

# SINGLE-PHASE RESIDENTIAL ALL-IN-ONE ENERGY STORAGE SOLUTION

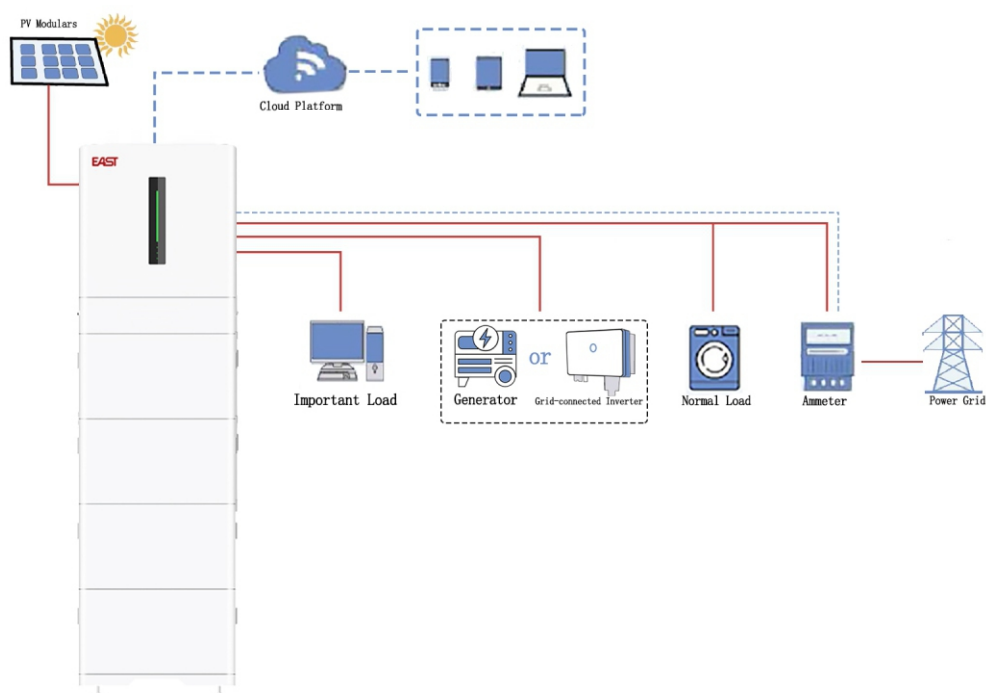
EAHI10KSH Series,G3  
EAHI12KSH Series,G3



## Features

- Supports PV inverter, generators, and microgrid inputs, suitable for new and modified photovoltaic and microgrid systems
- Supports multiple mode settings, supports local independent operation and peak shaving
- Inverter and battery pack stacking design, easy to install
- App real-time monitoring, supports online remote OTA upgrades, easy operation and maintenance
- High voltage batteries are equipped with built-in high efficiency DC-DC modules, making battery expansion more reliable
- Supports multiple inverters with EPS output in parallel, and can be expanded to small industrial and commercial applications
- Mains and PV input power oversized at a ratio of 1.5, resulting in a more stable system operation
- Support RSD and AFCI optional configurations to provide safer protection for the system

## System Principle Diagram



## System Specification

MODEL	EAHI10KSH Series	EAHI12KSH Series
<b>System components</b>		
Battery system model	EHB5000-SH	
Battery type	LiFePO4	
Module number of battery cluster	1~4, expandable	
Module capacity	5.12kWh	
Battery cluster system capacity	5~20 kWh, expandable	
Maximum cluster number extended for battery system	3	
Number of battery distribution box	1, expandable (one distribution box for one battery cluster)	
Inverter model	EAHI10KSH-S	EAHI12KSH-S
Inverter module	1, (6 units parallel expandable)	
Inverter rated power	10kW	12kW

### System general parameters

IP rating	IP66
Operating temperature	-25°C~+55°C
Cooling mode	Smart Cooling
Altitude	4000m
Noise level at 1 m	≤50dB
Installation method	Floor-mounted

## Hybrid Inverter Specification

MODEL	EAHI10KSH Series	EAHI12KSH Series
<b>PV input</b>		
Max. input power	15kW	18kW
Max. open-circuit voltage	550Vdc	
Rated input voltage	360Vdc	
Start-up voltage	150Vdc	
Min. operating voltage	100Vdc	
MPPT voltage range	100~540Vdc	
Full power MPPT voltage range	250V~500V	
Max. input current per MPPT	30A/30A	
Max. short circuit current per MPPT	40A/40A	
Number of MPPTs	2	
Number of input strings per MPPT	2/2	

### Battery input

Battery type	Lithium battery	
Voltage range	360~500Vdc	
Max. charge / discharge current	50A / 50A	

### AC input and output (Grid)

Max. apparent power of grid	15kVA	18kVA
Max. input current	68.2A	81.8A
Input voltage range	184~276Vac	
Input frequency range	50±5Hz	
Rated output power	10kW	12kW
Max. apparent output power	10kVA	12kVA
Rated output voltage	1/N/PE, 220Vac / 230Vac	
Rated output frequency	50 Hz	
Rated output current	45.5A / 43.5A	54.5A / 52.2A
Max. output current	45.5A	54.5A
Power factor	>0.99 (0.8 leading~0.8 lagging)	
THDI	≤3% (@ rated power)	

### Generator input

Max. input power	10kW	12kW
Max. input current	45.5A	54.5A

### AC output (Back-up load)

Rated output power	10kW	12kW
Max. 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
Max. output current	45.5A	54.5A
THDV	≤3% (linear load)	
Switching time	≤20ms	

## Hybrid Inverter Specification

MODEL	EAHI10KSH Series	EAHI12KSH Series
Efficiency		
Max. efficiency	97.8%	
MPPT efficiency	99.9%	
Protections		
Protections	Over/under voltage, over/under-frequency, overload, output short-circuit, over temperature, residual current monitoring unit, output over-current, insulation resistance detection anti-islanding, surge protection	
Surge protection	DC Type II/AC Type II	
Others		
Dimensions (WxHxD)	650x500x270mm	
Net weight	45kg	
Parallel operation	support 6 units parallel	
Topology	High frequency isolated(for Battery)	
IP rating	IP66	
Operating temperature	-25°C~+60°C	
Cooling mode	Smart cooling	
Altitude	4000m	
Noise level at 1 m	≤50dB	
Installation method	Floor-mounted	
Standards		
Grid connection	NRS097-2-1:2017	
Safety regulation	IEC/EN 62109-1/-2	
EMC	EN 61000-6-1/-2/-3/-4	

## Battery Specification

MODEL	EHB5000-SH
<b>System components</b>	
Battery type	LiFePO4
Module capacity	5.12kWh
System capacity	5~20kWh, expandable
Module number of battery cluster	1~4
Maximum cluster number extended for battery system	3
Rated voltage	400Vdc
Voltage range	360~500Vdc
Max. charge / discharge current	9.16A / 9.16A
Communication port	CAN/RS485
Dimensions (WxHxD)	650x350x270mm
Packaged dimensions (WxHxD)	765x465x385mm
Net weight	53kg
Gross weight	55kg
Topology	High frequency isolation
IP rating	IP66
Operating temperature	-25°C ~ +55°C
Cooling mode	Natural cooling
Heating mode	PTC heating
Altitude	4000m
Noise level at 1 m	< 40dB
Installation method	Floor-mounted
<b>Standards</b>	
Safety regulation	IEC/EN 62619 2022, IEC/EN 63056, ISO 13849, IEC/EN 62040-1, IEC/EN 60730-1
EMC	IEC 61000-6-1, EN/IEC 61000-6-3
Transportation	UN 38.3
Warranty	10 years

## Battery Distribution Box Specification

MODEL	BD-SH
<b>Parameters</b>	
Maximum current	50A
Voltage range	360~580Vdc
Display method	LED
Dimensions (WxHxD)	650x150x270mm
Packaged dimensions (WxHxD)	765x370x385mm (base included)
Net weight	11kg
Gross weight	12.5kg
IP rating	IP66
Warranty	10 years
<b>Others</b>	
Fixed base dimensions (WxHxD)	650x80x270mm