1. About This Guide

This guide is intended for end users and describes **Anker SOLIX X1 Battery Module** in terms of product overview, maintenance, emergency handling, customer service, product information, and safety guidelines.

Product Name	Anker SOLIX X1 Battery Module
Short Form	Battery Module
Product Model	X1-B5-H / X1-B5-H0
Description	**X1:** Product Series
	B: Product Category (Battery)
	5: Battery Energy (5 kWh)
	H / H0: Reserved Code
Specifications	5 kWh, 3 kW, 350 to 550 VDC

2. Product Overview

2.1 Function

The **Anker SOLIX X1 Battery Module** is a rechargeable lithium iron phosphate battery designed for home energy storage. It integrates seamlessly with home energy systems that include a solar system and power modules, allowing up to six battery modules to connect to a single power module. Under the power module's control, these battery modules store excess solar energy or low-cost grid electricity, and discharge to power selected loads. Each battery module operates independently for charging and discharging.

2.2 Model

The following table lists the Anker SOLIX X1 Battery Module model to which this document applies.

Product Name	Anker SOLIX X1 Battery Module
Short Form	Battery Module
Product Model	X1-B5-H / X1-B5-H0
Description	**X1:** Product Series
	B: Product Category (Battery)
	5: Battery Energy (5 kWh)
	H / H0: Reserved Code
Specifications	5 kWh, 3 kW, 350 to 550 VDC

2.3 Compatibility

The battery module is designed to work with the following **Anker SOLIX X1 Power Module** models.

AC-Coupled Models

- X1-P6K-US
- X1-P6K-S

Hybrid Single-Phase Models

- X1-H3.68K-S
- X1-H4.6K-S
- X1-H5K-S
- X1-H6K-S

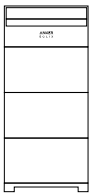
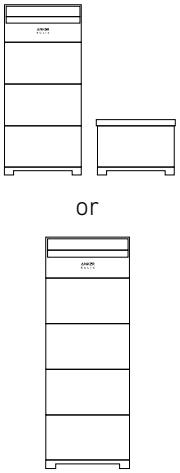
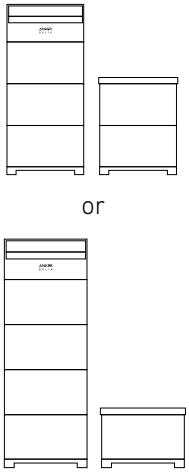
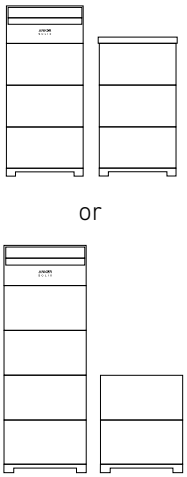
Hybrid Three-Phase Models

- X1-H5K-T
- X1-H8K-T
- X1-H10K-T
- X1-H12K-T

2.4 Battery Capacity

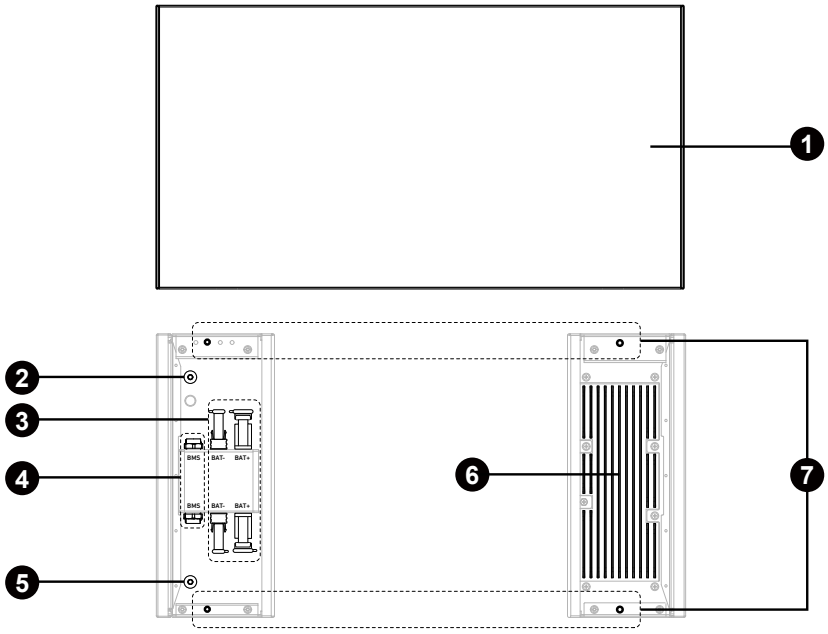
The battery module supports power and capacity expansion. Stack no more than one power module and four battery modules per column. Each power module can be installed with up to six battery modules. The following table lists the stacking examples and corresponding energy capacity.

The power modules shown in the figures below are for reference only and may vary by model.

Stacking						
Battery Module	×1	×2	×3	×4	×5	×6
Stacked Battery Model	X1-B5-H	X1-B10-HC	X1-B15-HC	X1-B20-HC	X1-B25-HC	X1-B30-HC
	X1-B5-H0	X1-B10-H0	X1-B15-H0	X1-B20-H0	X1-B25-H0	X1-B30-H0
Energy Capacity	5 kWh	10 kWh	15 kWh	20 kWh	25 kWh	30 kWh

2.5 Appearance

Figure: Appearance of the battery module.



1. Battery module
2. Internal ground point
3. DC power ports (BAT+ / BAT–)
4. BMS ports
5. Internal ground point
6. Heat sink
7. Screw holes for locking modules

3. Maintenance

3.1 Power On / Off

After commissioning, the owner can only turn off the equipment using the Anker app until grid connection approval is granted. Once approval is complete, the equipment can be turned on and off using the Anker app.

To manually power on or off the system including the battery module, please follow the steps below.

Power Module	Power On the System	Power Off the System
AC-Coupled Models • X1-P6K-US	1. Toggle the BAT switch of the power module to ON. 2. Close the backup controller's Power Module 1 breaker and Power Module 2 breaker (if available), PV system breaker, and generator breaker (if available). 3. Close the main breaker (if available) of the backup controller.	1. Press the black start button of the power module for 8 seconds. 2. Open the backup controller's Power Module 1 breaker and Power Module 2 breaker (if available), PV system breaker, and generator breaker (if available). 3. Toggle the BAT switch of the power module to OFF. 4. Disconnect the backup controller from the grid if it is serving as the main service equipment.
AC-Coupled Models • X1-P6K-S	1. Toggle the BAT switch of the power module to ON. The power module should be connected to AC power. 2. Close the panel breaker connected to the power module.	1. Press the black start button of the power module for 8 seconds. 2. Open the panel breaker connected to the power module. 3. Toggle the BAT switch of the power module to OFF.
Hybrid Single-Phase Models • X1-H3.68K-S • X1-H4.6K-S • X1-H5K-S • X1-H6K-S **Hybrid Three-Phase Models** • X1-H5K-T • X1-H8K-T • X1-H10K-T • X1-H12K-T	1. Toggle the BAT switch of the power module to ON. 2. Close the circuit breaker between the power module and the grid. 3. Toggle the PV switch of the power module to ON.	1. Toggle the PV switch of the power module to OFF. 2. Press the black start button of the power module for 8 seconds. 3. Disconnect the circuit breaker between the power module and the grid. 4. Toggle the BAT switch of the power module to OFF.

- Only qualified professionals or trained personnel are allowed to operate and maintain the equipment.
- Use appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- After the system powers off, residual electricity and heat may still cause electric shocks and burns. Wait for at least 6 minutes after powering off the system before performing any operations.
- To force a startup of the power module, press the black start button for 3 seconds. To force a shutdown of the power module, press the same button for 8 seconds.

3.2 Routine Maintenance

To ensure the energy storage system operates properly for an extended period, it is recommended to perform routine maintenance. Only qualified professionals or trained personnel are allowed to operate and maintain the equipment.

Power off the system before cleaning it, connecting cables, and ensuring grounding reliability.

Check Item	Check Method	Maintenance Interval
System cleanliness	Check periodically that the heat sinks are free from obstacles and dust.	Once every 6 to 12 months
System running status	1. Check that the battery is not damaged or deformed. 2. Check that the battery does not produce abnormal sound during operation. 3. Check that the battery parameters are correctly set when the battery is running.	Once every 6 months
Electrical connection	1. Check that cables are securely fastened. 2. Check that cables are intact, specifically ensuring the parts touching the metallic surface are not scratched. 3. Check that unused terminals and ports are secured by waterproof or dustproof caps.	The first inspection is 6 months after the initial commissioning. Afterward, the interval can be 6 to 12 months.
Grounding reliability	Check that ground cables are securely connected.	The first inspection is 6 months after the initial commissioning. Afterward, the interval can be 6 to 12 months.

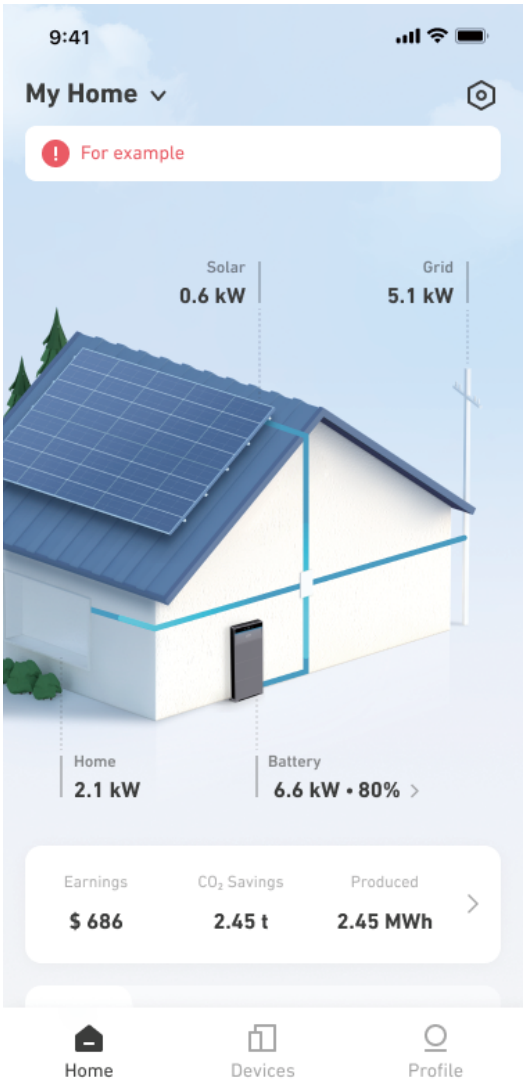
3.3 Troubleshooting

Only qualified professionals or trained personnel are allowed to install, operate, and maintain the equipment.

You will receive push notifications from the Anker app once a system fault is detected. Please have the following information available when contacting Anker.

- Owner name
- Phone number or email address (the best way to contact you)
- Serial numbers
- Brief description of the issue

For instance, if a ground fault is detected, the Anker app will send a notification, the light bar will turn red, and the power module's screen will show 'EE.' This complies with the Earth Fault alarm requirements of AS/NZS 5033.



4. Emergency Handling

In the event of any threat to health or safety, always begin with these two steps before addressing the other suggestions below:

1. Immediately contact the fire department or other relevant emergency response team.
2. Notify all people who might be affected and ensure that they can evacuate the area.

DANGER Only perform the suggested actions below if it is safe to do so.

4.1 Fire

- Please power off the system when it is safe.
- The high temperature may distort or damage the battery pack, resulting in electrolyte overflow or toxic gas leakage. Do not go near the battery pack and wear protective equipment
- If the fire is small, use carbon dioxide or ABC dry powder extinguisher to extinguish the fire.
- If the fire is spreading, evacuate the building or equipment area immediately and call the fire department. Re-entry to burning buildings is prohibited.
- Do not touch or come into contact with high voltage components during fire fighting, due to the risk of electric shock.
- After extinguishing the fire, do not use the equipment. Please contact your installer.

4.2 Flood

- Please power off the system when it is safe.

If the battery module is submerged, do not touch it to avoid electric shock.
After the flood waters recede, do not use the equipment. Please contact your installer.

4.3 Battery Malfunction

- If the battery module has an abnormal odor, electrolyte leakage, or heat, do not touch it, and contact professional personnel immediately.
- Professionals must wear protective equipment such as goggles, rubber gloves, gas masks, and protective clothing to protect themselves.
- The electrolyte is corrosive and contact may cause skin irritation or chemical burns. In case of accidental contact with the electrolyte, take the following measures immediately:
  Inhalation: Evacuate the contaminated area, keep fresh air circulating, and seek immediate medical help.
  Eye contact: Flush eyes with plenty of water for at least 15 minutes. Do not rub eyes. Seek medical help immediately.
  Skin contact: Wash the contact area with plenty of soapy water and seek medical help immediately.
  Ingestion: Seek medical help immediately.
- Do not continue to use abnormal battery modules, please contact your installer.

4.4 Battery Falling or Strong Impact

- If there is an obvious odor, smoke, or fire, keep away from the equipment immediately and contact professional personnel.
- Do not use the battery module if it has been dropped or hit. Please contact your installer.

In all cases, once the situation is stable, contact the Anker Customer Service.

5. Customer Service

support@anker.com

(US/Canada) +1 (800) 988 5541
(UK) +44 (0) 1616 056 301
(DE) +49 (800) 000 2522
(IT) +39 800 776 561
(AU) +61 1800 929 112

10-Year Limited Warranty
Please visit ankersolix.com/warranty for full warranty details.

6. Product Information

6.1 Nameplate

Figure: Nameplate (X1-B5-H).

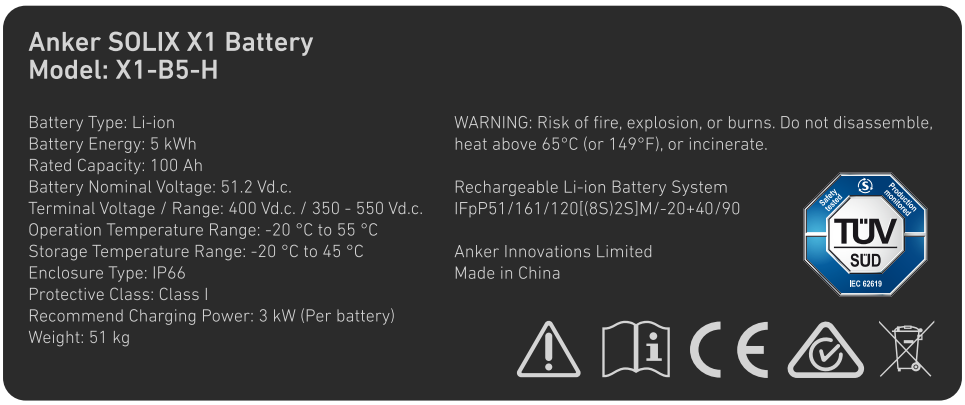
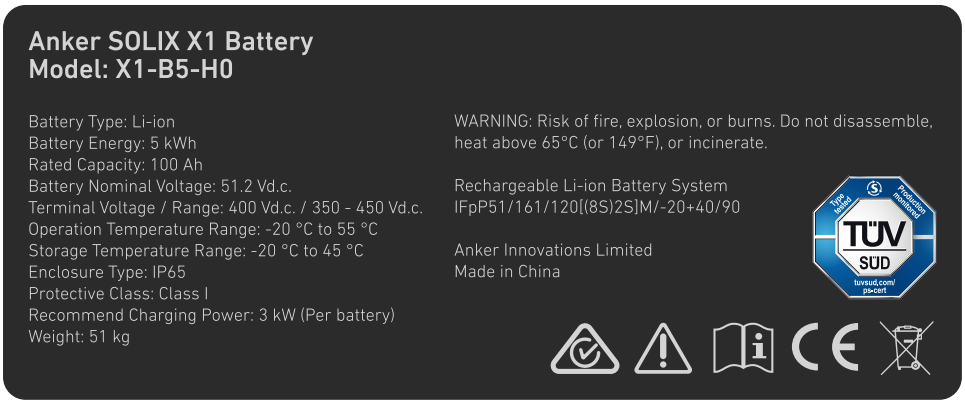


Figure: Nameplate (X1-B5-H0).



6.2 Specifications

Specifications are subject to change without notice.

Anker SOLIX X1 Battery Module

Model	X1-B5-H	X1-B5-H0
Performance		
Battery Energy[1]	5 kWh	
Battery Type	Li-ion (LFP)	
Battery Voltage Range	350 to 550 VDC	350 to 450 VDC
Maximum Charge / Discharge Power	3 kW	
Maximum Charge / Discharge Current	7.6 A	
Others		
Dimensions (W x H x D)	(670 ± 2) x (360 ± 2) x (150 ± 2) mm	
Weight	(51 ± 0.5) kg	
Enclosure Type	NEMA TYPE 4, IP66	IP65
Operating Temperature	–20°C to 55°C	
Maximum Operating Altitude	Up to 4,000 m; Power derating from 2,000 m	
Warranty	10 Years[2]	

[1]The initial capacity (design capacity) of an expansion battery is 5 kWh. The actual capacity may vary depending on environmental conditions, such as temperature, transportation methods, and storage conditions.
[2]Refer to warranty terms for details.

Stacked Battery Modules

Model	X1-B5-H	X1-B10-HC	X1-B15-HC	X1-B20-HC	X1-B25-HC	X1-B30-HC
Number of Battery Modules	1	2	3	4	5	6
Battery Type	Li-ion					
Rated Capacity	100 Ah	200 Ah	300 Ah	400 Ah	500 Ah	600 Ah
Rated Energy Capacity	5 kWh	10 kWh	15 kWh	20 kWh	25 kWh	30 kWh
Voltage Range of Battery Module	350 to 550 VDC					
Maximum Charging / Discharging Power	3 kW	6 kW	9 kW	12 kW	15 kW	18 kW
Maximum Charging / Discharging Current	7.6 ADC.	15.2 ADC.	22.8 ADC.	30.4 ADC.	38 ADC	45.6 ADC
Ambient Operating Temperature	-20 to 55 °C					
Storage Temperature	-20 to 45 °C					
Protection Class	Class I					
Ingress Protection	IP66					
Dimensions (W x H x D)	670 × 360 × 150 mm	670 × 720 × 150 mm	670 × 1080 × 150 mm	670 x 1080 x 150 mm + 670 x 360 x 150 mm	670 x 1080 x 150 mm + 670 x 720 x 150 mm	670 x 1080 x 150 mm + 670 x 1080 x 150 mm
Weight	51 kg	102 kg	153 kg	204 kg	255 kg	306 kg

Model	X1-B5-H0	X1-B10-H0	X1-B15-H0	X1-B20-H0	X1-B25-H0	X1-B30-H0
Number of Battery Modules	1	2	3	4	5	6
Battery Type	Li-ion					
Rated Capacity	100 Ah	200 Ah	300 Ah	400 Ah	500 Ah	600 Ah
Rated Energy Capacity	5 kWh	10 kWh	15 kWh	20 kWh	25 kWh	30 kWh
Voltage Range of Battery Module	350 to 450 VDC					
Maximum Charging / Discharging Power	3 kW	6 kW	9 kW	12 kW	15 kW	18 kW
Maximum Charging / Discharging Current	7.6 ADC.	15.2 ADC.	22.8 ADC.	30.4 ADC.	38 ADC	45.6 ADC
Ambient Operating Temperature	-20 to 55 °C					
Storage Temperature	-20 to 45 °C					

Protection Class	Class I					
Ingress Protection	IP65					
Dimensions (W x H x D)	670 × 360 × 150 mm	670 × 720 × 150 mm	670 × 1080 × 150 mm	670 x 1080 x 150 mm + 670 x 360 x 150 mm	670 x 1080 x 150 mm + 670 x 720 x 150 mm	670 x 1080 x 150 mm + 670 x 1080 x 150 mm
Weight	51 kg	102 kg	153 kg	204 kg	255 kg	306 kg

7. Safety Information

7.1 IMPORTANT SAFETY INSTRUCTIONS

Symbols

Symbol	Description
	**Caution** Indicates a low-risk hazard. Failure to avoid this hazard could result in minor or moderate injury.
	**Warning** Indicates a hazard with a moderate level of risk. Failure to avoid this hazard could result in death or serious injury.
	**Danger** Indicates a highly risky hazard. Failure to avoid this hazard could result in death or serious injury.
	**Refer to Operating Instructions** Indicates that users should refer to operating or installation instructions before proceeding.
	**Risk of Electric Shock from Stored Energy** Indicates discharge time is 6 minutes from de-energization.
	**Risk of Electric Shock** Indicates components that present risk of electrical shock.
	**Caution, Hot Surface** Indicates that equipment surfaces may be hot and pose a burn risk.

General Information
SAVE THESE INSTRUCTIONS - This document contains important instructions that must be followed during installation, use, and maintenance.


Read instructions carefully before performing any operation on the equipment.

Do not make any changes or create settings that are not described in this document. If physical injury, loss of data, or damage is caused by failure to follow instructions, the warranty does not apply.

Battery Safety

General Instructions Regarding Removal and Installation of Batteries:

- When replacing batteries, replace with the same type and number of batteries.
- Do not dispose of batteries in a fire. The batteries may explode.
- Do not open or damage batteries. Released electrolytes may be toxic and are harmful to skin and eyes.
- A battery can present a risk of electrical shock and high short-circuit current. The following precautions should be observed when working on batteries:

a) Remove watches, rings, or other metal objects.
b) Use tools with insulated handles.
c) Wear rubber gloves and boots.
d) Do not lay tools or metal parts on top of batteries.
e) Disconnect the charging source prior to connecting or disconnecting battery terminals.

f) Determine if the battery is inadvertently grounded. If inadvertently grounded, remove the source from the ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).

WARNING: A BATTERY CAN PRESENT A RISK OF ELECTRICAL SHOCK, BURN FROM HIGH SHORT-CIRCUIT CURRENT, FIRE, OR EXPLOSION FROM VENTED GASES. OBSERVE PROPER PRECAUTIONS.
WHEN REPLACING BATTERIES, USE THE SAME NUMBER AND THE FOLLOWING TYPE OF BATTERIES: LiFePO4.
PROPER DISPOSAL OF BATTERIES IS REQUIRED. REFER TO YOUR LOCAL CODES FOR DISPOSAL REQUIREMENTS.

WARNING:
- Replacing a battery with an incorrect type may nullify safeguards and create danger;
- Disposal of the battery/equipment in a fire or another source of significant heat, or by mechanically crushing or cutting the battery/equipment may result in an explosion;
- Leaving the battery/equipment in an extremely hot environment may result in an explosion or leakage of flammable liquids or gases;
- Subjecting the battery/equipment to extremely low air pressure may result in an explosion or leakage of flammable liquids or gases.

Personal Safety

WARNING Never touch the enclosure of an operating device.

- Ensure that power is off during installation. Do not install or remove a cable with the power on.
- Non-standard and improper operations on the energized equipment may cause fire, electric shocks, or explosion, resulting in property damage, personal injury, or even death.
- Before operations, remove conductive objects such as watches, bracelets, bangles, rings, and necklaces to prevent electric shocks.
- During operations, use dedicated insulated tools to prevent electric shocks or short circuits.
- Do not make contact with other conductors, or indirect contact with power supply equipment through damp objects.
- Do not power on the equipment until it has been installed or confirmed by a professional.
- Only qualified professionals or trained personnel are allowed to install, operate, and maintain the equipment.
- If there is a probability of personal injury or equipment damage during operations on the equipment, immediately stop the operation, report the case to the supervisor, and take feasible protective measures.
- Do not touch the energized equipment, as the enclosure may be hot.

Electrical Safety

CAUTION Do not disconnect under load.

DANGER Start maintaining the device at least 6 minutes after the device disconnects from all external power supplies.

- Before installation, ensure that the equipment is intact. Otherwise, electric shocks or fires may occur.
- Non-standard and improper operations may result in fire or electric shocks.
- Prevent foreign matter from entering the equipment during operations.
- Do not route cables behind the air intake and exhaust vents of the equipment.
- For the equipment that needs to be grounded, install the ground cables first when installing the equipment and remove the ground cables last when removing the equipment.
- Before installing or removing power cables, the equipment and its switches must be disconnected.
- Do not damage the grounding conductors.
- The equipment terminals are used for electrical connections only.
- Ensure that all electrical connections comply with local electrical standards.
- Obtain approval from the local electric utility company before using the equipment in grid-tied mode.
- Ensure that the cables you prepared meet local regulations.
- The maximum operating temperature for the included cables is 105°C (221 °F).

- Use dedicated insulated tools when performing high-voltage operations.
- Before making electrical connections, switch off the disconnector on the upstream device to cut off the power supply if people may come into contact with energized components.
- Before connecting a power cable, check that the label on the power cable is correct.
- If the equipment has multiple inputs, disconnect all the inputs before operating the equipment.

Environmental Requirements

- Do not expose the equipment to flammable or explosive gas or smoke. Do not perform any operation on the equipment in such environments.
- Do not store any flammable or explosive materials near the equipment.
- Install the equipment in an area far away from liquids and in a well ventilated environment.
- Do not install equipment in living spaces or habitable areas of dwelling units, such as living rooms.
- Natural disasters, such as floods, debris flows, earthquakes, and typhoons, can cause damage to equipment due to force majeure.
- To prevent fire due to high temperature, ensure that the ventilation vents or heat dissipation system are not blocked when the equipment is running.

Mechanical Safety

- Do not drill holes into the equipment.
- Wear goggles and protective gloves when drilling holes.
- When moving the equipment by hand, wear protective gloves to prevent injuries.
- Clean up any debris that may have accumulated within or around the equipment after drilling.
- Be cautious to avoid injury when moving heavy objects.

Commissioning

When the equipment is powered on for the first time, ensure that professional personnel set parameters correctly. Incorrect settings may result in inconsistency with local certification and affect the normal operation of the equipment.

Maintenance and Replacement

DANGER Only certified professionals are allowed to install and maintain the battery and external power supplies. Establish secure earth connections to mitigate high touch current before connecting to the power supply.

- High voltage generated by the equipment during operation may cause an electric shock, which could result in death, serious injury, or serious property damage.
- Prior to maintenance, power off the equipment and strictly comply with the safety precautions in this document and relevant documents.
- After powering off the equipment, wait at least 6 minutes before disassembling any cables or components.
- Maintain the equipment with proper tools, testing equipment, and sufficient knowledge of this document.
- Turn off the equipment switches when maintaining the electric devices or power distribution devices connected to the equipment.
- Place temporary warning signs or erect fences to prevent unauthorized access to the maintenance site.
- If the equipment is faulty, contact your supplier.
- The equipment can be powered on only after all faults are rectified. Failing to do so may escalate faults or damage the equipment.

7.2 Notice

Declaration of Conformity

Hereby, Anker Innovations Limited declares that this product is in compliance with the applicable directives/regulations (EU) 2023/1542, 2014/30/EU, and 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: https://support.anker.com/s/articleRecommend?otherType=Anker_EN_Extemal_Manual_and_Download&secondType=doc

UK PSTI Statement

Hereby, Anker Innovations Limited declares that this equipment is in compliance with the Product Security and Telecommunications Infrastructure (Security Requirements for Relevant Connectable Products) Regulations 2023. The full text of the Statement of Compliance is available at the following website: https://www.anker.com/uk/psti-related

The following importer is the responsible party (contract for EU matters):
Anker Innovations Deutschland GmbH I Georg-Muche-Strasse 3, 80807 Munich, Germany
The following importer is the responsible party (contract for UK matters):
Anker Technology (UK) Limited I GNR8, 49 Clarendon Road, Watford, Hertfordshire, WD17 1HP, United Kingdom

FCC Statement

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.
Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
(1) Reorient or relocate the receiving antenna.
(2) Increase the separation between the equipment and receiver.
(3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
(4) Consult the dealer or an experienced radio / TV technician for help.

The following importer is the responsible party.
Company Name: Fantasia Trading LLC
Address: 5350 Ontario Mills Pkwy, Suite 100, Ontario, CA 91764
Telephone: +1-800-988-7973

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment can be used in portable exposure conditions.

IC Statement

This digital apparatus complies with CAN ICES (B)/NMB (B).
Déclaration IC
Cet appareil numérique est conforme aux normes CAN ICES (B)/NMB (B).

Not permitted on aircraft.

This symbol indicates "separate collection" for all batteries and accumulators. Danger of explosion if battery is incorrectly replaced. To reduce risk of fire, explosion or leakage of flammable liquid/gas, don't disassemble, crush, puncture, short external contacts, expose to temperature above 60°C (140°F), sunshine or like, expose to extremely low air pressure or dispose of in fire or water. Replace only with specified batteries.

License Holder: Anker Innovations Limited
Anker Innovations Limited I Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong