

## Three Phase Inverter with AC Charger (10KW – 150KW) - EU

**GZ** series



### INTRODUCTION

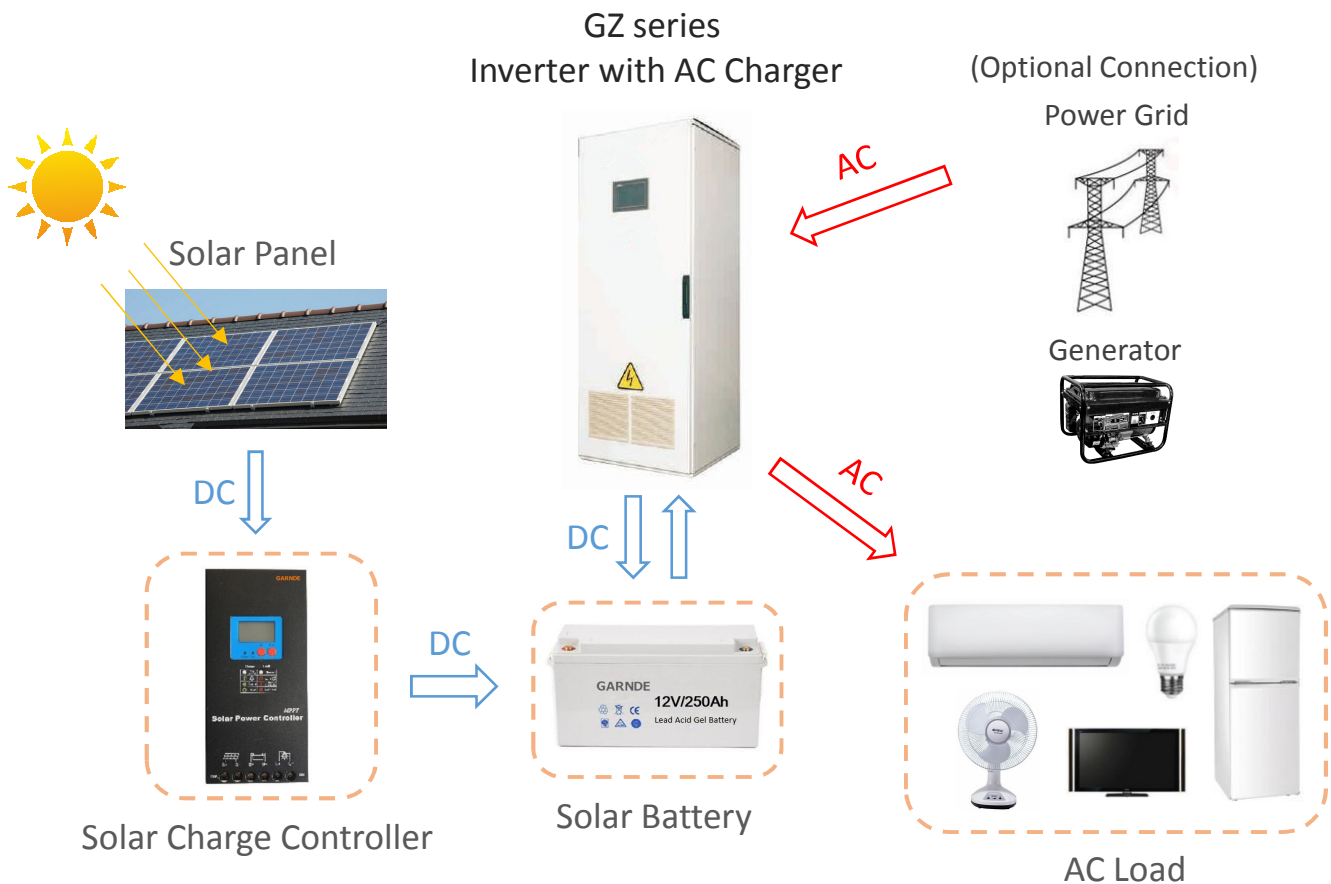
GZ series three phase inverter with AC charger is developed for energy storage solar system or uninterruptible power system (UPS). It is an advanced tool of power conversion. It can supply you with AC power converted from a DC power source, while it also has a battery charger with grid power AC input. GZ series inverter with AC charger is a stable power source in power plant for industry, commerce or residence.



## FUNCTIONAL CHARACTERISTICS

- Convert 48V/96V/192V/240V/384V DC power to 3/N/PE 380V AC pure sine wave power
- Charge the batteries with grid power AC input, charge current 0 - 45A adjustable
- Working mode options by switch: Battery-Priority mode (DC), Grid-Priority mode (AC)
- Wide AC voltage input voltage to endure voltage instability
- LCD real-time display, concise and straightforward
- Various communication ports and remote controls (RS485/RS232/APP/SNMP/GSM optional)
- Over load protection, over voltage protection, low voltage protection, short circuit protection, over temperature protection, reverse polarity protection

## APPLICATION DIAGRAM

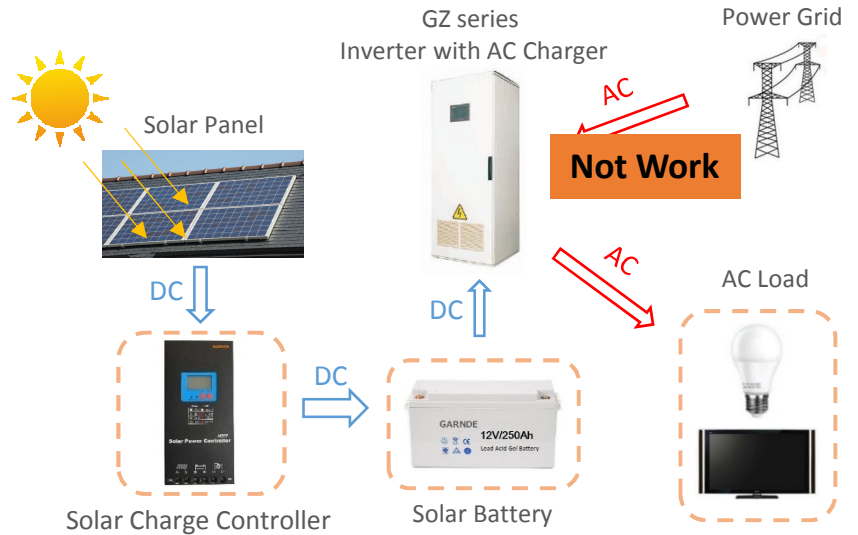


## • Battery-Priority mode (DC)

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

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

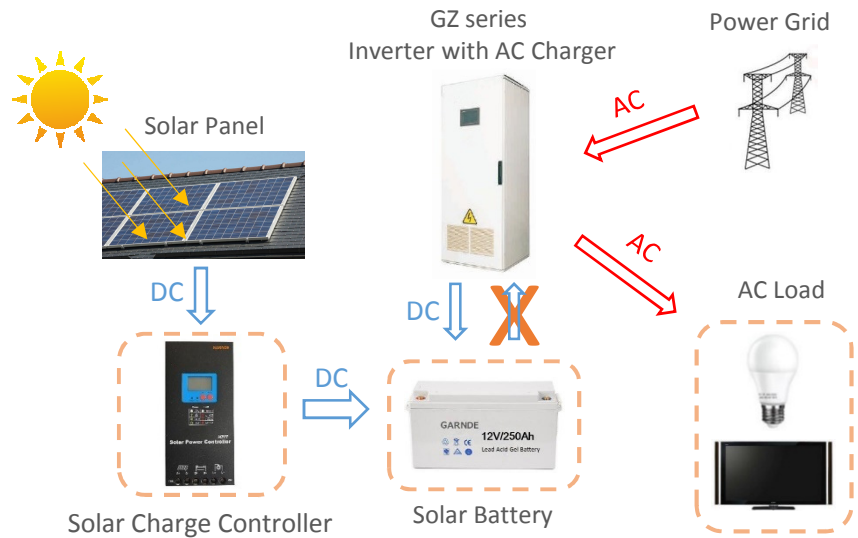
AC power grid is off.



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.

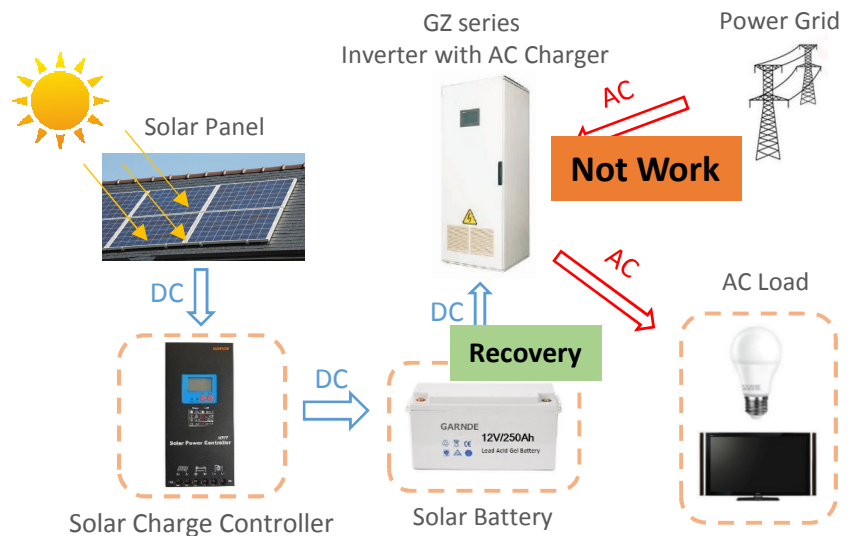
At the same time, the AC power grid drive the loads.

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.

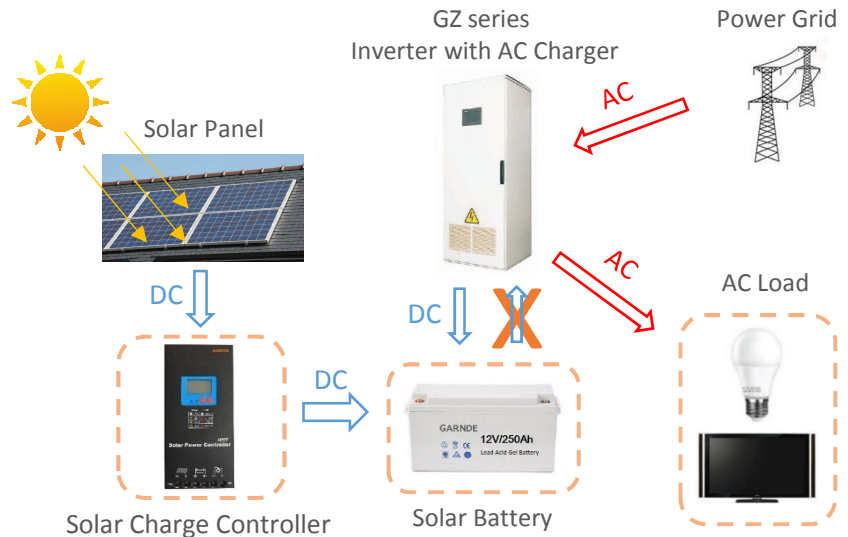


## • Grid-Priority mode (AC)

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

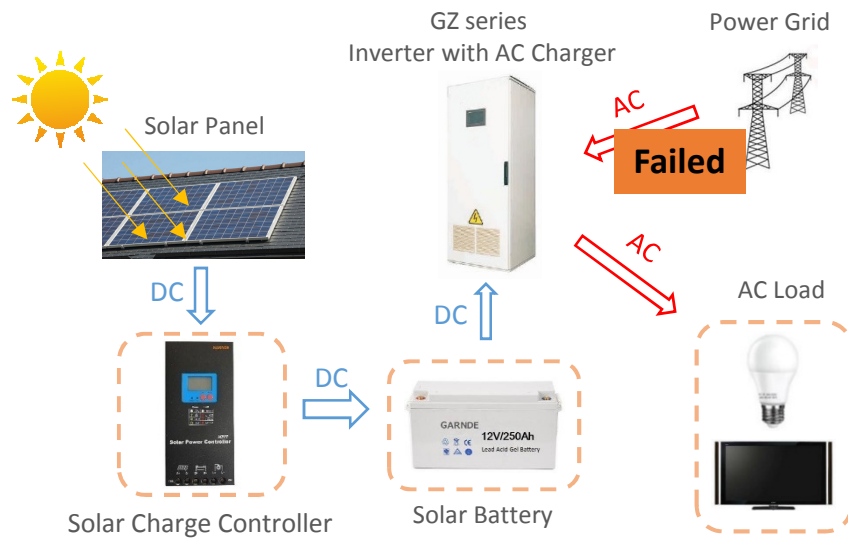
The solar panels also charge the battery system.

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.

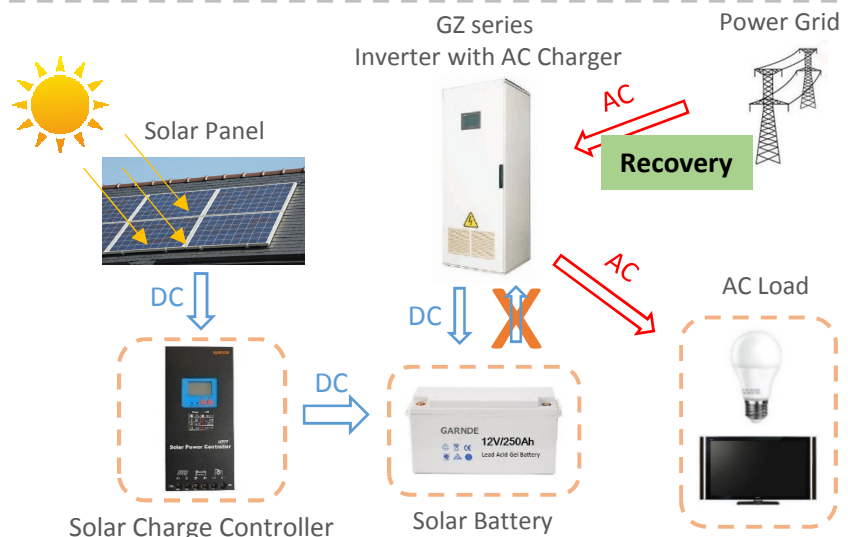
The solar panels keep charging the battery through solar charge controller.



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.



# Three Phase Inverter with AC Charger 10KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ10K-96	GZ10K-192
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)	
Output	Rated Power	10KW	
	Surge Power	30KW	
	AC Voltage	3/N/PE: 380V	
	Waveform	Pure sine wave	
	Frequency	50Hz ± 1Hz	
	Communication	RS485 (RS232 optional)	
	Efficiency	≥ 85%	
DC Input	DC Voltage	96V	192V
Grid Power AC Input	AC Voltage	3/N/PE: 380V	
	Frequency	50Hz ± 5Hz	
Battery Charging	Charging Current	0 - 45A optional	
Protection	Overload, Overcurrent, Short-circuit, Over temperature		
Others	Transfer Time	≤ 4ms	
	Display	LCD	
	Working Temperature	-10°C - 50°C	
	Cooling	Temperature Control Fans	
	Noise	≤ 55dB	
	Dimensions	725 x 365 x 1010 mm / 28.5 x 14.4 x 39.8 inches	
	Net Weight	99 kgs / 218 lbs	
	Packing	CTN: 79 x 43 x 114 cm, 1 pc, 116 kgs / 31.1 x 16.9 x 44.9 inches, 1 pc, 256 lbs	
	Warranty	3 years	

# Three Phase Inverter with AC Charger 20KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ20K-96	GZ20K-192
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)	
Output	Rated Power	20KW	
	Surge Power	60KW	
	AC Voltage	3/N/PE: 380V	
	Waveform	Pure sine wave	
	Frequency	50Hz ± 1Hz	
	Communication	RS485 (RS232 optional)	
	Efficiency	≥ 85%	
DC Input	DC Voltage	96V	192V
Grid Power AC Input	AC Voltage	3/N/PE: 380V	
	Frequency	50Hz ± 5Hz	
Battery Charging	Charging Current	0 - 45A optional	
Protection	Overload, Overcurrent, Short-circuit, Over temperature		
Others	Transfer Time	≤ 4ms	
	Display	LCD	
	Working Temperature	-10°C - 50°C	
	Cooling	Temperature Control Fans	
	Noise	≤ 55dB	
	Dimensions	725 x 365 x 1010 mm / 28.5 x 14.4 x 39.8 inches	
	Net Weight	145 kgs / 320 lbs	
	Packing	CTN: 79 x 43 x 114 cm, 1 pc, 162 kgs / 31.1 x 16.9 x 44.9 inches, 1 pc, 357 lbs	
	Warranty	3 years	

# Three Phase Inverter with AC Charger 30KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ30K-192	GZ30K-384
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)	
Output	Rated Power	30KW	
	Surge Power	90KW	
	AC Voltage	3/N/PE: 380V	
	Waveform	Pure sine wave	
	Frequency	50Hz ± 1Hz	
	Communication	RS485 (RS232 optional)	
	Efficiency	≥ 85%	
DC Input	DC Voltage	192V	384V
Grid Power AC Input	AC Voltage	3/N/PE: 380V	
	Frequency	50Hz ± 5Hz	
Battery Charging	Charging Current	0 - 45A optional	
Protection	Overload, Overcurrent, Short-circuit, Over temperature		
Others	Transfer Time	≤ 4ms	
	Display	LCD	
	Working Temperature	-10°C - 50°C	
	Cooling	Temperature Control Fans	
	Noise	≤ 55dB	
	Dimensions	715 x 575 x 1275 mm / 28.1 x 22.6 x 50.2 inches	
	Net Weight	175 kgs / 386 lbs	
	Packing	CTN: 78 x 64 x 140 cm, 1 pc, 198 kgs / 30.7 x 25.2 x 55.1 inches, 1 pc, 437 lbs	
	Warranty	3 years	

# Three Phase Inverter with AC Charger 40KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ40K-192	GZ40K-384
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)	
Output	Rated Power	40KW	
	Surge Power	120KW	
	AC Voltage	3/N/PE: 380V	
	Waveform	Pure sine wave	
	Frequency	50Hz ± 1Hz	
	Communication	RS485 (RS232 optional)	
	Efficiency	≥ 85%	
DC Input	DC Voltage	192V	384V
Grid Power AC Input	AC Voltage	3/N/PE: 380V	
	Frequency	50Hz ± 5Hz	
Battery Charging	Charging Current	0 - 45A optional	
Protection	Overload, Overcurrent, Short-circuit, Over temperature		
Others	Transfer Time	≤ 4ms	
	Display	LCD	
	Working Temperature	-10°C - 50°C	
	Cooling	Temperature Control Fans	
	Noise	≤ 55dB	
	Dimensions	715 x 575 x 1275 mm / 28.1 x 22.6 x 50.2 inches	
	Net Weight	202 kgs / 445 lbs	
	Packing	CTN: 78 x 64 x 140 cm, 1 pc, 226 kgs / 30.7 x 25.2 x 55.1 inches, 1 pc, 498 lbs	
	Warranty	3 years	



# Three Phase Inverter with AC Charger 50KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ50K-192	GZ50K-384
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)	
Output	Rated Power	50KW	
	Surge Power	150KW	
	AC Voltage	3/N/PE: 380V	
	Waveform	Pure sine wave	
	Frequency	50Hz ± 1Hz	
	Communication	RS485 (RS232 optional)	
	Efficiency	≥ 85%	
DC Input	DC Voltage	192V	384V
Grid Power AC Input	AC Voltage	3/N/PE: 380V	
	Frequency	50Hz ± 5Hz	
Battery Charging	Charging Current	0 - 45A optional	
Protection	Overload, Overcurrent, Short-circuit, Over temperature		
Others	Transfer Time	≤ 4ms	
	Display	LCD	
	Working Temperature	-10°C - 50°C	
	Cooling	Temperature Control Fans	
	Noise	≤ 55dB	
	Dimensions	715 x 575 x 1275 mm / 28.1 x 22.6 x 50.2 inches	
	Net Weight	297 kgs / 655 lbs	
	Packing	CTN: 78 x 64 x 140 cm, 1 pc, 321 kgs / 30.7 x 25.2 x 55.1 inches, 1 pc, 708 lbs	
	Warranty	3 years	

# Three Phase Inverter with AC Charger 80KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ80K-360	GZ80K-384
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)	
Output	Rated Power	80KW	
	Surge Power	240KW	
	AC Voltage	3/N/PE: 380V	
	Waveform	Pure sine wave	
	Frequency	50Hz ± 1Hz	
	Communication	RS485 (RS232 optional)	
	Efficiency	≥ 85%	
DC Input	DC Voltage	360V	384V
Grid Power AC Input	AC Voltage	3/N/PE: 380V	
	Frequency	50Hz ± 5Hz	
Battery Charging	Charging Current	0 - 45A optional	
Protection	Overload, Overcurrent, Short-circuit, Over temperature		
Others	Transfer Time	≤ 4ms	
	Display	LCD	
	Working Temperature	-10°C - 50°C	
	Cooling	Temperature Control Fans	
	Noise	≤ 55dB	
	Dimensions	715 x 575 x 1275 mm / 28.1 x 22.6 x 50.2 inches	
	Net Weight	398 kgs / 877 lbs	
	Packing	CTN: 78 x 64 x 140 cm, 1 pc, 422 kgs / 30.7 x 25.2 x 55.1 inches, 1 pc, 930 lbs	
	Warranty	3 years	

# Three Phase Inverter with AC Charger 100KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ100K-360	GZ100K-384
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)	
Output	Rated Power	100KW	
	Surge Power	300KW	
	AC Voltage	3/N/PE: 380V	
	Waveform	Pure sine wave	
	Frequency	50Hz ± 1Hz	
	Communication	RS485 (RS232 optional)	
	Efficiency	≥ 85%	
DC Input	DC Voltage	360V	384V
Grid Power AC Input	AC Voltage	3/N/PE: 380V	
	Frequency	50Hz ± 5Hz	
Battery Charging	Charging Current	0 - 45A optional	
Protection	Overload, Overcurrent, Short-circuit, Over temperature		
Others	Transfer Time	≤ 4ms	
	Display	LCD	
	Working Temperature	-10°C - 50°C	
	Cooling	Temperature Control Fans	
	Noise	≤ 55dB	
	Dimensions	925 x 760 x 1450 mm / 36.4 x 29.9 x 57.1 inches	
	Net Weight	850 kgs / 1874 lbs	
	Packing	CTN: 99 x 83 x 159 cm, 1 pc, 895 kgs / 39.0 x 32.7 x 62.6 inches, 1 pc, 1973 lbs	
	Warranty	3 years	

# Three Phase Inverter with AC Charger 120KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

Model		GZ120K-384
Working Mode Options		Grid-Priority mode (AC) / Battery-Priority mode (DC)
Output	Rated Power	120KW
	Surge Power	360KW
	AC Voltage	3/N/PE: 380V
	Waveform	Pure sine wave
	Frequency	50Hz ± 1Hz
	Communication	RS485 (RS232 optional)
	Efficiency	≥ 85%
DC Input	DC Voltage	360V
Grid Power AC Input	AC Voltage	3/N/PE: 380V
	Frequency	50Hz ± 5Hz
Battery Charging	Charging Current	0 - 45A optional
Protection	Overload, Overcurrent, Short-circuit, Over temperature	
Others	Transfer Time	≤ 4ms
	Display	LCD
	Working Temperature	-10°C - 50°C
	Cooling	Temperature Control Fans
	Noise	≤ 55dB
	Dimensions	925 x 760 x 1450 mm / 36.4 x 29.9 x 57.1 inches
	Net Weight	900 kgs / 1984 lbs
	Packing	CTN: 99 x 83 x 159 cm, 1 pc, 945 kgs / 39.0 x 32.7 x 62.6 inches, 1 pc, 2083 lbs
	Warranty	3 years

# Three Phase Inverter with AC Charger 150KW - EU

**GZ** series

## TECHNICAL SPECIFICATIONS

<b>Model</b>		<b>GZ150K-384</b>
<b>Working Mode Options</b>		Grid-Priority mode (AC) / Battery-Priority mode (DC)
<b>Output</b>	<b>Rated Power</b>	150KW
	<b>Surge Power</b>	450KW
	<b>AC Voltage</b>	3/N/PE: 380V
	<b>Waveform</b>	Pure sine wave
	<b>Frequency</b>	50Hz ± 1Hz
	<b>Communication</b>	RS485 (RS232 optional)
	<b>Efficiency</b>	≥ 85%
<b>DC Input</b>	<b>DC Voltage</b>	360V
<b>Grid Power AC Input</b>	<b>AC Voltage</b>	3/N/PE: 380V
	<b>Frequency</b>	50Hz ± 5Hz
<b>Battery Charging</b>	<b>Charging Current</b>	0 - 45A optional
<b>Protection</b>	Overload, Overcurrent, Short-circuit, Over temperature	
<b>Others</b>	<b>Transfer Time</b>	≤ 4ms
	<b>Display</b>	LCD
	<b>Working Temperature</b>	-10°C - 50°C
	<b>Cooling</b>	Temperature Control Fans
	<b>Noise</b>	≤ 55dB
	<b>Dimensions</b>	925 x 760 x 1450 mm / 36.4 x 29.9 x 57.1 inches
	<b>Net Weight</b>	1120 kgs / 2469 lbs
	<b>Packing</b>	CTN: 99 x 83 x 159 cm, 1 pc, 1165 kgs / 39.0 x 32.7 x 62.6 inches, 1 pc, 2568 lbs
	<b>Warranty</b>	3 years

# **GARNDE**

**Garnde Solar Energy Corp.**

1377 Jianlan Road, Hi-tech Zone

Ningbo 315000, Zhejiang, China

Tel: +86 574 8901 9228

Email: [admin@garnde.com](mailto:admin@garnde.com)

[www.garnde.com](http://www.garnde.com)