



HOME SOLAR STORAGE SYSTEM

iPOWER HOME Series

3KW~20KW

Home solar storage system is a home energy solution that integrates solar power generation with electricity storage, primarily composed of solar panels, energy storage batteries, inverters, and an intelligent control system. This system offers multiple advantages: first, it reduces electricity costs; second, it ensures power supply stability by automatically switching to stored power during grid failures or outages; third, it promotes green energy adoption, reducing household carbon emissions by several tons annually. Paired with an intelligent management system, users can monitor real-time data on power generation, storage, and consumption to optimize energy allocation.

MAIN COMPONENTS

Solar Panels

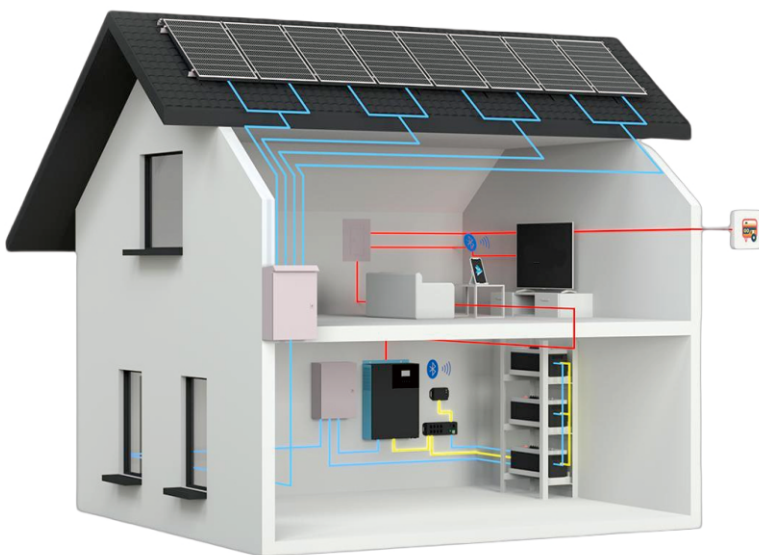
- N-type high-efficiency solar panels
- Configurable to different sizes and types based on system requirements

Energy Storage Batteries

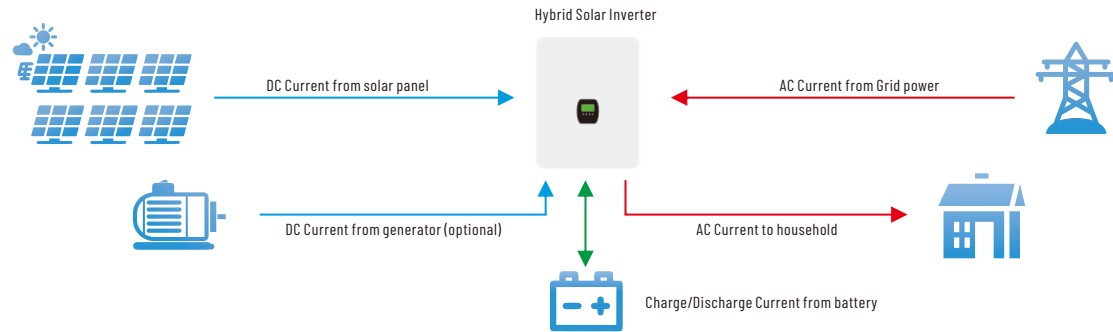
- Lithium iron phosphate (LFP) batteries: Safe, efficient, and long-lasting
- Pollution-free with stable high-temperature performance

Energy Storage Inverter & Intelligent Control

- Smart and efficient design: Ensures stable power supply
- Real-time monitoring: Compatible with an Energy Management System (EMS) for system status tracking
- Integrated design: Simplified installation and seamless integration



PRODUCT ELECTRICAL DIAGRAM



PRODUCT SPECIFICATIONS

Model	HSS-3KW	HSS-6KW	HSS-10KW	HSS-12KW	HSS-20KW
System Power	3KW	6KW	10KW	12KW	20KW
Solar Panel					
PV input Power	3KW	6KW	10KW	12KW	20KW
PV Panel	620W Mono N-Type				
MPPT Tracking Voltage Range	40V-450V	80V-450V			
Rated Voltage	240V			280V	
Max PV Input Voltage(at the lowest temperature)	400V	500V			
Max PV input Current	18A	27A	44A	54A	54A
Storage Battery					
Battery Type	Lithium Battery				
Battery Capacity	5KWH	10KWH/15KWH	15KWH	15KWH/30KWH	60KWH
Rated Battery Voltage	24V	48V	48V	48V	192V
Battery Voltage Range	21V-30V	42V-60V	42V-60V	42V-60V	168V-240V
Max PV Charging Current	120A	120A	180A	200A	50A/100A
Max AC Charging Current	80A	80A	80A	140A	140A
Hybrids Inverter					
On-Grid Operation (AC output)					
Rated Output Power	3.3KW	6.3KW	10.3KW	12KW	20KW
Rated Output Voltage	220V/230V/240V				
Grid Voltage Range	187V-264V				
Rated Output Frequency	50Hz/60Hz				
Power Factor	0.98(Rated Power)				
Off-Grid Operation (AC input)					
Rated Input voltage	220V/230V/240V				
Mains input voltage range	165V-280V/120V-280V(Can be set)				
Rated Input Frequency	50Hz/60Hz				
Input Frequency Range	45Hz-55Hz(50Hz),55Hz-65Hz(60Hz)				
Off-Grid Operation (AC output)					
Rated Output Power	3.3KW	6.3KW	10.3KW	12KW	20KW
Rated Output Voltage	220V/230V/240V				
Rated Output Frequency	50Hz/60Hz				
Output Wave	Pure sine wave				
Regular Parameters					
Maximum Conversion Efficiency (Battery Discharge)	94%(peak value)				
MPPT Tracking Efficiency	≥99.9				
Transfer Time	10mS(Typical value)				
Display	LCD+LED				
Cooling Method	Cooling fan in intelligent control				
Communication	RS485/Mobile APP(WIFI Monitoring or GPRS monitoring)(Optional)				
Protect	Protect Battery low voltage alarm, Battery low voltage protection, Anti-islanding protection, overload power protection, Inverter output short circuit protection, Temperature protection				
Environment					
Operating Temperature	-10℃~-50℃				
Storage Temperature	-15℃~-60℃				
Noise	≤55dB				
Elevation	2000m(More than derating)				
Humidity	0%-95%,No condensation				
Others					
System Cabinet	Matching customization				
Bracket	Matching customization				
Cabel	Matching				
Communication Control	Matching customization				