

# ALL-IN-ONE Residential Energy Storage System

Safe and intelligent to use, offering sustainable and green energy around the clock.



**PV System Compatible**



**Incorporated RSD & AFCI**



**Natural Cooling**



**IP65**  
**Safe & Reliable**

Battery module

**N\*5.1** kWh

**6** Max. systems in parallel

**5/10** years optional warranty

Max. noise **35** dB

## Residential Energy Storage System



### Euro-standard

**3 - 5 kW / 5 - 40 kWh**

**97.6%**

Max. efficiency

**7 kVA**

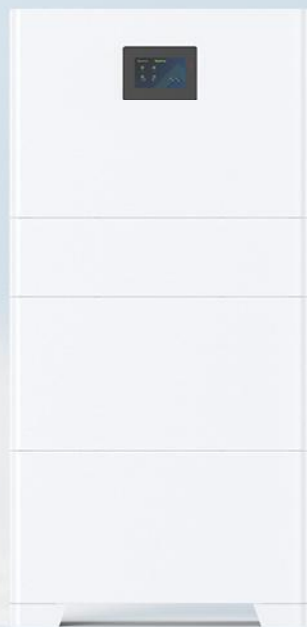
Max. AC input

**2**

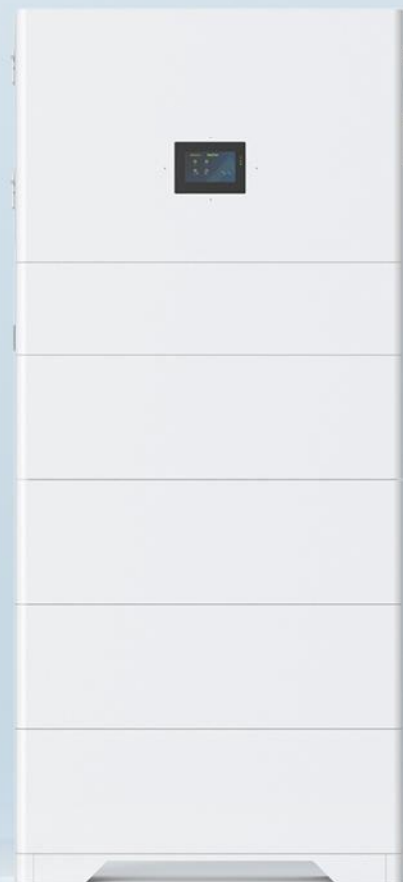
MPPTs

**7 kW**

Max. PV input



Euro-standard



US-standard

### US-standard

**10 - 15 kW / 10 - 40 kWh**

**98%**

Max. efficiency

**24 kVA**

Max. solar input

**4**

MPPTs

**27 A**

Max. current  
(per MPPT)

Up to

**90 kW** parallel working



Split phase  
output



Smart load  
function

**Whole-Home Backup Power**

# App & Web Management



Live Monitoring & Visual Display



Works with Multiple Devices & Sharing



Dynamic Power Tracking & Report Creation



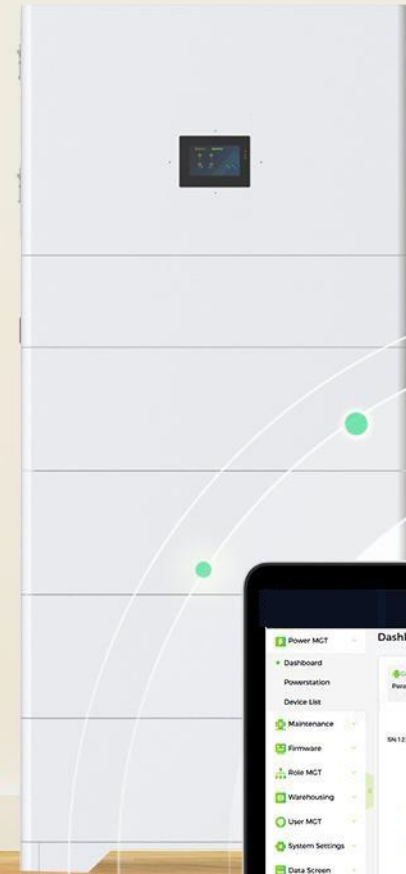
Backup & Security



Switch Modes & Calculate Profit



Integrated Support

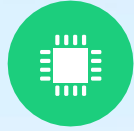


# Advanced LiFePO4 Battery - RBmax5.1L



## Simple installation

Stackable design



## Built-in BMS

smart monitoring & many safeguards



## Excellent safety

battery without cobalt



## Safety standards like

CE, UN38.3, EN 62619, UL1973

**5.1kW** /module

Maximum continuous discharge capacity

Up to **10 years** design life

Over **6,000** life cycles



Residential Energy Storage System

ROYPOW SUN Series 15 kW / 20 kWh

# Intelligent Residential Energy Storage System

**98%** Max. Efficiency  
**4** MPPTs  
**35 dB** Max. Noise

**20 kVA** Max. AC Input  
**27 A** Max. Current (Per MPPT)  
**6** Max. Systems in Parallel

Up to **90 kW** Parallel Working  
**10 Years** Warranty



Split Phase Output

**Type 4X** Type 4X Protection

Natural Cooling

Smart Load Function

Modular & Integrated Design for Easy Installation

Integrated RSD (Rapid Shut Down) & AFCI (Arc Fault Circuit Interrupters)

Friendly Compatible with New Install or Existing PV System

Smart Management with App & Web, Remote Off Upgrade



Model		SUN15000S-U/A	
<b>System Specification</b>			
Norminal output power (W)	15,000		
Battery capacity range (kWh)	10.24 ~ 40.96	Battery type	Lithium iron phosphate (LFP)
Ingress rating	IP65 / Type 4X	Warranty (years)	5 / 10 (optional)

Inverter Model		SUN15000S-U/A	
<b>PV Input</b>			
Max.input power (W)	4 x 6,000		
Max.input voltage (V)	600	MPPT voltage range (V)	120 ~ 550
		Start operation voltage (V)	150
Max. input current (A)	27 + 27 + 27 + 27		
Max. short current (A)	40 + 40 + 40 + 40		
No. of MPPT	4	No. of string per MPPT	2

<b>Battery Input</b>			
Nominal voltage (V)	204.8		
Operation voltage range (V)	75 - 480	Battery charge method	Self-adaption to BMS

<b>AC (Grid)</b>			
Max. output apparent power (VA)	15,000		
Max. input power (VA)	20,000		
Grid type	Split phase, L1 / L2 / N / PE	Nominal frequency (Hz)	60
		Grid voltage range (V)	102 ~ 132 / 204 ~ 264
Nominal voltage (V)	120 / 240	Frequency range (Hz)	55 - 65
		THDI (rated power)	< 3%
Max. output current (A)	62.5		
Max. input Current (A)	83.3		
PF	-0.8 ~ 0.8	Switch time (typical) (ms)	10

<b>AC (Back Up)</b>			
Max. active power (W)	15,000		
Max. output current (A)	62.5		
Nominal frequency (Hz)	60	Nominal voltage (V)	120 / 240
THDV (100% R load)	< 2%	Output parallel (Pcs)	6
Over load	105% < Load ≤ 125%, 10 min	125% < Load ≤ 150%, 1 min	Load >150%, 10 S

<b>Efficiency</b>			
Max. efficiency (BAT to AC)	96%	Max. efficiency (PV to AC)	98%
CEC efficiency	97%	DC / AC Sugar Protection	Type2 / Type 2

<b>General Data</b>			
Dimensions (W × D × H)	33.3 × 7.9 × 21.7 inch, 845 × 200 × 550 mm	Operating temperature range	-13 ~ 140°F, -25 ~ 60°C (45°C derating)
Ingress rating	IP65 / Type 4X	Noise	< 35 dB
HMI	APP / LCD	COM	RS485 / CAN / WiFi / 4G (Optional)
Net weight	110.2 lbs, 50 kg	Relative humidity	0% ~ 95% (No condensation)
		Max. altitude (m)	3,000 (> 2,000 derating)
Topology type	Transformerless	Night self consumption (W)	< 10
		Cooling	Natural

<b>Certification</b>			
Safety	UL 1741SA, UL 1699B, CSA 22.2	EMC	FCC Part 15 ClassB
		Grid code	IEEE 1547, IEEE 2030.5

Battery Model		RBmax5.1H	
<b>Electric Data</b>			
Nominal energy <sup>[1]</sup> (kWh)	N <sup>[2]</sup> x 5.12	Usable energy (kWh)	N x 4.79
		Operating voltage range (V)	102.4 ~ 409.6

<b>General Data</b>			
Dimensions (W × D × H)	33.3 x 9.4 x (10.4 + N x 10.6 ) inch, 845 x 240 x (265 + N x 270) mm (2 Pcs string)		
Weight	N x 105.8 lbs, N x 48 kg	Operating temperature	Charge: 32 ~ 131°F (0 ~ 55°C), Discharge: 4 ~ 131°F (-20 ~ 55°C)
Relative humidity	0 ~ 95%(No condensation)	Storage temperature	4 ~ 113°F (-20 ~ 45°C)
Ingress rating	IP65	Max. altitude (m)	4,000 (>2,000 derating)
		Mounting options	Indoor / Outdoor, Floor or wall mount

<b>Certification</b>			
Safety	IEC62619, UL1973, UL9540A, UL9540	EMC	FCC Part 15 ClassB
		Transportation	UN38.3

[1] Under specific test conditions.

[2] N=2-8, depending on the number of batteries configured.