

All-in-one solar charger inverter



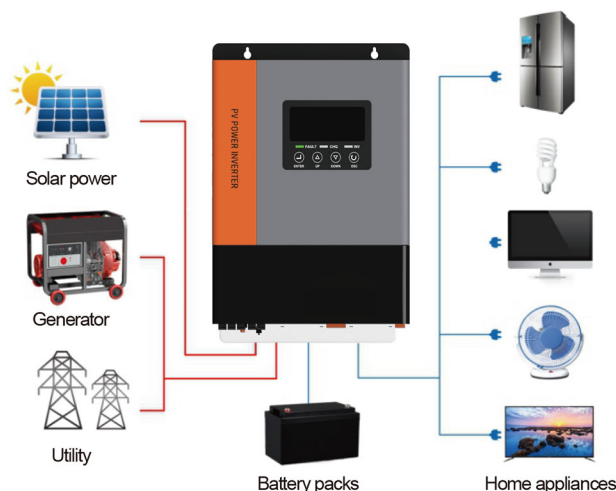
Product introduction

PHSA series is a new hybrid inverter charger, integrating functions of inverter, solar charger and battery charger to offer uninterrupted power support with portable size. It is controlled by DSP and has the characteristics of high response speed, high reliability and high industrialization standard through advanced control algorithm.

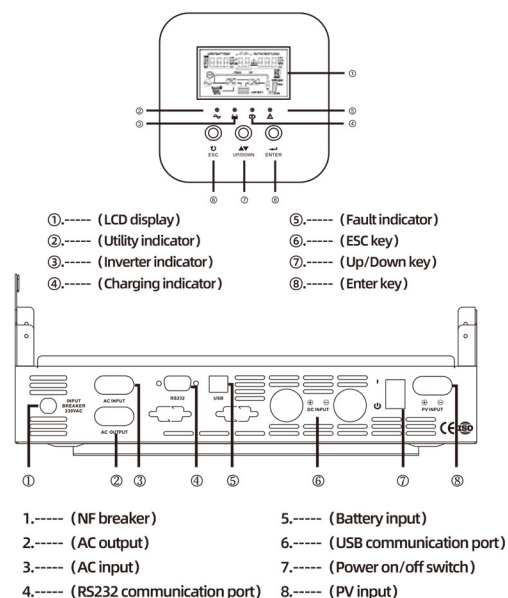
Product features

- Multiple protection functions, 360 ° all-round protection.
- Two output modes: mains bypass and inverter output, works as uninterrupted power supply.
- Four selectable charging modes: solar energy only, mains power priority, solar energy priority and hybrid charging.
- Power saving mode function to reduce no-load loss.
- Complete protections: short circuit protection, over-voltage and low-voltage protection, overload protection, reverse charging protection, etc.
- Adopt full digital voltage and current double closed loop control, advanced SPWM technology, and output pure sine wave.
- Intelligent adjustable speed fan is used to dissipate heat efficiently and prolong the service life of the system.
- Advanced MPPT technology, which efficiency is up to 99.9%.
- With lithium battery activation function, it supports both lead-acid battery and lithium battery.
- Both AC and PV can activate lithium battery.
- ON/OFF rocker switch controls AC output.
- LED display panel and LED indicators, dynamic display of system data and operation status.

Connection diagram



Product characteristics



Technical parameters >>>

Model	PHSA3000EBL24	PHSA3500EBH24	PHSA5500EBH48	PHSA5500EBH48P
Utility mode				
Rated input voltage	208/220/230/240VAC			
Input voltage range	154-264VAC±3V (nomal mode) 185-264VAC±3V (UPS mode)			
Frequency	50Hz/ 60Hz (automatic)			
Frequency range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);			
Overload/ short circuit protection	circuit breaket			
Efficiency	>94%			
Transfer time	10ms for personal computer, 20ms for home appliances			
AC reverse charging protection	Yes			
Max. bypass overload current	30A			
Inverter mode				
Output waveform	Pure sine wave			
Rated output power (VA)	3000	3500	5500	5500
Rated output power (W)	3000	3500	5500	5500
Power factor	1			
Rated output voltage(Vac)	230Vac			
Output voltage discrepancy	±5%			
Output frequency range(Hz)	50/60Hz±0.1%			
Efficiency	>92%			
Overload protection	Battery mode: 1min@102%~110% Load ,10s@110%~130% Load 3s@130%~150% Load , 200ms@>150% Load			
Peak Power	6000VA	6000VA	11000VA	11000VA
Motor loading capacity	1HP	1HP	2HP	2HP
Rating battery input voltage	24V(Min. startup voltage22V)	24V(Min. startup voltage22V)	48V(Min. startup voltage46V)	48V(Min. startup voltage46V)
Battery voltage range	(Low voltage alarm/ Shutoff voltage/ over voltage alarm/ over voltage recovery... Can be set via the LCD display)			
Saving mode	Load ≤ 50W			
Utility charging				
Battery type	Lead acid or lithium battery			
Max. charging current	60A	120A	100A	100A
Charging mode	3 steps			
Short circuit protection	circuit breaker and blow fuse			
Over charging protection	stop charging after 1 minute's alarm			
Solar charging				
PV max. input power	1500W	3500W	5500W	5500W
PV working voltage range	145Vdc	500Vdc	500Vdc	500Vdc
MPPT voltage range	30~145Vdc	120~500Vdc	120~500Vdc	120~500Vdc
Battery charging-absorption (constant voltage)-can be set	28.2Vdc	28.2Vdc	56.4Vdc	56.4Vdc
Battery charging-maintenance (floating)-can be set	27Vdc	27Vdc	54Vdc	54Vdc
Solar charging current range - can be set	0-60A	0-120A	0-100A	0-100A
Charging short circuit protection	blow fuse			
Wiring protection	reverse protection			
Certification specifications				
Parallel interface	No parallel operation function	No parallel operation function	No parallel operation function	With parallel operation function
Standard and certification	EN-IEC62368-1、EN55032 EN55035、EN61000-3-2,61000-3-3			
Operating temperature range	-20~50°C			
Storage temperature range	-20~70°C			
Humidity	20%~95% (Non-condensing)			
Noise	≤50dB			
Heat dissipation	Forced air cooling, wind speed adjustable			
Expansion slot communication interface (Optional)	2×5PIN/Pitch2.54mm, Lithium BMS communication card, WIFI card, dry contact card, etc			
Dimension (L*W*G)	PHS:495x312x125mm			
Weight (KG)	8.5KG/9.3KG	8.7KG/9.5KG	8.8KG/9.6KG	9.3KG/9.8KG