

Fusion Series

Hybrid Solar Inverter



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.

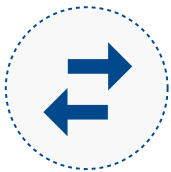


Fusion Series

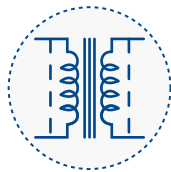
Hybrid Solar Inverter



CORE FEATURES



**Bidirectional
Inverter**



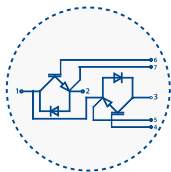
**Built-in isolation
transformer**



**Grid
Utilization**



**Battery Less
Operation**



**IGBT Based
Rectifier**



**Advanced
Multiple DSP**



**Support
Multiple Input**



**Monitoring
Features**

APPLICATIONS



Petrol Pump



Cold Storage



ATM



Farm House



Rural Bank



**Health Care
Center**



**Hostel of
School &
College**



Microgrid

Fusion Series

Solar Hybrid Inverter

Technical Specifications

FUSION SERIES THREE PHASE HYBRID SOLAR PCU TECHNICAL SPECIFICATION																	
INVERTER CAPACITY (KVA)	5	10	15	20	25	30	40	50	60	80	100	120	150	200	250	300	
GRID																	
Input Wiring	3PH five wire (3 PH + N + E)																
Input Neutral Requirement	YES																
Nominal Voltage	330V to 450V FOR 3PH																
Grid Frequency Sync Range	50 Hz (± 6%)																
Unity power Factor for grid	Near to Unity																
Operating condition	Continuous																
Input Fault Level	≥10 KA																
Self-Consumption	upto 4%																
Charger Peak Efficiency	upto 95%																
DG Compatibility	YES (Double of Inverter Capacity)																
Grid Compatibility	YES SAME AS INVERTER CAPACITY																
Input Voltage distortion allowed	LESS THAN 3%																
Grid Charger capacity	50 % of KVA rating																
SOLAR																	
Charger Type	MPPT																
Max PV Connection in kWp	5	10	15	20	25	30	40	50	60	80	100	120	150	200	250	300	
Max PV Voltage (VOC)	250V	300V	500V	500V	500V	500/600V	500/600V	500/600V	500/600V	500/600V	500/600V	500/600V	600V	900V	1100V	1100V	
MPPT Voltage Range	120-180V	165-250V	300-450V for 240VDC / 450-600V for 360VDC OR 384VDC											800 - 1000V			
MPPT Modes Available	3 (Selectable)																
No of MPPT Channel	1								2		2		2		3		3
Panel Reverse Protection	Yes																
Solar Charger Efficiency	upto 95%																
BATTERY																	
Nominal Battery Voltage (VDC)	96	120	240		360		360 / 384						480/600		576 / 600		
Battery Buffer Setting	DC Voltage Selectable Through kay pad																
Grid Charging Current	Settable Through Key Pad																
Temperature Compensated	YES																
Battery Charging Voltage	Selectable from LCD Display																
Type & No. of cells	Lead Acid / VRLA / Ni-Cd/ Lithium Ion																
BMS compatible	YES																
OUTPUT																	
Load Power Factor	Unity (kVA = kW)																
Output Voltage (Inverter Mode)	415V AC ± 2%																
Output Frequency (Free Running)	50 Hz ± 1%																
Output Waveform	Pure Sine wave																
Peak Inverter Efficiency (Full Load)	upto 90 %																
Total Harmonic Distortion	upto 3% at Linear Load																
Overload Capacity	125% for 60Sec, 150% for 5 Sec																
Changeover Time (Full load)	10 msec																
DC to AC Galvanic Isolation	In built Isolation Transformer at Inverter Output																
Anti Islanding Function	In Compliance with IEC 62116																
Auto Bypass feature	YES																
Unbalance load handling	YES																
Duty	Continuous																
CONFIGURATION																	
Modes Available	Grid saving, Battery backup, Export																
power Export to Grid	Enable / Disable option Available																
power import from Grid	Enable / Disable option Available																
ENVIRONMENTAL																	
Acoustic Noise Level from 1 m	≤ 65 dB																
Operating Temperature	0 to 40 Deg C (Dust free cooled and dry environment)																
Storage Temperature	-10 Deg C to 60 Deg C																
Relative Humidity	Up to 95 % (Non Condensing)																
Altitude	< 1000 meter above sea level																
Sysmic Requirement	upto 0.5g																
PHYSICAL																	
Enclosure Protection Grade	IP 20 Compatible to IEC 60529:2001-02- As per MNRE Requirement																
Enclosure Thickness	as per industrial standard																
Cooling	Forced Air																
Colour	RAL 7016								RAL 9016								
Cable Entry	Bottom																
Parameters displayed on LCD																	
Input Group	1. Voltage, 2.Current, 3. Frequency, 4. kW, 5. kVA, 6.Import kWh, 7. Export kWh, 8. PF																
Inverter Group	1. Voltage, 2. Current, 3. Frequency, 4. kVA																
Output Group	1. Voltage, 2. Frequency																
Output Group	1. Solar Voltage , 2. Solar Current, 3. Power(kW), 4. Solar Energy (kWh)																
Battery Group	1. Voltage, 2.Current 3. SoC																
PROTECTIONS																	
ELECTRICAL PROTECTIONS	CIRCUIT BREAKER and Fuse																
ELECTRONIC PROTECTIONS																	
	Alarms are provided for all important protections.																
inverter Group	1.Input Under Voltage, 2.Input Over Voltage, 3. Charger Over Voltage, 4. Under /Over Frequency																
inverter Group	1. Output Under Voltage, 2.Output Over Voltage 3. Overload, 4. Output short Circuit, 5. Inverter Over Temperature																
Solar Group	1. Surge Protection , 2. Reverse PV Panel protection																
Battery Group	1. Battery low , 2. Battery Over charge 3. Battery Charging Current limit																
CONNECTIVITY																	
Communication	RS 232 or RS 485																
Protocol	MODBUS RTU																
LCD with backlight & Tactile key	YES																
Testing Standard	IEC - 61683:1999, IEC- 60068-2-1, IEC- 60068-2-2, IEC-60068-2-14, IEC-60068-2-30- As per MNRE Requirement																
Safety Factor	1 for electronic devices, 1 for electrical																
Earthing Connection (Ref. is 3043)	Earth terminal block				25- 40 kVA : 3 x 25 mm GI (Earth bus bar running along the panel)			45-150 kVA : 6 x 50 mm GI (Earth bus bar running along the panel)					200-300KVA: 6 x 50 mm GI (Earth bus bar running along the panel)				
Illumination lamp					NA.				11 W CFL								
Gland Plate					NA				3 mm MS C.R.C.A.								
Utility Socket					NA				5 A / 230 VAC								
Dimensions (in mm)																	
KVA Rating	5	10	15	20	25	30	40	50	60	80	100	120	150	200	250	300	
Width (W)	450	450	450	450	450	450	600	800	800	1100	1100	1100	1565	1570	2900	2900	
Depth (D)	800	800	800	800	950	950	1000	950	950	800	800	800	850	850	850	850	
Height (H)	800	800	800	800	800	800	1300	1700	1700	1900	1900	1900	1900	1900	1900	1900	
Weight (Kg) APPROX.	125	150	150	300	350	350	650	650	700	850	900	1000	1200	1400	1500	1600	
Add on ACCESSORIES (not standard Part to inverter)																	
	1) GSM Based Remote Monitoring, 2.) 2) Modbus RS485 3) RADIATION SENSOR (Pyranometer) 4) SMOKE DETECTOR, 5) IP 42 Enclosure and																

INDIA'S TRUSTED



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Warehouse: Khasra No. 8/5, 6, 14/2, 15/1, 16/2 Min & 17, Jakhauli Road, Jhundpur, Sonipat, Haryana - 131021

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

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

