



PRODUCT OVERVIEW

The HF series is a new all-in-one hybrid solar charger inverter which integrates solar energy storage and grid power storage with sine wave AC output. Thanks to DSP control and an advanced control algorithm, the HF series has a high response speed, high reliability and meets top industry standards.

FEATURES

- Full digital voltage and double closed loop current control, SPWM technology and pure sine wave output.
- Two output modes – grid power bypass/inverter output & uninterrupted power supply.
- Available in 4 charging modes: solar only, grid priority, solar priority, grid and solar hybrid charging.
- Advanced MPPT technology with 99.9% efficiency.
- Compatible with various battery types.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan for efficient thermal management and extended system life.
- Lithium battery activation design, allowing access for lead-acid batter and lithium battery.
- 360° all-around protection including overload, short circuit and over-current.

APPLICATIONS

- Emergency power supply.
- Home backup storage.
- Data storage/UPS backup systems.
- Off-grid power storage.
- Solar power storage.

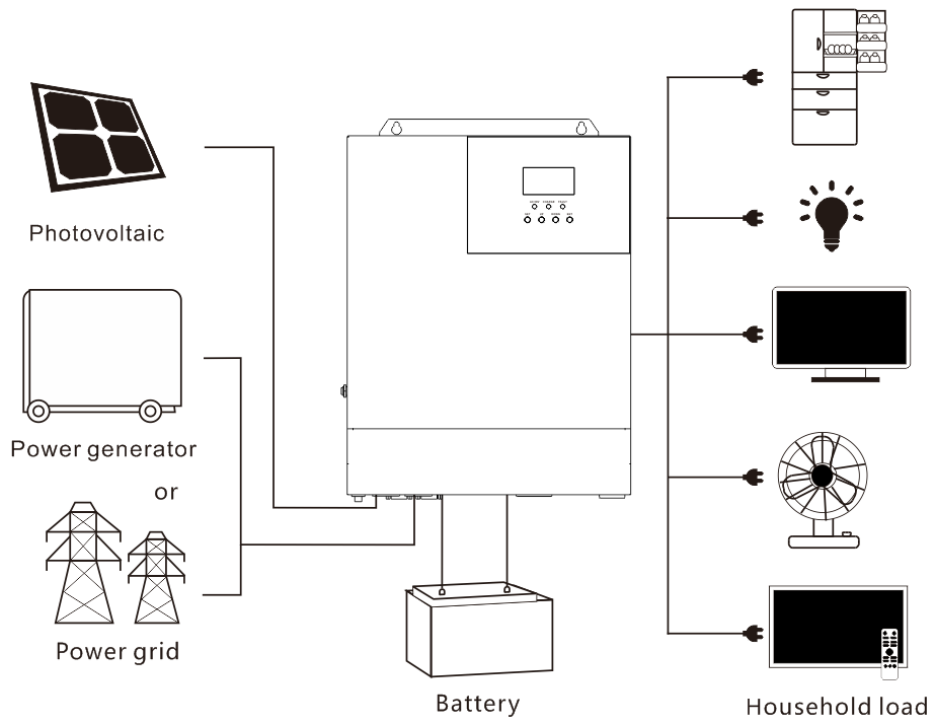
Product Description

PART#	DESCRIPTION	OUTPUT VOLTAGE	INPUT VOLTAGE	POWER OUTPUT	WEIGHT
EV-HF2420S60-100	220/230VAC Hybrid Inverter	230VAC	24V	2000W	13.66 LBS
EV-HF2430S60-100	220/230VAC Hybrid Inverter	230VAC	24V	3000W	13.66 LBS

Specifications

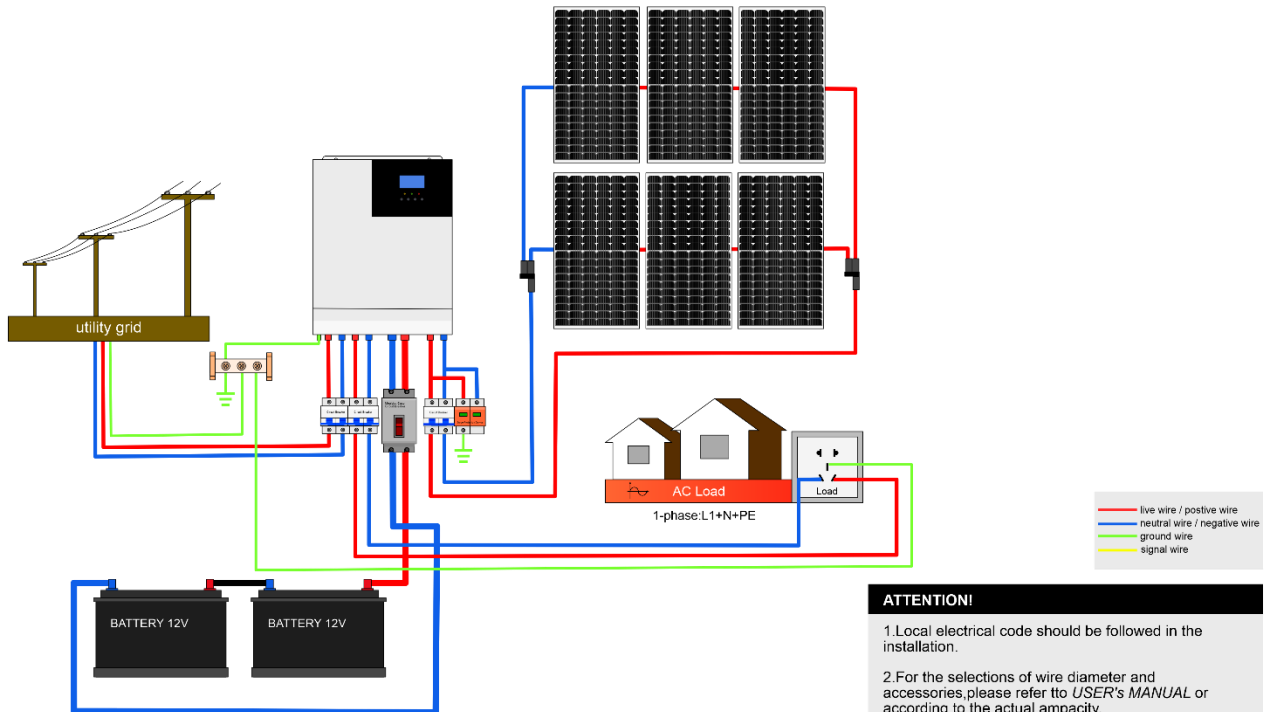
MODEL#	EV-HF2420S60-100	EV-HF2430S60-100
AC MODE		
Rated Input Voltage	220/230VAC	
Input Voltage Range	(170VAC-280VAC) ±2% ; (90VAC-280VAC)±2%	
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz)	
Overload/Short Circuit Protection	Circuit breaker	
Efficiency	>95%	
Conversion Time (Bypass & Inverter)	10ms (Typical)	
AC Reverse Protection	Available	
Maximum Bypass Overload Current	30A	
INVERTER MODE		
Output Voltage Waveform	Pure sine wave	
Rated Output Power (VA)	2000VA	3000VA
Rated Output Power (W)	2000W	3000W
Power Factor	1	
Rated Output Voltage	230VAC	
Output Voltage Error	±5%	
Output Frequency Range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Efficiency	>92%	
Overload Protection	(102% < load < 125%) ±10%: report error and turn off the output after 5 minutes; (125% < load < 150%) ± 10%: report error and turn off the output after 10 seconds; Load > 150% ±10%: report error and turn off the output after 5 seconds;	
Peak Power	4000W	6000W
Loaded Motor Capability	1HP	2HP
Output Short Circuit Protection	Circuit breaker	
Bypass Breaker Specifications	30A	
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... can be set on LCD screen)	
Power Saving Mode	Load ≤25W	
AC CHARGING		
Battery Type	Lead acid or lithium battery	
Maximum Charge Current	60A	80A
Charge Current Error	± 5ADC	
Charge Voltage Range	18.0VDC~33VDC	
Short Circuit Protection	Circuit breaker and fuse	
Circuit Breaker Specifications	30A	
Overcharge Protection	Alarm and charging shutoff after 1 minute	

MODEL#	EV-HF2420S60-100	EV-HF2430S60-100
PV CHARGING		
Maximum PV Open Circuit Voltage	100VDC	
PV Operating Voltage Range	30-100VDC	
MPPT Voltage Range	30-95VDC	
Battery Voltage Range	18-33VDC	
Maximum Output Power	1400W	
PV Charging Current Range	0-60A (Can be set)	
Charging Short Circuit Protection	Fuse	
Wiring Protection	Reverse polarity protection	
CERTIFIED SPECIFICATIONS		
Certification	CE (EN62109-1), ETL	
EMC Certification Level	EN61000	
Operating Temperature Range	5°F to 131°F	
Storage Temperature Range	-13°F ~ 140°F	
Humidity Range	5% to 95% (Conformal coating protection)	
Noise	≤ 60dB	
Heat Dissipation	Forced air cooling, variable speed of fan	
Communication Interface	USB/RS485(Bluetooth/WiFi/GPRS)/Dry node control	
Dimensions	14.88" x 11.02" x 4.05"	
Weight	13.66 LBS	



System Schematic: HF Series 24V -100

ATTENTION! Open circuit voltage in serials connection must be below 100V when used -100 suffix productions



- ATTENTION!**
1. Local electrical code should be followed in the installation.
 2. For the selections of wire diameter and accessories, please refer to *USER'S MANUAL* or according to the actual ampacity.
 3. The battery series voltage must comply with the rated battery voltage of the device. The PV module series open circuit voltage must be below than the Max.Voc of the device.
 4. This diagram is for reference only, please decide on the connection method according to the actual situation.