

HVM-Series

Hybrid Solar Inverter

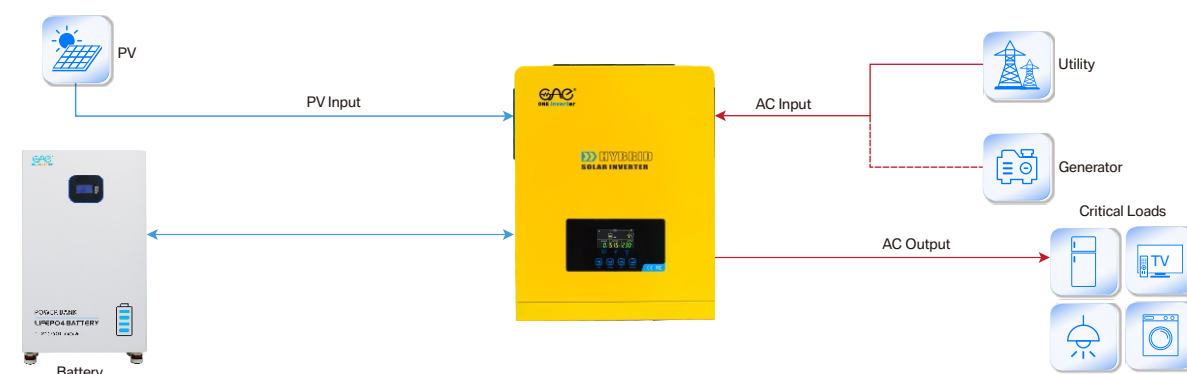


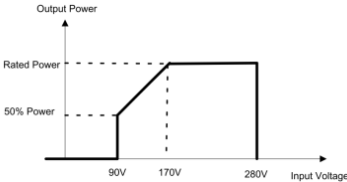
The HVM Series is a professional hybrid solar inverter charger for backup, off-grid, and energy storage systems. It features pure sine wave output, 1.6KW / 3.2KW rated power, 2X rated power surge (5s), ≤10ms UPS transfer, supports both AC and solar charging (combined 80A max), compatible with lead-acid and lithium batteries.

FEATURES

-  Rated power 1.6KW / 3.2KW.
-  Pure sine wave AC output.
-  Clear display for real-time system monitoring.
-  Multi-layer Protection for Comprehensive Safety.
-  High efficiency, low loss, long-term reliability.
-  Compatible with LiFePO4 batteries.

PRODUCT CONNECTION DIAGRAM



Model	HVM - 122008	HVM -243208
Rated Power	1.6KW	3.2KW
Line Mode Specifications		
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	
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	Circuit Breaker	
Efficiency (Line Mode)	>95%(Rated R load, battery full charged)	
Transfer Time	10ms typical (UPS);20ms typical (Appliances)	
Output power derating: When AC input voltage drops to 170V the output power will be derated.		
Inverter Mode Specifications		
Output Voltage Waveform	Pure Sine Wave	
Output Voltage Regulation	230Vac ±5%	
Output Frequency	50Hz	
Peak Efficiency	0.94	
Overload Protection	5s@≥150% load; 10s@110%~150% load	
Surge Capacity	2* rated power for 5 seconds	
Nominal DC Input Voltage	12Vdc	24Vdc
Cold Start Voltage	11.5Vdc	23.0Vdc
Low DC Warning Voltage @ load < 50% @ load ≥ 50%	11.0Vdc 10.5Vdc	22.0Vdc 21.0Vdc
Low DC Warning Return Voltage @ load < 50% @ load ≥ 50%	11.5Vdc 11.0Vdc	22.5Vdc 22.0Vdc
Low DC Cut-off Voltage @ load < 50% @ load ≥ 50%	10.2Vdc 9.6Vdc	20.5Vdc 20.0vdc
High DC Recovery Voltage	15.5Vdc	32Vdc
High DC Cut-off Voltage	16.5Vdc	33Vdc
No Load Power Consumption	<25W	<35W
Charge Mode Specifications		
Charging Algorithm	3-Step	
AC Charging Current (Max)	60 Amp(@VP=230Vac)	
Flooded Battery	14.6	29.2
AGM /Gel Battery	14.1	28.2
Floating Charging Voltage	13.5Vdc	27Vdc
MPPT Solar Charging Mode		
INVERTER MODEL	1.6KW-12V	3KW-24V
Max. PV Array Power	1600W	3000W
Nominal Pv Voltage	240Vdc	
PV Array MPPT Voltage Range	30~430Vdc	
Max.PV Array Open Circuit Voltage	450Vdc	
Max Charging Current (AC charger plus solar charger)	80Amp	
General Specifications		
Safety Certification	CE	
Operating Temperature Range	-10°C to 50°C	
Storage temperature	-15°C~ 60°C	
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Dimension(D*W*H), mm	405x303x107	
Net Weight, kg	6.18	