

# SV Series (15-120kVA)/400Vac Hybrid/Off-Grid Solar Inverter System



## KEYFEATURES

### High Stable and Efficiency

- High efficiency above 96% reduces power consumption for lower operating cost.
- Full power output up to +45°C and continued operation up to +55°C lowers operating cost
- High power density (39 W/in<sup>3</sup>) - reduced footprint allows installation in short-depth racks and cabinets
- Wide input voltage range to reduce join box and cable cost.

### Modular Scalable and ATS option

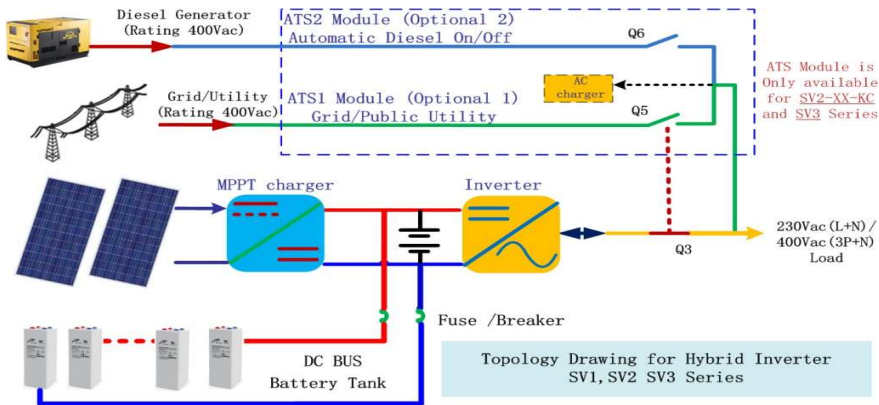
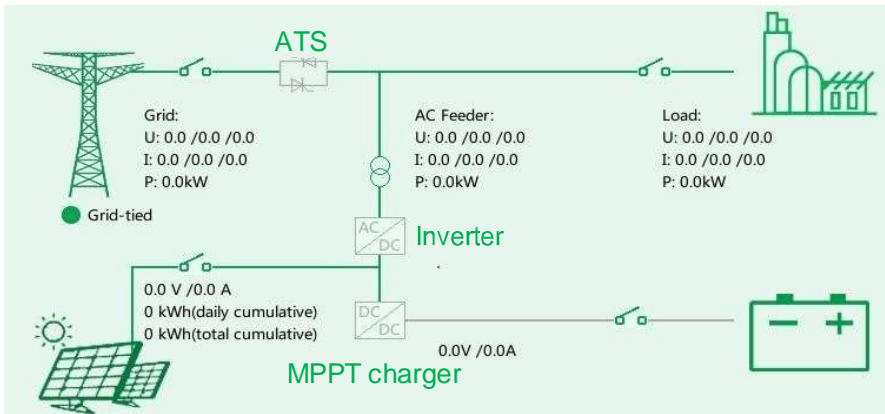
- Hot pluggable - facilitates future expansions and easy maintenance
- Compliant with global standards - delivers quality, performance and reliability, no matter what the application or location demands
- ATS option for Hybrid application  
Support grid/public utility or diesel generator as bypass input
- Built-In Diesel generator managing system  
Automatic turn on/off to save the fuel cost.



## Description

SV series hybrid solar power station provides an integrated solution for solar charging, energy storage, power inverter and automatic sources switching (ATS). The public grid or diesel generator could be set as first priority source or back-up source. The switchgears are also selectable.

The modular design makes it possible to capacity scalable flexibly in MPPT charger and inverter.



# SV Series (15-120kVA)/400Vac Hybrid/Off-Grid Solar Inverter System



## Technical Specifications for SV Series Hybrid Solar Inverter(SV1,SV3)

Model	SV1-30P-15KVA	SV1-30P-25KVA	SV3-60P-30KVA	SV3-60P-60KVA	SV3-120P-30KVA	SV3-120P-60KVA	SV3-120P-120KVA
<b>System Output Parameter</b>							
AC Output Capacity (kVA/kW)	15kVA/15kW	30kVA/25kW	30kVA/30kW	60kVA/60kW	30kVA/30kW	60kVA/60kW	120kVA/120kW
Output parameter	220/230/240V(1P+N)/380/400/415Vac (3P+N) with 1% precision and 50Hz(default)/60Hz with 0.5% precision						
Efficiency of Inverter System	95.5%		95.6%		95.8% (exclude TX)		97.0% (exclude transformer ,TX)
ATS kit for AC bypass (Hybrid)	Not Optional ( or external)			Optional , for Grid/Diesel Generator connection			
Battery BUS Rated Voltage	600Vdc BUS			700Vdc Bus			
Switchgear (PDU) Installed	Not Available			Installed all the breakers for PV input, AC input ,Battery and AC output			
Overload Performance	<105%, long term; <110%, 10 minutes; <120%, 1 minutes						
IP/RMS	3:1 Ratio , Support instantaneous rush load (3 times)						
THD and Un-balance capacity	THD<3% with 100% load;			Support 100% un-balance load between phases			
<b>PV/Solar Input Parameter</b>							
PV Input Voltage, Rated (Vmppt)	250-750Vdc			250-750Vdc ( Suggest 30-36V* 20 pieces in series connection)			
PV Input Voltage Range (Voc)	200-900Vdc			200-900Vdc			
Max PV Input Voltage (Voc)	900Vdc			900Vdc			
Max PV MPPT Chanel QTY	MPPT X 2	MPPT X 1	MPPT X 1		MPPT X 2		
Max PV Panel Connected (Wp)	30KWp	30kWp	60kWp		120kWp		
<b>Grid /Diesel Generator Input (option)</b>							
Grid/Gen-set AC Input Voltage Rated	Not available		230V/400Vac ( 3P+N+PE), 50Hz(default)/60Hz				
Grid/Gen-set AC Input Voltage Range	Not available		170-265V/292-460Vac ( 3P+N+PE), 45-65Hz				
Efficiency of Grid –ATS (if has ATS option)	Not Optional		ATS of Grid/Diesel Generator is optional ; Eff. 99.0%				
<b>Battery Connection Parameter</b>							
Battery BUS Rated Voltage	600Vdc (2V X 300 cells)			700Vdc (2V X 350 cells)			
Battery Voltage Adjustment Range (Vbat)	500-700Vdc			600-822Vdc			
<b>Mechanical Feature</b>							
Dimension W*D*H (mm)	460*146*745mm			800*800*2000mm (W*D*H)			
Weight (kg)	44.6kg		387kg	396kg	447kg	758kg	943kg
Noise ( dB)	<65dB			<68dB			
<b>Network Monitoring</b>							
HMI and Indicator	7 Inch Touch Screen(LCD) ,and LED Indicator						
Communication Socket and Protocol	RS485, CAN, LAN, REPO and CAN, Modbus, TCP, Modbus RTU						
<b>Application Environment</b>							
IP Level	IP21 (Wall mounting)			IP20			
Power dispatch (Cooling)	Forced Air Cooling (Smart Fan Speed Control)						
Operation Temperature/ Relative Humidity	-25 ℃ to 55 ℃ / 0-95% RH, No Condensation (from 45-55 ℃, de-rating 15% capacity per 5) ℃)						
Storage Temperature / Relative Humidity	-25 ℃ to 55 ℃/0-95% RH ;			(Exclude battery)			
Altitude (meters)	2000meters; (for 2000-4000 meters, de-rating 4% per 100 meters)						



# SV Series (15-120kVA)/400Vac Hybrid/Off-Grid Solar Inverter System



## Technical Specifications for SV Series Hybrid Solar Inverter(SV2)

Model	SV2-20P-15KR	SV2-35P-25KR	SV2-20P-15KC	SV2-35P-25KC	SV2-35P-30KC
<b>System Output Parameter</b>					
AC Output Capacity (kVA/kW)	15kVA/15kW	25kVA/25kW	15kVA/15kW	25kVA/25kW	30kVA/30kW
Output parameter	380/400/415Vac (3P+N) with 1% precision and 50Hz(default)/60Hz, with 0.5% precision				
Efficiency of Inverter System	95.4%		95.4%		95.6%
ATS kit for AC bypass (Hybrid)	Optional , for Grid/Diesel Generator connection				
Battery BUS Rated Voltage	420Vdc BUS				420Vdc Bus
Switchgear (PDU) Installed	Not Optional ( or external)		With breakers for PV input, AC input, Battery and AC output		
Overload Performance	<105%, long term; <110%, 10 minutes; <120%, 1 minutes				
IP/RMS	3:1 Ratio , Support instantaneous rush load (3 times)				
THD and Un-balance capacity	THD<3% with 100% load; Support 100% un-balance load between phases				
<b>PV/Solar Input Parameter</b>					
PV Input Voltage, Rated (Vmppt)	250-750Vdc ( Suggest 30-36V* 20 pieces in series connection)				
PV Input Voltage Range (Voc)	200-900Vdc		200-900Vdc		
Max PV Input Voltage (Voc)	900Vdc		900Vdc		
Max PV MPPT Chanel QTY	MPPT X 2	MPPT X 1	MPPT X 2	MPPT X 1	MPPT X 1
Max PV Panel Connected (Wp)	20KWp	35KWp	20KWp	35KWp	35KWp
<b>Grid /Diesel Generator Input (option)</b>					
Grid/Gen-set AC Input Voltage Rated	Not available		230V/400Vac ( 3P+N+PE), 50Hz(default)/60Hz		
Grid/Gen-set AC Input Voltage Range	Not available		170-265V/292-460Vac ( 3P+N+PE), 45-65Hz		
Efficiency of Grid –ATS (if has ATS option)	Not Optional		ATS of Grid/Diesel Generator is optional ; Eff. 99.0%		
<b>Battery Connection Parameter</b>					
Battery BUS Rated Voltage	420Vdc (2V X 210 cells)		420Vdc (2V X 210 cells)		420Vdc (2V*210 cells)
Battery Voltage Adjustment Range (Vbat)	350-490Vdc		350-490Vdc		350-490Vdc
<b>Mechanical Feature</b>					
Dimension W*D*H (mm)	435*135*600mm (3U)		600*800*1000mm (W*D*H)		
Weight (kg)	38.0kg	39.5kg	85g	82kg	148kg
Noise ( dB)	<65dB		<65dB		<68dB
<b>Network Monitoring</b>					
HMI and Indicator	7 Inch Touch Screen(LCD) ,and LED Indicator				
Communication Socket and Protocol	RS485, CAN, LAN, REPO and CAN, Modbus, TCP, Modbus RTU				
<b>Application Environment</b>					
IP Level	IP20 (Rack mounting)		IP22		
Power dispatch (Cooling)	Forced Air Cooling (Smart Fan Speed Control)				
Operation Temperature/ Relative Humidity	-25 °C to 55 °C / 0-95% RH, No Condensation (from 45-55 °C, de-rating 15% capacity per 5) °C)				
Storage Temperature / Relative Humidity	-25 °C to 55 °C /0-95% RH ; (Exclude battery)				
Altitude (meters)	2000meters; (for 2000-4000 meters, de-rating 4% per 100 meters)				



SV2—XX-KR



SV2—XX-KC

**FOR ENQUIRY**

PLEASE CONTACT

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