

THREE-PHASE RESIDENTIAL ALL-IN-ONE ENERGY STORAGE SOLUTION

EAHI10KTH Series,G1

EAHI15KTH Series,G1

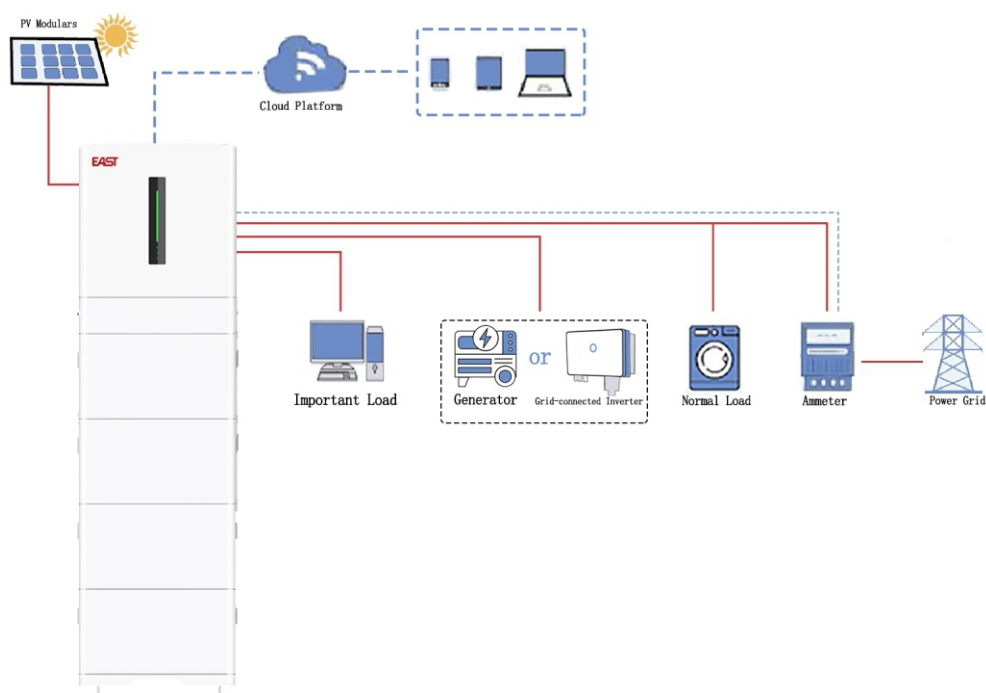
EAHI20KTH Series,G1



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	EAHI10KTH Series	EAHI15KTH Series	EAHI20KTH Series
System components			
Battery system model	EHB5000-SH		
Battery type	LiFePO4		
Module number of battery cluster	1~4		
Module capacity	5.12kWh		
Battery cluster system capacity	5~20 kWh		
Maximum cluster number extended for battery system	3		
Number of battery distribution box	1, expandable (one distribution box for one battery cluster)		
Inverter model	EAHI10KTH-S	EAHI15KTH-S	EAHI20KTH-S
Inverter module	1, (6 units parallel expandable)		
Inverter rated power	10kW	15kW	20kW

System general parameters			
IP rating	IP66		
Operating temperature	-25°C~+55°C		
Cooling mode	Natural cooling	Smart cooling	
Altitude	4000m		
Noise level at 1 m	≤25dB	≤45dB	
Installation method	Floor-mounted		

Hybrid Inverter Specification

MODEL	EAHI10KTH-S	EAHI15KTH-S	EAHI20KTH-S
PV input			
Max. input power	15kW	22.5kW	30kW
Max. open-circuit voltage	1100Vdc		
Rated input voltage	600Vdc		
Start-up voltage	180Vdc		
Min. operating voltage	160Vdc		
MPPT voltage range	160~1000Vdc		
Full power MPPT voltage range	469~800V		625~800V
Max. input current per MPPT	16A / 16A	16A / 32A	
Max. short circuit current per MPPT	24A / 24A	24A / 48A	
Number of MPPTs	2		
Number of input strings per MPPT	1/1	1/2	

Battery input			
Battery type	Lithium battery		
Voltage range	650~980Vdc		
Max. charge / discharge current	50A / 50A		

AC input and output (Grid)			
Max. apparent power of grid	15kVA	22.5kVA	30kVA
Max. input current	22.8A	34.2A	45.6A
Input voltage range	320~480Vac		
Input frequency range	50±5Hz / 60±5Hz		
Rated output power	10kW	15kW	20kW
Max. apparent output power	11kVA	16.5kVA	22kVA
Rated output voltage	3/N/PE, 380Vac / 400Vac		
Rated output frequency	50 Hz / 60Hz		
Rated output current	15.2A / 14.4A	22.8A / 21.7A	30.4A / 28.9A
Max. 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			
Max. input power	10kW	15kW	20kW
Max. input current	15.2A	22.8A	30.4A

AC output (Back-up load)			
Rated output power	10kW	15kW	20kW
Max. apparent power	10kVA	15kVA	20kVA
Rated output voltage	3/N/PE, 380Vac / 400Vac		
Rated output frequency	50Hz / 60Hz		
Rated output current	15.2A / 14.4A	22.8A / 21.7A	30.4A / 28.9A
Max. output current	15.2A	22.8A	30.4A
THDV	≤3% (linear load)		
Switching time	≤10ms		

Hybrid Inverter Specification

MODEL	EAHI10KTH-S		EAHI15KTH-S	EAHI20KTH-S
Efficiency				
Max. efficiency			98.2%	
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)			650x630x270mm	
Packaged dimensions (WxHxD)			770x750x370mm	
Net weight			45kg	
Gross weight			52kg	
Parallel operation	Supports 6 units in parallel connection			
Topology	Non-isolated			
IP rating	IP66			
Operating temperature	-25°C~+60°C			
Cooling mode	Natural cooling		Smart cooling	
Altitude			4000m	
Noise level at 1 m	≤25dB		≤45dB	
Installation method	Floor-mounted			
Standards				
Grid connection	VDE 0126, EN50549, DIN VDE V 0124-100:2020, VDE-AR-N 4105:2018			
Safety regulation	IEC/EN 62109-1/-2			
EMC	EN 61000-6-1/-2/-3/-4			

Battery Specification

MODEL	EHB5000-SH	
System components		
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	750Vdc	
Voltage range	650~980Vdc	
Max. charge / discharge current	5.5A / 5.5A	
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℃~+55℃	
Cooling mode	Natural cooling	
Heating mode	PTC heating	
Altitude	4000m	
Noise level at 1 m	< 40dB	
Installation method	Floor-mounted	
Standards		
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-TH
Parameters	
Maximum current	50A
Voltage range	650~980Vdc
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
Others	
Fixed base dimensions (WxHxD)	650x80x270mm