



SolarEast Clean Energy Solutions **CATALOG**

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01 | SOLAREAST INTRODUCTION

 **5**
Production bases
across China

 **25**
Years' experience

 **6,000+**
Employees

Founded in 1999, SolarEast is a technological innovation-based enterprise that is publicly listed on Shanghai Stock Exchange (Stock code: 603366). Committed to making a 'Green world, Better life', SolarEast is a global leader in solar thermal industry and ranks Top 500 global new energy enterprises. SolarEast has established five production bases across China.

SolarEast Energy Storage Technology Co., Ltd is a wholly-owned subsidiary of SolarEast. It specializes in R&D, manufacturing and sales of energy storage products of various specifications that are widely used in residential, commercial & industrial, and large-scale applications. Furthermore, the Company also smartly incorporates energy storage with PV, air-source heat pumps and EV chargers, providing customers with flexible All-in-One solutions.

 **2 GWh**
Annual residential ESS
production capacity

 **10 GWh**
Annual production capacity
of Commercial & Industrial
ESS and Large-scale ESS

Strong Manufacturing Capability

SolarEast owns 25 years' experience in solar thermal, heat pump and energy storage production. It has established five modern production bases across China and boasts 12GWh annual production capacity of energy storage systems.



Luoyang base
Built in 2002
Solar heater production base



Tibet base
Built in 2020
Large flat plate solar thermal collector
production base



Shunde base
Built in 2012
Heat pump production base



Yuyao base
Built in 1984
Kitchen appliance production base
Electric water heater production base

Lianyungang base
Built in 1999
Solar heater production base
Water Purifier production base
Heat pump production base

Advanced Laboratory and Equipment

CNAS Accredited Lab

The laboratory, accredited by CNAS, is equivalent to a national testing center.



Postdoctoral Research Workstation

In 2010, it was jointly established by the Ministry of Human Resources and Social Security and the National Postdoctoral Management Committee



Nationally recognized enterprise technology center

The nationally recognized enterprise technology center is a testament to our strengths on scientific research and technological innovation.



Solar simulator

SolarEast is the first company in China to have introduced the indoor solar testing equipment, which simulates sunlight to test the solar thermal products



Main Business & Market Position

World's largest manufacturer in the solar thermal industry



Well-known EPC contractor in the PV industry in Jiangsu China



Top OEM supplier of heat pump in China



One of the fastest growing energy storage manufacturers in China



Integrated solution provider featuring PV + ESS + Heat Pump +EV Charger



Global Sales Network

Up to date, SolarEast has provided clean energy solutions for up to 35 million families and 20,000 enterprises in more than 80 countries and regions. With multiple overseas warehouses and branch offices worldwide, such as China, Europe and USA, SolarEast is able to offer global customers products and services in a timely and effective manner.



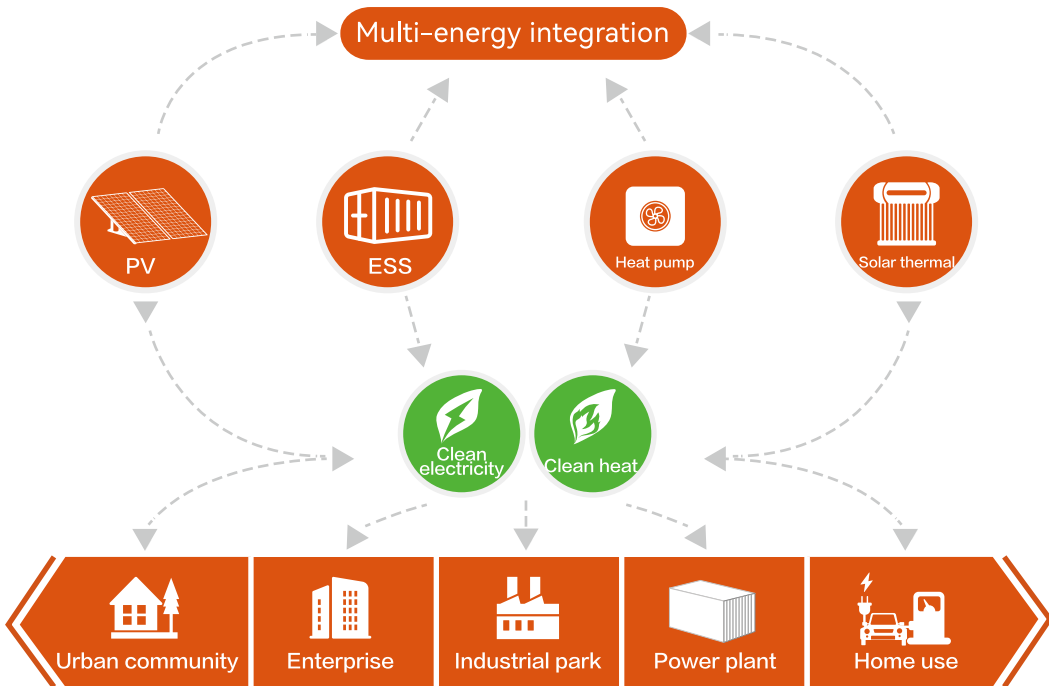
Comprehensive Clean Energy Solution

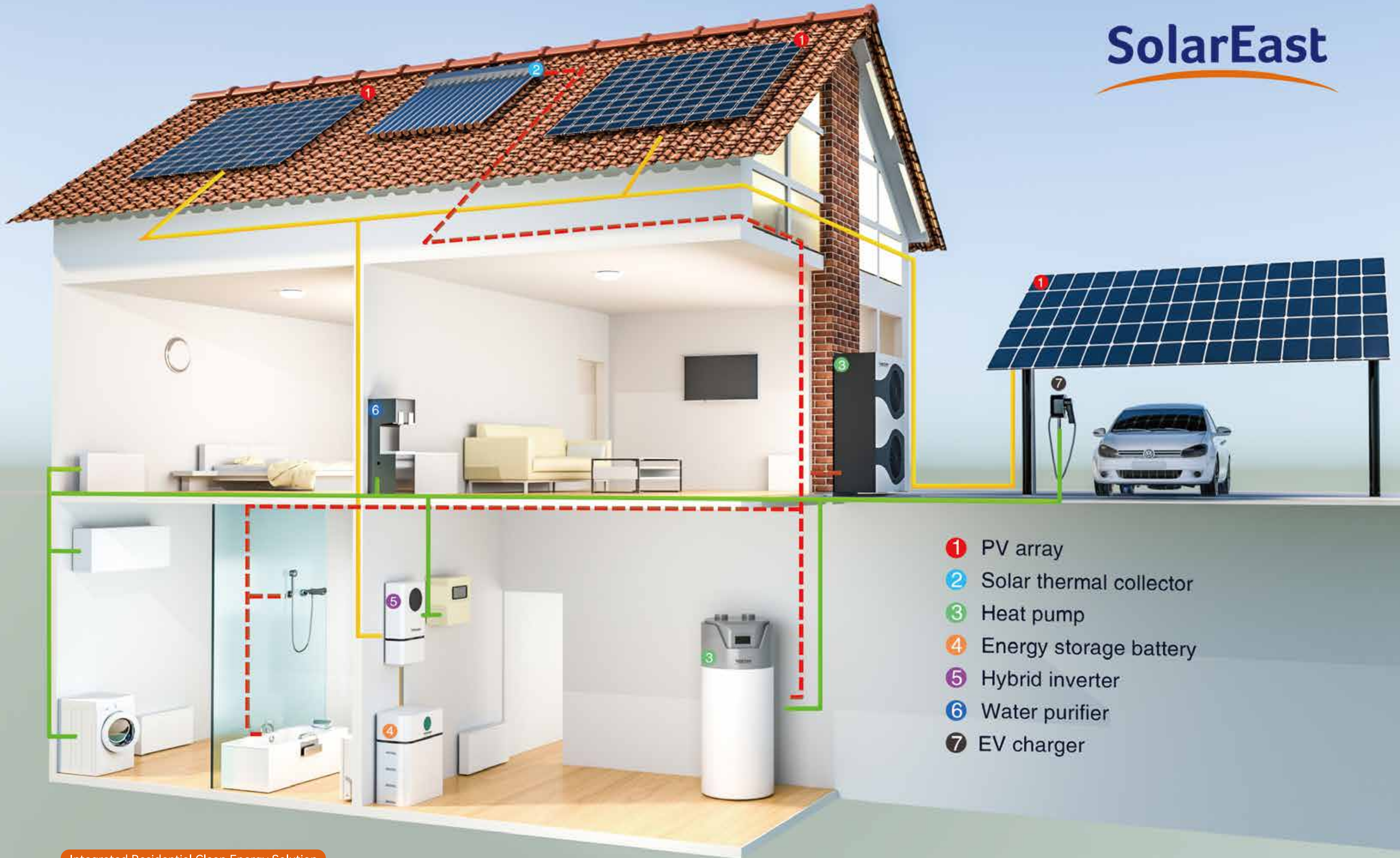
Multi-energy integration: PV, energy storage, heat pump, and solar thermal energy

Application scenarios: Power supply side, grid side

Commercial & industrial users, homes, and communities, etc

Energy type: Clean electricity, clean thermal energy





02 | BATTERY ENERGY STORAGE PRODUCTS

Stack-mounted Residential ESS



Features & Advantages



Safety
LFP Battery, Intelligent BMS and protective hardware providing complete protection



Accuracy
Dynamic SOC calibration



Compatibility
Suitable for most mainstream inverters



Easy Installation
Scalable up to 56 packs



Durability
6,000 cycles at 95% DOD



Certificates
IEC62619, IEC63056, IEC62477-1, IEC60730, UN38.3, MSDS, IEC61000, IEC62040



Technical Specifications

Model		PowerCool-LFP-HV2				
Battery type		LFP				
Number of connection	2pcs	3pcs	4pcs	5pcs	6pcs	7pcs
Total energy	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh
Usable energy	9.72kWh	14.59kWh	19.45kWh	24.32kWh	29.18kWh	34.04kWh
Max.parallel strings		8P				
Voltage	102.4V	153.6V	204.8V	256V	307.2V	358.4V
Nominal charging voltage	115.2V	172.8V	230.4V	288V	345.6V	403.2V
Max. charging current		50A				
Nominal discharging current		50A				
Discharge cut-off voltage	89.6V	134.4V	179.2V	224V	268.8V	313.6V
Battery efficiency		95%				
Battery Protection		Over-current/Over-voltage/Short-circuit/Under-voltage/Over temperature				
Maximum recommended DOD		95%				
Communication		CAN,RS485				
IP rating		IP66				
Operating temperature		0 ~ 55℃				
Altitude		≤5,000m				
Humidity		5% ~ 95%				
Warranty		10 years (5 free warranty + 5 paid warranty)				
Dimension	(660±2) * (390±2)	(660±2) * (390±2)	(660±2) * (390±2)	(660±2) * (390±2)	(660±2) * (390±2)	(660±2) * (390±2)
	* (515±3) mm	* (665±3) mm	* (815±7) mm	* (965±9) mm	* (1115±9) mm	* (1265±9) mm
Net weight	(117±2)kg	(152±4)kg	(197±6)kg	(242±8)kg	(287±8)kg	(332±8)kg
Certificates		CE-EMC,IEC62619,IEC62477,IEC62040,IEC62100,IEC60068-2-52,IEC60730,UN38.3,MSDS				
Installation		Stacked Installation				

Stack-mounted Residential ESS



Features & Advantages



Safety
LFP Battery, Intelligent BMS and protective hardware providing complete protection



Accuracy
Dynamic SOC calibration



Compatibility
Suitable for most mainstream inverters



Easy Installation
Stackable up to 7 packs



Durability
6,000 cycles at 95% DOD



Certificates
IEC62619, IEC63056, IEC62477-1, IEC60730, UN38.3, MSDS

Technical Specifications

Model	PowerCool-LFP-LV						
Battery type	LFP						
Number of connection	1pcs	2pcs	3pcs	4pcs	5pcs	6pcs	7pcs
Total energy	5.22kWh	10.44kWh	15.66kWh	20.88kWh	26.11kWh	31.33kWh	36.55kWh
Usable energy	4.96kWh	9.92kWh	14.88kWh	19.84kWh	24.80kWh	29.76kWh	34.72kWh
Voltage	51.2V						
Max. charging voltage	57.6V						
Nominal charging current	50A	100A	150A	160A	160A	160A	160A
Discharging cut-off voltage	44.8V						
Max. Battery efficiency	95%						
Max. recommended DOD	95%						
Communication	RS485/CAN						
IP rating	IP55						
Operating temperature	-10 ~ 50℃						
Altitude	≤5,000m						
Humidity	5% ~ 95%						
Warranty	10 years (5 free warranty + 5 paid warranty)						
Dimension	720*420*458mm	720*420*608mm	720*420*758mm	720*420*908mm	720*420*1058mm	720*420*1208mm	720*420*1358mm
Net weight	63kg	113kg	163kg	213kg	263kg	313kg	363kg
Certificates	CE, IEC62619, IEC61000, IEC62040, IEC63056, UN38.3, MSDS						

Model		PowerCool-LFP-HV					
Battery type		LFP					
Number of connection		2pcs	3pcs	4pcs	5pcs	6pcs	7pcs
Total energy		10.44kWh	15.66kWh	20.88kWh	26.11kWh	31.33kWh	36.55kWh
Usable energy		9.92kWh	14.88kWh	19.84kWh	24.80kWh	29.76kWh	34.72kWh
Voltage		102.4V	153.6V	204.8V	256V	307.2V	358.4V
Nominal charging voltage		115.2V	172.8V	230.4V	288V	345.6V	403.2V
Max. charging/discharging current		50A					
Discharge cut-off voltage		89.6V	134.4V	179.2V	224V	268.8V	313.6V
Max. Battery efficiency		95%					
Maximum recommended DOD		95%					
Communication		RS485/CAN					
IP rating		IP55					
Operating temperature		-10 ~ 50°C					
Altitude		≤5,000m					
Humidity		5% ~ 95%					
Warranty		10 years (5 free warranty + 5 paid warranty)					
Dimension		720*420*608mm	720*420*758mm	720*420*908mm	720*420*1058mm	720*420*1208mm	720*420*1358mm
Net weight		113kg	163kg	213kg	263kg	313kg	363kg
Certificates		CE, IEC62619, IEC61000, IEC62040, IEC63056, UN38.3, MSDS					

Wall-mounted Residential ESS



Features & Advantages

- 

Wall-mounted or floor-standing
- 

Safe LFP cells and smart BMS
- 

Scalable up to 30kWh
- 

6,000 cycles at 90% DOD
15+ years design life



Technical Specifications

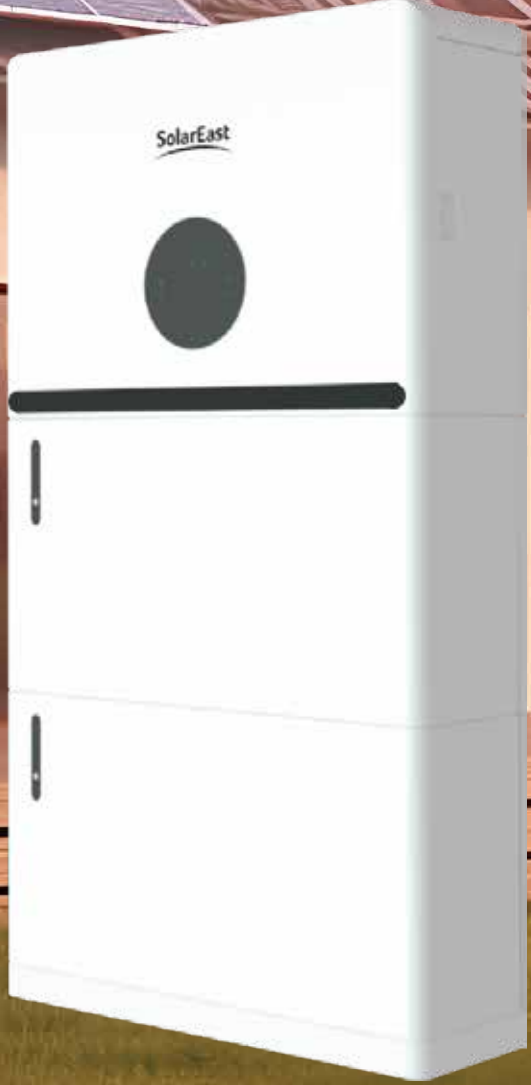
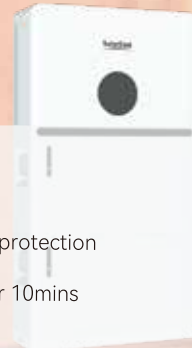
Model		PowerCool-LFP-WLV5000
Total Energy*		5.12kWh
Usable Energy(DC)*		4.86kWh
Voltage		44.8~57.6Vdc
Nominal Voltage		51.2Vdc
Rated Capacity		100Ah
Max.Charge Voltage		57.6Vdc
Nominal Discharging Current		80A(1P) /160A(2P) / 160A(3P) / 160A(4P) / 160A(5P) / 160A(6P)
Nominal Charging Current		50A(1P) /100A(2P) / 150A(3P) / 160A(4P) / 160A(5P) / 160A(6P)
Weight		47kg
Dimension(mm)(H*L*W)		640*420*161.5mm
Max.recommendde DOD		95%
Operating Condition		Indoor
Operating	Charge	0~55℃
Temperature	Discharge	0~55℃
Standard Ambient Temperature Range		0~40℃
Storage Temperature Range		> 1 month 0~35℃ / ≤1 month -20~45℃
Humidity		5% ~ 95%(RH)(No Condensation)
Over Voltage Category		II
Cooling Type		Natural cooling
Case Material		Metal
Installation		Wall-mounted or floor-standing
IP Rating		IP 20
Protective Class		I
Max.Connection Number		6P
Communication		CAN/ RS485
Battery Protection		Over-current/Over-voltage/Short circuit/ Under-voltage/Over temperature
Certificates		CE,IEC62619,IEC61000,IEC62040,IEC63056,UN38.3,MSDS
Warranty		10 years (5 free warranty + 5 paid warranty)

Testing conditions based on temperature 25℃ at the beginning of life.
*Total Energy/Usable Energy measured under specific conditions from PowerCool-LFP-WLV 0.2C CC-CV

Vertical Residential All-in-One ESS (LV)

Features & Advantages

- **All-in-One Design**
 - AIO modular system that includes inverter, charger controller, UPS-level switching system and battery modules
- **High Safety**
 - IP65 outdoor design
 - 3-level (cell-pack-system) protection
 - AFCI standard
 - Overload capacity 150% for 10mins
- **Easy Installation & Capacity Expansion**
 - Plug & Play modular design
 - Save 50% installation time
 - Save 50% installation space
 - Scalable up to 30.72kWh
- **Easy Management**
 - Dynamic SOC calibration
 - RSD Ready & VPP Ready
 - Support remote monitoring through mobile phone APP & global Cloud platform available



Technical Specifications

	Ares 3KAL	Ares 3.6KAL	Ares 4KAL	Ares 4.6KAL	Ares 5KAL	Ares 5.5KAL	Ares 6KAL
PV Input							
Max. Input Power	4.5 kW	5.4 kW	6.0 kW	6.9 kW	7.5 kW	8.3 kW	9.0 kW
Max. PV Voltage				550 V			
MPPT Range				80-500 V			
Full MPPT Range	90 – 500 V	110 – 500 V	120 – 500 V	130 – 500 V	150 – 500 V	160 – 500 V	170 – 500 V
Normal Voltage				360 V			
Startup Voltage				100 V			
Max. Input Current				18.5 x 2 A			
Max. Short Current				26 x 2 A			
No. of MPP Tracker / No. of PV String				2/2			
Battery Port							
Max. Charge/Discharge Power	3.0 kW	3.6 kW	4.0 kW	4.6 kW	5.0 kW	5.5 kW	6.0 kW
Max. Charge/Discharge Current	80 A			120 A			
Battery Normal Voltage				51.2 V			
Battery Voltage Range				40 – 60 V			
Battery Type	Li-ion / Lead-acid etc.						
AC Grid							
Max Coninuous Current	14.0 A	17.0 A	19.0 A	22.0 A	23.0A	26.0 A	28.0 A
Max Coninuous Power	3.0 kVA	3.6 kVA	4.0 kVA	4.6 kVA	5.0 kVA	5.5 kVA	6.0 kVA
Nominal Grid Current	13.7 / 13.1 A	16.4 / 15.7 A	18.2 / 17.4 A	21.0 / 20.0 A	22.8 / 21.8 A	25.0 / 24.0 A	27.3 / 26.1 A
Nominal Grid Voltage	198 to 242 @ 220 / 207 to 253 @ 230 V						
Nominal Grid Frequency	50 / 60 Hz						
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)						
Current THD	< 3 %						
AC Load Output(Back-up)							
Max Coninuous Current	14.0 A	17.0 A	19.0 A	22.0 A	23.0 A	26.0 A	28.0 A
Max Coninuous Power	3.0 kVA	3.6 kVA	4.0kVA	4.6 kVA	5.0 kVA	5.5 kVA	6.0 kVA
Max Peak Current (10min)	20.5 / 19.6A	24.6 / 23.5A	27.3 / 26.1A	31.4 / 30A	34.1 / 32.7A	37.8 / 36.1A	41.0 / 39.2A
Max Peak Power (10min)	4.5 kVA	5.4 kVA	6.0 kVA	6.9 kVA	7.5 kVA	8.3 kVA	9.0 kVA
Nominal AC Voltage L-N	220 / 230 V						
Nominal AC Frequency	50 / 60 Hz						
Switching Time	< 10 ms						
Voltage THD	< 3 c						
Efficiency							
CEC Efficiency	97.0 %					98.1 %	
Max. Efficiency	97.6 %					98.1 %	
PV to Bat. Efficiency	98.1 %					98.1 %	
Bat. between AC Efficiency	96.8 %					96.8 %	
Protection							
PV Reverse Polarity Protection				Yes			
Over Current/Voltage Protection				Yes			
Anti-Islanding Protection				Yes			
AC Short Circuit Protection				Yes			
Residual Current Detection				Yes			
Ground Fault Monitoring				Yes			
Insulation Resister Detection				Yes			
PV Arc Detection				Yes			
Enclosure Protect Level	IP65 / NEMA4X						

	Ares 3KAL	Ares 3.6KAL	Ares 4KAL	Ares 4.6KAL	Ares 5KAL	Ares 5.5KAL	Ares 6KAL
General Data							
Dimensions (W*H*D)	600 x 430 x 210 mm						
Weight	25 kg						
Topology	Transformerless						
Cooling	Intelligent Fan						
Relatively Humidity	0~100 %						
Operating Temperature Range	– 25 to 60 °C						
Operating Altitude	≤ 2000° m						
Noise Emission	< 25 dB						
Standby Consumption	< 10 W						
Mounting	Wall Bracket						
Communication with RSD	SUNSPEC						
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G						
Certification & Approvals	NRS097, G98/G99, EN50549–1, C10/C11, AS4777.2, VDE–AR–N4105, VDE0126, IEC62109–1, IEC62109–2						
EMC	EN61000–6–2, EN61000–6–3						

Battery Cell Technology		PowerCool-LFP-VLV					
Number of Pack		1pcs	2pcs	3pcs	4pcs	5pcs	6pcs
Total Energy*		5.12 kWh	10.24 kWh	15.36 kWh	20.48 kWh	25.6 kWh	30.72 kWh
Usable Energy*		4.86 kWh	9.72 kWh	14.59 kWh	19.45 kWh	24.32 kWh	29.18 kWh
Voltage Range		44.8 ~ 57.6 Vd.c					
Nominal Voltage		51.2 V					
Max. Charge Voltage		57.6 V					
Max. Continuous Charging Current		50 A	100 A	150 A	160 A	160 A	160 A
Max. Continuous Discharge Current		50 A	100 A	150 A	160 A	160 A	160 A
DOD		95 %					
Communication		CAN					
Dimension(L*W*H)		(600±2) * (215±2) * (360±3) mm	(600±2) * (215±2) * (680±5) mm	(600±2) * (215±2) * (1000±7) mm	(600±2) * (215±2) * (1320±9) mm	(600±2) * (215±2) * (1640±9) mm	(600±2) * (215±2) * (1960±9) mm
Net Weight		(50±2) kg	(97±4) kg	(144±6) kg	(191±6) kg	(238±6) kg	(285±6) kg
Operating Condition		Indoor or outdoor					
Operating Temperature	Charging	0~55 ℃					
	Discharging	0~55 ℃					
Humidity		15% ~ 85% (No Condensation)					
Cooling Type		Natural					
IP Rating		IP66					
Installation Method		Stacked installation					
Warranty		10 years (5 free warranty + 5 paid warranty)					
Configuration		IEC62619,IEC63056,IEC61000-6-1,IEC61000-6-3,IEC62477-1,IEC60730,IEC62040,UN38.3,MSDS					

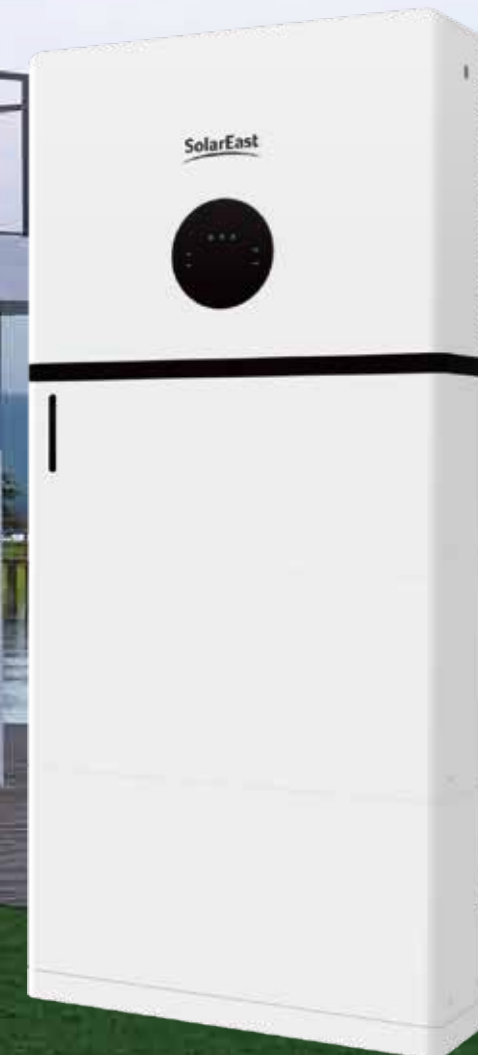
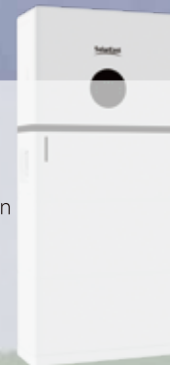
Testing conditions based on temperature 25°C at the beginning of life.

*Total Energy/Usable Energy measured under specific conditions from PowerCool-LFP 0.2C CC-CV

Vertical Residential All-in-One ESS (HV)

Features & Advantages

- **All-in-One Design**
AIO modular system that includes inverter, charger controller, UPS-level switching system and battery modules
- **High Safety**
IP66 outdoor design
3-level (cell-pack-system) protection
AFCI standard
- **Easy Installation & Capacity Expansion**
Plug & Play modular design
Save 50% installation time
Save 50% installation space
Scalable up to 23.04kWh
- **Easy Management**
Dynamic SOC calibration
RSD Ready & VPP Ready
Support remote monitoring through mobile phone
APP & global cloud platform available



Technical Data	Ares 3KAH	Ares 4KAH	Ares 5KAH	Ares 6KAH	Ares 8KAH	Ares 10KAH	Ares 12KAH	Ares 15KAH
PV Input								
Max. DC Input Power (kW)	5	6	7.5	9	12	15	18	22.5
Max. PV Voltage (V)				1000				
Rated DC Input Voltage (V)				620				
DC Input Volage Range (V)				150~1000				
MPPT Voltage Range (V)				150~850				
Full MPPT Range (V)	200~850			250~850	300~850		500~850	
Start-up Voltage (V)				160				
Max. DC Input Current (A)				20x2				
Max. Short Curent (A)				30x2				
No. of MPPT Tracker/Strings				2/2				
Battery Port								
Battery Nominal Voltage (V)	150	200	200	250	300	350	450	500
Battery Votage Range (V)				80~600				
Max. Charge/Discharge Current (A)				30				
Max. Charge/Discharge Power (kW)	3	4	5	6	8	10	12	15
Charging Curve				3 Stages				
Compatible Battery Type				Li-ion / Sodium-ion battery				
AC Grid								
Nominal AC Output Power (kW)	3	4	5	6	8	10	12	15
Max. AC Input/Output Power (kVA)	4.5/3.3	6/4.4	7.5/5.5	9/6.6	12/8.8	15/11	18/13.2	22.5 / 16.5
Max. AC Output Current (A)	5.3	7	8.5	10.5	13.5	17	21.5	27
Nominal AC Voltage (V)				230/400				
Nominal AC Frenquency (Hz)				50/60				
Power Factor				1 (−0.8~0.8) adjustable				
Current THD (%)				< 3%				
AC Load Output(Back-up)								
Nominal Output Power (VA)	3000	4000	5000	6000	8000	10000	12000	15000
Nominal Output Voltage (V)				230/400				
Nominal Output Frequency (Hz)				50/60				
Nominal Output Current (A)	4.4	5.8	7.3	8.7	11.6	14.5	17.4	21.8
Peak Output Power	3300VA,60s	4400VA,60s	5500VA,60s	6600VA,60s	8800VA,60s	11000VA,60s	13200VA,60s	16500VA,60s
THDV (with linear load)				<3%				
Switching Time (ms)				<10				
Efficiency								
Europe Efficiency				97.50%				
Max. Efficiency		98.00%			98.20%		98.30%	
Battery Charge/Discharge Efficiency				98.00%				
Protection								
Reverse Polarity Protection				Yes				
Over Current / Voltage Protection				Yes				
Anti-islanding Protection				Yes				
AC Short-circuit Protection				Yes				
Leakage Curent Detection				Yes				
Ground Fault Monitoring				Yes				
Grid Monitoring				Yes				
Enclosure Protect level				IP66				
General Data								
Dimensions ((L*W*H),mm)				600 * 432 * 210				
Weight (kg)				25				
Topology				Transformerless				
Cooling Concept		Natural Convection				Intelligent Fan		
Relatively Humidity				0~100%				
Operating Temperature Range (°C)				−25 to 60°C				
Operating Altitude (m)				<4000				
Noise Emission (dB)				<40				
Standby Consumption (W)				<5				
Display & Communication Lnterfaces				LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G				
Certification & Approvals		NRS097,G98/G99,EN50549-1,C10/C11,AS4777.2,VDE-AR-N4105,VDE0126, IEC62109-1, EC62109-2						
EMC				EN61000-6-2,EN61000-6-3				

Technical Specifications

Parameters of system

Type/model		PowerCool-LFP-VHV-9	PowerCool-LFP-VHV-13	PowerCool-LFP-VHV-18	PowerCool-LFP-VHV-23
Number of Pack (pcs)		2	3	4	5
Total Energy (kWh)		9.21	13.82	18.43	23.04
Usable Energy* (kWh)		8.74	13.12	17.50	21.88
Voltage Range (Vd.c)		112~144	168~216	224~288	280~360
Nominal Voltage (V)		128	192	256	320
Charging Voltage Declared by Manufacturer (V)		144	216	288	360
Nominal Charging Current (A)			30		
Nominal Discharge Current (A)			30		
DOD (%)			95		
Communication			CAN/RS485		
Dimension ((L*W*H),mm)		(600±2)*	(600±2)*	(600±2)*	(600±2)*
		(210±2)*	(210±2)*	(210±2)*	(210±2)*
		(610±3)	(895±5)	(1180±7)	(1465±9)
Net Weight (kg)		(105±2)	(149±4)	(193±6)	(237±6)
Operating Condition			Indoor or outdoor		
Storage Temperature Range			> 1 month 0~35℃; ≤1 month -20~45℃		
Operating	Charging	0~55 ℃			
Temperature	Discharging	0~55 ℃			
Humidity			15% ~ 85%RH(No condensation)		
Cooling Type			Natural		
IP Rating of Enclosure			IP66		
Installation Method			Stacked installation		
Warranty			10 years (5 free warranty + 5 paid warranty)		

*Testing conditions based on temperature 25℃ at the beginning of life. Total Energy/Usable Energy are measured with a standard test method: 0.2C Charge and Discharge. As per the characteristics of lithium batteries, such parameters as the charge/ discharge current and efficiency listed above are subject to change. The final right of interpretation is reserved by Jiangsu SolarEast Energy Storage Technology Co., Ltd.

Pack

Battery Module Type		PowerCool-LFP-VLV
Total Energy		4.60 kWh
Usable Energy*		4.37 kWh
Voltage Range		56~72 Vd.c
Nominal Voltage		64 V
Charging Voltage Declared by Manufacturer		72 V
Upper Limit Charging Voltage		73 V
Discharge Cut-off Voltage		56 V
Lower Limit Discharging Voltage		52 V
Max.Continuous Charging Current		30 A
Max.Continuous Discharge Current		30 A
DOD		95%
Dimension ((L*W*H),mm)		(600±2) * (210±2) * (285±2)
Net Weight		(44±2) kg
Operating Condition		Indoor or outdoor
Operating	Charging	0~55 ℃
Temperature	Discharging	0~55 ℃
Humidity		15% ~ 85%RH(No Condensation)
Configuration		(10S)2S
Warranty		10 years

Rack-mounted Residential ESS



Features & Advantages

- Safety**
LFP Battery, Intelligent BMS and protective hardware providing complete protection
- Accuracy**
Dynamic SOC calibration
- Compatibility**
Suitable for most mainstream inverters
- Easy Installation**
Support parallel connection number up to 10
- Durability**
6,000 cycles at 95% DOD,15+ years design life
- Certificates**
CE/IEC62619/IEC63056/IEC62040 /UN38.3/MSDS



Technical Specifications

Model	PowerCool-LFP-5000
Battery Type	LFP
Total Energy	5.22kWh
Usable Energy	4.96kWh
Voltage	51.2V
Cell capacity	102Ah
Max. parallel connection number	10P
Max. charging voltage	57.6V
Nominal charging current	50A(single) /100A(multiple in parallel)
Nominal discharging current	80A(single) /100A(multiple in parallel)
Discharge cut-off voltage	44.8V
Battery efficiency	95%
Max. recommended DOD	95%
Communication	RS485/CAN
IP rating	IP20
Operating temperature	0 ~ 50℃
Cooling Type	Natural cooling
Altitude	≤5,000m
Humidity	5% ~ 95%(No condensed water)
Battery Protection	Over-current/Over-voltage/Short-circuit/Under-voltage/Over temperature
Warranty	10 years (5 free warranty + 5 paid warranty)
Dimension	560*390*138mm
Net weight	45kg
Case Material	Metal
Color	Black
Installation	Ground Installation

Testing conditions based on temperature 25℃ at the beginning of life.
*Total Energy/Usable Energy measured under specific conditions from PowerCool-LFP 0.2C CC-CV

Movable Residential ESS



Features & Advantages

- 

Large Capacity
- 

Reliable Operation
- 

Built-in BMS Protection
- 

Optimal Management
- 

High Quality 360° Wheels
- 

Reliable Backup Power



Technical Specifications

PowerCool-WLL016A1		
Total Energy*		16.07kWh
Usable Energy(DC)*		15.27kWh
Voltage		44.8~57.6Vdc
Nominal Voltage		51.2Vdc
Rated Capacity		314Ah
Max. Charge Voltage		57.6Vdc
Nominal Discharging Current		157A
Nominal Charging Current		157A
Weight		135kg
Dimension(mm)(H*L *W)		800*500*250mm
Max.recommended DOD		95%
Operating Condition		Indoor
Operating	Charge	0~55℃
Temperature	Discharge	0~55℃
Standard Ambient Temperature Range		0~40℃
Storage Temperature Range		0℃ to 40℃ @60+25% Relative Humidity
Humidity		5% ~ 95%(RH)(No Condensation)
Over Voltage Category		II
Cooling Type		Natural cooling
Case Material		Metal
Installation		floor-standing
IP Rating		IP 20
Protective Class		I
Max. Connection Number		6P
Communication		CAN / RS485
Battery Protection		Over-current/Over-voltage/Short circuit/ Under-voltage/Over-temperature
Certificates		CE,UN38.3,MSDS
Warranty		5 years

Testing conditions based on temperature 25℃ at the beginning of life.
*Total Energy/Usable Energy measured under specific conditions from PowerCool-WLL016A10.2C CC-CV

Wall-mounted Residential ESS



Features & Advantages



Large Capacity



Reliable Operation



Built-in BMS Protection



Optimal Management



Reliable Backup Power



Technical Specifications

PowerCool-WLL005B1		
Total Energy*	5.12kWh	
Usable Energy(DC)*	4.86kWh	
Voltage	44.8~57.6Vdc	
Nominal Voltage	5.12Vdc	
Rated Capacity	100Ah	
Max. Charge Voltage	57.6Vdc	
Nominal Discharging Current	80A(1P) /160A(2P) / 160A(3P) / 160A(4P) / 160A(5P) / 160A(6P)	
Nominal Charging Current	50A(1P) /100A(2P) / 150A(3P) / 160A(4P) / 160A(5P) / 160A(6P)	
Weight	47kg	
Dimension(mm)(H*L *W)	620*420*135mm	
Max.recommended DOD	95%	
Operating Condition	Indoor	
Operating	Charge	0~55℃
Temperature	Discharge	0~55℃
Standard Ambient Temperature Range	0~40℃	
Storage Temperature Range	0℃ to 40℃ @60+25% Relative Humidity	
Humidity	5% ~ 95%(RH)(No Condensation)	
Over Voltage Category	II	
Cooling Type	Natural cooling	
Case Material	Metal	
Installation	Wall-mouted or floor-standing	
IP Rating	IP 20	
Protective Class	I	
Max. Connection Number	6P	
Communication	CAN / RS485	
Battery Protection	Over-current/Over-voltage/Short circuit/ Under-voltage/Over-temperature	
Certificates	CE,UN38.3,MSDS	
Warranty	5 years	

Testing conditions based on temperature 25℃ at the beginning of life.
*Total Energy/Usable Energy measured under specific conditions from PowerCool-WLL005B1 0.2C CC-CV

Liquid-cooling Battery Pack

1P48S/1P52S battery pack



Features & Advantages



High Safety

- Safe LFP cells that feature high thermal stability
- Metal case that ensures heat insulation; no thermal diffusion at 1,000°C
- Exquisite fire-fighting design; built-in fire suppression system
- High safety protection class up to IP67



High Integration

- Modular design compatible with both ESS container and C&I energy storage cabinet
- Design of modular high energy density that is characteristically smaller in size and lighter in weight



Durability

- Battery cells supplied by Tier-1 cell manufacturers; battery cycles up to 8,000
- Optimized flow runner design endorsed by thermal simulation
- Temperature variance less than 2°C in single battery pack that guarantees cell stability & reliability

The Product can be provided on OEM/ODM basis



Technical Specifications

Model	SE-BP-280L1P48S	SE-BP-280L1P52S	SE-BP-314L1P52S	SE-BP-314L1P104S
Cell type	LFP			
Nominal capacity	280Ah		314Ah	
Battery pack configuration	1P48S	1P52S	1P104S	
Nominal voltage	153.6V	166.4V	332.8V	
Total energy @ BOL	43.008kWh @ 25℃, 0.5P	46.592kWh @ 25℃, 0.5P	52.24kWh @ 25℃, 0.5P	104.49kWh @ 25℃, 0.5P
Maximum efficiency	≥94%			
Rated charging/discharging ratio	0.5P/0.5P			
Rated charging/discharging current	140A		150A	
Voltage range	129.6~172.8V	140.4~187.2V	280.8~374.4V	
Max. range of operating temperature	Charging	0℃ ~ 55℃		
	Discharging	-30℃ ~ 55℃		
Max. cell temperature after a full cycle	35℃			
Max. cell temperature difference after a full cycle	3℃			
IP Class	IP67			
Humidity	0~95% (Non-condensing)			
Weight*	approx. 305kg	approx. 340kg	approx. 340kg	approx. 650kg
Thermal control	Liquid-cooling			
Fire protection system	Perfluoro/Aerosol (Optional)			
Dimension (L*W*H)*	1065*790*245mm	1145*790*245mm	2170*790*245mm	
Maximum operating altitude	2000m			

* Specific parameters may vary based on different system configurations.
All efforts are exerted to ensure all the information herein is full and accurate. The Company reserves the right to revise relevant data and parameters from time to time without prior notice.

Liquid-cooling energy storage cabinet

215kWh/233kWh energy storage cabinet



Features & Advantages

- High safety**
 - Safety management on DC circuit; rapid fuse protection and arc protection
 - Multiplex battery protection system that guarantees safety
 - Intelligent leakage detection and refrigerant refilling system that improves overall safety
- High integration**
 - High integration; easy for transportation and maintenance
 - Pre-assembled battery units enable easy site construction
 - System ready-for-use within 8h site construction
- Long service life**
 - Smart cooling system ensures higher efficiency and longer battery service life
 - Modular design that facilitates capacity expansion
- Smart functions**
 - Real-time status monitoring and fault recording that realizes fault alarming and positioning
 - Monitoring and recording of battery performance

The Product can be provided on OEM/ODM basis



Technical Specifications

Model	SE215L-100K	SE233L-125K
Rated power	100kW	125kW
Nominal capacity	LFP 3.2V/280Ah	
Battery pack configuration	1P240S	1P60S
Total energy @ BOL	215kWh @ 25°C, 0.5P	233kWh @ 25°C, 0.5P
Voltage range at DC side	648~864V	702~936V
Voltage range at AC side	400V(-15%~10%)	
Rated grid frequency	50/60Hz±2.5Hz	
AC rated current	151A	181A
Maximum PCS power conversion efficiency	98.5%	
Way of connection to grid	3W/N+PE	
Max. operating temperature	-30~55°C	
Maximum efficiency	>88%	
Weight*	approx.2400kg	approx.2600kg
Thermal control	Liquid-cooling	
Fire protection system	Aerosol/Perfluoro (Optional)	
Display	touch screen (optional)	
IP Class	IP54 (Pack: IP67)	
Anti-corrosion class: C4	C4	
Humidity	0~95% (Non-condensing)	
Dimension (L*W*H)*	1000*1350*2300mm	
Maximum operating altitude	2000m	
Communication	Ethernet/CAN/RS485	
Communication protocol	MODBUS-RTU	
Certificates	GB/T 34120, GB/T 36276, IEC62477, IEC62619, IEC63056	

* Specific parameters may vary based on different system configurations.
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Liquid-cooling energy storage cabinet

372kWh/418kWh energy storage cabinet



Features & Advantages



High Safety

- Safe LFP cells that feature high thermal stability
- Metal case that ensures heat insulation; no thermal diffusion at 1,000°C
- Exquisite fire-fighting design; built-in fire suppression system
- High safety protection class up to IP54



Durability

- Battery cells supplied by Tier-1 cell manufacturer; battery cycles up to 8,000
- Optimized flow runner design endorsed by thermal simulation
- Temperature variance less than 3°C in single battery pack that guarantees cell stability & reliability



High Integration

- Modular design compatible with both ESS container and C&I energy storage cabinet
- Design of modular high energy density that is characteristically smaller in size and lighter in weight

The Product can be provided on OEM/ODM basis



Technical Specifications

Model	SE372L-186K	SE418L-215K
Rated power	186kW	215kW
Nominal capacity	LFP 3.2V/280Ah	LFP 3.2V/314Ah
Battery pack configuration	1P416S	1P416S
Total energy @ BOL	372kWh @ 25°C, 0.5P	418kWh @ 25°C, 0.5P
Voltage range at DC side	1123.2~1497.6V	
Voltage range at AC side	400V(-15%~10%)	
Rated grid frequency	50/60Hz±2.5Hz	
Rated current	282A	326A
Maximum PCS power conversion efficiency	98.5%	
Way of connection to grid	3W/N+PE	
Operating temperature range	-40~55°C	
Maximum efficiency	>88%	
Weight*	approx.3600kg	approx.3700kg
Thermal control	Liquid-cooling	
Fire protection system	Perfluoro/Aerosol (Optional)	
Display	touch screen (optional)	
IP Class	IP54 (Pack: IP67)	
Anti-corrosion class	C4	
Humidity	0~95% (Non-condensing)	
Dimension (W*D*H)*	1400*1400*2400mm	
Maximum operating altitude	2000m	
Communication	Ethernet/CAN/RS485	
Communication protocol	MODBUS-RTU	
Certificates	GB/T 34120, GB/T 36276, IEC62477, IEC62619, IEC63056	

* Specific parameters may vary based on different system configurations.
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Air-cooling energy storage cabinet

SE86A - 20K energy storage cabinet



Features & Advantages



High-efficient

- High energy density; support transportation with pre-assembled batteries



Smart & user-friendly

- Real-time status monitoring and fault recording
- Multi-energy coupling with PV, ESS, diesel-generator and city grid that enables wider range of application



Safe & reliable

- Multiplex battery protection system that guarantees safety
- Interfaces reserved for grid and backup power supply that protect important loads from blackout



Flexible configuration

- Black startup function that underpins voltage support in a short period of time
- 2 MPPT interfaces integrated that support connection to multiple strings of PV panels

The Product can be provided on OEM/ODM basis



Technical Specifications

Model	SE86A-20K
Cell type	LFP 3.2V/280Ah
Battery pack configuration	6P16S
Total energy @ BOL	86kWh @ 25°C, 0.5P
Battery voltage range	43.2~57.6V
Rated power at grid side	20kW
Maximum apparent power	20kVA
Rated frequency	50HZ
Rated current	30.3A
Maximum PCS power conversion efficiency	98.5%
AC wiring	3W/N+PE
Maximum off-grid output power	22kVA@60S
On/off-grid switch time	≤20ms
Off-grid three-phase unbalance factor	6.6/6.6/6.6 or 6.6/0/0 (kW)
Max. operating temperature	-30~55°C (> 45°C derating)
Weight*	≤1100kg
Thermal control	Air-cooling
Fire protection system	Aerosol
IP Class	IP54
Anti-corrosion class	C4
Humidity	0~95% (Non-condensing)
Dimension (W*D*H)*	1200x1161x2200mm
Maximum operating altitude	2000m
Communication	Ethernet/4G/RS485

* Specific parameters may vary based on different system configurations.
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Air-cooling energy storage cabinet

48kWh/100kWh energy storage cabinet



Features & Advantages



High-efficient

- High energy density; support transportation with pre-assembled batteries



Safe & reliable

- Multiplex battery protection system that guarantees safety
- Interfaces reserved for grid and backup power supply that protect important loads from blackout



Smart & user-friendly

- Real-time status monitoring and fault recording
- Multi-energy coupling with PV, ESS, diesel-generator and city grid that enables wider range of application



Flexible configuration

- Black startup function that underpins voltage support in a short period of time
- 2 MPPT interfaces integrated that support connection to multiple strings of PV panels

The Product can be provided on OEM/ODM basis



Technical Specifications

Model	SE48A-15K	SE100A-50K
Rated power	15kW	50kW
Nominal capacity	LFP 3.2V/280Ah	
Battery pack configuration	1P54S	1P112S
Total energy @ BOL	48kWh@25°C,0.5P	100kWh@25°C,0.5P
Voltage range	145.8~194.4V	302.4~408.8V
Maximum apparent power	15kVA	50kVA
Rated frequency	50/60Hz±2.5Hz	
Maximum PCS power conversion efficiency	98.5%	
AC wiring	3W/N+PE	
Max. operating temperature	-30~55°C (> 45°C derating)	
Maximum off-grid output power	16.5kVA@60S	51kVA@60S
On/off-grid switch time	≤20ms	
Off-grid three-phase unbalance factor	5/5/5/ or 5/0/0 (kW)	16.6/16.6/16.6 or 16.6/0/0 (kW)
Thermal control	Air-cooling	
Fire protection system	Aerosol	
Display	touch screen (optional)	
Anti-corrosion class	C4	
Humidity	0~95% Non-condensing	
Dimension (W*D*H)*	1000*1350*2300mm	
Maximum operating altitude	2000m	
Communication	Ethernet/CAN/RS485	
Communication protocol	MODBUS-RTU	
Certificates	GB/T 34120, GB/T 36276, IEC62477, IEC62619, IEC63056	

* Specific parameters may vary based on different system configurations.

Liquid-cooling ESS Container

5MWh ESS Container



Features & Advantages



High safety

- Safe LFP cells that feature high thermal stability
- Protection class IP54 that enables outdoor applications
- Anti-corrosion class C4 to ensure 20-year reliability
- Precaution-oriented fire protection strategy; independent fire-fighting systems



Durability

- All-in-One high-efficient liquid-cooling system
- Temperature difference in the container is less than 5°C



High integration

- Modular design; 1500V system
- Electrical system isolated from battery compartment, which facilitates maintenance
- Highly integrated modular design that saves land use up to 35%
- Pr-fabricated cabins that significantly reduces installation cost and commissioning time

The Product can be provided on OEM/ODM basis



Technical Specifications

Model	SEESS630
Battery type	LFP 3.2V, 314 Ah
Max. connection number	1P416S*12
Total energy	5.015MWh @ 25°C , 0.5P
Rated power (0.5P)	2500kW
Voltage range (DC)	1123.2V~1497.6V
System	
Dimension (W*H*D)	6250mm *2600mm*2896mm
Weight	approx. 50T
IP class	IP54 (Pack IP67)
Operating temperature	-20~50°C
Humidity	0~95%RH (Non-condensing)
Altitude	≤3000m (Standard) /≤5000m(Optional)
Thermal control	Liquid cooling/50% ethylene glycol
Fire protection system	PACK-level Perfluoro, Aerosol (Optional)
Corrosion resistance	C4-M (C5-H alternative)
Communication protocol	CAN/Ethernet
Certificates	GB/T36276

Disclaimer

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03

HYBRID INVERTER

Single-phase Hybrid Inverter



Features & Advantages

- Support Time-of-use Optimization
 - AFCI (Optional) & Rapid Shutdown Ready
 - 100% unbalanced output, each phase;
200% unbalanced output, each phase (Below 10kW)
- Configurable Operation Modes
 - Build-in Anti-feed-in Function
 - Smart Monitoring & Remote Firmware Upgrade

Technical Specifications

PV Input	Ares 3.6KL	Ares 5KL	Ares 6KL
Max. Input Power	5.4kW	7.5kW	9.0kW
Max. PV Voltage		550V	
MPPT Range		80 – 500V	
Full MPPT Range	110 – 500V	150 – 500V	170 – 500V
Normal Voltage		360V	
Startup Voltage		100V	
Max. Input Current		18.5 x 2A	
Max. Short Current		26 x 2A	
No.of MPP Tracker/No. of PV String		2 / 2	
Battery Port			
Max. Charge/Discharge Power	3.6kw	4.8kw	4.8kw
Max. Charge/Discharge Current		80A	
Battery Normal Voltage		51.2V	
Battery Voltage Range		40 – 60V	
Battery Type	Li-ion / Lead-acid etc.		
AC Grid			
Max Continuous Current	17.0A	23.0A	28.0A
Max Continuous Power	3.6kVA	5.0kVA	6.0kVA
Nominal Grid Current	16.4/15.7A	22.8 / 21.8A	27.3 / 26.1A
Nominal Grid Voltage	198 to 242 @ 220 / 207 to 253 @ 230V		
Nominal Grid Frequency	50 / 60 Hz		
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)		
Current THD	< 3%		
AC Load Output			
Max Continuous Current	17.0A	23.0A	28.0A
Max Continuous Power	3.6kVA	5.0kVA	6.0kVA
Max Peak Current (10min)	24.6/23.5A	34.1 / 32.7A	41.0 / 39.2A
Max Peak Power(10min)	5.4kVA	7.5kVA	9.0kVA
Nominal AC Current	16.4 / 15.7A	22.8 / 21.8A	27.3 / 26.1A
Nominal AC Voltage L-N	220/230V		
Nominal AC Frequency	50/60Hz		
Switching Time	Seamless s		
Voltage THD	< 3%		
Efficiency			
CEC Efficiency	97.0%		
Max. Efficiency	97.6%		
PV to Bat. Efficiency	98.1%		
Bat. between AC Efficiency	96.8%		
Protection			
PV Reverse Polarity Protection	Yes		
Over Current/Voltage Protection	Yes		
Anti-Islanding Protection	Yes		
AC Short Circuit Protection	Yes		
Residual Current Detection	Yes		
Ground Fault Monitoring	Yes		
Insulation Resister Detection	Yes		
PV Arc Detection	Yes		
Enclosure Protect Level	IP65/NEMA4X		
General Data			
Dimensions	370 x 535 x 192mm		
Weight	18.5kg	20.5kg	
Topology	Transformerless		
Cooling	Intelligent Fan		
Relatively Humidity	0 – 100%		
Operating Temperature Range	-25 to 60°C		
Operating Altitude	< 4000m		
Noise Emission	<25dB		
Standby Consumption	<10W		
Mounting	Wall Bracket		
Communication with RSD	SUNSPEC		
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G		
Certification & Approvals	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2		
EMC	EN61000-6-2, EN61000-6-3		

Three-phase Hybrid Inverter



Features & Advantages

- Support Time-of-use Optimization
 - AFCI (Optional) & Rapid Shutdown Ready
 - 100% unbalanced output, each phase;
200% unbalanced output, each phase (Below 10kW)
- Configurable Operation Modes
 - Build-in Anti-feed-in Function
 - Smart Monitoring & Remote Firmware Upgrade

Technical Specifications

PV Input	Ares 8KH3	Ares 12KH3	Ares 15KH3	Ares 17KH3
Max. DC Input Power	12kW	18kW	22.5kW	25.5kW
Max. PV Voltage	1000V			
Rated DC Input Voltage	620V			
DC Input Voltage Range	150-1000V			
MPPT Voltage Range	150-850V			
Full MPPT Range	300-850V	500-850V	500-850V	500-850V
Start-up Voltage	160V			
Max. DC Input Current	20x2A	20x2A	20+32A	32x2A
Max. Short Current	30x2A	30x2A	30+48A	48x2A
No. of MPPT Tracker / Strings	2/2	2/2	2/3	2/4
Battery Port				
Battery Nominal Voltage	300V	450V	500V	400V
Battery Voltage Range	150-800V	150-800V	150-800V	150-800V
Max. Charge/Discharge Current	30A	30A	50A	50A
Max. Charge/Discharge Power	8kW	12kW	15kW	17kW
Charging Curve	3 Stages			
Compatible Battery Type	Li-ion / Lead-acid / Sodium metal chloride battery			
AC Grid				
Nominal AC Output Power	8kW	12kW	15kW	17kW
Max. AC Input/Output Power	12/8.8kVA	18/13.2kVA	22.5/16.5kVA	25.5/18.7kVA
Max. AC Output Current	17A	21.5A	27A	30A
Nominal AC Voltage	230/400V			
Nominal AC Frenquency	50/60Hz			
Power Factor	1 (-0.8-0.8) adjustable			
Current THD	<3%			
AC Load Output (Back-up)				
Nominal Output Power	8000VA	12000VA	15000VA	17000VA
Nominal Output Voltage	230/400V			
Nominal Output Frequency	50/60Hz			
Nominal Output Current	11.6A	17.4 A	21.8A	24.7A
Peak Output Power	8800VA, 60s	13200VA, 60s	16500VA, 60s	18700VA, 60s
THDV (with linear load)	<3%			
Switching Time	<10ms			
Efficiency				
Europe Efficiency	97.50%	97.50%	97.50%	97.80%
Max. Efficiency	98.20%	98.30%	98.30%	98.30%
Battery Charge/Discharge Efficiency	98.00%			
Protection				
Reverse Polarity Protection	Yes			
Over Current / Voltage Protection	Yes			
Anti-islanding Protection	Yes			
AC Short-circuit Protection	Yes			
Leakage Current Detection	Yes			
Ground Fault Monitoring	Yes			
Grid Monitoring	Yes			
Enclosure Protect Level	IP65			
AC/DC surge protection	Type II			
General Data				
Dimensions	558 x 535 x 260 mm			
Weight	29kg			
Topology	Transformerless			
Cooling Concept	Intelligent Fan			
Relatively Humidity	0-100%			
Operating Temperature Range	-25 to 60°C			
Operating Altitude	<4000m			
Noise Emission	<30dB	<40dB	<40dB	<40dB
Standby Consumption	<5W			
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G			
Certification & Approvals	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2			
EMC	EN61000-6-2, EN61000-6-3			

04 | AIR SOURCE HEAT PUMP

MONOBLOCK HEAT PUMP

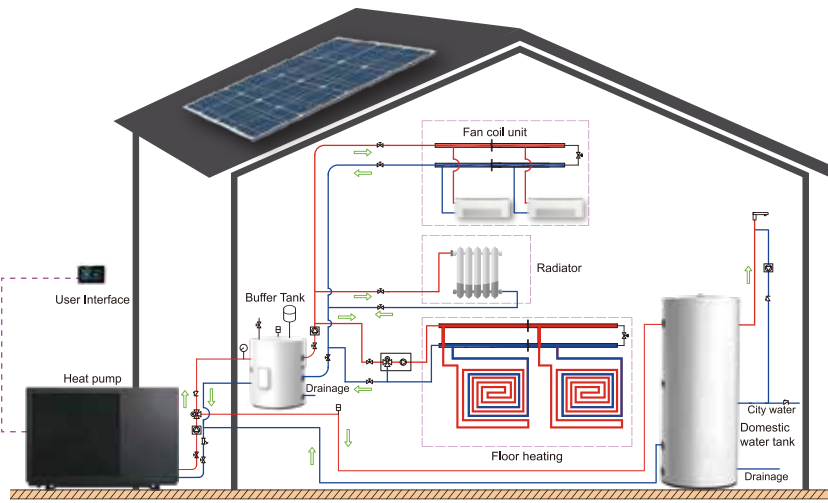
Heating / Cooling / DHW / DC Inverter / Residential Type



Features & Advantages



- R290 refrigerant,low GWP(GWP=3)
 - Energy class: A+++
 - Stable operation at -25°C
 - Outlet water temperature up to 75°C
 - Power Detection Function
 - SG-READY Function
- 5-Inch TFT True Color Screen
 - 5G/2.4G Compatible WIFI Module
 - Dual Temperature Zone
 - Reserved RS485 Communication Port
 - Linkage Control with PV Function



Model			BLN-006TC1	BLN-008TC1	BLN-008TC3	BLN-012TC1	BLN-012TC3	BLN-018TC1	BLN-018TC3
Power supply		V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	220~240/1/50	380~415/3/50	220~240/1/50	380~415/3/50
Nominal Heating (Max) (A7/6°C,W30/35°C)	Heating capacity	kW	2.92 ~ 9.10	4.10 ~12.10	4.10 ~12.10	4.30 ~ 15.20	4.30 ~ 15.20	7.24 ~ 21.90	7.24 ~ 21.90
	Power input	kW	0.61 ~ 2.11	0.79 ~2.85	0.79 ~2.85	0.87 ~ 3.73	0.87 ~ 3.73	1.50 ~ 5.88	1.50 ~ 5.88
	Current input	A	2.80 ~ 9.25	3.45~13.04	1.62~4.57	4.02 ~ 16.38	1.78 ~ 6.04	6.86 ~ 30.25	2.82 ~ 9.16
	COP	W/W	4.31 ~ 5.66	4.24 ~ 5.57	4.24 ~ 5.57	4.07 ~ 5.57	4.07 ~ 5.57	3.82 ~ 5.59	3.82 ~ 5.59
Nominal Heating (Max) (A7/6°C,W47/55°C)	Heating capacity	kW	2.99~8.16	4.05~12.15	4.05~12.15	4.25 ~ 14.55	4.25 ~ 14.55	6.36 ~ 19.45	6.36 ~ 19.45
	Power input	kW	1.03~2.92	1.38~4.06	1.38~4.06	1.45 ~ 4.28	1.45 ~ 4.28	2.15 ~ 6.85	2.15 ~ 6.85
	Current input	A	4.57~12.79	5.73~17.70	2.70~6.43	6.71 ~ 18.80	2.84 ~ 6.78	9.84 ~ 30.12	3.71 ~ 10.60
	COP	W/W	2.79 ~ 3.46	2.99 ~ 3.45	2.99~ 3.45	2.83 ~ 3.45	2.83 ~ 3.45	2.84 ~ 3.57	2.84 ~ 3.57
Nominal Cooling (Max) (A35/24°C,W12/7°C)	Cooling capacity	kW	1.38~5.70	3.65~8.59	3.65~8.59	3.65 ~ 11.04	3.65 ~ 11.04	4.55 ~ 17.20	4.55 ~ 17.20
	Power input	kW	0.67~2.44	1.12~3.31	1.12~3.31	1.12~3.97	1.12 ~ 3.97	1.85 ~ 7.31	1.85 ~ 7.31
	Current input	A	3.06~10.27	5.18~14.47	1.97~5.25	5.18~17.44	1.97 ~ 6.30	8.47 ~ 32.1	2.99 ~ 11.26
ERP level (outlet water temp. at 35°C)		/	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Max. input power		kW	3.5	5.40	5.85	5.40	5.85	7.5	10.5
Max. input current		A	15.0	25.0	10.0	25.0	10.0	35.0	17.0
Refrigerant Type / Charge / GWP		... / kg	R290 / 0.55 / 3	R290 / 1.05 / 3	R290 / 1.05 / 3	R290 / 1.05 / 3	R290 / 1.05 / 3	R290 / 1.4 / 3	R290 / 1.4 / 3
Rated water flow		m³/h	1.00	1.4	1.4	2.06	2.06	3.1	3.1
Fan quantity		/	1	1	1	1	1	2	2
Fan motor type		/	DC inverter						
Compressor		/	DC inverter						
Circulating pump		/	Inverter type / Built-in						
IP class		/	IPX4						
Sound pressure at 1m distance		dB(A)	46	43	43	53	54	56	56
Max outlet water temperature		°C	75	75	75	75	75	75	75
Water piping connections		/	G1	G1	G1	G1	G1	G1 – 1 / 4	G1 – 1 / 4
Water Pressure drop		kPa	20	20	20	20	20	55	55
Operating temperature range (heating mode)		°C	-25~45						
Operating temperature range (cooling mode)		°C	16~45						
Unpacked dimensions (L*D*H)		mm	1187*418*805	1287*448*904	1287*448*904	1287*448*904	1287*448*904	1187*488*1456	1187*488*1456
Packed dimensions (L*D*H)		mm	1217*463*920	1317*493*1020	1317*493*1020	1317*493*1020	1317*493*1020	1217*538*1570	1217*538*1570
UnPacked weight		kg	110	134	134	134	134	195	195
Packed weight		kg	122	146	146	146	146	208	208

* Please refer to the nameplate for product upgrades or changes in specifications without prior notice.

MONOBLOCK HEAT PUMP

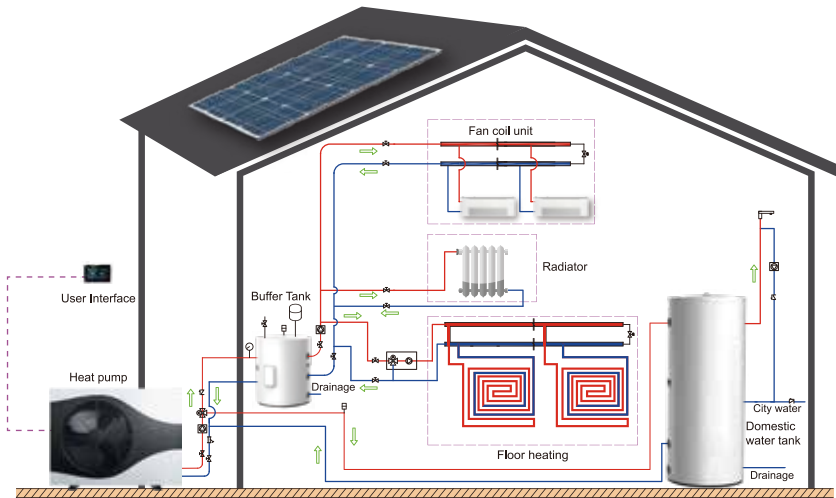
Heating / Cooling / DHW / DC Inverter / Residential Type



Features & Advantages



- R32 environmental refrigerant
 - Energy class: A+++
 - Full DC inverter Panasonic compressor and fan motor
 - -25°C inverter EVI
- Power Detection Function
 - SG-READY Function
 - 5-Inch TFT True Color Screen
 - 5G/2.4G Compatible WIFI Module
- Dual Temperature Zone
 - Reserved RS485 Communication Port
 - Linkage Control with PV Function
 - Outlet water temperature up to 60°C



Model		BLN-006TB1	BLN-010TB1	BLN-010TB3	BLN-014TB1	BLN-014TB3	BLN-018TB1	BLN-018TB3	BLN-024TB3
Power supply	V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	220~240/1/50	380~415/3/50	220~240/1/50	380~415/3/50	380~415/3/50
Nominal Heating (Max) (A7/6°C,W30/35°C)	Heating Capacity	kW	2.50 ~ 8.30	4.20~12.20	4.20 ~ 12.20	5.30 ~ 16.50	5.30~16.60	6.20~20.50	6.20 ~ 20.50
	Power Input	kW	0.57 ~ 1.92	0.86 ~ 2.88	0.86 ~ 2.88	1.15 ~ 4.15	1.15 ~ 4.15	1.36 ~ 5.28	1.36 ~ 5.28
	Current Input	A	2.53 ~ 8.52	3.82 ~ 12.77	1.46 ~ 4.89	5.10 ~ 18.41	1.86 ~ 6.70	6.10 ~ 23.67	2.31 ~ 8.96
	COP	W/W	4.32 ~ 5.86	4.23 ~ 5.39	4.23 ~ 5.39	3.97 ~ 5.43	3.97 ~ 5.43	3.88 ~ 5.21	3.88 ~ 5.21
Nominal Heating (Max) (A7/6°C,W47/55°C)	Heating Capacity	kW	2.30 ~ 7.62	3.85 ~ 11.20	3.85 ~ 11.20	4.90 ~ 15.10	4.90 ~ 15.10	6.30 ~ 19.90	6.30 ~ 19.90
	Power Input	kW	0.75 ~ 2.61	1.13 ~ 3.75	1.13 ~ 3.75	1.65 ~ 5.25	1.65 ~ 5.25	1.65 ~ 6.82	1.65 ~ 6.82
	Current Input	A	3.32 ~ 11.58	5.01 ~ 16.6	1.92 ~ 6.37	7.32 ~ 23.30	1.67 ~ 8.47	7.40 ~ 30.56	2.80 ~ 11.58
	COP	W/W	2.92 ~ 3.33	2.99 ~ 3.46	2.99 ~ 3.46	2.87 ~ 3.38	2.87 ~ 3.38	2.91 ~ 3.34	2.91 ~ 3.34
Nominal Cooling (Max) (A35/24°C,W12/7°C)	Cooling Capacity	kW	1.80 ~ 7.10	2.60 ~ 10.30	2.60 ~ 10.30	4.50 ~ 13.50	4.50 ~ 13.50	5.50 ~ 17.50	5.50 ~ 17.50
	Power Input	kW	0.61 ~ 2.43	0.91 ~ 3.65	0.91 ~ 3.65	1.45 ~ 4.85	1.45 ~ 4.85	1.65 ~ 6.25	1.65 ~ 6.25
	Current Input	A	2.71 ~ 10.78	4.03 ~ 16.19	1.55 ~ 6.20	6.43 ~ 21.52	2.34 ~ 7.82	7.40 ~ 28.02	2.80 ~ 10.61
	EER	W/W	3.04	3	3.00	2.87	2.87	2.96	2.96
ERP Level (Outlet water temp. at 35°C)	/	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
ERP Level (Outlet water temp. at 55°C)	/	A++	A++	A++	A++	A++	A++	A++	A++
Rated input power	kW	2.71	3.83	3.83	6.20	6.20	7.50	7.50	10.00
Rated input current	A	12	17	6.5	27.50	10.50	35.00	13.00	17.00
Refrigerant Type / Charge / GWP	... / kg	R32/1.25/675	R32/1.8/675	R32/1.8/675	R32/2.8/675	R32/2.8/675	R32/3.5/675	R32/3.5/675	R32/3.5/675
Rated water flow	m³/h	1.1	1.75	1.75	2.52	2.52	3.20	3.20	4.12
Fan quantity	/	1	1	1	1	1	2	2	2
Fan motor type	/	DC inverter							
Compressor	/	Panasonic / DC inverter / Rotary / EVI							
Circulating pump	/	Inverter type / Built-in							
IP Class	/	IPX4							
Sound pressure at 1m distance	dB(A)	49	52	52	53	54	56	55	58
Max outlet water temperature	°C	60	60	60	60	60	60	60	60
Water piping connections	inch	G1	G1	G1	G1-1/4	G1-1/4	G1-1/2	G1-1/2	G1-1/2
Pressure drop at rating water flow	kPa	25	27	27	30	30	32	32	35
Operating temperature range(Heating mode) °C		-25~45							
Operating temperature range(Cooling mode) °C		16~45							
Unpacked Dimensions (L*D*H)	mm	1100*445*850	1100*445*850	1100*445*850	1110*480*850	1110*480*850	1110*445*1450	1110*445*1450	1110*445*1450
Packed Dimensions (L*D*H)	mm	1160*530*1010	1160*530*1010	1160*530*1010	1160*565*1010	1160*565*1010	1170*530*1610	1170*530*1610	1170*530*1610
UnPacked Weight	kg	102	107	107	124	124	151	151	160
Packed Weight	kg	114	119	119	136	136	168	168	177

* Please refer to the nameplate for product upgrades or changes in specifications without prior notice.

All-in-One Heat Pump Water Heater

Top Inlet/Outlet



Features & Advantages



- R290 / R134a refrigerant,environmental friendly
- Microchannel heat exchanger
- WIFI smart control
- Higher water temperature output up to 75°C

Technical Specifications

YT-200|300 TA1|2 YT-200|250 TD1|2 YT-200|300 TB1|2

R290

Model	YT-200TA2	YT-300TA2	YT-200TB2	YT-300TB2	YT-200TD2	YT-250TD2
Power Supply	220~240V/1/50Hz					
Rated Heating Capacity (kW)	2.8	2.8	2.8	2.8	2.8	2.8
Refrigerant	R290					
Tapping Cycle	L	XL	L	XL	L	XL
Energy Efficient Class	A+	A+	A+	A+	A+	A+
Energy Efficient ηwh (%)	145.7	147.6	145.7	147.6	145.7	147.6
**COP (EN16147)	3.677	3.691	3.677	3.691	3.677	3.691
Tank Capacity (L)	200	300	200	300	200	250
Air Flow (m³/h)	450					
Air Discharge	Vertical					
Air Duct Diameter (mm)	φ150					
Auxiliary electric heater(kW)	2					
Default Water Temperature(°C)	60					
Working Temperature Range(°C)	-7°C-43					
Unpacked Dimension (mm)	Φ620*1650	Φ620*2050	Φ620*1650	Φ620*2050	Φ620*1650	Φ620*2050
Packed Dimension (L*W*H)(mm)	700*700*1755	700*700*2155	700*700*1755	700*700*2155	700*700*1755	700*700*2155
Net Weight(kg)	95	115	98	117	100	119
Gross Weight(kg)	113	135	116	137	118	139
Noise (dB(A))	48					

R134a

Model	YT-200TA1	YT-300TA1	YT-200TB1	YT-300TB1	YT-200TD1	YT-250TD1
Power Supply	220~240V/1/50Hz					
Rated Heating Capacity (kW)	2.4	2.4	2.4	2.4	2.4	2.4
Refrigerant	R134a					
Tapping Cycle	L	XL	L	XL	L	XL
Energy Efficient Class	A+	A+	A+	A+	A+	A+
Energy Efficient ηwh (%)	148.9	142.0	148.9	142.0	148.9	142.0
**COP (EN16147)	3.48	3.52	3.48	3.52	3.48	3.52
Tank Capacity (L)	200	300	200	300	200	250
Air Flow (m³/h)	450					
Air Discharge	Vertical					
Air Duct Diameter (mm)	φ150					
Auxiliary electric heater(kW)	2					
Default Water Temperature(°C)	55					
Working Temperature Range(°C)	-7-43					
Unpacked Dimension (mm)	Φ620*1650	Φ620*2050	Φ620*1672	Φ620*2050	Φ620*1650	Φ620*2050
Packed Dimension (L*W*H)(mm)	700*700*1755	700*700*2155	700*700*1790	700*700*2155	700*700*1755	700*700*2155
Net Weight(kg)	95	115	110	117	100	119
Gross Weight(kg)	113	135	125	137	118	139
Noise (dB(A))	48					

** Above results are tested at ambient temperature DB20°C/WB15°C, water temperature in 10°C/out 55°C according to EN16147:2017
* Please refer to the nameplate for product upgrades or changes in specifications without prior notice.

All-in-One Heat Pump Water Heater

Side Inlet/Outlet



Features & Advantages



- Square and uniform design
 - IPX4 class, ideal for outdoor application
 - Axial ventilation design for higher efficiency
- Microchannel heat exchanger with excellent efficiency
 - R290 / R134a optional
 - WIFI smart control



YT-200|250 TC2 YT-150|200|250 TC1

Model	YT-200TC2	YT-250TC2	YT-150TC1	YT-200TC1	YT-250TC1
Refrigerant	R290	R290	R134a	R134a	R134a
Power Supply	220 ~ 240V/1/50Hz				
Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C					
Rated Heating Capacity (kW)	2.9	2.9	2.4	2.4	2.4
Rated Input Power (kW)	0.7	0.7	0.57	0.57	0.57
COP	4.3	4.3	4.1	4.1	4.1
Max Current (A)	16.0	16.0	15.0	15.0	15.0
Tank Capacity (L)	200	200	150	200	250
Outer Casing / Shape	Full colour painted casing / Square				
Expansion Valve	Electronic				
Air Flow (m³/h)	450				
Air Discharge	Horizontal				
Air Duct Diameter	Non-ducted				
Back-up Heater (kW)	2				
Default Water Temperature (°C)	55				
Working Temperature Range (°C)	-7~43				
Unpacked Dimension(L*W*H)(mm)	600*600*1600	600*600*1830	500*500*1670	600*600*1600	600*600*1830
Packed Dimension(L*W*H)(mm)	700*700*1770	700*700*2050	640*640*1840	700*700*1770	700*700*2050
Net Weight (kg)	118	136	92	118	136
Gross Weight (kg)	137	155	110	137	155
Noise (dB(A))	48	48	48	48	48

* Please refer to the nameplate for product upgrades or changes in specifications without prior notice.

WALL MOUNTED WATER HEATER

With Horizontal/Vertical



Features & Advantages



- Horizontal/Vertical optional
- Multiple running mode
- Maximum outlet water temperature up to 75°C
- Silent running, low to 38dB(A)



YT-060|080|100 GV YT-060|080|100 GH

Model	YT-060GV	YT-080GV	YT-100GV	YT-060GH	YT-080GH	YT-100GH
Installation	Vertical	Vertical	Vertical	Horizontal	Horizontal	Horizontal
Power Supply	220 ~ 240V/1/50Hz					
Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C						
Heating Capacity (W)	600	600	600	600	600	600
Power Input (W)	169	169	169	169	169	169
COP	3.50	3.50	3.50	3.50	3.50	3.50
Hot Water Production (L/h)	12	12	12	12	12	12
Refrigerant	R134a					
Electric Heating Element (kW)	2					
Max Power Input (kW)	2.5					
Max Current (A)	11.4					
Water Tank Volume (L)	60	80	100	60	80	100
Max Water Tank Pressure	0.8MPa					
IP Class	IPX4					
Working temperature range (°C)	-7 ~ 43					
Net Dimension(mm)	Φ470*977	Φ470*1142	Φ470*1282	Φ470*890	Φ470*1040	Φ470*1180
Package Dimension(L*W*H)(mm)	565*585*1010	565*585*1180	565*585*1320	565*570*960	565*570*1100	565*570*1250
Net Weight (kg)	39	42	45	39	42	50
Gross Weight (kg)	43	46	58	43	46	54
Noise (dB(A))	38					
Air Duct	Non-ducted					

* Please refer to the nameplate for product upgrades or changes in specifications without prior notice.

Swimming Pool Heat Pump

Top discharge air outlet



Features & Advantages



- Fully Inverter with R32 refrigerant
 - High-end Mitsubishi compressor
 - Titanium heat exchanger
 - Premium touch screen display
- Heating, Cooling & Automatic mode
 - Built-in WiFi function
 - Top discharge air outlet
 - Multi-protection for safe operation



BYC-007|010|013|017|021|030|035 TV1

BYC-030|035 TV3

Model	BYC-007TV1	BYC-010TV1	BYC-013TV1	BYC-017TV1	BYC-021TV1	BYC-030TV1	BYC-035TV1	BYC-030TV3	BYC-035TV3
* Heating Capacity at Air 26℃, Humidity 80%, Water 26℃ in, 28℃ out									
Heating Capacity (kW)	7.2~1.7	9.2~2.3	12.5~3.0	16.5~3.8	21~4.8	28~6.8	35~8.8	28~6.8	35~8.8
Power Input (kW)	1.06~0.11	1.35~0.15	1.84~0.19	2.43~0.24	3.09~0.30	4.12~0.43	5.15~0.56	3.97~0.43	5.15~0.56
COP	15.8~6.8	15.8~6.8	16~6.8	15.8~6.8	15.8~6.8	15.8~6.8	15.8~6.8	15.8~6.8	15.8~6.8
* Heating Capacity at Air 15℃, Humidity 70%, Water 26℃ in, 28℃ out									
Heating Capacity (kW)	5.9~1.4	7.4~1.9	9.5~2.3	13.1~3	16.5~3.8	23~5.5	25.5~6.4	23~5.5	25.5~6.4
Power Input (kW)	1.2~0.18	1.51~0.25	1.9~0.30	2.67~0.39	3.37~0.5	4.7~0.72	5.2~0.84	4.7~0.72	5.2~0.84
COP	7.6~4.9	7.6~4.9	7.6~5	7.6~4.9	7.6~4.9	7.6~4.9	7.6~4.9	7.6~4.9	7.6~4.9
* Cooling Capacity at Air 35℃, Water 29℃ in, 27℃ out									
Cooling Capacity (kW)	4.2~1.0	5.3~1.3	7.2~1.7	9.4~2.1	11.6~2.7	14.9~3.8	19.3~4.9	14.9~3.8	19.3~4.9
Power Input (kW)	1.11~0.15	1.4~0.19	1.89~0.25	2.47~0.31	3.05~0.4	3.92~0.57	5.08~0.73	3.92~0.57	5.08~0.73
EER	6.6~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8
* General data									
Power supply	220~240V/1/50Hz						380~415V/3/50Hz		
Max Power Input (kW)	1.45	1.75	2.2	2.5	3.2	4.45	6.43	4.76	6.93
Max Current (A)	7.1	8.3	10.2	11.9	14.7	20.4	30	7.9	11.3
Water Flow Volume (m³/h)	2.5	3.5	4.5	5.5	6.5	9	12	9	12
Refrigerant	R32								
Heat Exchanger	Titanium								
Air Flow Direction	Vertical								
Automatic defrosting	by 4 way valve								
Working temp. range (℃)	-15~43								
Casing Material	ABS								
Water Proof Level	IPX4								
Noise level 1m dB(A)	39~49	40~52	42~53	43~55	45~56	47~58	49~59	47~58	49~59
Noise level 10m dB(A)	20~29	20~32	22~33	23~35	25~36	27~38	29~39	27~38	29~39
Net Weight (kg)	44	46	55	57	61	86	92	86	92
Gross Weight (kg)	55	57	68	70	72	96	104	96	104
Net Dimensions (mm)	530*530*640	530*530*640	650*650*770	650*650*770	650*650*770	715*715*955	715*715*955	715*715*955	715*715*955
Package Dimensions (mm)	560*600*780	560*600*780	680*720*910	680*720*910	680*720*910	765*785*1080	765*785*1080	765*785*1080	765*785*1080

* Please refer to the nameplate for product upgrades or changes in specifications without prior notice.

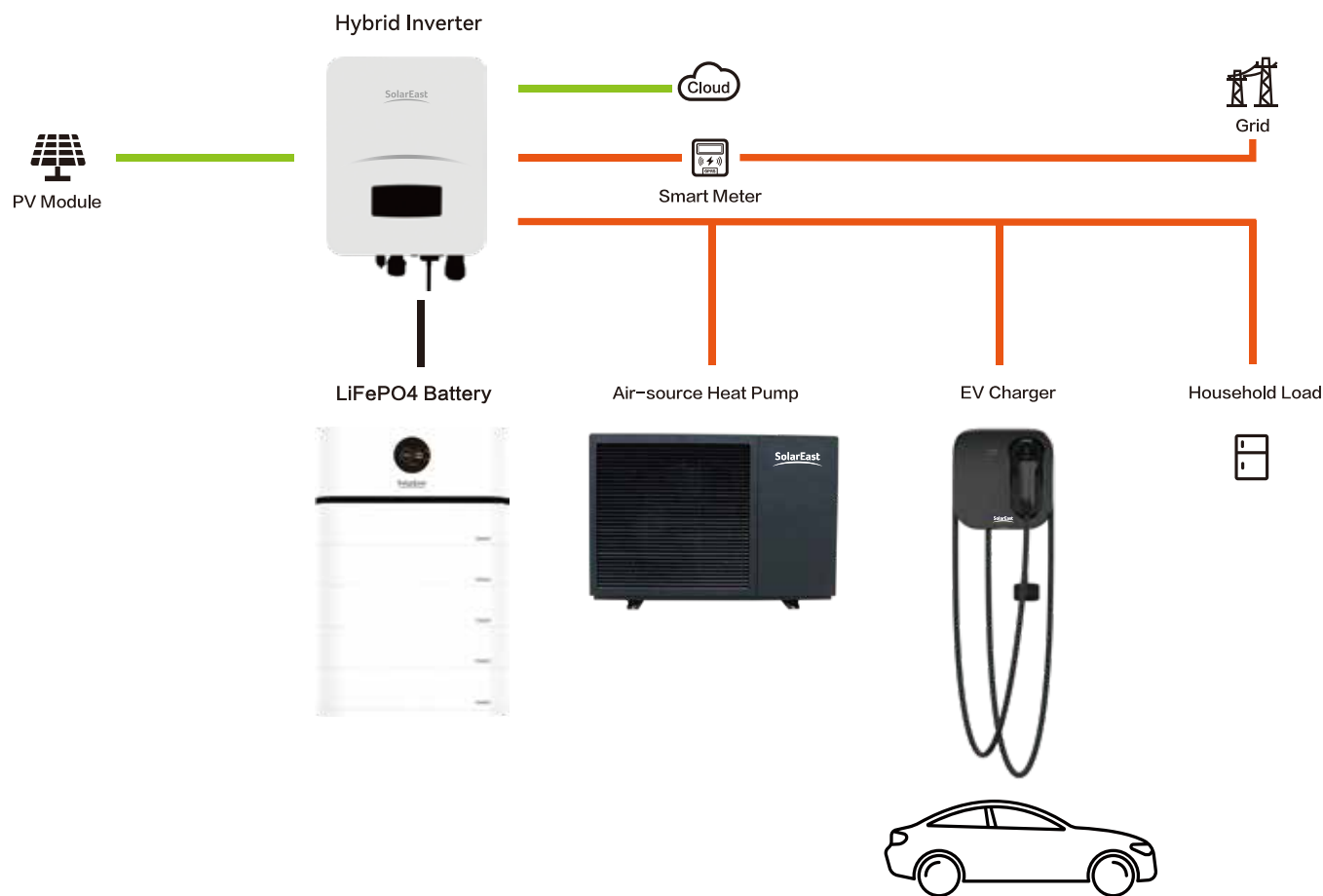
05 | INTEGRATED CLEAN ENERGY SOLUTION

▸ PV+Energy Storage+Heat Pump+EV Charger

The Company can provide customers with "PV+storage+thermal/charging" combined system, which integrates low-cost power generation with power storage, realizing clean, efficient and cost-efficient energy end use.

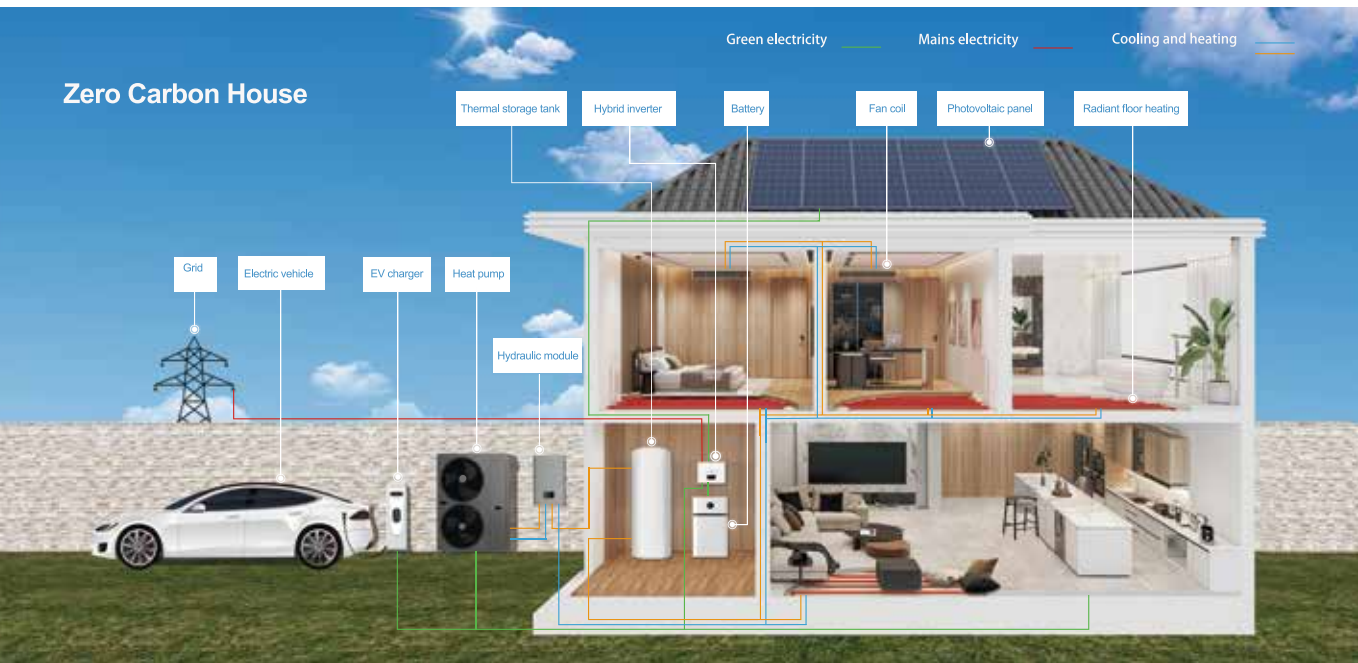
The system includes PV module, hybrid inverter, energy storage battery module and air-source heat pump and/or EV charger.

The PV module adopts high-efficient mono-crystalline cells, which can be installed on the roof or ground according to the specific situation of users to better achieve clean and low-cost power supply. The energy storage module stores part of the electricity generated by the photovoltaic module and uses it at night or when the light is poor, therefore improving the utilization rate of the solar panels and reducing the use cost; while the air-source heat pump module uses heat pumps for heating, which can save 70% of electricity.



Smart Energy Management System

With our self-developed smart home terminal based on IOT technology, our products can work smoothly together and play nice with the other devices in your house, therefore improving the quality of your life in terms of automation, security, comfort, and convenience.



06 | PROJECT DEVELOPMENT

For those big power consumers, such as steel factories and chemical plants, the Company can work out feasibility study report and customize the energy storage facilities accordingly based on their load characteristics, with a view to helping them save power bill, postpone transformer capacity expansion, enhance utilization of PV power generation, and improve electrical safety alike through the means of peak load shifting and other avenues.

The Company provides overall solutions encompassing engineering, procurement, construction, operation & maintenance, and can offer financing for the eligible clients.



10MW/39MWh Energy Storage Station

Overseas project cases



PV+Solar Thermal+Energy Storage Project, Tibet



PV+Storage+Thermal project for 17 elementary schools, Tibet



Industrial & Commercial Energy Storage Project, Guangdong



Heat Pump Project, Jingtu Industrial Park in Caina Town, Tibet

07 | FLEXIBLE COOPERATION



Regional Distributors



OEM/ODM



Integrated Solutions