



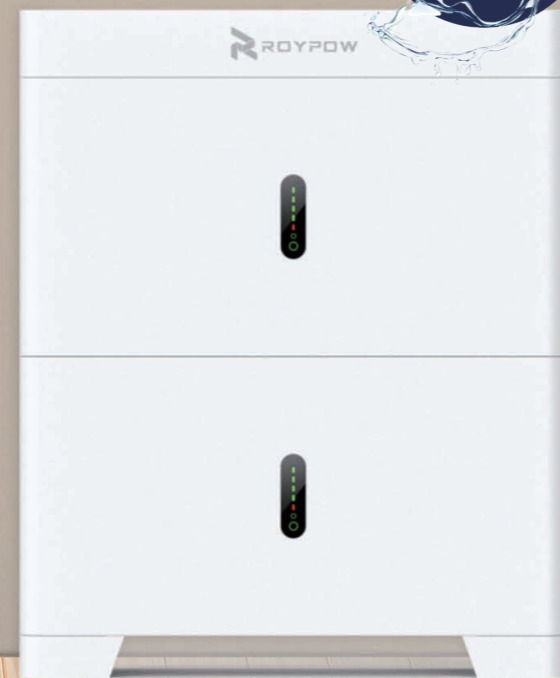
Residential Energy Storage System

Intelligent technology coexisting with nature powers your home.

Single-Phase, Hybrid, Grid-tied Inverter

3.6 - 24 kW / 5 - 40 kWh

10 Years Design Life



Energy Independence Everywhere



sales@roypowtech.com
www.roypowtech.com



Euro-Standard Inverter

97.6%
Max. Efficiency (PV to AC)

4 x up to **24 kW**

Fanless Design
Quiet and Comfortable

Seamless Switching
20 ms UPS

RBmax5.1L

Long-Lasting with over
6,000 Cycle Life

5.12 kWh ~ 40.96 kWh
Flexible Capacity Options

Excellent Safety of
Cobalt-Free LiFePO₄ Battery

CE, UN38.3, EN 62619, UL1973 Certifications

Easy Installation
with Modular and Stacked Design

IP65 Rating
Strong Environment Adaptability

Model	SUN3600S-E	SUN4600S-E	SUN5000S-E	SUN6000S-E
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DC Input

Max. input power (W)	4600	6000	7000	7000
Max. input voltage (V)	550			
Nominal DC operating voltage (V)	360			
MPPT voltage range (V)	125 ~ 500			
MPPT voltage range@full load (V)	150 ~ 500			
Max. DC input current (A)	2 x 14			
Max. DC input short current (A)	2 x 17.5			
Start input voltage (V)	125			
MPPT number / number of strings per MPPT	2 / 1			
PV terminal type	MC4			
DC switch	Integrated			

Battery

Battery type	Lithium-ion battery			
Nominal battery voltage (V)	48			
Battery voltage range (V)	40 ~ 58			
Charging method for li-Ion battery	Self-adaption to BMS			
Max. charging / discharging power (W)	3600	4600	5000	6000
Max. charging / discharging current (A)	95 / 76.6	95 / 95.8	95 / 104.2	95 / 110

AC (Grid Side)

Rated power (W / VA)	3600 / 3600	4600 / 4600	5000 / 5000	6000 / 6000
Max. input power (VA)	3600	4600	5000	6000
Max. output current (A)	16	17.4	21.7	26
Max. input current (A)	16	17.4	21.7	26
Grid connection	Single phase	THDI (rated power)		<3%
Rated voltage (V)	230 (176 ~ 270)	PF	-0.8 ~ +0.8	
Rated grid frequency (Hz)	50 / 60	Switch time	<20 ms	

AC (Back Up)

Max. active power (W)	3600	4600	5000	6000
Max. output current (A)	16	17.4	21.7	26
Rated voltage (V)	230	THDV (100%R load)		< 2%
Rated grid frequency (Hz)	50 / 60	Output parallel (Pcs)		4
Over load	105% < Load ≤ 110%, 30 S, 110% < Load ≤ 120%, 10 S, 120% < Load ≤ 150%, 0.02 S			

Efficiency

Battery charge / discharge efficiency	95.0%	European efficiency	97.0%
Max. efficiency (PV to AC)	97.6%	Max. MPPT efficiency	99.9%

Protection

GFCI	Yes	Output over current protection	Yes
Anti-islanding protection	Yes	Output short protection	Yes
PV string input reverse polarity protection	Yes	Insulation resistor detection	Yes
Output over voltage protection	Yes	DC/AC surge protection	Type 3

All pictures shown are for reference only and data are based on ROYPOW standard test procedures. Actual performance may vary according to local conditions. Only authorized personnel are allowed to operate or make adjustments to the batteries. We reserve the right to make revisions as well as product alterations and improvements at any time without prior notice.

Model	SUN3600S-E	SUN4600S-E	SUN5000S-E	SUN6000S-E
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General Data

Dimensions (W x D x H, mm)	550 x 200 x 520			
Net weight (kg)	25			
Operating temperature range (°C)	-25 ~ 60 (derating at 45)			
Relative humidity	0 ~ 95% (non-condensing)			
Max. altitude (m)	>2,000 Derating			
Ingress rating	IP65			
Topology type	Non-isolated			
Night self consumption (W)	< 3			
Cooling	Natural			
Noise (dB)	< 40			
HMI	APP / LCD			
Communication	RS485 / CAN / WiFi / 4G (Optional)			
Grid connection standard	VDE-AR-N 4105 / G98 / G99 / EN 50549-1 / NRS 097-2-1 / CEI 0-21			
Safety / EMC standard	EN IEC 61000-6-1 / EN IEC 61000-6-3 / IEC 62109-1 / IEC 62109-2			

Model	RBmax5.1L	2*RBmax5.1L	3*RBmax5.1L	4*RBmax5.1L
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Electric Data

Nominal energy (kWh)	5.12	10.24	15.36	20.48
Usable energy (kWh)	4.79	9.58	14.37	19.16
Max. continuous charge current (A)	50	100	100	100 ^[1]
Max. continuous discharge current (A)	100	100 ^[1]	100 ^[1]	100 ^[1]
Cell type	LFP (LiFePO ₄)			
Nominal voltage (V)	51.2			
Operating voltage range (V)	44.8 ~ 56.8			

General Data

Weight (Kg)	50.5	198	145.5	193
Dimensions (W x D x H, mm)	650 x 240 x 460	650 x 240 x 790	650 x 240 x 1120	650 x 240 x 1450
Operating temperature (°C) ^[2]	Charge: 0 ~ 55, discharge: -20 ~ 55			
Storage temperature (°C)	≤1 month: -20 ~ 45, >1 month: 0 ~ 35			
Installation location	Indoor / outdoor, floor standing, wall mounted			
Communication	CAN, RS485			
Relative humidity	5 ~ 90%			
Max. altitude (m)	4000 (>2000 derating)			
Ingress rating	IP 65			
Safety	IEC 62619, UL 1973			
EMC	EN 61000-6-1, EN 61000-6-3			
Transportation	UN38.3			

[1] Optional continuous current 200 A version.

[2] When the ambient temperature is too low or too high, the performance of battery may be limited.

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