



PURE SINE WAVE INVERTER

USER MANUAL



NP260; NP400;

NP600; NP800; NP1000

NP1200; NP1500; NP2000

NP2500; NP3000; NP3500

NP4000; NP5000

Contents

Important safety instructions	1
1 Overview	4
2 Characteristics	5
3 Naming rule.....	11
4 Connection diagram	13
5 Remote meter(Optional).....	15
5.1 Appearance	15
5.2 Status display	15
5.3 Buttons	16
5.4 LCD interface.....	16
5.5 Settings	16
5.6 Error code.....	17
6 Installation	18
6.1 Attentions.....	18
6.2 Wire size and circuit breaker	18
6.3 Mounting.....	20
7 Protections	27
8 Troubleshooting.....	29
9 Maintenance.....	30
10 Specifications	31
Annex I Disclaimer.....	43






Important safety instructions


Please reserve this manual for future review.

This manual contains all the instructions about safety, installation, and operation for the NPower series pure sine wave inverter (in the following, referred to as the inverter).

1. Explanation of symbols

To enable the user to use the product efficiently and ensure personal and property safety, please read the related words carefully when encountering the following symbols in the manual.

Symbol	Definition
TIP	Indicate any practical advice for reference.
	IMPORTANT: Indicates a critical tip during the operation, if ignored, may cause the device to run in error.
	CAUTION: Indicates potential hazards, if not avoided, may cause the device damaged.
	WARNING: Indicates the danger of electric shock, if not avoided, would cause casualties.
	WARNING HOT SURFACE: Indicates the risk of high temperature, if not avoided, would cause scalds.
	Read the user manual carefully before any operation.

 WARNING	The entire system should be installed by professional and technical personnel.
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2. Requirements for professional and technical personnel

- Professionally trained;
- Familiar with related safety specifications for the electrical system;
- Read the entire user manual to get related safety cautions.

3. Professional and technical personnel is allowed to do

- Install the inverter to the specified location;
- Test-run before installation;
- Operate and maintain the inverter.

4. General installation notes

- When receiving the inverter, please check if there is any damage that occurred in transportation. If

you find any problem, please contact the transportation company or our company in time.

- Follow the instructions before placing or moving the inverter.
- Make sure there isn't any arc danger in the operation area before installation.
- Inverter input is recommended to connect to the battery. The minimum capacity of the battery (expressed in AH) should be calculated in the following way: 5 times the inverter/battery voltage's rated power.
- Keep the inverter out of children's touch.
- As an off-grid inverter, connect the AC output terminals to the utility or electrical source is not recommended; otherwise, the inverter may be damaged.
- The inverter can be used singly; a parallel connection or in series will damage the inverters.

5. Safety cautions for mechanical installation

- Before installation, ensure the inverter has no electrical connection.
- Ensure the inverter installation's heat dissipation space. Do not install the inverter in humid, greasy, flammable, explosive, dust accumulative, or other severe environments.

6. Safety cautions for electrical connection

- Check if all the wiring connections are tight to avoid the danger of heat accumulation due to a loose connection.
- The protective grounding must be connected to the ground. The cross-section of the wire should not be less than 4mm^2 .
- Connect the DC input according to the requirement strictly. The power inverter has a relatively wide input range. Still, too high or too low input may cause problems even destroy the inverter.
- The wire connects between the battery and inverter should be shorter than 3m, the current density should be less than $5\text{A}/\text{mm}^2$. In contrast, the output of the inverter is fully loaded. If the wire is longer than 3m, the current density should be reduced.
- A fuse or breaker should be used between battery and inverter; the fuse or breaker value should be twice the inverter rated input current.
- DO NOT put the inverter close to the flooded lead-acid battery because the terminals' sparkle may ignite the hydrogen released by the battery.
- The output is forbidden to connect other power sources or utilities; otherwise, the inverter will be damaged. The inverter must be off when connecting the load.
- Do not directly connect the battery charger or similar devices to the input terminal of the inverter.


7. Safety cautions for inverter operation

- Do not touch it when the inverter is working. Its surface may become very hot. Keep away from the material or device which may suffer from high temperature.

- Do not open the inverter to operate when it is working.
- The AC output with high voltage during the inverter operation, so do NOT touch the connection point; it may cause danger.


8. The dangerous operations which would cause electric arc, fire or explosion

- Touch the wire end, which hasn't been insulation treated, may cause electriferous.
- Touch the wiring copper row, terminals, or internal devices, which may cause electriferous.
- The power cable connection is loose.
- Screw or other spare parts inadvertently falls into the inverter.
- Incorrect operation is performed by untrained non-professional, or technical personnel.

 WARNING	<p>Once an accident occurs, it must be handled by professional and technical personnel. Improper operations would cause a more serious accident.</p>
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9. Safety cautions for stopping the inverter

- After the inverter stop working for ten minutes, the internal conductive devices could be touched.
- The inverter can be restarted after removing the faults, which may affect its safety performance.
- No maintenance parts exist in the inverter. If any maintenance service is required, please contact our after-sales service personnel.

 WARNING	<p>Do NOT touch or open the shell after the inverter is powered off within ten minutes.</p>
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10. Safety cautions for inverter maintenance

- Testing equipment is recommended to check the inverter without voltage or current;
- When conducting electrical connection and maintenance work, post temporary warning signs or put up barriers to prevent unrelated personnel from entering the electrical connection or maintenance area.
- Improper maintenance operation to the inverter may cause personal injury or equipment damage.
- Please wear an anti-static wrist strap to prevent static damage or avoid unnecessary contact with the circuit board.

1 Overview

Based on a full-digital intelligent technology, the NPower series is a pure sine wave inverter, converting 12/24/48V DC power to 220/230V AC power. With advanced SPWM technology, voltage-current double closed-loop control, and completely isolated inverter technology, the NPower has high-quality electrical parameters and a stronger ability to resist impact load. The input terminal's surge prevention helps meet the lithium battery's special requirements and ensures the inverter's safety and reliability.

The cage is designed with a galvanized board of high strength and corrosion resistance.

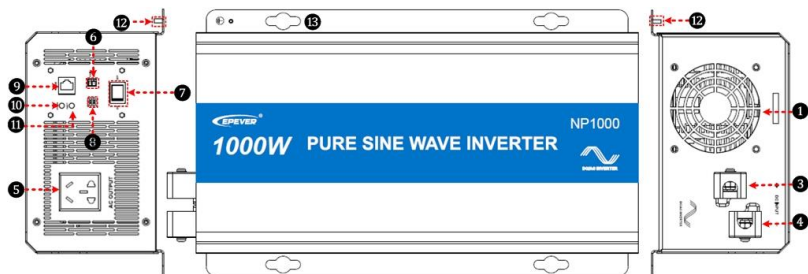
With high reliability, high efficiency, complete protection function, easy installation and operation, the inverter is suitable for AC loads of household appliances, power tools, industrial equipment, electronic audio and video, and solar PV power generation system(such as vehicle inverter application, solar RV, solar household, solar yacht, and solar power station, etc.)

Features:

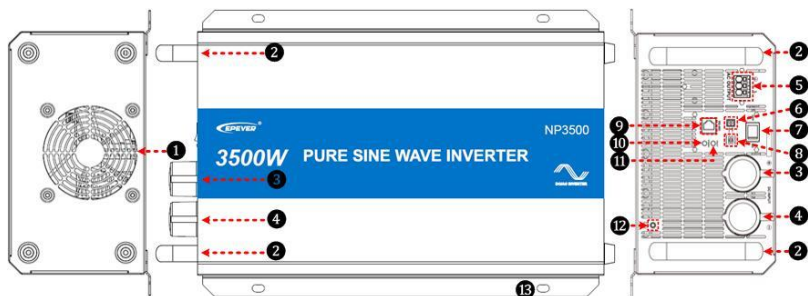
- Advanced SPWM technology and pure sine wave output
- Full digital double closed-loop control to enhance the load capacity
- Completely isolated inverter technology for the input and output
- Anti-surge design to support the lithium battery system perfectly
- Lower output harmonic distortion($THD \leq 3\%$)
- Excellent EMC design for the AC output to prevent interference of connected equipment
- Selectable output voltage(220/230VAC) and frequency(50/60Hz) by the DIP switch
- Extensive protection: input reverse polarity, input over voltage, input low voltage, output overload, output short circuit, and overheating
- Remote control and monitor the inverter by APP or PC software
- Configurable input under voltage and input under voltage reconnect voltage via the APP or PC software
- Set the inverter's ID via the APP or PC software to monitor several inverters.
- Adopt a Galvanized board of high strength and strong corrosion resistance for the cage
- Selectable output terminal: Chinese dual-socket, Australia/New Zealand, European, Universal, and Terminal
- Display running status by the local device(only NP4000-22(T) and NP5000-42(T)), optional external remote meter
- Easy maintenance and repair

2 Characteristics

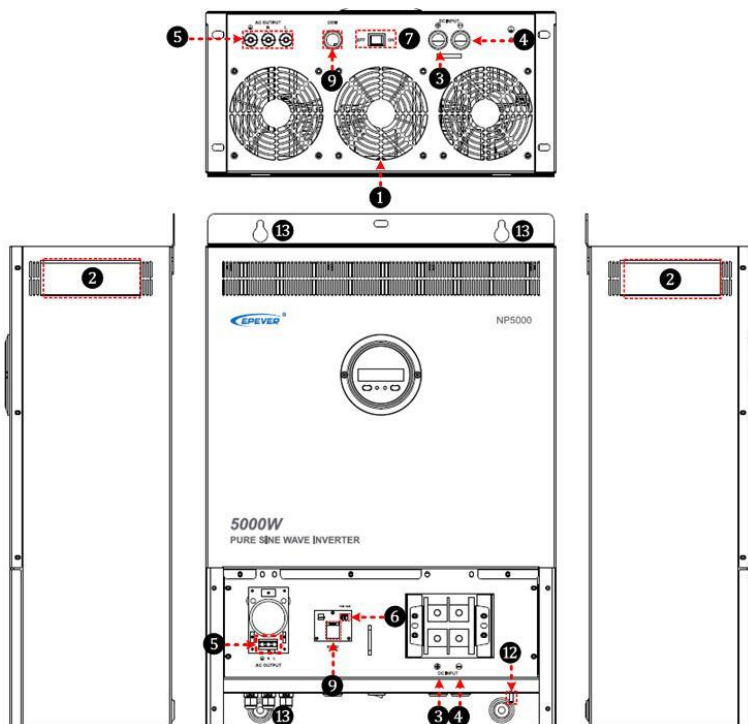
➤ NP260-NP1200



➤ NP1500-NP3500, NP4000-42(T)



➤ NP4000-22(T), NP5000-42(T)



1	Ventilation fan ⁽¹⁾	8	Mode switch ⁽³⁾
2	Handle	9	RS485 communication port ⁽⁴⁾
3	DC input terminal positive	10	Working indicator(green) ⁽⁵⁾
4	DC input terminal negative	11	Fault indicator(red) ⁽⁵⁾
5	AC outlet ⁽²⁾	12	Grounding terminal
6	External switch connection point	13	Mounting hole size
7	AC output switch		

(1) Ventilation fan

- The cooling fan will be automatically turned on if the inverter could reach any condition down below.

1) Heat sink temperature is higher than 45°C

2) Internal temperature is higher than 45°C

3) The output power is higher than the same power, see the below table:

Models	Instruction
NP260-11(M/N/T); NP260-12(X); NP260-21(M/N/T); NP260-22(X); NP400-12(X); NP400-22(X); NP600-11(N); NP600-12(X); NP600-21(M/N/T); NP600-22(X); NP800-12(X); NP1000-11(N); NP1000-21(N); NP1000-22(X); NP1000-41(M/N/T); NP1000-42(X); NP1200-12(X); NP1200-22(X); NP2500-11(T); NP2500-21(T); NP2500-41(T)	Internal temperature is higher than 10°C, and the output power is higher than half of the continuous output power.
NP1500-12(T); NP1500-22(T); NP2000-11(T); NP2000-12(T); NP2000-21(T); NP2000-22(T); NP2000-41(T); NP2000-42(T); NP2500-12(T); NP2500-22(T); NP2500-42(T); NP3000-22(T); NP3000-42(T); NP3500-42(T); NP4000-22(T); NP5000-42(T)	Internal temperature is higher than 10°C, and the output power is higher than 1000W
NP4000-42(T)	Internal temperature is higher than 10°C, and the output power is higher than 2000W

Products marked with "X" support four AC outlets: A-Australia/New Zealand, E-European, C-Chinese dual-socket, and M-Universal.

Products marked with "T" mean the AC outlet support terminal only.

Products marked with "N" mean the AC outlet support North America only.

- The cooling fan will be automatically turned off when the inverter reaches all the conditions down below.

1) Heat sink temperature is lower than 40°C

2) Internal temperature is lower than 40°C

3) The output power is lower than the same power, see the below table:

Models	Instruction
NP260-11(M/N/T); NP260-12(X); NP260-21(M/N/T); NP260-22(X)	The output power is lower than 80W

NP400-12(X); NP400-22(X)	The output power is lower than 150W
NP600-11(N); NP600-12(X); NP600-21(M/N/T); NP600-22(X)	The output power is lower than 200W
NP800-12(X); NP1000-11(N); NP1000-21(N); NP1000-41(M/N/T); NP1000-42(X)	The output power is lower than 300W
NP1000-22(X)	The output power is lower than 400W
NP1200-12(X); NP1200-22(X)	The output power is lower than 500W
NP2000-11(T); NP2000-21(T); NP2000-41(T)	The output power is lower than 600W
NP2500-11(T); NP2500-21(T); NP2500-41(T)	The output power is lower than 750W
NP1500-12(T); NP1500-22(T); NP2000-12(T); NP2000-22(T); NP2000-42(T); NP2500-12(T); NP2500-22(T); NP2500-42(T); NP3000-22(T); NP3000-42(T); NP3500-42(T); NP4000-22(T); NP5000-42(T)	The output power is lower than 800W
NP4000-42(T)	The output power is lower than 1200W

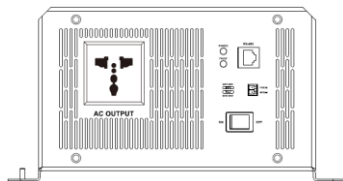
Products marked with "X" support four AC outlets: A-Australia/New Zealand, E-European, C-Chinese dual-socket, and M-Universal.

Products marked with "T" mean the AC outlet support terminal only.

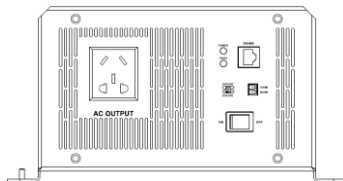
Products marked with "N" mean the AC outlet support North America only.

(2) AC outlet

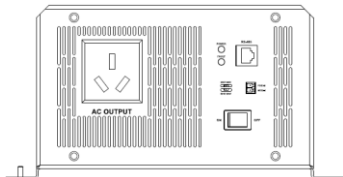
Universal



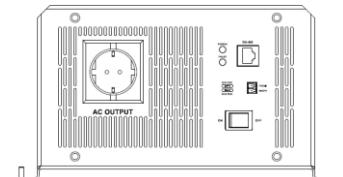
Chinese dual-socket



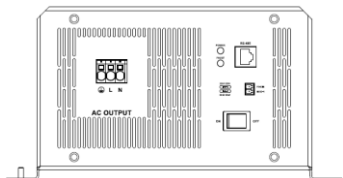
Australia/New Zealand



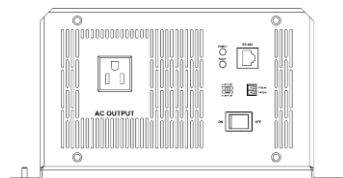
European



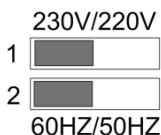
Terminal



North America





(3) Mode switch



When the switch of number 1 is on the 230V side, the output voltage is 230VAC; otherwise, it is 220VAC.

When the switch of number 2 is on the 60Hz side, the output frequency is 60Hz; otherwise, it is 50Hz.

 WARNING	Do NOT turn ON/OFF the mode switch when the inverter is working.
 CAUTION	Both the output frequency and voltage change are available after restarting the inverter.

(4) RS485 communication port



The RJ45 port pin definition is shown below:

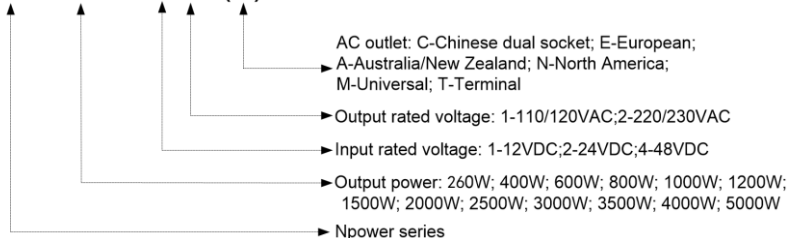
1	5VDC	5	RS-485-A
2	5VDC	6	RS-485-A
3	RS-485-B	7	GND
4	RS-485-B	8	GND

(5) LED indicator and buzzer

Working indicator	Fault indicator	Buzzer	Status
Green super flashing	Red off	No beeps	Standby
Green on solid	Red off	No beeps	Output is normal
Green slowly flashing	Red off	Beeps	Input under voltage
Green fast flashing	Red off	Beeps	Input over voltage
Green on solid	Red on solid	Beeps	Over temperature
Green off	Red fast flashing	Beeps	load short circuit
Green on solid	Red slowly flashing	Beeps	Overload
Green off	Red off	Beeps	Output voltage abnormal

3 Naming rule

NP 5000 - 4 2 -(T)



Models	Rated input voltage	Output power	Rated output voltage
NP260-11(M/N/T)	12VDC	260W	110/120VAC
NP260-21(M/N/T)	24VDC		
NP600-11(N)	12VDC	600W	
NP600-21(M/N/T)	24VDC		
NP1000-11(N)	12VDC	1000W	
NP1000-21(N)	24VDC		
NP1000-41(M/N/T)	48VDC		
NP2000-11(T)	12VDC	2000W	
NP2000-21(T)	24VDC		
NP2000-41(T)	48VDC		
NP2500-11(T)	12VDC	2500W	
NP2500-21(T)	24VDC		
NP2500-41(T)	48VDC		
NP260-12(X)	12VDC	260W	220/230VAC
NP260-22(X)	24VDC		
NP400-12(X)	12VDC	400W	
NP400-22(X)	24VDC		
NP600-12(X)	12VDC	600W	
NP600-22(X)	24VDC		
NP800-12(X)	12VDC	800W	
NP1000-22(X)	24VDC	1000W	
NP1000-42(X)	48VDC		
NP1200-12(X)	12VDC	1200W	
NP1200-22(X)	24VDC		
NP1500-12(T)	12VDC	1500W	
NP1500-22(T)	24VDC		

NP2000-12(T)	12VDC	2000W	
NP2000-22(T)	24VDC		
NP2000-42(T)	48VDC		
NP2500-12(T)	12VDC	2500W	
NP2500-22(T)	24VDC		
NP2500-42(T)	48VDC		
NP3000-22(T)	24VDC	3000W	
NP3000-42(T)	48VDC		
NP3500-42(T)	48VDC	3500W	
NP4000-22(T)	24VDC	4000W	
NP4000-42(T)	48VDC		
NP5000-42(T)	48VDC	5000W	

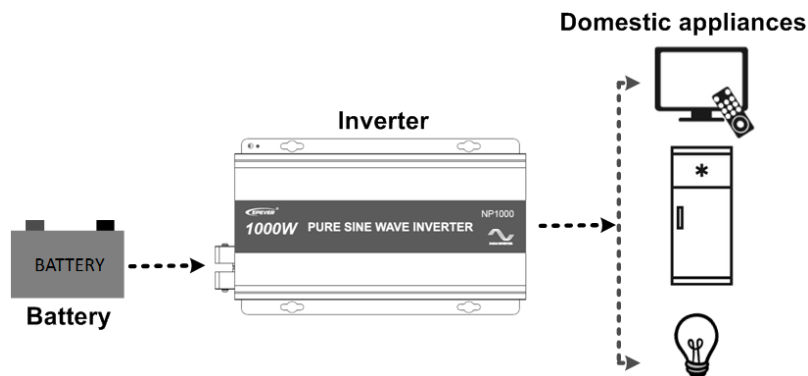
Products marked with "X" support four AC outlets: A-Australia/New Zealand, E-European, C-Chinese dual-socket, and M-Universal.

Products marked with "T" mean the AC outlet support terminal only.

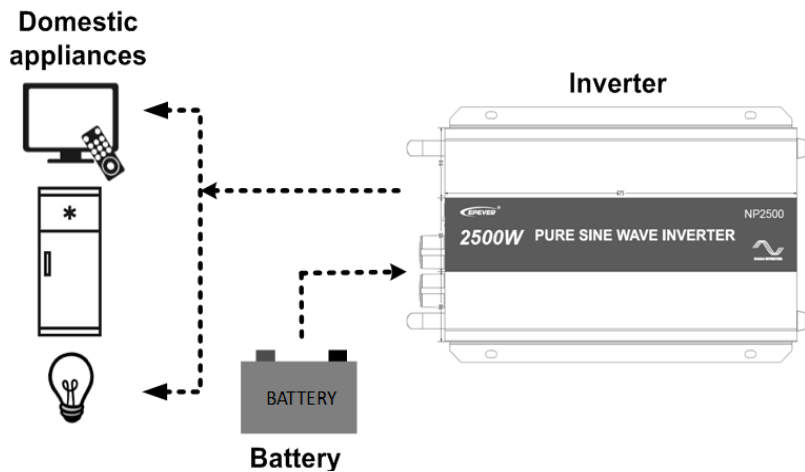
Products marked with "N" mean the AC outlet support North America only.

4 Connection diagram

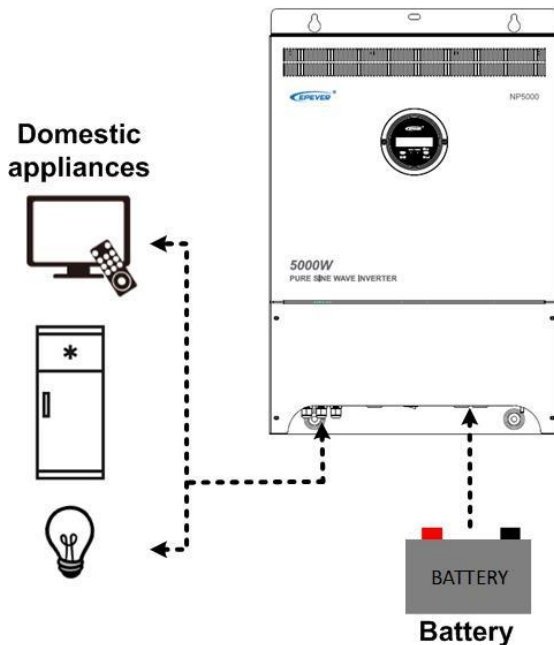
➤ NP260-NP1200



➤ NP1500-NP3500, NP4000-42(T)



➤ NP4000-22(T), NP5000-42(T)

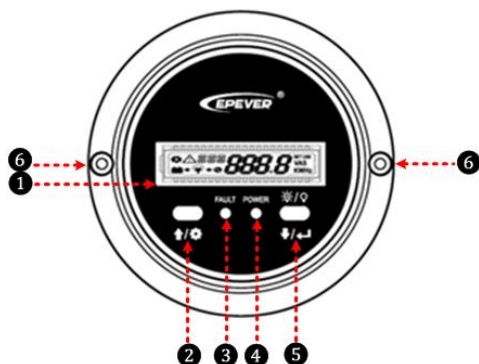


CAUTION

Connect the DC input directly to the battery port is recommended. DO NOT connect to the battery terminal of the controller. Otherwise, the charging frequency spikes of the controller may lead to over-voltage protection of the inverter.

5 Remote meter(Optional)

5.1 Appearance







①	LCD	④	Working status indicator(Blue)
②	UP/Setting button	⑤	DOWN/Enter button Output ON/OFF button
③	Fault indicator(red)	⑥	Fixing screws

5.2 Status display



Working status indicator	Fault indicator	Buzzer	Status
Blue ON solid	Red OFF	No beeps	Output voltage normal
Blue slowly flashing(1/4Hz)	Red OFF	Buzzer beeps	Input under voltage
Blue fast flashing (1Hz)	Red OFF	Buzzer beeps	Input over voltage
Blue OFF	Red ON solid	Buzzer beeps	Inverter over temperature Heat sink over temperature
Blue OFF	Red fast flashing (1Hz)	Buzzer beeps	Load short circuit
Blue ON solid	Red slowly flashing(1/4Hz)	Buzzer beeps	Overload
Blue OFF	Red OFF	Buzzer beeps	Output voltage abnormal

5.3 Buttons

	Click	Move up
	Press for 2s	In the real-time interface, press it for 2s to enter the setting interface. In the setting interface, press it for 2s to enter the parameters configuration interface.
	Click	Move down
	Press for 2s	In the real-time interface, press it to turn on/off the load output (default ON) Confirm the settings
	Click	In the setting interface, click them to exit the parameters configuration interface.
	Press for 2s	In the real-time interface, press them for 2s to clear the faults.

	The long buzzer beeps for the parameter confirming and short beeps for other button operations.
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5.4 LCD interface

Click  or  to browse the real-time interface.

5.5 Settings


Operation:


Step1: In the real-time interface, press  for 2s to enter the setting interface.


Step2: Click  or  to select the parameter to be configured.

Step3: Press  for 2s to enter the configuration interface of the specified parameter.

Step4: Click  or  to configure the parameter value.

Step5: Press  for 2s to confirm the configuration.

Step6: Click  to exit the current interface.

Display	Parameters	Default	User define
 VPT	Output voltage class [®]	220VAC	220VAC/ 230Vac

		110VAC	110VAC/ 120VAC
FRE	Output frequency class ③	50Hz	50Hz/60Hz
BLT	LCD backlight time	30s	30s/ 60s/100s(ON solid)
LVD	Low voltage disconnect voltage ^②	12V: 10.8V 24V: 21.6V 48V: 43.2V	12V: 10.5V~14.2V; step size 0.1V 24V: 21V-30.2V; step size 0.1V 48V: 42V-62.4V; step size 0.1V
LVR	Low voltage reconnect voltage ^②	12V: 12.5V 24V: 25V 48V: 50V	12V: 11.5V~15.2V; step size 0.1V 24V: 22V-31.2V; step size 0.1V 48V: 43V-63.4V; step size 0.1V
OVR	Over voltage reconnect voltage ^②	12V: 14.5V 24V: 29V 48V: 58V	12V: 11.5V~15.2V; step size 0.1V 24V: 22V-31.2V; step size 0.1V 48V: 43V-63.4V; step size 0.1V
OVD	Over voltage disconnect voltage ^②	12V: 16V 24V: 32V 48V: 64V	12V: 12.5V~16.2V; step size 0.1V 24V: 23V-32.2V; step size 0.1V 48V: 44V-64.4V; step size 0.1V

- ① After configuring the parameters marked with ③, the inverter will restart automatically. It will resume work according to the new parameter value.
- ② For the parameter user defines, please refer to the input voltage rules in Chapter 7 Protections. Otherwise, the parameter setting will not succeed.

5.6 Error code

Error code	Faults	Buzzer
ΔOTP	Inverter over temperature Heat sink over temperature	Five beeps
ΔIOV	Input over voltage	
ΔILV	Input low voltage	
ΔOSC	Output short circuit	
ΔOOL	Output overload	
ΔOVV	Output voltage abnormal	

6 Installation

6.1 Attentions

- Please read the manual carefully to get familiar with the installation steps before installation.
- Be very careful when installing the batteries, especially flooded lead-acid batteries. Please wear eye protection, and have fresh water available to rinse if any contact with battery acid.
- Keep the battery away from any metal objects, which may cause a short circuit of the battery.
- Loose connections and corroded wires may result in high heat that can melt wire insulation, burn surrounding materials, or even cause a fire. Ensure tight connections and use cable clamps to secure cables and prevent them from swaying in motion.
- Please follow the parameter list to connect the DC input, even though the inverter has a high range of DC input voltages. Too high or too low may cause the inverter to stop working, even damage the inverter (Surge voltage less than 20V for 12V system, 40V for 24V system, 80V for 48V system)
- Select the system connection cables according to the current density no higher than 5A/mm². (Following the National Electrical Code Article 690, NFPA70).
- For outdoor installation, keep out of the direct sunshine and rain infiltration.
- High voltage still exists inside the inverter after turning off the switch. Do not open or touch the internal devices, and wait ten minutes before conducting related operations.
- Please do not install the inverter in humid, greasy, flammable, explosive, dust accumulative, or other severe environments.
- AC output is a high voltage; please do not touch the wiring connection.
- When the fan is working, please do not touch it to avoid injury.

6.2 Wire size and circuit breaker

Wiring and installation mode should comply with national and local electrical code requirements.

➤ Wire, terminals, and breaker selection for battery

Models	Battery wire size	Terminal	Breaker
NP260-11	6mm ² /9AWG	RNB5.5-6	DC/2P—40A
NP260-21	4mm ² /11AWG	RNB5.5-6	DC/2P—20A
NP260-12	6mm ² /9AWG	RNB5.5-6	DC/2P-40A
NP260-22	4mm ² /11AWG	RNB5.5-6	DC/2P-20A
NP400-12	10mm ² /7AWG	RNB8-6S	DC/2P-63A
NP400-22	6mm ² /9AWG	RNB5.5-6	DC/2P-32A
NP600-11	16mm ² /5AWG	RNB14-8	DC/2P-80A
NP600-21	6mm ² /9AWG	RNB8-8	DC/2P—40A

NP600-12	16mm ² /5AWG	RNB14-8	DC/2P-80A
NP600-22	6mm ² /9AWG	RNB8-8	DC/2P-40A
NP800-12	25mm ² /3AWG	RNB22-6L	DC/2P-125A
NP1000-11	25mm ² /3AWG	RNB22-6	DC/2P-125A
NP1000-21	10mm ² /7AWG	RNB14-6	DC/2P-63A
NP1000-22	16mm ² /5AWG	RNB14-6L	DC/2P-63A
NP1000-41	6mm ² /9AWG	RNB8-8	DC/2P—63A
NP1000-42	6mm ² /9AWG	RNB8-8	DC/2P-63A
NP1200-12	25mm ² /3AWG	RNB22-6L	DC/2P-125A
NP1200-22	16mm ² /5AWG	RNB14-6L	DC/2P-63A
NP1500-12	2x25mm ² /2x3AWG	RNB60-10	DC-80A(2P in parallel)
NP1500-22	25mm ² /3AWG	RNB22-10	DC/2P-80A
NP2000-11	2x25mm ² /2x3AWG	RNB60-10	DC-125A(2P in parallel)
NP2000-12	2x25mm ² /2x3AWG	RNB60-10	DC-125A(2P in parallel)
NP2000-21	25mm ² /3AWG	RNB22-10	DC/2P-125A
NP2000-22	25mm ² /3AWG	RNB22-10	DC/2P-125A
NP2000-41	16mm ² /5AWG	RNB14-10	DC/2P-63A
NP2000-42	16mm ² /5AWG	RNB14-10	DC/2P-63A
NP2500-11	3x25mm ² /3x3AWG	RNB80-10	DC/3P-100A(3P in parallel)
NP2500-12	3x25mm ² /3x3AWG	RNB60-10	DC-100A(3P in parallel)
NP2500-21	2x16mm ² /2x5AWG	RNB38-10	DC-100A(2P in parallel)
NP2500-22	2x16mm ² /2x5AWG	RNB38-10	DC-100A(2P in parallel)
NP2500-41	16mm ² /5AWG	RNB14-6	DC/2P-80A
NP2500-42	16mm ² /5AWG	RNB14-10	DC/2P-63A
NP3000-22	2x25mm ² /2x3AWG	RNB60-10	DC-100A(2P in parallel)
NP3000-42	25mm ² /3AWG	RNB22-10	DC/2P-100A
NP3500-42	25mm ² /3AWG	RNB22-10	DC/2P-125A
NP4000-22	2 × 25mm ² /2 × 3AWG	RNB22-8(4 pcs)	DC/4P-125A or DC/2P-125A(2pcs)
NP4000-42	25mm ² /3AWG	RNB22-10(2 pcs)	DC/2P-125A
NP5000-42	35mm ² /1AWG	RNB38-8(2 pcs)	DC/2P-160A

Products marked with "X" support four AC outlets: A-Australia/New Zealand, E-European, C-Chinese dual-socket, and M-Universal.


Products marked with "T" mean the AC outlet support terminal only.

Products marked with "N" mean the AC outlet support North America only.

➤ Wire and breaker selection for AC output

Models	Wire size	Breaker
NP260	1mm ² /17AWG	AC/2P—6A

NP600	1mm ² /17AWG	AC/2P—6A
NP800-*2	1mm ² /17AWG	AC/2P—6A
NP1000-*1	1.5mm ² /15AWG	AC/2P—10A
NP1000-*2	1mm ² /17AWG	AC/2P—6A
NP1200-*2	1mm ² /17AWG	AC/2P—6A
NP1500-*2	1mm ² /17AWG	AC/2P—10A
NP2000-*1	2.5mm ² /13AWG	AC/2P—20A
NP2000-*2	1.5mm ² /15AWG	AC/2P—10A
NP2500-*1	4mm ² /11AWG	AC/2P—32A
NP2500-*2	2.5mm ² /13AWG	AC/2P—10A
NP3000-*2	2.5mm ² /13AWG	AC/2P—16A
NP3500-*2	2.5mm ² /13AWG	AC/2P—16A
NP4000-*2	4mm ² /11AWG	AC/2P—25A
NP5000-*2	4mm ² /11AWG	AC/2P—32A



 IMPORTANT	<ul style="list-style-type: none"> • The wire size and terminal are for reference only. Use thicker wires to reduce the voltage drop and improve the system performance when the inverter and battery distance is further. • The above wire size and circuit breaker size are for recommendation only. Please choose a suitable wire and circuit breaker according to the actual situation.
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6.3 Mounting

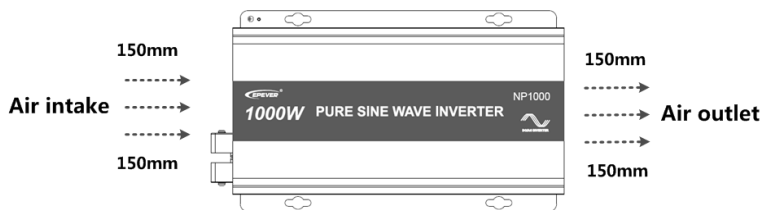
Installation steps:

Step1: Professional personnel read this manual carefully.

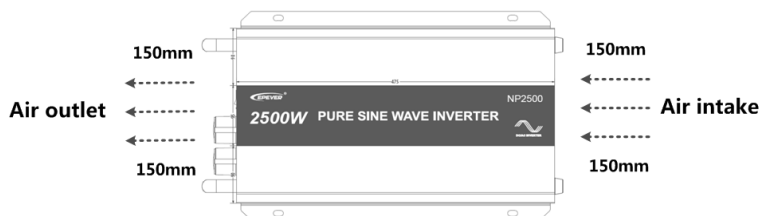
Step2: Determine the installation location and heat-dissipation space.

 IMPORTANT	The inverter shall be installed in a place with sufficient airflow and a minimum clearance of 150mm from the upper and lower edges of the inverter to ensure natural thermal convection.
 CAUTION	The inverter shall be cooling through housing if installed in a closed box.

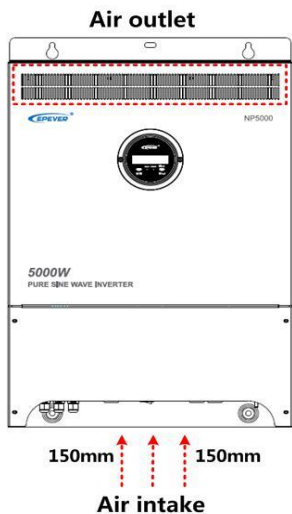
➤ NP260~NP1200





➤ NP1500~NP3500, NP4000-42(T)



➤ NP4000-22(T), NP5000-42(T)



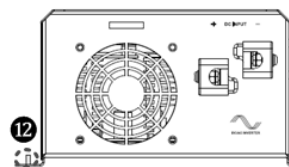
Step3: Wiring

 WARNING	The AC equipment shall be determined by the continuous output power of the inverter. Still, the surge power must be lower than the instantaneous surge power of the inverter.
 CAUTION	<ul style="list-style-type: none">• The switch of the inverter is off before wiring.• DO NOT close the circuit breaker or fuse and ensure that the leads of "+" and "-" poles are correctly connected while wiring the inverter.• A fuse, whose current is 1.25 to 2 times the inverter's rated current, must be installed on the battery side with a distance away from the battery not greater than 150mm.

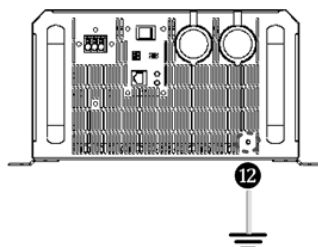
Wiring order:

① Ground

- NP260~NP1200



- NP1500~NP3500, NP4000-42(T)



Grounding

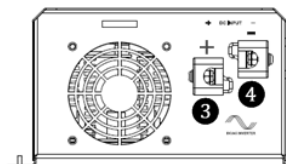
- NP4000-22(T), NP5000-42(T)



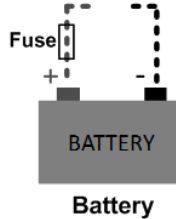
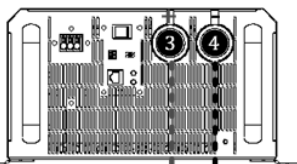
Grounding

2 Battery

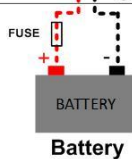
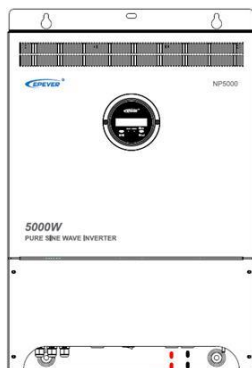
- NP260-NP1200



- NP1500-NP3500, NP4000-42(T)

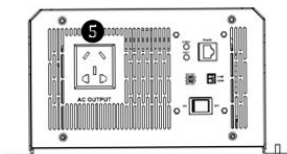


- NP4000-22(T), NP5000-42(T)

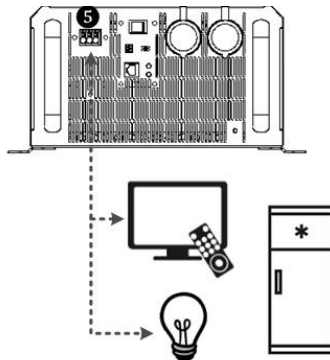


3 AC loads

- NP260~NP1200



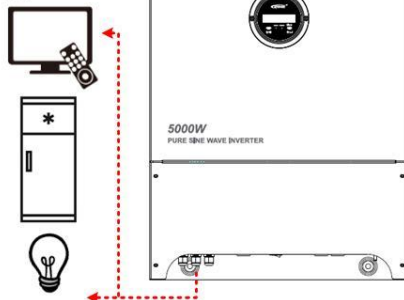
- NP1500~NP3500, NP4000-42(T)



Domestic appliances

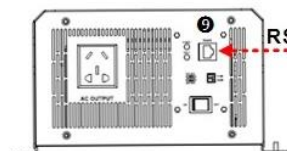
- NP4000-22(T), NP5000-42(T)

Domestic
appliances

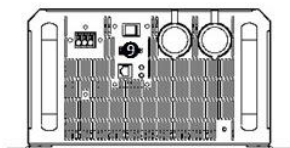


4 Accessories

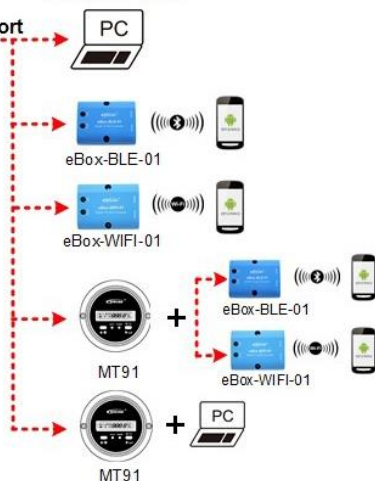
- NP260-NP1200



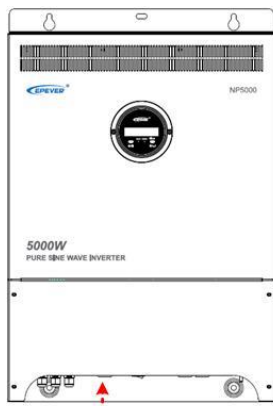
- NP1500-NP3500, NP4000-42(T)



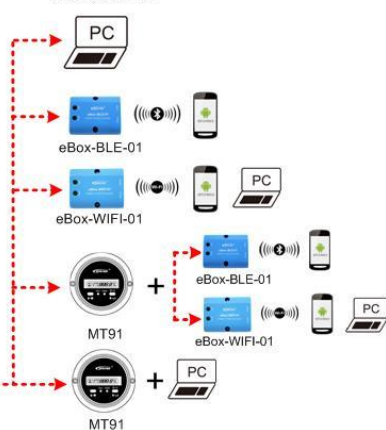
Accessories



- NP4000-22(T), NP5000-42(T)



Accessories



CAUTION

Disconnect the system in the reverse order 4 3 2 1.

Step4: Power on the inverter

- (1) Switch on the input breaker or the fuse between the inverter and battery.
- (2) Turn on the power switch to start the inverter; the green indicator will be on state, and the AC output is normal.
- (3) Turn on the load one by one, and check the operation status of both inverter and load.



CAUTION

If there are different loads, it is suggested to turn on the loads with higher startup currents, such as television. After the loads work stably, turn on the loads with a lower startup current, such as an incandescent lamp.

- (4) If the fault indicator is red and the buzzer alarms when turning on the inverter, please immediately switch off the loads and inverter. Refer to **chapter 7 Troubleshooting**. After troubleshooting, please follow the above steps and operate again.

7 Protections

1) Input reverse polarity protection

The electronic circuit works to protect the inverter from damage during input reverse polarity. And the inverter will get right while the input is right.

2) Input voltage protection

- **The following rules must be followed when modifying the battery's input voltage parameters:**

- A. Over voltage limiting voltage($16.2/32.2/64.4V$) \geq Over voltage disconnect voltage \geq Over voltage reconnect voltage $+1V$.
- B. Over voltage reconnect voltage \geq Low voltage reconnect voltage.
- C. Low voltage reconnect voltage \geq Low voltage disconnect voltage $+1V$.
- D. Low voltage disconnect voltage \geq Low voltage limiting voltage($10.5/21/42V$).

- **Detail status is shown as the following when the input voltage protection occurs.**

Input voltage protection	Status
Over voltage protection	The output is switched OFF. The green indicator fast flashes. Buzzer beeps.
Over voltage reconnect	The green indicator is ON solid. The output voltage is normal.
Low voltage protection	The output is switched OFF. The green indicator slowly flashes. Buzzer beeps.
Low voltage reconnect	The green indicator is ON solid. The output voltage is normal.

3) Overload protection

$S=1.25P_o^{\text{®}}$ (S: Output power; P_o : Rated power)	The output is OFF after the 60s Red indicator slowly flashing Buzzer sounds
$S=1.5P_o^{\text{®}}$ (S: Output power; P_o : Rated power)	The output is OFF after 10s Red indicator slowly flashing Buzzer sounds

$S=1.8P_o^{\text{③}}$ (S: Output power; P_o : Rated power)	The output is OFF after 3s Red indicator slowly flashing Buzzer sounds
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① When the overload protection is activated, the AC output will recover three times automatically(the first time delay 5s, the second time delays for 10s, and the third time delays for 15s). After then the AC output will not recover automatically after restarting the inverter.

4) Load short circuit protection

Phenomenon	Instruction
The output is OFF immediately Red indicator slowly flashing Buzzer sounds	When the load short circuit protection is activated, the AC output will auto-recovery three times(the first time delay 5s, the second time delays for 10s, and the third time delays for 15s). After then the AC output would not auto-recovery after restarting the inverter.

5) OverTemperature Protection

Phenomenon	Instruction
Inverter turns OFF	The heat sink or internal temperature is higher than some value.
Inverter turns ON	The heat sink or internal temperature is lower than some value.

8 Troubleshooting



WARNING

DO NOT try to repair or maintain the inverter by yourself; it may cause danger.

Phenomenon	Possible reasons	Troubleshooting
Green indicator slowly flashing Buzzer sounds	DC input voltage under voltage	Suppose the DC input voltage goes lower than 10.8/21.6/43.2V. Adjust the input voltage to restore normally.
Green indicator fast flashing Buzzer sounds	DC input voltage overvoltage	Measure the DC input voltage if the voltage is lower than 16/32/64V. Adjust the input voltage to restore normally.
Red indicator slowly flashing Buzzer sounds	Overload	<ul style="list-style-type: none"> • Reduce the number of the AC load • Restart the inverter
Red indicator fast flashing Buzzer sounds	Short circuit	<ul style="list-style-type: none"> • Check carefully loads connection, clear the fault. • Restart the inverter
Red and green indicators on solid Buzzer sounds	Over temperature	Improve the ventilation quality, do NOT block the vent, cool the temperature around the power supply, and restart the inverter after the temperature drops. If still not working, please derate the power for use.

9 Maintenance

The following inspections and maintenance tasks are recommended at least two times per year for the best performance.

- Make sure no block on airflow around the inverter. Clear up any dirt and fragments on the radiator.
- Check all the naked wires to ensure insulation is not damaged for serious solarization—frictional wear, dryness, insects or rats, etc. Repair or replace some wires if necessary.
- Check and confirm that indicator and display are consistent with required. Pay attention to any troubleshooting or error indication. Take corrective action if necessary.
- Confirm that all the terminals have no corrosion, insulation damaged, high temperature, or burnt/discolored sign. Tighten terminal screws to the suggested torque.
- Check for dirt, nesting insects, and corrosion. If so, clear up in time.
- Check and confirm that the lightning arrester is in good condition. Replace a new one in time to avoid damaging the inverter/charger and even other equipment.



WARNING

Risk of electric shock! Ensure that all the power is turned off. All the power in the capacitor has been discharged before performing the above operations.

10 Specifications

The tags ① / ② / ③ in the specification tables are explained as follows.

- ① It means the output efficiency when the load power is 80% 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.

Item	NP260-11	NP260-21	NP600-11	NP600-21
Continuous output power	260W @25°C, 200W @45°C		600W @45°C	
Surge power(5S)	400W		1200W	1000W
Output voltage	110/120VAC ($\pm 5\%$)			
Output frequency	50/60Hz $\pm 0.2\%$			
Output wave	Pure Sine Wave			
Output distortion THD	THD $\leq 5\%$ (Resistive load)			
Load power factor	0.2~1(Load power \leq Continuous output power)			
Rated input voltage	12VDC	24VDC	12VDC	24VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC
Output efficiency of 80% rated power ^①	82.9%	87.4%	82.5%	87.5%
Max. rated efficiency ^②	82.3%	86.0%	80.2%	85.6%
Max. output efficiency ^③	89.6%(67W)	90.2%(104W)	90.7%(150W)	91.9%(160W)
Surge current when power on	20A @25°C, V _{IN} =12V	20A @25°C, V _{IN} =24V	20A @25°C, V _{IN} =12V	20A @25°C, V _{IN} =24V
No-load current	<0.3A	<0.15A	<0.67A	<0.22A
Static Loss	<0.3W @12V	<0.4W @24V	<0.3W @12V	<0.4W @24V
RS485 com. port	5VDC/250mA(Non-isolated)			

Mechanical parameters				
Input terminal	M6		M8	
Dimension (LxWxH)	365x212x97mm		428x243x121mm	
Mounting size	220x193mm		260x220mm	
Mounting hole size	Φ7mm		Φ9mm	
Net Weight	6.5kg	6.4kg	10.8kg	10.2kg

Item	NP1000-11	NP1000-21	NP1000-41
Continuous output power	1000W @25°C, 850W @45°C	1000W @45°C	
Surge power(5S)	2000W		
Output voltage	110/120VAC(±5%)		
Output frequency	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Output distortion THD	THD≤5%(Resistive load)		
Load power factor	0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^③	83.4%	88%	90.6%
Max. rated efficiency ^③	80.6%	85.7%	89.2%
Max. output efficiency ^③	92.2%(200W)	93.4%(250W)	94.3%(300W)
Surge current when power on	30A@25°C, V _{IN} =12V	30A@25°C, V _{IN} =24V	30A@25°C, V _{IN} =48V
No-load current	<0.59A	<0.33A	<0.19A
Static Loss	<0.3W @12V	<0.4W @24V	<0.7W @48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/250mA(Non-isolated)	5VDC/300mA(Isolated)

Mechanical parameters			
Input terminal	M6		M8
Dimension (LxWxH)	511x268x139mm		452x268x139
Mounting size	300x245mm		270x245
Mounting hole size	Φ9mm		
Net Weight	16.1kg	16.0kg	14.0kg

Item	NP2000-11	NP2000-21	NP2000-41
Continuous output power	2000W @45°C		
Surge power(5S)	4000W		
Output voltage	110/120VAC(±5%)		
Output frequency	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Output distortion THD	THD≤5%(Resistive load)		
Load power factor	0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^③	84%	89%	89.4%
Max. rated efficiency ^③	82.5%	87.5%	87.7%
Max. output efficiency ^③	90.8%(500W)	93.9%(500W)	93.9%(500W)
Surge current when power on	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V	20A@25°C, V _{IN} =48V
No-load current	<1.9A	<0.5A	<0.3A
Static Loss	<0.6W @12V	<0.6W @24V	<1.8W @48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)

Mechanical parameters			
Input terminal	M10		
Dimension (LxWxH)	554x393x175mm	486x313x145mm	
Mounting size	350x372mm	350x292mm	
Mounting hole size	Φ9mm		
Net Weight	30.3kg	28.1kg	21.2kg

Item	NP2500-11	NP2500-21	NP2500-41
Continuous output power	2500W@45°C		
Surge power(5S)	5000W		
Output voltage	110/120VAC(±5%)		
Output frequency	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Output distortion THD	THD≤6%(Resistive load)		
Load power factor	0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^③	84.4%	89.1%	91.1%
Max. rated efficiency ^③	81.3%	86.8%	89.7%
Max. output efficiency ^③	90.9%(500W)	94%(500W)	94%(800W)
Surge current when power on	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V	20A @25°C, V _{IN} =48V
No-load current	<2.1A	<0.6A	<0.5A
Static Loss	<0.6W@12V	<0.6W@24V	<1.8W@48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)

Mechanical parameters			
Input terminal	M10		
Dimension (LxWxH)	584x393x175mm	604x393x175mm	549x328x175mm
Mounting size	350x372mm	350x372mm	350x307mm
Mounting hole size	Φ9mm		
Net Weight	32.5kg	32.7kg	26.5kg

Item	NP260-12	NP260-22	NP400-12	NP400-22
Continuous output power	260W @25°C, 200W @45°C		400W @25°C, 350W @45°C	
Surge power(5S)	400W		700W	
Output voltage	220/230VAC(-8%~+3%)			
Output frequency	50/60Hz±0.2%			
Output wave	Pure Sine Wave			
Output distortion THD	THD≤3%(Resistive load)			
Load power factor	0.2~1(Load power ≤ Continuous output power)			
Rated input voltage	12VDC	24VDC	12VDC	24VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC
Output efficiency of 80% rated power ^③	81%	84%	81%	85%
Max. rated efficiency ^③	79%	82%	79%	84%
Max. output efficiency ^③	89%(80W)	90%(100W)	90%(100W)	91%(100W)
Surge current when power on	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V
No-load current	<0.4A	<0.3A	<0.5A	<0.3A
Static Loss	<0.3W @12V	<0.4W @24V	<0.3W @12V	<0.4W @24V

RS485 com. port	5VDC/250mA(Non-isolated)			
Mechanical parameters				
Input terminal	M6		M6	
Dimension (LxWxH)	365x212x97mm		386x215x99mm	
Mounting size	220x193mm		230x196mm	
Mounting hole size	Φ7mm		Φ7mm	
Net Weight	6.4kg	6.3kg	8.1kg	7.9kg

Item	NP600-12	NP600-22	NP800-12	NP1000-22	NP1000-42
Continuous output power	600W @25°C, 500W @45°C		800W @45°C	1000W @45°C	
Surge power(5S)	1000W		1600W	2000W	
Output voltage	220/230VAC(-8%~+3%)	220/230VAC(±3%)	220/230VAC(-8%~+3%)	220/230VAC(±3%)	
Output frequency	50/60Hz±0.2%				
Output wave	Pure Sine Wave				
Output distortion THD	THD≤3%(Resistive load)				
Load power factor	0.2~1(Load power ≤ Continuous output power)				
Rated input voltage	12VDC	24VDC	12VDC	24VDC	48VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^①	81%	85%	83%	85%	90.8%
Max. rated efficiency ^②	80%	83%	81%	82%	89.4%
Max. output efficiency ^③	89%(200W)	92%(160W)	92%(100W)	92%(200W)	94.5%(300W)
Surge current when power on	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V	20A@25°C, V _{IN} =12V	30A@25°C, V _{IN} =24V	30A@25°C, V _{IN} =48V
No-load current	<0.6A	<0.4A	<0.6A	<0.4A	<0.19A

Static Loss	<0.3W@12V	<0.4W@24V	<0.3W@12V	<0.4W@24V	<0.7W@48V
RS485 com. port	5VDC/250mA(Non-isolated)				5VDC/300mA(Isolated)
Mechanical parameters					
Input terminal	M8		M6		M8
Dimension (LxWxH)	428x243x121mm		475x268x139mm		452x268x139
Mounting size	260x220mm		270x245mm		270x245
Mounting hole size	Φ9mm		Φ9mm		Φ9mm
Net Weight	10.4kg	10.1kg	13.3kg	12.7kg	13.9kg

Item	NP1200-12	NP1200-22	NP1500-12	NP1500-22
Continuous output power	1200W@25°C, 1000W@45°C		1500W@25°C, 1300W@45°C	1500W@45°C
Surge power(5S)	2000W		3000W	
Output voltage	220/230VAC(-8%~+3%)	220/230VAC(±3%)	220/230VAC(-5%~+3%)	220/230VAC(±3%)
Output frequency	50/60Hz±0.2%			
Output wave	Pure Sine Wave			
Output distortion THD	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)			
Rated input voltage	12VDC	24VDC	12VDC	24VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	10.8~16.0VDC	21.6~32.0VDC
Output efficiency of 80% rated power ^③	81%	85%	84%	88.5%
Max. rated efficiency ^③	78%	84%	82%	87%
Max. output efficiency ^③	92%(200W)	93%(300W)	90%(400W)	92%(500W)
Surge current when power on	30A@25°C, V _{IN} =12V	30A@25°C, V _{IN} =24V	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V

No-load current	<0.6A	<0.4A	<2.0A	<0.5A
Static Loss	<0.3W@12V	<0.4W@24V	<0.6W@12V	<0.6W@24V
RS485 com. port	5VDC/250mA(Non-isolated)		5VDC/300mA(Non-isolated)	
Mechanical parameters				
Input terminal	M6		M10	
Dimension (LxWxH)	511x268x139mm		566x313x145mm	
Mounting size	300x245mm		350x292mm	
Mounting hole size	Φ9mm		Φ9mm	
Net Weight	15.7kg	15.3kg	20.3kg	20.2kg

Item	NP2000-12	NP2000-22	NP2000-42
Continuous output power	2000W@45°C		
Surge power(5S)	4000W		
Output voltage	220/230VAC(-5%~+3%)		
Output frequency	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Output distortion THD	THD≤5%(Resistive load)	THD≤3%(Resistive load)	THD≤3%(Resistive load)
Load power factor	0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^③	84.5%	88%	89%
Max. rated efficiency ^③	82%	86%	87%
Max. output efficiency ^③	90%(600W)	93%(500W)	93%(500W)
Surge current when power on	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V	20A@25°C, V _{IN} =48V

No-load current	<2.5A	<0.6A	<0.3A
Static Loss	<0.6W @12V	<0.6W @24V	<1.8W @48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)
Mechanical parameters			
Input terminal	M10		
Dimension (LxWxH)	554x393x175mm		486x313x145mm
Mounting size	350x372mm		350x292mm
Mounting hole size	Φ9mm		
Net Weight	29.8kg	27.6kg	20.7kg

Item	NP2500-12	NP2500-22	NP2500-42
Continuous output power	2500W @45°C		
Surge power(5S)	5000W		
Output voltage	220/230VAC(-8%~+3%)	220/230VAC(-6%~+3%)	220/230VAC(±3%)
Output frequency	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Output distortion THD	THD≤5%(Resistive load)	THD≤3%(Resistive load)	THD≤3%(Resistive load)
Load power factor	0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC
Input voltage range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^③	87%	89%	91.5%
Max. rated efficiency ^③	85%	87%	90%
Max. output efficiency ^③	90%(700W)	93%(500W)	94%(800W)
Surge current when power on	20A@25°C, V _{IN} =12V	20A@25°C, V _{IN} =24V	20A@25°C, V _{IN} =48V

No-load current	<3.0A	<0.8A	<0.5A
Static Loss	<0.6W @12V	<0.6W @24V	<1.8W @48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)
Mechanical parameters			
Input terminal	M10		
Dimension (LxWxH)	584x393x175mm	604x393x175mm	549x328x175mm
Mounting size	350x372mm	350x372mm	350x307mm
Mounting hole size	Φ9mm		
Net Weight	32.0kg	32.2kg	25.5kg

Item	NP3000-22	NP3000-42	NP3500-42
Continuous output power	3000W @45°C		3500W @45°C
Surge power(5S)	6000W		7000W
Output voltage	220/230VAC(-5%~+3%)	220/230VAC(±3%)	220/230VAC(±3%)
Output frequency	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Output distortion THD	THD≤3%(Resistive load)		
Load power factor	0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	24VDC	48VDC	48VDC
Input voltage range	21.6~32.0VDC	43.2~64.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^③	88%	90%	90%
Max. rated efficiency ^③	86%	89%	89%
Max. output efficiency ^③	94%(500W)	94%(900W)	93%(900W)
Surge current when power on	20A@25°C, V _{IN} =24V	20A@25°C, V _{IN} =48V	20A@25°C, V _{IN} =48V

No-load current	<0.8A	<0.5A	<0.5A
Static Loss	<0.6W@24V	<1.8W@48V	<1.8W@48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)	5VDC/200mA(Isolated)
Mechanical parameters			
Input terminal	M10		
Dimension (LxWxH)	649x393x175mm	599x328x175mm	579x353x175mm
Mounting size	350x372mm	350x307mm	350x332mm
Mounting hole size	Φ9mm		
Net Weight	34.0kg	28.4kg	32.2kg

Item	NP4000-22	NP4000-42	NP5000-42
Continuous output power	4000W@45°C		5000W@45°C
Surge power(5S)	8000W		10000W
Output voltage	220/230VAC(±3%)		
Output frequency	50/60Hz±0.2%		
Output wave	Pure Sine Wave		
Output distortion THD	THD≤3%(Resistive load)		
Load power factor	0.2~1(Load power ≤ Continuous output power)		
Rated input voltage	24VDC	48VDC	48VDC
Input voltage range	21.6~32.0VDC	43.2~64.0VDC	43.2~64.0VDC
Output efficiency of 80% rated power ^③	89%	91.5%	91.5%
Max. rated efficiency ^③	86%	90%	90%
Max. output efficiency ^③	93%(1400W)	94%(1000W)	94%(1400W)
Surge current when power on	20A@25°C, V _{IN} =24V	30A@25°C, V _{IN} =48V	30A@25°C, V _{IN} =48V

No-load current	<2.5A	<0.5A	<0.5A
Static Loss	<0.6W@24V	<1.8W@48V	<1.8W@48V
RS485 com. port	5VDC/300mA(Non-isolated)	5VDC/200mA(Isolated)	5VDC/200mA(Isolated)
Mechanical parameters			
Input terminal	M8(4P)	M10	M8(2P)
Dimension (LxWxH)	660x435x210mm	604x393x175mm	640x435x210mm
Mounting size	625x300mm	350x340mm	605x300mm
Mounting hole size	Φ8.5mm	Φ9mm	Φ8.5mm
Net Weight	43.2kg	37.0kg	50.0kg

Environmental parameters

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)

Annex I Disclaimer

The warranty does not apply under the following conditions:

- Damage caused by improper use or use in an inappropriate environment.
- Battery voltage exceeds the input voltage limit of the inverter.
- Damage caused by the working environment temperature exceeds the rated range.
- Unauthorized dismantles or attempted repairs.
- Damage occurred during transportation or handling.
- Damage caused by force majeure.

Any changes without prior notice! Version number: V3.2

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