



NAMKOO

Smartbase-001 USER MANUAL

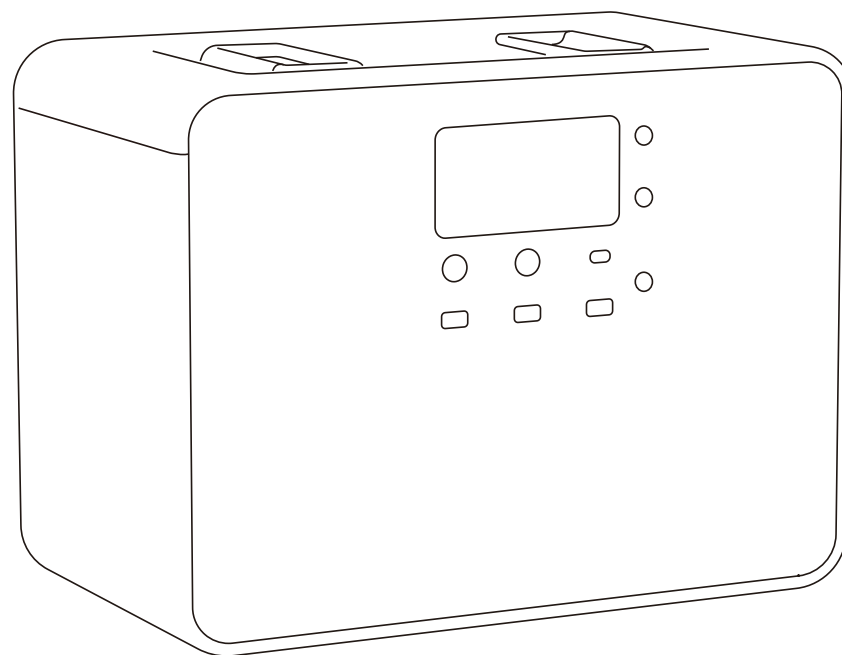


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Solar Power Generator

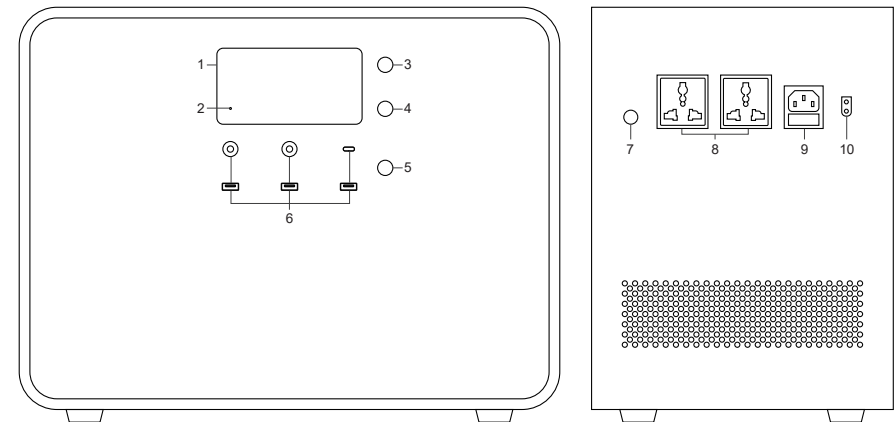
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01 / Product Features

- 3.5-inch TFT color large screen, new operation experience.
- Tri-core MCU control technology with excellent performance.
- Built-in LiFePO4 battery, safe and reliable.
- One-click switching modes: GRID / BATTERY / ECO.
- Fast charging is supported in GRID mode, fully charged in 1.5 hours.
- Up to 30W self-adaptive Type-C output port 1, support PD fast charging.
- 3*5V DC-USB output ports ; 2*12V DC output ports.
- Built-in solar MPPT controller, which can improve charging efficiency by more than 20%.
- Overcharge protection and over-discharge protection for longer battery life.
- Intelligent cooling, overload and short circuit protection and automatic alarm function.
- Dual carry handle design for easy movement.

02 / Product Apperance



- | | | |
|----------------------|--------------------|-------------------|
| ① Color display | ② Restart button | ③ Power button |
| ④ Mode switch button | ⑤ DC output switch | ⑥ DC output port |
| ⑦ AC output switch | ⑧ AC output port | ⑨ Grid input port |
| ⑩ PV input port | | |

03

Installation instructions

• Unpacking inspection

Package includes: a generator, a user manual, and several connecting wires.

Do not turn on the generator if any damage or missing accessories in the transport. Please notify carriers and dealers.

• Installation steps

Open the package and place the product in a safe environment.

Use cables of appropriate wire diameter. The cable cannot be lower than the national electrical safety standards, and the wire diameter is generally selected according to the current density not exceeding 5A/mm². If the distance is far away, please adjust and increase the wire diameter appropriately.

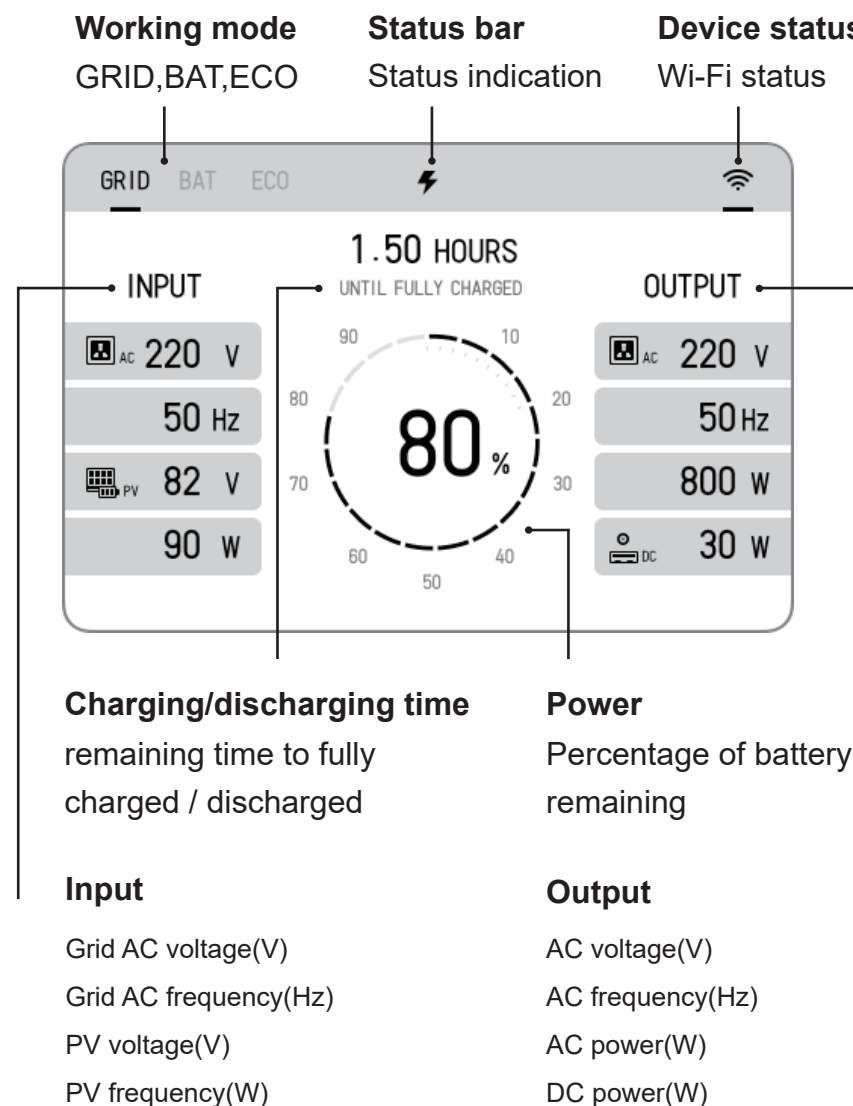
Connect the AC cable to the AC input port of the product, and pay attention to the polarity zero live wire.

When connecting solar panels, the voltage and current must meet the relevant voltage and current requirements of this product (please refer to the parameter table). If exceed the required range, the product may be damaged.

Before using the product, turn off all loads. Connect the AC load to the product's AC output port. Please note that the polarity cannot be reversed, and ensure that the total power of the load appliance is less than the total rated power of the product (please refer to the parameter table).

04

LCD display instructions



05

Button operation guidance

· Type of input

When the device is in the input state, the icon ⚡ in status bar is on and when the input is disconnected, the icon is off.

When the device is in the input state, the remaining time to fully charged is displayed.

· Type of output

When the device is in the output state, the current power flashes.

When DP fast charging is turned on, the icon in golden ⚡ in status bar is always on, and the icon is off under normal charging by default.

When the device is in the output state, the remaining time to fully discharged is displayed.

· Device status

The icon flashes when Wi-Fi searches for a device, stays on when connected successfully, and turns off when disconnecting.

POWER	press and hold for 2 seconds	Power on/off
	short press	Turn on/off the screen

MODE	press and hold for 2 seconds	Enter / save and exit the submenu settings
	short press	Switch working mode / switch to the next option in the submenu

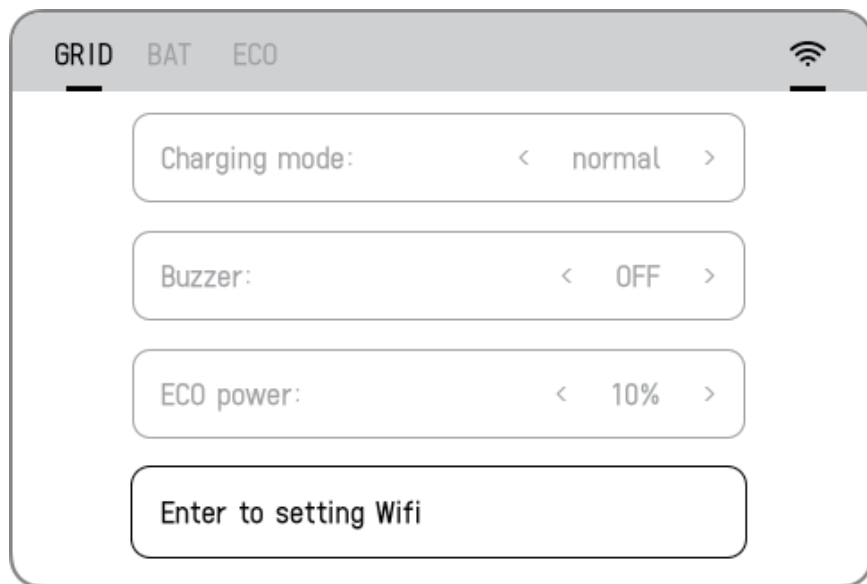
DC ON/OFF	short press	Turn on/off DC output
		Cycle through the current option of the submenu

AC ON/OFF	Turn on/off AC output
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RESET	Reset the device
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· Submenu settings

When powered on, press and hold **Mode** button to enter the submenu settings page.



(1) Charging method: fast charge/normal charge

(2) Buzzer volume

(3) Inverter shutdown threshold in ECO mode

(4) QR code for Wi-Fi configuration

In the submenu, short-press the **Mode** button to switch to the next option, and short-press the **DC ON/OFF** button to cycle through the current option to switch settings, and after completing the setting, press and hold the **MODE** button to save and exit the submenu settings page.

06

Working mode description

· BATTERY mode

When the battery power is sufficient, the battery and PV input is inverted into the grid standard voltage, and the output is supplied to the load;

① If the photovoltaic input power is greater than the load power, the output is supplied to the load, and the remaining power is transmitted to the battery for charging, at which time the battery only charges and does not discharge;

② If the photovoltaic input power is less than the load power, and the output is supplied to the load, at which time the battery only discharges;

③ If there is no photovoltaic input, and the output is supplied to the load; At this time, the battery only discharges.

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When the battery is out of power

① If the grid input is normal, it can be output to power the load. At this point, the grid does not charge the battery;

② When the PV power returns to a certain value, the product will automatically switch back to the PV priority, the output is powered to the load, and the remaining power is charged to the battery.

· GRID mode

When the grid is normal, the grid output is preferentially used to supply power to the load. If there is PV input, the mains and PV can jointly charge the battery.

When the grid is abnormal,

① If the PV input power is greater than the load power, that is, the DC power output by the PV module supplies power to the load, at this time the battery power is not consumed, and the remaining power charges the battery;

② If the PV input power is less than the load power, the solar power and the battery power charge the load simultaneously.

· ECO mode

In the case that the PV power is supplied to the load, when the load power is less than the set threshold, the generator automatically enters the sleep state, and when the load power is detected to be greater than the set threshold, the main control system automatically wakes up the product to work normally.

07 / Fault description & Solutions

Fault description	Solutions
① ECO mode shutdown	AC load power is lower than the set value, the system shut down the output automatically.
② AC output overload	AC load overload, remove non essential loads.
③ DC output overload	DC load overload, remove non essential loads.
④ Output short circuit	Remove all loads immediately!
⑤ Inverter over temperature	Check if the fan is running and if the cooling duct is blocked
⑥ Low AC output voltage	Remove all loads and reboot!If the fault persists, please return to factory service.
⑦ Abnormal power grid	Use after disconnecting the power grid
⑧ Battery voltage too high	BMS fault,please return to factory service.
⑨ Battery Short Circuit	Remove all loads and reboot!If the fault persists, please return to factory service.
⑩ Charging overcurrent	Remove all loads and reboot!If the fault persists, please return to factory service.
⑪ Discharging overcurrent	Remove all loads and reboot!If the fault persists, please return to factory service.
⑫ Battery over temperature	Stop Discharge,Battery over temperature Stop Charge,Battery over temperature
⑬ Battery low temperature	Stop Discharge,Battery too cold Stop Charge,Battery too cold

08 / Mobile APP description (optional)

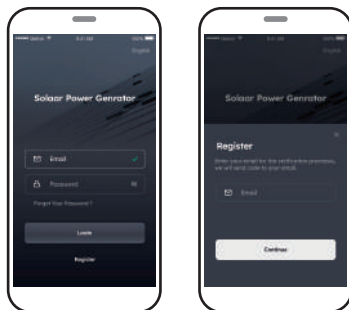
① Download and install the app

Scan the QR code below or search for "PowerPak" in the app market to download and install the app



② Sign up and log in

On the APP login page, click the "Register" button to enter the email address to obtain the verification code to complete the account registration and login



Notes:

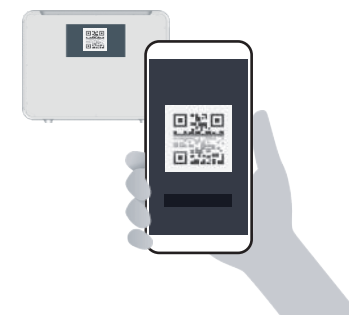
Be sure that your cellphone is on the version Android 6.0 / IOS 9 or above;

If you have any questions during installation or use, please visit our website:

<https://www.namkoopower.com>

③ Add a device

Scan the QR code on the screen to add the device to the Internet



④ Manage devices

The home page of the device can view the power situation in real time, and remotely switch the AC/DC port of the device;



Check the reason of network failures:

When networking your product, make sure your phone is close to the device;

When choosing the current home WiFi network, please pay attention to the 2.4GHz network;

If the WiFi name and password are changed, repeat the procedure above to reconnect to the Internet.

09 / Maintenance

- ① Product working temperature: 0 °C ~ 40 °C; storing temperature: -15 °C ~ 55 °C.
- ② Product operation and storage environment humidity: 0~90% without condensation.
- ③ The operating environment of the product is ≤ 2000 meters above sea level, and it needs to be degraded if it exceeds it.
- ④ If you do not use this product for a long time, it is recommended to charge/-discharge it every 3 months.
- ⑤ The SPG itself does not require too much maintenance, and only needs to be charged and discharged frequently to obtain a life expectancy.

Notes:

- ① There is a high voltage inside the product! Do not open it yourself to try to do repairs or maintenance to avoid the risk of electric shock!
- ② Batteries are consumables and must be replaced by a professional electrician if necessary.
- ③ Fast charging will affect the life of the battery pack, and the life of the battery pack may be halved if the fast charging function is used for a long time.
- ④ The ambient temperature will affect the discharge capacity of the battery pack, and when the ambient temperature is $25\pm 5^{\circ}\text{C}$, the maximum amount of power can be discharged, and the discharge is up to 10% of the battery's capacity.
- ⑤ In BATTERY mode, the grid does not charge the battery. Please switch to GRID mode, so that the grid will charge the battery.
- ⑥ Do not use this product in a sun-exposed or rainy environment.

10 / Specifications

Model		SPG-A1000-S1
Battery	Type	LiFePO ₄ battery
	Battery voltage	25.6VDC
	Battery capacity	1024Wh
Inverter	Rated power	1000W
	Rated voltage	220VAC $\pm 5\%$
	Frequency	50Hz / 60Hz $\pm 1\%$
	Waveform	Pure sine wave
AC input	Rated voltage	220V AC
	Voltage range	160 ~ 265V AC
	Frequency range	45 ~ 65Hz
	Fast charging	1.5H full charge in GRID mode
Solar input	Max charge power	500W
	Input voltage	35V ~ 100VDC
	Input current	0 ~ 15A
	Maximum MPPT efficiency	99%
	Solar input interface	XT - 60 socket
	Battery charge voltage	29.2V
	Battery charge current range	0~20A
DC output	5VDC USB	3pcs, 5V \leq 2.4A, total power 12W Max
	Type-C PD fast charge	1pc, self-adaptive output 5V \rightarrow 3A / 9V \rightarrow 3A / 12V \rightarrow 2.5A / 15V \rightarrow 2A / 20V \rightarrow 1A, total power 30W Max
	12VDC 5521	2pcs, 12V \rightarrow 3A, total power 36W Max
Display	Specification	3.5-inch TFT color screen

11 / **Warranty card**

Warranty Description

Dear customer, thank you for choosing this product, please ask the dealer to fill in the purchase date, product model and stamp the store seal when you purchase the product, and keep this card properly.

Within 2 years of the product warranty period, under normal usage, If there is any failure caused by the quality of the product itself, we will arrange relevant personnel to repair it free of charge.

PRODUCT: _____

MODEL: _____

DATE: _____

NAME: _____

TELEPHONE: _____