



Anhui JNGE Power Co.,LTD.

address:3rd Floor,NO.5-8,Diving East Road,
High-Tech Zone,Hefei,Anhui,China
Tel: 86+0551-65372576
Post zip: 230000
Official website:www.hfjnge.com
Alibaba website shop1:www.chinajingneng.en.alibaba.com
Alibaba website shop2:www.chinajnge.en.alibaba.com

PRODUCT BROCHURE

ANHUI JNGE POWER CO.,LTD.

COMPANY CULTURE

dedication, cooperation

INTEGRITY, INNOVATION

Experience

15 years specialized in off-grid power industry, proficient in technology.

R&D Team

More than 10 experienced R&D team with OEM ODM customized service.

Quality

From raw materials to production and to testing, a strict quality management and Control system, making sure the trustworthy products.

Certification

ISO9001, CE, RoHS and several domestic patent and design certificates.

Service

7*24 after sales service and a lifelong technical support.

United States of America
United States Patent and Trademark Office

JNGE

JNGE POWER

Reg. No. 5,339,496

Registered Nov. 21, 2017

Int. Cl.: 9

Trademark

Principal Register

Anhui Jing Neng Green Energy Co., Ltd. (CHINA limited company (Ltd.))
Building f, Yonghe road 99th
High-tech zone
Hefei, Anhui, CHINA

CLASS 9: Chargers for electric batteries; Inverters; Off-grid power and deep cycle battery storage systems comprised of batteries, charge controllers and inverters with integrated LED bulbs and LED light fixtures for solar, thin-film solar (TFS), vertical axis wind turbine (VAWT) installations; Photovoltaic cells; Programmable controllers and actuators that track the sun enabling concentrating optics to maximize solar energy input; Solar batteries; Solar panels for the production of electricity

FIRST USE 10-22-2016; IN COMMERCE 10-22-2016

No claim is made to the exclusive right to use the following apart from the mark as shown: "POWER"

The wording "JNGE JNGE POWER" has no meaning in a foreign language.

SER. NO. 87-423,501, FILED 04-24-2017



Joseph Matol

Performing the Functions and Duties of the
Under Secretary of Commerce for
Intellectual Property and Director of the
United States Patent and Trademark Office

COMPANY PROFILE

Anhui JNGE Power Co., Ltd. is located in the high-tech zone, Hefei City, the national well-known "Science and Education City", from Anhui Province.

We are a leading manufacturer for solar, wind and other renewable energy products, having a complete set of R&D, production, sales and service systems. We produce off-grid pure sine wave inverter, solar charge controller, and wind-solar hybrid charge controller. We also provide solar power system, designs for solar street-light system, production and installation services.

We are an ISO-certified company, accessing to the awards of the national high-tech enterprises and Anhui provincial software enterprises. We have also won more than thirty patent certificates of Intellectual Property. In addition, we have been qualified by CE and RoHS certificates for the international market. And now, we've been honored as "Sci. & Tech Little Giant" cultivated companies by Hefei municipal government.

We believe and also hold innovation as the driving force for our long-lasting development. The members of our R&D team are a group of well-educated and highly-qualified professionals. Everyone here has rich R&D experience in the renewable energy power industry and a strong sense of independent innovation. They have also gained a wealth of experience in a large number of major governmental projects.

We take integrity, innovation, dedication and cooperation as our company's spirit, to provide our customers with high-quality system design, installation and solutions for technical transformation and improvement. We keep enhancing the satisfaction for the public and our customers, and striving for a greater contribution to the society as a world famous enterprise in the new energy industry.

Certificates and Patents

ISO Certificates:

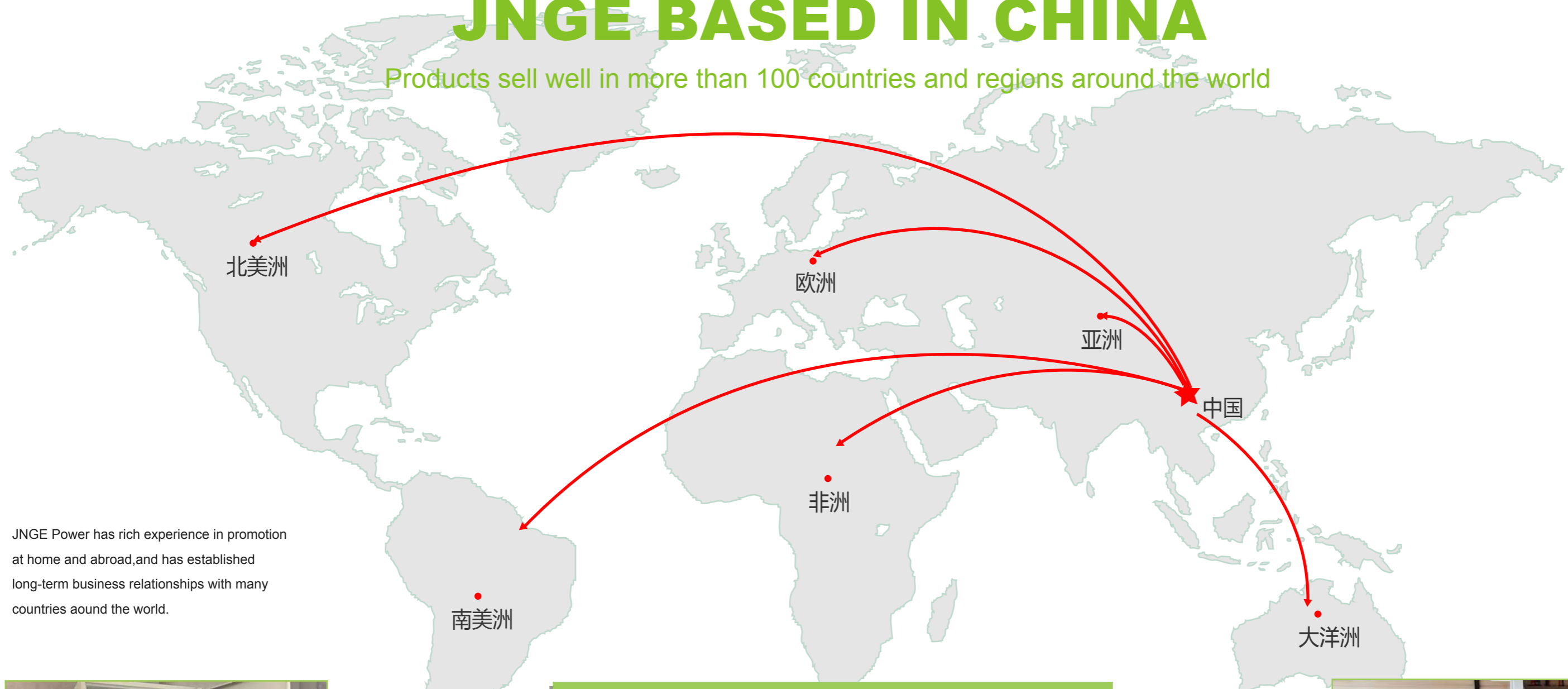


Qualification introduction :
JNGE has obtained CE ROHS certificates and several domestic patents.



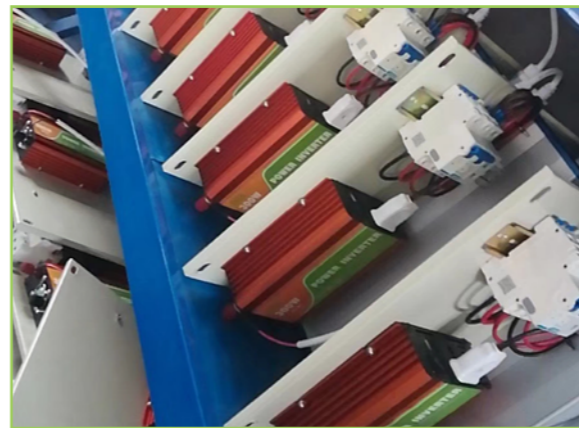
JNGE BASED IN CHINA

Products sell well in more than 100 countries and regions around the world



JNGE Power has rich experience in promotion at home and abroad, and has established long-term business relationships with many countries around the world.

SOLAR SYSTEM APPLICATIONS



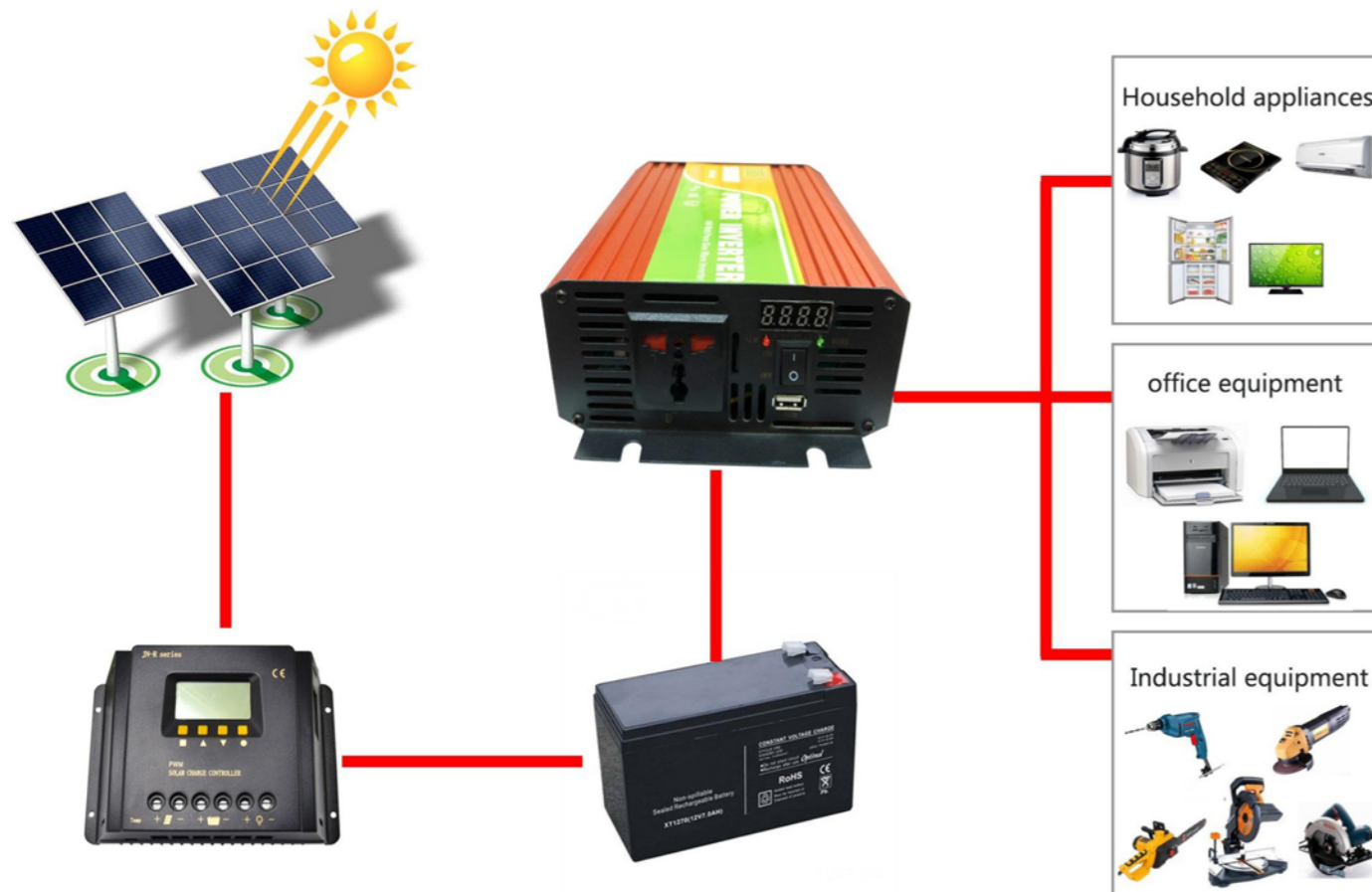
1、JN-H series pure sine wave inverter

Product Features:

1. Original dual-soft start technology.
2. CPU core SPWM pulse width control technology.
3. Original constant power output technology.
4. Comes with USB charging port.
5. Input and output isolation technology.
6. Safe anti-shock protection function.
7. Aluminum alloy shell, surface blasted anodized, high hardness, beautiful appearance.
8. LED digital tube displays real-time voltage.
9. AC output pure sine wave, better for equipment use.
10. Full fault protections (including overload protection, over current protection, high temperature protection, short circuit protection, reverse connection protection, built-in fuse, etc.)
11. Battery protection function (battery overvoltage, undervoltage protection, overvoltage recovery, undervoltage recovery, etc.).



System application diagram



Technical Parameters:

System parameters								
Product number	JN-H							
Power level	300W	500W	1000W	1500W	2000W	3000W	4000W	5000W
Rated power	300W	500W	1000W	1500W	2000W	3000W	4000W	5000W
Output peak power	600W (<1S)	1000W (<1S)	2000W (<1S)	3000W (<1S)	4000W (<1S)	6000W (<1S)	8000W (<1S)	10000W (<1S)
Battery voltage	12/24/48VDC				24/48/96VDC			
Machine (L*W*H mm)	166*125*55	235*146*66	305*146*66	330*180*90	390*180*90	390*216*155	485*218*155	485*218*155
Package (L*W*H mm)	510*260*380 (10PCS)	590*310*380 (10PCS)	490*200*380 (4PCS)	405*230*165 (1PC)	485*445*370 (4PCS)	460*315*255 (1PC)	560*300*250 (1PC)	560*300*250 (1PC)
Net weight kg	0.9	1.55	2.45	3.5	4.35	8.85	11.8	12
Gross weight kg	1.2	2.05	3	4.2	5.5	10.35	12.5	13
Output	Inverter output voltage	100/110/120/220/230/240VAC						
	Inverter output frequency	50HZ±0.5HZ or 60HZ±0.5HZ						
	Output waveform	pure sine wave						
	Output waveform distortion	THD<3% (linear load)						
	Output maximum efficiency	up to 95%						
	Output voltage error value	low&high 10%						
	USB output voltage	5V						
	LED display	shows working status, and error status						
Current type	Optional according to customer requirements							
Start mode	soft start							
Cooling method	Intelligent fan control							
Protection function	Undervoltage/overvoltage	LED red light, automatic recovery Buzzer alarm						
	Overload	Overload 120%, LED red light, lock up Buzzer alarm						
	Over temperature	LED red light, automatic recovery Buzzer alarm						
	Short-circuit	LED red light, automatic recovery Buzzer alarm						
	Input	reverse diode						
Working environment Temperature	-20°--+70°							
Storage environment Temperature	-30°--+75°							

Note: Specifications are subject to change without notice.

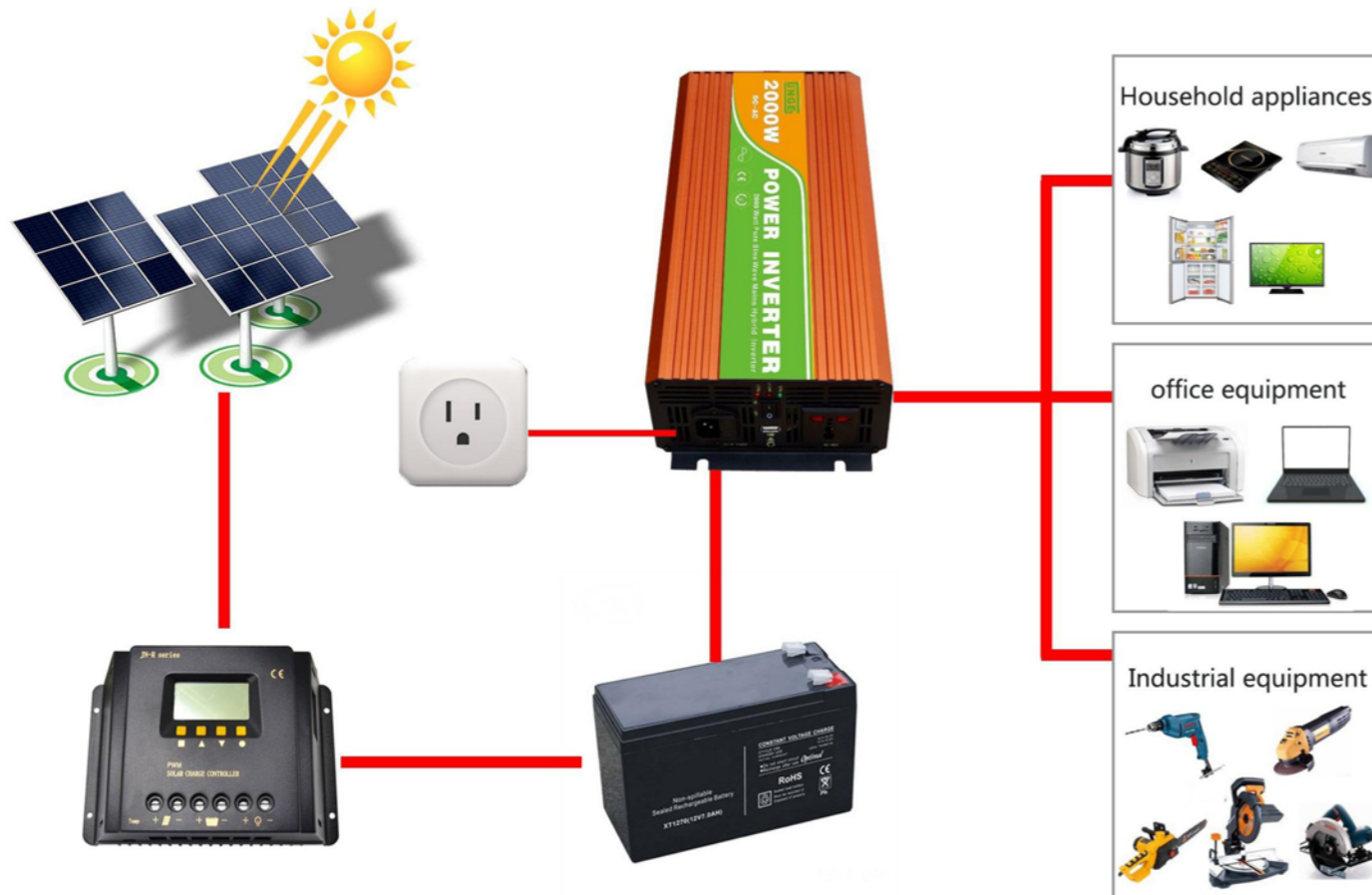
2、JN-HS series pure sine wave inverter

Product Features:

1. Original dual-soft start technology.
2. CPU core SPWM pulse width control technology.
3. Original constant power output technology.
4. Diode anti-reverse technology.
5. Input and output isolation technology.
6. Safe anti-shock protection function.
7. Aluminum alloy shell, surface blasted anodized, high hardness, beautiful appearance.
8. Battery protection function (battery overvoltage, undervoltage protection, overvoltage recovery, undervoltage recovery, etc.).
9. AC output pure sine wave, better for equipment use.
10. Fast and automatic switching between AC mains and inverter as UPS.(AC mains switch charge mood)
11. Full fault protections (including overload protection, over current protection, high temperature protection, short circuit protection, reverse connection protection, built-in fuse, etc.)



System application diagram



Technical Parameters:

System parameters								
Product number	JN-HS							
Power level	300W	500W	1000W	1500W	2000W	3000W	4000W	5000W
Rated power	300W	500W	1000W	1500W	2000W	3000W	4000W	5000W
Output peak power	600W (<1S)	1000W (<1S)	2000W (<1S)	3000W (<1S)	4000W (<1S)	6000W (<1S)	8000W (<1S)	10000W (<1S)
Battery voltage	(VDC)12/24/48VDC				24/48/96VDC			
Machine size (L*W*H mm)	252*125*55	288*146*66	353*146*66	330*180*90	417*180*90	422*218*155	553*218*155	553*218*155
Package dimensions (L*W*H mm)	385*300*540 (10PCS)	385*350*620 (10PCS)	410*190*120 (4PCS)	405*230*165 (1PC)	500*500*370 (1PC)	510*310*260 (1PC)	600*280*220 (1PC)	650*310*260 (1PC)
Net weight kg	1.05	1.7	2.65	4.0	4.5	9.6	14	15
Gross weightkg	--	--	--	--	--	--	--	--
Input	Mains input voltage range		145VAC-275VAC					
	Mains input frequency range		45HZ-65HZ					
Output	Inverter output voltage		100/110/120/220/230/240VAC					
	Inverter output frequency		50HZ±0.5HZ or 60HZ±0.5HZ					
	Output waveform		pure sine wave					
	Output waveform distortion		THD<3% (linear load)					
	Output maximum efficiency		up to 95%					
	Switching time		<=10mS					
	Switching mode		Inverter/mains can automatically set the priority					
	Output voltage error value		low&high 10%					
	USB output voltage		5V					
	LED display		shows working status, and error status					
Current type	Optional according to customer requirements							
Start mode	front and rear bipolar soft start							
Cooling method	Intelligent fan control (temperature exceeds 45 degrees fan start)							
	Undervoltage /overvoltage	LED red light is on, the buzzer alarm is automatically restored, the inverter automatically switches to the mains when the inverter priority, and the switching indicator lights. Automatically switch to inverter power supply during automatic recovery, and the switching indicator lights.						
	Overload	Overload 120%, LED red light, lock up Buzzer alarm, automatically switch to mains when inverter priority, switch finger The light is on. After the overload is released, the inverter is powered on after the power is turned on again, and the switch indicator is off.						
Protection function	Over-temperature	LED red light, automatic recovery buzzer alarm, automatic switching to mains when inverter priority, switching indicator light. Automatically switch to inverter power supply during automatic recovery, and the switch indicator is off.						
	Short-circuit	LED red light, automatic recovery buzzer alarm, automatic switching to mains when inverter priority, switching indicator light. from When the power is restored, it automatically switches to the inverter power supply, and the switch indicator is off.						
	Input	reverse diode						
Working environment								
Temperature	-20°--+70°							
Storage environment								
Temperature	-30°--+75°							

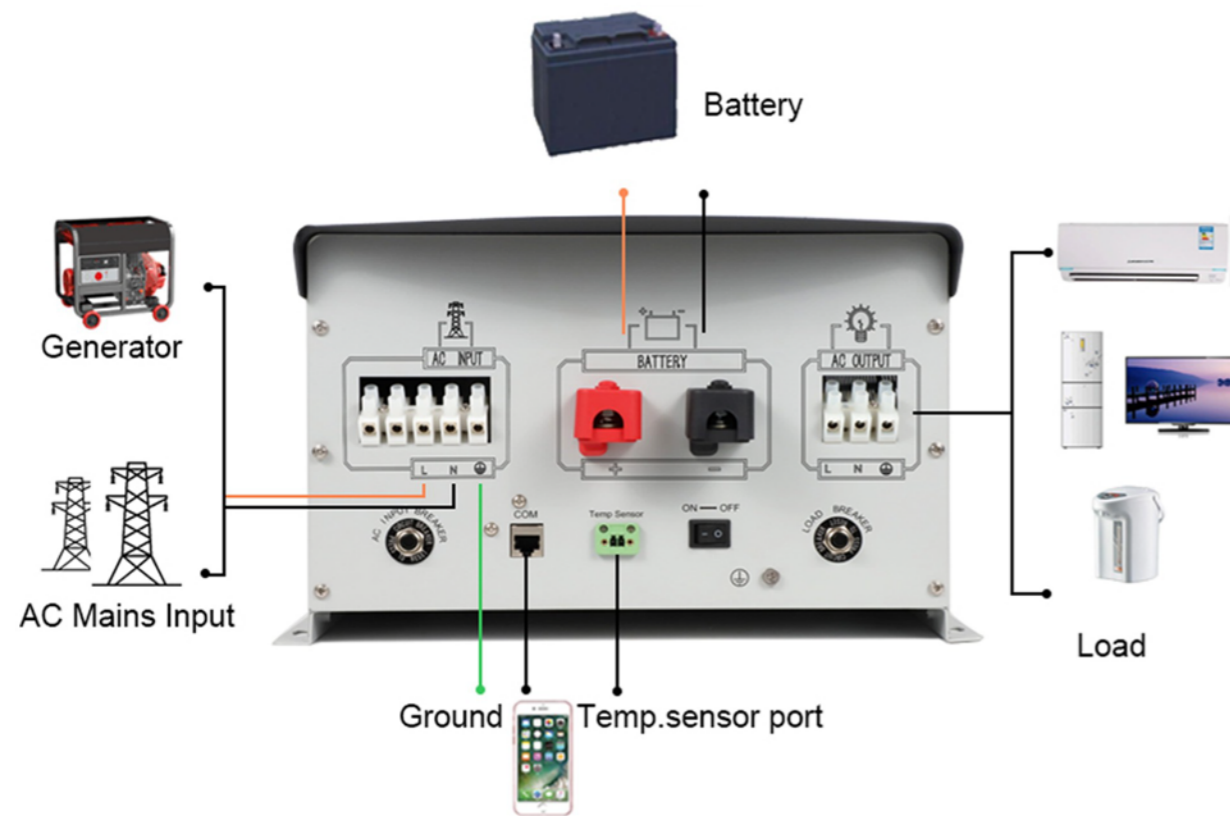
3、 JN-G Series Power Frequency Pure Sine Wave Inverter

Product Features:

1. Compatible with lead-acid batteries, ternary lithium, lithium iron phosphate and others.
2. It has advanced multi loop feedback control of voltage, current and power.
3. Pure sine wave AC output.
4. The inverter output can be realized at the same time when the mains power is charged, so as to avoid the influence of unstable mains voltage on the load;
5. over charge, over discharge, over temperature, overload and other comprehensive protection functions.
6. RS485 communication, can provide communication protocol, convenient for customers unified integrated management and secondary development.
7. Through the PC of the upper computer and mobile phone APP view and set up charging control, inverter and other operating parameters, specific reference to the upper computer and APP manual (optional).
8. Inverter and bypass can achieve seamless switching, can achieve the switching process of electrical equipment continuous electricity.
9. Inverter adopts built-in pure copper power frequency isolation transformer, instant load capacity is strong, load impact resistance is strong.
10. With the whole machine internal over-temperature protection, fan intelligent start-stop function.



System application diagram



Power frequency machine parameters																	
Parameter Name	JN-G parameter table (and adjustable range)																
Model	JN-G1000-*		JN-G1500-*		JN-G2000-*		JN-G3000-*		JN-G4000-*		JN-G5000-*		JN-G6000-*				
Battery voltage	12V	24V	48V	24V	48V	24V	48V	24V	48V	24V	48V	96V	24V	48V	96V	48V	96V
Inverter output	Rated power	1000W		1500W		2000W		3000W		4000W		5000W		6000W			
	Wave	Pure sine wave															
	Output voltage range	110VAC/115VAC/120VAC/220VAC/230VAC/240VAC ±5% (customizable)															
	Output frequency	50HZ/60HZ															
	Maximum Inverter Efficiency	> 92%															
AC mains input	Charge current	0~60A Adjustable															
	Electricity input voltage range	±10%~±15%															
	Power input frequency	45Hz~65 Hz															
Battery type	Lead acid batteries, GEL batteries, Lithium iron phosphate, Lithium ternary, Customized.																
Display mode	LCD Color Screen																
Mode of communication	RS485、 PC monitoring, WIFI/GPRS module and Ethernet extension app for cloud monitoring																
Working environment	-25℃ ~+55℃																
Storage temperature	-30℃ ~+70℃																
Use altitude	Above 3000 m above sea level																
Equipment protection grade	IP21																
Humidity	10%~90% dewless																
KG Net																	
Product size	385*267*179 mm					467*337*199 mm					554*372*229 mm						
KG gross	13.5kg					32kg					44kg						
Packing size	485*335*280mm					450*450*600mm					680*480*540mm						

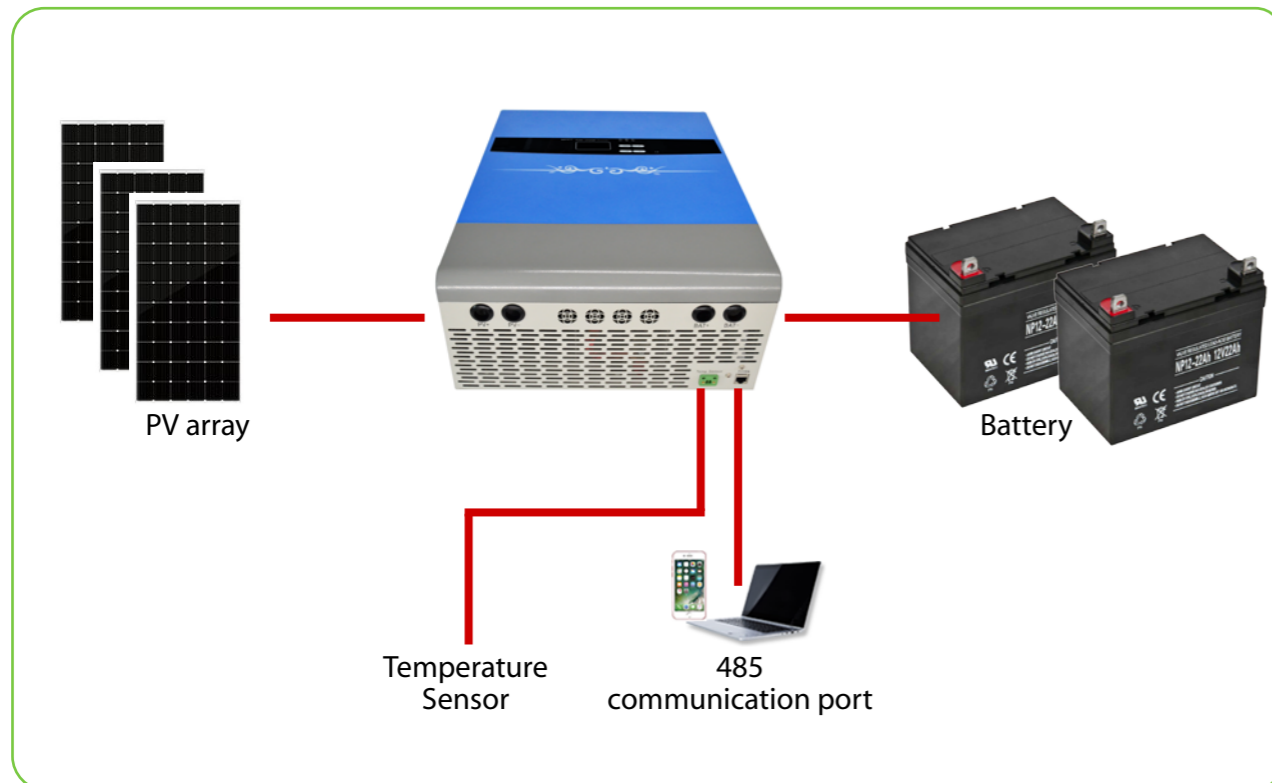
4、JN-HV Series MPPT High Voltage solar controller

Product Features:



1. Advanced multiphase synchronous rectifier technology has high conversion efficiency.
2. Ultra wide input voltage range can save the cost of confluence box wire and construction cost.
3. IGBT module is used to synchronize rectifier technology to improve equipment stability.
4. The advanced MPPT maximum power point tracking technology, tracking efficiency is not less than 99.5%, compared with the common PWM algorithm, the efficiency is improved by 15~20%.
5. Structure design of fully closed air duct, high speed intelligent fan for heat dissipation, suitable for all kinds of harsh environment.
6. Three-stage charging mode: MPPT- boost charging-floating charging.
7. RS485 communication, can provide communication protocol, facilitate customer unified integrated management and secondary development.
8. You can monitor by PC, mobile phone APP and set the controller operating parameters, specific reference to the upper computer and APP manual (optional).
9. Battery temperature compensation function.
10. With overcharge, overdischarge, overtemperature, overload, reverse connection and other comprehensive protection functions.
11. Compatible with lead-acid batteries, ternary lithium, lithium iron phosphate and other battery types.

System application diagram



JN-HV Series MPPT High Voltage Charger Parameters															
Parameter Name	Parameter value (and adjustable range)														
Battery modes (V)	24V、48V、96V、120V (Customizable)			192V、216V、240V (Customizable)			360V、384V (Customizable)			480V (Customizable)			584V(Customizable)		
Current rating (A)	50A	80A	100A	50A	80A	100A	50A	80A	100A	50A	80A	100A	50A	80A	100A
Max. PV input power (KW)	1.2 KW	1.9 KW	2.4 KW	9.6 KW	15.3 KW	19.2 KW	18KW	28.8 KW	36KW	24KW	38.4 KW	48KW	29.2 KW	46.7 KW	58.4 KW
	2.4 KW	3.8 KW	4.8 W												
	4.8 KW	7.6 KW	9.6 KW	10.8 KW	17.2 KW	21.6 KW	19.2 KW	30.7 KW	38.4 KW						
	6KW	9.6 KW	12KW	12KW	19.2 KW	24KW									
Max. open circuit voltage (V)	DC330V/DC480V			DC330V/DC480V/ DC660V/DC880V			DC480V/DC660V/ DC880V			DC660V/DC880V			DC880V		
PV array minimum working voltage (V)	150V			≥Vbat+10 V											
Battery start-up voltage (V)				150V/230V			230V			230V			230V		
Voltage range (V)	48V system			DC36V~DC64V											
	96V system			DC72V~DC128V											
	192V system			DC144V~DC256V											
	216V system			DC162V~DC288V											
	240V system			DC180V~DC320V											
	384V system			DC288V~DC512V											
	480V system			DC360V~DC640V											
	584V system			DC438V~DC780V											
Heat dissipation mode	Intelligent temperature control air cooling heat dissipation														
Charging mode	3 stages: constant current (MPPT), constant voltage, floating charge														
Battery type	Lead acid batteries, colloidal batteries, lithium iron phosphate, lithium ternary, custom														
Display mode	LCD Color Screen														
Mode of communication	RS485、 support PC monitoring, WIFI/GPRS module expansion to achieve app cloud monitoring														
MPPT efficiency	> 99.5%														
Conversion efficiency	> 98%														
Working environment	-25℃ ~ +55℃														
Storage temperature	-30℃ ~ +70℃														
Equipment protection grade	IP21														
Use altitude	Above 3000 m above sea level														
Humidity	Derating for use at altitudes above 3000m														
Product size	50A and below						50A~100 A								
	453*300*132 mm						546*370*191 mm								
Net weight of equipment	9.2 KG						23 KG								

5、JN-MPPT-MINI/AL/BL/CL Buck Series solar controller

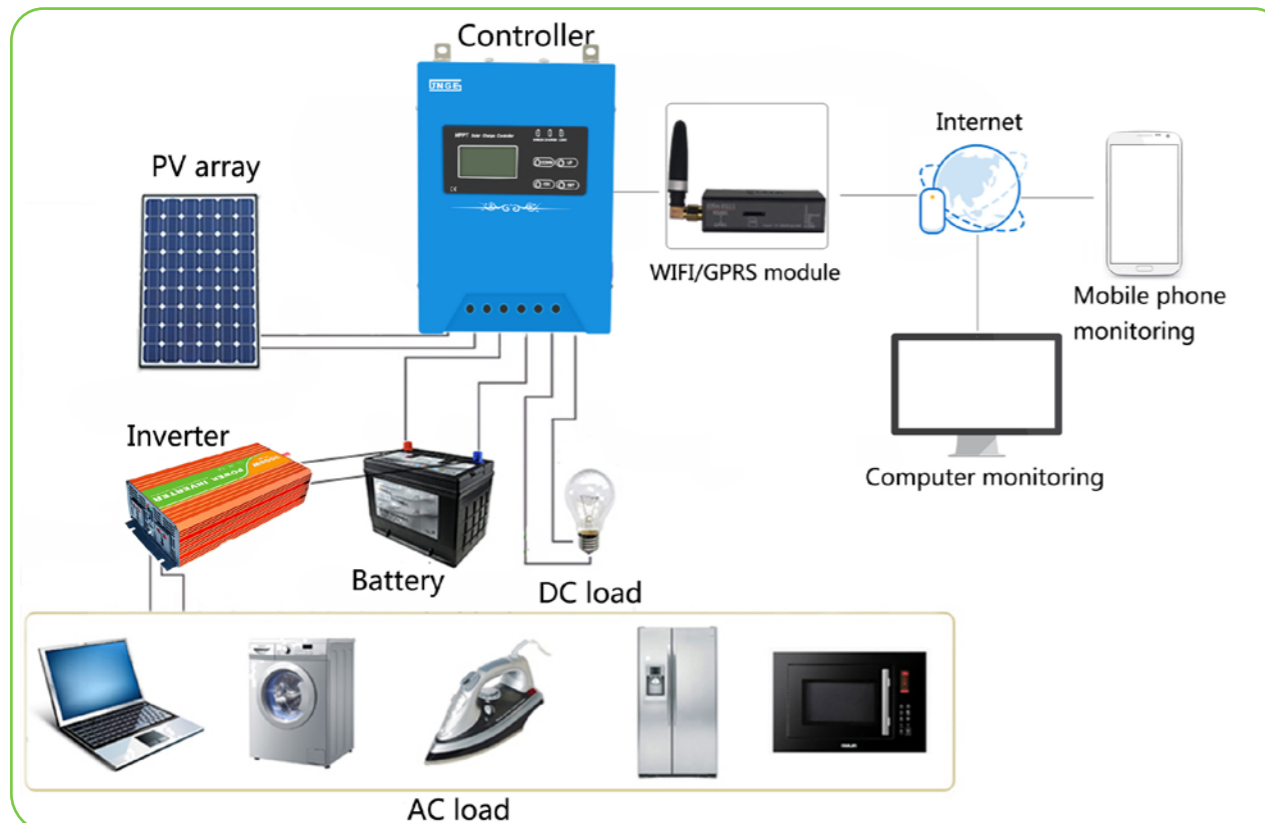
Product Features:

1. Advanced multi-phase synchronous rectification technology also has high conversion efficiency in low power charging environment.
2. Has an ultra-wide PV array operating voltage range.
3. Advanced MPPT maximum power point tracking technology, the tracking efficiency is not less than 99.5%, compared with the ordinary PWM algorithm, the efficiency is increased by 15 to 20%.
4. Using high-quality imported components and advanced power conversion circuit, the maximum conversion efficiency can reach over 98%, the full load efficiency can reach 97%, and a variety of tracking algorithms can be combined to quickly track the maximum power point.
5. Three-stage charging method: MPPT-lifting charging-floating.
6. 12V/24V/48V battery system automatic identification function.
7. RS485 communication can provide communication protocol to facilitate unified management and secondary development for customers.
8. The controller running parameters can be viewed and set through the PC host computer and mobile phone APP. For details, refer to the host computer and APP manual (optional).
9. With battery temperature compensation.
10. It has comprehensive protection functions such as overcharge, over discharge, over temperature, overload, reverse connection and so on.



parameter name	Parameter value (and adjustable range)																
	JN-MPPT-MINI		JN-MPPT-AL					JN-MPPT-BL					JN-MPPT-CL				
MODEL																	
Current rating (A)	10	20	10	20	30	40	50	30	40	50	60	70	50	60	80	100	120
Maximum charging current (A)	10	20	10	20	30	40	50	30	40	50	60	70	50	60	80	100	120
PV maximum input power (12V) (W)	120	240	120	240	360	480	600	360	480	600	720	840	600	720	960	1200	1440
PV maximum input power (24V) (W)	240	480	240	480	720	960	1200	720	960	1200	1440	1680	1200	1440	1920	2400	2880
PV maximum input power (48V) (W)	--	--	480	960	1440	1920	2400	1440	1920	2400	2880	3360	2400	2880	3840	4800	5760
PV maximum input power (96V) (W)	--	--	--	--	--	--	--	--	--	--	--	--	4800	5760	7680	9600	--
Output maximum current(A)	7	14	7	14	21	28	35	21	28	35	42	49	--	--	--	--	--
PV panel open circuit input voltage range (V)	20V ~ 80V (12V battery system)		20V ~ 100V(12V battery system)										20V ~ 100V(12V battery system)				
	40V ~ 80V (24V battery system)		40V ~ 145V(24V battery system)										40V ~ 145V(24V battery system)				
	40V ~ 80V (24V battery system)		80V ~ 145V(48V battery system)										80V ~ 240V(48V battery system)				
	40V ~ 80V (24V battery system)		80V ~ 145V(48V battery system)										80V ~ 240V(96V battery system)				
System identification voltage range(V)	12V battery system					DC9V-DC16V											
	24V battery system					DC18V-DC32V											
	48V battery system					DC42V-DC60V											
	96V battery system					96V is a stand-alone system											
MPPT efficiency	> 99.5%																
Conversion efficiency	> 98%																
Operating mode	The default is the household mode 24H																
Operating environment parameters																	
Ambient temperature	-20℃ ~ 50℃																
Storage temperature	-30℃ ~ 70℃																
Humidity	10% ~ 90%																
Protection grade	IP30																

System application diagram



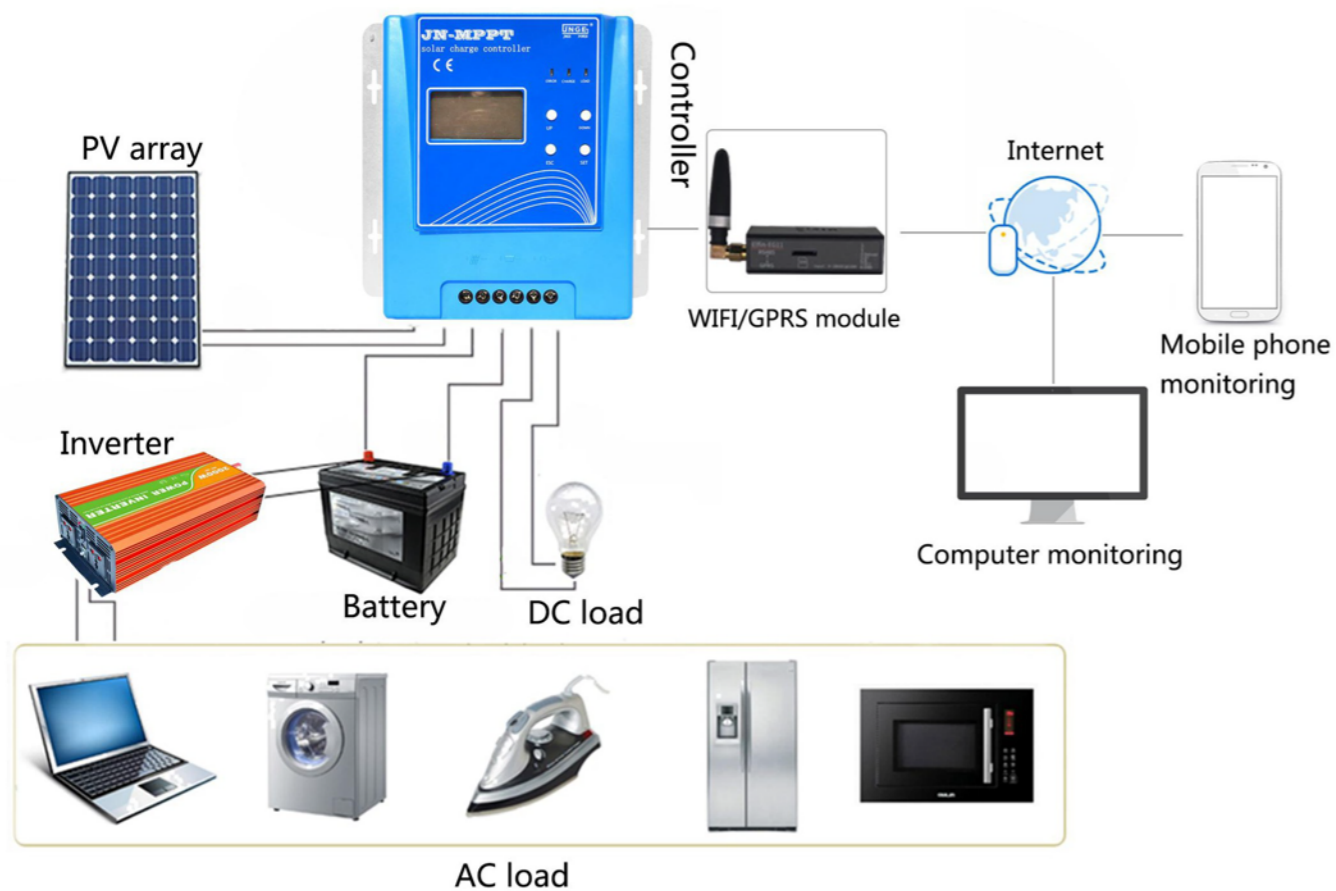
6、JN-MPPT-A solar controller

Product Features:

- 1- 12/24/48 V automatic identification function.
 - 2- Four sections of charging ways: MPPT charge- equalizing charge- improving charge- floating charge
 - 3- Combination of various tracking algorithm, can track the maximum power point quickly.
 - 4- Aluminum metal for structure, can be used in all kinds of harsh conditions
 - 5- Support for data storage, RS485 communication function, storage time can be up to 10 year
 - 6- With over charge, over discharge, over temperature, over load and reverse connection protection functions.
 - 7- Advanced MPPT maximum power point tracking technology, and tracing efficiency not less than 99.5%. Compared to common PWM algorithm, it achieves 15% -20% more efficient
 - 8- Through RS485 communication interface, controller can be connected to PC.
- You can set up monitoring and control parameters etc from PC.



System application diagram



Technical Parameters:

System parameters				
Current Rating	10A	20A	30A	40A
System voltage	12V, 24V, 48V			
Photovoltaic panel maximum input voltage	20V-100V (12V system)			
	40V-150V (recommended below 145V) (12V system)			
	80V-150V (recommended below 145V) (12V system)			
Rated operating current	10A	20A	30A	40A
	120W/12V	240W/12V	360W/12V	480W/12V
	240W/24V	480W/24V	720W/24V	960W/24V
PV panel maximum input power	480W/48V	960W/48V	1440W/48V	1920W/48V
MPPT efficiency	>99.5%			
Conversion efficiency	>96%			
Over charge	16~17V,		×nV 16V, ×nV	
Over voltage return	15~15.5V,		×nV 15V, ×nV	
Charge limit voltage	15.5~16V,		×nV 15.5V, ×nV	
Balanced charging voltage	15~15.5V,		×nV 15.2V, ×nV	
Boost charge voltage	14~15V,		×nV 14.4V, ×nV	
Boost charge return voltage	12.3 ~ 13.5V,		× nV 13.2V, × nV	
Floating charge voltage	13.2~14.0,		×nV 13.8V, ×nV	
Over-discharge voltage	9.8~11.8V,		×nV 10.8V, ×nV	
Over-discharge return voltage	12.0 ~ 13.0V,		× nV 12.6V, × nV	
Balanced charging time	1/2/3 hours 1H			
Increase charging time	1/2/3 hours 1H			
Device address	1~99 6			
Light control turn-on voltage	5~11V 5			
Light control off voltage	5~11V 6			
Light control delay	10min			
Temperature compensation	0~4 4			
Over temperature protection	75 ° C current reduction, 90 ° C off charging and load			
Working temperature	-20 ° C ~ 50 ° C			
Storage temperature	-40 ° C ~ 80 ° C			
Humidity	10% to 90% without condensation			
Volume	280*225*114mm			

Note: Specifications are subject to change without notice.

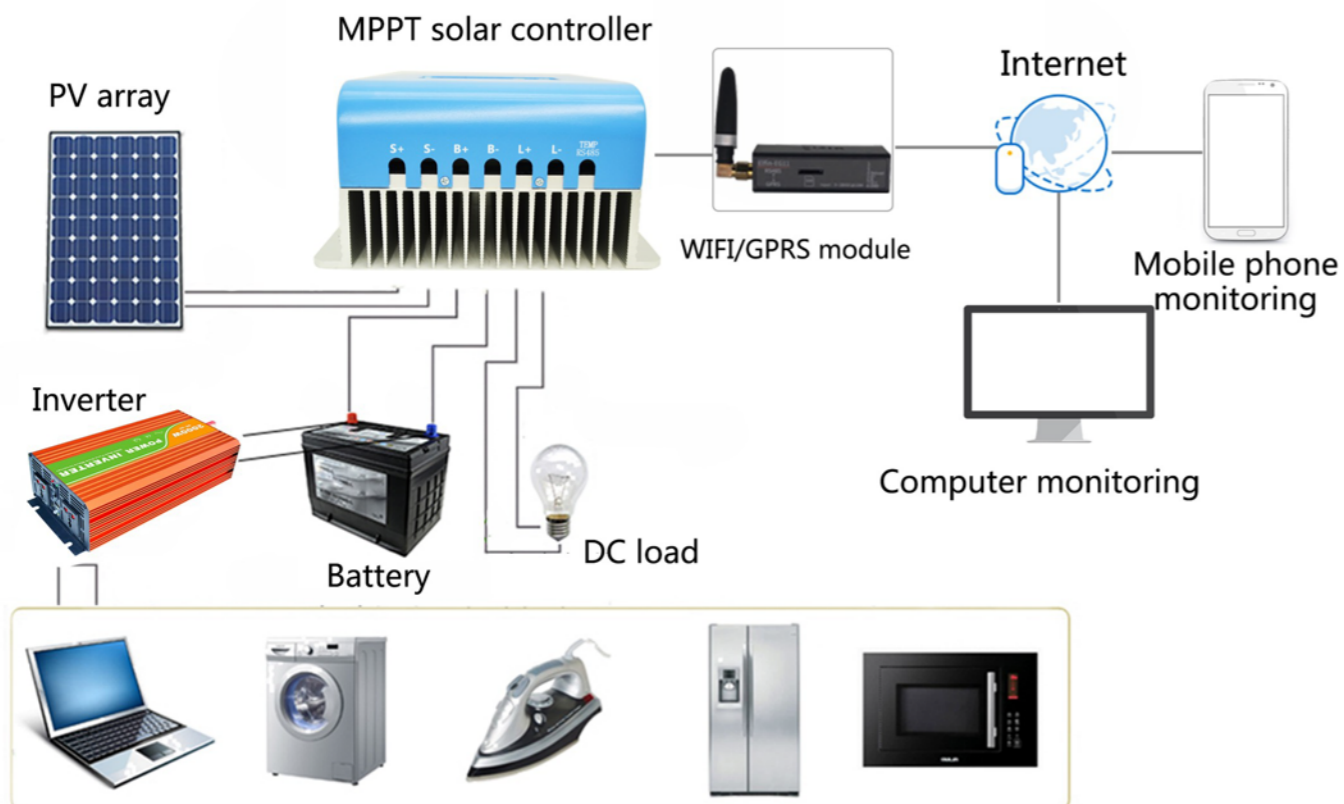
7. JN-MPPT-B solar controller

Product Features:

1. Advanced multi-phase synchronous rectification technology also has high conversion efficiency in low-power charging environment.
2. has an ultra-wide PV array operating voltage range.
3. The system adopts a common negative circuit design to make the system work more stable and reliable.
4. Advanced MPPT maximum power point tracking technology, and tracking efficiency not less than 99.5%,.
5. Using high-quality imported components and advanced power conversion circuit, the maximum conversion efficiency can reach over 98%.
6. Three-stage charging mode: MPPT-increase charging-floating.
7. 12V/24V/48V battery system automatic identification function.
8. RS485 communication can provide communication protocol to facilitate unified management and secondary development for customers.
9. can view and set the controller operating parameters through the PC host computer and mobile phone APP. For details, refer to the host computer and APP manual (optional).
10. With overcharge, over discharge, over temperature, overload, reverse connection protection functions.
11. Compatible with lead-acid batteries, ternary lithium batteries, lithium iron phosphate and other battery types.



System application diagram



Technical Parameters:

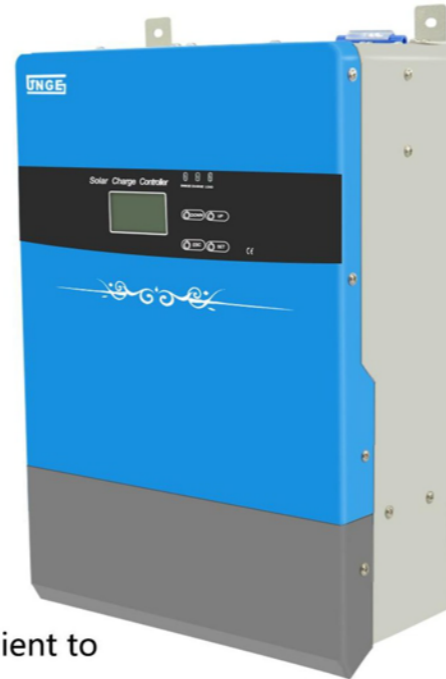
Product number	JN-MPPT-B			
Current Rating	30A	40A	50A	60A
System voltage	12V, 24V, 48V			
PV panel open circuit input voltage range	20V ~ 100V (12V system)			
	40V ~ 150V (recommended below 145V) (24V system)			
	80V ~ 150V (recommended below 145V) (48V system)			
Rated operating current	30A	40A	50A	60A
PV panel maximum input power	400W/12V	500W/12V	600W/12V	800W/12V
	800W/24V	100W/24V	1200W/24V	1600W/24V
	1600W/48V	1500W/48V	2400W/48V	3200W/48V
MPPT efficiency	>99.5%			
Conversion efficiency	>96%			
Overpressure (overcharge)	16~17V,		×nV 16V, ×nV	
Overpressure return	15~15.5V,		×nV 15V, ×nV	
Charge limit voltage	15.5~16V,		×nV 15.5V, ×nV	
Balanced charging voltage	15~15.5V,		×nV 15.2V, ×nV	
Increase the charging voltage	14~15V,		×nV 14.4V, ×nV	
Increase the charge return voltage	12.3 ~ 13.5V,		× nV 13.2V, × nV	
Floating charge voltage	13.2~14.0,		×nV 13.8V, ×nV	
Over discharge voltage	9.8 ~ 11.8V,		× nV 10.8V, × nV	
Over-discharge return voltage	12.0 ~ 13.0V,		× nV 12.6V, × nV	
Balanced charging time	1/2/3 hours		1H	
Increase charging time	1/2/3 hours		1H	
Device address	1~99		6	
Light control turn-on voltage	5~11V		5	
Light control off voltage	5~11V		6	
Light control delay	10min			
Temperature compensation	0~4 4			
Over temperature protection	75 ° C will flow, 90 ° C off charging and load			
Communication mode	RS485, RS232 to USB WIFI GPRS app function (optional)			
Working temperature	-20 ° C ~ 50 ° C			
Storage temperature	-40 ° C ~ 80 ° C			
Humidity	10% to 90% without condensation			
Weight	8kg			
Volume	280*225*114mm			

Note: Specifications are subject to change without notice.

8、JND-X series solar controller

Product Features:

1. High efficient PWM charging ways.
2. Communication function: Rs485 to USB, WIFI, GPRS APP
3. Battery charging parameters is settable.
4. Protection for any combination of photovoltaic module and battery reverse , no damage to any device.
5. Adopt traditional LCD display and keyboard design, convenient to view the running parameters of the controller, if need DC output, need customized.
6. Variety of load control method, enhanced the flexibility of the system.



Technical Parameters:

JND-X50A								
Rated system voltage	240	220	216	192	120	110	96	
Rated charging current	50	50	50	50	50	50	50	
Battery terminal maximum allowable voltage	320	293	288	256	160	147	128	
Maximum photovoltaic input voltage	450	430	430	400	250	230	200	
Minimum photovoltaic operating voltage	300	275	270	240	150	138	120	
Maximum photovoltaic input power	12000	11000	10800	9600	6000	5500	4800	
Static loss	< 0.2A							
Charging circuit voltage drop	≤ 0.5V							
Discharge loop voltage drop	≤ 0.3V							

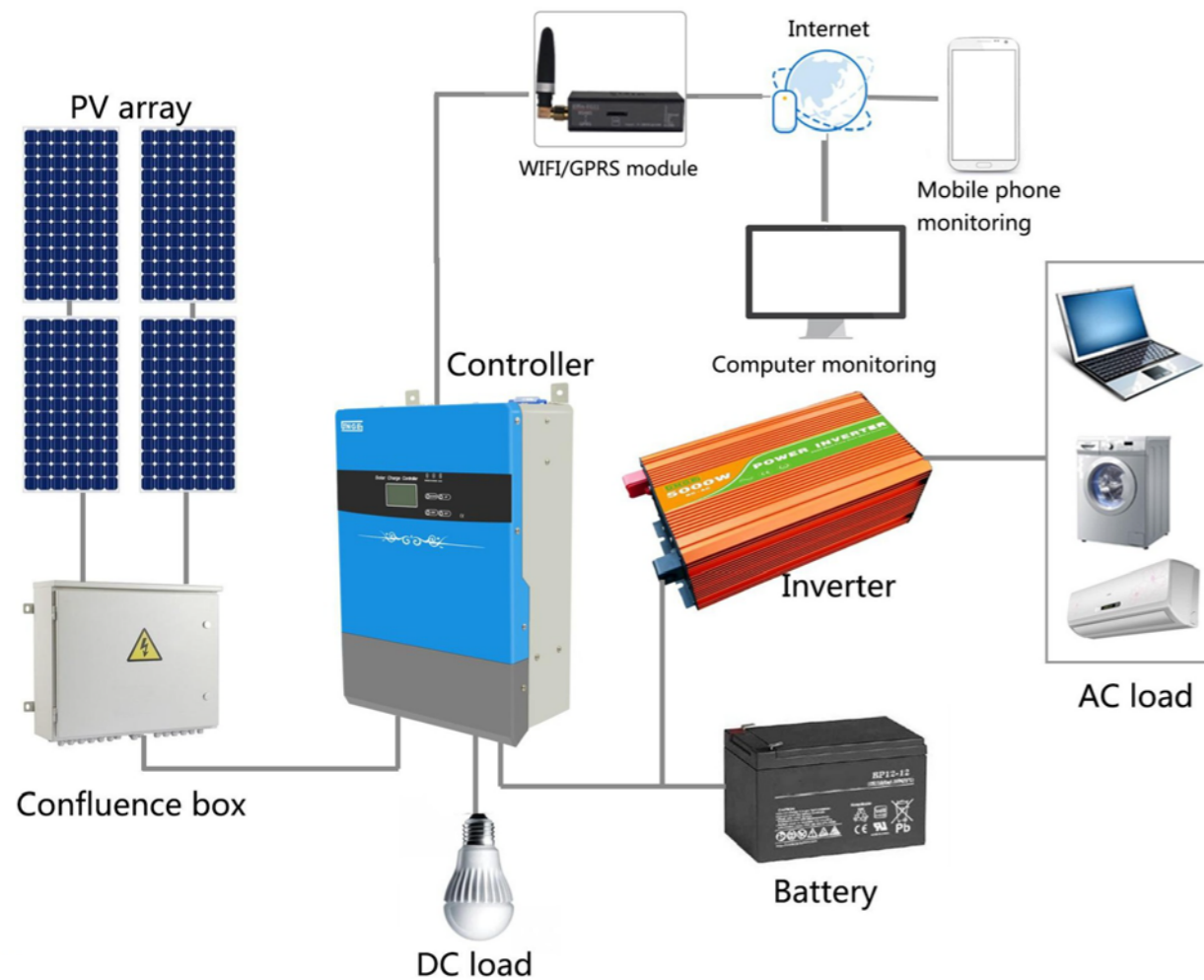
JND-X100A									
Rated system voltage	240	220	216	192	120	110	96	48	24
Rated charging current	100	100	100	100	100	100	100	100	100
Battery terminal maximum allowable voltage	320	293	288	256	160	147	128	64	32
Maximum photovoltaic input voltage	450	430	430	400	250	230	200	100	50
Minimum photovoltaic operating voltage	300	275	270	240	150	138	120	60	30
Maximum photovoltaic input power	24000	22000	21600	19200	12000	11000	9600	4800	2400
Static loss	< 0.2A								
Charging circuit voltage drop	≤ 0.5V								
Discharge loop voltage drop	≤ 0.3V								

JND-X150A									
Rated system voltage	240	220	216	192	120	110	96	48	24
Rated charging current	150	150	150	150	150	150	150	150	150
Battery terminal maximum allowable voltage	320	293	288	256	160	147	128	64	32
Maximum photovoltaic input voltage	450	430	430	400	250	230	200	100	50
Minimum photovoltaic operating voltage	300	275	270	240	150	138	120	60	30
Maximum photovoltaic input power	36000	33000	32400	28800	18000	16500	14400	7200	3600
Static loss	< 0.2A								
Charging circuit voltage drop	≤ 0.5V								
Discharge loop voltage drop	≤ 0.3V								

JND-X200A									
Rated system voltage	240	220	216	192	120	110	96	48	24
Rated charging current	200	200	200	200	200	200	200	200	200
Battery terminal maximum allowable voltage	320	293	288	256	160	147	128	64	32
Maximum photovoltaic input voltage	450	430	430	400	250	230	200	100	50
Minimum photovoltaic operating voltage	300	275	270	240	150	138	120	60	30
Maximum photovoltaic input power	48000	44000	53200	38400	24000	22000	19200	9600	4800
Static loss	< 0.2A								
Charging circuit voltage drop	≤ 0.5V								
Discharge loop voltage drop	≤ 0.3V								

Note: Specifications are subject to change without notice.

System application diagram



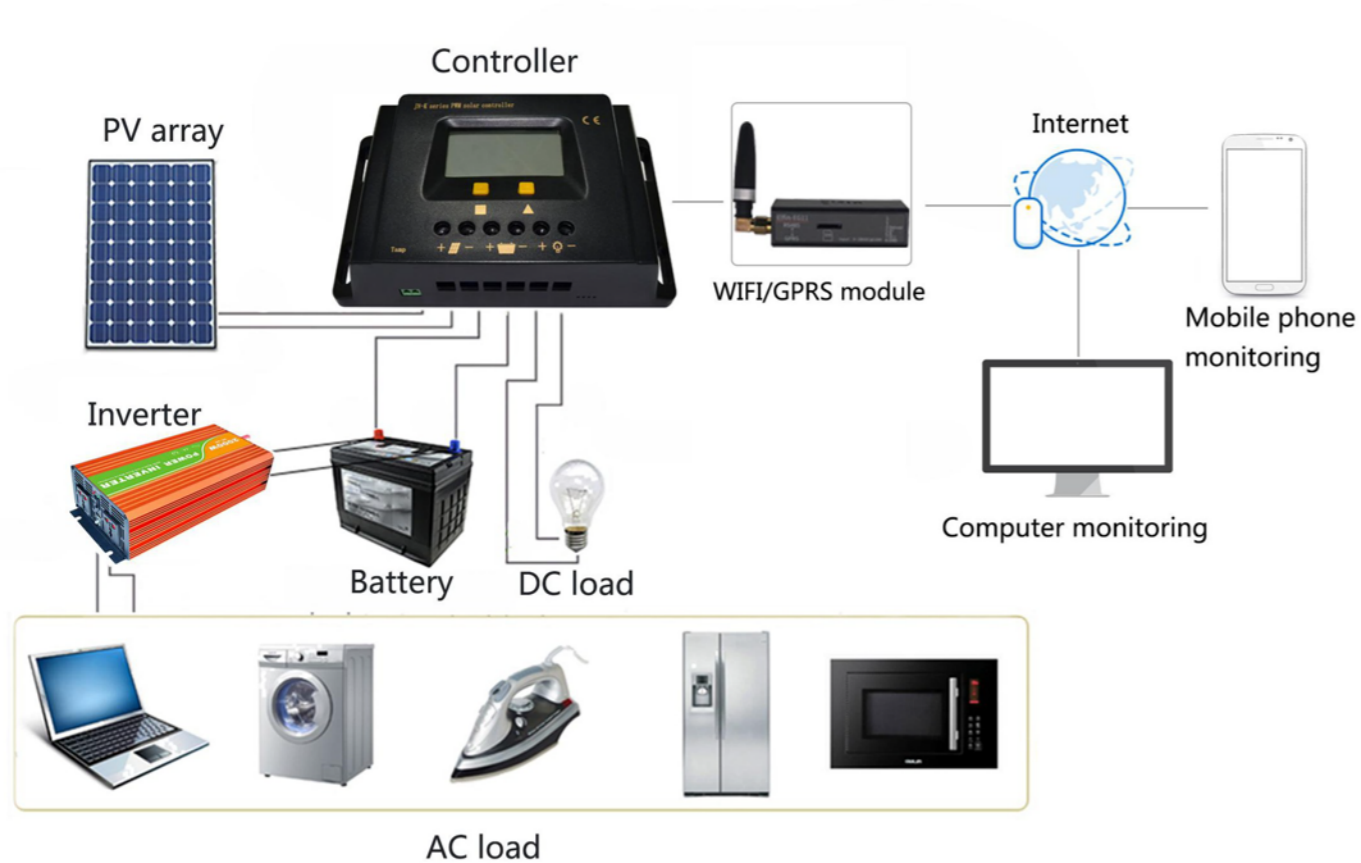
9、 JN-K series solar controller

Product Features:

1. Use high-speed performance CPU processor
2. Wide applicability, automatic identification of day/night
3. 12V/24V system voltage automatic identification or 48V battery working voltage
4. Excellent EMC design
5. Intelligent temperature control and current reduction
6. High precision A/D sampling ensures the accuracy of sampling
7. LCD display complete menu display and operation
8. Support a variety of communication software: RS485 to USB WIFI GPRS app function
9. All imported power MOSFETs are used as electronic switches with low loss and high reliability.



System application diagram



Technical Parameters:

System parameters		
Rated voltage	12V/24V	48V
Strong charging current	14.8V/29.6V	59.2V
Balanced charge	14.5V/29.0V	58.0V
Floating charge voltage	13.7V/27.4V	54.8V
Undervoltage protection	10.8V/21.6V	43.2V
Recovery	13V/26V	50.0V
Maximum charging current	10A/20A/30A	10A/20A/30A
Maximum load current	10A/20A/30A	10A/20A/30A
Overload protection	1.2 times 3S recovery, 1.5 times 10 recovery, more than 2 times need to be manually repaired	
Maximum wiring diameter	4mm ²	
Working temperature	minus 40-60 degrees Celsius	
Weight (nte weight)	0.4KG	
Product size	166mm*100mm*51mm	
Protection level	IP56	

Note: Specifications are subject to change without notice.

10、 JN-R series solar controller

Product Features:

1. Use high-speed performance CPU processor
2. Intelligent temperature control
3. Excellent EMC design
4. 12V/24V system voltage automatic identification or 48V battery working voltage
5. Wide applicability, automatic identification of day/night
6. High precision A/D sampling ensures the accuracy of sampling
7. All imported power MOSFETs are used as electronic switches with low loss and high reliability.
8. Efficient PWM charging method, which prolongs battery life and improves system performance
9. Support a variety of communication software: RS485 to USB WIFI GPRS app function



System application diagram



Technical Parameters:

System parameters				
Machine model	JN-R (12V/24V/48V)			
System rated voltage	12V/24V automatic identification, 48V			
Battery maximum voltage	15V/30V/60V			
PV panel maximum voltage	22V/44V/88V			
Rated charging current	30A	40A	50A	60A
Charging line voltage drop	≤0.7V			
Discharge line voltage drop	≤0.2V			
Static loss	0.2W			
Communication interface	RS232 to USB WIFI GPRS app function			
USB output	0.5A/5V			
Over temperature protection	Full current below 75°C, half current from 75°C to 90°C, off charging above 90°C			
LCD temperature range	-20°C-75°C			
Working environment temperature	-20°C-50°C			
Storage temperature	-30°C-70°C			
Protection level	IP30			
Terminal block (mm2)	10	10	16	16
Size	width and height (mm) 207.5*129*69.5			
Net weight (kg)	1.5	1.5	1.6	1.6
Light control off lamp voltage upper limit	8V			
Lower limit	2V			
Default	4V			
Temperature compensation coefficient upper limit	0mV/°C/2V			
Lower limit	-8mV/°C/2V			
Default	-4mV/°C/2V (25°C as the baseline)			

Note: Specifications are subject to change without notice.

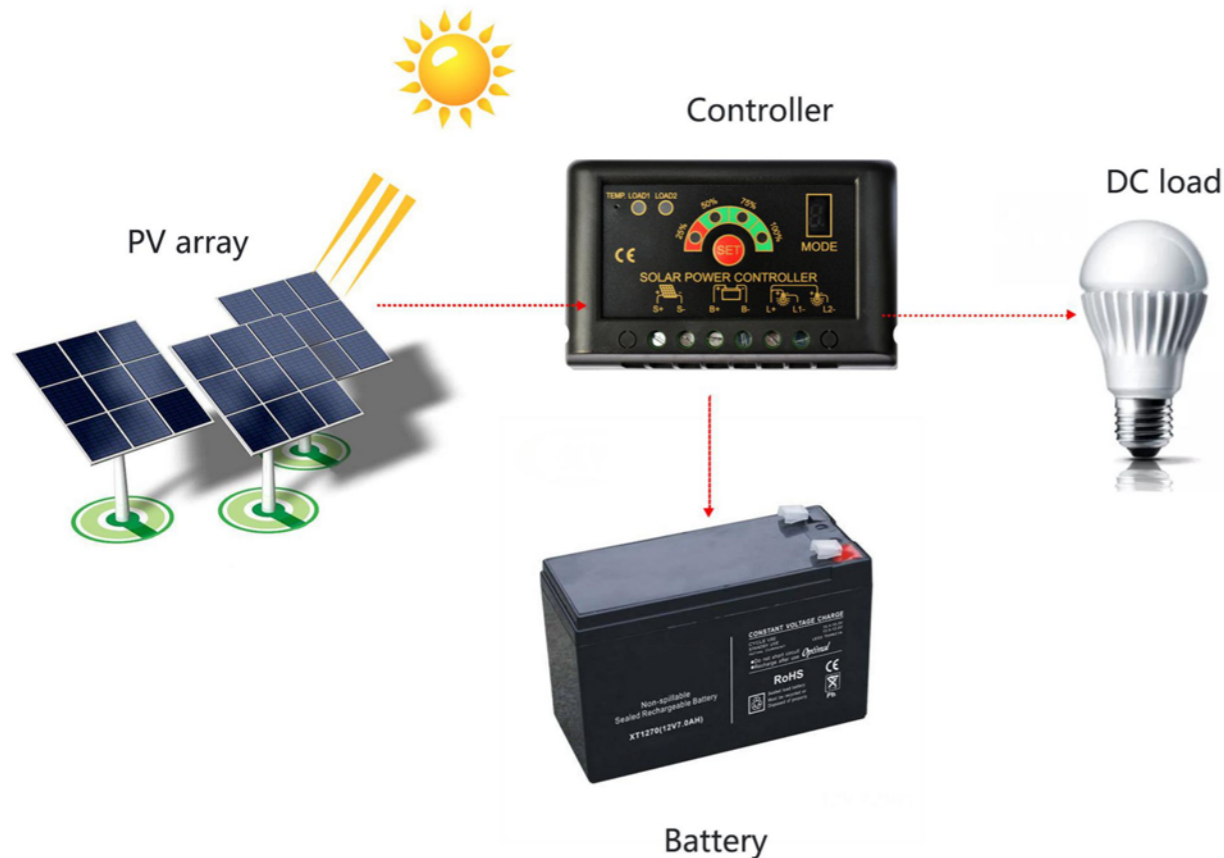
11、JN-S series solar controller

Product Features:

1. The controller has power-off protection (that is, after the button is adjusted, history data will be kept even power off)
2. The controller is 12V/24V automatic identification design.
3. The controller has light and time control (street light type).
4. This control has full protection measures such as overcharge, overdischarge, overcurrent, short circuit and reverse connection.
5. Controller has strong charge, balanced charge, floating charge three-stage PWM adjustment charging method.
6. The controller has a design of household type and street light type.
7. The controller has lightning protection design to prevent the current surge at the moment of power-on and has a soft start function.



System application diagram



Technical Parameters:

System parameters				
Model	JN-S			
Rated voltage	12V/24V automatic identification			
Rated charging current	5A	10A	15A	20A
Rated load current	5A	10A	10A	10A
Maximum input voltage	22V/50V			
Display	LED			
Strong charging voltage	14.8V/29.6V			
Balanced charge	14.5V/29.0V			
Floating charge voltage	13.7V/27.4V			
Undervoltage protection	10.8V/21.6			
Undervoltage recovery	13.0V/26.0V			
Controller protection	overload, reverse connection, over discharge, over charge, short circuit, etc.			
	Charging mode PWM adjustment mode			
Use altitude	≤ 5500m (more than 2000m need to reduce power usage)			
Working temperature	-40-60 °C			
Weight (gross weight)	200g			
Product size	120*78*35mm(length, width and height)			
Protection level	IP56			

Note: Specifications are subject to change without notice.

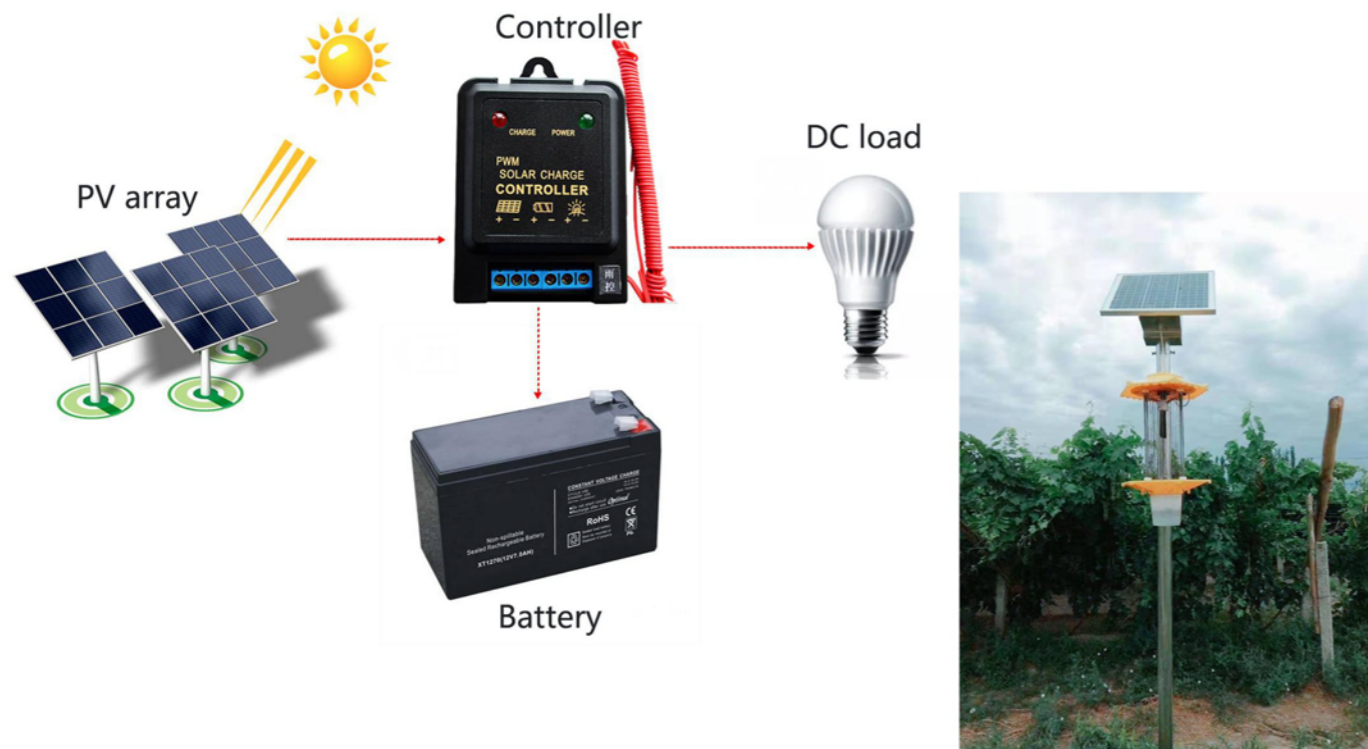
12. JC Mini series

Product Features:

1. The controller has a design of household type and street light type.
2. This controller is suitable for 6V/12V battery system.
3. The controller has light and time control (street light type).
4. This controller has overcharge, over discharge, over current, short circuit, reverse connection, etc. protection.
5. Scientific and rigorous shape design, using high-level protections it has strong charge, balanced charge, floating charge three-stage PWM adjustment charging method.



System application diagram



Technical Parameters:

	system parameters	
Model	JC0603/ JC1203	JC0605/ JC1205
Maximum charging current	3A	5A
Maximum load current	3A	5A
Rated voltage	6V/12V	
Strong charging voltage	7.4V/15.8V	
Balanced charge	7.25V/14.5V	
Floating charge voltage	6.85V/13.7V	
Undervoltage protection	5.4V/10.8V	
Undervoltage recovery	6.5V/13V	
No-load current	≤6mA	
Charging circuit voltage drop	≤0.2V	
Discharge circuit voltage drop	≤0.1V	
Controller protection	overload, reverse connection, over discharge, over charge, short circuit, etc.	
Charging mode	PWM adjustment mode	
Use altitude	≤ 5500m (more than 2000m need to reduce power usage)	
Working temperature	-20 ° C ~ 55 ° C	
Weight (gross weight)	50g	
Product size (length, width and height)	53.4mm*68.6mm*22mm/0.035kg	
Protection level	IP22	

Note: Specifications are subject to change without notice.

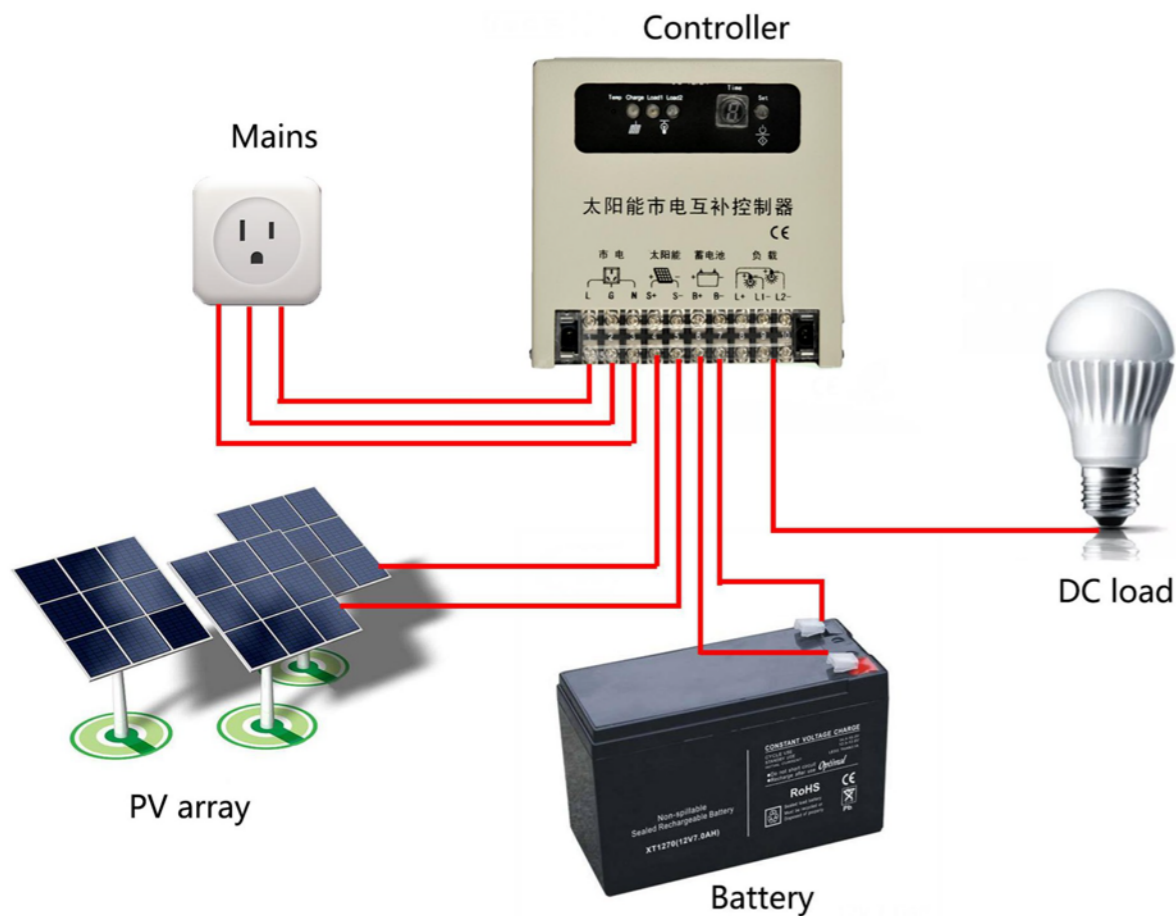
13、JC-CYS AC mains Hybrid solar controller

Product Features:

1. Various status indications.
2. TVS lightning protection
3. External temperature sensor with high precision temperature compensation.
4. With overcharge, over discharge, and anti-reverse protection.
5. LED digital display and waterproof button operation, easy to use.
6. Improve the three-stage charging algorithm, perform a balanced charging of the battery once a week, effectively prevent battery imbalance and vulcanization, improve battery life.
7. Parameter setting power-down save function, no need to repeat settings, easy to use.



System application diagram



Technical Parameters:

System parameters	
Model	JC-CYS
System rated voltage	12V 24V
Strong charging voltage	14.8V 29.6V
Balanced charge	14.5V 29.0V
Floating charge voltage	13.7V 27.4V
Undervoltage protection	10.8V 21.6V
Undervoltage recovery	13.0V 26.0V
Mains switching voltage	11.0V 22.0V
Charging current	5A/10A/15A/20A
Maximum load current	10A 10A
Controller protection overload	reverse connection, over discharge, over charge, short circuit, etc.
Charging mode	PWM adjustment mode
Working mode	Street light Optional for household use (can also be set before leaving the factory)
Use altitude	≤ 5500m (more than 2000m need to reduce power usage)
Working temperature	-40-60 °C
Weight (gross weight)	1.5KG 2.5KG
Product size (length, width and height)	125*125*69mm 225*125*90
Protection level	IP56
Remarks: With the all-in-one machine,	the customer needs to provide the power of the specific load. The built-in large switching power supply depends on the load power.

Note: Specifications are subject to change without notice.

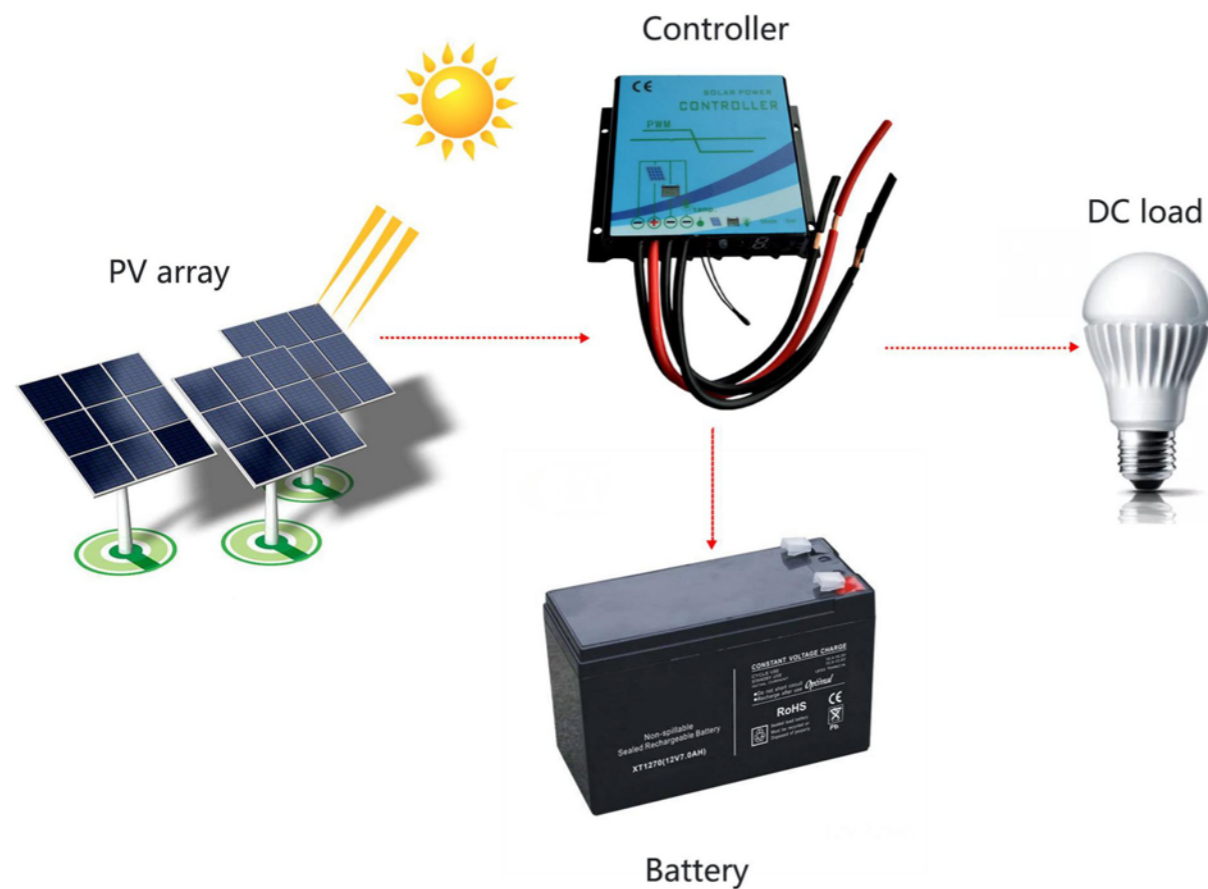
14、JN-W Waterproof solar controller

Product Features:

1. IP68 waterproof grade, aluminum shell design, can effectively prevent various corrosion.
2. 12V/24V system voltage is automatically recognized.
3. LED digital display and waterproof button operation, easy to use.
4. Improve the three-stage charging algorithm, and perform a balanced charging of the battery once a week to effectively prevent battery imbalance and vulcanization and improve battery life.
5. Three-kinds load working mode, easy to use on various street lights and monitoring equipment.
6. External temperature sensor with high precision temperature compensation.
7. Various status indications. TVS lightning protection.



System application diagram



Technical Parameters:

System parameters	
System voltage	12V/24V Auto
System current	5A/10A/15A/20A
Load loss	< 5mA
Solar input voltage	< 55V
Overtoltage protection	16.5V ; ×2/24V
Balanced charging voltage	14.4V ; ×2/24V (25°C) , Maintenance time 1 hour
Increase charging voltage	14.4V ; ×2/24V (25°C) , Maintenance time 2 hour
Floating charge	13.8V ; ×2/24V (25°C)
Charging return voltage	13.2V ; ×2/24V (25°C)
Over discharge return voltage	12.5V ; ×2/24V
Over discharge protection	10.8V ; ×2/24V
Temperature compensation	-4.0mv/°C/2V ;
Light control voltage	light on 7v.light off 2v
Light control judgment time	1min
Overload, short circuit protection	1.25times current 3s recovery
	1.5times current 5s recovery
	>times current , short circle protection start.need manually repaired
Working temperature	-35°Cto+65°C ;
Protection level	IP68
weight	0.15Kg
Size	82×68×20(mm) length*width*height

Note: Specifications are subject to change without notice.

15、 JN Series Privilege Version Wind and Solar Hybrid Controller

Product Features:

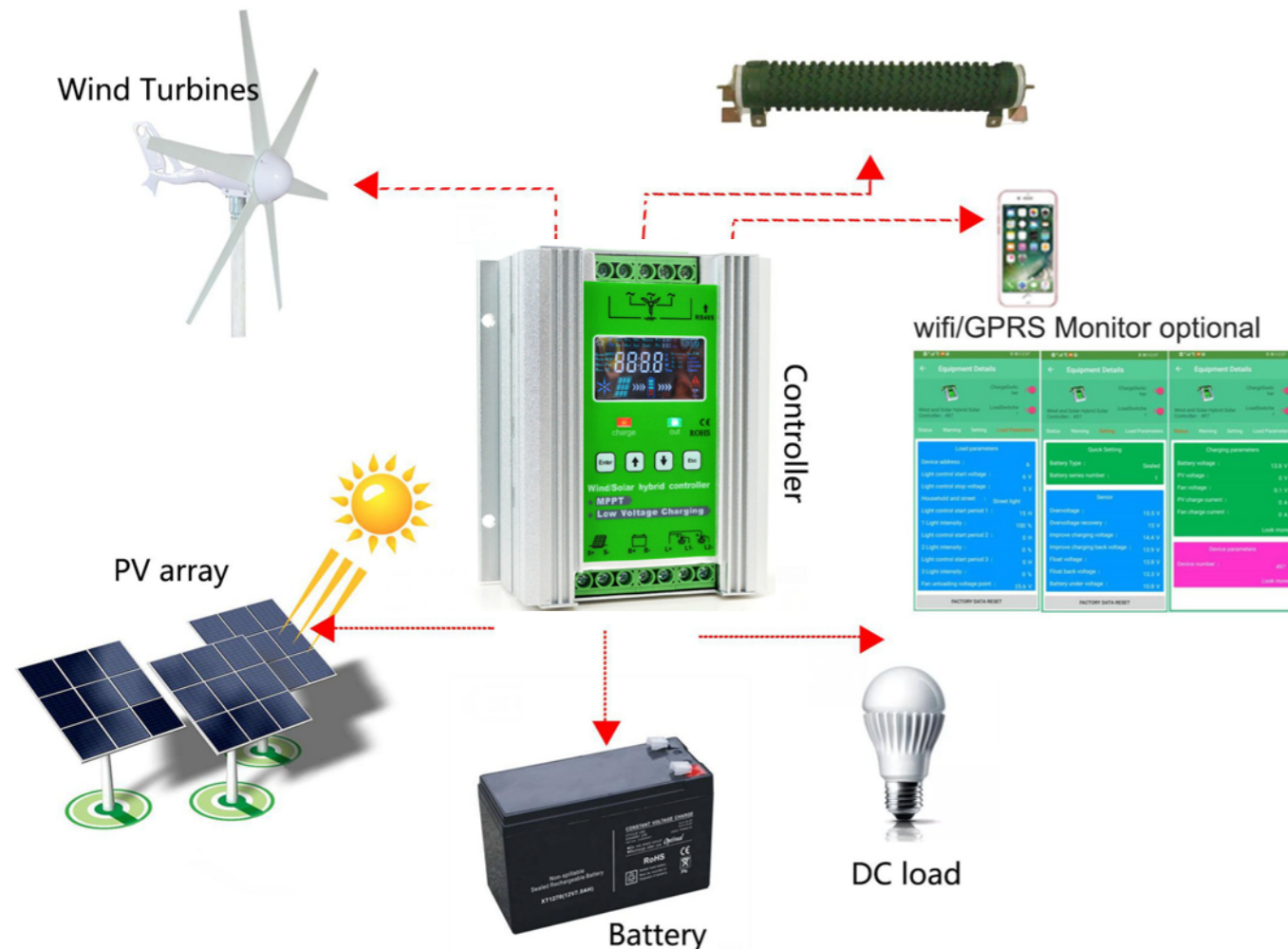
- 1.color screen design, more comprehensive, information easy to operate.
- 2.The MPPT control algorithm used for fan to ensures MPPT charging at low wind speed.
- 3.Fan three-stage charging mode:MPPT charging-lifting charging-floating charging.
- 4.Photovoltaic three-stage charging mode:CC constant current-lifting charging-floating charging.
- 5.12V/24V battery system automatic recognition, or 12V/24V/48V battery system automatic recognition (Optional).
- 6.RS485 communication can provide communication protocol to facilitate unified management and secondary development for customer.
- 7.check operating parameters by mobile phone APP.(Optional)
- 8.comprehensive protection functions ;overcharge, over discharge and overload,
- 9.Lead-acid battery, ternary lithium battery, lithium iron phosphate, custom four battery types charging mode to choosing;
- 10.The controller has various load control modes, the load has two outputs, and the output power and time can be set;
- 11.The controller has wide adaptability, adaptive day and night;



Technical Parameters:

System parameters								
Parameter Name	Product model							
	JN-12-W300/S300	JN-12-W500/S500	JN-24-W600/S600	JN-24-W800/S800	JN-48-W800/S800	JN-48-W1000/S1000	JN-48-W1200/S1000	JN-48-W1500/S1000
Battery system voltage level / V	12		24		48			
PV array maximum open circuit voltage / V	27.6		55.2		105			
Recovery Voltage after PV array maximum open circuit voltage/V	26.4		52.8		100			
PV array minimum operating voltage / V	> Vbat + 1V		> Vbat + 1V		> Vbat + 1V			
Photovoltaic rated current rating (A)	25	40	25	33	17	21	21	21
PV module power / W	≤300	≤500	≤600	≤800	≤800	≤1000	≤1000	≤1000
Fan rated voltage level / V	12		24		48			
Fan array maximum open circuit voltage / V	25.6		51.2		102.4			
Fan rated current/A	25	40	25	33	17	21	25	31
Wind Turbine Power / W	≤300	≤500	≤600	≤800	≤800	≤1000	≤1200	≤1500
Voltage of restriction charging	Vbat > BCV + 0.4V		Vbat > BCV + 0.4V		Vbat > BCV + 0.4V			
DC load output rated current / A (LOAD1+LOAD2)	30A (Maximum one-way 15A)		30A (Maximum one-way 15A)		30A (Maximum one-way 15A)			
Remarks: 12V battery system: the maximum power of the fan is 500W, and the maximum power of the PV is 500W; 24V battery system: the maximum power of the fan is 800W, and the maximum power of the PV is 800W. 48V battery system: the maximum power of the fan is 1500W, and the maximum power of the PV is 1000W.								
Battery system identification voltage range (V)	12V system			24V system			48V system	
	DC9V-DC16V			DC18V-DC32V			DC42V-DC60V	
Conversion efficiency	> 98%							
Operating mode	Default to streetlight mode							
Working temperature	-20°C ~ 50°C							
Storage temperature	-30°C ~ 70°C							
Humidity (°C)	10% ~ 90% No condensation							
Protection level	IP30							

System application diagram



16、 JW-MPPT Series wind and solar hybrid solar controller

Product Features:

- 1.The display is LCD designed, more comprehensive display information, display interface is clearer, 4 button interface, operation setting is more convenient;
- 2.The MPPT control algorithm used for fan charging can guarantee MPPT charging at low wind speed (PWM control algorithm is used for economical charging);
- 3.Fan three-stage charging mode: MPPT charging-boost charging-floating charge;
- 4.Photovoltaic three-stage charging mode: CC constant current-boost charging-floating charging;
- 5.12V /24V/48V battery system automatic identification;
- 6.With overcharge, over discharge, overload and other comprehensive protection functions;
- 7.Lead-acid battery, ternary lithium battery, lithium iron phosphate, custom four battery types of charging methods are optional;
- 8.A variety of load control methods, the load has two outputs, the output power and time can be set;
- 9.Extensive adaptable, adaptive day and night.



System Configuration:

Parameter Name	Product model							
	JW-MPPT-12-W300/S500	JW-MPPT-12-W500/S600	JW-MPPT-24-W600/S800	JW-MPPT-24-W800/S1000	JW-MPPT-48-W800/S1000	JW-MPPT-48-W1000/S1000	JW-MPPT-48-W1200/S1000	JW-MPPT-48-W1500/S1000
Battery system voltage level (V)	12		24		48			
PV array maximum open circuit voltage (V)	27.6		55.2		105			
Recovery Voltage after PV array maximum open circuit voltage (V)	26.4		52.8		100			
PV array minimum operating voltage (V)	>Vbat+1V		>Vbat+1V		>Vbat+1V			
Photovoltaic rated current rating (A)	40	50	33	40	21	21	21	21
PV module power (W)	≅ 500	≅ 600	≅ 800	≅ 1000	≅ 1000	≅ 1000	≅ 1000	≅ 1000
Fan rated voltage level (V)	12		24		48			
Fan array maximum open circuit voltage (V)	25.6		51.2		102.4			
Fan rated current(A)	25	40	25	33	17	21	25	31
Wind Turbine Power (W)	≅ 300	≅ 500	≅ 600	≅ 800	≅ 800	≅ 1000	≅ 1200	≅ 1500
Voltage of restriction charging (V)	Vbat>BCV+0.4V							
DC load output rated current(A) (LOAD1+LOAD2)	30A (Maximum one-way 15A)							
Remarks: 12V battery system: the maximum power of the fan is 500W, and the maximum power of the PV is 600W;								
24V battery system: the maximum power of the fan is 800W, and the maximum power of the PV is 1000W.								
48V battery system: the maximum power of the fan is 1500W, and the maximum power of the PV is 1000W.								

System application diagram



17、JW Series pwm wind and solar hybrid solar controller

Product Features:

- 1.The display is LCD designed, more comprehensive display information, display interface is clearer, 4 button interface, operation setting is more convenient;
 - 2.Photovoltaic and fan three-stage charging mode: CC constant charging-boost charging-floating charging;
 - 3.12V /24V/48V battery system automatic identification;
 - 4.With overcharge, overdischarge, overload and other comprehensive protection functions;
 - 5.Lead-acid battery, ternary lithium battery, lithium iron phosphate, custom four battery types of charging methods are optional;
 - 6.A variety of load control methods, the load has two outputs, the output power and time can be set;
 - 7.Extensive adaptable, adaptive day and night;
- Fan charging has battery activation function.



System Configuration:

Parameter Name	Product model							
	JW-12-W300/S500	JW-12-W500/S600	JW-24-W600/S800	JW-24-W800/S1000	JW-48-W800/S1000	JW-48-W1000/S1000	JW-48-W1200/S1000	JW-48-W1500/S1000
Battery system voltage level (V)	12		24		48			
PV array maximum open circuit voltage (V)	27.6		55.2		105			
Recovery Voltage after PV array maximum open circuit voltage (V)	26.4		52.8		100			
PV array minimum operating voltage (V)	>Vbat+1V		>Vbat+1V		>Vbat+1V			
Photovoltaic rated current rating (A)	40	50	33	40	21	21	21	21
PV module power (W)	≅ 500	≅ 600	≅ 800	≅ 1000	≅ 1000	≅ 1000	≅ 1000	≅ 1000
Fan rated voltage level (V)	12		24		48			
Fan array maximum open circuit voltage (V)	25.6		51.2		102.4			
Fan rated current(A)	25	40	25	33	17	21	25	31
Wind Turbine Power (W)	≅ 300	≅ 500	≅ 600	≅ 800	≅ 800	≅ 1000	≅ 1200	≅ 1500
Voltage of restriction charging (V)	Vbat>BCV+0.4V							
DC load output rated current(A) (LOAD1+LOAD2)	30A (Maximum one-way 15A)							
Remarks: 12V battery system: the maximum power of the fan is 500W, and the maximum power of the PV is 600W;								
24V battery system: the maximum power of the fan is 800W, and the maximum power of the PV is 1000W.								
48V battery system: the maximum power of the fan is 1500W, and the maximum power of the PV is 1000W.								

System application diagram



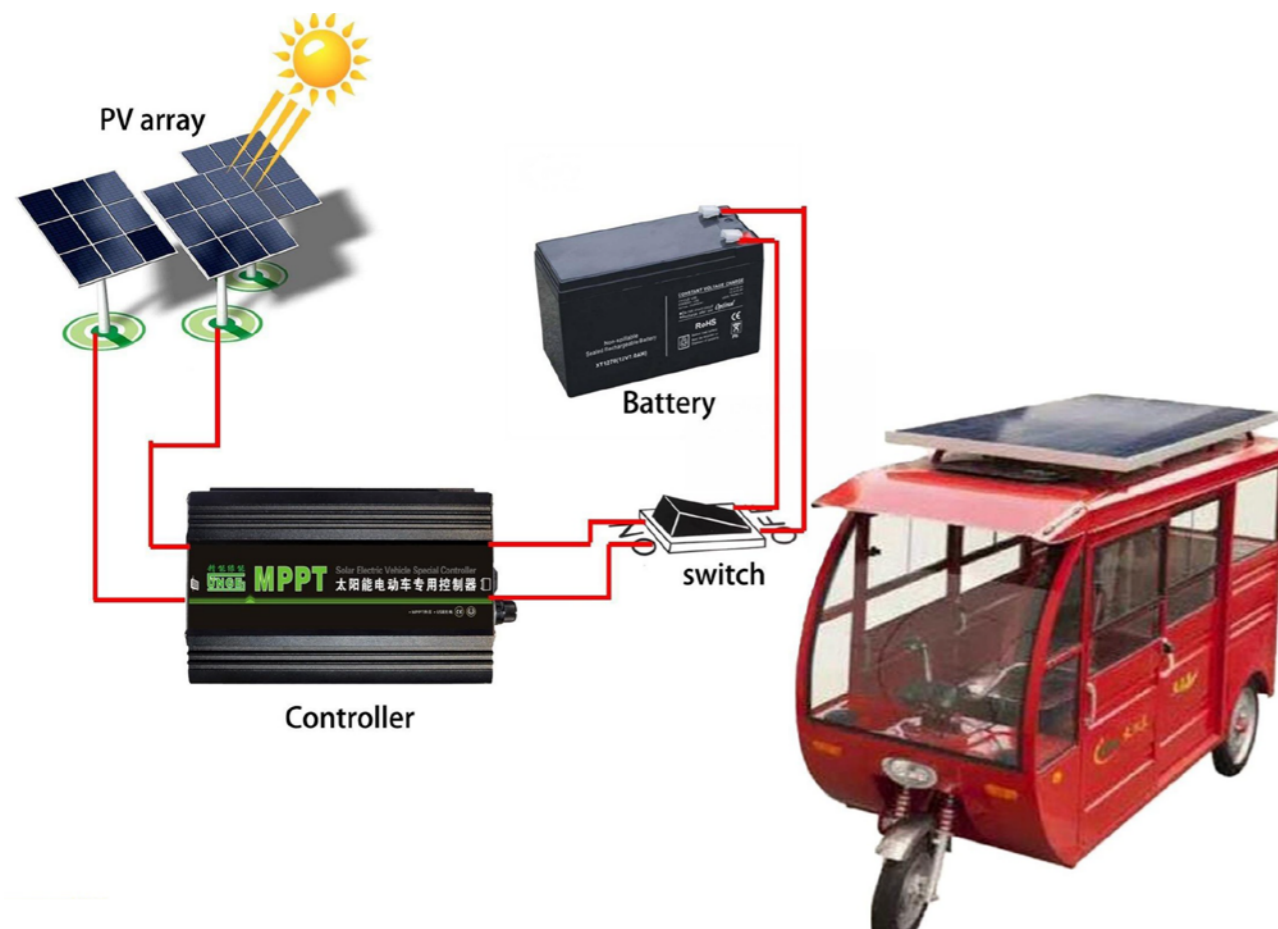
18、JN-EV series mppt solar controller

Product Features:

- 1.High efficiency booster MPPT charging ways.
- 2.The system uses solar panel power supply, reduce the power consumption of the battery.
- 3.The LED status indicator, running status be clear at a glance.
- 4.The digital tube displays the charging current, battery voltage and photovoltaic panel input voltage in real time.
- 5.Complete over-charge, anti-recoil, anti-reverse, and short circuit protection.
- 6.One-click set battery voltage grade (48V, 60V, 72V three battery voltage grade easy one-click settings).
- 7.The charging constant voltage point can be set, compatible with common lead-acid batteries and lithium batteries on the market.
- 8.System operation design is simple, easy to use, safe and reliable.



System application diagram



Technical Parameters:

Product parameter			
PV open circuit voltage	16V~50V		
MPPT Voltage range	16V~45V		
MPPT efficiency	≥99%		
Efficiency	≥95%		
No-load loss	< 5mA		
PV panel maximum input power	18V200W、36V400W		
Battery	48V or 60V or 72V (one-button setting)		
Overvoltage protection (Can be set by keys)	Voltage level	Settable range	Defaults
	48V	47V~67V	57V
	60V	62V~82V	72V
	72V	76V~96V	86V
Anti-reverse battery protection	Need to be replaced: F10AL250V, φ5 × 20 glass tube fuse		
Operating temperature	-25 °C to + 65 °C;		
weight	0.5Kg		
size	115 × 111 × 43 (mm) (length × width × height)		

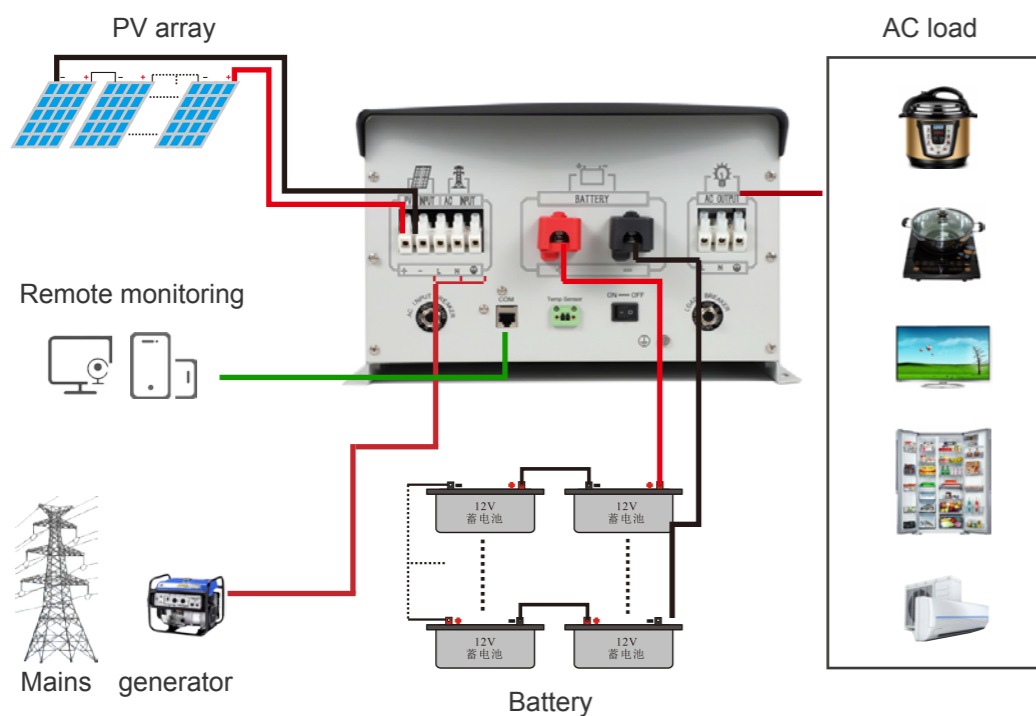
19、JN-F series Off-grid hybrid inverter with built-in solar charge controller

Product Features:



1. Compatible with lead-acid batteries, ternary lithium, lithium iron phosphate and other battery types.
2. With an ultra wide operating voltage range for photovoltaic arrays.
3. MPPT maximum power point tracking technology of solar charging controller, the tracking efficiency is not less than 99.5%. Compared with the common PWM algorithm, the efficiency is improved by 15~20.
4. Using high quality imported components, advanced power conversion circuit, the maximum conversion efficiency can reach more than 98%, full load efficiency can reach 97%, a variety of tracking algorithms combined, can quickly track to the maximum power point.
5. Photovoltaic charging has three-stage charging mode: MPPT- boost charging-floating charging.
6. pure sine wave ac output.
7. With overcharge, overplay, over temperature, overload and other comprehensive protection functions.
8. RS485 communication, can provide communication protocol, facilitate customer unified integrated management and secondary development.
9. Through the PC of the upper computer and mobile phone APP view and set up charging control, inverter and other operating parameters, specific reference to the upper computer and APP manual (optional).
10. Inverter and bypass can achieve seamless switching, can achieve the switching process of electrical equipment continuous electricity.
11. Inverter adopts built-in pure copper power frequency isolation transformer, instant load capacity is strong, load impact resistance is strong.

System application diagram



Technical Parameters:

Inverter and controller all-in-one parameters																		
Parameter Name	JN-FI parameter table (and adjustable range)																	
Model	JN -FI1000/S50 -*			JN -FI1500/S50 -*		JN -FI2000/S50 -*		JN -FI3000/S70 -*		JN -FI4000/S100 -*			JN -FI5000/S100 -*			JN -FI6000/S100 -*		
Battery voltage	12V	24V	48V	24V	48V	24V	48V	24V	48V	24V	48V	96V	24V	48V	96V	48V	96V	
AC mains input	Maximum Charge current	50A	25A	13A	38A	19A	50A	25A	75A	38A	100A	50A	25A	125A	63A	31A	75A	38A
	Electricity input voltage range	±10%~±15%																
	Power input frequency	45Hz~65 Hz																
Inverter output	Rated power	1000W			1500W		2000W		3000W		4000W			5000W			6000W	
	Wave	Pure sine wave																
	Output voltage range	110VAC/115VAC/120VAC/220VAC/230VAC/240VAC ±5% (customizable)																
	Output frequency	50HZ/60HZ																
	Maximum Inverter Efficiency	>92%																
Solar Charge Controller (Optional)	Max. charge current	50A			50A		50A		70A		100A			100A			100A	
	PV max. input power	600W	1200W	2400W	1200W	2400W	1200W	2400W	1680W	3360W	2400W	4800W	9600W	2400W	4800W	9600W	4800W	9600W
	PV Open circuit voltage range	20V~100 V (12V systems)																
		40V~145 V (24V system)																
		80V~145 V (48V system)									80V~240 V (48V system)							
	160V~240 V (96V system)																	
MPPT efficiency	> 99.5%																	
Charging mode	Three stages: constant current (fast charge), constant voltage, floating charge																	
Battery type	Lead acid batteries, GEL batteries, Lithium iron phosphate, Lithium ternary, Customized.																	
Display mode	LCD Color Screen																	
Mode of communication	RS485、 PC monitoring, WIFI/GPRS module and Ethernet extension app for cloud monitoring																	
Working environment	-25℃ ~+55℃																	
Storage temperature	-30℃ ~+70℃																	
Use altitude	Above 3000 m above sea level																	
Equipment protection grade	IP21																	
Humidity	10%~90% dewless																	
KG Net	14.5					33					44							
Product size	385*267*179 mm					467*337*199 mm					554*372*229 mm							

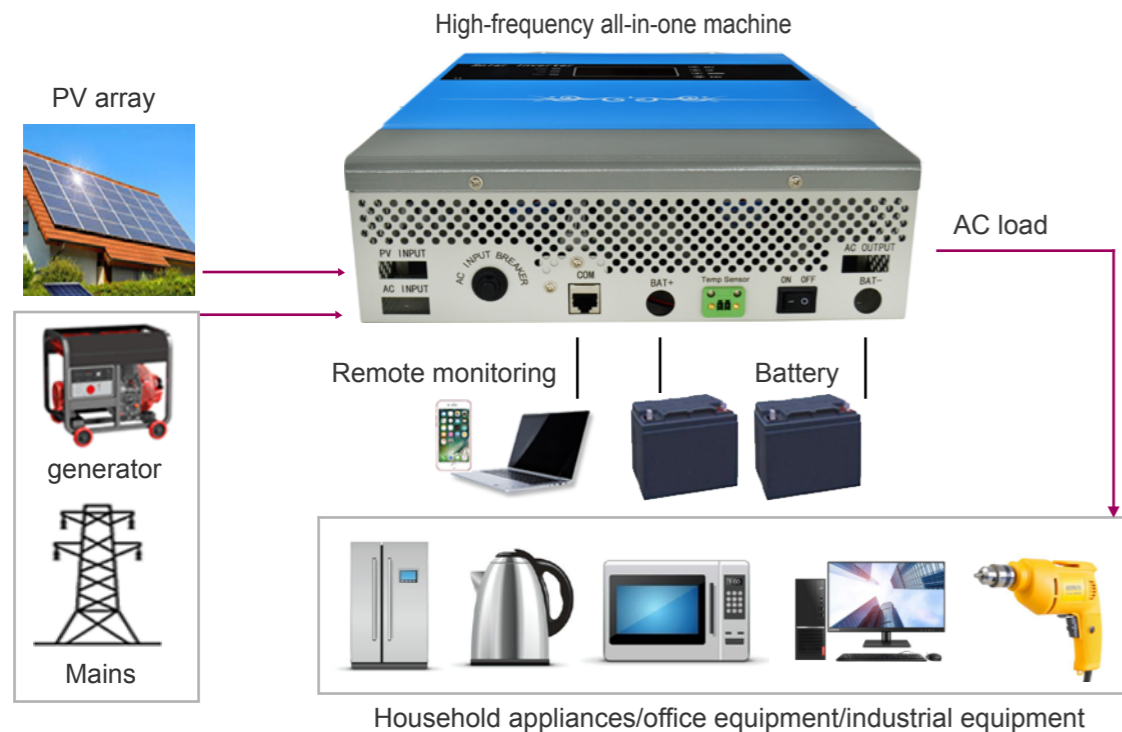
20、JN-HI series hybrid inverter built-in MPPT solar controller

Product Features:

1. Compatible with lead acid batteries, lithium ternary lithium, lithium iron phosphate and other battery types.
2. With an ultra-wide pv array operating voltage range.
3. Maximum power point tracking technology, tracking efficiency is not less than 99.5%, with an improved efficiency of 15 ~ 20% .
4. Using high quality imported components, advanced power conversion circuit, the maximum conversion efficiency can reach over 98%, full load efficiency of 97%, a combination of tracking algorithms, can quickly track to the maximum power point.
5. Photovoltaic charging has a three-stage charging mode: MPPT-boost charging-floating charging.
6. Pure sine-wave AC output.
7. Overcharge, overdischarge, overtemperature, overload and other comprehensive protection functions.
8. RS485 communication, providing communication protocol for unified integrated management and secondary development.
9. Operating parameters such as charging control and inverter can be checked and set through the PC upper computer and mobile phone APP, and specifically refer to the upper computer and APP user manual (optional).



System application diagram



System Configuration:

High-frequency all-in-one machine																	
Parameter name	JN-HI parameter table (and adjustable range)																
Model number	JN-HI300/S30-*/ JN-HI500/S30-*			JN-HI1000/S40-*			JN-HI1500/S50-*/ JN-HI2000/S50-*			JN-HI3000/S70-*			JN-HI4000/S80-*/ JN-HI5000/S80-*				
Battery voltage	12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V	24V	48V	96V		
Inverter output	Rated power	300W/500W			1000W			1500W/2000W			3000W			4000W/5000W			
	The Waveform	Pure sine wave															
	Output voltage range	110VAC/115VAC/120VAC/220VAC/230VAC/240VAC ±5%(Customizable)															
	Output frequency	50HZ/60HZ															
AC Mains input	Maximum inverse efficiency	>92%															
	AC Mains input voltage range	±10%~±15%															
MPPT Solar charge controller	AC Mains input frequency	45Hz~65Hz															
	Maximum charging current	30A			40A			50A			70A			80A			
	Maximum input power of PV	360W	720W	1440W	480W	960W	1920W	600W	1200W	2400W	840W	1680W	3360W	1920W	3840W	7680W	
	Open-circuit voltage range	20V~100V (12Vsystem) 40V~100V (24Vsystem) 80V~145V (48Vsystem)			20V~100V (12Vsystem) 40V~145V (24Vsystem) 80V~145V (48Vsystem)						40V~145V (24Vsystem) 160V~240V (48Vsystem) 160V~240V (96Vsystem)						
MPPT efficiency	> 99.5%																
Charging mode	Three stages: constant current (fast charge), constant voltage, floating charge																
Battery type	Lead acid batteries, gel batteries, lithium iron phosphate, lithium ternary, custom																
Display mode	LCD color																
Communication	RS485, supports upper computer monitoring and WIFI/GPRS module expansion to realize app cloud monitoring																
Working environment	-25℃~+55℃																
Storage temperature	-30℃~+70℃																
Use elevation	Elevation above 3000m is used																
Equipment protection level	IP21.																
Humidity	10% ~ 90% No condensation																
Product size	388*290*97									443*305*110							

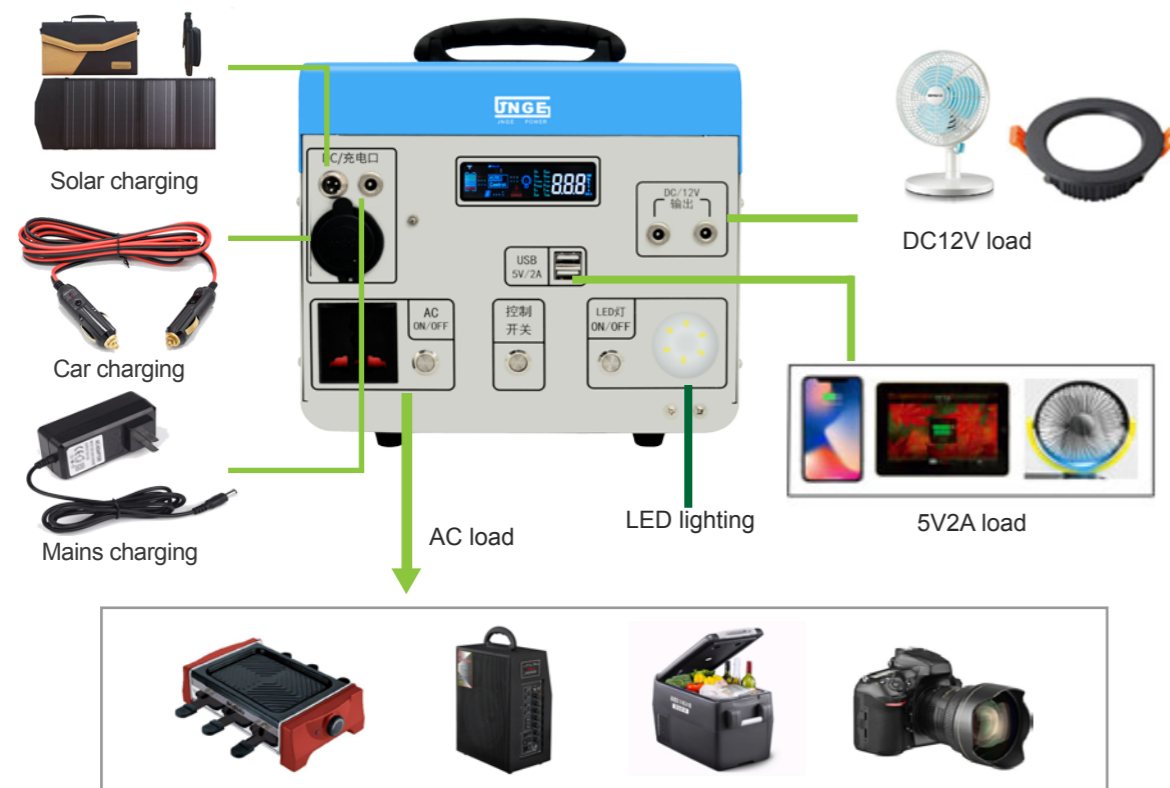
21、JN-BX Portable Storage Power Supply

Product Features:

- 1.Support AC, DC, USB multiple output mode;
- 2.Built-in LED lighting, emergency high brightness at night;
- 3.With municipal electric, vehicle, solar energy three charging methods;
- 4.This product is small in volume, light in weight, high in efficiency, and stable in performance;
- 5.This power supply is built-in high-quality lithium iron phosphate battery, lasting endurance;
- 6.This power supply is built-in pure sine wave inverter, stable AC output;
- 7.Intelligent color screen display, can accurately display the working state of the system;
- 8.With overvoltage, undervoltage, short circuit, over temperature, backconnection and other multiple protection;



System application diagram



Technical Parameters:

Outdoor energy storage mobile power									
Parameter	JN-BX parameter table (and adjustable range)								
Battery Type	Lithium iron phosphate battery								
Battery capacity	3. 2V/208000mA / 670wh		3. 2V/400000mA / 1280wh			3. 2V/600000mA / 1920wh			
Voltage	12.8V		12.8V			12.8V			
Model	JN - BX300/55-220	JN - BX500/55-220	JN - BX300/100-220	JN - BX500/100-220	JN - BX1000/100-220	JN - BX1000/150-220	JN - BX1500/150-220	JN - BX2000/150-220	
Inverse parameters	Power rating	300W	500W	300W	500W	1000W	1000W	1500W	2000W
	Wave form	Pure sine wave							
	Output voltage range	110Vac ± 5% or 220VAC ± 5% (customizable)							
	Output frequency	50HZ/60HZ							
	Maximum inverter efficiency	> 92%							
Controlling parameter	Photovoltaic charging maximum current	10A							
	Maximum voltage of the PV panels	30V							
	Municipal electricity charging	16V DC / 5A max							
	DC output	DC-12V/5A、USB-5V/2A							
Battery working scope	11.2V~15.6V								
Internal battery	High-quality lithium iron phosphate batteries								
Display mode	LCD color screen								
Work environment	-10℃ ~ +40℃								
Cooling mode	Intelligent air cooling								
Equipment protection level	IP21								
Humidity	10% ~ 90% No condensation								
Net weight KG									
Product size	225*175*205mm		280*228*230mm			340*243*323mm			
Rough weight KG									

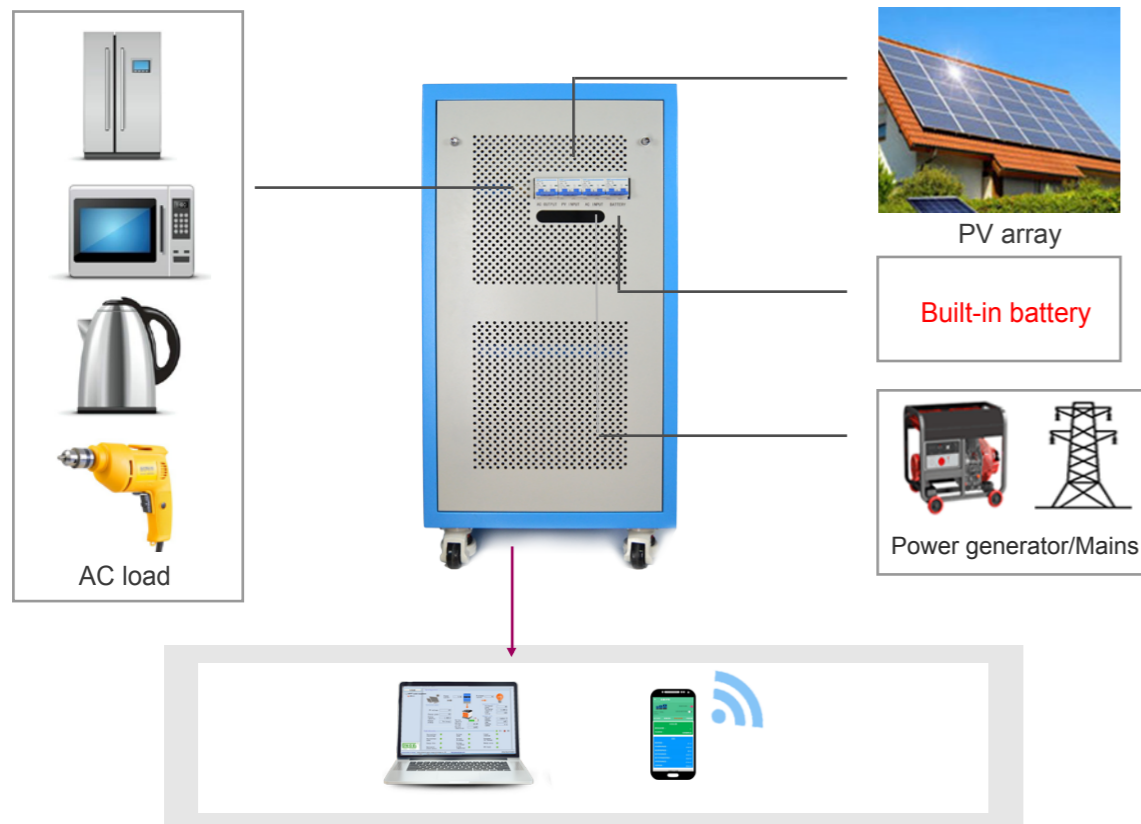
22. Solar power system configuration solution

Product Features:

1. Integrated design, user construction is simple;
2. Integrated design of inverter/controller/battery;
3. Portable, easy to install;
4. Compatible with lead-acid batteries, ternary lithium batteries, lithium iron phosphate and other battery types.
5. It has an ultra-wide photovoltaic array operating voltage range.
6. MPPT solar charge controller maximum power point tracking technology, tracking efficiency is not less than 99.5%.
7. High-quality imported components, advanced power conversion circuit, the maximum conversion efficiency can reach more than 98%.
8. Photovoltaic charging has a three-stage charging method: MPPT-boost charging-floating charging.
9. Pure sine wave AC output.
10. It has comprehensive protection functions such as overcharge, overdischarge, overtemperature, and overload.
11. RS485 communication can provide communication protocol to facilitate customers' unified integrated management and secondary development.



System application diagram



Can remotely view parameters, set parameters, remote switch machine.

System Configuration:

Product parameter					
Specification	2000W	3000W	4000W	5000W	6000W
Inverter	48V/2000W	48V/3000W	48V/4000W	48V/5000W	48V/6000W
	Output voltage/frequency: 110VAC/120VAC/220VAC/230VAC/240VAC ±5%(customizable) 50HZ or 60HZ				
	Power frequency pure sine wave				
	Maximum Inverter Efficiency≥92%				
Solar panels	30VDC/300W	30VDC/300W	30VDC/300W	30VDC/300W	30VDC/300W
	8PCS	12PCS	16PCS	20PCS	24PCS
	4S2P	4S3P	4S4P	4S5P	4S6P
	2400W	3600W	4800W	6000W	7200W
Lead acid batteries	12VDC/150AH	12VDC/200AH	12VDC/200AH	12VDC/200AH	12VDC/200AH
	4PCS	4PCS	4PCS	8PCS	8PCS
	4S	4S	4S	4S2P	4S2P
	Lead acid batteries, GEL batteries, Lithium iron phosphate, Lithium ternary, Customized.				
MPPT Solar Controller	48VDC/50A	48VDC/60A	48VDC/100A	48VDC/100A	48VDC/120A
	PV Open circuit voltage 80-145VDC	PV Open circuit voltage 80-145VDC	PV Open circuit voltage 80-145VDC	PV Open circuit voltage 80-145VDC	PV Open circuit voltage 80-145VDC
Cable	4mm ² (Optional)	6mm ² (Optional)	6mm ² (Optional)	10mm ² (Optional)	10mm ² (Optional)
PV bracket	(Optional)	(Optional)	(Optional)	(Optional)	(Optional)
Steering wheel	(Optional)	(Optional)	(Optional)	(Optional)	(Optional)
RS485 communication	PC remote, mobile APP: GPRS/WIFI/Ethernet/PC upper computer (optional)				