

# HMS - SERIES

## Hybrid Solar Inverter

11KW 48V



### High Transfer Efficiency :

This Pure Sine Wave Solar Inverter is a combination of an inverter, battery charger, AC auto-transfer switch and MPPT solar charge controller. High transfer efficiency is above 95%.

### MPPT Charge controller :

160A MPPT controller with high tracking efficiency of up to 99% can charge 48v lead-acid batteries (Seal, AGM, Gel, Flooded), LiFePo4 batteries and lithium batteries from solar panels, the grid, or a generator. Maximum PV Array Power is 12000W and the MAX PV input voltage is 500VDC.

### Parallel Function :

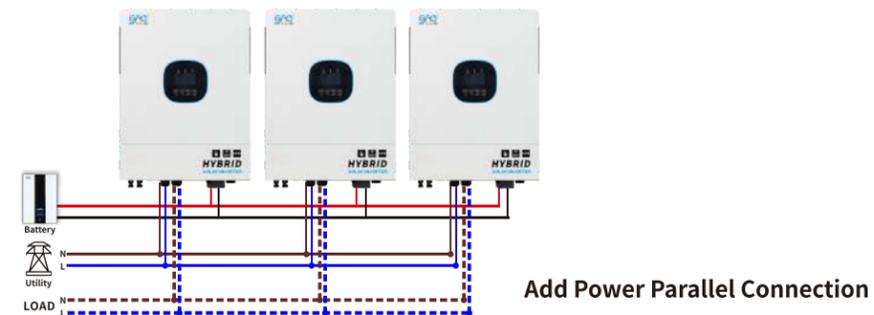
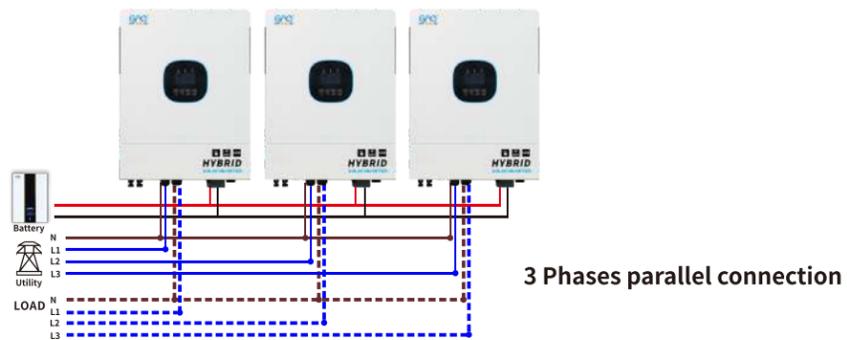
The 11KW solar inverter charger allows connection of up to 6 units simultaneously. When you connect multiple inverters in parallel, the combined power capacity of your system multiplies, making it a cost-effective solution for larger energy demands.

### Flexible Setting of the Priority for Charging and Output :

This inverter charger provides 3 charging modes(Solar First, Only Solar, Hybrid Charging) and 3 output modes(Utility First, Solar First, SBU priority), you can flexibly set the priority for power input and output based on your specific needs and environmental conditions.

### Multiple Protection :

Battery overcharging, Over-discharging, Overloading, Short-circuiting, and auto restart while AC is recovering. This ensures optimal system safety and longevity.



Model	HMS-48113M160
Rated Power	11KW
Input Voltage Waveform	Sinusoidal (utility or generator)
Nominal Input Voltage	230Vac
Low Loss Voltage	170Vac±7V (UPS); 90Vac±7V (Appliances)
Low Loss Return Voltage	180Vac±7V (UPS); 100Vac±7V (Appliances)
High Loss Voltage	280Vac±7V
High Loss Return Voltage	270Vac±7V
Max AC Input Voltage	300Vac
Max AC Input Current	80A
Nominal Input Frequency	50Hz / 60Hz (Auto detection)
Low Loss Frequency	40±1Hz
Low Loss Return Frequency	42±1Hz
High Loss Frequency	65±1Hz
High Loss Return Frequency	63±1Hz
Output Short Circuit Protection	Line mode: Circuit Breaker Battery mode: Electronic Circuits
Efficiency (Line Mode)	>95%(Rated R load, battery full charged)
Transfer Time	10ms typical (UPS); 20ms typical (Appliances)
Output power de-rating: For 11KW models, when AC input voltage under 170V the output power will be de-rated.	
Output Voltage Waveform	Pure Sine Wave
Output Voltage Regulation	230Vac±5%
Output Frequency	60Hz or 50Hz
Peak Efficiency	93%
Overload Protection	100ms@≥205% load; 3s@≥150%load; 5s@110%~150%load
Surge Capacity	2*rated power for 5 seconds
High DC Cut-off Voltage	66Vdc
Low DC Cut-off Voltage	44Vdc
Nominal DC Input Voltage	48Vdc
Cold Start Voltage	46.0Vdc
Low DC Warning Voltage	46.0Vdc
0 load~20%	42.8Vdc
@ 20%≤load<50%	40.4Vdc
Low DC Warning Return Voltage	48.0Vdc
@ load <20%	44.8Vdc
@ 20%≤load<50%	42.4Vdc
Low DC Cut-off Voltage	44.0Vdc
@ load<20%	40.8Vdc
@ 20%≤load<50%	38.4Vdc
High DC Recovery Voltage	64Vdc
High DC Cut-off Voltage	66Vdc
DC Voltage Accuracy	+/-0.3% @ no load
THDV	<5% for linear load, <10% for non-linear load @ nominal voltage
DC Offset	<100mV
Charging Current (UPS)	120A
Bulk Charging Voltage	Flooded Battery AGM / Gel Battery
	58.4Vdc
	56.4Vdc
	54Vdc
	66Vdc
	3-Step
Charging Curve	
MODEL	12KW
Rated Power	6000Wx2
Max. PV Array Open Circuit Voltage	500Vdc
PV Array MPPT Voltage Range	90Vdc~450Vdc
Max. Input Current	27Ax2
Start-up Voltage	120Vdc +/-5Vdc
Maximum Charging Current	80A X 2
Power Limitation	
MODEL	11KW
Safety Certification	CE
Operating Temperature Range	-10°Cto40°C
Storage temperature	-15°C~60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Product Size(D*W*H)	430mm*618mm*152mm
Packing Size(D*W*H)	525mm*700mm*225mm
N.W.(Kg)	18.3KG
G.W.(Kg)	20.7KG
Max parallel numbers	6
Circulation Current under No Load Condition	Max 2A
Power Unbalance Ratio	<5% @ 100% Load
Parallel communication	CAN
Transfer time in parallel mode	Max 50ms
Parallel Kit	YES

Note: Parallel feature will be disabled when only PV power is available