



Xiamen HAIKAI New Technology Co., Ltd.

Industrial Energy Storage System

Customized Battery Pack | Lithium Battery Systems





About HAIKAI

We are a specialist manufacturer of energy storage systems and backup power solutions for industrial (behind-the-meter), commercial, and residential scenarios. We are capable of design and manufacturing BMS, Pack, integrated energy storage solutions, and customized production.

Based in China, we have more than 10 years of experience in the back-up power industry. With strong R&D, reliable quality, and effective supply chain management, we excel at tackling complex technology challenges and delivering high-quality solutions at scale to help our customers realize greater value.

HAIKAI's OEM and ODM Specialties

- Battery Management System (BMS)
- Customized Battery Pack
- Industrial Energy Storage System (ESS for UPS, DC cabinet, standalone customized systems)
- Energy Storage System for EV Charging Station
- Residential and Commercial Energy Storage System

Our Strengths

HAIKAI has been awarded over 20 patents for our innovation, utility models, software, and more. Our cutting-edge R&D team is led by Ph. D. researchers and globally educated experts from world-class institutions to provide the most professional support for your projects. We have complete equipment such as automatic vision positioning laser welding, programmable temperature & humidity test chamber to support PACK production, cabinet assembly, and comprehensive machine testing. Our manufacturing line follows the standard of ISO 9001 and Six Sigma under fully implemented ERP and MES process control.

We follow rigorous and standardized production management to guarantee the best lead time and product quality, from order generation, production to delivery. We also accept customization to provide flexibility for your projects. Having partnered with multiple well-known companies, we source the most suitable and trusted materials for your projects at the best cost.

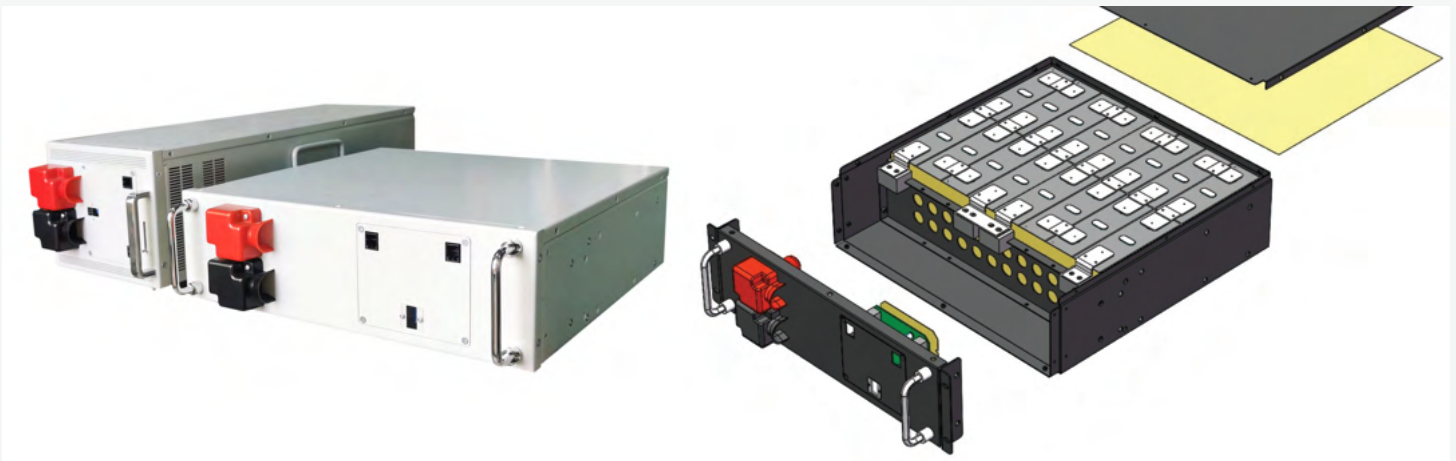
Lithium Battery Energy Storage System

Customized Battery Pack

HAIKAI customized Pack Battery System is manufactured with high quality lithium battery cells such as CATL, BYD and other customized high power cells. Our own patented BMS enables real-time monitoring and autonomous equalizing of voltage and temperature for each string to ensure optimal operation of the module.

HAIKAI is capable of complete pack production and testing line, as well as accepting customizations on dimension, capacity, and IP level according to your needs.

Pack	Discharge Rate	Nominal Voltage	Operating Voltage	Typical Capacity	Operating Temperature	Cycle Life
Regular	1C~4C	48V/51.2V	41.6~57.6V	50Ah	0°C~40°C (Recommend 20~25°C)	4000 Cycles @80% DOD, 0.5C/0.5C 80% DoD
	1C~2C	48V/51.2V	41.6~57.6V	100Ah	0°C~40°C (Recommend 20~25°C)	4000 Cycles @80% DOD, 0.5C/0.5C 80% DoD
High Capacity	1C	48V/51.2V	41.6~57.6V	100Ah	0°C~40°C (Recommend 20~25°C)	4000 Cycles @80% DOD, 0.5C/0.5C 80% DoD
	1C	48V/51.2V	41.6~57.6V	200Ah	0°C~40°C (Recommend 20~25°C)	4000 Cycles @80% DOD, 0.5C/0.5C 80% DoD
High Power	6C~12C	48V/51.2V	41.6~57.6V	50Ah	0°C~40°C (Recommend 20~25°C)	4000 Cycles @80% DOD, 0.5C/0.5C 80% DoD



Lithium Battery Energy Storage Systems

Standard, High Energy Density, High Power

HAIKAI's Industrial Energy Storage System is specially designed for UPS which can directly be used to replace existing lead-acid battery. The application and wiring are no different to conventional lead-acid batteries. The built-in BMS system greatly improves the system reliability. The lithium battery BMS data can be accessed at the UPS terminal according to user's requirements. Three configurations and two cabinet types are available to meet user's different needs.

MAIN FEATURES

- Greatly reduce floor area and weight.
- Supports customization of DC voltage and system capacity.
- Direct replacement of lead-acid battery, seamless implementation to the original UPS system.
- The built-in BMS system effectively improves the predictability and manageability of the system.
- Equipped with excellent quality Lithium iron phosphate battery which has longer service life, higher safety standards and simpler maintenance.



Standard Lithium Battery System

Product Features:

- 51.2V standard battery module.
- 50Ah module supports 4C, 100Ah module supports 2C continuous discharge.
- Suitable for applications with backup time more than 15 min.
- Can directly replace lead-acid batteries with rated voltages of 192V, 240V, 384V ($\pm 192V$) and 480V ($\pm 240V$)

Standard Lithium Battery							
Module	Cell Type	Lithium Iron Phosphate Battery					
	Cell Composition	27Ah, 2P16S			105Ah, 1P16S		
	Rated Voltage	51.2V					
	Operating Voltage	41.6～57.6V					
	Rated Capacity	50Ah			100Ah		
	Rated Power	2.56kWh			5.12kWh		
	Discharge Current	200A Continuous Discharge(4C)			200A Continuous Discharge(2C)		
	Output Power	10.24kW			10.24kW		
	Standard Standby Time	15min			30min		
	Charging Current	50A Continuous Charging(1C)			50A Continuous Charging(0.5C)		
	Dimension W × D × H	200×645×175(4U)mm			200×645×241.8(5.5U)mm		
	Weight	32kg			45kg		
System	Optional Specifications and Capacities	204.8V	50Ah	10.24kWh	204.8V	100Ah	20.48kWh
		256V	50Ah	12.8kWh	256V	100Ah	25.6kWh
		409.6V	50Ah	20.48kWh	409.6V	100Ah	40.96kWh
		±204.8V	50Ah	20.48kWh	±204.8V	100Ah	40.96kWh
		512V	50Ah	25.6kWh	512V	100Ah	51.2kWh
		±256V	50Ah	25.6kWh	±256V	100Ah	51.2kWh
	Discharge Current	200A Continuous Discharge(4C)			200A Continuous Discharge(2C)		
	Charging Current	50A Continuous Charging(1C)			50A Continuous Charging(0.5C)		
	Cycle Life	4000 Cycles @80% DOD, 0.5C/0.5C					
	Communication Interface	CAN/RS485/Dry Contact					
	Protection Function	Overcharge, Over Discharge, Over Temperature, Over Current, Short Circuit, etc					
	Cabinet Type	Frame					
	Dimension W × D × H	600×800×1800mm					
	Weight	Module Weight × N + Cabinet Weight 200kg					
	Storage Temperature	0℃～40℃					
	Transport Temperature	-20℃～60℃					
	Operating Temperature	0℃～40℃ (Recommend 20～25℃)					
	Relative Humidity	5%～95% (No Condensation)					
Altitude	≤2000 m						

The above parameters are at 25 °C. The current product specifications are subject to change without further notice.

High Energy Density Lithium Battery System

Product Features:

- 51.2V standard battery module.
- 3U battery module with capacity up to 200Ah.
- It is suitable for applications with backup time of 60 min. and above.
- Can directly replace lead-acid batteries with rated voltages of 192V, 240V, 384V ($\pm 192V$) and 480V ($\pm 240V$)

High Energy Density Lithium Battery							
Module	Cell type	Lithium Iron Phosphate Battery					
	Cell Composition	100Ah, 1P16S			100Ah, 2P16S		
	Rated Voltage	51.2V					
	Operating Voltage	41.6~57.6V					
	Rated Capacity	100Ah			200Ah		
	Rated Power	5.12kWh			10.24kWh		
	Discharge Current	100A Continuous Discharge (1C)			200A Continuous Discharge (1C)		
	Output Power	5.12kW			10.24kW		
	Standard Standby Time	60min			60min		
	Charging Current	50A Continuous Charging (0.5C)			100A Continuous Charging (0.5C)		
	Dimension W × D × H	440×441×131(3U) mm			440×770.5×131(3U) mm		
	Weight	43 kg			80 kg		
System	Optional Specifications and Capacities	204.8V	100Ah	20.48kWh	204.8V	200Ah	40.96kWh
		256V	100Ah	25.6kWh	256V	200Ah	51.2kWh
		409.6V	100Ah	40.96kWh	409.6V	200Ah	81.92kWh
		±204.8V	100Ah	40.96kWh	±204.8V	200Ah	81.92kWh
		512V	100Ah	51.2kWh	512V	200Ah	102.4kWh
		±256V	100Ah	51.2kWh	±256V	200Ah	102.4kWh
	Discharge Current	100A Continuous Discharge (1C)			200A Continuous Discharge (1C)		
	Charging Current	50A Continuous Charging (0.5C)			100A Continuous Charging (0.5C)		
	Cycle Life	4000 Cycles @80% DOD, 0.5C/0.5C					
	Communication Interface	CAN/RS485/Dry Contact					
	Protection Function	Overcharge, Over Discharge, Over Temperature, Over Current, Short Circuit, etc					
	Cabinet Type	Frame					
	Dimension W × D × H	600×800×1800mm			600×1000×1800mm		
	Weight	Module Weight × N + Cabinet Weight 200 kg			Module Weight × N + Cabinet Weight 250 kg		
	Storage Temperature	0℃~40℃					
	Transport Temperature	-20℃~60℃					
	Operating Temperature	0℃~40℃ (Recommend 20~25℃)					
Relative Humidity	5%~95% (No Condensation)						
Altitude	≤2000 m						

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High Power Lithium Battery System

Product Features:

- 51.2V standard battery module.
- Special 50Ah high power cell, supporting 6 ~ 12C continuous discharge.
- Suitable for applications with backup time less than 10 min.
- Can directly replace lead-acid batteries with rated voltages of 192V, 240V, 384V ($\pm 192V$) and 480V ($\pm 240V$)

High Power Lithium Battery				
Module	Cell Type	High Discharge Rate Lithium Iron Phosphate Battery		
	Cell Composition	50Ah, 1P16S		
	Rated Voltage	51.2V		
	Operating Voltage	41.6~57.6V		
	Rated Capacity	50Ah		
	Rated Power	2.56kWh		
	Discharge Current	300~600A Continuous Discharge (6~12C)		
	Output Power	30.72kW		
	Standard Standby Time	5 min		
	Charging Current	50A Continuous Charging (1C)		
	Dimension W × D × H	200×645×175(4U) mm		
	Weight	32kg		
System	Optional Specifications and Capacities	204.8V	50Ah	10.24kWh
		256V	50Ah	12.8kWh
		409.6V	50Ah	20.48kWh
		±204.8V	50Ah	20.48kWh
		512V	50Ah	25.6kWh
		±256V	50Ah	25.6kWh
	Discharge Current	300~600A Continuous Discharge (6~12C)		
	Charging Current	50A Continuous Charging(1C)		
	Cycle Life	4000 Cycles @80% DOD, 0.5C/0.5C		
	Communication Interface	CAN/RS485/Dry Contact		
	Protection Function	Overcharge, Over Discharge, Over Temperature, Over Current, Short Circuit, etc		
	Cabinet Type	Frame		
	Dimension W × D × H	600×800×1800mm		
	Weight	Module Weight × N + Cabinet Weight 250 kg		
	Storage Temperature	0°C~40°C		
	Transport Temperature	-20°C~60°C		
	Operating Temperature	0°C~40°C (Recommend 20~25°C)		
	Relative Humidity	5%~95% (No Condensation)		
	Altitude	≤2000 m		

The above parameters are at 25 °C. The current product specifications are subject to change without further notice.



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