



Tiktok



Youtube



Website

Global Headquarters

8F, Building D-2-3, 1F, Building D-2-3, 8F, Building D-2-2, No.6, Xingyuan North Road, Starting Area China-Korea Huizhou Industrial Park, Zhongkai District, Huizhou City, Guangdong, P.R. China

China Branch

6 Floors, Building 1 Zhonghui International Mansion, Huicheng District, Huizhou, Guangdong Province, China

Australia Branch

2/19 Davis Rd, Wetherill Park NSW 216, Australian

European Branch

BSL New Energy Technology European B.V.
Address: Jollemanhof 22, 1019GW Amsterdam, Netherlands
E-mail: inquiry@bsl-battery.com
Tel: +31 6 27 58 46 03 / +31 627 583 933

South Africa Branch

Northriding Commercial Park, 251 Aintree Ave, Northriding, Randburg, 2169, South Africa

Hong Kong Branch

Room 304, 3/F, David House, 8-20 Nanking Street

European Storehouse

FOX Global Logistics B.V.
Address: Nobelsingel 15, 2652 XA Berkel en Rodenrijs, The Netherlands

U.S. Branch

BSL NEW ENERGY (USA) TECHNOLOGY CO,LTD
Address: 1036 Jacobson Road Suite #200 Garland TX 75042
E-mail: sales@bslbattery.us
Tel: +1(520)861-3970

Mexico Branch

Sala 22, Terra Business Park, Primer Retorno Boulevard Universitario 1, La Pradera, 76269 Qro., México

Key contact: Sales Department:
+86-752-2819-469

E-mail:
inquiry@bsl-battery.com

Website:
www.lithiumforkliftbattery.com

LiFePO4 Batteries For **ELECTRIC PORT MACHINERY**

Give your equipment the ultimate power upgrade and reduce your operating costs with
BSLBATT® Lithium-ion Batteries.



HEAVY-DUTY



www.lithiumforkliftbattery.com

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Business Card Binding Position

CORPORATE HISTORY

2011

Establishment WISDOM INDUSTRIAL POWER CO., LIMITED

Now known as BSL NEW ENERGY (HONGKONG) CO., LIMITED

2014

The Energy Storage Battery Division is growing rapidly, with product voltages extending to 48V/51.2V and an increasing range of applications.

Volume shipments of lithium batteries are also growing for the telecom sector and UPS.

2021

Established Huizhou BSL New Energy Technology Co., Ltd.

Launched the Huizhou lithium battery manufacturing and production line.

Our products are exported to more than 50 countries, and our quality and service are widely recognized.

2024

Established a new automated and modern factory in Huizhou, with an annual production capacity of 2 GWh. Established a factory in Maanshan, Anhui, with an annual production capacity of 1 GWh.

Launched a full range of industrial and commercial energy storage products. Established a warehouse and office in Mexico.

Angel round financing.

2012

HUIZHOU WISDOM POWER TECHNOLOGY CO., LTD.

The lead-acid battery business was further expanded, and foreign trade sales exceeded 100 million yuan.

2018

Established a lithium battery factory in Dongguan, China, with a production area of 6,000 square meters.

Launched the first rack-mounted and wall-mounted battery models for home energy storage, with over 7,000 units sold overseas.

The first generation of power battery modules has been developed, and the lithium power business unit is growing rapidly.

2022

A 2,000-square-foot warehouse and office were established in Dallas, Texas, USA.

Our products have passed UL 1973, UL 2580, IEC, Australia CEC, and other international certifications.

2025

Expected sales to reach 700 million RMB. Established Japanese branch and office.

Get certificate of Specialized, Refined, Differentiated, and Innovative Enterprise. Sales are expected to reach 100 million USD. IPO on the New Third Board.

2013

First lithium battery factory in Anhui, China. Lithium batteries shipped in bulk, 12V/24V for lead-acid replacement.

Forklift lithium battery--aqueous battery technology.

2020

Became the leading ESS brand in South Africa.

The second generation of ESS modules has been developed.

Became the #3 China lithium battery brand to be listed by Victron.

2023

Over 90,000 solar batteries have been installed in residential properties worldwide.

Over 10,000 power batteries are currently in operation worldwide.

We have surpassed \$68 million in sales revenue. A European office and warehouse have been opened.

Obtained high-tech enterprise certification.

2026

Go public on the Beijing Stock Exchange.

Sales are expected to reach 150 million USD.

Deploy 160 dealers.

Global employees increase to more than 400.

113+

Countries

Global Deliveries

UL2580

The First Company In China To Obtain Certification

18197

Motive Power Lithium Batteries Deployed Worldwide

13+

Years Lithium Experience

6.2%

Continuous R&D Investment

3 GWH+

Delivered Capacity

Top 5

China Motive Power Lithium Battery Supplier



Electric Port Machinery

Preferred Chinese lithium battery supplier



141+

Self-developed Patents



BSLBATT Powering the Electrification OF PORT EQUIPMENT

Port Equipment Power Supply: From Diesel to Clean Energy

- Traditionally, most port machinery—such as reach stackers, rubber-tyred gantry cranes (RTGs), and straddle carriers—relies on diesel engines or diesel-battery hybrid systems for power. However, growing concerns over total cost of ownership (TCO), fuel consumption, and environmental impact have accelerated the shift toward fully electric solutions.

The Rise of Battery-Electric Solutions

- Battery-powered systems are now emerging as the preferred alternative, offering a clean, safe, reliable, and cost-effective energy source for efficient cargo handling. These advanced solutions not only reduce operational costs but also help ports meet stricter sustainability and emissions standards.

Conventional Diesel And Hybrid Powertrains

- High fuel consumption and rising operational costs
- Increased risk of equipment failure and frequent maintenance
- Higher carbon emissions with greater environmental impact
- Safety and health risks for port workers
- Regulatory pressure to adopt cleaner energy alternatives



The BSLBATT Advantage:

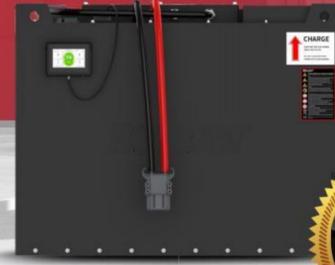
BSLBATT has developed a fully integrated high-voltage lithium iron phosphate (LiFePO4) battery solution specifically designed for heavy-duty port equipment. Our system seamlessly integrates the following core components:

- High-voltage lithium battery packs
- Smart Battery Management System (BMS)
- Liquid cooling system for advanced thermal management
- Power Distribution Unit (PDU)
- Fast DC charger
- Remote monitoring capabilities
- Battery heating system for extreme temperature performance



Latest Technology. Huge Growth For Your Business

Converting from traditional diesel power systems to LiFePO4 systems are simple, cost-effective, maintenance-free, and will increase your fleet productivity and keep your personnel safe.



Comparison of economic benefits of port equipment power systems (TCO)

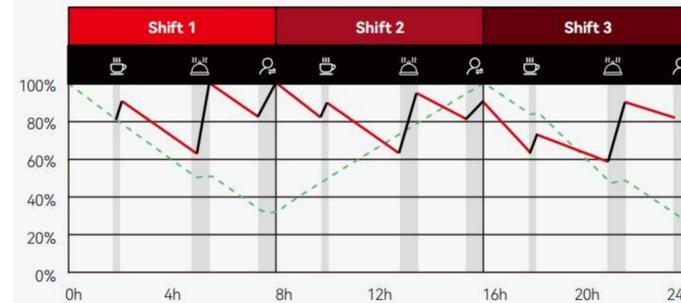
CATEGORY	DIESEL ENGINE	NATURAL GAS ENGINES	HYBRID POWERTRAIN	LiFePO4 BATTERY
Initial Purchase Cost	\$ \$	\$ \$	\$ \$ \$	\$ \$ \$
Fuel/Electricity costs	\$ \$ \$ \$	\$ \$ \$	\$ \$	\$
Maintenance Costs	\$ \$ \$ \$	\$ \$ \$	\$ \$...
Service Life	👤 👤	👤 👤	👤 👤 👤	👤 👤 👤 👤 👤
Emission	🌿	🌿	🌿 🌿	🌿 🌿 🌿 🌿
Noise	🔊 🔊 🔊 🔊	🔊 🔊 🔊	🔊 🔊	...
Startup and response speed	🚀	🚀 🚀	🚀 🚀 🚀	🚀 🚀 🚀 🚀 🚀
TCO 5-year	👤 👤 👤 👤	👤 👤 👤	👤 👤 👤	👤 👤 (Save 70%)
Sustainability and policy adaptability	🌿	🌿 🌿	🌿 🌿 🌿	🌿 🌿 🌿 🌿 (Government subsidies + sustainability)

Charge At Any Time To Improve Efficiency

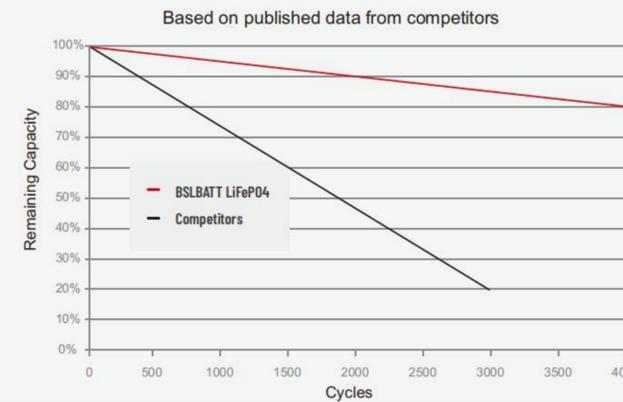
- Reduces the need for each charge.
- No need to frequently replace time-consuming batteries.
- Eliminates the risk of battery replacement accidents.
- Opportunistic charging during breaks, lunch, and shifts. Charge at any time when the device is not in use.



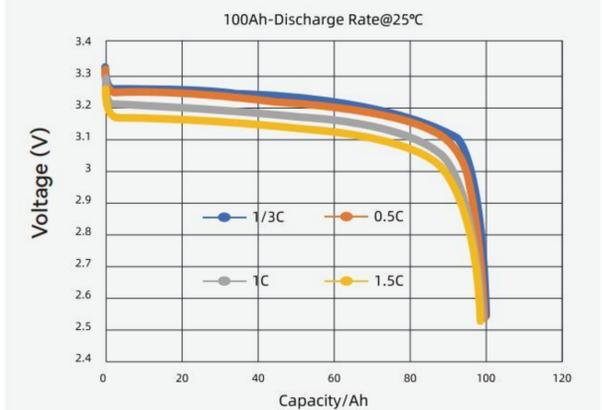
Typical charge and discharge of LiFePO4 batteries for 3 shifts



CYCLE LIFE VS. DEPTH OF DISCHARGE (DOD) AT 80% DISCHARGE 1C/CHARGE 0.5C @ 25°C (77°F)

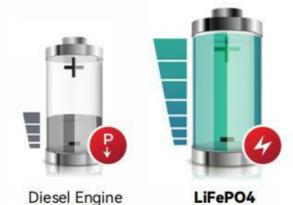


DISCHARGE CURRENT: 1/3C / 0.5C / 1C / 1.5C



Consistent Power

- LiFePO4 batteries provide consistent power without loss of efficiency even at the end of a shift.



Say goodbye to the need for dedicated charging rooms and frequent battery replacement

- Reduce the cost of frequent lead-acid battery replacement
- Eliminate storage space and extra maintenance time.
- No pollution, no need to add water, no odor, quiet and comfortable charging.





WHY CHOOSE

BSLBATT LiFePO4 Battery

BSLBATT utilizes advanced lithium iron phosphate (LiFePO4) battery technology—proven in industrial applications for over 13 years—to deliver an ideal power solution for electric port equipment. The system offers high performance, outstanding efficiency, enhanced safety, and truly maintenance-free operation.

Safe LiFePO4 Ingredients

More than 4,000 cycles

Vibration/shock resistance

Higher flexibility

Up to 8-year warranty

More than 15 years of battery life

Support for multiple port equipment platform adaptation

Low-temperature heating

Modular design, easy integration and maintenance

Efficient liquid cooling

All-weather operation capability

Automotive-grade reliability

Maximum 1000V high voltage

Greatly reduce TCO

Can be matched with energy storage system and photovoltaic charging station

Zero maintenance

Ip69 protection grade

4G remote control

Fast and opportunity charging

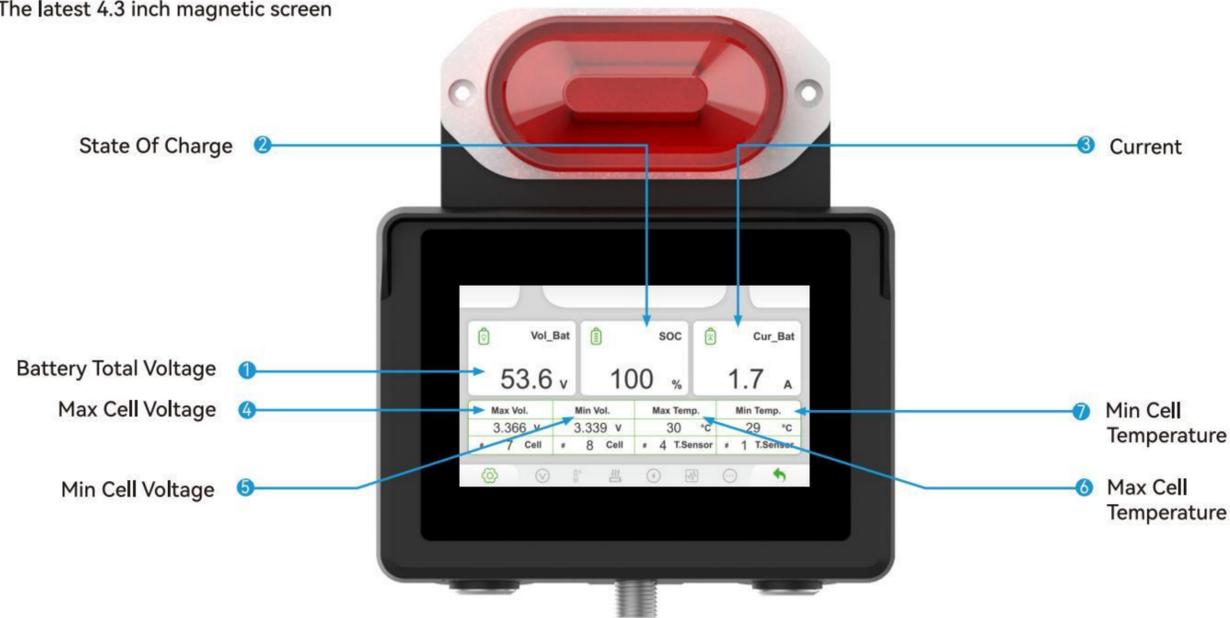
Built-in fire extinguishing system



BSLBATT Port Equipment Battery System Accessories

Superior Power & Optimal Performance

The latest 4.3 inch magnetic screen



Battery Management System (BMS)

The built-in BMS is equipped with automotive-grade components assuring safety, top quality and high energy density to provide a fully optimized solution for demanding industrial applications.

BMS software ensures the battery provides peak performance when in operation, delivers longer run time between charges, maximizes the total battery lifespan and to communicate well between the charger, battery and users.



The BMS can offer:

All-time Cell Balancing and Battery Management.

Through intelligent balancing strategy, the BMS can always maintain the consistency of the cells and realize the balance between individual cells.

Battery Real-time Monitoring and Communication Through CAN.

Monitoring cell voltage, electric current and battery temperature so that any movement outside the normal range disconnects the cell or the entire battery.

Fault Alarm and Safety Protection.

When the battery is less than 10%, it will beep to prompt for charging, over/under voltage, low/over temperature, over current or other faults will prompt to make the battery safe. Safety always comes first.

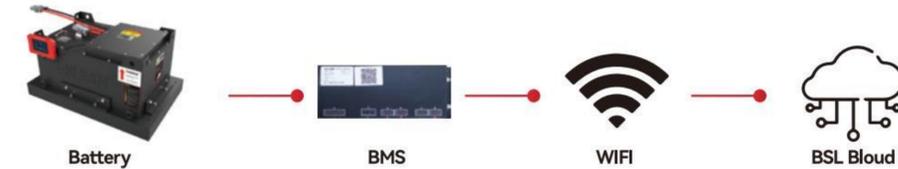
BSL Cloud platform

Create fleets.
Monitor each of your batteries:

CLOUD-BASED TELEMATICS AND ASSET MANAGEMENT

Keep your fleets running around the clock with intelligent fleet management

Track usage patterns and diagnose issues remotely for real-time monitoring, maximum efficiency and operator safety—BSL BMS will notify you before an issue occurs. View battery performance and data, monitor fleet activity, and generate real-time metrics from the web portal.



WORKFLOW

BENEFITS

- View/share real-time data
- Diagnose issues remotely
- Manage maintenance costs
- Impact energy usage and savings
- Optimize operator safety
- Improve productivity
- Eliminate unplanned downtime
- Avoid unexpected breakdowns
- Monitor equipment allocation
- Real-time alerts
- Optional GPS tracking capability

ADVANTAGES

- Real-time fleet monitoring
- Performance metrics and data reports
- Generate custom alerts to notify multiple users
- Aggregate data to identify over/under utilized batteries
- Optimize operator practices
- Password-protected account
- Custom user permissions and functionality
- Saves 1 month of full debug data locally
- Wi-Fi/Cellular/Bluetooth compatibility





-30°C

Outperforms at low temperatures.

BSLBATT® IP69 Lithium Batteries- Built for Extreme Port Environments

- Engineered for ultimate durability, our **IP69-rated** batteries are fully dustproof, corrosion-resistant, and withstand high-pressure, high-temperature water jets.
- Designed to perform flawlessly in temperatures down to **-30°C**, they deliver reliable power in the harshest conditions-salt spray, heavy rain, or freezing cold. Easy to clean, maintenance-free, and built to last, ensuring your port equipment operates at peak efficiency year-round.



Dust & Salt Spray Resistant



Corrosion Resistant



High-Pressure Water Resistant



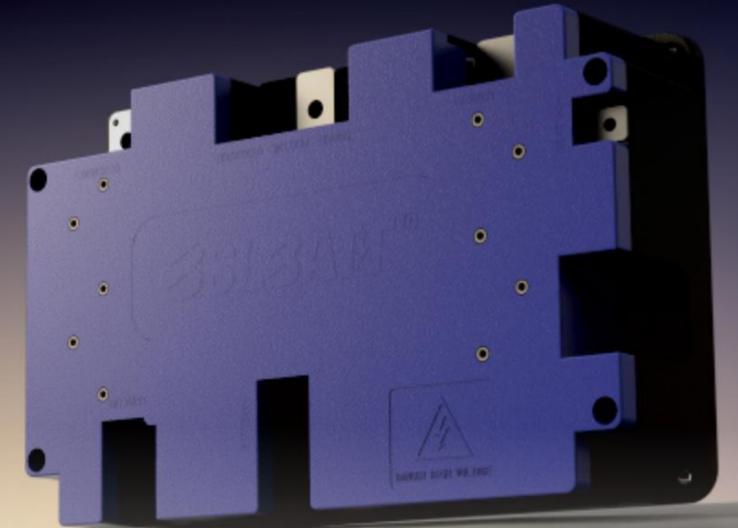
High-Temperature Wash Resistant

Advantages of the PDU

Gen 4 Smart PDU enables 5-minute modular service part swaps.

7 Key Innovations

Faster, stronger, safer, greener power distribution than traditional PDUs



Simpler Design & Faster Production

Reduces battery assembly time by **~10%** vs. sheet metal PDUs, enabling **30-day** delivery. Eliminates complex LV wiring.

Higher Reliability



30% lower post-sales failure rate than traditional PDUs, minimizing downtime for efficient operations.

Proven Robustness

Passed **EMC and mechanical vibration tests** for reliable operation in harsh environments.

RoHS Compliant

All components and materials meet **RoHS standards** for environmental safety.

Improved Cooling

Integrated thermal system boosts heat dissipation efficiency by **20%**.

High-strength plastic enclosure provides **superior electrical insulation** vs. metal PDUs

Enhanced Safety

Fewer Parts, More Reliability

The adoption of the integrated monolithic board reduces connector usage by **50%**, significantly enhancing overall reliability.

Charging Advantages of LiFePo4 Batteries for Port Machinery

Safe, reliable, intelligent charging

- Fast Charging During Shift Breaks
- Opportunity Charging Anytime
- No Need to Fully Discharge
- High Charging Efficiency
- Reliable Low-Temperature Charging
- Remote Monitoring & Smart Control



Charging System

- | | | | | | |
|-----------------------------|--------------------------|---------------------------|--------------------------|-----------------------------|----------------------------|
| | | | | | |
| Over Voltage Protection | Under Voltage Protection | Over Current Protection | Short Circuit Protection | Over Temperature Protection | Low Temperature Protection |
| | | | | | |
| Reverse Polarity Protection | Overcharge Protection | Cell Balancing Protection | Charging Time Protection | Leakage Protection | Automatic Power Off |

Technical Specifications

- Battery Cell: Lithium Iron Phosphate (LiFePO4)
- Rated Voltage: <1,000V
- Rated Capacity: 410-2000AH
- Cycle Life: More Than 4000 Times
- Operating Temperature: -25°C
- Protection Level: IP69



< 1000V
Best Electric Port Equipment Custom Battery



48V-1000V LiFePO4 Systems for Various Port Equipment



Technical Specifications for Low-Voltage LiFePO4 Solutions

Voltage	80V (96V, 120V, 144V)							
Capacity	400Ah	460Ah	560Ah	690Ah	840Ah	912Ah	1120Ah	1520Ah
Energy	32kWh	36.8kWh	44.8kWh	55.2kWh	67.2kWh	72.9kWh	89.6kWh	121.6kWh
Charge Current	200A	200A	300A	300A	300A	400A	300A	400A
Discharge Current	300A	350A	350A	350A	350A	640A	640A	640A
Instantaneous Discharge Current (30S)	700A	700A	700A	700A	700A	1000A	1000A	1000A
Dimension	35.43 x 22.05 x 22.44 in (900x560 x 570 mm)	32.28 x 24.61 x 22.83 in (820x 625 x 580 mm)	31.89 x 28.74 x 22.44 in (810x730 x 570 mm)	38.58 x 31.89 x 22.44 in (980x810 x 570 mm)	39.37 x 32.28 x 22.44 in (1000 x 820 x 570 mm)	48.43 x 27.56 x 29.13 in (1230x700 x 740 mm)	58.07 x 29.13 x 23.15 in (1475 x 740 x 588 mm)	47.44 x 39.53 x 33.86 in (1205 x 1004 x 860 mm)
Cycle Life	>4,000 Times							
Ingress Rating	Ip69							

Technical Specifications for High-Voltage LiFePO4 Solutions

Item	1S	2S	3S	4S	5S
Minimum Voltage	129.6V	259.2V	388.8V	518.4V	648V
Rated Voltage	153.6V	307.2V	460.8V	614.4V	768V
Maximum Voltage	175.2V	350.4V	525.6V	700.8V	876V
Energy	35.3kWh	70.6kWh	105.9kWh	141.2kWh	176.6kWh
Capacity	230Ah				
Continuous Charge / Discharge Current	1C/1C				
Pulse Charge / Discharge Current (10S)	2C/2C				
Dimension (Single Pack)	42.6x24.8 x 9.45 m(1082x630 x 240 mm)				
Cycle Life	>5,000 Times				
Cooling Meth	Liquid Cooling				
2P System Capacity	70.6kWh	141.3kWh	211.9kWh	282.5kWh	353.2kWh
3P System Capacity	105.9kWh	211.9kWh	317.8kWh	423.8kWh	529.8kWh

- 1. All product images are for illustrative purposes only. Performance data is derived from BSLBATT's standardized testing protocols and are provided for general reference only.
- 2. Actual battery performance may vary depending on specific applications, environmental conditions, and operational practices. Installation, operation, and maintenance should only be performed by qualified and authorized personnel.
- 3. BSLBATT reserves the right to modify specifications, design features, or product configurations at any time without prior notice, as part of our ongoing commitment to innovation and continuous improvement.



Condensed Aerosol Fire Extinguishing Device

Advantages of BSL Battery

Condensed Aerosol Fire Extinguishing Device

1. Compact size
2. No pressure storage
3. No need to lay pipe network and maintenance
4. Efficient and rapid-fire extinguishing
5. Non-toxic and harmless
6. Safe and reliable
7. Green and environmental protection

Features

1. Cooling And Fire Extinguishing Effect Of Heat Absorption And Decomposition
2. Gas-Phase Chemical Inhibition
3. Solid-Phase Chemical Inhibition




Highly efficient and reliable in extinguishing fires.

Motive Power Energy Transformation Enabler

- Powering the future, BSLBATT is your trusted battery supplier, providing customized OEM solutions, technical training and 24/7 global support.

Focus

Focusing on the field of power batteries, we have rich product lines and compatible service experience.

Reliable

Carrier-level product quality, all passed national/industry standard testing and certification.

Innovation

Follow user demand orientation, constantly review product value, and continue to invest in technology.

