



FENG RUI ENERGY

Smart Energy Solutions for Business

Energy on your terms, powered by smart storage



WUXI FENG RUI NEW ENERGY POWER BATTERY CO., LTD.

 No. 5 Jingxin Road, Xibei Town, Xishan District, Wuxi City, Jiangsu Province, China.

 +86 400 8558 766

 sales@fengruienergy.com

 www.fengruienergy.com (EN)/ www.wxfrxny.com (CN)

V2.0 (en-zh) Information might be subject to change without notice during product improving.

Energy On Your Terms



Green energy, better life.

COMPANY PROFILE ABOUT FENGGRUI

Wuxi Fengrui New Energy Power Battery Co., Ltd. (FENGGRUI), founded in 2022 and headquartered in Wuxi, China, is an energy storage technology enterprise that integrates R&D, manufacturing and sales across the entire value chain. Driven by technological innovation, we have established a full-scenario product portfolio that includes residential, industrial & commercial, utility-scale storage, lithium battery packs, and portable power stations. With an annual production capacity of 1GWh and a presence in over 50 global markets, we deliver efficient and reliable integrated energy solutions to customers worldwide.

The company employs nearly 200 staff members, among whom R&D and engineering technical teams account for over 30%, continuously empowering product iteration and system innovation. Covering a total plant area of more than 20,000 square meters, our facility integrates cell assembly, system integration, testing & verification as well as warehousing and logistics, laying a solid foundation for large-scale production and consistent product quality. Benefiting from our self-owned land and factory premises, we can flexibly adjust production capacity schedules, steadily improve delivery efficiency, and further strengthen our long-term service capabilities to serve global markets.

MISSION

To advance clean energy solutions, create long-term value, and grow together with our people.

VISION

To accelerate the transition to clean energy and enable a more efficient and sustainable future.

VALUES

Integrity | Pragmatism | Excellence | Collaboration

Advancing green energy innovation

Empowering customers worldwide



Safety Assured, Quality Built to Last

Stringent extreme environment endurance assessment

82-Day Full-Load Environmental Reliability
Benchmark Test for Residential ESS



High Temperature



Rain Resistance Test



Freezing / Low Temperature Test



EMC Test

Environmental
Reliability Test

Global Authoritative Certifications

Fully tested to CE, RoHs and other international standards, the product delivers stable and reliable performance

6000+

safety cycle
verifications

500+

hours of continuous
durability testing

4,000+

reliability
verifications

1,200+

verification
tests

72+

hours of continuous
full-load operation

2-200Hz

2 hours of 3-axis contin-
uous vibration

The product has obtained a number of international authoritative certifications including RoHs MARK, CE (LVD/EMC), UN38.3 and EU Battery Regulation, as well as test reports from CNAS/CMA accredited laboratories in China. It complies with both EU and domestic compliance standards, with traceable quality and guaranteed safety.



Testing & Certification

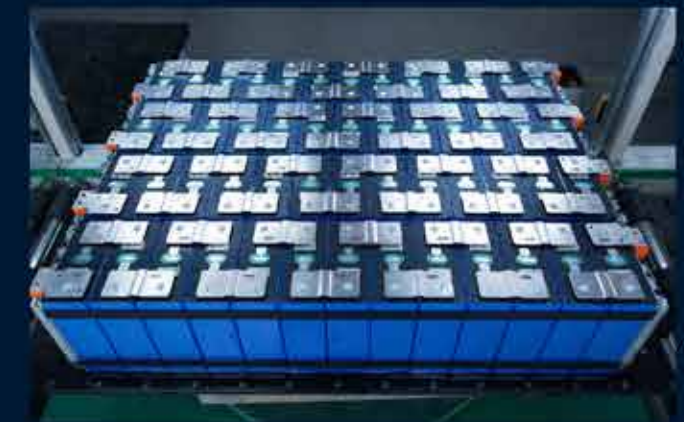
Tested to CE, RoHs and certified for reliable performance.

Focused on Energy Storage

Advanced Manufacturing Base

Fengrui Energy operates a state-of-the-art manufacturing base of over 8,000 m², dedicated to high-performance energy storage production. With standardized production lines and strict quality control, the facility ensures reliable and consistent output aligned with international standards.

Backed by an experienced team, it supports both customized solutions and scalable delivery, driving Fengrui Energy's global growth.



SPI Series Hybrid Inverters

Model: HS1-LV12
8kW/11kW/12kW



- Parallel Ready (up to 6 units).
- 10ms UPS Switching . Dual MPPT Trackers.
- CE Certified (IEC62109, EN61000).
- High Overload Capacity (Up to 24kVA Peak).

DC Input (PV)			
Parameter	SPI8kW	SPI11kW	SPI12kW
Max. PV Power	15,000 W	15,000 W	18,000 W
Max. PV Voltage (VOC)	500V		
MPPT Voltage Range	90-450 V		
Number of MPPTs	2		
Max. Input Current (per MPPT)	27A		
DC Input (Battery)			
Battery Voltage	48 V Nominal		
Operating Range	40 - 60 V		
Max. Charge Current			
- From AC Grid	120A	150A	150A
- From Solar	120A	150A	150A
- Total Hybrid Charge	120A	150A	150A
AC Input (Grid)			
Input Voltage	230 Vac		
Voltage Range	90 - 280 Vac (APL Mode)/ 170 - 280 Vac (UPS Mode)		
Frequency	50/60 Hz (Auto)		
AC Output (Inverter)			
Rated Output Power	8,000 W	11,000 W	12,000 W
Output Voltage	230 Vac		
Peak Power	16,000 VA	22,000 VA	24,000 VA
Motor Start Capacity	5 HP	7 HP	8 HP
Typical Transfer Time	10 ms		
Max. Bypass Current	63 A		
General			
Parallel Capability	Up to 6 units		
Communications	Wi-Fi, GPRS, RS485, USB, Dry Contact		
Cooling	Variable Speed Fan		
Efficiency	>93% (Inverter) / >95% (AC)		
Dimensions (L*W*D)	540 x 350 x 120 mm		
Weight	19.5 kg		
Certifications	CE (IEC62109-1/2, EN61000), EMC C2		
Operating Temperature	-10° C to +55° C (Derating >45° C)		



IDU Series Hybrid Inverters

Model: HS1-LV6
5.6kW/6.2kW



- 10ms UPS Switching.
- High PV Oversizing (Up to 6kW).
- Wide Grid Tolerance (90-280V APL Mode).
- Parallel Ready (up to 6 units).CE Certified (IEC62109, EN61000)

DC Input (PV)		
Max. PV Power	6000 W	
Max. PV Voltage (VOC)	500V	
MPPT Voltage Range	90-450 V	
PV Operating Range	120-500 V	
Max. PV Input Current	22A	
Number of MPPTs	1	
DC Input (Battery)		
Battery Voltage	48 V Nominal	
Operating Range	40 - 60 V	
Max. Charge Current		
- From AC Grid	80A	
- From Solar	100A	
- Total Hybrid Charge	100A	
AC Input (Grid)		
Rated Input Voltage	220/230 Vac	
Input Voltage Range (UPS)	170 - 280 Vac ±2%	
Input Voltage Range (APL)	90 - 280 Vac ±2%	
Frequency	50/60 Hz (Auto)	
AC Output (Inverter)		
Rated Output Power	5,600 W	6,200 W
Output Voltage	230 Vac ±5%	
Peak Power (10s)	11,000 VA	12,000 VA
Motor Start Capacity	3 HP	4 HP
Typical Transfer Time	10 ms	
Max. Bypass Current	40 A	
General		
Parallel Capability	Up to 6 units	
Communications	Wi-Fi, GPRS, RS485, USB, Dry Contact	
Display	LCD Interface	
Cooling	Forced Air Cooling (Adjustable)	
Efficiency	>95% (AC)/>92% (Inverter)	
Standby Consumption	< 25 W (Eco Mode)	
Dimensions (L*W*D)	415x280x 100 mm	
Weight	7.8kg	
Certifications	CE (IEC62109-1/2, EN61000), EMC C2	
Operating Temperature	-15° Cto +55° C	

US-Standard Hybrid Inverters

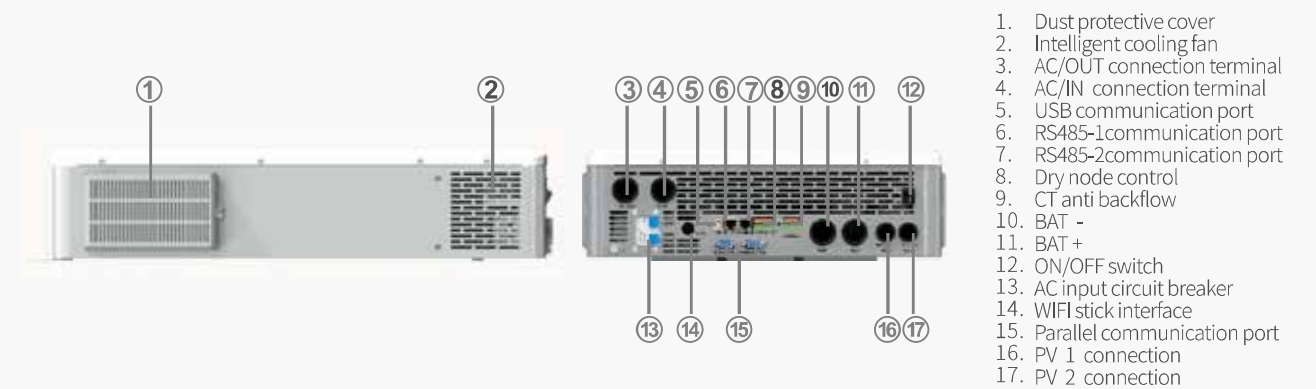
Model: HSP1-LV12



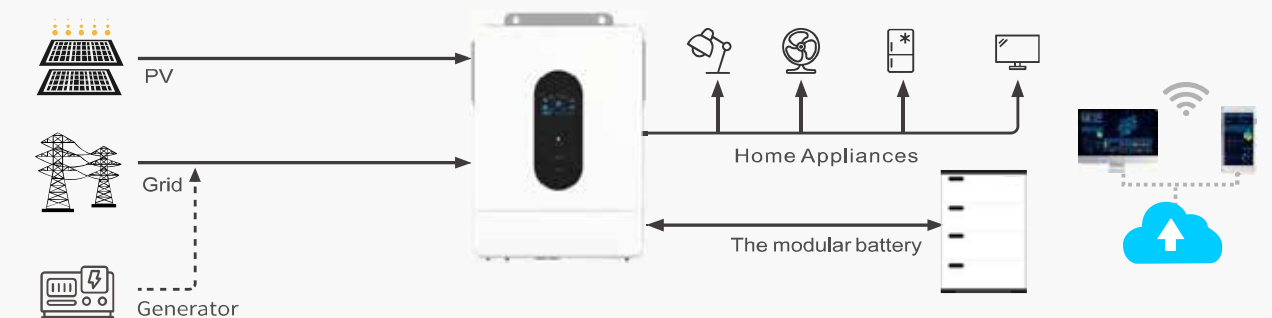
- CT Zero export to grid.
- UPS-Level Switching time down to 10ms.
- Support faster charging with battery current up 220A.
- Supports use without battery. PV and grid can supply power to load together.

- 125% EPS peak output in 5s.
- Easy & intuitive capacitive touch screen.
- Up to 6 inverters in parallel or change single phase system.
- Inverter and Grid hybrid Power supply capable of with standing continuous impact loads.
- Usable PV power up to 150% inverter rated power, Dual-channel MPPT, 27A*2 PV input, compatible with all residential modules and flexible arrays.

Interface Description



Solar System Connection



Green energy, better life.

Model	HSP1-LV12
AC mode	
Rated input voltage	120(L1/N, L2/N)/240Vac(L1/L2)
Input phase voltage range	(85Vac~140Vac)±2%
Frequency	50Hz/60Hz (Automatic detection)
Frequency Range	47±0.3Hz~55±0.3Hz (50Hz);57±0.3Hz~65±0.3Hz(60Hz);
Overload/short circuit protection	Circuit breaker
Efficiency	>95%
Conversion time (bypass and inverter)	10ms (typical)
AC reverse protection	Yes
Maximum bypass phase overload current	2 pole, 60A/60A(L1/L2)
Inverter mode	
Output voltage waveform	Pure sine wave
Rated output power (VA)	Split phase: 12000 Single phase:7200(limited by the wiring terminals)
Rated output power (W)	Split phase: 12000 Single phase: 7200(limited by the wiring terminals)
Power factor	1
Rated output voltage (Vac)	120Vac (L1/N,L2/N)/240Vac(L1/L2)
Output voltage error	±5%
Output frequency range (Hz)	50Hz±0.3Hz/60Hz±0.3Hz
Maximum Efficiency	>91%
Overload protection	(105% < load <110%) ±5%: report error and turn off the output after 5 minutes;(110% < load < 125%)± 5%: report error and turn off the output after 10 seconds;Load >125%±5%: report error and turn off the output after 5 seconds;
Peak power	Split phase: 18000VA Single phase: 18000VA
Loaded motor capability	6HP
Output short circuit protection	Can protect, after continuous short circuit for 1 second
Bypass circuit breaker phase specification	2 pole, 63A/63A(L1/L2)
Rated battery input voltage	51.2V (Minimum starting voltage 44V)
Battery voltage range	40.0Vdc~58.6Vdc0.6Vdc (Undervoltage alarm/shutdown voltage/ overvoltage alarm /overvoltage recovery... setttable on LCD screen)
Power saving mode self-consumption	Load ≤ 25W enter power-saving mode

AC charging	
Battery type	Lead acid or lithium battery
Maximum charge current(can be set)	160A
Charge current error	±5Adc
Charge voltage range	40-58.6Vdc
Short circuit protection	Circuit breaker and blown fuse
Circuit breaker phase specifications	2 pole, 60A/60A(L1/L2)
PV charging	
Number of MPPT groups	2
Maximum PV open circuit voltage	500Vdc
PV operating voltage range	90Vdc~500Vdc
MPPT voltage range	90Vdc~450Vdc
Battery voltage range	40-58.6Vdc
Maximum PV input power	6000W+6000W
Maximum PV input current	22A+22A
PV charging current range(can be set)	220A
Charging short circuit protection	Blown fuse
Wiring protection	Reverse polarity protection
Hybrid charging Max charging current specifications (AC charging+PV charging)	
Max charger current(can be set)	0-220A
Certified specifications	
Certification	UL STD.1741
EMC certification level	FCC part 15, CLASS B
Operating temperature range	-10° C to 55° C (>45° C derating)
Storage temperature range	-25° C~60° C
Humidity range	5% to 95% (Conformal coating protection)
Noise	≤ 60dB
Heat dissipation	Forced air cooling, variable speed of fan
Communication interface	USB/RS485/WiFi/GPRS/ Dry node control
Product dimensions (L*W*H)	580x359x127mm
Packaging dimensions (L*W*H)	640x450x220mm
Net weight/Gross weight (kg)	15/17.5

US-Standard Hybrid Inverters

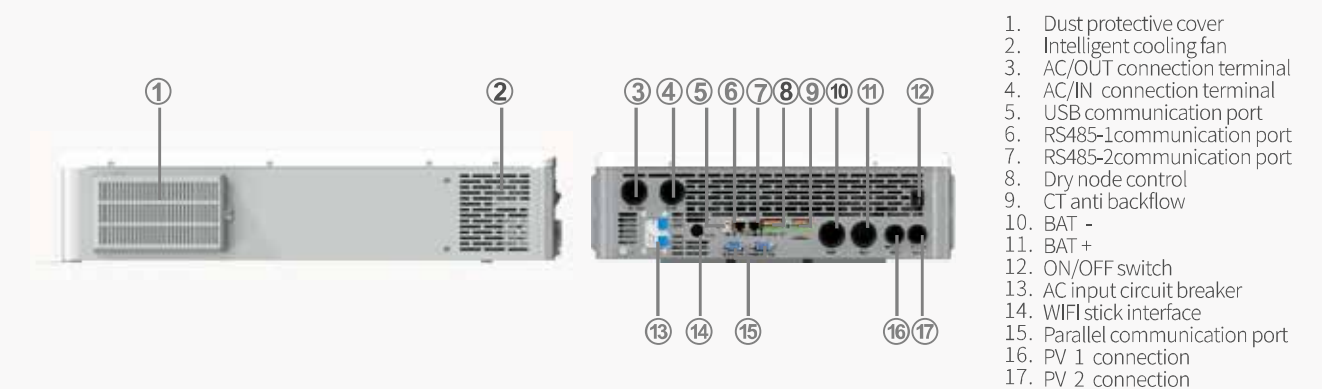
Model: HSP1-LV7.2



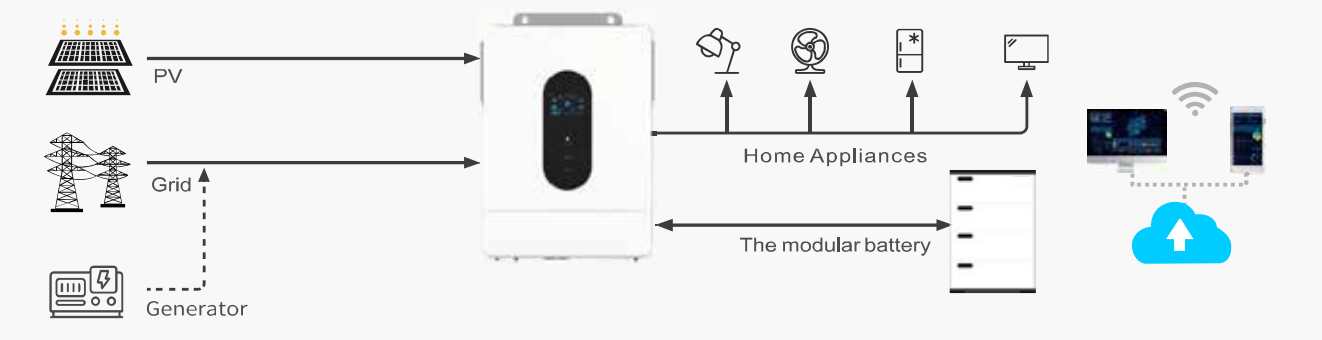
- CT Zero export to grid.
- UPS-Level Switching time down to 10ms.
- Support faster charging with battery current up 150A.
- Supports use without battery. PV and grid can supply power to load together.

- 125% EPS peak output in 5s.
- Easy & intuitive capacitive touch screen.
- Up to 6 inverters in parallel or change single phase system.
- Inverter and Grid hybrid Power supply capable of with standing continuous impact loads.
- Usable PV power up to 125% inverter rated power, Dual-channel MPPT, 16A*2 PV input,

Interface Description



Solar System Connection



Green energy, better life.

Model	HSP1-LV7.2
AC mode	
Rated input voltage	120(L1/N, L2/N)/240Vac(L1/L2)
Input phase voltage range	(85Vac~140Vac)±2%
Frequency	50Hz/60Hz (Automatic detection)
Frequency Range	47±0.3Hz~55±0.3Hz (50Hz);57±0.3Hz~65±0.3Hz(60Hz);
Overload/short circuit protection	Circuit breaker
Efficiency	>95%
Conversion time (bypass and inverter)	10ms (typical)
AC reverse protection	Yes
Maximum bypass phase overload current	2 pole, 40A/40A(L1/L2)
Inverter mode	
Output voltage waveform	Pure sine wave
Rated output power (VA)	Split phase: 7200 Single phase:6000(limited by the wiring terminals)
Rated output power (W)	Split phase: 7200 Single phase: 6000
Power factor	1
Rated output voltage (Vac)	120Vac (L1/N,L2/N)/240Vac(L1/L2)
Output voltage error	±5%
Output frequency range (Hz)	50Hz±0.3Hz/60Hz±0.3Hz
Maximum Efficiency	>91%
Overload protection	(105% < load <110%) ±5%: report error and turn off the output after 5 minutes;(110% < load < 125%)± 5%: report error and turn off the output after 10 seconds;Load >125%±5%: report error and turn off the output after 5 seconds;
Peak power	Split phase: 12000VA Single phase: 12000VA
Loaded motor capability	4HP
Output short circuit protection	Can protect, after continuous short circuit for 1 second
Bypass circuit breaker phase specification	2 pole, 63A/63A(L1/L2)
Rated battery input voltage	51.2V (Minimum starting voltage 44V)
Battery voltage range	40.0Vdc~58.6Vdc±0.6Vdc (Undervoltage alarm/shutdown voltage/ overvoltage alarm /overvoltage recovery... setttable on LCD screen)
Power saving mode self-consumption	Load ≤ 25W enter power-saving mode

AC charging	
Battery type	Lead acid or lithium battery
Maximum charge current(can be set)	120A
Charge current error	±5Adc
Charge voltage range	40-58.6Vdc
Short circuit protection	Circuit breaker and blown fuse
Circuit breaker phase specifications	2 pole, 40A/40A(L1/L2)
PV charging	
Number of MPPT groups	2
Maximum PV open circuit voltage	500Vdc
PV operating voltage range	90Vdc~500Vdc
MPPT voltage range	90Vdc~450Vdc
Battery voltage range	40-58.6Vdc
Maximum PV input power	4500W+4500W
Maximum PV input current	16A+16A
PV charging current range(can be set)	150A
Charging short circuit protection	Blown fuse
Wiring protection	Reverse polarity protection
Hybrid charging Max charging current specifications (AC charging+PV charging)	
Max charger current(can be set)	0-150A
Certified specifications	
Certification	UL STD.1741
EMC certification level	FCC part 15, CLASS B
Operating temperature range	-10° C to 55° C (>45° C derating)
Storage temperature range	-25° C~60° C
Humidity range	5% to 95% (Conformal coating protection)
Noise	≤ 60dB
Heat dissipation	Forced air cooling, variable speed of fan
Communication interface	USB/RS485/WiFi/GPRS/ Dry node control
Product dimensions (L*W*H)	580x359x127mm
Packaging dimensions (L*W*H)	640x450x220mm
Net weight/Gross weight (kg)	15/17.5