

世 界 与 中 国 共 分 享

BOS
博奥斯电源

山东省高新技术企业

BEST OF SYSTEM



光伏及风力发电逆变电源

PhotoVoltaic and windy generate electricity inverter

Company info

Shandong BOS Power supply Co. Ltd is manufacture frequency variable power supply, inverting power supply, and industrial ups of professional firms, has a group of professionals engaged in power electronics research doctorate or master's degrees and senior outstanding scientific and technological personnel, their first-class quality products And improve service win the market, which 60 HZ frequency variable power supply applied to a large number Haier, Midea, Kelon, Xiao Ya, and other well-known domestic enterprises produced mouth production line and laboratory, 400 HZ middle frequency c variable power supply widely used in aircraft, navigation, radar , And other military electronic equipment

our company firmly establish the "quality first, users first, integrity first," business thinking and continually enhance the quality of management, improve the quality and optimize the system to good quality products to users and win customer loyalty to trust and support.

our company stand out inverting power supply and it's control technology features, aimed at advanced foreign technology and product quality, adhere to the priority areas within the high-tech research and product tracking technology and applications both; adhere to a fine sense of every detail from the start. Standardizing operations, creating first-class products for users to provide first-class service. To create a domestic first-class famous brands all over the world.

Company to revive the national industry as to keep climbing the world's advanced technologies as the goal, innovation and development of electronic and experts at home and abroad, research institutes extensive cooperation, for new high-end appliances provide the most advanced ancillary equipment.

Shandong BOS Power Co., Ltd. will strive for excellence, create first-class!

光伏离网逆变电源

PV off-grid inverter

产品介绍

Product presentation:

光伏离网发电系统由光伏组件、控制器、蓄电池、光伏离网逆变电源、配电系统组成。太阳能能量通过光伏组件转换为直流电能，再通过光伏离网逆变电源将直流电能转换为交流电能，给当地负载供电。



PV off-grid power system includes PV modules, off-grid inverter, meter and power switchboard. The PV modules convert the solar energy to the DC power. Then the off-grid inverter transforms the DC power to the sine wave AC power which has the same frequency and phase with the grid voltage. The AC power supplies the local loads.



产品特点

Product advantages:

1. 原装日本三菱公司IGBT功率模块组装。
2. 采用多组美国ATEMEL公司微处理器，数字控制。
3. 完善的保护和报警功能。
4. 电路结构紧凑，最大效率 $\geq 94\%$ 。
5. 输入电压范围宽。
6. RS232/485通讯，上位机监控功能，实现远程数据采集和监视。

7. 大屏幕中文液晶显示,界面友好。

1. Using IGBT from Mitsubishi company as the power components,

2. Using many American ATEML company microprocessor as figure controller,

3. Perfect protection and warning functions,

4. Circuit frame compact, Max. Efficiency $\geq 94\%$,

5. Input voltage range wide,

6. Communication, multi communication interface can be selected,

7. Big-screen Chinese LCD, interface-friendly.

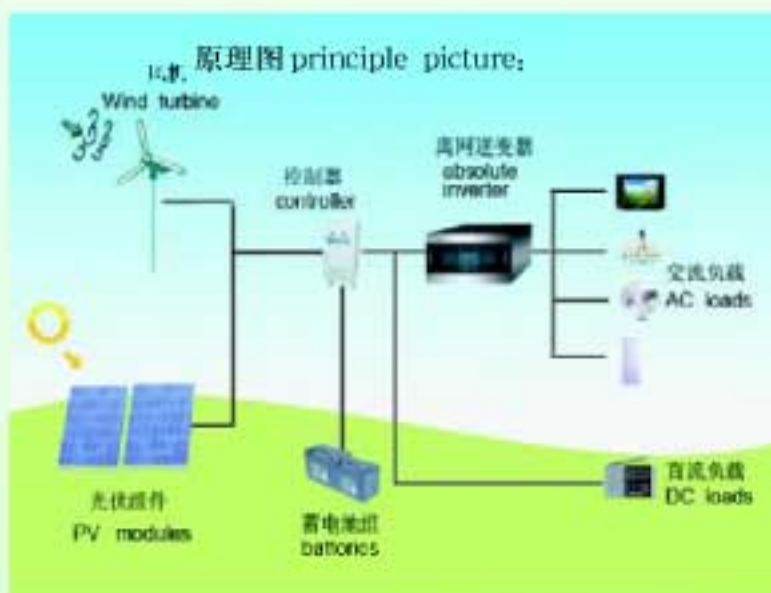


应用场合

Applications situation:

本系列产品适用于没有公共电网但太阳能资源充足的场所。

This series products applicable to not public power grid but sufficient solar energy resources places.



规格参数 parameters:

光伏离网单相逆变器

PV off-grid single-phase inverter

型号 (Type)		BNSA-1KD	BNSA-2KD	BNSA-3KD	BNSA-5KD	BNSA-10KD	BNSA-20KD	BNSA-30KD	BNSA-50KD
直流输入 DC input	输入额定电压 (VDC) input rated voltage	48		110	220				
	输入额定电流 (A) input rated current	20.8	41.7	27.3	22.7	45.5	90.9	136.4	227.3
	输入电压允许范围 (VDC) input DC voltage range	40-60		75-145	180-300				
交流输出 A.C. output	输出额定容量 (kVA) output rated capacity	1.0	2.0	3.0	5.0	10	20	30	50
	输出额定功率 (kW) output rated capacity	0.8	1.6	2.4	4.0	8.0	16	24	40
	输出额定电压及频率 output rated voltage and frequency	220 VAC, ± 50Hz							
	输出额定电流 (A) output rated current	4.5	9.0	13.6	22.7	45	90.9	136.4	227.3
	输出电压精度 (V) output voltage precision	220 ± 3%							
	输出频率精度 (Hz) output frequency precision	50 ± 0.05							
	总谐波失真 (THD) (线性负载) Total harmonic distortion (ac)	≤ 5%							
	动态响应 (负载 0-100%) dynamic reaction (load 0-100%)	5%							
	功率因数 (P.F.) power factor	0.8							
	过载能力 overload ability	150%, 10秒s							
峰值系数 peak coefficient (CF)	3:1								
逆变效率 (80% 额定负载) inversion efficiency (at 80% rated load)	90%					92%			
绝缘强度 (输入和输出) insulation intensity (input and output)	1500 VAC, 1分钟 minute								
噪音 (1米 meter) noisy (1 meter)	≤ 50dB								
使用环境温度 working environment temperature	-25℃ ~ +55℃								
湿度 humidity	0-90% , 不结露 no dew								
使用海拔 altitude (m)	≤ 6000								
尺寸 (宽、深、高) mm dimension (W*L*H)	立式 vertical type 80*40*10 柜式 rack type 80*40*175		立式 vertical type 225*80*450 柜式 rack type 480*200*225		550*480*980			800*600*220	
重量 weight (Kg)	19	27	34	56	139	250	360	620	
保护功能 protection	输入接反保护, 输入欠压保护, 输入过压保护, 输出过流保护, 输出短路保护, 过热保护 protection for input connecting contrary, input lack of voltage, input over voltage, output overload, output short circuit, over heat.								

光伏离网三相逆变电源

PV off-grid three-phase inverter

型号 (Type)		BNSA-6KS	BNSA-10KS	BNSA-20KS	BNSA-50KS	BNSA-100KS	BNSA-200KS	BNSA-300KS	BNSA-500KS	
直流输入 DC input	输入额定电压 (VDC) input rated voltage	220					500			
	输入额定电流 (A) input rated current	27.3	45.5	90.9	227.3	455	400	600	1000	
	输入直流电压允许范围 (VDC) input DC voltage range	180-300					400-700			
交流输出 A.C. output	输出额定容量 (kVA) output rated capacity	6.0	10	20	50	100	200	300	500	
	输出额定功率 (kW) output rated capacity	4.8	8	16	40	80	160	240	400	
	输出额定电压及频率 output rated voltage and frequency	380VAC, ± 50Hz								
	输出额定电流 (A) output rated current	9.1	15.2	30.1	75.6	152	304	456	760	
	输出电压精度 (V) output voltage precision	380 ± 3%								
	输出频率精度 (Hz) output frequency precision	50 ± 0.05								
	总谐波失真 (THD) (线性负载) Total Harmonic Distortion (lineal)	≤ 5%								
	动态响应 (负载 0-100%) dynamic reaction (load 0-100%)	5%								
	功率因数 (PF) power factor	0.8								
	过载能力 overload ability	150%, 10秒 s								
峰值系数 peak coefficient (CF)	3:1									
效率 (80% 额定负载) conversion efficiency (80% load)	91%			92%						
绝缘强度 (输入和输出) insulation intensity (input and output)	1500 VAC, 1分钟 minute									
噪音 (1米 meter) noisy (1 meter)	≤ 55dB									
使用环境温度 working environment temperature	-25℃ ~ +55℃									
湿度 humidity	0-90% , 不结露 no dew									
使用海拔 altitude (m) altitude (m)	≤ 6000									
尺寸 (宽、深、高) mm dimension (W*L*H)	550*480*980			800*600*2260			1600*600*2260		2400*600*2260	
重量 weight (Kg) weight (Kg)	93	160	280	570	860	1000	1500	1800		
保护功能 protection protection	输入接反保护, 输入欠压保护, 输入过压保护, 输出过流保护, 输出短路保护, 过温保护 protection for input connecting contrary, input lack of voltage, output overload, output short circuit, over load.									

光伏并网逆变器

PV grid-connected inverter

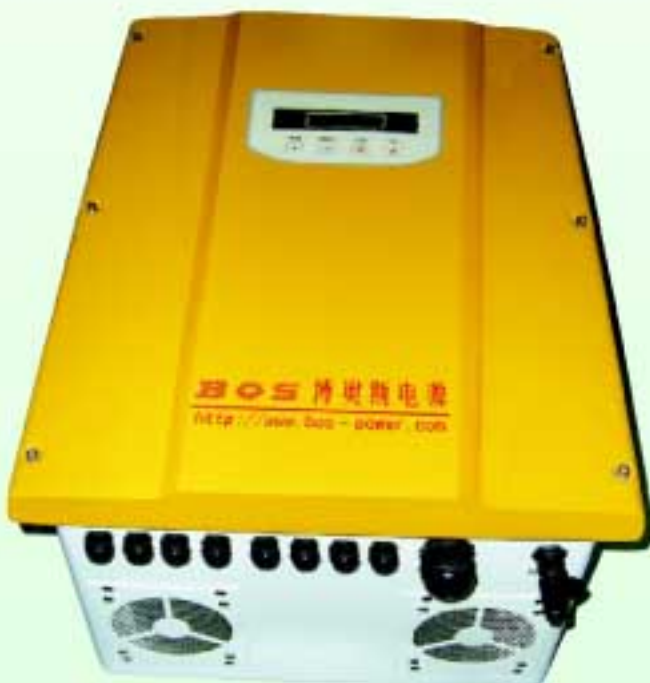
产品介绍

Product presentation:

光伏并网发电系统由光伏组件、并网逆变器、计量装置及配电系统组成。太阳能能量通过光伏组件转换为直流电能，再通过并网逆变器将直流电能转换为与电网同频率、同相位的交流正弦电能馈入电网。

PV grid-connected power system includes PV modules, grid-connected inverter, meter and power switchboard. The PV modules convert the solar energy to the DC power. Then the grid-connected inverter converts the DC power to the sine wave

AC power which has the same frequency and phase with the grid voltage. The AC power FEED-in the grid partly and the other power supply the local loads.



产品特点

Product advantages:

1. 原装日本三菱公司IGBT功率模块组装。
2. 采用多组美国ATEMEL公司微处理器，数字控制。
3. 完善的保护和报警功能。
4. 光伏组件最大功率跟踪（MPPT）技术，实时追踪光伏组件的最大输出功率。
5. 扰动检出技术，实现反孤岛控制。
6. 电路结构紧凑，最大效率 $\geq 94\%$ 。
7. 室外型不锈钢外壳，全密封安装，防护等级IP65。
8. 输入电压范围宽，最高可达1150VDC。
9. RS232/485通讯，上位机监控功能，实现远程数据采集和监视。
10. 纯正弦波输出，自动与电网同步跟踪，功

率因数接近1, 电流谐波含量低, 对电网无污染、无冲击。

11. 逆变电流闭环控制, 功率可控、可调。

12. 大屏幕中文液晶显示, 完善的显示功能, 界面友好。

1. Using IGBT from Mitsubishi company as the power components.

2. Using many American ATMEGL company microprocessor as figure controller.

3. Perfect protection and warning functions.

4. MPPT(Maximum Power Point Tracking)technology.

5. Disturbance detection technology, achieve to control of anti-isolated island.

6. Circuit frame compact, Max. Efficiency $\geq 94\%$.

7. Stainless steel shell with hermetic seal waterproof and dustproof class IP65.

8. 1150VDC input voltage range wide ,Max. up to 1150 VDC.

9. Communication, multi communication interface can be selected.

10. Pure sine wave output, automatically synchronized with the grid tracking, power factor close to 1, Current low harmonic content, non-polluting power grid, no impact.

11. Inverter current closed-loop control, power controllable.

12. Big-screen Chinese LCD, perfect display, interface-friendly.



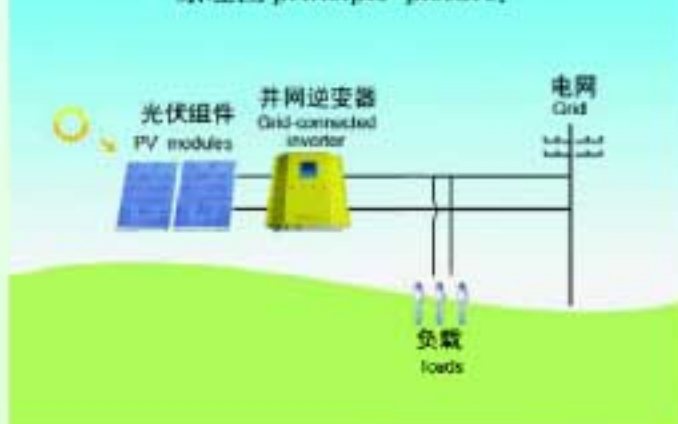
应用场合

Applications situation:

本系列产品适用于太阳能资源充足, 并希望将其转换馈入电网的场所。

This series of products applicable to sufficient solar energy resources , and that will convert feed into the grid places.

原理图 principle picture;



规格参数 parameters:

光伏并网单相逆变器

PV grid-connected Single-phase inverter

型号Type	BNSG-1KD	BNSG-3KD	BNSG-5KD
额定交流输出功率 rated AC output power	1000W	3000W	5000W
隔离方式 insulate mode	工频变压器 Low frequency transformer		
推荐太阳能电池阵列功率 recommended PV array power	1.2KWp	3.6KWp	6KWp
最大阵列开路电压 Max. open circuit voltage	450VDC		780VDC
MPPT范围 MPPT range	150-450V	200-450V	200-780VDC
最大阵列输入电流 Max. input current	6.7A	15A	25A
可接入阵列组并联数 can access array of parallel group	4组 group		
电箱柜连接方式 connecting mode of battery board	直插式防水端子 water-proof direct-plug terminals		
最大效率 Max. efficiency	94%		95%
欧洲效率 Europe efficiency	92%		
允许电网电压范围(单相) operating range utility voltage(single phase)	180-265VAC		
允许电网频率范围 operating range utility frequency	50HZ \pm 2% & 60HZ \pm 2%		
总谐波失真畸变率 Total Harmonic Distortion(THD)	<3%		
功率因数 power factor	\geq 0.99		
夜间自耗电 zero power consumpt at night	<10W		
通讯接口 communication interfaces	RS485/RS232		
电气绝缘性能 electrical insulation properties	1500Vac, 1分钟 minute		
使用环境温度 operation surroundings temperature	-25-+60C		
使用环境湿度 operation surroundings humidity	0-90% 不结露 no dew		
保护 protection	输入欠压、过压、反接, 输出过流, 短路、过热等 Protection for input connecting contrary, input lack of voltage, output over load, output short circuit and over heat.		
冷却方式 cooling mode	风冷 windy		
噪音(水平距离1米) noisy (horizontal distance 1m)	<40dB		
防护等级 water proof and dustproof class	IP20 (室内 indoor)、IP65 (室外 outdoor)		
尺寸(宽×深×高) size(W×L×Hmm)	300×150×500	350×200×500	410×283×580
重量 (Kg) weight	14	45	50

光伏并网三相逆变电源

PV grid-connected three-phase inverter

型号 Type	BNSG-10KS	BNSG-30KS	BNSG-50KS	BNSG-100KS	BNSG-250KS	BNSG-500KS
额定交流输出功率 rated AC output power	10KW	30KW	50KW	100KW	250KW	500KW
隔离方式 insulate mode	工频变压器 Low frequency transformer					
兼容太阳能阵列功率 compatible PV array power	12 KWp	36 KWp	60 KWp	120KWp	300 KWp	600 KWp
最大阵列开路电压 Max. open circuit voltage	780VDC				1150VDC	
MPPT范围 MPPT range	200~780VDC		400~780VDC		400~1150VDC	
最大阵列输入电流 Max. input current	50A	150A	125A	250A	625A	1250A
电池板连接方式 connecting mode of battery	接线端子 connection terminals					
可接入阵列组并联数 can access array of parallel group	10组 group					
最大效率 Max. efficiency	95%					
欧洲效率 Europe efficiency	92%					
允许电网电压范围(三相) operating range utility voltage three phase	320~440VAC					10KV-5KV
允许电网频率范围 operating range utility frequency	50HZ ± 5% & 60HZ ± 5%					
总谐波失真率 Total Harmonic Distortion(THD)	<3%					
功率因数 power factor	≥ 0.99					
夜间自耗电 zero power consume at night	<10W					
通讯接口 communication interfaces	RS485/RS232					
电气绝缘性能 electrical insulation properties	1500Vac, 1分钟 minute					
使用环境温度 operation temperature range	-25~+60℃					
使用环境湿度 operation surroundings humidity	0~90% 不结露 no dew					
保护 protection	输入欠压, 过压, 反接, 输出过流, 短路, 过热等 Protection for input connecting contrary, input lack of voltage, output over load, output short circuit and over heat.					
冷却方式 cooling mode	风冷 windy					水冷 water-cooling
防护等级 waterproof and dustproof class	室内(indoor), IP65(室外 outdoor)					
噪音(水平距离1米) noise (horizontal distance 1m)	<50dB					
尺寸(宽×深×高) size(W×L×H mm)	550*480*980	800*600*1800	800*600*2260		2250*850*2180	2400*800*2260
重量(Kg) weight	150	400	600	800	1200	1800