



Join hands to create
a better future

Xingdong Lithium Battery Technology Co., Ltd.

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Xingdong Lithium Battery Technology Co.,Ltd.

2024



Pioneer in mass production of solid-state batteries
and low-temperature batteries

Leader of high-performance, low-
temperature-resistant large power systems



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ABOUT US

Xingdong Lithium Battery Technology Co., Ltd.

We are a lithium-ion battery enterprise with a full industrial chain, with core technologies in battery cell development and system integration and professional testing capabilities, focusing on the research and development and manufacturing of high-safety, low-temperature-resistant solid-state lithium batteries, semi-solid-state lithium batteries, and high-performance large-power battery systems.

Our company is committed to providing high-quality lithium battery products that meet the highest safety standards, offer an extended lifespan, are capable of withstanding low temperatures, and are manufactured to exacting specifications. We combine technological innovation with advanced production technology and rigorous quality control to deliver tailored solutions and products for high-safety, low-temperature-resistant lithium battery systems to our global customer base.

XDLE

Solid-state batteries

High-end military grade safety

Low-temperature battery

Our current mass-produced low-temperature cells are capable of charging and discharging at temperatures ranging from -20°C to -35°C. We can also provide special customisation of multiple models in various capacities with high consistency.



Low-temperature resistance Large power battery system

Meets the power needs of large-heavy construction machinery electrification and low-temperature areas.

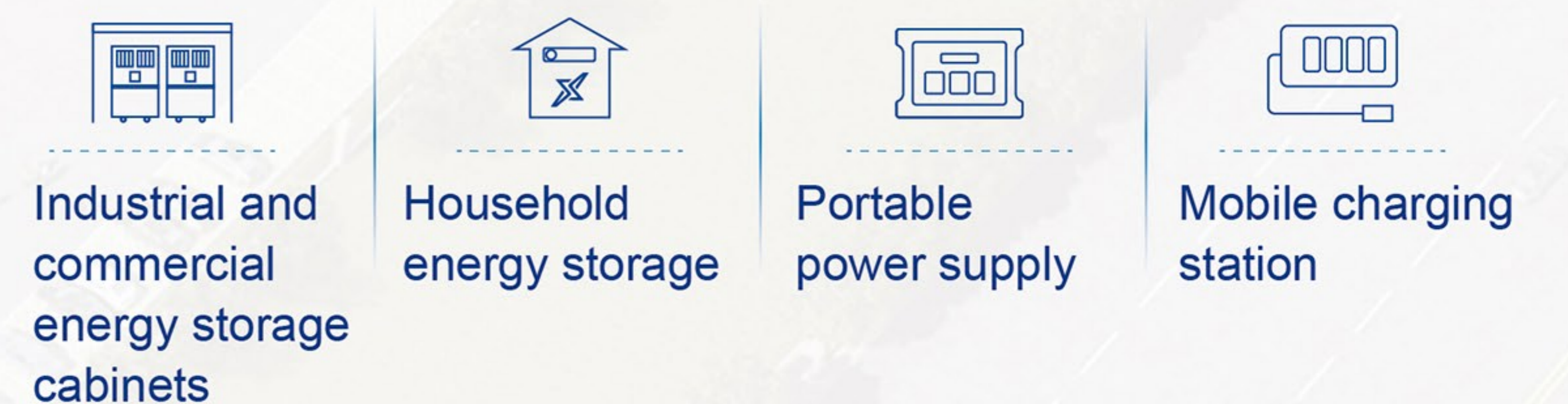
Low-temperature areas Energy storage system

Can be used for stable and efficient charging and discharging in low-temperature and severe cold areas.

Provide power batteries, PACK systems and services for electrification of heavy construction machinery



Providing energy storage batteries, solutions and services for green energy storage



R&D INNOVATION



Innovation for development

Our company firmly adheres to the core concept of "innovation for development" and regards innovation as the foundation of its existence. It gathers the industry's top technologies and continuously invests in research and development to ensure its leading position in the same level of industry.



Accumulation of technical resources

We have accumulated rich technical resources and technical achievements, and have jointly built postdoctoral bases and innovative practice bases with Hebei University of Science and Technology, Central South University, Jiangsu University, etc., undertaken industry technology research and development, and improved the industry's technical level.

15% +

R&D investment

Annual R&D investment is at least 15% of our sales revenue



3 +

R&D base

3 professional R&D bases, established in Xingtai, Zhangjiakou, Shenzhen and other cities



IPD R&D management system

In order to further improve R&D efficiency and innovation capabilities, the company introduced IPD to make the R&D process more efficient and standardized. These efforts have enabled the company to successfully create a number of advanced systems and products at home and abroad.



Technical team

Our company has established a talent training, introduction and mechanism, and has a team of talents with cutting-edge technology in the industry.

300 +

Technical strength

Owens an independent R&D team of more than 300 people



10 +

Industry experience

The average industry experience of the R&D team is ≥ 10 years, Guarantee the processing level of key technologies



Industry-University-Research Platform



Hebei University of Science and Technology



Central South University Technology development collaboraion



Jiangsu University Technology transfer collaboraion



20000 m +

R&D center area 20,000m² +



200 +

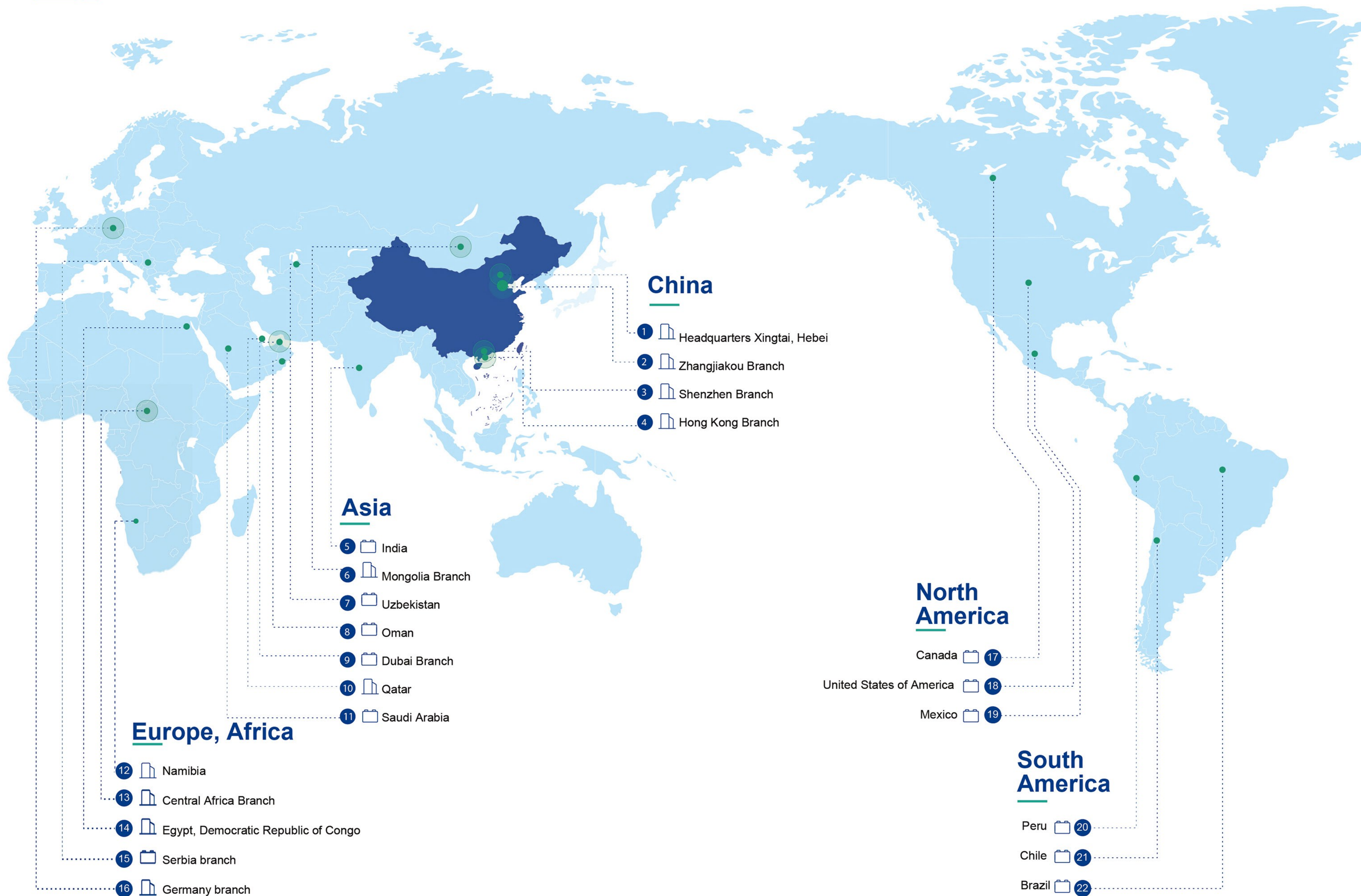
More than 200 process technologies



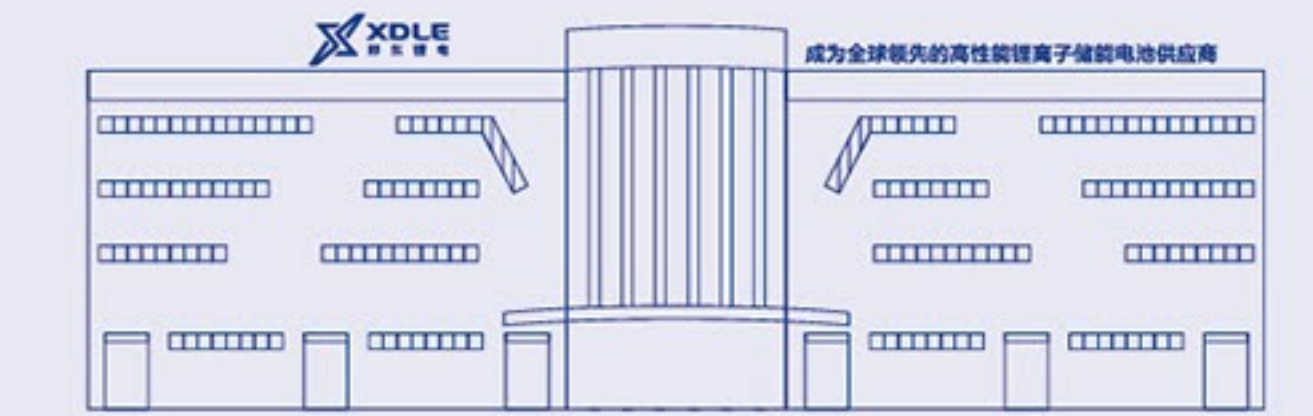
100 +

100+ patents, including 30+ invention patents and 70+ utility patents

GLOBAL BUSINESS



Headquarters: Xingtai, Hebei

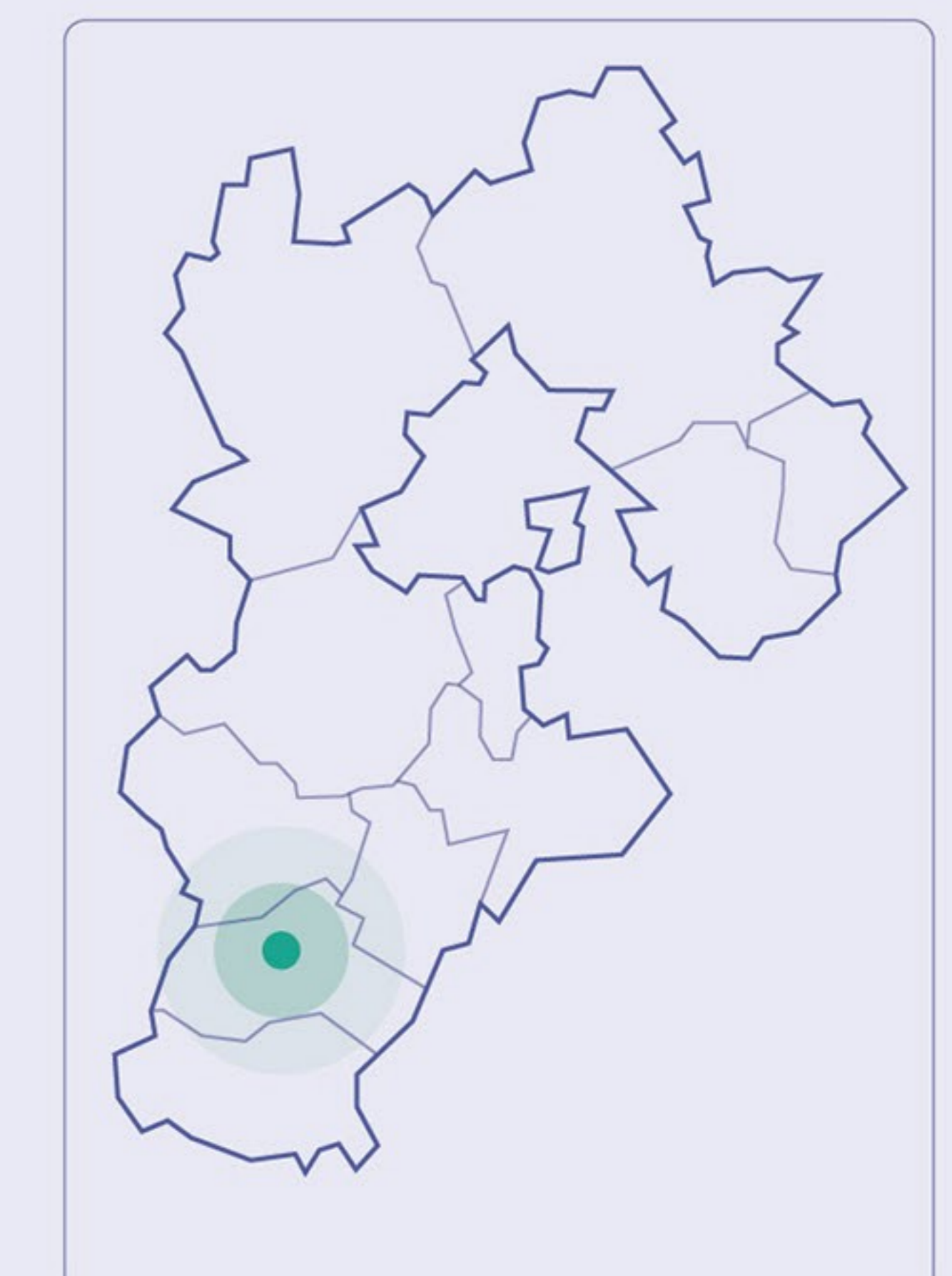


Eight branches

Zhangjiakou Huailai Branch, Shenzhen Branch, Hong Kong Branch, Germany Branch, Mongolia Branch, Serbia Branch, Central Africa Branch, Dubai Branch

Global - national business dealings

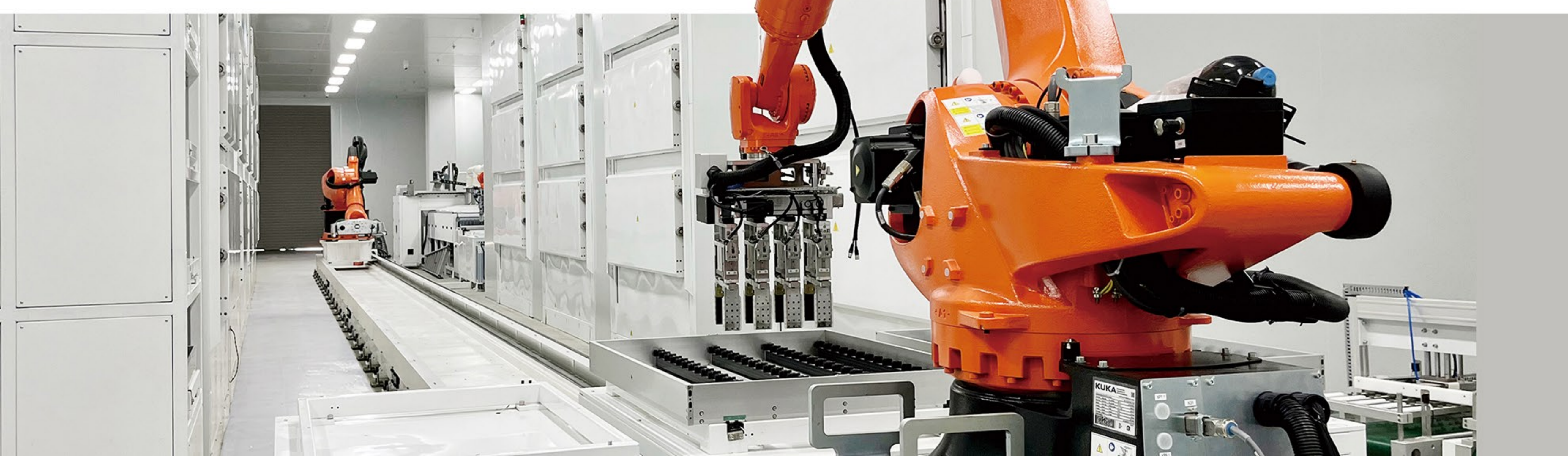
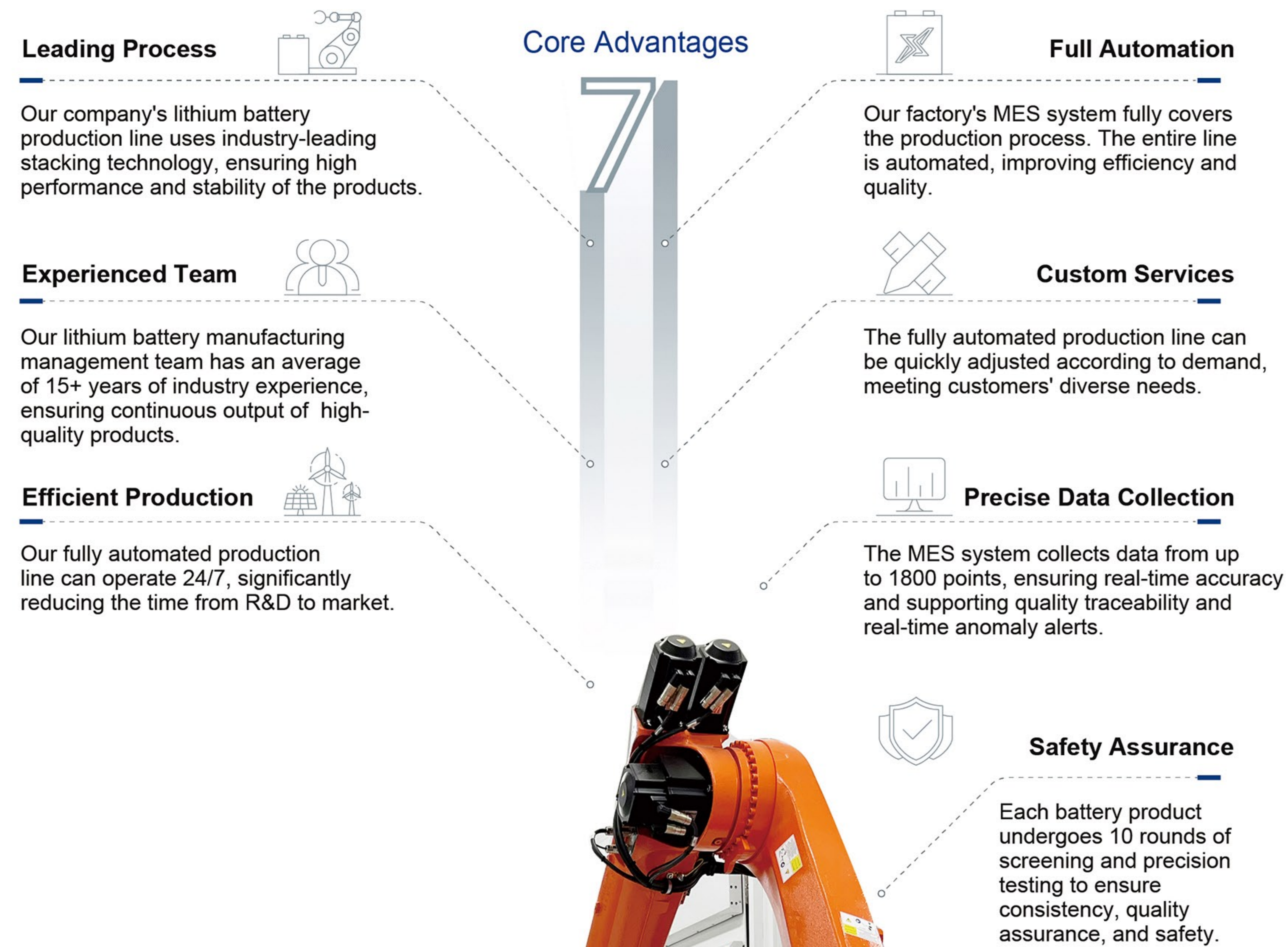
Congo (DRC), Egypt, Uzbekistan, Qatar, United Arab Emirates, Dubai, Oman, Saudi Arabia, India, Bengaluru, Canada, United State of America, Mexico, Namibia, Peru, Chile, etc.



Headquarters: Xingtai High-tech Zone, Hebei Province

SMART MANUFACTURING

Xingdong Lithium Battery team has extensive experience in large-scale lithium battery manufacturing and the ability to provide stable, long-term output.



QUALITY BENCHMARK

Quality Management System IATF 16949 ISO 9001

7 Our focus

R&D, Equipment, Process, Production, Quality, Data Collection, Warehousing

42 processes

Full-process product data traceability from raw material input to final product delivery

80 +

Online management reports for quality, production, equipment, and processes

600 +

Process control points establish IATF16949 quality management system

3000 +

Real-time monitoring of process control points

Before the raw materials are put into use, they undergo more than 10 rounds of testing to ensure that the quality of the raw materials is stable and consistent. They are shipped after 42 process flows and are more durable than similar products.

CELL ADVANTAGES

Long Cycle Battery



Low-temperature battery



Solid-state batteries



*Products are constantly innovating and performance is constantly improving. The above technical parameters are for reference only.

Cell Advantages



Stacking Process - Battery Advantages

High Safety: In a fully charged state, the battery does not ignite or explode when shot or punctured, surpassing military standards.

Ultra-Long Life

Long Cycle Life: Using a special in-situ gel stacking process, the 0.3C charge/discharge cycle life is more than 15,000 cycles, and the 1C charge/discharge cycle life is more than 8,000 cycles.

High Discharge Rate, Large Capacity

Capable of sustaining 2C charge and discharge, with instantaneous discharge reaching 15C. Suitable for power use in various heavy engineering equipment.

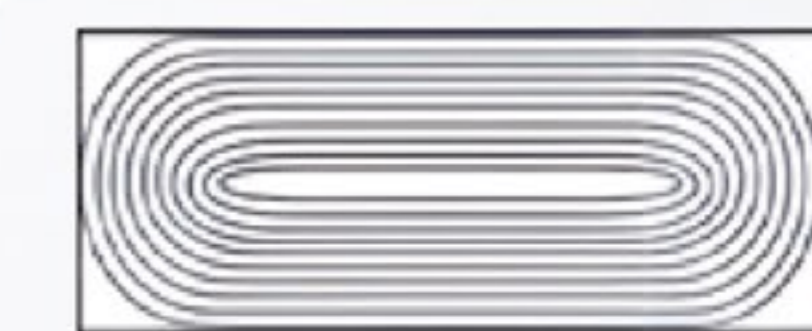
Extreme Temperature Adaptability

Low-Temperature Battery: -35°C charge/discharge efficiency reaches 90%, and 60°C high-temperature discharge efficiency reaches 102%. Far exceeds the industry average low-temperature working limit of -20°C.

Stacking Process - Battery Advantages



Stacking Process



Winding process

Higher space utilization, energy density can be increased by 5% compared to winding

Higher

Lower

There is a C angle, the larger the capacity, the lower the utilization rate

Uniform internal structure, relatively consistent reaction rate

More stable

Lower

The existence of a C angle leads to uneven internal reaction rates during charge and discharge

Multiple electrodes in parallel, low internal resistance! High current charging and discharging can be completed in a short time, and the battery rate performance is higher

Higher

Worse

During the charge and discharge process, the degradation rate of active materials at high temperature positions is accelerated, and other positions decay rapidly.

More consistent stress distribution, higher stability

Safer

Lower

Bending parts are prone to powder loss, burrs, pole piece expansion, diaphragm stretching and other problems.

Low internal resistance, low battery heat generation when used at high rates, which can improve the stability of the battery chemical system and extend the service life

Longer

Shorter

Later, it is easy to change, which in turn affects the cycle life of the battery.

LONG CYCLE BATTERY

Long Cycle Battery



System

Adopts a lithium iron phosphate (LFP) system with excellent safety performance.



High Consistency

Fully automated production, high-precision production lines, and strict grouping parameters: Capacity, OCV (Open Circuit Voltage), IR (Internal Resistance).



Discharge

Supports 15C instantaneous discharge current.



Life

0.3C charge/discharge cycle life exceeds 15,000 cycles, reducing the cost of periodic use.



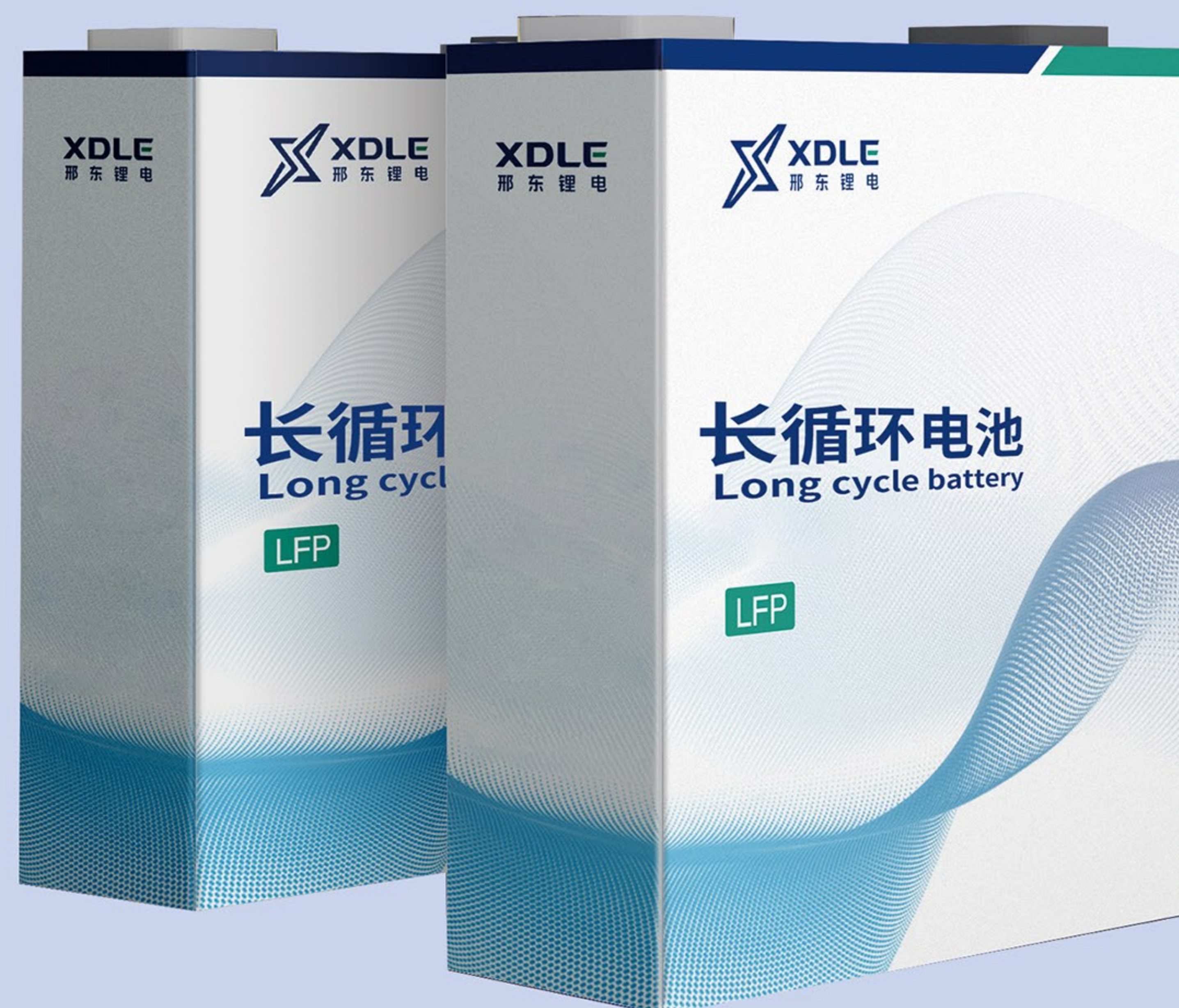
Energy

Energy density can reach ≥ 180 Wh/kg.



Internal Resistance

Internal resistance $\leq 0.25m\Omega$, 30 % lower compared to wound batteries.



Application areas

Power battery system

Core Application areas

Large power battery system

Energy storage battery system

Such as new energy pure electric mining trucks, electric heavy trucks, etc.

Long cycle battery specification

Product model	206Ah Energy storage	206Ah power	230Ah Energy storage	230Ah power	280Ah Energy storage	280Ah power	314Ah Energy storage	314Ah power
Standard charge/discharge current	0.5C/0.5C	1C/1.5C	0.5C/0.5C	1C/1.5C	0.5C/0.5C	1C/1.5C	0.5C/0.5C	0.5C/1.5C
Maximum continuous charge/discharge current	1C/1C	1C/1C	1C/1C	1C/1C	1C/1C	1C/1C	1C/1C	1C/1C
Peak pulse charge/discharge current	3C/3C	3C/3C	3C/3C	3C/3C	3C/3C	3C/3C	3C/3C	3C/3C
Operating temperature	-20°C-65°C	-20°C-65°C	-20°C-65°C	-20°C-65°C	-20°C-65°C	-20°C-65°C	-20°C-65°C	-20°C-65°C
Energy density	170 (Wh/kg)	170 (Wh/kg)	180 (Wh/kg)	180 (Wh/kg)	170 (Wh/kg)	170 (Wh/kg)	180 (Wh/kg)	180 (Wh/kg)
Nominal voltage	3.2V	3.2V	3.2V	3.2V	3.2V	3.2V	3.2V	3.2V
Nominal internal resistance	<0.25m Ω	<0.25m Ω	<0.25m Ω	<0.25m Ω	<0.25m Ω	<0.25m Ω	<0.25m Ω	<0.25m Ω
Battery cell weight	4.0 \pm 0.12kg	4.0 \pm 0.12kg	4.0 \pm 0.12kg	4.0 \pm 0.12kg	4.0 \pm 0.12kg	4.0 \pm 0.12kg	4.0 \pm 0.12kg	4.0 \pm 0.12kg
Battery cell size	204*173*54mm		204*173*54mm		204*173*71mm		204*173*71mm	

Advantages of long cycle batteries - high safety - gunshot battery safety experiment



Experimental battery introduction

Experimental battery cell:
LiFePO₄-206Ah battery cell

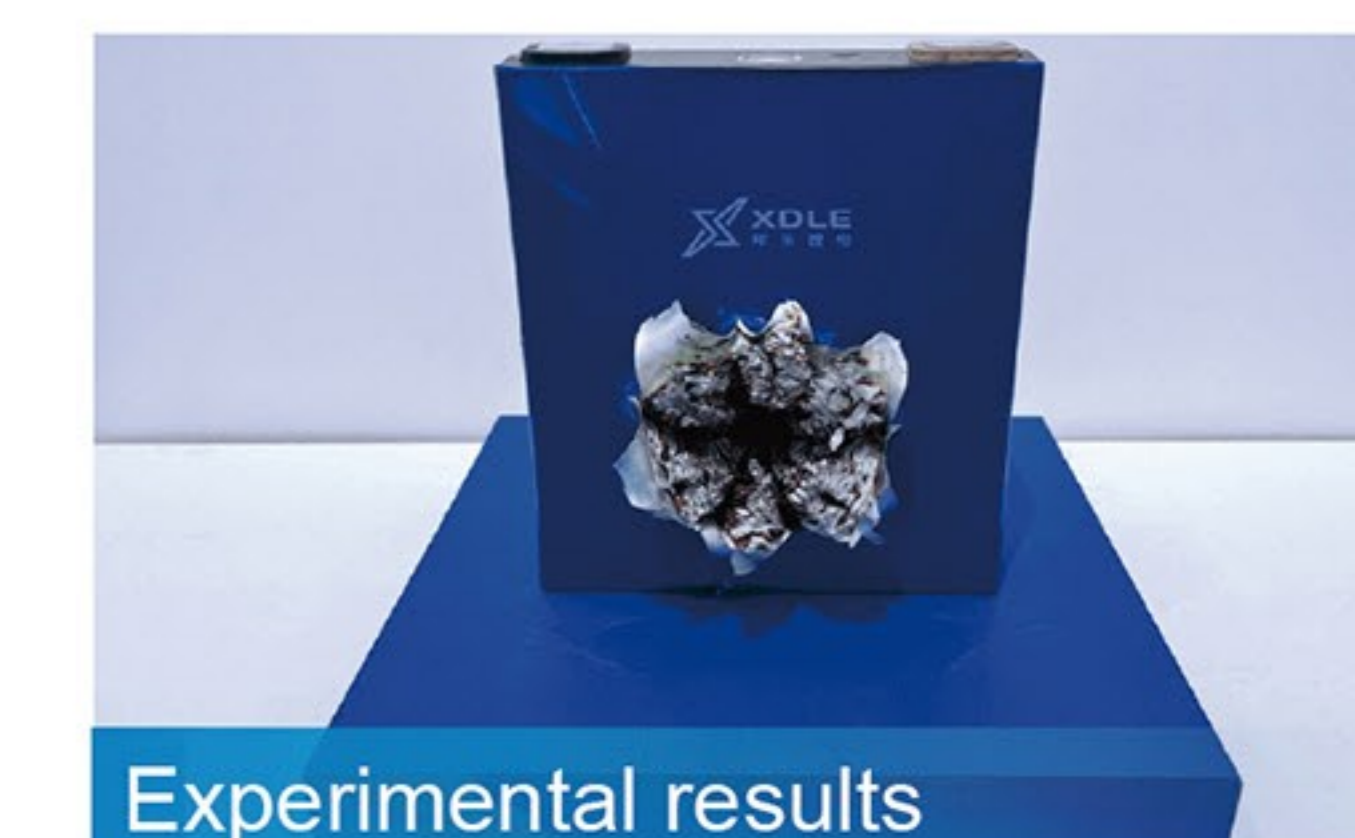
LiFePO₄ system, lamination process, high safety performance, long cycle life, high energy density, good low temperature performance



Experimental method introduction

Gun introduction:
Type 95 rifle/bullet: 5.8mm

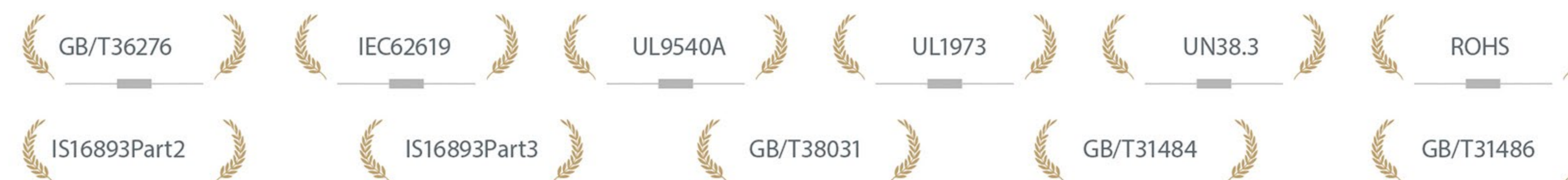
The battery is fully charged and the shooting battery experiment is carried out at normal temperature and pressure.



Experimental results

The bullet penetrated the battery cell, and the battery began to smoke, but there was no fire or explosion. The voltage gradually dropped to 0V, and the internal structure of the battery and the connection of the poles were intact, with no obvious deformation.

Safety testing and product certifications



LOW-TEMPERATURE BATTERY

★ Products are constantly innovating and performance is continuously improving. These technical parameters are for reference only
Application areas



Application areas

Working in low temperature environment



Power battery system, energy storage battery system, etc.

Low temperature charging and discharging model



-20°C、-25°C、-30°C、-35°C

Other models can be configured on demand



Low-Temperature Battery



Low Temperature

The charge/discharge efficiency at -35°C can reach more than 90%.



High Consistency

Fully automated production, high-precision production lines, and strict grouping parameters: Capacity, OCV (Open Circuit Voltage), IR (Internal Resistance).



Operating Conditions

The battery operates in a wide temperature range, from -35°C to 60°C.



System

Adopts a lithium iron phosphate (LFP) system with excellent safety performance.



Energy

Energy density can reach $\geq 180\text{Wh/kg}$.



Internal Resistance

Internal resistance $\leq 0.25\text{m}\Omega$, 30% lower compared to wound batteries.

Low-temperature battery application scenarios



Submarines, ships, aircraft, etc.

Aerospace and military industry



UAVs, launchers, communication equipment, etc.

High-tech equipment field

High safety performance, large battery capacity, long cycle life, wide operating temperature range

Passenger cars, commercial vehicles, inland ships, subways, etc

Rail transit field



Mining equipment, marine vessels, etc.

Heavy engineering equipment field

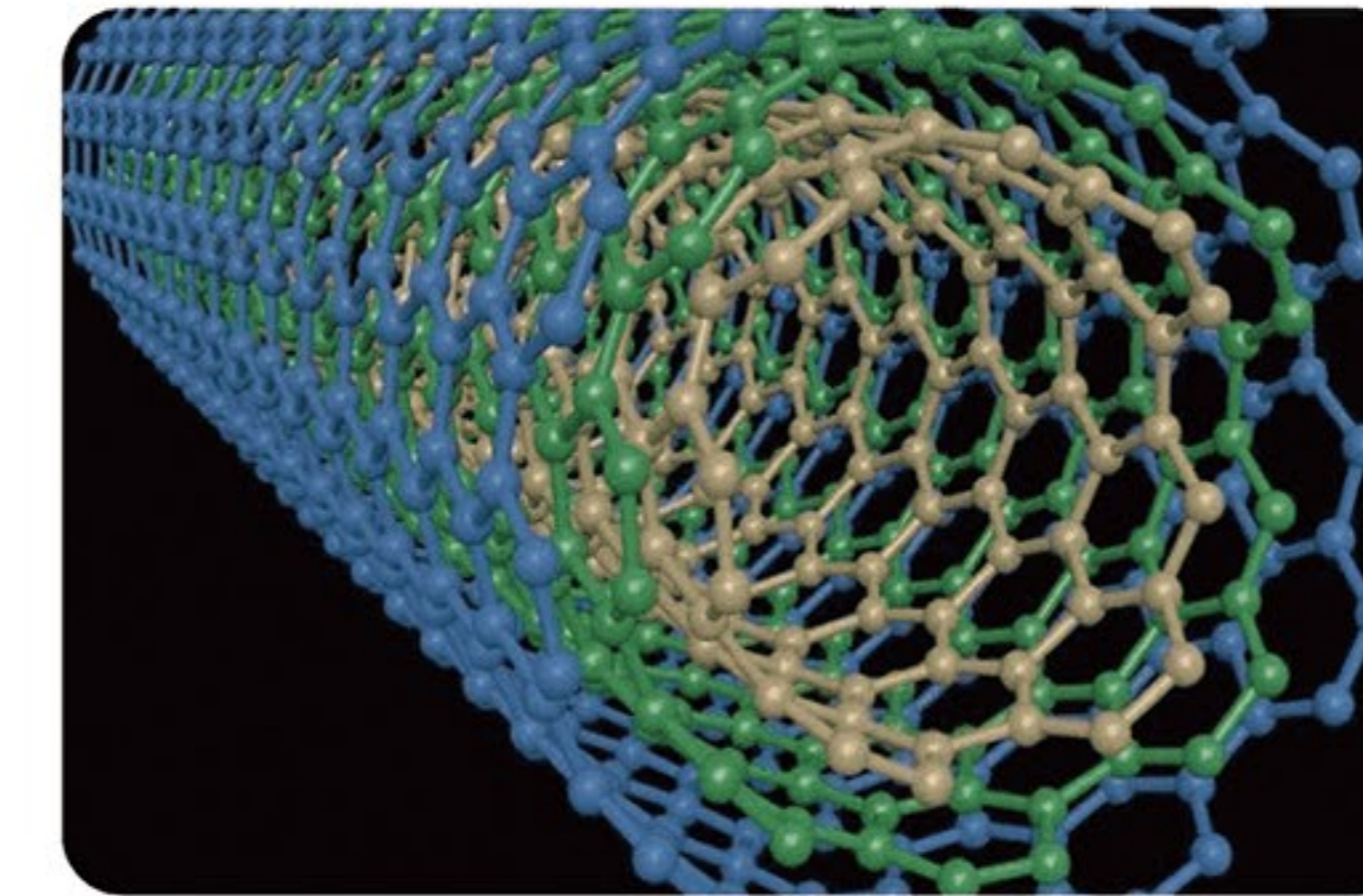


Low-temperature battery specifications

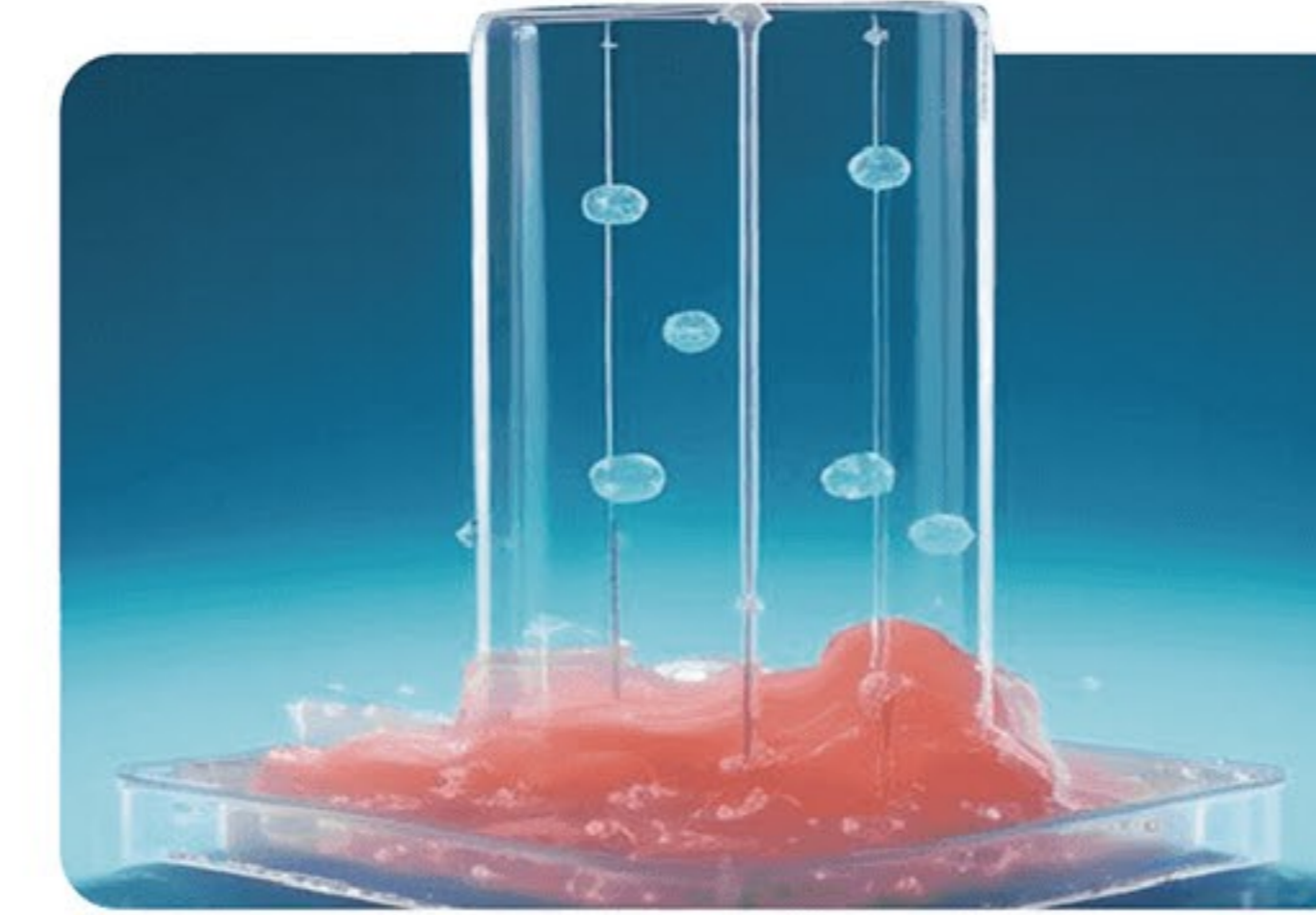


Low-temperature battery specifications				
Low-temperature models	-20°C	-25°C	-30°C	-35°C
Low-temperature charge/discharge performance (1C)	97%	95%	95%	90%
Standard charge and discharge rate	1C/1C	1C/1C	1C/1C	1C/1C
Battery capacity	206Ah、230Ah、280Ah、314Ah			

XDLE Lithium Low-Temperature Cell Technology

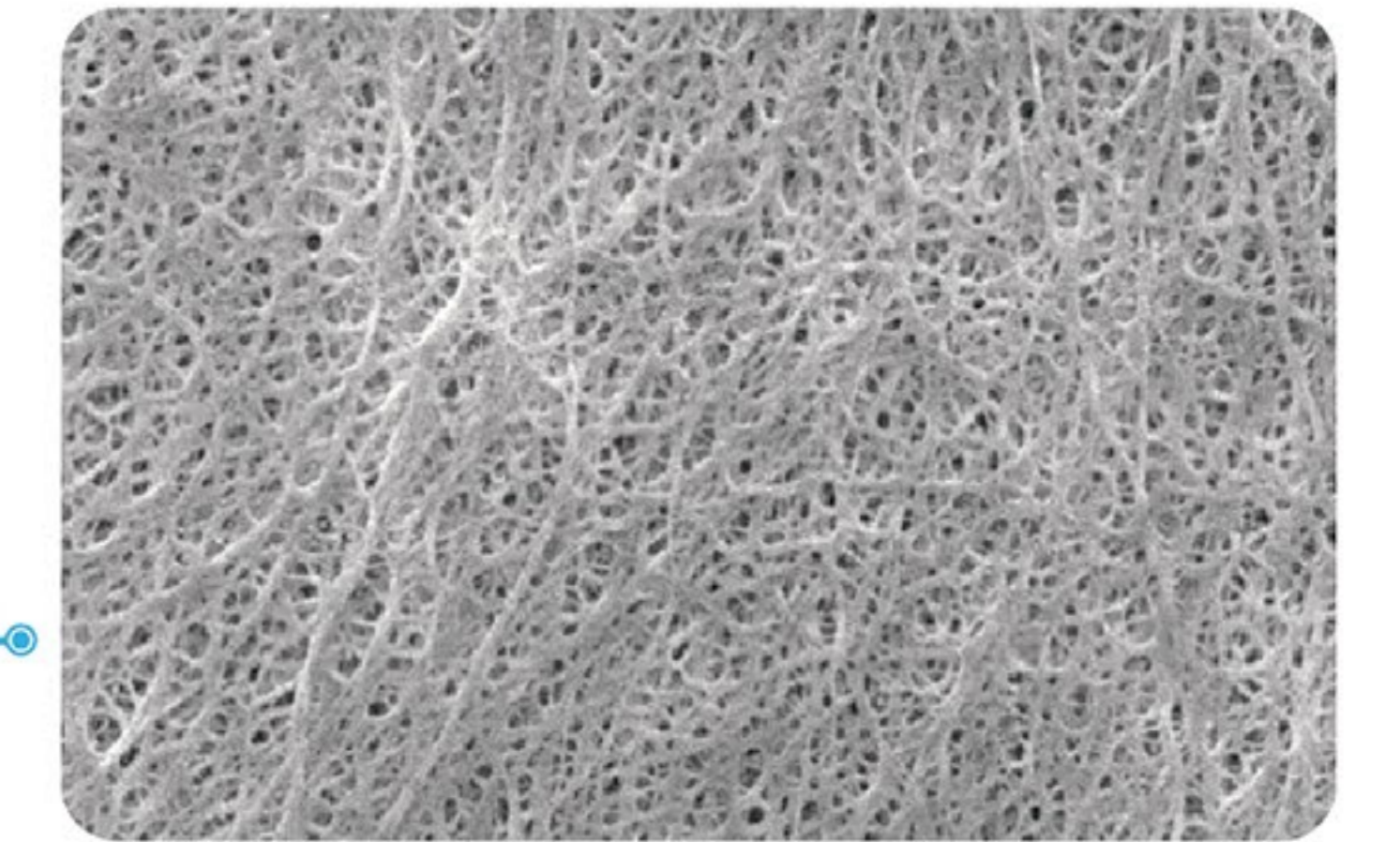


Through the compounding of carbon nanotubes and graphene, the battery impedance is greatly reduced and the rate performance is higher.

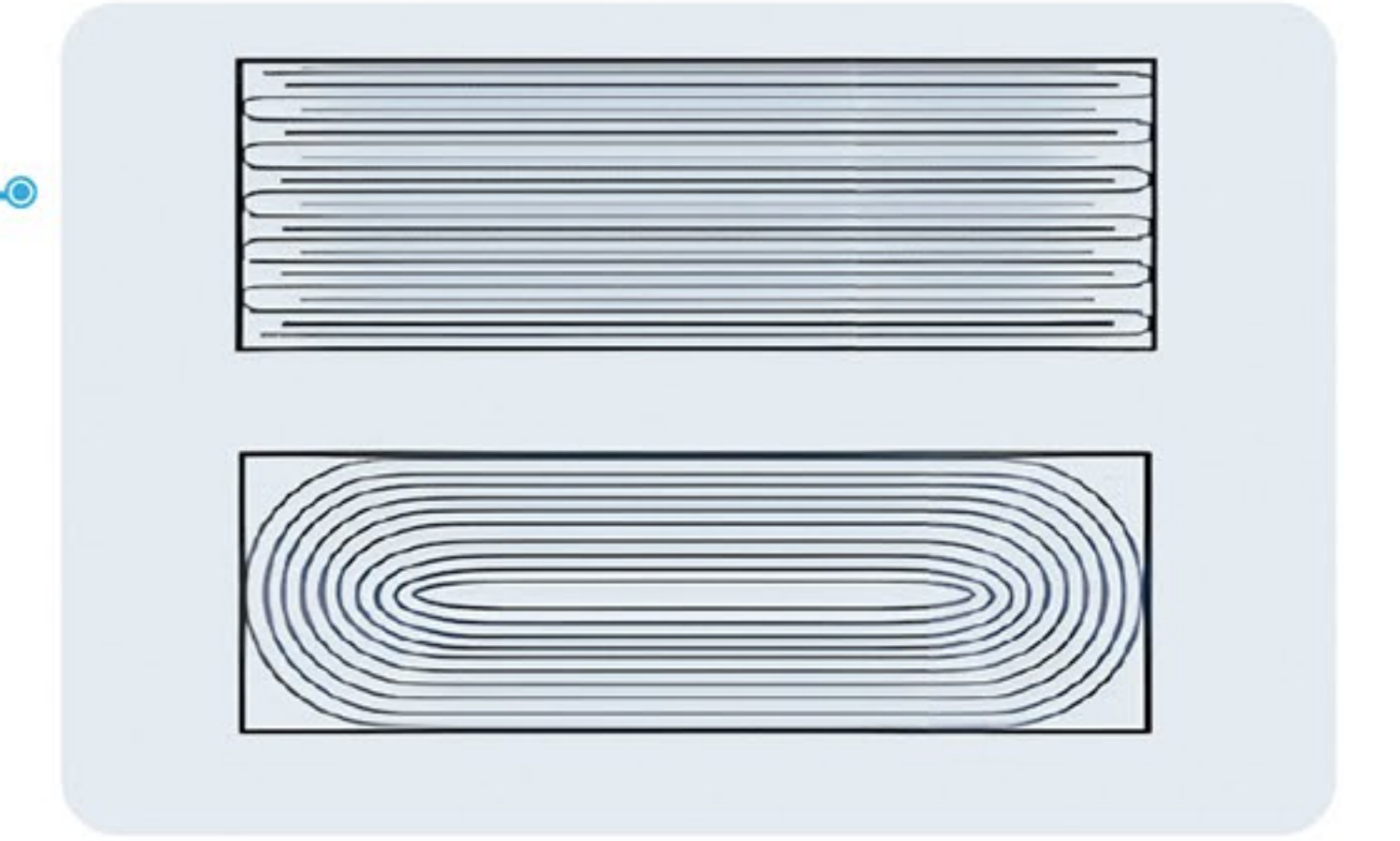


The patented in-situ gel electrolyte makes the battery more resistant to low temperatures.

Four core technologies
Combined with multiple patented

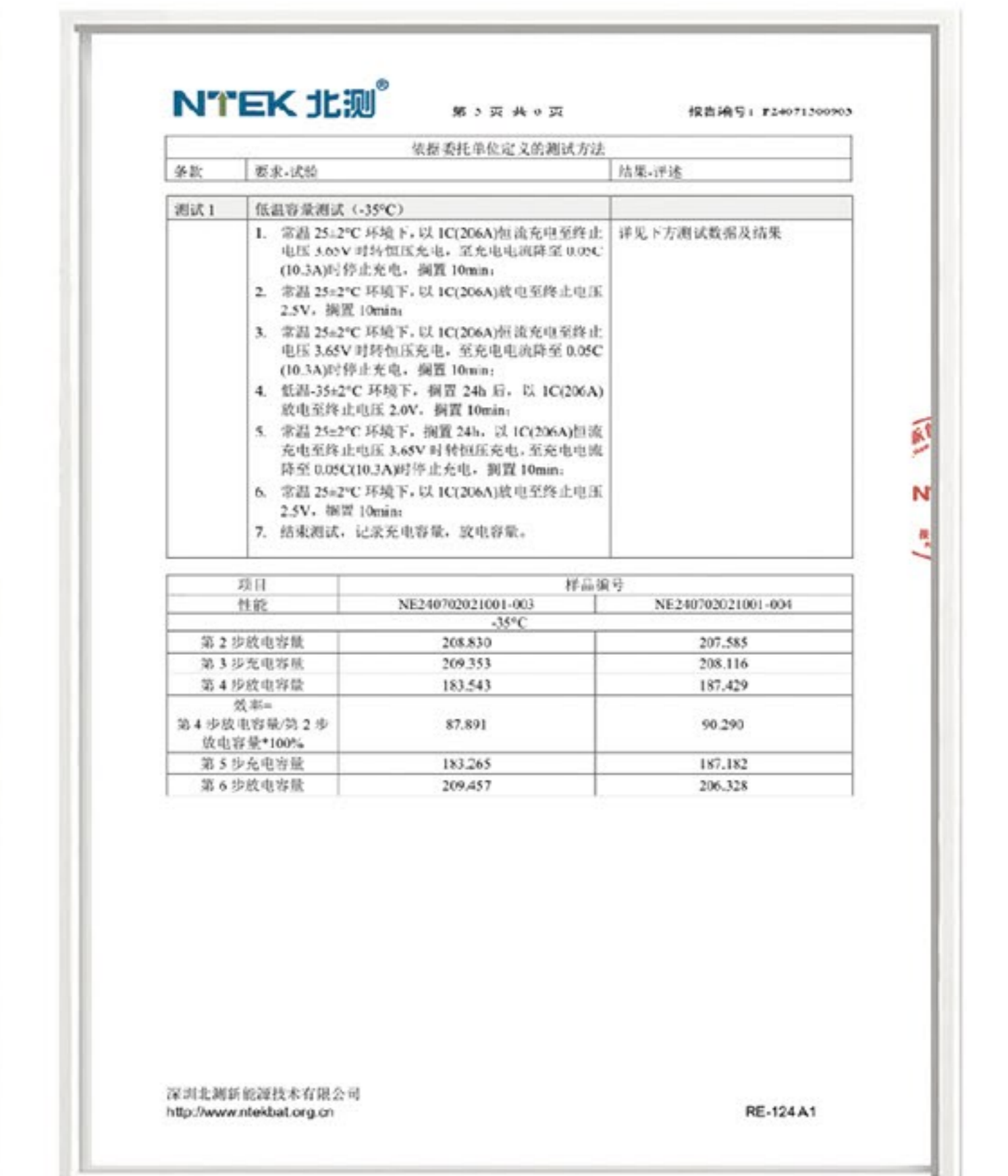
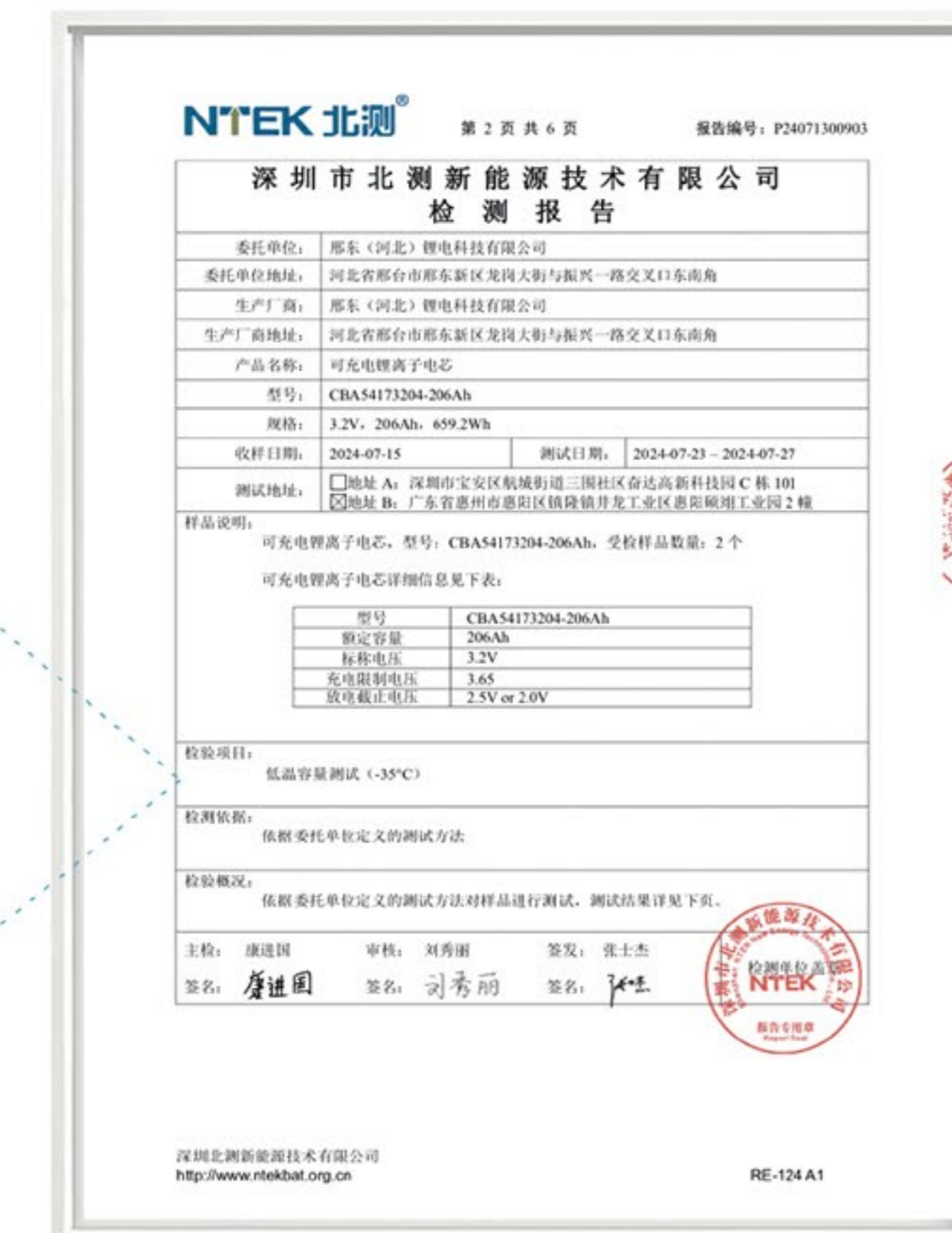
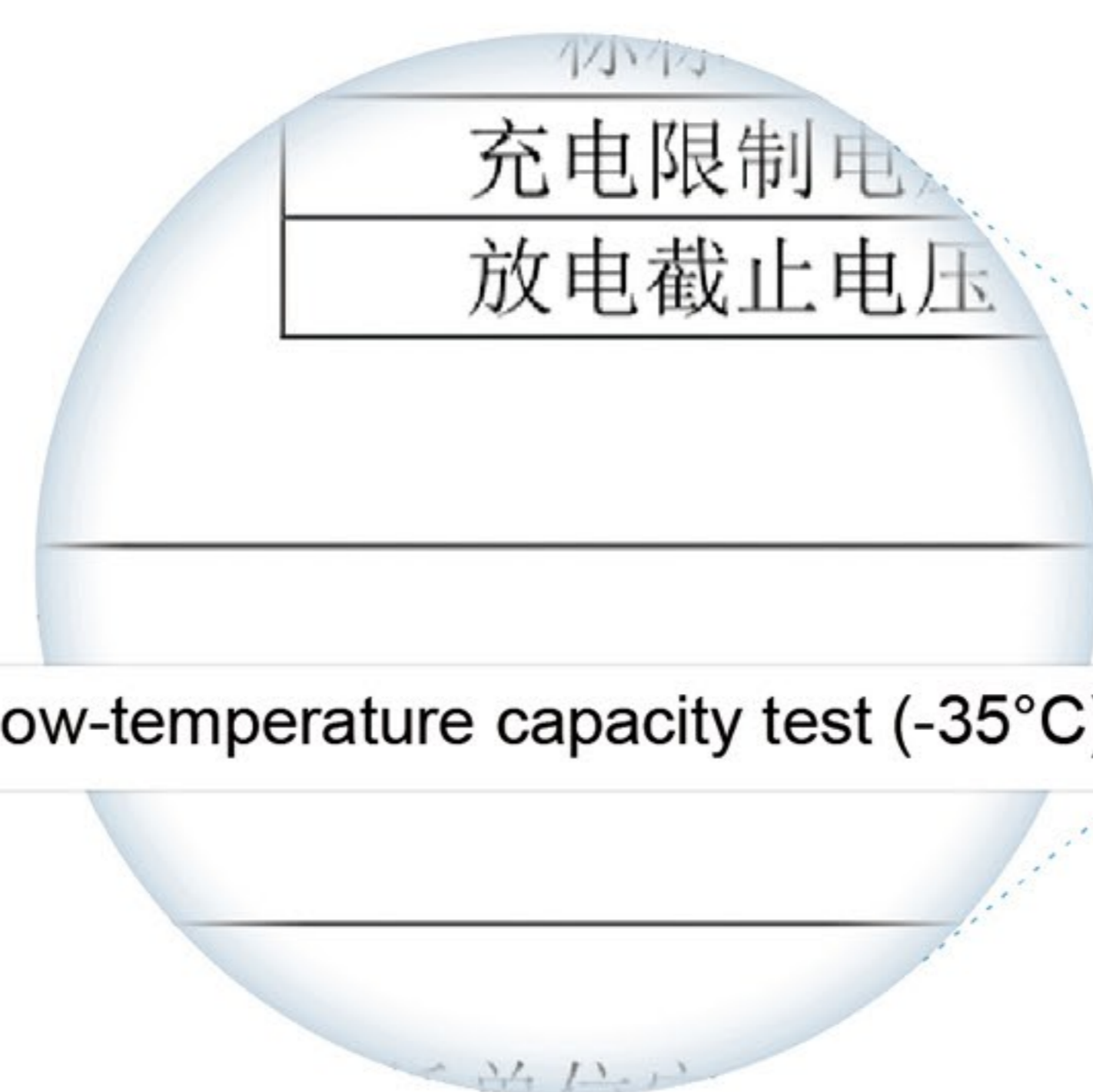


Using patented diaphragm coating technology, it effectively improves battery safety and cycle performance.



The stacking process has higher volume energy density, longer cycle life and higher safety.

Low-temperature battery test report



ALL-SOLID-STATE BATTERY



Introduction to Solid-State Battery



Battery parameters (currently in mass production)

System	LiFePO4 battery	Internal resistance	≤0.26mΩ
Battery capacity	206Ah	Weight	4050g±50g
Voltage	3.2V	Dimensions	204*173*54mm

Battery Features

High safety, no liquid in the battery core, no risk of leakage. More stable, no liquid flow, no gasification expansion, can be used in various extreme environments. Wide temperature range, the battery is least affected by thermal expansion and contraction, and has stronger temperature adaptability.



Submarines, ships, aircraft, satellite bases and other aerospace military fields



Drones, robots, communication equipment, etc. High-tech equipment field



Passenger cars, commercial vehicles, inland ships, subways and other rail transportation fields



Mining equipment, shipping vessels, etc. Heavy engineering equipment



<p>2020 Year</p> <p>Start solid-state battery research and development</p>	<p>2023 Year 10 Month</p> <p>Solid-state battery research and development has successfully achieved an electrolyte solidification rate of 100%, that is, liquid value (0wt%)</p>	<p>2024 Year 3 Month</p> <p>Realize the production of solid-state battery concept samples and small samples</p>	<p>2024 Year 7 Month</p> <p>Realizing mass production of solid-state batteries</p>
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POWER PRODUCTS

Mining Truck Diesel-to-Electric Series - 220T Electric Mining Truck - Three Electric Systems



The world's first 220-ton mining dump truck pure electric transformation

Lithium iron phosphate battery
Power battery

186t **186t**
Vehicle weight Rated load capacity

Operational Advantages of Electric Mining Trucks



Lower energy costs.

Electric power costs
< Fuel costs

Stronger power output

Motor>Engine

Maintenance cost reduction

Electric vehicle maintenance
< diesel vehicle maintenance

Higher work efficiency

Intelligent + automated

Environmental Advantages of Electric Mining Trucks

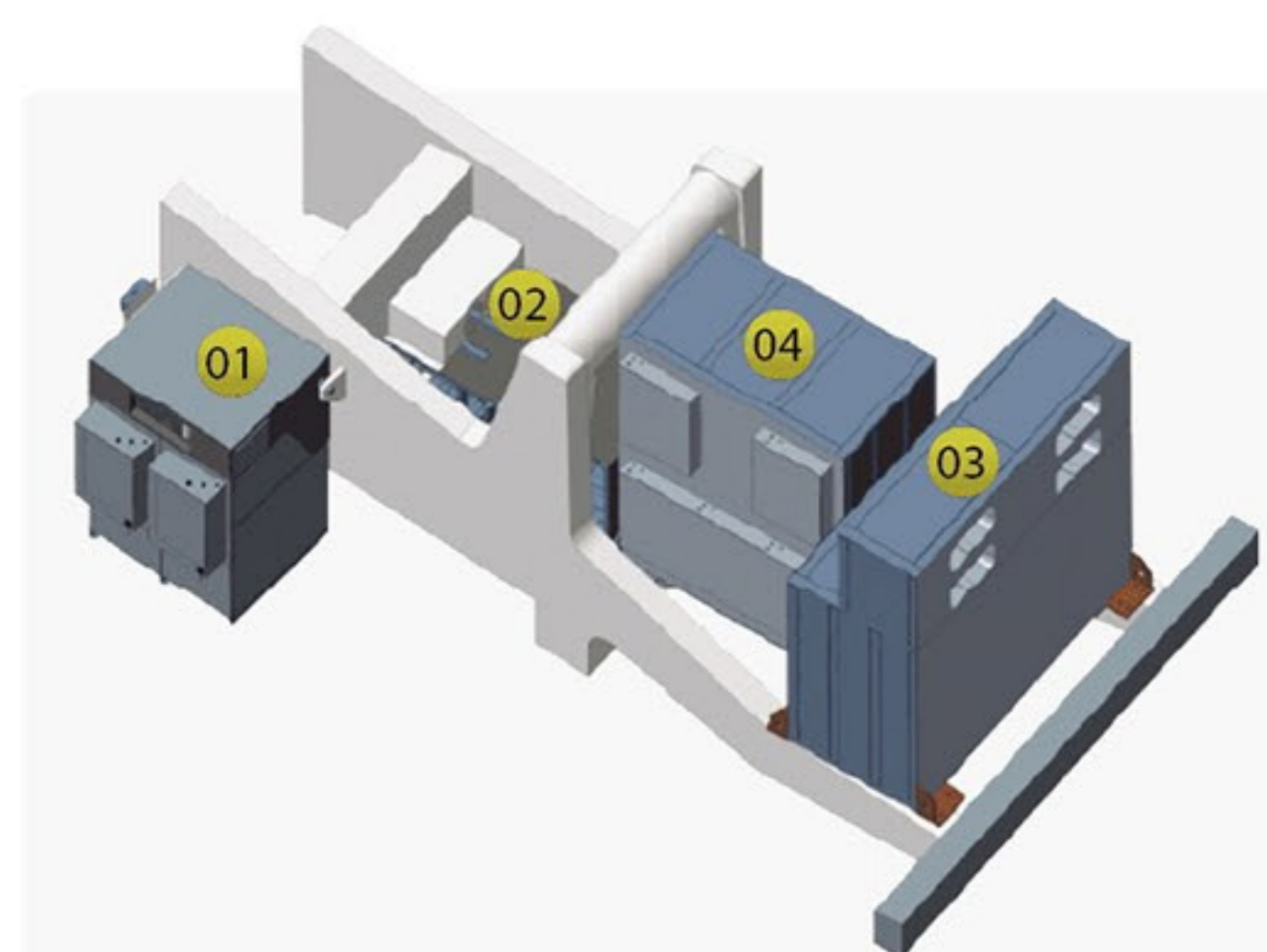


Helping achieve "carbon neutrality"

Zero tail gas emissions

Green mine construction

No pollution, low noise



XDLE Lithium Battery independently develops and produces products including power battery packs, electronic control systems, and AC motors.

- The power supply capacity of realizing fuel-to-electric power conversion is higher than the original diesel power.
- After the diesel-to-electric conversion, the safety performance of mining trucks has been improved, while the handling performance and driving habits have basically remained the same.
- Ensure that the vehicle can run for 8 hours on pure electric power after charging for 1 hour while the vehicle load remains unchanged
- The entire vehicle is supplied with green electricity, is environmentally friendly and energy-saving, and has zero carbon emissions.

Application areas:

Green mine construction, electrification of mining equipment, electric power for heavy engineering equipment, etc.

Mine Card Battery A Cabinet - LFP



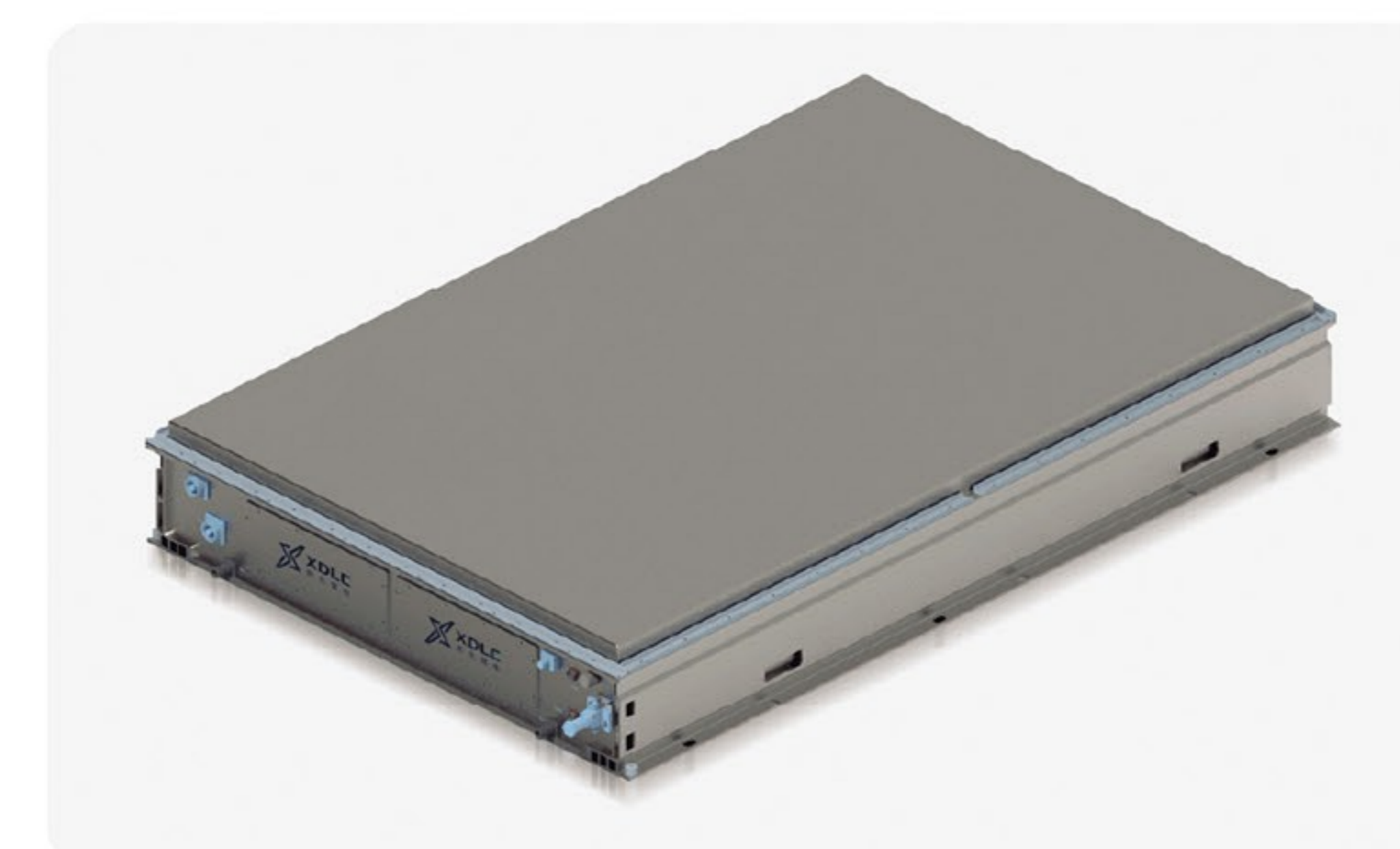
Rated Capacity (kWh)	209.664
Rated Voltage (v)	748.8
Weight (kg)	1470±50
Protection Level	IP67
Operating Temperature Range (°C)	-35~60
Dimensions (mm)	3642*1160*249
Cooling Method	Dual-channel liquid cooling

Mine Card Battery B Cabinet - LFP



Rated Capacity (kWh)	163.072
Rated Voltage (V)	582.4
Weight (kg)	1140±50
Protection Level	IP67
Operating Temperature Range (°C)	-35~60
Dimensions (mm)	2897*1160*249
Cooling Method	Dual-channel liquid cooling

Mine Card Battery C Cabinet - LFP



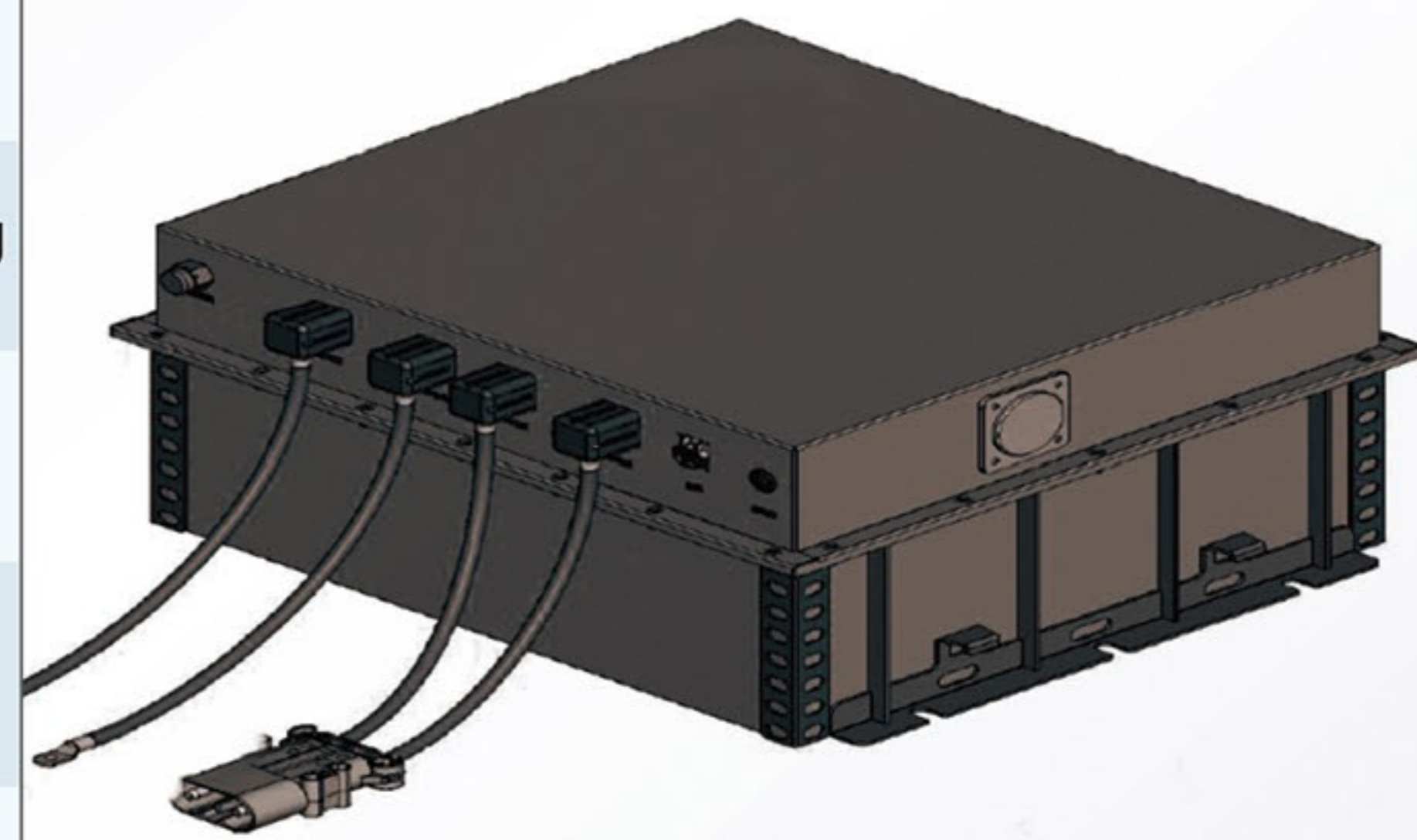
Rated Capacity (kWh)	93.184
Rated Voltage (V)	332.8
Weight (kg)	660±20
Protection Level	IP67
Operating Temperature Range (°C)	-35~60
Dimensions (mm)	1727*1160*249
Cooling Method	liquid cooling

POWER PRODUCTS

76.8V206Ah-Forklift Battery System

Product Parameters

Battery type	LFP	Rated charge/ discharge current (A)	206
Battery system grouping	1P24S	Recommended SOC operating range	5%~95%
Method Rated voltage (V)	76.8	Cooling method	Natural cooling
Rated power(kwh)	15.8	Protection level	IP65
Weight (kg)	132±7	Operating temperature range	-40~60°C
Voltage range(v)	60~87.6	Dimensions(mm)	690*600*397



Heavy truck standard C Cabinet

Product Parameters

Battery type	LFP	Rated charge/ discharge current (A)	206
Battery system grouping	1P48S	Recommended SOC operating range	5%~95%
Method Rated voltage (V)	153.6	Cooling method	Natural cooling
Rated power(kwh)	31.64	Protection level	IP68
Weight (kg)	215±6.5	Operating temperature range	-40~60
Voltage range(v)	120~175.2	Dimensions(mm)	1060*630*245



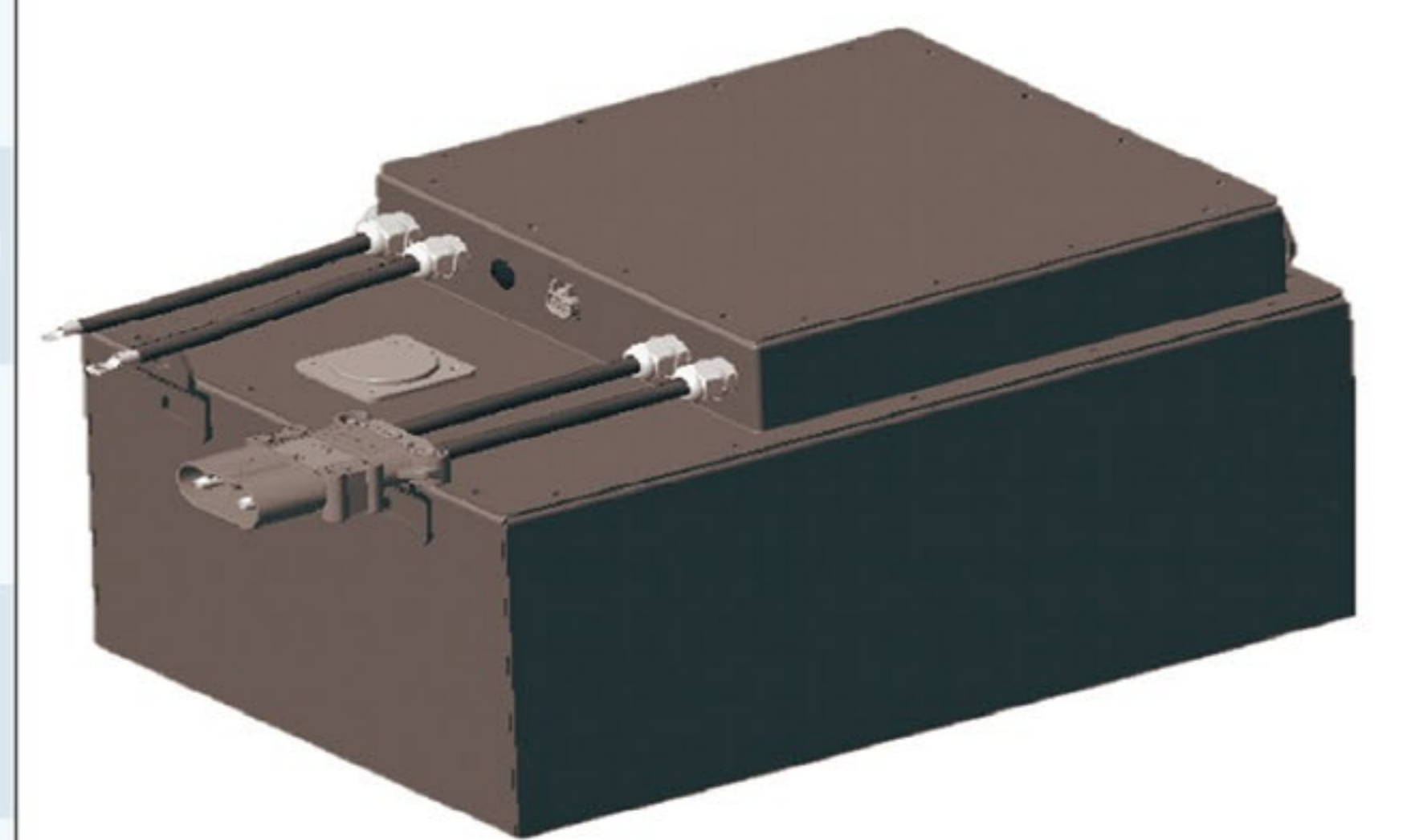
Application areas:

Electrification of engineering vehicles/heavy equipment, passenger cars, commercial vehicles, low-speed special vehicles, inland ships, etc.

51.2V206Ah-Tractor Battery System

Product Parameters

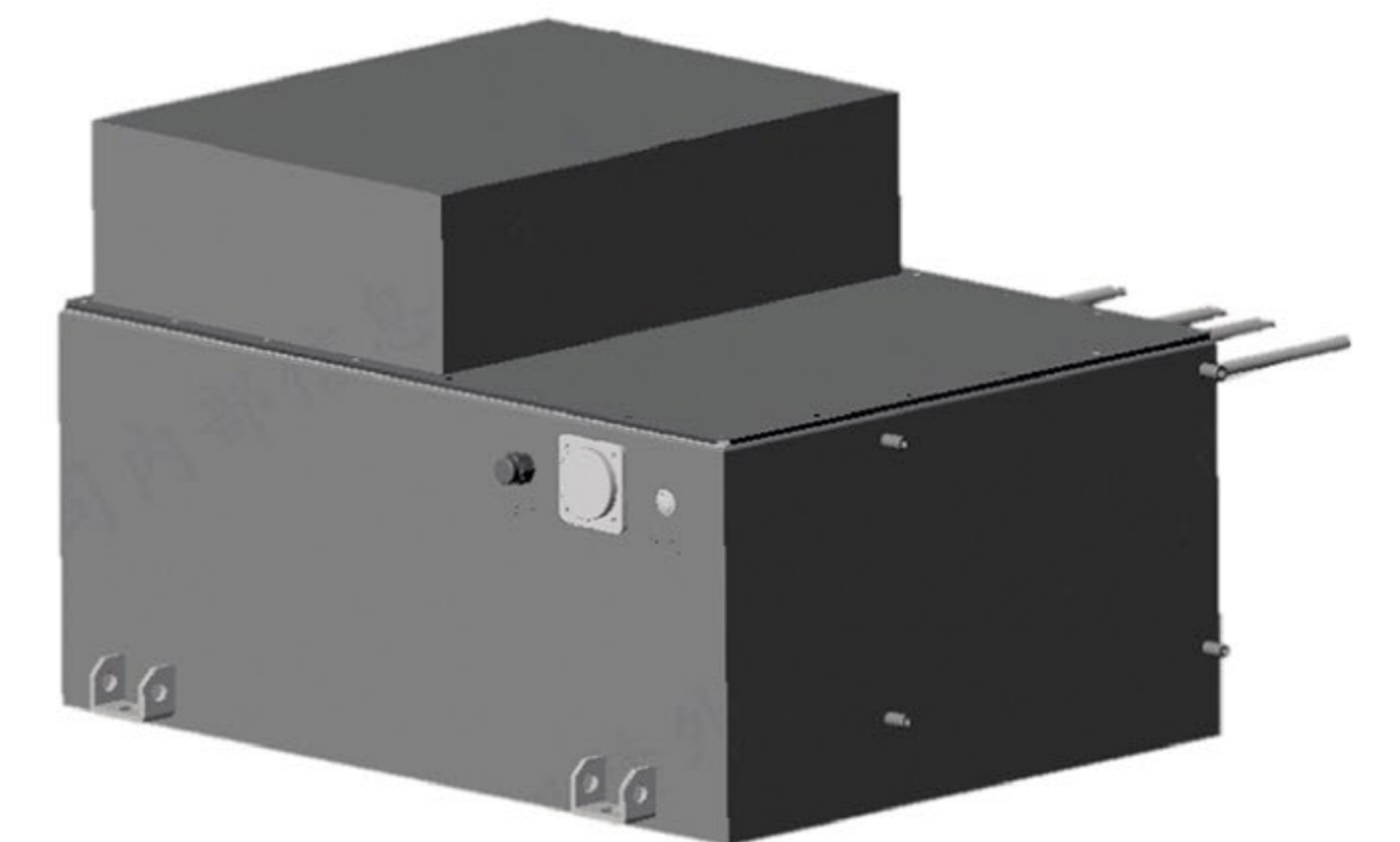
Battery type	LFP	Rated charge/ discharge current (A)	206
Battery system grouping	1P16S	Recommended SOC operating range	5%~95%
Method Rated voltage (V)	51.2	Cooling method	Natural cooling
Rated power(kwh)	10.5	Protection level	IP65
Weight (kg)	102±4	Operating temperature range	-35~60°C
Voltage range(v)	40~58.4	Dimensions(mm)	567*396*338



153.6V206Ah-Loader Battery

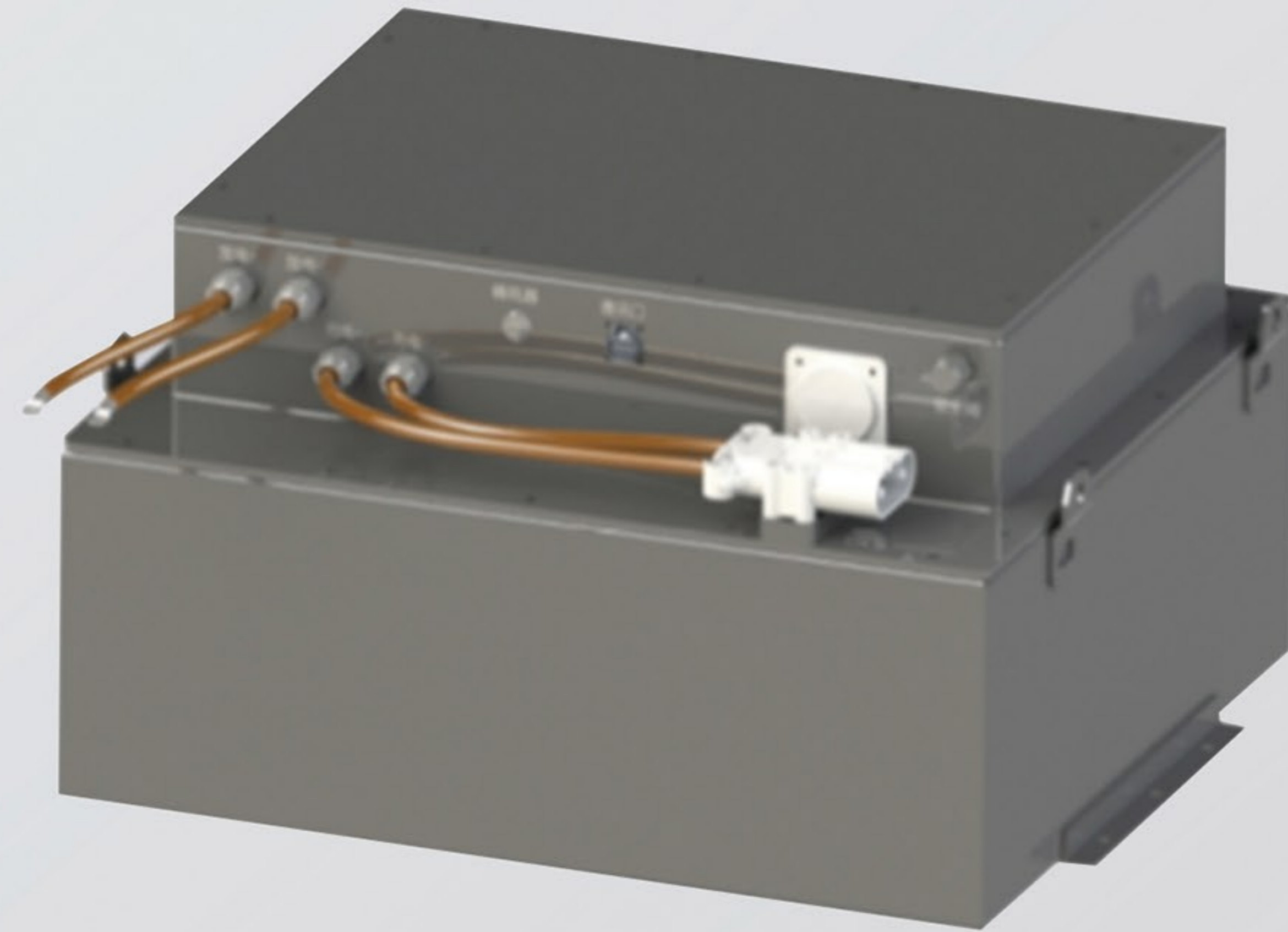
Product Parameters

Battery type	LFP	Rated charge/ discharge current (A)	206
Battery system grouping	1P48S	Recommended SOC operating range	5%~95%
Method Rated voltage (V)	153.6	Cooling method	Natural cooling
Rated power(kwh)	31.6	Protection level	IP65
Weight (kg)	272±12	Operating temperature range	-35~60
Voltage range(v)	120~175.2	Dimensions(mm)	775*597*487



Forklift battery system

Applied to various electric forklifts



IP65 protection level

High level of waterproof and dustproof, can operate in various harsh working conditions.



Separate fire protection

Single large capacity battery cell, cluster-level energy balance management.

Parameters

Battery type	LFP	Maximum continuous discharge current (A)	206
Grouping method	1P24S	Protection level	IP65
Rated voltage (V)	76.8	Operating temperature range (°C)	-35~60
Rated capacity (Ah)	206	Voltage range (V)	60~87.6
Rated power (kWh)	15.8	Cooling method	Natural cooling
Weight (kg)	170±10	Recommended SOC operating range	5%~95%
Maximum continuous charging current(A)	206	Dimensions (mm)	690*600*397

220T mining dump truck battery system

Applied to mining trucks

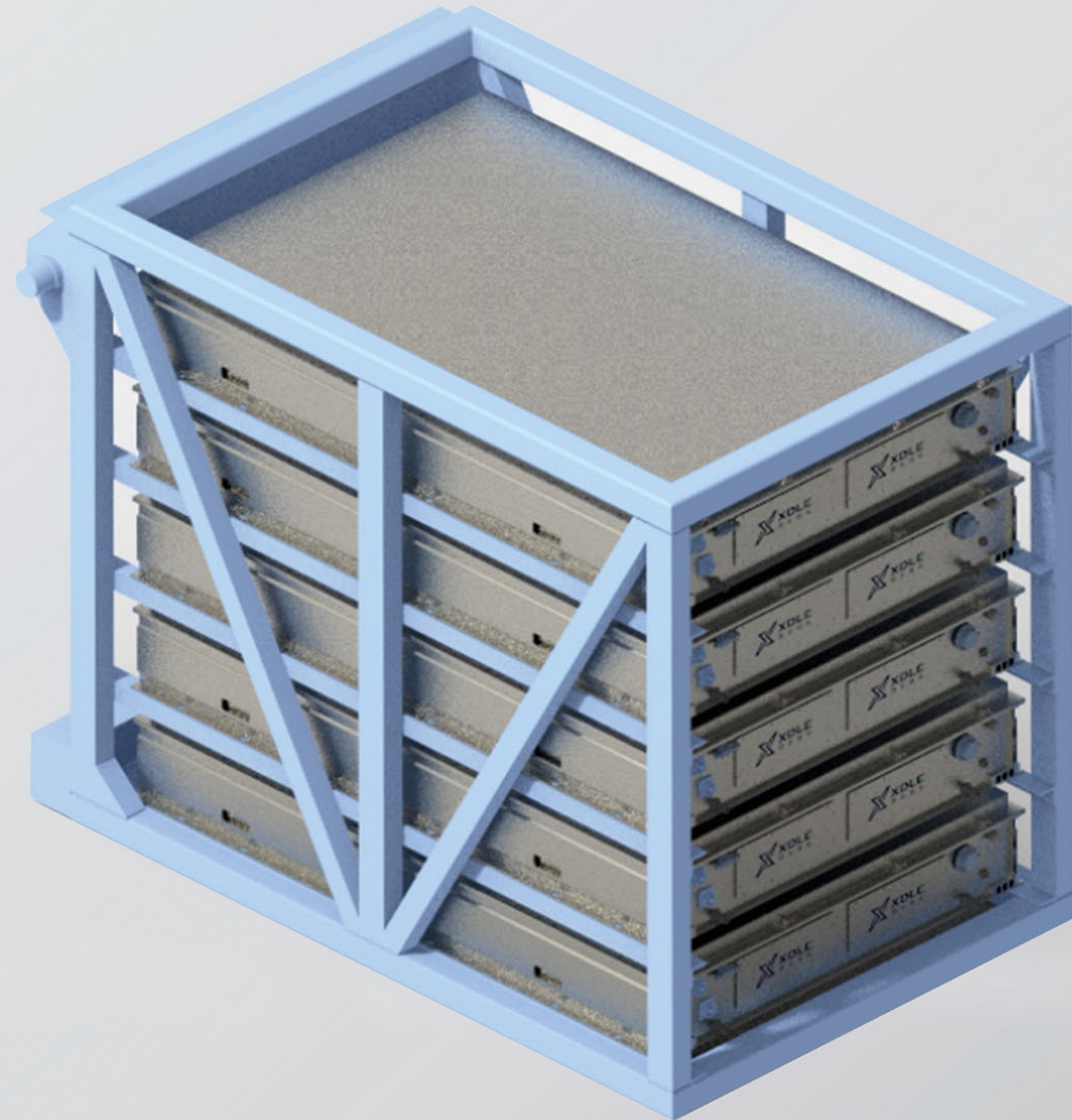


Parameters

Battery type	LFP	LFP
Grouping method	2P 288S (2 battery clusters)	4P 288S (4 battery clusters)
Rated voltage (V)	921.6	921.6
Rated capacity (Ah)	206*2	206*4
Rated power (kWh)	379.699	759.398
Weight (kg)	3320±100KG	7660±220KG
Voltage range (V)	777.6~1036.8	777.6~1036.8
Maximum continuous discharge current (A)	206*2	206*4
Maximum continuous charge current (A)	206*2	206*4
Recommended SOC operating range	5%-95%	
Cooling method	Liquid cooling	
Protection level	IP67	
Cycle life	1C charge and discharge>8000 times	
Operating temperature range (°C)	-35~60	

Mining Truck diesel to Electric Series

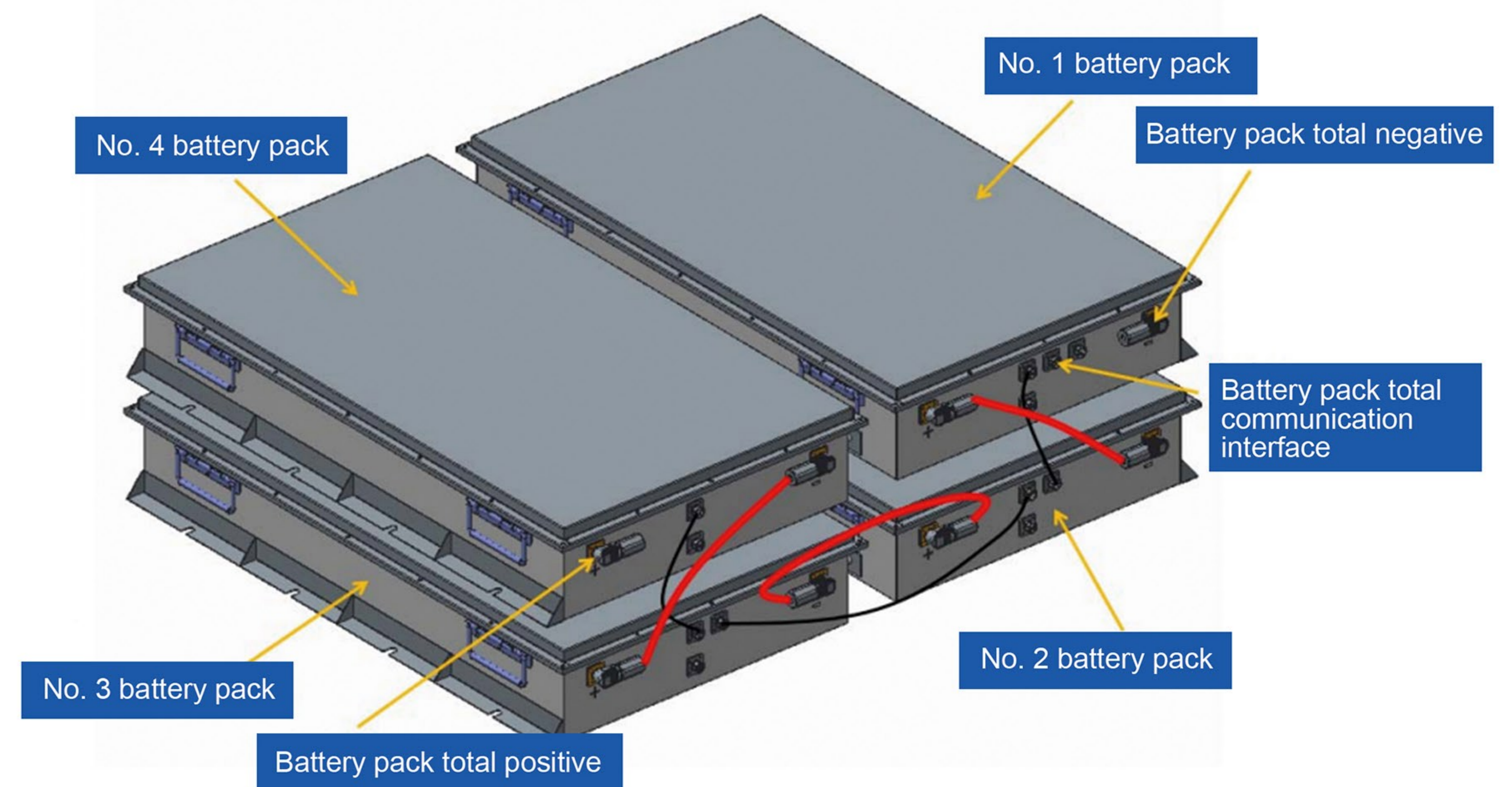
154T Mining Truck diesel to electricity - Battery System



Parameters

Name	Parameter
Battery cell	3.2V280Ah
Grouping method	1P13S(41.6V280Ah)
High-voltage battery cluster	1P416S(1331.2V280Ah)
High-voltage battery stack	4P416S(1331.2V280Ah*4)
Low-voltage battery cluster	1P208S (665.6V280Ah)
Low-voltage battery stack	3P208S(665.6V280Ah*3)
System power	1490.944kWh
Operating temperature range	-35~6°C

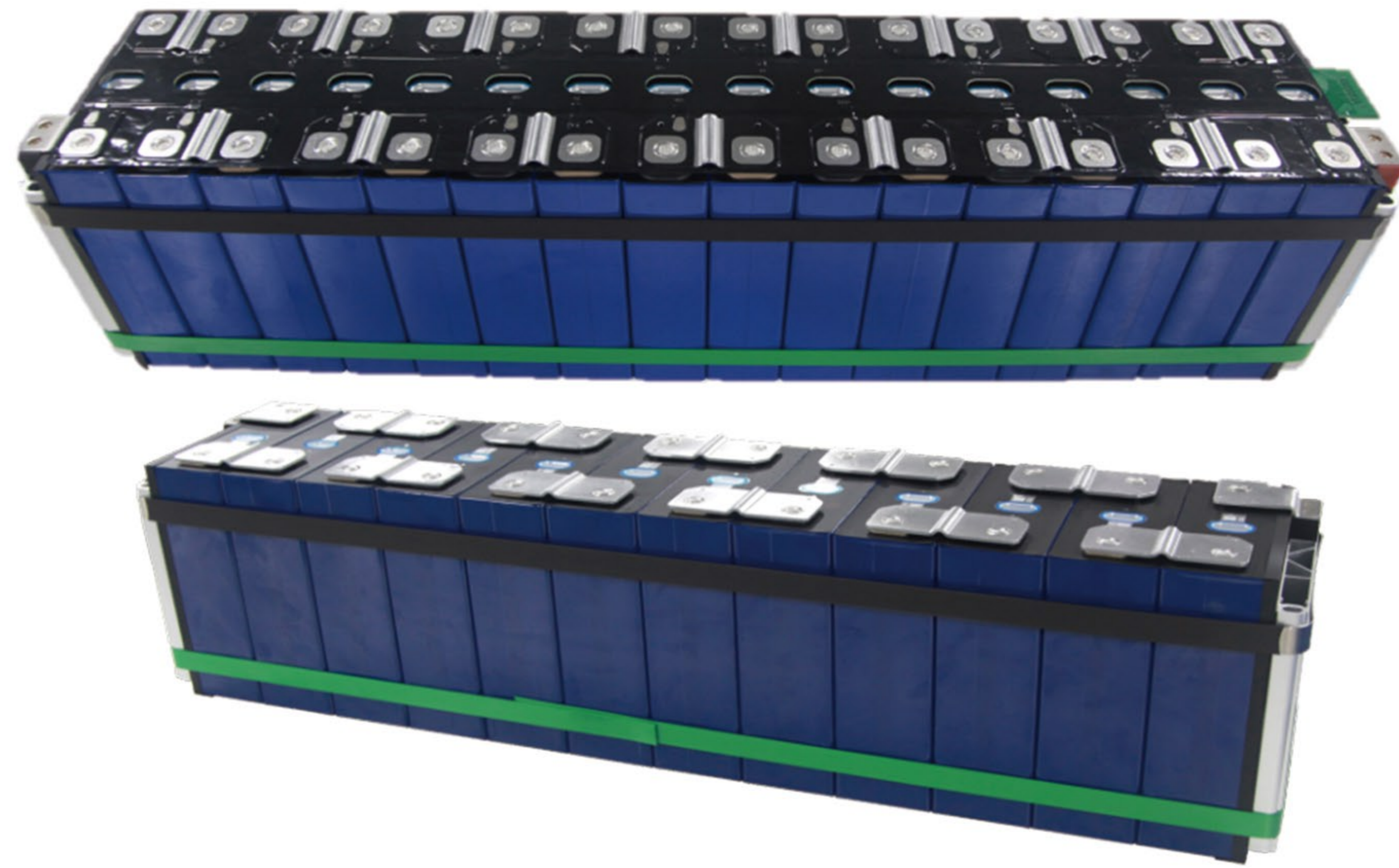
LFP-D Series-Military AGV Battery System



Parameters

Name	Military AGV Battery System
Battery Cell	3.2V206Ah
PACK Cabinet	1P42S(134.4V206Ah)
Battery System	1P168S(537.6V206Ah)
System Power	110.74kWh
Operating Temperature range	-35~60°C

LFP-M Series Battery Standard Module



Product Advantages

Intelligent lightweight

Intelligent BMS management system, real-time sensing of battery cell working status, and environmentally lightweight aluminum can reduce the overall weight of the battery system by 20%

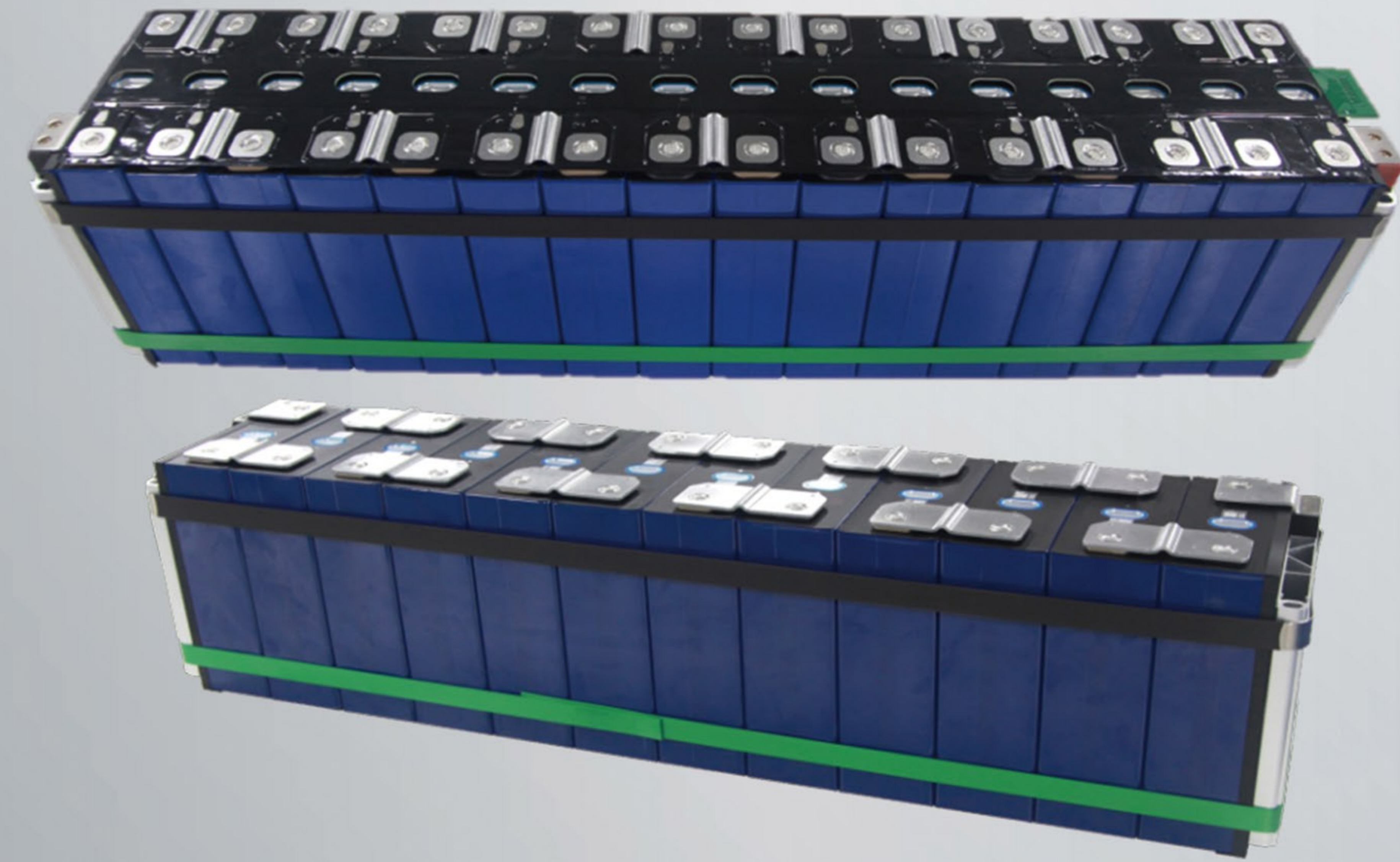
Excellent battery cell

Adopting iron phosphate system battery, excellent safety performance, energy density $\geq 180\text{Wh/kg}$, wide operating temperature range, simple PACK process, independent fire protection system, precise prevention and control, smoke, temperature multi-sensing.

Higher energy saving

Design low temperature/high temperature/normal temperature battery systems to match the whole vehicle according to the global climate. It can increase the profit margin and flexibility of the whole vehicle of the OEM by 30%. Product standardization, modular design, cost reduction and efficiency improvement of operation.

LFP-M Series Battery Standard Module



Product Parameters

Battery type	LFP	LFP
Grouping method	1P16S	1P13S
Rated voltage (V)	51.2	41.6
Rated capacity (Ah)	206	280
Module power (Wh)	10547.2	11648
Voltage range (V)	40~58.4	32.5~47.45
Maximum continuous discharge current (A)	206	140
Maximum continuous charge current (A)	206	140
Module weight (kg)	66±2	72
Module size (mm)	906*176*216	745*176*216
Operating temperature range (°C)	-35~60	-35~60



Wall-Mounted Energy Storage System

Home Energy Storage Series



Product Parameters

Battery type	LFP	Rate power (kW)	5
Rated capacity (kWh)	10.5	Rated charge/ discharge current (A)	103
Grouping method	1P16S	Operating temperature range (°C)	-35~60
Nominal voltage (V)	51.2	Weight (kg)	103±5
Discharge voltage cut-off (V)	45	Dimensions (mm)	800*680*154
Charge voltage cut-off (V)	58.4		

Product Advantages

Higher energy saving

Advanced battery technology and intelligent control system achieve efficient energy storage and release, improve energy utilization, and save energy efficiently

Versatility

It has multiple functions such as power conversion and intelligent scheduling, which can adapt to the energy management needs in different scenarios.

Higher Safety

Using XDLE lithium battery high safety LFP square battery cells, the battery cells will not catch fire or explode in needle puncture and gunshot tests when fully charged

Renewable Energy Integration

Supports connection with renewable energy equipment such as solar photovoltaic systems to achieve energy complementarity and sharing and promote green energy utilization

Scalable

Modular design, the number of modules can be increased to achieve system capacity expansion according to actual power demand

Intelligent monitoring

Real-time monitoring of energy storage status, battery health and energy flow, providing a user-friendly operation interface and remote monitoring function

Longer lifespan

Service life of >10 years

Stable and reliable power supply

The capacity can be expanded smoothly to meet the needs of families at different stages

Stackable energy storage system

Home Energy Storage Series

Product Parameters

Battery type	LFP	Rated power (kW)	5
Rated capacity (kWh)	21	Rated charge and discharge current (A)	52
Grouping method	2P16S	Operating temperature range (°C)	-35~60
Nominal voltage (V)	51.2	Weight (kg)	249±5
Discharge voltage cut-off (V)	40	Dimensions (mm)	760*263*1636
Charge voltage cutoff (V)	58.4		



Product Advantages

Higher energy saving

Advanced battery technology and intelligent control system achieve efficient energy storage and release, improve energy utilization, and save energy efficiently

Higher energy saving

Small footprint, flexible installation, modular expansion according to user needs, easy upgrade and maintenance

Higher energy saving

Multiple safety protection mechanisms, including overcharge protection, over-discharge protection, short circuit protection, etc., ensure safe and reliable operation of the equipment

Versatility

It has multiple functions such as power conversion and intelligent scheduling, which can adapt to the energy management needs in different scenarios

Renewable Energy Integration

Supports connection with renewable energy equipment such as solar photovoltaic systems to achieve energy complementarity and sharing and promote green energy utilization

Intelligent monitoring

Real-time monitoring of energy storage status, battery health and energy flow, providing a user-friendly operation interface and remote monitoring function

Portable Power Bank

Home Energy Storage Series

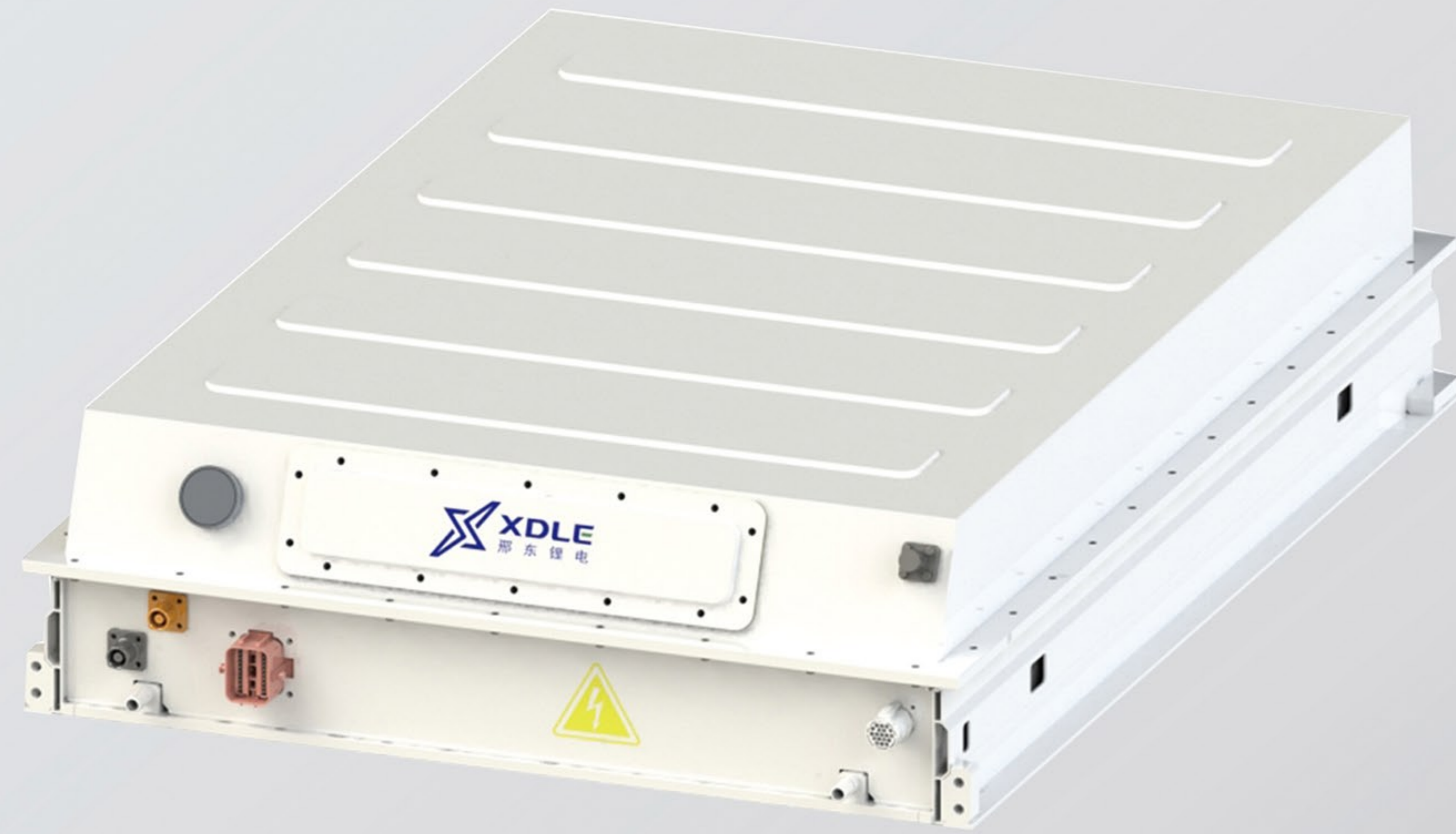


Product Parameters

Battery type	LFP	Rated power (kW)	2
Rated capacity (kWh)	5.27	Rated charge and discharge current (A)	78
Grouping method	1P8S	Operating temperature range (°C)	-35~60
Nominal voltage (V)	25.6	Weight (kg)	48±5
Discharge voltage cut-off (V)	20	Dimensions (mm)	500*200*400
Charge voltage cutoff (V)	29.2	Cell	3.2V 206Ah

Liquid-cooling energy storage battery pack

C&I ESS



String design

Charging and discharging clusters are independent of each other, good system consistency



High efficiency and energy saving

Safe and reliable, large heat carrying capacity, low thermal resistance, high heat exchange efficiency



Separate fire protection

PACK-level independent fire protection, safer system operation

Parameters

Name	166.4V280Ah liquid cooling battery pack	Rated power (kW)	140
Battery Type	Lithium iron phosphate battery	ProtectionLevel	IP67
Grouping method	1P52S	Operating temperature range (°C)	-35~60
Rated Voltage (V)	166.4	Voltage range	130~189.8
Rated Capacity(kWh)	46.592	Cooling Method	Liquid cooling
Weight (kg)	320±10	Dimensions (mm)	1110*810*246

Air-cooling energy storage battery pack

C&I ESS



Spatial efficiency

Adoption of compact design and effective utilization of space. The air-cooled system is more compact, saves layout space, and is easy to install and maintain.



Safety

Equipped with temperature sensors and safety monitoring system, it is able to monitor the battery temperature in real time and automatically control the operation of the system to maintain the appropriate temperature range and improve the safety performance of the system.

Parameters

Name	51.2V 280Ah Air-cooling battery pack	Rated power (kW)	140
Battery Type	Lithium iron phosphate battery	Rated charge and discharge current (A)	IP20
Grouping method	1P16S	Operating temperature range (°C)	-35~60
Rated Voltage (V)	51.2	Cooling Method	Air cooling
Rated Capacity (kWh)	14.336	Recommended SOC operating range	5%~95%
Weight (kg)	103±10	Dimensions (mm)	493*746*222

C&I ESS Container with Liquid cooling

100kW232kWh

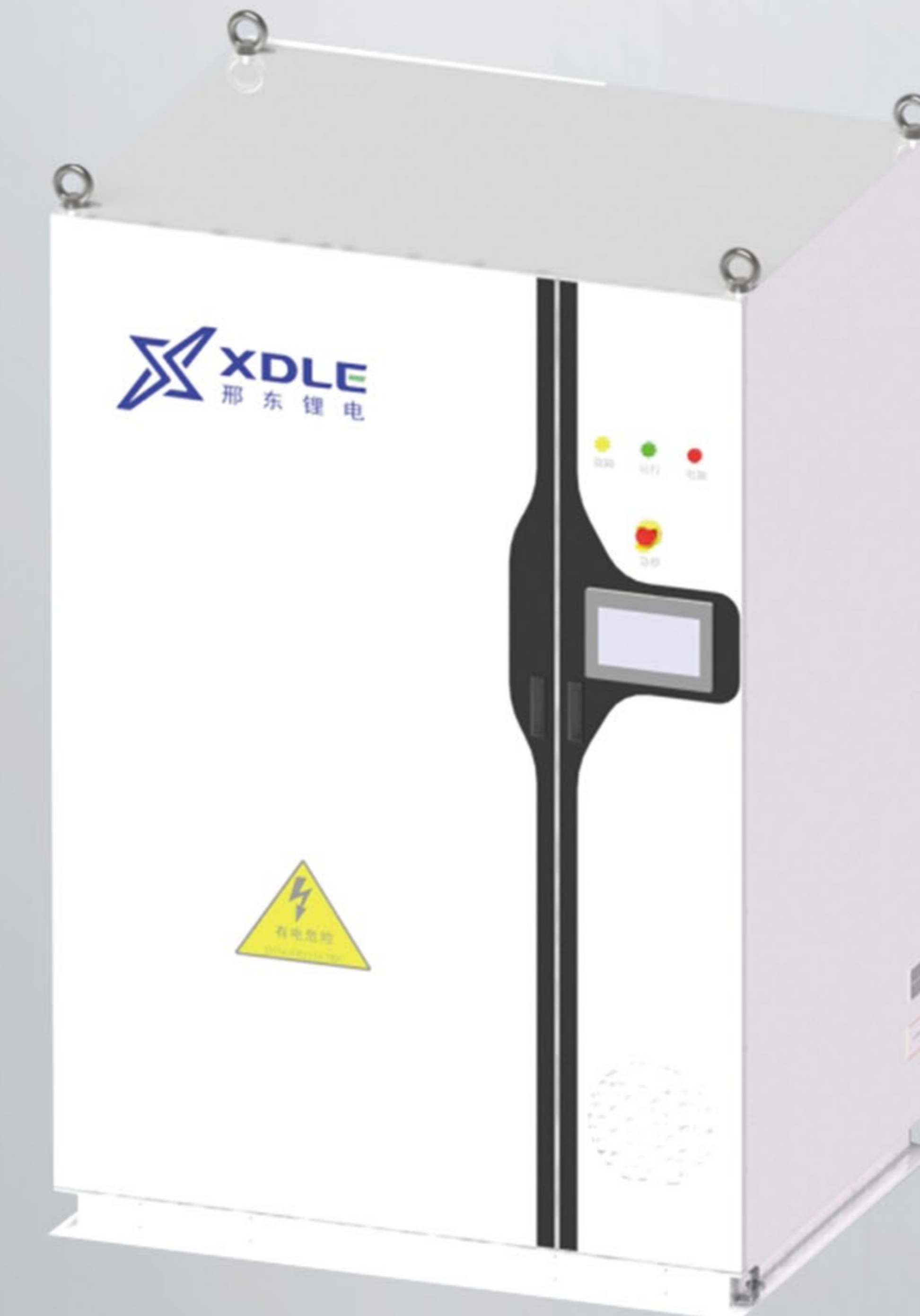


Parameters

Name	100kW 232kWh C&I Energy Storage Container	Voltage Range(V)	650~949
Battery Type	Lithium Iron phosphate Battery	AC side output voltage(V)	400 (-15%~15%)
Grouping method	1P260S	Rated charge/discharge current (A)	140
Rated Voltage (V)	832	Cooling Method	Liquid cooling
Rated Capacity (Ah)	280	IP Level	IP55
Total Power(kWh)	232	Dimension (mm)	1400*1400*2100
Weight (T)	2.6±0.1	Operating temperature range(°C)	-35~60

C&I ESS Container with Air cooling

100kW215kWh



Parameters

Name	100kW215kWh C&I Energy Storage Container	Voltage Range	600~876
Battery Type	Lithium Iron phosphate Battery	AC side output voltage(V)	400 (-15%~15%)
Grouping method	1P240S	Rated charge/discharge current (A)	140
Rated Voltage (V)	768	Cooling Method	Air coolinmg
Rated Capacity (Ah)	280	IP Level	IP55
Total Power(kWh)	215	Dimension (mm)	1500*1121*2200
Weight (T)	2.7±0.1	Operating temperature range(°C)	-35~60

Grid-Tied & Off-Grid Solar-Diesel Hybrid System

Commercial & Industrial Energy Storage System



Parameters

Name	50kW143kWh Grid-Connected PV Fuel Storage System	Voltage range (V)	400-584
Battery Type	Lithium iron phosphate battery	Hybrid inverter power(kW)	50
Grouping method	1P160S	AC side output voltage(V)	400 (-15%~15%)
Rated Voltage (V)	512	Cooling method	Liquid cooling
Total power (kWh)	143.36	Dimensions (mm)	1409*1278*1700
Weight (T)	1.7±0.1	Operating temperature range(°C)	-35~60

DC Side Liquid Cooled Energy Storage Container

Grid Side Energy Storage System



Spatial efficiency

Compact mechanized design reduces space waste and improves unit space utilization efficiency



Safe

Highly integrated system, using integrated design, integrating local controller, HVAC and fire protection system, making installation and transportation convenient.

Parameters

Name	5MWh liquid-cooled DC side energy storage system	System power	5015.96kWh
Battery Type	Lithium iron phosphate battery	Cooling method	Liquid cooling
Cell	3.2V314Ah	Adaptation	Photovoltaic power storage, wind power storage, grid-side energy storage
PACK	1P104S/1P52S	Operating temperature range (°C)	-35~60
Battery Cluster	1P416S	IP Level	IP55
Grouping method	12P416S		

ESS-LFP-Air-cooled energy storage system

0.5MW 1.075MWh



Parameters

Name	0.5MW 1.075MWh-10-foot Energy Storage Container	Voltage Range(V)	600~875
Battery Type	Lithium Iron phosphate Battery	AC output voltage(V)	400V
Grouping method	5P240S	Rated charge/discharge current (A)	140
Rated Voltage (V)	768	Cooling Method	Air conditioning/forced air cooling
Rated Capacity (Ah)	280	IP Level	IP55
Total Power(kWh)	1075	Dimension (mm)	3048*2600*3200mm
Weight (T)	10±0.5	Operating temperature range(°C)	-35~60

ESS-LFP-G Industrial and Commercial Energy Storage Series

1MW 2.15MWh

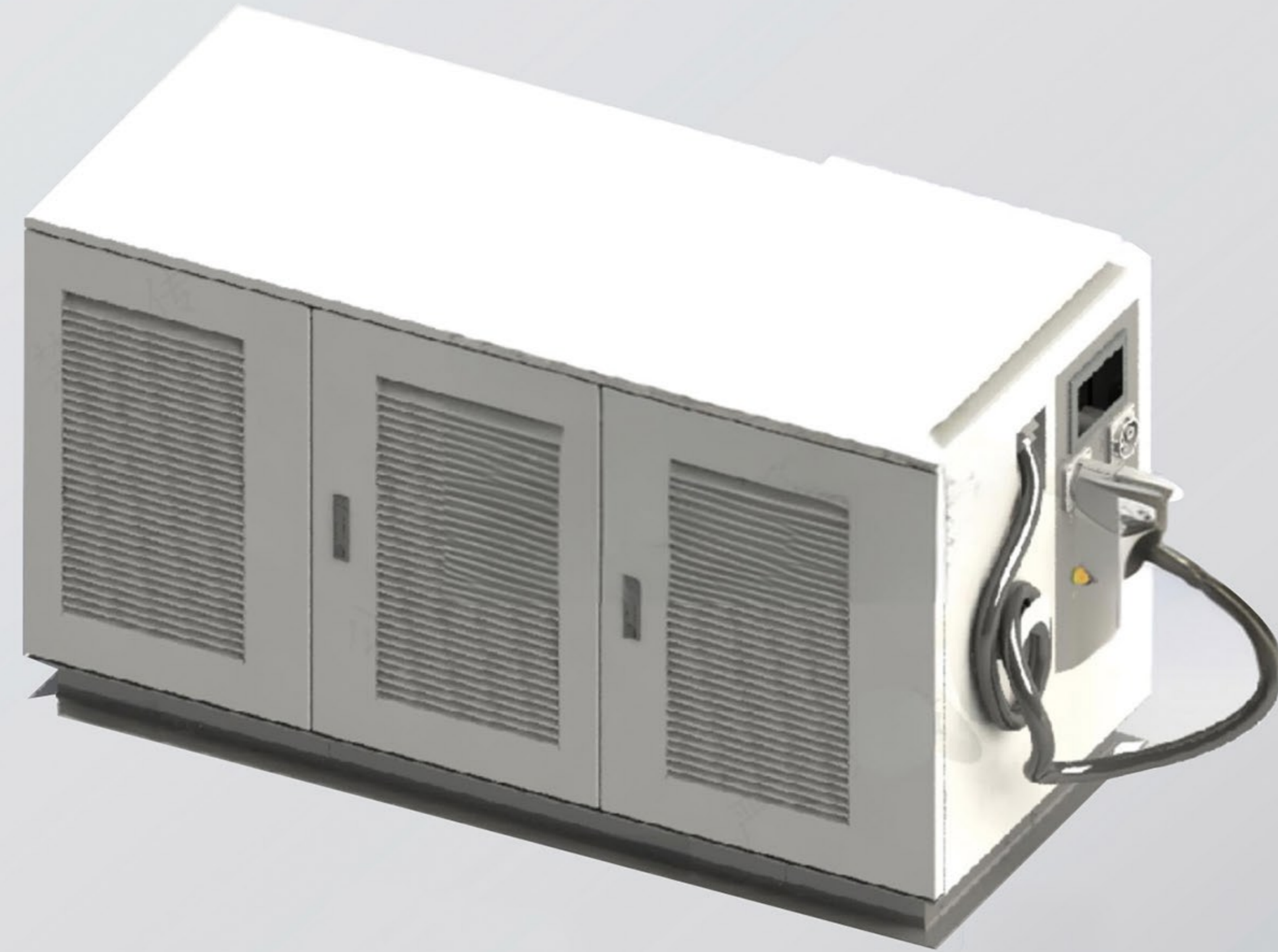


Parameters

Name	1MW/2.15MWh Industrial Commercial Energy Storage	Cooling method	Liquid cooling
Battery Type	Lithium Iron phosphate Battery	Voltage platform	AC380
PACK	1P16S(51.2V280Ah)	Access method	Three-phase three-wire (A/B/C)
Battery cluster	1P240S(768V280Ah)	Applicable scenarios	Peak shaving, demand response, backup power, photovoltaic storage
Battery stack	5P240S*2/(768V280Ah*5)*2	Operating temperature range(°C)	-35~60
System power	2150.4kWh		
PCS power	500kW*2		

ESS-LFP-60kW63kWh Vehicle Charging Station

For roadside assistance for electric vehicles.



Parameters

Charging power	60kW	System energy replenishment	National standard DC fast charging
Input Voltage Range	200V-1000V	Energy replenishment current	<100A
Output current	200A	Household standby inverter output	Three-phase four-wire, AC380V/30KW
Communication interface	CAN, RS485, Ethernet, etc.	Fault protection and safety functions	Over-temperature protection, over-voltage protection, over-current protection, reliable grounding protection, etc.
Interface type	CHAdEMO, CCS, GB/T, etc.	Overall weight	880Kg±10
HMI	7-inch touch screen	Range of working temperature	-10°C ~ 60°C
Charging method	Stand alone/Internet/Card Swipe	Operating humidity range	5%RH ~ 95%RH
Charging gun	National Standard	Dimensions (w x h x d)	814×1040×1860mm
Gun line length	7m		

ESS-LFP-G Industrial and Commercial Storage Series

Industrial and Commercial 1MW/2.32MWh



Efficient transformation

Maximum efficiency solution with, intelligent air cooling, 45°C operation temperature with out derating, THD<2%@ at rated power.



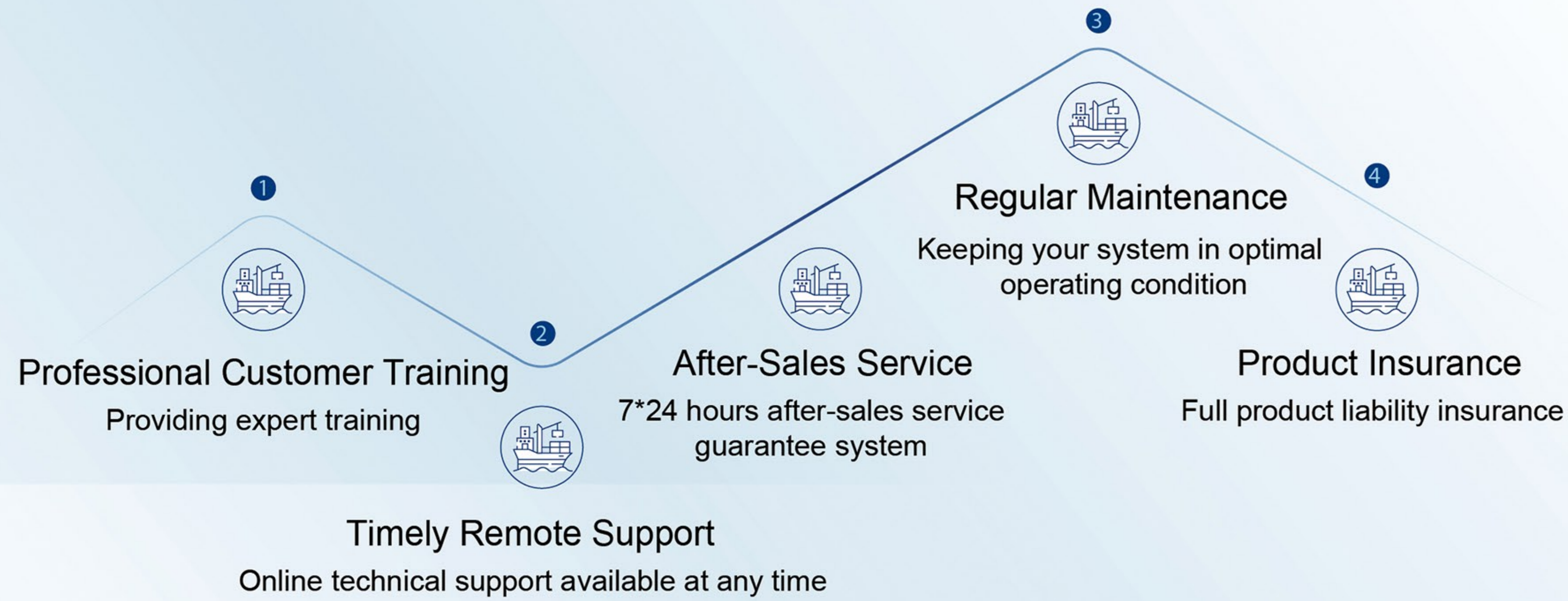
Safe and reliable

High protection level (IP67) Z stacking type cell help to meet long life design, RACK-level battery management, reducing the number of batteries in series and parallel.

Parameters

Battery Type	Lithium Iron Phosphate Battery	Continuous charge current	3768A
Grouping	24P240S	Recommended SOC operating range	5%-95%
Rated voltage	768V	Cooling method	Air Cooling
Rated capacity	7536kWh	Protection	IP54
Total energy	5787.6V	Container dimensions	12192*2438*2591mm
Voltage range	600-876A	Operating temperature range (°C)	Charging: 0~55 Discharging: -20~60
Continuous Discharge Current	6000A		

SERVICE SUPPORT



Sales and service network spans globally



Middle East	Asia	North America	South America	Africa
Dudai	Hebei, Shenzhen, Dongguan, India	USA		Congo(DRC)
Saudi Arabia, Oman, Qatar	Vietnam, South Korea	Mexico	Brazil	Namibia, Egypt

GREEN CARBON FUTURE

Brand Initials

Technological innovation Promoting high-quality and sustainable development of the green energy industry

Brand Mission

Globally Manufacturing safe, efficient, long life, and low-temperature resistant new lithium battery products

Brand Concept

Customer First, Providing customers with personalized complete solutions for lithium battery applications and full life cycle services