

SP20000 Premium / SP30000 Premium

SP Premium Series

True Hybrid Solar Inverter with Energy Storage

Features

- Pure sine wave output 3-phase inverter
- Programmable supply priority for PV, battery, or grid
- True galvanic isolation transformation design
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Monitoring software for real-time status display and control
- Parallel operation up to 4 units (SP30000 Premium only)



Specifications

MODEL	SP20000 Premium	SP30000 Premium
Rated Output Power	20KW	30KW
Maximum Charging Power	20KW	30KW
PV INPUT (DC)		
Maximum DC Power	30KW	45KW
Nominal DC Voltage/ Maximum DC Voltage	720VDC / 950VDC	
Start-up Voltage / Initial Feeding Voltage	500VDC / 550VDC	
MPP Voltage Range	500VDC ~ 900VDC	
Number of MPP Trackers / Maximum Input Current	1 / 48A	1 / 72A
GRID OUTPUT (AC)		
Nominal Output Voltage	230VAC* (P/N) / 400VAC (P-P)	
Output Voltage Range	184-265VAC per phase	
Output Frequency Range	47.5 ~ 51.5Hz or 59.3 ~ 60.5Hz	
Nominal Output Current	29A per phase	43.5A per phase
Power Factor	> 0.99	
EFFICIENCY		
Maximum Conversion Efficiency (DC/AC)	93%	95%
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120-140VAC per phase / 180VAC per phase	150-170VAC per phase / 180VAC per phase
Acceptable Input Voltage Range	170-280VAC per phase	
Maximum AC Input Current	29A per phase	43.5A per phase
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	230VAC* (P/N) / 400VAC (P-P)	
Output Waveform	Pure Sinewave	
Efficiency (DC to AC)	>91%	
BATTERY & CHARGER		
Nominal DC Voltage	384VDC	
Maximum Charging Current	50A	80A
PHYSICAL		
Dimension (D×W×H)	559×320×909mm	715×430×1021mm
Net Weight	200kg	223kg
INTERFACE		
Communication Port	RS-232/USB	
Intelligence Slot	Optional SNMP, GPRS, WIFI, Modbus cards available	
ENVIRONMENT		
Humidity	0 ~ 90% RH (Non-Condensing)	
Operating Temperature	-10°C to 55°C	
Altitude	0 ~ 1000 m**	

Specifications are subject to change without notices.

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

**Power derating 1% every 100m when altitude is over 1000m.

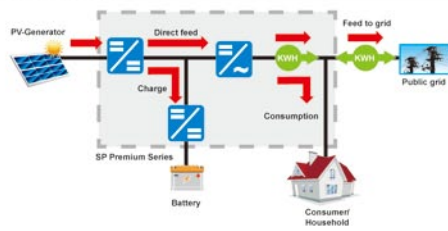
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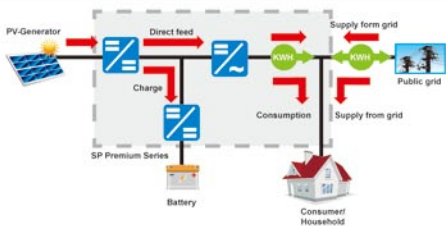
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Operation Diagram:

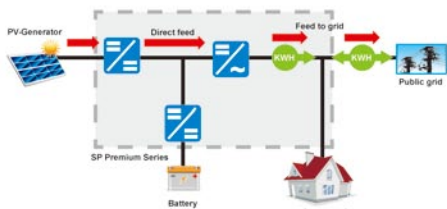
Enough PV Energy Input



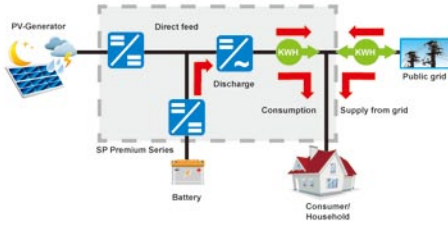
Household's consumption is higher than supply from PV



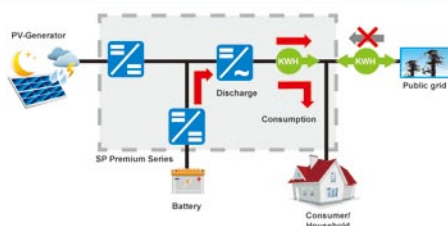
No consumption from household and the battery is fully charged



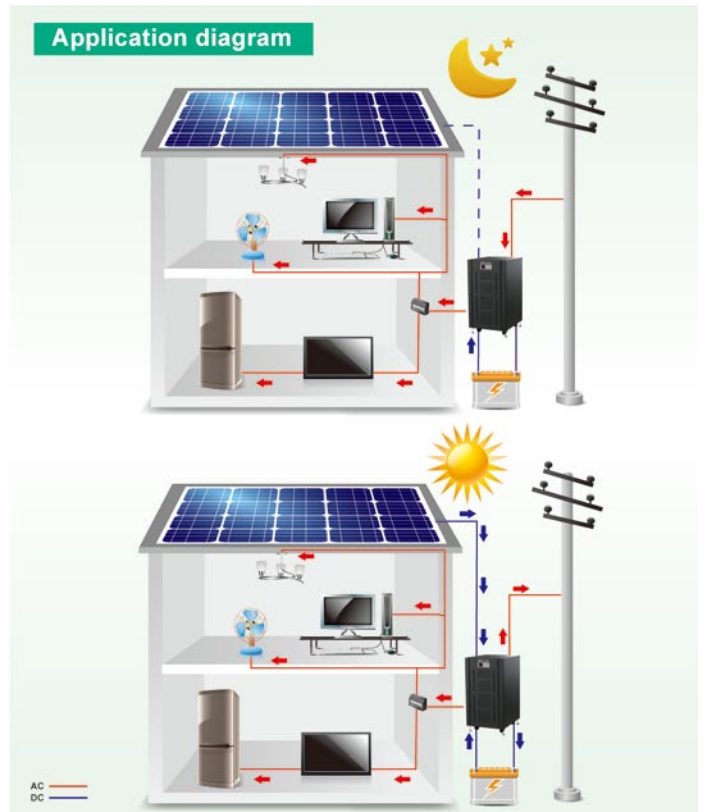
No PV energy and battery is fully discharged



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

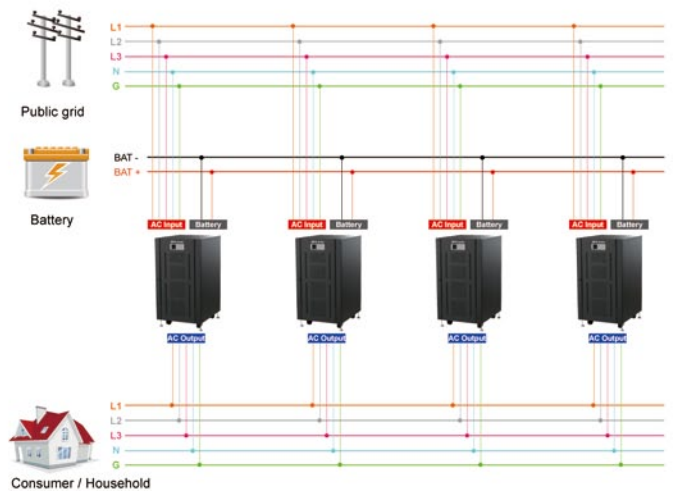


Application diagram



Parallel operation (SP30000 Premium only)

Maximum up to 4pcs



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