

Residential energy storage system

Intelligent technology coexisting with nature powers your home

Up to
97.6%
Max. efficiency

10 years
Design life

<10ms
Off-grid switching

IP65
Protection level



SUN6000S-E

Independent
power everywhere



Modular & integrated
design for easy
installation



Flexible battery expansion
to meet your demands



Ultra-safe with aerogel
material to prevent
thermal diffusion



Long-lasting with over
6,000 life cycles



Smart management
with APP



Support parallel
working & generator
access

Technical specifications

System parameters

Quantity of batteries (Recommended)	2 ~ 6	Rated output power	6,000 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	SUN6000S-E + N * (RBmax5.1L)		

Model

SUN6000S-E

Inverter module

Rated battery voltage	48 V		
Max. charge current	95 A	Max. discharge current	110 A
Recommended max. PV input power	7,000 W	Max. input voltage	550 V
Rated input voltage	360 V	MPPT operating voltage range	120 V ~ 500 V
Number of MPPT trackers	2	Max. input current per MPPT	14 A
Rated grid voltage	220 V / 230 V / 240 V, 50 Hz / 60 Hz		
Grid voltage range	176 Vac ~ 270 Vac		
Rated AC power	6,000 VA		
Max. AC power output to utility grid	6,000 VA		
Rated voltage frequency (off grid)	220 V / 230 V / 240 V, 50 Hz / 60 Hz		
Max. apparent power (off grid)	6,000 VA		
Switch time	< 10 ms		
Max. efficiency of solar inverter	97.6%		
European efficiency	97%		
Topology	Transformerless		
Dimension (W * D * H)	21.7 * 7.9 * 20.5 inch (550 * 200 * 520 mm)		
Weight	70.55 lbs (32.0 kg)		

Battery module

Model	RBmax5.1L		
Battery module energy	5.1 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)		

Standard

EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12		
Safety	IEC 62109-1/2, IEC 62040-1, UN38.3, IEC62619		
Grid	IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1, 2, 14, 30), SAA, VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, G98/G99, TR321, TR322, EN 50438/EN50549, UTE C15-712-1, NRS 097-2-1, UNE 206 007-1t		

[1] Refer to temperature derating curve.

[2] Refer to derating curve, >2000 m, 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.