

SunESS Power All-in-One

Highlights

All in One

Integrated Hybrid inverter, battery pack and EMS form a powerful energy system

IP65

Rated for indoor and outdoor use

150%

Withstand 150% inrush current over 10 seconds; Support 150% oversized PV power.

8~15kW/5~40kWh

Supports parallel capacity expansion, DC combiner is not necessary

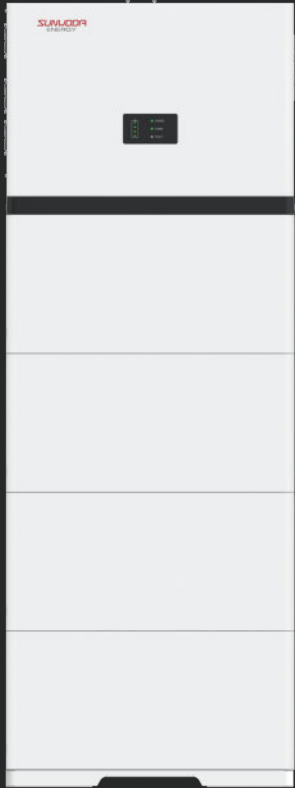
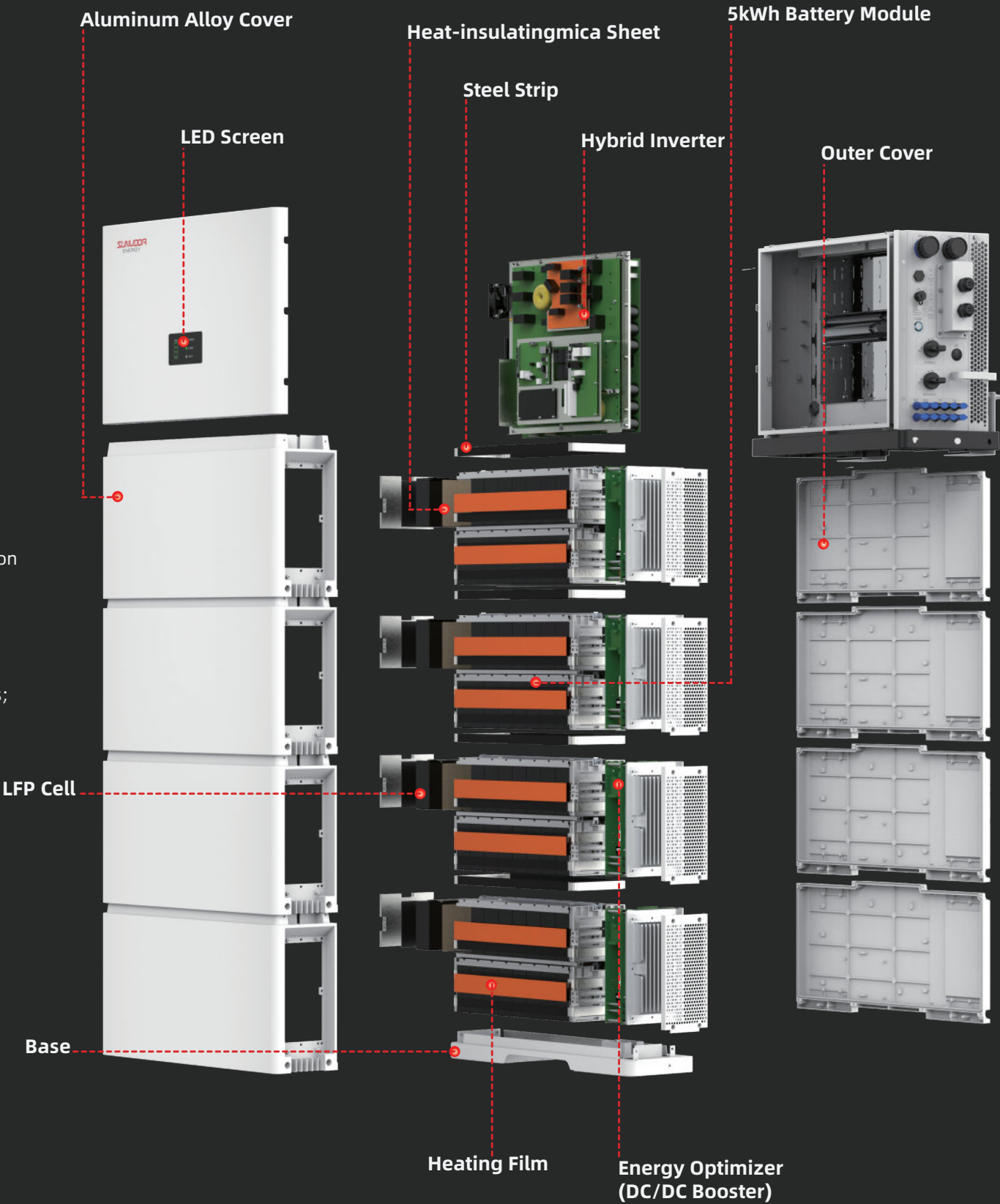
12 Years

Extendable to 12 years warranty

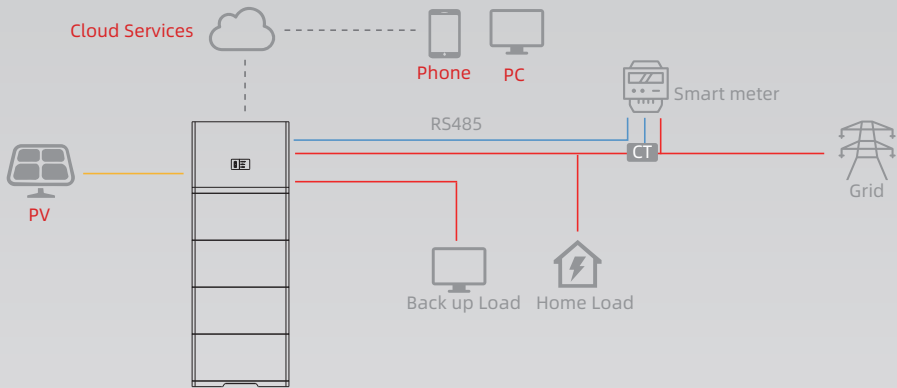
Remote Operation and Maintenance

Support cloud operation and maintenance, support WiFi, bluetooth, network cable and other communication methods

- Safe and Reliable**
Multi-level system alarm protection;
Long-life LFP cells pass stringent tests and operate reliably
- Energy Optimization**
Built-in energy optimizer module-level active equalization, mixing old and new, easy upgrades
- Flexible Expansion**
Modular design, stacked wiring-free quick installation, AC and DC expansion on-demand configuration
- Excellent Performance**
Support three-phase 100% unbalanced loads;
10ms ultra-fast switching between grid-connected and off-grid
- Intelligent Application**
Optimize energy usage strategies and support multiple application scenarios such as heat pumps and stock PV.



SunESS Power All-in-One



Case Sharing



Sunwoda Power All-in-One
15kW/20kWh
RESS Stackable All-in-One system
BESS for Residential Building



Sunwoda Power All-in-One
15kW/20kWh
RESS Stackable All-in-One system
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Sunwoda Power All-in-One
8kW/10kWh
RESS Stackable All-in-One system
BESS for Residential Building

SunESS Power All-in-One

System Parameters								
Normal Output Power	5~15kW							
Number of Battery Module	1	2	3	4	5	6	7	8
Battery Nominal Energy	5kWh	10kWh	15kWh	20kWh	25kWh	30kWh	35kWh	40kWh
Battery Rated Charge/Discharge Power 2.5kW	5kW	5kW	7.5kW	10kW	12.5kW	15kW	17.5kW	20kW
Dimensions (W/H/D) mm	650/833/250	650/1148/250	650/1463/250	650/1778/250	650/1463/250 653/868/189	650/1463/250 653/1183/189	650/1778/250 653/1183/189	650/1778/250 653/1498/189
Total Weight	96kg	148kg	200kg	252kg	200kg+117kg	200kg+169kg	252kg+169kg	252kg+221kg
Ambient Temperature	-4°F to 122°F(-20℃ to 50℃)							
Relative Humidity	5% to 95%, non-condensation							
Altitude	<4000m(>3000m derating)							
Cooling Method	Air cooling							
Noise Emission	<47dB							
Ingress Protection	IP65							
Safety Standards	EN 62109-1/EN 62109-2/EN 62477-1/EN 61000-6-1/EN61000-6-3							
Grid Standards	EN 50549-1/VDE4105/VDE 0124/NC-RFG:2016/IEFIS:2018/ToR Type A/ NA/IEA-NE7-CH2020/AS 4777.2							
Battery Standards	IEC62619/CE/UN38.3/VDE 2510-50/FCC/UL1973/IEC 62040							
Battery Module								
Nominal Energy	5kWh							
Rated Voltage	400V							
Voltage Range	350~450V							
Rated Charge/Discharge Power	2.5kW							
Peak Output Power	4.2kW/20s							
Weight	52kg							
Dimensions (W/H/D)	650/315/190mm							
Inverter Module		SW8KH3UT		SW10KH3UT		SW12KH3UT		SW15KH3UT
PV Input Parameters								
Max. Input Power	12000W		15000W		22500W		22500W	
Max. Input Voltage	1000V							
MPPT Voltage Range	180~850V							
Start-up Voltage	180V							
Max. Input Current per MPPT	A: 15A / B: 30A		A: 15A / B: 30A		A: 15A / B: 30A		A: 15A/ B: 30A	
Max. Short-circuit Current per MPPT	A: 19A / B: 38A		A: 19A / B: 38A		A: 19A / B: 38A		A: 19A/ B: 38A	
Number of MPPTs	2		2		2		2	
Number of Input Strings per MPPT	A: 1/ B: 2		A: 1/ B: 2		A: 1/ B: 2		A: 1/ B: 2	
Battery Input Parameters								
Rated Battery Voltage	400V							
Battery Voltage Range	350~450V							
Max. Continuous Charging Current	23A				46A			
Max. Continuous Discharge Current	23A				46A			
Output Parameters(On-grid)								
Rated Output Power	8000W		10000W		12000W		15000W	
Max. Output Apparent Power	8800VA		11000VA		13200VA		16500VA	
Max. Input Apparent Power	12000VA		15000VA		18000VA		22500VA	
Rated Output Voltage	Three phase 220/380V 230/400V 3W/N/PE							
Rated Output Frequency	50Hz							
Max. Output Current	13.4A		16.7A		20A		25A	
Max. Input Current	18.2A		22.8A		27.4A		34.2A	
Power Factor	0.8 leading to 0.8 lagging							
THDi	<3%							
Output Parameters(Off-grid)								
Off-grid Rated Apparent Power	8000VA		10000VA		12000VA		15000VA	
Max. Output Apparent Power	8800VA		11000VA		13200VA		16500VA	
Max. Output Current	13.4A		16.7A		20A		25A	
Rated Output Voltage	Three phase 220/380V 230/400V 3W/N/PE							
Rated Output Frequency	50Hz							
THDv (@Linear Load)	<3%							
Efficiency								
Max. Efficiency	97.8%		97.8%		97.8%		97.8%	
Euro. Efficiency	96.8%		96.8%		97%		97%	
Protection								
Input DC Switch	Integrated							
Insulation Resistance Detection	Integrated							
Residual Current Monitoring	Integrated							
Input Reverse Polarity Protection	Yes							
Anti-Islanding Protection	Yes							
Over Current Protection	Yes							
AC Short Circuit Protection	Yes							
AC Over Voltage Protection	Yes							
AFCI(Arc Fault Circuit Interrupter) Protection	Optional							
Dry Contact Remote Scheduling	Yes							
DC Surge Protection	Type II							
AC Surge Protection	Type II							
Basic Parameters								
Display	LED&APP							
BMS Communication Method	CAN							
Meter Communication Method	RS485							
Monitoring Method	WiFi/bluetooth							
Topology	Transformerless							
Operating Temperature Range	-30~60℃ (>45℃derating)							
Weight	41kg							
Dimensions (W/H/D)	650/480/250mm							

