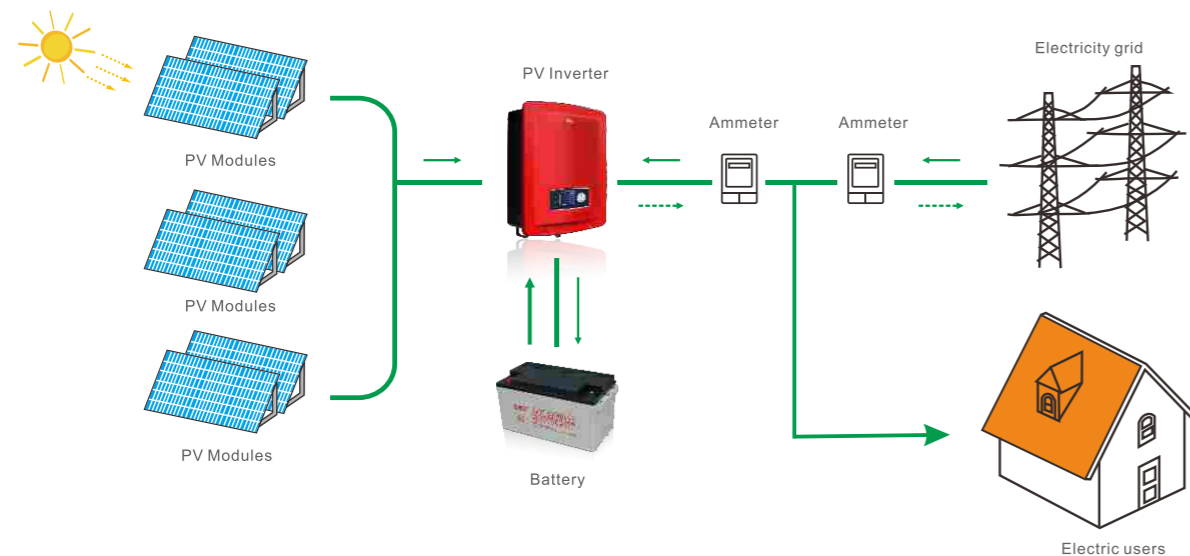


# Hybrid (Bi-direction) Solar Inverter

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

## Specifications

MODEL	HE1K	HE2K	HE3K
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 × 4 pcs 2 Vdc × 24 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

● All specifications subject to change without notice.