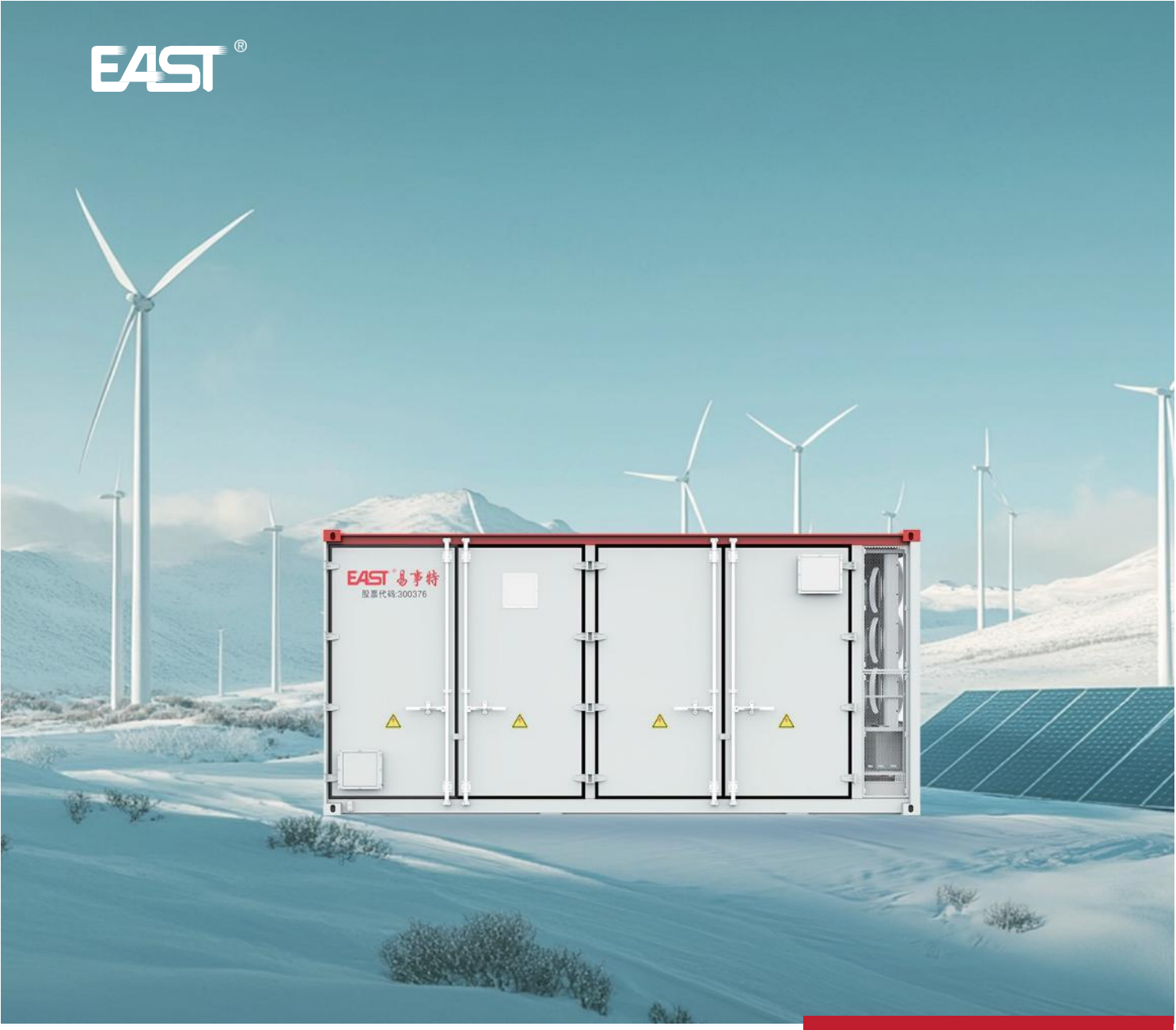




Energy Storage System Solutions

4S Full-Stack Integration, Smart-Storage Energy System

East Energy Storage Technology Co., Ltd.

EAST Group : No.1, 5th Road, Songshan Lake Headquarters, Dongguan City, Guangdong Province
Xi'an R&D Center: No. 70 Jinye Road, High tech Zone, Xi'an City, Shaanxi Province

*If there are any changes to the product size and parameters, the latest information shall prevail without further notice.



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Company Profile

East Group (stock code: 300376) was founded in 1989 and successfully listed on the Shenzhen Stock Exchange in 2014. It was once a subsidiary of Schneider Electric, a Fortune 500 company. The headquarters of the group is located in the Songshan Lake National High-Tech Development Zone in Dongguan, and it has multiple research and development centers around the world. The group is mainly engaged in smart power supply, data center, and smart energy businesses. It has 268 customer centers worldwide, with marketing and service networks covering over 100 countries and regions globally.

East Energy Storage Technology Co., Ltd. is a wholly-owned subsidiary of East Group. By converging cutting-edge technologies in the power sector, the company focuses on the R&D, manufacturing, and sales of core equipment and system integration, including energy storage systems, PV inverters, EV charging stations, and AI energy management. It serves as a technological innovator, delivering efficient and intelligent products and solutions for sustainable development in comprehensive energy applications.

Building upon 36 years of expertise in power electronics and energy efficiency management, EAST's energy storage system solutions stand out in the industry. These solutions feature full-stack self-developed core components, including PCS (Power Conversion System), BMS (Battery Management System), EMS (Energy Management System), PMS (Power Management System), and battery PACK. This vertical integration ensures superior system compatibility and performance optimization.

East Energy Storage has been applied to new energy, independent energy storage, and industrial and commercial energy storage for key energy customers in China and other countries and regions around the world, with an installed capacity of over 6.5 GWh.

37 Years

Technologies in Power Electronics
Energy Efficiency Management Technologies

800+

Professional R&D Engineers
65% with 10+ years of experience

Tier 1

Bloomberg's Energy Storage
Tier 1 list

10GWh+

Energy Storage Systems Deployed

10GWh+

Annual Production Capacity for Energy
Storage Systems and Core Products

Large-scale energy storage solutions

For energy storage application scenarios on the power generation side and grid side, East Energy Storage has achieved a full range of liquid-cooled 1500V string-type / centralized energy storage systems ranging from 5MWh to 26.8MWh, and has iteratively launched the world's first semi-immersed liquid-cooled energy storage system.

Application Scenarios

- Energy storage configuration for large-scale wind and solar power stations
- Grid-side independent energy storage power stations
- Large-scale user-side energy storage
- Large microgrid systems
- Thermal energy storage for frequency regulation



2.5MW/5MWh Centralized Energy Storage System



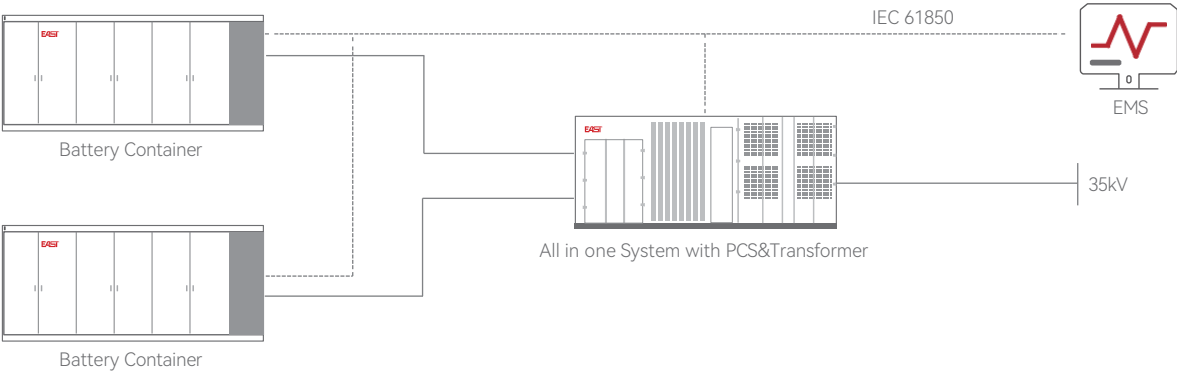
Product Advantages

- PACK 1P104S Design, 20-foot Standard Container
- 314Ah Large-capacity Battery Cells, reduces LCOE by 16%+
- Supports side-by-side and back-to-back arrangement, saving the project's footprint by 40%
- Protection level of PACK is IP67. Protection level of Container is IP54. The anti-corrosion level C5 can withstand the challenges of harsh environments.
- Three-level Topology Structure, Maximum Efficiency ≥99%, Superior Electrical Energy Quality

Applicable Scenarios

- Energy Storage Allocated by New Energy
- Frequency Modulation Service
- Independent Energy Storage
- C&I

Topology



Specification	2.5MW/5MWh	2.5MW/10MWh
DC-side		
Cell type	3.2V/314Ah	
System Battery Configuration	12P416S	12P416S×2
Battery Rated Capacity	5015.9616kWh	10031.92kWh
Battery Voltage Range	1164.8~1497.6V	
Certification	IEC62619、IEC62477、IEC61000-6-2、IEC61000-6-4、IEC63056、IEC62933、UN38.3	
The AC-side PCS parameters		
Rated AC Output Power	2500kW	
Number of DC Input	2	
AC Current Distortion Rate	<3%	
Rated Output Voltage	AC690V	
Voltage Range	586.5V~759V	
Power Factor	>0.99	
Adjustable Reactive Power Range	-105%~105%	
AC Grid Frequency	50Hz(46.5Hz~51.5Hz)	
Isolation Method	Transformer	
Certification	IEC62477、IEC61000、IEC62109	
Transformer Parameters		
Rated Power	2750kVA	
Voltage Range	37±2×2.5%/0.69kV	
Transformer Connection Group	Dy11	
Certification	IEC60076、IEC62271	
System Parameters		
PCS&Transformer Dimensions (W x H x D)	9087×2896×2438mm	
Battery Container Dimensions (W x H x D)	6058×2896×2438mm	6058×2896×2438mm(×2)
PCS&Transformer Weight	20T	
Battery Container Weight	≤44T	≤44T×2
IP Level	IP54	
Corrosion-proof Grade	C5	
Operating Temperature Range	-30℃~50℃	
Operating Humidity Range	5%~95%(No Condensation)	
Max. Operating Altitude	4000m	
Cooling Method	Liquid Cooling(DC)and Smart Air Cooling(AC)	
Fire Protection System	Aerosol + Water Fire + Explosion-Proof Fan	
System Communication Interface	CAN、RS485、LAN	
External System Communication Protocol	Modbus TCP、IEC61850	

2.5MW/5MWh Integrated AC and DC Energy Storage System



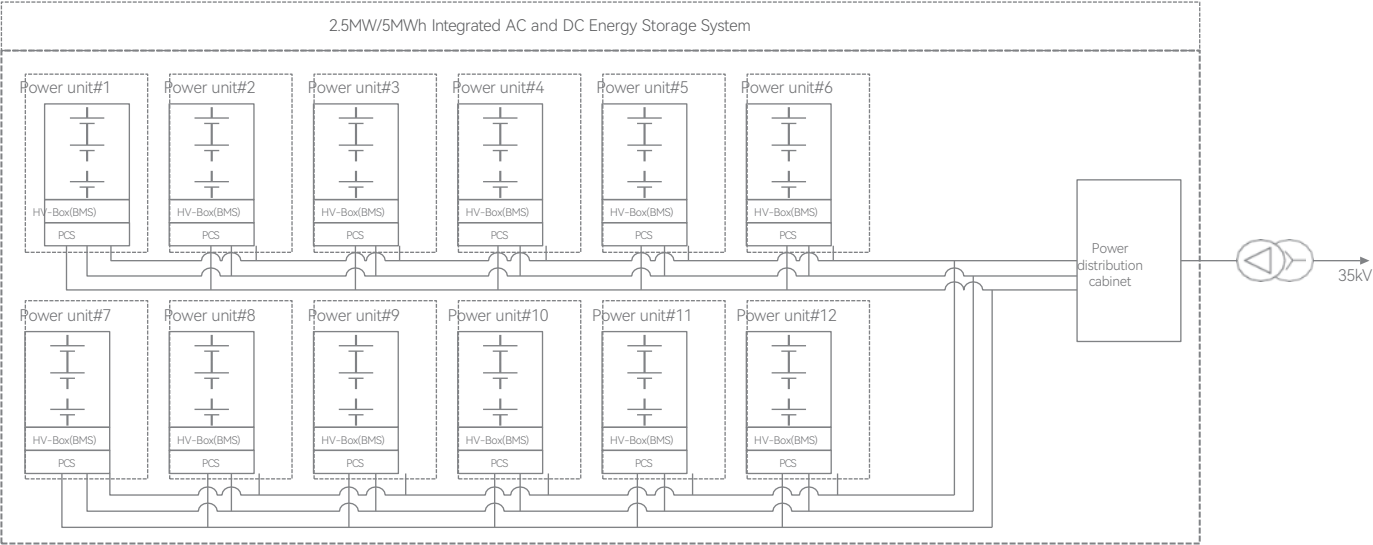
Product Advantages

- The modular PCS solves the circulating current between battery racks
- The discharge amount of the whole life cycle is increased by 6~8% , LCOE reduced by 3%~5%
- 20' standard container
- It increases energy density by 18%
- It reduces the footprint by 30%
- It reduces O&M time by 20%

Applicable Scenarios

- Energy Storage Allocated by New Energy
- Frequency Modulation Service
- Independent Energy Storage
- C&I

Topology



Product Name	2.5MW/5MWh Integrated AC and DC Energy Storage System
AC-side	
Rated AC Output Power	2500kVA
Max. AC Output Power	2750kVA
Max. Output Current	2510A
Number of AC Input	12
Rated Output Voltage	690V
Grid Type	3P+PE
AC Grid Frequency	50Hz(45Hz~55Hz)
Grid Voltage Range	586.5V~759V
Power Factor	>0.99(Rated Power)
Adjustable Reactive Power Factor Range	-1~+1
AC Current Distortion Rate	<3%(Rated Power)
Isolation Method	Non-isolated
DC-side	
Cell	LFP 3.2V/314Ah
System Battery Configuration	12P416S
Battery Rated Capacity	5015.96kWh
Battery Voltage Range	1123.2V~1497.6V
System Parameters	
Dimensions (W x H x D)	6058×2896×2438mm
Weight	≤48T
IP Level	IP54
Corrosion-proof Grade	C5
Operating Temperature Range	-30℃~60℃
Operating Humidity Range	0%~95%(No Condensation)
Max. Operating Altitude	4000m
Cooling Method	Liquid Cooling
Fire Protection System	Flammable Gas Detection + Active Ventilation + PACK-Level Fire Protection (optional) + Water Firefighting
System Communication Interface	LAN
External System Communication Protocol	ModbusTCP、IEC61850
Certification	GB/T-34120、GB/T-44026、UL9540A、IEC62619-2022、IEC63056-2020、IEC/EN62477-1-2023、IEC62933-1-2024、UL1973-2022、UN38.3、IEC61000-6-2、IEC61000-6-4、EN50549-2

Centralized Energy Storage Converter

2.5MW Energy Storage Converter



- ### High-efficiency Conversion

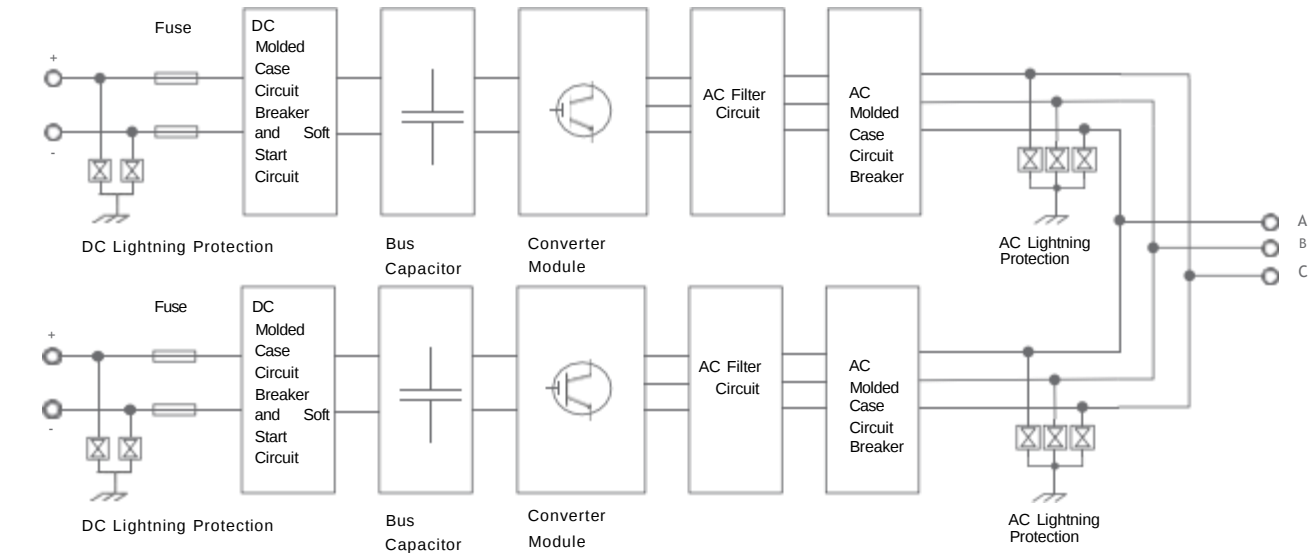
 - Adopts a three-level topology with an efficiency of up to 99%
 - Intelligent air cooling, no derating at 40°C
- ### Safe and Reliable

 - IP65 protection rating, C5 corrosion resistance, and stronger environmental adaptability
 - Supports intelligent detection of multiple system faults as well as temperature failure detection and protection
- ### Flexible Application

 - Multiple units can be paralleled and assembled in a modular manner to meet different power requirements
 - Modular design for easier installation, operation and maintenance
- ### Grid-friendly

 - Equipped with functions such as PQ, VF, SVG and VSG, supporting high/low voltage ride-through
 - Rapid power dispatching, off-grid operation and "black start"

Circuit Block Diagram



Product Specifications	EAPCS2500KHV
DC Side	
Rated Power, DC Voltage Operating Range	1000V~1500V
Maximum DC Operating Current	3087A
Number of DC Input Channels	2
ACSide (Grid-connected)	
Rated Output Power	2750kVA@45°C
Maximum Output Power	3025kVA@30°C
Maximum AC Current	2531A@30°C
Rated AC Voltage	AC690V
AC Voltage Range	586.5V~759V
Rated Grid Frequency / Grid Frequency Range	50Hz/45Hz~55Hz
AC Current Harmonics	<3% (At Rated Power)
Power Factor	>0.99 (Rated Power)
Adjustable Range of Reactive Power	-105%~105%
Efficiency	
Maximum Efficiency	99%
Protection	
DC Input Protection	Load Switch + Fuse
AC Output Protection	Molded Case Circuit Breaker
Surge Protection	Possess
Grid Monitoring / Ground Fault Monitoring	Possess
Insulation Detection	Possess
Overheat Protection	Possess
General Parameters	
Dimensions (W×H×D)	720×2320×1400mm (×2)
Weight	2T
Isolation Type	Non-isolated
Protection Class	IP65/C5
Operating Temperature Range	-35°C~60°C (>45°C Derating)
Relative Humidity Range	0%~95% (No Condensation)
Cooling Method	Intelligent Air Cooling
Maximum Operating Altitude	5000m (>4000m Derating)
Communication	RS485, CAN
Complies with Standards	IEC62477、IEC61000、IEC62109
Grid Support	L/HVRT, Active Power, Reactive Power Control, Power Slope Control

215kW Liquid-Cooled String Energy Storage Converter



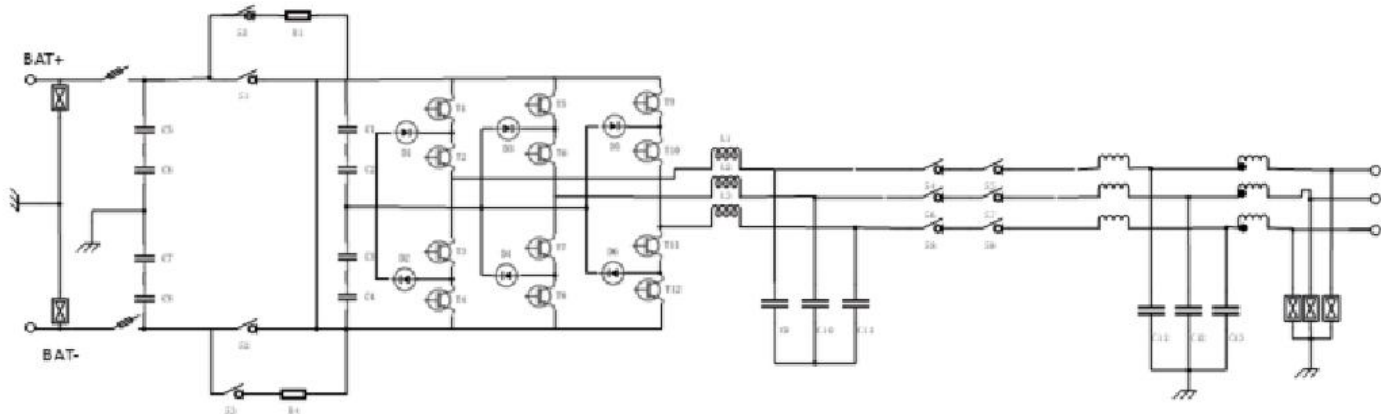
Product Overview

EAST's brand-new liquid-cooled string PCS product adopts a modular design concept, which can be paralleled to form a 2.5MW AC-DC integrated energy storage system, suitable for generation-side, grid-side and large-scale industrial and commercial energy storage systems.

Product Features

- Full liquid-cooled heat dissipation, low-noise design, with a maximum efficiency of $\geq 99\%$
- The module adopts IP66 protection rating and high corrosion protection class, suitable for various harsh environment applications.
- Ultra-thin design with a module height of 155mm and a weight of $\leq 120\text{kg}$, facilitating easy installation and maintenance
- With off-grid operation function

Product Topology Diagram



Product Specifications	EAMPCS215KHV
DC-side Parameters	
Maximum DC Voltage	1500V
Minimum DC Voltage	1000V
Operating Voltage Range	1000V~1500V
Maximum DC Current	241A
Number of Input Channels	1
AC-side Parameters	
Rated Power	215kW@50°C
Maximum Apparent Power	235 kVA@45°C
Rated Grid Voltage	690V
AC Wiring System	3P+PE
Grid Voltage Range	-15% ~ +10%
Rated AC Current	180A@50°C
Maximum AC Current	198A@45°C
Rated Grid Frequency	50Hz
Permissible Grid Frequency	45~55Hz
Total Current Waveform Distortion Rate	< 3 %
Power Factor	> 0.99
Adjustable Range of Reactive Power	-105% ~ +105%
Safety Functions	
Protection	DC Input Protection, AC-side Output Protection, Surge Protection, Grid Short-circuit/Earth Fault Protection, Insulation Resistance Monitoring, Over-temperature Fault Protection, Low Voltage Ride Through (LVRT), High Voltage Ride Through (HVRT), Anti-islanding Protection, AC Overcurrent/Short-circuit Protection, DC Overcurrent/Short-circuit Protection, DC Polarity Reverse Protection, Power Module Fault Protection (IGBT)
System Parameters	
Maximum Efficiency	0.99
Communication Protocol	RS485, CAN 2.0
IP Rating	IP66
Corrosion Protection Class	C3 (Optional C5)
Standby Power Consumption	< 0.5% Pn
Communication Interface (External)	RS485, CAN, Ethernet
Noise	< 70dB
Cooling Method	Intelligent Liquid Cooling
Dimensions (W × H × D)	780mm×155mm×1300mm (Excluding Mounting Lugs)
Operating Altitude	4000m (3000m Derating)
Complies with Standards	GB/T34120, GB/T34133, IEC62477

Industrial and Commercial Energy Storage Solutions

Application Scenarios

- Industrial Parks
- Large Commercial Complexes
- Data Centers and 5G Base Stations
- Expressway Charging Stations and Service Areas
- Microgrids



Commercial and Industrial Energy Storage

- 135kW/261kWh Liquid-Cooled Energy Storage All-in-One Machine
- 135kW/522kWh Liquid-Cooled Energy Storage All-in-One Machine



Product Features.

- Full Liquid-Cooled Commercial & Industrial All-in-One Unit with 20% Increased Energy Density.
 - Dual-circulation Liquid-cooled Unit with High Operational Reliability.
 - Battery module and cabinet-level fire detection and protection strategies, with water-based fire suppression support for ultimate safety.
 - Station-level self-developed EMS configuration, featuring high-speed control and remote intelligent configuration.
 - Full front maintenance capability, side-by-side installation support, and minimal system footprint.
- Fully modular design, integrated power distribution design, and ultra-simple operation and maintenance.
 - The PCS module features IP66 high protection rating and C5 high corrosion resistance rating, suitable for various harsh working environments.
 - Continuous operation at full power without derating at a high temperature of 50°C.
 - Supports 100% three-phase unbalanced output and is capable of three-phase four-wire off-grid operation.

Product Specifications	EAESS135K-261kWh	EAESS135K-522kWh
Battery Parameters		
Cell Type	3.2V/314Ah	
System Battery Configuration	1P260S	2P260S
Battery Rated Capacity	261.248kWh	522.496kWh
Battery Voltage Range	676V ~ 949V	
AC Side Parameters		
AC Side Rated Power	135kW	
AC Side Voltage Distortion Rate	3%	
DC Component	≤0.5%	
AC Side Rated Voltage	AC400V	
Grid Voltage Range	340V~440V	
Power Factor	>0.99 （Rated Power）	
Reactive Power Adjustable Range	-105%~105%	
Rated Grid Frequency	50Hz	
Grid Frequency Range	45Hz~55Hz	
Isolation Method	Non-isolated	
System Parameters		
Product Dimensions (W × H × D)	1000×2000×1500mm	2000×2000×1500mm
Product Weight	2850kg	4900kg
Protection/Corrosion Resistance Class	IP54/C3 （C5 Optional）	
Operating Temperature Range	-25℃ ~ 55℃	
Operating Humidity Range	0%~95% （Non-condensing）	
Maximum Operating Altitude	4000m	
Battery Temperature Control Method	Liquid Cooling	
Converter Cooling Method	Liquid Cooling	
Fire Protection System	Perfluorohexanone + Water Fire Protection + Active Ventilation	
System Communication Interface	LAN	
External System Communication Protocol	IEC-61850/Modbus TCP	

125kW/261kWh-2h Liquid-cooled Industrial and Commercial Energy Storage All-in-One Machine



- High Efficiency and Benefits

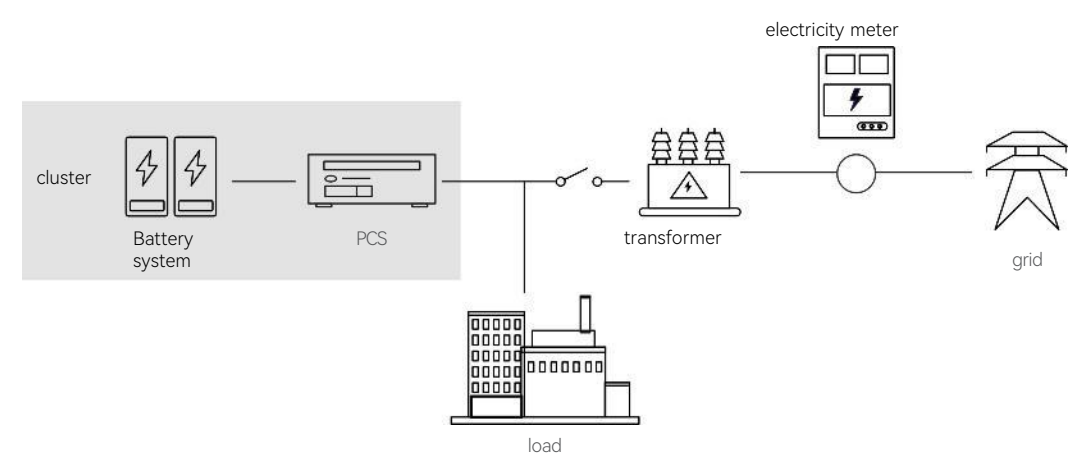
 - Intelligent string architecture, one management per cluster
 - PCS three-level topology, overall energy conversion efficiency > 90%
 - Liquid cooling temperature control, battery temperature difference < 3°C
 - Auxiliary power consumption reduced by 30%, system service life extended by 2 years
- Flexible configuration

 - All-in-one design, ready for grid connection upon deployment, commissioning-free
 - Building block-style expansion, supporting parallel operation of up to 8 units
 - High energy density cells, reducing system footprint
- Safe and Reliable

 - Long-life LFP battery cells with cycle count > 8000 times
 - Explosion vent design + perfluorohexanone fire protection
 - Multiple safety safeguards support off-grid operation with load, providing backup power for critical loads
- Intelligent Management

 - Online monitoring via cloud platform, real-time alerts for system failures
 - Supports remote and local upgrade of key equipment for intelligent operation and maintenance
 - Equipped with high-precision BMS, precise calibration, and on-site maintenance-free

Topology



Product Specifications	EAESS125k-261kWh-C
Battery parameters	
Cell type	3.2V/314Ah
System battery configuration	260S1P
Rated battery capacity	261kWh
Battery voltage range	650V ~ 936V
Rated voltage	832Vdc
Grid-connected AC side parameters	
Rated power	125kW
Rated voltage	400Vac
Rated frequency	50/60Hz
Voltage range	400Vac(-20%~+15%)
Frequency range	50/60Hz(-5Hz~+5Hz)
Total Voltage Harmonic Distortion	<3%
Power factor	±1.0
Overload capacity	110%
Off-grid AC side parameters	
Rated power	125kW
Rated voltage	400Vac
Rated frequency	50/60Hz
Voltage harmonics	≤3%
System parameters	
AC connection mode	three-phase four-wire
System efficiency	≥90%
Cooling method	liquid cooling
Charge-discharge rate	0.5P
Number of cycles	≥8000@25°C
Fire protection system	Perfluorohexanone (PACK grade) + active monitoring + water fire protection
Operating temperature	-30~55°C
Relative humidity	0~95%RH, No condensation
Altitude	<3000m(>3000m derated)
Communication method	LAN, RS485, TCP/IP, ICE61850
IP rating	Battery protection level @IP67, PCS protection level @IP66, system protection level @IP54
Weight	≤2500kg
Cabinet Size (Width x Depth x Height)	1000x1350x2350mm

C&I Energy Storage System EAPVESS130K261KWH-C

Disel-PV-ESS | All-in-one



- High protection level: cabinet IP54, C4 anti-corrosion; inverter IP66 protection, battery PACK IP67 protection, can be used in a variety of harsh scenarios
- High conversion efficiency: the PV-ESS inverter adopts SiC solution on a large scale, with the highest conversion efficiency reaching 98.2%, reducing the kWh cost
- Three-level fire-fighting strategy: Level 1 power off and shutdown protection; Level 2 perfluorohexanone gas start; Level 3 water spray fire-fighting to prevent re-ignition

- Intelligent monitoring: real-time intelligent power base on control, energy management and scheduling, information monitoring and early warning, safe and reliable system
- Modular design: the system consists of battery cabinet, power distribution cabinet, and EMS modules, which can be flexibly configured and support dynamic expansion
- Application scenarios: industrial and commercial energy storage, emergency backup power supply, Diesel-PV-ESS microgrid, etc.

System Expansion



Flexible expansion of DC side
(1 distribution cabinet + 4 battery cabinets)
130kW/261-1044kWh system



Backup side AC 4 parallel connections
130kW/261kWh*4 system



4 parallel connections

Application Scenario

AC ———
DC ———
COM - - -



Specification

MODEL	EAPVESS130K261KWH-C
Battery parameters	
Cell	314Ah
Configuration	1P260S
Rated energy	261kWh
Rated voltage	832Vdc
Voltage range	728~949Vdc
Max. expandable quantity	4 clusters
PV parameters	
Max. input power	260kW
Max. input voltage	950Vdc
Rated input voltage	810Vdc
Starting voltage	220Vdc
Max. input/short-circuit current	52/55Hz
MPPT quantity	6
Max. number of MPPT strings	3
Grid parameters	
Rated input/output power	260/130kW
Voltage range	380/400Vac(-20%~20%), 3/N/PE
Rated input current	394A/376.8A
Rated output current	197A/188.4A
Power factor	>0.99(0.8 lead~0.8 lag)
THDi	<3%@rated power
Diesel engine parameters	
Rated power	130kW
Voltage range	380/400Vac(-20%~20%), 3/N/PE
Rated current	197A/188.4A
Backup parameters	
Rated power	130kW
Rated voltage	380/400Vac, 3/N/PE
Rated frequency	50/60Hz
Rated current	197A/188.4A
THDi	<3%@linear rated power
System general parameters	
On-grid and off-grid switching time	<20ms
Max. conversion efficiency	99%
Europe/MPPT efficiency	98.2%/99.9%
IP rating	Battery cabinet(IP54), battery pack(IP67), power distribution cabinet(IP20), PV-ESS inverter(IP65), power distribution box(IP55)
Operating temperature	-30~60°C(>45°C derating)
Relative humidity	<95%RH(non-condensing)
Altitude	<4000m(>2000m derating)
Cooling method	Battery cabinet@Liquid cooling/PV-ESS inverter@air cooling
Noise	<65dB
Fire protection system	Cell level+cabinet level gas fire-fighting(perfluorohexanone)/aerosol+water fire-fighting
Wired/wireless communication	Ethernet(1 Modbus-TCP), RS485(1 Modbus-RTU)/4G/WIFI
Human-computer interaction	LED, APP, Web
Standards	EC 62477-1:2012+AMD1:2016; EN 62477-1:2012+A11:2014+A1:2017+A12:2021; EN IEC 61000-6-2:2019; EN 50549-2:2019+A1:2023; EN 50549-10:2022 Type B; EN IEC 61000-6-4:2021; EN 62920:2017/A1:2021; EN 50549-2:2019 + A1:2023+; EN 50549-10:2022 Type A
Dimensions(WxHxD)(mm)	1000x2250x1350@battery cabinet, 800x2250x1350@power distribution cabinet
Weight(kg)	≤2000@battery cabinet, ≤1000@power distribution cabinet

135kW PCS module



- High Efficiency Conversion
- Three-level design with efficiency up to 98.8%
 - Intelligent air cooling, no derating at 50°C



- Flexible application
- Capable of multi-machine parallel connection and modular assembly to meet different power requirements
 - Modular design for easier installation, operation and maintenance

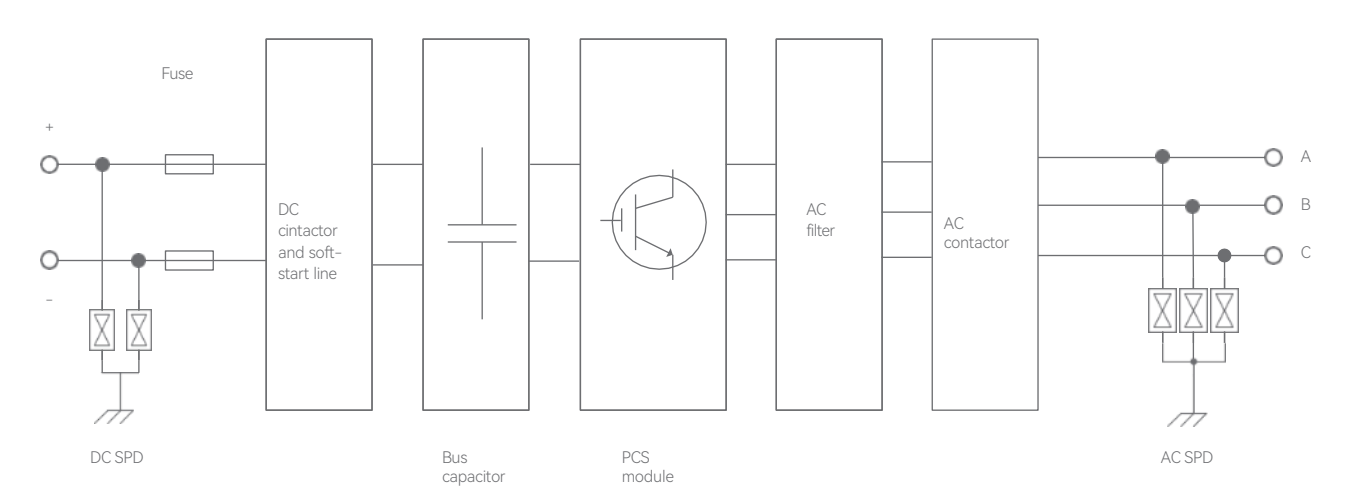


- Safe and Reliable
- IP65 high protection rating, strong environmental adaptability
 - Multiple protection measures, fault self-diagnosis



- Grid-friendly
- Capable of independent local management for peak shaving and valley filling
 - Supports various fault ride-through and weak power grid applications with excellent grid adaptability
 - Off-grid operation and unbalanced load carrying, greatly enhancing the product's load adaptability

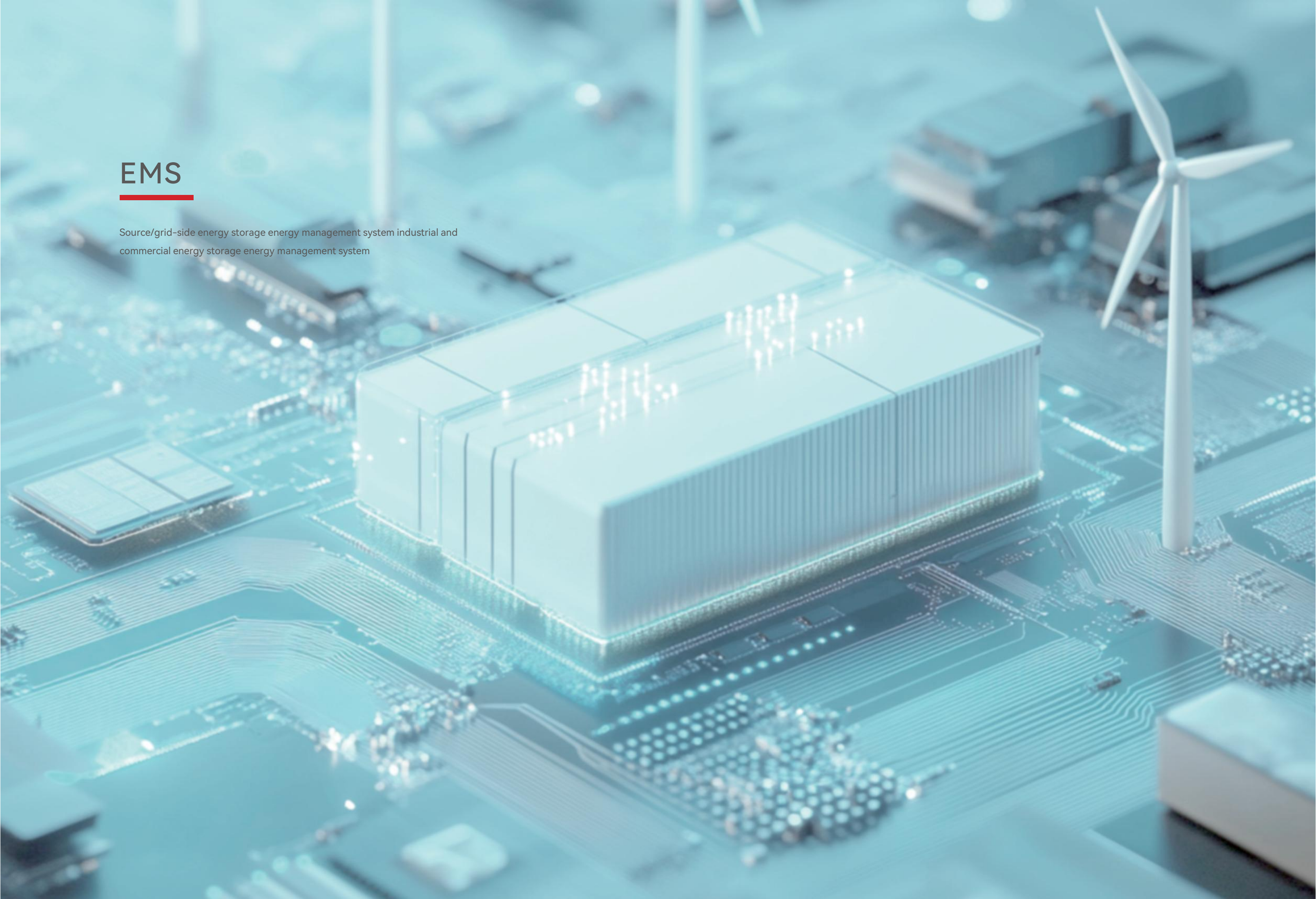
Topology



Product Specifications	EAMPCS135K
DC side	
Rated power DC voltage operating range	650V~950V
Maximum DC operating current	233A
DC input channels	1
AC side (grid connection)	
Rated output power	135kW
Maximum output power	148.5kW
Maximum alternating current	215A
Rated AC voltage	AC400V
AC voltage range	340V~440V
Rated grid frequency / Grid frequency range	50Hz/45Hz~55Hz
Alternating current harmonics	<3% (Rated power)
Power factor	>0.99 (Rated power)
Adjustable range of reactive power	-105%~105%
AC side (off-grid)	
Rated output voltage	400/230V
Three-phase unbalance capability	100%
Seamless on-grid and off-grid switching time	≤20ms (Grid-Connected and Off-Grid Switch Cabinet)
Seamless switching for circuit breaker control	≤2s
Off-grid overload capacity	Po≤1.1Pn long-term 1.1Pn < Po≤1.2Pn 1 min
Efficiency	
Maximum efficiency	99%
Protect	
DC input protection	Possess
AC output protection	Possess
Surge protection	Possess
Power Grid Monitoring / Grounding Fault Monitoring	Possess
Insulation detection	Possess
Overheat protection	Possess
General parameters	
Dimensions (Width × Height × Depth)	770×155×1140mm
Weight	≤105kg
Isolation type	Non-isolated
Protection class	IP66
Operating temperature range	-30°C~60°C (>50°C derated)
Relative humidity range	0%~100% (No condensation)
Cooling method	liquid cooling
Maximum operating altitude	4000m (> 2000m derated)
Communication Standrad	RS485, CAN GB/T34120, GB/T34133

EMS

Source/grid-side energy storage energy management system industrial and commercial energy storage energy management system



Energy Management System (EMS)

- Generation/Grid-side Energy Storage Management System



Fast Response

- Primary Frequency Regulation Response Time < 20ms
- Panoramic Data Second-Level Monitoring

Panoramic Coverage

- Rich Strategy Portfolio: Includes primary frequency response, inertia support, damping control, and solar-storage synergy.
- Wide-Ranging Scenarios: Covers storage paired with renewables, standalone ESS, and fossil-fuel plant frequency regulation support.

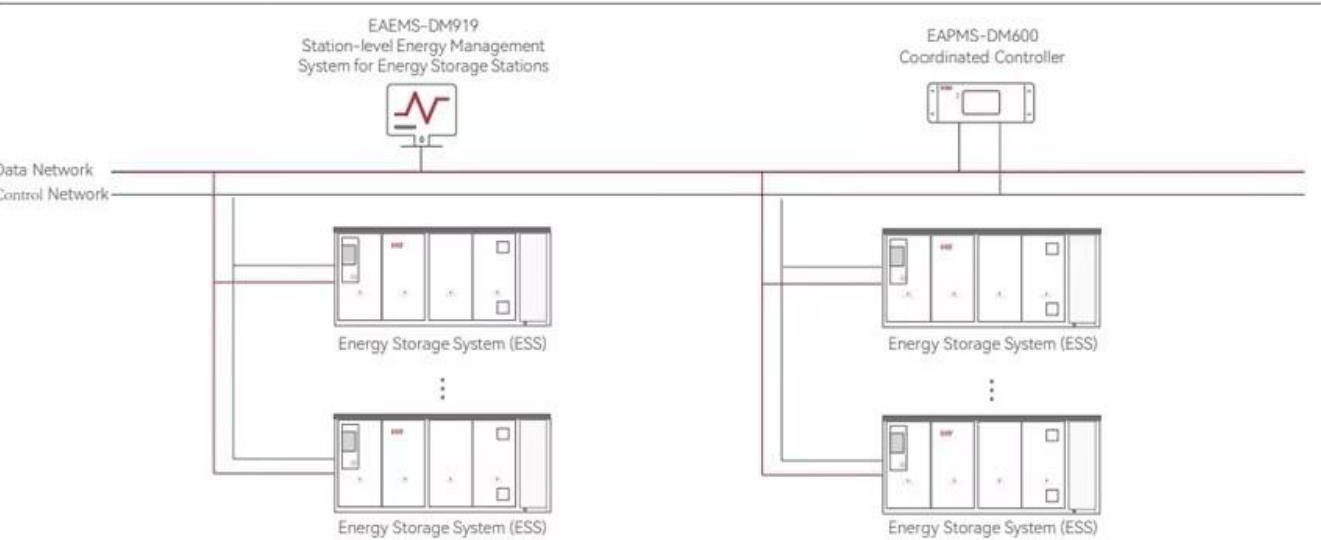
Safe and Reliable

- Intelligent Fault Warning and Life Prediction
- Four-Layer Network Architecture with Secure and Reliable Communication

Intelligent and Efficient

- Smart SOC Balancing to Reduce Battery Capacity Loss
- Real-Time Fault Notification with Precise Localization

System Block Diagram



Item	Specification
EMS Software	EAEMS-DM919
Maximum Access Capacity	1 GWh
Historical Data Storage Time	≥ 2 years (5-minute data interval)
Annual Availability of Dual-Server System	≥ 99.9%
Service Life	≥ 10 years
Backup Requirements	Dual-server, dual-network redundancy; mirror backup for critical files and databases
Operational Strategies	Primary frequency regulation, dynamic reactive power/voltage regulation, inertia support, precise load shedding, dispatch operation, schedule curve following, fluctuation smoothing, PV-storage synergy
Communication Protocols	IEC 104, IEC 61850, Modbus TCP
Coordinated Controller	
EAPMS-DM600	
System Specifications	
Voltage/Current Sampling Points	6 grid connection points
Digital Input (DI)	16
Digital Output (DO)	8
Analog Input (DC)	8
Max. Connectable PCS Units	128
Display	7-inch touch color LCD screen
Protection Rating	IP20
Product Dimensions (W×H×D)	482.7 × 177.6 × 340 mm
Performance Parameters	
Primary Frequency Regulation Response Time	≤ 20 ms
Frequency Measurement Error	≤ 0.001 Hz
Monitoring Screen	
Monitoring System	
Server	Industrial PC / Server (optional)
Monitoring Software	eDome
System Specifications	
Fiber Optic Interfaces (optional)	4 / 8 / 16 / 24 optical ports
Network Interfaces (optional)	8 / 16 / 24 electrical ports
Optional Accessories	Firewall, isolation device, encryption device
Power Supply	
Supply Voltage / Frequency	AC 220V / 50Hz
Power Consumption	≤ 2500 W
Environmental Parameters	
Cooling Method	Natural air cooling
Operating Temp. & Humidity	5°C ~ 45°C, 5% ~ 95% RH (non-condensing)
Cabinet Parameters	
Protection Rating	IP20
Single Cabinet Dimensions (W×H×D)	800 × 2260 × 1000 mm

Energy Management System (EMS)

- Commercial and Industrial Energy Storage Energy Management System



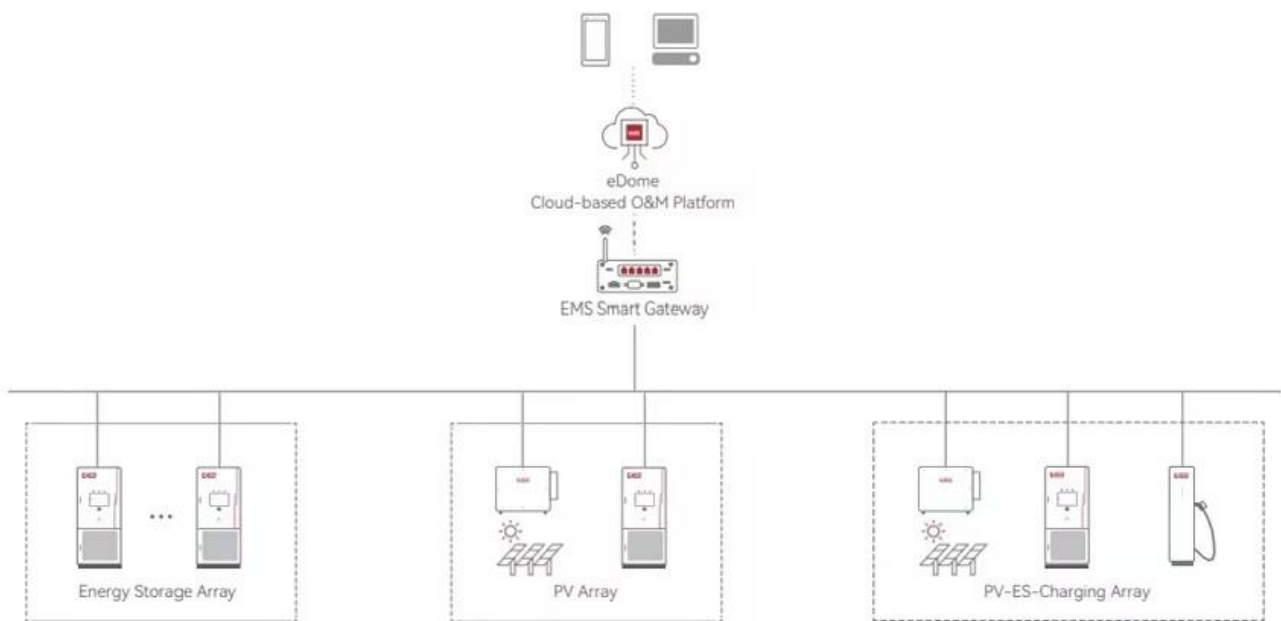
- Intelligent O&M**

 - Supports intelligent power station analysis, fault self-diagnosis, and related functions.
 - Supports intelligent work order dispatch and one-click maintenance operations.
 - Enables one-click matching of personnel and status.
- Economical and Efficient**

 - Multi-Energy Complementarity for Economical and Efficient Operational Strategies
 - Web + APP for More Efficient Management
- Quick and Easy Deployment**

 - Debugging and station setup can be completed via a mobile APP.
 - Devices are fully auto-identified and connected to the system.
 - One-click deployment for multiple sites with identical configurations.

System Block Diagram



eDome Cloud Operations and Maintenance Platform	
Basic Composition	
Integrated Energy Control System	eDome Galaxy
Electricity Trading Assistant System	eDome Trade
Big Data AI Computing Center	eDome AI-Analytics
Functions	
Basic Functions	Centralized monitoring, operation and maintenance management, auxiliary trading, and deep data mining.
Supported Access	Integrated access for commercial & industrial PV, energy storage, and charging piles.
Access Methods	Supports access via mobile app and web interface.
EMS Smart Gateway	
EAMEMS-DM206	
Product Parameters	
Processor	Quad-core ARM Cortex-A55
Memory	2 GB DDR4
Storage	16 GB eMMC
Operating System	RT-Linux System
Interface Parameters	
Ethernet Ports	4 ports (Fast Ethernet & Gigabit Ethernet, RJ45)
HDMI	1 port (HDMI 2.0A)
USB	2 ports (USB 2.0)
RS485	6 ports (Baud rate: 1200-115200 bps)
CAN	3 ports (CAN 2.0, Baud rate up to 1000 kbit/s)
DI/DO	8 DI + 8 DO (Dry Contact)
Environmental Parameters	
Operating Temperature & Humidity	—30°C to 70°C, 0% to 95% RH (non-condensing)
Storage Temperature & Humidity	—30°C to 70°C, 0% to 95% RH (non-condensing)

Residential Photovoltaic Energy Storage System Solutions

Single-phase household energy storage system

Three-phase household energy storage system

Single-phase grid-tied/off-grid inverter : EAHI-3000-SL / EAHI-3600-SL / EAHI-5000-SL / EAHI-6000-SL

Single-phase grid-tied/off-grid inverter: EAHI10KSL / EAHI12KSL

Three-phase grid-tied/off-grid inverter: EAHI10KTH / EAHI15KTH / EAHI20KTH

Single-phase off-grid inverter G3: GF3K24H / GF3K24L / GF5K48H / GF5K48L

Single-phase off-grid inverter G4: IGF3K24H/GF5K48H

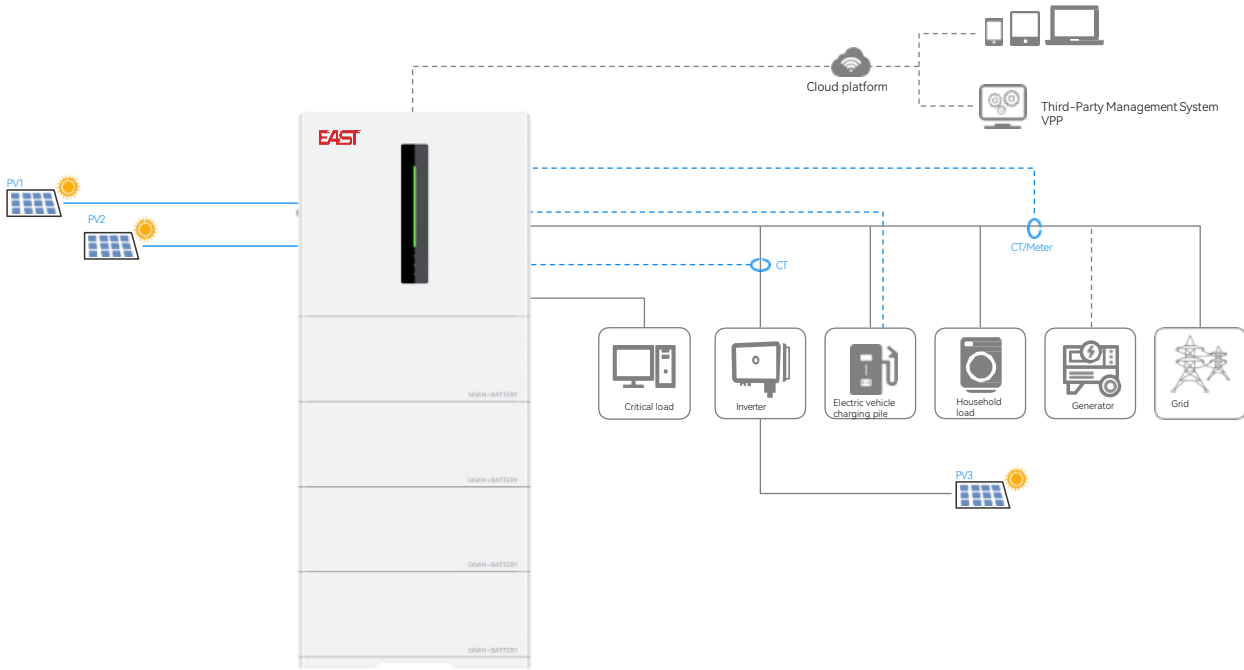


Single-phase household energy storage system

All-in-one machine



Classic application



Model	EAHI-6000-SL-S
PV Input parameter	
PV Maximum input power	8000W
PV Maximum input voltage	550Vdc
Starting voltage	150Vdc
PV Maximum input current	16/16A
short-circuit current	24/24A
Each MPPT input string number	1+1
AC Input/Output Parameters (Power Grid)	
Input voltage range	184~276Vac
Input frequency range	50±5Hz/60±5Hz
Maximum input current	40A
Rated output power	6000W
Maximum apparent output power	6000VA
Power grid system mode	1/N/PE
Rated output voltage & frequency	220Vac/230Vac & 50Hz/60Hz
Rated output current	27.3A/26.1A
Power factor	>0.99 (0.8 lead ~ 0.8 lag)
AC output parameters (backup load)	
Rated output power	6000VA/6000W
Power grid system mode	1/N/PE
Rated output voltage & frequency	230Vac (208/220/240Vac configurable) & 50Hz/60Hz
Rated output current	27.3A/26.1A
THDV	≤3% (linear load)
Switch time	≤10ms
Efficiency	
Maximum efficiency	97.8%
MPPT efficiency	99.9%
Protect	
Comprehensive	Overvoltage protection, overfrequency protection, electrical overload protection, overtemperature protection, islanding protection, insulation resistance detection, residual current monitoring unit, output overcurrent protection, output short-circuit protection, surge protection
Surge protection	DC Type II / AC Type III
Inverter standard	
Safety regulations	IEC/EN 62109-1/-2, AS62109
EMC	EN 61000-6-1/-2/-3/-4
Grid connection standard	CEI 0-21, DIN VDE V 0124-100:2020, VDE-AR-N 4105:2018, NRS097-2-1, EN 50549-1G99/1-9:2022, ETSI EN303645+PSTI, C10/11:2021, XP C 15-712-3:2019, ELOT EN 50549-1:2019, PEA
Other parameters of the inverter	
Dimensions (Width × Height × Depth)	600×530×305mm
Weight	36.4kg

Battery specifications

Model	5KWH
Cell parameters	LiFePO4
Battery parameters	51.2Vdc
Maximum expansion quantity	6
Energy capacity	5.12kWh
Cell type	105Ah
Expandable capacity range	5.12kWh~30.72kWh
Depth of discharge	Maximum 100% DOD (configurable)
Maximum charging power	3.84kW@1 module, 5.7kW@>1 module
Maximum discharge power	5.02kW@1 module, 6kW@>1 module
Maximum charging current	75A@1 module, 100A@>1 module
Maximum discharge current	98A@1 Module, 120A@>1 Module
Communication interface	485 and CAN
Dimensions (Width X Height X Depth)	600×220×305mm
Weight	50kg
Authentication	IEC 62619, IEC 60730, UN 38.3, IEC 62040-1, ROHS2.0, VDE 2510-50
Basic Parameters	
Dimensions (Width X Height X Depth)	600×30×305mm
Weight	6kg

Three-phase household energy storage system

All-in-one machine





Lithium iron phosphate battery, IP66 outdoor protection rating, built-in fire protection module and high-efficiency DCDC module

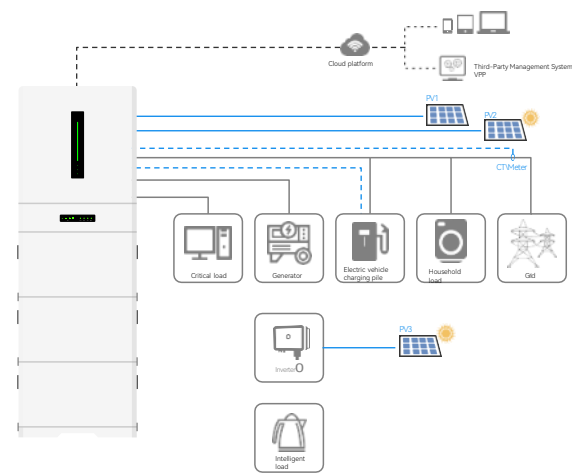
Each cluster supports 5~20 kWh stacking, with a maximum of 3 clusters available for on-demand usage and flexible expansion.



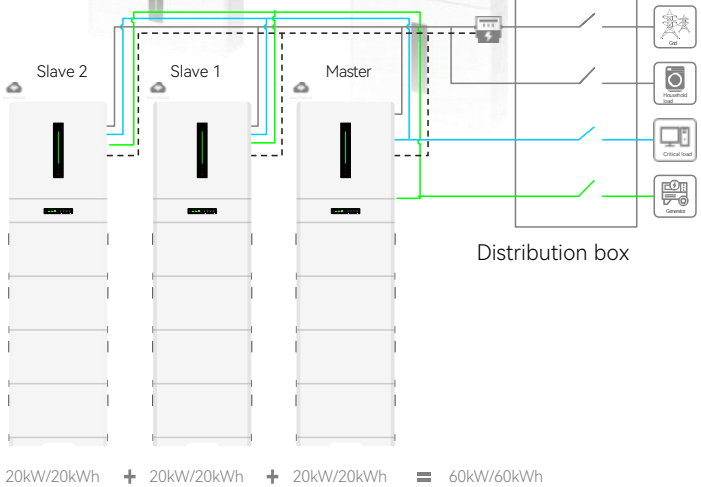
Modular battery design, stacked plug-in installation, plug and play

Real-time application monitoring is supported, along with online remote OTA upgrades, and operation and maintenance are simple.

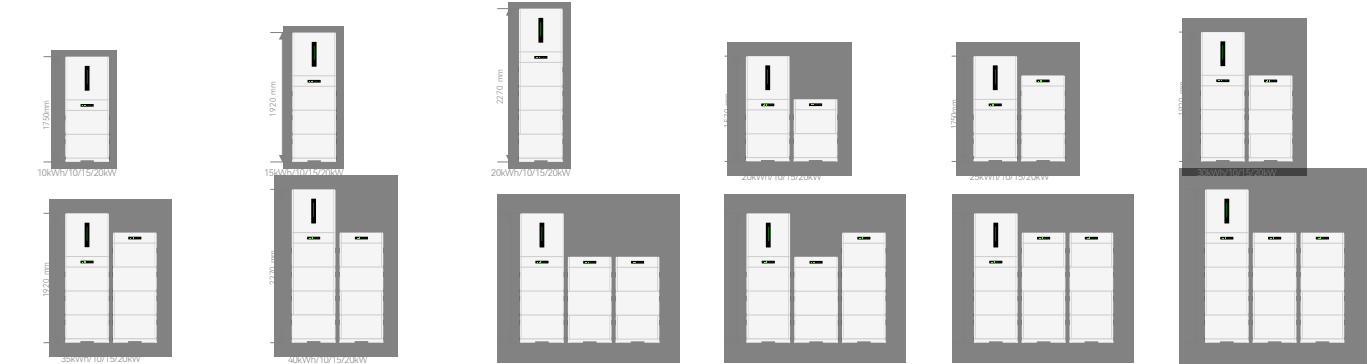
Classic applications



Parallel operation application



System composition



逆变器规格

Model	EAHI10KTH-S		EAHI15KTH-S		EAHI20KTH-S	
PV input parameters						
Maximum input power	20kW		30kW		30kW	
Maximum input voltage			1000Vdc			
MPPT voltage range			160~950Vdc			
Maximum input current per MPPT	16A/16A				16A/32A	
Maximum short-circuit current per MPPT channel	24A/24A				24A/48A	
Number of MPPTs	1/1				1/2	
Battery input parameters						
Battery type			LiFePO ₄ Battery			
Voltage range			650~980Vdc			
Maximum charge/discharge current	15.4A/15.4A		23.1A/23.1A		30.8A/30.8A	
AC Input Parameters (Power Grid)						
Maximum apparent power of the power grid	15kVA		22.5kVA		30kVA	
Maximum input current	21.7A		32.6A		40A	
Input voltage range			320~480Vac			
Input frequency range			50±5Hz/60±5Hz			
Rated output power	10kW		15kW		20kW	
Power factor			>0.99 (0.8 lead ~ 0.8 lag)			
THDI			≤3% (@ rated load)			
Generator input parameters						
Maximum input power	10kW		15kW		20kW	
Maximum input current	15.2A		22.8A		30.4A	
AC Output Parameters (Backup Load)						
Rated output power	10kW		15kW		20kW	
Rated output voltage			3/N/PE, 380Vac/400Vac			
Rated output frequency			50Hz/60Hz			
Rated output current			22.8A/21.7A			
THDV			≤3% (linear load)			
Switch time			≤10ms			
Efficiency						
Maximum efficiency			98.2%			
MPPT efficiency			99.9%			
Others						
Output overvoltage protection			DC Type II / AC Type III			
Size (W×H×D)			650×640×270mm			
Weight(kg)			45			
Parallel operation			Supports parallel operation of 6 units			
Topology			Non-isolated			
IP rating			IP66			
Operating temperature			-25°C~+60°C			
Cooling mode	Natural cooling				Intelligent Air Cooling	
Altitude			3000m			
Noise level (1m)	≤25dB		≤45dB		≤50dB	
Standrad	NC RFG+PTPIREE, VDE 0126, EN50549-1/10, DIN VDE V 0124-100:2020, VDE-AR-N 4105:2018, PPDS, CEI 0-21 IEC/EN 62109-1/-2, IEC62040-1, IEC62477, IEC62619:2022, EN 61000-6-1/-2/-3/-4					

Distribution box specifications

Model	PDU-GU-Y/F
Maximum current	60A
Voltage range	550~1000Vdc
Size (WxHxD)	650x150x270
Weight (kg)	12
IP rating	IP66
Fixed base dimensions (WxHxD)	650x80x270

Battery specifications

Model	EHBS-P5-TH
Battery type	LiFePO ₄ Battery
Module capacity	5.12kWh
Rated voltage	750Vdc
Voltage range	600~1000Vdc
Maximum charge/discharge current	3.4A/5.5A
Communication port	CAN/RS485
Dimensions (WxHxD) (mm)	650x370x270
Net weight	59
Topology	High-frequency isolation
IP rating	IP66
Operating temperature	-25°C~55°C
Heat dissipation method / Heating method	Natural cooling / PTC heating
Altitude	3000m
Safety regulations	IEC/EN 62619 2022, ISO 13849, IEC/EN 62040-1, IEC/EN 62477, IEC62109-1/2, IEC 61000-6-1, EN/IEC 61000-6-3,UN 38.3

Single-phase grid-tied/off-grid inverter

EAHI-3000-SL / EAHI-3600-SL / EAHI-5000-SL / EAHI-6000-SL



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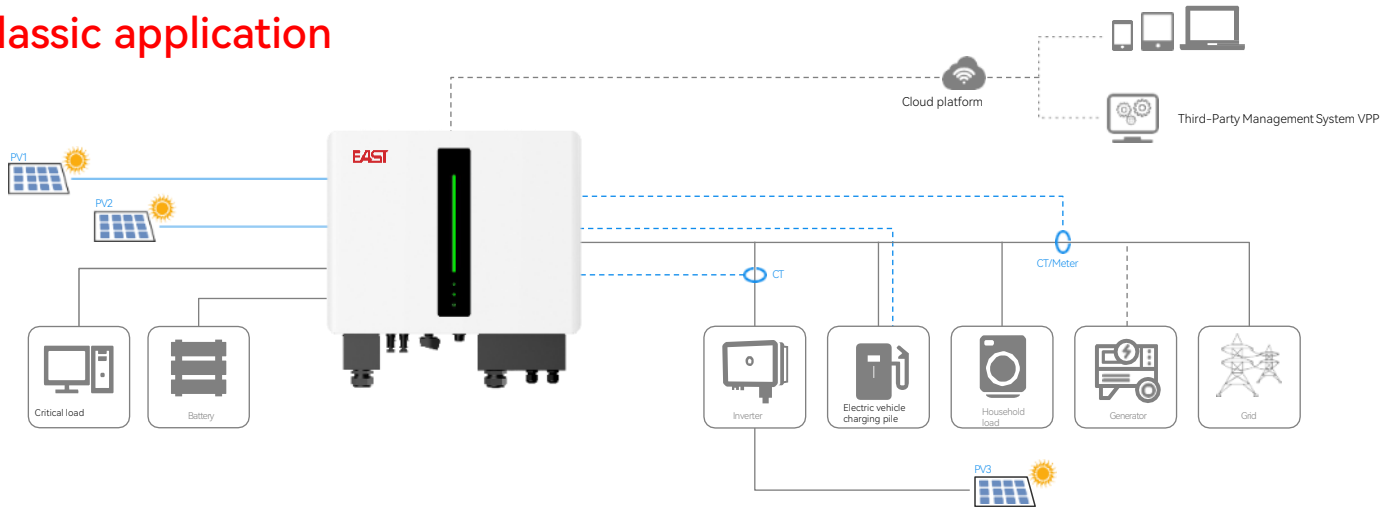
It adopts an all-aluminum chassis with an IP66 protection rating, making it suitable for outdoor environments.
- 

It features high charge-discharge efficiency and is compatible with both lithium batteries and lead-acid batteries.
- 

Charging and discharging periods and power can be flexibly set, supporting peak shaving and valley filling.
- 

Real-time APP monitoring for easy maintenance

Classic application



Model	EAHI-3000-SL		EAHI-3600-SL		EAHI-5000-SL		EAHI-6000-SL	
PV input parameters								
Maximum input power	4680W			6500W			7800W	
Maximum input voltage	550Vdc							
Rated input voltage	360Vdc							
Starting voltage	150Vdc							
Minimum operating voltage	100Vdc							
MPPT voltage range	100~540Vdc							
Maximum input current per MPPT	16A			16A/16A				
Maximum short-circuit current of each MPPT	24A			24A/24A				
Number of MPPTs	1			2				
Number of series strings per MPPT input	1			1/1				
Battery input parameters								
Battery type	Lithium-ion battery / lead-acid battery							
Voltage range	42~58Vdc							
Maximum charging current	66A	75A	100A	100A				
Maximum discharge current	66A	75A	100A	120A				
Charging curve	Stage 3 / Balanced							
Lithium battery charging strategy	BMS adaptive							
AC input parameters (power grid)								
Grid type	Single-phase (L/N/PE)							
Input voltage range	184~276Vac							
Input frequency range	50±5Hz/60±5Hz							
Maximum input current	21.8A	26.2A	36.5A	40A				
AC Output Parameters (Power Grid)								
Rated output power	3000W	3600W	5000W	6000W				
Maximum apparent output power	3000VA	3600VA	5000VA	6000VA				
Power grid mode	Single-phase (L/N/PE)							
Rated output voltage	220Vac/230Vac							
Rated output frequency	50Hz/60Hz							
Rated output current	13.6A/13.0A	16.4A/15.7A	22.7A/21.8A	27.3A/26.1A				
Maximum output current	13.6A	16.4A	22.7A	27.3A				
Power factor	>0.99 (0.8 lead ~ 0.8 lag)							
THDI	≤3% (@ rated load)							
AC output parameters (backup load)								
Rated output power	3000W	3600W	5000W	6000W				
Maximum apparent power	3000VA	3600VA	5000VA	6000W				
Output system mode	Single-phase (L/N/PE)							
Rated output voltage	230Vac (208/220/240Vac configurable)							
Rated output frequency	50Hz/60Hz							
Rated output current	13.0A	15.7A	21.8A	26.1A				
Maximum output current	14.4A	17.3A	24.0A	28.8A				
THDV	≤3% (linear load)							
Conversion time	≤10ms							
Efficiency								
Maximum efficiency	97.8%							
MPPT efficiency	99.9%							
Protective measures								
Protect	Overvoltage/undervoltage, overvoltage/underfrequency, overload, output short circuit, over-temperature, residual current monitoring unit, output overcurrent, insulation resistance detection, anti-islanding, surge protection							
Output overvoltage protection	DC Type II / AC Type III							
Others								
Communication	RS485, WIFI							
Dimensions (W×H×D) (mm)	548x440x197							
Weight (kg)	21.4			24.8				
Topology	High-frequency isolation (for batteries)							
IP rating	IP66							
Operating temperature	-25°C~+60°C(>45°C derated)							
Cooling mode	Natural cooling							
Altitude	4000m							
Noise level (1m)	≤25dB							
Installation method	Wall-mounted installation							
Standrad								
Safety regulations	IEC/EN 62109-1/-2, AS62109							
Electromagnetic compatibility	EN 61000-6-1/-2/-3/-4							
Grid connection	CEI 0-21, DIN VDE V 0124-100:2020, VDE-AR-N 4105:2018, AS4777.2, NRS097-2-1, EN 50549-1							

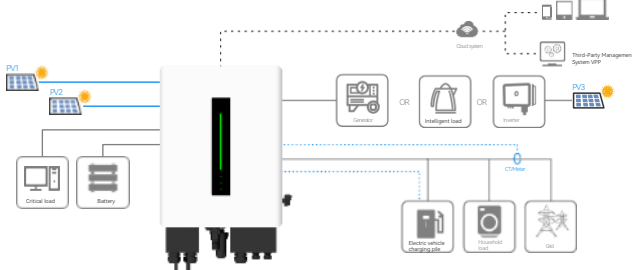
Single-phase grid-tied/off-grid inverter

EAHI10KSL / EAHI12KSL

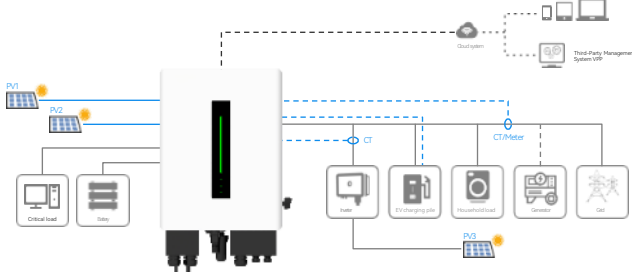


- Supports input from photovoltaic inverters, generators and microgrids, suitable for new and upgraded photovoltaic and microgrid systems
- Supports optional configurations of RSD and AFC, providing more secure protection for the system
- Supports multiple inverters to achieve EPS output in parallel mode and can be extended to small industrial and commercial applications
- The power input from the power grid and photovoltaics is over-provisioned at a ratio of 1.5, making the system operation more stable.

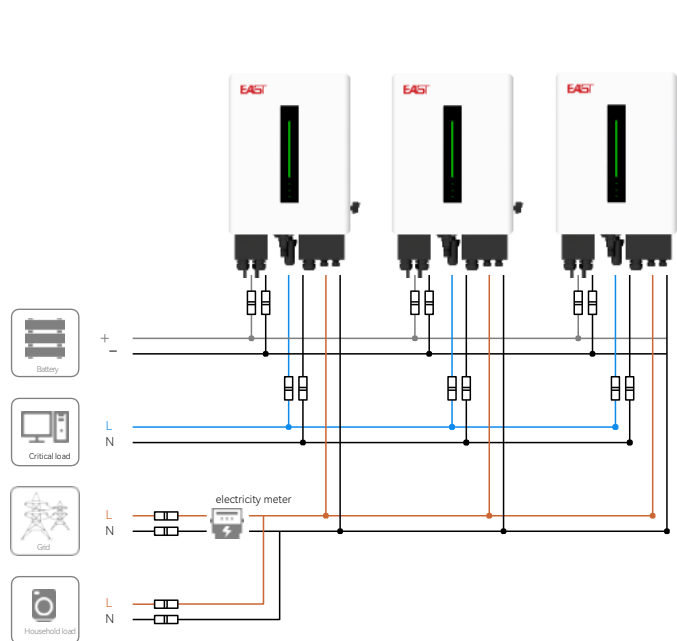
Classic Application 1



Classic Application 2



Parallel operation application



Model	EAHI10KSL	EAHI12KSL
PV input parameters		
Maximum input power	18kW	18kW
Maximum open-circuit voltage	550Vdc	
Rated input voltage	360Vdc	
Starting voltage	150Vdc	
Minimum operating voltage	100Vdc	
MPPT voltage range	100~540Vdc	
Full-power MPPT voltage range	300~500V	
Maximum input current per MPPT	30A/30A	
Maximum short-circuit current for each MPPT	40A/40A	
Number of MPPTs	2	
Number of series strings per MPPT input	2/2	
Battery input parameters		
Battery type	Lithium-ion battery / lead-acid battery	
Voltage range	42~58Vdc	
Maximum charge and discharge current	180A/180A	250A/250A
AC Input and Output Parameters (Power Grid)		
Maximum apparent power of the power grid	15kVA	18kVA
Maximum input current	68.2A	81.8A
Input voltage range	184~276Vac	
Input frequency range	50±5Hz	
Rated output power	10kW	12kW
Maximum output apparent power	10kVA	12kVA
Rated output voltage	1/N/PE, 220Vac/230Vac	
Rated output frequency	50Hz	
Rated output current	45.5A/43.5A	54.5A/52.2A
Maximum output current	45.5A	54.5A
Power factor	>0.99 (0.8 lead ~ 0.8 lag)	
THDI	≤3% (@ rated load)	
Generator input		
Maximum input power	10kW	12kW
Maximum input current	45.5A	54.5A
AC output parameters (backup load)		
Rated output power	10kW	12kW
Maximum apparent power	10kVA	12kVA
Rated output voltage	1/N/PE, 220Vac/230Vac	
Rated output frequency	50Hz	
Rated output current	45.5A/43.5A	54.5A/52.2A
Maximum output current	45.5A	54.5A
THDV	≤3%(线性负载)	
Switch time	≤10ms	
Efficiency		
Maximum efficiency	97.8%	
MPPT efficiency	99.9%	
Protective measures		
Protect	Overvoltage/undervoltage, overvoltage/underfrequency, overload, output short circuit, over-temperature, residual current monitoring unit, output overcurrent, insulation resistance detection, anti-islanding, surge protection	
Surge protection	DC Type II / AC Type III	
Others		
Dimensions (W x H x D) (mm)	450x600x270	
Weight (kg)	45	
Topology	High-frequency isolation (for batteries)	
IP rating	IP66	
Operating temperature	-25°C~+60°C	
Cooling mode	Intelligent Air Cooling	
Altitude	3000m	
Noise level (1m)	≤55dB	
Installation method	Wall-mounted installation	
Standrad		
Safety regulations	IEC/EN 62109-1/-2, AS62109	
Electromagnetic compatibility	EN 61000-6-1/-2/-3/-4	
Grid connection	NRS097-2-1:2017	

Three-phase grid-tied/off-grid inverter

EAHI10KTH / EAHI15KTH / EAHI20KTH

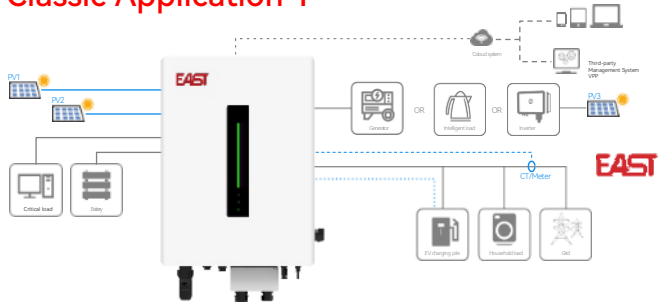


- Supports PV, generator, and microgrid inputs, suitable for both new and retrofitted photovoltaic and microgrid systems.

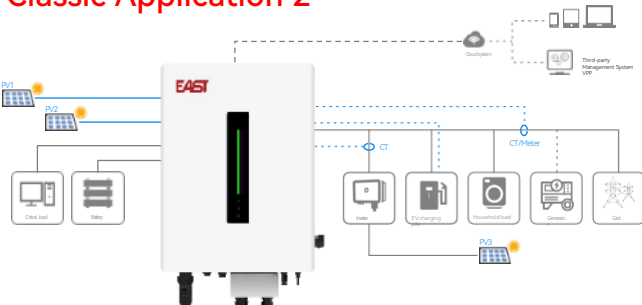
It features real-time application monitoring, supports online remote OTA upgrades, and is simple to operate and maintain.
- The mains and PV input power are over-provisioned by 1.5 to 2 times, making the system operate more stably.

Supports optional RSD and AFCI configurations, providing safer protection for the system.

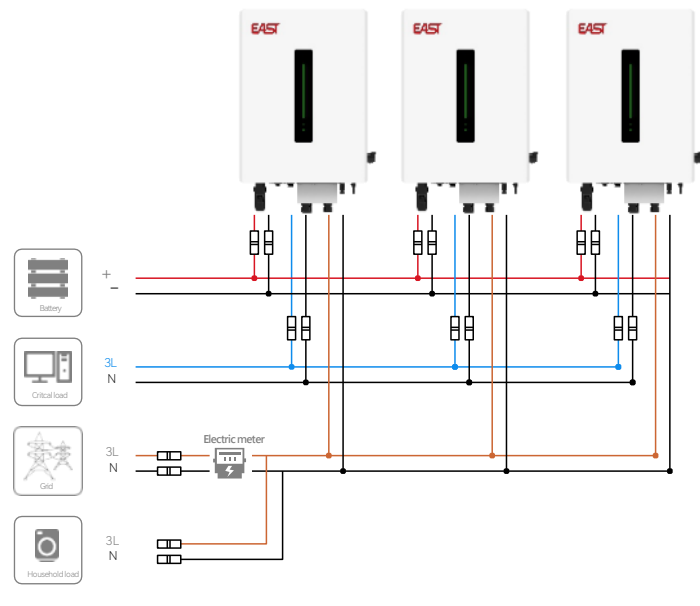
Classic Application 1



Classic Application 2



Parallel operation application



Model	EAHI10KTH		EAHI15KTH		EAHI20KTH	
PV input parameters						
Maximum input power	20kW		30kW		30kW	
Maximum input voltage	1000Vdc					
Rated input voltage	650Vdc					
Starting voltage	180Vdc					
Minimum operating voltage	160Vdc					
MPPT voltage	160~950Vdc					
Full-power MPPT operating range	625~800V					
Maximum input current per MPPT channel	16A/16A				16A/32A	
Maximum short-circuit current per MPPT channel	24A/24A				24A/48A	
Number of MPPTs	2					
Number of series strings per MPPT channel	1/1				1/2	
Battery input parameters						
Battery type	Lithium battery					
Voltage range	150~600Vdc					
Maximum charge/discharge current	25A		37.5A		50A	
AC Input/Output Parameters (Power Grid)						
Maximum apparent power	15kVA		22.5kVA		30kVA	
Maximum input current	22.8A		34.2A		40.0A	
Input voltage range	320~480Vac					
Input frequency range	50±5Hz/60±5Hz					
Rated output power	10kW		15kW			
Maximum apparent output power	11kVA		16.5kVA		20kW	
Rated output voltage	3/N/PE, 380Vac/400Vac					
Rated output frequency	50 Hz/60Hz					
Rated output current	15.2A/14.5A		22.8A/21.7A		30.4A/29.0A	
Maximum output current	16.7A/15.8A		25.1A/23.8A		33.5A/31.8A	
Power factor	>0.99 (0.8 leading ~ 0.8 lagging)					
THDI	≤3% (@ rated power)					
Generator input parameters						
Maximum input power	10kW		15kW		20kW	
Maximum input current	15.2A		22.8A		30.4A	
AC Output Parameters (Backup Load)						
Rated input power	10kW		15kW		20kW	
Maximum apparent power	10kVA		15kVA		20kVA	
Rated output voltage	3/N/PE, 380Vac/400Vac					
Rated output frequency	50Hz/60Hz					
Rated output current	15.2A/14.5A		22.8A/21.7A		30.4A/29.0A	
Maximum output current	15.2A		22.8A		30.4A	
THDV	≤3% (linear load)					
Switch time	≤10ms					
Efficiency						
Maximum efficiency	98.2%					
MPPT efficiency	99.9%					
Protective measures						
Protect	Over/undervoltage, over/underfrequency, overload, output short circuit, over-temperature, residual current monitoring unit, output overcurrent, insulation resistance detection, anti-islanding, surge protection					
Output overvoltage protection	DC Type II / AC Type III					
Other						
Dimensions (W*H*D)	500x680x280					
Package Dimensions (WxHxD)	615x930x370					
Net Weight (kg)	45					
Gross Weight (kg)	52					
Parallel operation	Supports parallel operation of 6 units					
Topology	Non-isolated					
IP rating	IP66					
Operating temperature	-25°C~+60°C					
Heat dissipation mode	Natural cooling		Intelligent Air Cooling			
Altitude	3000m					
Noise level (1m)	≤25dB		≤45dB		≤50dB	
Installation method	Wall-mounted					

Single-phase off-grid inverter G3

GF3K24H / GF3K24L / GF5K48H / GF5K48L



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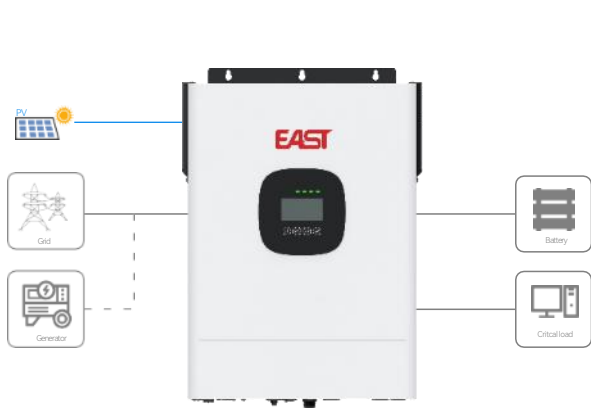
Flexibly set multiple operation modes according to preferences
- 

The system can be remotely monitored and maintained in real time via the WiFi module.
- 

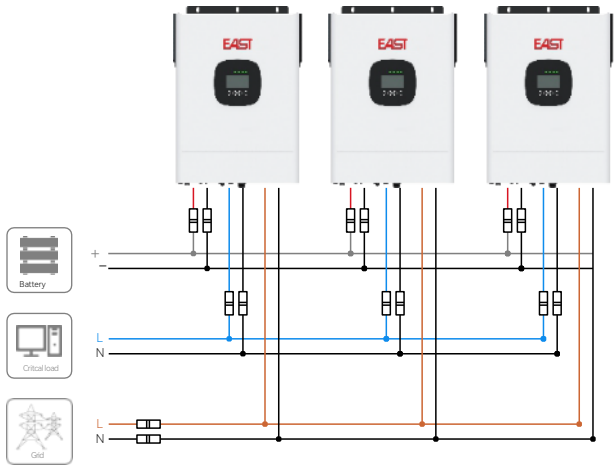
LCD and button design with a user-friendly operation interface
- 

High charge and discharge efficiency, compatible with lithium batteries and lead-acid batteries

Classic application



Parallel operation application



Model	GF3K24H	GF3K24L	GF5K48H	GF5K48L
Rated power	3000VA/3000W		5000VA/5000W	
Parallel operation function	Not supported		Supported, with a maximum of 6 units connected in parallel	
AC input				
Rated input voltage	230VAC	120VAC	230VAC	120VAC
Input voltage range	170~280VAC (Personal Computer Load Mode) 90~280VAC (Household Load Mode)	90~140VAC	170~280VAC (Personal Computer Load Mode) 90~280VAC (Household Load Mode)	90~140VAC
Rated input frequency	50/60Hz adaptive			
Input frequency range	40~65Hz			
Rated input current	20A	36A	32A	61.33A
Maximum input current	30A	40A	40A	80A
AC output				
Rated output voltage	230VAC	120VAC	230VAC	120VAC
Adjustable output voltage	220V/230V/240V	100V/110V/120V	220V/230V/240V	100V/110V/120V
The output can be set to a configurable frequency	50Hz/60Hz			
Rated output current	13.05A	25.00A	21.70A	41.67A
Overload capacity	Inverter output: 110%~150% load for 10s, ≥ 150% load for 5s, ≥ 200% load for 100ms Grid output: ≥ 150% load for 5s, ≥ 200% load for 100ms			
Harmonic content of inverter voltage	< 5%, linear load, < 10%, non-linear load			
Efficiency (Peak)	93%			
Surge power	6000VA, 5 cycles		10000VA, 5个周期	
Switch time	10ms (typical value)			20ms
Battery				
Battery type	Lead-acid battery / Lithium battery			
Rated voltage	24VDC		48VDC	
Charging voltage	27VDC (default value), adjustable range 24~29.2VDC		54VDC (default value), adjustable range 48~58.4VDC	
Overvoltage protection value	30.2VDC		60.5VDC	
Rated discharge current	130A		113.7A	
PV/AC charging				
PV charging type	MPPT			
Maximum PV power	4000W		6000W	
Maximum PV open-circuit voltage	450VDC			
MPPT operating voltage range	120~430VDC			
Maximum PV input current	18A		27A	
Maximum PV charging current	100A			
Maximum AC charging current	100A			
Maximum battery charging current	100A			
Other				
Dimensions (W×D×H) (mm)	322x122x390		342x122x471	332x142x420
Weight (kg)	9		11	12
Operating temperature range	-10°C~50°C			
IP rating	IP20			
Protect	Input overvoltage and undervoltage protection, input overfrequency and underfrequency protection, output overload protection, output short-circuit protection, over-temperature protection, fan fault protection, etc.			
Communication interface	USB/RS485, d y contact,WiFi (optional)		USB/RS232/RS485, d y contact,WiFi (optional)	USB/RS485, d y contact,WiFi(optional)

Single-phase off-grid inverter G4

GF3K24H/GF5K48H



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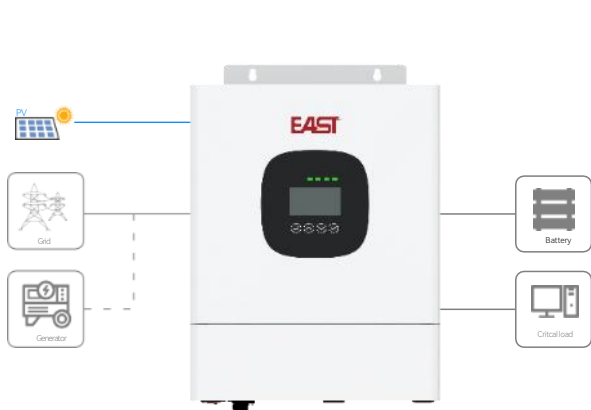
Flexibly set multiple operation modes according to preferences
- 

LCD and button design with a user-friendly operation interface
- 

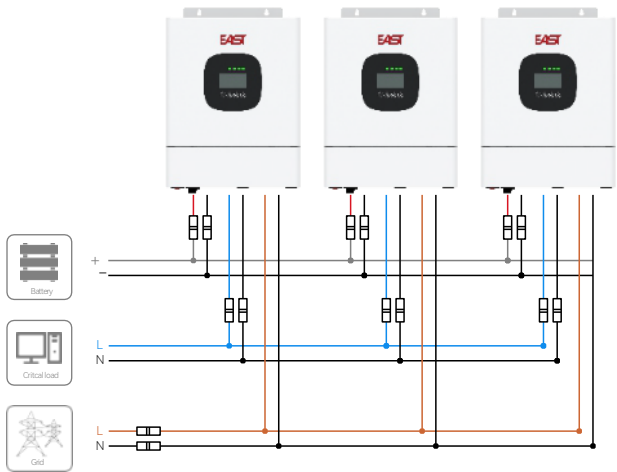
The system can be remotely monitored and maintained in real time via the WiFi module.
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High charge and discharge efficiency, compatible with lithium batteries and lead-acid batteries

Classic application



Parallel operation application



Model	GF3K24H	GF5K48H
Rated power	3000VA/3000W	5000VA/5000W
Parallel operation function	Not supported	Supported, with a maximum of 6 units connected in parallel
AC input		
Rated input voltage	230VAC	230VAC
Input voltage range	170~280VAC (Personal Computer Load Mode) 90~280VAC (Household Load Mode)	
Rated input frequency	50/60Hz adaptive	
Input frequency range	40~65Hz	
Rated input current	17.4A	32A
Maximum input current	20A	40A
AC output		
Rated output voltage	230VAC	230VAC
Adjustable output voltage	220V/230V/240V	220V/230V/240V
Output configurable frequency	50Hz/60Hz	
Rated output current	13.05A	21.70A
Overload capacity	105%-110% load for 30s, 110%-130% load for 10s, 130%-150% load for 3s, 150%-200% load for 0.5s, ≥200% load for 0.2s	
Harmonic content of inverter voltage	< 5%, linear load, < 10%, non-linear load	
Efficiency (Peak)	93%	
Surge power	6000VA, 10 cycles	10000VA, 10 cycles
Switch time	10ms (typical value)	
Battery		
Battery type	Lead-acid battery / Lithium battery	
Rated voltage	24VDC	48VDC
Charging voltage	27VDC (default value), adjustable range 24-29.2VDC	54VDC (default value), adjustable range 48-58.4VDC
Overvoltage protection value	30.2VDC	60.5VDC
Rated discharge current	130A	113.7A
PV/AC charging		
PV charging type	MPPT	
Maximum PV power	5000W	6000W
Maximum PV open-circuit voltage	500VDC	
MPPT operating voltage range	120-450VDC	
Maximum PV input current	18A	27A
Maximum PV charging current	100A	
Maximum AC charging current	100A	
Maximum battery charging current	100A	
Other		
Dimensions (WxDxH) (mm)	300x115x380	345x115x375
Weight (kg)	6.6	9.2
Operating temperature range	-10°C~50°C	
IP rating	IP20	
Protect	Input overvoltage and undervoltage protection, input overfrequency and underfrequency protection, output overload protection, output short-circuit protection, over-temperature protection, fan fault protection, etc.	
Communication interface	USB/RS485, d y contact,WiFi (Optional)	

10GWh+

Application performance



Lukuni 14MWh Photovoltaic and Energy Storage Power Station in Kolwezi, Democratic Republic of the Congo:

Supporting industry for Huayou Cobalt's cobalt, lithium and copper resource development projects in Africa

Main power supply loads include sulfuric acid plants and extraction plants

It is necessary to ensure the stable operation of relevant equipment under weak power grid and off-grid conditions



East has adopted a large-capacity energy storage system (ESS) and grid-forming converter technology, providing the project with a centralized grid-forming energy storage system with a total capacity of 3.55MW/14MWh. During photovoltaic power generation, the photovoltaic system supplies power to the equipment. When the photovoltaic system is not generating power, the energy storage system (or diesel generator) discharges to power the equipment. The system can flexibly adapt to different operating conditions such as grid-connected and off-grid modes. The project is scheduled to be installed, commissioned and put into operation in March 2025.

Power Supply Side Project Cases

Application scenarios: photovoltaic energy storage configuration, wind power energy storage configuration, thermal power frequency regulation and peak shaving



300MW/1200MWh Xinjiang Huadian North Tianshan Foothill Base 6.1 GW New Energy Project



125MW/500MWh CNNC Xinyuan Xinjiang 1,000,000 kW Wind Power Source-Grid-Load-Storage Integration Project



40MW/80MWh Energy Storage Supporting the 100MW Photovoltaic Sand Control Project in Dengkou County, Inner Mongolia, SPIC



15MW/60MWh 100MW Photovoltaic Power Generation Project with Energy Storage in Dongle North Beach, Shandan County



60MW/120MWh Energy Storage Matching for the 400,000-kilowatt Wind-Solar-Storage Integration Base Project of CNNC in Xianghuang Banner



12MW/24MWh Guoneng Electric Power Gaomi Jiaohu Ecological Development Zone Agricultural-Solar Complementary Project with Energy Storage Configuration



10MW/20MWh Energy Storage Matching for the 100MW Wind Power Project at Sishigejingzi, Mulei, by Changji State-owned Investment Xinneng



15MW/60MWh Zhangye Linze Banqiao North Beach Phase I 100MW Wind Power Project with Energy Storage



10MW/20MWh Energy Storage Supporting the 100MW Photovoltaic Power Generation Project of Trina Solar in Yuli County, Bazhou



5MW/5MWh 100MW Energy Storage Supporting Project of the Kangbao Smart Microgrid Demonstration Project

Grid Side Project Cases

Application Scenarios: Standalone/Shared Energy Storage Power Stations



350MW/1400MWh Xinjiang Huadian Urumqi Photovoltaic Base
1000MW/4000MWh Independent Energy Storage



200MW/800MWh Limin Xinfeng County
Independent Energy Storage Project



100MW/200MWh CNNC Huineng Chongqing
Xiyong Comprehensive Bonded Zone Energy Storage
Power Station



155MW/369.52MWh East Qidong Energy
Storage Power Station



50MW/100MWh Shared Energy Storage
Power Station in Hubin District, Sanmenxia City



103MW/206MWh Sanxia Water Resources
Pingguo Shared Energy Storage Power Station,
Guangxi

User side Project cases

Application scenarios: industrial parks, large commercial complexes, data centers and 5G base stations, highway charging stations and service areas, microgrids



4.95MW/10.07MWh Zhejiang Sanmei Chemical User-Side Energy Storage Project



10MW/20MWh Chiku New Energy Tangshan User-Side Energy Storage Project



3.5MW/10MWh Huayou Cobalt's Grid-Forming Energy Storage Project at the Lukuni Plant in the Democratic Republic of the Congo



540kW/1044kWh Wuyi County Jintong Heavy Truck Fast Charging Station Energy Storage Project



3MW/6.99MWh Zhejiang Yuhuan Suqiangge Industrial and Commercial Energy Storage Project



675kW/1305kWh Green Power Renovation Project of the Terminal of Shuangqiao (Guangzhou) Co., Ltd.



540kW/1044kWh Dongguan Energy - Dongling New Building Materials Energy Storage Project



675kW/2088kWh Jiangxi Lesheng Synthetic New Materials Energy Storage Project



1.4MW/3.01MWh User-side energy storage of Yiquan Science and Technology Park



700kW/1505kWh Commercial and Industrial Energy Storage Project of Guangzhou Yuekang Biopharmaceutical Co., Ltd.



2.9MW/6.23MWh Xinjiang Yining Optical Storage, Charging, Swapping and Discharging Integrated Project



675kW/1305kWh Suqian Yike Xuyang Feed Energy Storage Project

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There are many energy storage project cases, and only some of them are listed here.

*Rooted in Eastern wisdom,
leading energy storage technology*

