

# Home Energy Storage System

--All in one

SP-ESS-5K-15K-A2

SP-ESS-5K-5K-A2

SP-ESS-5K-10k-A2



## More Usable Energy

100% Depth of Discharge  
Pack Level Energy Optimization



## Flexible Investment

5KWh Modular Design,  
Scalable from 5 to 20 KWh



## Safe & Reliable

Lithium Iron Phosphate (LFP) Cell



## Easy Installation

Flexible configuration, plug and play



## Long cycle life

Designed Life-span 6000 times



## Remote Monitoring

Monitor your ESS remotely via  
smartphone APP or web portal

## Inverter+controller parameter

### Battery Input

Battery Type	LFP
Rated Battery Input Voltage	51.2V
Hybrid Charging Maximum Charging Current	80A
Battery Voltage Range	44.8-57.6V

### Solar Input

Maximum PV Open-circuit Voltage	500 vdc
PV Working Voltage Range	120-500V dc
MPPT Voltage Range	120-450V dc
Maximum PV Input Current	18A
Maximum PV Input Power	5200W
Maximum PV Charging Current	80A

### AC Input (generator/grid)

Mains Maximum Charging Current	40A
Rated Input Voltage	110VAC/120VAC
Input Voltage Range	(90Vac-280Vac)±2%
Frequency	50Hz/ 60Hz (Automatic Detection)
Mains Charging Efficiency	> 95%
Switch Time (bypass and inverter)	10ms(Typical Value)
Maximum Bypass Overload Current	63A

### AC Output

Output Voltage Waveform	Pure Sine Wave
Rated Output Voltage (Vac)	120Vac (100/105/110Vac Settable)
Rated Output Power (VA)	5000 (4100/ 4300/4500)
Rated Output Power(W)	5000 (4100/ 4300/4500)
Peak Power	10000VA
On-load Motor Capacity	4HP
Output Frequency Range(Hz)	50Hz ±0.3Hz/60Hz±0.3Hz
Maximum Efficiency	>90%
No-load Loss	Non Energy-saving Mode: ≤50W Energy-saving Mode : ≤25W (Manual Setup )

### General

Certificate	CE(IEC62109-1)/CETL(UL 1741 CSA C22.2 NO .107.1)
Rated Output Voltage (Vac)	EN61000
Working Temperature Range	-15°C ~ 55°C
Storage Temperature Range	-25°C ~ 60°C
Humidity Range	5% to 95%(Conformal Coating Protection)
Dimensions	600*165*420mm
Weight (KG)	23kg

### Module parameter

Battery Type	LFP
Battery Rated Voltage	51.2V
Battery Working Voltage Range	44.8 ~ 57.6V
Maximum Charging Current	100A
Maximum Discharging Current	100A
DOD	80%
Parallel Quantity	3
Dimension L× D× H	600x165x420mm
Weight	52k g

### Base parameter

Material	Steel
Dimension L× D× H	600x165x80mm
Weight	8k g

	SP-ESS-5K-5K-A2	SP-ESS-5K-10K-A2	SP-ESS-10K-15K-A2
<b>BATTERY</b>			
Battery Module	1	2	3
Battery Energy	5.12kWh	10.24kWh	15.36kWh
Battery Capacity	100Ah	200Ah	300Ah
Weight	83kg	135kg	187kg
Dimension Lx DxH	W600 x D165 x H920	W600 x D165 x H1340	W600 x D165 x H1760
Solar Charge Type	MPPT		
Battery Rated Voltage	51.2V		
Maximum Output Power	5KW		
PV Charging Current Range	0~80A		
PV Operating Voltage Range	120~500V		
MPPT Voltage Range	120~450V		
<b>AC CHARGE</b>			
Maximum Charge Power	3150W		
AC Charging Current Range	0~40A		
Rated Input Voltage	110/120Vac		
Input Voltage Range	90~140Vac		
<b>AC OUTPUT</b>			
Rated Output Power	5KW		
Maximum Output Current	42A		
Frequency	50Hz		
Overload Current	45A		
Maximum Peak Power	10KVA		
Power Factor	1		
Rated Output Voltage (VAC)	120Vac		
Auto Switch Period	<10ms		
THD	3%		
<b>GENERAL DATA</b>			
Communication	RS485/CAN/WIFI(optional)		
Storage time / temperature	6 months @25 C ;3 months @35 C ;1 months @45 C		
Charging temperature range	0~45C		
Discharging temperature range	-10~45C		
Operation Humidity	5% ~ 85%		
Nominal Operation Altitude	<2000m		
Cooling Mode	Electric Fan		
Noise	60DB		
Cycle Life	6000 cycles at 80% DOD		
Calendar Life	10 years		
Ingress Protection Rating	IP20		
Recommended Operation Environment	Indoor		
Installation Method	Floor Mounting		
Certification	UL1741, UL1973, UN38.3, MSDS		

