

SP1S-1P-L Series / 3~6kW

Residential Hybrid Energy Inverter - Single Phase Low Voltage



Support **8** Devices in Parallel



IP66 Protection



Periodic Battery Maintenance

< **10ms**

UPS, Grid-to-off-grid Switch In 10ms



Support Max.8 In Parallel Usage



6 Operating Modes



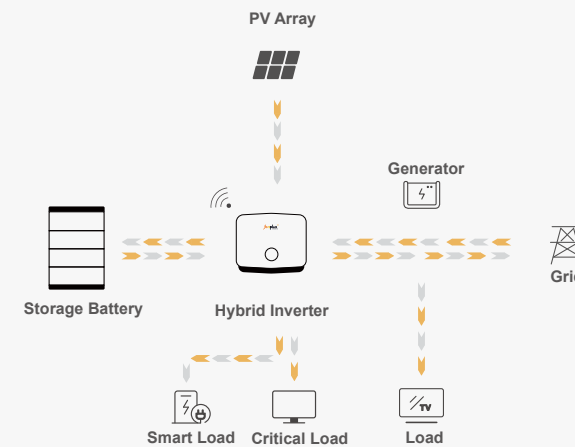
Cloud Integration For Energy Management



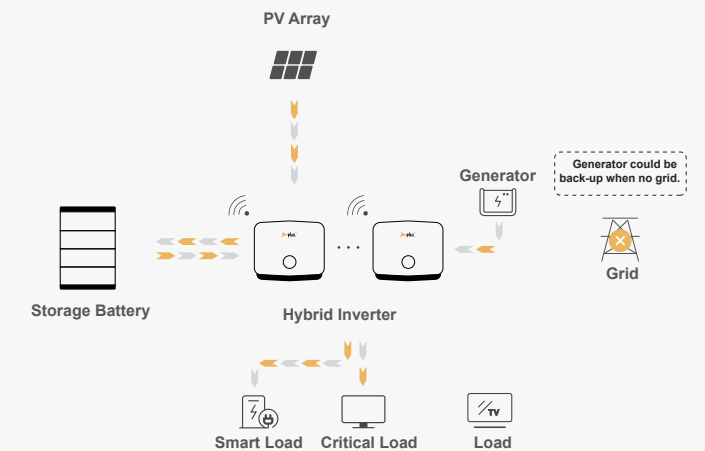
Remote Upgrades And Diagnostics

- Long Design Life
- Multiple Protection
- Parallel Functionality
- Versatile Operating Modes
- Remote Maintenance Capabilities

Optimizing Self-Consumption (on-grid)

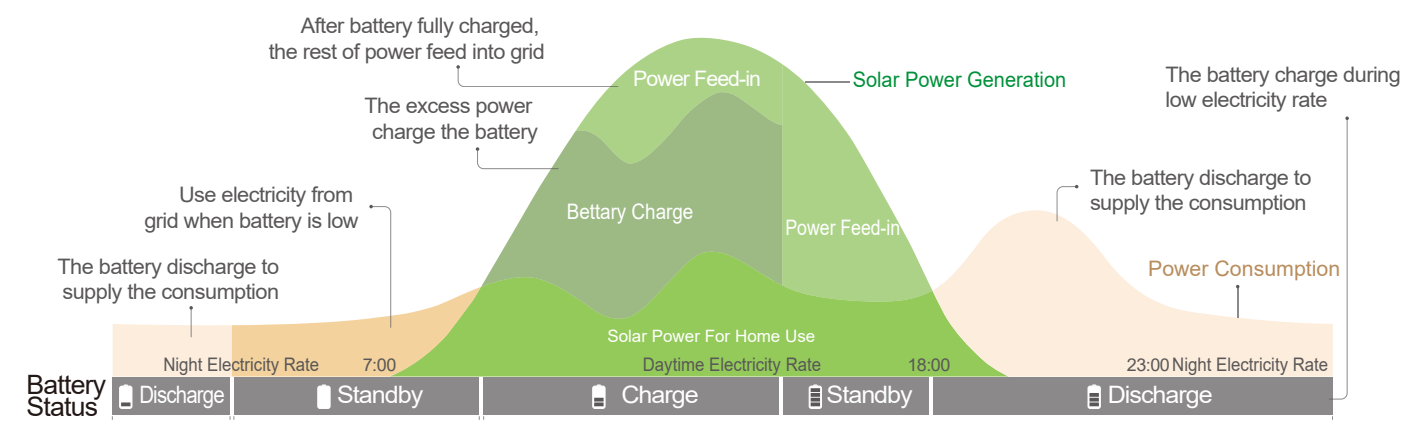


Emergency Power Supply (off-grid)



Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



Battery

	SP1S-1P3K-L	SP1S-1P3.6K-L	SP1S-1P4K-L	SP1S-1P4.6K-L	SP1S-1P5K-L	SP1S-1P6K-L
Battery Type	Lithium-ion/Lead-acid					
Battery Rated Voltage (V)	51.2					
Battery Voltage Range (V)	42-60					
Max.Charging/Discharging Power (W)	5000					
Max.Charging/Discharging Current (A)	100					
Battery Charging Wake-up	Support					
Battery Communication Wake-up	Support					
Charging Method	Constant Current, Constant Voltage, Floating					

PV Input

Max.Input Power (W)	8000	8600	9000	9000	9000	9000
Max.PV Voltage (V)	600					
MPPT Voltage Range (V)	100-550					
MPPT Voltage Range (Full Load) (V)	250-520					
Rated Voltage (V)	360					
Max.Input Current (A)	16					
Isc PV (A)	20					
Number of MPPTs/Number of Input Strings	2/1					

AC Input

Max. Input Power (W)	6000	7360	8000	9200	10000	10000
Max.Continuous Input Current (A)	26.1	32	34.8	40	43.5	43.5
Max. Continuous Input Power _(Grid to Battery) (W)	3000	3680	4000	4600	5000	6000
Max. Continuous Input Current _(Grid to Battery) (A)	13	16	17.4	20	21.7	26.1
Rated Input Voltage/Frequency (V)	230(L/N/PE); 50/60					
Input Voltage Range (V)	170-280					

AC Output

Rated Output Active Power (W)	3000	3600	4000	4600	5000	6000
Rated Output Current (A)	13	16	17.4	20	21.7	26.1
Rated Output Voltage/Frequency (V/Hz)	230(L/N/PE); 50/60					
Output Voltage Range (V)	180-270					
Power Factor Range	0.8Leading-0.8Lagging					
THDi	<3%					

Back Up

Rated Output Power (W)	3000	3600	4000	4600	5000	6000
Rated Output Current (A)	13	16	17.4	20	21.7	21.7
Rated Output Voltage/Frequency (V)	230(L/N/PE);50/60					
Output Voltage Range (V)	180-270					
THDu(@Linear Load)	<3%					
Conversion Time (ms)	10					

Efficiency

Max.Efficiency	97.6%
European Efficiency	97.3%
Max. Efficiency On Battery Side and AC Side	94.7%
MPPT Efficiency	99.9%

Protection

Insulation Resistance Monitoring	Integrated
Residual Current Monitoring	Integrated
Reverse-Polarity Protection(input)	Integrated
Anti-Islanding Protection	Integrated
AC Over-Current Protection	Integrated
AC Short-Circuit Protection	Integrated
AC Over-Voltage Protection	Integrated
Surge Protection Level	TYPE II(DC), TYPE II(AC)
Remote Shutdown	Integrated
DC Switch	Standard supply

General Parameters

Ingress Protection Rating	IP66
Operation Temperature Range (°C)	-25-60(DeratingAbove 40)
Max.Operation Altitude (m)	4000(DeratingAbove 2000)
Relative Humidity Range	0-95%RH(Non-condensing)
Protection Class	Class I
Standby Power (W)	<10
Installation Method	Wall Mounting
Parallel Connection	Support, Max.8 Units
Communication Interface	RS485,CAN(Battery); RS485(Electricity Meter); WiFi+Bluetooth,GPRS(WiFi)
Display	LCD; APP
Isolation Method	High-frequency Isolation
Cooling Method	Natural Cooling
Noise Level (dB)	<25
Dimension _(Width*Height*Depth) (mm)	510*450*186
Packing Dimension _(Width*Height*Depth) (mm)	610*570*300
Net Weight (kg)	22.6
Gross Weight (kg)	27.2
Warranty Period	5 Years/10 Years(Optional)

Certifications

Production Compliance	IEC 62109-1:2010;IEC 62109-2:2010
CE-EMC	EN/IEC 61000-6-1:2019; EN/IEC61000-6-3:2021; EN 62920:2017/A1:2021
Grid Certifications	CEI 0-21:2022; VDE-AR-N4105, VDE0124-100:2020; G991-9:2022,typeA,G100-1/2:2022; EN 50549-1:2019;C10/11:2021; IEC 61727:2024,IEC 62116:2014.IEC 61683:1999