

3 PHASE BI-DIRECTIONAL SOLAR INVERTER



For larger solar panel installations, including Roof-Top, STATCON offers Inverters, both in pure exports as well as Hybrid Bi-Directional systems including battery charging . Backed-up by long experience of designing of such products for Indian environmental conditions and with embedded technical support from Australia, STATCON's 3 Phase Inverter systems are second to none.

It consists of High Efficiency MPPT charging system with Active Front End Converter. The DSP based technology and intelligent software helps in automatic selection of various inputs like Solar, Mains, DG and gives un-interrupted 3 phase AC outputs. Keeping in mind the poor grid conditions in India, like, high voltage / fluctuations, the controller adjusts the output frequency so as to maintain balanced outputs irrespective of imbalance on grid side.

Inverter can also be configured to Export surplus power to grid and can be configured for only pure-grid- export mode as well.

The control and monitoring options available are:

Inverter can also be configured to export surplus power to grid. The different control & monitoring options available are:

- ◆ Via the front panel LCD display and membrane key-pad. A structured, software menu-driven system is available for monitoring and setting up the inverter.
- ◆ Via a RS-232 / RS-485 and RJ-45 TCP/IP connection. These connections can be utilized to connect a PC to monitor and configured the inverter locally.
- ◆ The inverter can be connected to a SCADA system through the TCP/IP communication port available.

SPECIAL FEATURES

- ◆ Adaptive algorithm for high efficiency MPPT Solar Charger
- ◆ Available from 10KVA to 150KVA in wide voltage range
- ◆ Multi stage battery charging including temperature compensation
- ◆ Fast changeover time
- ◆ Caters to high input phase unbalance
- ◆ Current sharing between Solar & AC, when present
- ◆ Auto DG start-stop as per requirement
- ◆ RS-485 with extended touch screen display
- ◆ Data logging with storage and GPRS monitoring

APPLICATIONS

- | | |
|-----------------------------|----------------|
| ◆ Data Center | ◆ Petrol Pumps |
| ◆ Site Office / Farm Houses | ◆ Pipe Lines |
| ◆ Telecom Shelters | ◆ Railways |



STATCON'S PRODUCT RANGE FOR SOLAR APPLICATIONS

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|-------------------------------------|--|
| • Hybrid Solar Inverter | • Array Junction Box |
| • Off-Grid Solar Inverter | • 24V / 48V DC Solar-Mains-DG-Hybrid System |
| • 24V / 48V MPPT Charge Controllers | • MW Solar Inverter Solution from Answer Drives, Italy |
| • 110V / 220V MPPT Chargers | • Intelligent String Monitor |

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TECHNICAL DETAILS

Nominal Capacity*	10-25kVA	30-50kVA	50-100kVA	100-150kVA
Nominal Battery Voltage**	120V / 220V	220V	220V / 380V	220V / 380V
Maximum Battery Charging Current from AC	@ C/10 rate or as per design	@ C/10 rate or as per design	@ C/10 rate or as per design	@ C/10 rate or as per design
Overload	125% for 10 min. / 150% for 1 min. / 200% for 2 sec.			
Nominal AC Voltage (Phase-Phase)	415V AC, ± 15%, three Phase			
Mains input frequency range	45 to 55Hz.			
Inverter / Charger efficiency	>95% at nominal voltage and power			
THD	<3%, with resistive load			
Output voltage regulation	2%			
PV charge controller type	PWM – MPPT Buck			
User Interface	128 – 64 Graphical Blue LCD with Backlight Membrane Keypad			
Protections	Inverter Over voltage Inverter Over Load / Current Limiting Inverter Over Temperature Mains Under / Over Voltage Mains Under / Over Frequency Battery Under Voltage Battery Health Monitoring (optional) Temperature compensation for battery charging			
Battery type supported	Lead Acid Tubular, VRLA, Ni-Cd Charging characteristics tailored to suit the battery			
Monitored system parameters	Battery voltage, Current & Temperature Inverter voltage & current Mains Voltage, Current & Frequency Ambient Temperature Transformer temperature CO ₂ saved			
Communication Port	Isolated RS232 DB-9 female connector Isolated RS485 screw terminal connector Ethernet 10-BASE-T RJ45 connector			
Inbuilt diagnostic system	Data logging in to non-volatile memory Data accessible through communication ports			
Circuit Breaker	Solar Input, Battery Input, Grid Input, Load			
Operating Temperature	-10°C to 50°C			
Enclosure	Floor standing indoor type			

* Higher KVA ratings also available, ** different voltages can also be offered

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