Energy Storage Solution Product Manual 2026 V1.0

YONERGY

YONERGY

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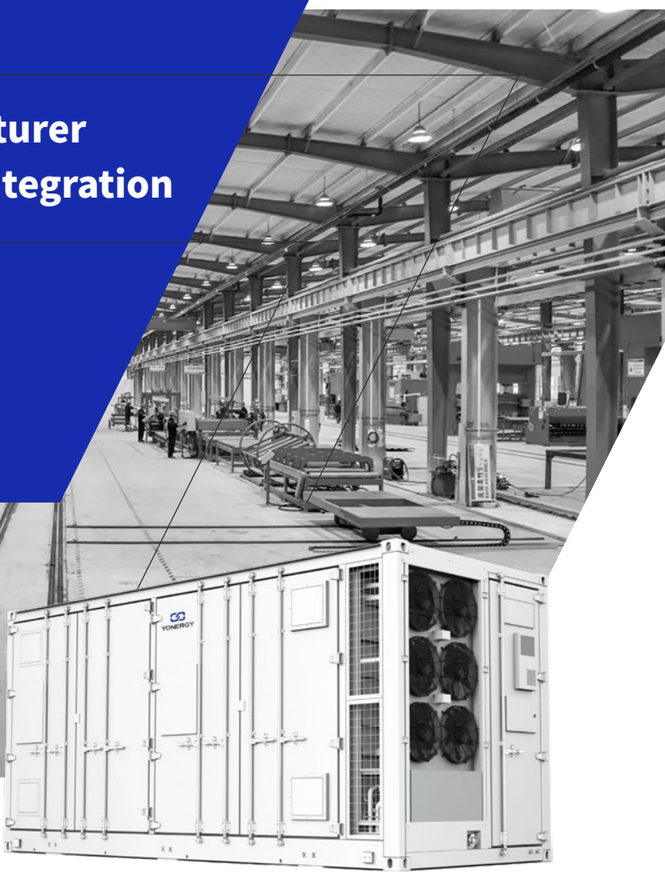
Leading ODM/OEM Manufacturer of Energy Storage System Integration



YONERGY TECHNOLOGYCO.,LTD

Mission

To make the Earth a better home for humanity

Vision

To become a global leading provider of energy storage solutions

Values

Integrity, Pragmatism, Innovation, and Creating Value for Customers

CONTENTS

About YONERGY

YONERGY is a leading global ODM/OEM manufacturer specializing in energy storage system integration and prefabricated data center infrastructure. With industry-leading intelligent manufacturing capabilities, YONERGY provides end-to-end customized solutions for top-tier energy storage and data center enterprises worldwide.

2,500+
Employees

400,000 m²
Manufacturing Base Area

100 GWh
Annual Energy Storage Integration Capacity

20,000 sets
Annual Containerized ESS Output

12 GWh
Annual Cabinet ESS Capacity

100,000 sets
Annual Energy Storage Cabinet Production

Development History

2020 Company establishment
- Phase-1 energy storage base construction
- official entry into energy storage industry

2021-2023 In-depth Cultivation and Breakthrough
- First containerized ESS rollout
- Strategic cooperation with global top-tier clients
- formation of core competitiveness

2024-2026 Strategic Upgrade
- Focus on ODM/OEM
- Annual delivery capacity reaching 100 GWh
- Becoming a leading global energy storage integrator

Partners

Covering cell, PV, wind, EPC, investor and utility segments

01 Battery Cell Clients **TOP10**

02 PV Clients **TOP5**

03 Wind Power Clients **TOP5**

04 AC-Side Equipment Clients **TOP5**

05 EPC Contractors **TOP5**

06 Investors **TOP5**

Manufacturing Facility

Why choose YONERGY?

01 Customer Satisfaction

- Robust customer satisfaction control procedure
- Strict corrective action plans and a closed-loop review system
- Dedicated customer service with multifunctional team

02 Quality Assurance

- ISO 9001, ISO 14001, ISO 45001, and IATF 16949 certified
- QC, IPQC and comprehensive regular management reviews
- ERP, WMS, MIS, MES advanced management systems
- Proactive risk management from design to operation

03 Sustainability

- Sustainable practices with rigorous hazardous substance management specifications
- Employee Well-being: we prioritize staff development, training, and safety
- Prohibition of unethical practices and maintain a positive work environment

04 Advanced R&D Capability

- Formalized NPI process drives continuous products innovation
- Prototyping, DFMEA, PPAP, PLM and effects analysis to ensure product reliability

05 Global Expertise

- Provide OEM and ODM services to leading ESS brands
- A wealth of experience on BESS projects
- Dedicated global project and market supports

Global Service Network

R&D Centers：

China：ShangRao, Ningbo

Overseas Manufacturing Base：

Southeast Asia, North America, Europe

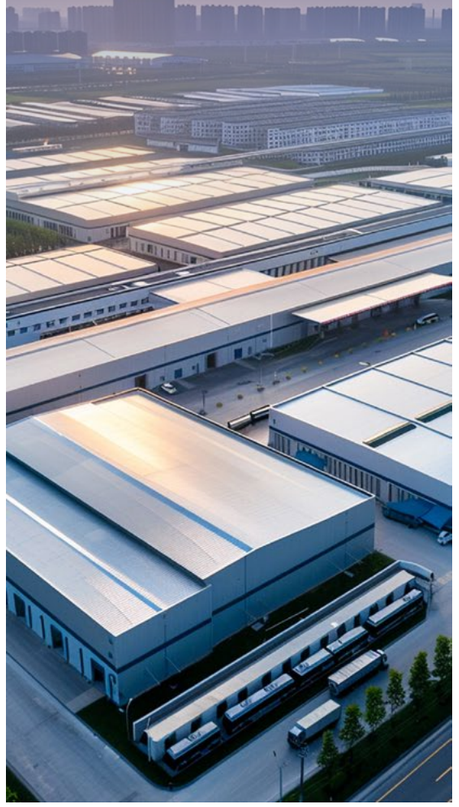
Application Scenarios

Containerized ESS

Large-capacity storage for generation & grid-side, for renewable & shared-storage projects.

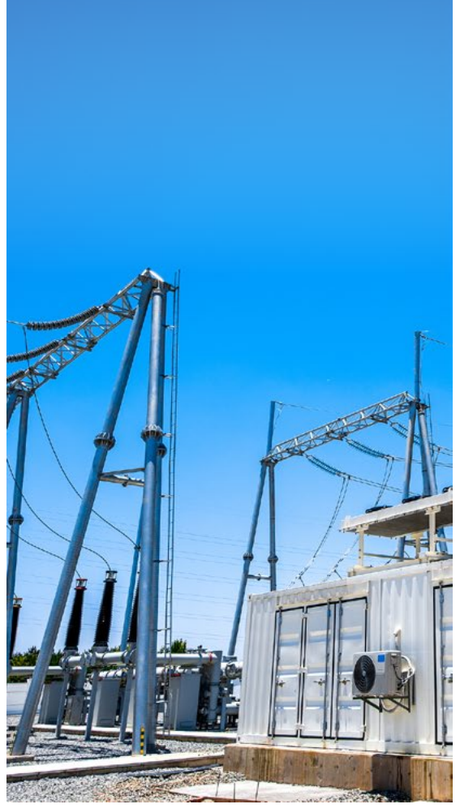
C&I ESS

Peak-valley shifting & backup power for parks, factories & commercial buildings.



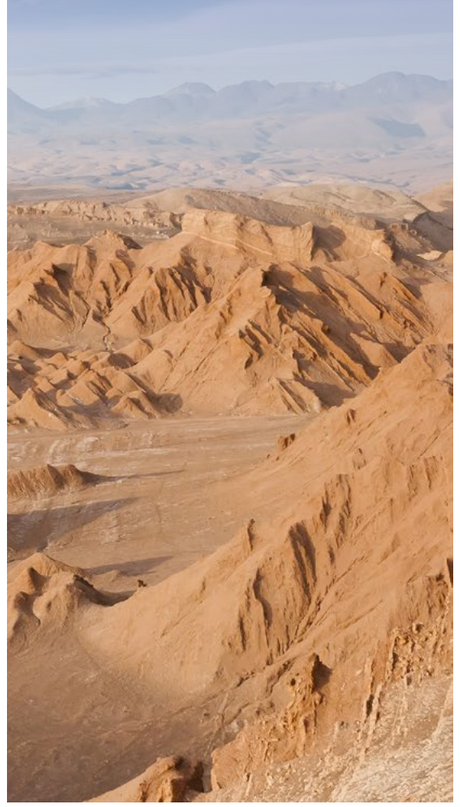
Telecom Base Station ESS

Backup & off-grid power for communication base stations.



Microgrid ESS

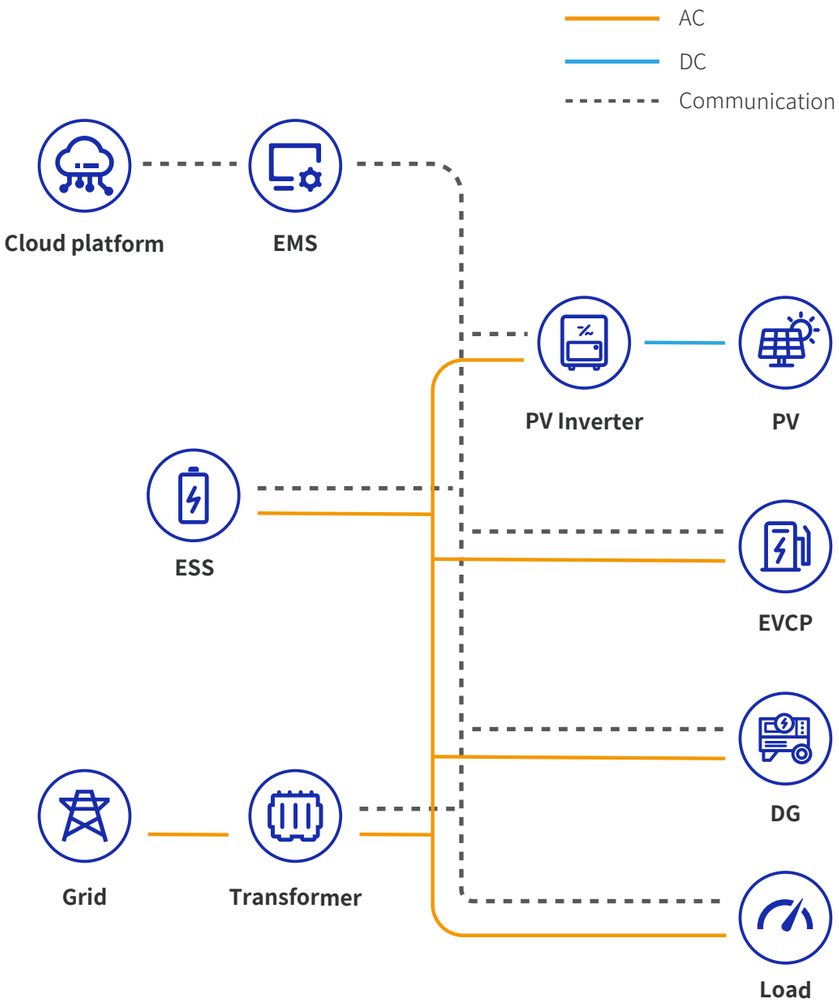
Off-grid/grid-tied microgrid solutions for remote areas, islands & parks.



Integrated solution

Integrated Solar-Storage-Charging System
All-in-one PV-storage-EV-charging solution.

The PV-ESS-EVCP-DG scenario



PV + ESS

The photovoltaic and energy storage system (PV + ES) is a comprehensive energy solution that closely integrates photovoltaic power generation with energy storage technology. It generates electricity from solar energy and addresses the intermittency and fluctuation of photovoltaic power through the energy storage system, achieving efficient utilization, flexible dispatch, and stable supply of electric energy.

PV+ESS+EVCP

The PV-ES-EC system (Photovoltaic + Energy Storage + Electric Vehicle Charging) is a comprehensive energy solution that integrates three major functions: photovoltaic power generation, energy storage, and electric vehicle charging. It leverages clean energy sources and combines them with intelligent control technologies to achieve efficient utilization of energy and sustainable development.

PV+ESS+DG

The PV-ES-DG system (Photovoltaic + Energy Storage + Diesel Generator) is a comprehensive energy solution that adds a diesel generator as a backup or supplementary power source to the PV-ES system. It combines clean energy, flexible energy storage, and stable, reliable fossil fuel energy to provide a more reliable and resilient power supply. This system is particularly suitable for off-grid, weak-grid scenarios, or applications with extremely high requirements for power supply continuity.

Product Introduction

- Generation Side
- Grid Side
- Consumer Side
- Liquid-Cooled / Air-Cooled
- Cabinet-Type / Containerized

Energy Storage System

Functions:

- Self-consumption Optimisation
- Increase Renewables Integration
- Peak Shaving
- EV Charging Station Control
- Back-up Power
- Improve Financial Performance
- HVAC System
- Fire Suppression System

Fire Suppression System

After the occurrence of open flame inside the cabinet, a rapid alarm signal is transmitted. As the temperature continues to rise, the system initiates aerosol fire extinguishing, swiftly cooling the ignition source.

Battery Pack

Industry-leading battery cell that can use 8,000 cycles.
Modular design for battery module, individual rack and string.

Power Distribution Unit (including PCS)

Be used to manage and protect the batteries, perform power conversion and distribution, ensuring the system operates efficiently and safely.

Liquid-Cooled Unit

The closed-loop liquid cooling system removes the heat generated by batteries in high efficiency, extending battery life and improving energy conversion efficiency.

130kW/261kWh Liquid-Cooled ESS Cabinet

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Safety & Stability

- Dual fire protection + active exhaust + explosion-proof design, comprehensively ensuring system safety
- SOC/SOH monitoring for precise analysis and prediction

Flexible & Convenient

- Supports parallel operation of multiple cabinets, adaptable to various application scenarios
- Supports side-by-side installation, reducing land occupation
- Supports automatic on-grid/off-grid seamless switching with STS module, switching time ≤20ms

Intelligent & Efficient

- AC/DC integrated, efficient integration of 3S (BMS, PCS, and local EMS)
- Intelligent cluster-level management, system efficiency up to 87%, system temperature difference ≤3℃
- PCS uses silicon carbide solution, with a maximum efficiency of up to 99%

Intelligent Operation & Maintenance

- Intelligent cloud platform management system, supports remote upgrades, Web/APP operation and maintenance, cloud-edge collaboration
- Full lifecycle fault diagnosis, intelligent fault diagnosis, and system scheduling

DC Side Parameters	
Cell type	LFP 3.2V/314Ah
Combination configuration	1P260S
Rated energy	261kWh
Voltage range	650~949V
Number of cycle times	⩾ 8000 cycles @70%EOL, 25±2°C, 95% DoD
Communication interface	RS485, CAN, Ethernet
PCS Parameters	
Rated output power	130kW
Rated grid voltage	380/400V, 3L/N/PE
Grid voltage range	340~460V，±15%
Rated current	187A
Power factor	1 (Leading) to 1 (Lagging)
Rated grid frequency	50±5Hz
Overload capacity	110%: Long-term operation; 120%: not less than 1 min
THDi	＜1.5% (100%PN) ＜5% (⩾20%PN)
Protective function	HVRT/LVRT, Anti-Islanding, AC Overcurrent, AC Short Circuit, AC Overvoltage/Undervoltage, AC Phase Sequence Error, etc.
General Parameters	
Dimensions	W1375*D1350*H2150mm
Weight	~2.6T
Protection level	IP54
Anti-corrosion grade	C4/C5(optional)
Cooling method	Liquid cooling
Working temperature range	-30 °C~50 °C (Derating at>45 °C)
Relative humidity	0~95% (No condensation)
Maximum working altitude	2000m (>2000m Derating)
Fire suppresion system	PACK-level aerosol+RACK-level aerosol+Active warning
External Communication Protocol	Modbus RTU, CAN2.0, Modbus TCP
Compliant with standards	IEC62619, IEC61000-6-2/-4, EN62477-1, UN38.3, etc.

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50kW/112kWh
PV-ESS All-in-One Cabinet

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High security

- The battery cells have passed rigorous industry testing and obtained certifications such as UL, TUV, and GB
- Adopting regional graded fire protection design, ensuring safety and security
- BMS collects data from multiple points, provides real-time feedback, and collaborates with PCS and EMS for emergency response to ensure system safety
- IP54 protection level, outdoor application

All in one integration

- Modular design of batteries, distributed cooling design
- Integrated PV and ESS and on-grid to off-grid automatic switching time ≤ 10ms
- Multi channel MPPT design-in
- Self-consumption, peak shaving and valley filling, off grid backup power, etc

Intelligentization

- Configure local control and remote monitoring platform
- Real-time collection and monitoring
- System operation data analysis, intelligent terminal display

Easy Operation & Maintenance

- System modular design and pre installation design
- Self diagnosis and self repair function
- Support remote operation and upgrade
- Equipped with active and passive bypass design

DC parameters	
Cell type	LFP 3.2V/314Ah
Combination configuration	1P112S
Rated energy	112kWh
Voltage range	280~408.8V
Number of cycle times	⩾ 8000 cycles @70%EOL, 25±2°C, 95% DoD
Communication interface	RS485, CAN, Ethernet
Hybrid Inverter Parameters	
PV Side Parameters	
Maximum input power	75kW
MPPT voltage range	1000V
Starting voltage	180V~900V/620V
Maximum input current	40A/40A/40A/40A
Maximum short-circuit current	50A/50A/50A/50A
MPPT quantity	4
Number of input strings per MPPT channel	2/2/2/2
AC Side Parameters	
Rated output power	50kW
Rated grid voltage	380/400V, 3L/N/PE，3L+PE
Maximum output current	83.4A
Maximum output current	75.8A
Power factor	＞0.99 (0.8 leading~0.8 lagging)
Rated grid frequency	50/60Hz
THDi	＜3%
On-grid to off-grid switching time	＜10ms
Protective function	DC Switch, DC Reverse Polarity Protection, Anti-islanding Protection, AC Short Circuit Protection, Residual Current Monitoring, Ground Fault Monitoring, Over Current /Voltage Protection, etc.
General Parameters	
Dimensions	W1185*D1120mm*H2280mm
Weight	~1.5T
Protection level	IP54
Anti corrosion grade	C4/C5(optional)
Cooling method	Forced air cooling
Working temperature range	-30°C ~50°C (>45°C derating)
Working humidity range	0 ~ 95% (No condensation)
Maximum working altitude	2000m (＞2000m derating)
Firefighting methods	PACK-level aerosol + RACK-level perfluorohexanone + Smoke and temperature detectors
External Communication Protocol	Modbus RTU, CAN2.0, Modbus TCP
Compliant with standards	UN38.3, SDS, etc.

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250kW/488kWh
Liquid-Cooled ESS Cabinet

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Safety & Stability

- Dual fire protection + active exhaust + explosion-proof design, comprehensively ensuring system safety
- SOC/SOH monitoring for precise analysis and prediction

Flexible & Convenient

- Supports parallel operation of multiple cabinets, adaptable to various application scenarios
- Supports side-by-side installation, reducing land occupation
- Supports automatic on-grid/off-grid seamless switching with STS module, switching time ≤20ms

Intelligent & Efficient

- AC/DC integrated, efficient integration of 3S (System, Storage, and Solution)
- Intelligent cluster-level management, system efficiency up to 87%, system temperature difference ≤3℃
- PCS uses silicon carbide solution, with a maximum efficiency of up to 99%

Intelligent Operation & Maintenance

- Intelligent cloud platform management system, supports remote upgrades, Web/APP operation and maintenance, cloud-edge collaboration
- Full lifecycle fault diagnosis, intelligent fault diagnosis, and system scheduling

DC Side Parameters	
Cell type	LFP 3.2V/587Ah
Combination configuration	1P260S
Rated energy	488kWh
Voltage range	650~949V
Communication interface	RS485, CAN, Ethernet
PCS Parameters	
Rated output power	250kW
Rated grid voltage	380/400V, 3L/N/PE
Grid voltage range	340~460V，±15%
Rated current	360A
Power factor	1 (Leading) to 1 (Lagging)
Rated grid frequency	50±5Hz
Overload capacity	110%: Long-term operation; 120%: not less than 1 min
Total current waveform distortion rate (THDi)	＜1.5% (100%PN) ＜5% (≥20%PN)
Protective function	HVRT/LVRT, Anti-Islanding, AC Overcurrent, AC Short Circuit, AC Overvoltage/Undervoltage, AC Phase Sequence Error, etc.
General Parameters	
Dimensions	W1500*D1500*H2400mm
Weight	~5T
Protection level	IP54
Anti-corrosion grade	C4/C5(optional)
Cooling method	Liquid cooling
Working temperature range	-30 °C~50 °C (Derating at>45 °C)
Working humidity range	0~95% (No condensation)
Maximum working altitude	2000m (>2000m Derating)
Firefighting methods	PACK-level aerosol+RACK-level aerosol+Active warning
External Communication Protocol	Modbus RTU, CAN2.0, Modbus TCP

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60kW/115kWh PV-ESS-EV Charging All-in-One Cabinet

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High security

- The battery cells have passed rigorous industry testing and obtained certifications such as UL, TUV, and GB
- Adopting regional graded fire protection design, ensuring safety and security
- BMS collects data from multiple points, provides real-time feedback, and collaborates with PCS and EMS for emergency response to ensure system safety
- IP54 protection level, easy to install outdoors

All in one integration

- Modular design of batteries, distributed cooling design
- Integrated PV and ESS and on-grid to off-grid automatic switching time ≤ 10ms
- Multi channel MPPT design-in
- Self-consumption, peak shaving and valley filling, off grid backup power, etc

Intelligentization

- Configure local control and remote monitoring platform
- Real-time collection and monitoring
- System operation data analysis, intelligent terminal display

Easy Operation & Maintenance

- System modular design and pre installation design
- Self diagnosis and self repair function
- Support remote operation and upgrade
- Equipped with active and passive bypass design

DC Side Parameters	
Cell type	LFP 3.2V/280Ah
Combination configuration	1P128S
Rated energy	115kWh
Voltage range	280~408.8V
Communication interface	RS485, CAN, Ethernet
PV Side Parameters	
Maximum power of PV module	4.095kWP
OCV	480.6V
Module efficiency	22.8%
Charging Pile Parameters	
Rated output power	120kW
Input voltage	380V±15%
Output voltage	200VDC~1000VDC
Frequency range (Hz)	45HZ~65HZ
power factor	⩾0.98
Charging interface	2*Charging interface
Maximum output power of charging interface	120kW
maximum output current	250A
PCS Parameters	
PV Side Parameters	
Maximum input power	90kW
MPPT voltage range	1000V
Starting voltage	180V~900V/630V
Maximum input current	40A/40A/40A/40A
Maximum short-circuit current	50A/50A/50A/50A
MPPT quantity	4
Number of input strings per MPPT channel	2/2/2/2
AC Side Parameters	
Rated output power	60kW
Rated grid voltage	380/400V, 3L/N/PE
Rated current	100A
Power factor	＞0.99 (0.8 leading~0.8 lagging)
Rated grid frequency	50/60Hz
THDi	＜3%
On-grid to off-grid switching time	＜10ms
Maximum efficiency	98.40%
Efficiency in Europe	97.50%
Protect	DC Switch, DC Reverse Polarity Protection, Anti-islanding Protection, AC Short Circuit Protection, Residual Current Monitoring, Ground Fault Monitoring, Over Current /Voltage Protection, etc.
Protection level	IP54
Communication mode	RS485 (WIFI/4G/GPRS optional), CAN
Safety certification	IEC EN62477, IEC EN62109-1/-2
EMC certification	IEC EN61000-6-2/-4
Grid standard	CEI 0-21
General Parameters	
Dimensions	W1400*D2100*H2250mm
Weight	~2.6T
Protection level	IP54
Anti corrosion grade	C4/C5 (optional)
Cooling method	Forced air cooling
Working temperature range	-30℃ ~50℃ (>45℃ derating)
Working humidity range	0 ~ 95% (No condensation)
Maximum working altitude	2000m (＞2000m derating)
Firefighting methods	PACK-level aerosol+RACK-level aerosol+Active warning
External Communication Protocol	Modbus RTU, CAN2.0, Modbus TCP

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5MWh
Liquid-Cooled ESS Container

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Cost-Effective Investment

- Saves installation footprint and on-site labor
- Intelligent liquid cooling extends battery life
- Real-time temp control lowers auxiliary power & operating costs

Safe & Reliable

- AI-driven digital modeling for early safety warning
- Multi-dimensional sensing for battery, electrical & structural safety
- Multi-level electrical protection + fire protection design

Highly Integrated

- Up to 5MWh capacity with 34.5% increase in energy density
- All-in-one design (battery, thermal, fire, controls) cuts footprint & boosts construction efficiency
- Single-door design enables flexible installation, optimizes space utilization, and reduces O&M workload

Efficient & Flexible

- Precise battery algorithm improves RTE by 2%
- Smart cloud platform enables remote monitoring & early warning — cuts expert site visits & reduces on-site O&M by 43%

DC Side Parameters	
Cell Type	LEP 3.2V/314Ah
Configuration	12P416S
Rated Energy	5MWh
Voltage Range	1040V～1497.6V
DOD	95%
C-rate	0.5P
Cycle Life	⩾ 8000 cycles @70%EOL, 25±2°C, 95% DoD
Communication Interface	RS485, CAN, Ethernet
General Parameters	
Dimensions	W6058*D2438*H2896mm
Weight	~42T
IP rating	IP55
Corrosion Resistance Class	C4/C5(optional)
Cooling Method	Liquid Cooling
Operating Temperature Range	-30°C～50°C
Operating Humidity Range	0～95% (No condensation)
Max. Operating Altitude	⩽2000m （>2000m Derating）
FSS Method	Aerosol, Flammable Gas Detection + Ventilation, Water Firefighting (Optional)
Communication Protocol	Modbus TCP、Modbus RTU、CAN2.0
Compliance Standards	IEC 62477-1, IEC 61000-6-2/-4, IEC 62619, UN 38.3, etc.

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5MWh String-type AC/DC Integrated ESS

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High Safety

- High-safety 314Ah cells
- All-scenario fire protection with multiple safeguards
- Weatherproof outdoor design for harsh environments

High Efficiency

- Cluster-level control for optimized system efficiency
- Liquid cooling with ≤2°C pack-level & ≤3°C container-level temperature difference

Long Lifespan

- Liquid cooling + intelligent thermal management extends system life

Easy Configuration

- Supports on-grid & off-grid applications
- String architecture with integrated PCS; 30% less footprint
- Factory pre-commissioned for rapid on-site grid connection

DC Side Parameters	
Cell type	LFP 3.2V/314Ah
Combination configuration	12P416S
Rated energy	5MWh
Voltage range	1164.8V~1497.6V
Rated charging/discharging power	0.5P
PCS Parameters	
Grid connection parameters	
Communication access method	3W+PE
Rated output power	430kW*6
Rated maximum operating current	473A*6
Short term overload capacity	110% overload：10min 120% overload：1min
Rated grid voltage	690Vac（-15%～10%）
Rated grid frequency	50Hz/60Hz（±5Hz）
Power factor	＞0.99;＞50%PN
Adjustable range of power factor	1 (Leading) to 1 (Lagging)
THDi	＜1.5% (100%PN) ＜5% (⩾20%PN)
Communication interface	RS485, CAN, Ethernet
General Parameters	
Dimensions	W6058*D2438*H2896mm
Weight	~43T
Protection level	IP55
Anti corrosion grade	C4/C5
Cooling method	Liquid cooling
Working temperature range	-30°C ~50°C
Working humidity range	0 ~ 95% (No condensation)
Maximum working altitude	⩽2000m（＞2000m Derating）
Firefighting methods	Aerosol firefighting，Gas fire protection system, including detector, fire protection control host and pipe Water fire protection system, including pipe and pendent sprinkler
External Communication Protocol	Modbus TCP/ RTU，IEC61850
Communication interface	RS485, CAN, Ethernet

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520kW/1044kWh
PV-ESS-DG Integrated Container

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Multi-Energy Complementarity

- Integrates PV (DC-coupled), battery, diesel, and grid. Optimizes output in grid-tied mode
- Seamless off-grid transition for critical load support

Remote O&M

- Real-time monitoring, proactive alarms, energy analysis. Reduces on-site costs, boosts efficiency

Full Safety Protection

- Over-charge/discharge, over-temp, short-circuit, leakage protection. Meets global safety standards
- Full-chain security from cell to system

DC Side Parameters	
Cell	314Ah
Battery configuration	4P260S
Rated power	520kW
Nominal capacity	1044kWh
DC voltage range	650-949V
Nominal voltage	832V
MAX current	880A
PV Side Parameters	
Operating voltage range	250V-950V
Full-load voltage range	580V-700V
Number of MPPTs	12
Max power	1170kW
Max current per MPPT	168A
Max short-circuit current per MPPT	210A
Max MPPT tracking accuracy	⩾99.9%
Grid/DG Parameters	
Rated power	1040kW
Rated current	1501A
Rated voltage	400Vac (340~460Vac, 3W+N+PE)
Rated frequency	50/60Hz（±5Hz）
Total Current Harmonic Distortion（THD）	＜1.5% (100%PN) ; ＜5% (⩾20%PN)
Adjustable power factor range	>0.99
AC Load parameters	
Rated power	520kW
Rated voltage	400V, 3L/N/PE
Grid voltage range	340~460V
Rated current	750A
Rated frequency	50Hz/60Hz（±5Hz）
THDu	1%
Unbalanced load capability	100%
Overload capability	110%: Long-term operation; 120%: Not less than1min
General Parameters	
Dimensions（W*H*D）	W2991*D2438*H2896mm
Corrosion resistance class	C4/C5（Optional）
IP rating	IP54/IP55
Color	RAL 9003（Optional）
Max. Operating Altitude	⩽2000m（>2000m Derating）

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3.12MWh String-Type AC-DC Integrated Container

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High Safety

- Utilizes high-safety 587Ah cells
- Comprehensive, all-scenario fire safety system with multiple protection mechanisms ensures overall system security
- Outdoor design with high ingress protection rating withstands harsh environments, ensuring stable and reliable performance

High Efficiency

- Cluster-level management and refined control strategies enhance system efficiency
- Liquid cooling ensures a temperature difference of ≤2°C per battery pack and ≤3°C within the container, delivering higher energy efficiency

Long Lifespan

- Liquid cooling energy storage system combined with an intelligent thermal management system extends system lifespan

Easy Configuration

- Supports both on-grid and off-grid applications
- All-in-One design simplifies on-site installation, enabling "Plug-and-Play" functionality and significantly shortening the delivery cycle
- Reduces footprint by 30%
- Factory pre-commissioning enables rapid grid connection on-site

DC parameters	
Cell type	LFP 3.2V/587Ah
Combination configuration	4P416S
Rated energy	3.12MWh
Voltage range	1164.8V~1497.6V (2.8V~3.6V)
Rated charging/discharging power	0.25P
AC parameters	
Grid connection parameters	
Communication access method	3W+PE
Rated output power	430kW*2
Short term overload capacity	110% overload: 10min 120% overload: 1min
Rated grid voltage	690 (-15%～10%) Vac
Rated grid frequency	50Hz/60Hz (±5Hz)
Power factor	＞0.99；＞50%PN
Adjustable range of power factor	1 (advanced) -1 (lag)
Total current waveform distortion rate (THDi)	＜1.5% (100%PN); ＜5% (⩾20%PN)
Battery parameters	
DC voltage range	1000~1500V
DC voltage range at full power	1050~1500V
Rated maximum operating current	2*473A
Voltage stabilization accuracy	±2%
Steady current accuracy	±5%
System parameter	
Dimensions (length x width x height)	2991mmx2438mmx2896mm
Weight	≈30T
Protection level	IP55
Anti corrosion grade	C4/C5
Cooling method	Liquid cooling
Working temperature range	-30°C ~50°C
Working humidity range	0 ~ 95% (No condensation)
Maximum working altitude	⩽2000m （＞2000m Derating）
Firefighting methods	Aerosol firefighting，Gas fire protection system, including detector, fire protection control host and pipe Water fire protection system, including pipe and pendent sprinkler
External Communication Protocol	Modbus TCP/ RTU，IEC61850
Communication interface	CAN，RS485，Ethernet

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ACC-Hub Series
Product Specification

*The product images on this page are for illustration only,
and delivery is subject to actual project requirements.

Product Introduction

Combiner cabinet, intelligent AC combiner cabinet specially designed for 130kW/261kWh and other industrial and commercial energy storage systems, modular design, functional expansion, easy maintenance, suitable for various complex scenarios

Flexible

Highly integrated combiner cabinets are easy to transport and maintain, and the integrated design enables sites to be quickly set up and used

Intelligence

Supports operation monitoring and energy management

Safety

It can accurately provide short-circuit protection, overcurrent protection, overvoltage protection, etc

Model	ACC-Hub-5	ACC-Hub-10	ACC-Hub-15
Type	5 in 1 out	10 in 1 out	15 in 1 out
Maximum number of input channels	5-way	10-way	15-way
Number of output channel	1-way		
Rated voltage	400Vac		
Rated Power	866kW	1732kW	2598kW
Rated current	1250A	2500A	3750A
Rated ultimate short-circuit breaking capacity Icu	70kA		
Wiring method	3W+N+PE		
Protection Function			
Short-circuit protection	Support		
Overload protection	Support		
Lightning protection	Yes (Lightning protection level T2, In = 20KA, Imax = 40KA)		
Lightning failure protectionv	Support		
Environmental Application			
Relative humidity	RH≤95% , no condensation		
Ambient temperature	-20～50°C		
Altitude	≤2500 m		
General Parameters			
Protection level	IP54		
Cooling method	Intelligent air cooling		
Comm interface	RS485/CAN/Ethernet		
Enclosure Type	Dual-access doors (front and rear)		
Dimensions	W1150*D650*H2070mm		
Weight	About 0.3 t	About 0.35 t	About 0.4 t

*The final technical parameters may be adjusted according to certification standards
*If there are any changes in product size and parameters, the latest information shall prevail without further notice

Micronet Cloud Platform

Compatible with various micronet application scenarios

Cloud-edge collaboration for micronet digitalization

Algorithm optimization for remote correction of local strategies

The “wind - solar - storage - load - charging” application scenarios, different large - screen interfaces and client interfaces are displayed through background configuration for different customer applications.

The big data on the cloud can access industrial and commercial microgrids, household microgrids, and energy storage systems, enabling comprehensive energy digitalization.

High Software Extensibility

With a modular development approach, the software is highly extensible and supports various terminal devices.

Flexible Configuration

Basic information can be flexibly configured to adapt to customers’ actual needs and situations, effectively enhancing the system’ s compatibility and practicality.

Coordinated Control of Multiple Strategies

Integrate local monitoring, energy management, and data display. Comprehensively monitor and analyze electricity and energy consumption data to improve energy efficiency and rationalize resource utilization.

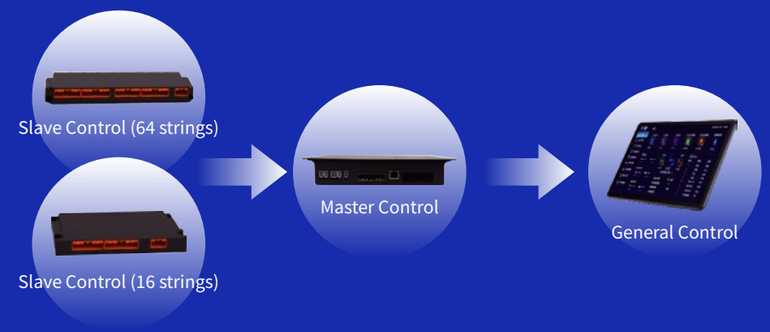
Platform Security Principles

Design security protection for strategies and devices from network, application, and other levels to ensure the platform’ s security, reliability, and stable operation to the maximum extent.

THREE-LEVEL ARCHITECTURE

BMS can enable energy storage applications with air cooling and liquid cooling.

BMS conducts hierarchical management and control of battery modules, clusters, and stacks, ensuring the system operates within a reasonable range and extending the battery service life.



Modular Energy Storage Converter

FSP-M130B1

High Efficiency & Stability

- Silicon carbide power devices, max conversion efficiency 99.16%, THDi < 1.5%
- THDu < 1%.Modular design for easy installation/maintenance, 99% system fault redundancy.
- Operates at -30~70°C, no derating at 50°C ambient.
- Strong weakgrid adaptability, SCR = 1.05.

Durability

- Non - electrolytic capacitor design, intelligent key component detection & zerocurrent breakmake tech.
- Single - busbar with N - line control, preventing novoltage/N - line overcurrent faults.
- Intelligent temperature control & high - protection potting.

Flexible Configuration

- Modular design, up to 15 parallel units per cabinet for grid - connection current imbalance < 2%.
- Wide input voltage, compatible with various batteries.
- Three - phase four - wire, off - grid applicable, supports 100% threephase unbalanced output (no transformer needed).

Versatile Applications

- Phase - by - phase management, single - phase dispatch, with three - phase unbalance mitigation & reverse power prevention.
- Active/reactive fourquadrant regulation.
- Supports constant power/current/voltage control.
- Enables harmonic mitigation

Product Model	FSP-M130B1
Rated Power	130KW
Maximum Power	156KW
DC Side Parameters	
DC Voltage Range	50V～1000V
Maximum DC Current	220A
DC Side Parameters	
Rated Grid Voltage	340V~460V (three-phase five-wire)
Rated Grid Frequency	50Hz/45～55Hz
Reactive Power Regulation Range	-1～+1
Total Current Harmonic Distortion (THDi)	<1.5% (rated load)
Overload Capacity	110% long-term operation; 120% safe operation for no less than 1 minute
Charge-Discharge Switching Time	<10ms
AC Off-Grid Parameters	
Inverter Rated Voltage	340~460V
Unbalanced Load Capacity	100%
Total Voltage Harmonic Distortion (THDu)	<1% (linear load)
System Parameters	
Isolation Method	Transformerless isolation
Cooling Method	Intelligent forced air cooling
Maximum Efficiency	＞99.16%
Ambient Temperature	-30~70°C (50°C no derating)
Protection Grade	IP20 (matching system up to IP54)
Dimensions (Width×Height×Length)	500×190×715mm
Weight	⩽66Kg
Communication Method	
Upper Computer Communication Method	Modbus TCP/Modbus RTU
Communication Interfaces	Ethernet, RS485, CAN

Develop a high-quality, low-cost energy storage converter with no limit on the number of parallel connections.

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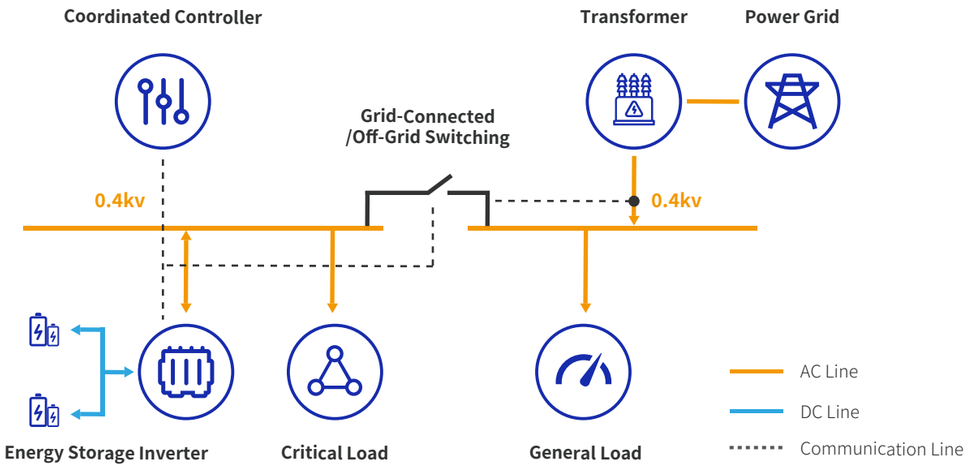
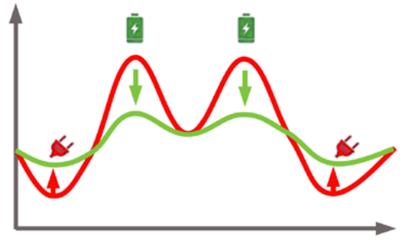
Typical Application Solutions of Modular Energy Storage Converter in ESS



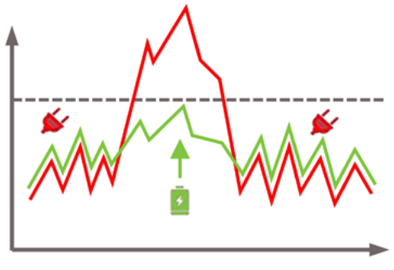
Customer Value

Mode 1: Peak Shaving & Valley Filling



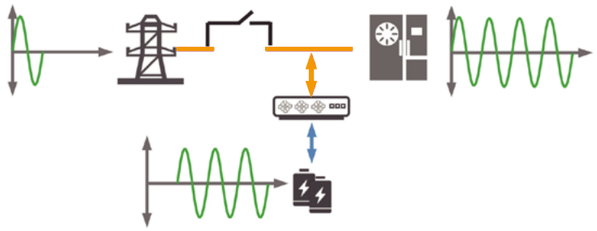
Charge during off-peak hours and dischargeat peak times to cut electricity costs.

Mode 2: Demand Response & Load Smoothing



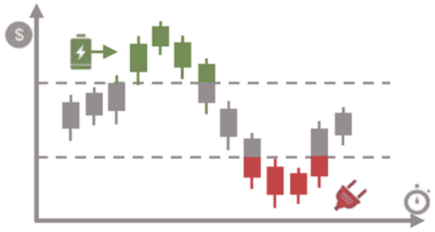
When power consumption exceeds transformer capacity, energy storage discharges to meet demand,while reducing load fluctuations and lowering basic electricity fees.

Mode 3: Voltage Sag Mitigation



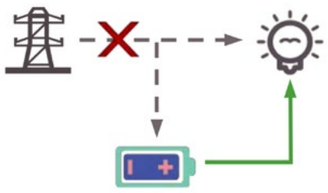
When voltage drops deeply and instantaneously,millisecond-level grid-connected/off-grid switching ensures normal load operation.

Mode 4: Electricity Trading



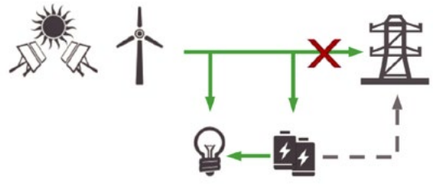
Maximize returns through short-termelectricity trading combined with loadforecasting.

Mode 5: Emergency Power Supply Guarantee



When the utility power fails, the energy storage system operates off-grid to ensure reliable power supply for critical loads

Mode 6: Microgrid and New Energy Absorption



In microgrids or during gridconnection prohibition, new energy is absorbed by the energy storage system, which then supplies loads or connects to the grid when needed.

Global Project Cases

300 MW / 1200 MWh

China

500 MW / 2200 MWh

Middle East

250 MW / 500 MWh

Europe

550 MW / 2200 MWh

India

100 kW / 500 kWh

Budapest, Hungary

1 MW / 2 MWh

Poland

2600 kW / 5200 kWh

Indonesia

250 kW / 560 kWh

Zambia

5518.8 kWh

Malaysia