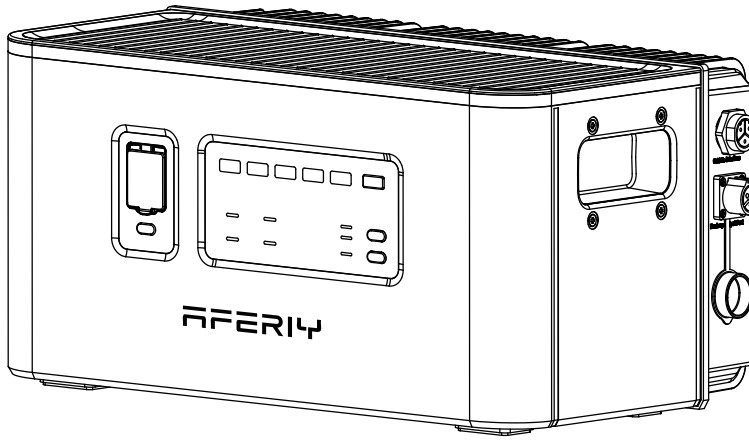
Balcony Energy Storage

AF-PS240 | User Manual

1200W



Hi dear, thank you very much for purchasing and experiencing the AF-PS240 Balcony Energy Storage. Before operating this product, please carefully read the user manual forproperoperation.

According to the transportation requirements of the international customs for batteryproducts, the batterylevel of this product is only less than 35% when it leaves the factory.Please fully charge the product after unpacking it to start the experience tour of AF-PS240.

This product can be charged directly using wall outlets. Do not use extension cords or power splitters. When charging with two or more outlets, do not use any other devices on the same outlet as this product.

⚠ Precautions

1. Please avoid using this product in environments featuring high temperature, high humidity, or direct sunlight exposure or close to fire source.

2. Dismantling or modifying this product is prohibited, which may cause failure and fire hazards.

3. Please discard or recycle the product according to methods regulated by local laws.

4. Be careful to avoid the product falling from a height,which will cause a strong impact.

5. Keep or use the product out of the reach of children.

6. Please use genuine accessories from the Company, as the failure caused by non-genuine accessories may void the free maintenance.

7. Do not hinder the cooling of the product during use, and place it at a place with good air convection.

8. When storing it for a long time, please consume the power from fully charged to no power once every 3 months, and then charge it to about 50% electricity quantity for storage.

9. When you suspect that the body, accessory wires and connecting parts of this product are defective, please do not use it to avoid failure.

10. Please do not store the product in environments with extremely high and low temperatures, such as in cars and outdoor warehouses, for a long time, so as to avoid failures such as shortened battery life.

11. Please do not use it with smart sockets and smart meters of other brands, while use of the same brand is recommended.

12. When using it with multiple battery packs, please place the product on a flat ground and fix the product to the wall if necessary.

Disposal guidelines

1. If possible, discharge the battery completely before disposal. Please consult your local regulations for battery recycling and disposal.

2. If the battery cannot be fully charged due to product failure, please contact a professional battery recycling company for follow-up processing.

3. Keep cells or batteries of different electrochemical systems separated from each other when handling secondary batteries or batteries.

Contents

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- Download Method 01
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Specifications

Basic parameters	Model	AF-PS240
	Capacity	1958Wh
	Wireless type	WIFI / Bluetooth
	Weight	23.5KG
	Dimensions	468X312X242MM
Output	On-grid output power	800W
	Off-grid output power	1200W
	USB output	USB-A QC3.0 18W TYPE-C PD100W
Input	PV input	Up to 2000W for a single host, Additional battery pack up to 2400W
	Off-grid input	1200W
Environment of use	Use temperature	-20 - 55°C
	Waterproof rating	IP65
	Use humidity	≤90%

Download Method

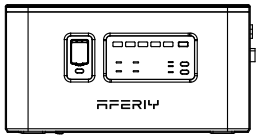
Method 1: Scan the QR code on the right.

Method 2: Search for "AEC Cloud" in the App Store (iOS) or in other mobile app stores.

Method 3: Open a browser and search for the website:"https://monitor.ai-ec.cloud:8443/resources/odm/download-nky.html".

Method 4: Open a browser and search for the website:"https://play.google.com/store/apps/details?id=com.nky.shuoxd".

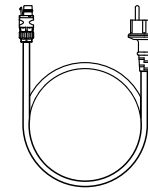
Packing list



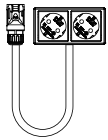
Balcony Energy Storage



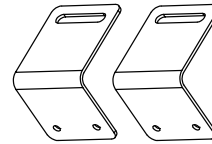
User Manual



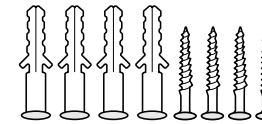
AC cable (plug included) (5 m)



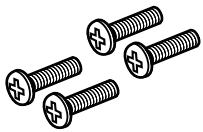
Aviation socket output wire



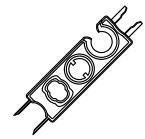
L-shaped wall mounting bracket (×2)



M5 × 60 self-sealing expansion screw (×4)



M5 × 10 cross groove composite screw (×4)

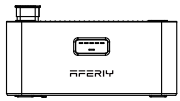


MC4 disassembly-assembly wrench (×2)

Optional accessories

* The following accessories need to be ordered separately

- **Balcony energy storage battery pack**

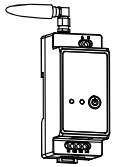


Balcony energy storage battery pack

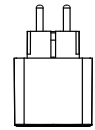


User Manual

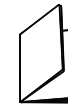
- **Smart meters and smart sockets**



Smart meter



Smart socket (× 4)



User Manual

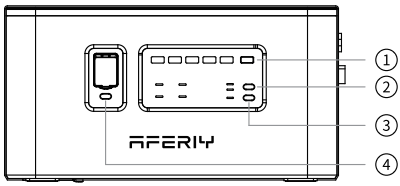
Product introduction

This product is a balcony photovoltaic energy storage power supply that can be used off-grid, and featuring multi-functional and multi-scenario. It uses lithium iron phosphate batteries with extremely high safety performance, and the cell cycle life is up to 6,000 times.
The 1200W high power and sine wave AC output are suitable for high-power household appliances such as dryers, microwave ovens and refrigerators, as well as other electronic devices such as personal computers.
Through the max. PV input of 2400W (with additional balcony energy storage battery pack), calculated based on the effective solar time of 3.5 hours per day, the product can generate 8.4 kWh per day, which can significantly save electricity costs. In addition, the product can discharge in on-grid and off-grid modes, allowing you to conveniently use green energy in places with and without mains power.

Description of battery heating function

Each host battery pack and power-up pack has heating modules. When the machine is in the charging state and the machine temperature falls below 0℃, the battery pack heating mode is initiated, and the battery pack slowly heats up until the charger is unplugged or the min. temperature of the battery pack rises to 10℃ before it stops heating.

Description of key functions



① Main power switch
② Active/Standby Mode switch
③ AC OUT switch
④ USB switch

❶ Main power switch

Press and hold the "POWER" key for 3 s to start the system, and press and hold the "POWER" key for 3 s again to turn it off.

❷ Active/Standby Mode switch

① Pressing briefly once can activate grid-connected charging and discharging, off-grid output, as well as USB and PD output. These functions can be intelligently controlled through the APP, and the "Active" indicator light will light up.

② Press the button briefly once again, and the product will enter the standby state. At this time, the above-mentioned functions will become invalid, and it will be unable to charge or discharge. Correspondingly, the AC OUT output indicator light will also go out.

❸ AC OUT switch

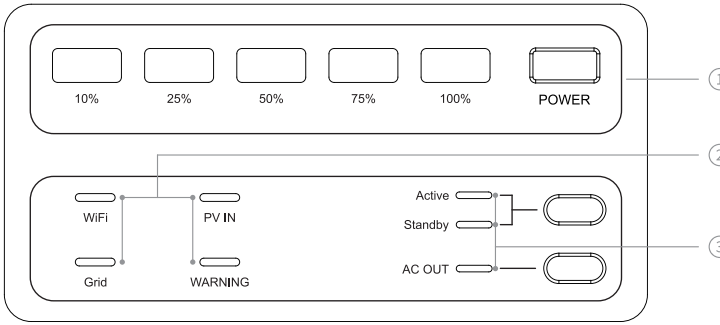
Press briefly once to turn on the AC output, and the corresponding LED indicator will light up; press briefly again to turn off the AC output, and the corresponding LED indicator will go off.

❹ USB switch

Press briefly the USB key to open the output port of the USB panel; press briefly again to close.

USB-A×1	TYPE-C × 1
QC 3.0	PD-100W

Description of indicator interface



❶ Battery indicator

The left row of indicators are the battery indicators, representing 10%, 25%, 50%, 75% and 100% of electricity quantity respectively. When charging, the battery indicator will enter the loop mode and cycle from left to right. When the battery level is 0%, the indicator representing 10% electricity quantity will flash constantly. When the BMS is in the protection state, the battery indicators will all flash.

❷ Function indicator

WIFI: WIFI connection status indicator. The light being on indicates that WIFI is connected; the light being off indicates that WIFI is not connected.
PV IN: Photovoltaic input indicator. The light being on indicates that there is a photovoltaic connection; the light being off indicates that there is no photovoltaic connection.
Grid: Mains power access status indicator. The light being on indicates that mains power is connected; the light being off indicates that mains power is not connected.
WARNING: Alarm indicator. The blinking of the indicator light reminds of equipment faults; the light being off indicates that the equipment is normal.

❸ Active, standby, AC output indicator

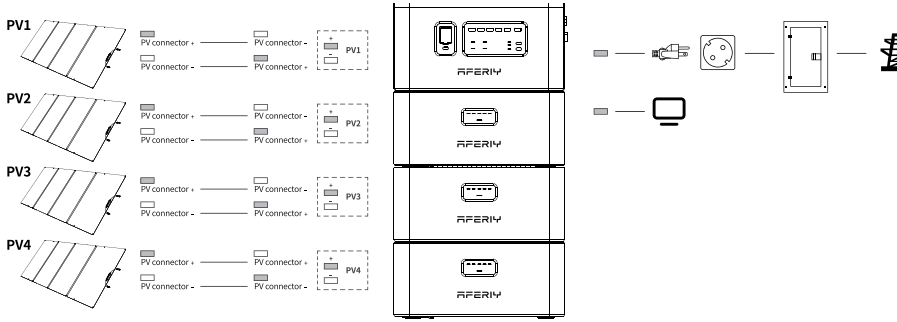
Active: Operation indicator light. which is on when the device is running and off when the device is in standby mode.
Standby: Standby indicator light. which is on when the device is in standbymode and off when the device is running.
AC OUT: AC output indicator light. which is on when the AC output of thedevice is on and off when the AC output is off.

If you have any questions, please feel free to contact us.
Email address: support@aferiy.com.
Sincerely.

Connection of solar panels

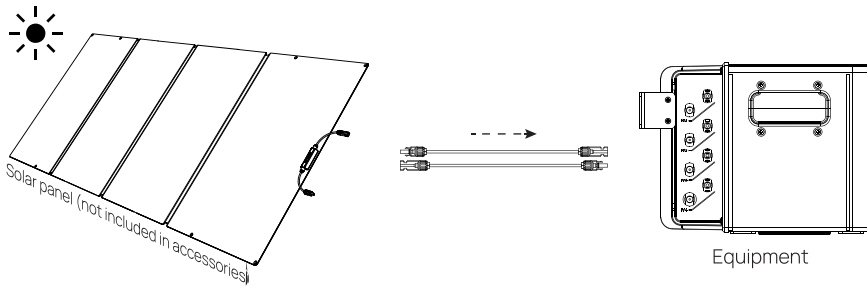
Our products can be connected to solar panels and can be charged through solar panels.

- The charging power of solar panels is determined according to weather, climate and other conditions.
- Solar panel voltage exceeding 60V will damage the equipment and may not be covered by warranty.
- Ensure that the model and voltage are identical for PV1 & PV2 and for PV3 & PV4 when connecting the photovoltaic panels.



- **Solar panel charging**

Equipment charging area



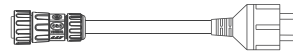
- **Prompt**

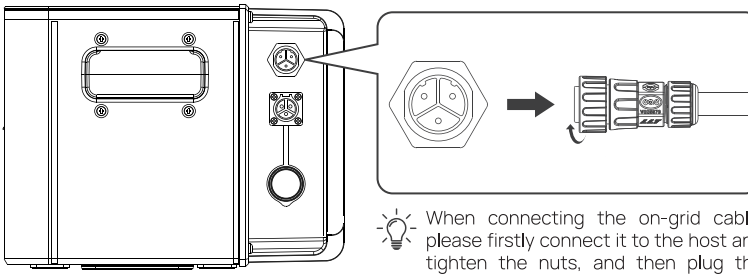
- When connecting the solar panel, follow the instructions that come with the solar panel.
- Before connecting the solar panel, make sure the output voltage of the solar panel is between 22-60 V to avoid damaging the product.
- It is recommended to use the same model of solar panel when connected to the product.
- Avoid connecting solar panels in series.

Connection

- **On-grid connection**

On-grid connection cable

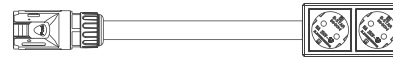


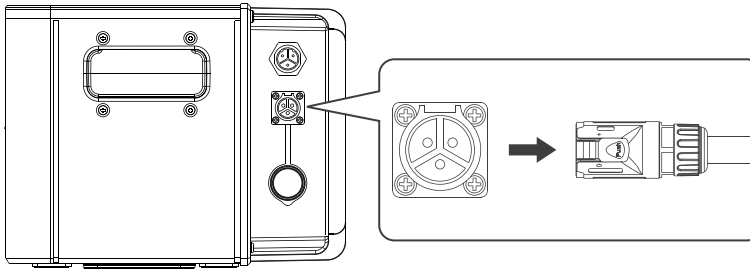


When connecting the on-grid cable, please firstly connect it to the host and tighten the nuts, and then plug the socket into the household socket. After installation, check and be sure to tighten the nuts.

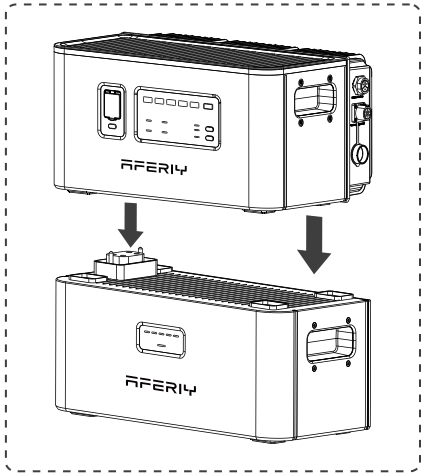
- **Off-grid connection**

Aviation socket output cable





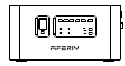
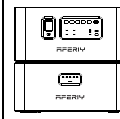
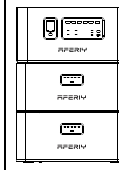
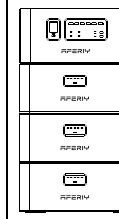
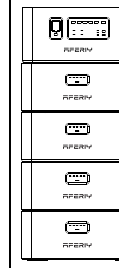
Product host and battery pack connection



When connecting the slave, first align the guide wire on the right side, then place the foot pad of the host in the fixing slot of the battery pack, then align the guide wire on the left side, gently lower down the left side, and inter-connect the parallel ports of the host and the battery pack respectively.

To separate the host and the slave, first gently lift the right side and raise it by 1-2 cm, then gently shake the left parallel port to loosen it, and then lift and separate the whole machine.

The host can be connected with multiple battery packs through a parallel port

Balcony Energy Storage					
Battery capacity of balcony energy storage battery pack	0	x 1	x 2	x 3	x 4
Battery capacity	1958Wh	3916Wh	5874Wh	7832Wh	9790Wh

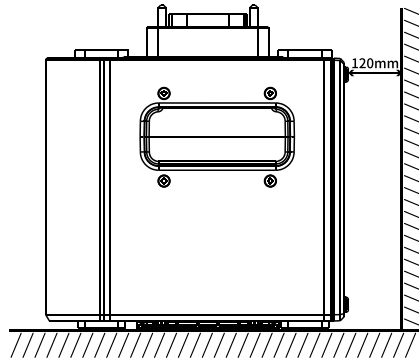
Attentions

- It is forbidden to plug and unplug the parallel port when the product is working, and only do it when the product is turned off.
- The host short-circuiting or battery parallel port extension is not allowed.

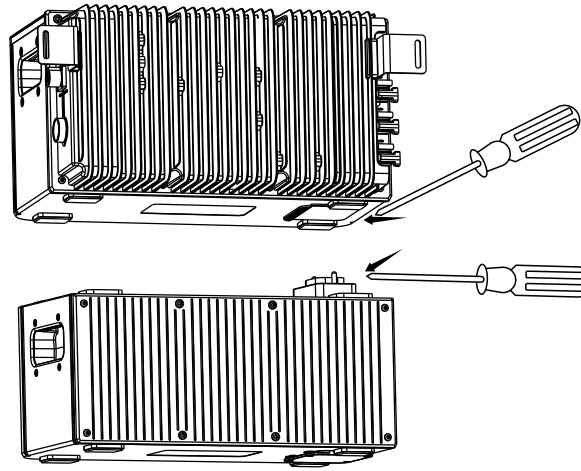
Installation

- **The following takes installing a balcony photovoltaic energy storage power supply and an expansion battery as an example.**

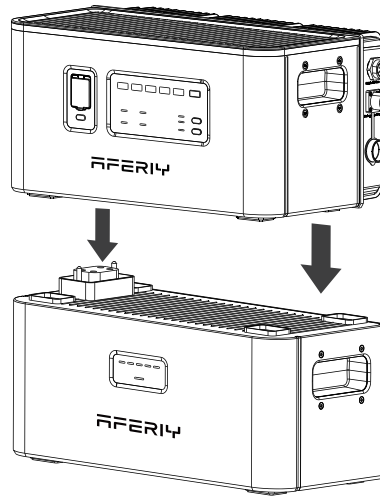
1. Place the expansion battery flat on the ground, 120 mm away from the wall.ll flash.



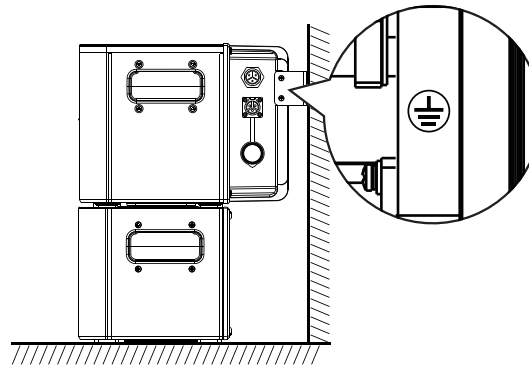
2. Use a Phillips screwdriver to unscrew the four screws of the waterproof board at the bottom of the balcony photovoltaic energy storage and expansion battery, and remove the waterproof board.



3. Align the host parallel port with the expansion battery parallel port, and slowly place the host on the expansion battery neatly and correctly.



4. Move the host and the expansion battery appropriately, so that the L-shaped bracket on the host is closely against the wall, then fix the L-shaped bracket to the wall with bolts.



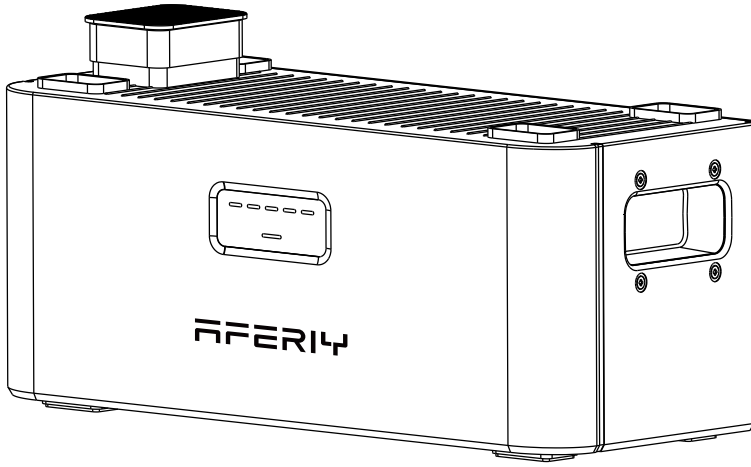
External Ground Terminal Description:

When the installation environment lacks adequate grounding, or when special grounding requirements specified by local regulations must be met, a reliable grounding connection can be established through the external ground terminal screw of this product. On the back of the product, there are two screws with grounding symbols on each side (also serving as L-shaped bracket fixing screws), totaling four, all of which can be used as grounding terminals.

Balcony Energy Storage Battery Pack

AF-PS240-B | User Manual

1958Wh

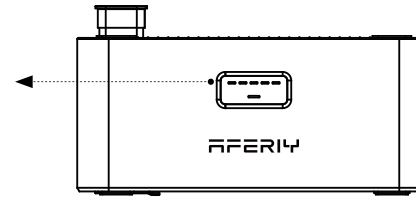


Before using this product, please read all instructions carefully. Do not attempt any modifications or custom configurations that are not explicitly described in this manual.
Please note that the warranty will be void if personal injury, data loss, or device damage occurs due to failure to follow the provided instructions.

Indicator overview:

The 5 battery indicators represent 10%, 25%, 50%, 75%, and 100% battery levels respectively.

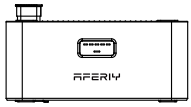
When charging: The indicator lights up in loop mode (cycles from left to right).
At 0% battery level: The 10% battery indicator flashes continuously.
BMS protection mode: All indicators flash simultaneously.



Specifications

Basic parameters	Model	AF-PS240-B
	Capacity	1958Wh(102Ah/19.2V)
	Weight	16.5KG
	Dimensions	455X228X243MM
Work Environment	Charging time	2.0 hours
	Operating temperature	-20 - 55℃
	Charging temperature	-20 - 55℃
	Waterproof rating	IP65
	Operating humidity	≤90%

Packing list



Balcony energy storage battery pack



User Manual

Attentions

Please ensure that this product is kept out of reach of children. When using this product close to children, please keep close supervision to avoid the risk of injury.
It is strictly forbidden to insert fingers or palms into this product.
It is prohibited to use accessories not recommended or sold by the manufacturer, which may cause the fire, electric shock hazards or personal injury.
To reduce the risk of damage to the power plug and power cord, unplug the product after use.
When using the product, do not exceed the specified output rating, overloading may cause fire hazard or personal injury.
Do not use damaged or modified products or accessories. Damaged batteries pose safety hazards and may cause fire, explosion or electric shock.
Do not operate this product with damaged power cord, plug, or output cable.
Do not disassemble this product. If maintenance or repair is required, consult a repair professional. Improper maintenance may lead to fire, electric shock, etc.
Do not expose the product to an open flame or an environment where the temperature exceeds 130℃, as the high temperature may cause a fire, etc.
To reduce the danger of electric shock, unplug the product from the outlet before performing any repairs as directed.
Make sure that the same replacement parts are used for repairs by professional technicians to ensure product safety.
The product may heat up slightly during the charging process. It is a normal situation.
Please make sure to charge the battery in a well-ventilated area.
Avoid cleaning the product with harmful chemicals or any detergent.
Improper use, drop or impact with large external force may cause product damage.
Keep the product position out of direct sunlight; otherwise, it may lead to product failure and battery damage.
Battery repair should be carried out by professional battery technician.
Avoid using the product in environments with strong static electricity or magnetic field.
Avoid exposing the product to flammable and explosive gases or fumes.
Avoid placing any heavy objects on the product.
Do not immerse the product in water. If the product accidentally falls into water, make sure it is placed in a safe, open place away from fire until the product is completely dry.

Instructions for removing and installing the battery

- When replacing batteries, make sure to use the same model and number of batteries or battery packs as that from the original factory.
- Do not open or damage the battery; as the electrolyte in the battery contains toxic chemicals, avoid contact with the skin, eyes, etc.
- The battery may have residual charge. To ensure safety during operation, observe the following precautions:

① Remove watches, rings or other metal objects from your body.

② Use tools with insulated handles.

③ Wear rubber gloves and rubber boots.

④ Do not place tools or metal objects on the battery.

⑤ Disconnect the power supply before connecting or disconnecting the battery terminals.

⑥ Check whether the battery is misgrounded. If yes, the battery may cause a short circuit through the ground wire, please disconnect it in time.

⚠ Warnings

- Replacing batteries of the incorrect type or model may pose a safety hazard.
- Placing batteries or the product in other high-temperature environments such as open flames and ovens, or using sharp tools to cut and destroy the product may cause explosions.
- Storing or placing the battery or the product in a high temperature environment may cause an explosion or release of flammable liquid gases.
- Exposure of the battery or the product to extremely low air pressures may result in an explosion or leakage of flammable liquid gases.
- When the photovoltaic array is exposed to sunlight, direct current (DC) is generated, which is supplied to a power conditioning equipment (PCE).

Attentions

If the battery type is incorrect, an explosion may occur. Used batteries can be recycled.
If the incorrect type of battery is replaced, an explosion may occur.

Disclaimer

Before use, please read the user manual of this product to ensure full understand-ingand correct use. After reading, keep the user manual properly for future reference.Ifyou do not operate this product correct-ly, you could cause serious injury to yourselfor others, or result in damage to the product and property. Once you use this product.you are deemed to have understood, recognized and accepted all terms and contentof this document. Users undertake to be responsible for their own actions and allconsequences arising therefrom. AFERIY is not responsible for all losses caused by theuser's failure to use the product in accordance with the User Manual.

In compliance with the law, the company has the final right to interpret this documentand all related documents of the product. If it is updated, revised or terminated withoutprior notice, please visit the AFERIY official website for thelatest product information.

Warranty

Warranty Card	
Name	
Address	
Contact No.	
E-mail	
Brand, order No.	
Date of purchase	
Fill in the date	
Please complete the above information	

This product comes with a 10-year warranty from the date of purchase

- The warranty service covers quality issues arising from normal use.
- After purchasing our product, please keep the product with the invoice and other accompanying items. As they may be requested when applying for maintenance services.
- If the warranty card is damaged, altered, or otherwise deemed incorrect, or comes without stamp by the selling store, the warranty service may not be provided.
- Damage caused by use beyond normal use is not covered by the warranty.
- The warranty scope is subject to that recognized by the Company.
- The warranaEven if covered by warranty, products with equivalent functionality are sometimes exchanged. The shipping and maintenance costs of products beyond warranty shall be borne by the customer.ty scope is subject to that recognized by the Company.
- The specifications and features of the product may be changed without prior notice.