

# Sparkle Series

Grid-Feed Inverter with Integrated Energy Storage

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## About Servotech Renewable












Servotech Renewable Power System Ltd. (NSE: SERVOTECH) is India's leading manufacturer of advanced clean energy solutions, specializing in solar Solutions, BESS and EV charging solutions. With a robust pan-India presence, agile manufacturing, and strong R&D capabilities, Servotech is driving India's transition toward a sustainable, energy-independent, and technologically empowered future. Through continuous innovation, strategic collaborations, and large-scale deployments, the company delivers reliable, high-performance solutions that support the nation's clean energy goals. Servotech's comprehensive portfolio spanning solar panels, inverters, Lithium batteries, and EV chargers reflects its commitment to engineering excellence and environmental stewardship. By aligning business growth with global sustainability standards, Servotech stands as a catalyst in shaping India's green energy transformation and powering a cleaner tomorrow.



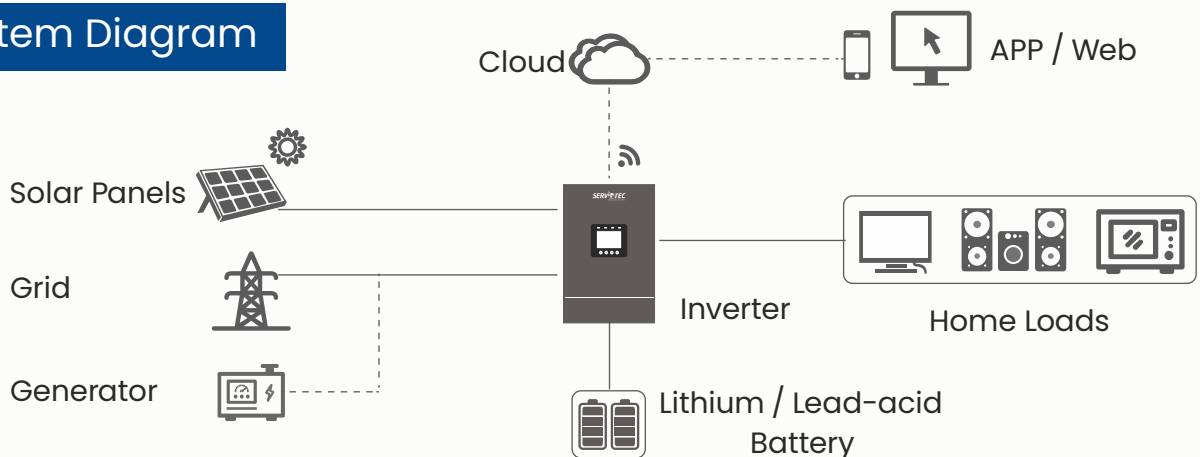
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## Grid-Feed Inverter with Integrated Energy Storage



 Built-in 100A – 160A Solar Charger	 Wide MPPT Range 40-500V	 Workable with Generator	 BMS Support Lithium/ Lead-acid Battery	 27, 28, 45A MAX PV Input	 Noise Control Algorithm
 DUAL IN OUT Dual AC In & Dual AC Out*	 WiFi Monitoring	 Feed-in to Grid	 Lithium Battery Activation	 5 Inch Display	

### System Diagram



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### Technical Specifications

Model	STAG-HYBINV-5048/S11	STAG-HYBINV-7548/S11	STAG-HYBINV-7548/S11-IP66	STAG-HYBINV-15048/S11
<b>AC Input</b>				
Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE			220 / 230 / 240; L + N + PE
Voltage Range (VAC)	90~280±3 (normal mode); 170~280±3 (UPS mode)			
Frequency (Hz)	50 / 60 (Auto Adaptive)			
<b>AC Output</b>				
Rated Capacity (kW)	3.6	6.0	6	12.0
Surge Power (kVA)	7.2	12	12	24
Voltage (VAC)	220 / 230 / 240			
Power Factor (PF)	0.8			
Frequency	50 / 60Hz±0.1%			
Switch Time (ms)	20ms normal mode & 10ms UPS mode			
Wave Form	Pure Sine Wave			
Overload Capacity (Battery Mode)	60s@102%~125% load; 10s> 125% load,			
Max. Efficiency (Battery Mode)	92.7%@24VDC	93%@48VDC	94%@48VDC	94%@48VDC
Parallel Quantity	NA			
<b>Charger (PV / AC)</b>				
Solar Charger Type	MPPT			
Max PV input Current / Input Power	18A / 5000W	27A / 9000W	19Ax2	Using 1 MPPT 29A/9kW, Using 2 MPPT's 22.5A/ Per MPPT, Total 15kW
MPPT Range (VDC)	40~450	60~450	250~500V	60~450
Max PV Open Circuit Voltage	500	500	550	500
Max PV Charge Current (A)	100	120	25/25	160
Max AC Charge Current (A)	100	120	120	160
Max. Charge Current (PV + AC) (A)	100	120	120	160
<b>Battery</b>				
Rated Voltage (VDC)	24	48		
Floating Charge Voltage (VDC)	27	54		
Overcharge Protection (VDC)	30.5	61		
Battery Type	Lithium and Lead-acid			
DC Switch	NA	NA	Yes	NA
DC Reverse Polarity Protection	NA	NA	Yes	NA
<b>Interface</b>				
HMI	LCD	LCD	5 Inch LCD	Touch LCD & APP
Interface	RS485 / RS232 / USB / Dry Contact			
Monitoring	WiFi (Optional)			
<b>General Data</b>				
Ingress Protection	IP21	IP21	IP66	IP21
Operating Temperature	-10 °C~ 50 °C			
Relative Humidity	5% - 95% (Non-condensing)			
Storage Temperature	-15 °C~ 60 °C			
Net Weight (kg)	6.4	10	24	15
Dimensions (W*H*D)	490*306*115mm (without bracket)	410*336*110 mm ±5mm	525*485*205 mm ±5mm (Without Terminal & Bracket)	495*425*120 mm ±5mm
Max. Operating Altitude	4000m (Derating above 1000m)			

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**Safiabad Plant:** Killa No. 14/6/1/2 (0-3), 6/2/3 (5-13) Village-Safiabad, Pana Paposhian, Rai, Sonipat, Haryana - 131029

