



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.

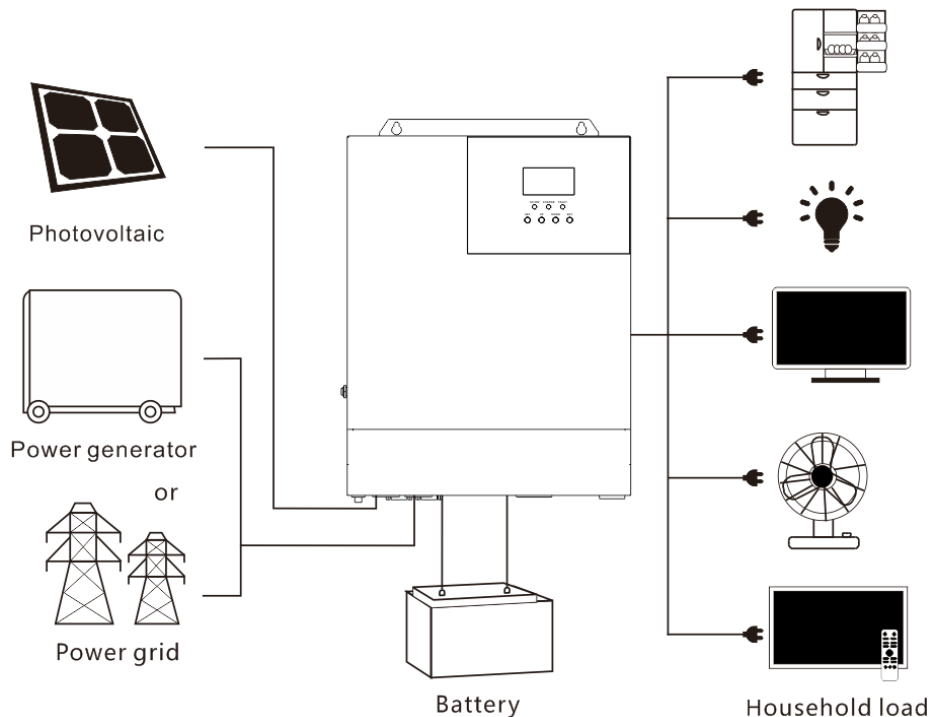
Product Description

PART#	DESCRIPTION	OUTPUT VOLTAGE	INPUT VOLTAGE	POWER OUTPUT	WEIGHT
EV-HF4835U60-H	110/120VAC Hybrid Inverter	120VAC	48V	7000W	24.03 LBS
EV-HF4850U80-H	110/120VAC Hybrid Inverter	120VAC	48V	10000W	25.57 LBS

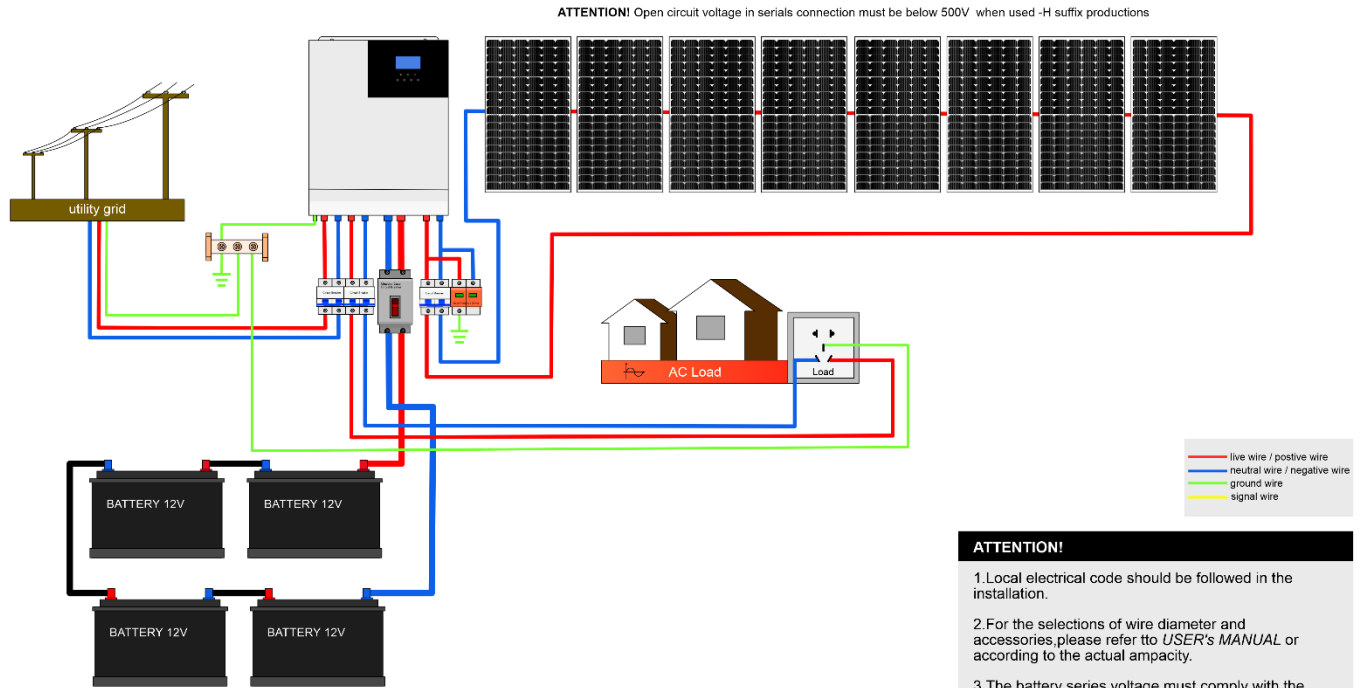
Specifications

MODEL#	EV-HF4835U60-H	EV-HF4850U80-H
AC MODE		
Rated Input Voltage	110/120VAC	
Input Voltage Range	(90VAC-140VAC) $\pm 2\%$	
Frequency	50Hz/ 60Hz (Auto detection)	
Frequency Range	47 ± 0.3 Hz ~ 55 ± 0.3 Hz (50Hz)/57 ± 0.3 Hz ~ 65 ± 0.3 Hz (60Hz)	
Overload/Short Circuit Protection	Circuit breaker	
Efficiency	>95%	
Conversion Time (Bypass & Inverter)	10ms (Typical)	
AC Reverse Protection	Available	
Maximum Bypass Overload Current	40A	63A
INVERTER MODE		
Output Voltage Waveform	Pure sine wave	
Rated Output Power (VA)	3500(2900/3000/3200)VA	5000(4100/4300/4500)VA
Rated Output Power (W)	3500(2900/3000/3200)W	5000(4100/4300/4500)W
Power Factor	1	
Rated Output Voltage	120VAC(100/105/110VAC Adjustable)	
Output Voltage Error	$\pm 5\%$	
Output Frequency Range (Hz)	50Hz ± 0.3 Hz/60Hz ± 0.3 Hz	
Efficiency	>90%	
Overload Protection	(102% < load < 110%) $\pm 10\%$: report error and turn off the output after 5 minutes; (110% < load < 125%) $\pm 10\%$: report error and turn off the output after 10 seconds; Load >125% $\pm 10\%$: report error and turn off the output after 5 seconds;	
Peak Power	7000W	10000W
Loaded Motor Capability	2HP	4HP
Output Short Circuit Protection	Circuit breaker	
Bypass Breaker Specifications	40A	63A
Rated Battery Input Voltage	48V (Minimum starting voltage 44V)	
Battery Voltage Range	20.0Vdc~33Vdc ± 0.6 Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm/overvoltage recovery... can be set on LCD screen)	
Power Saving Mode	Load ≤ 50 W	
AC CHARGING		
Battery Type	Lead acid or lithium battery	
Maximum Charge Current	40A	
Charge Current Error	± 5 ADC	
Charge Voltage Range	40VDC~60VDC	
Short Circuit Protection	Circuit breaker and fuse	
Circuit Breaker Specifications	40A	63A
Overcharge Protection	Alarm and charging shutoff after 1 minute	

MODEL#	EV-HF4835U60-H	EV-HF4850U80-H
PV CHARGING		
Maximum PV Open Circuit Voltage	450VDC	500VDC
PV Operating Voltage Range	120-450VDC	120-500VDC
MPPT Voltage Range	130-430VDC	120-450VDC
Battery Voltage Range	40-60VDC	
Maximum Output Power	4200W	5000W
PV Charging Current Range (Can be set)	0-60A	0-80A
Charging Short Circuit Protection	Fuse	
Wiring Protection	Reverse polarity protection	
CERTIFIED SPECIFICATIONS		
Certification	CE(IEC 62109-1)/CETL(UL 1741/CSA C22.2 NO.107.1)	
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	16.29" x 13.30" x 4.96"	
Weight	24.03 LBS	25.57 LBS



System Schematic: HF Series 48V -H



- 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.