

EAST GROUP CO., LTD.



ESS Brochure



Off-Grid Inverter



Hybrid Inverter



Energy Storage System



Energy Storage Battery



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Off-Grid Inverter GF3K24H/GF3K24L/GF5K48H/GF5K48L

Single phase

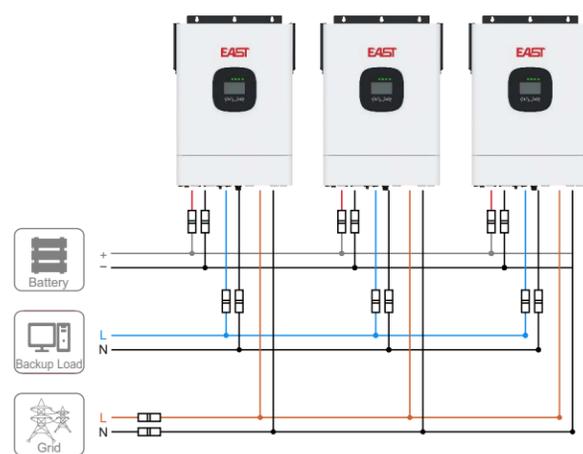


- Flexible setting of multiple working modes according to preferences
- Real time remote monitoring system via WiFi module, easy operation and maintenance
- Graphical LCD and keypad design, user-friendly operation interface
- High charge/discharge efficiency, compatible with lithium battery and lead-acid battery

Typical application



Parallel application

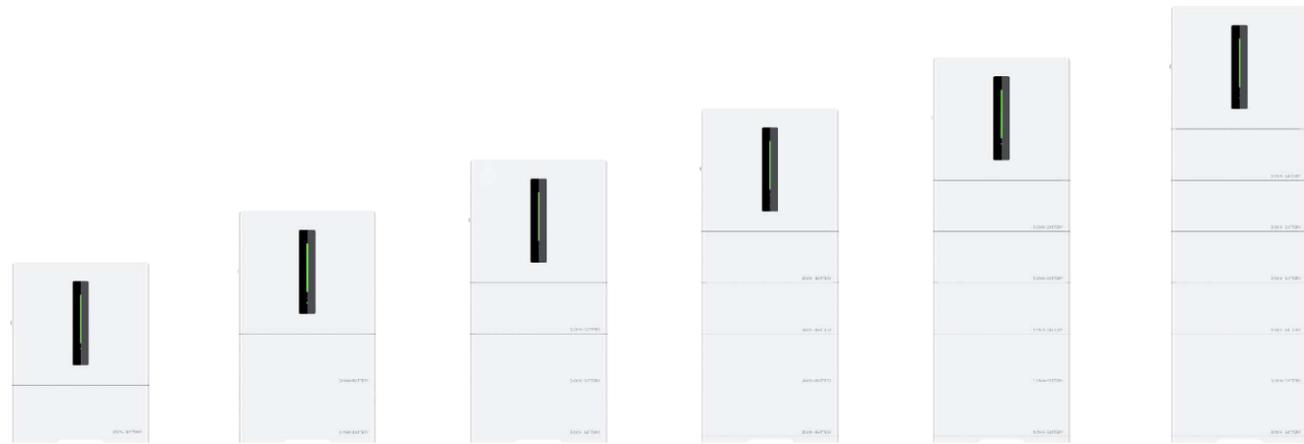


Inverter specification

MODEL	GF3K24H	GF3K24L	GF5K48H	GF5K48L
Rated power	3000VA/3000W		5000VA/5000W	
Parallel function	No		Yes, 6 units max	
AC input				
Rated input voltage	230VAC	120VAC	230VAC	120VAC
Input voltage range	170~280VAC PC 90~280VAC home application	90~140VAC	170~280VAC PC 90~280VAC home application	90~140VAC
Rated input frequency	50/60Hz self-adapting			
Input frequency range	40~65Hz			
Rated input current	20A	36A	32A	61.33A
Max. input current	30A	40A	40A	80A
AC output				
Rated AC output voltage	230VAC	120VAC	230VAC	120VAC
Output settable voltage	220V/230V/240V	100V/110V/120V	220V/230V/240V	100V/110V/120V
Output settable frequency	50Hz/60Hz			
Rated AC output current	13.05A	25.00A	21.70A	41.67A
Overload capacity	Inverter output: 10s@110%~150% rated load; 5s@≥150% rated load; 100ms@≥200% rated load Power grid output: 5s@≥150% rated load; 100ms@≥200% rated load			
THDv	<5%, linear load; <10%, non-linear load			
Efficiency(peak value)	93%			
Surge power	6000VA, 5 cycles		10000VA, 5 cycles	
Switching time	10ms(Typical)			
Battery				
Battery type	Lead-acid battery/lithium battery			
Rated voltage	24VDC		48VDC	
Charging voltage	27VDC(default) 24~29.2VDC settable		54VDC(default) 48~58.4VDC settable	
Overcharge protection voltage	30.2VDC		60.5VDC	
Rated discharge current	130A		113.7A	
PV/AC charging				
PV charging			MPPT	
Max. PV plate power	4000W		6000W	
Max. PV plate open circuit voltage			450VDC	
MPPT operation range voltage			120~430VDC	
Max. PV input current	18A		27A	
Max. PV charging current			100A	
Max. AC charging current			100A	
Max. battery charging current			100A	
Others				
Dimension(W×D×H)(mm)	322×122×390		342×122×471	332×142×420
Net weight(kg)	9		11	12
Operating environment	-10°C~50°C			
IP rating	IP20			
Protections	Input over/under voltage protection, input over/under frequency protection, output overload, output short-circuit, radiator overtemperature protection, fan fault detection etc.			
Communication interfaces	USB/RS485, dry contact, WiFi(optional)		USB/RS232/RS485, dry contact, WiFi(optional)	USB/RS485, dry contact, WiFi(optional)

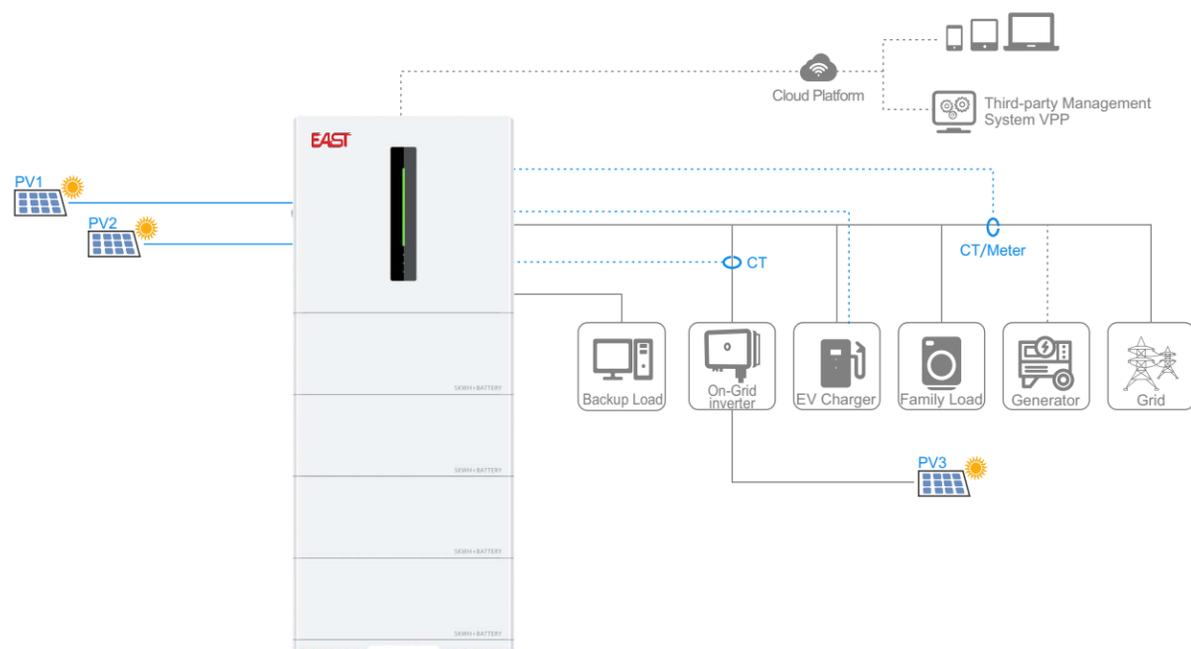
Residential Hybrid Inverter EAHI-6000-SL-S

Single phase | All-in-one | 105Ah Cell



- Integrated streamlined case design with elegant appearance
- Flexible expansion of battery capacity
- Stacking design for easy installation
- Seamless switching of emergency mode to ensure that loads do not power down
- IP66 stainless steel enclosure, waterproof and dustproof
- Module plug-and-play, automatic recognition
- Security and stability, 24-hour intelligent monitoring
- Flexible setting of multiple working modes according to preferences

Typical application



Hybrid inverter specification

MODEL	EAHI-6000-SL-S
PV input parameter	
Max. input power	8000W
Max. input voltage	550Vdc
Starting voltage	150Vdc
Max. input current	16/16A
Short circuit current	24/24A
Number of input strings per MPPT	1/1
AC input/output parameters(grid side)	
Input voltage range	184~276Vac
Input frequency range	50±5Hz/60±5Hz
Max. input current	40A
Rated output power	6000W
Max. apparent output power	6000VA
Grid system mode	1/N/PE
Rated output voltage	220Vac/230Vac
Rated output frequency	50Hz/60Hz
Rated output current	27.3A/26.1A
Power factor	>0.99(0.8 lead~0.8 lag)
AC output parameters(back-up side)	
Rated output power	6000VA/6000W
Grid system mode	1/N/PE
Rated output voltage	230Vac(208/220/240Vac settable)
Rated output frequency	50Hz/60Hz
Rated output current	27.3A/26.1A
Voltage harmonic	≤3%(linear load)
Switching time	≤10ms
Efficiency	
Maximum efficiency	97.8%
MPPT efficiency	99.9%
Protection	
Comprehensive	Grid over-voltage protection, grid over-frequency protection, grid overload protection, over-temperature protection, anti-islanding protection, insulation resistance detection, residual current monitoring unit, output over-current protection, output short-circuit protection, surge protection
Surge protection	DC Type II/AC Type III
Inverter standard	
LVD	IEC/EN 62109-1/-2, AS62109
EMC	EN 61000-6-1/-2/-3/-4
Grid-tied	CEI 0-21, DIN VDE V 0124-100:2020, VDE-AR-N 4105:2018, NRS097-2-1, EN 50549-1, G99/1-9:2022, ETSI EN303645+PST1, C10/11:2021, XP C 15-712-3:2019, ELOT EN 50549-1:2019, PEA
Inverter other parameters	
Dimensions(W×H×D)(mm)	600×530×305
Weight(kg)	36.4

Battery specification

MODEL	5KWH
Cell technology	LiFePO4
Battery voltage	51.2Vdc
Max. expandable number	6
Energy capacity	5.12kWh
Cell type	105Ah
Scalable capacity range	5.12kWh~30.72kWh
DOD	Max. 100% DOD(settable)
Max. charging power	3.84KW@1 module, 5.7kW@>1 module
Max. discharging power	5.02KW@1 module, 6kW@>1 module
Max. charging current	75A@1 module, 100A@>1 module
Max. discharge current	98A@1 module, 120A@>1 module
Communication interface	485 and CAN
Certification	IEC 62619, IEC 60730, UN 38.3, IEC 62040-1, ROHS2.0, VDE 2510-50
Dimensions(W×H×D)(mm)	600×220×305
Weight(kg)	50
Base parameters	
Dimensions(W×H×D)(mm)	600×30×305
Weight(kg)	6

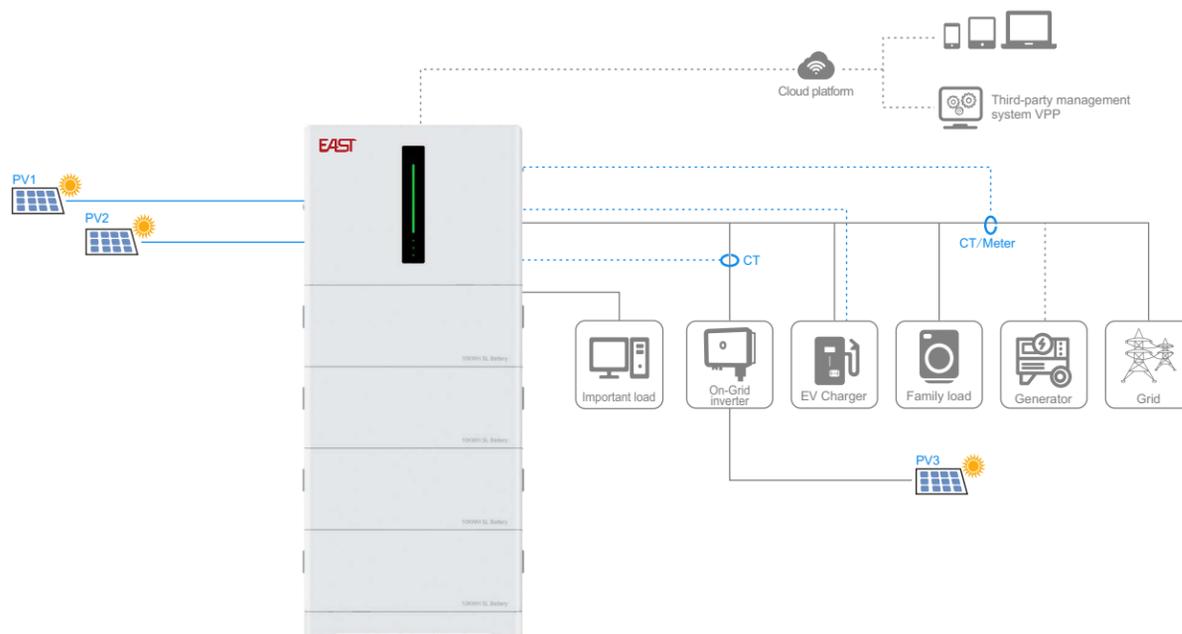
Residential Hybrid Inverter EAHI6KSL-S

Single phase | All-in-one | 314Ah Cell



- 314AH battery cell, built-in DCDC optimizer, high cycle life and long lifespan
- Cell level, package level and system level multiple protections
- Stacking design for easy installation
Flexible expansion of battery capacity
- Seamless switching of emergency mode to ensure that loads do not power down
- IP66 stainless steel enclosure, waterproof and dustproof
- Module plug-and-play, automatic recognition
- Security and stability, 24-hour intelligent monitoring
- Supports independent input of photovoltaic inverters and generators, supports AC coupling of charging stations and various photovoltaic storage systems

Typical application



Hybrid inverter specification

MODEL	EAHI6KSL-S
PV input parameter	
Max. input power	8000W
Max. input voltage	550Vdc
Starting voltage	150Vdc
Max. input current	16/16A
Short circuit current	24/24A
Number of input strings per MPPT	1/1
AC input/output parameters(grid side)	
Input voltage range	184~276Vac
Input frequency range	50±5Hz/60±5Hz
Max. input current	40A
Rated output power	6000W
Max. apparent output power	6000VA
Grid system mode	1/N/PE
Rated output voltage	220Vac/230Vac
Rated output frequency	50Hz/60Hz
Rated output current	27.3A/26.1A
Power factor	>0.99(0.8 lead-0.8 lag)
AC output parameters(back-up side)	
Rated output power	6000VA/6000W
Grid system mode	1/N/PE
Rated output voltage	230Vac(208/220/240Vac settable)
Rated output frequency	50Hz/60Hz
Rated output current	27.3A/26.1A
THDv	≤3%(linear load)
Switching time	≤10ms
Efficiency	
Maximum efficiency	97.8%
MPPT efficiency	99.9%
Protection	
Comprehensive	Grid over-voltage protection, grid over-frequency protection, grid overload protection, over-temperature protection, anti-islanding protection, insulation resistance detection, residual current monitoring unit, output over-current protection, output short-circuit protection, surge protection
Surge protection	DC Type II/AC Type III
Inverter standard	
LVD	IEC/EN 62109-1/-2, AS62109
EMC	EN 61000-6-1/-2/-3/-4
Grid-tied	CEI 0-21, DIN VDE V 0124-100:2020, VDE-AR-N 4105:2018, NRS097-2-1, EN 50549-1, G99/1-9:2022, ETSI EN303645+PSTI, C10/11:2021, XP C 15-712-3:2019, ELOT EN 50549-1:2019, PEA
Inverter other parameters	
Dimensions(W×H×D)(mm)	700×530×405
Weight(kg)	41.4

Battery specification

MODEL	EHB48314D10S1P
Cell technology	LiFePO4
Battery voltage	51.2Vdc
Max. expandable number	4
Energy capacity	10kWh
Cell type	314Ah
Scalable capacity range	10kWh~40kWh
DOD	Max. 100% DOD(settable)
Max. charging power	5KW@1 module, 6kW@>1 module
Max. discharging power	5KW@1 module, 6kW@>1 module
Max. charging current	100A
Max. discharge current	105A@1 module, 120A@>1 module
Communication interface	485 and CAN
Certification	IEC 62619, IEC 63056, UN 38.3
Dimensions(W×H×D)(mm)	700×250×405
Weight(kg)	83
Base parameters	
Dimensions(W×H×D)(mm)	700×81.5×405
Weight(kg)	4.8

Residential Hybrid Inverter EAHI10-20KTH-S

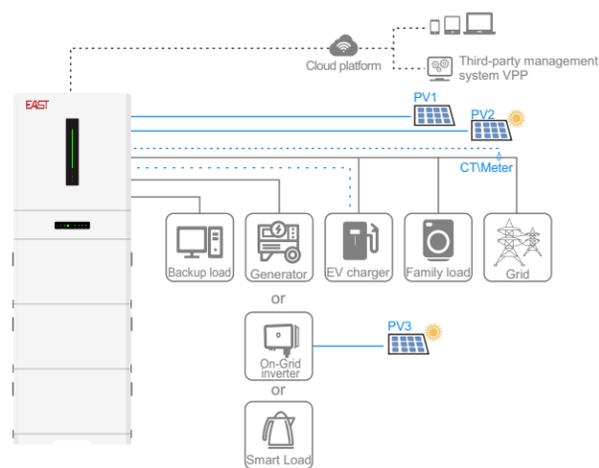
Three phase | All-in-one | 102Ah Cell



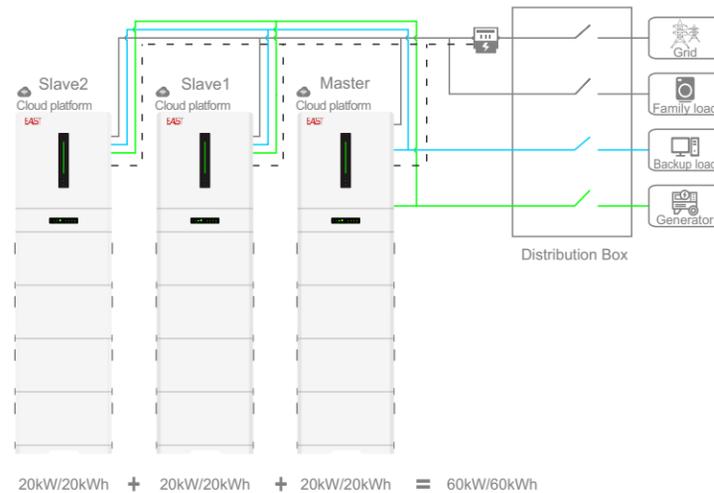
- Lithium iron phosphate battery, IP66 outdoor protection level, built-in fire protection module and DC-DC optimizer
- Single cluster supports 5-20KWH stacking expansion, and supports up to 3 clusters of 60KWH flexible expansion

- Battery modular design, stacking plug-in installation, plug and play
- App real-time monitoring, support online remote OTA upgrade, easy operation and maintenance

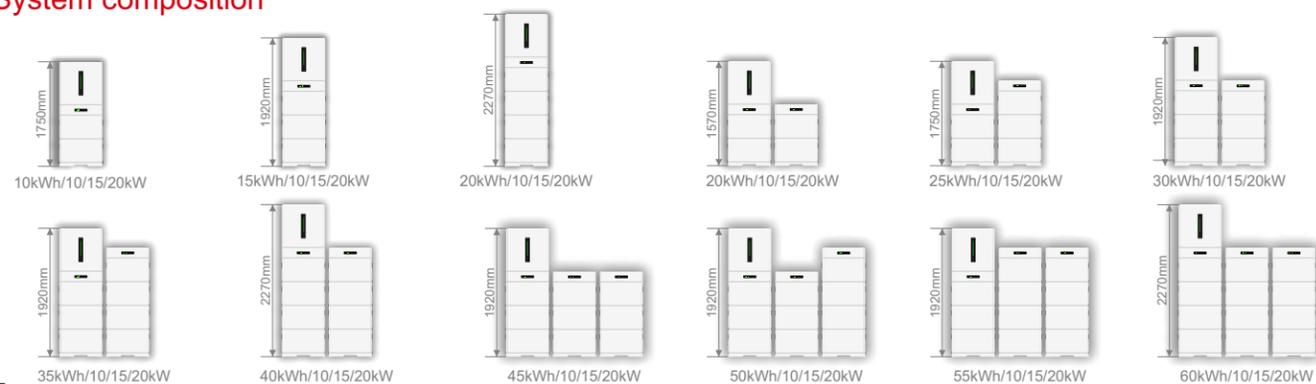
Typical application



Parallel application



System composition



Hybrid inverter specification

MODEL	EAHI10KTH-S	EAHI15KTH-S	EAHI20KTH-S
PV input parameter			
Max. input power	20kW	30kW	30kW
Max. input voltage		1000Vdc	
MPPT voltage range		160~950Vdc	
Max. input current per MPPT	16A/16A		16A/32A
Max. short circuit current per MPPT	24A/24A		24A/48A
Number of input strings per MPPT	1/1		1/2
Battery input parameters			
Battery type		Lithium battery	
Voltage range		650~980Vdc	
Max. charge/discharge current	15.4A/15.4A	23.1A/23.1A	30.8A/30.8A
AC input/output parameters(grid side)			
Max. apparent power of grid	15kVA	22.5kVA	30kVA
Max. 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 leading~0.8 lagging)	
THDi		≤3%(@ rated power)	
Generator input parameters			
Max. input power	10kW	15kW	20kW
Max. input current	15.2A	22.8A	30.4A
AC output parameters(back-up side)			
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)	
Switching time		≤10ms	
Efficiency			
Max. efficiency		98.2%	
MPPT efficiency		99.9%	
Others			
Surge protection		DC Type II/AC Type III	
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		3000m	
Noise level at 1m	≤25dB	≤45dB	≤50dB
Standards	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		
Dimensions(W×H×D)(mm)	650×640×270		
Net weight(kg)	45		

Battery distribution box specification

MODEL	PDU-GU-Y/F
Maximum current	60A
Voltage range	550~1000Vdc
Dimensions(W×H×D)(mm)	650×150×270
Net weight(kg)	12
IP rating	IP66
Fixed base size(W×H×D)(mm)	650×80×270

Battery specification

MODEL	EHBS-P5-TH
Battery type	LiFePO4
Module capacity	5.12kWh
Cell type	102Ah
Rated voltage	750Vdc
Voltage range	600~1000Vdc
Max. charge/discharge current	3.4A/5.5A
Communication interfaces	CAN/RS485
Topology	High frequency isolation
IP rating	IP66
Operating temperature	-25°C~+55°C
Cooling mode/Heating mode	Natural cooling/PTC heating
Altitude	3000m
Standards	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
Dimensions(W×H×D)(mm)	650×370×270
Net weight(kg)	59

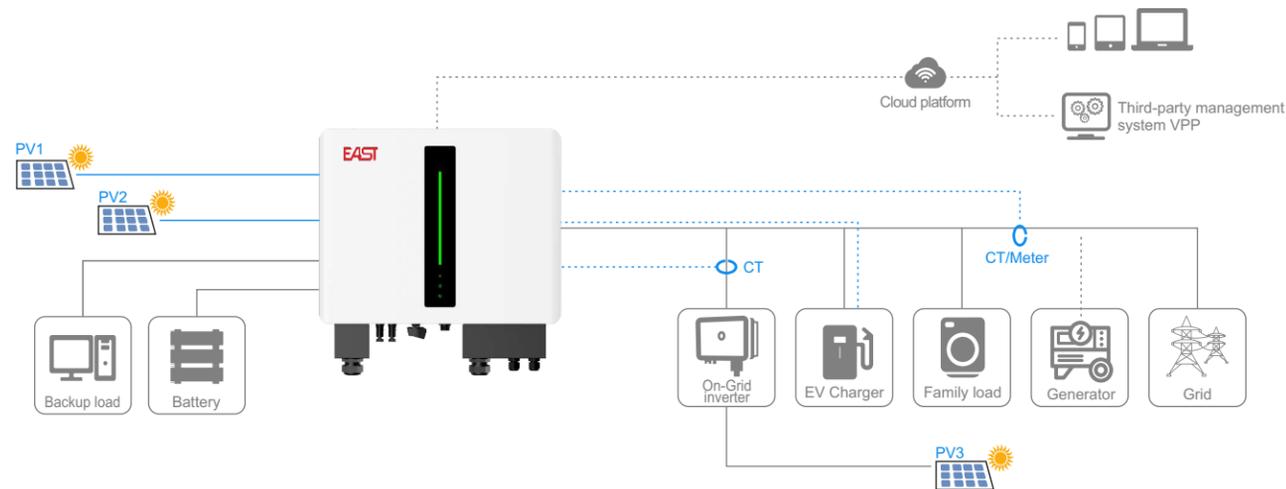
Residential Hybrid Inverter EAHI-3000-6000SL

Single phase



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

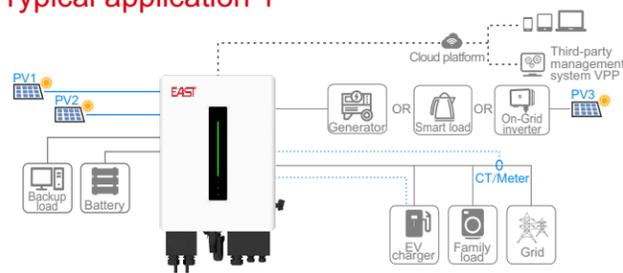
Residential Hybrid Inverter EAHI10-12KSL

Single phase

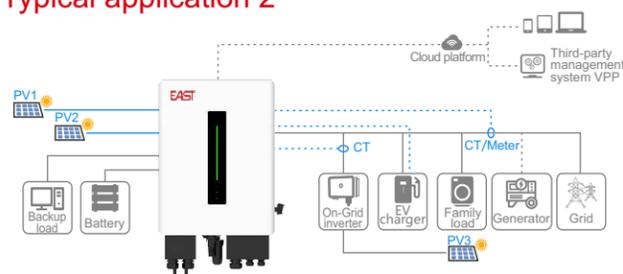


- Supports PV inverter, generators, and microgrid inputs, suitable for new and modified photovoltaic and microgrid systems
- Supports multiple inverters with EPS output in parallel, and can be expanded to small industrial and commercial applications
- Support RSD and AFCI optional configurations to provide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

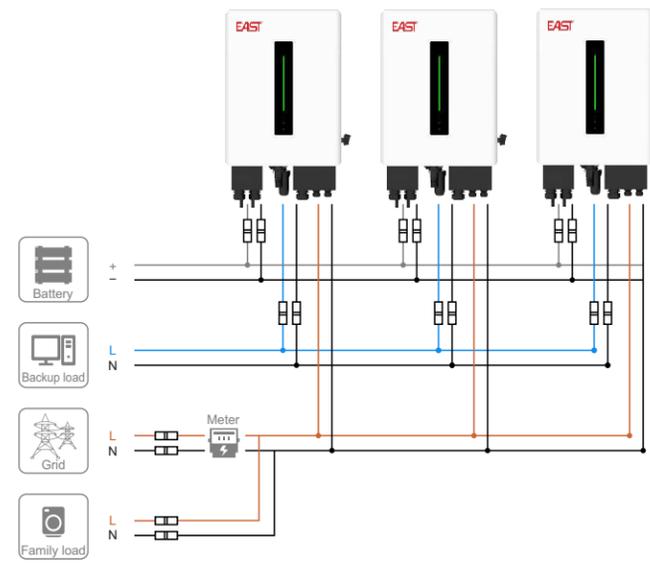
Typical application 1



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	

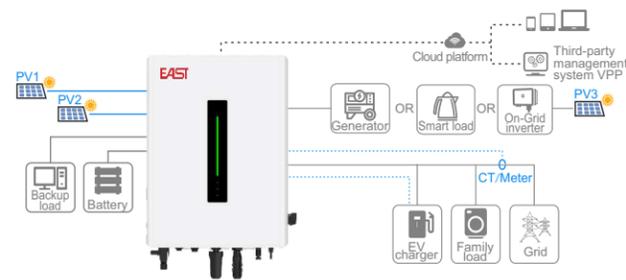
Residential Hybrid Inverter EAHI10-20KTH

Three phase

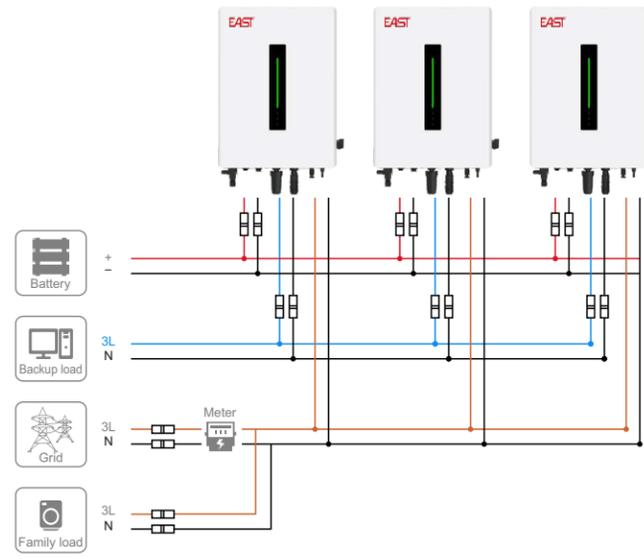


- Supports PV inverter, generators, and microgrid inputs, suitable for new and modified photovoltaic and microgrid systems
- Mains and PV input power oversized at a ratio of 1.5, resulting in a more stable system operation
- App real-time monitoring, supports online remote OTA upgrades, easy operation and maintenance
- Support RSD and AFCI optional configurations to provide safer protection for the system

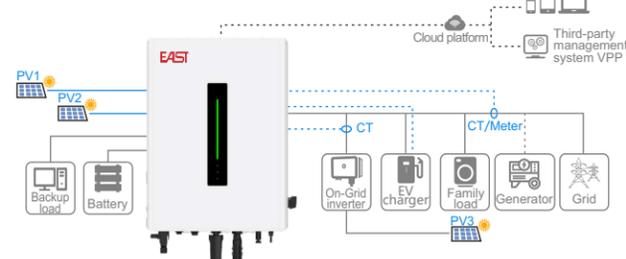
Typical application 1



Parallel application



Typical application 2



Hybrid inverter specification

MODEL	EAHI10KTH	EAHI15KTH	EAHI20KTH
PV input			
Max. input power	20kW	30kW	30kW
Max. input voltage		1000Vdc	
Rated input voltage		650Vdc	
Start-up voltage		180Vdc	
Min. operating voltage		160Vdc	
MPPT voltage range		160~950Vdc	
Full power MPPT voltage range		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		150~600Vdc	
Max. charge/discharge current	25A	37.5A	50A
AC input and output(grid)			
Max. apparent power of grid	15kVA	22.5kVA	30kVA
Max. 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	20kW
Max. output apparent power	11kVA	16.5kVA	22kVA
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/29.0A
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(backup)			
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/14.5A	22.8A/21.7A	30.4A/29.0A
Max. output current	15.2A	22.8A	30.4A
THDv		≤3%(linear load)	
Switching time		≤10ms	
Efficiency			
Maximum 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 overcurrent, insulation resistance detection, anti-islanding, surge protection		
Surge protection	DC Type II/AC Type III		
Others			
Dimensions(W×H×D)(mm)	500×680×270		
Packaged dimensions (W×H×D)(mm)	615×885×370		
Net weight(kg)	41		
Gross weight(kg)	47		
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	3000m		
Noise level(1m)	≤25dB	≤45dB	≤50dB
Installation method	Wall-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		

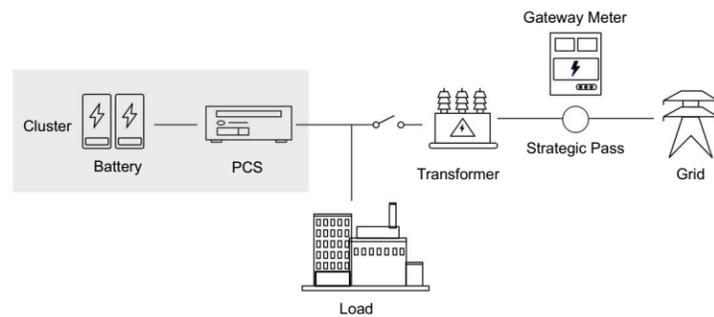
C&I Energy Storage System EASS125K/261kWh-C

All in one



- Intelligent group series architecture, one cluster one management PCS three level topology, the whole machine energy conversion efficiency >90%, liquid cooling temperature control, battery temperature difference <3°C, auxiliary power consumption is reduced by 30%, the system life is extended by 2 years
- All in one design, landing is grid connection, no debugging of high energy density cell, system area reduced by 40%, no transformer design, lightweight
- Long-life LFP battery cells with >8000 cycles, equipped with explosion venting design and perfluorohexanone fire protection, provide multiple safety guarantees and support off-grid load carrying, serving as a backup power source for critical loads
- Online monitoring of cloud platform, real-time warning of system faults, support remote and local upgrade of key equipment, intelligent maintenance and high-precision BMS, accurate calibration, and no expert on-site maintenance

Product Application Scenarios



Specification

MODEL	EASS125K/261kWh-C
DC side parameters	
Cell	LFP3.2V/314Ah
System battery configuration	1P260S
Rated capacity	261kWh
Rated voltage	832Vdc
Voltage range	650~936Vdc
On-grid AC side parameters	
Rated power	125kW
Rated voltage	400Vac
Voltage range	-20%~+15%
Rated frequency	50/60Hz
Frequency range	45~55Hz/55~65Hz
Power factor	±1
THDi	≤3%
Overload capacity	110%
Off-grid AC side parameters	
Rated power	125kW
Rated voltage	400Vac
Rated frequency	50/60Hz
THDv	≤3%
System parameters	
AC wiring mode	Three phase four line
System efficiency	≥90.0%
Charge/discharge rate	0.5P
Cycles	≥8000@25°C
IP rating	Battery protection@IP67, PCS protection@IP66, system protection@IP54
Operating temperature	-30°C~55°C
Relative humidity	0~95%RH(non-condensing)
Altitude	<3000m(drop over 3000m)
Cooling method	Liquid cooling
Fire protection system	Perfluorohexanone(PACK Grade)+active monitoring+water fire protection
Communication interface	LAN, RS485, TCP/IP, ICE61850
Dimensions(W×H×D)(mm)	1000x2350x1350
Weight(kg)	≤2500

C&I Energy Storage System EAPV ESS130K261KWH-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

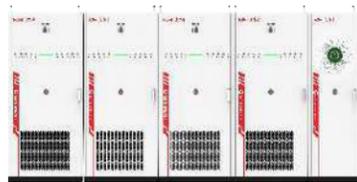
Three-level fire-fighting strategy: Level 1 power off and shutdown protection, Level 2 perfluorohexanone gas start, Level 3 water spray fire-fighting to prevent re-ignition

Intelligent monitoring: real-time intelligent power balance 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



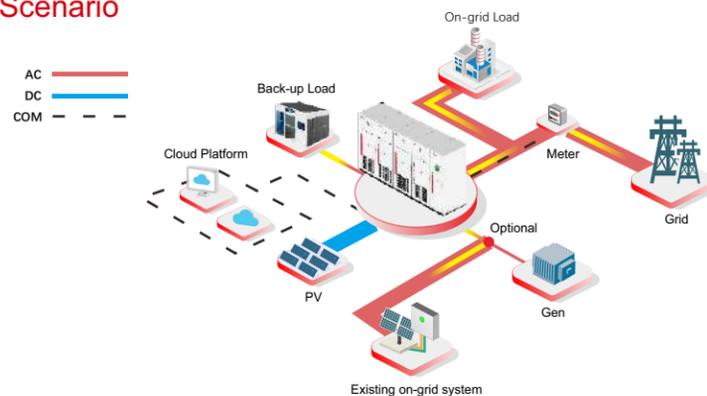
4 parallel connections

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



4 parallel connections

Application Scenario



Specification

MODEL	EAPV ESS130K261KWH-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	IEC62109-1/2, IEC62619, IEC62477-1, UN38.3, UL9540A, UL1973, IEC62933-5-2, IEC61439-2 GB/T34120, GB/T34133, EN50549, IEC61000-6-1,2,3,4
Dimensions(WxHxD)(mm)	1000x2250x1350@battery cabinet, 800x2250x1350@power distribution cabinet
Weight(kg)	≤2000@battery cabinet, ≤1000@power distribution cabinet

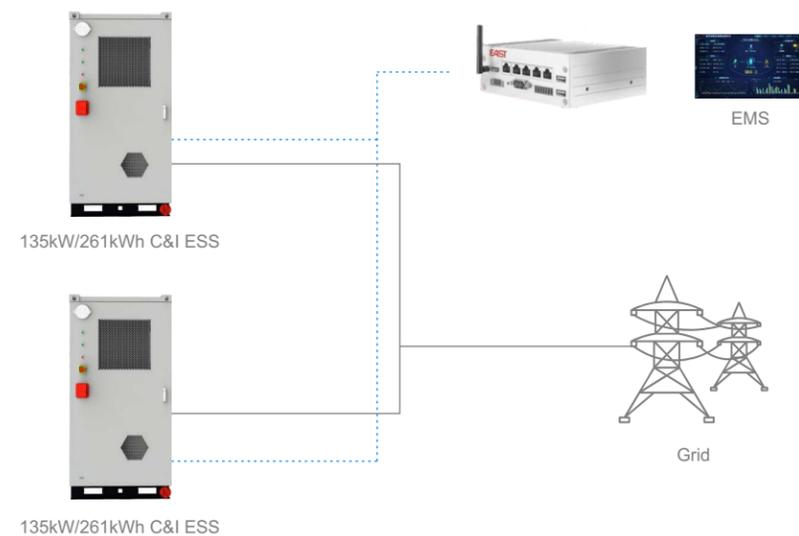
C&I Energy Storage System EAESS135K-261/522kWh

All-in-one



- Fully liquid-cooled industrial and commercial all-in-one unit, with 20% higher energy density, fully front maintenance, supports side-by-side installation, with minimal system footprint, fully modular design with integrated power distribution for simplified maintenance
- Dual-loop liquid cooling system for highly reliable operation, PACK and cabinet-level fire detection and suppression strategies, supporting water-based fire protection for ultimate safety
- PCS module features IP66 high protection and C5 high corrosion resistance, suitable for harsh working environments, operates at up to 50°C without derating
- Self-developed station-level EMS configuration, enabling high-speed control and remote intelligent settings, supports 100% three-phase unbalanced output and off-grid operation with three-phase four-wire capability

System Architecture



Specification

MODEL	EAESS135K-261kWh	EAESS135K-522kWh
Battery parameters		
Cell	3.2V/314Ah	
System battery configuration	1P260S	2P260S
Rated capacity	261.248kWh	522.496kWh
Rated voltage	832Vdc	
Voltage range	676~949Vdc	
On-grid AC side parameters		
Rated power	135kW	
Rated voltage	400Vac	
Voltage range	-20%~+15%	
Rated frequency	50Hz	
Frequency range	45~55Hz	
Power factor	>0.99(rated power)	
THDi	≤3%	
Overload capacity	110%	
Isolation method	Non-isolated	
Off-grid AC side parameters		
Rated power	135kW	
Rated voltage	400Vac	
Rated frequency	50Hz	
THDv	≤3%	
System parameters		
AC wiring mode	Three phase five line	
Charge/discharge rate	0.5P	
Cycles	≥8000@25°C	
IP rating	Battery protection@IP67, PCS protection@IP66, system protection@IP54	
Operating temperature	-25°C~55°C	
Relative humidity	0%~95%(non-condensing)	
Altitude	≤4000m	
Cooling method	Liquid cooling	
Fire protection system	Perfluorohexanone(PACK grade)+active monitoring+water fire protection	
Communication interface	LAN, IEC61850, ModbusTCP	
Dimensions(W×H×D)(mm)	1000×2000×1500	2000×2000×1500
Weight(kg)	≤2850	≤4900

Utility Energy Storage System 2.5MW/5-10MWh

Centralized ESS



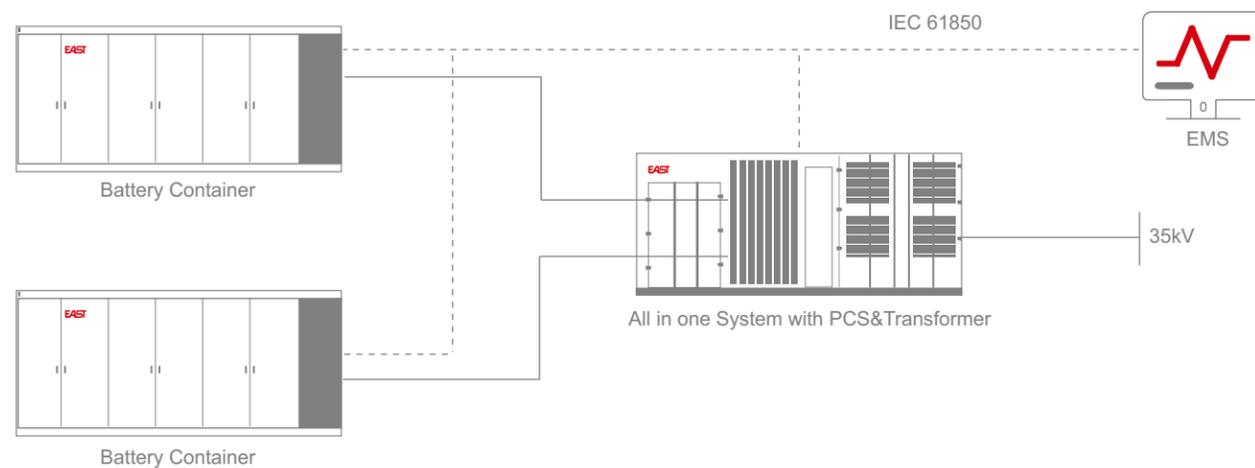
PACK 1P104S design, 20-foot standard container, supports side-by-side and back-to-back arrangement, saving the project's footprint by 40%

314Ah large-capacity battery cells, reduces LCOE by 16%+

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

Topology

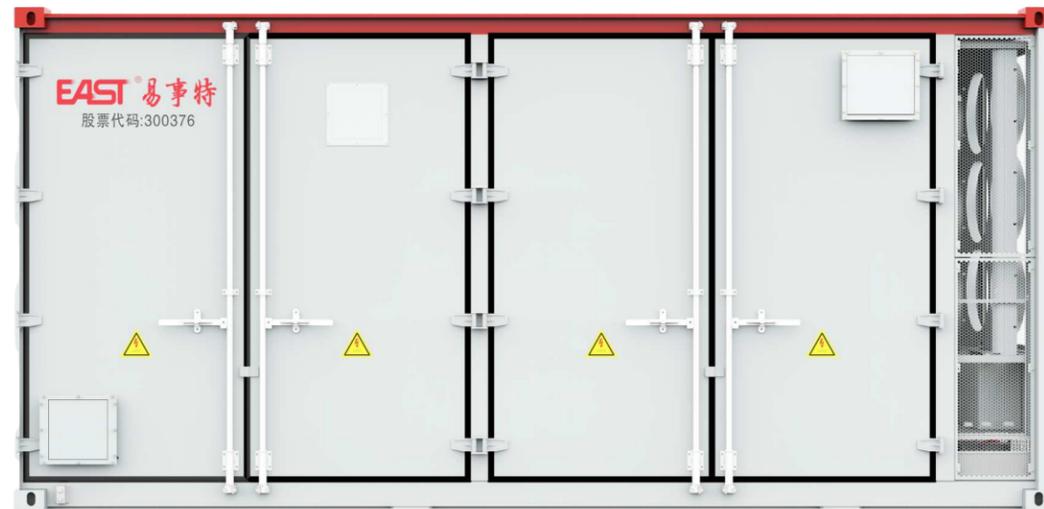


Specification

MODEL	2.5MW/5MWh	2.5MW/10MWh
DC-side parameters		
Cell type	3.2V/314Ah	
System battery configuration	12P416S	12P416Sx2
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	586.5~759V	
Power factor	>0.99	
Adjustable reactive power range	-105%~105%	
AC grid frequency	50Hz(46.5~51.5Hz)	
Isolation method	Transformer	
Certification	IEC62477, IEC61000, IEC62109	
Transformer parameters		
Rated power	2750kVA	
Voltage range	37±2x2.5%/0.69kV	
Transformer connection group	Dy11	
Certification	IEC60076, IEC62271	
System parameters		
PCS&Transformer dimensions (W×H×D)(mm)	9087x2896x2438	
Battery container dimensions (W×H×D)(mm)	6058x2896x2438	6058x2896x2438x2
PCS&Transformer weight	20T	
Battery container weight	≤44T	≤44Tx2
Protection degree	IP54/C5	
Operating temperature range	-30~50°C	
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	

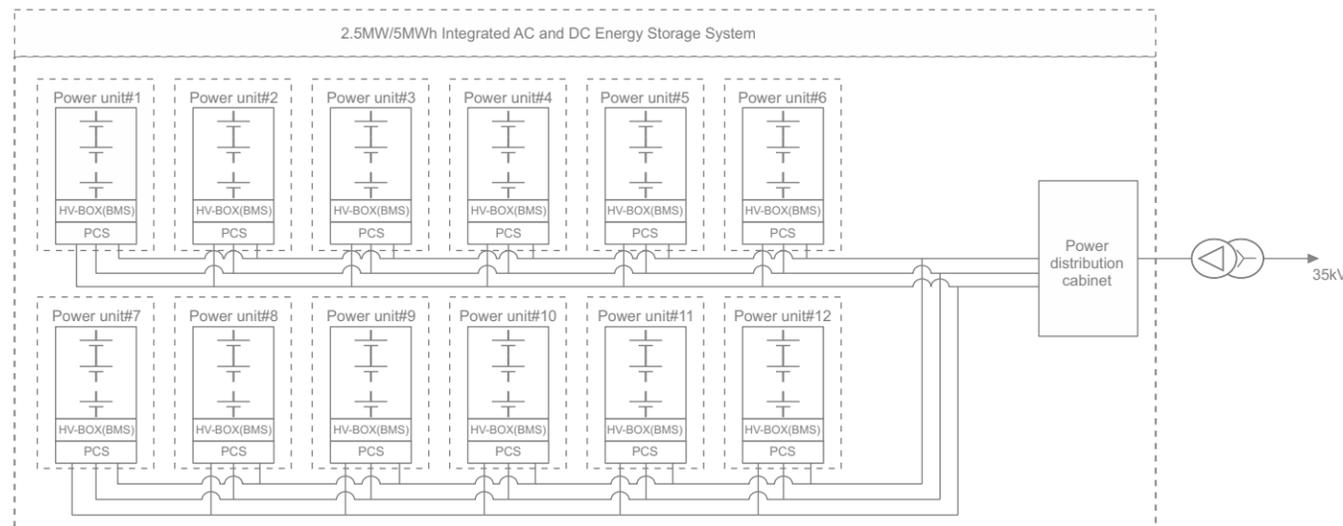
Utility Energy Storage System 2.5MW/5MWh

Integrated AC+DC ESS



- 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%

Topology



Specification

MODEL	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×H×D)(mm)	6058x2896x2438
Weight	≤48T
Protection degree	IP54
Operating temperature range	-30°C~60°C
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	Modbus TCP, 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

Residential Energy Storage Battery

Residential energy storage systems offer high-quality new energy products that are simple to install, easy to operate, safe to use, and environmentally friendly, suitable for powering household appliances. They power household appliances, storing grid electricity in batteries during off-peak periods and then transferring it to the grid during peak periods. Their modular design allows multiple batteries to be connected in parallel to expand capacity, ensuring greater storage capacity for both household use and grid delivery.

Product types include rack-mounted, stacked, vertical, and wall-mounted series, compatible with mainstream inverters on the market. Voltage levels include 24V, 48V, and 750V. Basic battery system capacities include 100Ah, 200Ah, and 314Ah. Multiple parallel groups are supported.



Wall-mounted Lithium-ion Battery System

Model	EHB24200G8S2P	EHB48100G16S1P
Cathode material	LiFePO4	
Rated voltage/V	25.6	51.2
Rated capacity/Ah	204	102
Rated energy/kWh	5.22	5.22
Standard parallel unit/P	1	1
Output power/kW	3	5
Charge voltage/V	29.2	58.4
Operating voltage range/V	20.8~29.2	41.6~58.4
Max. charge current/A	100	50
Max. discharge current/A	100	100
Operating temperature/°C	Charge temperature/°C	0~55
	Discharge temperature/°C	-20~55
Weight/kg	45	
Dimension(W×D×H)(mm)	440×170×690	
IP rating	IP21	
Certification	UN38.3, CE-EMC	
Cooling method	Natural cooling	
Communication	CAN/RS485	
Cycle life	≥6000 Cycles@0.5C/90%DOD@70%EOL, 25±2°C	
Display configuration	ON/OFF button, LCD touchscreen	

48V100AH Rack-mounted Lithium-ion Battery System

Model	EHB48100R16S1P	EHB48100R16S2P	EHB48100R16S3P	EHB48100R16S4P
Cathode material	LiFePO4			
Rated voltage/V	51.2			
Rated capacity/Ah	102	204	306	408
Rated energy/kWh	5.22	10.44	15.67	20.89
Standard parallel unit/P	1	2	3	4
Output power/kW	5	10	10	10
Charge voltage/V	58.4			
Operating voltage range/V	41.6~58.4			
Max. charge current/A	50	100	150	200
Max. discharge current/A	100	200	200	200
Operating temperature/°C	Charge temperature/°C	0~55		
	Discharge temperature/°C	-20~55		
Weight/kg	46	92	138	184
Dimension(W×D×H)(mm)	483×450×153	483×450×306	483×450×459	483×450×612
IP rating	IP21			
Certification	UN38.3, CE-EMC			
Cooling method	Natural cooling			
Communication	CAN/RS485			
Cycle life	≥6000 Cycles@0.5C/90%DOD@70%EOL, 25±2°C			
Display configuration	ON/OFF button, SOC indicator light(button LCD optional)			

Residential Energy Storage Battery



48V100AH Stacked Lithium-ion Battery System

Model	EHB48100D16S1P	EHB48100D16S2P	EHB48100D16S3P	EHB48100D16S4P				
Cathode material	LiFePO4							
Rated voltage/V	51.2							
Rated capacity/Ah	102	204	306	408				
Rated energy/kWh	5.22	10.44	15.67	20.89				
Standard parallel unit/P	1	2	3	4				
Output power/kW	5	5	10	5	10	5	10	
Charge voltage/V	58.4							
Operating voltage range/V	41.6~58.4							
Max. charge current/A	50	100	120	150	120	200		
Max. discharge current/A	100	120	200	120	200	120	200	
Operating temperature/°C	Charge temperature/°C				0~55			
	Discharge temperature/°C				-20~55			
Weight/kg	11+50×1	11+50×2	11+50×3	11+50×4				
Dimension(W×D×H)(mm)	580×390×380	580×390×560	580×390×740	580×390×920				
IP rating	IP54							
Certification	UN38.3, CE-EMC							
Cooling method	Natural cooling							
Communication	CAN/RS485							
Cycle life	≥6000 Cycles@0.5C/90%DOD@70%EOL, 25±2°C							
Display configuration	Quick-connect terminal, ON/OFF button, SOC indicator light							

48V314AH Rack-mounted Lithium-ion Battery System

Model	EHB48314R10S1P	EHB48314R10S2P	EHB48314R10S3P	EHB48314R10S4P				
Cathode material	LiFePO4							
Rated voltage/V	51.2							
Rated capacity/Ah	314	628	942	1256				
Rated energy/kWh	10.04	20.09	30.14	40.19				
Standard parallel unit/P	1	2	3	4				
Output power/kW	5	10	10	10				
Charge voltage/V	58.4							
Operating voltage range/V	51.2							
Max. charge current/A	100	200	200	200				
Max. discharge current/A	100	200	200	200				
Operating temperature/°C	Charge temperature/°C				0~55			
	Discharge temperature/°C				-20~55			
Weight/kg	87	165	243	321				
Dimension(W×D×H)(mm)	440×650×480	440×650×758	440×650×1033	440×650×1312				
IP rating	IP21							
Certification	UN38.3, CE-EMC							
Cooling method	Fan cooling							
Communication	CAN/RS485							
Cycle life	≥8000 Cycles@0.5C/90%DOD@80%EOL, 25±2°C							
Display configuration	ON/OFF button, SOC indicator light							

Residential Energy Storage Battery



48V314AH Stacked Lithium-ion Battery System

Model	EHB48314D10S1P	EHB48314D10S2P	EHB48314D10S3P	EHB48314D10S4P
Cathode material	LiFePO4			
Rated voltage/V	51.2			
Rated capacity/Ah	314	628	942	1256
Rated energy/kWh	10.04	20.09	30.14	40.19
Standard parallel unit/P	1	2	3	4
Output power/kW	5	10	10	10
Charge voltage/V	58.4			
Operating voltage range/V	51.2			
Max. charge current/A	100	200	200	200
Max. discharge current/A	100	200	200	200
Operating temperature/°C	Charge temperature/°C			
	Discharge temperature/°C			
	0~55			
	-20~55			
Weight/kg	15+85×1	15+85×2	15+85×3	15+85×4
Dimension(W×D×H)(mm)	720×410×495	720×410×745	720×410×995	720×410×1245
IP rating	IP66			
Certification	UN38.3, CE-EMC			
Cooling method	Fan cooling			
Communication	CAN/RS485			
Cycle life	≥8000 Cycles@0.5C/90%DOD@80%EOL, 25±2°C			
Display configuration	Quick-connect terminal, ON/OFF button, SOC indicator light			

750V314AH Stacked Lithium-ion Battery System

Model	EHB48314R10S1P	EHB48314R10S2P	EHB48314R10S3P	EHB48314R10S4P
Cathode material	LiFePO4			
Rated voltage/V	750			
Rated capacity/Ah	314	628	942	1256
Rated energy/kWh	10.04	20.09	30.14	40.19
Standard parallel unit/P	1	2	3	4
Output power/kW	5	10	15	20
Charge voltage/V	1000			
Operating voltage range/V	600~1000			
Max. charge current/A	8.3	16.6	24.9	33.2
Max. discharge current/A	8.3	16.6	24.9	33.2
Operating temperature/°C	Charge temperature/°C			
	Discharge temperature/°C			
	0~55			
	-20~55			
Weight/kg	15+85×1	15+85×2	15+85×3	15+85×4
Dimension(W×D×H)(mm)	720×410×495	720×410×745	720×410×995	720×410×1245
IP rating	IP66			
Certification	UN38.3, CE-EMC			
Cooling method	Fan cooling			
Communication	CAN/RS485			
Cycle life	≥8000 Cycles@0.5C/90%DOD@80%EOL, 25±2°C			
Display configuration	Quick-connect terminal, ON/OFF button, SOC indicator light			

Residential Energy Storage Battery



5.22kWh

10.44kWh

16.07kWh

Vertical Lithium-ion Battery System

Model	EHB24200Y8S2P	EHB48100Y16S1P	EHB48200Y16S2P	EHB48314Y16S1P
Cathode material	LiFePO4			
Rated voltage/V	25.6	51.2	51.2	51.2
Rated capacity/Ah	204	102	204	314
Rated energy/kWh	5.22	5.22	10.44	16.07
Standard parallel unit/P	1	1	1	1
Output power/kW	3	5	5 10	5 8
Charge voltage/V	29.2	58.4	58.4	58.4
Operating voltage range/V	20.8~29.2	41.6~58.4	41.6~58.4	41.6~58.4
Max. charge current/A	100	100	100	100 160
Max. discharge current/A	100	100	100 200	100 200
Operating temperature/°C	Charge temperature/°C			
	Discharge temperature/°C			
Weight/kg	53	53	98	122
Dimension(W×D×H)(mm)	440×170×690(750 with wheels)		820×170×660 (710 with wheels)	460×230×850 (900 with wheels)
IP rating	IP21			
Certification	UN38.3, CE-EMC			
Cooling method	Natural cooling			
Communication	CAN/RS485			
Cycle life	≥6000 Cycles@0.5C/90%DOD@80%EOL, 25±2°C			≥8000 Cycles @0.5C/90%DOD@ 80%EOL, 25±2°C
Display configuration	ON/OFF button, LCD touchscreen			

CORE BUSINESS

Power Supply

UPS/EPS power supply, rail transit power supply, special power supply

Smart Energy

Solar inverter, EV charging piles, power generation system, sodium-ion/lithium-ion battery

Digital Industry & Smart Energy Integrated Solutions Provider

Data Center

Cloud computing data center, IT infrastructure, precision air conditioner

Energy Storage

Energy storage system, PCS, EMS, BMS, micro-grid network and smart distribution network

Digital technology helps all walks of life with smart upgrade!

STRONG RESEARCH & DEVELOPMENT TEAM

2000+
Employees

600+
R&D Engineers

800+
Patents

70+
Core Technology

