OPTI-Solar
INVERTER POWER

SP10000-15000 Premium

SP Premium Series

True Hybrid Solar Inverter with Energy Storage



SP10000 Premium

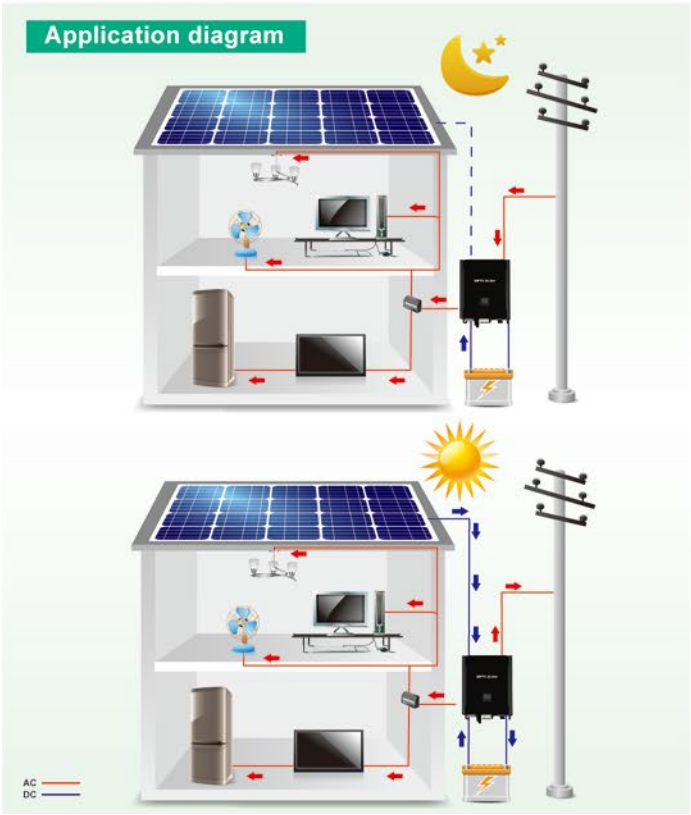
SP15000 Premium

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.

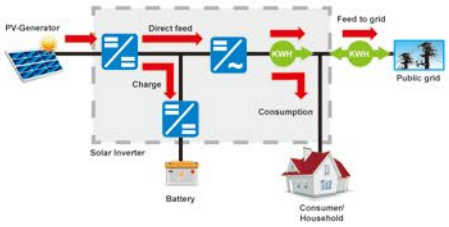
Features

- 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)

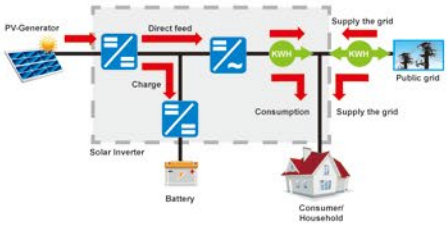


Operation Diagram:

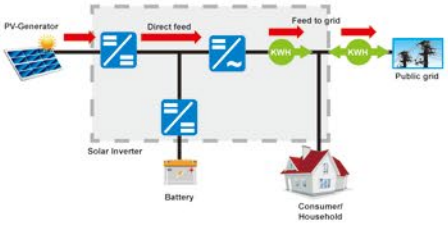
Enough PV Energy Input



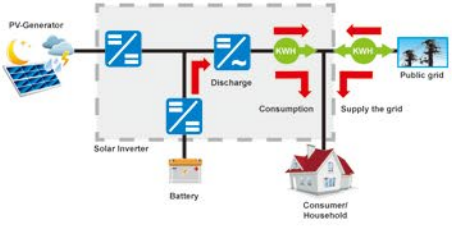
Household consumption is higher than supply from PV



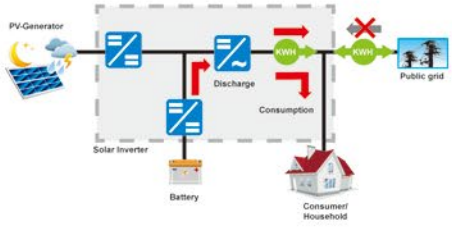
No consumption from household and the battery is fully charged



No PV energy and battery is fully discharged

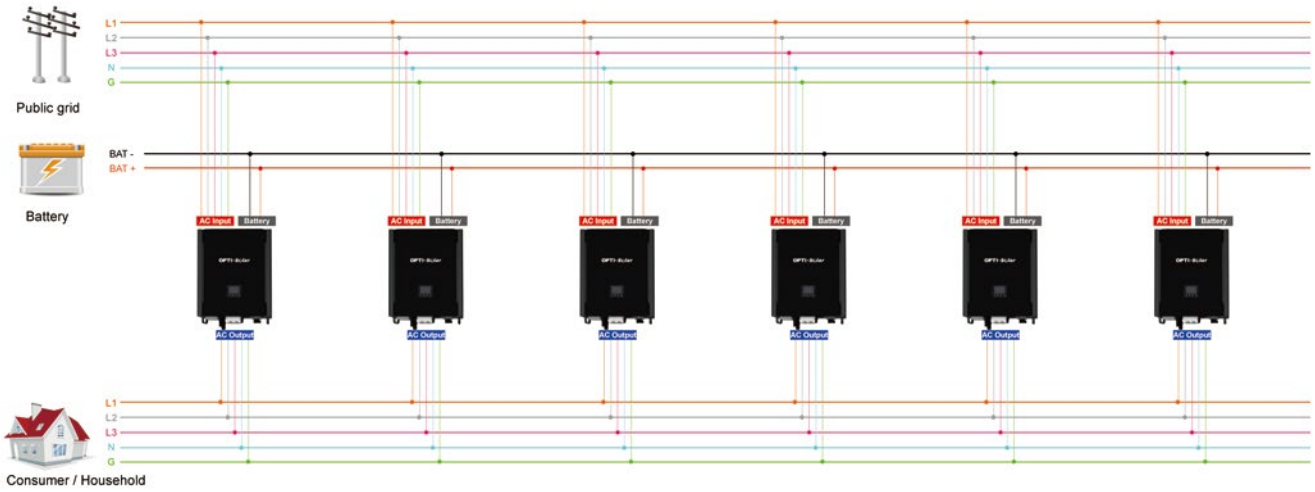


No PV energy, and the consumption from household is supplied by the battery



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Parallel Operation (Maximum up to 6pcs)



Specifications

MODEL	SP10000 Premium	SP15000 Premium
RATED POWER	10000 W	15000 W
PV INPUT (DC)		
Maximum DC Power	14850 W	22500 W
Nominal DC Voltage	720 VDC	720 VDC
Maximum DC Voltage	900 VDC	900 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC	320 VDC / 350 VDC
MPP Voltage Range	400 VDC ~ 800 VDC	400 VDC ~ 800 VDC
Maximum Input Current	2×18.6 A	PV1: 37.2A; PV2: 18.6A
Isc PV (absolute maximum)	25 A	50 A
Max. inverter back feed current to the array	0 A	0 A
GRID OUTPUT (AC)		
Nominal Output Voltage	220 VAC (P-N) / 380 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	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	13A per phase	21.7A per phase
Inrush Current/Duration	17A per phase / 20ms	28A per phase / 20ms
Maximum Output Fault Current/Duration	51A per phase / 1ms	65A per phase / 1ms
Maximum output Overcurrent Protection	51A per phase	65A per phase
Power Factor Range	0.9 lead – 0.9 lag	
AC INPUT		
AC Start-up Voltage	120-140 VAC per phase	120-140 VAC per phase
Auto Restart Voltage	180 VAC per phase	180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase	170 - 280 VAC per phase
Nominal Frequency	50 Hz / 60 Hz	50 Hz / 60 Hz
AC Input Power	10000VA/10000W	15000VA/15000W
Maximum AC Input Current	25 A	40 A
Inrush Input Current	25 A	40 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	220 VAC (P-N) / 380 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	10000VA/10000W	15000VA/15000W
Output Current	13A per phase	21.7A per phase
Efficiency (DC to AC)	91%	
BATTERY & CHARGER		
Nominal DC Voltage	48 VDC	
Maximum Battery Discharging Current	250 A	375 A
Maximum Charging Current	200 A	300 A
PHYSICAL		
Dimension (D×W×H)	622 × 500 × 167.2 mm	210 × 650 × 820 mm
Net Weight	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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