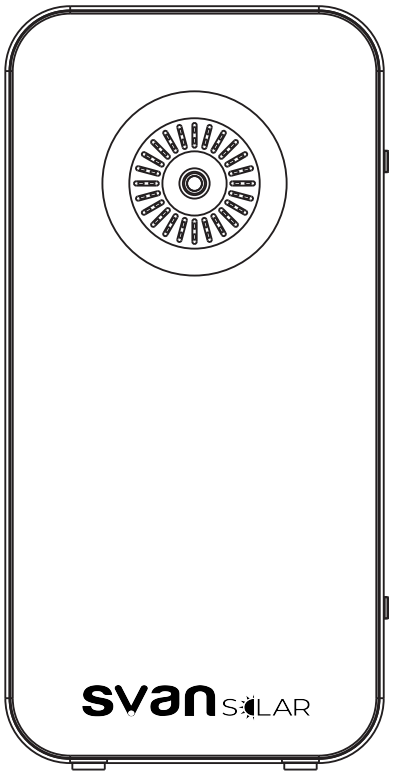
PROTECT YOUR WARRANTY
Read this manual carefully and keep it for future reference



Balcony ESS

User Manual

Reference: SSRSBT2K

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NOTE: This appliance is intended for domestic use only !

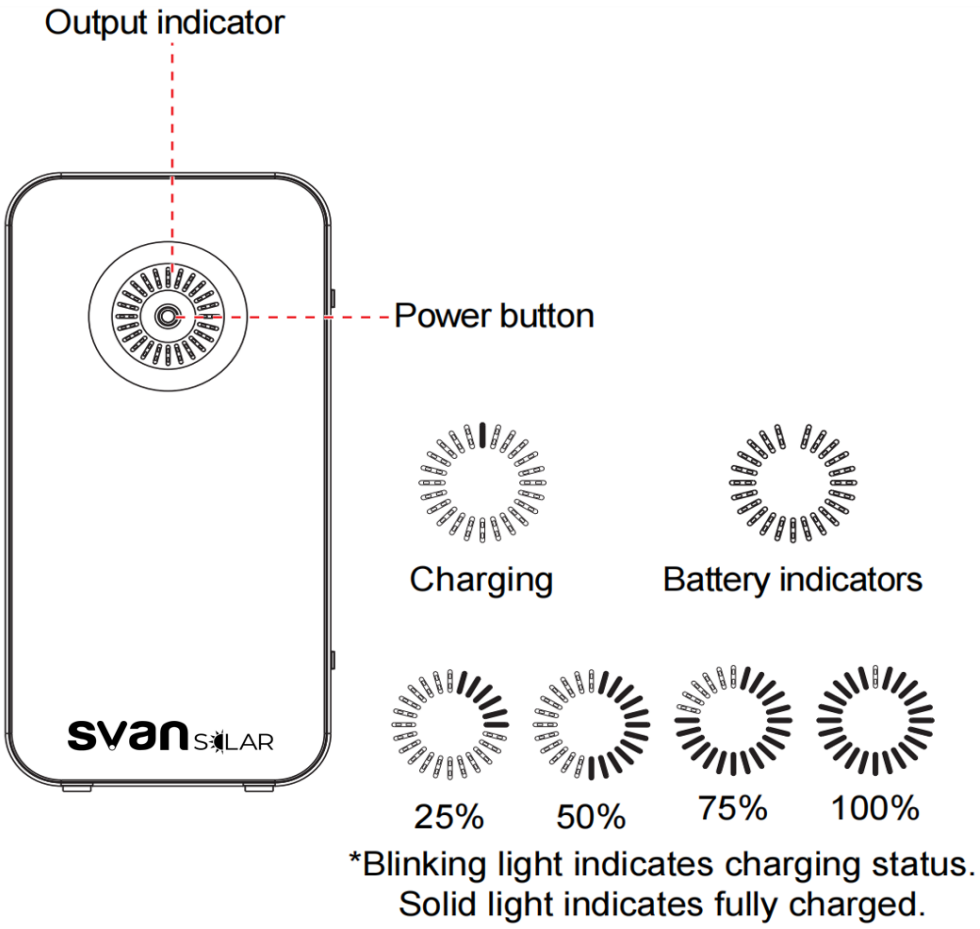
1. Interface

LED Indicators

Status indicator: outputstatus
Battery indicators: LED indicators to show battery status

Power Button

Short press the button for 3 seconds to turn on
Long press the button for 3-8 seconds to networking state Long press the button for 10 seconds to turn off



NOTE:The illustrations are images for reference,your device may differ

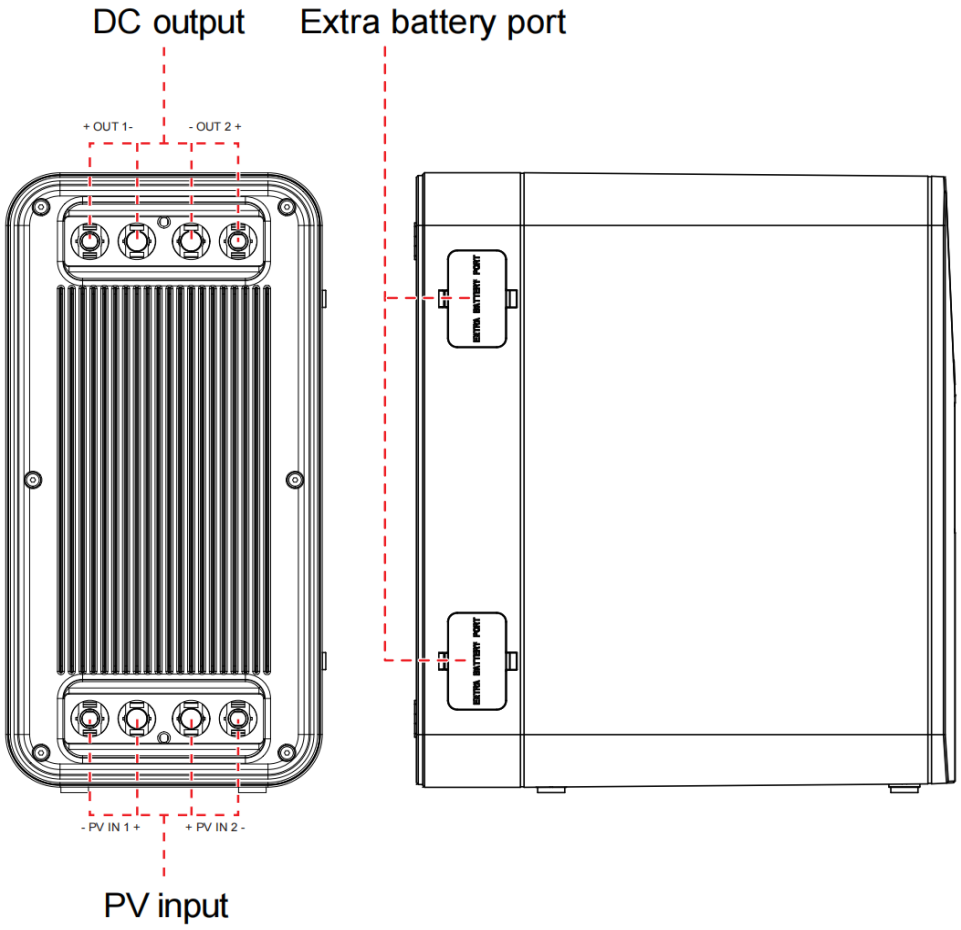
1. Interface

Input/Output

PV input:12V-59V; 500W*2max
DC output:42V-50.4V; 400W*2max

Extra battery port

Max expandable numbe of battery :2 Max expandable capacity: 6720Wh *Extra battery need to buy separately.



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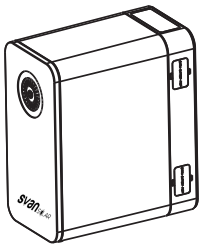
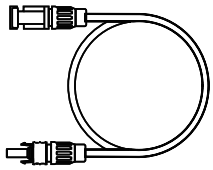
2. Packing List



BALCONY ESS*1



MC4 extensioncable*4



Tools*1



User manual

3. Specifications

Specifications						
Capacity	Weight	Dimension	PV input	PV output	Battery cell	Certificate
2240 Wh (50000 mAh/44.8 V)	18.7 kg	298*175*353 mm	1000 W Max.	800 W max.	LiFePO4 battery	RoHS

Cycle times	Storage temperature	Operation temperature	Charging temperature	Protect system
6000 times (25°C)	-10 - 55°C	-10 - 50°C	0 - 50°C	Overcharge protection, over-discharge protection, overcurrent protection, over temperature protection, short circuit protection, overvoltage protection.

NOTE:The illustrations are images for reference,your device may differ

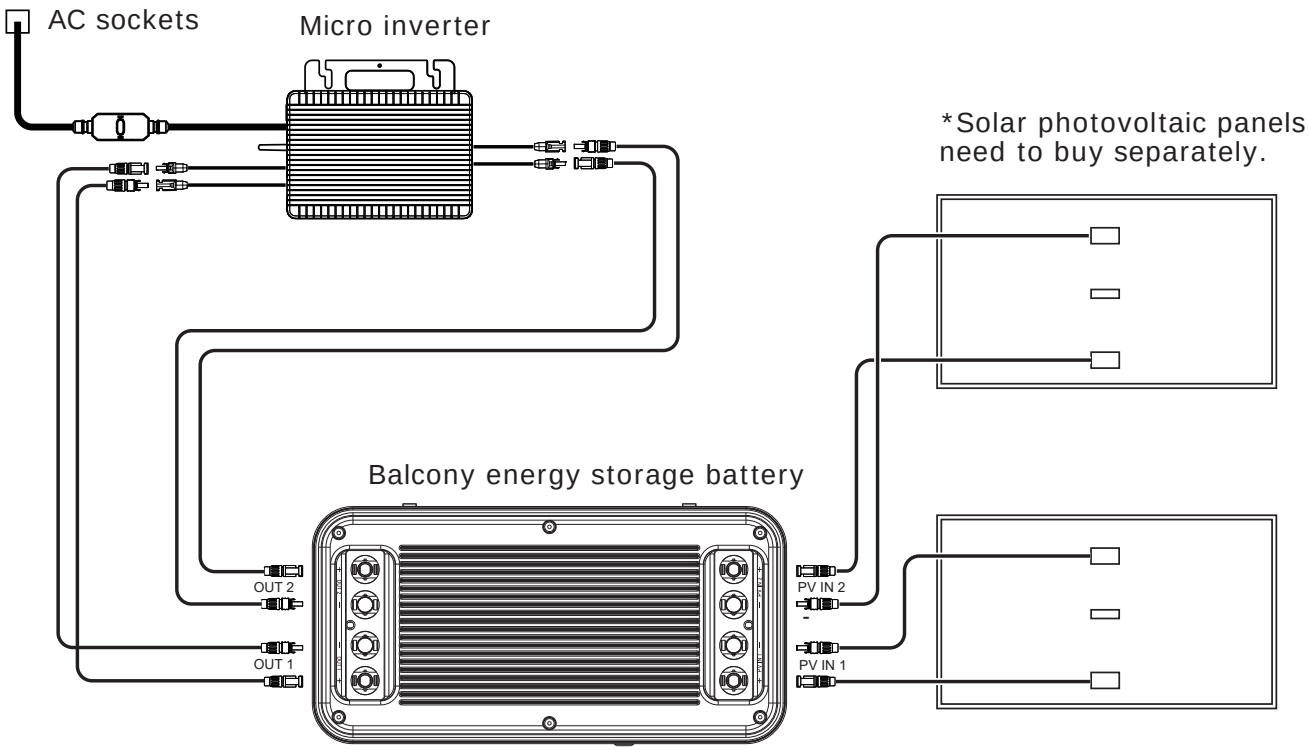
4. Operating Temperature Range

Low temperature may affect the battery capacity of the product, the product can be charged in a temperature range of 0°C- 50°C. If charging is required when the temperature is below 0°C, It is recommended to place the product in an environment above 0°C and connect the power source (AC output socket, solar photovoltaic panel).The product can power the device in the temperature range of -10°C- 50°C.

5. Use Instructions

5.1 Connecting One Micro Inverter

Howtouseit:
1.Connect the solar panel to BALCONY ESS “ PV IN ” .
2.Connect the micro inverter input to BALCONY ESS “ OUT ” .
3.Connect the micro inverter output to the AC sockets.
4.Press the BALCONY ESS switch button until the power display state light up.5.If not in use, you can press the switch button to turn off the BALCONY ESS.



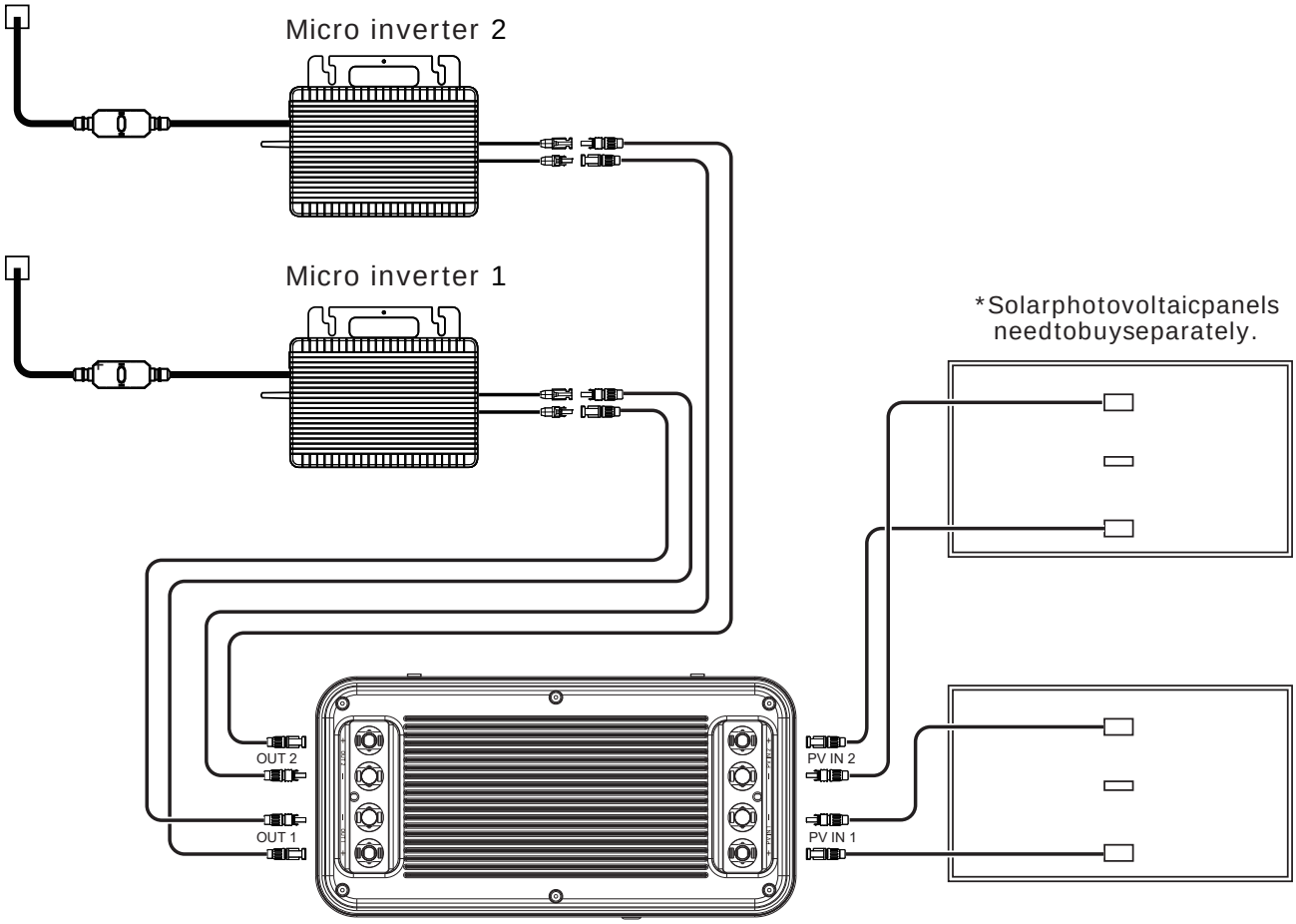
*Do not connectthe positive and negative poles of a battery together.

NOTE:The illustrations are images for reference,your device may differ

5. Use Instructions

5.2 Connecting Two Micro Inverter

When the power of the micro inverter is less than 400 W, the battery supports pairing with two micro inverters.



*Do not connectthe positive and negative poles of a battery together.

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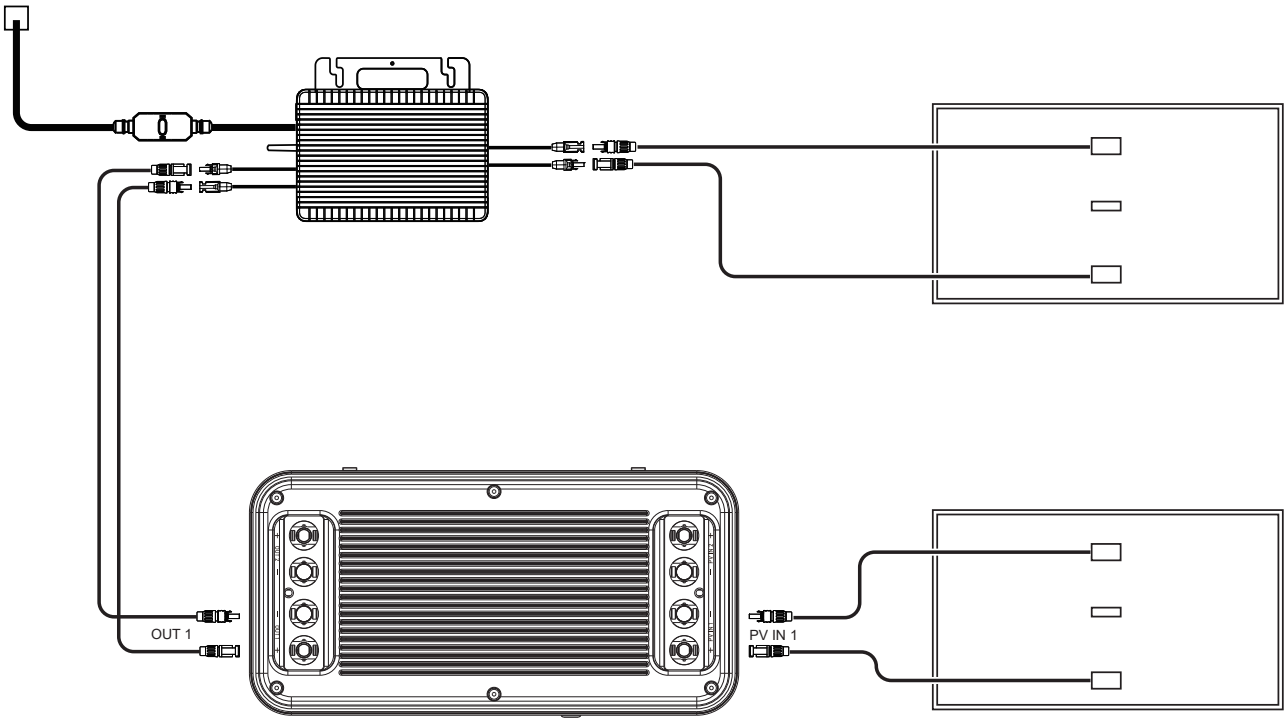
5. Use Instructions

5.3 Mixed Use

If you find that the micro inverter does not work properly after connecting in the above way, please connect in the following way: Connect one of the micro-inverse to the “ OUT1 ” of the product, and the other micro-inverse is suspended or connected to the solar energy.



NOTE:The illustrations are images for reference,your device may differ

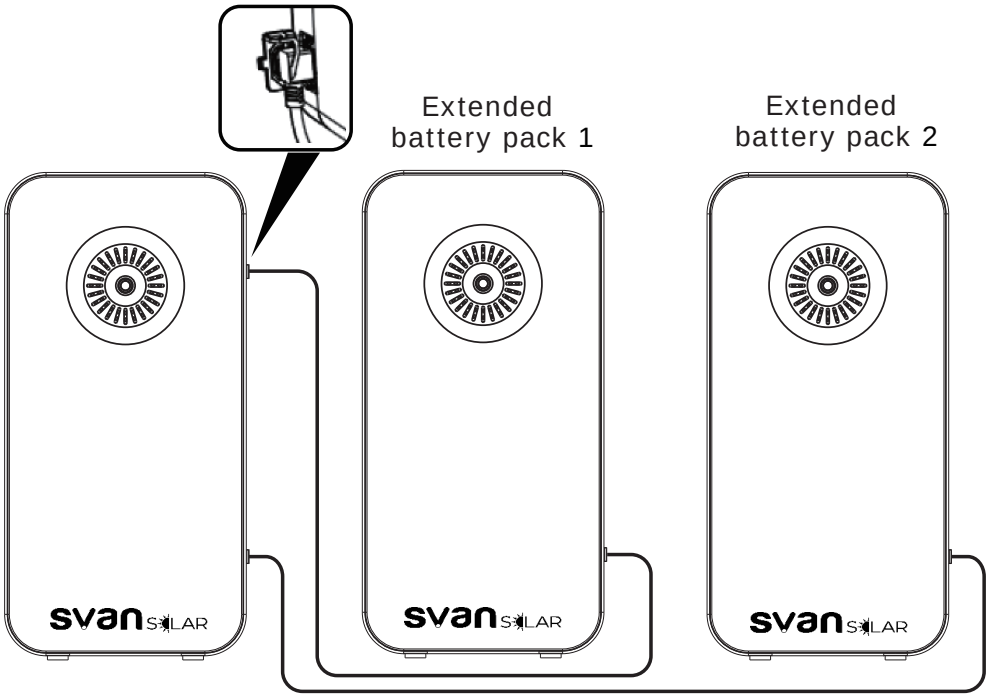
Do not connectthe positive and negative poles of a battery together.

This problem stems from the fact that some micro-inverter solutions on the market are internally common grounded, and if the two PV inputs of the micro-inverter are connected to a battery bank at the same time, the micro-inverter will not work properly.

5. Use Instructions

5.4 Extended Battery

When adding a configuration extension battery pack, please use the battery cables that come with the box to connect the battery pack.



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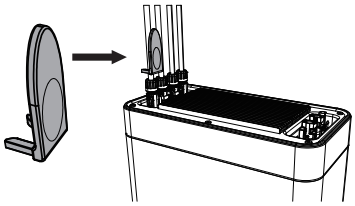
*When configuring 3 battery packs, only one of them discharges, and the order of battery pack dischargeis: Extended battery pack 1 - Extended battery pack 2 - Main battery pack.

*The maximum PV input power of the battery pack is 500W*2, with an input voltage of 12V-59V
please configure the extension battery pack according to the actual situation.

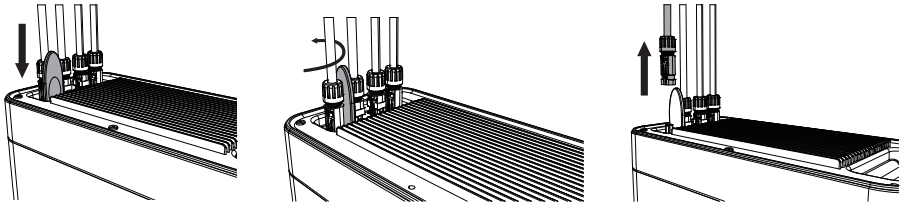
5. Use Instructions

5.5 Operating Instructions

Removethecable:



Rotate the tool 90°



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Importanttips:

- Before connecting cables,ensure that the micro inverter,solar panels,and the home grid are disconnected,and product is turned off.
- Before setting the output to micro inverter please confirm the rated power of your micro inverter, the output to micro inverter should not be greater than the rated power of your micro inverter.
- The product should be protected from direct sunlight to prevent rapid temperature increase.
- Please check the accessories before installation, some accessories need to be purchased separately.
- After the installation, please first download the app to check electricity produced.
- For long-term storage, charge and discharge product once every 3 months (discharge product to 20%, then recharge it to 80%).

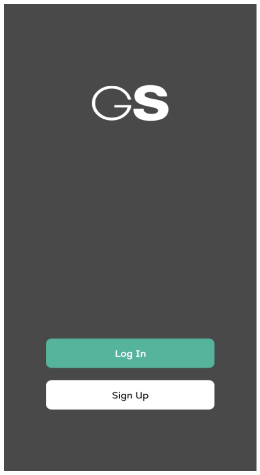
6. APP Instructions

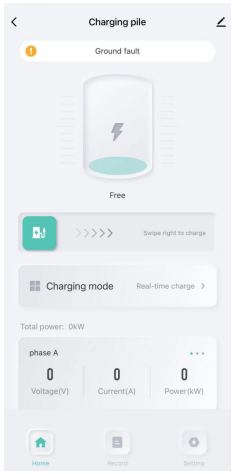
SVAN app can connect all your devices via Bluetooth and Wi-Fi to track your energy use and production in real time, dynamically display the status data of the device in real time, and control the energy of the device directly from your hands.
This software could be operated on mobile phones with Android 6.0 and IOS 12.0 or above.

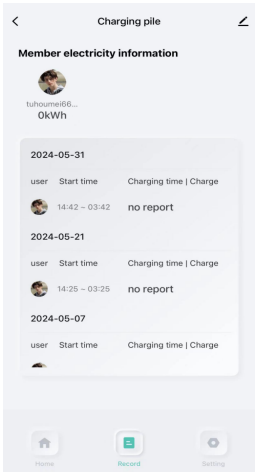
6.1 Software Installation

1. Android phone users: Search for **SVAN** in Google Play.
2. iPhone users: Search for **SVAN** in the App Store.



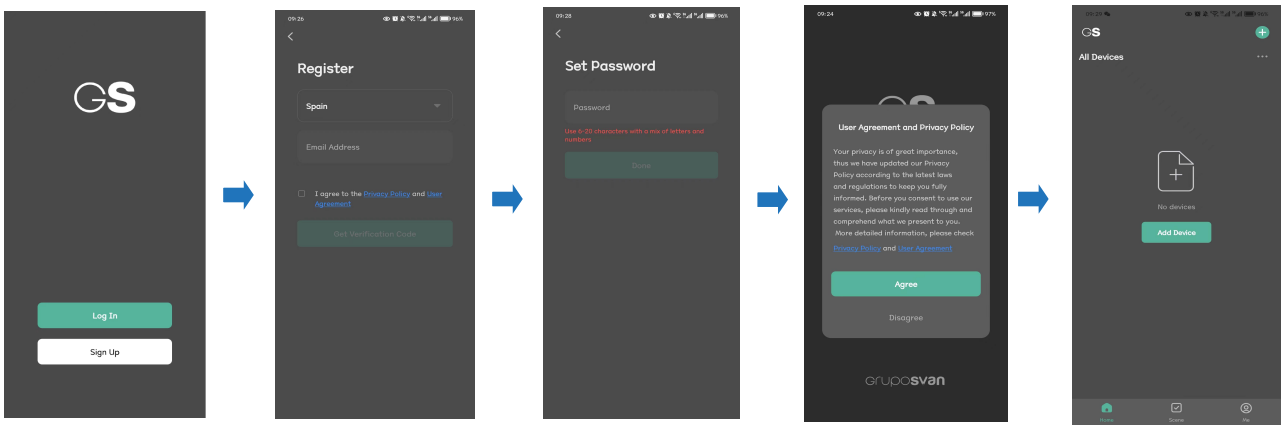






6.2 Login

1.After installation, users can click the desktop icon to enter the login interface.
2.Choose the appropriate server based on your region.Select register account, enter your e-mail address.A confirmation code will be sent to the email address provided email for verification. Confirm your email in the app with the code you have just received and set apassword.
3.Log in with your e-mail address and the password you have chosen.
4.Agree to the following authorization requirements, then follow the steps and go to the APP to Add device.



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6. APP Instructions

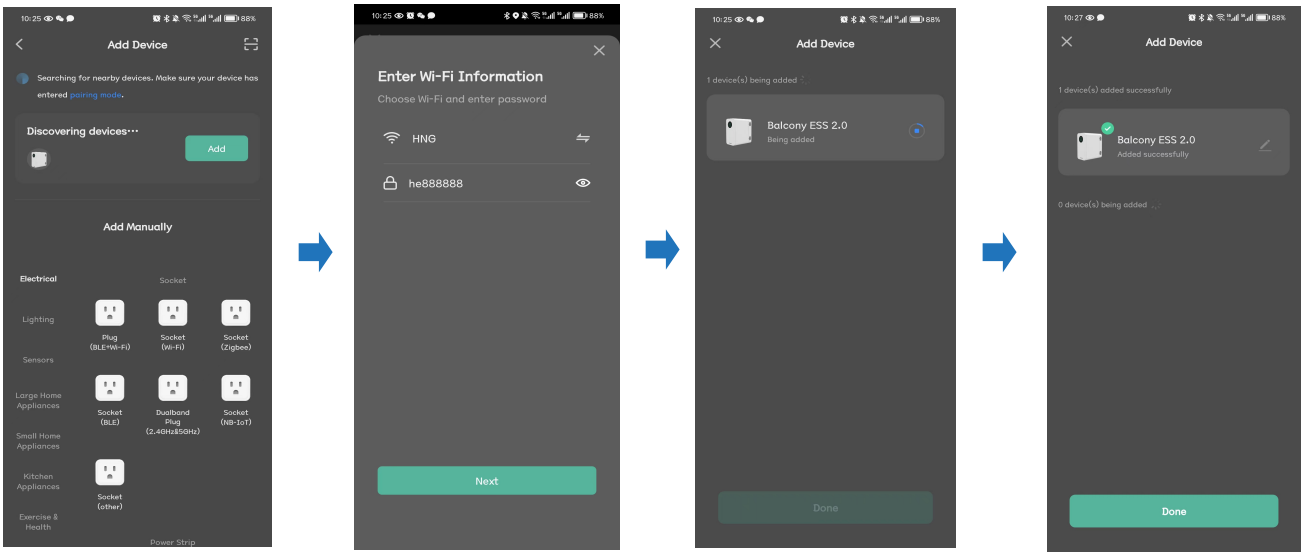
6.3 Adding Devices

1.After the device is successfully added,you can view the added devices on the main interface. When adding a device,it is necessary to enable the Bluetooth and WiFi functionalities on the smart phone.

2.After successful login, select "Add Device" in the top right corner to add a device.

*The Wi-Fi network needs to support the 2.4 GHz frequency and have no encryption.

*Long pressing on the device list will trigger the operation to delete the device.



6.4. Devices Home and Settings

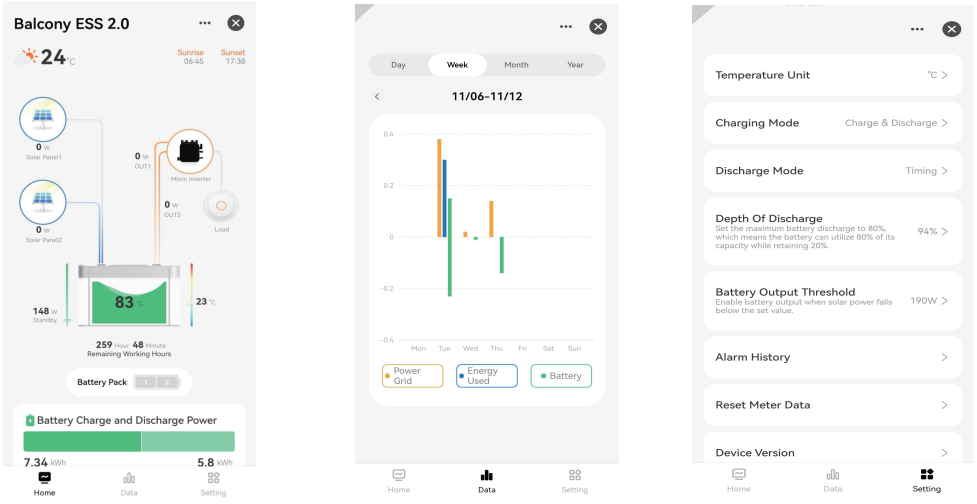
Real-time display the solar charging status, discharge and other status.

(1)Charging mode: support battery charging mode settings to be set to charging first or simultaneous charging and discharging.

(2)Discharge mode: support setting discharge time periods and output power according to actual conditions.

(3)Depth of discharge: set the maximum battery discharge to 80%, which means the battery can utilize 80% of its capacity while retaining 20%.

(4)Battery output threshold: enable battery output when solar power falls below the set value.



NOTE:The illustrations are images for reference,your device may differ

7. FAQ

Q: What is the battery type?
LiFePO4 battery.
Q: Can the product be taken on the aircraft?
No, according to the airline transportation standards, 100 Wh capacity of lithium battery can not board the aircraft.
Q: Can be charged with solar panels from a different brand?
Yes. Please use solar panels that meet the following specifications for charging. Voltage range: 12V DC-59V DC.
Rated output power (discharging): 800 W max. (Choose our solar photovoltaic products, just insert the DC port, you can easily charge the product with solar energy.This product uses MPPT (Maximum PowerTracking) technology,
which can compare the output voltage point of the solar panel with the battery voltage of the product in real time, so as to find the maximum power output point that the solar panel can provide and charge the battery of the machine to obtain the best charging efficiency. *Actual performance is related to weather)
Q: How can I prolong the lifespan or better maintain my product that is mounted on the floor?
If your balcony is often flooded, we recommend elevating your product.This will prevent malfunctions due to prolonged soaking.

8. Toxic and Harmful Substances

Part name	Toxic and harmful substances or chemical elements					
	Pb	Hg	Cd	Cr(VI)	PBB	PBDE
Product shell	O	O	O	O	O	O
Circuit module	X	O	O	O	O	O
Button	O	O	O	O	O	O
Small hardware	O	O	O	O	O	O
Charging cable	O	O	O	O	O	O
Battery	O	O	O	O	O	O

O: The content of hazardous substances in homogeneous materials all components are limit requirement specified in GB-T 26572.

X: The content of hazardous substance in at least one of the average materials of the part exceeds the limit requirement of GB-T 26572, and there is no mature alternative in the industry at present, which meets the environmental protection requirements of the EU RoHS directive.

This information for reference purposes only and does not represent a binding agreement. Product (Color, Size, OSD, etc.) in kind prevail.

9. Important Safety Information

Warnings!

Please notice the following safety precautions carefully. If physical injury,loss of data,or damage is caused by failure to follow instructions,the warranty does not apply.

- To reduce the risk of injury,close supervision is necessary when the product is used near children.
- Donot put fingers or hands into the product.
- Use of an attachment not recommended or sold by the product manufacturer may result in a risk of fire,electric shock, or injury to persons.
- To reduce risk of damage to the electric plug and cord,pull the plug rather than the cord when disconnecting the product.
- Donot use the product in excess of its output rating.Overloadout puts above the rating may result in a risk of fire or injury to persons.
- Donot use the product or attachment that is damaged or modified.Damaged or modified batteries may exhibit unpredictable behavior resulting in fire,explosion,or risk of injury.
- Donot operate the product with a damaged cord or plug,or a damaged out put cable.
- Donot disassemble the product.Take it to a qualified service person when service or repairisre quired.Incorrect reassembly may result in a risk of fire or electric shock.
- Donot expose the product to fire or high temperatures. Exposure to fire or temperatures above 130°C may causean explosion.
- To reduce the risk of electric shock,unplug the power pack from the outlet before attempting any instructed servicing.
- Have servicing performed by a qualified repairperson using only identical replacement parts. This will ensure that the safety of the product is maintained.
- When charging a device,the product may feel warm.This is a normal operating conditionand should not beacause for concern.
- When charging the internal battery,work in a well-ventilated are a and donot restrict ventilation in anyway.
- Donot clean the product with harmful chemicals or detergents.
- Misuse,dropping,or excessive force may cause product damage.
- When disposing of secondary cells or batteries,keep cells or batteries of different electro chemical systems separate from each other.
- Donot use or store this product in direct sunlight for a long period,such as in a car, cargobed, or any other place where it will be exposed to high temperatures.Doing so may cause the prod uct to malfunction,deteriorate,or generate heat.
- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.
- Donot use this product near strong static electricity or strong magnetic fields.
- Donot expose this product to flammable,explosive gas,or smoke.
- Donot stand on the product.
- Donot immerse the product in water. If the product accidentally falls in to water,place it in a safe,open place and keep it away from fire until it is completely dry.

10. Other Information



Dispose of packaging in an environmentally-friendly manner.
This appliance is labelled in accordance with European Directive 2012/19/EU concerning used electrical and electronic appliances (waste electrical and electronic equipment -WEEE). The guideline determines the frame work for the return and recycling of used appliances as applicablethroughout to the EU.

PACKAGE INFORMATION: Packaging materials of the product are manufactured from recyclable materials in accordance with our National Environment Regulations.Do not dispose of the packaging materials together with the domestic or other wastes. Take them to the packaging material collection points designated by the local authorities.

Warranty returns

Should you for any reason need to return this product for a warranty claim, make sure to include all accessories with the product.

SVAN TRADING S.L.
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