EPEVER
EPSOLAR TECHNOLOGY

NPower series
Pure Sine Wave Inverter

Overview

NPower series is a kind of pure sine wave inverter which can convert 12/24/48VDC to 220/230Vac.It is based on full digital and intelligent design, it adopts the advanced SPWM technology, voltage and current double closed-loop controlled and completely isolated inverter technology, such as to ensure the product with high quality electrical parameters, the stronger ability to resist impact load, the input surge prevention design at the same time.meet the special requirements of lithium battery surge limit, to ensure the safety and function of the inverter running and reliable.

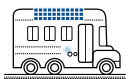
The case is designed with galvanized board,which has the advantages of high strength and corrosion resistance.

This product has the characteristics of high reliability, high efficiency, simple appearance, complete protection function, easy installation and easy operation. It is suitable for AC load of household appliances,power tools, industrial equipment, electronic audio and video and solar photovoltaic power generation system, such as vehicle inverter application system, solar RV, solar household, solar yacht and solar power station.



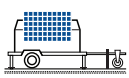
Features

- Adoption of advanced SPWM technology, pure sine wave output
- Adopt voltage and current double closed-loop control to enhance the load capacity
- The input and output adopt completely isolated inverter technology with high reliability
- The input adopts anti-surge design to meet the special requirements of surge limitation of the lithium battery and avoid dangerous surge current generated by connection of startup.
- Low output harmonic distortion(THD≤3%)
- The output adopts excellent EMC design to prevent interference of connected equipment
- Output voltage 220/230VAC and frequency 50/60Hz optional
- Extensive protections: input reverse polarity, input overvoltage, input low voltage, output overload and short circuit, overheating.
- RS485 port can connect the communication module, realize remote start/stop inverter and monitor the running status via the APP or PC software.
- Set the input low voltage and low voltage reconnect voltage via the APP or PC software
- Set the inverter's ID via the APP or PC software to monitor several inverters.
- The case is designed with the galvanized board, with high strength and strong corrosion resistance
- Chinese dual socket, Australia/New Zealand, European, Terminal selectable
- Easy maintenance and repair


Solar Car


Solar Home


Solar Boat


Solar Power Generator

Technical Specifications

Item	NP260-12	NP260-22	NP400-12	NP400-22	NP600-12	NP600-22	NP800-12	NP1000-22	NP1200-12	NP1200-22
Output Continuous Power	260W@25℃；260W@45℃		400W@25℃；350W@45℃		600W@25℃； 500W@45℃		800W@25℃；800W@45℃	1000W@25℃；800W@45℃	1200W@25℃；1000W@45℃	
Surge Power	400W		700W		1000W		1600W	1600W	2000W	
Output Voltage	220/230V (-8%~+3%)	220/230V (±3%)	220/230V (-8%~+3%)	220/230V (±3%)	220/230V (-8%~+3%)	220/230V (±3%)	220/230V (-8%~+3%)	220/230V (±3%)	220/230V (-8%~+3%)	220/230V (±3%)
Output Frequency	50/60±0.2%									
Output Wave	Pure Sine Wave									
Output THD	THD⩽3%(Resistive load)									
Load Power Factor	0.2~1(VA⩽Continuous output power)									
Rated input voltage	12V	24V	12V	24V	12V	24V	12V	24V	12V	24V
Battery Input voltage range	10.8～16V	21.6～32V	10.8～16V	21.6～32V	10.8～16V	21.6～32V	10.8～16V	21.6～32V	10.8～16V	21.6～32V
output efficiency of80% rated power①	0.81	0.84	0.81	0.85	0.81	0.85	0.83	0.85	0.81	0.85
Max. Rated Efficiency②	0.79	0.82	0.79	0.84	0.8	0.83	0.81	0.82	0.78	0.84
Max. Efficiency③	89%(80W)	90%(100W)	90%(100W)	91%(100W)	89%(200W)	92%(160W)	92%(100W)	92%(200W)	92%(200W)	93%(300W)
No-load Current	＜0.4A	＜0.3A	＜0.5A	＜0.3A	＜0.6A	＜0.4A	＜0.6A	＜0.4A	＜0.6A	＜0.4A
RS485 Com. Port	5DC/200mA									
Mechanical Parameters										
Binding Post	Φ6mm		Φ6mm		Φ8mm		20*3mm(Rectangle)	20*3mm(Rectangle)	20*3mm(Rectangle)	
Overall dimension	365×212×97mm		386×215×99mm		428×243×121mm		475×268×139mm	475×268×139mm	511×268×139mm	
Mounting Dimension	220×193mm		230×196mm		260×220mm		270×245mm	270×245mm	300×245mm	
Mounting hole size	Φ7mm		Φ7mm		Φ9mm		Φ9mm	Φ9mm	Φ9mm	
Weight	6.34kg	6.24kg	6.24kg	7.86kg	10.32kg	10.08kg	13.22kg	12.64kg	15.64kg	15.28kg
Environmental parameters										
Working Temperature	-20℃～+45℃（Full load）									
Storage Temperature	-35℃~ +70℃									
Humidity	< 95%(N.C.)									
Enclosure	IP20									
Altitude	<5000m (Derating to operate according to IEC62040 at a height exceeding 1000m)									

①DC input voltage israted voltage, the load power is 80% of the continuous output power (25℃)
②DC input voltage israted voltage, the load power is as same as the continuous output power (25℃)
③DC input voltage israted voltage, max power with different load power.

Item	NP2000-12	NP2000-22	NP2000-42	NP2500-12	NP2500-22	NP2500-22	NP3000-22	NP3000-42	NP3500-42
Output Continuous Power	2000W@25℃；2000W@45℃			2500W@25℃；2500W@45℃			3000W@25℃；3000W@45℃		3500W@25℃；3500W@45℃
Surge Power	4000W			5000W			6000W		7000W
Output Voltage	220/230VAC(-5%~+3%)	220/230VAC(±3%)		220/230VAC(-8%~+3%)	220/230VAC(-6%~+3%)	220/230VAC(±3%)	220/230VAC(-5%~+3%)	220/230VAC(±3%)	220/230VAC(±3%)
Output Frequency	50/60Hz±0.2%								
Output Wave	Pure Sine Wave								
Output THD	THD≤5%(Resistive load)	THD≤3%(Resistive load)		THD≤5%(Resistive load)	THD≤3%(Resistive load)				
Load Power Factor	0.2~1(VA≤Continuous output power)								
Rated input voltage	12VDC	24VDC	48VDC	12VDC	24VDC	48VDC	24VDC	48VDC	48VDC
Battery Input voltage range	10.8～16VDC	21.6～32VDC	43.2～64VDC	10.8～16VDC	21.6～32VDC	43.2～64VDC	21.6～32VDC	43.2～64VDC	43.2～64VDC
output efficiency of 80% rated power	0.84	0.88	0.89	0.87	0.89	0.9	0.88	0.9	0.9
Max. Rated Efficiency	0.82	0.86	0.87	0.85	0.87	0.9	0.86	0.89	0.89
Max. Efficiency	90%(600W)	93%(500W)	93%(500W)	90%(700W)	93%(500W)	94%(800W)	94%(500W)	94%(900W)	93%(900W)
No-load Current	< 2.5A	< 0.6A	< 0.3A	< 3.0A	< 0.8A	< 0.5A	< 0.8A	< 0.5A	< 0.5A
RS485 Com. Port	5VDC/200mA		5VDC/200mA (Ioslation)	5VDC/200mA		5VDC/200mA (Ioslation)	5VDC/200mA	5VDC/200mA(Ioslation)	
Mechanical Parameters									
Binding Post	M10								
Overall dimension	554×393×170.5mm		486×313×145mm	594×393×170.5mm		539×328×170mm	639×393×175.5mm	584×328×170mm	564×353×175mm
Mounting Dimension	350×372mm		350×292mm	350×372mm		350×307mm	350×372mm	350×307mm	350×332mm
Mounting hole size	Φ9mm								
Weight	29.7kg	27.5kg	20.7kg	32kg	32.2kg	32.8kg	36.4kg	28.4kg	32.2kg
Environmental parameters									
Working Temperature	-20℃～+45℃（Full load）								
Storage Temperature	-35℃～+70℃								
Humidity	< 95%(N.C.)								
Enclosure	IP20								
Altitude	<5000m(Derating to operate according to IEC62040 at a height exceeding 1000m)								