High Voltage BESS

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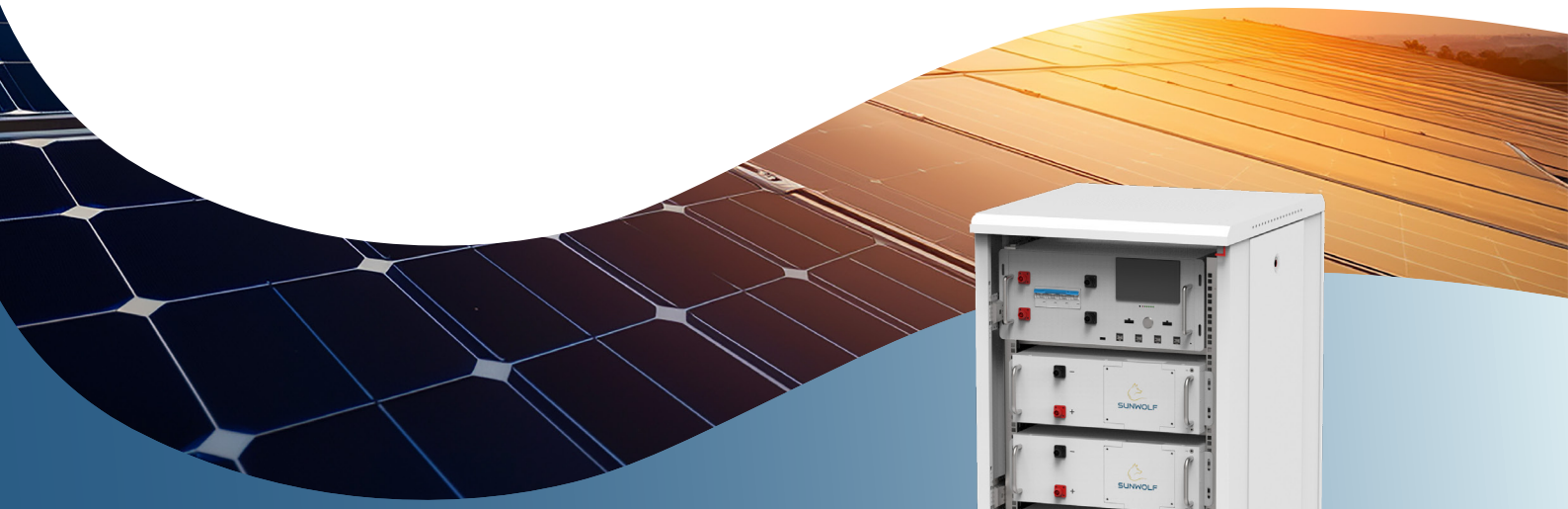



Product Description:

High Voltage BESS (Battery Energy Storage System) is a type of energy storage system that operates at higher voltage levels, typically between 400V to 1500V DC. These systems are used to store and manage large amounts of electrical energy, making them suitable for commercial, industrial, and utility-scale applications.

Each model is built using LiFePO4 technology, known for its long cycle life and robust safety features. These units are designed for rack-mount installations and can be easily connected in series to form a high-capacity, scalable energy storage solution. With energy storage capacities of 40.96kWh and 51.2kWh respectively, they provide substantial power reserves for critical loads, peak shaving, and renewable energy storage.

SunWolf's systems use a modular design that allows multiple battery units to be connected in series to create a unified high-voltage BESS. By stacking these modules, you can scale the storage capacity to meet the specific needs of your project

Our high-voltage energy storage systems are designed to offer efficient and reliable energy storage solutions for various applications and can be used in both residential and commercial settings, delivering high operational reliability without the need for active cooling. With built-in BMUs (Battery Managment Units) and optimised battery management, SunWolf's energy storage units provide long-lasting performance with minimal degradation over time.

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Lifestyle Mall | Borrowdale

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Key Features

- **High Capacity Storage:**

  Offers up to 76.8kW of energy storage, ideal for large-scale energy needs.

- **Advanced Battery Management:**

  Integrated BMU (Battery Management Unit) for optimal performance and safety.

- **Efficient Design:**

  No active cooling system required, ensuring reduced maintenance and higher reliability.

- **Durability and Longevity:**

  Expected lifespan of more than 10 years at 25°C, with over 6000 cycles at 85% DoD.

- **Wide Range of Applications:**

  Suitable for smart grids, load tracking, peak load shifting, and renewable energy systems.

Applications:

- **Grid Stabilisation:**

  Helps stabilise the grid by storing excess energy during low-demand periods and releasing it during high-demand periods.

- **Peak Load Shifting:**

  Allows businesses to store energy during off-peak hours and use it during peak hours to avoid high energy costs.

- **Backup Power:**

  Provides reliable backup power during outages, especially in critical operations.

- **Renewable Energy Storage:**

  Stores energy from solar or wind sources and supplies it when these renewable sources are not generating.



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Model	SW-HV410-100	SW-HV512-100	SW-HV768-100
Rated Voltage (Vdc)	410	512	768
Rated Capacity (Ah)	100	100	100
Energy Storage (KWh)	40.96	51.2	76.8
51.2V Rackmount Packs	8	10	15
Cycle Life	≥6000 Cycles to 85% DOD		
Months Self Discharge	≤2%		
Efficiency of Charge	100% at 0.2C		
Efficiency of Discharge	96 - 99% at 1C		
Standard Charge			
Charge Voltage (Vdc)	444	555	833
Charge Mode (Per cell)	CC/CV		
Recommend Charge Current (A)	30	30	30
Max. Charge Current (A)	100	100	100
Charge Cut-Off Voltage (VDC)	460.8	576	855
Standard Discharge			
Continuous Current (A)	100	100	100
Discharge Cut-Off Voltage (VOC)	358.4	448	672
Environmental			
Charge Temperature	0℃ to 45℃ (32F to 113F) @60±25% Relative Humidity		
Discharge Temperature	-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity		
Storage Temperature	0℃ to 40℃ (32F to 104F) @60±25% Relative Humidity		
IP Class	IP60		
Mechanical			
Material System	LiFePO4		
Case Material	Metal		
Case Type	Rack Mount		
Pack Dimensions L*W*H(mm)	600*650*1880	600*650*2100	600*(2*650)*2100
Package Dimensions L*W*H(mm)	620*670*2000	620*657*2120	620*(2*657)*2120
Total Weight (kg)	~+/-550	~+/-650	~+/-900
Terminal	M8		
Proto(Optional)	CANBus/RS485/RS232		
SOC (Optional)	LED/LCD		
Warranty	5 Years		