

Sparkle Pro

IP54 Hybrid Solar Inverter



Range Available

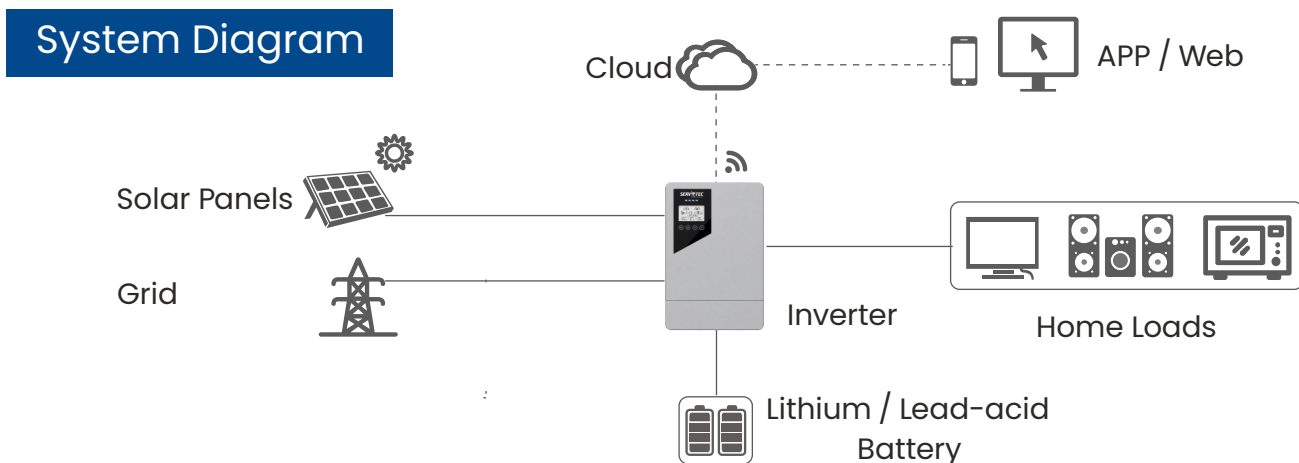
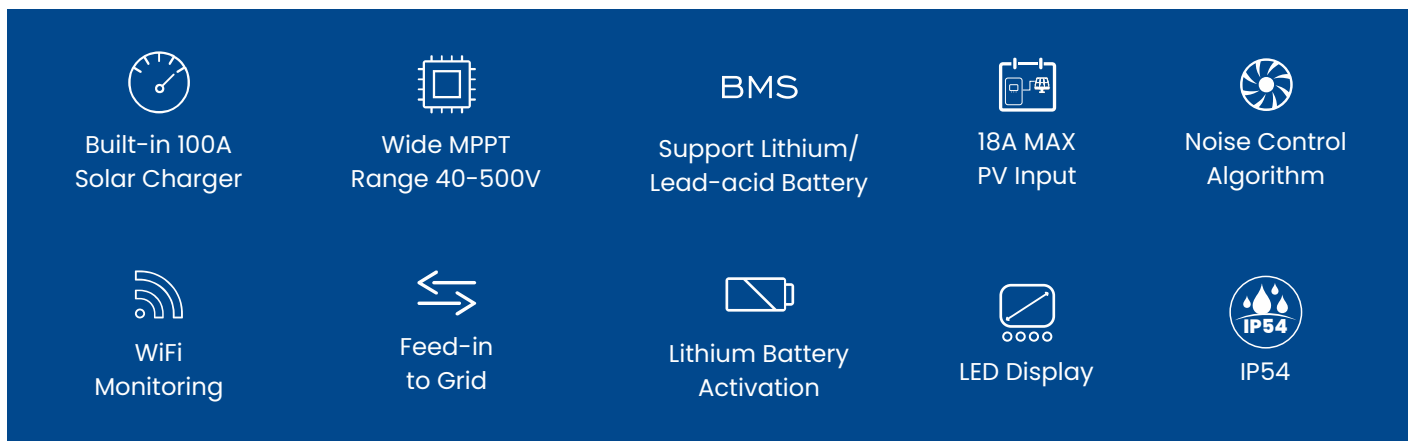
3kW, 4.2kW & 6kW

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.



Single Phase IP54 Hybrid Solar Inverter



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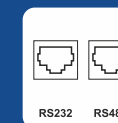
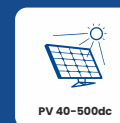
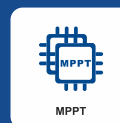
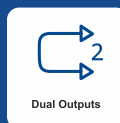


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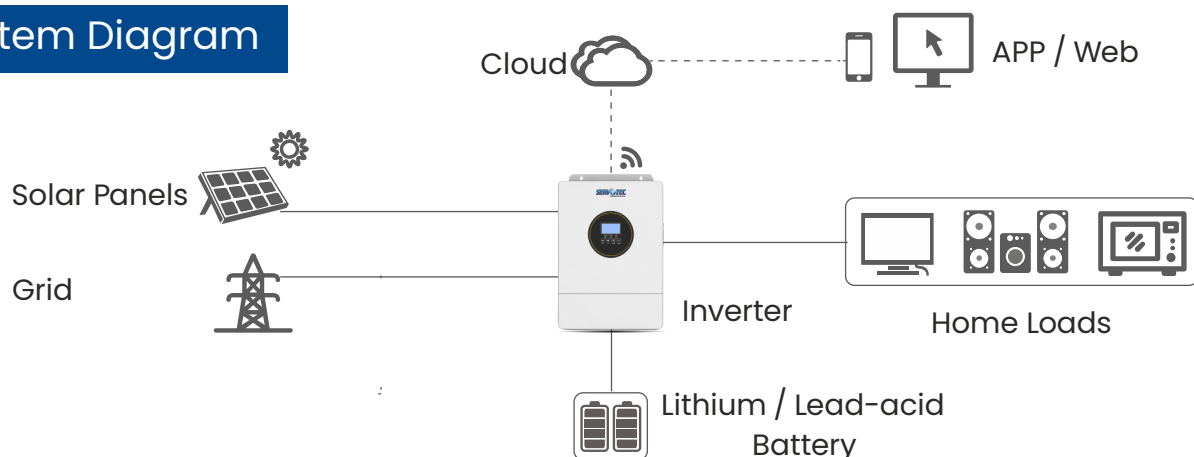
4.2 kW & 6kW

Features

- IP54-rated robust design
- Dual output for smart load management
- LiFePO₄ battery compatible with RS485 BMS communication
- Lithium battery activation through PV or Utility
- 500V DC maximum PV input
- Built-in 120A MPPT
- Battery less operation capability
- Detachable dust cover for harsh environments
- Optional Wi-Fi remote monitoring
- Multiple operating modes: UTL / SOL / SBU / SUB
- Battery equalization function for optimized battery performance and extended life



System Diagram



Solar Hybrid Inverter Technical Data

PARAMETERS	STSP-PR-HYBINV 3224/S11 IP54	STSP-PR-HYBINV 4224/S11 IP54	STSP-PR-HYBINV 6048/S11 IP54
AC Input			
Capacity	3000VA/3000W	4200VA/4200W	6000VA/6000W
Parallel Capability	No	NO	NO
Lithium Battery Activation	YES	YES	YES
Battery Wake-up Function	YES	YES	YES
AC INPUT			
Nominal Voltage	230VAC		
Acceptable Voltage Range	170–280VAC (for UPS Mode); 90–280VAC (for Normal Mode)		
Frequency	50/60 Hz (Auto sensing)		
AC OUTPUT			
Nominal Voltage	220/230VAC ± 5%		
Surge Power	6000VA	8200VA	12400VA
AC Output Current Max	14A	18.5A	27A
Frequency	50/60 Hz		
Waveform	Pure Sinewave		
Transfer Time	10ms (for UPS Mode); 20ms (for Normal Mode)		
Peak Efficiency (PV to INV)	96%		
Peak Efficiency (Battery to INV)	93%		
Overload Protection	5s @ ≥140% load; 10s @ 100%–140% load		
Crest Factor	3:1		
Admissible Power Factor	0.6~1 (inductive or capacitive)		
BATTERY			
Battery Voltage	24Vdc	24Vdc	48Vdc
Floating Charge Voltage	27Vdc	27Vdc	54Vdc
Over-Charge Protection	30.5Vdc	30.5Vdc	63Vdc
Charging Method	CC/CV		
SOLAR CHARGER & AC CHARGER			
Solar Charger Type	MPPT		
Max. PV Array Power	4200W	5200W	8100W
Max. PV Array Open Circuit Voltage	500VDC		
PV Array MPPT Voltage Range	40VDC~500VDC		
Max. Solar Input Current	18A	20 A	27A
Max. Solar Charge Current	100A	100A	100A
Max. AC Charge Current	100A	100A	100A
Max. Charge Current (AC+PV)	100A	100A	100A
PHYSICAL			
Dimensions, D x W x H (mm)	478 x 370 x 110	441 x 334 x 125.5	441 x 334 x 125.5
Net Weight (Kgs)	8.5	8.5	9
Gross Weight (Kgs)	9	9	10
Communication Interface	RS232/RS485/USB/Dry Contact		
ENVIRONMENT			
Operating Temperature Range	-10°C ~ 50°C		
Storage Temperature	-15°C ~ 60°C		
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Enclosure Protection	IP54		
CERTIFICATIONS AND STANDARDS			
Grid Regulation	IS 16221 / IEC 62109-2: 2011 and IS 16169 / IEC 62116 and IS 17980 /IEC 62891		
EMC/Safety Regulation	EN61000-6-2/-4; EN62109-1, EN62109-2		

INDIA'S TRUSTED



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Reg. Add. & Kundli Plant: Khata No. 1970, Khewat No. 1672, Khasra No. 21/20/2/2, Revenue Estate, Kundli, P.S.Rai, Sonipat, Haryana - 131029

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

