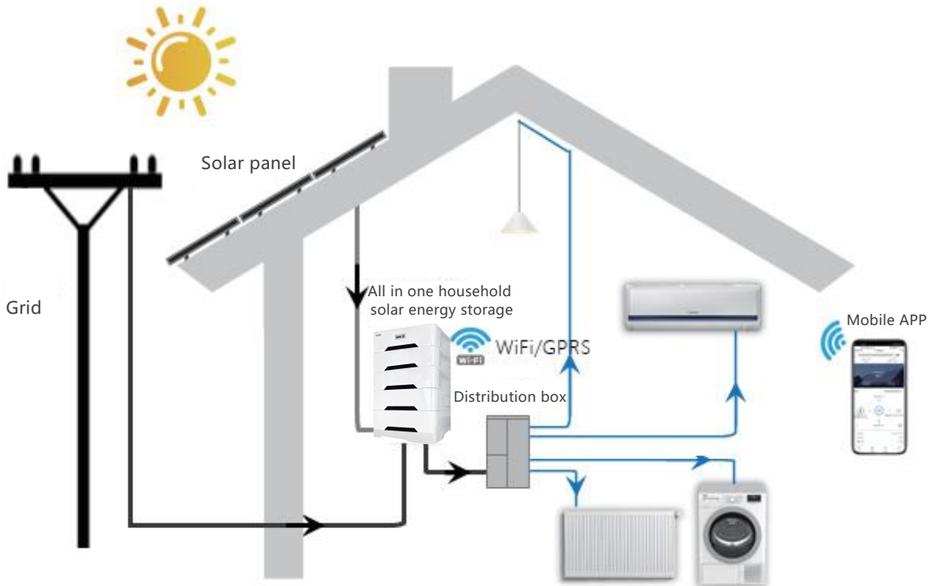
All in one household solar energy storage

System diagram



PRODUCT INTRODUCTION

All in one household solar energy storage is a multifunctional intelligent energy storage with inverter cabinet, integrating inverter, AC charger, photovoltaic charge controller and AC bypass. It has optional AC sources, an intelligent management system for AC chargers and solar charge controllers, and an energy management system for AC output, which guarantees customers' normal electricity consumption to the greatest extent and reduces the cost of customers' electricity consumption.

Applications

Private house/villa area | School/hospital /military | Holiday cottage /homestay | Remote areas without electricity

The products are mainly used in areas without electricity, areas where electricity is lacking/unstable, areas where electricity prices are expensive/large difference between peak and valley electricity prices, and areas where power supply security is guaranteed. It has the functions of self-use, peak shaving and valley filling, and backup power supply.

Product advantages

- pure sine wave inverter;
- AC input source is compatible with grid and diesel engine, intelligent control;
- Advanced energy management system, adapt to different application scenarios;
- There are power saving mode (ECO) and backup power supply (UPS) mode;
- The switching time between bypass and inverter is less than 10ms, realizing fast switching;
- Wide PV input voltage range (120~450Vdc/);
- Built-in MPPT charge controller, MPPT efficiency>99%;
- The maximum photovoltaic charging current is 80A/160A/240A, and the photovoltaic utilization rate is higher;
- The charging current can be set to protect the battery and prolong the service life of the battery;
- Various battery configurations, 10kWh\15kWh\20kWh optional;
- The equipment is equipped with WiFi / GPRS module, users can monitor the status of photovoltaic system through mobile APP anytime and anywhere;
- Removable power supply.

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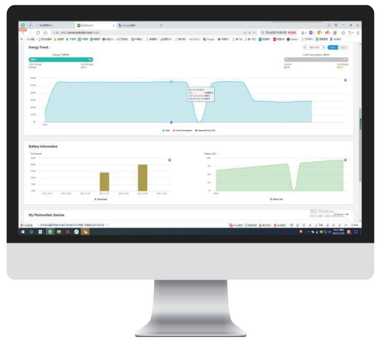
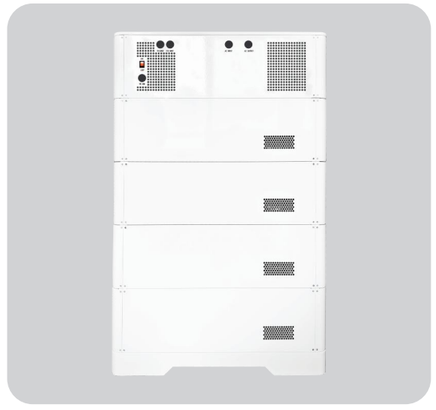
Smart control by mobile APP/Web

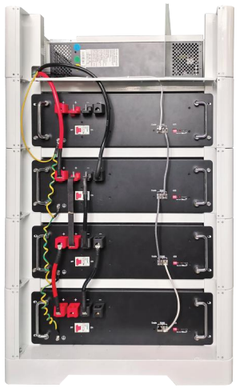


Real-time online understanding of project and equipment information on the mobile APP/PC terminal, fast. comprehensive. Through this software, you can easily understand the power generation, battery storage, online equipment, faulty equipment, fault information,solar energy storage output, charge and discharge data, etc.

Intelligent battery management

1. The battery adopts BMS management system to improve the utilization rate of the battery, prevent the battery from overcharging and overdischarging, and prolong the service life of the battery.
2. The battery and the inverter use BMS communication to monitor the battery SOC at all times to ensure that the SOC is within a reasonable range. When the SOC of each battery group is found to be unbalanced, changing the inverter parameters can automatically balance the battery power





PVSG5KHF4820-V1 series

5kVA single phase

PVSG5KHF4810-V1

PVSG5KHF4815-V1

PVSG5KHF4820-V1

Model	PVSG5KHF4810-V1	PVSG5KHF4815-V1	PVSG5KHF4820-V1
PV Input			
Max.PV input voltage	450Vdc	450Vdc	450Vdc
Recommended input power	7000W	7000W	7000W
MPPT voltage range	120~430Vdc	120~430Vdc	120~430Vdc
Battery			
Rated voltage	48Vdc	48Vdc	48Vdc
Max.charge current	80A	80A	80A
Efficiency	≥97%	≥97%	≥97%
Type & Rated capacity	Gel/lithium & 10kWh	Gel/lithium & 15kWh	Gel/lithium & 20kWh
AC Input、Bypass output			
Voltage and frequency	230Vac±20%,50/60Hz (±3%)	230Vac±20%,50/60Hz (±3%)	230Vac±20%,50/60Hz (±3%)
Max. charge current	60A	60A	60A
Switching time	≤10ms	≤10ms	≤10ms
Inverter Output			
Rated output capacitor	5000VA	5000VA	5000VA
Rated output power	5000W	5000W	5000W
Output voltage	220Vac/230Vac	220Vac/230Vac	220Vac/230Vac
Rated frequency	50/60Hz (±3%)	50/60Hz (±3%)	50/60Hz (±3%)
Standby loss	≤10W	≤10W	≤10W
Max. efficiency	93%	93%	93%
Waveform	Sine wave	Sine wave	Sine wave
Total harmonic distortion (THD)	<3%	<3%	<3%
Overload	5s@≥150% load;10s@ 110%～150% load		
Dimension(W*D*H)	674*698*480mm	674*895*480mm	674*1093*480mm
Weight	143kg	202kg	260kg
Others			
Protecition level	IP21	IP21	IP21
Autible noice	<60dB	<60dB	<60dB
Cooling method	Forced cooling	Forced cooling	Forced cooling
Operate temp.	-20～+50℃	-20～+50℃	-20～+50℃
Storage temp.	-25～+70℃	-25～+70℃	-25～+70℃
Status indicator	LCD+LED	LCD+LED	LCD+LED
Interface	RS485/CAN	RS485/CAN	RS485/CAN
Altitude	2000m(>2000m derating operate)		

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PVSG10KHF4820-V1 series

10kVA single phase

PVSG10KHF4810-V1　　PVSG10KHF4815-V1　　PVSG10KHF4820-V1

Model	PVSG10KHF4810-V1	PVSG10KHF4815-V1	PVSG10KHF4820-V1
PV Input			
Max.PV input voltage	450Vdc	450Vdc	450Vdc
Recommended input power	14000W	14000W	14000W
MPPT voltage range	120~430Vdc	120~430Vdc	120~430Vdc
Battery			
Rated voltage	48Vdc	48Vdc	48Vdc
Max.charge current	160A	160A	160A
Efficiency	≥97%	≥97%	≥97%
Type & Rated capacity	Gel/lithium & 10kWh	Gel/lithium & 15kWh	Gel/lithium & 20kWh
AC Input、Bypass output			
Voltage and frequency	230Vac±20%,50/60Hz (±3%)	230Vac±20%,50/60Hz (±3%)	230Vac±20%,50/60Hz (±3%)
Max. charge current	120A	120A	120A
Switching time	≤10ms	≤10ms	≤10ms
Inverter Output			
Rated output capacitor	10000VA	10000VA	10000VA
Rated output power	10000W	10000W	10000W
Output voltage	220Vac/230Vac	220Vac/230Vac	220Vac/230Vac
Rated frequency	50/60Hz (±3%)	50/60Hz (±3%)	50/60Hz (±3%)
Standby loss	≤20W	≤20W	≤20W
Max. efficiency	93%	93%	93%
Waveform	Sine wave	Sine wave	Sine wave
Total harmonic distortion (THD)	<3%	<3%	<3%
Overload	5s@≥150% load;10s@ 110%～150% load		
Others			
Protecition level	IP21	IP21	IP21
Autible noice	<60dB	<60dB	<60dB
Cooling method	Forced cooling	Forced cooling	Forced cooling
Operate temp.	-20～+50℃	-20～+50℃	-20～+50℃
Storage temp.	-25～+70℃	-25～+70℃	-25～+70℃
Status indicator	LCD+LED	LCD+LED	LCD+LED
Interface	RS485/CAN	RS485/CAN	RS485/CAN
Altitude	2000m(>2000m derating operate)		
Dimension(W*D*H)	674*895*480mm	674*1093*480mm	674*1291*480mm
Weight	178kg	238kg	316kg

PVSG15KHF4820-V1 series

15kVA three phase

PVSG15KHF4810-V1　　PVSG15KHF4815-V1　　PVSG15KHF4820-V1

Model	PVSG15KHF4810-V1	PVSG15KHF4815-V1	PVSG15KHF4820-V1
PV Input			
Max.PV input voltage	450Vdc	450Vdc	450Vdc
Recommended input power	21000W	21000W	21000W
MPPT voltage range	120~430Vdc	120~430Vdc	120~430Vdc
Battery			
Rated voltage	48Vdc	48Vdc	48Vdc
Max.charge current	240A	240A	240A
Efficiency	≥97%	≥97%	≥97%
Type & Rated capacity	Gel/lithium & 10kWh	Gel/lithium & 15kWh	Gel/lithium & 20kWh
AC Input、Bypass output			
Voltage and frequency	230Vac±20%,50/60Hz (±3%)	230Vac±20%,50/60Hz (±3%)	230Vac±20%,50/60Hz (±3%)
Max. charge current	180A	180A	180A
Switching time	≤10ms	≤10ms	≤10ms
Inverter Output			
Rated output capacitor	15000VA	15000VA	15000VA
Rated output power	15000W	15000W	15000W
Output voltage	220Vac/380Vac	220Vac/380Vac	220Vac/380Vac
Rated frequency	50/60Hz (±3%)	50/60Hz (±3%)	50/60Hz (±3%)
Standby loss	≤30W	≤30W	≤30W
Max. efficiency	93%	93%	93%
Waveform	Sine wave	Sine wave	Sine wave
Total harmonic distortion (THD)	<3%	<3%	<3%
Overload	5s@≥150% load;10s@ 110%～150% load		
Others			
Protecition level	IP21	IP21	IP21
Autible noice	<60dB	<60dB	<60dB
Cooling method	Forced cooling	Forced cooling	Forced cooling
Operate temp.	-20～+50℃	-20～+50℃	-20～+50℃
Storage temp.	-25～+70℃	-25～+70℃	-25～+70℃
Status indicator	LCD+LED	LCD+LED	LCD+LED
Interface	RS485/CAN	RS485/CAN	RS485/CAN
Altitude	2000m(>2000m derating operate)		
Dimension(W*D*H)	674*1093*480mm	674*1291*480mm	674*1498*480mm
Weight	201kg	281kg	350kg

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