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GREEN SUNSHINE
GSO
WHERE THERE IS SUN,THERE IS POWER.

Lithium Battery System

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WHERE THERE IS SUN, THERE IS POWER.

COMPANY PROFILE

Jiangsu GSO New Energy Technology Co., Ltd is a technology-driven innovative enterprise focusing on the fields of photovoltaic (PV) and energy storage, and has obtained the certification of National High-Tech Enterprise. Its product portfolio covers residential energy storage, industrial & commercial energy storage, mobile energy storage, hybrid inverters, energy storage converters, and smart energy operation & maintenance services. The company is capable of providing customers with the overall deployment of PV and energy storage systems as well as customized solutions, which are applied in various energy storage scenarios including new energy power generation in alpine mountains and islands, PV-storage-diesel microgrids, industrial & commercial parks, data centers, and communication base stations.

With technological innovation as its driving force, GSO New Energy leverages the group company' s technological advantages in power electronics. By integrating digital technology and energy storage technology, it has secured a number of national patents and software copyrights. Currently, the company has built a full-lifecycle product matrix covering all scenarios such as industrial & commercial energy storage and residential energy storage. Its sales network extends to more than 50 countries and regions worldwide, and it has cumulatively provided safe and efficient PV & energy storage products and technical services to over 200,000 users.

In the future, GSO New Energy will continue to uphold the spirit of innovation, commit to providing global users with safe, high-quality, intelligent, and integrated clean energy solutions, drive the high-quality development of the energy storage industry with core technologies, and join hands with partners to create a green and sustainable energy future.

Mission Become the evergreen tree in the power supply industry and customers' most trusted power supply expert.

Vision To provide quality power solutions and green energy for mankind.

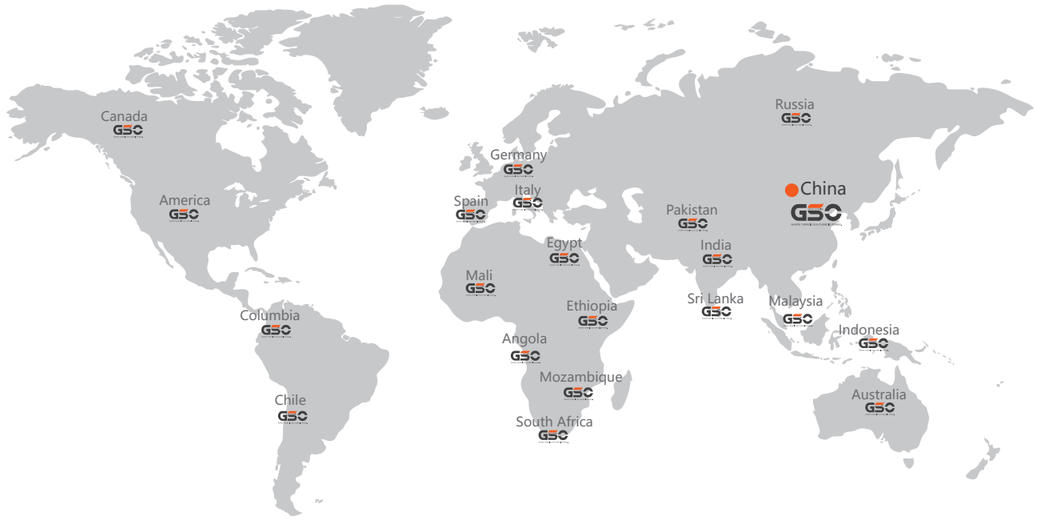
Values Responsibility;Innovation;Integrity;Enterprising.

Quality policy Customer first, quality oriented, refinement and innovation abide by the agreement.

COMPANY HONOR

SERVICE SYSTEM

GSO New Energy always aims to meet customer needs, is committed to improving service quality and value, takes customer service as the ultimate concept, and establishes an all-round, high-quality and standardized customer service system. It has formed a service structure from pre-sales telephone consultation, on-site environmental survey, power supply scheme design, to after-sales installation and commissioning, use and maintenance, technical training, and spare parts support. A number of professional and skilled engineers are ready to provide you with one-stop service and support at any time, helping customers to truly obtain a power supply solution with high practicability and reliability, maximizing investment value, and allowing customers to enjoy the high-quality service level.



After-sale service>>

GSO New Energy has established after-sales service centers and cooperative branches in many overseas regions, and set up after-sales service networks in multiple provincial capitals and major cities in China, striving to choose the branch closest to customers, provide high-quality and fast services to users, respond quickly, arrive at the service site in a timely manner, and solve problems for customers as soon as possible.

To ensure the implementation of high-quality service levels, GSO New Energy achieves service goals by establishing a four-level service system including headquarters technical support center, regional maintenance center, provincial maintenance center, and municipal maintenance center. At the same time, tailored service plans will be provided for grassroots user units located in mountainous areas and townships during the service process.

Customer training >>

GSO New Energy has a training center with professional and skilled engineers who provide customers with theoretical and practical training services in operation, use, maintenance, and other aspects. In addition, GSO New Energy will also formulate annual training plans for customers to help them better understand and use GSO brand products.

GBP-R Series

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 systems, with 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

Multiple in parallel, easy for expand, Automatic addressing, no need to dial a code

Easy for installation and maintenance

Product parameters >>

Model	GBP									
	24-100R	24-200R	48-100R	48-200R	48-280R	48-314R	51.2-100R	51.2-200R	51.2-280R	51.2-314R
Nominal Voltage (V)	25.6		48				51.2			
Cell Specification	100	100	100	100	280	314	100	100	280	314
Nominal Capacity (Ah)	100	200	100	200	280	314	100	200	280	314
Nominal Energy (kWh)	2.56	5.12	4.8	9.6	13.44	15.1	5.12	10.24	14.33	16.1
Operating Voltage Range (V)	22.4~29.2		42~54.75				44.8~58.4			
Recommended Charging Voltage (V)	27.6		51.75				55.2			
Recommended Discharge Cut-off Voltage (V)	24		45				48			
Standard Charge/ Discharge Current (A)	0.5C									
Maximum Continuous Charge/Discharge Current (A)	1C (Customizable)									
Allowable Humidity Range(%RH)	< 85									
Storage Temperature(℃)	-10 ~ 55(Recommend 10 ~ 35)									
Charging Temperature(℃)	0~55									
Discharging Temperature(℃)	-10~55									
Protection Level	IP20									
Cooling Method	Natural Air Cooling / Intelligent Fan									
Cycle Life	5000+Times at 80% DOD									
Maximum Dimension (D*W*H)mm	689*495*162		689*495 *162	682*510 *246	904*465*252		689*495 *162	682*510 *246	904*465*252	
Weight(kg)	28	49	46	93	134	136	49	96	138	140

Note: The maximum charge/discharge rate of models GBP48-200R and BP51.2-200R can be customized to 1C.
The above data is for reference only. In case of any changes, no further notice will be given.

GBP-W Series

Power Wall Type Lithium Ironphosphate Battery

Product introduction >>

The product adopts modular design, higher integration, saves 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; strong compatibility, seamless connection with UPS, photovoltaic power generation and other main equipment; various forms of communication interfaces. CAN/RS485, etc. can be customized according to customer needs, which is convenient for remote monitoring and flexible use of the system. High-energy, low-power lithium-ion battery equipment achieves higher energy supply, lower energy consumption, and reduces environmental pollution; all-round, multi-level battery protection strategies and fault isolation measures are adopted to ensure the safe operation of the system.

- 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.

Product parameters >>

Model	GBP24-100W	GBP24-200W	GBP48-100W	GBP48-200W	GBP51.2-100W	GBP51.2-200W
Nominal Voltage (V)	25.6		48		51.2	
Cell Specification	100	100	100	100	100	100
Nominal Capacity (Ah)	100	200	100	200	100	200
Nominal Energy (kWh)	2.56	5.12	4.8	9.6	5.12	10.24
Operating Voltage Range (V)	22.4~29.2		42~54.75		44.8~58.4	
Recommended Charging Voltage (V)	27.6		51.75		55.2	
Recommended Discharge Cut-off Voltage (V)	24		45		48	
Standard Charge/ Discharge Current (A)	0.5C					
Maximum Continuous Charge/Discharge Current (A)	1C（Customizable）					
Allowable Humidity Range(%RH)	< 85					
Storage Temperature (℃)	-10～55(Recommended 10～35)					
Charging Temperature (℃)	0~55					
Discharging Temperature (℃)	-10~55					
Protection Level	IP20					
Cooling Method	Natural Air Cooling / Intelligent Fan					
Cycle Life	5000+ Times at 80% DOD					
Maximum Dimension (D*W*H)mm	687*450*186			682*465*276	687*450*186	682*465*276
Weight(kg)	28	49	46	93	49	96

Note: The above data is for reference only. In case of any changes, no further notice will be given.
For customization requirements such as Bluetooth function and 1C charge/discharge rate, please consult with the engineer.

GBP-L Series

Wheel Type Lifepo4 Batteries

Product introduction >>

The product 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.

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

Product parameters >>

Model	GBP48-280L	GBP48-314L	GBP48-560L	GBP48-628L	GBP51.2-280L	GBP51.2-314L	GBP51.2-560L	GBP51.2-628L
Nominal Voltage (V)	48				51.2			
Cell Specification	280	314	280	314	280	314	280	314
Nominal Capacity (Ah)	280	314	560	628	280	314	560	628
Operating Voltage Range (V)	42~54.75				44.8~58.4			
Recommended Charging Voltage (V)	51.75				55.2			
Recommended Discharge Cut-off Voltage (V)	45				48			
Standard Charge/ Discharge Current (A)	100		100		100		100	
Maximum Continuous Charge/Discharge Current (A)	150		200		150		200	
Allowable Humidity Range(%RH)	< 85							
Storage Temperature (℃)	-10 ~ 55(Recommended 10 ~ 35)							
Charging Temperature (℃)	0~55							
Discharging Temperature (℃)	-10~55							
Protection Level	IP20							
Cooling Method	Natural Air Cooling							
Cycle Life	5000+ Times at 80% DOD							
Maximum Dimension (D*W*H)mm	248*680*880		890*350*1060		248*680*880		890*350*1060	
Weight(kg)	137	141	280	289	139	144	284/293	

Note: The above data is for reference only. In case of any changes, no further notice will be given.
For special customization requirements, please consult with the engineer.

GBP-H/L Series

Vertical / Wheel Type Lifepo4 Batteries

Product introduction >>

The product adopts vertical / wheel type 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.

- Vertical / Wheel Type design, safe and stable.
- Hidden wiring, beautiful design.
- Standard LCD display screen, to understand battery status in real time, and directly select the inverter communication protocol on the screen.
- Environmentally friendly and pollution-free materials, no heavy metals, green and environmentally friendly.
- Standard cycle life over 5,000 times.

Product parameters >>

Model	GBP48-280HL	GBP48-314HL	GBP51.2-280HL	GBP51.2-314HL
Nominal Voltage (V)	48		51.2	
Cell Specification	280	314	280	314
Nominal Capacity (Ah)	280	314	280	314
Operating Voltage Range (V)	42~54.75		44.8~58.4	
Recommended Charging Voltage (V)	51.75		55.2	
Recommended Discharge Cut-off Voltage (V)	45		48	
Standard Charge/ Discharge Current (A)	100			
Maximum Continuous Charge/Discharge Current (A)	150			
Allowable Humidity Range(%RH)	< 85			
Storage Temperature (℃)	-10 ~ 55(Recommended 10 ~ 35)			
Charging Temperature (℃)	0~55			
Discharging Temperature (℃)	-10~55			
Protection Level	IP20			
Cooling Method	Natural Air Cooling			
Cycle Life	5000+Times at 80% DOD			
Maximum Dimension (D*W*H)mm	480*246*990			
Weight(kg)	139	143	141	145

Note: The above data is for reference only. In case of any changes, no further notice will be given.
For special customization requirements, please consult with the engineer.

BOC Series

Low-voltage Lithium Nattery Outdoor Cabinet

Product introduction >>

The BOC series battery products are applied across six major markets: power systems (urban and rural grid upgrades, etc.), new energy sector (photovoltaic grid connection, etc.), industrial sector (factory and mine power distribution), telecommunications industry (5G base station power supply), transportation (charging, high-speed rail power supply, etc.), and commercial & residential areas (commercial facilities and community power distribution).

Equipped with lithium iron phosphate (LiFePO4) battery cells and a customized BMS (Battery Management System) for effective cell management, these batteries offer superior performance, safety, and reliability compared to traditional batteries. With diverse communication interfaces and a comprehensive software protocol library, the battery systems can directly interface and communicate with mainstream inverters on the market.

- Excellent resistance to rain, dust, sunlight, and corrosion, with an IP54 protection rating.
- Equipped with multiple protection mechanisms, including overcurrent protection, overvoltage protection, short-circuit protection, and lightning protection.
- Modular design allows for free combination of solutions, with independent units that facilitate installation, maintenance, and upgrading.
- Small footprint, space-saving structure, and easy mobility, suitable for various installation scenarios.

Lithium Battery Pack Parameter Sheet>>

Model	GBP48-100R	GBP48-200R	GBP51.2-100R	GBP51.2-200R	GBP48-280R	GBP48-314R	GBP51.2-280R	GBP51.2-314R
Cell Type (Ah)	100	200	100	200	280	314	280	314
Nominal Energy (kWh)	4.8	9.6	5.12	10.24	13.44	15.1	14.33	16.1
Nominal Capacity (Ah)	100	200	100	200	280	314	280	314
Nominal Voltage (VDC)	48		51.2		48		51.2	
Operating Voltage Range (VDC)	42~54.75		44.8~58.4		42~54.75		44.8~58.4	
Standard Charge/ Discharge Current (A)	50	100	50	100	100			
Maximum Continuous Charge/Discharge Current (A)	100	200	100	200	150			
Allowable Humidity Range (%RH)	< 85							
Storage Temperature (°C)	-10 ~ 55(Recommended10 ~ 35)							
Charging Temperature (°C)	0~55							
Discharging Temperature (°C)	-10~55							
Protection Level	IP20							
Reference Weight (kg)	46	93	49	96	134	136	138	140
Reference Dimensions (D*W*H)mm	689*495*162	682*510*246	689*495*162	682*510*246	904*465*252			

Notes: For GBP48-100/200R and GBP51.2-100/200R, the standard charge/discharge current and maximum continuous charge /discharge current can be customized to 1C; the above are reference data, and if there are any changes, we will not notify you separately.

Low-Voltage Lithium Battery Outdoor Cabinet Capacity Platform Parameter Table>>

Model	Dimensions D*W*H (mm)	Reference Weight (kg)	Reference Energy (kWh)
BOC-5K-3	1016*715*1000	124	15
BOC-5K-6	1016*715*1500	158	30
BOC-5K-10	1016*715*2200	205	50
BOC-10K-2	1016*715*1000	124	20
BOC-10K-4	1016*715*1500	158	40
BOC-10K-6	1016*715*2200	205	60
BOC-15K-2	1226*715*1000	142	32
BOC-15K-4	1226*715*1500	180	64
BOC-15K-6	1226*715*2200	229	96

Notes: Including AC single-cooling air conditioner, fire protection, lighting, and battery busbar equipment; excluding batteries.

GLV1 Series

Low Voltage Stack System

Product introduction >>

This product adopts stacked design, flexible expansion, beautiful shape; System one-button start, side hidden wiring is convenient for customers to use; Screen direct selection market mainstream inverter protocol, direct communication; Comprehensive and multi-level battery protection strategies and fault isolation measures are adopted to ensure the safe operation of the system, which is widely used in small commercial and home energy storage.

- Chinese and English display summary of all PACK information; Screen direct selection inverter communication protocol;
- Summary switch, to achieve a key switch;
- Stack design allows flexible battery expansion;
- Multiple clusters are parallel. A maximum of eight battery packs can be connected in parallel.

Product parameters >>

Model	GLV1-P10	GLV1-P15	GLV1-P20	GLV2-P20	GLV2-P30	GLV2-P40
Battery Module Model	LFP48V/100Ah			LFP48V/200Ah		
Battery Module Nominal Energy(kWh)	4.8			9.6		
Rated Voltage(V)	48					
Number of Cell Modules in Single Cluster	2	3	4	2	3	4
Single Cluster Battery Energy (kWh)	9.6	14.4	19.2	19.2	28.8	38.4
Maximum number of clusters in parallel	8					
Operating voltage range(V)	42~54.75					
Recommended Charge Voltage(V)	51.75					
Recommended discharge cut-off voltage(V)	45					
Maximum charge/discharge current(A)	0.5C					
Unit cluster size (D*W*H)mm	425*700*672	425*700*864	425*700*1056	479*700*848	479*700*1128	479*700*1408
Unit cluster weight(kg)	145	199	254	228	324	420
Communication mode	CAN/485/Bluetooth					
Storage temperature(℃)	-10～55(Recommended10～35)					
Humidity(%RH)	< 85					
Protection level	IP20					
Cooling method	Natural Air Cooling					
Number of cycles	≥5000					
Standard of security	CE,UN38.3,MSDS					

Note: The above data is subject to change without prior notice.

GSL Series

Wheel Type Pv & Battery Energy Storage Integrated Machine

Product introduction >>

This series of products is a wheel type all-in-one machine that integrates hybrid inverters and energy storage batteries.Multiple application modes; Beautiful appearance, flexible mobility, and circular arc design are widely used in small commercial and home energy storage.

Multiple application modes

Three output modes;
Four charging modes.

High Safety

DSP control, advanced control algorithm;
Multiple security warnings and protection.

Intelligent and Friendly

Intelligent battery management system;
Real time monitoring of APP cloud.

Product parameters >>

Model	GSL48-3.5K-5kWh
Inverted Output	
Rated Output Power(W)	3500
Rated Output Power(VA)	3500
Maximum Peak Power(W)	6000
Rated AC Output	230VAC(Can be set to 200/208/220/240VAC)，50/60Hz
Output Voltage Waveform	Pure sine wave
Switching Time Between Inverter and Bypass	10ms（Typical）
Maximum Battery Inverter Efficiency	93%
Overload Protection	102%~110%，5min；110%~125%，10s；>125%，2s
Battery	
Capacity(kWh)	100
Rated Battery Voltage(VDC)	48/51.2
Battery Voltage Range(V)	42~54.75/44.8~58.4
Maximum Mppt Charging Current(A)	50
Maximum Mains Charging Current(A)	50
Maximum Mixed Charging Current(A)	50
PV Charging	
Mppt Quantity	1
Maximum Photovoltaic Array Power(W)	5500
Maximum Photovoltaic Input Current(A)	22
Maximum Open Circuit Voltage(VDC)	500
Mppt Scope Of Work(V)	70~450
Mppt Tracking Efficiency	99.9%
Mains Input	
Input Voltage Range(VAC)	90~280/170~280
Frequency Range(Hz)	50/60±0.3
Specifications	
Dimensions (D*W*H)mm	210*500*805
Weight (kg)	70
Waterproof Level	IP20
Working Temperature Range(℃)	-10~55
Storage Temperature Range(℃)	-10~55
Noise(dB)	<60
Cooling Method	Forced air cooling

Note: The above data is for reference and subject to change without prior notice. Special voltages can be customized.

GSL Series

Stacked Pv & Battery Energy Storage Integrated Machine

Product introduction >>

This series of products is a stacked all-in-one machine that integrates a hybrid inverterand an energy storaged battery.Multiple application modes,high power density, plug-and-play, hidden wiring designare widely used in small commercial and home energy storage.

Multiple application modes
Three output modes; Four charging modes.

Flexible combination method
Stacked design;
Battery pack capacity expansion on demand.

High security
DSP control, advanced control algorithm;
Multiple safety warnings and protection.

Smart and friendly
Intelligent battery management system;
APP cloud real-time monitoring.

Product parameters >>

Model	GSL48				
	5.5K-10kWh	5.5K-20kWh	5.5K-30kWh	10K-10kWh	10K-20kWh
Inverted Output					
Rated Output Power(W)	5500			10000	
Rated Output Powe(VA)	5500			10000	
Maximum Peak Power(W)	10000			15000	
Rated AC Output	230VAC（Can be set200/208/220/240VAC,50/60Hz				
Output Voltage Waveform	Pure Sine Wave				
Inverter and Bypass Switching Time	10ms（typical）				
Maximum Battery Inverter Efficiency	93%				
Overload Protection	102%~110%，5min；110%~125%，10s；>125%，5s				
Battery					
Energy Capacity(kWh)	10	20	30	10	20
Battery Module Quantity	1	2	3	1	2
Rated Battery Voltage(VDC)	48				
Battery Voltage Range(V)	42~54.75/44.8~58.4				
Rated Charge-Discharge Rate	0.5C			1C	
Max.MPPT Charging Current(A)	100			200	
Max.Mains Charging Current(A)	60			120	
Maxi.Hybrid Charging Current(A)	100			200	
PV Charging					
MPPT Quantity	1			2	
Max. PV Array Power(W)	5500			5500+5500	
Max. PV Input Current(A)	22			22+22	
Max. Open Circuit Voltage(VDC)	500			500+500	
MPPT Work Range(V)	120~450				
MPPT Tracking Efficiency	99.9%				
Mains Input					
Input Voltage Range(VAC)	90~280/170~280				
Frequency Range(Hz)	50/60±0.3				
Specifications					
Dimensions(W*D*H)mm	250*690*850	250*690*1310	250*690*1770	250*690*960	250*690*1420
Weight(kg)	125	225	325	128	228
Classification of Waterproof	IP20				
Operating Temperature Range(°C)	-10~55				
Storage Temperature Range(°C)	-25~60				
Noise(dB)	<60				
Heat Dissipation	Inverter forced air cooling（variable speed of fan）/ Battery natural air cooling				

Note: The above data is for reference and subject to change without prior notice. Special voltages can be customized.

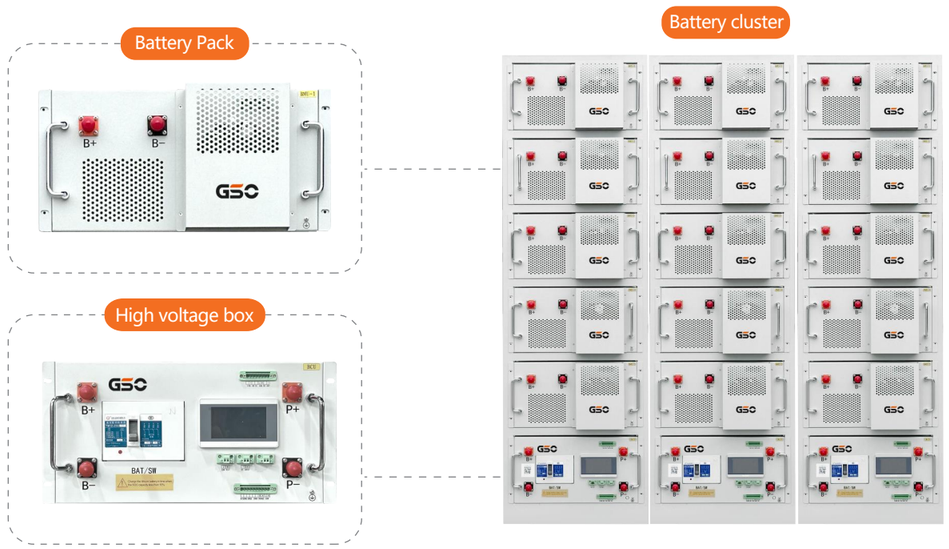
GBP-H2 Series

Lithium Battery Cluster Energy Storage System

Product introduction >>

GBP-H2 series battery products are high-voltage and large-capacity systems developed for industrial and commercial emergency power supply, peak shaving and valley filling, and power supply in remote mountainous areas, islands and other areas without electricity or weak electricity.It uses lithium iron phosphate cells and a customized BMS system to effectively manage the cells. Compared with traditional batteries, it has better product performance and safety and reliability.Diversified communication interfaces and software protocol libraries enable the battery system to directly match and communicate with all mainstream inverters on the market. The product has many charge and discharge cycles, high power density, and a service life of more than 10 years. Unique designs and innovations have been made in compatibility, energy density, dynamic monitoring, safety, reliability, and product appearance, which can bring users a better energy storage application experience.

- Modular design, building-block construction, and automatic ID code recognition.
- Each cluster is equipped with an independent display screen to visually show the operation and alarm status.
- The communication forms are diverse, supporting various types such as TCP/IP, CAN, RS485, dry and wet contacts, etc.
- It is compatible with various types of equipment models currently available in the market, such as inverters, wind power controllers, and chargers.
- Support protocol customization.
- Optional remote DTU is available, which supports online remote upgrades.



Product parameters >>

Model	GBP96-100	GBP48-200	GBP38.4-280	GBP38.4-314
Cell Type (Ah)	100		280	314
Nominal Energy (kWh)	9.6		10.7	12
Nominal Capacity(Ah)	100	200	280	314
Nominal Voltage(VDC)	96	48	38.4	
Operating Voltage Range(VDC)	90~106.5	45~53.2	36~42.6	
Charging Temperature(℃)	0~55			
Discharging Temperature(℃)	-10~55			
Protection Level	IP20			
Reference Weight (kg)	87.8		86.5	94
Reference Size(D*W*H)mm	684*510*245			

Note: The battery pack is used with the system, the cycle life is ≥5000 working conditions, 25℃, 80%DOD; special voltage can be consulted and selected; the system with different voltage and capacity registration can be configured according to the batterypack specifications.

Lithium battery cluster voltage platform parameter table >>

Model	Nominal voltage(V)	Nominal capacity(Ah)	Operating voltage range(VDC)	Recommended charge and discharge current (A)
GBP96-100/200	96	100/200	90~106.5	50/100
GBP192-100/200	192		180~213	
GBP220-100/200	220.8/224		207~245	
GBP288-100/200	288		270~319.5	
GBP360-100/200	358.4		336~400	
GBP384-100/200	384		360~426	
GBP480-100/200	480		450~532	
GBP384-280/314	384	280/314	360~426	140/150
GBP460-280/314	460.8		432~511	
GBP538-280/314	537.6		504~596	
GBP576-280/314	576		540~639	
GBP652-280/314	652.8		612~724	
GBP692-280/314	691.2		648~767	
GBP768-280/314	768		720~852	

Note: See attachment for detailed parameters, special voltage and capacity can be customized.

GBP-PC Series

Lithium Battery Cluster Energy Storage System

Product introduction >>

GBP-PC series battery products are high-voltage and large-capacity systems developed for industrial and commercial emergency power supply, peak shaving and valley filling, and power supply in remote mountainous areas, islands and other areas without electricity or weak electricity.It uses lithium iron phosphate cells and a customized BMS system to effectively manage the cells. Compared with traditional batteries, it has better product performance and safety and reliability.Diversified communication interfaces and software protocol libraries enable the battery system to directly match and communicate with all mainstream inverters on the market. The product has many charge and discharge cycles, high power density, and a service life of more than 10 years. Unique designs and innovations have been made in compatibility, energy density, dynamic monitoring, safety, reliability, and product appearance, which can bring users a better energy storage application experience.

- Modular design and building block-style assembly, with automatic ID code recognition.
- Each cluster is equipped with an independent display screen, which intuitively shows the operation and alarm status.
- Supports multiple communication types such as TCP/IP, CAN, RS485, and dry/wet contacts.
- Compatible with various types of mainstream equipment on the market, including inverters, wind power controllers, and battery chargers.
- Supports protocol customization; optional remote DTU enables online remote upgrades.
- Removable battery rack to reduce transportation space.

Product parameters >>

Model	GBP51.2 314
Cell Type (Ah)	314
Nominal Energy (kWh)	16.1
Nominal Capacity(Ah)	314
Nominal Voltage(VDC)	51.2
Operating Voltage Range(VDC)	48~56.8
Charging Temperature(℃)	0~55
Discharging Temperature(℃)	-10~55
Protection Level	IP20
Reference Weight (kg)	128
Reference Size(D*W*H)mm	904*510*245

Note: The battery pack is used with the system, the cycle life is ≥5000 working conditions, 25℃, 80%DOD;
special voltage can be consulted and selected; the system with different voltage and capacity registration can be configured according to the batterypack specifications.

Lithium battery cluster voltage platform parameter table >>

Model	Nominal Voltage(V)	Nominal Capacity(Ah)	Operating Voltage Range(VDC)	Recommended Charge and Discharge Current (A)
GBP-PC2	102.4	314	96~113.6	150
GBP-PC3	153.6		144~170.4	
GBP-PC4	204.8		192~227.2	
GBP-PC5	256		240~284	
GBP-PC6	307.2		288~340.8	
GBP-PC7	358.4		336~397.6	
GBP-PC8	409.6		384~454.4	
GBP-PC9	460.8		432~511.2	
GBP-PC10	512		480~568	
GBP-PC11	563.2		528~624.8	
GBP-PC12	614.4		576~681.6	
GBP-PC13	665.6		624~738.4	
GBP-PC14	716.8		672~795.2	
GBP-PC15	768		720~852	
GBP-PC16	819.2		768~908.8	

Note: See attachment for detailed parameters, special voltage and capacity can be customized.

GHV2-PC Series

High-voltage Lithium Battery Stack System

Product introduction >>

This product adopts a modular design, allowing free assembly according to needs. It features excellent cell performance and superior consistency, along with a long cycle life, which can better meet customer requirements. The unique stacking design eliminates wiring troubles, and the built-in high-quality battery intelligent management system ensures the reliability and safety of the battery. In addition, the battery output uses quick-plug connectors for easy customer operation. It has a wide voltage selection range and is equipped with external CAN and RS485 ports, which can be compatible with various mainstream brands of inverters on the market, providing greater compatibility and flexibility. A DTU can be optionally configured to facilitate customers' remote operation and battery status reading.

Long Life and Cost Reduction
- Charge - discharge conversion efficiency is 91%, and the system life is more than 6000 cycles;
- No - wiring design facilitates transportation and eliminates battery installation work.

Safe and Reliable
- High - performance battery management system and triple battery logic protection design;
- Remote DTU design enables remote monitoring of battery status and convenient reading and modification of parameters.

Efficient and Flexible
- Integrated design concept, featuring high efficiency and high energy density, reducing the floor area by 20%;
- Intelligent - level management reduces the battery bucket effect and increases the discharge capacity.

General Parameters >>

Model	Number of Modules	Rated Voltage (V)	Operating Voltage (V)	Charging Voltage (V)	Size(W*D*H)mm
GHV2-PC3	3	153.6	144~170.4	165.6	480*890*1080
GHV2-PC4	4	204.8	192~227.2	220.8	480*890*1325
GHV2-PC5	5	256	240~284	276	480*890*1570
GHV2-PC6	6	307.2	288~340.8	331.2	480*890*1815
GHV2-PC7	7	358.4	336~397.6	386.4	480*890*2060
GHV2-PC8	8	409.6	384~454.4	441.6	960*890*1405
GHV2-PC9	9	460.8	432~511.2	496.8	960*890*1405
GHV2-PC10	10	512	480~568	552	960*890*1650
GHV2-PC11	11	563.2	528~624.8	607.2	
GHV2-PC12	12	614.4	576~681.6	662.4	960*890*1895
GHV2-PC13	13	665.6	624~738.4	717.6	
GHV2-PC14	14	716.8	672~795.2	772.8	960*890*2140
GHV2-PC15	15	768	720~852	828	

System Parameters>>

Battery Module	BAT-14.33(16S1P51.2V280Ah)
Maximum Charging Current (A)	140
Maximum Discharging Current (A)	140
Control Module	PDU-HV2
Working temperature range(℃)	Charging: 0 ~ 55°C; Discharging: -20 ~ 55°C
Working humidity range (%RH)	0~95% Without condensation
Heat-dissipating method	Forced Air Cooling
Hybrid Inverter Communication Method	CAN/485
EMS Communication Method	TCP/IP

Note: The above data is subject to change without prior notice.

GSS-PC Series

Lithium Battery Outdoor Cabinet

Product introduction >>

The battery outdoor cabinet is safe, reliable, intelligent, efficient and flexible to deploy. Through modular design and advanced management technology, it provides users with cost-effective energy storage solutions. From cell-level safety control to system-level intelligent scheduling, it fully meets the energy storage needs of different scenarios, and helps green energy transformation and intelligent upgrade of power systems. It adapts to a variety of hybrid inverter brands, fully adapts to support single-branch and two-branch inverters.

Strong environmental adaptability

- It has the characteristics of waterproof, dustproof, sun-proof, and corrosion-resistant. It can operate stably for a long time in high temperature, humid, dusty and other outdoor environments, protecting the battery from external erosion.

Safety protection design

- Fireproof materials or heat-insulating structures are usually used to reduce the risk of fire caused by battery overheating or short circuit; some products are equipped with anti-theft locks or intelligent monitoring systems to improve safety.

Modularity and scalability

- Supports flexible combination of multiple battery packs to meet different capacity requirements; reserved interfaces are convenient for later upgrades or connection to other devices (such as solar panels, inverters, etc.).

Saving space and flexible deployment

- Outdoor independent installation, no need to occupy indoor space; adaptable to diverse scenarios.

General Parameters >>

Model	System Composition	Rated Voltage (V)	Operating Voltage (V)	Rated Energy (kWh)	Dimensions(D*W*H)mm	Weight(t)
GSS-PC4	4pack	204.8	192~227.2	64.3	1300*750*1675	0.9
GSS-PC5	5pack	256	240~284	80.4	1300*750*1930	1.0
GSS-PC6	6pack	307.2	288~340.8	96.5	1300*750*2185	1.1
GSS-PC7	7pack	358.4	336~397.6	112.5	1300*1183*1420	1.5
GSS-PC8	8pack	409.6	384~454.4	128.6	1300*1183*1675	1.7
GSS-PC9	9pack	460.8	432~511.2	144.7		1.8
GSS-PC10	10pack	512	480~568	160.8	1300*1183*1930	2.0
GSS-PC11	11pack	563.2	528~624.8	176.8		2.1
GSS-PC12	12pack	614.4	576~681.6	192.9	1300*1183*2185	2.3
GSS-PC13	13pack	665.6	624~738.4	209.0		2.4
GSS-PC14	14pack	716.8	672~795.2	225.1	1300*1183*2440	2.5
GSS-PC15	15pack	768	720~852	241		2.6

System Parameters>>

Cell Parameters	Cell Type	Lithium Iron Phosphate Cell
	Cell Specification	3.2V314Ah
PACK Parameters	Combination Mode	16S1P
	Rated Voltage (V)	51.2
	Operating Voltage (V)	48~56.8
	Rated Energy (kWh)	16
	Standard Charge/Discharge Power	0.5P
System Parameters	Maximum Charge/Discharge Rate	0.5P
Protection & General Parameters	DC Overcurrent Protection	Yes
	DC Short - Circuit Protection	Yes
	DC Overvoltage Protection	Yes
	Over - temperature Protection	Yes
	Fire - fighting System	Aerosol/Perfluoroketone Optional
	Wiring Mode	Side - entry Wiring
	Ambient Temperature (°C)	-20~50 (>45 requires derating)
	Charging Temperature (°C)	0~55
	Discharging Temperature (°C)	-10~55
	Ambient Humidity (%RH)	<95，No Condensation
	Operating Altitude (m)	5000 （Derated use above 2000m)
	Protection Class	IP54(Key Components IP65)
	Cooling Method	Industrial Air Conditioning

Note: Subject to the actual product. If there are any modifications to the parameters, we will not notify separately.

GSO50-100P/GSO100-200P

Out Door Cabinet-On Grid Machine Series

Product introduction >>

The air cooling outdoor cabinet-on grid machine integrates energy storage batteries, PCS, EMS, air conditioning and fire protection systems. It is a product specially launched for the application needs of small industrial and commercial, hospital buildings, and household energy storage peak-shaving and valley-filling applications.

Product Features

- All in one, factory prefabricated design;
- Flexible deployment, plug and play;

Safe and efficient

- High efficient neutral point clamped;
- No parallel circulation, reduce energy loss significantly;
- 3S collaboration,EMS closed-loop safety logic,make sure system security;

Intelligent and friendly

- Programmable working mode, touch screen control;
- Linkage of local and cloud monitoring, rapid digital diagnosis, and intelligent automatic inspection;

Cost effective

- Multiple charging and discharging logic, support peak and valley arbitrage
- System comprehensive conversion efficiency ≥90%

Product parameters >>

Model		GSO50-100P	GSO100-200P
On Grid Parameter	Rated Power(kW)	50	100
	Maximum Output Power(kW)	55	110
	Rated AC Voltage(V)	AC 400	
	AC Voltage Range(V)	AC 380(-20%~+15%)	
	Rated AC Frequency(Hz)	50/60±2.5	
	Power Factor	-0.99 ~ +0.99	
	THDI	≤3%(Full load)	
	Charging/Discharging Conversion Time(ms)	< 100	
	Isolation Method	None isolation	
	Connect Method	Three phase four wire	
Battery Parameter	Battery Configuration	1P225S	1P210S
	Battery Cell Type	LFP 150Ah	LFP 300Ah
	Nominal Voltage(V)	720	672
	Operating Voltage(V)	652.5~798.75	609~745.5
	Battery Capacity(kWh)	108	201
System Efficiency	PCS Maximum Efficiency	≥98%	
	System Aximum Efficiency	> 90%	
	Charging/Discharging Rate	≤0.5C	
Protection	AC Input	Yes	
	PCS AC Protection	Yes	
	AC Output Protection	Yes	
	Over Voltage Protection	Yes	
	Fire Protection	Aerosol / Perfluoro	
General Parameter	Dimension(D*W*H)	1200*1100*2200	1200*1600*2200
	Weight(t)	1.8	2.6
	Incoming Line Method	Side connection(Bottom connection can be customized)	
	Operating Temperature Range(℃)	-20~50(De-rating power from 45)	
	Temperature Humidity(%RH)	≤95%，Non-condensing	
	Work Altitude(m)	≤3000(De-rating power from 2000)	
	IP Grade	IP54(Key Device IP65)	
	Cooling Method	Industrial air Conditioning(for battery)/Forced air cooling(for electrical equipment)	
Communication	Communication Interfaces	RS485/Etherne	
	Communication Rules	RTU/MODBUS-TCP	

Note: The above data is for reference only and is subject to change without prior notice.

GSO50-100/GSO125-245

Out Door Cabinet-On/off Grid Machine Series

Product introduction >>

The air cooling outdoor cabinet-on/off grid machine integrates energy storage batteries, PCS, EMS, DCDC, air conditioning and fire protection systems. Suitable for various application scenarios, and can be widely applied in small-scale commercial and industrial enterprises, hospital buildings, residential energy storage, etc. Equipped with features such as peak shaving, self-consumption, dynamic scaling, and planned curve response.

Highly integrated

- All in one, factory prefabricated design;
- Flexible deployment, plug and play;
- Incorporating STS , it achieves seamless switching between on off grid.
- Incorporating DCDC, it enables PV integration, saving electricity costs.

Safe and efficient

- High efficient neutral point clamped;
- No parallel circulation, reduce energy loss significantly;
- 3S collaboration,EMS closed-loop safety logic,make sure system security;

Intelligent and friendly

- Programmable working mode, touch screen control;
- Intelligent switching strategies for different scenarios: peak shaving, self-consumption, dynamic scaling, planned curve response;
- Linkage of local and cloud monitoring, rapid digital diagnosis, and intelligent automatic inspection;

Grid friendly

- Equipped with active and reactive power quadrant regulation.
- Equipped with Low Voltage Ride Through (LVRT) and High Voltage Ride Through (HVRT).
- Equipped with precise switching between power, grid, and loading.

Product parameters >>

Model		GSO50-100	GSO80-165	GSO105-200	GSO105-225	GSO125-245
On grid parameter	Rated power(kW)	50	80	105		125
	Maximum output power(kW)	55	88	116		138
	Rated grid voltage(V)	400				
	Rated current(A)	72	115	167		200
	Allowable grid voltage(V)	±15%				
	Rated grid frequency(Hz)	50±5				
	Power Factor	0.99				
	THDI	< 3% (Rated power)				
	Overload capacity	110% Long term				
	Access method	3P4L				
Off grid parameter	Rated output voltage(V)	400				
	Rated output power(kW)	50	80	100		125
	Rated grid frequency(Hz)	50±5				
	THDU	< 3% (Linear power)				
	Unbalanced load capacity	100%				
	Overload capacity	110% Long term				
	Charge and discharge conversion time (ms)	< 20				
Battery parameter	Battery system configuration	1P216S	1P224S	1P224S	1P224S	1P238S
	Cell Type	150Ah	230Ah	280Ah	314Ah	320Ah
	Rated voltage(V)	691.2	716.8	716.8	716.8	761.6
	Operating voltage(V)	650~767	650~796	650~796	650~796	690~845
	Battery Capacity(kWh)	108	170	215	230	255
PV	PV voltage range	500~620	500~620	500~620	500~620	500~660
	Maximum input power(kW)	50		100		
	Rated current on Low voltage side(A)	100		200		
	Maximum efficiency	≥99%				
	Number of MPPT tracker	1		2		
System efficiency	PCS maximum efficiency	≥98%				
	System maximum efficiency	> 90%				
	Battery charge and discharge rate	≤0.5C				
Protection	Battery reverse connection protection	Yes				
	DC overcurrent protection	Yes				
	AC overcurrent protection	Yes				
	AC overvoltage protection	Yes				
	Surge protection	Yes				
	Fire protection system	Non-stationary pressure perfluoroacetone				
	Grid support	L/HVRT, active and reactive power control				
General parameter	Dimensions(D*W*H)mm	1400*1400*2200	1400*1950*2200			
	Weight (t)	2.5	3	3.3	3.7	4
	Line entry method	Side entry				
	Ambient temperature(℃)	-20~50(De-rating power from 45℃)				
	Charging temperature(℃)	0~55				
	Discharge temperature(℃)	-10~55				
	Ambient humidity(%RH)	<95%RH, non-condensing				
	Working altitude(m)	5000 (De-rating power from 2000m)				
	Ingress Protection Rating	IP54(IP65 for key components)				
	Cooling method	Industrial air conditioning (battery compartment) / forced air cooling (electrical compartment)				
Commu-nication	Communication interface	CAN/RS485/Ethernet				
	Communication Protocol	RTU/MODBUS-TCP				

Note: Actual product may vary. Supports US standard three-phase and split-phase systems (customizable). Specifications are subject to change without prior notice.

GLC125-261/GLC250-514

Liquid Cooling Outdoor Cabinet

Performance characteristics >>

Longevity and cost reduction

- Balancing technology improves battery consistency and extends system lifespan.
- The temperature difference of the batteries in the PACK is less than 3°C, which effectively extends the battery life.
- The charge and discharge conversion efficiency is greater than 91%, and the system life is more than 6,000 times.
- Intelligent liquid cooling temperature control reduces auxiliary power consumption by 20%, saving operating costs.
- Pre-installed design for easy transportation, no battery installation work.

Safe and reliable

- AI monitoring of battery cell health and early warning of sick batteries.
- Closed liquid cooling system + cloud management, safer.
- Triple independent fire protection, space-level and PACK-level fire protection, 1.5H fire resistance for the whole cabinet.

Efficient and flexible

- ALL IN ONE design concept, high power, high energy density, and 20% less floor space.
- Intelligent cluster-level management reduces the cask effect of battery clusters and increases discharge capacity.
- Plug and play,Three-phase four-wire.

Lean Intelligence

- SOC high-precision status assessment can dynamically adjust energy efficiency management strategies. Intelligent cloud operation and maintenance, APP terminal, unattended operation.
- Multi-scenario function presets: substation management, industrial and commercial microgrids, oil engine replacement, etc.

Product parameters >>

Mode		GLC125-261	GLC250-514
DC Battery Parameters	Battery cell Type	LFP3.2V/314Ah	
	Battery Pack Configuration	1P52S/52.249kWh	1P64S/64.31kWh
	Battery Cystem Configuration	1P260S	1P256S*2
	Battery Voltage Range	728~923	716.8~908.8
	Battery System Capacity	261.24	514.45
	Temperature Detection	Battery cell + copper busbar	
	Battery Charging/Discharging Rate	≤0. 5P	
AC Parameters (On grid)	Rated Power	125	250
	Maximum Output Power	135	270
	Rated Grid Voltage	AC380V-15%~+10%	
	Rated Grid Frequency	50/60，±5	
	Power Factor	-1 (leading) ~ 1 (lagging)	
	AC Current Harmonics (THDi)	<3% (rated output power)	
	Connect Method	Three-phase, four-wire	
AC Parameters (Off grid)	Rated Output Voltage	380V±3%AC	
	Rated Output Power	125	250
	Rated Output Frequency	50/60Hz	
	AC Voltage Harmonics (THDu)	<3% (linear load)	
	Overload Capacity	1.1 times rated load (45°C), 1.2 times for 1 min, 1.3 times for 1 s	
System Parameters	Highest System Efficiency	91%	
Protection	DC Input	Load switch + fuse	
	Overvoltage Protection	DC Type II/AC Type II	
	Fire Protection System	PACK-level fire protection, full cabinet fire protection	
Incoming Line Method		AC power input from bottom	
Environment Requirements	Allowable Ambient Temperature	-30~+55 (derating at 45)	
	Allowable Ambient Humidity	0~95%RH	
	Maximum Working Altitude	3000 (derating above 2000)	
	Protection Level	IP54	
	Corrosion Resistance Grade	C3	
	Cooling Method	Liquid cooling	
	Weight	2.3	6
	Dimension(W*D*H) mm	982*1380*2657	1360*2380*2394

Note: The actual product shall prevail. Parameters are subject to modification without prior notice.

Energy Storage System

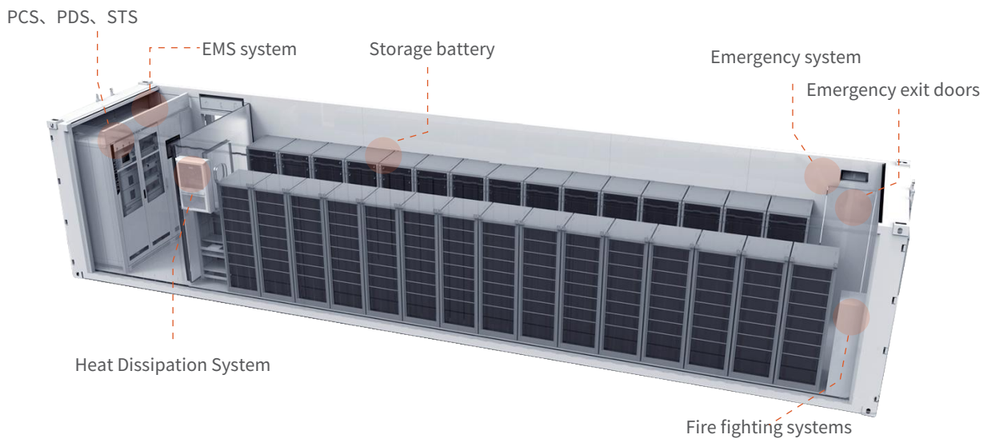
Containerized

Product Introduction >>

The containerized energy storage system includes:BESS, bidirectional power conversion system (PCS), DC conversion system (PDS), microgrid switching system (STS), energy management system (EMS), auxiliary power distribution system, air conditioning system, and fire protection.

Performance advantage >>

- According to customer needs, the type and capacity of the battery system can be flexibly configured
- PCS adopts modular, power frequency overall architecture, simple maintenance, flexible configuration, and can realize multiple parallel machines
- Supports on-grid and off-grid operation mode, seamless switching, and supports black start
- EMS unattended system, local control, cloud monitoring operation, with highly customizable functions
- With peak shaving and valley filling, demand response, anti-reverse flow operation, backup power supply, command response and other modes
- With a complete gas fire extinguishing system and automatic fire monitoring and alarm system, sound and light alarm and fault transmission
- With a complete heat dissipation and temperature control system to ensure that the temperature of the battery compartment is within the optimal working range
- The access control system has remote control and on-site operation functions



Product parameters >>

Model	10ft	20ft	40ft
Output Voltage (V)	380/400±15%		
Grid Frequency (Hz)	50/60(±2.5)		
Output Power (kW)	50~100	50~500	250~630
Battery Capacity(kWh)	50~400	200~1500	800~3000
Battery Type	Lithium Iron Phosphate Battery		
Dimensions (D*W*H)mm	Inner:2831*2352*2385	Inner:2352*5898*2385	Inner:2352*12032*2385
	Outer:2438*2991*2591	Outer:2438*6058*2591	Outer:2438*12192*2591
Protection Level	IP54		
Humidity Range (%RH)	0~95		
Altitude (m)	3000		
Operating Temperature (℃)	-20~50		
Battery Voltage Range (V)	250~850		
Maximum DC Current (A)	200	750	1500
Connection Method	3P4W		
Power Factor	-1~1		
Communication Method	RS485,CAN,Ethernet		
Lsolation Method	Power Frequency Isolation		

Note: The above data are subject to change without prior notice.

Battery Combiner Box

Regular Version

Product Introduction >>

This product is used with low-voltage lithium iron phosphate battery pack. It is compact and easy to install. It can effectively solve the problem of inconsistent battery pack capacity when multiple low-voltage battery packs are running in parallel. It is widely used in small-scale industrial and commercial and household energy storage.

Performance advantage >>

- Indoor installation
- Use multiple batteries in parallel
- Easy and quick installation

Product parameter >>

Model	GSBD3-8-250A	GSBD3-10-500A	GSBD4-12-800A	GSBD6-20-1250A
Number of connected batteries	3~8	3~10	4~12	6~20
Maximum allowable current (A)	250	500	800	1250
Working temperature(℃)	-10~55			
Chassis size (D*W*H)mm	410*310*180		500*600*250	
Weight(kg)	12~26			

Note: The above data is for reference only and is subject to change without prior notice.

Battery Combiner Box

Customized Version

Product Introduction >>

This product is used with low-voltage lithium iron phosphate battery pack. It is compact, easy and quick to install, and has over-current and over-voltage protection measures, making the system operation more efficient and safer. At the same time, it effectively solves the problem of inconsistent battery pack capacity when multiple low-voltage battery packs are running in parallel. It is widely used in small-scale industrial and commercial and household energy storage.

Performance advantage >>

- Use multiple batteries in parallel
- Easy and quick installation
- Overcurrent and overvoltage protection

Product parameter >>

Model	GSBC2-5-100A	GSBC3-8-300A	GSBC6-10-500A	GSBC11-16-500A
Number of connected batteries	2~5	3~8	6~10	10~16
Maximum allowable current (A)	100	300	500	500
Withstand voltage(VDC)	250	500		
Overcurrent protection	Yes			
Working temperature(℃)	-10~55			
Chassis size (D*W*H)mm	500*600*250			500*700*220
Weight (kg)	18~20			

Note: The above data is for reference only and is subject to change without prior notice.

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JIANGSU GSO NEW ENERGY TECHNOLOGY CO. LTD

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COMPANY PROFILE

Jiangsu GSO New Energy Technology Co., Ltd is a technology-driven innovative enterprise focusing on the fields of photovoltaic (PV) and energy storage, and has obtained the certification of National High-Tech Enterprise. Its product portfolio covers residential energy storage, industrial & commercial energy storage, mobile energy storage, hybrid inverters, energy storage converters, and smart energy operation & maintenance services. The company is capable of providing customers with the overall deployment of PV and energy storage systems as well as customized solutions, which are applied in various energy storage scenarios including new energy power generation in alpine mountains and islands, PV-storage-diesel microgrids, industrial & commercial parks, data centers, and communication base stations.

With technological innovation as its driving force, GSO New Energy leverages the group company’ s technological advantages in power electronics. By integrating digital technology and energy storage technology, it has secured a number of national patents and software copyrights. Currently, the company has built a full-lifecycle product matrix covering all scenarios such as industrial & commercial energy storage and residential energy storage. Its sales network extends to more than 50 countries and regions worldwide, and it has cumulatively provided safe and efficient PV & energy storage products and technical services to over 200,000 users.

In the future, GSO New Energy will continue to uphold the spirit of innovation, commit to providing global users with safe, high-quality, intelligent, and integrated clean energy solutions, drive the high-quality development of the energy storage industry with core technologies, and join hands with partners to create a green and sustainable energy future.

Mission Become the evergreen tree in the power supply industry and customers' most trusted power supply expert.

Vision To provide quality power solutions and green energy for mankind.

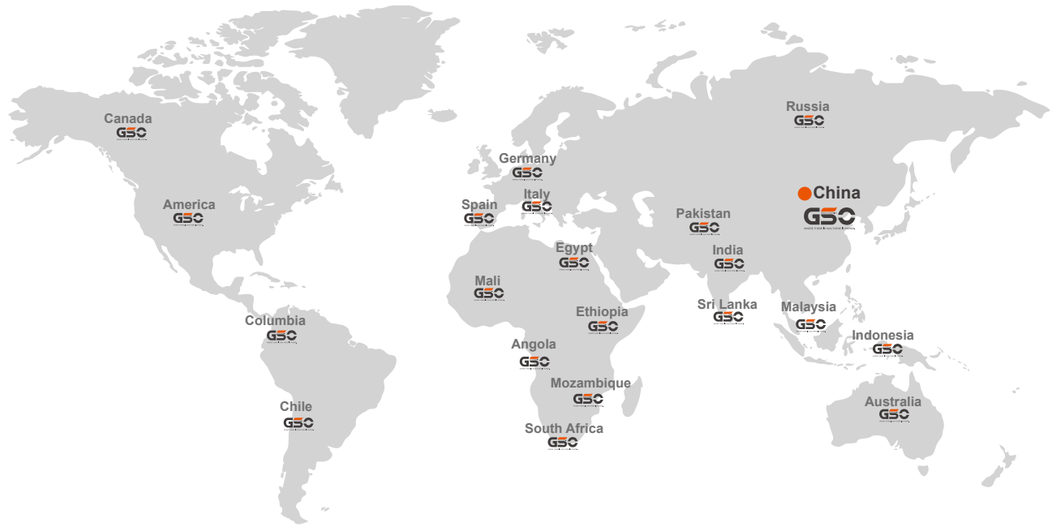
Values Responsibility;Innovation;Integrity;Enterprising.

Quality policy Customer first, quality oriented, refinement and innovation abide by the agreement.

COMPANY HONOR

SERVICE SYSTEM

GSO New Energy always aims to meet customer needs, is committed to improving service quality and value, takes customer service as the ultimate concept, and establishes an all-round, high-quality and standardized customer service system. It has formed a service structure from pre-sales telephone consultation, on-site environmental survey, power supply scheme design, to after-sales installation and commissioning, use and maintenance, technical training, and spare parts support. A number of professional and skilled engineers are ready to provide you with one-stop service and support at any time, helping customers to truly obtain a power supply solution with high practicability and reliability, maximizing investment value, and allowing customers to enjoy the high-quality service level.



After-sale service >>

GSO New Energy has established after-sales service centers and cooperative branches in many overseas regions, and set up after-sales service networks in multiple provincial capitals and major cities in China, striving to choose the branch closest to customers, provide high-quality and fast services to users, respond quickly, arrive at the service site in a timely manner, and solve problems for customers as soon as possible.

To ensure the implementation of high-quality service levels, GSO New Energy achieves service goals by establishing a four-level service system including headquarters technical support center, regional maintenance center, provincial maintenance center, and municipal maintenance center. At the same time, tailored service plans will be provided for grassroots user units located in mountainous areas and townships during the service process.

Customer training >>

GSO New Energy has a training center with professional and skilled engineers who provide customers with theoretical and practical training services in operation, use, maintenance, and other aspects. In addition, GSO New Energy will also formulate annual training plans for customers to help them better understand and use GSO brand products.

Product introduction

GST 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.

The host computer and the APP cloud communication
The host computer and the APP cloud can display the operating data and status of the system in real time and control and modify the parameters.

Parallel function
It can be flexibly combined to achieve up to 9 parallel machines, and the parallel system can output single-phase and three-phase AC voltage.

Protection function
Perfect hardware and software protection function, can display the fault type for easy removal.

Timed charging and discharging function
Allowing for segmented charging and discharging at different times.

Technical parameters

MODEL	GST48-3500 VII	GST48-5500 VII	GST48-8K	GST48-10K
INVERTER OUTPUT				
Rated output power (W)	3500	5500	8000	10000
Rated output power (VA)	3500	5500	8000	10000
Maximum Peak Power (W)	6000	10000	12000	15000
Load Capacity with Motors (HP)	2	4	5	6
Rated AC Output	230 VAC (200 / 208 / 220 / 240VAC), 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%，5min；110%~125%，10s；>125%，5s			
BATTERY				
Battery Type	Lithium / Lead-acid / User Defined			
Rated Battery Voltage (VDC)	48			
Battery Voltage Range (VDC)	40~60			
Max.MPPT Charging Current (A)	60	100	180	200
Max.Mains Charging Current (A)	60	60	100	120
Max.Hybrid Charging Current (A)	80	100	180	200
Charging current error (ADC)	±3			
Charging Short Circuit protection	Blown Fuse			
PV CHARGING				
MPPT Quantity	1		2	
Max. PV array power (W)	4000	5500	5500+5500	
Max. PV input current (A)	13	22	22+22	
Max. Open Circuit Voltage (VAC)	500		500+500	
MPPT Voltage Range (VDC)	120~450			
MPPT Tracking Efficiency	99.9%			
MAINS INPUT				
Input Voltage Range (VAC)	90~280/170~280			
Frequency Range (Hz)	50/60±0.3			
Input Short Circuit Protection	Circuit breaker			
Bypass Overload Current (A)	30	40	63	
SPECIFICATIONS				
Dimensions (D*W*H)mm	130*350*455		130*445*630	
Weight (kg)	11	12	27	
Classification of waterproof	IP20			
Operating Temperature Range (℃)	-10~55			
Storage Temperature Range (℃)	-25~60			
Noise (dB)	<60			
Heat Dissipation	Forced air cooling (variable speed of fan)			
COMMUNICATION				
Embedded interface	RS485 / CAN / USB / Dry contact			
External module	WIFI/4G			
CERTIFICATION				
Safety	CE(IEC62109-1)			
EMC	EN61000			

Note: Above data are subject to change without notice. Special voltage could be customized.

Product introduction

GST 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.

The host computer and the APP cloud communication
The host computer and the APP cloud can display the operating data and status of the system in real time and control and modify the parameters.

Protection function
Perfect hardware and software protection function, can display the fault type for easy removal.

Parallel function
It can be flexibly combined to achieve up to 9 parallel machines, and the parallel system can output three-phase AC voltage.

Timed charging and discharging function
Allowing for segmented charging and discharging at different times.

Technical parameters

MODEL	GST48-8K5-P3	GST48-10K5-P3	GST48-12K5-P3
INVERTER OUTPUT			
Rated Output Power (W)	8500	10500	12500
Rated Output Power (VA)	8500	10500	12500
Maximum Peak Power (W)	17000	21000	25000
Load Capacity with Motors(HP)	5	6	6
Rated AC Output	400 VAC Three phase, 50 / 60Hz		
Output Voltage Waveform	Pure Sine Wave		
Inverter and Bypass Switching Time	10ms（typical）		
Maximum Battery Inverter Efficiency	≥93%		
Overload Protection	102%~110%，5min；110%~125%，10s；>125%，5s		
BATTERY			
Battery Type	Lithium / Lead-acid / User Defined		
Rated Battery Voltage(VDC)	48		
Battery Voltage Range(VDC)	40~60		
Max.Mains Charging Current(A)	100	120	120
Max.Hybrid Charging Current(A)	180	220	260
Charging current error(ADC)	±3		
Charging Short Circuit protection	Blown Fuse		
PV INPUT			
MPPT Quantity	2		
Max. PV array power(W)	6000+6000	7500+7500	9000+9000
Max. PV input current(A)	22+22		
Max. Open Circuit Voltage(VDC)	800+800		
MPPT Voltage Range(VDC)	200~650		
MPPT Tracking Efficiency	99.9%		
MAINS INPUT			
Input Voltage Range(VAC)	Phase Voltage170~280，Line Voltage305~485		
Frequency Range(Hz)	50/60±0.3		
Input Short Circuit Protection	Circuit breaker		
Bypass Overload Phase Current(A)	23	29	35
SPECIFICATIONS			
Dimensions (D*W*H)mm	130*445*630		
Weight(kg)	27		
Classification of waterproof	IP20		
Operating Temperature Range(℃)	-10~55		
Storage Temperature Range(℃)	-25~60		
Noise(dB)	<60		
Heat Dissipation	Forced air cooling (variable speed of fan)		
COMMUNICATION			
Embedded interface	RS485/CAN/USB/Dry contact		
External module	WIFI/4G		
CERTIFICATION			
Safety	CE(IEC62109-1)		
EMC	EN61000		

Note: Above data are subject to change without notice. Special voltage could be customized.

Product introduction

US GST 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.

The host computer and the APP cloud communication
The host computer and the APP cloud can display the operating data and status of the system in real time and control and modify the parameters.

Parallel function
It can be flexibly combined to achieve up to 9 parallel machines, and the parallel system can output single-phase, split phase and three-phase AC voltage.

Protection function
Perfect hardware and software protection function, can display the fault type for easy removal.

Timed charging and discharging function
Allowing for segmented charging and discharging at different times.

Technical parameters

MODEL	GST48-5500-U	GST48-8K-U	GST48-10K-U
INVERTER OUTPUT			
Rated output power (W)	5500	8000	10000
Rated output power (VA)	5500	8000	10000
Maximum Peak Power (W)	10000	12000	15000
Load Capacity with Motors	4HP	5HP	6HP
Rated AC Output	120Vac，50/60Hz	120/240Vac（single phase/split phase），50/60Hz	
Output Voltage Waveform	Pure Sine Wave		
Inverter and Bypass Switching Time	10ms (typical)		
Parallel Capacity	9 channels		
Maximum Battery Inverter Efficiency	93%		
Overload Protection	102%~110%，5min；110%~125%，10s；>125%，5s		
BATTERY			
Battery Type	Lithium / Lead-acid / User Defined		
Rated Battery Voltage	48Vdc		
Battery Voltage Range	40-60Vdc		
Max.MPPT Charging Current	100A	180A	200A
Max.Mains Charging Current	60A	100A	120A
Max.Hybrid Charging Current	100A	180A	200A
Charging current error	±3Adc		
Charging Short Circuit protection	Blown Fuse		
PV CHARGING			
MPPT Quantity	1	2	2
Max. PV array power	5500W	5500W+5500W	5500W+5500W
Max. PV input current	22A	22A+22A	22A+22A
Max. Open Circuit Voltage	500Vdc	500Vdc+500Vdc	500Vdc+500Vdc
MPPT Voltage Range	120-450V		
MPPT Tracking Efficiency	99.9%		
MAINS INPUT			
Input Voltage Range	90-140Vac		
Frequency Range	50/60Hz±0.3Hz		
Input Short Circuit Protection	Circuit breaker		
Bypass Overload Current	40A	50A	63A
SPECIFICATIONS			
Dimensions (Width*Depth*Height-mm)	350*130*455	445*130*630	445*130*630
Weight (kg)	12	26	27
Classification of waterproof	IP20		
Operating Temperature Range	-10 °C~55 °C		
Storage Temperature Range	-25 °C~60 °C		
Noise	<60dB		
Heat Dissipation	Forced air cooling (variable speed of fan)		
COMMUNICATION			
Embedded interface	RS485 / CAN / USB / Dry contact		
External module	WIFI/4G		
CERTIFICATION			
Safety	CE(IEC62109-1)		
EMC	EN61000		

Note: Above data are subject to change without notice. Special voltage could be customized.

Product introduction

GST 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.

The host computer and the APP cloud communication
The host computer and the APP cloud can display the operating data and status of the system in real time and control and modify the parameters.

Parallel function
It can be flexibly combined to achieve up to 9 parallel machines, and the parallel system can output single-phase and three-phase AC voltage.

Protection function
Perfect hardware and software protection function, can display the fault type for easy removal.

Timed charging and discharging function
Allowing for segmented charging and discharging at different times.

Technical parameters

MODEL	GST48-6500-SR	GST48-12K5-SR	GST48-12K5-P3-SR
INVERTER OUTPUT			
Rated Output Power (W)	6500	12500	
Rated Output Power (VA)	6500	12500	
Maximum Peak Power (W)	11000	25000	
Load Capacity with Motors (HP)	4	6	
Rated AC Output	230 VAC (200 / 208 / 220 / 240VAC), 50 / 60Hz		120/240Vac(single phase/split phase), 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%，5min；110%~125%，10s；>125%，5s		
BATTERY			
Battery Type	Lithium / Lead-acid / User Defined		
Rated Battery Voltage (VDC)	48		
Battery Voltage Range (VDC)	40~60		
Max.MPPT Charging Current (A)	100	200	260
Max.Mains Charging Current (A)	60	120	120
Max.Hybrid Charging Current (A)	100	200	260
Charging current error (ADC)	±3		
Charging Short Circuit protection	Blown Fuse		
PV CHARGING			
MPPT Quantity	1	2	2
Max. PV array power (W)	5500	5500+5500	9000+9000
Max. PV input current (A)	22	22+22	22+22
Max. Open Circuit Voltage (VAC)	500	500+500	800+800
MPPT Voltage Range (VDC)	120~450		200~650
MPPT Tracking Efficiency	99.9%		
MAINS INPUT			
Input Voltage Range (VAC)	90~280/170~280		Phase Voltage170~280，Line Voltage305~485
Frequency Range (Hz)	50/60±0.3		
Input Short Circuit Protection	Circuit breaker		
Bypass Overload Current (A)	35	63	25*3
SPECIFICATIONS			
Dimensions (D*W*H)mm	500*484*130	691*484*130	
Weight (kg)	12	27	
Classification of waterproof	IP20		
Operating Temperature Range (℃)	-10~55		
Storage Temperature Range (℃)	-25~60		
Noise (dB)	<60		
Heat Dissipation	Forced air cooling (variable speed of fan)		
COMMUNICATION			
Embedded interface	RS485 / CAN / USB / Dry contact		
External module	WIFI/4G		
CERTIFICATION			
Safety	CE(IEC62109-1)		
EMC	EN61000		

Note: Above data are subject to change without notice. Special voltage could be customized.

Product introduction

The photovoltaic control and inverter integrated machine (hereinafter referred to as the inverter control integrated machine) 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.

This series of integrated control and inverter power supplies is the first choice to solve the daily electricity consumption of residents in areas without public power grids or underdeveloped power grids.

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 utility 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)

Technical parameters

Series		GSA96	GSA192/220		
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 (A)		50/100			
Start Voltage (VDC)		120	270		
MPPT Voltage Range (VDC)		110~280	260~450		
Maximum Open Circuit Voltage(VDC)		300	480		
Floating Voltage((VDC)	Adjustable	108.0	216.0/243.0		
Bulk Charge Voltage(VDC)	Adjustable	113.6	227.2/255.6		
AC BYPASS(OPTIONAL)					
Allowable Input Voltage Range(VAC)		220±15%/110±15% (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 waveform distortion rate(THD)		≤2%(Liner Load)			
Convert Efficiency(80% Resistive load)		≥85%			
Current Peak Factor		3:1			
Overload Ability		105%~110%，10min；110%~125%，1min；>125%，1s			
Display Method		LCD+LED			
Protection		Input reverse protection, input low voltage protection, Input over voltage protection; Output overload protection; Output short circuit protection (do not recovery automatically need to restart machine); Machine over heating protection.			
Communication Function		Optional			
SURROUNDINGS					
Protectiye Level		IP20			
Applied Altitude(m)		5000(Reduce capacity for use above 2000 meters)			
Allowable relative humidity(%RH)		<95% (Non-condensing)			
Environment temperature(°C)		-10~40			
Noise(dB)		≤60			
APPEARANCE					
Dimensions(D*W*H)mm		645*305*770	585*210*565	645*305*770	700*405*980
Weight(kg)		80~85	55	90~100	135~155

The above data are for reference only and are subiect to change without prior notice. Special voltage can be customized.

Product introduction

The solar photovoltaic control inverter integrated power supply is a new generation of 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 photovoltaic 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.

This series of control inverter integrated power supplies has a wide input DC voltage and stable output voltage and frequency. The products are widely used in homes, substations, communication service industries or comprehensive system power generation, etc., and can realize real-time and online observation of remote data through remote communication functions. They are core products in modern new energy power generation systems.

Performance characteristics

- Advanced DSP digital control technology can effectively improve product performance and system reliability
- Excellent industrial environment protection performance
- 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
- 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

Technical parameters

Series	GSA/192/220/240/360/384					
Output power(kVA)	10	20	30	40	50	60
AC input						
Phase	Three phase+N+G					
Volt range(VAC)	380/400/415±20%					
Frequency range(Hz)	50/60±5%					
PV input						
MPPT volt ranget(VDC)	230~450（Rated voltage: 192/220/240)					
	450~700（Rated voltage: 360)					
	480~750（Rated voltage: 384)					
Max.Open circuit volt(VDC)	480（Rated voltage: 192/220/240)					
	800（Rated voltage: 360/384)					
Input paths	1/2（More than 360V one input)					
Max.Input power(kWp)	12/24（Rated voltage：192/220/240)					
	42（Rated voltage：360)					
	45（Rated voltage：384)					
DC						
Nominal volt(VDC)	192/220/240/360/384					
Inverter						
Phase	Three phase+N+G					
Nominal volt(VAC)	380/400/415					
Nominal frequency(Hz)	50/60					
Frequency Stability(Hz)	< ±0.05%					
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% 10min，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:-10~40℃；Relative Humidity:<95(non-condensing)； Altitude:5000m(Reduce capacity for use above 2000 meters)					
Cooling method	Forced ventilation					
Noise(dB)	((According to load size and ambient temperature)40～65					
Size(DxWxH)mm	600*600*1600			600*800*2000		

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PHOTOVOLTAIC MPPT CONTROLLER >>>

Low pressure system

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

Technical parameters

MODEL	GSM48	GSM96
Rated voltage(VDC)	48	96
Over voltage protection point (VDC)	62.0	124.0
Over voltage resumption point (VDC)	60.0	120.0
Float voltage(VDC)	54.0	108.0
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	
Relative humidity	<95 (Non-condensing)	
Altitude(m)	5000(Reduce capacity for use above 2000 meters)	
Degree of protection	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 protection;Nighttime anti-anti-chargeprotection;Battery overcharge protection、over-discharge protection;Output overload protection,output short circuit protection	

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▲GSM192/220/240-50 ARack type（Tape screen）

▲GSM360/384-100 ARack type

▲GSM360/384-100Awall-mounted

Product introduction

MPPT series photovoltaic controller is a high-performance step-down solar power generation equipment, which adopts 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. The modular design of the controller allows multiple units to be used in parallel, allowing customers to configure freely and flexibly.

▲GSM 360/384 Series Controller Cabinet ▲GSM192/220/240Series Controller Cabinet

Performance characteristics

In order to increase reliabillty, multiple protections are used：

※ Input overvoltage protection ※ Input under yoltage protection ※ Output overvoltage protection

※ Output overcurent protection ※ Stand−alone two−phase curent unoalance protection

※ Sinale−phase output overcurrent hardware protection

Display mode can be LED light or LCD screen

Supports power generation statistics function, which can calculate daily power generation and total power generation

Supports CAN communication function, enabling real−time interaction with the lithium battery BMS (Battery Management System);

Support multi−module paralel work

Relevant parameters can be set freely

A controller cabinet is oplional. and control cabinets of diferent specifications can be selected according to the reauired charaing power.

The control cabinet comes standard with photovoltaic input circuit breakers, battery circuit breakers. fuses input and output terminal blocks.etc

Technical parameters

Model	GSM192	GSM220	GSM240	GSM360	GSM384
Rated volt(VDC)(Settable)	192	220	240	360	384
Float charging volt(VDC)(Settable)	216	243	270	390	416
Bulk charging volt(VDC)(Settable)	224	252	280	420	448
Maximum Charge Current (A)	wall type50/100；rack type50			wall type100；rack type100	
Charging mode	Three stage: Constant current, constant voltage,foating				
Max, Input power(kWp)	12/24			42	45
Start voltage(VDC)	240	270	300	470	500
MPPT volt range(VDC)	230~450	260~450	290~450	450~700	480~750
Max. open circuit voltage(VDC)	480			800	
Max. efficiency	>98%				
MPPT efficiency	>99%				
Noise(dB)	<65				
Display	LCD+LED				
Communication	RS485				
Working temperature	-10～40				
Relative humidity	＜95(Non-condensing)				
Altitude(m)	5000(Reduce capacity for use above 2000 meters)				
Protection level	IP20				
Protection function	PV array anti-reverse connection protection, Night anti-reverse charging protection. Battery over-charging and over-temperature protection, etc.				
Dimension(D*W*H)mm	wall type50A	470*360*100		wall type100A	490*365*202
	wall type100A	517*400*181		rack type100A	527*480*219
	rack type50A	403*482*87			
Weight(kg)	50A : 9； 100A : 18			25	
Optional cabinet size (D*W*H)mm	4Modules	550*550*900		3Modules	700*550*1300
	6Modules	600*600*1600			

Note: Above data are subject to change without notice. Special voltage could be customized.

Product introduction

GSI 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, fitering 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 needs of various electrical environments. The perfect protection device improves the stability and reliabiily of the svstem operaion: the user-fiendly LOD iouid crvstal interface desian enables man-machine communication zero-distance.

Performance characteristics

- Pure sine wave output, sufficient power output
- Complete protection functions: output overload protection, output short circuit protection, input overvoltage and undervoltage protection, over temperature protection, etc
- Power frequency circuit design, good system stability, low failure rate and long life
- Good transient response, low waveform distorion, high inverter eficiency, stable output voltage, and excellent Ell indicators
- Strong load resistance and carrying capacity. In addition to driving various resistive loads, it can also carry various inductive devices such as motors, air conditioners, drills, gas lamps, etc

Technical parameters

Series	GSI96	GSI220		
Output power (kVA)	6/8	6	10/15	20/25/30
Battery				
Rated voltage(VDC)	96	220		
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 protection, input undervoltage protection, input overvoltage protection, output overload protection. Output short circuit protection (not automatically restored, the machine needs to be restarted), machine overheating protection.			
Communication function	RS485/GPRS (Optional)			
Environment				
Protection level	IP20			
Operating altitude(m)	5000(Reduce capacity for use above 2000 meters)			
Allowable relative humidity(%RH)	<95(No condensation)			
Environment temperature(℃)	-10~40			
Noise((dB)	≤50			
Appearance				
Dimensions((D*W*H)mm	645*305*770	585*210*565	645*305*770	700*405*980
Weight(kg)	75~85	50	90~100	135~155

Note: Above data are subject to change without notice.

Product introduction

This series of three-phase off-grid inverters are high-eficiency and high-performance three-in-three-out inverter products.They are a 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 svstem, They have wide input DC voltage, stable output voltage and freguency, which are mainly used in photovoltaic power stations, wind power stations, wind, light, oil, storage complementary power generaion systems ,household photovoltaic power supply system and other fields, especially places that reguire 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 aitight duct, optimized ventlation desian, interal modular installation, all devices reguired maintenance can be maintained from the front side. Machine can be installed three faces against the wall or parallel

Technical parameters

Series	GSI					
Output Power(kVA)	10/15/20/30	40/50/60	80/100/120	160/200	250/300	400
Rated DC voltage(VDC)	192/220/360/384		360/384		384	
AC input						
Phase	three phase+N+G					
Nominal voltage(VAC)	380/400/415±20%					
Frequency Range(Hz)	50/60±5%					
Inverter						
Phase	Three phase+N+G					
Rated voltage(VAC)	380/400/415					
Rated Frequency (Hz)	50/60					
Frequency stability(Hz)	< ±0.05%					
Crest Factor	3:1					
Output waveform	Sine Wave					
Total Harmonic Distortion	Linear load <3%; non-linear load < 5%					
Voltage transients	<±3%(steady-state load), <±5% (dynamic load)					
Overload capacity	125% 10min，150% 1min					
system						
Communication Interface	RS485(RS232、Network remote monitoring option)					
Interface and instructions	7-inch color touch screen, LED status indicator, dry contact (optional)					
Temperature(℃)	temperature:-10~40					
Humidity(%RH)	<95(No condensation)					
Altitude(m)	5000(Reduce capacity for use above 2000 meters)					
Cooling method	Forced ventilation					
Noise(dB)	(According to the load size and ambient temperature)40～65					
Exterior						
Cabinet color	Available in different colors					
Weight(kg)	220~390	490~780	850~1050	1200~1400	1600~1800	2100
Dimensions(D*W*H)mm	600*600*1350	600*800*1350	800*805*1800	900*1005*1800	1100*1150*1920	1100*1250*1920

Note: Above data are subject to change without notice.

Product introduction

GSI series is two-phase product of INV with double conversion and on line of high efficiency and performance. It advised perfect power protection solution, solved many power problems such as power cut, high voltage of mains supply, low voltage of mains supply, the instantaneous voltage sag, oscillation of amplitude reduction, high voltage pulse, surging voltage,THD,noise wave interference, frequency fluctuation, etc. The product can be widely used in computer equipment, communications equipment and other control equipment. So GSI is the best choice for the field of telecommunications, finance, government, transportation, manufacturing, energy, etc.Various functions of GSI series product can provide high quality power supply for your equipments.

Performance characteristics

- Advanced DSP digital control technique effectively improved the reliabilit y of the product performance and system
- Excellent protective function of industrial environment
- Perfect protective function advised safe and reliable power protection for load
- High-performance large-screen LCD interface, intuitive and convenient operation
- Powerful function of communication interface and network remote monitoring etc.
- Abundant accessories can be configured flexibly according to the actual demand

Technical parameters

Series	GSI					
Rated capacity（KVA）	10	20	30	40	60	80
Working method	Power supply , static bypass switch					
AC input						
Phase quantity	Two-phase +N+G					
Rated voltage	120(240)VAC±20%					
Rated frequence	50/60Hz±5%					
DC						
Rated voltage	12*N VDC					
Flot voltage	13.5*N VDC					
INVERTER						
Rated power	rated power *0.8					
Phase quantity	Two-phase+N+G					
Rated voltage	120(240)VAC±3%（static load）					
Rated frequence	50/60±0.5 Hz（battery powered）					
Frequency tracking range	< ±5%rated frequence					
Frequency stability	< ±0.5 Hz (battery mode)					
Crest factor	3：1					
Output wave	pure sine wave					
THD	Linear load < 3%；non-linear load < 5%					
Load voltage	< ±3%（balance load voltage）；< ±5%（unbalance load voltage）					
Overload ability	125% 10min 150% 1min					
SYSTEM						
Communication interface	RS485(MODBUS)/RS232					
Interface and instructions	320*240 large screen LCD touch screen，LED status display，dry contact(optional)					
Running environment	temperature：0～40℃；relative humidity：20%～90% (non- condensing)； < 1000metres（power decrease 1% when additional 100 metres increased, the highest is 4000metres)					
Cooling method	forced draft(automatic speed regulation, temperature control mode)					
Noise(dB)	(Depend on the size of the load and ambient temperature) 40～65					
Body color	color black,white(optional)					
Install base and other	Due to various kinds of related dimensions(base dimension, air passage location ,atc), please download from company website or obtain from the distributor					

Note:We will keep on product design,technical specifications,the right of the manual update without any note.products refer to material object.

Product introduction

American standard series three-phase off-grid inverter is a high-efficiency, high-performance three-phase inverter products developed and designed to meet the needs of overseas markets. It is a new generation of special power supply for new energy power generation system. It integrates digitalization, informatization and networking, and has a powerful information acquisition system, signal processing system, detection system and perfect protection system. The output voltage and frequency are stable, mainly used in photovoltaic power stations, wind power stations, wind, light, oil, storage and complementary power generation systems and household photovoltaic power supply systems.

Performance characteristics

- Advanced DSP digital control technology, effectively improve product performance and system reliability;
- Excellent industrial environmental protection performance, perfect protection function, suitable for various working environments;
- Built-in power frequency isolation transformer, strong impact resistance, suitable for various types of loads;
- Rich accessories, flexible configuration requirements, inverter priority or bypass priority mode can be arbitrarily set;
- High performance large screen touch screen interface, intuitive and convenient operation;
- Powerful communication interface and network remote monitoring function;
- Intelligent, modular design, simple structure and easy maintenance.

Technical parameters

Model	GSI-UA					
Nomal Capacity (kVA)	10/15/20/30	40/50/60	80/100/120	150/200	250	300
Rated DC voltage(VDC)	192/220/360/384		360/384		384	
Working mode	The bypass/inverter preferred power supply mode is optional, and the static bypass switch is optional					
AC input						
Phase number	Three phase+N+G					
Voltage range(VAC)	208/220/230/240±20%					
Nominal frequency (Hz)	50/60±5%					
Inverter						
Phase number	Three phase+N+G					
RatedVoltage(VAC)	208/220/230/240					
Voltage stability(VAC)	±1%					
Rated frequency(Hz)	50/60					
Frequency stability(Hz)	±0.05%					
Crest factor	3:1					
Output waveform	Sine wave					
Total harmonic distortion	< 3% (linear load); < 5% (nonlinear load)					
Voltage transient	<±3% (steady state load); <±5% (dynamic load)					
Recovery time	<40ms					
Overload capacity	125% 10min 150%1min					
System						
Communication interface	RS485 (RS232, SNMP network monitoring card option)					
Interface and indication	7 "color touch display, LED status indicator, dry contact (optional)					
Ambient temperature (℃)	-10～40					
Humidity (%RH)	< 95(no condensation)					
Altitude (m)	5000(capacity reduction above 2000 meters)					
Cooling type	Forced ventilation					
Noise (dB)	((Depending on the load size and ambient temperature) 40 ~ 65					
Dimensions (D*W*H)mm	600*600*1350	600*800*1350	800*805*1800	915*1115*1810	1115*1330*1920	
Input/output cabinet(D*W*H)mm	/	/	/	1090*705*1810	1115*705*1920	1115*900*1920

Note: The above data is for reference, subject to adjustment and change without prior notice, the specific product shall prevail.

Product introduction

GPCS50100/150/250Kenergystorageconverter is a product developed for industrial and commercial energy storage applications, which can meet the diversified needs of users and provide assistance for comprehensive energy services.GPCS500/630Kenergystorage converter can be applied to various scenarios 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 modular design concept. Each module can operate independently,providing n+1 redundancy and improving system stability.The capacity can be expanded according to the users needs.

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.

Technical parameters

Model	GPCS 50kW	GPCS 100kW	GPCS 150kW	GPCS 250kW	GPCS 500kW	GPCS 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 parameter						
Wiring mode	Three phase four wire					
Isolation	Power frequency isolation					
Cooling	Forced air cooling					
Temperature range(℃)	-20~45					
Protection level	IP20					
Size (D*W*H)mm	800*800*2160			800*1200*2160	800*1100*2260	
Communication						
Upper computer communication mode	ModBusTCP/IP					
Communication interface	Net port、RS485、CAN					

Note: Above data are subject to change without notice, Special voltage could be customized.

Product introduction

The GDS 400kW DC-DC converter converts the DC power from the PV module array into DC power that can be used to charge the batteries. The GDS400kW DC-DC converter has a single-stage topology with a wide PV voltage input range of 250-840V and an output voltage range of 600-900V to the batteries, with MPPT PV maximum power tracking.

Performance characteristics

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

PV input overvoltage protection	Output current control
PV input undervoltage protection	Output short circuit protection
Over load protection	DC reverse protection

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

Technical parameters

Model	GDS
Rated power(kW)	400
Low voltage side to PV input	
High voltage DC bus voltage(V)	750[(LV side voltage+40)~850]
High voltage DC bus current(A)	67*8(maximum100*8)
DC bus power(kW)	50*8
Low-voltage charge/discharge voltage(V)	500(250~840)
Low voltage charge/discharge current(A)	100*8(maximum120*8)
Low voltage side connection battery input	
High voltage DC bus voltage(V)	750[(LV side voltage+40)~850]
High voltage DC bus current(A)	67*8(最大100*8)
DC bus power(kW)	50*8
Low-voltage charge/discharge voltage(V)	500(250~840)
Low voltage charge/discharge current(A)	100*8(maximum120*8)
System parameters	
Protection	Over-temperature protection, overload protection, emergency stop protection, fan failure protection
Maximum efficiency (refer to efficiency curve)	Maximum 98.6%
Isolation	Isolation-free
Cooling	Forced air cooling
Noise(dB)	≤70
Communication Interface	S485/Can/Ethernet network port
operating temperature(℃)	-20~45
Operating humidity(%RH)	< 95 （No condensation）
Altitude(m)	5000 （Reduce capacity for use above 2000 meters）
Protection level	IP20
Size(D*W*H)mm	800*1100*2060
Weight(kg)	600
Accreditation	
Certificates	UL Listed (Module)

Note: Above data are subject to change without notice, Special voltage could be customized.

Product introduction

The PWD 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 micro-grid Switching cabinet can work in different modes as required.

The PWD on-grid and off-grid switching cabinet plays a core 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 one 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 micro grid 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.

Technical parameters

Model	PWD-800kW
Rated power(kW)	800
Rated volt(V)	400
Input voltage range	-25%~15%
Input voltage range	-25%~15%
Rated input current(A)	1155
Maximum input current(A)	1270(1.1 times)
Rated Frequency(Hz)	50/60
Frequency Range(Hz)	47~52/57~62
On and off grid switching(ms)	<20
Overall efficiency	99.5% (full load)

Model	PWD-800kW
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 road
Maximum load switching power(kW)	300(RCD load,pure capacitive or inductive load is less than 100)
Wiring	Three-phase four-wire system
Protection	System protection: over temperature, AC over and under voltage, AC reverse sequence, emergency shutdown, fan failure, output overload. The safety protection conditions can be set, and the setting parameters include: upper limit of AC voltage protection, lower limit of AC voltage protection,AC frequency protection upper limit, AC frequency protection lower limit.
Upper computer communication method	ModBus TCP/IP protocol
Communication Interface	Ethernet port/RS485
Cabinet Size((D*W*H)mm	800*800*2160
Noise(dB)	70
Temperature range(℃)	-20~45
Height(m)	5000 (use with reduced capacity above 2000 meters)
Humidity(%RH)	< 95 (No condensation)
Weight(kg)	300

Remarks : The above data are for reference only and are subject to change without prior notice.

ENERGY STORAGE SYSTEM >>>

STS Micro grid Controller

Product introduction

Rapid Grid Disconnection: The on-grid to off-grid switching time is less than 20ms, enabling swift separation and connection between the main grid and micro grid.

Active On-Grid/Off-Grid Switching: When the (PCS) detects abnormal voltage on the grid side, it controls the STS to disconnect, while simultaneously providing voltage support to the micro grid from the PCS. The system then operates in island mode. Upon detecting the grid voltage has returned to normal, the micro grid system synchronizes with the grid voltage, closes the STS to reconnect with the grid, and resumes grid-tied operation.

Passive On-grid/Off-Grid Switching: Upon receiving a command to initiate island operation, the PCS directs the STS to disconnect, with the PCS also supplying voltage support to the micro grid, entering island mode. When the PCS receives a command to exit island operation, the micro grid system synchronizes with the grid voltage and closes the STS to reestablish the connection with the grid, thus transitioning back to on-grid operation.

Technical parameters

Model	STS-100kW	STS-200kW	STS-300kW	STS-400kW	STS-800kW	Remark
Input voltage range (VAC)	340~460					
Rated output voltage(V)	400					
Rated output current(A)	144	288	433	580	1215	
Communication method	PCS control				CAN	Internal use
Size(D*W*H)mm	440*370*200				800*800*2160	
Installation method	Integrated in PCS				Single cabinet	

Remarks : The above data are for reference only and are subject to change without prior notice. Special voltage can be customized.

ENERGY STORAGE SYSTEM >>>

EMS-IMGCB01
Microgrid Controller

Product introduction

The advanced micro grid controller IMGCB01 uses ARM Cortex-A7, 4-core 1.2GHz processor as the core, adopts full industrial-grade devices, has complete interface protection functions and electrical isolation measures, can operate stably for a long time in harsh environments, and has passed the telecontrol terminal equipment type test and CE certification.The product has multiple interfaces and functions such as RS485, CAN, Ethernet, 4G, wifi, input and output, voltage and frequency direct acquisition, etc. to meet the needs of different occasions. It is mostly used for data collection, transmission and control in electrical systems, integrated energy systems, enterprise parks, etc.

Technical parameters

Model	IMGCB01
CPU	ARM Cortex-A7 4 cores 1.2GHz
RAM	DDR3 1G
ROM	eMMC 8G（Additional expansion possible）
Ethernet	2-way, standard RJ45 socket, 100Mbps
RS485	5-way, magnetically isolated; configurable baud rate; interface: 3.81mm Phoenix terminal
CAN	2-way, magnetic isolation; configurable baud rate; interface: 3.81mm Phoenix terminal
Switch output	5-way, relay isolation. Contact capacity: 5A 250VAC/30VDC Rated coil power: 180mW Action time: <10ms Return time: <5ms
Switch input	5-way, optocoupler isolation. DC 24V standard input rated current: 1.1mA
Voltage and frequency direct sampling	AC voltage 10-380V, frequency 40-70Hz
RTC	Onboard Farad capacitor can maintain running time for at least 7 days in case of power failure
4G	4G full network access, support GNSS positioning function
wifi	Supports IEEE 802.11b/g/n standards
Power supply	Rated voltage 24VDC, ±10% fluctuation allowed
Indicator Lights	The power indicator light is always on after power-on; the operation indicator light is always on when the device is running;
Screen	Supports expansion of touch screen via network port or DVI: supports 7-inch screen, 10-inch screen, 15-inch screen and other models
size(mm)	190*170*46

Note: The above data is for reference only and is subject to change without prior notice.

GSB SERIES >>>

Photovoltaic combiner box

Product introduction

For photovoltaic power generation systems, in order to reduce the connection lines between photovoltaic modules and photovoltaic controllers or inverters, facilitate maintenance and improve reliability, it is generally necessary to add a DC bus device between photovoltaic modules and photovoltaic controllers or inverters.

Performance characteristics

- Meet indoor and outdoor installation requirements
- Amaximum of 16 photovoltaic strings can be connected, with a single-channel rated
- Wide DC voltage input, the maximum input voltage of the photovoltaic array can reach
- Photovoltaic special fuse
- Photovoltaic dedicated high-voltage lightning arrester, both positive and negative poles have lightning protection function
- Easy and quick maintenance

Technical parameters

Model	GSB-A	GSB-B
Maximum open circuit voltage(VDC)	500	1000
Number of photovoltaic array input channels (N)	2~16 channels (Customizable)	
Rated current of single array(A)	20	
DC output circuit breaker	YES	
Photovoltaic lightning protection	YES	
Chassis size (D*W*H) mm	155*400*300/175*620*420	
Reference weight (kg)	15~25	
Protection level	IP65	
Operating altitude(m)	5000（Reduce capacity for use above 2000 meters）	
Working temperature(℃)	-25～65	

Note: The above data is for reference only and is subject to change without prior notice.