELIOS 3600 automatically shut down?

HELIOS 3600 supports a power-saving function. By default, the LCD display will turn off after 2 minute of inactivity, and will automatically shut down after another 1 hour of inactivity.

How to clean HELIOS 3600 portable power station?

Use a dry, non-abrasive cloth to wipe. If deeper cleaning is needed, consider using specialized cleaning solutions for phone or computer screens. Avoid letting excessive liquid enter the device as this can damage the internal circuitry and pose safety risks.

What are the safety precautions and considerations for this device?

When using HELIOS 3600, please note its operational temperature range. Working outside of this range can decrease performance and potentially reduce the device's lifespan. The HELIOS 3600 is not waterproof. Avoid immersing it in water as it will void the warranty. For added protection against water and dust, consider buying a protective cover.

How safe is this device?

HELIOS 3600 is built with safety in mind and can be used both indoors and outdoors.

What is the recommended operational temperature for the device?

It's recommended to use the device within 0°C ~45°C (32°F~113°F). The optimal discharge temperature is 20°C~30°C (68°F ~86°F), and the Optimal charging temperature is 10°C -28°C (50°F ~82.4°F).

Can the product's battery be removed independently?

The battery of HELIOS 3600 is embedded inside and cannot be moved.

Does the HELIOS 3600 have a battery charging protection mechanism?

Yes, when charging exceeds 95%, the charging current will decrease due to the higher battery voltage. This protective measure ensures the battery's longevity and as a result, the time taken from this charge level to full charge will be longer.

APPENDIX 1: ERROR CODES

Indicator	Code	Problem	Solutions
	F14	System Failure	Restart the portable power station. If the problem persists after several attempts, please contact Growatt Customer Service.
 	A06	USB-A Output Overload	Please check the output of your USB devices. Remove your USB device(s) if the output exceeds the maximum output of the USB port(s).
 	A09	Discharge Over Temperature	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
Recharging  	A10	Charge Over Temperature	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
 	A12	Car Cigarette Lighter Output Port Overload	Please check the output of your devices. Remove your device if the output exceeds the maximum output of the Car Cigarette Lighter Output Port.
 	A24	USB-C Output Overload	Please check the output of your USB devices. Remove your USB device(s) if the output exceeds the maximum output of the USB port(s).
Recharging  	A25	Charge Low Temperature	Please move it to a warmer spot or connect it to AC/PV power before use.
 	A26	Discharge Low Temperature	Please move it to a warmer spot or connect it to AC/PV power before use.

*Note: For other error codes, please contact Growatt Customer Service.

APPENDIX 2: TROUBLESHOOTING

Problem	Troubleshooting	Solutions
Unable to recharge HELIOS 3600	Check if the charging cable is plugged in properly	Double-check that the interface of the charging cable is in good contact.
	Please check whether the AC input overload protection button(next to the input ports) is in a pop-up state.	Press the overload protection button back
	None of the problems listed above were discovered.	Contact Growatt Customer Service.
HELIOS 3600 is not powering my device	Check if the load(s) are plugged in properly.	Please make sure the load(s) are in good connection with the output port(s).
	Please check the AC/DC power indicators and see if the power is turned on.	Press the AC/DC power button to turn on the AC/DC output. You should see the AC/DC indicators light up once the output is turned on.
	Please check if the battery is too low.	Please recharge HELIOS 3600 Expansion Battery using the provided power cable.
	Please check if the device's starting power exceeds the rated power of HELIOS 3600.	Please choose a model with a higher-rated power.
	None of the problems listed above were discovered, but it still cannot be loaded.	Contact Growatt Customer Service.