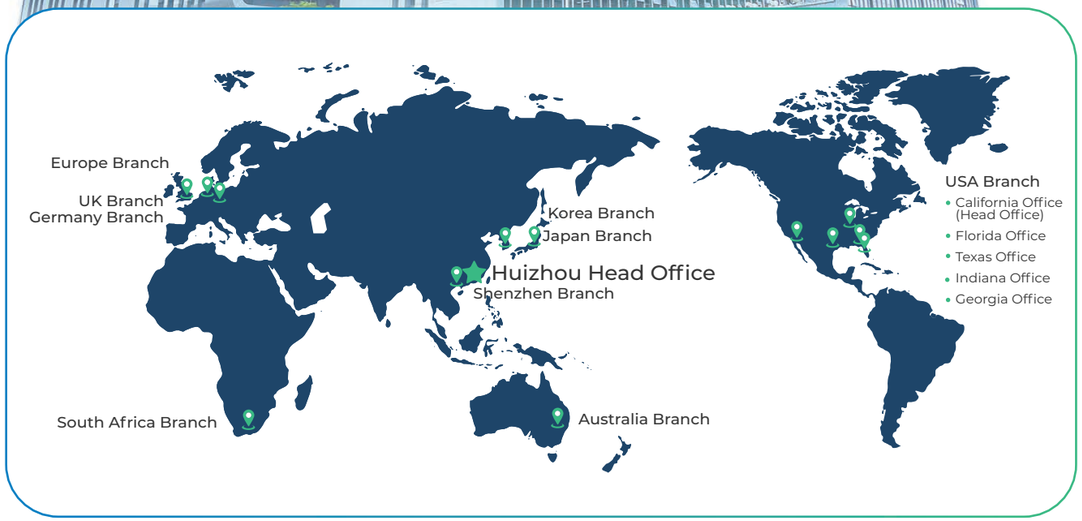
ROYPOW,
For One-stop New Energy Solutions

ROYPOW TECHNOLOGY is dedicated to the R&D, manufacturing and sales of motive power systems and energy storage systems as one-stop solutions.

With more than 20 years of combined experience in manufacturing renewable energy and battery systems, ROYPOW provides Lithium-ion Batteries covering most daily living and working fields: for Low-Speed Vehicles such as golf carts, personnel carriers; Industrial Batteries for use in Material Handling Equipment such as forklifts, aerial work platforms and floor cleaning machines as well as renewable Energy Storage Systems for residential, commercial, industrial, vehicle-mounted and marine applications.

ROYPOW has established a worldwide network to serve customers with a manufacturing center in China and subsidiaries in the USA, the UK, Germany, the Netherlands, South Africa, Australia, Japan and Korea to date. ROYPOW owns and operates fully automatic production lines, a full range of test equipment and an advanced MES that collectively address all aspects of its manufacturing process, from electronics, software design to module assembly, battery assembly as well as initial and final testing. ROYPOW focuses on the self-development of power electronics technologies, including PCS, BMS, and EMS as the core competence.

As a renewable energy innovator, ROYPOW is committed to the mission of achieving energy sustainability while creating a better life for human beings.



ROYPOW

ROYPOW RESS 10 - 15 kW / 10 - 40 kWh

Intelligent
Residential Energy Storage System

98% Max. Efficiency

4 MPPTs

35 dB Max. Noise

27 A Max. Current (Per MPPT)

20 kVA Max. AC Input

10 Years Warranty

US-standard

Inverter Module

Battery Modules

- Split Phase Output
- Type 4X Protection
- PV Systems Compatible
- Integrated RSD & AFCI
- Natural Cooling
- Smart Load Function
- Modular & Integrated Design
- Smart App & Web Management

Li-ion

UL

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System Specification

Model	SUN10000S-U/A	SUN12000S-U/A	SUN15000S-U/A
Rated AC Output Power (W)	10000	12000	15000
Nominal Energy (kWh)		5 to 40	
Noise（dB)		<35	
Operating Temperature Range		-20~55℃ (>45℃ derating)	
Dimensions (WxDxH, mm)		845 x 200 x (815+270*N (N=2 to 8))	
Ingress Rating		IP65	
Mounting Options		Indoor/Outdoor, Floor standing or Wall mounted (optional)	
Compliance & Certificates			
UL9540, UL9540A, UL1973, FCC, UN38.3, IEEE 1547, IEEE 1547.1, UL1741, UL1741 CRD, UL1741SB, UL1699B, UL991, IEEE 2030.5, HECO SRD-V2.0, CSA22.2, CEC, FCC Part 15, ICES-003 Issue 7			

Hybrid Inverter Specification

Model	SUN10000S-U	SUN12000S-U	SUN15000S-U
Input - DC (PV)			
Max. Power (Wp)	14400	20000	24000
Max. DC Voltage (V)		550	
MPPT Voltage Range (V)		120~550	
MPPT Voltage Range (V, full load)	235~550	200~550	225~550
Start Voltage (V)		150	
Max. Input Current per MPPT (Imp, A)	15.5	27	27
Max. Short Circuit Current per MPPT (Isc, A)	20	40	40
Number of MPPT		4	
Number of PV String per MPPT	1	2	2
Input - DC (Battery)			
Compatible Battery		RBmax5.1H Series	
Voltage Range (V)		75-480	
Max. Charge / Discharge Power (W)	10000 / 10000	12000 / 12000	15000 / 15000
Max. Charge / Discharge Current (A)		75 / 75	
Input - AC (GEN)			
Max. AC Power (W)		19000	
Max. AC Current (A)		79.2	
Rated Voltage (V) / Frequency (Hz)		240, (L1/L2) / 60Hz	
AC (On grid)			
Rated Output Power @240V (W)	10000	12000	15000
Max. Output Apparent Power @240V (VA)	10000	12000	15000
Rated Output Current (A)	41.6	50	62.5
Rated Input Power @240V(W)		20000	
Rated Input Apparent Power @240V(VA)		20000	
Max. Input Current (A)		83.3	
Rated Grid Voltage (V)		120/240, (L1/L2/N)	
Rated Grid Frequency (Hz)		60	
THDI		<3%	
Power Factor		0.8 leading to 0.8 lagging	
Efficiency			
Max.Efficiency (PV to Grid)		98.0%	
CEC Efficiency (PV to Grid)		97.2%	

AC (Back Up)			
Rated Output Power (W)	8000	10000	12000
Rated Output Current (A)		79.2	
Rated Output Voltage		120/240V, L1/L2/N	
Rated Frequency (Hz)		60	
Back-up Switch Time		<10ms	
THDV		<3%	
Overload Capacity		105%<Load≤125%, 10 min. 125%<Load≤150%, 1 min. 125%≤Load, 10 sec.	
Protections			
PV Switch / PV Rapid Shutdown / Arc Fault Circuit Interrupter (AFCI) / GFCI/Anti-islanding Protection /DC Reverse-polarity Protection / AC Over / Under Voltage Protection / AC Over Current Protection / AC Short Circuit ProtectionInsulation Resistor Detection			
DC/AC Surge Protection Device		TYPE 4	
Environmental			
Operating Temperature		-30 ~ 60℃(-22 ~ 140°F), derating above 45℃(113°F)	
Operating Humidity		0~95% RH	
Storage Conditions		-30~60℃(-22 ~ 140°F), 0~95% non-condensing	
Enclosure Type		NEMA Type 4X	
Max Elevation		3000m (>2000m derating)	
Noise（dB)		<35	
General Data			
Mounting Option		Wall Mount, indoor or outdoor	
Coupling		DC-Coupling	
Topology		Transformerless	
Cooling		Natural Convection	
Display		LCD + APP (WiFi)	
Communication Interface		RS485 / CAN / WiFi	
Dimensions (WxDxH)		850 x 200 x 550mm (33.46 x 7.9 x 21.7 in)	
Weight		55kg (121.3 lbs)	

Battery Module Specification

Model	2*RBmax5.1H	3*RBmax5.1H	4*RBmax5.1H	5*RBmax5.1H	6*RBmax5.1H	7*RBmax5.1H	8*RBmax5.1H
Electric Data							
Nominal Energy (kWh)	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Usable Energy (kWh)	9.58	14.37	19.16	23.95	28.74	33.53	38.32
Nominal Voltage (V)	102.4	153.6	204.8	256	307.2	358.4	409.6
Operating Voltage Range (V)	89.6~113.6	134.4~170.4	179.2~227.2	224~284	268.8~340.8	313.6~397.6	358.4~454.4
Max. charge/discharge Current (A)			50 / 75				
General Data							
Battery Chemistry			LFP（$LiFePO_4$）				
Weight (Kg)	106	153	200	251	298	345	392
Dimensions (W × D × H) (mm)	845×200×805	845×200×1075	845×200×1345	Double tower			
				845×200×1075, 845×200×685	845×200×1075, 45×200×955	845×200×1345, 845×200×955	845×200×1345, 845×200×1345
Operating Temperature			Charge: 0 to 55℃ (32 to 131°F), -20 to 55℃ (-4 to 131°F)				
Storage temperature			≤1 month: -20 to 45℃ (-4 to 113°F), >1 month: 0 to 35℃ (32 to 95°F)				
Relative Humidity			5~95%				
Max. Altitude			4000 (>2000m derating)				
Protection Degree			IP 65 (NEMA Type 4X)				
Installation Location			Indoor/Outdoor, Floor standing, Wall mounted				
Communication			CAN, RS485				