

RoyPow residential energy storage system

Reliable energy when you need it most

Up to
98.2% Max. efficiency
10 years Design life
>6,000 Life cycles
IP65 Protection level

Power your life
in a safe &
intelligent way



SUN8000S-U

- High performance**
Seamless backup, < 10 ms off-grid switching
- Smart management**
Remote monitoring & control via APP
- Maximized safety**
Lithium Iron Phosphate (LFP) Cell & integrated AFCI & rapid shut down
- Ultra-safe**
Aerogel material is used to prevent thermal diffusion
- Flexible & simple**
Modular & integrated design for easy installation & expansion
- Fully functional**
Support parallel working and generator access

Technical specifications

System parameters

Quantity of batteries (Recommended)	2 - 8	Rated output power	8,000 W
Degree of protection	IP65	Ambient temperature range ^[1]	-4°F ~ 131°F (-20°C ~ 55°C)
Allowable relative humidity range	5% ~ 95%	Max. operating altitude ^[2]	4,000 m

Display	LCD & APP
Communication	RS485 / CAN (optional: WiFi / 4G / GPRS)
Product ordering model	SUN8000S-U + N * (RBmax5.3L)

Model SUN8000S-U

Inverter module

Rated battery voltage		48 V	
Max. charge current	190 A	Max. discharge current	190 A
Recommended max. PV input power	12,000 W	Max. input voltage	500 V
Rated input voltage	360 V	MPPT operating voltage range	120 V ~ 500 V
Number of MPPT trackers	4	Max. input current per MPPT	12 A
Rated grid voltageL1 + L2 + N + PE 120 V / 240 V split phase 60 Hz			
Grid voltage range102 Vac ~ 132 Vac / 204 Vac ~ 265 Vac			
Rated AC power		8,000 VA	
Max. AC power output to utility grid		8,800 VA	
Rated voltage frequency (off grid)		L1 + L2 + N + PE 120 V / 240 V split phase 60 Hz	
Max. apparent power (off grid)		8,800 VA	
Switch time		< 10 ms	
Max. efficiency of solar inverter		98.2%	
CEC efficiency		97.2%	
Topology		Transformerless	
Dimension (W * D * H)		16.9 * 8.7 * 28.0 inch (430 * 220 * 710 mm)	
Weight		90.4 lbs (41.0 kg)	

Battery module

Model	RBmax5.3L
Battery module energy	5.38 kWh
Rated Power	5,000 W
Battery type	Lithium Iron Phosphate (LFP)
Depth of discharge (DoD)	0 ~ 93% adjustable
Dimension (W * D * H)	25.6 * 9.4 * 13.0 inch (650 * 240 * 330 mm)
Weight	121.3 lbs (55.0 kg)

Certification

Safety	UL1741SA all options, UL1699B, UL9540A, CSA 22.2
EMC	FCC Part 15, Class B
On-grid standard	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I, II, III

[1] Refer to temperature derating curve.

[2] Refer to derating curve, >2000m, the system will be derating use.

Information may be subject to change without notice during product improving. For the latest product specs, please refer to RoyPow website: www.roypowtech.com

All pictures shown are for reference only and data are based on RoyPow standard test procedures. Actual performance may vary according to local conditions.