

HVM-Series

Hybrid Solar Inverter

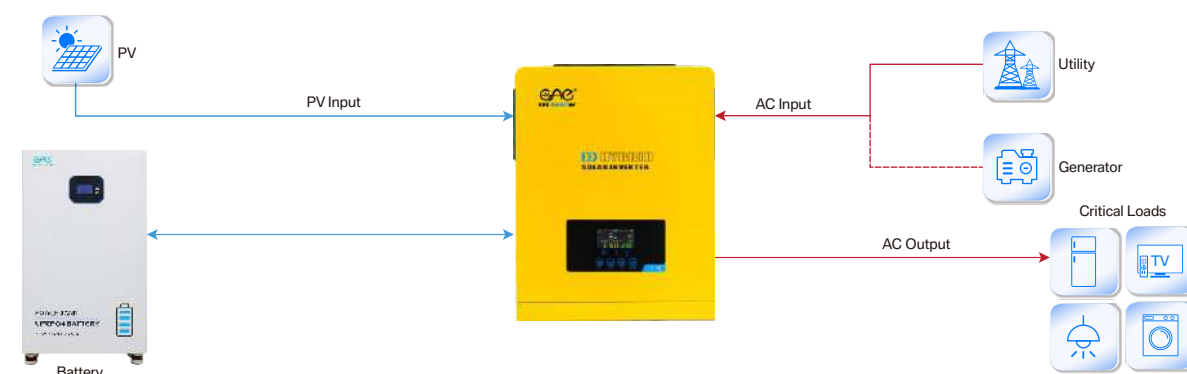


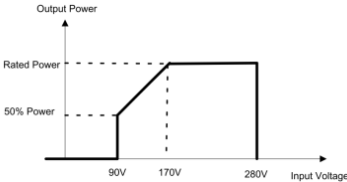
The HVM Series is a professional hybrid solar inverter charger for backup, off-grid, and energy storage systems. It features pure sine wave output, 1.6KW / 3.2KW rated power, 2X rated power surge (5s), ≤10ms UPS transfer, supports both AC and solar charging (combined 80A max), compatible with lead-acid 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	11.0Vdc	22.0Vdc	
@ load < 50%	10.5Vdc	21.0Vdc	
@ load ≥ 50%			
Low DC Warning Return Voltage	11.5Vdc	22.5Vdc	
@ load < 50%	11.0Vdc	22.0Vdc	
@ load ≥ 50%			
Low DC Cut-off Voltage	10.2Vdc	20.5Vdc	
@ load < 50%	9.6Vdc	20.0Vdc	
@ load ≥ 50%			
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		