Off-Grid Pure Sine Wave Inverter

Our BZP series Off Grid Pure sine wave inverter is one of the most advanced DC to AC conversion products in the world, it is suitable use for areas without electricity, vehicles, ships, solar energy, wind turbine and other renewable energy systems and etc, can supply power and provide guarantee effectively for the areas with traffic inconveniences, in the mountains, pastoral, border, island and other areas without electricity. It has the main advantages of high quality sine wave AC output, microcomputer control, humanness design, and it is high efficiency and low no-load loss, and no pollution. The inverter can also supply AC power to all kinds of electric equipment, air conditioners, electric motors, refrigerators, fluorescent lights, televisions, electric fans and other industrial power supply.

超强性能 非凡品质

EXTREME PERFORMANCE EXTRAORDINARY QUALITY

- 20 Years Life Time
- IPM Moudle
- LCD Display
- PV Power Charge (optional)
- Multiple Protection
- City Power Charge (optional)

- Rs485 Communication (optional)
- 24 Hours Working
- Fault Alarm
- VFD Start
- Step-Down Start
- Work Instructions
- Automatic Switching

完善的保护功能

PERFECT PROTECTION FUNCTION

It has a very good protection function (including overload protection, over-current protection, over temperature protection, short circuit protection),

- Over Temperature
- Overload Protection
- Under voltage Protection
- Short Circuit Protection
- Over Current Protection

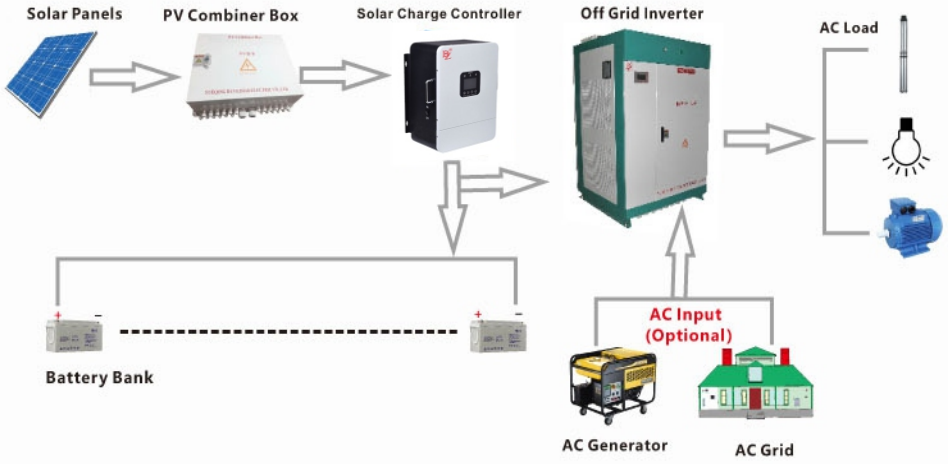
- Module Protection
- Reverse Protection
- Grounding Protection
- Lightning Protection
- Overvoltage Recovery
- Under voltage Recovery

Off-Grid Battery Storage System

Off-grid battery storage system including solar panel array or wind turbine,PV combiner box, solar charge controller,storage battery,off-grid inverter,etc.

In the sunshine, the solar panels convert the solar energy to DC power and charge the battery group by the charge controller then the off grid inverter convert the DC power into AC power for power supply the AC load.

Battery Storage System



1, When the solar or wind energy is present and higher the battery voltage,the inverter converts the solar or wind energy to the load directly。while the controller detects whether the battery needs to be charged.

2, When the solar or wind energy is present but not sufficient and the battery voltage is high,the inverter will automatically switch to bypass mode supplies solar or wind power to the load in conjunction with AC grid or AC generator

3, When solar or wind power is lower than the battery voltage or solar or wind power is insufficient , the inverter is used to convert the AC grid or AC generator to the load directly(Optional AC to DC charging function).

Off-Grid No Battery Storage System

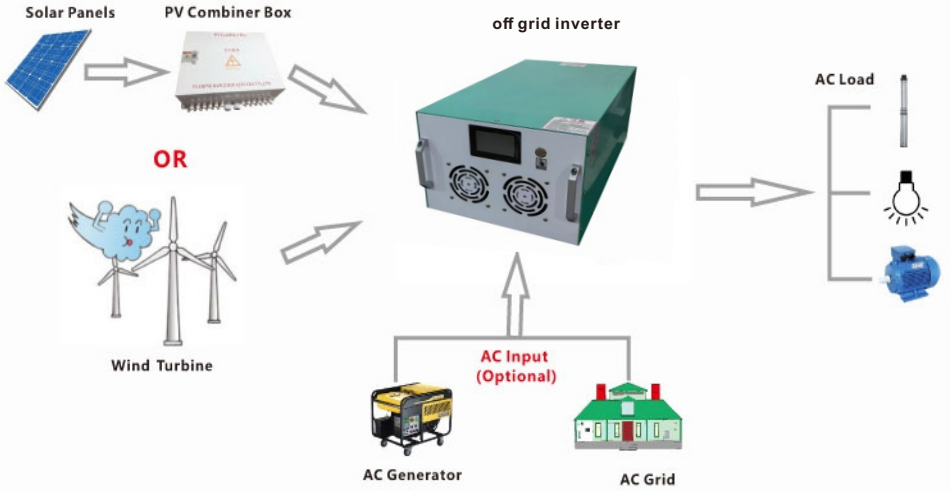
Off－grid no battery storage system including solar panel array/wind turbine,PV combiner box, Off－grid inverter, etc.

◆ In the sunshine, the solar panels generate energy through the off grid inverter convert the DC power into the AC power for power supply the AC load.

◆ In the wind, the wind turbine generate energy through the off grid inverter convert the DC power into the AC power for power supply the AC load.

◆ Optional AC bypass input function,when solar or wind power is insufficient, it can automatically switch to AC generator or AC grid power supply the AC load.

No Battery Storage System



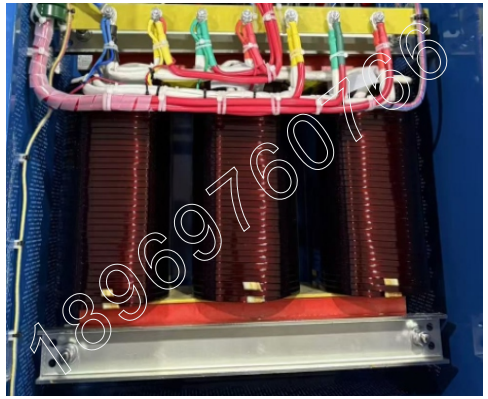
1, When there is sufficient solar or wind energy,the inverter is used to convert the solar or wind energy to the load directly。

2, When there is insufficient solar or wind energy,the inverter will automatically supplies solar or wind power to the load in conjunction with AC grid or AC generator

3, Automatic regulating stable voltage and stable frequency output. Can set solar or wind power priority or AC grid or AC generator priority on LCD。

Technical Features:

- Using the sixth generation efficient IPM intelligent module from Japanese Mitsubishi, high efficiency and stable performance. It with powerful protection function, the protection for short circuit, over load, over temperature is more safe and reliable. It's service life can up to 15 years or more.
- Intelligentized, modularized, simple structure design with powerful function.
- Two kinds of start mode: Step-down Voltage Start and Variable Frequency Start. Customers can set start mode according to the type of their load. This function is very convenient for users and also reduce frequency converter's usage, which reduced the cost of equipment investment, easy to connect wires and control.
- The output frequency can be setting via LCD panel, it's very convenient for customer.
- The output voltage can be set between -40 % to +20 % of rated voltage. And the output voltage is very accuracy ±1%.
- The DC input voltage range can be set. Over-voltage point, under-voltage point, over-voltage recovery point, under-voltage recovery point all can be setting via the LCD panel.
- Pure sine wave output. With good dynamic response less than 50MS, waveform distortion rate smaller, higher conversion efficiency and stable output voltage.
- Low Frequency Transformer, which ensures that inverter has high efficiency.
- High conversion efficiency, Max. Efficiency≥97%
- Adopts black pure aluminum radiator, which confirms the best radiating performance.
- Powerful data display function. LCD can display the DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code display.
- Wide input voltage can be set according to customer's requirement. Input voltage range can be selected from 100-400V or 300-800V.
- Wide input voltage can work without battery and solar charge controller,save more cost and With MPPT wide voltage input function, maximum use of solar power
- European CE (EMC, LVD) Certificate and accredited by Australian CEC, ERAC energy network.
- Optional function:RS485 remote monitoring,AC bypass input,built in solar charge controller or AC to DC battery charger.



01

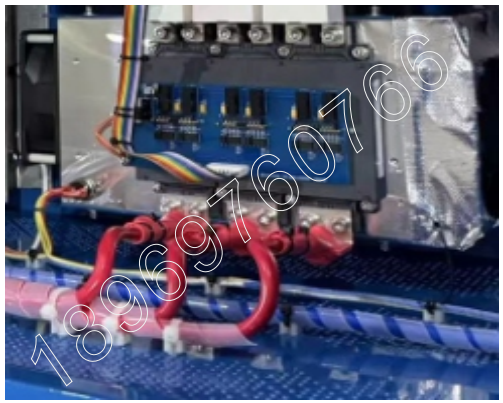
Special Transformer

Low power consumption energy-saving transformer, stable performance, high efficiency, strong load carrying capacity.

02

Standard Eelectrical Wiring

Avoid messy lines and let you see clearly at a glance where each line's direction.

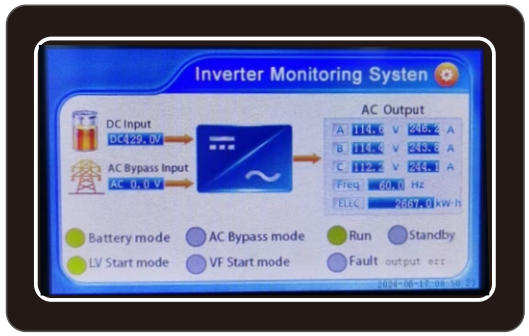


03

Intelligent IPM Module

IPM module driven, highly integrated and simplified design that enhances overall system performance.

Battery and Inverter actual situation 0 seconds feedback,
real-time detection of the state of the inverter voltage changes, timely understanding of the inverter working status



DC Voltage Display

AC Voltage Display

Working State

Electricity Consumption

Brand Circuit Breaker

input and output high quality brand hard switches,rapid respones,effective protection of equipment safety.

Technical Parameters :

Model BZP-		3KW	4KW	5KW	6KW	8KW	10KW
Isolation mode		Low Frequency Transformer					
DC Input	Rated voltage (Vdc)	96V				192V	
	Rated current (A)	32A	42A	52A	63A	42A	52A
AC Output	Rated output power	3KW	4KW	5KW	6KW	8KW	10KW
	Output waveform	Pure Sine Wave					
	Rated Voltage	220V±3%					
	Phases	Single phase					
	Rated current (A)	14A	18 A	23A	27A	42A	45A
	Frequency	50Hz or 60Hz					
	Rated output voltage range (V)	110/120/220/230/240VAC optional					
	Power Factor (PF)	0.99					
	Overload Ability	150%, 5 seconds					
	Efficiency	>93%					
	Waveform distortion rate (THD)	<3% (Linear load)					
	Dynamic Response (0 to 100% load)	5%, ≤50ms					
	Display	LCD					
	Running mode	Working continuously					
	Electrical insulation properties	2000Vac, 1 Minute					
Communication interface		RS485 (optional)					
Protection Function	Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.					
	Cooling method	Fan-cooled					
	Short-circuit protection	No automatic recovery, need to restart the machine					
Working environment	Noise (1 meter)	≤50dB					
	Degree of protection	IP20 (indoor)					
	Working Altitude (m)	≤2000					
	Working temperature	-25~+55℃					
	relative humidity	0~90%, non-condensing					
Rack mounted type	Depth* Width * Height	435x605x267mm					
Stand type		450*550*760mm				550*550*860mm	

★Above parameter only for reference,Could be custom made to user specifications.

Model BZP-		3KW	4KW	5KW	6KW	8KW	10KW
Isolation mode		Low Frequency Transformer					
DC Input	Rated voltage (Vdc)	96V				192V	
	Rated current（A）	32A	42A	52A	63A	42A	52A
AC Output	Rated output power	3KW	4KW	5KW	6KW	8KW	10KW
	Output waveform	Pure Sine Wave					
	Rated Voltage	380V±3%					
	Phases	Three phase					
	Rated phase current（A）	4.5A	6A	7.5A	9A	12A	15A
	Frequency	50Hz or 60Hz					
	Rated output voltage range (V)	220/380/415/440/480VAC optional					
	Power Factor（PF）	0.99					
	Overload Ability	150%, 5 seconds					
	Efficiency	>93%					
	Waveform distortion rate (THD)	<3%（Linear load）					
	Dynamic Response (0 to 100% load)	5%，≤50ms					
	Display	LCD					
	Running mode	Working continuously					
	Electrical insulation properties	2000Vac, 1 Minute					
Communication interface		RS485 (optional)					
Protection Function	Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.					
	Cooling method	Fan-cooled					
	Short-circuit protection	No automatic recovery, need to restart the machine					
Working environment	Noise (1 meter)	≤50dB					
	Degree of protection	IP20（indoor）					
	Working Altitude（m）	≤2000					
	Working temperature	-25~+55℃					
	relative humidity	0~90%，non-condensing					
Stand type	Depth* Width * Height	450*550*760mm		550*550*860mm			

✱Above parameter only for reference,Could be custom made to user specifications.

Model BZP-		12KW	15KW	20KW	25KW	30KW
Isolation mode		Low Frequency Transformer				
DC Input	Rated voltage (Vdc)	192V		240V		
	Rated current（A）	63A	78A	83A	105A	125A
AC Output	Rated output power	12KW	15KW	20KW	25KW	30KW
	Output waveform	Pure Sine Wave				
	Rated Voltage	380V±3%				
	Phases	Three phase				
	Rated phase current（A）	18A	23A	30A	38A	45A
	Frequency	50Hz or 60Hz				
	Rated output voltage range (V)	220/380/415/440/480VAC optional				
	Power Factor（PF）	0.99				
	Overload Ability	150%, 5 seconds				
	Efficiency	>93%				
	Waveform distortion rate (THD)	<3%（Linear load）				
	Dynamic Response (0 to 100% load)	5%，≤50ms				
	Display	LCD				
	Running mode	Working continuously				
	Electrical insulation properties	2000Vac, 1 Minute				
Communication interface		RS485 (optional)				
Protection Function	Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.				
	Cooling method	Fan-cooled				
	Short-circuit protection	No automatic recovery, need to restart the machine				
Working environment	Noise (1 meter)	≤50dB				
	Degree of protection	IP20（indoor）				
	Working Altitude（m）	≤2000				
	Working temperature	-25~+55℃				
	relative humidity	0~90%，non-condensing				
Stand type	Depth* Width * Height	550*550*860mm			600*700*1080mm	

✱Above parameter only for reference,Could be custom made to user specifications.

Model BZP-		40KW	50KW	60KW	80KW	100KW
Isolation mode		Low Frequency Transformer				
DC Input	Rated voltage (Vdc)	360V			480V	
	Rated current（A）	112A	139A	167A	167A	208A
AC Output	Rated output power	40KW	50KW	60KW	80KW	100KW
	Output waveform	Pure Sine Wave				
	Rated Voltage	380V±3%				
	Phases	Three phase				
	Rated phase current（A）	61A	76A	91A	121A	152A
	Frequency	50Hz or 60Hz				
	Rated output voltage range (V)	380/415/440/480VAC optional				
	Power Factor（PF）	0.99				
	Overload Ability	150%, 5 seconds				
	Efficiency	>93%				
	Waveform distortion rate (THD)	<3%（Linear load）				
	Dynamic Response (0 to 100% load)	5%，≤50ms				
	Display	LCD				
	Running mode	Working continuously				
	Electrical insulation properties	2000Vac, 1 Minute				
Communication interface		RS485 (optional)				
Protection Function	Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.				
	Cooling method	Fan-cooled				
	Short-circuit protection	No automatic recovery, need to restart the machine				
Working environment	Noise (1 meter)	≤50dB				
	Degree of protection	IP20（indoor）				
	Working Altitude（m）	≤2000				
	Working temperature	-25~+55℃				
	relative humidity	0~90%，non-condensing				
Stand type	Depth* Width * Height	750*750*1480mm				900*800*1200mm

✱Above parameter only for reference,Could be custom made to user specifications.

Model BZP-		150KW	200KW	250KW	300KW	500KW
Isolation mode		Low Frequency Transformer				
DC Input	Rated voltage (Vdc)	480V		600V		
	Rated current（A）	312A	417A	417A	500A	834A
AC Output	Rated output power	150KW	200KW	250KW	300KW	500KW
	Output waveform	Pure Sine Wave				
	Rated Voltage	380V±3%				480V±3%
	Phases	Three phase				
	Rated phase current（A）	228A	303A	379A	454A	601A
	Frequency	50Hz or 60Hz				
	Rated output voltage range (V)	380/415/440/480VAC optional				
	Power Factor（PF）	0.99				
	Overload Ability	150%, 5 seconds				
	Efficiency	>93%				
	Waveform distortion rate (THD)	<3%（Linear load）				
	Dynamic Response (0 to 100% load)	5%，≤50ms				
	Display	LCD				
	Running mode	Working continuously				
	Electrical insulation properties	2000Vac, 1 Minute				
Communication interface		RS485 (optional)				
Protection Function	Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.				
	Cooling method	Fan-cooled				
	Short-circuit protection	No automatic recovery, need to restart the machine				
Working environment	Noise (1 meter)	≤50dB				
	Degree of protection	IP20（indoor）				
	Working Altitude（m）	≤2000				
	Working temperature	-25~+55℃				
	relative humidity	0~90%，non-condensing				
Stand type	Depth* Width * Height	1000*1200*1800mm		1200*1200*1860mm		2500*1600*1800mm

✱Above parameter only for reference,Could be custom made to user specifications.

Application

10kw Solar Home System

90KW Solar Power Station System

5400 Meters High Altitude Solar Power System

Other Applications