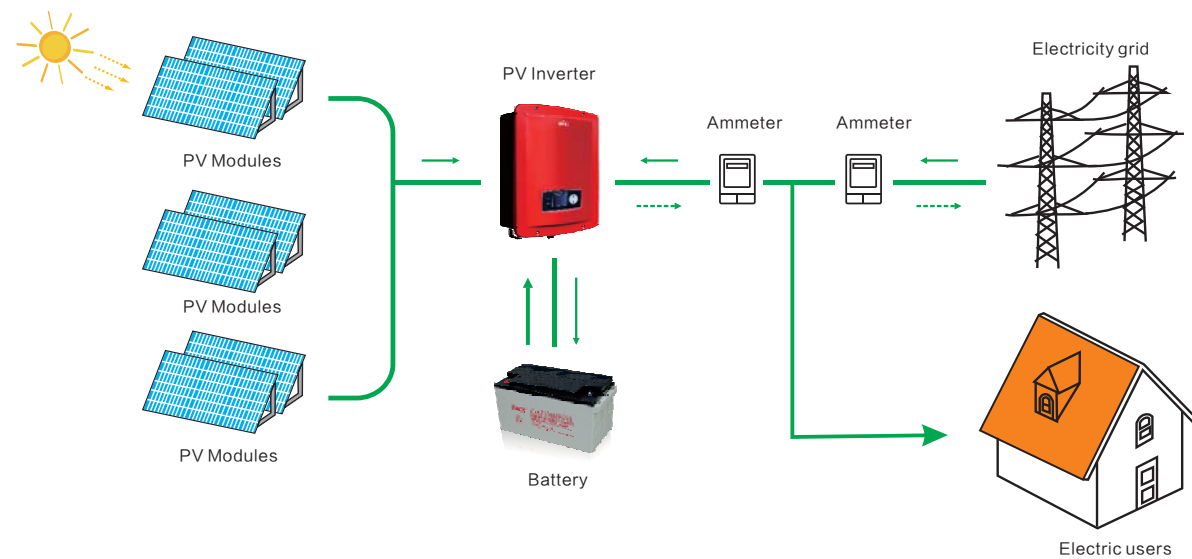


# Hybrid (Bi-direction) Solar Inverter

PHS 1KW ~ 3KW (with isolated transformer)

PF = 1



## Features

- PV energy combined with flexible energy storage systems: enable households to store surplus electricity generated by solar panel array, and power not being utilised can be exported to the mains grid.
- Advanced MPPT algorithm
- Built-in transformer to ensure electric safety
- Intelligent battery management, configurable charging current
- Effective protections: overload, short circuit, overdischarge, overcharge, battery reverse polarity, PV reverse polarity protections
- No PID attenuation damage for solar panels to ensure its service life
- Unique ECO mode, daily consumption less than 1% at no-load standby
- Staggering energy storage and power generation

## Technical Data

MODEL	PHS 1K	PHS 2K	PHS 3K
Rated power	1 KW	2 KW	3 KW
Output power factor	1		
Operating mode	Grid-connected mode / backflow prevention mode (settable)		
<b>PV INPUT</b>			
Max. input voltage (Voc)	150 Vdc		
Optimum operating voltage (Vmp)	70 ~ 115 Vdc		
Max. conversion efficiency	≥ 98%		
Max. charging current	23 ±2 A	48 ±2 A	62 ±2 A
Recommended PV configuration	≤ 1.5 KW	≤ 2.8 KW	≤ 3.5 KW
<b>AC INPUT</b>			
Input voltage range	170 ~ 264 Vac		
Rated Input frequency	50 Hz / 60 Hz (settable)		
Frequency range	50 Hz / 60 Hz ±2.5 Hz		
Power factor	0.98		
Max. charging current	18 ±2 A	38 ±2 A	58 ±2 A
<b>INVERTER</b>			
Inverter voltage	230 Vac (220 Vac / 240 Vac settable)		
Waveform	Sinusoidal		
THD (linear load)	≤ 3%		
Overload	≥ 110%: transfer to bypass in 4 mins or shut down in off-grid ≥ 125%: transfer to bypass in 1 min or shut down in off-grid ≥ 150%: transfer to bypass in 5 s or shut down in off-grid ≥ 180%: shut down in 0.5 s		
Max. efficiency	≥ 85%		
<b>BATTERIES</b>			
Battery type	VRLA AGM maintenance-free battery		
Battery voltage	48 Vdc		
Number of battery	12 Vdc x4 pcs 2 Vdc x24 pcs		
DOD (depth of discharge)	Settable		
Floating charge voltage	56 Vdc		
Charging current	0.05 C ~ 0.3 C (settable)		
Intelligent management	Auto floating charge, auto temperature compensation (optional)		
<b>COMMUNICATIONS</b>			
Remote control	Transfer to bypass or inverter; shut down		
Communication interface	RS232 / USB / RS485 ; SNMP / WiFi / Bluetooth (optional)		
<b>OTHERS</b>			
Operating temperature	0°C ~ 40°C		
Max. relative humidity	95% (non-condensing)		
Max. altitude	1000 m at rated power (derating 1% for each additional 100 m); Max. 4000 m		
Cooling	Forced ventilation ( fan speed varies with loads)		
Noise level at 1 m	≤ 50 dB (varies with loads and temperature)		
IP rating	IP21		
Dimensions (W × D × H) (mm)	480 × 380 × 202	480 × 380 × 217	
Packaged dimensions (W × D × H) (mm)	545 × 458 × 278	545 × 458 × 295	
Net weight (kg)	18.8	27.7	35
Gross weight (kg)	19.8	28.7	36

Disclaimer:  
 • These data in this document are tested under specified conditions. It may result in difference between actual results and these data due to some uncertain factors. The statement about this product is for reference only. It makes no representation or warranty.  
 • All specifications subject to change without notice.