

5KW ALL-IN-ONE OFF-GRID ENERGY STORAGE SYSTEM (Single-phase)



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	40-60V

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	110 /120Vac
Input Voltage Range	(90Vac-140Vac)±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)
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)	EMC certificate
Working Temperature Range	-15°C ~ 55°C
Storage Temperature Range	-25°C ~ 60°C
Humidity Range	5% to 95%(Conformal Coating Protection)
Dimensions	560*400*200mm
Weight (KG)	19kg

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	4
Dimension L× D× H	560x400x150mm
Weight	52kg

Base parameter

Material	Steel
Dimension L× D× H	560x400x80mm
Weight	7kg

	SP-ESS-5K-5K-A1	SP-ESS-5K-10K-A1	SP-ESS-5K-15K-A1	SP-ESS-5K-20K-A1
Battery Module	1	2	3	4
Battery Energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh
Battery Capacity	100AH	200AH	300AH	400AH
Weight	78kg	128kg	178kg	228kg
Dimension L× D× H	560x400x430	560x400x580	560x400x730	560x400x880

PV CHARGE

Solar Charge Type	MPPT
Maximum Output Power	5KW
PV Charging Current Range	0 ~ 80A
PV Operating Voltage Range	120 ~ 500V
MPPT Voltage Range	120 ~ 450V

AC CHARGE

Maximum Charge Power	3150W
AC Charging Current Range	0 ~ 40A
Rated Input Voltage	110/120Vac
Input Voltage Range	90 ~ 140Vac

AC OUTPUT/ INVERTER

Rated Output Power	5KW
Maximum Output Current	30A
Frequency	60Hz
Overload Current	35A
Maximum Peak Power	10KVA
Maximum Efficiency	>90%
Rated Output Voltage (Vac)	110/120Vac
Auto Switch Period	< 15ms
THD	< 3%

GENERAL DATA

Communication	RS485/CAN/WIFI(optional)
Storage time / temperature	6 months @25°C;3 months @35°C;1 months @45°C;
Charging temperature range	0 ~ 45°C
Discharging temperature range	-10 ~ 45°C
Operation Humidity	5% ~ 85%
Nominal Operation Altitude	< 2000m
Cooling Mode	Force-Air Cooling
Noise	60dB(A)
Ingress Protection Rating	IP20
Recommended Operation Environment	Indoor
Installation Method	Horizontal
Certification	UN38.3,MSDS

