

Product Introduction

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

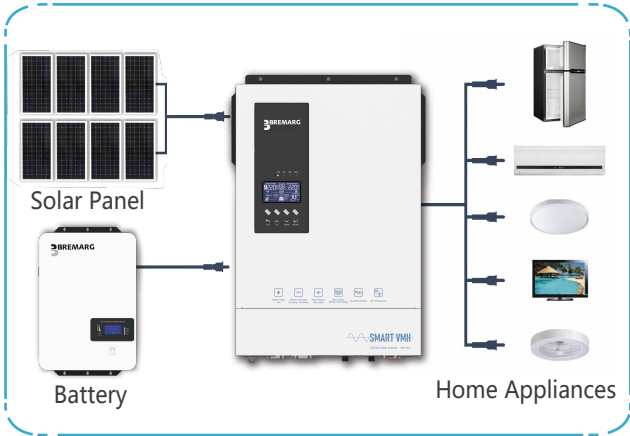
Work Without
Battery

MFD Function
(Multi-function Display)

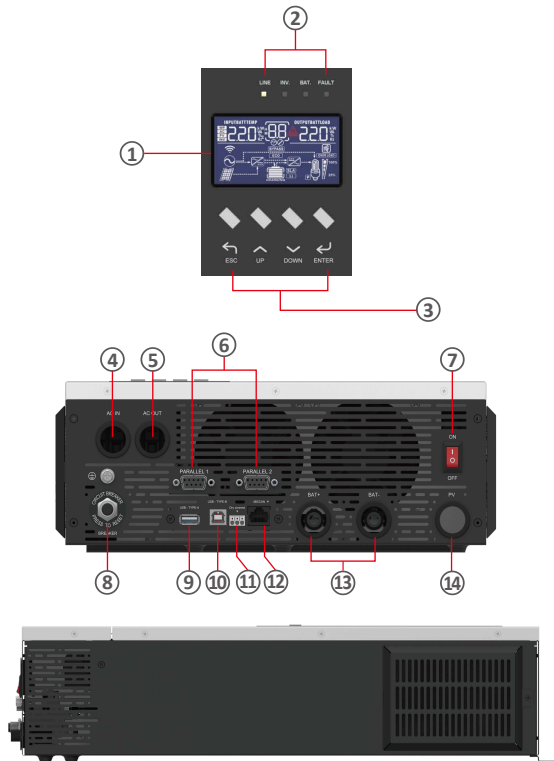
WIFI and
Bluetooth

Work Without Battery : When the AC state or PV energy is sufficient, it can work without connecting the battery with load, which can reduce the cost of the solar system.

Solar System Connection



Product Description



1. LCD Display
 2. Status Indicators
 3. Setting Button
 4. AC Input
 5. AC Output
 6. Parallel Communication Port(Optional)
 7. Power Switch
 8. Input Circuit Breaker
9. USB-TYPE-A (WIFI/GPRS)
 10. USB-TYPE-B (USB Serial Port)
 11. Dry contact
 12. RS485/CAN
 13. External Battery Connectors
 14. PV In

Main Features

- Pure sine wave output, Work without Battery
- 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 monitoring function
- WIFI and Bluetooth intelligent monitoring function, support mobile APP to view various data (optional)
- Selectable charging for different types of battery via LCD setting
- Built-in or external WIFI and Bluetooth.

Model No	VMH-3024	VMH-5048	VMH-10048
Output			
Rated Output Power	3KVA/3KW	5KVA/5KW	10KVA/10KW
Output Format	L+N+PE	L+N+PE	L+N+PE
Rated Output Voltage	208/220/230/240 VAC ± 5%		
Output Frequency	50/60Hz ± 0.1%		
Waveform	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
Peak Power	6000VA	10000VA	20000VA
Overload Capacity	Battery Mode: 1min@ 102%~110% Load ; 10s@110%~130%Load; 3s@130%~150% Load ; 200ms@>150% Load		
Peak Efficiency (Battery Mode)	>94%	>94%	>93%
Transfer Time	10ms	10ms	10ms
AC Input			
Input Format	L+N+PE	L+N+PE	L+N+PE
Rated Input Voltage	208/220/230/240VAC		
Input Voltage Range	170–280VAC(For PC):90–280VAC(For Home Appliances)		
Input Frequency	50/60Hz(Auto Sensing)		
PV Input			
Solar Charging Type	MPPT	MPPT	MPPT
PV Max. Input Power	4000W	5500W	11000W
MPPT Tracking Voltage Range	120–430 VDC	120–430 VDC	120–430VDC
Max. PV Input Voltage	450 VDC	450 VDC	450 VDC
Max. PV Charging Current	120A	80A	80A+80A
Max. Charging Current	120A	80A	80A+80A
Battery			
Rated Voltage	24VDC	48VDC	48VDC
Battery Type	Li-ion/ Lead-Acid		
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
Product General Data			
Communication Interface	USB/RS485/CAN/DRY CONTACT		
Expansion slot communication interface	WiFi (Optional)		
Display	LED Screen	LED Screen	LED Screen
Parallel Interface	N/A	Yes	N/A
Operation Environment Temperature	0~50℃	0~50℃	0~50℃
Storage Environment Temperature	–15~60℃	–15~60℃	–15~60℃
Environment Humidity	20%–95% (Non–condensing)		
Operation Altitude	<2000m	<2000m	<2000m
Cooling Mode	Active Cooling	Active Cooling	Active Cooling
Noise Emission	<50db	<50db	< 50db
Dimension(W*H*D)(mm)	300*450*110	300*450*110	480*620*145
Weight (kg)	7	7.8	16
Safety Standard	IEC62368–1		