

Solar Energy Storage System

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FAIRLAND®

100% Free

Smartly link Fairland's HVAC heat pump, pool heat pump, or even the whole iGarden robotics, maximize the use of free energy.





The thinnest pad design

Thinnest pad design with customized front panel, define your own energy manager.



SYNC All-in-one solar ESS

Multi-scenario application

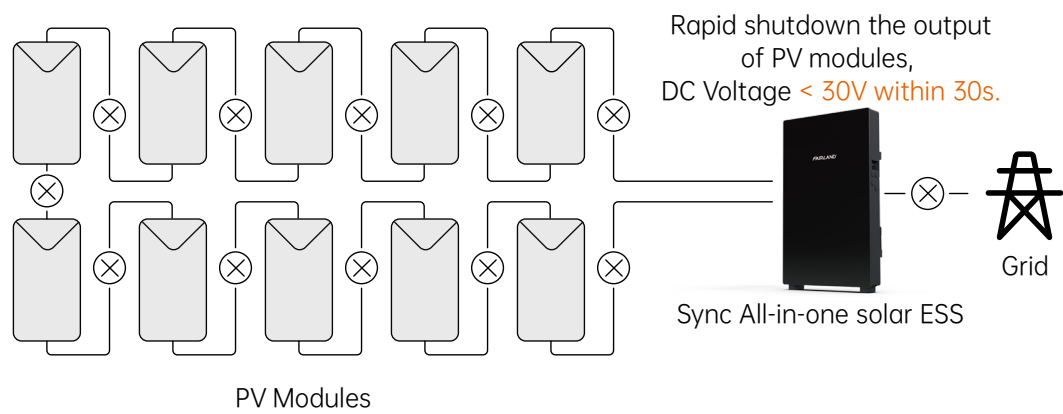
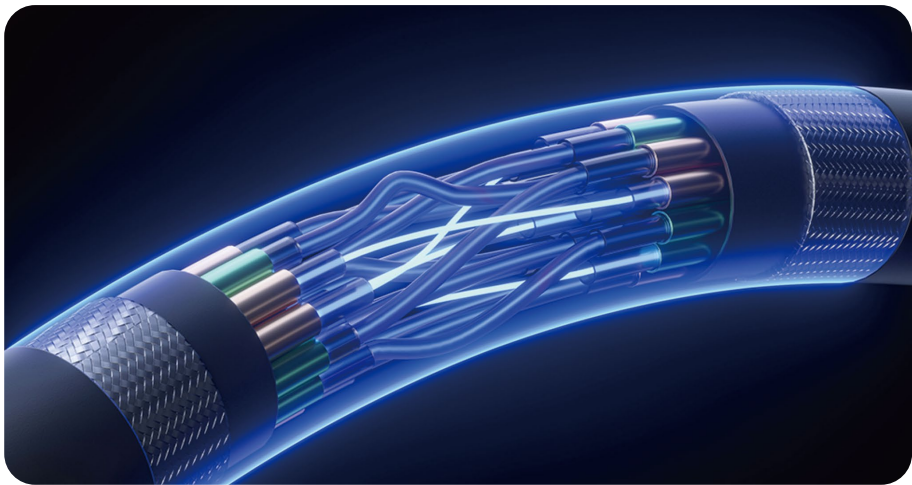
Support multi-scenario application: Smart Load, Generator, EV charging, VPP, Peaking shaving, EPS etc.

Communication

Power Circuit

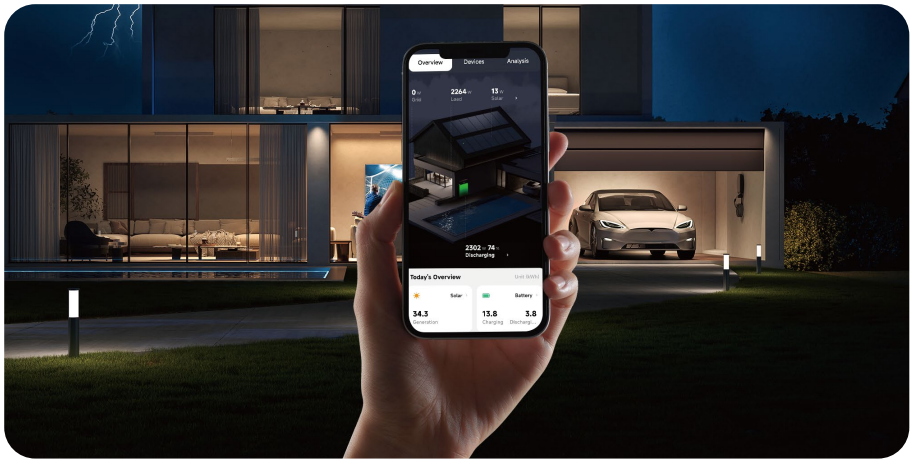


AFCI & RSD Detect and Execute



Real-time status display

Easy Wi-Fi configuration via APP



-20°C Operation

Steady Power Supply in Extreme Condition

*Charging: -5°C to 50°C/ Discharging: -20°C to 50°C



SYNC All-in-one Solar ESS(US model)

Model Name		SYNC 7.6K A1	
System Data			
Max. Apparent AC Power(VA)	7680		
Peak Apparent AC Power(10s, EPS,VA)	11520		
Norminal AC Power(W)	7680		
Nominal AC Voltage(V)	120 / 240		
Grid Type	Split Phase		
AC Grid Frequency(Hz)	60		
Max. Continuous Current(A)	32		
Power Factor	0.8 leading to 0.8 lagging		
Max. Efficiency	98.00%		
CEC Efficiency	97.50%		
Total Harmonic Distortion(THDi, rated power)	<3%		
Input Data(PV)			
Suggested Max. PV Input Power(Wp)	11520		
Max. DC Voltage(V)	550		
Start-up Voltage(V)	120		
MPPT Voltage Range(V)	90 ~ 500		
Independent MPPT Inputs / Inputs per MPPT	3 / 1		
Max. Current per MPPT(A)	16		
Max. Short-Circuit Current per MPPT(A)	20		
Input Data(Battery)			
Battery Type	LFP		
Total Capacity(kWh)	14.7		
Operated Temperature(°F)	Charge:23~ 122/Discharge:-4~122		
Max. Charging/Discharging Current(A)	40		
Max. Charging/Discharging Power(W)	7680		
Protection			
DC Reverse Polarity Protection	YES	AFCI Protection	YES
DC Switch	YES	AC Short-Circuit Protection	YES
PV Rapid Shutdown (RSD)	YES	Grid Monitoring	YES
Isolation Monitor Interrupter (IMI)	YES	Anti-Islanding Protection	YES
General Data			
Operating Temperature Range(°F)	-4~122 (Derating above 113)		
Operating Humidity (RH)	Up to 100% , condensing		
Storage Temperature(°F)	-22 ~ 131, up to 95%RH, non-condensing		
Max. Elevation	9843 ft (3000 m)		
Cooling	Natural convection		
Enclosure Type	NEMA 4X		
Protection Degree	IP66		
Customer Interface	App		
Communication Interfaces	RS485, CAN, WIFI & LAN		
Mechanical			
Dimensions (W * H * D,mm)	760 * 1250 * 150		
Weight(kg)	175		
Mounting	Wall mount or floor mount		

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SYNC All-in-one Solar ESS(EU model)

Model	SYNC 3.6K S1		SYNC 4.6K S1		SYNC 5K S1		SYNC 6K S1		SYNC 7.5 K S1	
System Data										
Max. Apparent AC Power(VA)	3680		4600		5000		6000		7500	
Peak Apparent AC Power(10s, Backup,VA)	7360		9200		10000		11250		11250	
Norminal AC Power(W)	3680		4600		5000		6000		7500	
Nominal AC Voltage(V)	230 / 240									
Grid Type	Single Phase									
AC Grid Frequency(Hz)	50 / 60									
Max. Continuous Current(A)	16		20		21.7		26.1		32.6	
Power Factor	0.8 leading to 0.8 lagging									
Max. Inverter Efficiency	98.00%									
Total Harmonic Distortion(THDi, rated power)	<3%									
Input Data (PV)										
Suggested Max. PV Input Power(Wp)	7360		9200		10000		11250		11250	
Max. DC Voltage(V)	550									
Start-up Voltage(V)	120									
MPPT Voltage Range(V)	90 ~ 500									
Independent MPPT Inputs / Inputs per MPPT	3 / 1									
Max. Current per MPPT(A)	16									
Max. Short-circuit Current per MPPT	20									
Input Data (Battery)										
Battery Type	LFP									
Total Energy(kWh)	14.7									
Operated Temperature(°C)	Charge:-5~50/Discharge:-20~50									
Max. Continuous Charging/Discharging Current(A)	40									
Max. Continuous Charging/Discharging Power(W)	3680		4600		5000		6000		7500	
Protection										
DC Reverse Polarity Protection	YES		AFCI Protection						YES	
DC Switch	YES		AC Short-Circuit Protection						YES	
PV Rapid Shutdown (RSD)	YES		Grid Monitoring						YES	
Isolation Monitor Interrupter (IMI)	YES		Anti-Islanding Protection						YES	
General Data										
Operating Temperature Range(°C)	-20 ~ 50(Derating above 45)									
Operating Humidity (RH)	Up to 100%, condensing									
Storage Temperature(°C)	-30 ~ 55, up to 95%RH, non-condensing									
Max. Elevation(m)	3000									
Cooling	Natural convection									
Protection Degree	IP66									
Customer Interface	App									
Communication Interfaces	RS485, CAN, WiFi & LAN									
Mechanical										
Dimensions(W*H*D,mm)	760*1250*150									
Weight(kg)	175									
Mounting	Wall mount or floor mount									

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Elite

Solar Energy Storage System

Backup Gateway

Model	Gateway200 A1 (US)	Gateway200 S1 (EU)
Grid Port		
Nominal AC Voltage(V)	120/240	230 / 240
Nominal AC Frequency(Hz)	60	50 / 60
Max.Continuous Current(A)	160(Max. 200)	
Load Port		
Nominal AC Voltage(V)	120/240	230 / 240
Nominal AC Frequency(Hz)	60	50 / 60
Max. Continuous Current(A)	160(Max. 200)	
Inverter Port		
Nominal AC Voltage(V)	120/240	230 / 240
Nominal AC Frequency(Hz)	60	50 /60
Max. Continuous Power(VA)	5x7680	5x7500
Max. Continuous Current	160(Max. 200)	160(Max. 200)
Smart Port		
Nominal AC Voltage(V)	120/240	230 / 240
Nominal AC Frequency(Hz)	60	50 / 60
Max.Continuous Power(VA)	38400	
Max. Continuous GENERATOR Input Current(A)	64	
Auto Generator Start	Yes	
Max. Continuous Current	2x64A Max @240V & 1x64A Max @240V Sharing with Generator	
General data		
Operating Temperature	-4°F to 122°F	-20°C to 50°C
Operating Humidity (RH)	Up to 100%, condensing	
Max. Elevation	9843 ft (3000m)	
Protection Degree	IP65	
Communication Interfaces	RS485 / Dry Contact	
Energy Meter	1% Accuracy	
Dimensions(W * H * D,mm)	470 * 730 * 149	
Weight(kg)	58	
Mounting	Wall Mount	

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Super Off-grid Load Carrying

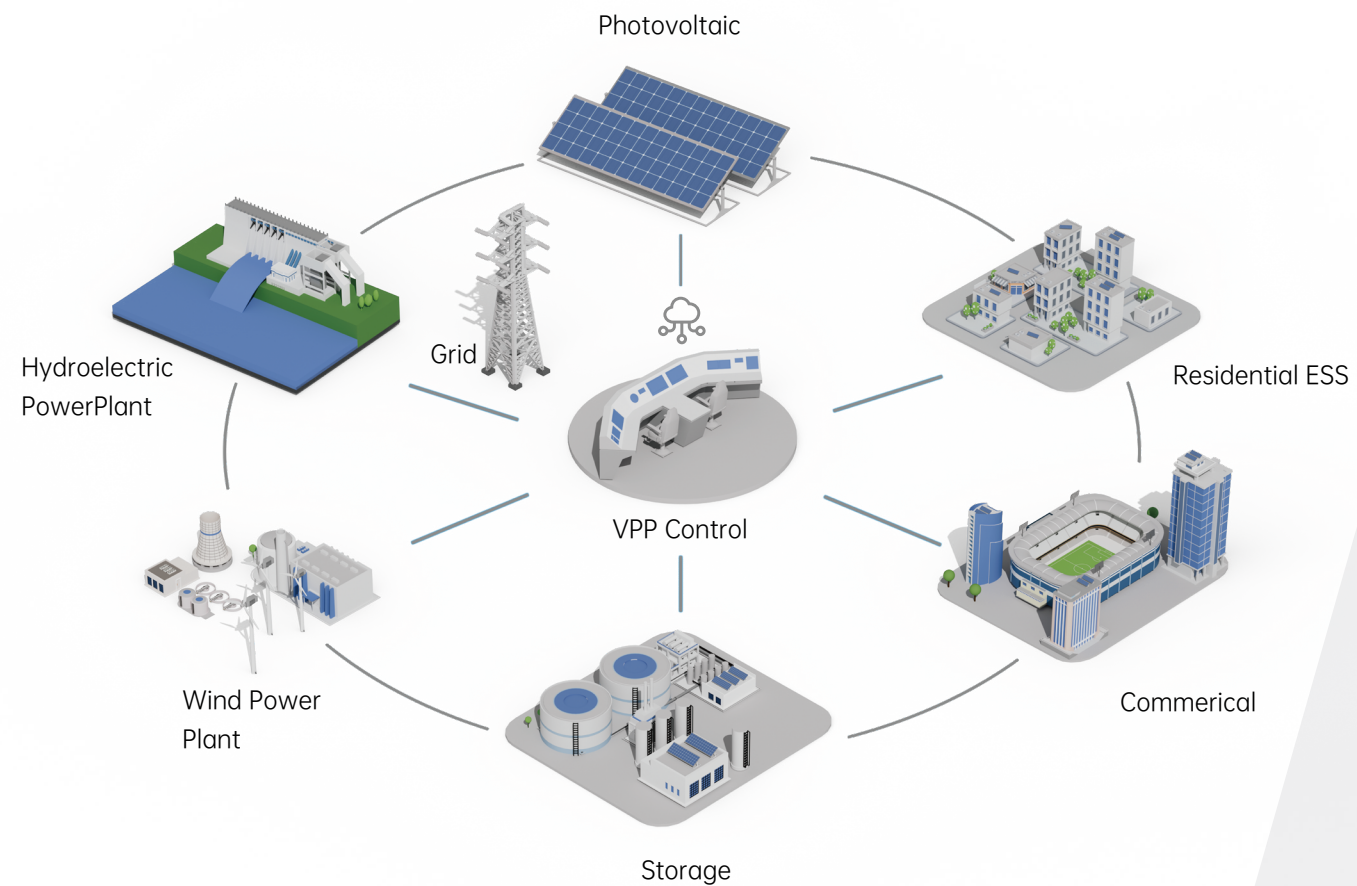
<10ms UPS level switch

providing emergency power when mains failure



Various Operation Function

4 friendly functions: Self-generated, Zero power feeder, VPP, Battery-free & Gridless



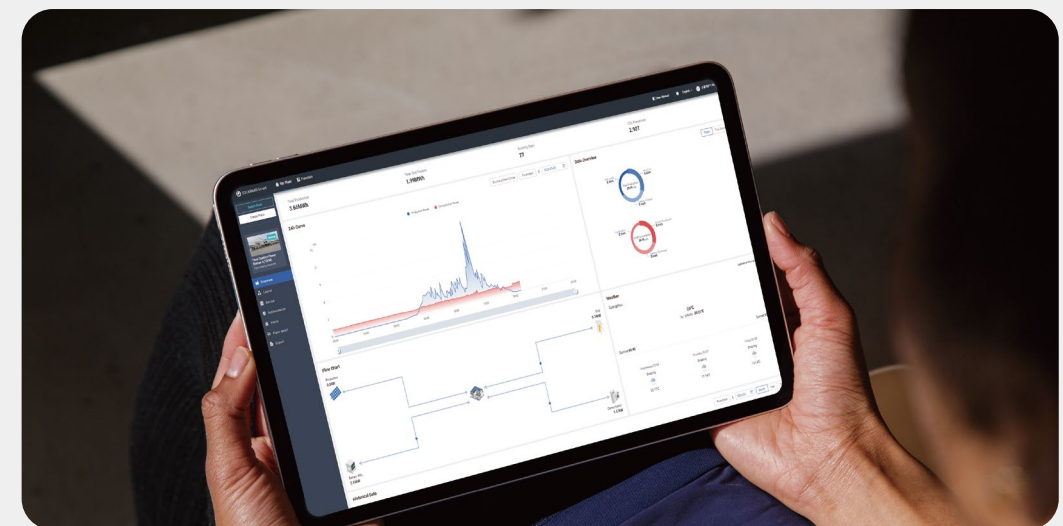
Real-time status display

Easy Wi-Fi configuration via APP

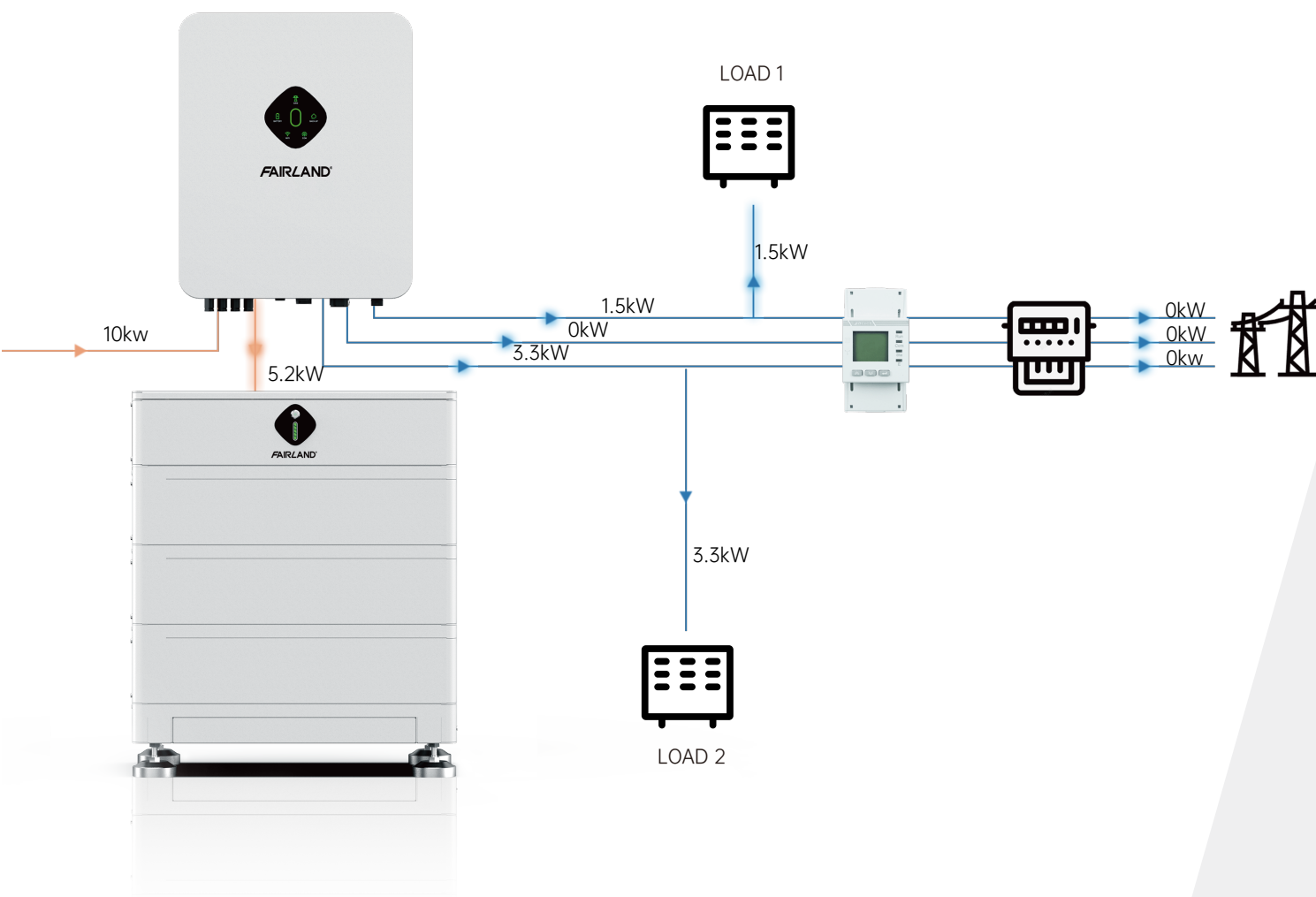


Support 7*24H monitoring

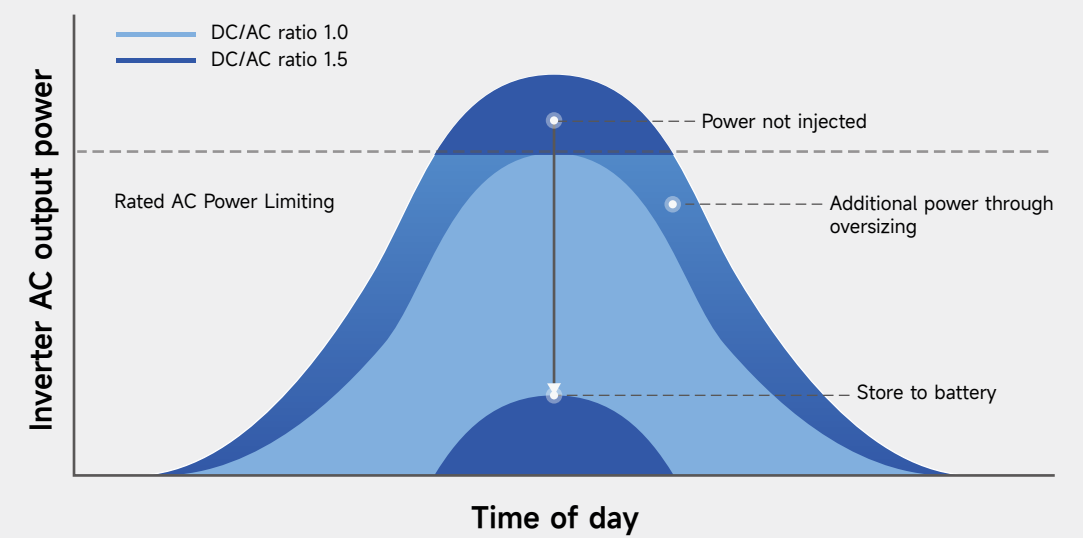
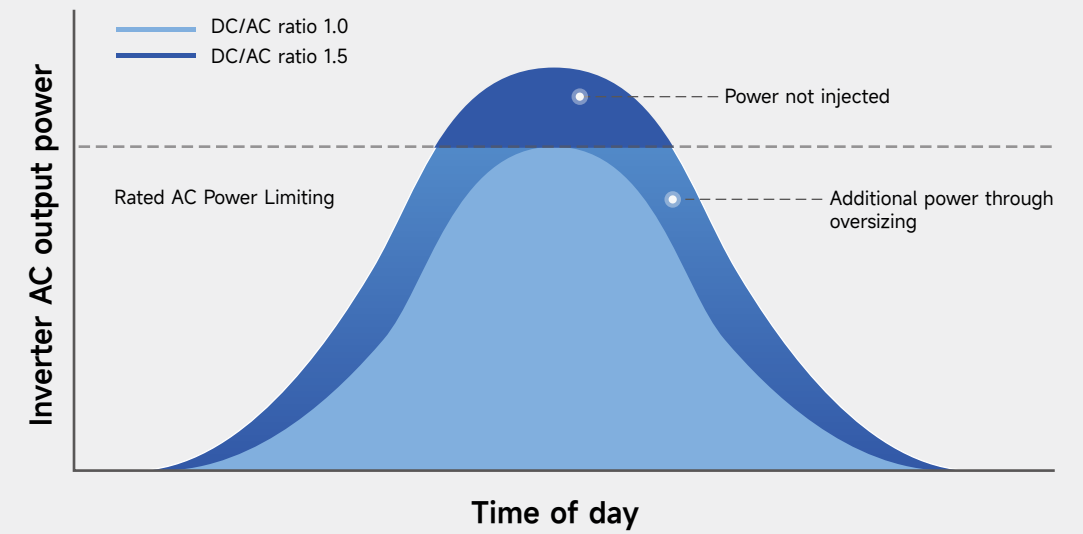
Remote diagnostic and system upgrade



100% Unbalanced Load



150% DC Input Oversizing



Single Phase

Hybrid Inverter



Excellent Performance

- Max.97.5% efficiency;
- 50V extra-low start-up voltage;
- Max.6.6kW charge/discharge power;

User-friendly Operation

- Built-in smart functions: Self-generated, Zero power feeder, VPP, Battery-free & Gridless;
- Fanless design, low noise, maintenance free;
- Plug-in terminals

Elite Series Single Phase Hybrid Inverter(HV)

Model	XLiS3	XLiS3.6	XLiS4	XLiS5	XLiS6
PV Input Data					
Max. Recommended PV Power (Wp)	10000	10700	11000	12000	13000
Max. PV Input Voltage (V)	600				
Start-up Input Voltage (V)	50				
Rated PV Input Voltage (V)	360				
MPPT voltage range (V)	40~560				
No. of MPPTs/ Strings per MPPT	2/1				
Max. Current per MPPT/String(A)	16/16				
Max. Short-Circuit Current per MPPT/String	20/20				
Grid Data					
Max.AC Input Power From Grid (VA)	10000	10700	11000	12000	13000
Rated AC Output Power (W)	3000	3680	4000	5000	6000
Max. AC Output Power (VA)	3000	3680	4000	5000	6000
Rated AC Output Current (@230V) (A)	13.1	16.0	17.4	21.8	26.1
Max.AC Output Current (A)	13.7	16.0	18.2	22.8	27.3
Rated AC Voltage Range(V)	L/N/PE, 220/230/240(154~276)				
Rated Grid Frequency (Hz)	50/60(45~55/55~65)				
THDi	<3%				
Power Factor	0.8leading...0.8lagging				
Battery Data					
Compatible Battery	HVB 9.6-19.2(LFP), 9.6~19.2kWh				
Battery Voltage Range (V)	80~460				
Max. Charging/Discharging Current (A)	30/30				
Max. Charging/Discharging Power (W)	6600/6600				
Backup Data(On-Grid Mode)					
Rated Output Power(W)	6000				
Rated Output Current(A)	27				
Backup Data(Off-Grid Mode)					
Rated Output Power (W/VA)	3000/3000	3680/3680	4000/4000	5000/5000	6000/6000
Peak Output Power (VA, s)	8400, 10				
Rated Voltage (V)	220/230/240 (±2%)				
Frequency Range (Hz)	50/60 (±0.5%)				
Total Output THDV for Linear Load	≤2%				
Switch Time to Emergency Mode (ms)	≤10				
Efficiency					
Max.Efficiency	97.30%	97.50%	97.70%	97.70%	97.70%
European Efficiency	97.00%	97.00%	97.00%	97.00%	97.00%
Protection & Function					
Grid Monitoring	Yes	DC Reverse Polarity Protection		Yes	
AC Short Circuit Protection	Yes	Leakage Current Protection		Yes	
Surge Protection	DC Type III/AC Type II	DC Switch (PV)		Yes	
DC Fuse (Battery)	Yes	Battery Input Reverse Polarity Protection		Yes	
AFCI	Opt				
General Data					
Dimensions (W*D*H,mm)	495*345*180	Weight(kg)		19	
Mounting Method	Wall-mounting bracket	Topology (Solar/Battery)		Transformerless/Transformerless	
Protection Degree	IP65	Operating Ambient Temperature Range(°C)		-25~60	
Allowable Relative Humidity Range	0~100%	Cooling Method		Natural Convection	
Max.Operating Altitude(m)	4000	Display		LED Indicator	
Communication	RS485/CAN/WLAN	DI/DO		DIx1/DOx1/DRM	
DC Connection Type	MC4	Battery Connection Type		MC4	
AC Connection Type	Screws & Fasteners	Customer Interface		APP	

Three Phase

Hybrid Inverter



Excellent Performance

- Max.98.4% efficiency;
- 150% DC input oversizing;
- Max.10.6kW charge/discharge power;

User-friendly Operation

- Built-in smart functions: Self-generated, Zero power feeder, VPP, Battery-free & Gridless;
- Fanless design, low noise, maintenance free;
- Plug-in terminals

Elite Series Three Phase Hybrid Inverter(HV)

Model	XLIT5	XLIT6	XLIT8	XLIT10
PV Input Data				
Max. Recommended PV Power (Wp)	7500	9000	12000	15000
Max. PV Input Voltage (V)	1000			
Start-up Input Voltage (V)	180	250	250	250
Rated PV Input Voltage (V)	600			
MPPT Voltage Range (V)	150~950			
No. of MPPTs/ Strings per MPPT	2(1/1)	2(1/1)	2(1/1)	2(1/2)
Max. Current per MPPT/String(A)	16 (16/16)	16 (16/16)	16 (16/16)	16+32 (16/16+16)
Max. Short-Circuit Current per MPPT/String	20 (20/20)	20 (20/20)	20 (20/20)	20+40 (20/20+20)
Grid Data				
Max.AC Input Power From Grid (VA)	12500	15000	18600	20600
Rated AC Output Power (W)	5000	6000	8000	10000
Max. AC Output Power (VA)	5500	6600	8800	11000
Rated AC Output Current (@230V) (A)	7.3	8.7	11.6	14.5
Max.AC Output Current (A)	8.4	10	13.3	16.7
Rated AC Voltage Range (V)	3/N/PE 220/380 230/400 240/415(270~480)			
Rated Grid Frequency (Hz)	50/60 (45-55/55-65)			
THDi	<3%			
Power Factor	0.8leading...0.8lagging			
Battery Data				
Compatible Battery	HVB 9.6-25.6(LFP), 9.6~25.6kWh			
Battery Voltage Range (V)	150~600			
Max.Charging/Discharging Current (A)	30/30			
Max.Charging/Discharging Power (W)	7500/6000	9000/7200	10600/10600	10600/10600
Backup Data(On-Grid Mode)				
Rated Output Power(W)	5500	6600	8800	11000
Rated Output Current(A)	8.4	10	13.3	16.7
Backup Data(Off-Grid Mode)				
Rated Output Power (W/VA)	5000/5000	6000/6000	8000/8000	10000/10000
Peak Output Power (VA, s)	6000VA, 5min/ 10000VA,10s	7200VA, 5min/ 10000VA, 10s	12000VA, 5min	12000VA, 5min
Rated Voltage (V)	3/N/PE 220/380 230/400 240/415(±2%)			
Frequency Range (Hz)	50/60 (±0.5%)			
Total Output THDV For Linear Load	≤ 2%			
Switch Time to Emergency Mode (ms)	≤10			
Efficiency				
Max. Efficiency	98.00%	98.20%	98.40%	98.40%
European Efficiency	97.20%	97.50%	97.90%	97.90%
Protection & Function				
Grid Monitoring	Yes	DC Reverse Polarity Protection		Yes
AC Short Circuit Protection	Yes	Leakage Current Protection		Yes
Surge Protection	DC Type II/AC Type II	DC Switch (PV)		Yes
DC Fuse (battery)	Yes	Battery Input Reverse Polarity Protection		Yes
AFCI	Opt			
General Data				
Dimensions (W*D*H, mm)	450*550*185	Weight(kg)		31
Mounting Method	Wall-mounting Bracket	Topology (Solar/Battery)		Transformerless/Transformerless
Protection Degree	IP65	Operating Ambient Temperature Range(°C)		-25~60
Allowable Relative Humidity Range	0~100%	Cooling Method		Natural Convection
Max. Operating Altitude(m)	4000	Display		LED Indicator
Communication	RS485/CAN/WLAN	DI/DO		Dix1/DOx1/DRM
DC Connection Type	MC4	Battery Connection Type		MC4
AC Connection Type	Plug and Play Connector	Customer Interface		APP

High Voltage Battery System

High Voltage



Modular Design For Easy Installation

- Plug and play, no wiring harness required;
- Light in weight (35kg), easy to carry;
- IP65 rating for outdoor installation



High Safety & Long Life

- 6000 times cycle life;
- Unit-level fault detection and isolation (FDI);
- Double insulated protection;
- 1000-hour salt spray test



Intelligence & Flexibility

- Remote software upgrade;
- Real-time data monitoring;
- Support 3-8 modules per unit, 9.6~25.6kWh capacity range

Elite Series Stackable Battery System(HV)

Model	HVB9.6	HVB12.8	HVB16.0	HVB19.2	HVB22.4	HVB25.6
Battery Specification						
Nominal Energy (kWh)	9.60	12.80	16.00	19.20	22.40	25.60
Usable Energy (kWh)*1	8.64	11.52	14.40	17.28	20.16	23.04
Depth of Discharge	90%					
Module Parameter	64V 50Ah 615*360*165mm 35kg					
Cell Type	LFP (LiFePO4)					
Max. Module Configuration	3	4	5	6	7	8
Nominal Voltage (V)	192	256	320	384	448	512
Operating Voltage Range (V)*3	171~216	228~288	285~360	342~432	399~504	456~576
Max. Continuous Current (A)*2	30					
Max. Continuous Power (kW)*2	5.76	7.68	9.60	11.52	13.44	15.36
Communication	CAN/RS485					
Weight (kg)	120	155	190	225	260	295
Dimensions (W*D*H)(mm)	615*360*730	615*360*880	615*360*1030	615*360*1180	615*360*1330	615*360*1480
Operating Temperature (°C)	Charge: 0~50/Discharge: -20~50					
Storage Temperature (°C)	-20~45 (≤1 months)/-20~25 (≤6 months)					
Humidity	0~95%					
Altitude (m)	≤2000					
Protection Degree	IP65 (indoor/outdoor)					
Cooling	Natural convection					
Installation Location	Floor-standing					
Display	SOC indicator, status indicator					

1. Test conditions: 3.0~3.5V, 0.2C charger (CC-CV) and discharger at 25±3°C;
2. Max. continuous current/power derating will occur related to temperature/SOC/Humidity;
3. The matched battery pack number varies for different inverter, 3-6pcs for XLIS3-6,3-8pcs for XLIT5-10
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