

## Inverter with AC Charger - US

**GX** series



REVERSE POLARITY  
PROTECTION



OVERLOAD  
PROTECTION



OVER TEMPERATURE  
PROTECTION



LOW/OVER VOLTAGE  
PROTECTION



SHORT CIRCUIT  
PROTECTION

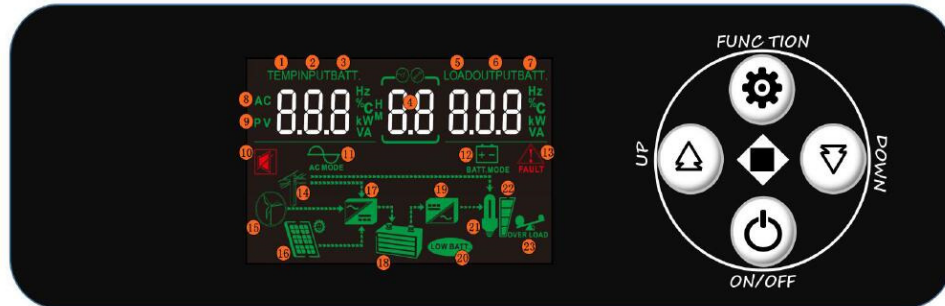
## INTRODUCTION

GX series inverter with AC charger is developed for energy storage solar system or uninterruptible power system (UPS). It is an advanced tool of power conversion. It can supply you with AC power converted from a DC power source, while it also has a battery charger with grid power AC input. It has display board to select the inverter to work in Grid-Power-Priority mode or Battery-Power-Priority mode. GX series inverter with AC charger is a stable power source with low harmonic distortion to ensure the widest use of applications.

## FUNCTIONAL CHARACTERISTICS

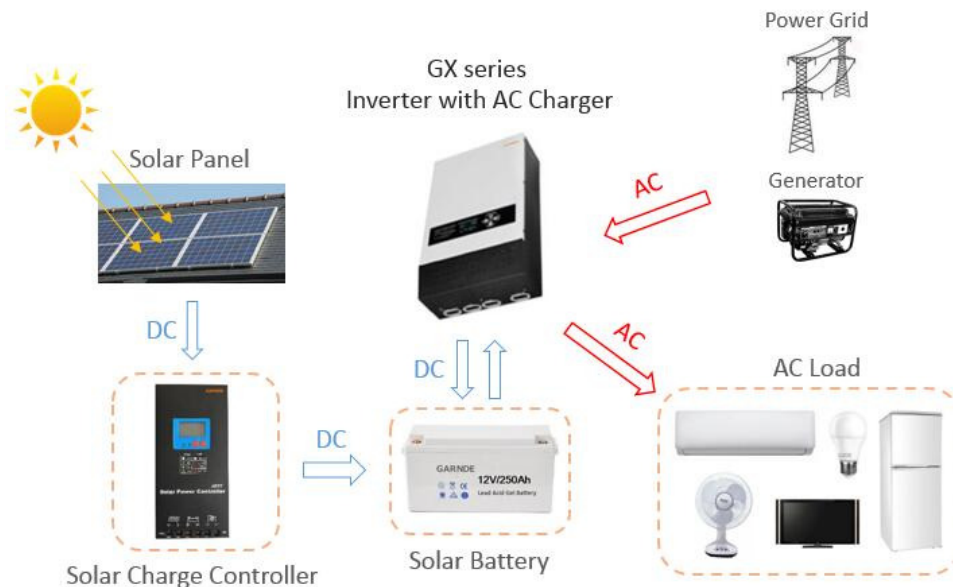
- Convert 12V/24V/48V DC power to 110V AC pure sine wave power
- Charge the batteries with grid power AC input, 0-30A adjustable
- Three working mode options by LCD display board: Grid-Power-Priority mode; Battery-Power-Priority mode; ECO mode
- Output type and socket optional
- Over load protection, over voltage protection, low voltage protection, short circuit protection, over temperature protection, reverse polarity protection

## DISPLAY BOARD INTRODUCTION



- |   |   |                          |
|---|---|--------------------------|
| ① Temperature   | ⑧ Grid Input Voltage                                | ⑱ Battery System Display |
| ② Input   | ⑨ Solar Input Power<br>(MPPT built-in machine only) | ⑲ Inverter Converter     |
| ③ Battery Voltage   | ⑩ Mute Icon   | ⑳ Battery Low Vol. Alarm |
| ④ Working Mode<br>(d1: Grid-Power-Priority Mode)<br>(d2: ECO Mode)<br>(d3: Battery-Power-Priority Mode) | ⑪ Grid-PRI. Mode Icon                               | ㉑ AC Load Display        |
| Battery Type  | ⑫ Battery-PRI. Mode Icon                            | ㉒ AC Load % Display      |
| Grid Input Charge Current   | ⑬ Fault Icon  | ㉓ Overload Display       |
| ⑤ AC Load   | ⑭ Grid Input Connected                              |                          |
| ⑥ AC Output   | ⑮ Wind Input Connected                              |                          |
| ⑦ Battery Power %   | ⑯ Solar Input Connected                             |                          |
|   | ⑰ Grid, Wind, Solar<br>Charge Charger Icon          |                          |

## APPLICATION

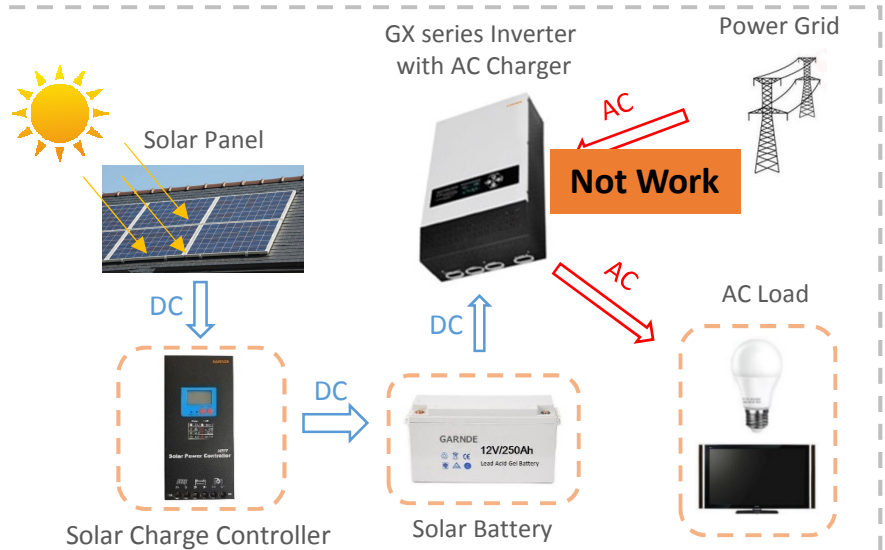


## • Battery-Power-Priority mode

In Battery-Power-Priority mode, solar panels charge the battery system through solar charge controller.

The inverter convert DC power from battery to AC power to drive the loads.

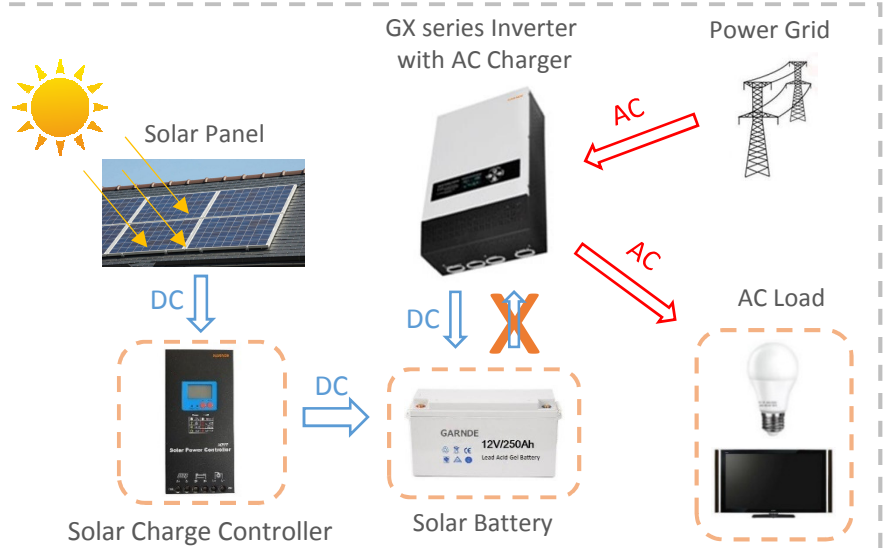
AC power grid is off.



When the battery is discharged, the inverter turn off the battery discharge and turn on the power grid AC charger to charge the battery automatically.

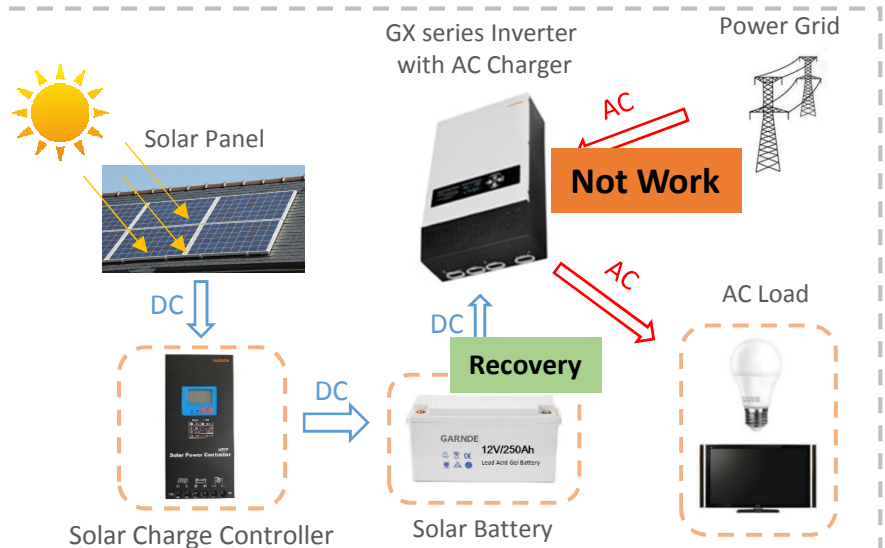
At the same time, the AC power grid drive the loads.

The solar panels are still charging the battery through solar charge controller.



When the battery system is charged. The inverter turn off the power grid AC charger and turn off the AC input automatically.

The solar system back to inverter converting DC power from battery to AC power to drive the loads again.

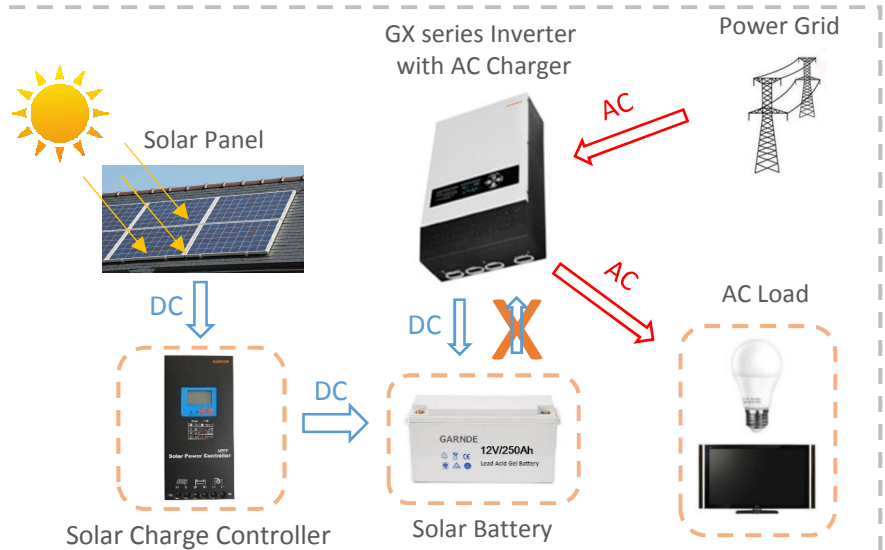


## • Grid-Power-Priority mode

In Grid-Power-Priority mode, the AC power grid drive the loads and charge the battery system.

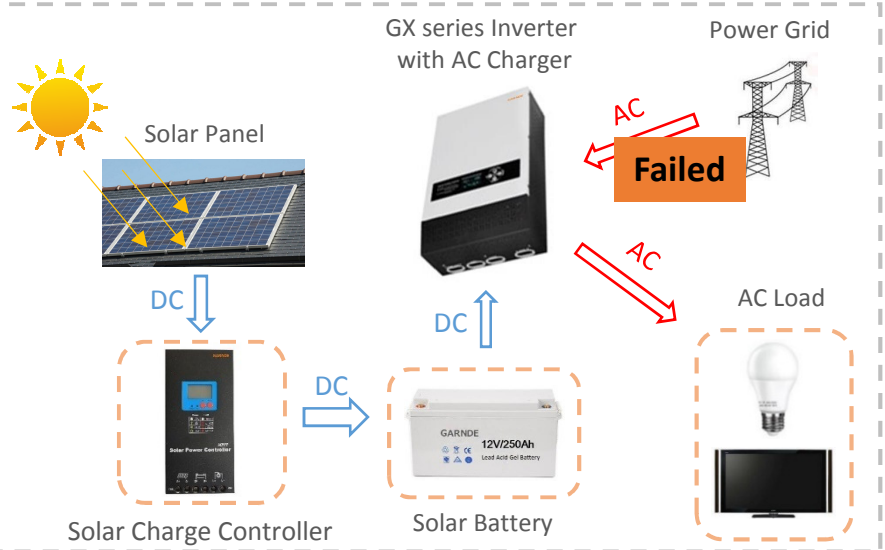
The solar panels also charge the battery system.

the battery system does not discharge.



When the AC power grid is off, the inverter turn on the battery discharge automatically and convert DC power to AC power to drive the loads.

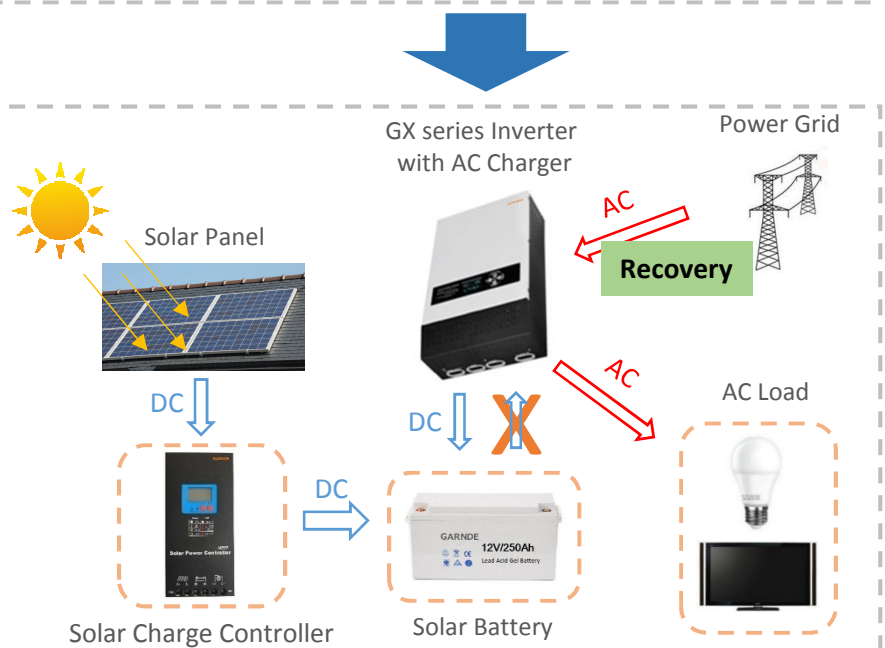
The solar panels keep charging the battery through solar charge controller.



When the AC power grid is recovered, the inverter turn off the battery discharge.

The AC power grid drive the loads and charge the battery.

The solar panels still charge the battery system.



# Inverter with AC Charger 1000W - US

**GX** series

## TECHNICAL SPECIFICATIONS

| Model                       |   | GX1000-12-110  | GX1000-24-110 |
|-----------------------------|---|--|---------------|
| <b>Working Mode Options</b> |   | Grid-Power-Priority Mode / Battery-Power-Priority Mode / ECO Mode                                |               |
| <b>Output</b>               | <b>Rated Power</b>  | 1000W  |               |
|                             | <b>Surge Power</b>  | 3000W  |               |
|                             | <b>AC Voltage</b>   | 110V   |               |
|                             | <b>AC Voltage Range</b>   | 100 - 120V   |               |
|                             | <b>Waveform</b>   | Pure sine wave   |               |
|                             | <b>Frequency</b>  | 60Hz ± 1Hz   |               |
|                             | <b>Communication</b>  | RS232/RS485  |               |
|                             | <b>Efficiency</b>   | ≥ 85%  |               |
| <b>DC Input</b>             | <b>DC Voltage</b>   | 12V  | 24V           |
| <b>Grid Power AC Input</b>  | <b>AC Voltage</b>   | 85-138V  |               |
|                             | <b>Frequency</b>  | 60Hz ± 5Hz   |               |
| <b>Battery Charging</b>     | <b>Charging Current</b>   | C6(30A) (default), C0(0A), C1(5A), C2(10A), C3(15A), C4(20A), C5(25A) can be selected and set up |               |
| <b>Protection</b>           | Overload / Overcurrent / Short circuit / Over temperature / Anti-reverse protection |  |               |
| <b>Others</b>               | <b>Transfer Time</b>  | ≤ 4ms  |               |
|                             | <b>Display</b>  | LCD  |               |
|                             | <b>Working Temperature</b>  | -10°C - 50°C   |               |
|                             | <b>Cooling Fan</b>  | Temperature Control  |               |
|                             | <b>Noise</b>  | ≤ 55dB   |               |
|                             | <b>Dimensions</b>   | 490 x 300 x 130 mm / 19.3 x 11.8 x 5.1 inches  |               |
|                             | <b>Net Weight</b>   | 12 kgs / 26 lbs  |               |
|                             | <b>Packing</b>  | CTN: 57 x 40 x 23 cm, 1 pc, 13.5 kgs / 22.4 x 15.7 x 9.1 inches, 1 pc, 30 lbs                    |               |
|                             | <b>Warranty</b>   | 3 years  |               |

# Inverter with AC Charger 2000W - US

**GX** series

## TECHNICAL SPECIFICATIONS

| Model                       |   | GX2000-24-110  | GX2000-48-110 |
|-----------------------------|---|--|---------------|
| <b>Working Mode Options</b> |   | Grid-Power-Priority Mode / Battery-Power-Priority Mode / ECO Mode                                |               |
| <b>Output</b>               | <b>Rated Power</b>  | 2000W  |               |
|                             | <b>Surge Power</b>  | 6000W  |               |
|                             | <b>AC Voltage</b>   | 110V   |               |
|                             | <b>AC Voltage Range</b>   | 100 - 120V   |               |
|                             | <b>Waveform</b>   | Pure sine wave   |               |
|                             | <b>Frequency</b>  | 60Hz ± 1Hz   |               |
|                             | <b>Communication</b>  | RS232/RS485  |               |
|                             | <b>Efficiency</b>   | ≥ 85%  |               |
| <b>DC Input</b>             | <b>DC Voltage</b>   | 24V  | 48V           |
| <b>Grid Power AC Input</b>  | <b>AC Voltage</b>   | 85-138V  |               |
|                             | <b>Frequency</b>  | 60Hz ± 5Hz   |               |
| <b>Battery Charging</b>     | <b>Charging Current</b>   | C6(30A) (default), C0(0A), C1(5A), C2(10A), C3(15A), C4(20A), C5(25A) can be selected and set up |               |
| <b>Protection</b>           | Overload / Overcurrent / Short circuit / Over temperature / Anti-reverse protection |  |               |
| <b>Others</b>               | <b>Transfer Time</b>  | ≤ 4ms  |               |
|                             | <b>Display</b>  | LCD  |               |
|                             | <b>Working Temperature</b>  | -10°C - 50°C   |               |
|                             | <b>Cooling Fan</b>  | Temperature Control  |               |
|                             | <b>Noise</b>  | ≤ 55dB   |               |
|                             | <b>Dimensions</b>   | 490 x 300 x 130 mm / 19.3 x 11.8 x 5.1 inches  |               |
|                             | <b>Net Weight</b>   | 14.5 kgs / 32 lbs  |               |
|                             | <b>Packing</b>  | CTN: 57 x 40 x 23 cm, 1 pc, 16 kgs / 22.4 x 15.7 x 9.1 inches, 1 pc, 35 lbs                      |               |
|                             | <b>Warranty</b>   | 3 years  |               |

# Inverter with AC Charger 3000W - US

**GX** series

## TECHNICAL SPECIFICATIONS

| Model                       |   | GX3000-24-110  | GX3000-48-110 |
|-----------------------------|---|--|---------------|
| <b>Working Mode Options</b> |   | Grid-Power-Priority Mode / Battery-Power-Priority Mode / ECO Mode                                |               |
| <b>Output</b>               | <b>Rated Power</b>  | 3000W  |               |
|                             | <b>Surge Power</b>  | 9000W  |               |
|                             | <b>AC Voltage</b>   | 110V   |               |
|                             | <b>AC Voltage Range</b>   | 100 - 120V   |               |
|                             | <b>Waveform</b>   | Pure sine wave   |               |
|                             | <b>Frequency</b>  | 60Hz ± 1Hz   |               |
|                             | <b>Communication</b>  | RS232/RS485  |               |
|                             | <b>Efficiency</b>   | ≥ 85%  |               |
| <b>DC Input</b>             | <b>DC Voltage</b>   | 24V  | 48V           |
| <b>Grid Power AC Input</b>  | <b>AC Voltage</b>   | 85-138V  |               |
|                             | <b>Frequency</b>  | 60Hz ± 5Hz   |               |
| <b>Battery Charging</b>     | <b>Charging Current</b>   | C6(30A) (default), C0(0A), C1(5A), C2(10A), C3(15A), C4(20A), C5(25A) can be selected and set up |               |
| <b>Protection</b>           | Overload / Overcurrent / Short circuit / Over temperature / Anti-reverse protection |  |               |
| <b>Others</b>               | <b>Transfer Time</b>  | ≤ 4ms  |               |
|                             | <b>Display</b>  | LCD  |               |
|                             | <b>Working Temperature</b>  | -10°C - 50°C   |               |
|                             | <b>Cooling Fan</b>  | Temperature Control  |               |
|                             | <b>Noise</b>  | ≤ 55dB   |               |
|                             | <b>Dimensions</b>   | 490 x 300 x 130 mm / 19.3 x 11.8 x 5.1 inches  |               |
|                             | <b>Net Weight</b>   | 16.5 kgs / 36 lbs  |               |
|                             | <b>Packing</b>  | CTN: 57 x 40 x 23 cm, 1 pc, 18.5 kgs / 22.4 x 15.7 x 9.1 inches, 1 pc, 41 lbs                    |               |
|                             | <b>Warranty</b>   | 3 years  |               |

# Inverter with AC Charger 4000W - US

**GX** series

## TECHNICAL SPECIFICATIONS

| Model                       |   | GX4000-24-110  | GX4000-48-110 |
|-----------------------------|---|--|---------------|
| <b>Working Mode Options</b> |   | Grid-Power-Priority Mode / Battery-Power-Priority Mode / ECO Mode                                |               |
| <b>Output</b>               | <b>Rated Power</b>  | 4000W  |               |
|                             | <b>Surge Power</b>  | 12000W   |               |
|                             | <b>AC Voltage</b>   | 110V   |               |
|                             | <b>AC Voltage Range</b>   | 100 - 120V   |               |
|                             | <b>Waveform</b>   | Pure sine wave   |               |
|                             | <b>Frequency</b>  | 60Hz ± 1Hz   |               |
|                             | <b>Communication</b>  | RS232/RS485  |               |
|                             | <b>Efficiency</b>   | ≥ 85%  |               |
| <b>DC Input</b>             | <b>DC Voltage</b>   | 24V  | 48V           |
| <b>Grid Power AC Input</b>  | <b>AC Voltage</b>   | 85-138V  |               |
|                             | <b>Frequency</b>  | 60Hz ± 5Hz   |               |
| <b>Battery Charging</b>     | <b>Charging Current</b>   | C6(30A) (default), C0(0A), C1(5A), C2(10A), C3(15A), C4(20A), C5(25A) can be selected and set up |               |
| <b>Protection</b>           | Overload / Overcurrent / Short circuit / Over temperature / Anti-reverse protection |  |               |
| <b>Others</b>               | <b>Transfer Time</b>  | ≤ 4ms  |               |
|                             | <b>Display</b>  | LCD  |               |
|                             | <b>Working Temperature</b>  | -10°C - 50°C   |               |
|                             | <b>Cooling Fan</b>  | Temperature Control  |               |
|                             | <b>Noise</b>  | ≤ 55dB   |               |
|                             | <b>Dimensions</b>   | 510 x 320 x 130 mm / 20.1 x 12.6 x 5.1 inches  |               |
|                             | <b>Net Weight</b>   | 19 kgs / 42 lbs  |               |
|                             | <b>Packing</b>  | CTN: 59 x 42 x 23 cm, 1 pc, 21 kgs / 23.2 x 16.5 x 9.1 inches, 1 pc, 46 lbs                      |               |
|                             | <b>Warranty</b>   | 3 years  |               |



# Inverter with AC Charger 5000W - US

**GX** series

## TECHNICAL SPECIFICATIONS

| Model                       |   | GX5000-24-110  | GX5000-48-110 |
|-----------------------------|---|--|---------------|
| <b>Working Mode Options</b> |   | Grid-Power-Priority Mode / Battery-Power-Priority Mode / ECO Mode                                |               |
| <b>Output</b>               | <b>Rated Power</b>  | 5000W  |               |
|                             | <b>Surge Power</b>  | 15000W   |               |
|                             | <b>AC Voltage</b>   | 110V   |               |
|                             | <b>AC Voltage Range</b>   | 100 - 120V   |               |
|                             | <b>Waveform</b>   | Pure sine wave   |               |
|                             | <b>Frequency</b>  | 60Hz ± 1Hz   |               |
|                             | <b>Communication</b>  | RS232/RS485  |               |
|                             | <b>Efficiency</b>   | ≥ 85%  |               |
| <b>DC Input</b>             | <b>DC Voltage</b>   | 24V  | 48V           |
| <b>Grid Power AC Input</b>  | <b>AC Voltage</b>   | 85-138V  |               |
|                             | <b>Frequency</b>  | 60Hz ± 5Hz   |               |
| <b>Battery Charging</b>     | <b>Charging Current</b>   | C6(30A) (default), C0(0A), C1(5A), C2(10A), C3(15A), C4(20A), C5(25A) can be selected and set up |               |
| <b>Protection</b>           | Overload / Overcurrent / Short circuit / Over temperature / Anti-reverse protection |  |               |
| <b>Others</b>               | <b>Transfer Time</b>  | ≤ 4ms  |               |
|                             | <b>Display</b>  | LCD  |               |
|                             | <b>Working Temperature</b>  | -10°C - 50°C   |               |
|                             | <b>Cooling Fan</b>  | Temperature Control  |               |
|                             | <b>Noise</b>  | ≤ 55dB   |               |
|                             | <b>Dimensions</b>   | 510 x 320 x 130 mm / 20.1 x 12.6 x 5.1 inches  |               |
|                             | <b>Net Weight</b>   | 22 kgs / 49 lbs  |               |
|                             | <b>Packing</b>  | CTN: 59 x 42 x 23 cm, 1 pc, 24 kgs / 23.2 x 16.5 x 9.1 inches, 1 pc, 53 lbs                      |               |
|                             | <b>Warranty</b>   | 3 years  |               |

# Inverter with AC Charger 6000W - US

**GX** series

## TECHNICAL SPECIFICATIONS

| Model                       |   | GX6000-24-110  | GX6000-48-110 |
|-----------------------------|---|--|---------------|
| <b>Working Mode Options</b> |   | Grid-Power-Priority Mode / Battery-Power-Priority Mode / ECO Mode                                |               |
| <b>Output</b>               | <b>Rated Power</b>  | 6000W  |               |
|                             | <b>Surge Power</b>  | 18000W   |               |
|                             | <b>AC Voltage</b>   | 110V   |               |
|                             | <b>AC Voltage Range</b>   | 100 - 120V   |               |
|                             | <b>Waveform</b>   | Pure sine wave   |               |
|                             | <b>Frequency</b>  | 60Hz ± 1Hz   |               |
|                             | <b>Communication</b>  | RS232/RS485  |               |
|                             | <b>Efficiency</b>   | ≥ 85%  |               |
| <b>DC Input</b>             | <b>DC Voltage</b>   | 24V  | 48V           |
| <b>Grid Power AC Input</b>  | <b>AC Voltage</b>   | 85-138V  |               |
|                             | <b>Frequency</b>  | 60Hz ± 5Hz   |               |
| <b>Battery Charging</b>     | <b>Charging Current</b>   | C6(30A) (default), C0(0A), C1(5A), C2(10A), C3(15A), C4(20A), C5(25A) can be selected and set up |               |
| <b>Protection</b>           | Overload / Overcurrent / Short circuit / Over temperature / Anti-reverse protection |  |               |
| <b>Others</b>               | <b>Transfer Time</b>  | ≤ 4ms  |               |
|                             | <b>Display</b>  | LCD  |               |
|                             | <b>Working Temperature</b>  | -10°C - 50°C   |               |
|                             | <b>Cooling Fan</b>  | Temperature Control  |               |
|                             | <b>Noise</b>  | ≤ 55dB   |               |
|                             | <b>Dimensions</b>   | 510 x 320 x 130 mm / 20.1 x 12.6 x 5.1 inches  |               |
|                             | <b>Net Weight</b>   | 25 kgs / 55 lbs  |               |
|                             | <b>Packing</b>  | CTN: 59 x 42 x 23 cm, 1 pc, 27 kgs / 23.2 x 16.5 x 9.1 inches, 1 pc, 60 lbs                      |               |
|                             | <b>Warranty</b>   | 3 years  |               |

# **GARNDE**

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