

## All in One ESS Energy Storage System

The 6kW On/Off grid hybrid solar inverter with lithium-ion battery all-in-one energy storage system (ESS) is a cutting-edge solution that harnesses the power of solar energy while providing a reliable backup during grid outages. This hybrid inverter allows seamless integration with the utility grid, enabling you to consume electricity from both the solar panels and the grid, depending on your needs. During sunny days with surplus solar energy, excess power can be fed back into the grid, potentially earning you credits or reducing your electricity bills. The integrated lithium-ion battery pack ensures that any excess solar energy generated during the day is stored for later use. This stored energy becomes invaluable during power outages, providing a reliable backup power source to keep essential appliances and devices running. This innovative system combines the functions of a solar inverter and an energy storage unit, offering the best of both worlds for residential and small commercial applications.



### Product Features

- Integrated 6kW On/Off-grid hybrid solar inverter and lithium-ion battery module
- Self-consumption and feed-in to the grid
- Wide PV input range 40VDC-600VDC
- Programmable supply priority for PV, Battery or Grid
- Select high power charging current
- Programmable multiple operations modes: Grid-tie, Off-grid, and Grid-tie with backup
- Select input voltage range for home appliances and personal computers
- Reserved communication port for BMS (RS232/ RS485)
- Compact footprint and space-saving with all-in-one design
- Compatible to Utility Mains or generator input
- Built-in Wi-Fi module for mobile monitoring (Android/iOS App is available)
- Scalable lithium-ion battery expansion
- Waterproof IP65

## Technical Specification

Model	ESS6K10	ESS6K15	ESS6K20
PHASE	1-phase in/1-phase out		
RATED POWER	6000VA / 6000W		
Dimension, LxWxH (mm)	620x212x1302	640x205x1700	620x212x1900
Net Weight (kgs)	110	230	245
<b>PV INPUT (DC)</b>			
Max. PV Input Power	11000W		
Nominal DC Voltage/Max. DC Voltage	360Vdc/ 600Vdc		
Start-up Voltage/Min. Operation Voltage	50Vdc/ 40Vdc		
Number of MPP Trackers/String	2/1		
Max. PV Input Current	16A		
<b>AC INPUT</b>			
Max. input power from grid	11000 VA		
Voltage	220VAC/230VAC/240VAC		
Voltage Range	154V~276V		
Rated Frequency	50Hz/60Hz		
Frequency Range	50Hz: 45Hz~55Hz / 60Hz: 55~65Hz		
Power Factor	≥ 0.99		
<b>GRID OUTPUT (AC)</b>			
Max. output power	6000W		
Voltage	220VAC/230VAC/240VAC ± 5%		
Rated output current (at 230V)	26.1 A		
Max. output current (at 230V)	27.3 A		
Rated Frequency	50Hz/60Hz(±0.5%)		
Harmonic Distortion	≤3% (Linear Load), ≤5% (Non-Linear Load)		
Waveform	Pure sine wave		
<b>EFFICIENCY</b>			
Maximum Conversion Efficiency (DC/AC)	97.30%		

European Efficiency	97.70%		
<b>BATTERY &amp; CHARGER</b>			
Battery Voltage	51.2VDC		
Battery Type	LiFePO4		
Rated Capacity	200AH	300AH	400AH
Energy Storage	10.24KWH	15.36KWH	20.48KWH
Cycle Life	6000 cycles @80% DOD, 0.5C		
Floating Charge Voltage	57.6VDC		
Max. Solar Charge Current	100A		
Max. AC Charge Current	100A		
Max. Charge Current	100A		
Max. Discharge Current	100A		
Discharge Cut-off Voltage	43.2VDC		
Charge Cut-off Voltage	58.4VDC		
<b>SYSTEM</b>			
Communication Interface	WiFi/4G/RS485/RS232, WLAN Optional		
IP Class	IP65		
<b>OPERATING ENVIRONMENT</b>			
Humidity	5% to 95% Relative Humidity(Non-condensing)		
Charge Temperature	0°C to 50°C		
Discharge Temperature	-20°C to 50°C		
Storage Temperature	-20°C to 50°C		
<b>STANDARD</b>			
Compliance Safety	EN50549-1, EN50549-10, PTPIREE, VDE4105, IEC 62619, UN38.3, MSDS, NRS, G99		

Product specifications are subject to change without further notice.