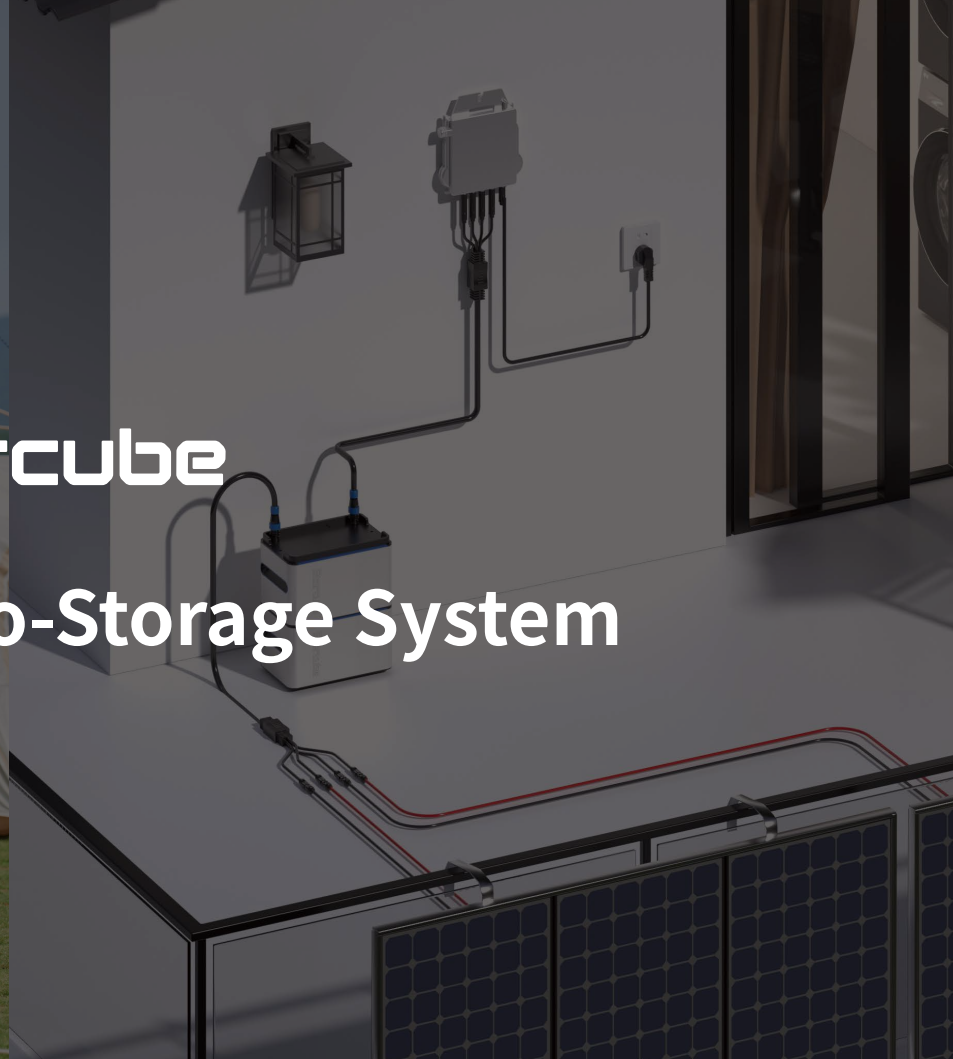
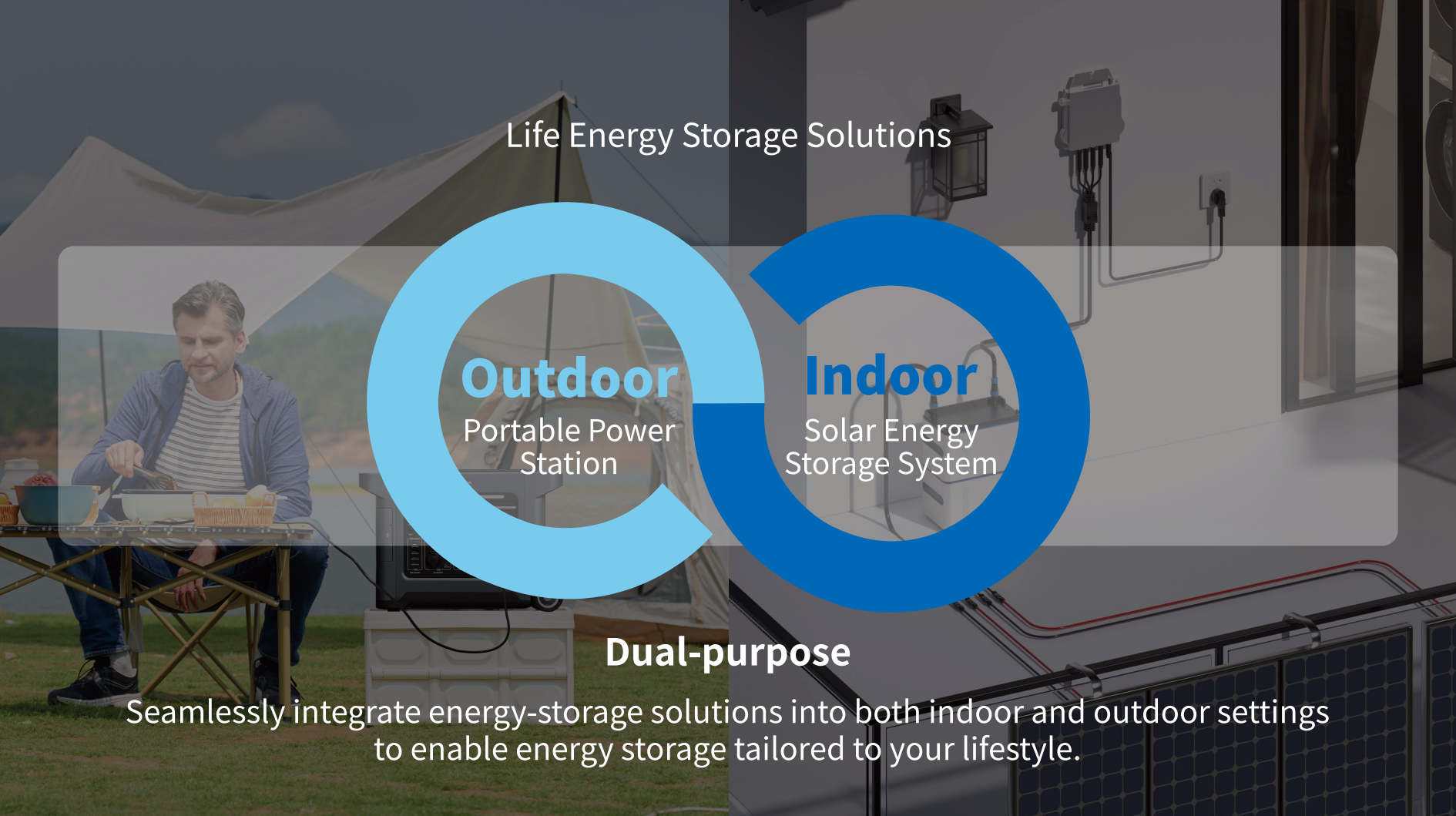
Storcube

Residential Micro-Storage System




Life Energy Storage Solutions
Outdoor
Portable Power Station
Indoor
Solar Energy Storage System
Dual-purpose
Seamlessly integrate energy-storage solutions into both indoor and outdoor settings to enable energy storage tailored to your lifestyle.

About Us

Storcube is a rapidly emerging brand in the global energy storage industry, specializing in the research, development, manufacturing, and sales of residential energy storage solutions.

Storcube is committed to advancing technology and innovation, aiming to provide convenient, efficient, and sustainable green energy solutions for everyday living.

Our diverse range of energy storage solutions is tailored to meet the needs of various daily life scenarios, including homes, balconies, gardens, off-grid vacation homes, camping, outdoor operations, and more. With a global supply chain, we offer localized after-sales and warehousing services, actively promoting and embodying the principles of a green lifestyle through energy storage.

Backed by a team of electrical engineers and energy storage experts with over 20 years of experience, we have our own state-of-the-art R&D center and manufacturing facility. This allows us to independently design and produce the core components such as PCS, Inverters, MPPT chargers, and BMS.

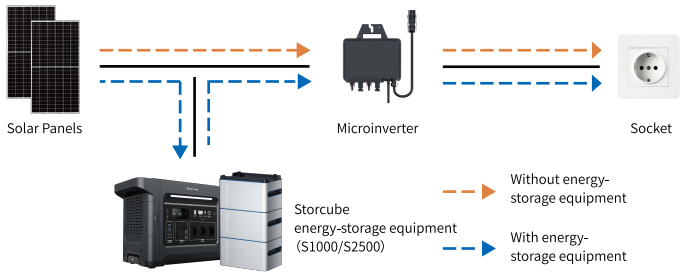
At Storcube, we envision energy storage as an integral part of everyday life, bridging the gap between technology and practicality.

Indoor-Solar Energy Storage System

The solar storage system, a compact and portable energy storage system is designed for balconies and terrace, **consisting of solar panels, a microinverter and smart lithium battery packs.**It offers a convenient solution for energy storage.

- **Easy Installation:** Compared to traditional rooftop PV systems, the balcony solar storage system offers a more straightforward and flexible installation process with its plug-and-play design.
- **Significant Profitability:** While traditional PV systems primarily generate power during the daytime, which does not align with peak electricity demand times, integrating an energy storage system, especially on balconies, allows users to benefit from significant cost savings due to energy price differentials.

Working Principle



Problems Solved

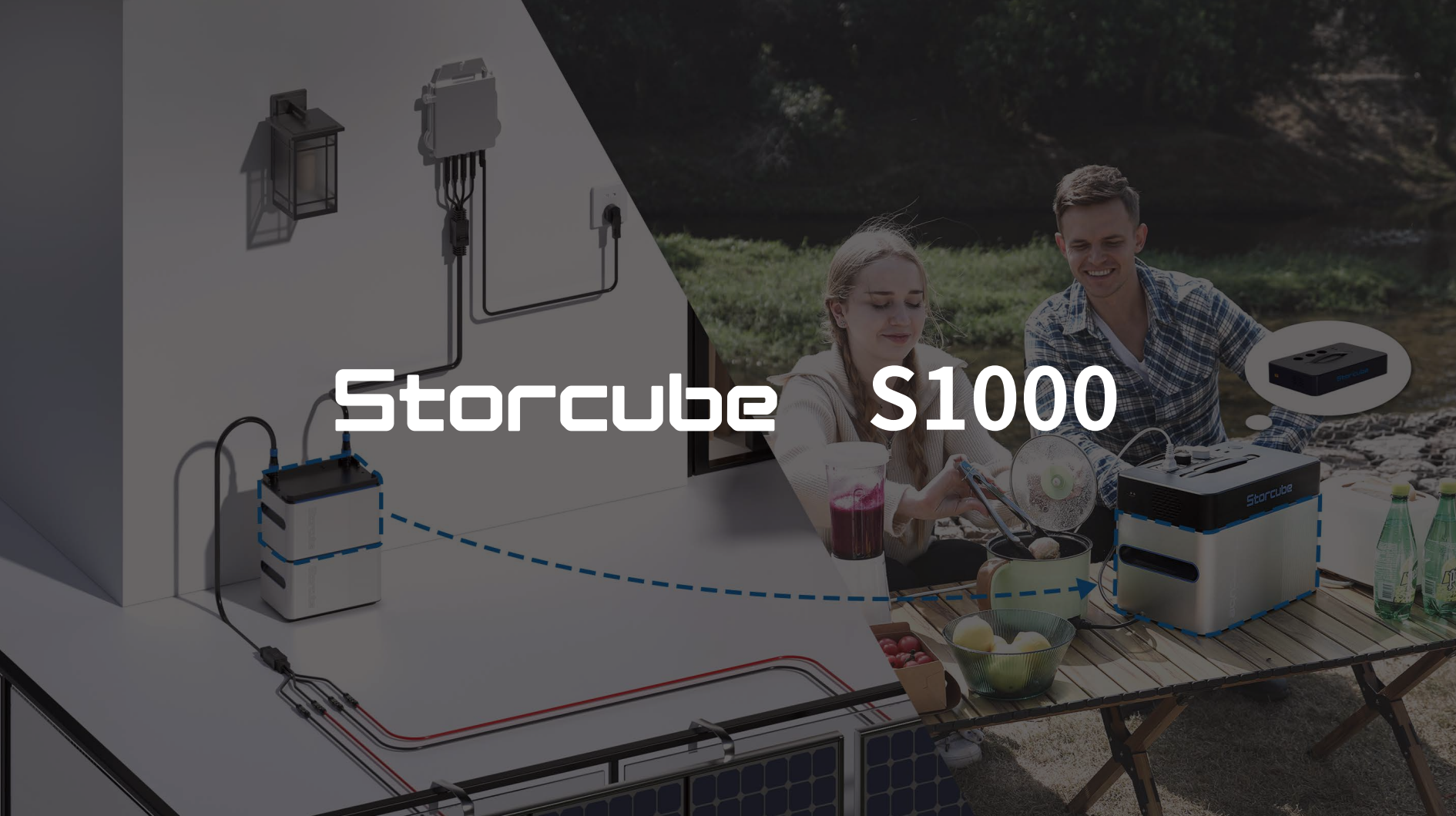
1. Optimize the household electricity structure to maximize green electricity consumption.
2. Make the most of solar energy with a compact design.

Market Positioning

1. For users who have installed balcony PV systems, we offer an energy-storage solution by integrating smart lithium battery packs.
2. For users who haven't installed balcony PV systems, we offer a turnkey solution for balcony solar storage systems.

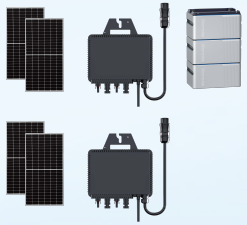
Outdoor-Portable Power Station

Safe, portable, and efficient high-reliability outdoor power source.
Ideal for various outdoor and emergency scenarios, and a perfect companion for power tools.
Power up anytime, anywhere.


Storcube S1000
Storcube

Economic Benefits

Users can achieve substantial annual electricity costs savings:



With energy-storage equipment

€480 /year

Without energy-storage equipment

€156 /year

- Assuming effective sunlight duration of 3~4 hours per day and an MPPT output of 1200W, the solar storage system can generate approximately 3.6~4.8 kWh of electricity daily. This leads to annual savings of €480, based on an electricity cost of €0.4 per kWh.
- Annual electricity savings can be calculated as: (4 kWh/day * 300 days)/3500 kWh/year = 34.2%.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Solar Energy Storage System

Solution Advantages

Wide Compatibility

Compatible with **99%** of microinverter systems; no communication required for matching and precise power control.

Easy Self-Installation

Plug-and-play, easy to install.

Modular Design

Intelligent, modular lithium battery design with stackable parallel connection and flexible expansion based on power consumption.

- Single pack **1024Wh**,
- The system's capacity is as high as **5120Wh** with **five** packs in parallel connection.

Durable, with a Long Lifespan

- IP65, suitable for harsh outdoor environments.
- LFP battery with more than 6,000 cycles and a lifespan exceeding 10 years.
- Intelligent BMS control with 10 layers of worry-free protection.

Dual Independent MPPT

- A single point of failure won't affect the output, so the system's reliability is maximized.
- Ensure the maximum energy output of solar panels without wasting solar resources. Address the issue of reduced power-generation efficiency due to shadows from buildings, trees and other obstacles. There is no need to worry about building orientation, sunlight exposure, available space or other factors.

Precise Control

- Flexible output characteristics, intelligent adjustment of output power to meet back-end load conditions, and greater efficiency for green electricity.
- Default PV characteristic curve output for microinverter systems and strong adaptability.

Intelligent Control and Monitoring

Equipped with Bluetooth, WiFi module, and Storcube app provide 3 control modes:

1.Can be combined with smart plugs to achieve automatic operation mode and precise power supply.

2.Uses time period mode, allowing users to customize device power supply time intervals through the app.

3.Can be controlled independently using constant power mode.

Solar Energy Storage System-Smart Lithium Battery Pack

Specifications

	Item	Technical Specifications	Remarks
Mainframe	Product Model	STC 01/1 E1	
	Capacity	1024 Wh	
	Size(L*W*H)	12.99*8.27*7.68(in) / 330*210*195(mm)	Single pack
	Weight	24.25lbs/11Kg	
	Battery Type	LiFePO4	
	Cycle Life	6000 cycles, remaining capacity ⩾ 70%	
	Maximum Input Power	1200W	600W*2
	Intput Voltage Range	18-55V	
	Input current max	15A*2	
	Maximum Output Power	800W	According to EU regulations
	Output Voltage Range	20-45V	
	Maximum Number of Parallel Battery Packs	5	
	Maximum Expandable Capacity	5120Wh	
	Protection Level	IP65	
	Charging/Discharging Ambient Temperature	-20°C-45°C	Note: When the battery cell temperature is ⩽5°C, the electric heating will activate. Charging is possible once the battery cell temperature exceeds 0°C.
	Electric Heating Start Temperature	⩽5°C	
Protection	PV high-voltage rapid shutdown function, overcharge, overdischarge, overcurrent, high temperature, low temperature, and short circuit protection	Support	
Others	Wireless Communication	Bluetooth, WiFi	
	Heating Function	Support	
	Balancing Mode	Support	
	Communication	CAN	

- 2-channel MPPT Maximum Output 800W
- LiFePO4 10-year lifespan, 5-year warranty
- Single pack capacity of 1024Wh
- Up to 5 packs can be connected in parallel

How to Configure

1

Check Your Local Regulations

Check your local regulations to determine the allowable maximum power for a home outlet. In most cases, the allowable maximum power is either 600 W or 800 W.

2

Estimate the Generation Capacity

The maximum output power configured for MPPT is 1200 W. Assuming that the duration of effective sunlight is four hours per day, the daily generation capacity is as follows:
1200 W × 4 hrs. = 4.8 kWh.

3

Estimate the Daytime Power Consumption

Assuming that the power consumption of a refrigerator and other low-voltage equipment (such as the network) is 150 W, the daytime power consumption is 150 W × 8 hrs. = 1.2 kWh.

4

Calculate the Battery Capacity

The energy-storage configuration is as follows: 4.8 kWh - 1.2 kWh = 3.6 kWh. 3~4 smart lithium battery modules are recommended in consideration of fluctuations in power generation due to battery life and the intensity of sunlight.

Outdoor-Portable Power Station

Smart lithium battery packs flexibly combine with the inverter module to form a portable power station, making it the ideal companion for camping and other outdoor activities.

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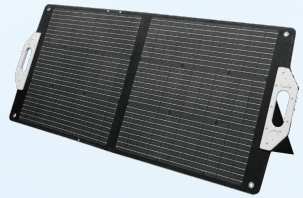


Smart Lithium Battery Pack × n

Split-type Inverter (Power Hub)

Solar Panels (Optional)

Portable Power Station with

Detachable, Combinable, Replaceable Battery Packs

Portable Power Station

Product Features

1000W Output Power

Solar Charging

Flexible Replacement

Compact and Portable

- Modularized and combinable design, ensuring easy installation and disassembly while being compact and portable.
- You can flexibly combine smart lithium battery packs according to your power needs. You can also replace battery packs whenever necessary, guaranteeing worry-free electricity use.

Pain points of portable energy-storage power-supply products:

- High-capacity products: Heavy and large, non-portable, and inconvenient for outdoor activities.
- Low-capacity products: Low capacity, concern for power outage, low power and unsuitability for high-power equipment.

Portable Power Station-Power Hub

Specifications

Project	Technical Specifications
Product Model	STN 1P/1000
Size(L*W*H)	12.99*8.27*2.36(in) / 330*210*60(mm)
Weight	5.51lbs / 2.5kg
Input DC Voltage	43.2-57.6VDC
AC Output Voltage	220V~240V
Rated Output Frequency	50Hz/60Hz
AC Output Power	1000W
Protection Functions	Under Voltage Input Protection、Output Short Circuit Protection、Output Overload Protection、High Temperature Protection、Low Temperature Protection
Communication Method	CAN


Storcube S2500

Solar Energy Storage System

Solution Advantages

Dual-Use Functionality

• Indoors: Energy storage and power supply.
• Outdoors: Portable power station for outdoor activities.
Harmonizing outdoor and indoor use, power on the move, and worry-free electricity use.

Plug-and-Play

• Compatible with existing microinverter systems, easy to install, and plug-and-play.
• Easy to install, dismantle and move, saving time and cost.

In Harmony with Indoor Use

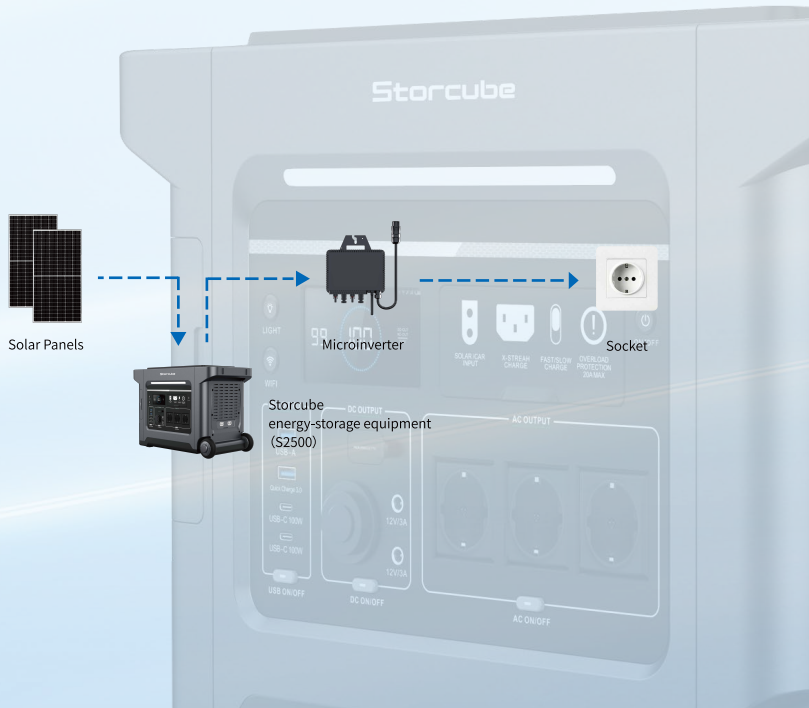
• In winter, solar panels can be seamlessly connected with indoor power systems through flat, flexible solar cables, simplifying the indoor integration of solar energy storage.

High-Efficiency Conversion

The built-in MPPT maximizes the energy output from solar panels, eliminating waste and mitigating the efficiency loss due to shading from buildings, trees and other obstructions.

Intelligent Control

Equipped with WiFi, Bluetooth, and smart control software via app, intelligent mode, precise power feedback.



Portable Power Station

Product Advantages

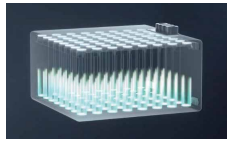
With its excellent safety, portability and efficiency, S2500 is a highly reliable outdoor power solution.
Equipped with a massive 2560 Wh capacity, it's compatible with almost all common appliances, making it ideal for outdoor activities and emergencies.

2560Wh | 3300W

Compatible with almost all common appliances

Fast Charging

Charges to 80% in an hour



Compact and Portable

Easy to carry, like a suitcase

APP

Intelligent control and monitoring

High Safety

BMS with 10 protectio levels

7 Types of Interfaces

Power up to 12 devices at once

Portable Power Station

Reference of Common Load Equipment

Specification

	Item	Basic Ver.	Plus Ver.
Basic Parameters	Model	STC 02/2.5	
	Capacity	2560Wh	
	Size (L*W*H)	514*258*357(mm)	
	Net Weight	About 32kg	
	Bluetooth / Wi-Fi	Support	
Output Specification	AC Output	3 outputs, 3300W ,AC 220V~240V, 50 Hz / 60Hz; 3 outputs, 2000W,AC 110V~120V, 50 Hz / 60Hz	
	USB-A	1 output, 5V/2.4A (constant voltage), maximum power of 12W	
	USB-A Fast Charge	1 output, 5V/2.4A, 9V/2A, 12V/1.5A (constant voltage), maximum power of 18W	
	Type-C	2 outputs, 5/9/12/15/20V - 5A (constant voltage), maximum power of 100W per channel	
	Car Charger Output	1 output, 12V/10A, maximum power of 120W	
	DC5521 Output	2 outputs, 12V/3A each, maximum power of 36W per output	
	Wireless Charging	Support , 15W	
	Anderson Port	Support, 12V/20A	Support, 40V/20A, connect with micro-inverter
Input Specifications	AC Input	2200W, AC 220V~240V, 50Hz/60Hz; 1800W, AC120V~120V, 50Hz/60Hz	
	Solar Charging Input	1200W	
	Car Charging Input	Supports 12/24V	
Battery Specifications	Battery Cell Material	LiFePO4	
	Cycle Life	After 3,500 cycles, the remaining capacity is still more than 80%.	
	Protection Type	High temperature protection, low temperature protection, over-discharge protection ,overcharge protection, overload protection, short circuit protection, overcurrent protection.	
Operating Temperature	Discharge Temperature	-20°C-45°C	
	Charging Temperature	0°C-45°C	
	Storage Temperature	0°C-45°C	
Other Specification	Balcony Solar Storage System	N/A	Support
	Flashlight	Outdoor activity and emergency use	
	Cable Box	Support	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Accessories

Solar Energy Storage System-Smart Plug

The Storcube smart plug, a Wi-Fi enabled socket, facilitates energy monitoring and intelligent device control.
As part of the balcony solar storage system, it works in tandem with a microinverter and Storcube app to provide real-time power-consumption data and automatically optimize power distribution.

Real-time Monitoring

Enable users to track the energy consumption of household appliances in real time, understand consumption habits and usage patterns, and effectively maximize energy savings.

Remote Control

Connected devices can be turned on or off with a single click from any Internet-enabled location.

Automated Energy Allocation

The smart plug tracks the energy consumption of your connected devices, enabling the microinverter to distribute power to each device precisely and channel surplus energy to smart lithium battery packs or a portable energy-storage power station.

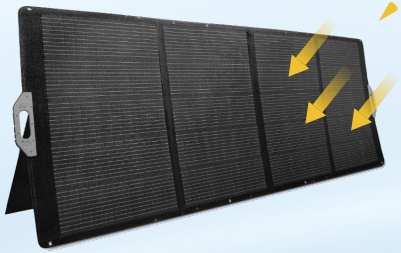
Item	Technical Specifications
Model	Smart 16A
Voltage	AC 100V～240V
Frequency	50/60Hz
Operating temperature	-20°C～50°C
Max. current	16A
Wi-Fi enabled	2.4GHz 802 11 b/g/n

Portable Power Station-Solar Panels

With Storcube Solar panels, you can make full use of the sunlight and convert sunlight into clean energy.
It can work with portable power station to create an all-in-one power solution that provides endless power to the device.

Collecting/ Converting Energy

Solar Energy



Electric Energy

Receiving/Storing Energy

MPPT Controller

DC/AC Conversion Port

Electric Energy

Device Applications

- Household Appliances
- Outdoor Appliances
- Power Tools

Portable Power Station-Solar Panels

Product Features

23%-High Conversion Efficiency

Premium monocrystalline cells, convert up to 23% of sunlight into solar energy, and charge your portable power station on cloudy days. You can make the most use of the sun and convert the sunlight into clean energy.

Foldable and Portable

With a light weight of 4.5-14.4kg, the compact design saves space, the volume is 10% smaller than similar ones, and it can be easily carried by simply folding the panel.

Durable

IP67 design, the premium ETFE packaging materials used in the solar panels offers the best protection for Storcube solar panels. And can work in high humidity, dry, or heavy dusty environment, significantly prolonging the lifespan.

Strong Compatibility

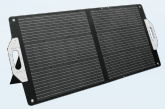
Capable of adapting to various interfaces of portable power stations, it creates an integrated power solution for camping, travel, and emergency backup, providing endless electricity for devices.

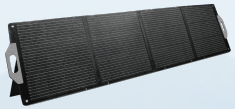
Stable, Flexible and Easy to Operate

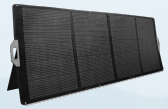
Equipped with a stable support frame, you can easily place the solar panel anywhere and flexibly adjust its angle to absorb more sunlight

Portable Power Station-Solar Panels

Specification







	P100	P200	P400
Peak Power	100W	200W	400W
Cell Efficiency	22%-23.5%		
Material	ETFE + EVA + Grade A Solar Cells +EVA + PCB Board		
Output Port	MC4	MC4	MC4
Operating Voltage	18V	18V	36V
Operating Current	5.55A	11.1A	11.1A
Dimensions (unfolded)	1310*535mm	2216*606*15mm	2856*764mm
Dimensions (folded)	330*535*65mm	554*606*65mm	764*701*65mm
Angle Adjustment	/	35°、45°、55°	35°、45°、55°
Net Weight	4.5KG	8.6KG	14.4KG
Packing List	Solar Panel *1、One-to-Four Cable (MC4 to Anderson, XT60, DC5521, DC7909) DC5521 Female to 5525 Male Adapter + DC5521 Female to 35135 Male Adapter		

Storcube

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