Solar Charge Inverter HG-IN5KWSR



Product overview

HG-IN5KWSR 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 controlalgorithm, 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 effiffificiency up to 99.9%. Wide MPPT voltage range. 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 parameters

Power saving mode AC charge Battery type Maximum charge current GoA Charge current error	Model	HG-IN5KWSR
Injust voltage range (1700ac-2800ac) a 2%; 1900ac 2800ac) a 2% Frequency Range 247±314; 55154 (auto-sending) Frequency Range 247±314; 55154 (auto-sending) Frequency Range 24556 (auto-sending) 595% 506% 50	AC mode	
Frequency Repuency Range 87±24 Abt = 55±0.3Hz (50Hz)(37±0.3Hz - 65±0.3Hz (60Hz); Perquency Range 47±3.3Hz - 55±0.3Hz (50Hz)(37±0.3Hz - 65±0.3Hz (60Hz); Conversion time (bypass and inverter) 10ms (Typical value) AC reverse protection yes Maximum Physas verdend current yes Invertigation Maximum Physas verdend Pure sine wave Rated output power(VA) 5000(43500/4500/4500/5000) Rated output power(VA) 5000(43500/4500/4500/5000) Rated output power(VA) 5000(43500/4500/4500/5000) Rated output power(VA) 5000(43500/4500/4500/5000) Rated output voltage (VA) 2309vc (2000/20/22/20vc settable) Output frequency range (R4) 5001±2 0.3Hz/60Hz ±0.3Hz Efficiency 90% Output frequency range (R4) 152% - 600±250/20/22/20vc settable) Output frequency range (R4) 152% - 600±250/22/20/20vc settable) Output frequency range (R4) 102% - 600±250/20/20/20vc settable) Output frequency range (R4) 102% - 600±250/20/20/20vc settable) Output bother capacity 4HP Pull power 1000000/4 Load power power settable 4A	Rated input voltage	220Vac/230Vac
Frequency Range 47.10.314.c. 595.03.314.c. 5094.ct./5740.314.c. 6094.ct. Correction from (bypass and inverter) 10ms (Typical value) Act reverse protection yes Maximum bypass overload current 40A Investigation of the control of the contr	Input voltage range	(170Vac~280Vac) ±2%; (90Vac-280Vac) ±2%
Overload sylont circuit protection Benaler Efficiency 95% Conversion time (bypass and inverter) (10ms (Typical value) AC reverse protection yes Maximum bypass overload current 40A Invertige mode Pure sine wave Rated output power(VA) 5000(4350)4500/4800/5000) Rated output power(VA) 5000(4350)4500/4800/5000) Rated output voltage (VA) 2000(4350)4500/4800/5000) Chapter (VA) 300(4350)4500/4800/5000 Rated output voltage (VA) 2000(4350)450/4800/5000/2800/2800/2800/2800/2800/2800/2	Frequency	50Hz/ 60Hz (auto-sensing)
Efficiency 5.95% Conversion time (bypass and inverter) 10m (Typical value) AC reverse protection yes Maximum bypass overfload current 40A Inversion group Pure sine wave Comput voltage waveform Pure sine wave Rated output power(W) 5000/4350/4500/4800/50000) Rated output power(W) 5000/4350/4500/4800/50000) Rated output power(W) 2300vs (200/208/220/240Vac setable) Output voltage error 55% Output voltage error 59% (200/208/220/240Vac setable) Output voltage error 15% (200/208/220/240Vac setable) Output voltage error 45% (200/208/220/240Vac setable) Output voltage range 45% (200/208/240/240Vac setable) Output voltage range	Frequency Range	47 ± 0.3 Hz ~ 55 ± 0.3 Hz (50 Hz)/ 57 ± 0.3 Hz ~ 65 ± 0.3 Hz (60 Hz);
Converse protection qvs AC reverse protection yes Maximum bypass overload current 40A Investing mode Pure sine wave Rated output power(W) 5000(4350/4500/4800/5000) Rated output power(W) 5000(4350/4500/4800/5000) Power factor 7500 Output voltage (Wa) 2303vs (2007/208/220/240Vas settable) Output voltage (va) 55% (2018) Output frequency range (Hz) 50H ± 0.3H±2.03H±2	Overload/short circuit protection	Breaker
AC reverse protection yes Maximum bypass overload current inverting mode Output voltage waveform Pure sine wave Output voltage waveform Pure sine wave Rated output power(W) 5000(4350/4500/4800/5000) Rated output power(W) 5000(4350/4500/4800/5000) Power factor 15% Rated output voltage (Vac) 230vac (200/208/220/240vac settable) Output voltage error 15% Output voltage error 15% Output voltage error 15% Output voltage error 15% Overload protection (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 10 seconds; (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%: reporting error and turn off the output after 5 minutes: (125%-cload-c150%) ±10%-cload-c150% ±10%-cload-c150% ±1	Efficiency	>95%
Maximum bypass overload current 40A Inverting mode Pure sine wave Cutput voltage waveform Pure sine wave Rated output power(VA) \$000(4350/4500/4800/5000) Rated output power(VA) \$000(4350/4500/4800/5000) Rated output voltage device \$15% Output voltage erro £15% Output frequency range (H2) \$100(24) Efficiency \$90% Overload protection \$102% (102%<-load+125%) ±10%: reporting error and turn off the output after 5 minutes	Conversion time (bypass and inverter)	10ms (Typical value)
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Output short-circuit protection 4HP Specification of bypass breaker 4A Rated battery input voltage 48V (minimum start voltage 44V) Battery voltage range 40.0Vdc~60Vdc ± 0.6Vdc (undervoltage alarm/turnoff voltage/overvoltage alarm/overvoltage) Power saving mode restorationsettable LCD screen) Load ≤ 50W AC charge Battery type Battery type 60A Maximum charge current 60A Charge current error ± 5Adc Charge voltage range 40~600/dc Broot-circuit protection Breaker and blown fuse Breaker specification 40A Overcharge protection Turn off charge after 1min alarm Solar charge 500Vdc Waximum PV opencircuit voltage 500Vdc PV operation voltage range 120-500Vdc MPPT voltage range 120-500Vdc MPPT voltage range 120-500Vdc MPPT voltage range 10-60Vdc Battery voltage range 10-60Vdc Battery voltage range 10-60Vdc Charge sohort-circuit protection Blown fuse Wiri	Peak power	10000VA
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Battery type Lead acid or lithium battery Maximum charge current 60A Charge current error ± SAdc Charge voltage range 40~60Vdc Short-circuit protection Breaker and blown fuse Breaker specification 40A Overcharge protection Turn off charge after 1min alarm Solar charge Maximum PV opencircuit voltage 500Vdc PV operation voltage range 120~500Vdc MPPT voltage range 120~500Vdc MPPT voltage range 40~60Vdc Battery voltage range 40~60Vdc Maximum output power 5000W Charge current range of solar energy (settable) 0~80A Charge short-circuit protection Blown fuse Wiring protection Blown fuse Wiring protection EK[EC 62109-1) EMC authentication specification EK[EC 62109-1) EMC authentication grade EN61000 Operation temperature range -15°C to 55°C Storage temperature range 55°C of°C Humidity range 55°C of°C Nois	Power saving mode	restorationsettable LCD screen) Load ≤50W
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Short-circuit protection Breaker and blown fuse Breaker specification 40A Overcharge protection Turn off charge after 1 min alarm Solar charge S00Vdc We specification voltage range 500Vdc PV operation voltage range 120-500Vdc MPPT voltage range 40-60Vdc Meprolage range 40-60Vdc Battery voltage range 40-60Vdc Maximum output power 5000W Charge current range of solar energy (settable) 0-80A Charge short-circuit protection Blown fuse Wiring protection Blown fuse Authentication specification CE(IEC 62109-1) 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*12	Charge current error	± 5Adc
Breaker specification 40A Overcharge protection Turn off charge after 1min alarm Solar charge Maximum PV opencircuit voltage 500Vdc PV operation voltage range 120-500Vdc MPPT voltage range 120-450Vdc Battery voltage range 40-60Vdc Maximum output power 5000W Charge current range of solar energy (settable) 0-80A Charge short-circuit protection Blown fuse Wiring protection Blown fuse Authentication specification EK[EE 62109-1) 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	Charge voltage range	40~60Vdc
Overcharge protection Turn off charge after 1 min alarm Solar charge Maximum PV opencircuit voltage 500Vdc PV operation voltage range 120-500Vdc MPPT voltage range 120-450Vdc Battery voltage range 40-60Vdc Maximum output power 5000W Charge current range of solar energy (settable) 0-80A Charge short-circuit protection Blown fuse Wiring protection Inverse wiring protection Authentication specification CE(IEC 62109-1) 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*	Short-circuit protection	Breaker and blown fuse
Solar chargeMaximum PV opencircuit voltage500VdcPV operation voltage range120-500VdcMPPT voltage range120-450VdcBattery voltage range40-60VdcMaximum output power5000WCharge current range of solar energy (settable)0-80ACharge short-circuit protectionBlown fuseWiring protectionBlown fuseAuthentication specificationCE(IEC 62109-1)EMC authentication gradeEN61000Operation temperature range-15°C to 55°CStorage temperature range-25°C ~ 60°CHumidity range5% to 95% (Conformal coating protection)Noise≤60dBThermal dissipationForced cooling with adjustable air speedCommunication interfaceUSB/RS485 (WiFi/GPRS)/dry node controlDimension (L*W*D)426mm*322mm*126mm	Breaker specification	40A
Maximum PV opencircuit voltage 500Vdc PV operation voltage range 120-500Vdc MPPT voltage range 120-450Vdc Battery voltage range 40-60Vdc Maximum output power 5000W Charge current range of solar energy (settable) 0-80A Charge short-circuit protection Blown fuse Wiring protection Inverse wiring protection Authentication specification CE(IEC 62109-1) 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	Overcharge protection	Turn off charge after 1min alarm
PV operation voltage range 120-500Vdc MPPT voltage range 120-450Vdc Battery voltage range 40-60Vdc Maximum output power 5000W Charge current range of solar energy (settable) 0-80A Charge short-circuit protection Blown fuse Wiring protection Blown fuse Wiring protection CE(IEC 62109-1) EMC authentication grade ENG1000 Operation temperature range 500°C Storage temperature range 500°C Humidity range 500°C Humidity range 500°C Humidity range 500°C Torced cooling with adjustable air speed Communication interface USB/RS485 (WiFi/GPRS)/dry node control Dimension (L*W*D) 426mm*322mm*126mm	Solar charge	
MPPT voltage range 120-450Vdc Battery voltage range 40-60Vdc Maximum output power 5000W Charge current range of solar energy (settable) 0-80A Charge short-circuit protection Blown fuse Wiring protection Inverse wiring protection Authentication specification CE(IEC 62109-1) EMC authentication grade EN61000 Operation temperature range -15°C to 55°C Storage temperature 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	Maximum PV opencircuit voltage	500Vdc
Battery voltage range40-60VdcMaximum output power5000WCharge current range of solar energy (settable)0-80ACharge short-circuit protectionBlown fuseWiring protectionInverse wiring protectionAuthentication specificationCE(IEC 62109-1)EMC authentication gradeEN61000Operation temperature range-15°C to 55°CStorage temperature range-25°C ~ 60°CHumidity range5% to 95% (Conformal coating protection)Noise≤60dBThermal dissipationForced cooling with adjustable air speedCommunication interfaceUSB/RS485 (WiFi/GPRS)/dry node controlDimension (L*W*D)426mm*322mm*126mm	PV operation voltage range	120-500Vdc
Maximum output power5000WCharge current range of solar energy (settable)0-80ACharge short-circuit protectionBlown fuseWiring protectionInverse wiring protectionAuthentication specificationCE(IEC 62109-1)EMC authentication gradeEN61000Operation temperature range-15°C to 55°CStorage temperature range-25°C ~ 60°CHumidity range5% to 95% (Conformal coating protection)Noise≤60dBThermal dissipationForced cooling with adjustable air speedCommunication interfaceUSB/RS485 (WiFi/GPRS)/dry node controlDimension (L*W*D)426mm*322mm*126mm	MPPT voltage range	120-450Vdc
Charge current range of solar energy (settable) 0-80A Charge short-circuit protection Blown fuse Wiring protection Inverse wiring protection Authentication specification CE(IEC 62109-1) 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	Battery voltage range	40-60Vdc
Charge short-circuit protection Blown fuse Wiring protection Inverse wiring protection Authentication specification CE(IEC 62109-1) Specification authentication EN61000 Coperation 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	Maximum output power	5000W
Wiring protectionInverse wiring protectionAuthentication specificationCE(IEC 62109-1)Specification authenticationCE(IEC 62109-1)EMC authentication gradeEN61000Operation temperature range-15°C to 55°CStorage temperature range-25°C ~ 60°CHumidity range5% to 95% (Conformal coating protection)Noise≤60dBThermal dissipationForced cooling with adjustable air speedCommunication interfaceUSB/RS485 (WiFi/GPRS)/dry node controlDimension (L*W*D)426mm*322mm*126mm	Charge current range of solar energy (settable)	0-80A
Wiring protectionInverse wiring protectionAuthentication specificationCE(IEC 62109-1)Specification authenticationCE(IEC 62109-1)EMC authentication gradeEN61000Operation temperature range-15°C to 55°CStorage temperature range-25°C ~ 60°CHumidity range5% to 95% (Conformal coating protection)Noise≤60dBThermal dissipationForced cooling with adjustable air speedCommunication interfaceUSB/RS485 (WiFi/GPRS)/dry node controlDimension (L*W*D)426mm*322mm*126mm		Blown fuse
Authentication specification Specification authentication EMC authentication grade Operation temperature range Communication grade EN61000 Forced co5°C ~ 60°C Humidity range S% to 95°C (Conformal coating protection) EN61000 EN		
Specification authenticationCE(IEC 62109-1)EMC authentication gradeEN61000Operation temperature range-15°C to 55°CStorage temperature range-25°C ~ 60°CHumidity range5% to 95% (Conformal coating protection)Noise≤60dBThermal dissipationForced cooling with adjustable air speedCommunication interfaceUSB/RS485 (WiFi/GPRS)/dry node controlDimension (L*W*D)426mm*322mm*126mm		Inverse wiring protection
EMC authentication grade 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		CE(IEC 62109-1)
Operation temperature range-15°C to 55°CStorage temperature range-25°C ~ 60°CHumidity range5% to 95% (Conformal coating protection)Noise≤60dBThermal dissipationForced cooling with adjustable air speedCommunication interfaceUSB/RS485 (WiFi/GPRS)/dry node controlDimension (L*W*D)426mm*322mm*126mm	-	
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	-	
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		
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Thermal dissipation Forced cooling with adjustable air speed Communication interface USB/RS485 (WiFi/GPRS)/dry node control Dimension (L*W*D) 426mm*322mm*126mm		
Communication interface USB/RS485 (WiFi/GPRS)/dry node control Dimension (L*W*D) 426mm*322mm*126mm		
Dimension (L*W*D) 426mm*322mm*126mm	•	
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	Weight (kg)	426mm^322mm^126mm 10.9kg