



PRODUCT OVERVIEW

The EV-WR Series RESS combines the most advanced battery management system with super power supply capacity to provide sustainable & green energy for your working and family usages all day. The all-in-one, modular system saves space and simplifies the installation and operation processes. Adopting a modern and minimalist style design, it fits any home environment, achieving the best of both worlds for practicality and aesthetics.

FEATURES

- Split phase output
- Type 4X protection
- PV systems compatible
- Integrated RSD & AFCI
- Natural cooling
- Smart load function
- Modular & integrated design
- Smart app & web management

APP & WEB MANAGEMENT

- Real time monitoring & comprehensive visualization
- Dynamic power flow & generation report
- Backup function & data encryption
- Working mode switch & profit calculation
- Integrated after-sales service

APPLICATIONS

- Emergency power supply.
- Home backup storage.
- Off-grid power storage.
- Solar power storage.

Product Description

PART#	DESCRIPTION	AC OUTPUT	NOMINAL ENERGY	MAX POWER	OUTPUT CURRENT
EV-SUN10000S-U/A	10kW All in One ESS	10000W	5 to 40 kWh	14400 Wp	41.6A
EV-SUN12000S-U/A	12kW All in One ESS	12000W	5 to 40 kWh	20000 Wp	50A
EV-SUN15000S-U/A	15kW All in One ESS	15000W	5 to 40 kWh	240000 Wp	62.5A

System Specifications

MODEL#	EV-SUN10000S-U/A	EV-SUN12000S-U/A	EV-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°C (>45°C 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 and 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 Specifications

MODEL#	EV-SUN10000S-U	EV-SUN12000S-U	EV-SUN15000S-U
INPUT – DC (PV)			
Max Power (Wp)	14400	20000	24000
Max DC Voltage	550V		
MPPT Voltage Range	120V ~ 550V		
MPPT Voltage Range (V, Full Load)	235V ~ 550V	200V ~ 550V	225V ~ 550V
Start Voltage	150V		
Max Input Current Per MPPT (Imp, A)	15.5A	27A	27A
Max. Short Circuit Current per MPPT (Isc, A)	20A	40A	40A
Number of MPPT	4		
Number of PV Strings per MPPT	1	2	2
INPUT – DC (BATTERY)			
Compatible Battery	RBmax5.1H Series		
Voltage Range	75V ~ 480V		
Max Charge / Discharge Power	10000W / 10000W	12000W / 12000W	15000W / 1500W
Max Charge / Discharge Current	75A / 75A		
INPUT – AC (GENERATOR)			
Max AC Power	19000W		
Max AC Current	79.2		
Rated Voltage / Frequency	240V / (L1/L2) ? 60Hz		
AC (ON GRID)			
Rated Output Power @240V	10000W	12000W	15000W
Max Output Apparent Power @240V	10000W	12000W	15000W
Rated Output Current	41.6	50	62.5
Rated Input Power @240V	20000W		

MODEL#	EV-SUN10000S-U		EV-SUN12000S-U	EV-SUN15000S-U
Rated Input Apparent Power @240V	20000W			
Max Input Current	83.3A			
Rated Grid Voltage	120V/240V, (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 (BACKUP)				
Rated Output Power	8000W	10000W	12000W	
Rated Output Current	79.2A			
Rated Output Voltage	120V/240V, L1/L2/N			
Rated Frequency	60Hz			
Backup Switch Time	<10ms			
THDV	<3%			
Overload Capacity	105%<Load≤125%, 10 min. 125%<Load≤150%, 1 min. 125%≤Load, 10 sec.			
PROTECTIONS				
Safety Features	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 Protection / Insulation Resistor Detection			
DC/AC Surge Protection Device	TYPE 4			
ENVIRONMENTAL				
Operating Temperature	-30 ~ 60°C(-22 ~ 140°F), derating above 45°C(113°F)			
Operating Humidity	0~95% RH			
Storage Conditions	-30~60°C(-22 ~ 140°F), 0~95% non-condensing			
Enclosure Type	NEMA Type 4X			
Max Elevaton	3000m (>2000m derating)			
Noise	<35dB			
GENERAL DATA				
Mounting Option	Wall mount, indoor or outdoor			
Coupling	DC-Coupling			
Topology	Transformerless			
Cooling	Natural Convection			
Display	LCD + APP (WiFi)			
Dimensions (W*D*H)	850 x 200 x 550mm (33.46 x 7.9 x 21.7 in)			
Weight	55kg (121.3 lbs)			

Battery Module Specifications

MODEL#	2*RBmax5.1H	3*RBmax5.1H	4*RBmax5.1H	5*RBmax5.1H	6*RBmax5.1H	7*RBmax5.1H	8*RBmax5.1H
ELECTRICAL DATA							
Nominal Energy	10.24kWh	15.36kWH	20.48kWh	25.6 kWh	30.72kWh	35.84kWh	40.96kWH
Usable Energy	9.58kWh	14.37kWh	19.16kWh	23.95kWh	28.74kWh	33.53kWh	38.32kWh
Nominal Voltage	102.4V	153.6V	204.8V	256V	307.2 V	358.4V	409.6V
Operating Voltage Range	89.6~113.6	89.6~113.6	179.2~227.2	224~284	268.8~340.8	313.6~397.6	313.6~397.6
Max Charge / Discharge Current	50A / 75A						
GENERAL DATA							
Battery Chemistry	LFP (LiFePO4)						
Weight	106Kg	153Kg	200Kg	251Kg	298Kg	345Kg	392Kg
Dimensions (W*D*H) (mm)	845×200×805	845×200×1075	845×200×1345	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	4000m (>2000m derating)						
Protection Degree	IP65 (NEMA Type 4X)						
Installation Location	Indoor/Outdoor, Floor standing, Wall mounted						
Communication	CAN, RS485						