SunPower energy storage system



All-in-one system with 5-10kW hybrid 1-phase inverter and expandable 5-20kWh battery

- Blackstart
- Unlimited cycles[1]
- Built-in backup
- Built-in fire extinguisher

Run your home on more sun

Designed to help you use more of your own clean energy, the SunPower Hybrid Inverter captures power earlier in the day, and works harder under cloudy skies. Maximising your solar investment to boost your energy independence and reduce your energy bills.

Power through blackouts

Stay in control of your home's energy with built-in backup and black start. If the grid goes down your SunPower Hybrid Inverter will reliably kick in to keep your home running as usual.

Simplify energy storage

A complete solution from one trusted energy brand. One platform, one account, one app – everything working seamlessly together so you don't have to think about it.

SUNPOWER HOME ENERGY

Maximise your solar investment.

SUNPOWER

Learn more about SunPower home energy
sunpowerglobal.com

SunPower All-in-one 5-20 kWh | 5-10 kW Single Phase

Specifications			
Inverter Model	SP-ARSH-5kW-G1	SP-ARSH-6kW-G1	SP-ARSH-10kW-G1
PV Input			
Start-up Voltage	90 V		
MPPT Voltage Range	50 - 560 V		
Max. Input Voltage	600 V		
Rated Input Voltage	360 V		
Max DC Input Power	10000 W	12000 W	20000 W
Max. Input Current	16/16 A		32/32 A
Max. Input Short Circuit Current	22/22 A		44/44 A
No. of MPPT	2		
No of strings per MPPT	1/1		2/2
AC (on grid) Input/Output			
Rated Input Power	10000 W	12000 W	14490 W
Max. Apparent Input Power	10000 VA	12000 VA	14490 VA
Rated Input Current	43.5 A	52.2 A	63 A
Rated Output Power	5000 W	6000 W	10000 W
Max. Apparent Output Power	5000 VA	6000 VA	10000 VA
Rated Output Current	21.8 A	26.1 A	43.5 A
Rated Voltage	220/230/240 V		
Rated Frequency	50/60 Hz		
Grid type compatibility	TN-S / TN-C / TN-C-S / TT		
Power Factor	1 (-0,8...+0,8 adjustable)		
Total Harmonic Distortion (THDi)	< 3%		
Backup (EPS) output			
Backup function	Integrated		
Rated Output Power[2]	5000 W	6000 W	10000 W
Rated Output Current	21.8 A	26.1 A	43.5 A
Max. Output (with x2 battery modules)	5000W	6000W	9600W
Rated Voltage	220/230/240 V		
Rated Frequency	50/60 Hz		
Power Factor	1 (-0,8...+0,8 adjustable)		
Backup Switch Time	< 10 ms		
Peak Apparent Output Power	7500 VA, 10 s	9000 VA, 10 s	14490 VA, 10 s
Black Start function[4]	Integrated		
General			
PV Max. Efficiency/ PV Europe Efficiency	97.80%/97.30%		
Dimensions (W × D × H)	600*350*430		
Inverter Weight	37 kg		

Specifications	
HVB+base	SP-RAH-HVB571-G1
Battery Voltage Range	80 - 500 V
Max. Charging and Discharging Current[4]	50/50 A
Recommended Current Charging / Discharging	25/25 A
Dimensions (W × D × H)	600*350*240 mm
Weight	18 kg
Battery Model	SP-RH-B5K-G1
Battery Type	LFP($LiFePO_4$) , 3.2 V / 52 Ah
Battery Dimensions (W x D x H)	600 x 350 x 305 mm
Battery weight	56 kg
Depth of Discharge	90%
Module Information[5]	5 kWh per module, up to 20 kWh (4 x SP-RH-B5K-G1 modules)

System Specifications				
Number of battery modules	1	2	3	4
System Dimensions[6] (W x D x H)	600 x 350 x 975 mm	600 x 350 x 1280 mm	600 x 350 x 1585 mm	600 x 350 x 1890 mm
System Weight	111 kg	167 kg	223 kg	279 kg
Rated Voltage	96 V	192V	288V	384 V
Installed Energy	5 kWh	10 kWh	15 kWh	20 kWh
Usable Energy	4,5 kWh	9 kWh	13,5 kWh	18 kWh
Operating Temperature[7]	Charge 0 - 50 °C Discharge: -20 - 55 °C			
recommended temperature	10 - 30 °C			
Max. Altitude	≤ 3000 m			
Relative Humidity	0 - 95% (not condensing)			
Enclosure protection	IP65			
Cooling	Natural convection			
Noise emission	< 25 dB			
Inverter topology	Non-isolated			
Overvoltage category	DC II / AC III			
Protective Class	Class I			
Display	LED/APP			
Installation	Floor-standing			
Communications	RS485/CAN (BMS), RS485 (Meter), Wi-Fi/LAN (Dongle)			

Warranties, Certifications and Compliance	
Warranties[8]	10-year system & 10-year battery performance warranty
Certifications	IEC 62109、IEC 61000、IEC 62040、IEC 62619、IEC 63056
Compliance	RoHS, REACH, UN38.3, NTS,Type A/217001/217002/RD 647, VDE 4105, CEI 0-21, EN 50549-1/-10, G98, G99, G100

1. Unlimited cycles over a 10-year period, with a maximum cumulative throughput of up to 16.42 MWh at 70% End-of-Life (EOL) per 5 kWh module.
2. The EPS/backup function is designed for selected essential loads only and is not intended for full household backup. Backup capability depends on inverter rating and installed battery capacity. Please refer to the backup guide for sizing and installation requirements.
3. Black start requires a minimum State of Charge (SOC). The inverter can restart from battery power when SOC ⩾ 10%.
4. The maximum charge and discharge rate of the product is approximately 1C.
5. The nominal battery capacity is 4.992 kWh (approximately 5 kWh).
6. Component heights: inverter (430 mm); battery module (305 mm × number of modules); high-voltage box (190 mm); footstand (50 mm).
7. The battery and inverter shall be operated within the recommended temperature range. Operation outside this range may limit system performance. Charge and discharge current may be derated depending on temperature and SOC conditions.
8. System performance and warranty obligations are subject to the terms and conditions defined in the SunPower All-in-One Limited Warranty.

Please refer to our website resources for further technical documentation.

Made in China. Specifications included in this datasheet are subject to change without notice.

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