

SP4000 Premium ~ SP15000 Premium

SP Premium Series

True Hybrid Solar Inverter with Energy Storage

SP Premium Series are a universal power supply tool for houses. It utilizes solar power at day time feeding it to your appliances like illumination lamps, TV, stereo and PC equipment, saving the power to the batteries for the night time usage, and selling the power surplus unused by the connected appliances to the grid.

On cloudy days when the solar power is weak, **SP Premium Series** take the lacking power from the grid. At night, the power stored in the batteries are being used for your equipment. With this true hybrid design, we give you the confidence that 100% of your solar power is fully utilized.

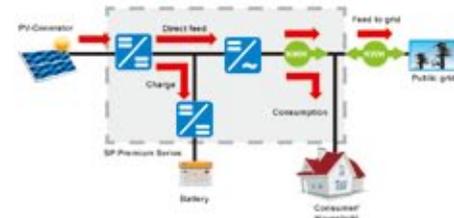
Features

- 4/10/15KW on-grid inverter with energy storage
- Pure sine wave output
- Microprocessor controlled to guarantee stable charging system
- Multiple operations: Grid tie, Off grid, and grid-tie with backup
- Built-in MPPT solar charger
- LCD display panel for comprehensive information
- Multiple communication
- Green substitution for generators
- User-adjustable battery charging current
- Parallel connection capability (Maximum up to 6pcs)

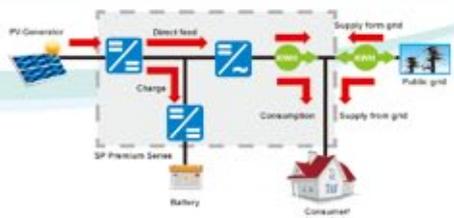


Operation Diagram:

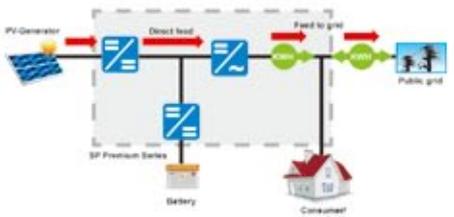
Enough PV Energy Input



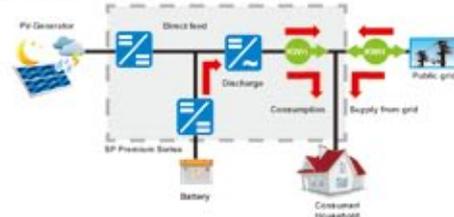
Household's consumption is higher than supply from PV



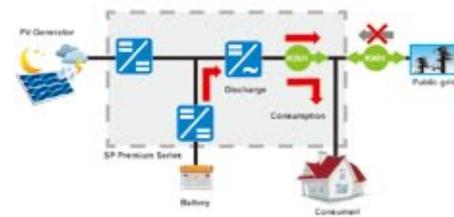
No consumption from household and the battery is fully charged



No PV energy and battery is fully discharged



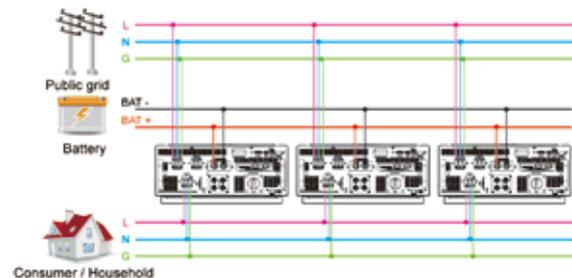
No PV energy and the consumption from household is supplied by battery



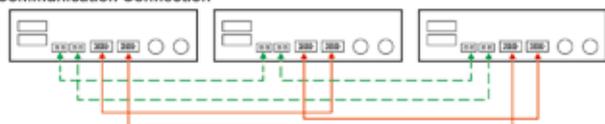
Parallel operation (Maximum up to 6pcs)

for 1-phase application (SP4000 Premium)

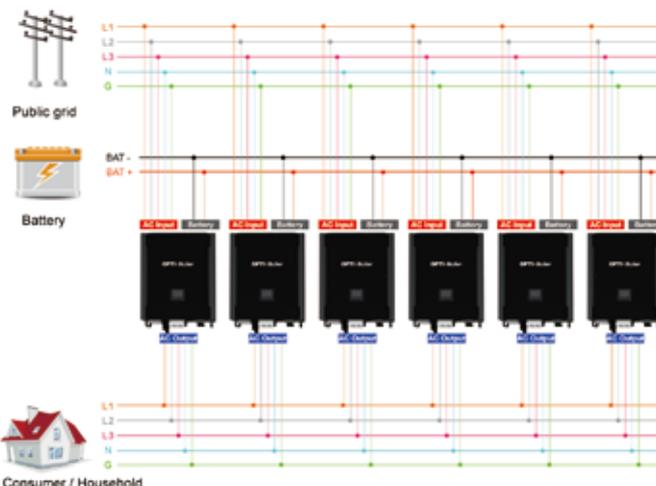
Power Connection



Communication Connection



for 3-phase application (SP10000/15000 Premium)



Specifications

MODEL	SP4000 Premium	SP10000 Premium	SP15000 Premium
RATED POWER	4000 W	10000 W	15000 W
PV INPUT (DC)			
Maximum DC Power	5000 W	14850 W	22500 W
Nominal DC Voltage	360 VDC	720 VDC	720 VDC
Maximum DC Voltage	580 VDC	900 VDC	900 VDC
Start-up Voltage / Initial Feeding Voltage	116 VDC / 150 VDC	320 VDC / 350 VDC	320 VDC / 350 VDC
MPP Voltage Range	120 VDC ~ 500 VDC	400 VDC ~ 800 VDC	400 VDC ~ 800 VDC
Maximum Input Current	18 A	2×18.6 A	PV1: 37.6A; PV2: 18.6A
Isc PV (absolute maximum)	25 A	25 A	50 A
Max. inverter back feed current to the array	0 A	0 A	0 A
GRID OUTPUT (AC)			
Nominal Output Voltage	230 VAC	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC	184 - 265 VAC per phase	184 - 265 VAC per phase
Output Frequency Range		47.5 ~ 51.5 Hz or 59.3~ 60.5Hz	
Nominal Output Current	17.4 A	13 A per phase	21.7 A per phase
Inrush Current/Duration	17.4 A / 20ms	17 A per phase / 20ms	28 A per phase / 20ms
Maximum Output Fault Current/Duration	52 A / 1ms	51 A per phase / 1ms	65 A per phase / 1ms
Maximum output Overcurrent Protection	52A	51 A per phase	65 A per phase
Power Factor Range		0.9 lead – 0.9 lag	
AC INPUT			
AC Start-up Voltage	120-140 VAC	120-140 VAC per phase	120-140 VAC per phase
Auto Restart Voltage	180 VAC	180 VAC per phase	180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC	170 - 280 VAC per phase	170 - 280 VAC per phase
Nominal Frequency	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz
AC Input Power	4000VA/4000W	10000VA/10000W	15000VA/15000W
Maximum AC Input Current	40 A	25 A	40 A
Inrush Input Current	40 A	25 A	40 A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	230 VAC	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Output Frequency		50 Hz / 60 Hz (auto sensing)	
Output Waveform		Pure sine wave	
Output Power	4000VA/4000W	10000VA/10000W	15000VA/15000W
Output Current	17.4A	13 A per phase	21.7 A per phase
Efficiency (DC to AC)	96%		91%
BATTERY & CHARGER			
Nominal DC Voltage		48 VDC	
Maximum Battery Discharging Current	110 A	250 A	375 A
Maximum Charging Current	80 A	200 A	300 A
PHYSICAL			
Dimension (D×W×H)	117 × 438 × 535 mm	167.2 × 500 × 622mm	210 × 650 × 820 mm
Net Weight	16.2 kgs	45 kgs	62 kgs
INTERACE			
Communication Port		RS-232/USB	
Intelligent Slot		Optional SNMP, Modbus and AS-400 cards available	
ENVIRONMENT			
Protective Class		I	
Ingress Protection Rating		IP20	
Humidity		0 ~ 90% RH (No condensing)	
Operating Temperature		-10 to 55°C	
Altitude		0 ~ 1000 m*	

Product specifications are subject to change without further notice.
*Power derating 1% every 100 m when altitude is over 1000m.

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