

LITHIUM BATTERY SOLAR ENERGY STORAGE SYSTEM CATALOGUE 2024

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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 Nopower 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, Dub ai, 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



6KW in Tahiti



300KW in Japan



14.76KW in Sweden



13KW in Japan



39.6KW-15.12kWh in Iraq







PV&BATTERY ENERGY STORAGE INTEGRATED

Lithium Iron Phosphate Battery PSL Series



Product introduction:

Lithium battery integrated machine, integrated lithium battery and photovoltaic inverter controller integrated machine, canrealize photovoltaic and mains power supply mode, battery or bypass priority can be set, with multiple protections, such as inputbattery over-voltage protection, under-voltage protection, over-current protection, output under-voltage protection, over-currentthree-level protection (peak high current, RMS current, peak over-current soft start).

Built-in lithium battery can store excess power to meet the uninterrupted use of small outdoor equipment

- Modular structure design, easy to assemble and maintain, and the volume is half of that of conventional lead-acid batteries
- Pure sine wave output, perfect pretection function
- Optional fingerprint lock with anti-theft function
- High efficiency, low stadby loss
- Standard 60A MPPT photovoltaic controller, optional 10A charger

Model	PSL-0.5/1KVA-2.5KWh	PSL VII-5KW		
	Input			
Rated mains input voltage(VAC)	230 Single phase			
Mains input voltage range(VAC)	170-280(Computer); 90-280(Household appliances)			
Mains input frequency range(Hz)	50/	/60		
	Output			
Inverter output voltage(VAC)	230±5% Si	ngle phase		
Maximum efficiency	90%~93%(Peak)	94%(Peak)		
Output waveform	Pure sir	ie wave		
Switching time(ms)	10(Computer);20(Household appliances)	≤10		
Peak	3:	1		
	Battery			
Battery type	Lithium iron	phosphate		
Battery capacity(kWh)	2.5	10/20/30		
Rated voltage(VDC)	4	8		
Charging voltage(VDC)	52	.5		
	Mains charging+photovoltaic charging			
Maximum photovoltaic power(KW)	3	6		
MPPT range(VDC)	70-256	120-450		
Maximum photovoltaic open circuit voltage(VDC)	256	500		
Maximum PV charging current(A)	60 100			
Maximum AC charging current(A)	10(Optional)	60		
	Appearance			
Dimnsions(D*W*H)mm	210*510*695	301*693*(860/1325/1790)		
Net weight(KG)	32	67/115/163		
Communication interface	RS485 RS485 communication/mobile App(
Environment				
Humidity	0~95% No co	ondensation		
Operating temperature(°C)	-10~40			
Storage temperature(°C)	-15~60			





LOW VOLTAGE SERIES LITHIUM BATTERY MODULE

GBP-L2 Power wall type lithium iron phosphate battery



Product introduction:

The product adopts modular design, higher integration, aves installation space; adopts high-performance lithium iron phosphate positive electrode material, the battery cell has good consistency, and the designed service life is more than 10 years. One-key switch machine, front operation, front wiring, easy installation convenient maintenance and operation. Various functions, over-temperature alarm protection, over-charge and over-discharge protection, short-circuit protection, over-charge and over-discharge protection, short-circuit protection with UPS.

- Wall-hanging installation, save space
- Multiple in parallel, easy for expand, Automatic addressing, no need to dial a code
- Standard configuration with LCD display, real time knowing battery status, Screen direct selection of inverter communication
- Environmentally friendly non-polluting materials, free of heavy metals, green and environmentally friendly
- Standard cycle life is more than 5000 times
- Remote viesing of errors and online software upgrades

Model	GBP48V-100AH-W (optional 51.2V)	GBP48V-200AH-W(Optional 51.2V)			
Nominal voltage (V)	48				
Nominal capacity (AH)	105	210			
Nominal energy capacity(kWh)	5	10			
Operating voltage range (V)	42-52	.5			
Recommended charging voltage (V)	52.5				
Recommended discharge cut-off voltage (V)	45				
Standard charging current (A)	50	100			
Maximum continuous charging current (A)	100	200			
Standard discharge current (A)	50	100			
Maximum discharge current (A)	100 200				
Applicable temperature (°C)	-30 ~ 60 (Recommended 10~35)				
Humidity range (%rh)	0 ~ 95% No condensation				
Storage temperature (°C)	20 ~ 65 (Recommended 10~35)				
Protection level	IP20				
Cooling method	Natural air cooling				
Life cycles	5000+ times at 80% DOD				
Maximum size (D*W*H) mm	628*410*186	682*465*276			
Weight (KG)	45.7	89.6			





GBP-L SERIES WHEEL TYPE LIFEPO4 BATTERIES

Low-Voltage Series Lithium Battery Modeuls



Product introduction:

The produc adopts wheel design, beautiful shape, and convenient movement; including the mainstream market inverter protocol, directly communicates; adopts a comprehensive and multi-level battery protection strategy and fault isolation measures to ensure the safe operation of the system. Widely used in small commercial and family energy storage.

Performance characteristics:

- Wheeled design, easy to move
- Embedded wiring, safe and reliable.
- Standard configuration with LCD display screen, understand battery status in real time and directly select the inverter communication protocol
- Environmentally friendly and pollution-free materials, no heavy metals, green and environmentally friendly.
- Standard cycle life over 5,000 times.

Model	GBP48-300L	GBP51.2-300L	GBP48-600L	GBP51.2-600L
Nominal Volt (V)	48	51.2	48	51.2
Nominal capacity (Ah)	300	300	600	600
Working volt range (V)	42~54.75	44.8~58.4	42~54.75	44.8~58.4
Recommended charging volt (V)	51.75	55.2	51.75	55.2
Recommended discharging cut-off volt (V)	45	48	45	48
Standard charging current (A)	100	100	100	100
Maximum continuous charging current (A)	150	150	200	200
Standard discharging current (A)	100	100	100	100
Maximum discharging current (A)	150	150	200	200
Proper temperature ([°] C)	-30~60 (Recommended 10~35)			
Allowable humidity range (%RH)	<85			
Storage temperature (°C)	-20~65 (Recommended 10~35)			
Protection level	IP20			
Cooling method	Natural cooling			
Maximum size (D*W*H) mm	248*680*880 890*350*1060			
Net weight (kg)	144	147	295	300



Note: The above data is for reference and subject to change without prior notice. Communicate with engineers for special customization requirements.





LOW VOLTAGE SERIES LITHIUM BATTERY MODULE

GBP-L1 RACK Type Lithium Iron Phosphate Battery



Product introduction:

This product is composed of high-quality lithium iron phosphate cells (by series and parallel) and advanced BMS management system. It can be used as an independent DC power supply or as a "basic unit" to form a variety of energy storage lithium battery power system. High reliability and longer life. It can be used as backup power supply of communication base station, backup power supply of digital center, household energy storage power supply, industrial energy storage power supply, etc. It can be seamlessly connected with main equipment such as UPS and photovoltaic power generation.



- Small size and light weight
- Screen direct selection of inverter communication
- Standard cycle life is more than 5000 times
- Accurately estimate the state of charge of the battery pack, that is the remaining power of the battery, to ensure that the power
 of the battery pack is maintained within a reasonable range
- Multiple in parllel, easy for expand, Automatic addressing, no need to dial a code
- Easy for installation and maintenance

Model	GBP24V-200AH	GBP48V-100AH-R (optional 51.2V)	GBP48V-200AH-R(Optional 51.2V)	
Nominal voltage (V)	25.6	48		
Nominal capacity (AH)	210	105 210		
Nominal energy capacity(kWh)	5.3	5	10	
Operating voltage range (V)	22.4-29.2	5	2.5	
Recommended charging voltage (V)	28			
Recommended discharge cut-off voltage (V)	24		45	
Standard charging current (A)	100	50	100	
Maximum continuous charging current (A)	200	100	200	
Standard discharge current (A)	100	50 100		
Maximum discharge current (A)	200	100 200		
Applicable temperature (°C)	-30 ~ 60 (Recommended 10 ~ 35)			
Humidity range (%rh)	0~95% no condensation			
Storage temperature (°C)	20 ~ 65 (Recommended 10 ~ 35)			
Protection level	IP20			
Cooling method	Natural air cooling			
Life cycles	5000+ times at 80% DOD			
Maximum size (D*W*H) mm	596*545*155	540*545*155	610*510*246	
Weight (KG)	48	44.5	88.3	





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GHV1 SERIES HIGH VOLTAGE LITHIUM BATTERY STACK SYSTEM



Product introduction:

The product is mainly composed of high-quality lithium iron phosphate battery and smart energy storage inverter. When the sunlight is sufficient during the day, the excess power generation of the rooftop potovoltaic system is stored in the energy storage system, and the energy of the energy storage system is released at night to supply power for houshold loads, so as to achieve self-sufficiency in household energy management and greatly improve the economical performance of the new energy system. At the same time, in the event of sudden power outage/power failure of the power grid, the energy storage system can take over the electricity demand of the whole house in time. The capacity of a single battery is 5.32kWh, and the total capacity of the largest battery stack is 26.6kWh, providing a stable power supply for the family

Battery pack performance indicators

Performance	Item	Parameter	Remarks	
	Standard capacity (Ah)	52	25±2°C 0.5C, New battery state	
	Rated working volt (V)	102.4		
	Power (kWh)	86.4 ~ 116.8	Temperature T>0°C, Theoretical value	
Dettory pools	Packing size (D*W*H) mm	420*625*175		
Battery pack	Weight (KG)	45		
	Self-discharging	≤3%/month	25, 50% SOC	
	Battery pack internal resistance (m Ω)	19.2-38.4	New battery state 25°C±2°C	
	Staticvolt difference (mV)	30	25°C, 30% ≤ SOC ≤ 80%	

GLV1 SERIES LOW-VOLTAGE LITHIUM BATTERY STACK SYSTEM



Product introduction:

This product is mainly composed of high-quality lithium iron phosphate battery module and intelligent PDU. When there is sufficient sunlight during the day, the excess power generated by the rooftop photovoltaic system will be stored in the energy storage system, and the energy from the battery is released at night to supply power for household loads, so as to achieve self-sufficiency in household energy management, the economy of the new energy system is greatly improved. At the same time, in case of sudden power outage/power failure of the power grid the energy storage system can take over the electricity demand of the whole house in time. With a single battery capacity of 5kWh/10kWh and a maximum stacked capacity of 20kWh/40kWh , the system can be used seamlessly with mains equipment such as photovoltaic power generation, as well as with a UPS to provide a table power supply for home.





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PSO50-80/100-200 Modular outdoor integrated cabinet



Product introduction:

The modular energy storage integrated cabinet can achieve efficient and safe design of building blocks from 100KWH small energy storage unit to MWH large-scale energy storage power station, solving the industry common problems such as low system safety, high parallel loss rate, short system life and so on existing in the traditional centralized energy storae solution, and defining a new solution for energy storage system integration.

- Highly integrated. All in one, factory prefabricated design. Flexible deployment, plug and play
- Safe and efficient. High efficient neutral point clamped topological structure. Support EMS and BMS system linkage
- Intelligent and friendly. Programmable working mode, touch screen control. Support photovoltaic AC coupling, DC coupling access
- Grid friendly. Equipped with four-quadrant adjustment function for active and reactive power. Equipped with LVRT and HVRT functions

Model	PSO-50-80	PSO-100-200		
	Efficiency			
Maximun efficiency	95%			
	Battery cluster parameters			
String formation method	85	14/16S		
Rated voltage (V)	768	672/768		
Working voltage (V)	696-852	609-745.5/696-852		
Rated capacity (kWh)	80	150-240		
Support charging and discharging power	≤:	1C		
	AC grid connection parameters			
Grid connection	3 phase 4 wires,	/ 3 phase 3 wires		
Rated output power (KW)	50	100		
Maximum apparent power (KVA)	55	110		
Grid voltage range (V)	400±15%			
Rated grid frequency (Hz)	50/60			
Maximum output current (A)	145			
Adjustable power factor	-0.99 ~ +0.99			
Maximum total current harmonic distortion rate	<3			
	AC off-grid parameters			
Rated output power (KW)	50 100			
Maximum apparent power (KVA)	55	110		
Rated output voltage (V)	400			
Rated grid frequency (Hz)	50	/60		
	Other parameters			
Working temperture range (°C)	-25 ~ +55			
Humidity (% RH)	0 ~ 95, non-condensing			
Altitude (m)	4000 (De-rating power from 2000)			
Cooling Type	Industrial air conditioning (battery storage)/Intelligent Air cooling (electrical storage)			
Display	10 inch display screen			
Communication	CAN/485/TCP IP			
Weight (KG)	2000 3600			
Size (D*W*H) mm	900*1500*2300	900*2230*2300		
Protection grade	IP54 (Key device IP65)			





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LOW VOLTAGE SERIES LITHIUM BATTERY MODULE

GBP-L1 RACK Type Lithium Iron Phosphate Battery



Product features:

- Equipped with a touchable screen to visually display the operating status of the battery pack
- Modular convenient installation
- Cycle life of over 5000 cycles
- With low power consumption mode, one-key restart is guaranteed within 5000 hours duing standby, and data is retained
- Full life cycle fault and data recording, remote viewing of error reports, online software upgrades and GPS positioning.

Product advantage:

- Modular design, higher integration, saving installation space
- High-performance lithium iron phosphate cathode material, with good consistency of the core and a design life of more than 10 years
- One-touch switching, front operation, front wiring, eae of installation, maintenance and operation
- Various functions, over-temperature alarm protection, over-charge and over-discharge protection, short-circuit protection
- Highly compatible, seamlessly interfacing with mains equipment such as UPS and photovoltaic power generation, various forms of communication interfaces, CAN/RS485 etc. can be customized according to customer.
- Requirements, easy for remote monitoring. Flexible using range, can be used as a stand-alone DC power supply
- Spcification of energy storage power supply systems and container energy storage systems

Model Number	GBP9650	GBP48100	GBP32150	GBP96100	GBP48200	GBP32300
Cell version (Ah)	52		105			
Nominal power(kWh)	5	5	5	10	10	10
Nominal capacity(Ah)	52	104	156	105	210	315
Operating voltage range (VDC)	96	48	32	96	48	32
Operating temperature(°C)	87-106.5	43.5-53.2	29-35.5	87-106.5	43.5-53.2	29-35.5
IP grade	IP21					
Reference weight (KG)	47.1 86			86.6		
Reference size (D*W*H) mm	630*475*162		640*510*252			
Note: Battery pack is used in a system, cycle life≥5000, under working condition of 25°C 80% DOD						





CONTAINER ENERGY STORAGE SYSTEM

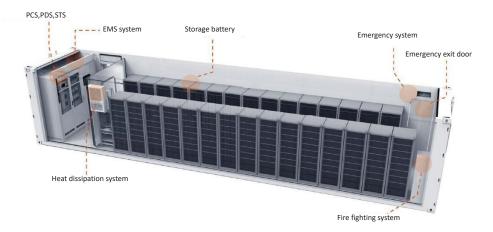
20FT AND 40FT CONTAINERS



Product introduction:

The containerized energy storage system includes :Battery management system (BMS), Power conversion system(PCS), Power distribution system(PDS), Micro-grid switching system(STS), Energy management system(EMS), and Auxiliary power distribution system, air conditioning system, fire protection system. It is widely used in scenarios such as power security, peak shaving and valley filling, new energy consumption and grid load smoothing.

- Flexible configuration of battery system types and capacities according to customer requirements
- The PCS has a modular architecture, simple maintenance and flexible configuration, allowing for myltiple parallel machines support parallel and off-grid operation mode, seamless switching
- Black start support
- EMS unattended system, locally controlled, cloud-monitored operation, with highly customized features
- Various modes including peak and valley reduction, demand response, backflow prevention, back-up power, command response, etc
- Complete gas fire extinguishing system and automatic fire monitoring and alarm system with audible and visual alarm and fault uploading
- Complete thermal and temperature control system to ensure that the battery compartment temperature is within the optimum operating range
- Access control system with remote control and local operation



Model	20ft	40ft	
Output volt (V)	380/400 ±15%		
Gird frequency (Hz)	50/60	(±2.5)	
Output power (KW)	50-300	250-630	
Battery capacity (kWh)	200-600	600-2000	
	LiFePO4		
Size (m)	Inside size (D*W*H) : 2.352*5.898*2.385 Outside size (D*W*H): 2.438*6.058*2.591	Inside size (D*W*H) : 2.352*12.032*2.385 Outside size (D*W*H) : 2.438*12.192*2.591	
Protection level	IP54		
Humidity (% rh)	0-95		
Altitude (m)	3000		
Working temperature (°C)	-25 ~ 50		
Battery volt range (V)	500 -850		
Max. DC current (A)	500	1000	
Connect method	3P 4W		
Power factor	-1~1		
Communication method	RS485, CAN, Ethernet		
Isolation method	Low frequency isolation with transformer		



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Japan 700KW



Japan 13KW



Japan 300KW



Japan 224KW



Japan 250KW



Sweden 14.76KW



Iraq 39.6KW-15.12kWh



Japan 76KW



Italy 900KW



Sweden 15.58KW



Indonesia 5KW-10.24kWh



Tahiti 6KW



Sweden 15.99KW



Japan 100KW



Sweden 85.28KW



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