

All-in-one solar charge inverter



All-in-one solar charger inverter

HF2420S60-100/HF2430S60-100



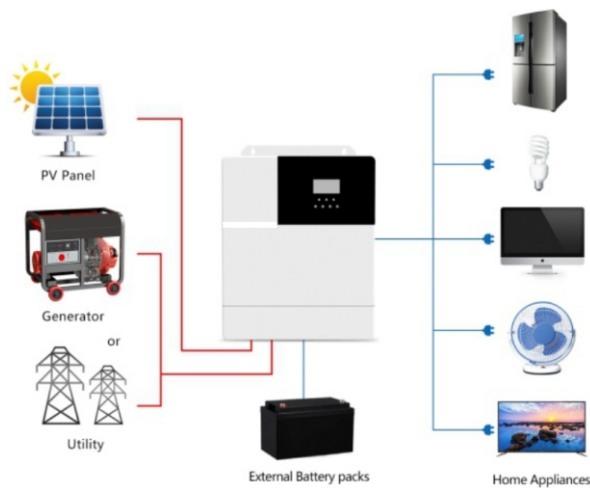
Product overview

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.

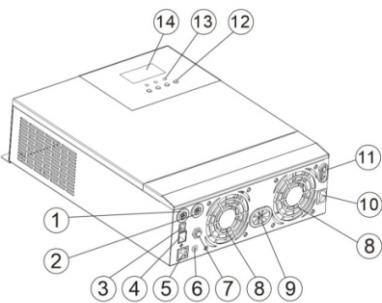
Performance characteristics

- 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 | 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 | 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 after5 minutes; (125% < load < 150%) ± 10%: report error and turn off the output after 10 seconds; Load >150% ±10%: report error and turn offthe 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



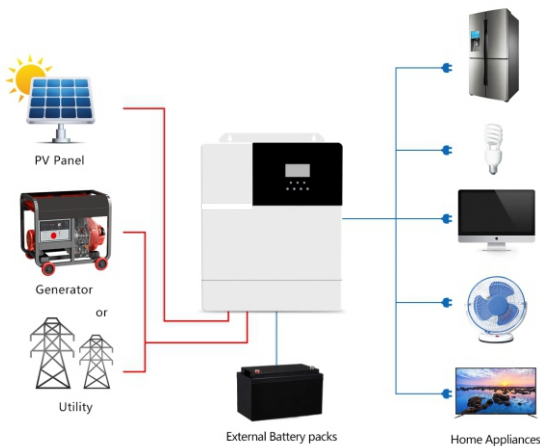
Product overview

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.

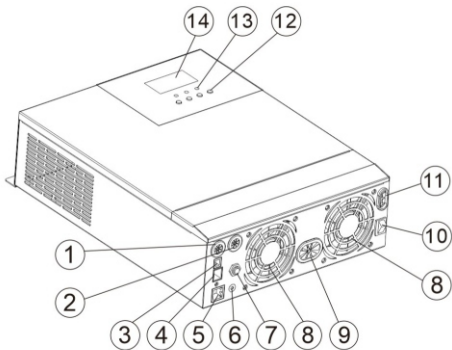
Performance characteristics

- 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 | 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 after5 minutes; (110% < load < 125%) ± 10%: report error and turn off the output after 10 seconds; Load > 125% ±10%: report error and turn offthe 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



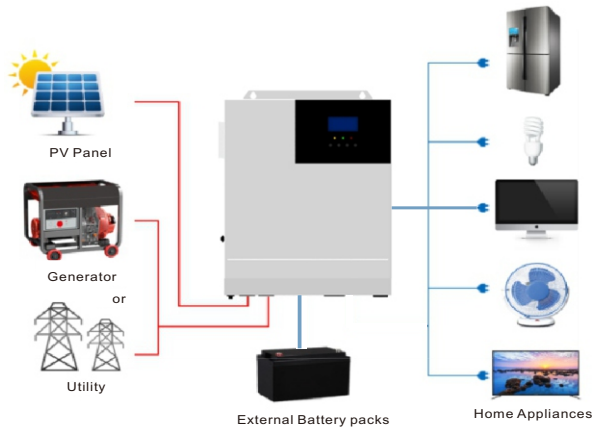
Product overview

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.

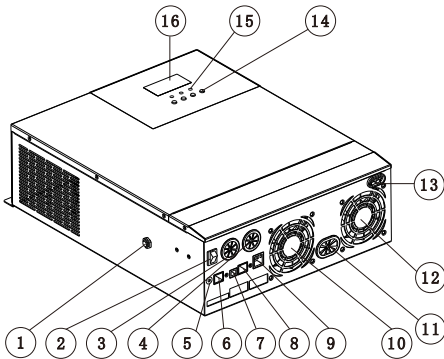
Performance characteristics

- 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 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) ±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 | 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 | ±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 | 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≤50W | | | |
| AC charging | | | | |
| Battery type | Lead acid or lithium battery | | | |
| Maximum charge current | 60A | | | |
| Charge current error | ± 5Adc | | | |
| Charge voltage range | 40 ~58Vdc | | | |
| 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 | 145Vdc | | | |
| PV operating voltage range | 60-145Vdc | | | |
| MPPT voltage range | 60-115Vdc | | | |
| Battery voltage range | 40-60Vdc | | | |
| 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 | ≤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 | | | |

All-in-one solar charger inverter

HF4825U80-145/HF4830U80-145/HF4835U80-145



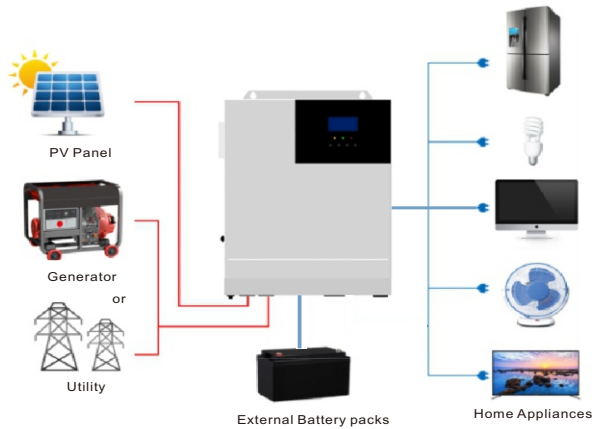
Product overview

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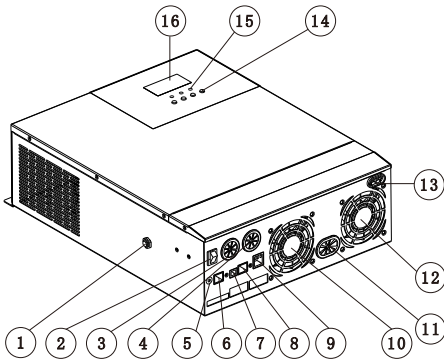
Performance characteristics

- 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 | 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... setttable 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



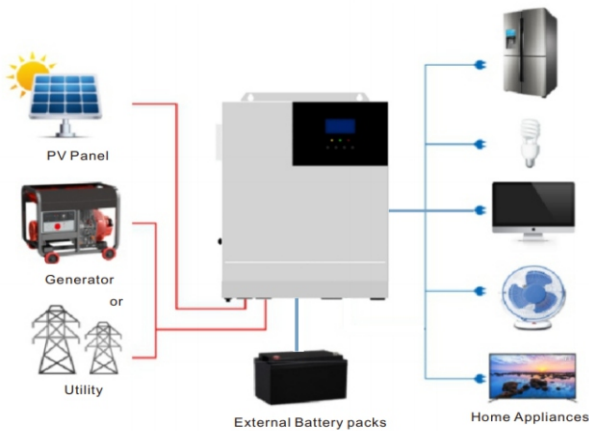
Product overview

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.

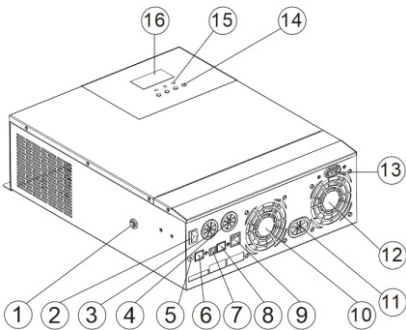
Performance characteristics

- 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



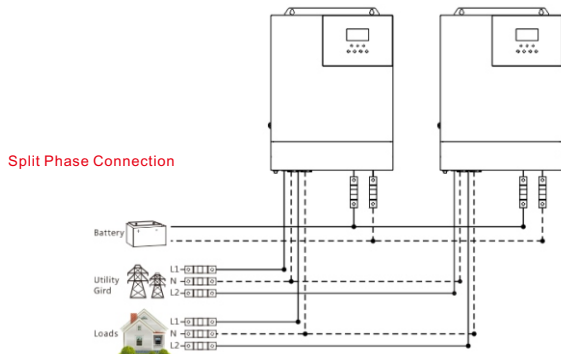
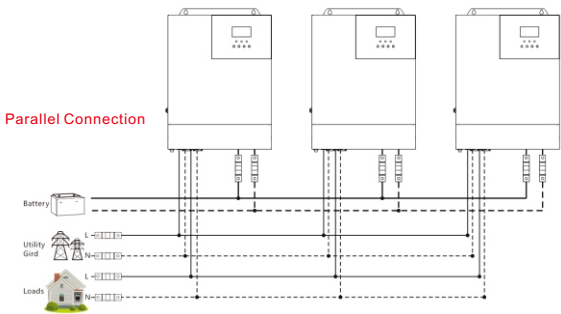
Product overview

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.

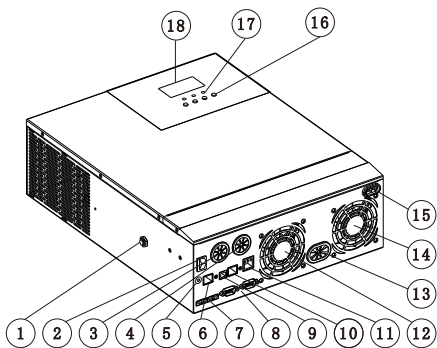
Performance characteristics

- 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 | | | | | |