Hailei海雷®

PROFESSIONAL ENERGY STORAGE
BATTERY MANUFACTURER

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Shenzhen HaiLei New Energy Co., Ltd.
Shenzhen HaiLei Energy Storage Co., Ltd.

CATALOGUE

COMPANY PROFILE

Shenzhen Hailei New Energy Co., Ltd., founded in 2012, is a national high-tech enterprise that integrates the R&D, design, manufacturing and sales of lithium-battery packs.

We focus on residential and C&I energy-storage systems, power batteries and consumer batteries, delivering professional, integrated and customized energy solutions to customers worldwide.

Recognized as both a National High-Tech Enterprise and a “Specialized & Innovative Little Giant,” Hailei operates two intelligent manufacturing bases and one R&D center in Shenzhen, building an efficient, tightly linked industrial ecosystem.

With a robust portfolio of proprietary intellectual property and core patents, Hailei has helped draft multiple national and telecom-tower standards for energy-storage and power-battery applications. Guided by the principle “Innovation-Driven, Customer-Centric,” we independently develop the HAILEI series of power and storage products, consistently delivering high-performance, highly reliable solutions that enable a greener, low-carbon energy future.

Smart Energy, Greener Power

2012
FOUNDED IN

500 +
EMPLOYEES

1000 m^2
DEDICATED LABORATORY

43000 m^2
OPERATIONAL SPACE

6.12 GWh
ANNUAL PRODUCTION CAPACITY

$100.6 M
ANNUAL TURNOVER

COMPANY GROWTH PROCESS

OVER A DECADE OF STEADY PROCESS FROM START-UP TO INDUSTRY LEADERSHIP

Mission: Provide customers with reliable energy products
Vision: Empower a low-carbon lifestyle and create a sustainable future with smart energy
Core Value: Respect, Gratitude, Responsibility, Win-Win

2012

Company Established

- Shenzhen Hailei New Energy Co., Ltd. officially founded

2014-2016

Factory Established & Business Transition

- Strategically shifted focus to battery swapping business
- Recognized as a National High-Tech Enterprise

2018

R&D Enhancement

- Developed 48V/60V swappable battery packs
- Set up multiple offices in key cities
- Became a qualified supplier to China Tower

2020

Core Supplier of China Tower

- Pingshan manufacturing base commenced operation in Shenzhen
- Became a key supplier to China Tower

2022

Deployment in Energy Storage

- Futian BMS R&D Center established
- Established Guangdong EV Battery Swap Engineering & Technology Research Center
- Independent Customer Service Center established

2023

Overseas Expansion & Channel Building

- Recognized as a high-potential technology enterprise in Shenzhen
- Passed IATF16949:2016 quality management certification

2024

Capacity Expansion

- Launched production at Longtian Pingshan Base
- Acquired GI4312-0231 industrial land in Shenzhen

2025

Global Service Expansion

- Continued global strategic deployment
- Further expanded international markets

HONOR & CERTIFICATION

Recognition Reflects Strength, Certification Builds Trust

Hailei New Energy has earned multiple national and provincial honors through years of deep industry expertise and technological innovation, including: National High-Tech Enterprise, National “Little Giant” Specialized and Innovative Enterprise, Engineering Research Center. Also, Hailei has obtained multiple product patents and built industry-leading technological barriers.

Hailei New Energy lithium battery products have been certified through international testing organizations, including TÜV (Germany), SGS, and others. We have successively obtained: UN38.3, MSDS, KC, PSE, UL, IEC62133, CE, CQC, VDE, and many more.

Intellectual Property

Enterprise Certifications

International Product Standards

Production Qualification

SCALE CAPACITY & PRODUCTION STRENGTH

From Scale to Strength, From Intelligence to Excellence

ANNUAL PRODUCTION CAPACITY 6.12GWH

Modern Manufacturing Base
A 43,000㎡ factory forms the foundation of our one-stop smart manufacturing system, supporting large-scale and efficient battery production.

Automated Production Lines
Equipped with 9 battery lines and 4 packaging lines, integrated with 200+ automated devices to ensure stable, high-quality output.

Aging Test Capacity
1,500 test points support 3,000–5,000 battery packs per day, with high- and low-voltage zone aging for application-level reliability.

Independent Lab Facility
A 1,000㎡ in-house lab enables full-spectrum testing—performance, safety, and protection—ensuring quality through a “build & verify” loop.

PRODUCT ADVANTAGES

Core Innovations, Built for Premium Performance

- A-grade cells with 6,000+ ultra-long cycle life
- IP65 waterproof/dust-proof protection & C4 anti-corrosion grade
- Low-temp auxiliary heating, adaptable to -20°C environments
- Equipped with aerosol particles for enhanced battery safety
- Multi-protocol communication & Compatible with mainstream inverters

VERIFICATION TECHNOLOGY

Self-Developed BMS

· Real-time monitoring of voltage, current, temperature
· Fault warning & full-cycle battery health management

Self-Developed EMS Cloud Energy Management Platform

· Visualized monitoring & remote diagnostics
· Smart energy optimization
· Remote firmware upgrades & fast system response

CCS Integrated Technology

· Simplified structure, solving cable clutter issues
· High-efficiency power transmission & modular design
· Compact, efficient, and scalable

Active Balancing Energy Management

· Real-time cell power allocation for dynamic balancing across all units
· Minimizes energy loss and enhances overall energy utilization efficiency
· Effectively extends battery lifespan, ideal for high-frequency charge-discharge applications

Bluetooth & APP Support

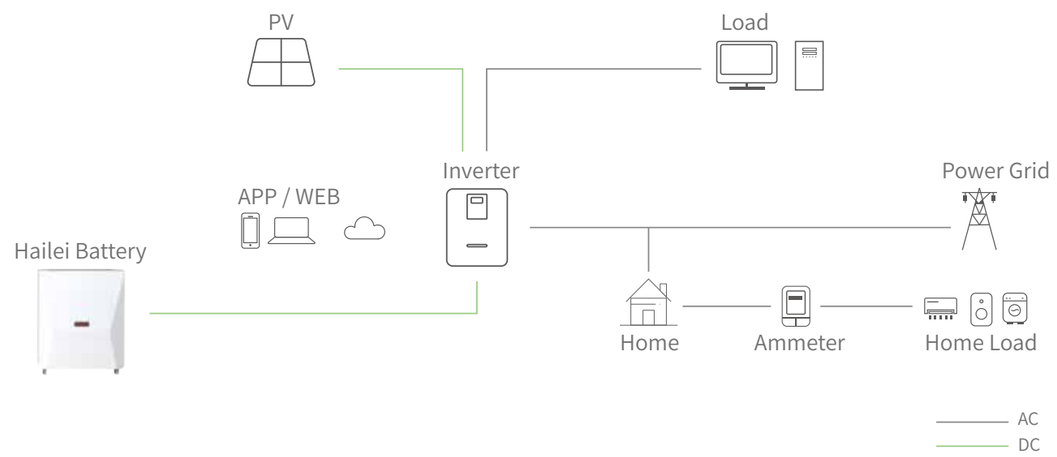
· Equipped with Bluetooth for mobile monitoring, enabling real-time energy checks anytime, anywhere
· Equipped with WiFi for remote upgrades

GLOBAL LAYOUT

From China to the World,
Empowering the Future with Energy Storage

RESIDENTIAL ENERGY STORAGE SOLUTION

Hailei lithium batteries with BMS enable safe management, smart energy scheduling, and real-time monitoring. The system supports PV charging, grid/off-grid modes, and remote control via app for a seamless home energy experience.




Hailei
10 Kwh+
5 Kwh+
15 Kwh+

RESIDENTIAL ENERGY STORAGE BATTERY

HERO RACK-MOUNTED BATTERY

Rack-mounted Battery Series adopt A-grade LiFePO4 cells, offering high energy density, safety, long cycle life, and easy installation and expansion. Widely used in telecom base stations, UPS, and residential PV energy storage.

- Intelligent BMS
- Compatible with a variety of inverters
- 6000+ long cycle life
- Support a variety of communication protocols
- High power & High Safety

COLOR

Parameters	HL-LR 5.12	HL-LR 10.24
Battery Type	LiFePO4	LiFePO4
Nominal Capacity	100Ah	200Ah
Energy	5120Wh	10240Wh
Nominal Voltage	51.2V	51.2V
Operating Voltage Range	44.8 ~ 57.6V	44.8 ~ 57.6V
Cut-off Charging Voltage	57.6V	57.6V
Standard Charging Current	50A	100A
Maximum Charging Current	100A	200A
Standard Discharging Current	50A	100A
Maximum Continuous Discharging Current	100A	200A
Peak Discharge Current	⩽ 100A（500ms）	⩽ 200A（500ms）
Cut-off Discharge Voltage	43.2V	43.2V
Recommended Discharge DOD (Depth of Discharge)	80%	80%
Cycle Life	6000/0.5C	6000/0.5C
Designed Lifespan	10 Years	10 Years

General Specification		
Communication	RS485 / RS232 / CAN	RS485 / RS232 / CAN
Efficiency	＞ 98%	＞ 98%
Maximum Parallel Units	⩽ 15units	⩽ 15units
Discharge Temperature Range	-20℃ ~ 60℃	-20℃ ~ 60℃
Charge Temperature Range	0℃ ~ 55℃	0℃ ~ 55℃
Storage Temperature Range	0℃ ~ 35℃	0℃ ~ 35℃
Ingress Protection Rating	IP20	IP20
Corrosion Protection Rating	C2	C2
Dimensions (W*D*H)	460*442*177mm	680*442*185mm
Net Weight / Gross Weight	48kg	92kg
Certifications	CE/UN38.3/MSDS	CE/UN38.3/MSDS
Inverter Compatibility	DEYE / Afore / MEGAREVO / SOLIS / Growatt / etc.	

RESIDENTIAL ENERGY STORAGE BATTERY

HERO WALL-MOUNTED BATTERY

HERO Wall-mounted Battery Series features a sleek, modern design ideal for residential PV energy storage system. Built with LiFePO4 cells for safety, reliability, and long cycle life. Supports both wall-mounted and floor installation as needed.

- Intelligent BMS
- Active Balance
- Compatible with a variety of inverters
- 6000+ long cycle life
- Support a variety of communication protocols

COLOR

Parameters	HERO-WB 5kWh	HERO-WB 10kWh	HERO-WB 15kWh
Battery Type	LiFePO4	LiFePO4	LiFePO4
Nominal Capacity	100Ah	200Ah	280Ah
Energy	5.12kWh	10.24kWh	14.336kWh
Nominal Voltage		51.2V	
Operating Voltage Range		44.8 V ~ 57.6V	
Cut-off Charging Voltage		57.6V	
Standard Charging Current/Power	50A/3kW	100A/5kW	100A/5kW
Maximum Charging Current/Power	100A/5kW	120A/7kW	140A/8kW
Standard Discharging Current/Power	50A/3kW	100A/5kW	100A/5kW
Maximum Continuous Discharging Current/Power	100A/5kW	150A/7.5kW	200A/10kW
Peak Discharge Current	150A/500ms	200A/500ms	250A/500ms
Cut-off Discharge Voltage		43.2 V	
Recommended Discharge DOD (Depth of Discharge)		80%	
Cycle Life		6000/0.5C	
Designed Lifespan		10 ~ 15 Years	

General Specification			
Communication		CAN/RS485/RS232	
Efficiency		⩾ 96%	
Maximum Parallel Units		⩽ 15 units	
Discharge Temperature Range		-20℃ ~ 60℃	
Charge Temperature Range		0℃ ~ 55℃	
Storage Temperature Range		0℃ ~ 35℃	
Inverter Compatibility		Afore/DEYE/SOLIS/GROWATT/ MEGAREVO/MUST/etc.	
Ingress Protection Rating		IP20	
Corrosion Protection Rating		C3	
Certifications		UN38.3 , MSDS , CB-IEC62619	
Dimensions (W*D*H)	525*170*450mm	560*180*740mm	690*240*580mm
Net Weight / Gross Weight	48KG/52kg	96KG/112kg	120KG/140kg
Packing Quantity	480pcs/40HQ	228pcs/40HQ	195/40HQ

RESIDENTIAL ENERGY STORAGE BATTERY

HERO HIGH-VOLTAGE STACKABLE BATTERY

Hailei High-voltage Storage Battery features a modular design for flexible expansion and diverse power configurations. Built with high-stability A-grade LiFePO4 cells for enhanced safety and reliability, ideal for residential PV applications.

- Intelligent BMS
- Active Balance
- Compatible with a variety of inverters
- 6000+ long cycle life
- Support a variety of communication protocols

COLOR

Parameters	HERO-HVS 7.68kWh	HERO-HVS 10.24kWh	HERO-HVS 12.8kWh	HERO-HVS 15.36kWh
Module	3	4	5	6
Battery Type	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Nominal Capacity	50Ah	50Ah	50Ah	50Ah
Energy	7.68kWh	10.24kWh	12.8kWh	15.36kWh
Nominal Voltage	153.6V	204.8V	256V	307.2V
Operating Voltage Range	139.2 ~ 170.4V	185.6 ~ 227.2V	232 ~ 284V	278.4 ~ 340.8V
Cut-off Charging Voltage	170.4V	227.2V	284V	340.8V
Standard Charging Current	25A/@25°C	25A/@25°C	25A/@25°C	25A/@25°C
Maximum Charging Current	25A	25A	25A	25A
Standard Discharging Current	50A/@25°C/5S	50A/@25°C/5S	50A/@25°C/5S	50A/@25°C/5S
Maximum Continuous Discharging Current	50A	50A	50A	50A
Recommended Discharge DOD (Depth of Discharge)		80%		
Cycle Life		6000/0.5C		
Designed Lifespan		10 Years		

General Specification				
Communication		CAN		
Efficiency		90%		
Maximum Parallel Units		⩽ 4 units		
Discharge Temperature Range		-20℃ ~ 60℃		
Charge Temperature Range		0℃ ~ 55℃		
Storage Temperature Range		0℃ ~ 35℃		
Inverter Compatibility		DEYE / Afore / MEGAREVO / SOLIS /MEGAREVO/GoodWe/etc.		
Ingress Protection Rating		IP55		
Corrosion Protection Rating		C3		
Dimensions (W*D)	430*550mm	430*550mm	430*550mm	430*550mm
Dimensions (H)	699.5mm	831mm	962.5mm	1094mm
Weight	115kg	145kg	175kg	205kg
Certifications		TUV/IEC62619/UL1973/UN38.3/RoHS/REACH		

RESIDENTIAL ENERGY STORAGE BATTERY

HERO 60KWH RACK-MOUNTED HIGH-VOLTAGE BATTERY

HERO Series 60kWh Rack-Mounted High Voltage Battery features BMS, WiFi, and Bluetooth, supporting remote upgrades and monitoring. Modular design with 6-12 battery modules enables flexible installation and deployment, supporting up to 5 clusters in parallel for a maximum capacity of 300kWh.

- Intelligent BMS
- Active Balance
- Modular design & Flexible expansion
- Compatible with a variety of inverters
- 6000+ long cycle life

COLOR

Parameters	HERO Rack-mounted60kWh	Remark
Nominal Capacity	100Ah	
Energy	60kWh	
Nominal Voltage	614.4V	192 strings
Standard Charge Rate	0.5C/25°C	
Maximum Continuous Discharge Rate	1C/25°C	1C(100A)
Operating Voltage Range	556.8 ~ 691.2V	
Maximum Cell Charging Voltage	3.6V	Single cell
Minimum Cell Discharge Voltage	2.9V	Single cell
Operating Temperature Range	Charge Temperature:0℃ ~ 55°C Discharge Temperature: -20℃ ~ 55°C	
Ingress Protection Rating	IP20	
Corrosion Protection Rating	C3	
Maximum Charging Current	100A	
Maximum Continuous Discharging Current	100A	
Peak Discharge Current	100A MAX	
Battery Cabinet Dimensions(W*D*H)	575*600*2150mm	±5mm
Battery Pack		
Nominal Capacity	100Ah	
Energy	5.12kWh	
Nominal Voltage	51.2V	16 strings
Standard Charge Rate	0.5C/25°C	
Maximum Continuous Discharge Rate	1C/25°C	
Operating Voltage Range	46.4V ~ 57.6V	
Maximum Cell Charging Voltage	3.6V	Single cell
Minimum Cell Discharge Voltage	2.9V	Single cell
Insulation Performance	⩾ 1000Ω/V	
General Specification		
Communication	CAN	
Efficiency	95%	Standard charging/ discharging, unit voltage 2.7-3.65V
Maximum Parallel Units	⩽ 5 units	
Discharge Temperature Range	-20℃ ~ 55°C	
Charge Temperature Range	0℃ ~ 50°C	
Storage Temperature Range	0℃ ~ 35℃	
Inverter Compatibility	Deye/SOLIS/Afore/etc.	
Terminal Type	Quick Plug	
Enclosure Material	SPCC	
Cycle Life	6000/0.5C	25/0.5C,Charge/Discharge for 6000 times(Capacity maintained at 80%)
Designed Lifespan	10 Years	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RESIDENTIAL ENERGY STORAGE BATTERY

ATOM WALL-MOUNTED BATTERY

ATOM Wall-mounted Battery Series features a smart BMS, app monitoring, and remote upgrade capabilities. Its newly designed enclosure offers C4+ corrosion resistance and IP65 protection. Supports both wall-mounted and floor-standing installations. It widely used in residential PV energy storage systems.

- Intelligent BMS
- Active Balance
- 6000+ long cycle life
- IP65 waterproof/dust-proof & C4 anti-corrosion grade

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Performance			
Parameters	ATOM-WB 5kWh	ATOM-WB 10kWh	ATOM-WB 15kWh
Battery Type	LiFePO4	LiFePO4	LiFePO4
Nominal Capacity	100Ah	200Ah	320Ah
Energy	5120Wh	10240Wh	16384Wh
Nominal Voltage		51.2V	
Operating Voltage Range		44.8 ~ 57.6V	
Cut-off Charging Voltage		57.6V	
Standard Charging Current	50A	100A	100A
Maximum Charging Current	100A	120A	150A
Standard Discharging Current	50A	100A	150A
Maximum Continuous Discharging Current	100A	150A	200 A
Cut-off Discharge Voltage		44.8V	
Recommended Discharge DOD (Depth of Discharge)		80%	
Cycle Life		6000/0.5C	
Designed Lifespan		10 ~ 15 Years	

General Specification			
Communication		CAN / RS485	
Efficiency		96%	
Maximum Parallel Units		⩽ 15 units	
Discharge Temperature Range		-20℃ ~ 60℃	
Charge Temperature Range		0℃ ~ 55°C	
Storage Temperature Range		0℃ ~ 35°C	
Terminal Type		Quick Plug	
Enclosure Material		SPCC	
Ingress Protection Rating		IP65	
Corrosion Protection Rating		C4	
Auxiliary Heating Function		Optional	
Dimensions (W*D*H)	480*165*550mm	550*236*699mm	630*236*905mm
Net Weight / Gross Weight	56kg	98kg	128kg
Packing Quantity	480 个 /40HQ	220 个 /40HQ	185 个 /40HQ
Certifications	CE/IEC62619/CEI-021/ UN38.3/MSDS	CE/UN38.3/MSDS	CE/UN38.3/MSDS
Inverter Compatibility		Afore / Deye / SOLIS / Growatt / etc.	

RESIDENTIAL ENERGY STORAGE BATTERY

ATOM LOW-VOLTAGE STACKABLE BATTERY

ATOM LVS Battery Series features a modular design for easy installation and expansion, it supports up to 4 clusters in parallel, with capacity scalable from 10.24 kWh to 61.44 kWh. It comes with IP65-rated enclosure and an intelligent BMS for reliable battery management.

- IP65 waterproof/dust-proof & C4 anti-corrosion grade
- Intelligent BMS
- Active Balance
- APP Real-time Monitor & Remote

COLOR

Parameters		
Performance	ATOM-LVS 10.24kWh	ATOM-LVS 15.36kWh
Module	2	3
Battery Type	LiFePO4	LiFePO4
Nominal Capacity	200Ah	300Ah
Energy	10.24kWh	15.36kWh
Nominal Voltage	51.2V	
Operating Voltage Range	43.2V ~ 58.4V	
Charging Voltage Range	57.6V ~ 58.4V	
Cut-off Charging Voltage	58.4V	
Maximum Charging Current/Power	⩽ 120A/6KW	
Maximum Continuous Discharging Current/Power	⩽ 120A/6KW	
Peak Discharge Current	120A MAX.	
Cut-off Discharge Voltage	43.2V	
Recommended Discharge DOD (Depth of Discharge)	90%	
Cycle Life	6000/0.5C	
Designed Lifespan	10 Years	

General Specification		
Communication	CAN/RS485	
Efficiency	97%	
Maximum Parallel Units	⩽ 4 units	
Discharge Temperature Range	-20℃ ~ 60℃	
Charge Temperature Range	0℃ ~ 55℃	
Storage Temperature Range	-15℃ ~ 40℃	
Terminal Type	Quick Plug	
Enclosure Material	SPCC	
Ingress Protection Rating	IP65	
Corrosion Protection Rating	C3	
Auxiliary Heating Function	Optional	
Certifications	IEC 62619 / CE / UN38.3 /MSDS	
Inverter Compatibility	Deye / Afore / SOLIS / MEGAREVO / Growatt / etc.	
Dimensions (W*D)	600*167mm	600*167mm
Dimensions (H)	1240mm	1700mm

RESIDENTIAL ENERGY STORAGE BATTERY

ATOM HIGH-VOLTAGE STACKABLE BATTERY

Equipped with high-stability A-grade LiFePO4 cells for enhanced safety and reliability, the ATOM HVS Battery features built-in Bluetooth and WiFi for APP monitoring and remote upgrades. With a conversion efficiency of up to 97%, its modular design allows flexible expansion to meet diverse power configuration needs.

- Active Balance
- IP65 waterproof/dust-proof & C4 anti-corrosion grade
- Intelligent BMS
- 6000+ long cycle life
- APP Real-time Monitor & Remote
- High Power & High Safety

COLOR

Parameters	ATOM-HVS 15.36kWh	ATOM-HVS 20.48kWh	ATOM-HVS 25.6kWh	ATOM-HVS 30.72kWh	ATOM-HVS 35.84kWh	ATOM-HVS 40.96kWh
Module	3	4	5	6	7	8
Battery Type			LiFePO4			
Nominal Capacity	100Ah	100Ah	100Ah	100Ah	100Ah	100Ah
Energy	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
Nominal Voltage	153.6V	204.8V	256V	307.2V	358.4V	409.6V
Operating Voltage Range	136.8～172.81V	182.4～230.4V	228～288V	273.6～345.6V	319.2～403.2V	364.8～460.8V
Standard Charging Current			50A			
Maximum Charging Current			100A			
Standard Discharging Current			50A			
Maximum Continuous Discharging Current			100A			
Cut-off Discharge Voltage	136.8V	182.4V	228V	273.6V	319.2V	364.8V
Recommended Discharge DOD (Depth of Discharge)			80%			
Cycle Life			6000/0.5C			
Designed Lifespan			10 Years			

General Specification						
Communication			CAN / WiFi			
Maximum Parallel Units			⩽ 5 units			
Discharge Temperature Range			-10℃ ~ 50° C			
Charge Temperature Range			0℃ ~ 45° C			
Ingress Protection Rating			IP65			
Corrosion Protection Rating			C4			
Auxiliary Heating Function			Optional			
Dimensions (W*D)			590*414mm			
Dimensions (H)	675mm	835mm	995mm	1155mm	1315mm	1475mm
Weight	168kg	216kg	264kg	312kg	360kg	408kg
Certifications			CB-IEC62619 / CE / UN38.3			
Inverter Compatibility			Afore/SOLIS/BYTEWATT/Deye/Goodwe/MEGAREVO/etc.			

RESIDENTIAL ENERGY STORAGE BATTERY

ATOM LVS ALL-IN-ONE SYSTEM

Integrated with an inverter and a touch LCD screen, the system supports up to 4 parallel clusters. Its modular design allows for easy installation and expansion. Widely used in residential energy storage applications, it provides an all-in-one solution for whole-home energy needs.

- Inner use inverter, All-in-one Design
- Long Cycle Life
- Active Balance
- High Protection Level IP65/C4

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Parameters	ATOM LVS-AES 10.24kWh	ATOM LVS-AES 15.36kWh
Module	2	3
Battery Pack Model	51.2V100Ah	51.2V100Ah
Cell Type	LiFePO4	LiFePO4
Total Storage Capacity	10.24kWh	15.36kWh
Total Available Power	10kWh	15kWh
Cycle Life	⩾ 6000/0.5C	⩾ 6000/0.5C
Designed Lifespan	⩾ 10 Years	⩾ 10 Years
Operating Voltage Range	43.2V ~ 58.4V	43.2V ~ 58.4V
Maximum Charge/Discharge Current	80A	80A
Communication	CAN / RS485	CAN / RS485
Dimensions (W*D*H)	600*228*1280mm	600*228*2120mm

Photovoltaic Input Parameters	
Maximum Input Power	9kW(HL6K-ASL)/550V
MPPT Operating Voltage Range	80-500V
MPPT Routes	2
Max. Input Current	18.5A+18.5A
Max. Short-circuit Current	26A+26A
System Efficiency	97%

Grid End Parameters	
Nominal Output Power	6kW(HL6K-ASL)
Max. Output Current	28A
Max. Input Power	6kW
Grid Voltage Range	220-240VAC
Grid Rated Frequency	50Hz ± 0.3Hz/60Hz ± 0.3Hz

Load End Parameters	
Off-grid Instantaneous Power	9kVA
Off-grid Rated Power	6kVA
Load Rated Voltage	220V/230V
Load Frequency	50/60Hz

Basic Parameters	
Operating Temperature Range	-20 ~ 60℃
Operating Altitude	< 4000m
Noise Index	< 25dB
Protection Level	IP65
Relative Humidity Range	0 - 100%
Grid Connection Standards	According to the local policy
Certifications	NRS097, G98/G99, EN50549-1, C10/C11, AS 4777.2, VDE-AR-N4105, VDE0126, IEC62109-1,IEC62109-2，EN61000-6-2, EN61000-6-3，IEC61619:2022 CB

RESIDENTIAL ENERGY STORAGE BATTERY

ATOM HVS ALL-IN-ONE SYSTEM

An all-in-one solution integrating the inverter with a modular structure, designed for easy installation and expansion. Widely applied in residential energy storage, it delivers a complete home power solution in a single unit.

- Inner use inverter, All-in-one Design
- Active Balance
- Long Cycle Life
- APP Real-time Monitor & Remote
- Intelligent BMS

COLOR

Parameters	ATOM HVS-AES 15.36kWh	ATOM HVS-AES 20.48kWh	ATOM HVS-AES 25.6kWh	ATOM HVS-AES 30.72kWh	ATOM HVS-AES 35.84kWh	ATOM HVS-AES 40.96kWh
Module	3	4	5	6	7	8
Battery pack model			51.2V100Ah			
Cell Type			LiFePO4			
Total Storage Capacity	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
Cycle Life			6000/0.5C			
Designed Lifespan			10 Years			
Operating Voltage Range	134.4~170.4V	179.2~227.2V	224~284V	268.8~340.8V	313.6~397.6V	358.4~454.4V
Maximum Charge/ Discharge Current			100A			
Communication			CAN			
Photovoltaic Input Parameters						
Maximum Input Power			12kW-20kW			
Maximum Input Voltage			1100V			
MPPT Operating Voltage Range			140-950V			
MPPT Routes			3			
Max. Input Current			16A			
Max. Short Circuit Current			24A			
System Efficiency			96%			
Grid End Parameters						
Max. Output Current			10A-13.3A-16.7A			
Max. Input Power			12kVA-16kVA-21kVA			
Grid Voltage Range			180-270Vac			
Grid Rated Frequency			50/60Hz			
Load End Parameters						
Off-grid Instantaneous Power			12kVA-16kVA-20kVA			
Off-grid Rated Power			6kVA-8kVA-10kVA			
Load Rated Voltage			220/380Vac,230/400Vac,3L/N/PE			
Load Frequency			50/60Hz			
Basic Parameters						
Operating Temperature Range			-25℃ ~ 60℃			
Operating Altitude			< 3000m			
Noise Index			< 30dB			
Protection Level			IP65			
Relative Humidity Range			0 ~ 90%,No condensation			
Dimensions (W*D)			510*447mm			
Dimensions (H)	1188.5mm	1348.5mm	1508.5mm	1668.5mm	1828.5mm	1988.5mm
Certification			IEC / EN 62109-1&2 / IEC / 62477-1:2012			

RESIDENTIAL ENERGY STORAGE BATTERY

ATOM BALCONY MICROINVERTER ESS ALL-IN-ONE

Newly upgraded Balcony Microinverter AES built for balcony PV storage, this all-in-one unit meets the entire household energy storage needs. Featuring a modular design for easy installation and expansion, it supports up to 5 parallel clusters. The IP65-rated enclosure, intelligent BMS, and remote monitoring via APP ensure reliable and user-friendly operation.

- Inner use inverter, All-in-one Design
- Modular Design, Easy Expansion
- Intelligent BMS
- Active Balance
- APP Real-time Monitor & Remote

COLOR

Parameters	ATOM WB-51272	ATOM WB-512144	ATOM WB-512216	ATOM WB-512288	ATOM WB-512360
Module	1	2	3	4	5
Battery Type	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Nominal Capacity	72Ah	144Ah	216Ah	288Ah	360Ah
Energy	3.68kWh	7.36kWh	11.04kWh	14.72kWh	18.4kWh
Nominal Voltage	51.2V				
Operating Voltage Range	44.8 ~ 57.6V				
Maximum Charging Current/ Power	50A/2.56kW				
Maximum Continuous Discharging Current/Power	50A/2.56kW				
Peak Discharge Current	60A				
Cut-off Discharge Voltage	44.8V				
Recommended Discharge DOD (Depth of Discharge)	85%				
Cycle Life	6000/0.5C				
Designed Lifespan	10 Years				

General Specification					
Communication	CAN/485				
Efficiency	97%				
Maximum Parallel Units	⩽ 5 units				
Discharge Temperature Range	-20℃ ~ 55℃				
Charge Temperature Range	-20℃ ~ 55℃				
Storage Temperature Range	Recommended 20℃				
Inverter Compatibility	AP system / etc.				
Terminal Type	Blind Plug-in Connector				
Enclosure Material	SPCC				
Ingress Protection Rating	IP65				
Corrosion Protection Rating	C3				
Auxiliary Heating Function	Optional				
Dimensions (W*D*H)	525*135*362mm	525*135*724mm	525*135*1086mm	525*135*1448mm	525*135*1810mm
Weight	≈ 35kg/38kg				
Certifications	UN38.3/MSDS/IEC62219/CE				

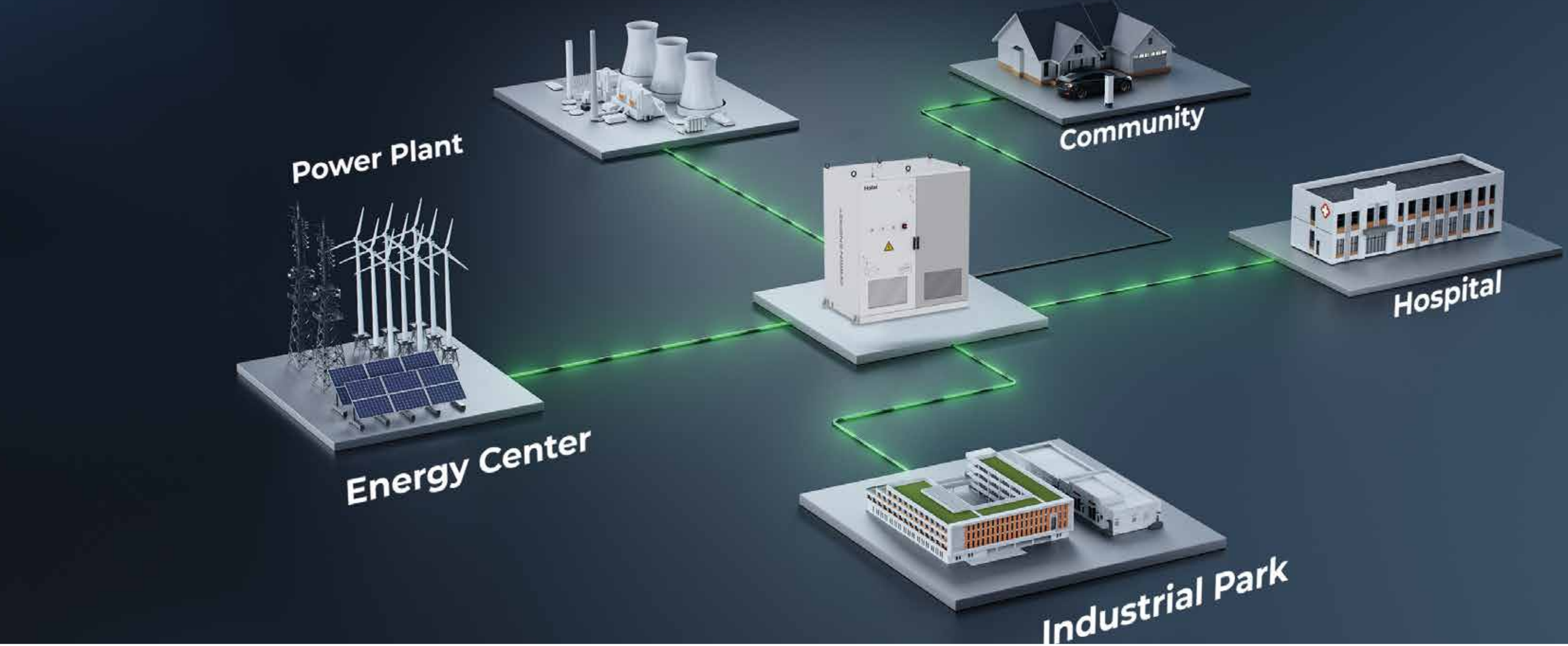
ATOM PORTABLE BATTERY

Featuring an integrated battery and inverter in a trolley-style design, it offers both portability and functionality. Ideal for outdoor work, emergency backup, disaster relief, and travel applications.

- Light Weight,suitable for multi-scenario applications
- Inner use inverter, All-in-one Design
- Active Balance
- Long Cycle Life

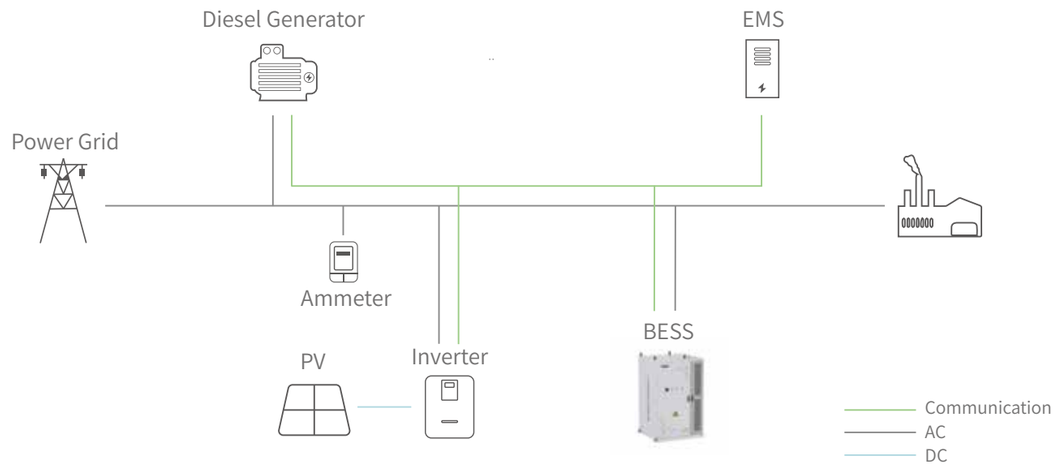
COLOR

Parameters	ATOM-SC
Battery Type	LiFePO4
Capacity	3686.4Wh/16S1P
PV Input	12Vdc-150Vdc 25A /2400w MAX
AC Input	230V 10A/2300W MAX
Operating Temperature	0℃ ~ 40℃
AC Output	220V/3600W MAX
USB-C1 Output	PD100W
USB-C2 Output	PD65W
USB-A1~A4 Output	4X18W
AC Output Waveform	Sine Wave Output
Cigarette Lighter Output	12V/10A Max
EC5 Output	12V/30A Max
DC Output	12V/10A Max
Car Charger Output	3500W Max
Car Charger APP Control	WiFi, Bluetooth
Size(W*D*H)	500*240*680mm
Cycle Life	5000
Designed Lifespan	3 Years
Certification	UN38.3



COMMERCIAL & INDUSTRIAL ENERGY STORAGE SOLUTION

Hailei' s high-safety and high-stability battery system serves as the foundation for our C&I energy storage solution. Integrated with EMS, PCS, and other functional modules, the system supports a wide range of application scenarios including peak shaving, load shifting, emergency backup, and renewable energy integration. With features such as long cycle life, high protection level, and strong scalability, it ensures reliable operation and long-term energy security for diverse industrial and commercial environments.



INDUSTRIAL AND COMMERCIAL ENERGY STORAGE BATTERY

250KW 522KWH LIQUID-COOLING ENERGY STORAGE SYSTEM

Upgraded Liquid-Cooled Outdoor Energy Storage System
Featuring an all-in-one design that integrates the battery system, BMS, PCS, EMS, and fire protection, this high-capacity solution offers flexible deployment. It supports peak shaving, valley filling, and emergency backup, making it ideal for commercial parks, office buildings, and EV charging stations.

- Modular Design, Flexible Deployment
- Multi-Layer Fire Protection, Ultimate Safety
- Peak-Valley Arbitrage, Smart Operation & Maintenance
- Cloud-Based Monitoring, 24/7 Intelligent Management

COLOR

Parameters	HLESS-522LC
Battery Cabinet Parameters	
Battery Cabinet Size(W*D*H)	1913*1400*2250mm（±5mm）
Nominal Capacity	628Ah
Nominal Voltage	832V
Standard Charging Rate	0.5C
Max Continuous Discharge Rate	0.5C
Rated Electricity	522kWh
Operating Voltage Range	230V/400V(AC)
Max Charging Voltage	949V
Single Min Discharge Voltage	728V
Protection Level	IP54
Cooling Method	Liquid-cooling（Ethylene Glycol）
Battery String Parameters	
Battery Pack Size（W*D*H）	1150*789*245mm
Nominal Capacity	314Ah
Nominal Voltage	166.4V
Standard Charging Rate	0.5C
Max Continuous Discharge Rate	0.5C
Energy	52.2kWh
Operating Voltage Range	145.6V ~ 189.8V
Single Max Charge Voltage	3.65V
Single Min Discharge Voltage	2.8V
Insulation Performance	⩾ 500MΩ/1500Vdc
Single Cluster Configuration Information	
Battery	166.4V314Ah
BMU	52 strings of slave control
High-pressure Control Box	260 strings of master control
Outdoor Cabinet Dimension（W*D*H）	1913*1400*2250mm（±5mm）
Photovoltaic Energy Storage Inverter	250kW
Fire Protection System	Perfluoro & Cabinet-level aerosol (Optional Perfluoro)
Communication Cable	Included
Power Cable	Included
Cycle Life	8000/25℃ /0.5C/70% SOH
Designed Lifespan	10 Years

INDUSTRIAL AND COMMERCIAL ENERGY STORAGE BATTERY

125KW 261KWH LIQUID-COOLING ENERGY STORAGE SYSTEM

The liquid-cooling outdoor energy storage cabinet adopts an all-in-one design concept, integrating the battery system, BMS, PCS, EMS, and fire protection system into a highly integrated solution. It features flexible deployment and supports peak shaving, valley filling, and emergency backup, making it suitable for a wide range of commercial and industrial applications such as industrial parks, office buildings, and EV charging stations.

- Modular Design, Flexible Deployment
- Multi-Layer Fire Protection, Ultimate Safety
- Peak-Valley Arbitrage, Smart Operation & Maintenance
- Cloud-Based Monitoring, 24/7 Intelligent Management

COLOR

Parameters	HLESS-261LC
DC	
Battery Cell	LFP/314Ah
System Battery Voltage Range	754 ~ 936V
Max continuous charge/discharge current	157A
AC	
Rated AC Power	125kW
Max AC Power	138kW
Distortion Rate	<3%(Rated Power)
Rated Grid Voltage	230V/400V
Rated Grid Frequency	50/60Hz
Max Current	200A

General	
Battery Cabinet Size(W*D*H)	1400*1363*2230mm
Weight	≈ 3t
Overall System Efficiency	⩾ 90%
Charge/Discharge Rate	0.5C
Cooling Method	Liquid-cooling
PACK Protection	IP67
Overall Protection	IP54
Cycle Life	⩾ 8000 cycles(25℃ /DOD90%/SOH70%)
Designed Lifespan	10 Years
Operating Temperature	Charge:0~50℃ Discharge:-20~55℃
Communication Interface	RS485/CAN
Fire Protection System	Perfluoro & Cabinet-level aerosol (Optional Perfluoro)
Grid/Off-grid	Support(Optional)
Anti-backflow	Support(Optional)

INDUSTRIAL AND COMMERCIAL ENERGY STORAGE BATTERY

50KW 125KWH AIR-COOLING ENERGY STORAGE SYSTEM

The outdoor air-cooled PV+ESS cabinet offers an integrated solar-plus-storage solution for commercial and industrial users. It supports peak shaving, demand reduction, and enhanced renewable energy utilization. Widely applicable in scenarios such as EV charging stations and industrial parks.

- Inner use inverter
- Multi-Layer Fire Protection, Ultimate Safety
- Peak-Valley Arbitrage, Smart Operation & Maintenance
- Modular Design, Flexible Deployment

COLOR

Parameters	HLESS-125AC
Battery Cabinet Parameters	
Dimension(W*D*H)	1050*1050*2100mm
Nominal Capacity	314Ah
Nominal Voltage	409.6V
Standard Charging Rate	0.5C/25℃
Max Continuous Discharge Rate	157A/25℃
Rated Electricity	128kWh
Operating Voltage Range	384 ~ 460.8V
Max Charging Voltage	3.6V
Single Min Discharge Voltage	3.0V
Protection Level	IP55
Cooling Method	Top-mounted Air-conditioning Cooling
Battery String Parameters	
Battery Pack Size(L*W*H)	780*836*235mm
Nominal Capacity	314Ah
Nominal Voltage	102.4V
Standard Charging Rate	0.5C/25℃
Max Continuous Discharge Rate	0.5C/25℃
Energy	32.153kWh
Operating Voltage Range	96 ~ 115.2V
Max Charging Voltage	3.6V
Single Min Discharge Voltage	3.0V
Insulation Performance	⩾ 500MΩ/1000Vdc
Single Cluster Configuration Information	
Battery	102.4V314Ah
BMU	32 strings of slave control
High-pressure Control Box	128 strings of master control
Outdoor Cabinet Dimension	1050*1050*2100mm
Photovoltaic Energy Storage Inverter	50kW
Fire Protection System	FGS-XR1000EElectrochemical Fire Protection Module/Aerosol
Communication Cable	Included
Power Cable	Included
Cycle Life	8000/0.5C
Designed Lifespan	10 Years

INDUSTRIAL AND COMMERCIAL ENERGY STORAGE BATTERY

100KW 225KWH AIR-COOLING ENERGY STORAGE SYSTEM

Designed with an integrated architecture, this cabinet combines battery cells, BMU, BCU, EMS, PCS, fire suppression system, and PV MPPT controller into a single unit. It delivers a total battery energy capacity of up to 225 kWh and output power of 100 kW. The modular design enables flexible capacity expansion to meet the needs of diverse application scenarios.

- Inner use inverter
- Multi-Layer Fire Protection, Ultimate Safety
- Peak-Valley Arbitrage, Smart Operation & Maintenance
- Modular Design, Flexible Deployment

COLOR

Parameters	HL-ESS-100-225
Parameters	
Nominal Energy	225kWh
Rated Voltage	716.8V
Pack Configuration	32S1P
Battery Cluster Configuration	7S
Cell Type	3.2V/314Ah-LFP
Battery Cabinet Size(W*D*H)	1450*1290*2160mm
Weight	≈ 2.5t
Rated Output Power	100kW
System Efficiency	⩾ 88%，@0.5P,25℃
Cooling Method	Air-cooling
Fire Protection System	Aerosol
Communication	ModbusRTU，ModbusTCP
Operating Temperature Range	-20℃ ~ 55℃
Protection Level	IP54
Grid-connected Parameters	
Rated Output Power	105kW
Output Power Max.	115.5kW
Rated Grid Voltage	380V
Grid Frequency	50/60Hz
Maximum Current	167A
Off-grid-connected Parameters	
Output Power	105kW
Rated Output Voltage	230/400V
Rated Frequency	50Hz
Maximum Output Current	167A

INDUSTRIAL AND COMMERCIAL ENERGY STORAGE BATTERY

241KWH INDOOR AIR-COOLING ENERGY STORAGE SYSTEM

Designed for indoor use, this air-cooled energy storage system provides services such as peak shaving and valley filling, capacity reduction, demand management, and enhanced utilization of renewable energy. It is widely applicable in scenarios such as charging stations, commercial and industrial parks, shopping malls, and office buildings.

- Modular Design, Flexible Deployment
- Multi-Layer Fire Protection, Ultimate Safety
- Peak-Valley Arbitrage, Smart Operation & Maintenance
- Cloud-Based Monitoring, 24/7 Intelligent Management

COLOR

Parameters	ATOM HVS-T-M241
Battery Cabinet Parameters	
Dimension(W*D*H)	2060*730*1103mm
Nominal Capacity	314Ah
Nominal Voltage	768V
Standard Charging Rate	0.5C/25°C
Max Continuous Discharge Rate	Suggested: 0.5C, Maximum: 0.6C
Rated Electricity	241.15kWh
Operating Voltage Range	672V ~ 864V
Max Charging Current	157A
Max Discharging Current	168A
Protection Level	IP20
Cooling Method	Air -cooling
Battery String Parameters	
Battery Pack Size(W*D*H)	730*500*272mm
Nominal Capacity	314Ah
Nominal Voltage	51.2V
Standard Charging Rate	0.5C/25°C
Max Continuous Discharge Rate	Suggested: 0.5C, Maximum: 0.6C
Energy	16.0768kWh
Operating Voltage Range	48V ~ 57.6V
Single Max Charging Voltage	3.6V
Single Min Discharge Voltage	3.0V
Insulation Performance	⩾ 10000V
Single Cluster Configuration Information	
Battery	51.2V314Ah
BMU	16S
High-pressure Control Box	240S
Photovoltaic Energy Storage Inverter	125kW
Communication Cable	RS485/CAN/RS232
Cycle Life	8000(25℃ /DOD90%/SOH70%)
Designed Lifespan	10 Years

INDUSTRIAL AND COMMERCIAL ENERGY STORAGE BATTERY

16S1P AIR-COOLING/52S1P LIQUID-COOLING ENERGY STORAGE MODULAR

Equipped with built-in BMU and EMS architecture, this module features multi-dimensional safety design with structural integrity and PACK-level fire protection. It enables precise fault detection, efficient fire management, and extended battery lifespan. Widely used on the commercial & industrial (C&I) user side and grid-side energy storage applications.

- Modular Design, Easy Installation & Maintenance
- High Integration, Improve space utilization
- PACK-level Fire Protection, Accurate Fault Detection
- Intelligent Air-cooling/Liquid-cooling, Efficient Thermal Management
- Flexible Application, Meet the needs of various scenarios

16S1P AIR-COOLING

52S1P LIQUID-COOLING

Parameters	HL-16S1P314A
Nominal Voltage	51.2V
Nominal Capacity	314Ah
Battery Cell	LiFePO4
Operating Voltage Range	48V ~ 57.6V
Max Continous Charing Current	150A
Max Continous Discharing Current	150A
Cycle Life	8000 cycles
Internal Resistance	Post-Assembly Internal Resistance ≤ 40mΩ
Cooling Method	Air-cooling
Weight	115 ± 5 Kg
Dimension	740*482.6*220mm
Operating Temperature Range	Charge: 0 ~ 45℃, Discharge: -20℃ ~ 55℃

Parameters	HL-52S1P314L
Nominal Voltage	166.4V
Nominal Capacity	314Ah
Battery Cell	3.2V 314Ah LiFePO4
Operating Voltage Range	150.8V ~ 187.2V
Max Continous Charing Current	157A
Max Continous Discharing Current	157A
Cycle Life	8000 cycles
Internal Resistance	Post-Assembly Internal Resistance ≤ 40mΩ
Cooling Method	Liquid-cooling
Weight	350kg ± 20kg
Dimension	787 ± 2.5mm*1150 ± 2.5mm*245 ± 2.5mm
Operating Temperature Range	Charge：0 ~ 50℃ ,Discharge：-20 ~ 55℃

LEAD ACID REPLACEMENT
LIFEPO4 BATTERY

LEAD-ACID REPLACEMENT LITHIUM BATTERY

Lightweight and portable, widely used in RVs, golf carts, yachts, solar street lights, photovoltaic energy storage systems, UPS, and more.

- Inner use LiFePO4 cell, Extremely safety
- Light weight, Small size
- Meet various scenarios
- Long cycle life

COLOR

Parameters	12.8V 100Ah	12.8V 150Ah	12.8V 200Ah	12.8V 280Ah
Nominal Voltage	12.8V	12.8V	12.8V	12.8V
Nominal Capacity	100Ah	150Ah	200Ah	280Ah
Energy	1280Wh	1920Wh	2560Wh	3584Wh
Charging Cut-off Voltage	14.4V	14.4V	14.4V	14.4V
Discharging Cut-off Voltage	10.8V	10.8V	10.8V	10.8V
Maximum Continuous Charging Current	100A	100A	200A	150A
Maximum Continuous Discharging Current	100A	100A	200A	150A
Max. Series/Parallel Connection	4S4P	4S4P	4S2P	4S4P
Dimensions(L*W*H)	331*171*217.7mm	483*170*240mm	501.6*186.5*243.6mm	384*204*273mm
Battery Weight	11kg	20kg	23kg	24.9kg
Bluetooth	√	√	√	√
Protection Level	IP65	IP65	IP65	IP65
Cycle Life	4000	4000	4000	4000
Design Life	5 Years	5 Years	5 Years	5 Years
Charing Temperature	0℃ ~ 55℃	0℃ ~ 55℃	0℃ ~ 55℃	0℃ ~ 55℃
Discharing Temperature	-20˚C ~ 60˚C	-20˚C ~ 60˚C	-20˚C ~ 60˚C	-20˚C ~ 60˚C
Storage Temperature	0° C ~ 35° C	0° C ~ 35° C	0° C ~ 35° C	0° C ~ 35° C

Parameters	25.6V100Ah	25.6V200Ah	25.6V280Ah
Nominal Voltage	25.6V	25.6V	25.6V
Nominal Capacity	100Ah	200Ah	280Ah
Energy	2560Wh	5120Wh	7168Wh
Charging Cut-off Voltage	28.8V	28.8V	28.8V
Discharging Cut-off Voltage	21.6V	21.6V	21.6V
Maximum Continuous Charging Current	100A	200A	200A
Maximum Continuous Discharging Current	100A	200A	200A
Max. Series/Parallel Connection	2S2P	2S2P	2S2P
Dimensions(L*W*H)	501.6*186.5*243.6mm	520*267.5*221mm	635.2*244*219.4mm
Battery Weight	20kg	42kg	50kg
Bluetooth	√	√	×
Protection Level	IP65	IP65	IP65
Cycle Life	4000	4000	4000
Design Life	5 Years	5 Years	5 Years
Charing Temperature	0℃ ~ 55℃	0℃ ~ 55℃	0℃ ~ 55℃
Discharing Temperature	-20˚C ~ 60˚C	-20˚C ~ 60˚C	-20˚C ~ 60˚C
Storage Temperature	0° C ~ 35° C	0° C ~ 35° C	0° C ~ 35° C