

All-in-one solar charge inverter



All-in-one solar charger inverter

HF2420S60-100/HF2430S60-100



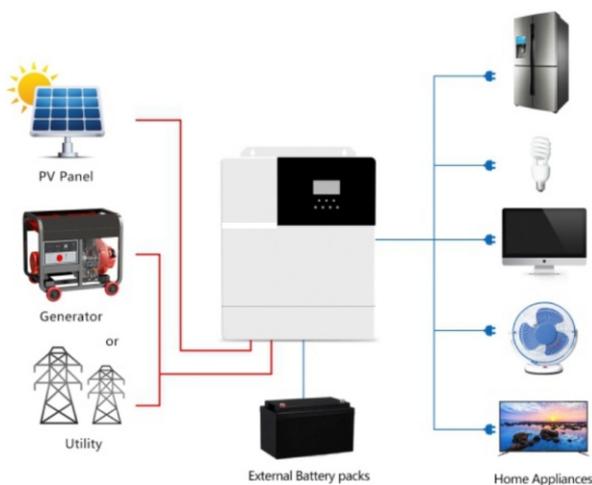
Product overview

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.

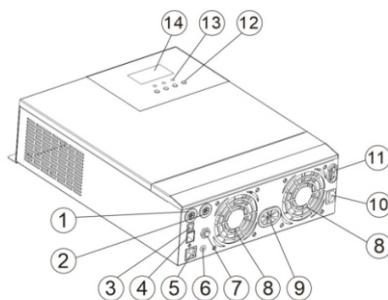
Performance characteristics

- 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, Bluetooth), CAN, 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	⑥	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	HF2420S60-100	HF2430S60-100
AC mode		
Rated input voltage	220/230Vac	
Input voltage range	(170Vac~280Vac) ±2% ; (90Vac-280Vac)±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	30A	
Inverter mode		
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)	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	4000	6000
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... settable on LCD screen)	
Power saving mode	Load≤50W	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current	60A	80A
Charge current error	± 5Adc	
Charge voltage range	20.0Vdc~33Vdac	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	30A	
Overcharge protection	Alarm and turn off charging after 1 minute	
PV charging		
Maximum PV open circuit voltage	100Vdc	
PV operating voltage range	30-100Vdc	
MPPT voltage range	30-85Vdc	
Battery voltage range	20-33Vdac	
Maximum output power	1400W	
PV charging current range (can be set)	0-60A	
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
Certified specifications		
Certification	CE(EN62109-1)	
EMC certification level	EN61000	
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)	6.2	

All-in-one solar charger inverter

HF2420U60-100/HF2430U60-100



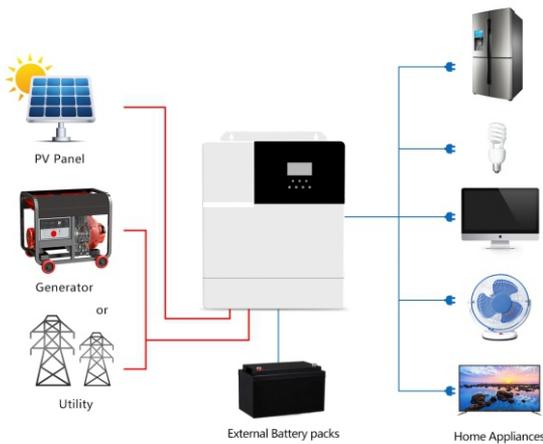
Product overview

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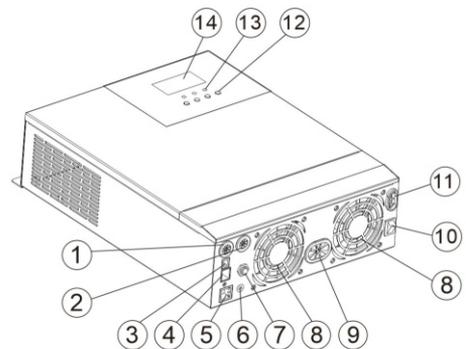
Performance characteristics

- 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, Bluetooth), CAN, 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
AC mode		
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	
Inverter mode		
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	3000	4500
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	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current	40A	40A
Charge current error	± 5Adc	
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	
PV charging		
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	
Certified specifications		
Certification	CE(EN62109-1)	
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	

All-in-one solar charger inverter

HF4830S80-145/HF4840S80-145/HF4850S80-145



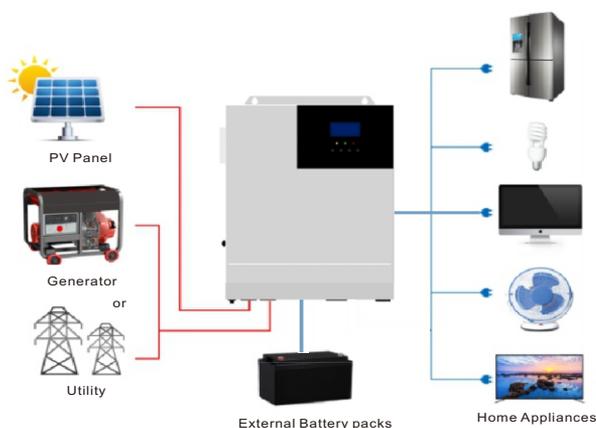
Product overview

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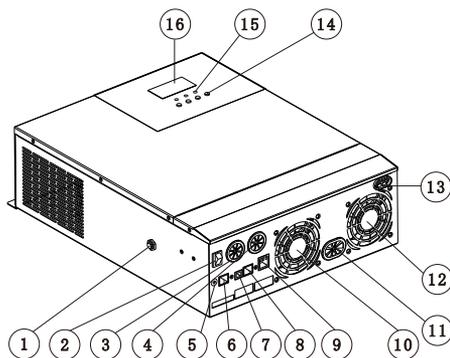
Performance characteristics

- 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 energystorage 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 overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS, WiFi, Bluetooth), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.

Product connection diagram



Appearance



①	Overload protector	⑨	Dry contact por
②	ON/OFF rocker switch	⑩	Cooling fan
③	AC input port	⑪	Battery port
④	AC output port	⑫	Cooling fan
⑤	Grounding screw hold	⑬	PV port
⑥	RS485-2 communication port	⑭	Touch button
⑦	USB communication port	⑮	Indicator
⑧	RS485-1 communication port	⑯	LCD screen

Technical parameters >>>

Models	HF4830S80-145	HF4840S80-145	HF4850S80-145
AC mode			
Rated input voltage	220/230Vac		
Input voltage range	(170Vac~280Vac) $\pm 2\%$ /(90Vac-280Vac) $\pm 2\%$		
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 and inverter)	10ms (typical)		
AC reverse protection	Available		
Maximum bypass overload current	40A		
Inverter mode			
Output voltage waveform	Pure sine wave		
Rated output power (VA)	3000	4000	5000
Rated output power (W)	3000	4000	5000
Power factor	1		
Rated output voltage (Vac)	230Vac		
Output voltage error	$\pm 5\%$		
Output frequency range (Hz)	50Hz ± 0.3 Hz/60Hz ± 0.3 Hz		
Efficiency	> 92%		
Overload protection	(102% < load < 125%) $\pm 10\%$: report error and turn off the output after 5 minutes;(125% < load < 150%) $\pm 10\%$: report error and turn off the output after 10 seconds;Load > 150% $\pm 10\%$: report error and turn off the output after 5 seconds;		
Peak power	6000VA	8000VA	10000VA
Loaded motor capability	2HP	3HP	4HP
Output short circuit protection	Circuit breaker		
Bypass breaker specifications	40A		
Rated battery input voltage	48V (Minimum starting voltage 44V)		
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)		
Power saving mode	Load ≤ 50 W		
AC charging			
Battery type	Lead acid or lithium battery		
Maximum charge current	60A		
Charge current error	± 5 A _{dc}		
Charge voltage range	40 ~58V _{dc}		
Short circuit protection	Circuit breaker and blown fuse		
Circuit breaker specifications	40A		
Overcharge protection	Alarm and turn off charging after 1 minute		
PV charging			
Maximum PV open circuit voltage	145V _{dc}		
PV operating voltage range	60-145V _{dc}		
MPPT voltage range	60-115V _{dc}		
Battery voltage range	40-60V _{dc}		
Maximum output power	4200W		
PV charging current range (can be set)	0-80A		
Charging short circuit protection	Blown fuse		
Wiring protection	Reverse polarity protection		
Certified specifications			
Certification	CE(EN62040-1)		
EMC certification level	EN62040-2, 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	≤ 60 dB		
Heat dissipation	Forced air cooling, variable speed of fan		
Communication interface	USB/RS485(WiFi/GPRS)/Dry node control		
Size (L*W*D)	426mm*322mm*124mm		
Weight (kg)	10.8		

All-in-one solar charger inverter

HF4825U80-145/HF4830U80-145/HF4835U80-145



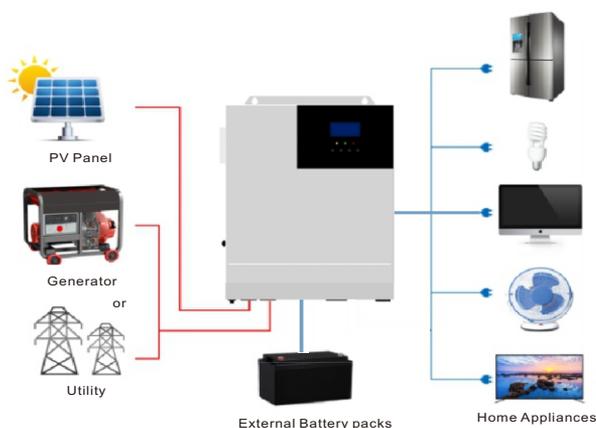
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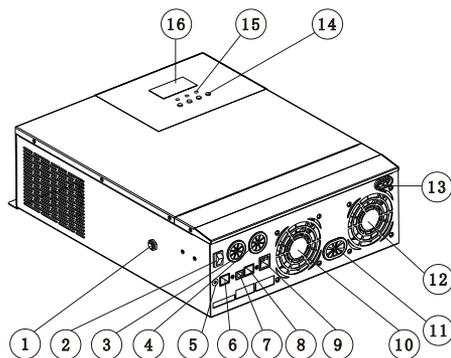
Performance characteristics

- 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 energystorage 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 overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS, WiFi, Bluetooth), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.

Product connection diagram



Appearance



①	Overload protector	⑨	Dry contact por
②	ON/OFF rocker switch	⑩	Cooling fan
③	AC input port	⑪	Battery port
④	AC output port	⑫	Cooling fan
⑤	Grounding screw hold	⑬	PV port
⑥	RS485-2 communication port	⑭	Touch button
⑦	USB communication port	⑮	Indicator
⑧	RS485-1 communication port	⑯	LCD screen

Technical parameters >>>

Models	HF4825U80-145	HF4830U80-145	HF4835U80-145
AC mode			
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		
Inverter mode			
Output voltage waveform	Pure sine wave		
Rated output power (VA)	2500	3000	3500
Rated output power (W)	2500	3000	3500
Power factor	1		
Rated output voltage (Vac)	120Vac		
Output voltage error	±5%		
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz		
Efficiency	>90%		
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	4000VA	4500VA	5000VA
Loaded motor capability	1HP	2HP	2HP
Output short circuit protection	Circuit breaker		
Bypass breaker specifications	40A		
Rated battery input voltage	48V (Minimum starting voltage 44V)		
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)		
Power saving mode	Load≤50W		
AC charging			
Battery type	Lead acid or lithium battery		
Maximum charge current	40A		
Charge current error	± 5A _{dc}		
Charge voltage range	40 ~60V _{dc}		
Short circuit protection	Circuit breaker and blown fuse		
Circuit breaker specifications	40A		
Overcharge protection	Alarm and turn off charging after 1 minute		
PV charging			
Maximum PV open circuit voltage	145V _{dc}		
PV operating voltage range	60-145V _{dc}		
MPPT voltage range	60-115V _{dc}		
Battery voltage range	40-60V _{dc}		
Maximum output power	4000VA	4200W	
PV charging current range (can be set)	0-80A		
Charging short circuit protection	Blown fuse		
Wiring protection	Reverse polarity protection		
Certified specifications			
Certification	CE(EN62040-1)		
EMC certification level	EN62040-2, 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)	426mm*322mm*124mm		
Weight (kg)	10.8		

High pressure reverse control all-in-one machine

HF4830S60-H/HF4850S80-H/HF4835U60-H/HF4850U80-H



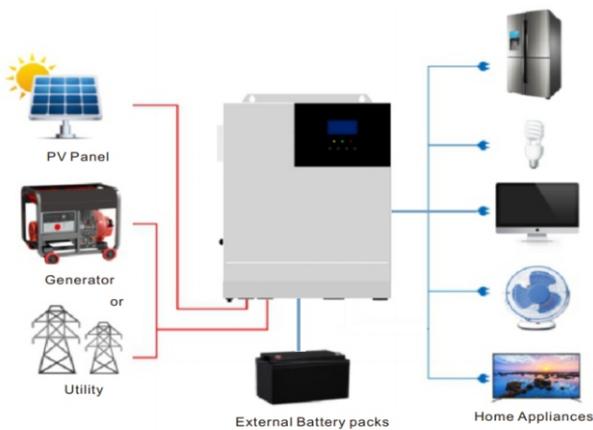
Product overview

HF48-H 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.

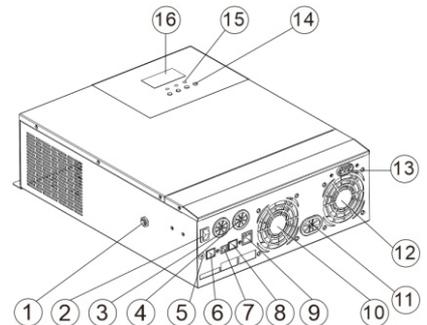
Performance characteristics

- Adopt full digital voltage and current double closed-loop control and advanced SPWM technology to output pure sine wave.
- Two output modes, i.e. mains bypass and inverter output can achieve uninterrupted power supply function.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology, with efficiency up to 99.9%.
- Wide MPPT voltage range.
- There is no commercial power or battery, and the solar energy has independent loading function.
- With function of activating lithium battery with solar energy and AC mains power, it supports connection of lead-acid battery and lithium battery.
- LCD screen design and 3 LED indicator lights dynamically display system data and operation states.
- ON/OFF rocker switch can control AC output.
- With power saving mode function, it can reduce no-load loss.
- Intelligent adjustable speed fan is adopted for efficient heat dissipation and extended system life.
- Possessing multiple protection functions and 360° comprehensive protection.
- Possessing complete short circuit protection, overvoltage and undervoltage protection, overload protection, back filling protection, etc.

Product connection diagram



Appearance



①	Overload protector	⑨	Dry contact port
②	ON/OFF rocker switch	⑩	Cooling fan
③	AC input port	⑪	Battery port
④	AC output port	⑫	Cooling fan
⑤	Grounding screw hold	⑬	PV port
⑥	RS485-2 communication port	⑭	Touch the key lightly
⑦	USB communication port	⑮	Indicator light
⑧	RS485-1 communication port	⑯	LCD screen

Technical parameters >>>

Model	HF4830S60-H	HF4850S80-H	HF4835U60-H	HF4850U80-H
AC mode				
Rated input voltage	220Vac/230Vac		110Vac/120Vac	
Input voltage range	(170Vac~280Vac) ±2% ; (90Vac-280Vac) ±2%		(90Vac-140Vac) ±2%	
Frequency	50Hz/ 60Hz (auto-sensing)			
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);			
Overload/short circuit protection	Breaker			
Efficiency	>95%			
Conversion time (bypass and inverter)	10ms (Typical value)			
AC reverse protection	yes			
Maximum bypass overload current	40A		63 A	
Inverting mode				
Output voltage waveform	Pure sine wave			
Rated output power(VA)	3000 (2600/2700/3000)	5000(4350/4500/4800/5000)	3500(2900/3000/3200)	5000(4100/4300/4500)
Rated output power(W)	3000 (2600/2700/3000)	5000(4350/4500/4800/5000)	3500(2900/3000/3200)	5000(4100/4300/4500)
Power factor	1			
Rated output voltage (Vac)	230Vac (200/208/220/240Vac settable)		120Vac(100/105/110Vac settable)	
Output voltage error	±5%			
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz			
Efficiency	>90%			
Overload protection	(102%<load<125%) ±10%: reporting error and turn off the output after 5 minutes; (125%<load<150%) ±10%: reporting error and turn off the output after 10 seconds; Load>150% ±10%: reporting error and turn off the output after 5 seconds;		(102%<load<110%) ±10%: reporting error and turn off the output after 5 minutes; (110%<load<125%) ±10%: reporting error and turn off the output after 10 seconds; Load>125% ±10%: reporting error and turn off the output after 5 seconds;	
Peak power	6000VA	10000VA	5000VA	7000VA
Loaded motor capacity	2HP	4HP	2HP	3HP
Output short-circuit protection	Breaker			
Specification of bypass breaker	40A		63A	
Rated battery input voltage	48V (minimum start voltage 44V)			
Battery voltage range	40.0Vdc~60Vdc ± 0.6Vdc (undervoltage alarm/turnoff voltage/overvoltage alarm/overvoltage restoration...settable LCD screen)			
Power saving mode	Load ≤50W			
AC charge				
Battery type	Lead acid or lithium battery			
Maximum charge current	60A		40A	
Charge current error	± 5Adc			
Charge voltage range	40~60Vdc			
Short-circuit protection	Breaker and blown fuse			
Breaker specification	40A		63A	
Overcharge protection	Turn off charge after 1min alarm			
Solar charge				
Maximum PV opencircuit voltage	500Vdc		450Vdc	500Vdc
PV operation voltage range	120-500Vdc		120-450Vdc	120-500Vdc
MPPT voltage range	120-450Vdc		120- 430Vdc	120-450Vdc
Battery voltage range	40-60Vdc			
Maximum output power	4200W	5000W	4200W	5000W
Charge current range of solar energy (settable)	0-60A	0-80A	0-60A	0-80A
Charge short-circuit protection	Blown fuse			
Wiring protection	Inverse wiring protection			
Authentication specification				
Specification authentication	CE(IEC62109), RoHs			
EMC authentication grade	EN61000			
Operation temperature range	-15°C to 55°C			
Storage temperature range	-25°C ~ 60°C			
Humidity range	5% to 95% (Conformal coating protection)			
Noise	≤60dB			
Thermal dissipation	Forced cooling with adjustable air speed			
Communication interface	USB/RS485 (WiFi/GPRS)/dry node control			
Dimension (L*W*D)	426mm*322mm*126mm			
Weight (kg)	10.9		11.6	

All-in-one solar charger inverter

HFP4850S80-145/HFP4835U80-145



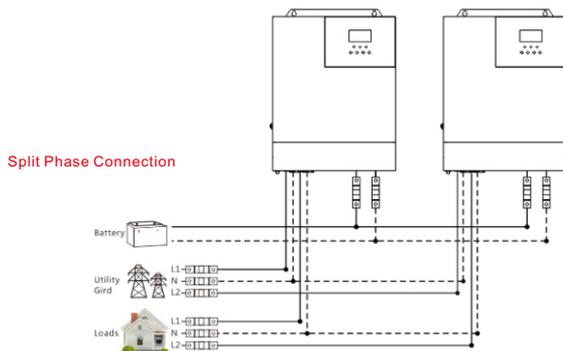
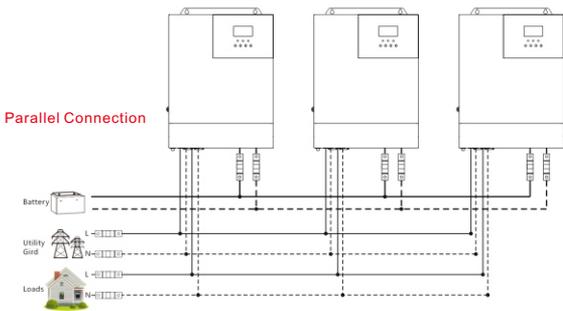
Product overview

HFP 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.

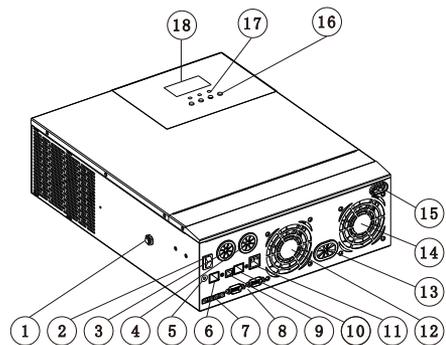
Performance characteristics

- Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sinewave.
- 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 energystorage 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 overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS, WiFi, Bluetooth), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.
- Available for 6 units parallel connection.
- Available for split phase connection.

Product connection diagram



Appearance



①	Overload protector	⑩	RS485-1 communication port
②	ON/OFF rocker switch	⑪	Dry contact port
③	AC input port	⑫	Cooling fan
④	AC output port	⑬	Battery port
⑤	Grounding screw hold	⑭	Cooling fan
⑥	RS485-2 communication port	⑮	PV port
⑦	Current sharing port (parallel module only)	⑯	Touch the key lightly
⑧	Parallel communication port (parallel module only)	⑰	Indicator light
⑨	USB communication port	⑱	LCD screen

Technical parameters >>>

Models	HFP4850S80-145	HFP4835U80-145
AC mode		
Rated input voltage	220/230Vac	110/120Vac
Input voltage range	(170Vac~280Vac) ±2% ; (90Vac-280Vac)±2%	(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	
Inverter mode		
Output voltage waveform	Pure sine wave	
Rated output power (VA)	5000	3500
Rated output power (W)	5000	3500
Power factor	1	
Rated output voltage (Vac)	230Vac	120Vac
Output voltage error	±5%	
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Maximum Efficiency	>92%	>91%
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;	(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	10000VA	6000VA
Loaded motor capability	4HP	2HP
Output short circuit protection	Circuit breaker	
Bypass breaker specifications	40A	
Rated battery input voltage	48V (Minimum starting voltage 44V)	
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)	
Power saving mode	Load ≤50W	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current	60A	40A
Charge current error	± 5A _{dc}	
Charge voltage range	40 ~58V _{dc}	40 ~60V _{dc}
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	40A	
Overcharge protection	Alarm and turn off charging after 1 minute	
PV charging		
Maximum PV open circuit voltage	145V _{dc}	
PV operating voltage range	60-145V _{dc}	
MPPT voltage range	60-115V _{dc}	
Battery voltage range	40-60V _{dc}	
Maximum output power	4200W	
PV charging current range (can be set)	0-80A	
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
Certified specifications		
Certification	CE(EN62109-1)	
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)	426mm*322mm*124mm	
Weight (kg)	10.8	

HT Horizontal Type All-in-one Inverter Controller

HT4830S80 -145 /HT4840S80 -145 /HT4850S80-145
HT4825U80 -145 /HT4830U80 -145 /HT4835U80-145



Product overview

HT 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

- It adopts full digital voltage and current double closed loop control, combined with advanced SPWM technology to output pure sine wave.
- Two output modes: mains bypass and inverter output enable uninterrupted power supply.
- 4 charging modes are available for choice: only PV, mains priority, PV priority, and hybrid charging.
- Advanced MPPT technology with efficiency up to 99.9%.
- LCD screen design, with 3 LED indicators, for dynamic display of system data and run status.
- ON/OFF rocker switch controls AC output.
- Power saving mode reduces no-load loss.
- Intelligent variable speed fan ensures efficient heat dissipation, and thereby extends system life.
- It comes with double lithium battery activation modes: mains and PV, and supports lead-acid battery and lithium battery access.
- Multiple protections provide 360° all-round protection for the system.
- Complete protections include multi-electrical appliance air switch short circuit protection, overvoltage and undervoltage protection, overload protection, back-flow protection, etc.
- Horizontal installation facilitates cabinet combination installation.
- Lithium battery can be activated by both mains and PV panel.

Technical parameters >>>

Models	HT4830S80-145	HT4840S80-145	HT4850S80-145	HT4825U80-145	HT4830U80-145	HT4835U80-145
AC mode						
Rated input voltage	220/230Vac			110/120Vac		
Input voltage range	(170Vac~280Vac) ±2%/(90Vac-280Vac)±2%			(90Vac~140Vac) ±2%		
Frequency	50Hz/ 60Hz (automatic 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 backflow protection	yes					
Maximum bypass overload current	40A					
Inverting mode						
Output voltage waveform	Pure sine wave					
Rated output power (VA)	3000(2600/2700/3000)	4000 (3480/3600/3800/4000)	5000 (4350/4500/4800/5000)	2500(2000/2180/2290)	3000(2500/2600/2750)	3500(2900/3000/3200)
Rated output power (W)	3000(2600/2700/3000)	4000 (3480/3600/3800/4000)	5000 (4350/4500/4800/5000)	2500(2000/2180/2290)	3000(2500/2600/2750)	3500(2900/3000/3200)
Power factor	1					
Rated output voltage (Vac)	230Vac(200/208/220/240Vac Settable)			120Vac(100/105/110Vac Settable)		
Output voltage error	±5%					
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz					
Efficiency	>92%			>91%		
Overload protection	(102%<load<125%) ±10%; Report error and turn off output after 5 minutes; (125%<load<150%) ±10%; Report error and turn off output after 10 seconds; Load>150% ±10%; Report error and turn off output after 5 seconds;			(102%<load<110%) ±10%; Report error and turn off output after 5 minutes; (110%<load<125%) ±10%; Report error and turn off output after 10 seconds; Load>125% ±10%; Report error and turn off output after 5 seconds;		
Peak power	6000VA	8000VA	10000VA	4000VA	4500VA	5000VA
Loaded motor capacity	2HP	3HP	4HP	1HP	2HP	2HP
Output short circuit protection	Circuit breaker					
Bypass circuit breaker specification	63A					
Rated battery input voltage	48V (minimum starting voltage 44V)					
Battery voltage range	40.0Vdc~60Vdc ± 0.6Vdc (undervoltage alarm / shutdown voltage / overvoltage alarm / overvoltage recovery...LCD screen can be set)					
Eco mode	Load ≤50W					
AC charge						
Battery type	Lead acid or lithium battery					
Maximum charge current	60A			40A		
Charge current error	± 5Adc					
Charge voltage range	40 ~58Vdc			40 ~60Vdc		
Short circuit protection	Circuit breaker					
Circuit breaker specification	(AC IN) 63A/ (BAT) 125A					
Overcharge protection	Alarm and turn off charging in 1 minute.					
Solar charge						
Maximum PV open circuit voltage	145Vdc					
PV operating voltage range	60-145Vdc					
MPPT voltage range	60-115Vdc					
Battery voltage range	40-60Vdc					
Maximum output power	4200W					
PV charge current range (settable)	0-80A					
Charge short circuit protection	BAT circuit breaker and fuse					
Wiring protection	Reverse polarity protection					
Authentication specification						
Specification certification	CE(EN62109)					
EMC certification level	EN61000,C2					
Operating temperature range	-15°C to 55°C					
Storage temperature range	-25°C ~ 60°C					
RH range	5% to 95% (conformal coating protection)					
Noise	≤60dB					
Heat dissipation	Forced air cooling, adjustable air speed					
Communication interface	USB/RS485 (WiFi/GPRS)/Dry Node Control					
Dimensions (L*W*D)	482mm*425mm*133mm					
Weight (kg)	13.3					