

Product Characteristic

- Pure sine wave
- High Efficiency/Energy Saving
- Low self-Consumption below 1.2A.It can reach zero at energy saving mode.
- Make sure the load capacity is above 200W or the inverter can not be restarted automatically
- Leading energy saving technology
- With the AVR function.AC voltage fluctuation can keep within +-5%
- Extreme overload capacity and super load capacity
- Working appliance:air-conditioners.refrigerators.water pumps.TV.Light.fans and other household appliances and office appliances etc.
- Durable LF transformer technology design.it is suitable for the poor working conditions or theplaces where the grid power is not stable
- DC reverse polarity protection

Performance Characteristic

- CPU Technology control
- Large charging current would be up to 70Amp.
- Intelligent LED display :grid power battery.AC output .fault .saving .low voltage .charging. charging current . battery capacity.
- Intelligent battery management for maximum battery life .
- Automatically switch between the grid and inverter mode .
- Transfer time is below 4 mins if the grid power is cut off .
- 220V/110V AC and 50/60Hz is optional .
- It can work with the generator .
- Intelligent fan control mode.The fan work at temperature $\geq 30^{\circ}\text{C}$.
- The inverter will protect itself at temperature $\geq 100^{\circ}\text{C}$

LCD Display Data

Input/Output voltage	Output Power	Battery Voltage	Charge current	Input Frequency	Charge current setting
Language Version :	Discharging Protection Voltage Setting	Battery Capacity setting	Battery type setting	Solar Prior Grid prior setting	Energy saving

Communication Data

Current	Rated power of load	Input/output voltage	Frequency
Battery capacity	Temperature	Remote control operation	Record of history data

Technical Data Solar AC

AC output Load	Solar AC 500W	Solar AC 800W	Solar AC 1000W
Nominal AC voltage	220V/200-240V	220V/200-240V	220V/200-240V
Optional 220V/120V	120V/105V-132V	120V/105V-132V	120V/105V-132V
Nominal AC frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Continuous AC power for 3 hours 25°C	500W	800W	1050W
Continuous AC power 25°C	500W	800W	1000W
Nominal AC current/ Max.AC current(peak)	2.28A/6.81A 1ms 4.15A/12.5A 1ms	3.63A/10.9A 1ms 6.66A/20A 1ms	4.55A/13.63A 1ms 8.34A/24.9A 1ms
THD output voltage	$\leq 3\%$	$\leq 3\%$	$\leq 3\%$
Power Factor	1.0	1.0	1.0
AC input (generator or grid)			
AC input voltage/range	220V/165-270V 120V/105V-132V	220V/165-270V 120V/105V-132V	220V/165-270V 120V/105V-132V
AC input frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Battery DC input			
Battery voltage/range	12V/10-16V	12V/10-16V	12V/10-16V
Optional	24V/20-32V 48V/40-64V	24V/20-32V 48V/40-64V	24V/20-32V 48V/40-64V
Max.battery charging current/continuous charging current at 25°C	30A/10-30A	30A/10-30A	30A/10-30A
Battery type/Battery Capacity	Lead acid 100-1000Ah	Lead acid 100-1000Ah	Lead acid 100-1000Ah
Charge control mode	3 stage	3 stage	3 stage
Efficiency/Self-consumption			
Max.efficiency	>90%	>90%	>90%
Self-consumption with no load	0.5A	0.6A	12W
Self-consumption with no load /standby/for LCD type only	0.1A	0.1A	5W
Full intellectual protection			
	Over voltage/over charge/AC short circuit/overload/battery discharge voltage/battery over voltage/overtemperature/over current/overheat protection/ dc polarity label		
Transfer time	$\leq 4\text{ms}$		
Dimension(L×W×H)	350×160×290mm	350×160×290mm	350×160×290mm
Net Weight kg	15	17	19
Operating temperature range	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C
Degree of protection according to IEC60529	IP20	IP20	IP20
Noise emission typical	$\leq 30\text{dB (1M)}$	$\leq 30\text{dB (1M)}$	$\leq 30\text{dB (1M)}$
Permissible value for relative humidity	0% ~ 95%	0% ~ 95%	0% ~ 95%
Accessories			
DC terminal	Anderson connector	Anderson connector	Anderson connector
AC terminal	Europe terminal	Europe terminal	Europe terminal
Warranty	2year	2year	2year
Certificate	CE/ISO9001	CE/ISO9001	CE/ISO9001
Instruction Manual	yes	yes	yes
Optional Function			
Battery Cable	Optional	Optional	Optional
Interface USB/RS232	Optional	Optional	Optional
SNMP Card	Optional	Optional	Optional
Software CD	Optional	Optional	Optional
Internet monitor	Optional	Optional	Optional
Remoted control	Optional	Optional	Optional
DC reverse polarity protection	Optional	Optional	Optional
Automatically restart after cut off	Optional	Optional	Optional
Split phase 220V/110V± 5%:output	Optional	Optional	Optional
Alarm at inverter mode/silence	Optional	Optional	Optional
LCD Display	Optional	Optional	Optional

Technical Data Solar AC

AC output Load	Solar AC 1500W	Solar AC 2000W
Nominal AC voltage	220V/200-240V	220V/200-240V
Optional 220V/120V	120V/105V-132V	120V/105V-132V
Nominal AC frequency	50Hz/60Hz	50Hz/60Hz
Continuous AC power for 3 hours 25°C	1500W	2100W
Continuous AC power 25°C	1500W	2000W
Nominal AC current/ Max.AC current(peak)	6.85A/20.45A 1ms 12.50A/37.55A 1ms	9.10A/27.28 1ms 16.67A/50A 1ms
THD output voltage	≤3%	≤3%
Power Factor	1.0	1.0
AC input (generator or grid)		
AC input voltage/range	220V/165-270V 120V/105V-132V	220V/165-270V 120V/105V-132V
AC input frequency	50Hz/60Hz	50Hz/60Hz
Battery DC input		
Battery voltage/range	12V/10-16V	12V/10-16V
Optional	24V/20-32V 48V/40-64V	24V/20-32V 48V/40-64V
Max.battery charging current/continuous charging current at 25°C	30A/10-30A	30A/10-30A
Battery type/Battery Capacity	Lead acid 100-1000Ah	Lead acid 100-1000Ah
Charge control mode	3 stage	3 stage
Efficiency/Self-consumption		
Max. efficiency	>90%	>90%
Self-consumption with no load	15W	20W
Self-consumption with no load /standby/for LCD type only	5W	5W
Full intellectual protection		
	Over voltage/over charge/AC short circuit/overload/battery discharge voltage/battery over voltage/overtemperature/over current/overheat protection/ dc polarity label	
Transfer time	≤ 4ms	≤ 4ms
Dimension(L×W×H) mm	440×305×200	440×305×200
Net Weight KG	21	23
Operating temperature range	20°C ~ 45°C	20°C ~ 40°C
Degree of protection according to IEC60529	IP20	IP20
Noise emission typical	≤30dB (1M)	≤30dB (1M)
Permissible value for relative humidity	0% ~ 95%	0% ~ 95%
Accessories		
DC terminal	Anderson connector	Anderson connector
AC terminal	Europe terminal	Europe terminal
Warranty	2year	2year
Certificate	CE/ISO9001	CE/ISO9001
Instruction Manual	yes	yes
Optional Function		
Battery Cable	Optional	Optional
Interface USB/RS232	Optional	Optional
SNMP Card	Optional	Optional
Software CD	Optional	Optional
Internet monitor	Optional	Optional
Remoted control	Optional	Optional
DC reverse polarity protection	Optional	Optional
Automatically restart after cut off	Optional	Optional
Split phase 220V/110V+-5%:output	Optional	Optional
Alarm at inverter mode/silence	Optional	Optional
LCD Display	Optional	Optional

AC output Load	SolarAC 3000W	SolarAC 4000W
Nominal AC voltage	220V/200-240V	220V/200-240V
Optional 220V/120V	120V/105V-132V	120V/105V-132V
Nominal AC frequency	50Hz/60Hz	50Hz/60Hz
Continuous AC power for 3 hours 25°C	3000W	4200W
Continuous AC power 25°C	3000W	4000W
Nominal AC current/ Max.AC current(peak)	13.64A/40.91A 1ms 25.0A/75.0A 1ms	18.55A/54.63A 1ms 33.33A/99.99A 1ms
THD output voltage	≤3%	≤3%
Power Factor	1.0	1.0
AC input (generator or grid)		
AC input voltage/range	220V/165-270V 120V/105V-132V	220V/165-270V 120V/105V-132V
AC input frequency	50Hz/60Hz	50Hz/60Hz
Battery DC input		
Battery voltage/range	12V/10-16V	24V/20-32V
Optional	24V/20-32V 48V/40-64V	48V/40-64V
Max.battery charging current/continuous charging current at 25°C	30A/10-30A/50A	30A/10-30A/50A
Battery type/Battery Capacity	Lead acid 100-1000Ah	Lead acid 100-1000Ah
Charge control mode	3 stage	3 stage
Efficiency/Self-consumption		
Max. efficiency	>90%	>90%
Self-consumption with no load	35W	42W
Self-consumption with no load /standby/for LCD type only	5W	5W
Full intellectual protection		
	Over voltage/over charge/AC short circuit/overload/battery discharge voltage/battery over voltage/overtemperature/over current/overheat protection/ dc polarity label	
Transfer time	≤ 4ms	≤ 4ms
Dimension(L×W×H) mm	440×305×200	440×305×200
Net Weight	25	27
Operating temperature range	20°C ~ 45°C	20°C ~ 40°C
Degree of protection according to IEC60529	IP20	IP20
Noise emission typical	≤30dB (1M)	≤30dB (1M)
Permissible value for relative humidity	0% ~ 95%	0% ~ 95%
Accessories		
DC terminal	Anderson connector	Anderson connector
AC terminal	Europe terminal	Europe terminal
Warranty	2year	2year
Certificate	CE/ISO9001	CE/ISO9001
Instruction Manual	yes	yes
Optional Function		
Battery Cable	Optional	Optional
Interface USB/RS232	Optional	Optional
SNMP Card	Optional	Optional
Software CD	Optional	Optional
Internet monitor	Optional	Optional
Remoted control	Optional	Optional
DC reverse polarity protection	Optional	Optional
Automatically restart after cut off	Optional	Optional
Split phase 220V/110V+-5%:output	Optional	Optional
Alarm at inverter mode/silence	Optional	Optional
LCD Display	Optional	Optional

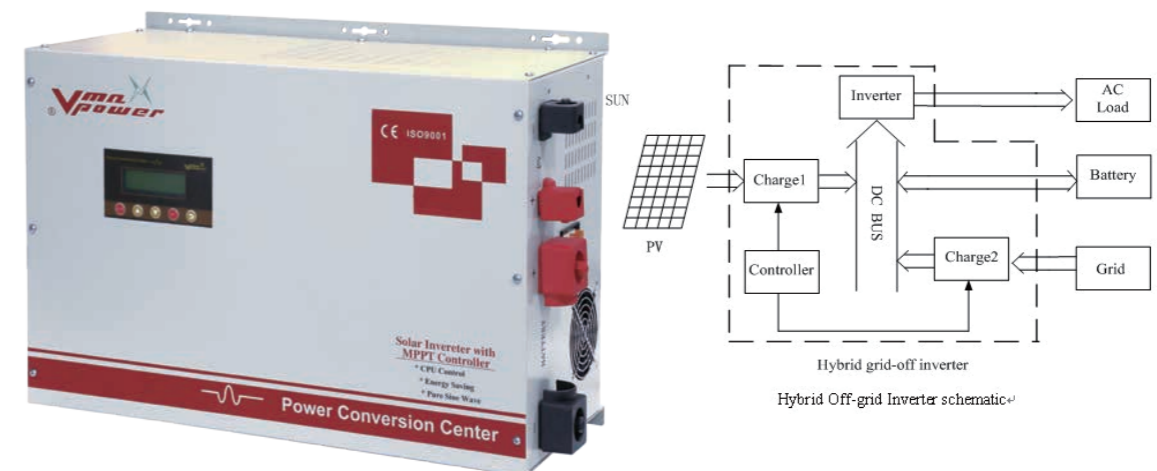
Technical Data SolarAC

AC output Load	SolarAC 5000W	SolarAC 6000W
Nominal AC voltage	220V/200-240V	220V/200-240V
Optional 220V/120V	120V/105V-132V	120V/105V-132V
Nominal AC frequency	50Hz/60Hz	50Hz/60Hz
Continuous AC power for 3 hours 25°C	5000W	6000W
Continuous AC power 25°C	5000W	6000W
Nominal AC current/ Max.AC current(peak)	22.78A/68.18A 1ms 41.67A/125.00A 1ms	27.28A/81.81 1ms 50A/150A 1ms
THD output voltage	≤3%	≤3%
Power Factor	1.0	1.0
AC input (generator or grid)		
AC input voltage/range	220V/165-270V 120V/105V-132V	220V/165-270V 120V/105V-132V
AC input frequency	50Hz/60Hz	50Hz/60Hz
Battery DC input		
Battery voltage/range	24V/20-32V Optional 48V/40-64V	48V/40-64V
Max.battery charging current/continuous charging current at 25°C	30A/10-30A	30A/10-30A
Battery type/Battery Capacity	Lead acid 100-1000Ah	Lead acid 100-1000Ah
Charge control mode	Lead acid 100-1000Ah	Lead acid 100-1000Ah
Efficiency/Self-consumption		
Max. efficiency	>90%	>90%
Self-consumption with no load	45W	50W
Self-consumption with no load /standby/for LCD type only	5W	5W
Full intellectual protection		
	Over voltage/over charge/AC short circuit/overload/battery discharge voltage/battery over voltage/overtemperature/over current/overheat protection/ dc polarity label	
Transfer time	≤ 4ms	≤ 4ms
Dimension(L×W×H)	440×305×200	440×305×200
Net Weight(KG)	32	35
Operating temperature range	0°C ~ 45°C	0°C ~ 45°C
Degree of protection according to IEC60529	IP20	IP20
Noise emission typical	≤30dB (1M)	≤30dB (1M)
Permissible value for relative humidity	0% ~ 95%	0% ~ 95%
Accessories		
DC terminal	Anderson connector	Anderson connector
AC terminal	Europe terminal	Europe terminal
Warranty	2year	2year
Certificate	CE/ISO9001	CE/ISO9001
Instruction Manual	yes	yes
Optional Function		
Battery Cable	Optional	Optional
Interface USB/RS232	Optional	Optional
SNMP Card	Optional	Optional
Software CD	Optional	Optional
Internet monitor	Optional	Optional
Remoted control	Optional	Optional
DC reverse polarity protection	Optional	Optional
Automatically restart after cut off	Optional	Optional
Split phase 220V/110V+-5%.output	Optional	Optional
Alarm at inverter mode/silence	Optional	Optional
LCD Display	Optional	Optional

Solar/Grid Hybrid Inverter with Charger AND MPPT Solar charge controller

1.System Introduction

Solar/Grid 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 multi functional integrated system, mainly including PV array, grid, battery, hybrid off-grid inverter and the AC load, PV array absorption of solar radiation and translate into electrical energy to provide power for the entire system, utility power switchover and Inverting control function, also could converting DC power from battery to supply power for AC loads. System Priority mode is PV mode. PV controller and Grid charger achieves the intelligent battery -charging control. The inverter inverts the DC to AC for the load power supplying ;and automatic control the start-stop of Grid charger if needed.the best to use the solar energy and the continuous demand of electricity. It's the preferred solution to solve the public grid or less developed areas residents daily electricity



2.Internal structure

Hybrid Inverter including PV Charger,Grid Charger, Inverter and Controller, using a common DC Bus mode, as the output of Battery, PV Charger, Grid Charger and Inverter merge into DC Bus. Meanwhile, DC Bus is battery's charging current path, and PV charging is priority than Grid

Product Features:

- Independent patent technology MPPT control algorithm, Max MPPT tracking efficiency ≥99%;
- Modular design, high power density;
- With high frequency isolation method, significantly reduce product dimensions and weight;
- High conversion efficiency, low temperature rise, low noise;
- With 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, improve 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.