NPower(260W-5000W)
Pure sine wave inverter

Overview

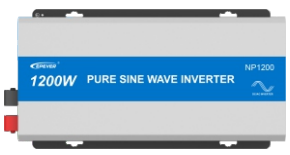
Npower series is a low-frequency pure sine wave inverter which can convert 12/24/48VDC to 220/230V AC (or 110V/120V AC) and power the AC loads.

Based on full digital intelligent design, it adopts technologies such as SPWM, voltage and current double closed-loop control, and fully isolated inversion. It features small input surge current, fast dynamic response, outstanding resistance to load impact, and reliable operation. Npower is also compatible with lithium battery power supply systems. Suitable for a wide range of AC loads including household appliances, power tools, industrial equipment, electronic audio and video devices, as well as solar photovoltaic power generation systems. It is also applicable in automotive inverter systems, solar-powered RVs, residential solar systems, solar-powered yachts, solar power plants, etc.

Features

- Pure sine wave output
- Input to output electrical isolation
- Full digital voltage and current double closed-loop control
- Input anti-surge design, suitable for lithium iron phosphate battery power supply systems
- Output power factor up to 1, capable of full load operation
- RS485 communication interface, optional 4G, WIFI modules, enabling remote monitoring
- External switch design, matched with EPEVER products, to expand inverter control function
- Input Protection: Low-voltage, Over-voltage, Reverse polarity protection
- Output Protection: Overload, Short circuit, Overheating
- EN/IEC62109-1/2, EN61000-6-2/4, and FCC approved
- Certified by international standards such as EMC and safety regulations

产品认证



Technical Specifications

Item	NP260-12	NP260-22	NP400-12	NP400-22	NP600-12	NP600-22	NP800-12	NP1000-22	NP1000-42	NP1200-12	NP1200-22	NP1500-12	NP1500-22
Continuous output power	260W@25℃, 200W@45℃		400W@25℃, 350W@45℃		600W@25℃, 500W@45℃		800W@45℃	1000W@45℃		1200W@25℃, 1000W@45℃		1500W@25℃, 1300W@45℃	1500W@45℃
Surge power(5S)	400W		700W		1000W		1600W	2000W		2000W		3000W	
Output voltage	220/230VAC (-8%~+3%)				220/230VAC (-8%~+3%)	220/230VAC (±3%)	220/230VAC (-8%~+3%)	220/230VAC (±3%)		220/230VAC (-8%~+3%)	220/230VAC (±3%)	220/230VAC (-5%~+3%)	220/230VAC (±3%)
Output frequency	50/60Hz±0.2%				50/60Hz±0.2%					50/60Hz±0.2%			
Output wave	Pure Sine Wave				Pure Sine Wave					Pure Sine Wave			
Output distortion THD	THD=3%(Resistive load)				THD=3%(Resistive load)					THD=3%(Resistive load)	THD=3%(Resistive load)	THD=5%(Resistive load)	THD=3%(Resistive load)
Load power factor	0.2~1(Load power = Continuous output power)				0.2~1(Load power = Continuous output power)					0.2~1(Load power = Continuous output power)			
Rated input voltage	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	48VDC	12VDC	24VDC	12VDC	24VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC
Output efficiency of 80% rated power①	81%	84%	81%	85%	81%	85%	83%	85%	90.80%	81%	85%	84%	88.50%
Max. rated efficiency②	79%	82%	79%	84%	80%	83%	81%	82%	89.40%	78%	84%	82%	87%
Max. output efficiency③	89%(80W)	90%(100W)	90%(100W)	91%(100W)	89%(200W)	92%(160W)	92%(100W)	92%(200W)	94.5%(300W)	92%(200W)	93%(300W)	90%(400W)	92%(500W)
Surge current when power on	20A@25℃ ,V_{IN}=12V	20A@25℃ ,V_{IN}=24V	20A@25℃ ,V_{IN}=12V	20A@25℃ ,V_{IN}=24V	20A@25℃ ,V_{IN}=12V	20A@25℃ ,V_{IN}=24V	20A@25℃ ,V_{IN}=12V	30A@25℃ ,V_{IN}=24V	30A@25℃ ,V_{IN}=48V	30A@25℃,V_{IN}=12V	30A@25℃ ,V_{IN}=24V	20A@25℃ ,V_{IN}=12V	20A@25℃ ,V_{IN}=24V
No-load current	＜0.4A	＜0.3A	＜0.5A	＜0.3A	＜0.6A	＜0.4A	＜0.6A	＜0.4A	＜0.19A	＜0.6A	＜0.4A	＜2.0A	＜0.5A
Static Loss	＜0.3W@12V	＜0.4W@24V	＜0.3W@12V	＜0.4W@24V	＜0.3W@12V	＜0.4W@24V	＜0.3W@12V	＜0.4W@24V	＜0.7W@48V	＜0.3W@12V	＜0.4W@24V	＜0.6W@12V	＜0.6W@24V
RS485 com. port	5VDC/250mA(Non-isolated)				5VDC/250mA(Non-isolated)				5VDC/300mA (Isolated)	5VDC/250mA(Non-isolated)		5VDC/300mA(Non-isolated)	
Mechanical parameters													
Input terminal	M6		M6		M8		M6		M8	M6		M10	
Dimension (L×W×H)	365×212×97mm		386×215×99mm		428×243×121mm		475×268×139mm		452x268x139	511×268×139mm		566×313×145mm	
Mounting size	220×193mm		230×196mm		260×220mm		270×245mm		270x245	300×245mm		350×292mm	
Mounting hole size	F7mm		F7mm		F9mm		F9mm		F9mm	F9mm		F9mm	
Net Weight	6.4kg	6.3kg	8.1kg	7.9kg	10.4kg	10.1kg	13.3kg	12.7kg	13.9kg	15.7kg	15.3kg	20.3kg	20.2kg
Environment temperature	-20℃~+45℃(All loads can work together at this environment temperature range)												
Storage temperature	-35℃~ +70℃												
Humidity	< 95%(N.C.)												
Enclosure	IP20												
Altitude	<5000m (Derating to operate according to IEC62040 at a height exceeding 1000m)												

① It means the output efficiency when the load power is 80% of the continuous output power under the rated DC input voltage. (25℃)

② It is measured in the condition of continuous output power and rated input voltage. (25℃)

③ It means the max. efficiency when the inverter is connected with different loads under the rated DC input voltage.

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Technical Specifications

Item	NP2000-12	NP2000-22	NP2000-42	NP2500-12	NP2500-22	NP2500-42	NP3000-22	NP3000-42	NP3500-42	NP4000-22	NP4000-42	NP5000-42
Continuous output power	2000W@45°C			2500W@45°C			3000W@45°C		3500W@45°C	4000W@45°C		5000W@45°C
Surge power(5S)	4000W			5000W			6000W		7000W	8000W		10000W
Output voltage	220/230VAC (-5%~+3%)			220/230VAC (-8%~+3%)	220/230VAC (-6%~+3%)	220/230VAC (±3%)	220/230VAC (-5%~+3%)	220/230VAC (±3%)	220/230VAC (±3%)	220/230VAC (±3%)		
Output frequency	50/60Hz±0.2%			50/60Hz±0.2%			50/60Hz±0.2%			50/60Hz±0.2%		
Output wave	Pure Sine Wave			Pure Sine Wave			Pure Sine Wave			Pure Sine Wave		
Output distortion THD	THD≤ 5%(Resistive load)	THD≤ 3%(Resistive load)	THD≤ 3%(Resistive load)	THD≤ 5%(Resistive load)	THD≤ 3%(Resistive load)	THD≤ 3%(Resistive load)	THD≤3%(Resistive load)			THD≤3%(Resistive load)		
Load power factor	0.2~1(Load power ≤ Continuous output power)			0.2~1(Load power ≤ Continuous output power)			0.2~1(Load power ≤ Continuous output power)			0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC	12VDC	24VDC	48VDC	24VDC	48VDC	48VDC	24VDC	48VDC	48VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC	21.6~32.0VDC	43.2~64.0VDC	43.2~64.0VDC	21.6~32.0VDC	43.2~64.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power①	84.50%	88%	89%	87%	89%	91.50%	88%	90%	90%	89%	91.50%	91.50%
Max. rated efficiency②	82%	86%	87%	85%	87%	90%	86%	89%	89%	86%	90%	90%
Max. output efficiency③	90%(600W)	93%(500W)	93%(500W)	90%(700W)	93%(500W)	94%(800W)	94%(500W)	94%(900W)	93%(900W)	93%(1400W)	94%(1000W)	94%(1400W)
Surge current when power on	20A@25°C ,V_{IN}=12V	20A@25°C ,V_{IN}=24V	20A@25°C ,V_{IN}=48V	20A@25°C ,V_{IN}=12V	20A@25°C ,V_{IN}=24V	20A@25°C ,V_{IN}=48V	20A@25°C ,V_{IN}=24V	20A@25°C ,V_{IN}=48V	20A@25°C ,V_{IN}=48V	20A@25°C ,V_{IN}=24V	30A@25°C ,V_{IN}=48V	30A@25°C ,V_{IN}=48V
No-load current	< 2.5A	< 0.6A	< 0.3A	< 3.0A	< 0.8A	< 0.5A	< 0.8A	< 0.5A	< 0.5A	< 2.5A	< 0.5A	< 0.5A
Static Loss	< 0.6W@12V	< 0.6W@24V	< 1.8W@48V	< 0.6W@12V	< 0.6W@24V	< 1.8W@48V	< 0.6W@24V	< 1.8W@48V	< 1.8W@48V	< 0.6W@24V	< 1.8W@48V	< 1.8W@48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)	5VDC/300mA(Non-isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)	5VDC/200mA(Isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)	5VDC/200mA(Isolated)
Mechanical parameters												
Input terminal	M10			M10			M10			M8(4P)	M10	M8(2P)
Dimension (L×W×H)	554×393×175mm		486×313×145mm	584×393×175mm	604×393×175mm	549×328×175mm	649×393×175mm	599×328×175mm	579×353×175mm	660×435×210mm	604×393×175mm	640×435×210mm
Mounting size	350×372mm		350×292mm	350×372mm	350×372mm	350×307mm	350×372mm	350×307mm	350×332mm	625×300mm	350×340mm	605×300mm
Mounting hole size	Φ9mm			Φ9mm			Φ9mm			Φ8.5mm	Φ9mm	Φ8.5mm
Net Weight	29.8kg	27.6kg	20.7kg	32.0kg	32.2kg	25.5kg	34.0kg	28.4kg	32.2kg	43.2kg	37.0kg	50.0kg
Environment temperature	-20°C~+45°C(All loads can work together at this environment temperature range)											
Storage temperature	-35°C~ +70°C											
Humidity	< 95%(N.C.)											
Enclosure	IP20											
Altitude	<5000m (Derating to operate according to IEC62040 at a height exceeding 1000m)											

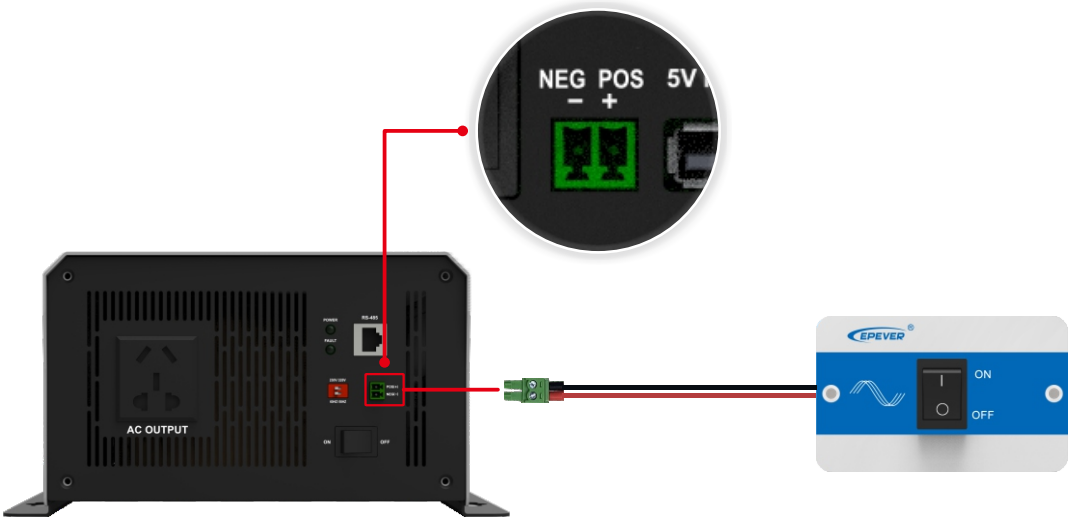
① It means the output efficiency when the load power is 80% of the continuous output power under the rated DC input voltage. (25°C)

② It is measured in the condition of continuous output power and rated input voltage. (25°C)

③ It means the max. efficiency when the inverter is connected with different loads under the rated DC input voltage.

Remote switch (optional accessory)

This remote switch enables you to remotely power the inverter on/off. It comes with a standard 6-meter switch cable and is compatible with NPower series products.



Connect the 3.81-2P green socket on the remote switch cable to the 3.81-2P green base on the product's side. Turn off the local toggle switch, and the remote switch will control the inverter's on/off.