



BYHV-422BLC

**LIQUID COOLING
ENERGY STORAGE SYSTEM
SPECIFICATIONS**

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Product Introduction

The 422kWh liquid-cooled energy storage system cabinet adopts the modular design concept, and combines the functions of energy storage battery, battery management system (BMS), fire protection, energy storage liquid-cooled unit, energy management, etc., which can flexibly adapt to various application scenarios such as industry and commerce, micro-grid and new energy power generation. The product adopts liquid cooling heat dissipation technology, which significantly improves the system security and has the functions of peak load shedding, power expansion, emergency power reserve, power grid balance, capacity management, multi-level parallel connection and so on. For the industry and commerce with peak-valley electricity price, energy storage system can be used to realize peak-valley arbitrage, reduce the maximum demand for electricity, delay the construction of power distribution capacity for users and save expenses for enterprises and industry and commerce as a backup power supply.

Application Scenario

It is suitable for industrial and commercial situations with high requirements for grid continuity, and can cover communication energy storage, grid frequency modulation energy storage, wind and solar micro-grid energy storage, large-scale industrial and commercial distributed energy storage, data center energy storage, and photovoltaic power generation business in the new energy field.

Product Features



Strong compatibility

Highly integrated design, Flexible compatibility or external PCS, Achieve rapid deployment and system expansion.



Intelligent and Efficient

Mature energy management strategies and equipment control, intelligent operation and maintenance, remote control to maximize the product's value.



High Safety

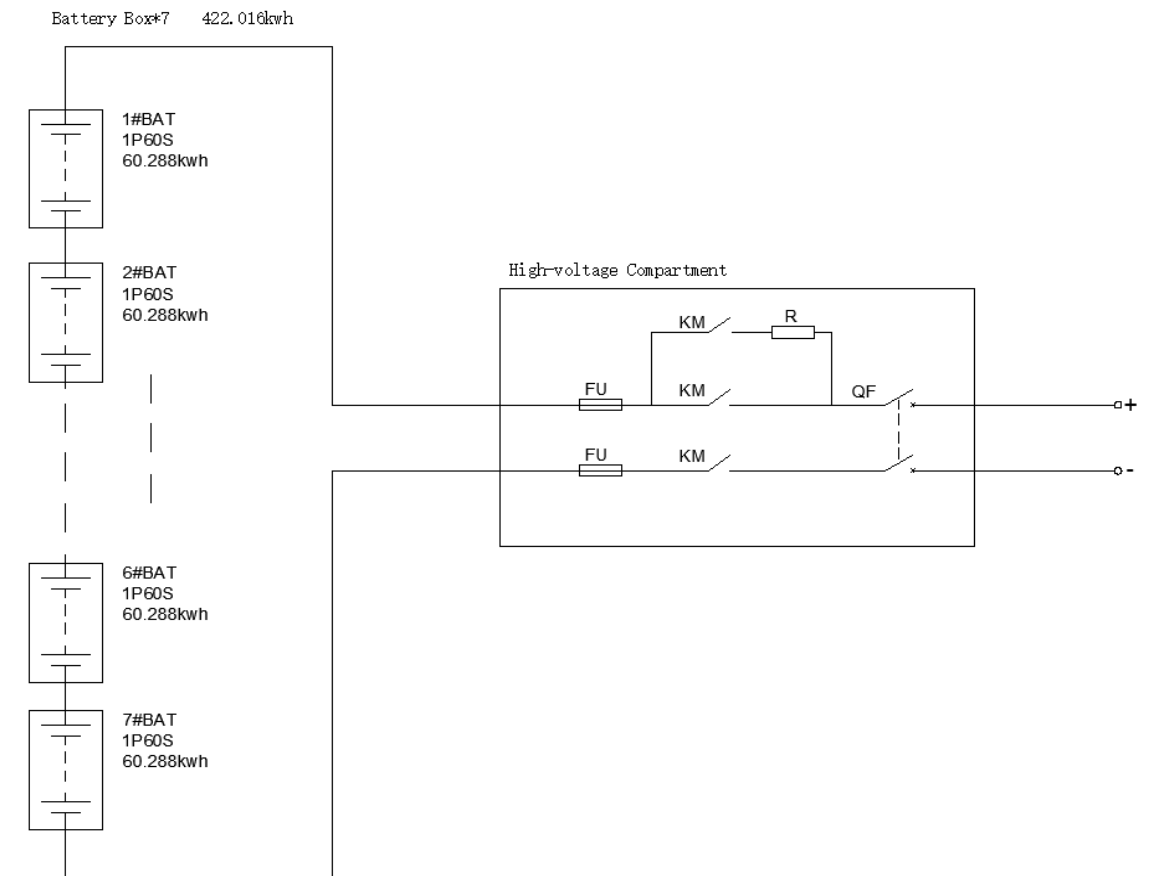
Multi-level fire protection system, graded isolation with interlocking safeguards, liquid cooling temperature control, ensuring the secure and stable operation of the product.



Flexible and Easy to Install


Supports multi-level parallel connection, bottom busbar design, maximizing land space utilization.

Specifications and Model Description





Product Introduction

BYHV-422BLC	
	
DC Parameters	
Product Type	BYHV-422BLC
Battery Capacity	314Ah, LFP
Battery Grouping Method	1P420S (1P60S*7)
Battery Rated Capacity	422.016kWh
Battery Rated Voltage	1344V
Battery Voltage Range	1099V to 1496V
System Parameters	
System Energy Efficiency	≥95%
Communication Method	CAN, 485, TCP/IP
Protection Level	IP55
Anti-Corrosion Level	C3
Noise	≤60dB
Fire Protection	Aerosol
Operating Temperature	-29°C to +50°C
Operating Humidity	0% to 95% (no condensation)
Altitude	≤2000m (derating above 2000m)
Cooling Method	Intelligent Liquid Cooling
Overall Dimensions (WHD)	1003mm*2519mm*1700mm
Weight	Approximately 3.7 tons



Installation Requirements

1. The installation environment should be dry, well-ventilated, free from corrosive substances, free from electromagnetic interference, and with a temperature between -29°C and 50°C.
2. The equipment should be placed on a stable surface and should maintain a certain distance from surrounding objects for heat dissipation.
3. The equipment should have reliable grounding and comply with relevant safety standards.
4. Follow the steps in the product manual or installation manual for installation and wiring.

Maintenance And Care

1. Regularly inspect the operating status of the equipment and perform necessary maintenance, including checking the tightness of terminal connections, the condition of cable equipment connections, and insulation performance.The equipment should be placed on a stable surface and should maintain a certain distance from surrounding objects for heat dissipation.
2. The battery components should be replaced regularly to ensure the normal operation of the equipment.
3. Periodically clean and maintain exhaust vents, such as air conditioning, ensuring cleaning fluids do not enter the equipment.

After-sale Service

1. We provide comprehensive after-sales service, including equipment installation, commissioning, and maintenance.The battery components should be replaced regularly to ensure the normal operation of the equipment.
2. During the equipment warranty period, we will provide free repairs or replacements. After the warranty period, we offer paid repair and maintenance services.
3. After equipment installation, we provide free safety inspections and safety training.

Precautions

1. Before installing the equipment, place it in a dry and well-ventilated environment, avoiding prolonged exposure to humid conditions.
2. Do not place flammable or explosive materials on the equipment.
3. Prohibit illegal operations and modifications on the equipment. If parameter changes are required, please contact the manufacturer or dealer.