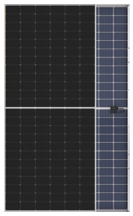



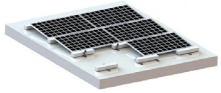

LITHIUM BATTERY
SOLAR ENERGY STORAGE SYSTEM
CATALOGUE 2024

SHANGHAI PVSYS NEW ENERGY CO.,LTD
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Shanghai Pvsys New Energy Co.,Ltd is the professional manufacturer of solar panel,solar storage system in the market for more than 13 years.

With our newest technology of Topcon,HJT, our customers can get higher efficiency with best performance through the lifespan of the solar panel.

Our solar storage system is with built in solar hybrid inverter,mppt controller and LifePO4 battery with BMS(Battery Management System), it can be used in No-power areas and it also helps our cusotmer to save their energy bill.We are offering the customization of our solar system based on different needs from our customers. We blieve that "a suitable one for you!"

We have acquired the certificates of CE,IEC61215-1-1:2021,IEC61730-1:2018,IEC 61730-2:2018 and Fire safety Class.

With high quality solar products and best service,we have customers from Italy,Germany,Sweden,Spain,England,Dubai,South Africa,New Zeland,Australian,Japan,Indonesia.etc more than 50 countries and areas.

We always seem "Quality is our life", without good quality,we can not go any further. We blieve with our effort,we will make the world better.


700KW in Japan


300KW in Japan


13KW in Japan


6KW in Tahiti


14.76KW in Sweden


39.6KW-15.12kWh in Iraq

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ON/OFF GRID PV INVERTER

Hybrid Inverter PSX series

Product introduction:

PSX series is a new all-in-one solar charge inverter, which integrates solar energy storage & utility charging energy storage and AC sine wave output. Thanks to DSP control and advanced control algorithm, it has high response speed, high reliability and high industrial standard. Four charging modes are optional, i.e. Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging; and two output modes are available, i.e. inverter and Mains, to meet different application requirements

Performance characteristics:

- Three output modes,when the grid-connected function is enabled, grid-connected power generation or anti-reverse-current can be set, and it can also be set to off-grid output mode.
- Four charging modes,mains priority charging, solar priority charging, mains solar hybrid charging and solar only charging.
- Emergency function,support battery-free output and only PV start and load, with battery activation function.
- Parallel function,It can be flexibly combined to achieve up to 9 parallel machines.
- Protection function,perfect hardware and software protection function.
- The host computer and the APP cloud communication.

Model	PSX-3.5KW	PSX-5.5KW	PSX-10KW
INVERTER OUTPUT			
Rated output power (W)	3500	5500	10000
Rated output power (VA)	3500	5500	10000
Maximum Peak Power (W)	6000	10000	15000
Load Capacity with Motors	2HP	4HP	6HP
Rated AC Output	230 Vac (200 / 208 / 220 / 240 Vac), 50 / 60Hz		
Output Voltage Waveform	Pure Sine Wave		
Inverter and Bypass Switching Time	10ms (typical)		
Parallel Capacity	9		
Maximum Battery Inverter Efficiency	93%		
Overload Protection	102%~110%,5mins; 110%~125%, 10s; >125%, 2s		
BATTERY			
Battery Type	Lithium / Lead-acid / User Defined		
Rated Battery Voltage	48V		
Battery Voltage Range	40-60Vdc		
Max.MPPT Charging Current	60A	100A	200A
Max.Mains Charging Current	60A	60A	120A
Max.Hybrid Charging Current	80A	100A	200A
PV CHARGING			
MPPT Quantity	1		2
Max. PV array power	4000W	5500W	5500W+5500W
Max. PV input current	13A	22A	22A+22A
Max. Open Circuit Voltage	500Vdc		500Vdc+500Vdc
MPPT Voltage Range	120-450Vdc		
MPPT Tracking Efficiency	99.9%		
MAINS INPUT			
Input Voltage Range	90-280Vac/170-280Vac		
Frequency Range	50/60Hz±0.3Hz		
Output Short Circuit Protection	Circuit breaker		
Bypass Overload Current	30A	40A	63A
SPECIFICATIONS			
Dimensions (W*D*H-mm)	130*350*455		130*445*630
Weight (kg)	11	12	27
Classification of waterproof	IP20		
Operating Temperature Range	-10 °C~55 °C		
Noise	<60dB		
Heat Dissipation	Forced air cooling (variable speed of fan)		
COMMUNICATION			
Embedded interface	RS485 / CAN / USB / Dry contact		
External module	WIFI/GPRS		

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PV INVERTER&CONTROLLER INTEGRATED

Single-phase power frequency PSA Series

Product introduction:

The photovoltaic control and inverter integrated is a new type of photovoltaic power generation device that organically combines a photovoltaic charge controller and an inverter.

It consists of a charge controller, an inverter and a protection circuit, and the output is a pure sine wave voltage. It has the advantages of small total installation space, few connection lines, safety and reliability.

Photovoltaic charge controller is a high-performance step-down device that uses MPPT (Maximum Power Point Tracking) algorithm to make full use of solar photovoltaic energy. The PV input voltage range is wide, which can charge a variety of batteries,and the three-stage charging effectively improves the life of the battery.

Performance characteristics

- MPPT solar charging controller,which can make the most use of solar photovoltaic
- Three-stage charging, effectively prolonging the life of the battery
- It has the functions of power generate record,Event recording, Time switch,Auto sleep function
- Photovoltaic priority or utillty power priority mode can be set by users
- Pure sine wave output&completely protection
- Low frequency circuit design,good system reliability,low breakdown rates and long life time
- Higher ability to anti-attack from the loads
- Supporting city power/ Diesel generator input port(Optional)
- AC charger function(Optional)

Series	PSA96	PSA192/220
Output power(KVA)	6/8	6/10/15/20/25/30
Battery		
Rated voltage(VDC)	96	192/220
PV Input		
Maximum input power(KWP)	6	12/24
Maximum charge current	50/100	
Start voltage(VDC)	120	270
Mppt voltage range(VDC)	110-280	260-450
Maximum open circuit voltage(VDC)	300	480
AC bypass(Optional)		
Allowable input voltage range(VAC)	220±15%/110±5% (Other input voltage can be customized	
Input frequency(Hz)	50/60±3%	
AC charger	Optional	
AC Output		
Output waveform	Pure Sine Wave	
Output voltage(VAC)	220±1%/110±1% (Other output voltage can be customized)	
Output Frequency(HZ)	50/60±1%	
Output wave form distortion rate(THD)	≤2%(Liner Load)	
Convert Efficiency (80% Resistive load)	≥85°C	
Current Peak Factor	3:1	
Overload Ability	105-110%,600Seconds;110-125%,60Seconds;>125%,1Second	
Display method	LCD+LED	
Protection	Input reverse,low voltage,over voltage protection;Output overload,short circuit ,over hating protection	
Communication Function	Optional	
Surroundings		
Protective level	IP20	
Applied Altitude(m)	≤5000 (above 1000meters,rated power derating 1% every 100meters	
Humidity	<95% Non-condensation	
Environment temperature(°C)	-10~50	
Noise(dB)	≤60	
Appearance		
Dimensions(D*W*H)mm	640*305*770	700*405*980
Weight(KG)	80-85	55-155

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PV INVERTER&CONTROLLER INTEGRATED

Three phase power frequency PSA Series

Product introduction:

The solar photovoltaic control inverter integrated power supply is a new generation o dedicated power supply for new energy power generation systems. It is mainly designed and manufactured according to the characteristics and requirements of new energy power generation systems, and is suitable for the high quality and high reliability requirements of solar photvoltaic power generation systems for power supply equipment.The system uses photovoltaic cells to convert light energy into electrical energy, and charges the battery through the charging circuit. At the same time, the battery supplies power to the inverter, and the inverter provides AC power to the AC load.

Performance characteristics

- Advanced DSP digital control technology can effectively improve product performance and system reliability
- Excellent industrial environment protection pefformance
- Perfect protection function to provide safe and reliable power protection for the load
- Intelligent battery management function can effectively detect whether the battery is good or bad, prolong the battery life
- Economical and safe mode operation can make the whole machine more efficient than 98%
- High-performance large-screen LCD interface, intuitive and convenient operation
- Powerful communication interface and network remote monitoring,etc
- A wealth of optional accessories, which can be flexibly configured according to actual needs

Series	PSA					
Output power(KVA)	10	20	30	40	50	60
AC Input						
Phase	Three phase+N+G					
Volt range(VAC)	380/400/415±20%					
Frequency (Hz)	50/60±5%					
Soft-start	0~100% 5sec					
PV Input						
MPPT volt range (VDC)	230-450					
Max.Open circuit volt(VDC)	480					
Input paths	1/2					
Max.Input power(kWp)	12/24					
Full charge protection volt	The battery voltage can be set according to the actual configuration					
Charging voltage(VDC)	216/243/270(Settable)					
DC						
Nominal volt(VDC)	192/220/240					
Inverter						
Phase	Three phase+N+G					
Nominal volt(VAC)	380/400/415					
Nominal frequency(Hz)	50±0.5 (Powered on by battery)					
Frequency stability(Hz)	<±0.5 (Battery mode)					
Peak factor	3:1					
Output wave	Pure sine wave					
THD	Line load<3%; Non-line load<5%					
Voltage transient	<±3% (steady state load), <± 5% (dynamic load)					
Over-load ability	125% 10mins, 150% 1min					
System						
Communication interface	RS485(RS232, Network remote monitoring Option)					
Interface and instructions	7-inch color touch screen, LED status indication, dry contacts(optional)					
Operating environment	Temperature:0-40°C; Humidity:20%~90% (non-condensing);<1000 meters (power decreases by 1% per 100 meters					
Cooling method	Forced ventilation					
Noise(dB)	40-65					
Size(D*W*H)mm	600*600*1600			600*800*2000		

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OFF GRID INVERTER

Single-phase power frequency PSI Series

Product introduction:

PSI series inverter power supply is the fourth generation power frequency intelligent inverter power supply developed with new digital technology. The system adopts SPWM pulse width modulation technology, IGBT power module and output isolation transformer, so that the output of the inverter power supply is a pure sine wave power supply with stable frequency and voltage regulation, filtering noise and low distortion. It has the characteristics of strong load capacity, good load compatibility, and wide DC input voltage range, which greatly meets the nees of various electrical environments. The perfect protection device improves the stability of the system operation; the user-friendly LCD liquid crystal interface design enables man-machine communication zero-distance.

Performance characteristics

- Pure sine wave output, sufficient power output
- Protection function: output overload protection; output short circuit protection;input over/under voltage,over temperature protection and a series of alarm and protection
- Power frequency circuit design, good system stability, low failure rate and long life
- Good translent response,low waveform distortion, high inverter efficiency, stable output voltage, and excellent EMI indicators; this series of products have strong load resistance and load capacity. In addition to driving various resistive loads, they can also load all kinds of inductive devices, such as motors, air conditioners, electric drills, etc; it can drive almost all loads.
- Intelligent empty load automatic sleep function

Series	PSI96	PSI220
Output power (KVA)	6/8	6/10/15/20/25/30
Battery		
Rated voltage (VDC)	96	220
Under voltage protection value (VDC)	86.4	194.4
Under voltage recovery value (VDC)	104	234
Over voltage protection value (VDC)	124	279
Over voltage recovery value (VDC)	120	270
Mains bypass (optional)		
Input voltage allowable range (VAC)	220±15%	
Input frequency (Hz)	50/60±3%	
Mains charging	Optional	
AC output		
Output waveform	Pure sine wave	
Output voltage (VAC)	220±1%	
Output frequency (Hz)	50/60±1%	
Output waveform distortion rate (THD)	≤2% (Liner load)	
Inverter efficiency	≥85%	
Current peak factor	3:1	
Overload capacity	105%-110%； 10min;110%-125%,1min>125%,1s	
Display method	LCD+LED	
Protective function	Input reverse connection,input undervoltage,overvoltage, overload, short circuit,overheating portection	
Communication function	RS485/GPRS (Optional)	
Environment		
Protection level	IP20	
Operating altitude (m)	≤5000 (1% derating for ever 100m above 1000m)	
Humidity	<95% No condensation	
Environment temperature (°C)	-10~+40	
Noise (dB)	≤50	
Volume and weight		
Dimensions(D*W*H) mm	645*305*770	645*305*770/700*405*980
Weight (KG)	75-85	55-100/135-155

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OFF GRID INVERTER

PSI Series three phases inverter

Product introduction:

This series of three-phases off-grid inverters are high-efficiency and high-performance three-in-three-out inverter products. They are new generation dedicated power supplies for new energy power generation systems. They integrate digitization, informatization and networking. They have powerful information acquisition system, signal processing system, detection system and perfect protection system. They have wide input DC voltage, stable output voltage and frequency, which are mainly used in photovoltaic power stations, wind power stations, wind, light, oil, storage complementary power generation systems, household photovoltaic power supply system and other fields, especially places that require three-phase four-wire AC power.

Performance characteristics

- Advanced DSP digital control technology effectively improve the product feature and system stability
- Excellent industrial ambient protection performance, applicable to all kinds of working environment
- High performance big LCD screen, smart boot prompts and operation error alert function, operate visually and easily
- Powerful communication interfaces and network remote monitoring
- Wealth of optionas can be flexibly configured according to the actual needs
- Independent airtight duct, optimized ventilation design, internal modular installation, all devices required maintenance can be maintained from the front side. Machine can be installed three faces against the wall or parallel

Series	PSI					
Output power(KVA)	10/15/20/30	40/50/60	80/100/120	160/200	250/300	400
Rated DC voltage(VDC)	220/360/384		360/384		384	
Phase	Three phases+N+G					
Nominal voltage(VAC)	380/400					
Nominal frequency(Hz)	50/60					
Current peak factor	3:1					
Output waveform	Pure sine wave					
THD	Liner load<3%; Non-liner load < 5%					
Dynamic load voltage transients	<±5%					
Load voltage	<±3% (Balanced load); <±5% (unbalanced load)					
Overload capacity	125% 10mins, 150% 1min					
Inverter efficiency, load 100%	>92%					
Computer communication interface	RS232 (485 Network remote monitoring optional)					
Operating temperature(°C)	10~40					
Humidity	20%~90%					
Altitude	≤5000 (above 1000 meters. rated power derating 1% every 100 meters)					
Cooling	Forced cool air					
Noise(dB)	45~65 (1m from the machine)					
Weight(KG)	220-390	490-780	850-1050	1200-1400	1600-1800	2100
Dimension(D*W*H) mm	600*600*1350	600*800*1350	800*805*1800	900*1005*1800	1100*1150*1920	1100*1250*1920

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ENERGY STORAGE SYSTEM

PPCS Energy Storage Converter

Product introduction:

PPCS50/100/150/250K energy storage converter is a product developed for industrial and commercial energy storage applications, which can meet the diversifiled needs of users and provide asistance for comprehensive energy services. PPCS500/630K energy storage converter can be applied to various cenario such as power generation side and power grid side, and can quickly realize AC/DC bidirectional energy conversion. The multi branch input technology can reduce the battery parallel numbers, reduce battery circulation, and extend the service life of battery packs.

Performance characteristics

- Modular design. The product adopts the modlar design concept. Each module can operate independently, providing n+1 redundancy and improving system stability. The capacity can be expanded according to the users' need.
- Intelligent matching. The product is suitable for various types of batteries. The system can realize different charging and discharging strategies according to different battery types, to prolong the battery life span.
- Distributed in demand. The energy dispatching can be regulated, and the user can change the charging and discharging logic according to the power consumption policies in different periods of time in the region.
- Independent regulation of active and reactive power. The product can realize independent regulation of active and reactive power, meet different load requirements, ensure power factor and avoid fines.
- On/Off grid seamless switching. Realize seamless switching between grid and off grid connection, ensure the continuity of power consumption, and avoid economic losses caused by power failure.

Model	PPCS 50KW	PPCS 100KW	PPCS 150KW	PPCS 250KW	PPCS 500KW	PPCS 630KW
DC side parameters						
DC voltage range(V)	500-850			600-900		
Maximum DC current(A)	110	220	330	550	873	958
Battery branches number	1				1/2/4/8	1
AC grid connection parameters						
Rated output power(KW)	50	100	150	250	500	630
Rated grid voltage(V)	400±15%				380±15%	
Rated grid frequency(Hz)	50/60±2.5					
AC rated current(A)	72	144	216	360	727	916
System parameters						
Wiring mode	Three phases four wires					
Isolation	Power frequency isolation					
Cooling	Forced air cooling					
Temperature range (°C)	-20~50					
Protection level	IP20					
Size(D*W*H) mm	800*800*2160			800*1200*2160	800*1100*2160	
Communication						
Upper computer communication mode	ModBus TCP/IP					
Communication interface	Net port, RS485, CAN					

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ENERGY STORAGE SYSTEM

PPG2 PV&Battery energy storage integrated machine

Product introduction:

PPG2 optical storage integrated machine products integrate energy storag converters and photovoltaic inverters, which can efficiently utilize photovoltaic power generation, reduce the workload of installation sites, reduce the integation difficulty of integrate for supplier, and meet the storage integration application needs of small and medium-sized microgrids and industrial and commercial buildings.

Performance characteristics

- Intelligent switching operation strategy. It can be directly connected to the photovoltaic panel for charging, eliminating the loss in the power transmission process and improving the stability of the output curent; it can also be applied to the photovoltaic storage integrated machine to convert the photovoltaic output current into the available electricity of the grid, improving economic benefits.
- Flexible configuration. The maximum power that can be connected to twice the equipment capacity, up to 200KW, improves the flexibility of product configuration in areas without electricity.
- MPPT photovoltaic maximum power tracking. It can detect the power generation voltage of the photovoltaic panel in real time, so that the system can charge the battery with the maximum power output and increase the power generation of the system.
- Optional outdoor version. It can effectively reduce the construction cost in remote areas. IP54 protection grade, can perfectly deal with various types of outdoor weather

Model	50KW	100KW
Battery side parameters		
DC voltage range (V)	250-520 (Rated 400)	
DC maximum current (A)	150	300
PV side parameters		
PV voltage range (V)	520-900	
Maximum PV current (A)	110	220
Maximum PV power (KW)	100	200
AC grid connection parameters		
Rated grid voltage (V)	400±15%	
Grid frequency range (Hz)	50/60±2.5	
System parameters		
Isolation method	Power frequency isolation	
Cooling method	forced air cooling	
Protection class	IP20/IP54	
Dimensions (D*W*H) mm	800*800*2160 / 800*1000*2160 (outdoor version)	
Communication method		
Host computer communication method	ModBus C TCP/IP	
Communication interface	Ethemet port, RS485, CAN	

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ENERGY STORAGE SYSTEM

PDS DC Converter

Product introduction:

The PDS400KW DC-DC converter converts the direct current of the photovoltaic module array into direct current that can charge the battery. Adopt single-stage topology, wide photovoltaic voltage input range with 250-650V; output voltage range to battery with 600-900V with MPPT photovoltaic maximum power tracking function.

Performance characteristics

For the DC conversion protection strategy, it meets the relevant standards of the photovoltaic industry, and has but is not limited to the following protection functions:

- PV input overvoltage protection
- PV input under-voltage protection
- Output overload protection
- Output current control
- Output short circuit protection
- DC reverse protection

At the same time, according to the BMS requirements of different batteries, the battery side charging status is protected according to its control strategy, including overcharge, overdischarge, capacity protection,etc.

Model	PDS
Rated power (KW)	400
Low voltage side connected to PV input	
HVDC bus voltage (V)	750 (Low side voltage+40~850)
HVDC bus current (A)	67*8 (maximum 100*8)
DC bus power (KW)	50*8
Low voltage charge and discharge voltage (V)	500 (250-840)
Low voltage charge and discharge current (A)	100*8 (maximum 120*8)
The low voltage side is connected to the battery input	
HVDC bus voltage (V)	750 (Low side voltage+40~850)
HVDC bus current (A)	67*8 (maximum 100*8)
DC bus power (KW)	50*8
Low voltage charge and discharge voltage (V)	500 (250-840)
Low voltage charge and discharge current (A)	100*8 (maximum 120*8)
System parameters	
Protection	Protection for over temperature, overload, emergency stop, fan failure
Maximum efficiency (refer to the efficiency curve)	98.6%
Isolation	No isolation
Refrigeration	Forced air cooling
Noise	≤ 70dB
Communication method	RS485/CAN/Ethernet network port
Operating temperature (°C)	-20~50 (Derating above 45)
Humidity	0~95% (No condensation)
Altitude (m)	3000
Protection class	IP20
Size (D*W*H) mm	800*1100*2060
Weight (KG)	600

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ENERGY STORAGE SYSTEM

PSWD on-grid and off grid switch cabinet system

Product introduction:

The PSWD on-grid and off-grid switch cabinet system consists of AC power distribution cabinet, photovoltaic inverter (optional), local load and energy storage converter to form a set of AC micro-grid system. The microgrid switching cabinet can work in different modes as required.

The PSWD on-grid and off-grid switching cabinet plays a central role in the whole system, with the characteristics of energy dispatch management, fast on-grid and off-grid switching and convenient maintenance. At the same time, it has perfect protection functions, such as over temperature, AC over and under voltage, AC reverse sequence, emergency shutdown, fan failure, output overload,etc., to meet the requirements of off-grid operation. The micro-grid switching cabinet includes on road power grid input.

When the thyristor of the micro-grid switching cabinet breaks down, the bypass switch can be closed for emergency power supply. Note: the bypass switch and the grid switch cannot be closed at the same time. The microgrid switching cabinet includes a PCS switch, which is specially used to connect the energy storage converter. It is equipped with four load switches at most, and can be optionally connected to photovoltaic grid-connected inverters, wind turbines, diesel generators and local loads. The external communication of the switching cabinet includes RS485, and the Ethernet can exchange data with the background PC to form an energy management system, which can dispatch and manage energy and switch between on-grid and off-grid.

Model	PSWD-800KW
Rated power (KW)	800400
Rated voltage (V)	-25%~15%
Input voltage range	-25%~15%
Output voltage range	1155
Rated input current (A)	1270 (1.1 times)
Maximum input current (A)	50/60
Rated frequency (Hz)	47~52/57~62
On and off grid switching time	<20ms
Overall efficiency	99.5% (full load)
Protection class	IP20
Design life	10 years
Cooling method	air cooling
Grid access	1 road
PCS/PV access	1 road (not more than 500KW)
Load access	4 roads
Maximum load switching power (KW)	300 (RCD load, pure capacitive or inductive load is less than 100)
Wiring	Three phases four wires system
Protection	Protection for over temperature, AC over and under voltage, AC reverse sequence emergency shutdown, fan failure, output overload, etc.
Host computer communication method	ModBus TCO/IP protocol
Communication Interface	Ethernet port/ RS485
Cabinet size (D*W*H) mm	800*800*2160
Noise	70dB
Temperature range (°C)	-20~45
Altitude (m)	3000
Humidity	0-95%
Weight (KG)	300

Introduction of PSTS Microgrid Controller:

The micro-grid controller (PSTS) consists of four parts: fast switching, high-precision detection, login control, and external communication. It can automatically complete on-off-grid switching and on-grid synchronization. The active switching and off-grid time is 0ms, the passive switching time is 20ms (typical), and the switching can be realized within 5ms through customization (at this time, the system mainly guarantees the power supply waveform).

Project	PSTS-100KW	PSTS-200KW	PSTS-300KW	PSTS-800KW
Input voltage range (VAC)	340-460	340-460	340-460	340-460
Rated output voltage(V)	400	400	400	400
Rated output current (A)	153	306	459	1215
Communication method	CAN			
Size (D*W*H) mm	220*585*482			800*800*2160

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SOLAR CHARGING CONTROLLER

MPPT Controller

Product introduction:

MPPT sereis photovoltaic controller is a high-performance step-down solar power generation equipment,which adopts MPPT algorithm to make full use of solar photovoltaic energy. The PV input voltage rangeis wide, which can charge a variety of batteries, and the three-stage charging effectively improves the life of the battery. The modular design of the controller allows multiple units to be used in parallel, allowing customers to configure freely and flexibly.

Performance characteristics

Memory function,save the settings, date and time, power generation etc function
Charging mode: three-stage charging (constant current, constant voltage, float), effectively extending the battery life
LCD and LED display various parameters, such as model, PV input voltage, the battery type, charging voltage, charging current, charging power, working condition etc
Photovoltaic input adopts MPPT tracking technology
Can be operated in parallel, expanding the range of use and meeting the charging requirements under high power
Available for communication power supply field

Model	PSM48	PSM96
Rated voltage (VDC)	48	96
Over voltage protection point (VDC)	62	124
Over voltage resumption point (VDC)	60	120
Float voltage （VDC)	54	108
Bulk voltage (VDC)	56.8	113.6
Maximum charging current (A)	60/120	(50/100)/(150/200)
Charging mode	Three-stage; constant current (MPPT), constant voltage, float	
Maximum input power （kWp)	3.4/6.8	5.7/11.4/17.1/22.8
Starting voltage (VDC)	60	120
MPPT voltage range (VDC)	50-150	110-280
Maximum open-circuit voltage(VDC)	170	300
Maximum efficiency	>98%	
MPPT efficiency	>99%	
Noise (dB)	<55	
Display	LCD+LED	
Communication	RS485(optional)	
Working temperature (°C)	-10~+40	
Humidit	0~95% (Non-condensing)	
Altitude(m)	≤5000m, above 1000m derating	
Protection level	IP20	
Dimension (D*W*H) mm	225*475*640(Wall-mounted type)	(225*475*640)/(530*530*1150) (vertical)
Weight (KG)	13-16	13-50
Protection	PV array reverse polarity protection; reverse battery proterction;battery overcharge protection over-discharge protection; output overload protection; output short circuit protection	

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SOLAR CHARGING CONTROLLER

MPPT Controller

Product introduction:

MPPT sereis photovoltaic controller is a high-performance step-down solar power generation equipment,which adopts MPPT algorithm to make full use of solar photovoltaic energy. The PV input voltage rangeis wide, which can charge a variety of batteries, and the three-stage charging effectively improves the life of the battery. The modular design of the controller allows multiple units to be used in parallel, allowing customers to configure freely and flexibly.

Performance characteristics

- In order to increase reliability, multiple protections are used

Input over voltage protection
Input under voltage protection
Output over voltage protection
Output over current protection
Stand-alone two-phase current unbalance protection
Single-phase output over current hardware protection

- Display mode can be LED light or LCD screen
- Support multi-module parallel work
- Relevant parameters can be set freely
- A controller cabinet is optional, and control cabinets of different specifications can be selected according to the required charging power. The control cabinet comes standard with photovoltaic input circuit beakers,battery circuit breakers, fuses,etc.

Series	PSM192	PSM220	PSM240	PSM360	PSM384
Rated volt(VDC)	192	220	240	360	384
Float charging volt(VDC)	216	243	270	405	432
Bulk charging volt	227	256	284	426	454
Charging mode	Three stage: Constant current, constant voltage, floating				
Max.Input power(kWp)	12/24			42	45
Start voltage(VDC)	250	280	310	470	490
MPPT volt range(VDC)	230-450	260-450	290-450	450-800	480-800
Max.open circuit voltage (VDC)	480			850	
Max.efficiency	>98%				
MPPT efficiency	>99%				
Noise(dB)	<65				
Display	LCD+LED				
Communication	RS485 (Optional)				
Working temperature (°C)	-10~+50				
Humidity	≤95% (Non-condensing)				
Altitude(m)	≤5000m, above 1000m derating				
Protection level	IP20				
Protection function	PV array aiti-reverse connection, Night anti-reverse charging, Battery over-charging, Over-temperature protection,etc				
Dimension(D*W*H) mm	10KW Wall-mount	470*360*100		Wall-mount	490*423*203
	10KW Ract-mount	403*482*87		Rack-mount	527*480*219
	20KW Wall-mount	517*400*181			
Weight (KG)	10KW:9 ; 20KW: 18			25	
Optional cabinet size (D*W*H) mm	4 Modules	550*550*900		4 Modules	700*550*1300
	6 Modules	600*600*1600			

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ENERGY STORAGE SYSTEM

EMS-A7 Micro-grid controllers

Product introduction:

The EMS-A7 series of micro grid controller is an energy management system for monitoring and controlling other devices such as PCS, batteries and smart meters in the entire micro grid system, which can be used in both on grid and off-grid modes. EMS-A7 can be used to monitor switching devices, which enable the system to switch between on grid and off-grid states, but switching commands maynot be sent by the EMS-A7.

The EMS-A7 series micro grid controllers can also be used in off-grid systems containing diesel generators.

Performance characteristics

For the DC conversion protection strategy, it meets the relevant standards of the photovoltaic industry, and has but is not limited to the following protection functions:

- PV input overvoltage protection
- PV input under-voltage protection
- Output overload protection
- Output current control
- Output short circuit protection
- DC reverse protection

At the same time, according to the BMS requirements of different batteries, the battery side charging status is protected according to its control strategy, including overcharge, overdischarge, capacity protection,etc.

Model	EMS-A7
Basic configuration	
Input (AC)	100V~240Vac L/N/PE
RS485	4 path
Ethernet	1 path 100M Network port; Expandable switches
CAN	2 path
USB	1 path
Digital input	5 path
Digital output	5 path
Operation system	Linux
Other parameters	
CPU	ARM Cortex-A7, 528MHz
RAM	256MB DDR3
Hard disk	256MB
RTC	Built-in real time clock
Indicator light	Power indicator light: Always on at power up
IP grade	IP20
Size (D*W*H) mm	210*290*42
Weight	3
Installation form	Wall/rack Installation
Operating temperature (°C)	-10~60
Storage temperature (°C)	-40~85
Altitude (m)	4000
Humidity	10~90%

Japan 700KW

Japan 300KW

Japan 224KW

Japan 76KW

Japan 13KW

Japan 100KW

Japan 250KW

Italy 900KW

Tahiti 6KW

New Zealand 10KW

Sweden 14.76KW

Sweden 15.58KW

Sweden 15.99KW

Sweden 85.28KW

Iraq 39.6KW-15.12kWh

Indonesia 5KW-10.24kWh

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