

# THREE-PHASE RESIDENTIAL ENERGY STORAGE INVERTER

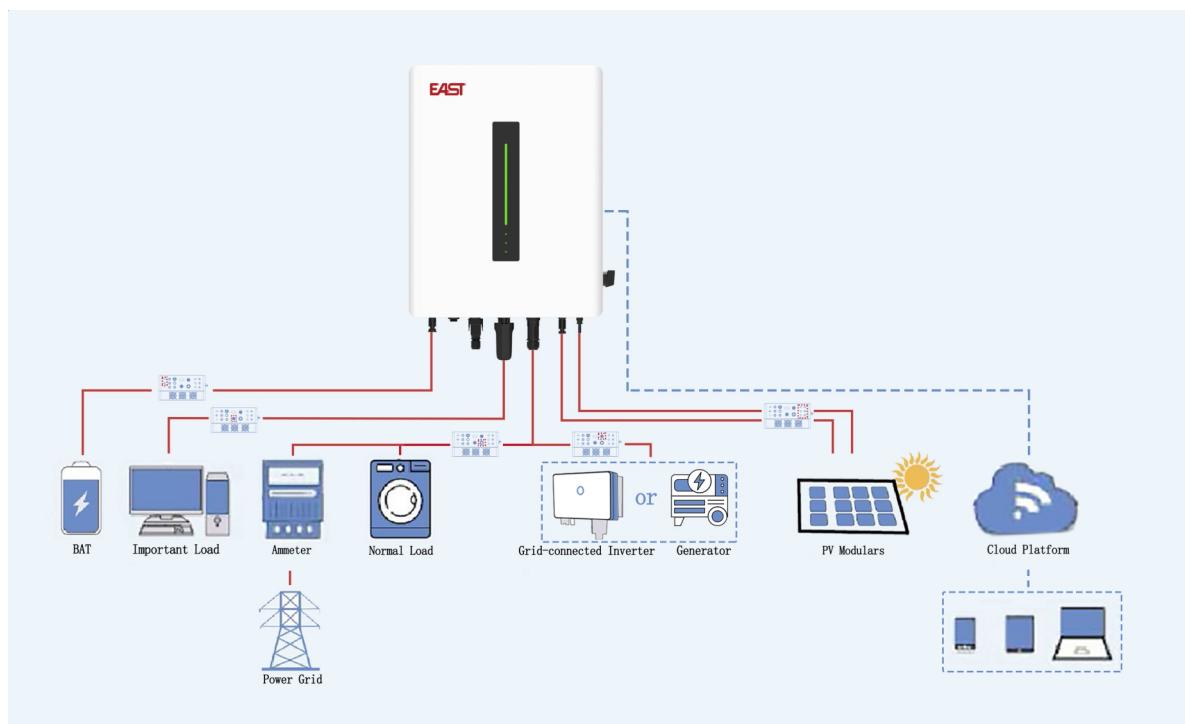
EAHI10KTH, G1  
EAHI15KTH, G1  
EAHI20KTH, G1



## 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
- App real-time monitoring, supports online remote OTA upgrades, easy operation and maintenance
- 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



MODEL	EAHI10KTH	EAHI15KTH	EAHI20KTH		
<b>PV input</b>					
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	469~800V	625~800V		
Max. input current per MPPT	16A/16A	16A / 32A	16A/32A		
Max. short-circuit current per MPPT	24A/24A	24A / 48A	24A/48A		
Number of MPPTs		2			
Number of input strings per MPPT	1/1	1/2	1/2		
<b>Battery input</b>					
Battery type		Lithium battery			
Voltage range		150~600Vdc			
Max. charge/discharge current		50A / 50A			
<b>AC input and output (Grid)</b>					
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. output apparent 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)			
<b>Generator input</b>					
Max. input power	10kW	15kW	20kW		
Max. input current	15.2A	22.8A	30.4A		
<b>AC output (Backup load)</b>					
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			
<b>Efficiency</b>					
Maximum efficiency		98.2%			
MPPT efficiency		99.9%			
<b>Protections</b>					
Protections	Over/under voltage, over/under frequency, 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 II				
<b>Others</b>					
Dimensions (W x H x D)	500 x 660 x 270mm				
Packaged dimensions (W x H x D)	510 x 860 x 370mm				
Net weight	41kg				
Gross weight	47kg				
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 (1m)	≤25dB	≤45dB			
Installation method		Wall-mounted			
<b>Standards</b>					
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				