



ESY SUNHOME

Your Expert in Energy Storage Solutions

www.esysunhome.com



ESY SUNHOME emerged as a pioneer in the lithium battery industry, driven by cutting-edge battery protection systems and a dedicated Research & Development team. Recognizing the global gap in energy storage choices for households, the company envisioned integrating photovoltaic energy storage solutions with lithium batteries. Aligned with this vision, our team diligently engaged in the development and rigorous testing of PV home energy storage products.

Our cohesive team, comprising highly qualified professionals in Research and Development, manufacturing, and quality control, boasts distinguished backgrounds in various technological fields. After two years of dedicated effort, we achieved a significant milestone with the successful development and testing of PV home energy storage products. This culminated in the official launch of the HM6 series storage system products on January 14th, 2023.

ESY SUNHOME has expanded its reach, establishing branches in Sydney, Australia, and Munich, Germany. Our long-term objective is to evolve into a globally recognized brand, committed to advancing energy storage solutions and contributing to sustainable practices on a global scale.



> Core Values

Collaborative Spirit
Down-to-Earth Practicality
Forward-thinking Innovation
Rigorous Scientific Craftsmanship
Delivering Value for Clients
Making a Positive Impact on Society

> Mission

To deliver safe and reliable renewable energy solutions to our customers.

Production Management



ESY SUNHOME operates from its dedicated production facility, featuring a comprehensive product manufacturing chain. Our integrated management systems, including ERP, MES, and WMES, ensure a seamless and high-precision approach to information management across production, material traceability, and warehousing processes.

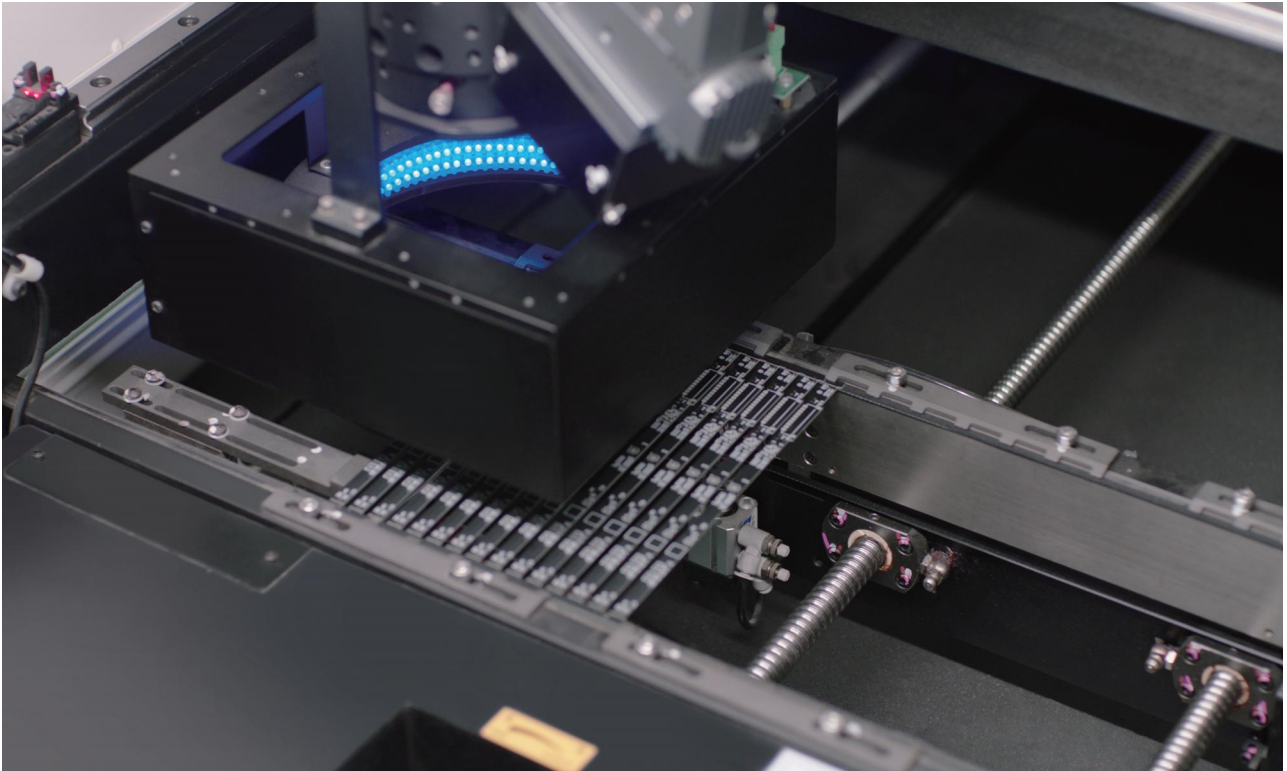
Quality Control



Every product model undergoes meticulous testing, encompassing aging, drop, waterproof, radiation, and other assessments, prior to shipping, ensuring the utmost quality, performance, and safety of the product. ESY SUNHOME maintains a steadfast commitment to strict quality control measures throughout the entire production process.

Research and Development

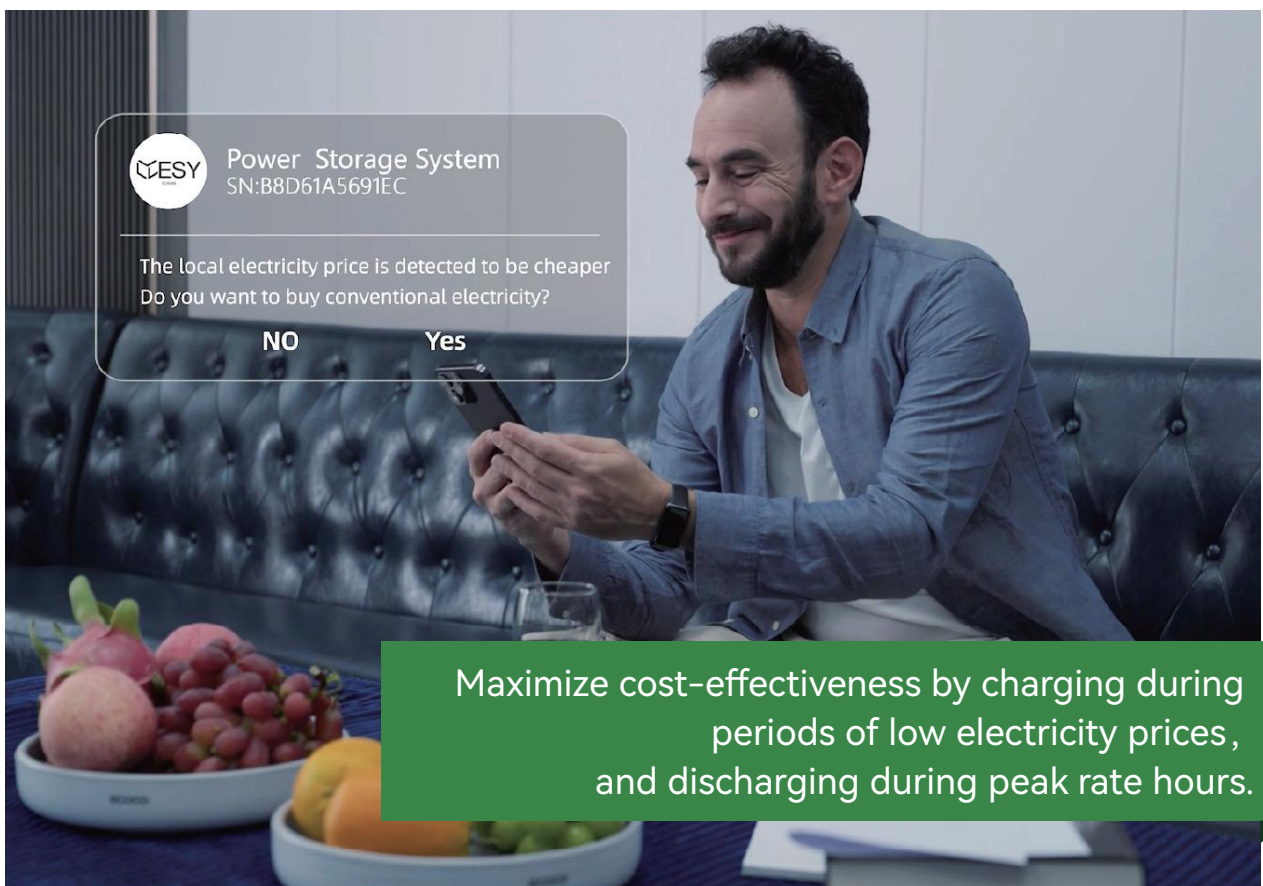
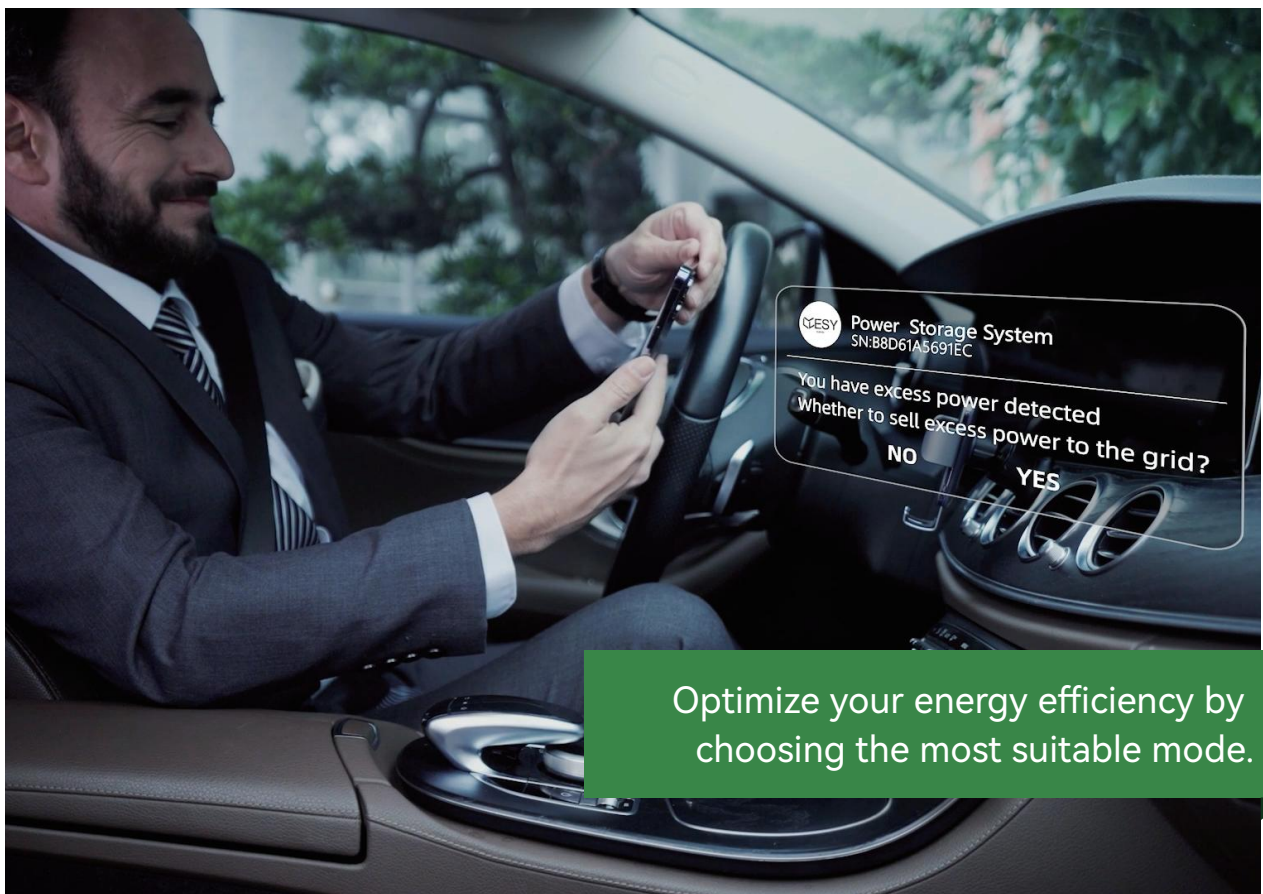
ESY SUNHOME is dedicated to independent research and development in the field of integrated Solar Energy Storage Systems. This includes the development of key components such as inverters, energy storage batteries, and IoT technology. Each crucial technology within this system is meticulously crafted by our professional R&D team.



Proprietary technologies, such as advanced BMS, EMS management systems, IoT APP platform, and AI intelligent algorithms, collectively form ESY SUNHOME's core competitive edge in the realm of renewable energy storage.

Professional Team

ESY SUNHOME not only possesses scientific manufacturing capabilities, experienced independent R&D teams, strict production processes, and quality control procedures but also has established an outstanding overseas marketing and brand operation team. This team is fully equipped with end-to-end operational capabilities, seamlessly connecting production to marketing endeavors.



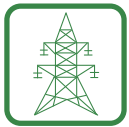
ESY SUNHOME Residential Energy Storage System



Experience uninterrupted power with our stand-by emergency power supply featuring seamless switching capabilities for immediate detection and response to power failures.



Harness the power of sunlight with your advanced photovoltaic panels, seamlessly converting sunlight into eco-friendly electricity. This independent household power station efficiently stores energy, providing a sustainable and reliable source for your personal use.



Effortlessly switch between off-grid and grid-connected modes, intelligently adjusting to varying conditions, with AI mode preferences for stable power supply and efficient energy storage tailored to your needs.



Optimize energy efficiency with photovoltaic power generation, leverage lower electricity prices, and extend battery lifespan through peak-to-valley adjustments. Harmonizing these integrated features maximizes energy consumption, lowers costs, and generates significant value for you.



Effortlessly control and monitor your system in real-time with the ESY SUNHOME APP. Stay connected, informed, and in control by monitoring power generation and system operations wherever and whenever needed, all at your fingertips.



Charge and store power strategically during low consumption periods, not only realizing cost savings but also making a positive impact on the environment by reducing carbon emissions. Embrace our solution to support your commitment to carbon neutrality.



At its core, the ESY SUNHOME Residential Energy Storage System seamlessly integrates light, storage, and charging, transcending your role from a mere 'consumer' to a prosumer. Empowering you to effortlessly engage in both electricity consumption and generation within the smart energy ecosystem, ESY SUNHOME elevates your energy experience. Embrace the future of energy with us.

Advantages of HM Series

Easy Installation

The HM Series stands as a plug-and-play energy storage system, designed for seamless integration and capable of supporting multiple battery expansions. Experience flexibility and scalability with our user-friendly solution.

Temperature Resistance

Enhanced with cell heating films, our system operates effectively even under variable weather conditions. Experience reliable performance and optimal functionality regardless of the climate, ensuring continuous operation when you need it most.

IP66 Certificate

Boasting a Waterproof & Dustproof IP66 certificate, a distinction achieved by only a select few manufacturers, our product ensures exceptional durability and resilience. Trust in its robust design to withstand challenging environmental conditions, providing you with long-lasting performance.

24-hour Monitoring System

With its 24-hour monitoring system, the HM Series offers proactive early warnings in the event of abnormalities, ensuring timely intervention by local installation service providers. Experience peace of mind with our vigilant system that prioritizes your safety and the optimal performance of your energy storage solution.

Expandable Capacity

Enjoy unparalleled flexibility with our system, offering a customizable configuration that allows for battery capacity expansion from 5kWh up to 30kWh. This adaptability caters to diverse scenarios and evolving requirements, ensuring your energy storage solution grows with your needs.

Artificial Intelligence (AI) Operation

Leverage the power of Artificial Intelligence (AI) Operations on our cloud platform, recommending the optimal operation mode tailored to your preferences. Experience intelligent decision-making that enhances efficiency and aligns seamlessly with your unique requirements.



Monitor and Control with Our Mobile APP

The ESY SUNHOME APP presents a cloud-based platform for residential energy storage, meticulously developed by our Internet of Things Research & Development team through years of dedicated effort. This commitment to excellence is motivated by our aspiration to furnish each household with a secure energy storage application system, delivering user-friendly simplicity, operational convenience, heightened safety, and unwavering stability.



iOS



Android

Advantages of **ESY SUNHOME APP**

Dynamic Analysis

Diverging from traditional dashboards designed for parameter viewing and adjustment, our app provides a seamless interface for complete control over the operational status of your home energy storage system, offering unparalleled ease and efficiency.

Revenue Monitoring

Intelligent charts allow users to track the latest power generation and revenue. Empower your financial gains through real-time monitoring of electricity purchase and sale data, maximizing revenue for our users.

Safety Warning

In the event of an anomaly within the residential energy storage system, our advanced early warning system promptly alerts the local installation service provider, ensuring swift and proactive operation and maintenance.

Artificial Intelligent Control

Our Artificial Intelligence (AI) mode provides real-time, optimal solutions by seamlessly integrating factors such as user electricity consumption, weather conditions in the living environment, and prevailing electricity prices, ensuring an intelligent and responsive energy management experience.



HM6 (Single-Phase) All-In-One Residential Energy Storage System

Model	Battery Quantity	Max. Output Power	Battery Capacity	Dimensions (LxWxH)	Weight
HM6-05	1	5 kW	5.12 kWh	600x305x778 mm	93 kg
HM6-10	2	6 kW *	10.24 kWh	600x305x998 mm	143 kg
HM6-15	3	6 kW *	15.36 kWh	600x305x1218 mm	193 kg
HM6-20	4	6 kW *	20.48 kWh	600x305x1438 mm	243 kg
HM6-25	5	6 kW *	25.60 kWh	600x305x1658 mm	293 kg
HM6-30	6	6 kW *	30.72 kWh	600x305x1878 mm	343 kg

Parameters	
Battery Type	IFpP
Cycle Life	≥6000 Times 25 °C
Max. Efficiency	97.8%
MPPT Efficiency	99.9%
Mounting	Modular Stacking/Ground
Communication	WiFi/Bluetooth/RS485/4G
Application Software Support System	iOS/Android/Web
Cooling Method	Natural Cooling
Operating Temperature Range	-25~60 °C (Derating above 45 °C)
Optimum Operating Temperature Range	25±2 °C
Humidity	0~100% Relative Humidity
Noise Level at 1m	≤25 dB
Protection Rating	IP66
Warranty	10 Years
Country of Manufacture	China

PV Input		
Max. Input Power		8000 W
Rated Input Voltage		360 Vd.c.
Max. Input Voltage		550 Vd.c.
Starting Voltage		150 Vd.c.
MPPT Voltage Range		100 Vd.c.~540 Vd.c.
PV Max. Input Current		15 Ad.c./15 Ad.c.
Max. Short Circuit Current		20 Ad.c./20 Ad.c.

Backup		
Rated Output Power		6000 W
Max. Apparent Output Power		6000 VA
Rated Output Voltage		230 Va.c. L/N/PE
Rated Output Current		26.09 Aa.c.
Rated Output Frequency		50/60 Hz
Waveform		Sine Wave

Battery		
Rated Voltage		51.2 Vd.c.
Voltage Range		40.8 Vd.c.~57.6 Vd.c.
Rated Charge Current		100 Ad.c.
Rated Discharge Current		120 Ad.c.

Protection		
Anti-islanding Protection		Yes
PV Reverse Polarity Protection		Yes
Insulation Resistance Detection		Yes
Residual Current Detection		Yes
Output Overcurrent Protection		Yes
Output Short Circuit Protection		Yes
Overvoltage Category	II (for PV/Battery) III (for AC Grid Mains)	
Battery Reverse Polarity Protection		Yes

AC Grid		
Rated Input Power		6000 W
Rated Output Power*		6000 W
Max. Output Apparent Power		6000 VA
Rated Voltage		230 Va.c. L/N/PE
Input Voltage Range		184 Va.c.~276 Va.c.
Rated Current		26.09 Aa.c.
Rated Output Frequency		50/60 Hz
Power Factor Range		0.8 leading~0.8 lagging

* Feed-in power can be configured to 5kW according to local DNSP export limit requirements.

Applicable Standards

Grid Connection:

AUS: AS 4777.2; CEC+RCM; DE: DIN VDE V 0124-100:2020; VDE-AR-N 4105:2018; AT: OVE Directive R 25:2020; TOR Erzeuger Type A V1.2; IT: CEI 0-21; UK: G99/1-8 typeA; IE: Distribution Code Version 8; BE: C10/11:2021; CH: NA/EEA-NE7-CH:2020; FR: DINVDE 0126-1-1 VFR:2019; ES: NTS 631 V21 SEPE (type A); UNE 217001; UNE 217002; PT: RfG + Portugal deviation

Safety:

Inverter: IEC 62109-1; IEC 62109-2 Battery: IEC 62619:2022; ISO 13849; IEC/EN 62040-1; VDE 2510-050:2017

EMC:

IEC 61000-6-1; IEC 61000-6-3



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