



## 100KW/108KWh 100-600kW All In One Lithium Battery Storage Backup for Outdoors and Commercial and Renewable Energy Integration

Our Product Introduction

### Basic Information

- Place of Origin: China
- Brand Name: SHPN
- Certification: UN38.3/UN3481/IEC62619/IEC62040-1/CE/UKCA(EMC/RED)/VDE2510-50/UL1973/UL9540A/UL9540 G99, VDE-AR-N 4105 / EN 50549-1/EN 50549-10 / EIFS 2018.2/ IEC 62116/ IEC 61727/ IEC 60068/ IEC 61683/ EN 50530
- Model Number: A100-HY
- Minimum Order Quantity: 1
- Price: consult prices online
- Packaging Details: consult online
- Payment Terms: T/T
- Supply Ability: consult online



### Product Specification

- Battery Type: Li-ion (LFP)
- Nominal Capacity (kWh): 104
- Cycle Life: >7000
- DC Voltage Range (Vdc): 594~792 (single String)
- Dimension (W\*D\*H Mm, W/o Inverter): 1500\*2195\*1125
- Highlight: **all in one lithium battery storage , commercial lithium battery storage , all in one commercial energy solutions**

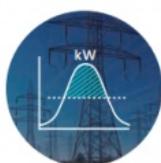
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## Product Description

**100KW/108KWh 100-600kW All In One Lithium Battery Storage Backup for Outdoors and Commercial and Renewable Energy Integration**

-  **52~520kWh**
-  **25~500kW**
-  **1C**
-  **400Vac**

### Application Scenarios



**Peak Shaving**



**Energy Shifting**



**Self-Consumption**



**Backup**

The **M1C 100kW/104kWh Energy Storage System** is a versatile and high-performance solution, ideal for a wide range of applications that require reliable, scalable, and efficient energy storage. Here are some key scenarios where this system excels:

#### Residential Energy Storage

Homeowners can use the M1C system to store energy from solar panels or the grid, allowing for optimized self-consumption and energy savings. With its **high depth of discharge (98%)** and **round-trip efficiency of 95%**, the system ensures homeowners get the maximum benefit from stored energy, reducing reliance on grid electricity and lowering energy bills.

#### Commercial and Industrial Applications

For businesses and factories, this energy storage solution helps reduce peak electricity costs through **peak shaving** and **energy shifting**. With a **maximum output power of 50kW** and the ability to connect **up to 5 units in parallel**, the M1C system can scale to meet the energy demands of larger commercial installations, while maintaining **97.4% CEC efficiency** for minimal energy loss.

#### Renewable Energy Integration

The M1C system is a perfect match for renewable energy projects, particularly in solar or wind applications. By storing excess renewable energy during peak generation times, the system provides a reliable power supply when renewable output is low. Its **DC voltage range of 594~792V** and **battery capacity of 104kWh** enable long-duration energy storage, making it a key component of smart grids or microgrids.

#### Backup Power Solutions

In critical infrastructure settings such as hospitals, data centers, or telecommunications towers, the M1C energy storage system ensures reliable backup power during grid outages. With a **response time of less than 10ms** from on-grid to off-grid mode, it guarantees uninterrupted power supply for essential services.



**Hybrid Inverter Integrated**



**Superior Safety**



**Flexible Configuration**



**Easy Set-up & Maintenance**

General Data M1C 100kW/104kWh
Dimension (W*D*H,mm,w/o inverter) 1500*2195*1125
Weight(tons) 1.9(incl.battery)
Working Temperature Range(°C)) -20-50*
ProtectionClass IP55
Altitude (m) ≤2000
Humidity (RH) 0~95%
Fire Extinguishing Aerosol
Cooling System Air Cooling
Cooling System Consumption (kW,Cooling/Heating) 2/1
Aux.Power Consumption(kW,continuous/peak,incl.HVAC) 1.5/3
Max.Parallel No. 5
Anti-Corrosion C3(C5 Optional)

UN38.3/UN3481/IEC62619/IEC62040-1/CE/UKCA(EMC/RED)/VDE2510-50/UL1973/UL9540A/UL9540 Certification G99,VDE-AR-N 4105/EN 50549-1/EN 50549-10/EIFS 2018.2/IEC 62116/IEC 61727/ IEC 60068/IEC 61683/EN 50530	
Battery Data	
Battery Type	Li-ion(LFP)
Nominal Capacity (kWh)	104
Max./Continuous Operation C-rate(C)	1/0.5
Depth of Discharge	98%(single string)
Cycle Life	>7000
DC Voltage Range(Vdc)	594~792(single string)
Max./Continuous Operation Current (A)	148/74
Round-trip Efficiency@0.5C-rate	95%
Hybrid Data On-grid Mode	
Rated AC Power (kW)	50/00
Rated AC Output Voltage (Vac)	400
Rated AC Output Frequency(Hz)	50/60
Max AC Current (A)	76 (Linear Load)
Overload Capacity	110%
AC PF	>0.99(0.8 leading 0.8 lagging)
CEC Efficiency	97.4%(Max.97.8%)
isolation Type	Non-isolation
Response Time(On-Grid to Off-Grid)	<10ms
Operation Mode	
Communication Type	Modbus TCP/IP,Modbus RTU
Operation Logic	Peak Shaving/Energy Shifting/Self-Consumption/Backup
*Degradation at temperatures below 10°C or above 40°C	

		System configuration					
		Inverter Type	100kW				
		Inverter QTY	1	2	3	4	5
Cabinet QTY	kWh		100	200	300	400	500
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #c6e0b4; margin-bottom: 5px;"></div> Min. configuration</div> <div style="width: 15px; height: 15px; background-color: #4db6ac; margin-bottom: 5px;"></div> Optional configuration							

### Advantages

#### High Capacity and Efficiency

The M1C energy storage system provides **104kWh** of energy storage with **95% round-trip efficiency**, ensuring that most of the stored energy is available for use. Its **1.9 tons weight** (including the battery) and **compact dimensions** (1500mm x 2195mm x 1125mm) make it easy to integrate into various installations without taking up excessive space.

#### Durable and Long-Lasting

Built to withstand tough environmental conditions, the system operates effectively within a **temperature range of -20°C to 50°C**, and it offers a **cycle life of over 7,000 cycles**. Its **IP55 protection class** and **C3 anti-corrosion rating** ensure that it remains reliable even in harsh environments, whether it's exposed to extreme temperatures or high humidity.

#### Flexible and Scalable Design

The M1C system's modular design allows for **parallel configurations of up to 5 units**, making it highly adaptable to different energy storage needs. Whether it's for residential use or large-scale industrial applications, the system can be customized to meet power requirements efficiently.

#### Intelligent Power Management

The system's **Modbus TCP/IP** and **Modbus RTU communication protocols** enable seamless integration with other smart energy management systems. It can operate in multiple modes such as **peak shaving**, **energy shifting**, **self-consumption**, and **backup**, giving users flexible control over their energy usage and enhancing cost-effectiveness.

#### Robust Certifications and Safety

The M1C energy storage system is certified by multiple international standards including **UN38.3**, **IEC62619**, **UL1973**, and **CE**. These certifications ensure that the system meets stringent safety and performance requirements, offering peace of mind to users. In addition, it is equipped with an **aerosol fire extinguishing system**, further enhancing safety.

#### Low Operating and Maintenance Costs

With an **auxiliary power consumption of only 1.5kW continuously** (and 3kW peak, including HVAC), the M1C system is energy-efficient, requiring minimal operational energy. Its **air cooling system** ensures that the system stays within optimal operating temperatures while maintaining low energy consumption for cooling and heating.

This energy storage system provides an excellent solution for both residential and commercial needs, supporting the transition to sustainable energy use while offering robust performance, safety, and flexibility.

**Shipping Methods**  
Supports global air and sea shipping

If you require more detailed product information or have customized requests, please contact us. Providing efficient service that satisfies our customers is our responsibility.



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