



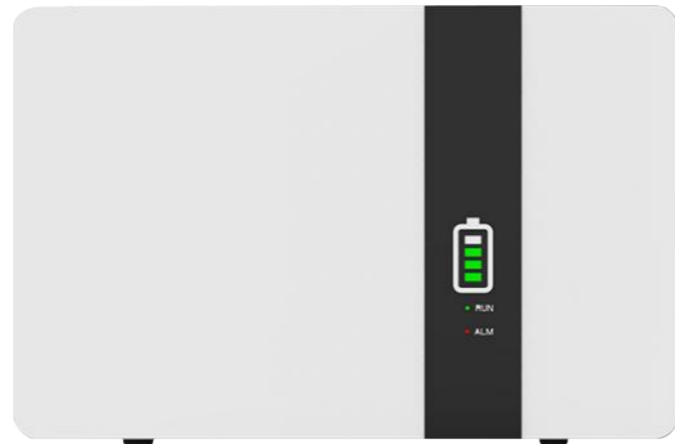
SUNWAY SOLAR

HOME ENERGY STORAGE SYSTEM

—SK-3500S-24/SK-5500P-48L + SW51B52T/SW51B100T/SW51B200T



● 3.5KW/5.5KW



● 52AH/100AH/200AH

INVERTER SPECIFICATION

Models	SK-3500S-24	SK-5500P-48L
INPUT		
Capacity	3500W	5500W
Normal Voltage	230VAC	
Frequency	50Hz/60Hz(Auto sensing)	
Acceptable Voltage Range	170-280VAC(For personal computer),90-280VAC(For home appliances)	
OUTPUT		
Normal Voltage	220/230VAC±5%	
Suge Power	7000VA	11000VA
Frequency	50Hz/60Hz	
Wave Form	Pure sine wave	
Transfer Time	10ms(For personal computer),20ms(For home appliances)	
Peak Efficiency(PV to INV)	96%	
Peak Efficiency(Battery to INV)	93%	
Overload Protection	5s@≥150% load; 10@110%~150% load	
Crest Factor	2:1	
Admissible Power Factor	0.6-1(inductive or capacitive)	
BATTERY		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
Charge Method	CC/CV	

SOLAR CHARGE & AC CHARGE

	MPPT	
Solar Charge Type	MPPT	
Maximum PV Array Power	4000W	5500W
Maximum PV Array Open Circuit Vol.	500VDC	
PV Array of MPPT Voltage Range	120VDC~450VDC	
Maximum Solar Input Current	15A	18A
Maximum Solar Charge Current	100A	100A
Maximum AC Charge Current	60A	60A
Maximum Charge Current	100A	100A

PHYSICAL

Product Dimension(D*W*H mm)	420.2*295.4*122mm
Net Weight(kgs)	10kg
Communication Interface	RS485/RS232/Dry-contact
Certification	CE-LVD,IEC 61683,IEC62109,EN 62109:2011,EN 62109:2010

ENVIRONMENT

Operation Temperature Range	-10 C ~55 C
Storage Temperature	-15 C ~50 C
Humidity	5% to 95% Relative Humidity(Non-condensing)

BATTERY SPECIFICATION

Models	SW51B52T	SW51B100T	SW51B200T
Usable Capacity	2.66kWh	5.12kWh	10.44kWh
Normal Capacity	52Ah	100Ah	204Ah
Voltage	51.2V		
Discharge Voltage Range	43.2V~58.4V		
Max.Charging/Discharging Current	36A	100A	100A
Max.Output Power	1800W	5000W	
Rated Output Power	1800W	4350W	
DOD	90%		
Modules Connection	1-8 inparallel		
Communication	CAN/RS485		
Cycle Life	≥6000		
Working Temp.Range	-10 C ~+35 C		
Storage Temperature	Charge: 0 C ~+55 C; Discharge: -10 C ~+55 C		
Weight	30kg	49.25kg	94.04kg
Product Dimension	536.3*365*196mm	536.3*464*180.5mm	790*586*197mm
IP Rated	IP65		
Design Life	10years		

CAPACITY OPTIONS

The battery can be parallellyconnected for extending power(kW) and energy(kWh)



20.48kWh

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AND MORE....

CONTACT US

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SUNWAY SOLAR

HOME ENERGY STORAGE SYSTEM

—SUN-5K/SUN-8K/SUN-8KP3/SUN-10KP3/SUN-12KP3 + SW51B52T/SW51B100T/SW51B200T



- Single phase 5-8KW
Three phase 8-12KW

- 52AH/100AH/200AH

BATTERY SPECIFICATION

Models	SW51B52T	SW51B100T	SW51B200T
Usable Capacity	2.66kWh	5.12kWh	10.44kWh
Normal Capacity	52Ah	100Ah	204Ah
Voltage	51.2V		
Discharge Voltage Range	43.2V-58.4V		
Max.Charging/Discharging Current	36A	100A	100A
Max.Output Power	1800W	5000W	
Rated Output Power	1800W	4350W	
DOD	90%		
Modules Connection	1-8 inparallel		
Communication	CAN/RS485		
Cycle Life	≥6000		
Working Temp.Range	-10 C ~+35 C		
Storage Temperature	Charge: 0 C ~+55 C ;Discharge: -10 C ~+55 C		
Weight	30kg	49.25kg	94.04kg
Product Dimension	536*365*196mm	536.3*464*180.5mm	790*586*197mm
IP Rated	IP65		
Design Life	10years		

INVERTER SPECIFICATION

Models	SUN-5K	SUN-8K	SUN-8KP3	SUN-10KP3	SUN-12KP3
Battery Type	Lead-acid or Li-Ion				
Battery Voltage Range (V)	40-60				
Max. Charging Current (A)	120	190	190	210	240
Max. Discharging Current (A)	120	190	190	210	240
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
Max. DC Input Power (W)	6500	10400	10400	13000	15600
Rated PV Input Voltage (V)	370 (125-500)		550 (160-800)		
Start-up Voltage (V)	125		160		
MPPT Voltage Range (V)	150-425		200-650		
Full Load DC Voltage Range (V)	300-425	300-425	350-650		
PV Input Current (A)	13+13	22+22	13+13	26+13	
Max. PV ISC (A)	17+17	28+28	17+17	34+17	
Number of MPPT / Strings per MPPT	2/1+1	2/2+2	2/1+1	2/2+1	
Rated AC Output and UPS Power (W)	5000	8000	8000	10000	12000
Max. AC Output Power (W)	5500	8800	8800	11000	13200
AC Output Rated Current (A)	22.7	36.4	12.1	15.2	18.2
Max. AC Current (A)	25	40	18.2	22.7	27.3
Max. Continuous AC Passthrough (A)	35	50	45		
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)		50/60Hz; 3L/N/PE 220/380, 230/400Vac		
Grid Type	Single Phase		Three Phase		
DC injection current (mA)	THD<3% (Linear load<1.5%)				
Max. Efficiency	97.60%				
Euro Efficiency	97.00%				
MPPT Efficiency	99.90%				

Integrated PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection

Output Over Voltage Protection	DC Type II/AC Type III				
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
Operating Temperature Range (°C)	-45-60°C, >45°C derating				
Cooling	Natural cooling	Smart cooling			
Noise (dB)	<30 dB		<45 dB		
Communication with BMS	RS485; CAN				
Weight (kg)	20.5	32	33.6		
Size (mm)	330W x 580H x 232D	420W x 670H x 233D	422W x 699.3H x 279D		
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 years				

CONTACT US

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SUNWAY SOLAR

HOME ENERGY STORAGE SYSTEM

—R8KH3/R10KH3/R12KH3 + SW48B-HV-2500



● 8KW-12KW



● 52AH/104AH...AND MORE

BATTERY SPECIFICATION

Models	SW48B-HV-2500	
Units	4 Unit	8 Unit
Normal Voltage	48V	
Typical Capacity (Ah)	52Ah	
Typical Voltage (V)	192V	384V
Connection	1P 60S	1P 120S
Voltage Working Range (V)	172-212.9v	172-212.9v
Nominal Capacity (kWh)	10kWh	20kWh
Working Temperature(C)	Charge:0 C ~+55°C, Discharge:-20 C ~+60 C	
Storage Temperature(C)	-20 C ~+35 C	
Max. Charge/Discharge Current(A)	35A	
Cycle Life	≥6000	
SOC Accuracy	<8%	
Weight	118kg	212kg
Product Dimension	580*220*1012.5mm	580*220*1822.5
Certification	UN38.3,IEC62619	
IP Rated	IP65	
Warranty	5 years	

INVERTER SPECIFICATION

Models	R8KH3	R10KH3	R12KH3
Max.power(kW)	10.4	13	15.6
Max. DC voltage(V)	1,000		
MPPT voltage range(V)	180~850		
Max.input current of single MPPT(A)	12		
MPPT tracker/strings	2/1	2/1	2/1
Rated output power(kVA)	8.8	11	13.2
Max. output current(A)	12.7	15.9	19.1
Grid voltage/range(V)	400/360~440		
Frequency (Hz)	50/60		
Power factor	0.8lagging-0.8leading		
THDi	<3%		
AC output topology	3W+N+PE		
Battery voltage range(V)	125~600		
Max. charging voltage(V)	600		
Full battery voltage(V)	160	200	250
Max. charge/discharge current(A)	40	40	50
Battery type	Lithium /Lead-acid		
Communication Interface	CAN/RS485		
Rated power(kVA)	8.8	11	13.2
Rated output voltage(V)	400		
Max. output current(A)	12.7	15.9	19.1
Rated frequency(Hz)	50/60		
Automatic switchover time(ms)	<20		
THDu	<2%		
Overload capacity	110%, 30S/120%, 10S/150%, 0.02S		
Battery chage/discharge efficiency	96.6%	96.7%	96.8%
DC Max. efficiency	97.9%	98.2%	98.2%
Euro efficiency	97.2%	97.5%	97.5%
MPPT efficiency	99.5%	99.5%	99.5%
Protection class	IP65		
Noise emission(dB)	<35		
Operation temperature	-25 C ~ 60 C		
Cooling	Natural		
Relative Humidity	0 ~95%(non-condensing)		
Altitude	2,000m		
Dimensions (W*D*H mm)	530*200*600		
Weight(kg)	29		
Isolation transformer	No		
Self-consumption(W)	<3		
Display	LCD		
Interface:RS485/Wifi/4G/CAN/DRM	Yes/Opt/Opt/Yes/Yes		
Certificates	CE,TUV		

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SUNWAY SOLAR US SPLIT PHASE

HOME ENERGY STORAGE SYSTEM

—R8KH3/R10KH3/R12KH3 + SW51B52T/SW51B100T/SW51B200T



● 5KW/8KW/10KW



● 52AH/100AH/200AH

BATTERY SPECIFICATION

Models	SW51B52T	SW51B100T	SW51B200T
Usable Capacity	2.66kWh	5.12kWh	10.44kWh
Normal Capacity	52Ah	100Ah	204Ah
Voltage	51.2V		
Discharge Voltage Range	43.2V~58.4V		
Max.Charging/Discharging Current	36A	100A	100A
Max.Output Power	1800W	5000W	
Rated Output Power	1800W	4350W	
DOD	90%		
Modules Connection	1-8 inparallel		
Communication	CAN/RS485		
Cycle Life	≥6000		
Working Temp.Range	-10 C ~+35 C		
Storage Temperature	Charge: 0 C ~+55 C; Discharge: -10 C ~+55 C		
Weight	30kg	49.25kg	94.04kg
Product Dimension	536*365*196mm	536.3*464*180.5mm	790*586*197mm
IP Rated	IP65		
Design Life	10years		

INVERTER SPECIFICATION

Models	R5KLNA	R8KLNA	R10KLNA
Max.power(kW)	7.5	12	13
Max. DC voltage(V)	500		
MPPT voltage range(V)	120~500		
Max.input current of single MPPT(A)	12		
MPPT tracker/strings	4/1		
Rated output power(kVA)	5	8	10
Max. output current(A)	24	38.3	47.8
Grid voltage/range(V)	120/240(split phase), 208(2/3 phase),230 (single phase)		
Frequency (Hz)	50/60		
Power factor	0.8lagging-0.8leading		
THDi	<3%		
AC output topology	Split phase, 2/3 phase, single phase		
Battery voltage range(V)	40~58		
Max. charging voltage(V)	58		
Max. charge/discharge current(A)	120/120	190/190	210/210
Battery type	Lithium /Lead-acid		
Communication Interface	CAN/RS485		
Rated power(kVA)	5	8	10
Rated output voltage(V)	120/240 (split phase), 208 (2/3 phase),230 (single phase)		
Rated output current(A)	24	38.3	47.8
Rated frequency(Hz)	50/60		
Automatic switchover time(ms)	<20		
THDu	<2%		
Overload capacity	125%,60S/150%,1S		
Max. efficiency	≥98.2%		
North american efficiency	≥97.2%		
Protection class	IP65/NEMA 3R		98.2%
Noise emission(dB)	<25	<29	<29
Operation temperature	-25 C ~ 60 C		99.5%
Cooling	Natural		
Relative Humidity	0 ~95%(non-condensing)		
Altitude	2,000m		
Dimensions (W*D*H mm)	430*220*710		
Weight(kg)	32		
Isolation transformer	No		
Self-consumption(W)	<3		
Display	LCD, touch screen		
Interface:RS485/Wifi/4G/CAN/DRM	Yes		
Safety standard	UL1741SA all options, UL1699B, CSA 22.2		
EMC	FCC Part 15, Class B		
On-grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III,NRS		

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THE SUNWAY ESS

HOME ENERGY STORAGE SYSTEM

Sunway is focusing its energy business on the next generation growth engine. Sunway is the company that has comprehensive business capabilities in the entire stage of the energy value chain: Generation, Storage, Efficient Use, and Management.

Sunway is one of the world's leading companies with top-class technology and product line-up for each segment: Energy generation (High Efficiency solar cell) and Efficient Use (smart system air conditioner, system boiler, electric vehicle battery, charger). Now, Sunway introduces the home energy storage system(ESS) that maximizes the value of a home owner's PV system.

The 5/8/10kW DC-coupled product offers unparalleled solar + storage performance, allowing homeowners to seamlessly store excess solar energy to power their home both day and night. The new 8/10kW DC coupled products can be easily integration to Air to Water Heat Pump(AWHP), offering a reliable and cost-effective way to manage Self consumption rates. Both 8kW and 10kW DC-coupled ESS products can provide back up power in case of a black out.



Why choose Sunway Home Energy Storage System?

Best solution for maximizing the efficiency of your home's renewable energy use.

For consumers, the biggest concern regarding energy is the increase in energy costs, for example, electricity bills. By adopting renewable energy generation equipment to reduce electricity use, they may be able to reduce their costs to some degree. To obtain the best possible result, however, they need a plan to maximize the self-consumption ratio of the generated power. To do so, it is important to adopt an effective energy storage system (ESS).

Sunway ESS ensures ease of product installation and use

We have focused considerable R&D efforts on ESS in order to provide a world-class system. Our DC-coupled product based on 3-level topology helps save ESS installation costs and features compact design for a small footprint and ease of installation. It also features Wi-Fi connectivity with mobile devices to provide a straightforward monitoring function, as well as auto operation mode for improved convenience.

Feel assured with your choice of Sunway, the trusted company

Sunway ESS is a complete solution with Sunway-made parts from the battery to the PCS, providing one solution with one warranty. We offers a true one-stop solution from the incubation phase, through consulting, to design, with safety assured by certifying bodies in Europe and other parts of the world



10-year Warranty & One-Stop Service

ESS can be paired with Sunway PV modules for a single provider for all warranty issues.



Flexible Installation

Multi-String & advanced 3MPPTs for multi-angled roof. Easy expandable battery capacity



Powerful Back-up power

In the event of a sudden power outage, Sunway ESS will keep the PV system operating, ensuring that power is available to support critical loads.



Smart Energy Management

Remote firmware upgrade and system monitoring maximize self-consumption through compatible with air to water heat pump

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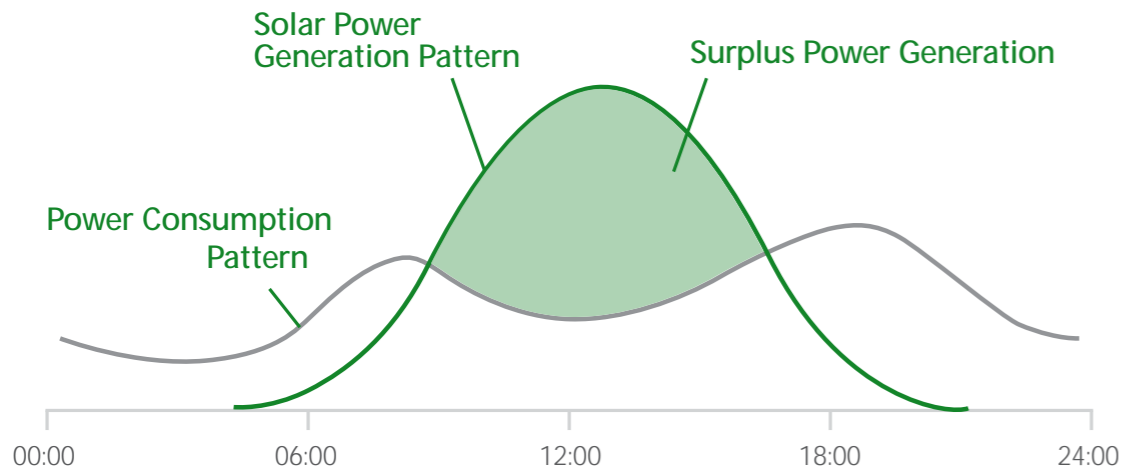
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How does the Sunway Home Energy Storage System work?

Self-Consumption

If you are already planning to go solar, you can maximize your benefits even more by introducing an ESS at the same time. A typical household requires high energy during the morning and evening times. However, solar modules generate the most energy during the middle of the day, so all that excess energy is at risk of being wasted. The Sunway ESS enhances the efficiency of electric power use by allowing customers to store all that energy from the sun to use when it most needed.



Solar Power Generation Pattern and Household Power Consumption Pattern

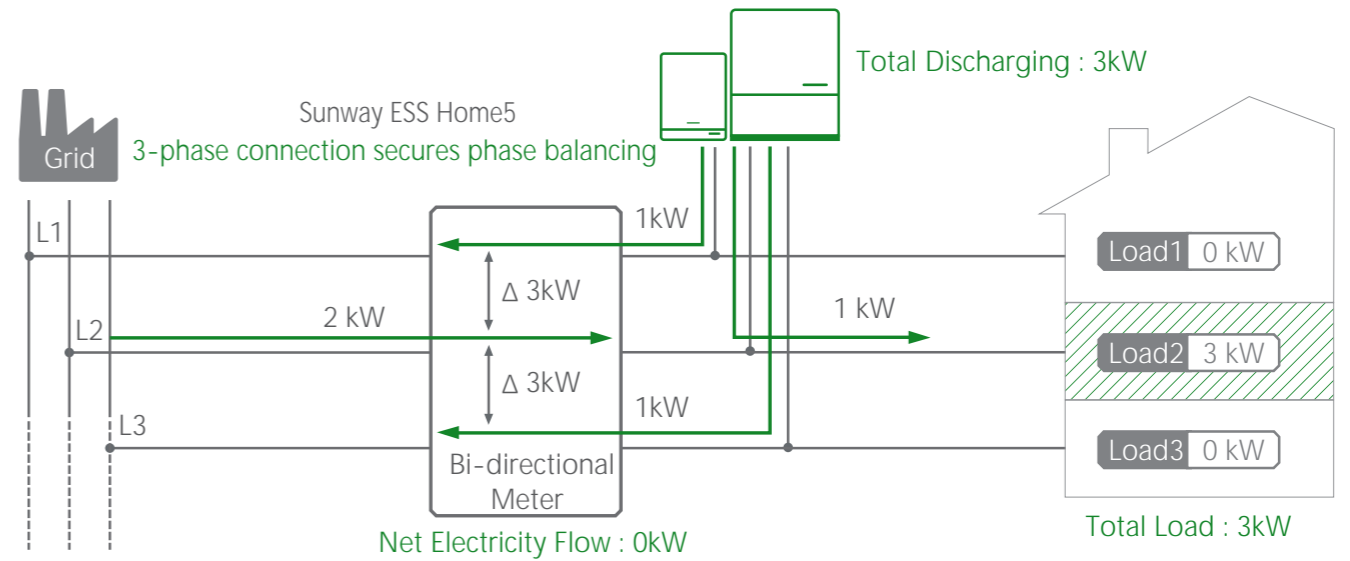
Back-up Power

It is unimaginable to live a life without electricity, and a sudden power outage is never what any family wants. Loss of power leads to many inconveniences more than just frustration in the dark and food concerns. The Sunway ESS will always be ready to ride through a power outage by retaining a certain amount of charge on the battery. This emergency power function is extremely beneficial for customers living in areas where abrupt grid blackouts occur.



Three-phase DC Coupled

Sunway ESS is a DC-coupled system that uses a simpler energy conversion process for greater energy efficiency. Compared with the AC-coupled product, it operates more simply and needs no PV inverter, saving on installation costs and time. In addition, Sunway ESS has 3-phase connection to prevent power imbalance and overload, so it is able to supply power more steadily.



Features

- ★ Full integrated home energy solution
- ★ Life-long free upgrade
- ★ Open platform for internet of things
- ★ Pioneered human-machine interaction
- ★ Visibility on performance of each component



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