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HYSTORAGE

PRODUCT HANDBOOK

Smart Energy Storage Solutions

www.hysolar.com

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ABOUT HYSOLAR

2002 Year
HYSOLAR Established in

6
Global and Regional Headquarters

7
Core R&D and intelligent manufacturing bases

HY SOLAR (Stock Code: 603185), founded in 2002, successfully listed on the Main Board of the Shanghai Stock Exchange on 28 December 2018. In 2025, the company further strengthened its global presence through the strategic acquisition of Suntech Power, a leading photovoltaic enterprise, significantly elevating its brand influence and worldwide operational capabilities.The company operates across three core business segments: high-end equipment manufacturing, full-chain photovoltaic products, and integrated energy storage solutions. Committed to becoming a globally leading green energy ecosystem provider, HY SOLAR is dedicated to driving the global energy transition and delivering sustainable energy benefits worldwide.

Headquartered in Wuxi, China, HY SOLAR boasts total assets of nearly RMB 30 billion. With major R&D and manufacturing bases strategically located in Inner Mongolia, Jiangsu, Anhui, and other regions across China, the company has established an integrated photovoltaic production capacity exceeding 100GW and a comprehensive, scenario-based energy storage industrial layout. Additionally, HY SOLAR is accelerating its global footprint, having established regional headquarters in Singapore, Germany, the United Arab Emirates, Australia, Brazil, and other key markets. Its business now extends to nearly 100 countries and regions worldwide, with cumulative global shipments surpassing 170GW by the end of 2025.

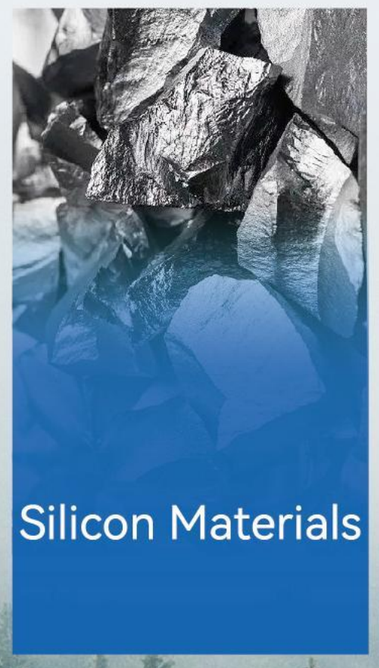
Looking forward, guided by the national carbon peaking and carbon neutrality goals, HY SOLAR will deepen the implementation of its “Technology-Driven, Smart Services” strategy. Adhering to the corporate vision of “Cleaner Energy, Better World” and a market-oriented, customer-centric, resource-integrated, and win-win business philosophy, the company will continue to collaborate with partners across industries to explore opportunities in the global new energy market. Together, we will build a future-oriented HY SOLAR characterized by technological innovation, sustainable development, and intelligent operations.

- China Federation Of Commerce Sci-tech Award
- China Machinery Industry Sci-tech Award
- CIUR — China industry research cooperation Innovation Achievement Award
- CCmvm. — Top 500 Listed Companies By Market Value in China
- 胡润中国 — Top 100 Hurun China Private Energy Enterprise
- Forbes — Top 50 Forbes China Most Innovative Companies
- Forbes — Sustainable Development Industrial Enterprises Selection Series
- PVBL — Top 100 Global PV Brands
- SMM — 2025 H1 Tier1
- WORLD ENERGY COUNCIL — Global New Energy ESG Top100
- National High-tech Enterprise
- National SRDI Enterprise
- Major Sci-tech Undertaking Enterprise Of NDRC
- National Green Supply Chain Management Enterprise
- Five-Star Zero-Carbon Factory

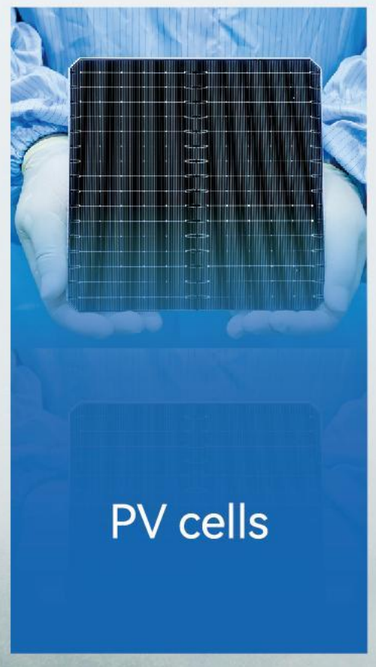
TOP 500
Global New Energy Enterprises
2024 · Ranked 185th

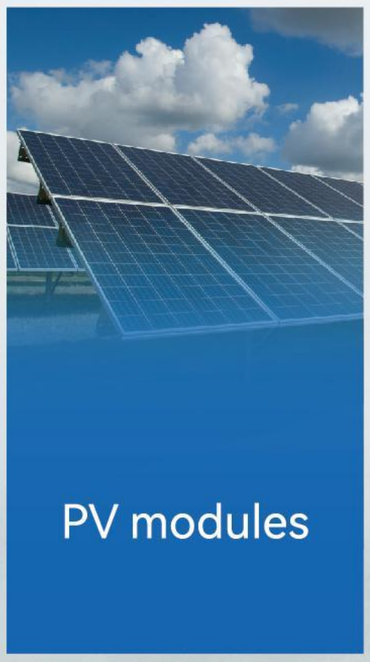
TOP 500
China Manufacturing Enterprises
2023

Leading Photovoltaic & Energy Storage Products


Silicon Materials


Wafers


PV cells


PV modules


Energy Storage

Smart Energy Solutions


Residential Energy Storage Solutions


Commercial & Industrial Energy Storage Solutions


Large-Scale Power Station Energy Storage Solutions


Microgrid Energy Storage Solutions


Mobile Energy Storage Solutions


Integrated Smart Energy Management System

ABOUT HY STORAGE

HY Storage is a smart energy storage solutions provider under HY Solar (stock code: 603185). The company deeply focuses on the diversified energy storage needs within the new power system, with its business covering core products and services including residential, commercial & industrial, large-scale power stations, microgrids, mobile energy storage, and integrated smart energy management systems.

Guided by the Group vision of “Making Energy Cleaner, Making the World Better,” HY Storage is driven by technological innovation. It is dedicated to providing customers with safe, reliable, highly efficient, and intelligently connected energy storage solutions, aiming to become a trustworthy partner in the global energy transformation wave.

Innovating Smart Energy Storage Systems

Ushering in a New Era of Integrated Energy Storage Systems

Hierarchical & Zoned Management Design

Things – Device Layer	Connect – Link Layer	Network – Data Management Layer
Autonomous EMS Battery PACK BMS PCS ASS TMS	Energy Flow Information Flow Parallel Cluster Control	Power Grid User Load Web-Based Monitoring & Management APP Cloud Data Service
eBlock	**eLink**	**eMind**

Smart Energy Solutions

eBlock

The "All-in-One" Design Philosophy integrates all modules of the device layer into a single, standardized outdoor cabinet, creating a unified, plug-and-play smart energy block product.

eLink

The link unit for energy flow and data flow accomplishes the convergence, control, protection, and metering of output AC power, while enabling high-speed data communication connectivity.

Pad-Mounted Transformer

eMind

A collection of application services for energy storage systems, including data aggregation and display, strategy control, operational analysis, and big data mining, empowering decision-making and risk prediction.

Wide Range of Terminal Application Scenarios

Charging Station

High-Energy-Consumption Industries (e.g., Metallurgy, Mining)

Factories & Industrial Parks

Commercial Complex

Global Energy Storage After-Sales Service

Multi-Channel Demand Feedback

- WeChat Official Account
- 400 Hotline
- After-sales Hotline
- Key Account Information Channel

7x24H Support

- 24/7 Online Personnel Support
- 24-Hour On-Site Response Support
- Service Available During Holidays

Rapid Response

- Immediate Response
- Spare Unit Shipped Same Day
- Issue Resolved Within 24 Hours

Premium On-Site Support

- On-Site Survey and Installation Supervision
- Commissioning & Maintenance
- Technical Training
- System Optimization / Retrofit

Sound System Support

- Robust Quality Management Process
- Upstream Quality Control
- Market / Pre-Sales Research
- 100% Requirements Match
- Effective Closure from Post-Sales Issue Tracking to Product Improvement

Professional Services Team

- Professional Rating Engineer
- Professional Training Instructor
- Dedicated R&D Personnel Support
- Professional Information Platform Maintenance Personnel

Robust Information Platform

- Big Data Monitoring Platform
- Equipment Status and Data Accessible Anytime
- User Accounts Can Be Created On Demand

Nationwide Network Coverage

- Nationwide Service Network
- Resident After-Sales Personnel in Each Province
- Warehouse Layout in Key Markets

Energy Storage
Product Overview

Residential Energy Storage Solutions

HY-HL16-DC	Residential Low-Voltage Energy Storage System
HY-HD3600-AC-PRO	Residential Low-Voltage Energy Storage System
HY-HY05-AC	Residential High-Voltage Energy Storage System

Commercial & Industrial Energy Storage Solutions

HY-G108-AC	Air-Cooled Energy Storage Power System
HY-G261-AC	Liquid-Cooled Energy Storage Power System
HY-G522-AC	Liquid-Cooled Energy Storage Power System
HY-G418-DC	Liquid-Cooled DC Energy Storage System

Large-Scale Power Station Energy Storage Solutions

HY-J5.0M-DC	Liquid-Cooled Energy Storage Container
HY-J6.25M-DC	Liquid-Cooled Energy Storage Container

Microgrid Energy Storage Solutions

HY-W2.0M-AC	Microgrid Energy Storage System

Energy Storage Solutions

HY-Y2.0M-AC	Mobile Energy Storage System

Residential Energy Storage Solutions

HY residential energy storage solution is a one-stop smart energy manager exclusively designed for household users. The system deeply integrates a high-efficiency photovoltaic inverter, safe and durable storage batteries, and an intelligent energy management system to achieve coordinated, smart management of power generation, storage, and consumption.

The solution supports multiple operating modes including "self-generation for self-consumption with surplus storage", "peak-valley arbitrage", and "emergency backup power". During the day, photovoltaic power generation prioritizes supplying the household, with excess energy stored in the batteries. At night or during peak electricity price periods, the batteries discharge, significantly reducing electricity costs. In the event of a grid failure, the system can seamlessly switch to off-grid operation within 10 milliseconds, ensuring uninterrupted power supply for critical loads such as refrigerators and lighting. Users can remotely monitor the system and configure strategies via a mobile app, effortlessly achieving the dual goals of energy saving and enhanced power supply reliability, while stepping into a new era of green, low-carbon energy independence.

01

ion

HY-HL16-DC

Residential Low-Voltage
Energy Storage System

High Compatibility

Compatible with mainstream inverters on the market

Fast Charging & Discharging

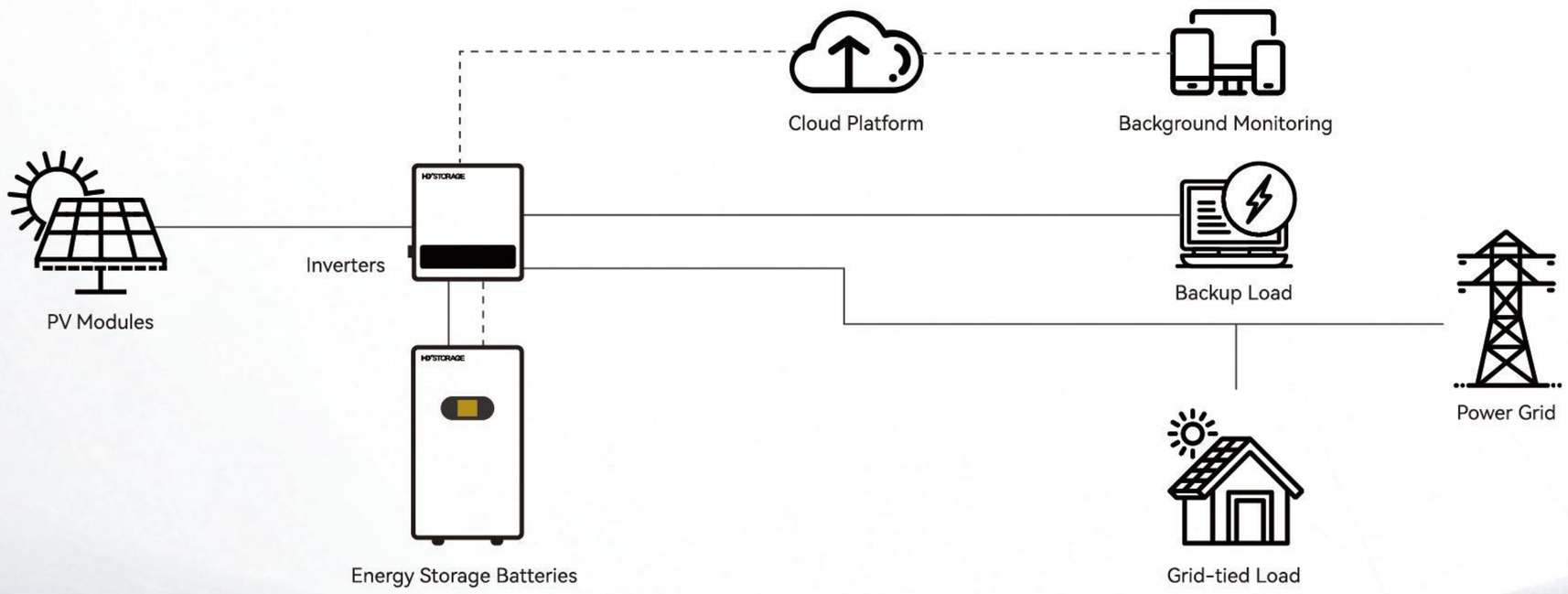
Maximum discharge current of 200A
Worry-free for household use

Long-lasting & Durable

Features long-life, high-safety LFP cells
Designed life of up to 15 years

Easy Expansion

Supports parallel connection of up to 16 batteries
Meets different customer scenario requirements



Technical Parameters	HY-HL05-DC	HY-HL10-DC	HY-HL16-DC
Battery Parameters			
Rated Voltage(V)	51.2	51.2	51.2
Rated Capacity(Ah)	100	206	314
Battery Pack Configuration	1P16S	1P16S	1P16S
Rated Energy(kWh)	5	10	16
Operating Voltage Range(V)	44.8~57.6	44.8~57.6	44.8~57.6
Rated Charging/Discharging Current(A)	50	100	157
Max. Charging/Discharging Current(A)	100	200	200
Communication Method	RS485/CAN		
Compatible Protocols	Pylon、GoodWe、Growatt、Deye、Ginlong、Megarevo ...		
Dimensions(W×D×Hmm)	430*146*620	480*265*690	480*280*820
Weight(kg)	45	80	120
Protection Rating	IP54		
Operating Temperature Range(℃)	-10~+50		
Relative Humidity	5%~95%		
Fire Protection System	Aerosol		
Certification			
certification standards	CE，UN38.3，ROHS		

*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

HYSTORAGE

HY-HD3600-AC-PRO

Residential Low-Voltage Energy Storage System

3600W High Power Output

Equipped with 3600W output power
Maximum capacity of 13.8 kWh

1600W PV Input

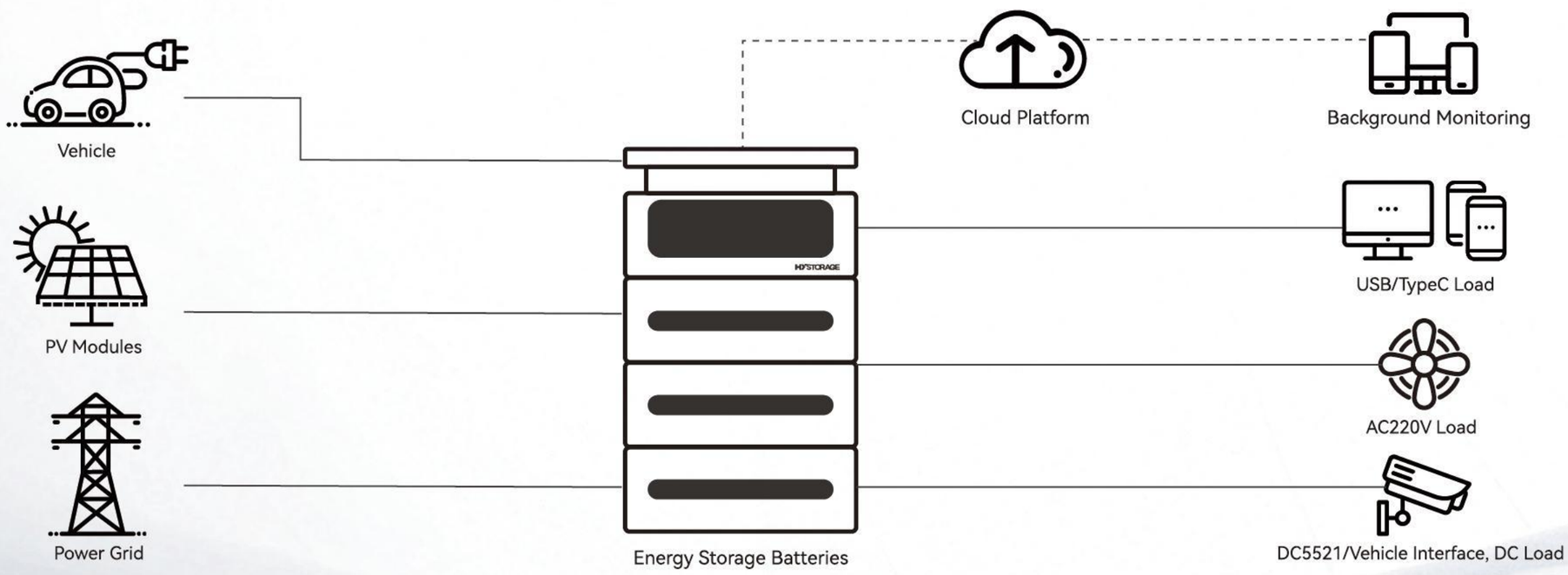
Supports up to 1600W PV input
Meets daily and outdoor fast charging needs

Wireless & Installation-free

Simplifies traditional complex installation
Reduces high costs

Smart Life at Your Fingertips

Seamlessly integrates with the TUYA smart ecosystem
Provides convenient and efficient solutions



Technical Parameters	HY-HD2.3-AC	HY-HD4.6-AC	HY-HD6.9-AC	HY-HD9.3-AC	HY-HD11.8-AC	HY-HD13.8-AC
AC-side Parameters of the Inverter						
Product Dimensions(W×D×Hmm)	520*236*280					
Weight(kg)	12.45					
Certification Items	FCC、CE、SAA、PSE					
Wireless Connection	Support wifi 802.11 b/g/h，BT V5					
AC Input Power(W)	Max 1850					
AC Input Voltage(V/Hz)	100~240，50/60					
Solar Input(V/W)	12~60，800					
Total AC Output Power(W)	Max 3600					
AC Output Voltage(V/Hz)	100/120/220/230/240，50/60					
Car Charger/DC Output Voltage(V/W)	12/120，24/240 Cigarette lighter socket×1， DC 5521 Connector ×2					
PD Fast Charging(W)	Max 100，Connector×2					
USB Output(W)	Max 18，Connector × 3					
Cooling Method	Air Cooling					
DC-side Parameters of the Battery Pack						
Number of Battery Packs	1	2	3	4	5	6
Usable Energy(kWh)	2.33	4.66	6.99	9.32	11.65	13.98
Weight(kg)	22	44	66	88	110	132
Single Battery Pack Size(W×D×Hmm)	520*236*236					
Battery Type	LFP					
Protection Rating	IP20					
Installation Method	Stackable					
Operating Temperature Range(℃)	-10~+50					
Relative Humidity	5%~95%					
Cooling Method	Natural Cooling					
Max. Operating Altitude(m)	4000(>2000 derating)					
Certification						
Safety Standard	EN 3030328，EN 301489-1/-17，EN 62311，IEC 62368，AS/NZS 4763，AS/NZS CLSPR 32 RCM，UL2743，UL1741，UL1012，UL1977，FCC					
EMC	EN 55032 2015+A1:2020，EN 55035 2017+A11:2020					

*Usage scenario

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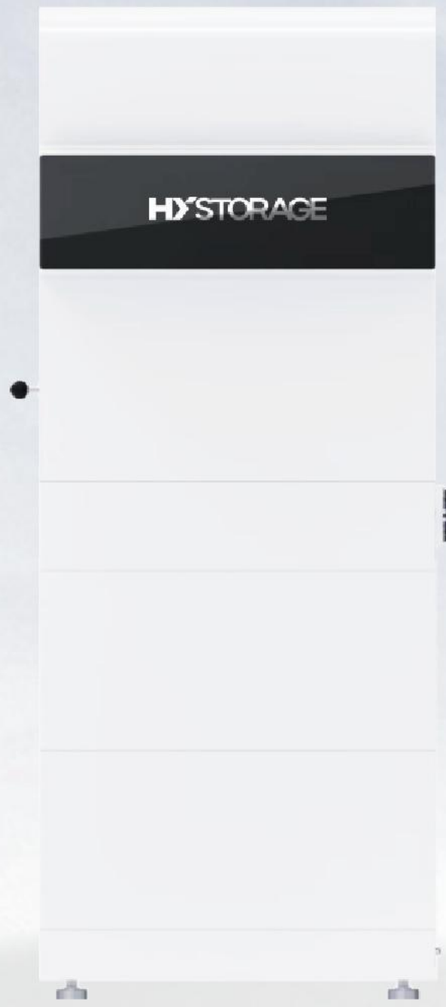
HY-HY05-AC

Residential High-Voltage
Energy Storage System



Simple Installation

Modular flexible stacking
Capacity expands on demand, investment is more precise

High Efficiency

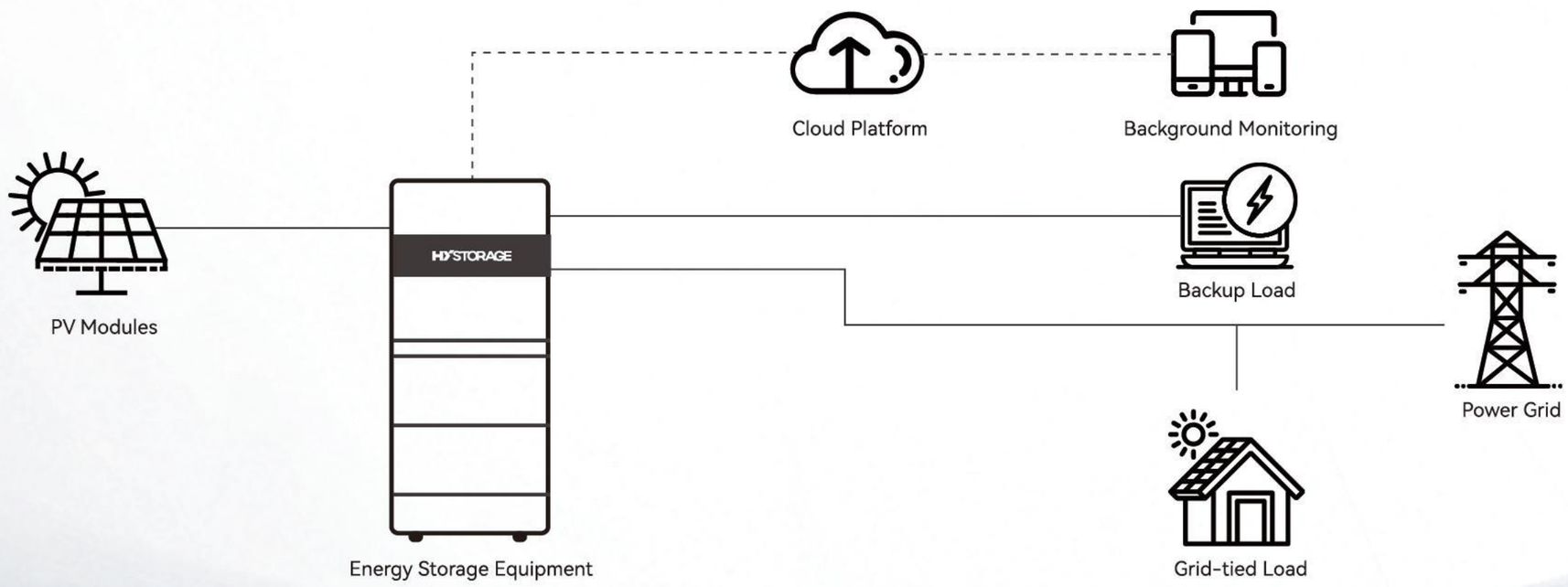
High-voltage systems offer high efficiency
Low current and reduced loss lead to a longer runtime

Better Compatibility

Stackable design saves space
Sleek installation. Versatile application

High Power Density

Rapid charge & discharge
Powers high-wattage devices. Recharges rapidly



Technical Parameters	HY-HY10-AC	HY-HY15-AC	HY-HY19-AC	HY-HY24-AC
Battery Parameters				
Battery Model	HY-HY10-DC	HY-HY15-DC	HY-HY19-DC	HY-HY24-DC
Battery Capacity(kWh)	9.6	14.4	19.2	24
System Rated Voltage & Range(V)	192/168~219	288/252~328.5	384/336~438	480/420~547.5
Maximum Continuous Charging Power(kW)	4.8	7.2	9.6	10
Maximum Continuous Discharging Power(kW)	10.00	10.00	10.00	10.00
Dimensions(W×D×Hmm)	620*320*783.5	620*320*1064.5	1300*320*883.5	1300*320*1164.5
Weight(kg)	116.2	168.8	221.4	274
Warranty(Years)	10	10	10	10
Inverter Module				
Inverter Parameters				
Inverter Model	LM HI-5	LM HI-6	LM HI-8	LM HI-10
PV Parameters				
Maximum DC Input Power(kW)	9	9	15	15
Maximum DC Input Voltage(V)	1000			
Start-up Voltage(V)	150			
MPPT Voltage Range(V)	160~950			
Maximum Input Current(A)	15/15		20/30	
Maximum Short-Circuit Current(A)	20/20		30/40	
Number of MPP Trackers	2		2	
Number of Strings per MPPT Input	2(1/1)		3(1/2)	
Grid AC Parameters				
Rated Output Power(kW)	5	6	8	10
Maximum Output Power(kW)	5.5	6.6	8.8	11
Maximum Grid Output Power at PF=1(kW)	5.5	6.6	8.8	11
Maximum Output Current(A)	3*8.3	3*10	3*13.3	3*16.7
Maximum Input Power(kW)	15			
Maximum Input Current(A)	3*25			
Rated AC Voltage(V)	Three-Phase 380/400/415 V, 3L+N+PE			
Rated Grid Frequency(Hz)	50/60			
AC Frequency Range(Hz)	45-55 / 55-65 Hz (Adjustable)			
Power Factor	>0.99@Full Load (Adjustable, Leading 0.8 ~ Lagging 0.8)			
THDi	<3%			
Load AC Parameters				
Rated Output Power(kW)	5	6	8	10
Rated Output Current(A)	3*7.6	3*9.1	3*12.2	3*15.2
Overload Capacity, 5min(kVA)	6	7.2	9.6	12
Overload Capacity, 10s(kVA)	7.5	9	12	15
Rated AC Voltage(V)	Three-Phase 380/400/415 V, 3L+N+PE			
Rated Grid Frequency(Hz)	50/60			
Transfer Time(mS)	10			
THDV	<3%			
Protection				
DC Switch	Included			
Anti-islanding protection	Supported			
AC overcurrent protection	Supported			
AC/DC overvoltage protection	DC Type II / AC Type III			
AC short-circuit protection	Supported			
PV DC Reverse Polarity Protection	Supported			
Insulation detection	Supported			
Leakage current protection	Supported			
Efficiency				
Maximum efficiency(PV-AC)	98.2	98.2	98.4	98.4
European efficiency(PV-AC)	97.2	97.2	97.9	97.9
Maximum efficiency(BAT-AC)	98.0	98.0	98.0	98.0
Certification				
Grid-Tied	VDE 4105，IEC 61727/62116，AS 4777.2，EN 50549-1，C10/11，G98/G99/G100，CEI 0-21，NRS 097-2-1，RD 1699/661/647/413，UNE 217002			
Safety Standard/EMC	IEC 62109-1&2，IEC62040-1，IEC 62477			
Basic Parameters				
Dimensions(W×D×Hmm)	560*580*218			
Weight(kg)	33			
Operating Temperature Range(°C)	-20~60(>45 derating)			
Relative Humidity(%)	5~95			
Operating Altitude(m)	4000 (>2000 derating)			
Protection Rating	IP65			
Cooling Method	Natural Cooling			
Display	Bluetooth & APP + LED, LCD (Optional)			
Communication Interface	RS485/CAN(BMS)，RS485，RS485 (Electricity Meter)，DRM，2*DI(1 RMO)，2*DO，Optional: Wi-Fi/LAN			
Warranty(Years)	5			

*Usage scenario

Note: Please read the safety and installation instructions before using the product

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Commercial & Industrial Energy Storage Solutions

HY C&I energy storage solution is a key facility designed to help enterprises reduce costs, enhance efficiency, and upgrade their energy systems. Centered around modular energy storage units, the system integrates an intelligent Energy Management System (EMS) to precisely serve power consumption scenarios such as factories, industrial parks, and commercial complexes.

The core value of the solution lies in "peak-valley arbitrage" and "demand management." By charging during low electricity price periods at night and discharging during high electricity price periods during the day, it captures significant price differentials, directly reducing power costs. Simultaneously, the system intelligently shaves peak load demand, effectively lowering capacity charges based on maximum demand. Additionally, it can serve as an emergency backup power source, ensuring the continuous operation of critical production lines. Optimized charging and discharging strategies driven by intelligent algorithms deliver substantial economic returns for enterprises while enhancing both the resilience and green profile of their energy usage.

Solu

02

HY-G108-AC

Air-Cooled
Energy Storage Power System

Integrated Design

Integrated PV & storage design
Enables efficient PV utilization & grid interaction

Intelligent Air Cooling

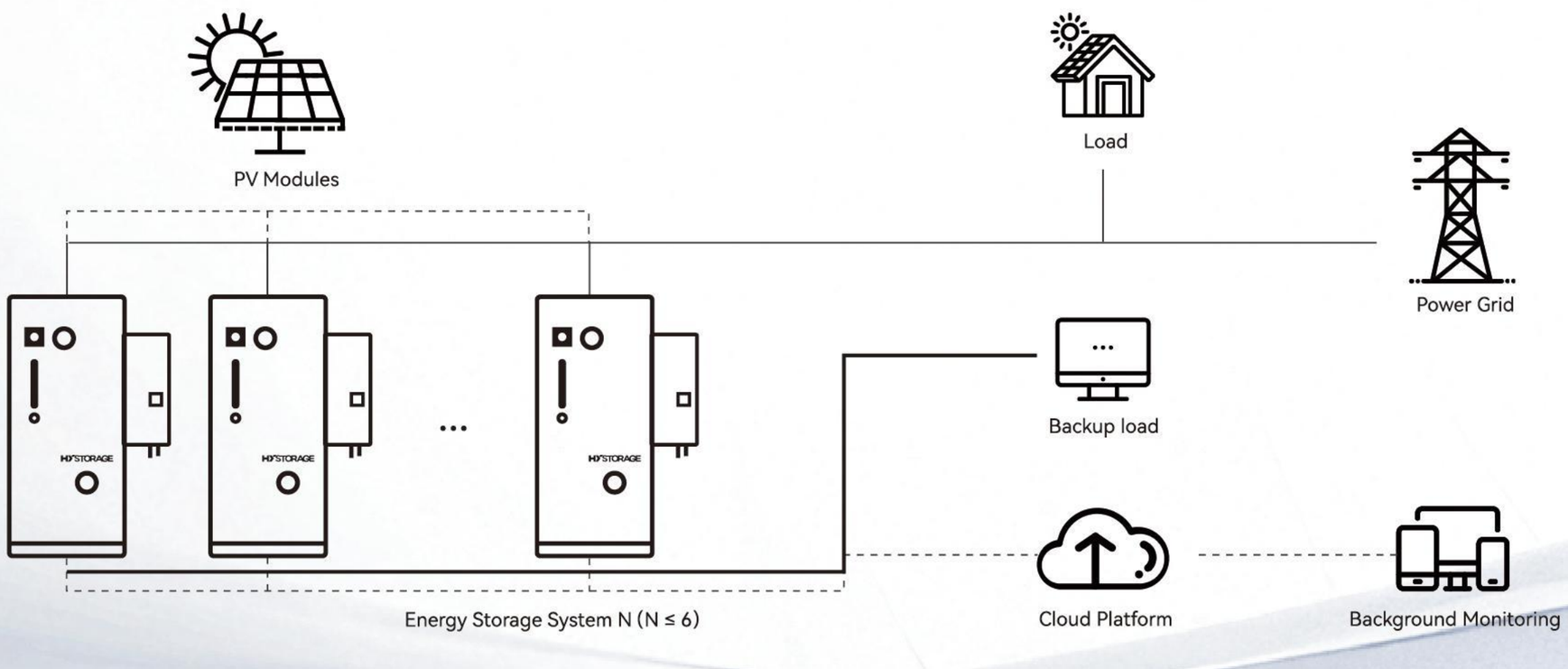
Low cell temperature difference (<5°C)
IP55: Ideal for outdoor/industrial environments

Longer Service Life

314Ah long-life cell with 10,000+ cycles
Cycle life ≥ 8,000 cycles

Intelligent O&M

Intelligent control and management
Three-level, six-layer intelligent fire protection system



Technical Parameters	HY-G108-AC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	18.08
Battery Pack Configuration	1P18S
Number of Battery Packs	6
Available Energy(kWh)	108
Rated Voltage(V)	345.6
Operating Voltage Range(V)	302.4~388.8
System Rated Charge/Discharge Current(A)	157
MPPT Input Parameters	
Number of MPPT Trackers	4
Max. PV Side Voltage(V)	1000
MPPT Voltage Range(V)	150~850
Min. Voltage for Rated Power(V)	600
Rated Power(kW)	100
Grid-Tied Output Parameters	
Rated Output Power(kW)	50
Max. Output Apparent Power(kVA)	50
Off-grid peak power(kW)	1.6 times，2S
Rated Output Voltage(V)	3L/N/PE，220V/380，230V/400
Output Voltage Frequency(Hz)	50/60
Max. Grid-Tied Output Current(A)	76.0
Max. Input Current(A)	76.0
Off-grid bypass output current(A)	152
Power Factor	-0.8~+0.8
Total Current Waveform Distortion Rate	<3%
Efficiency	
Max. Efficiency	97.80%
European Efficiency	97.40%
Max. MPPT Efficiency	≥98.50%
Protection	
Reverse Polarity Protection	Integrated
Anti-Islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short-Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Surge Protection	Class II
AC Surge Protection	Class II
Emergency Shutdown	Integrated
Basic Parameters	
Operating Temperature Range(℃)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000 (>2000 derating)
Cooling Method	Intelligent Air Cooling
Human-Machine Interface	LED，WLAN+APP
Communication Method	WIFI/4G/LAN
Communication Protocol	Modbus RTU，Modbus TCP，CAN
Weight(kg)	1.25T(without the inverter); 1.3T(with the inverter)
Dimensions(W×D×Hmm)	650*1220*2000(without the inverter); 1010*1220*2000(with the inverter)
Noise(dB)	< 75
Topology	Non-Isolated
Protection Rating	IP55 (Battery Cabinet); IP66 (Inverter)
Corrosion Protection Grade	C4 (C5 optional)
Fire Protection System	PACK-level standard aerosol fire suppression; cluster-level aerosol fire suppression; water-based fire suppression
Certification	
Grid-Tied	G99，VDE-AR-N 4105/VDE 0124，EN 50549-1/EN 50549-10，VDE 0126/UTE C 15/VFR:2019 NTS 631/RD 1699/RD 244/UNE 206006/UNE 206007-1，CE10-21，C10/11，NRS 097-2-1. TOR，EIFS 2018.2.IEC 62116 IEC 61727，IEC 60068，IEC 61683，EN 50530，MEA，PEA，PORTARIA N° 140，DE 21 DE MARCO DE 2022
Safety Standard	IEC 62619
EMC	IEC 61000-6-1，IEC 61000-6-2，IEC 61000-6-3，IEC 61000-6-4

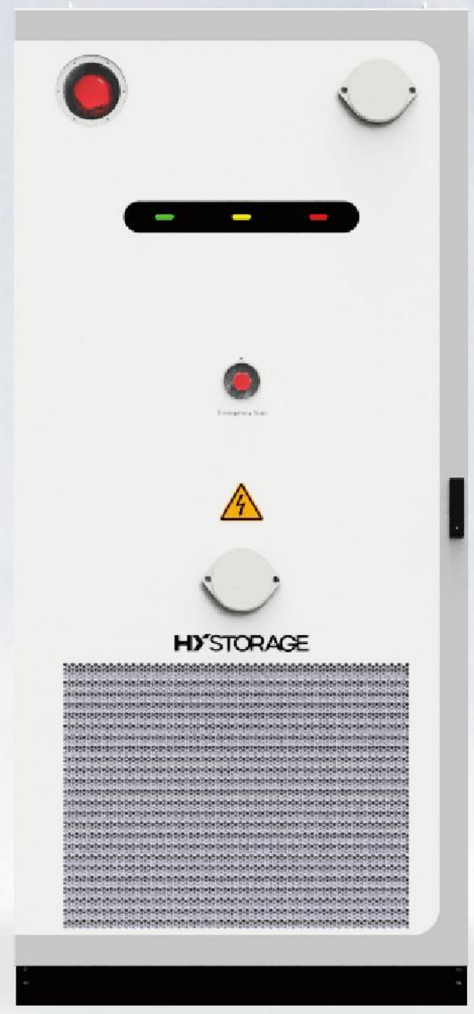
*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

HY-G261-AC

Liquid-Cooled
Energy Storage Power System



EMS & BMS

Self-developed EMS & BMS systems
AI-optimized scheduling with cloud sync at a 10s level

Flexible & Efficient

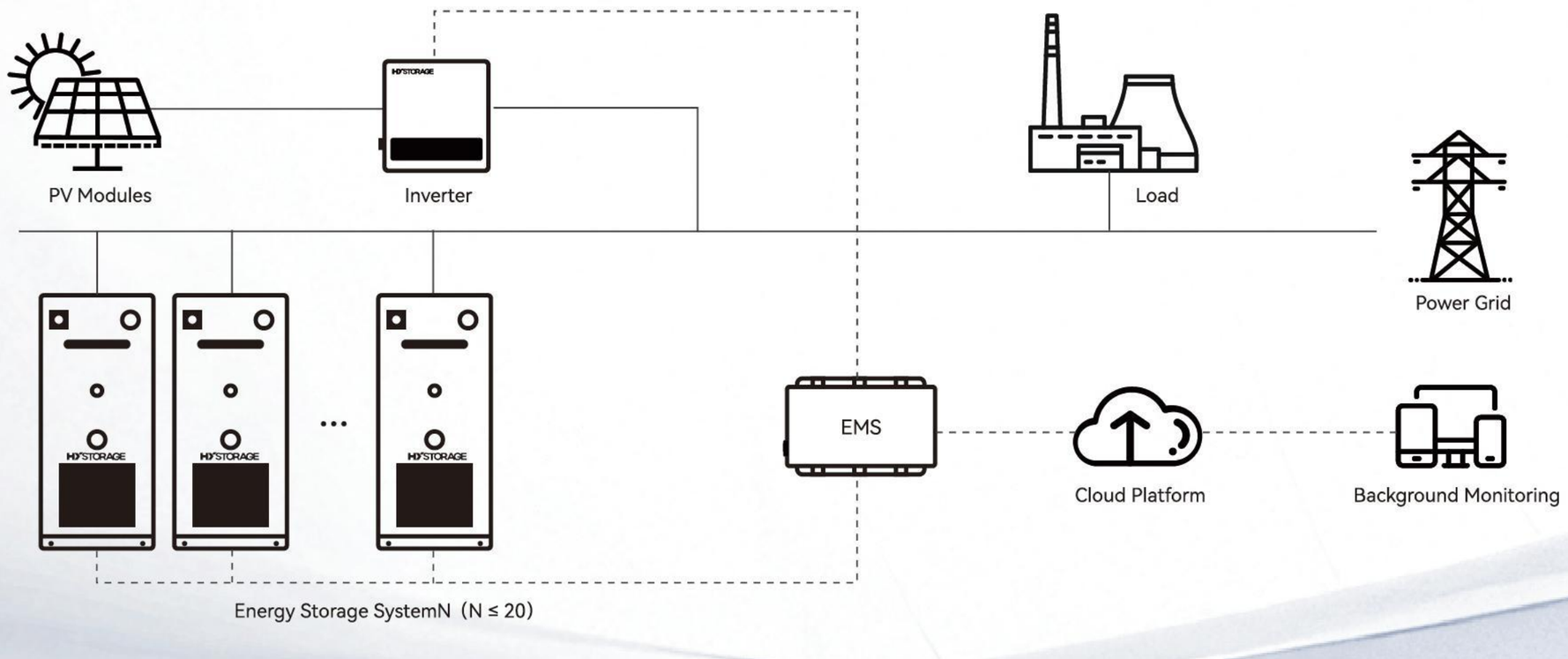
Requires only 1.4m², flexible installation, LCOS reduced by 10%
10-Year maintenance-free, supports 20-unit parallel connection

Safety Design

AI failure prediction
7-layer electrical protection with IP55 rating

Multi-Scenario Adaptation

Widely used in C&I grid-tied and off-grid scenarios
Supports PV+storage+charging and other solutions



Technical Parameters	HY-G261-AC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	52.25
Battery Pack Configuration	1P52S
Number of Battery Packs	5
Available Energy(kWh)	261.25
Rated Voltage(V)	832
Operating Voltage Range(V)	728~936
Rated Charge/Discharge Current(A)	157
Grid-Tied Output Parameters	
Rated Output Power(kW)	125
Max. Grid-Tied Output Apparent Power(kVA)	137.5
Max. Apparent Power(kVA)	137.5
Rated Output Voltage(V)	400，3L/N/PE
Output Voltage Range(V)	340~460
Output Voltage Frequency(Hz)	50/60
Max. Grid-Tied Output Current(A)	198.5
Max. Input Current(A)	198.5
Rated Output Current(A)	180.4
Power Factor	-1~+1
Total Current Waveform Distortion Rate	<3%
Efficiency	
PCS Max. Efficiency	98.50%
System Max. Efficiency	90.00%
Protection	
Reverse Polarity Protection	Integrated
Anti-Islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short-Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Surge Protection	Class II
AC Surge Protection	Class II
Emergency Shutdown	Integrated
Basic Parameters	
Operating Temperature Range(℃)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000(>2000 derating)
Cooling Method	Intelligent Liquid Cooling
Human-Machine Interface	LED，WLAN+APP
Communication Method	4G/LAN
Communication Protocol	Modbus RTU，Modbus TCP
Weight(kg)	2400
Dimensions(W×D×Hmm)	1000*1370*2220
Noise(dB)	< 75
Topology	Non-Isolated
Protection Rating	IP55
Corrosion Protection Grade	C4(C5 optional)
Fire Protection System	PACK aerosol; cabinet-level aerosol; temperature sensing; smoke detection; water immersion detection; flammable gas detection; explosion-proof fan; audible and visual alarm; water fire suppression
Certification	
Grid-Tied	GB/T 34120，EN 50549，VDE 4105/4110/4120，G99，RD 1699/244/647 NTS...
Safety Standard	IEC 62619，IEC 63056，EN /IEC 62477-1
EMC	IEC 61000-6-2，IEC 61000-6-4

*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

HYSTORAGE

HY-G522-AC

Liquid-Cooled
Energy Storage Power System

AI-based Cell Management

Multi-level electrical/structural protection
Three-tier fire protection to prevent deflagration

Intelligent Management

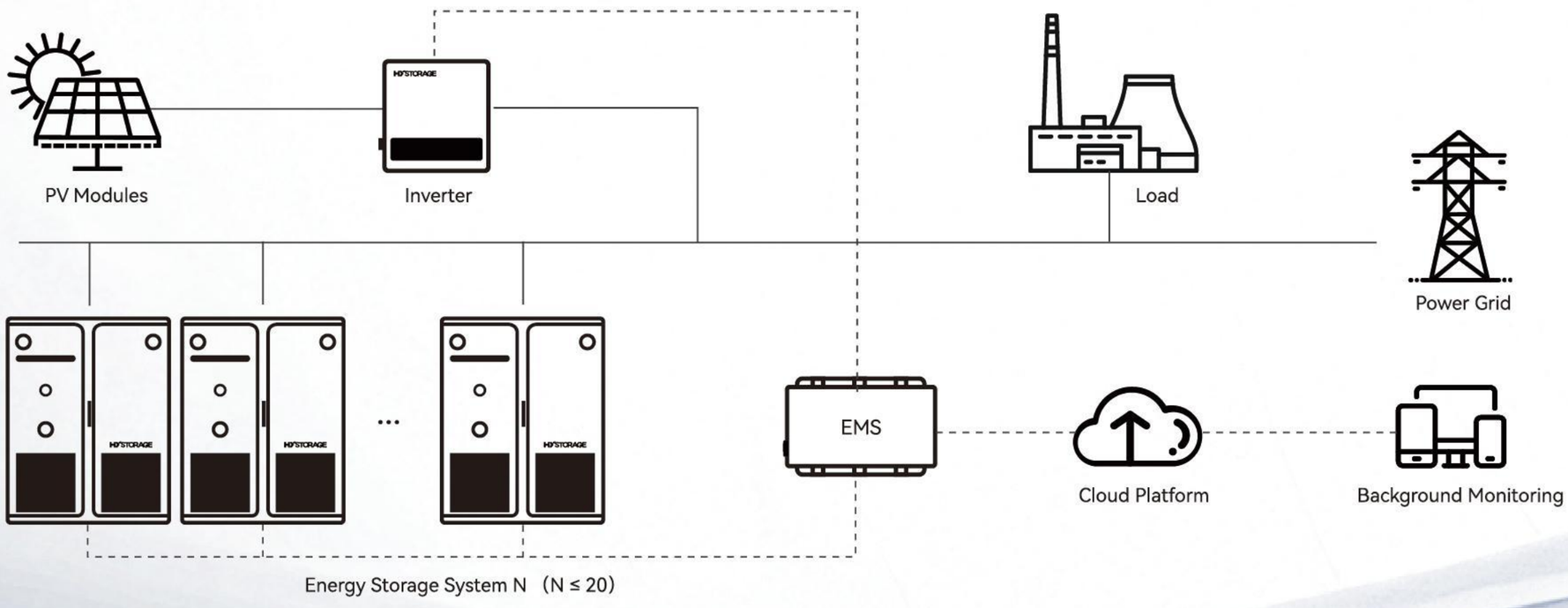
AI-enabled thermal management for energy reduction
Temperature difference < 3°C, service life exceeds 15 years

Digital O&M Management

Efficient energy dispatch
Remote & convenient real-time safety O&M monitoring

Compatible with Modular Design

Modular multi-unit parallel off-grid operation
2.7m² footprint, easy to maintain, multi-scenario arbitrage



Technical Parameters	HY-G522-AC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	52.25
Battery Pack Configuration	1P52S
Number of Battery Packs	10
Available Energy(kWh)	522.50
Rated Voltage(V)	832
Operating Voltage Range(V)	728~936
Rated Charge/Discharge Current(A)	79
Grid-Tied Output Parameters	
Rated Output Power(kW)	125
Max. Grid-Tied Output Apparent Power(kVA)	137.5
Max. Apparent Power(kVA)	137.5
Rated Output Voltage(V)	400, 3L/N/PE
Output Voltage Range(V)	340~460
Output Voltage Frequency(Hz)	50/60
Max. Grid-Tied Output Current(A)	198
Max. Input Current(A)	198
Rated Output Current(A)	180
Power Factor	-1~+1
Total Current Waveform Distortion Rate	<3%
Efficiency	
PCS Max. Efficiency	98.50%
System Max. Efficiency	90.00%
Protection	
Reverse Polarity Protection	Integrated
Anti-Islanding Protection	Integrated
AC Overcurrent Protection	Integrated
AC Short-Circuit Protection	Integrated
AC Overvoltage Protection	Integrated
DC Surge Protection	Class II
AC Surge Protection	Class II
Emergency Shutdown	Integrated
Basic Parameters	
Operating Temperature Range(℃)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000(>2000 derating)
Cooling Method	Intelligent Liquid Cooling
Human-Machine Interface	LED，WLAN+APP
Communication Method	4G/LAN
Communication Protocol	Modbus RTU，Modbus TCP
Weight(kg)	4700
Dimensions(W×D×Hmm)	1950*1370*2220
Noise(dB)	< 75
Topology	Non-Isolated
Protection Rating	IP55
Corrosion Protection Grade	C4(C5 optional)
Fire Protection System	PACK aerosol; cabinet-level aerosol; temperature sensing; smoke detection; water immersion detection; flammable gas detection; explosion-proof fan; audible and visual alarm; water fire suppression
Certification	
Grid-Tied	GB/T 34120，EN 50549，VDE 4105/4110/4120，G99，RD 1699/244/647 NTS...
Safety Standard	IEC 62619，IEC 63056，EN/IEC 62477-1
EMC	IEC 61000-6-2，IEC 61000-6-4

*Usage scenario

Note: Please read the safety and installation instructions before using the product

HY-G418-DC

Liquid-Cooled Energy Storage DC System

Safe and Reliable

PACK-level fire protection, eco-safe cells (<3℃ temp gap)
Boost safety/life, precise single-cluster control

Cost-effective

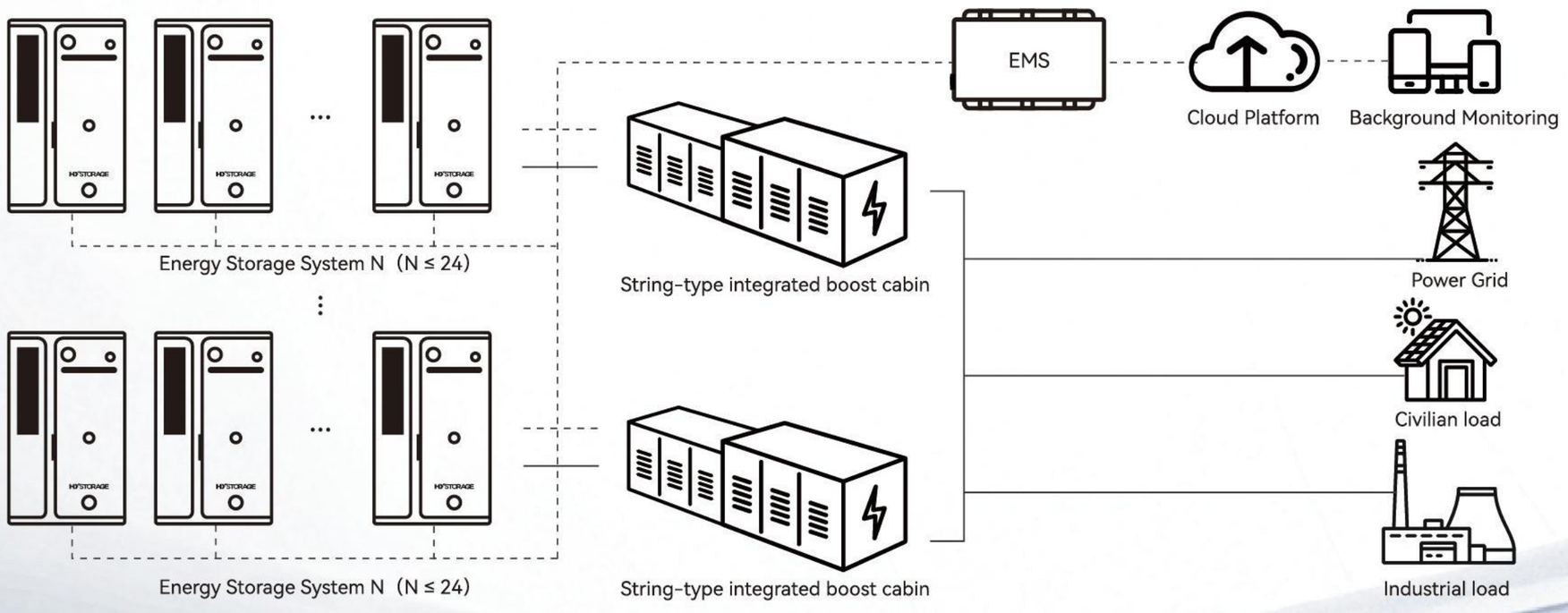
15-year service life, 8,000 cycles
High-efficiency liquid cooling, 94%+ round-trip efficiency

Easy to Install

Fully integrated, pre-assembled delivery-ready
Multi-cabinet AC parallel, independent maintenance

User-friendly

Intelligent remote operation and maintenance
Multiple control modes, wide application suitability



Technical Parameters	HY-G418-DC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	52.25
Battery Pack Configuration	1P52S
Number of Battery Packs	8
Available Energy(kWh)	418
Rated Voltage(V)	1331.2
Operating Voltage Range(V)	1164.8~1497.6
System Rated Charge/Discharge Current(A)	157
Efficiency	
System Efficiency	> 94.0%
Protection	
DC Surge Protection	Class II
Emergency Shutdown	Integrated
Basic Parameters	
Operating Temperature Range(°C)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000 (>2000 derating)
Cooling Method	Intelligent Liquid Cooling
Human-Machine Interface	LED
Communication Method	LAN
Communication Protocol	Modbus RTU，Modbus TCP
Weight(kg)	3500
Dimensions(W×D×Hmm)	1300*1334*2291
Noise(dB)	< 75
Protection Rating	IP55
Corrosion Protection Grade	C4 (C5 optional)
Fire Protection System	PACK aerosol; cabinet-level aerosol; temperature sensing; smoke detection; water immersion detection; flammable gas detection; explosion-proof fan; audible and visual alarm; water fire suppression
Certification	
Standard	GB/T 36276，UN38.3，UL 9540A，UL 1973，IEC 62619

*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

Large-Scale Power Station Energy Storage Solutions

The HY large-scale power station energy storage solution serves as a scalable, hub-type energy infrastructure for the grid side (such as independent energy storage power stations) and the generation side (e.g., large renewable energy bases). Its core functions include enhancing grid safety and stability, as well as improving the integration capacity for renewable energy.

The solution is typically deployed at critical grid nodes with capacities reaching hundreds of megawatts (MW)/megawatt-hours (MWh). It participates in peak shaving through "load shifting" to balance daily electricity supply and demand, provides frequency regulation ancillary services with millisecond-level response to quickly stabilize grid frequency, and offers emergency backup and black-start capabilities to the grid. As a shared energy storage system, it provides capacity leasing for multiple renewable energy plants, significantly enhancing asset utilization.

The solution employs intelligent Energy Management Systems (EMS) and grid-forming technologies, ensuring active support for the power grid. Its revenue streams are diversified, including peak-valley arbitrage, ancillary services, capacity compensation/leasing, among others. It serves as an indispensable component in building a new-type power system.

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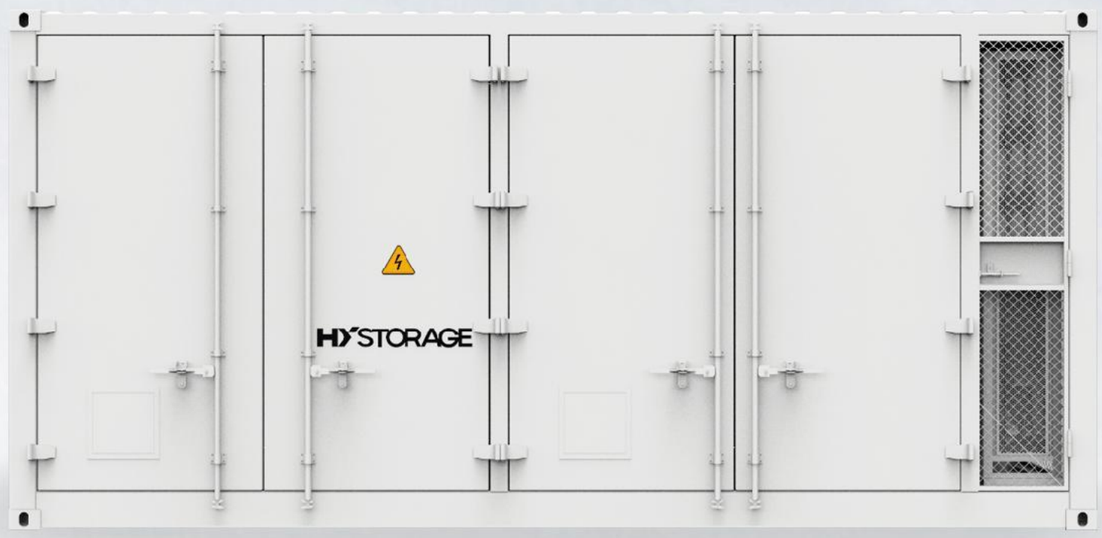
HY-J5.0M-DC

Liquid-Cooled
Energy Storage Container



High-integration, Flexible Config

Rapid deployment (pre-assembled, one-stop)
Factory pre-tuning cuts on-site commissioning time by half

PACK-level Fire Protection

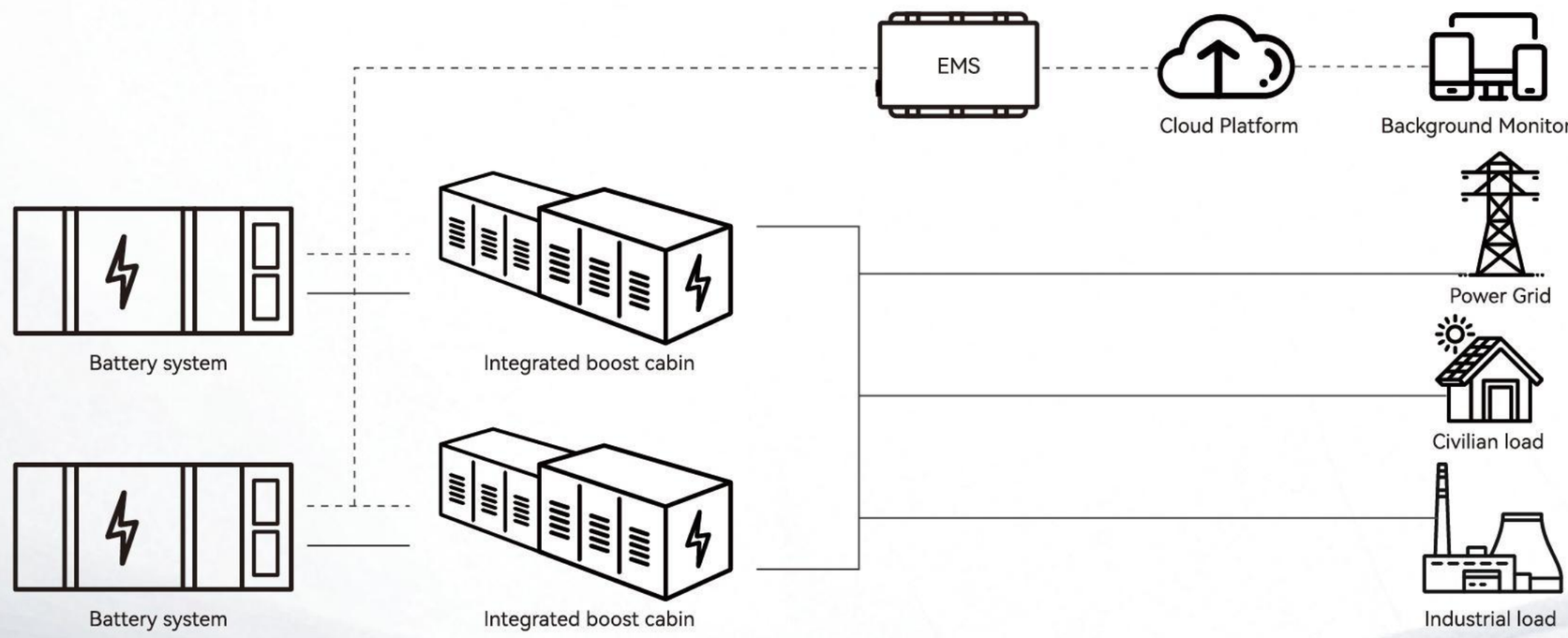
Advanced safety with multi-level monitoring
Fireproof compartments + rapid detection/suppression

Intelligent Liquid Cooling

High-efficiency liquid cooling (≤3°C)
Reduce cost/space, flexible system

Modular Design

Modular design enhances scalability
Outdoor container: 1h maintenance, harsh condition-ready



Technical Parameters	HY-J5.0M-DC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	104
Battery Pack Configuration	1P104S
Number of Battery Packs	48
Available Energy(kWh)	5016
Rated Voltage(V)	1331.2
Operating Voltage Range(V)	1164.8~1497.6
System Rated Charge/Discharge Current(A)	1884
Efficiency	
System Efficiency	> 94.00%
Protection	
Short-Circuit Protection	Integrated
Overcharge/over-discharge Protection	Integrated
Over-temperature Protection	Integrated
Fire detection	Integrated
DC Surge Protection	Class II
Emergency Shutdown	Integrated
Basic Parameters	
Operating Temperature Range(℃)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000 (>2000 derating)
Cooling Method	Intelligent Liquid Cooling
Human-Machine Interface	LCD
Communication Method	LAN/CAN/485
Communication Protocol	Modbus RTU，Modbus TCP
Weight (kg)	43000
Dimensions(W×D×Hmm)	6058*2438*2896
Noise(dB)	< 75
Protection Rating	IP55
Corrosion Protection Grade	C4 (C5 optional)
Fire Protection System	Fire suppression system (perfluorohexanone/aerosol); explosion-proof ventilation system; emergency water spra
Certification	
Standard	GB/T 36276-2023，GB 44240-2024，GB/T 44026-2024，UN3536，UL9540A，UL1973，IEC 62619

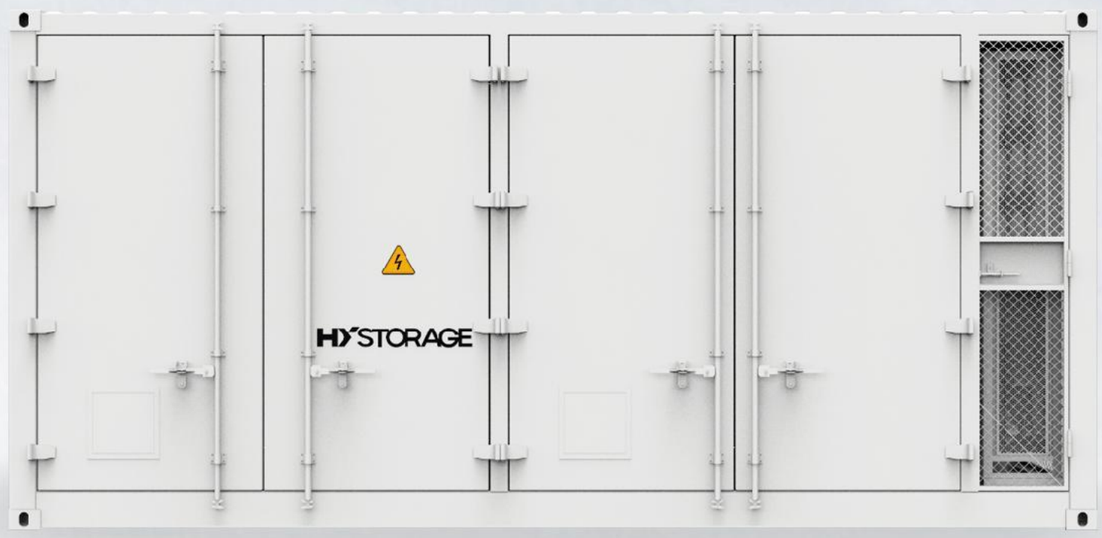
*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

HY-J6.25M-DC

Liquid-Cooled
Energy Storage Container



High Thermal Stability

Full-chain temperature control
LFP batteries: 587Ah, high thermal stability

Explosion-proof Design

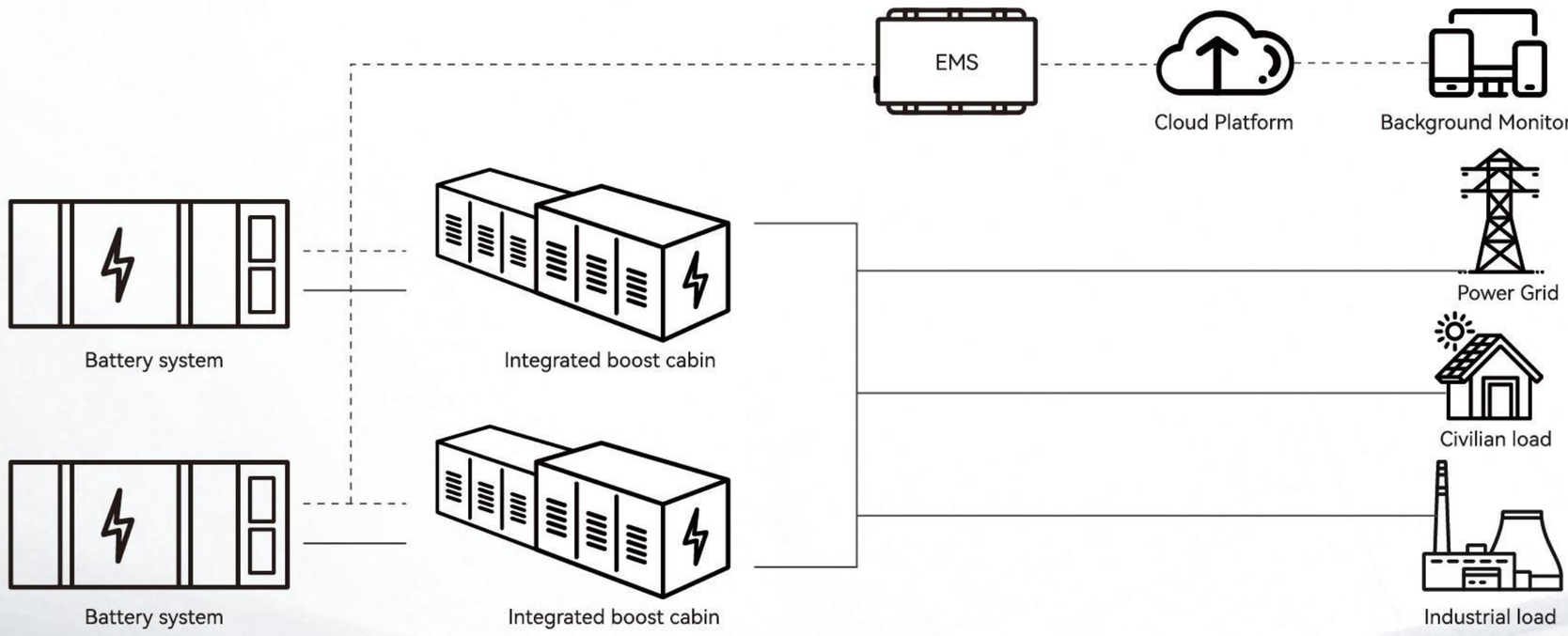
PACK-level and cluster-level gas fire suppression
Cabin-level wate, cabinet aerosol fire suppression

Extreme Integration

Front maintenance, quick replacemen
Intelligent control, reduced O&M costs

IP55+IP67 Protection Ratings

Integrated variable-frequency liquid cooling system
Cluster temp difference ≤3°C, 20-year service life



Technical Parameters	HY-J6.25M-DC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	195
Battery Pack Configuration	1P416S
Number of Battery Packs	32
Available Energy(kWh)	6251
Rated Voltage(V)	1331.2
Operating Voltage Range(V)	1164.8~1497.6
System Rated Charge/Discharge Current(A)	2348
Efficiency	
System Efficiency	> 94.00%
Protection	
Short-Circuit Protection	Integrated
Overcharge/over-discharge Protection	Integrated
Over-temperature Protection	Integrated
Fire detection	Integrated
DC Surge Protection	Class II
Emergency Shutdown	Integrated
Basic Parameters	
Operating Temperature Range(℃)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000 (>2000 derating)
Cooling Method	Intelligent Liquid Cooling
Human-Machine Interface	LCD
Communication Method	LAN/CAN/485
Communication Protocol	Modbus RTU，Modbus TCP
Weight(kg)	49000
Dimensions(W×D×H mm)	6058*2438*2896
Noise(dB)	< 75
Protection Rating	IP54
Corrosion Protection Grade	C4 (C5 optional)
Fire Protection System	Fire suppression system (perfluorohexanone/aerosol); explosion-proof ventilation system; emergency water spra
Certification	
Standard	GB 44240-2024，GB/T 44026-2024

*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

Microgrid
Energy Storage Solutions

HY microgrid solution is a comprehensive platform designed to achieve regional energy autonomy and high-reliability power supply. It utilizes an advanced Energy Management System (EMS) to organically integrate distributed photovoltaic systems, energy storage systems, diesel generators, and other energy sources with local loads, forming an intelligent local grid capable of operating independently or flexibly interconnected with the main grid.

This solution is particularly suitable for remote areas with weak or no grid access (such as islands and mining zones), campuses with extremely high requirements for power supply continuity (such as hospitals and data centers), and communities pursuing 100% green energy supply. The microgrid enables optimal dispatch of multiple energy sources: prioritizing photovoltaic consumption, using energy storage to smooth fluctuations and provide backup power, and employing diesel generators as the ultimate safeguard. Whether the main grid is operational or faulty, the microgrid ensures stable, high-quality power supply for critical loads within the area, making it the ultimate choice for achieving energy independence, cost reduction, efficiency improvement, and enhanced resilience.

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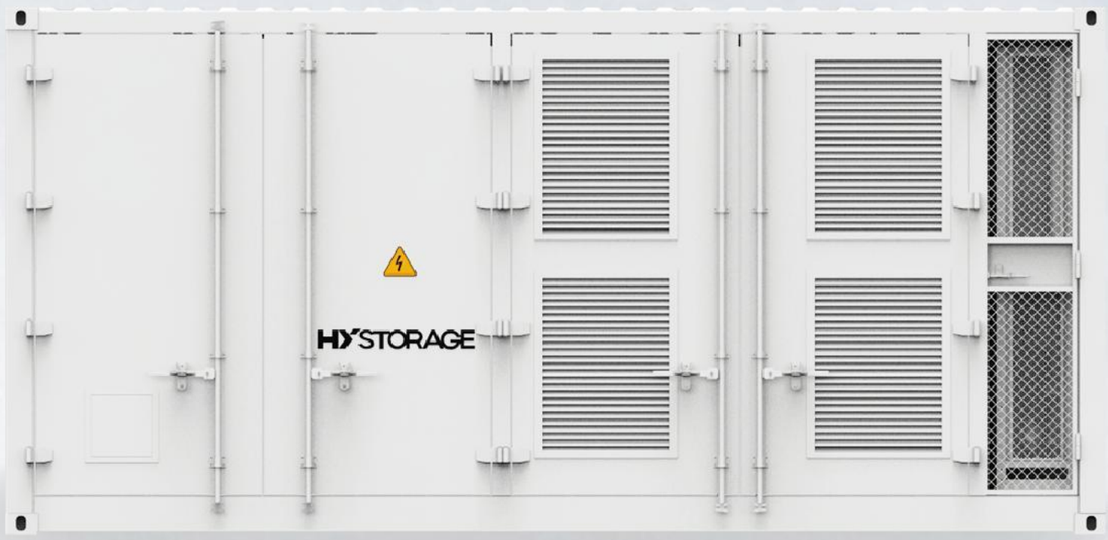
HY-W2.0M-AC

Microgrid
Energy Storage System



Comprehensive Data Collection

Container-style integrated design
Deployment and operation "lightweight"

Accurate Load Forecasting

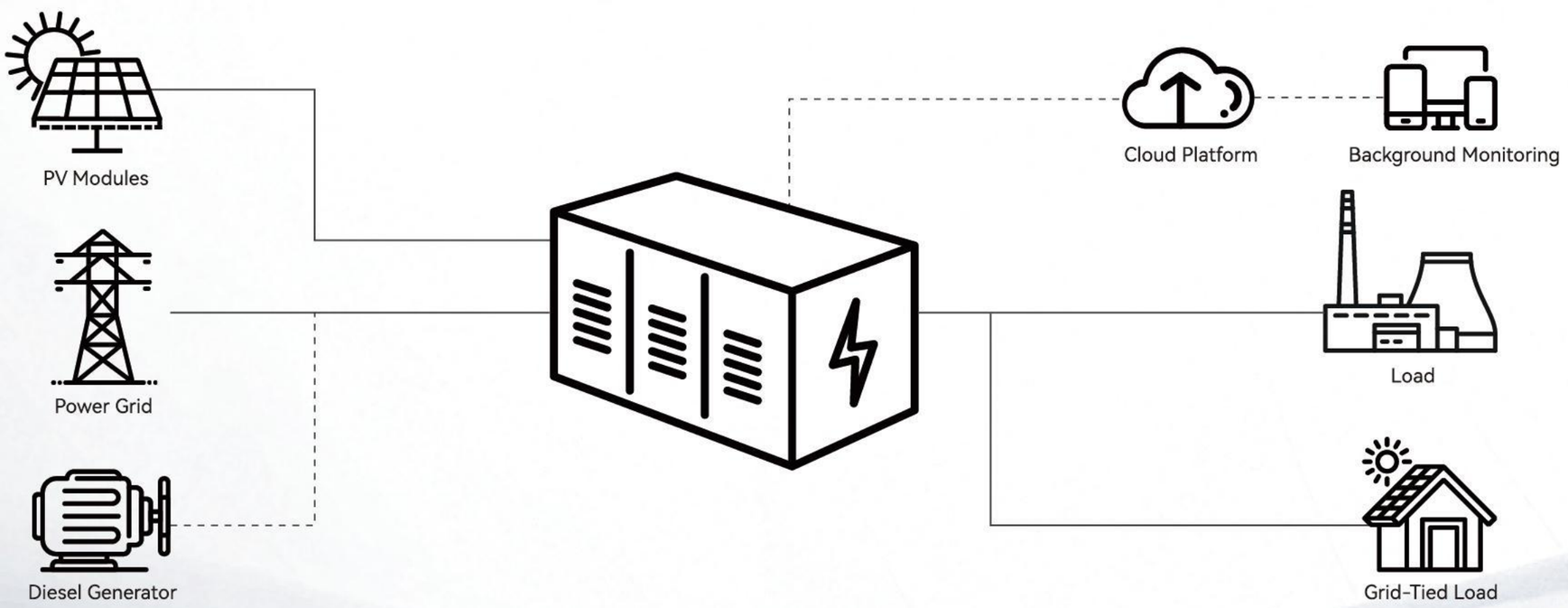
Complementary solar-diesel hybrid energy system
Resolves PV "intermittency & day-night fluctuations"

Multi-objective Optimal Dispatch

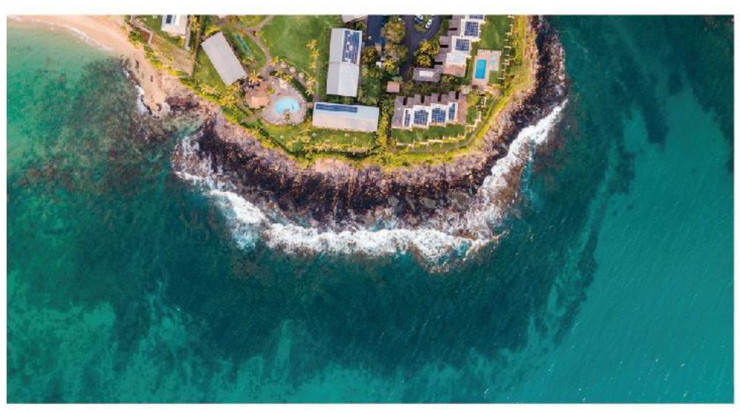
480kW MPPT high-efficiency conversion component
Maximize energy utilization efficiency

Fault Diagnosis & Rapid Protection

1000kW PCS + isolation design
Efficient response for AC/DC conversion



Technical Parameters	HY-W2.0M-AC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	52.25
Battery Pack Configuration	1P52S
Number of Battery Packs	40
Available Energy(kWh)	2089
Rated Voltage(V)	832
Operating Voltage Range(V)	728~936
Rated Charge/Discharge Current(A)	1256
AC Output Parameters	
Rated Output Power(kW)	1000
Max. Output Apparent Power(kVA)	1100
Rated Output Voltage(V)	400，3L/N/PE
Output Voltage Frequency(Hz)	50
Rated Output Current(A)	1443
Max. Output Current(A)	1587
MPPT Input Parameters	
Number of MPPT Trackers	32
Max. PV Side Voltage(V)	1100
MPPT Voltage Range(V)	150~1000
Min. Voltage for Rated Power(V)	350
Rated Power(kW)	480
Grid-Tied Operation Parameters	
Allowed Grid Voltage Range(V)	400(-15%~+15%)
Allowed Grid Frequency(Hz)	50
Total Current Harmonic Distortion	≤3% (at full load)
Power Factor	-1~1
Overload Capability	1.1 times continuous, 1.2 times 1min
Off-Grid Operation Parameters	
Rated Voltage(V)	400
Voltage Range(V)	400(-3%~+3%)
Off-Grid AC Frequency(Hz)	50
Off-Grid Output THDV	≤3% (linear load)
Basic Parameters	
Operating Temperature Range(℃)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000 (>2000 derating)
Cooling Method	Equipment: Intelligent Air Cooling，Battery: Intelligent Liquid Cooling
Human-Machine Interface	LED，WLAN+APP
Communication Method	4G/LAN
Communication Protocol	Modbus RTU，Modbus TCP
Weight(kg)	35000
Dimensions(W×D×Hmm)	6058*2438*2896
Noise(dB)	< 75
Topology	Isolated
Protection Rating	IP55
Corrosion Protection Grade	C4(C5 optional)
Fire Protection System	Fire extinguishing system (Perfluorohexanone/Aerosol)， explosion-proof ventilation system，emergency water spray



*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

Mobile Energy Storage Solutions

HY mobile energy storage solution is a flexible "mobile power bank." It integrates an energy storage system into a portable container, enabling rapid deployment and flexible dispatch of electricity. The product offers advantages such as zero emissions, low noise, and easy operation, making it an ideal replacement for traditional diesel generators.

The solution is widely applicable for scenarios such as outdoor event power supply, emergency rescue operations, temporary construction power needs, and flexible capacity expansion for industrial and commercial purposes. With photovoltaic supplementation, it can establish a clean off-grid micro-system. Its modular design supports flexible capacity configuration to meet varying power and duration requirements. With its high mobility and environmental sustainability, mobile energy storage provides a modern, sustainable solution to diverse temporary, mobile, and urgent power challenges.

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HY-Y2.0M-AC

Mobile
Energy Storage System

Prevent Cluster Circulation

Modular design, per-cluster management, 1000kW output
Isolated design, enabling grid-level adaptability

Adaptable to All Terrains

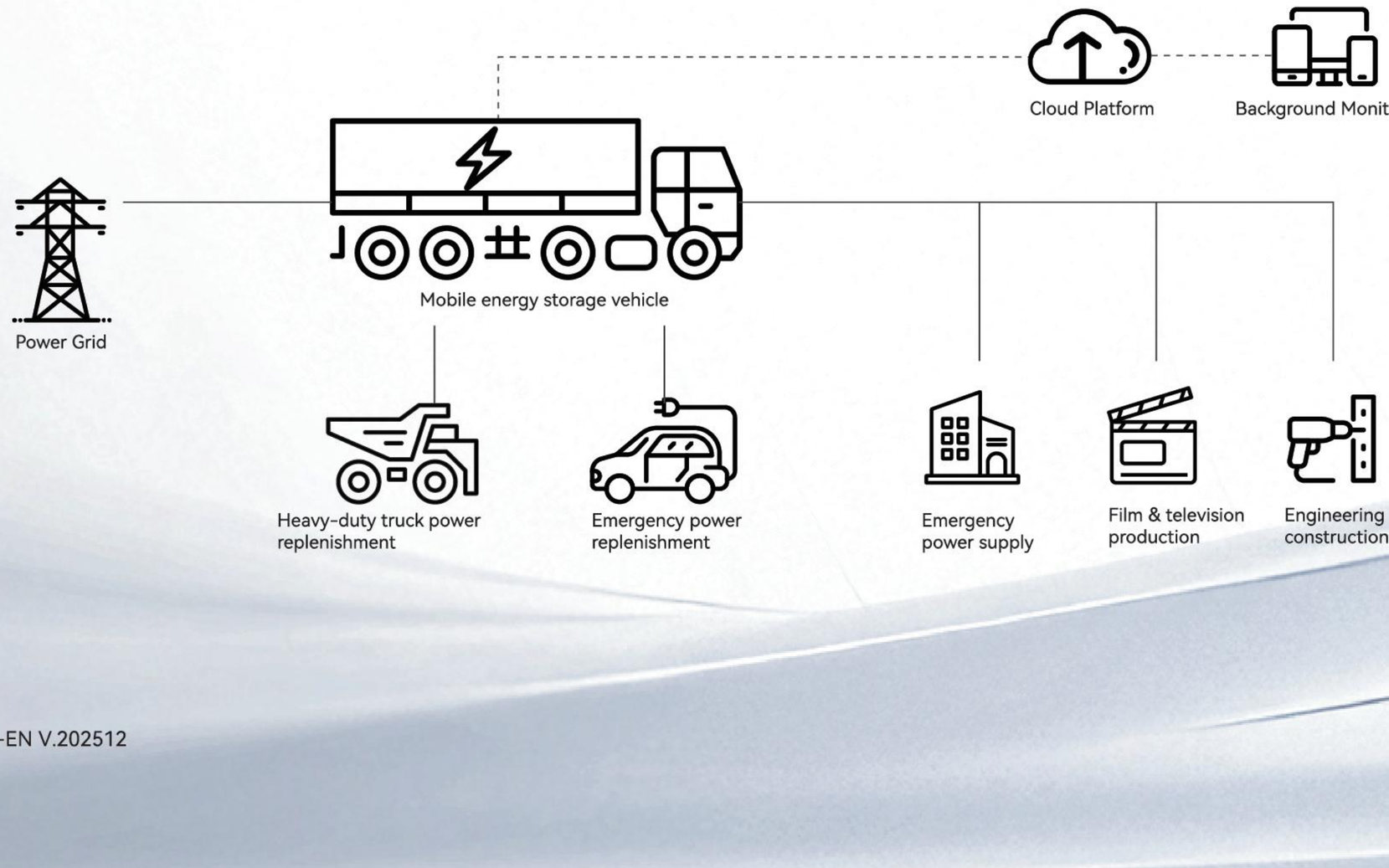
20-foot container
High flexibility & mobility, rapid on-demand setup

Intelligent O&M

2MWh ultra-large capacity
Supports black/self-start (off-grid)

Smart Brain

Optional 240kW ultra-fast charging module
Multi-vehicle storage-charging ecosystem link



Technical Parameters	HY-Y2.0M-AC
Battery Input Parameters	
Cell Type	LFP
Battery Pack Rated Capacity(kWh)	52.25
Battery Pack Configuration	1P52S
Number of Battery Packs	40
Available Energy(kWh)	2089
Rated Voltage(V)	832
Operating Voltage Range(V)	728~936
Rated Charge/Discharge Current(A)	1256
AC Output Parameters	
Rated Output Power(kW)	1000
Max. Output Apparent Power(kVA)	1100
Rated Output Voltage(V)	400，3L/N/PE
Output Voltage Frequency(Hz)	50
Rated Output Current(A)	1443
Max. Output Current(A)	1587
Charging pile output parameters	
Rated Output Power(kW)	240
Charging pile configuration	2*120kW integrated dual-gun charging pile
Grid-Tied Operation Parameters	
Allowed Grid Voltage Range(V)	400(-15%~+15%)
Allowed Grid Frequency(Hz)	50
Total Current Harmonic Distortion	≤3% (at full load)
Power Factor	-1~1
Overload Capability	1.1 times continuous, 1.2 times 1min
Off-Grid Operation Parameters	
Rated Voltage(V)	400
Voltage Range(V)	400(-3%~+3%)
Off-Grid AC Frequency (Hz)	50
Off-Grid Output THDV	≤3% (linear load)
Basic Parameters	
Operating Temperature Range(℃)	-25~+55
Relative Humidity	5%~95%
Max. Operating Altitude(m)	4000 (>2000 derating)
Cooling Method	Equipment: Intelligent Air Cooling, Battery: Intelligent Liquid Cooling
Human-Machine Interface	LED，WLAN+APP
Communication Method	4G/LAN
Communication Protocol	Modbus RTU，Modbus TCP
Weight(kg)	35000
Dimensions(W×D×Hmm)	6058*2438*2896
Noise(dB)	< 75
Topology	Isolated
Protection Rating	IP55
Corrosion Protection Grade	C4 (C5 optional)
Fire Protection System	Fire extinguishing system (Perfluorohexanone/Aerosol), explosion-proof ventilation system, emergency water spray

*Usage scenario

Note: Please read the safety and installation instructions before using the product

Product specifications are subject to change without notice. Please use the latest version provided by our company

Global Energy Storage Project Cases

Global **Solar + Storage** Smart Energy Solutions Provider

Project Scale: **145** kW | **241** kWh

State Grid Sodium-Ion Battery Energy Storage System

Project Scale: **600** kW | **1.20** MWh

Changsha Yuelu District Industrial Park, Hunan Province

Project Scale: **1** MW | **2.15** MWh

Zhangmutou, Dongguan, Guangdong Province

Project Scale: **2.5** MW | **5.22** MWh

Guangze Industrial Park, Dongguan, Guangdong Provinc

Project Scale: **10** MW | **20** MWh

Panyu Huachuangye Industrial Park, Guangzhou

Project Scale: **250** kW | **645** kWh

Utah, USA

Project Scale: **500** kW | **2.48** MWh

Bangkok, Thailand

Project Scale: **800** kW | **3.22** MWh

Papua New Guinea

Project Scale: **200** MW | **800** MWh

Riku Vihutula, Finland