

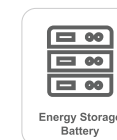
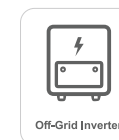
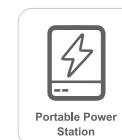
EAST GROUP CO., LTD.



by Philman Solar Energy



ESS Brochure



Residential Hybrid Inverter

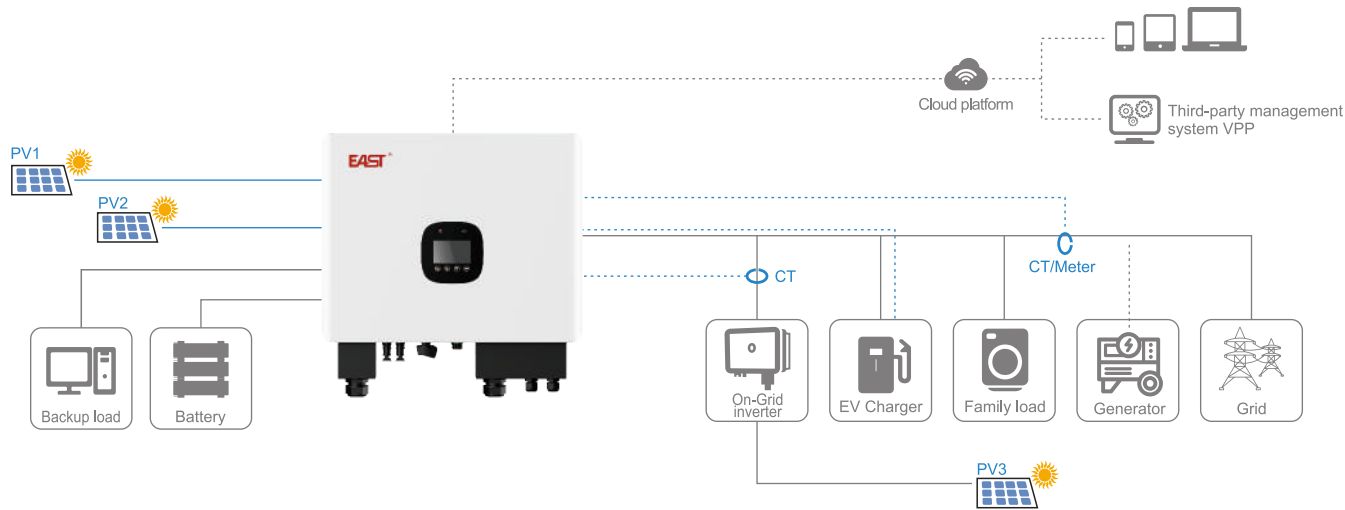
EAHI-3000-6000-SL

Single phase



- IP66 all-aluminum chassis, adaptable to outdoor environment
- Flexibly settable charge/discharge time section and power, peak load shaving
- High charge/discharge efficiency, compatible with lithium battery and lead-acid battery
- APP real time monitoring, easy maintenance

Typical application



Hybrid inverter specification

MODEL	EAHI-3000-SL		EAHI-3600-SL		EAHI-5000-SL		EAHI-6000-SL	
PV input								
Max. input power	4680W				6500W		7800W	
Max. input voltage			550Vdc					
Rated input voltage			360Vdc					
Start-up voltage			150Vdc					
Min. operating voltage			100Vdc					
MPPT voltage range			100~540Vdc					
Max. input current per MPPT	16A						16A/16A	
Max. short-circuit current per MPPT	24A						24A/24A	
Number of MPPT	1						2	
Number of input strings per MPPT	1						1/1	
Battery input								
Battery type	Li-ion, Lead-acid battery							
Voltage range	42~58Vdc							
Max. charge current	66A		75A		100A		100A	
Max. discharge current	66A		75A		100A		120A	
Charging curve	3 Stages/Equalization							
Lithium battery charging strategy	BMS self-adaption							
AC input(grid)								
Grid type	Single phase(L/N/PE)							
Input voltage range	184~276Vac							
Input frequency range	50±5Hz/60±5Hz							
Max. input current	21.8A		26.2A		36.5A		40A	
AC output(grid)								
Rated output power	3000W		3600W		5000W		6000W	
Max. apparent output power	3000VA		3600VA		5000VA		6000VA	
Grid system 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	
Max. output current	13.6A		16.4A		22.7A		27.3A	
Power factor	>0.99(0.8 leading~0.8 lagging)							
THDi	≤3%(@ Rated Power)							
AC output(back-up)								
Rated output power	3000W		3600W		5000W		6000W	
Max. apparent power	3000VA		3600VA		5000VA		6000VA	
Output system mode	Single phase(L+N+PE)							
Rated output voltage	230Vac(208/220/240Vac settable)							
Rated output frequency	50Hz/60Hz							
Rated output current	13.0A		15.7A		21.8A		26.1A	
Max. output current	14.4A		17.3A		24.0A		28.8A	
THDv	≤3%(linear load)							
Transfer time	≤10ms							
Efficiency								
Max. efficiency	97.8%							
MPPT efficiency	99.9%							
Protections								
Protections	Over/under voltage, over/under-frequency, over load, output short-circuit, over temperature, residual current monitoring unit, output over-current, insulation resistance, anti islanding, surge protection							
Output overvoltage protection	DC Type II/AC Type III							
Others								
Communications	RS485, WIFI							
Dimensions(W×H×D)(mm)	548x440x197							
Net weight(kg)	21.4						24.8	
Topology	High frequency isolation(for battery)							
IP rating	IP66							
Operating temperature	-25°C~-+60°C(>45°C derating)							
Cooling mode	Natural cooling							
Altitude	4000m							
Noise level at 1 m	≤25dB							
Installation mode	Wall-mounted							
Standards								
Safety regulation	IEC/EN 62109-1/-2, AS62109							
EMC	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							

Residential Hybrid Inverter

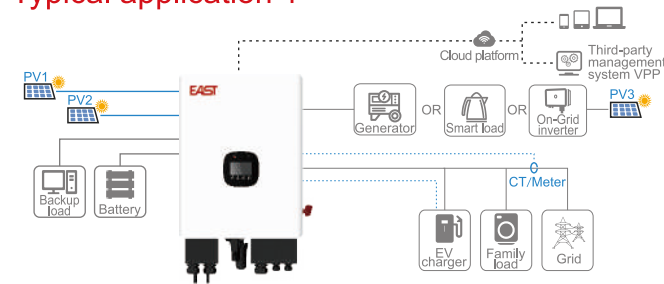
EAHI10-12KSL

Single phase

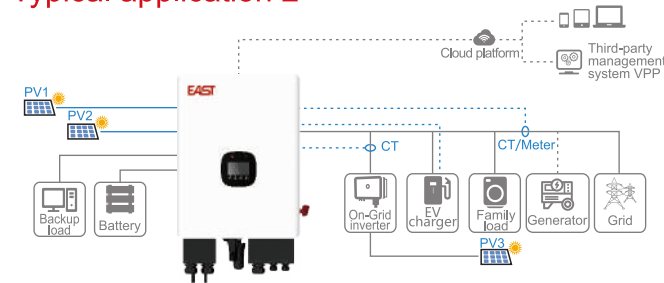


- Supports PV inverter, generators, and microgrid inputs, suitable for new and modified photovoltaic and microgrid systems
- Supports multiple inverters with EPS output in parallel, and can be expanded to small industrial and commercial applications
- Support RSD and AFCI optional configurations to provide safer protection for the system
- Mains and PV input power oversized at a ratio of 1.5, resulting in a more stable system operation

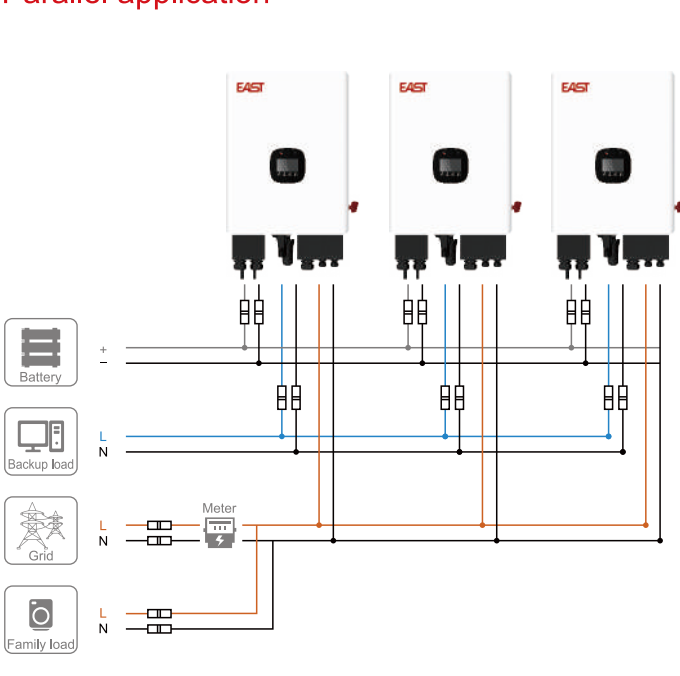
Typical application 1



Typical application 2



Parallel application



Hybrid inverter specification

MODEL	EAHI10KSL	EAHI12KSL
PV input		
Max. input power	18kW	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	300V~500V	
Max. input current per MPPT	30A/30A	
Max. short-circuit current per MPPT	40A/40A	
MPPT quantity	2	
Number of input strings per MPPT	2/2	
Battery input		
Battery type	Li-ion battery/Lead acid battery	
Voltage range	42~58Vdc	
Max. charge/discharge current	180A/180A	250A/250A
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. output apparent power	10kVA	12kVA
Rated output voltage	1/N/PE, 220/230Vac	
Rated output frequency	50Hz	
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)		
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	
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(W×H×D)(mm)	450x600x270	
Weight(kg)	45	
Topology	High frequency isolation(for battery)	
IP rating	IP66	
Operating temperature	-25°C~+60°C	
Cooling mode	Smart cooling	
Altitude	3000m	
Noise level at 1m	≤55dB	
Installation method	Wall-mounted	
Standards		
Safety regulation	IEC/EN 62109-1/-2, AS62109	
EMC	EN 61000-6-1/-2/-3/-4	
Grid connection	NRS097-2-1:2017	