

# All-in-one solar charger inverter

## HF2420U60-100/HF2430U60-100



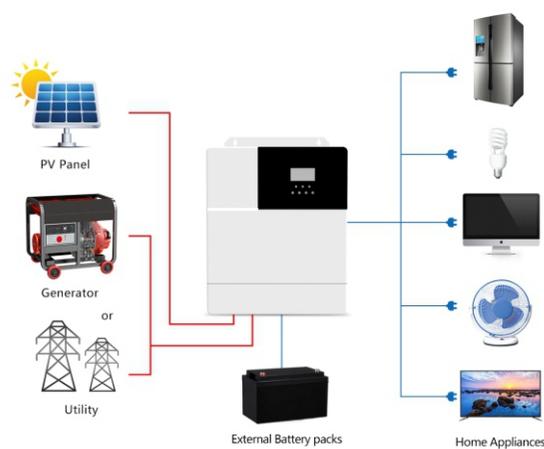
### Product overview

HF series is a new all-in-one hybrid solar charge inverter, which integrates solar energy storage & means charging energy storage and AC sine wave output. Thanks to DSP control and advanced control algorithm, it has high response speed, high reliability and high industrial standard.

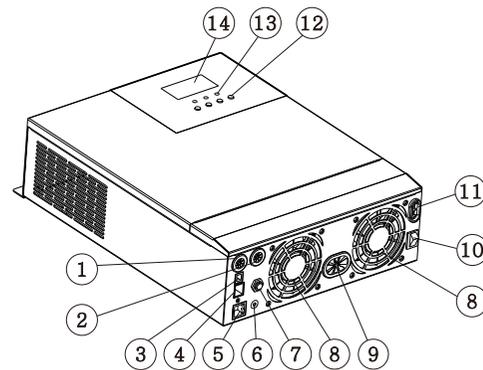
### Performance characteristics

- Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sine wave.
- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energy storage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360° all-round protection with a number of protection functions. Such as overload, short circuit and over current.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS, WiFi), USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.
- Lithium battery can be activated by both mains and PV.

### Product connection diagram



### Appearance



①	AC input port	⑧	Cooling fan
②	AC output port	⑨	Battery port
③	USB communication port	⑩	ON/OFF rocker switch
④	RS485 communication port	⑪	PV port
⑤	Dry node port	⑫	Touch button
⑥	Grounding screw hole	⑬	LED Indicator
⑦	AC input Overload protector	⑭	LCD screen

### Technical parameters >>>

Models	HF2420U60-100	HF2430U60-100
<b>AC mode</b>		
Rated input voltage	110/120Vac	
Input voltage range	(90Vac-140Vac)±2%	
Frequency	50Hz/ 60Hz (Auto 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	Available	
Maximum bypass overload current	40A	
<b>Inverter mode</b>		
Output voltage waveform	Pure sine wave	
Rated output power (VA)	2000	3000
Rated output power (W)	2000	3000
Power factor	1	
Rated output voltage (Vac)	120Vac	
Output voltage error	±5%	
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Efficiency	>92%	
Overload protection	(102% < load < 110%) ±10%: report error and turn off the output after 5 minutes; (110% < load < 125%) ± 10%: report error and turn off the output after 10 seconds; Load > 125% ±10%: report error and turn off the output after 5 seconds;	
Peak power	4000	6000
Loaded motor capability	1HP	2HP
Output short circuit protection	Circuit breaker	
Bypass breaker specifications	40A	
Rated battery input voltage	24V (Minimum starting voltage 22V)	
Battery voltage range	20.0Vdc~33Vdc ± 0.6Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)	
Power saving mode	Load ≤50W	
<b>AC charging</b>		
Battery type	Lead acid or lithium battery	
Maximum charge current	40A	40A
Charge current error	± 5A dc	
Charge voltage range	20.0Vdc~33Vdc	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	40A	
Overcharge protection	Alarm and turn off charging after 1 minute	
<b>PV charging</b>		
Maximum PV open circuit voltage	100Vdc	
PV operating voltage range	30-100Vdc	
MPPT voltage range	30-85Vdc	
Battery voltage range	20-33Vdc	
Maximum output power	1400W	
PV charging current range (can be set)	0-60A	
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
<b>Certified specifications</b>		
Certification	CE(IEC 62109-1)/CETL(UL 1741/CSA C22.2 NO.107.1)	
EMC certification level	EN61000, C2	
Operating temperature range	-15°C to 55°C	
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	
Size (L*W*D)	378mm*280mm*103mm	
Weight (kg)	6.8	