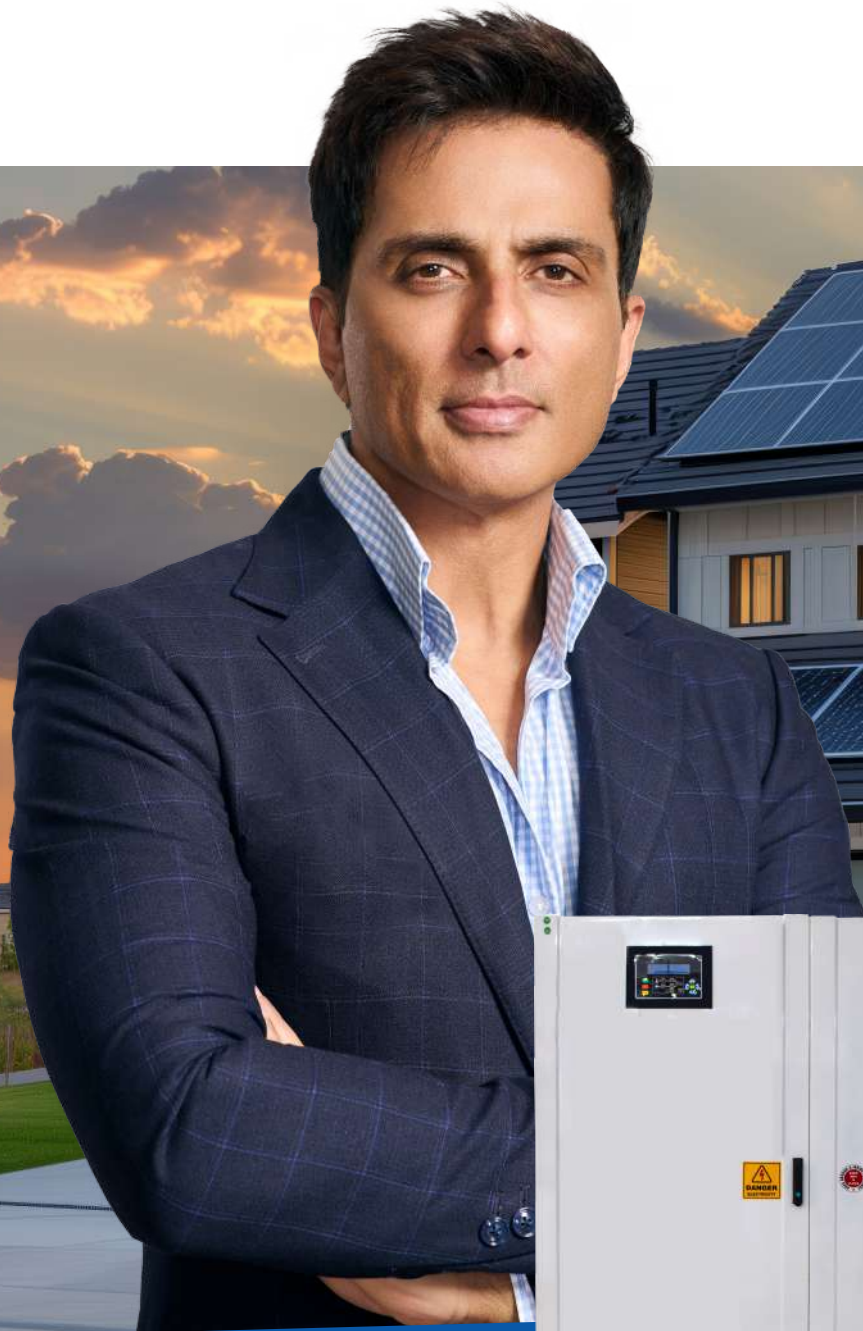


# Fusion Series

## Hybrid Solar Inverter



# About

Servotech is dedicated to creating value through transformative change, with a commitment to advancing a green future through sustainable development and relentless innovation. Our eco-friendly products are designed to lead the way in renewable energy and electric mobility. With an extensive presence spanning over two decades we have curated high value solutions.

Our green product portfolio features comprehensive solar solutions, including solar panels, inverters, and batteries. The Fusion Series Hybrid inverters are a notable addition to our robust lineup of efficient solar products, reflecting our forward-thinking approach. Recognizing the importance of integrating cutting-edge technology, we have developed these advanced Hybrid inverters to complement the quality of our solar panels and efficiently power multiple households. Servotech continues to push the boundaries of solar technology, ensuring we deliver superior performance and innovation to our customers.

## Solar, Simplified with Fusion Series

Servotech's Fusion Series with its new and improved advanced technology redefines the concept of renewable power. Crafted with sincerity, built on reliability, Fusion Series is a reflection of Servotech's long lasting legacy of technology driven reliable and durable products.

### Here is why you should choose us :

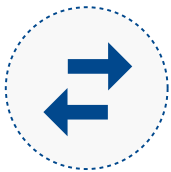
- **Industry Leader:** As a pioneering solar solutions provider, Servotech leads innovation in the renewable energy sector, with products trusted by customers globally.
- **Precision Engineering:** Our three phase hybrid inverters are expertly crafted for efficient energy conversion, ensuring maximum power output from your solar panels.
- **High Efficiency:** Designed with a focus on optimal performance, Servotech inverters provide high energy conversion rates, lowering electricity costs and maximizing your solar investment.
- **User-Friendly Design:** Featuring easy-to-use interfaces and simple installation, our inverters offer a seamless experience, making solar power accessible and convenient for all households.

# Fusion Series

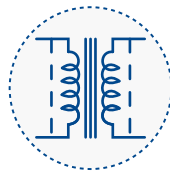
## Hybrid Solar Inverter



### CORE FEATURES



**Bidirectional Inverter**



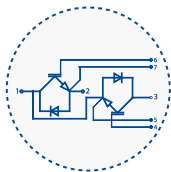
**Built-in isolation transformer**



**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		
<b>GRID</b>																		
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	up to 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																	
<b>SOLAR</b>																		
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		2		3		3	
Panel Reverse Protection	Yes																	
Solar Charger Efficiency	up to 95%																	
<b>BATTERY</b>																		
Nominal Battery Voltage (VDC)	96	120	240	360	360 / 384								480/600	576 / 600				
Battery Buffer Setting	DC Voltage Selectable Through key 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																	
<b>OUTPUT</b>																		
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																	
<b>CONFIGURATION</b>																		
Modes Available	Grid saving, Battery backup, Export																	
power Export to Grid	Enable / Disable option Available																	
power import from Grid	Enable / Disable option Available																	
<b>ENVIRONMENTAL</b>																		
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																	
Seismic Requirement	upto 0.5g																	
<b>PHYSICAL</b>																		
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																	
<b>Parameters displayed on LCD</b>																		
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																	
<b>PROTECTIONS</b>																		
ELECTRICAL PROTECTIONS																		
ELECTRONIC PROTECTIONS																		
CIRCUIT BREAKER and Fuse																		
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 Pannel protection																	
Battery Group	1. Battery low , 2. Battery Over charge 3. Battery Charging Current limit																	
<b>CONNECTIVITY</b>																		
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	N.A.												11 W CFL					
Gland Plate	NA												3 mm MS C.R.C.A.					
Utility Socket	NA												5 A / 230 VAC					
<b>Dimensions (in mm)</b>																		
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 an 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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**बिना टेंशन...**

## **Servotech Renewable Power System Ltd.**

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**Ph: 011-41183116, +91 9818680033**

 **+91 9311313734**

**Email:** [servotech@servotechindia.com](mailto:servotech@servotechindia.com)

**Website:** [www.servotech.in](http://www.servotech.in)

**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

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

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

