

SP5000 - 15000 Premium

SP Premium Series

True Hybrid Solar Inverter with Energy Storage

SP Premium Series is a universal power supply tool for houses. It utilizes solar power in the daytime and feeding it to your appliances like illumination lamps, TV, stereo player, and PC equipment, saving extra power to the batteries for nighttime 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 will take the lacking power from the grid. At night, the batteries will provide energy to your home. With this true hybrid design, we give you the confidence that 100% of your solar power is fully utilized.

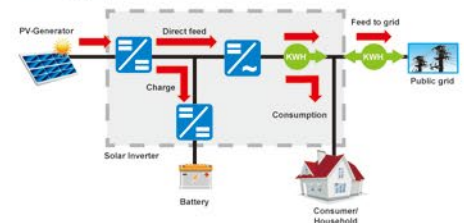
Features

- 5/10/15KW on-grid inverter with energy storage
- Pure sine wave output
- To guarantee stable charging system
- Multiple operations: Grid-tie, Off-grid, and grid-tie with backup
- Built-in MPPT solar charger
- LCD panel for comprehensive information
- Multiple communications
- Green substitution for generators
- User-adjustable battery charging current
- Parallel connection capability (Maximum up to 6pcs)

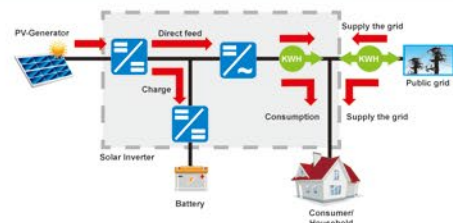


Operation Diagram:

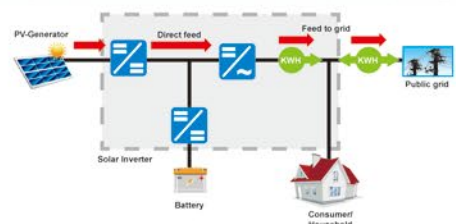
Enough PV Energy Input



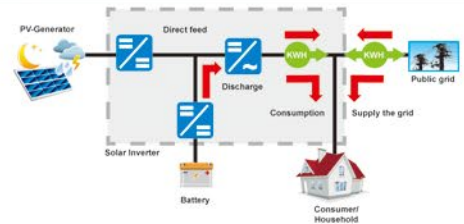
Household consumption is higher than supply from PV



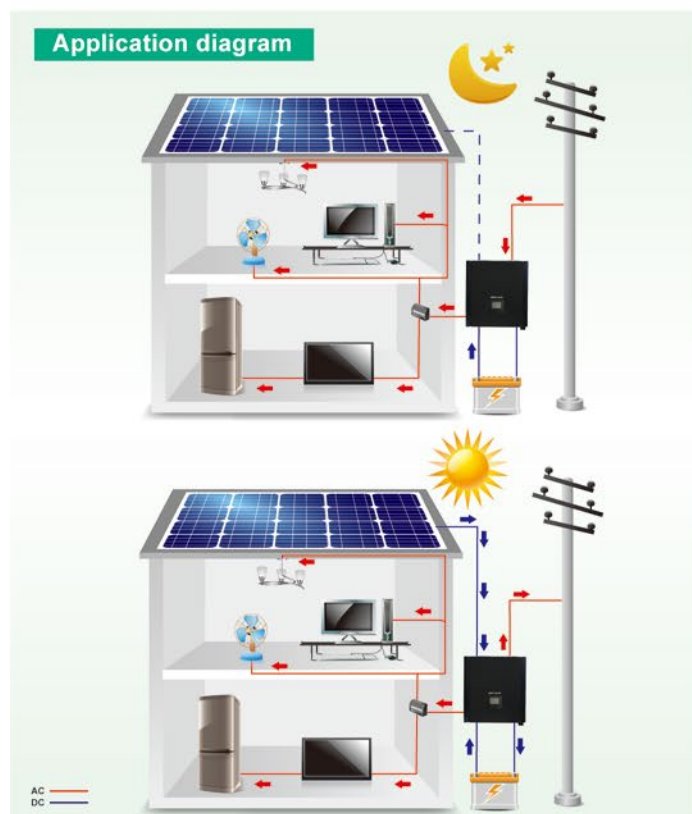
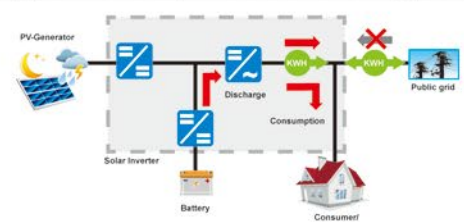
No consumption from household and the battery is fully charged



No PV energy and battery is fully discharged



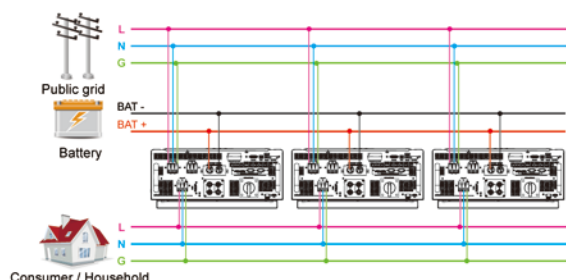
No PV energy, and the consumption from household is supplied by the battery



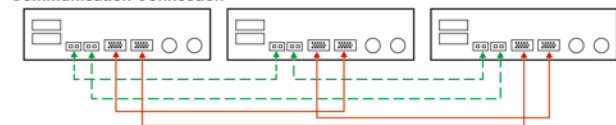
Parallel Operation (Maximum up to 6pcs)

for 1-phase application (SP5000 Premium)

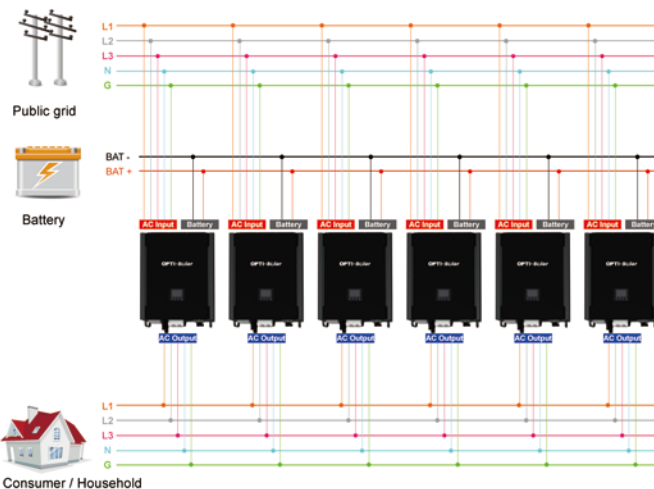
Power Connection



Communication Connection



for 3-phase application (SP10000/15000 Premium)



Specifications

MODEL	SP5000 Premium	SP10000 Premium	SP15000 Premium
RATED POWER	5000 W	10000 W	15000 W
PV INPUT (DC)			
Maximum DC Power	10000 W	14850 W	22500 W
Nominal DC Voltage	720 VDC	720 VDC	720 VDC
Maximum DC Voltage	900 VDC	900 VDC	900 VDC
Start-up Voltage / Initial Feeding Voltage	225 VDC / 250 VDC	320 VDC / 350 VDC	320 VDC / 350 VDC
MPP Voltage Range	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC	400 VDC ~ 800 VDC
Maximum Input Current	2×10 A	2×18.6 A	PV1: 37.2A; 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	21 A	13A per phase	21.7A per phase
Inrush Current/Duration	21 A / 20ms	17A per phase / 20ms	28A per phase / 20ms
Maximum Output Fault Current/Duration	52 A / 1ms	51A per phase / 1ms	65A per phase / 1ms
Maximum output Overcurrent Protection	52A	51A per phase	65A 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	5000VA/5000W	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	5000VA/5000W	10000VA/10000W	15000VA/15000W
Output Current	21A	13A per phase	21.7A per phase
Efficiency (DC to AC)	93%		91%
BATTERY & CHARGER			
Nominal DC Voltage		48 VDC	
Maximum Battery Discharging Current	150 A	250 A	375 A
Maximum Charging Current	100 A	200 A	300 A
PHYSICAL			
Dimension (D×W×H)	204.2 × 460 × 600 mm	622 × 500 × 167.2 mm	210 × 650 × 820 mm
Net Weight	29 kg	45 kg	62 kg
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 higher than 1000m.

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