





# SunPower Energy Storage

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

-  Blackstart
-  Unlimited cycles<sup>1</sup>
-  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](https://sunpowerglobal.com)

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

Technical Specifications			
<b>PV Input</b>			
Model	SP-ARSH-5kW-G1	SP-ARSH-6kW-G1	SP-ARSH-10kW-G1
Start-up Voltage	90 V		
No. of MPPT trackers	2		
MPPT Voltage Range	50 - 560 V		
Rated Operating Voltage	360 V		
Max DC Input Power	10000 W	12000 W	20000 W
Max. Input Current (I <sub>MP</sub> )	16/16 A		32/32 A
Max. PV Rated Current (I <sub>SC</sub> )	22/22 A		44/44 A
No of strings per MPP Tracker	1/1		2/2
<b>AC Input/Output</b>			
Max. AC Power from Grid	10000 W	12000 W	14490 W
Max. Current from Grid	43.5 A	52.2 A	63 A
Rated Output	5000 W	6000 W	10000 W
Max. Apparent Power to Grid	5000 VA	6000 VA	10000 VA
Rated Voltage	220/230/240 V		
Rated Frequency	50/60 Hz		
Max. Output Current	21.8 A	26.1 A	43.5 A
Efficiency Max. / European	97.6% / 97.3%		
Backup function <sup>2</sup> / Power	Integrated		
	5000 W	6000 W	10000 W
Grid type compatibility	TN-S / TN-C / TNC-S / TT		
Power Factor	1 (-0,8...+0,8 adjustable)		
<b>Backup (EPS) output</b>			
Max. Output Power	5000 W	6000 W	10000 W
Max. Output Current	21.8 A	26.1 A	43.5 A
Max. Output <sup>3</sup> (with x2 battery modules)	4800 W		
Rated Voltage	220/230/240 V		
Rated Frequency	50/60 Hz		
Power Factor	1 (-0,8...+0,8 adjustable)		
Peak Output Apparent Power	7500 VA, 10 s	9000 VA, 10 s	14490 VA, 10 s
Black Start function <sup>4</sup>	Inverter can be restarted from battery power when SOC ≥ 10%		

Technical Specifications	
<b>Battery Model</b>	
Battery Type	LFP rechargeable (LiFePO <sub>4</sub> )
Battery Voltage Range	80 - 500 V
Max. Charging and Discharging Current	50/50 A
Recommended Current Charging / Discharging	25/25 A
Battery Dimensions (W x D x H)	600 x 350 x 305 mm
Battery weight	56 kg
Depth of Discharge	90%
Module Information	4.992 kWh per module, up to 20 kWh (4 x SP-RH-B5K-G1 modules)

System Specifications				
Number of modules	1	2	3	4
System Dimensions <sup>5</sup> (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
Hybrid inverter weight	37 kg			
HVDB + base weight	18 kg			
Operating Temperature <sup>6</sup>	Charge 0 - 50 °C Discharge: -10 - 55 °C			
Max. Altitude	≤ 3000 m			
Relative Humidity	0 - 95% (not condensing)			
Enclosure protection	IP65			
Cooling	Natural convection			
Noise emission	< 25 dB			
Inverter topology	Transformer-less			
Overvoltage category	DC II / AC III			
Protective Class	Class I			
Display	LED/APP			
Communications	RS485/CAN (BMS), RS485 (Meter)			

Warranties, Certifications and Compliance	
Warranties <sup>7</sup>	10-year product warranty & 10-year battery performance warranty
Compliance	IEC 62019-1/-2, IEC 61000, EN 50549-1/10, CEI 0-21, UNE217001, UNE217002, NTS2.1, NTS1.1, G98, G99; UN38.3, IEC 62040-1:2017, IEC 62619:2022, IEC 63056:2020, IEC 61000;

Please refer to our website resources for further technical documentation.



- Unlimited cycles for 10 years, up to 16.42 MWh per 5 kWh module.
- Managed by the AC backup functionality of the inverter, AC output switching time is <10 ms.
- Backup output varies according to the number of installed battery modules - for more details see the Backup Guide Technical Note.
- Black Start requires a minimum SOC to be set.
- Component heights: Inverter 430 mm, battery 305 mm (\*X number of modules), High Voltage Box: 190 mm, footstand: 50 mm.
- Battery and Inverter should be operated within the stated temperature conditions. System performance may be limited when operating outside the limits. Max. charge/discharge current derating will occur related to temperature and SOC.
- Product and performance warranty obligations are subject to the Limited Warranty for SunPower All-in-one.

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

©2025 TCL SunPower. All Rights Reserved.