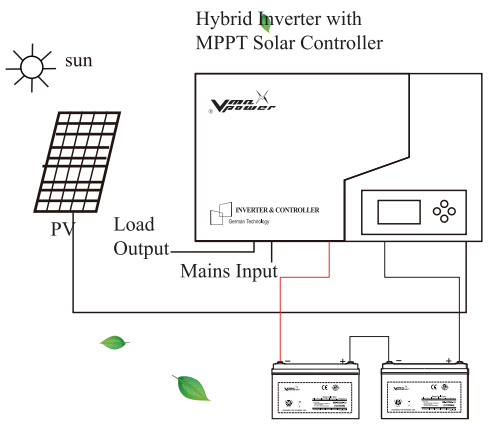
Hybrid Inverter with MPPT Solar Controller



System Introduction

Hybrid Inverter with Charger and MPPT Solar Charge Controller System is a set of battery charging and discharging control, PV mains switch control and inverter control in one multifit functional integrated system, mainly including PV array, grid, battery, hybrid off-grid inverter and the AC load, PV array absorption of solar radiation. It can translate into electrical energy to provide power for the entire system, with the utility power switching and inverting control functions, and also could convert DC power from the battery to supply power for AC loads.

The system priority mode is solar mode. PV controller and grid charger achieve the intelligent battery-charging control. The inverter convert DC power into AC power for load power supply, and automatically controls the start and stop of the grid charger when necessary, which is the best choice for using solar energy and sustained power demand. It's the preferred solution to solve the public grid or residents' daily electricity consumption in underdeveloped areas.

Internal Structure

Hybrid inverters include solar chargers, grid chargers, inverters, and controllers, and use a common DC bus mode to incorporate the outputs of batteries, solar chargers, grid chargers and inverters into the DC bus. Meanwhile, the DC bus is the battery's charging current path, and solar charging takes precedence over the grid.

Product Features

- Independent patent technology MPPT control algorithm, max MPPT tracking efficiency ≥99%. Modular design, high power density.
- High frequency isolation method, significantly reducing product dimensions and weight.
- High conversion efficiency, low temperature rise, low noise.
- Independent patent technology to run and control automatically.
- Complete system protection mechanism, and high reliability.
- Intelligent air cooling design, effective solution to the system cooling, improving the efficiency of the system.
- Key parts mainly adopt international well-known brands, ensure security and reliability.
- Well user experience, user-friendly man-machine interface, easy to operate.
- Support RS485 communication, remote monitoring.
- Wide array input voltage range and power input voltage range.
- Feature-rich, stable and reliable, with high cost performance.

Technical Data

Type(unit)		SuninvM 500	SuninvM 1000	SuninvM 1500	SuninvM 2000	SuninvM 3000	SuninvM 4000	SuninvM 5000	SuninvM 8000	SuninvM 10000
Rated Power		500W	1000W	1500W	2000W	3000W	4000W	5000W	8000W	10000W
PV Adaptation Models		The whole series can offer optional PV charging								
PWM Controller(Optional)		12V40A	12V60A	24V50A	24V60A	48V60A	48V60A	48V80A	48V100A	96V 100A
PWM PV Input Range		16-50V	16-50V	30-50V	30-50V	60-100V	60-100V	60-100V	60-100V	60-100V
MPPT Controller		·	·	·	24V30A	48V 60A	48V 60A	48V 80A	48V 100A	96V 100A
MPPT Voltage Input Range					MPPT: 50 - 150V					
Input	Voltage	AC165-275V/AC85-135V								
	Frequency	50Hz/60Hz								
Output	Voltage	220/230/240V/110/115/120V								
	Frequency	50HZ-60HZ(Optional)								
	Wave	Sine Wave								
	Distortion Factor	＜3%								
	Efficiency	＞85%								
Battery	Type	Optional								
	Rated Voltage	DC12V			DC24V			DC48V		
	Charging Current	0-30A Optional								
Protection		Over temperature, overload, short circuit, battery with low voltage, battery with high voltage, AC input high voltage/low voltage protection								
Working Model		Normal and Energy Saving								
Transform Time		＜10ms								
Load Capacity		100%-120% 30s protection，125%-140% 15s protection，> 150% 5s protection								
Operating Environment	Temperature	0-50℃								
	Humidity	10%-90% Non-condensing								