

SMART  
VOLTAGE  
CONTROL

# OFF-GRID SOLAR INVERTER SMART VMH 3K / 5KVA SERIES



Refrigerator



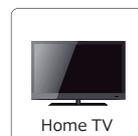
Home Printing



Light



Air Conditioner



Home TV



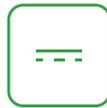
Microwave Oven

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The SMART VMH series is an integrated control machine of pure sine wave high-frequency solar inverter. The controller adopts advanced MPPT calculation method and intelligent battery management to ensure the maximum energy acquisition. With a wide PV input range, the inverter can be carried without battery when the energy is sufficient. It has the advantages of high-power density, simple operation, high overall efficiency, and small no-load loss. The inverter integrates the 3-in-1 function of solar energy, mains power and battery, which can be used for lighting, computers, televisions and other household appliances and electric tools, as well as small-scale industrial electrical equipment.



Battery Voltage  
24V/48V



Wide AC input range  
170-280Vac/90-280Vac



Wide Frequency  
50Hz/60Hz



MFD Function  
(Multi-function Display)

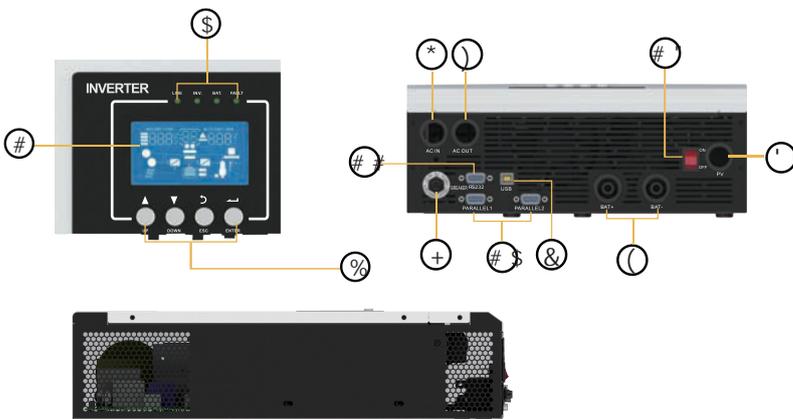


3 Steps smart  
battery charging



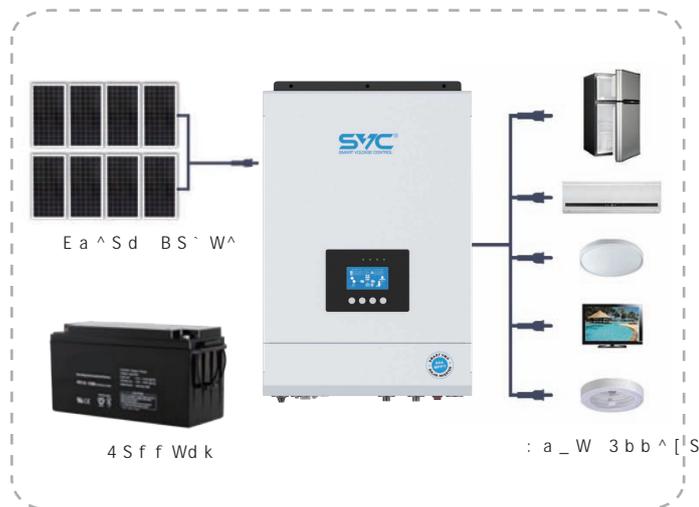
Multi protection

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1. LCD Display
2. Status Indicators
3. Setting Button
4. USB Interface
5. PV In
6. External Battery Connectors
7. AC Output
8. AC Input
9. Input Circuit Breaker
10. Power Switch
11. RS232
12. Parallel Communication Port (Only for Parallel Model)

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- Pure sine wave output
- 450V wide PV circuit voltage can work for the load without battery connected (when the energy is sufficient)
- Built in MPPT solar controller
- Configurable AC/Solar input priority and output priority via LCD settings.
- Wide and selectable AC input voltage range
- Multiple protections of battery over discharge, overload, over temperature, short circuit
- Automatically turn on after the mains is restored.
- Cold start function
- USB and RS232 monitoring functions

MODEL	Smart VMH 3024	Smart VMH 3048	Smart VMH 5048
Rated Capacity	3000VA/3000W		5000VA/5000W
<b>INPUT</b>			
Input Format	L+N+PE		
Rated Input Voltage	208/220/230/240VAC		
Voltage Range	170~280VAC(For Personal Computers); 90~280VAC(For Home Appliances)		
Frequency Range	50Hz/60Hz(Auto Sensing)		
<b>OUTPUT</b>			
Output Format	L+N+PE		
Rated Output Voltage	208/220/230/240VAC±5%		
Output Frequency	50/60Hz±0.1%		
Waveform	Pure Sine Wave		
Transfer Time	10ms(For Personal Computers) 10ms(For Home Appliances)		
Peak Power	6000VA	6000VA	10000VA
Overload Capacity	Battery Mode: 1min@102%~110% Load 3s@130%~150% Load		10s@110%~130%Load 200ms@>150% Load
Peak Efficiency (Battery Mode)	>93%	>94%	>94%
<b>BATTERY</b>			
Rated Voltage	24 VDC	48 VDC	48 VDC
Constant Charging Voltage (Can Be Set)	28.2 VDC	56.4 VDC	56.4 VDC
Float Charging Voltage (Can Be Set)	27 VDC	54 VDC	54 VDC
<b>SOLAR CHARGER &amp; AC CHARGER</b>			
Solar Charger Type	MPPT	MPPT	MPPT
PV Maximum Input Power	4000W	4000W	5500W
MPPT Tracking Range	120~430 VDC	120~430 VDC	120~430 VDC
Maximum PV Input Voltage	450 VDC	450 VDC	450 VDC
Maximum PV Charge Current	80 A	80 A	80 A
Maximum Mains Charging Current	60 A	60 A	80 A
Maximum Charging Current	80 A	80 A	80 A
<b>COMMUNICATION INTERFACE</b>			
RS232	5PIN/Pitch2.0mm Baud Rate 2400		
Expansion Slot Communication Interface	2×5PIN/Pitch2.54mm Lithium Battery BMS Communication Card, WIFI Card, Dry Contact card, Etc.		
Parallel Interface	No Parallel		With Parallel
<b>Environmental Parameters</b>			
Operating Ambient Temperature	0~40℃		
Operating Environment Humidity	20%~95% Non-Condensing		
Storage Temperature	-15~60℃		
Altitude	Altitude Should Not Exceed 1000m, Derating Above 1000m, Maximum 4000m, Refer to IEC62040		
Noise	50 db		
<b>PHYSICAL PARAMETERS</b>			
D×W×H(mm)	110×300×450		
Weight (for Reference)	7kg	7kg	7.8kg
<b>STANDARDS</b>	EN-IEC 60335-1, EN-IEC 60335-2-29, IEC 62109-1		