

# HYBRID SOLAR INVERTER



Using vast experience of designing of such power electronic products embedded with technological excellence from Australia, STATCON offers state-of-art single phase Hybrid Solar Inverter-Cum- charger system.

It consists of MPPT PWM Solar Charge Controller with Hybrid Inverter. As per the requirement, the same inverter can supply full DC power for charging of battery through 230V AC mains (wherever available). The Inverter can thus both charge the battery or supply the AC to connected Loads through Grid synchronisation. Provision for command to start / stop of DG set also available, in case battery gets discharged beyond certain level.

**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
- ◆ High efficiency DC-DC power conversion
- ◆ Low current distortion and high PF during charging mode
- ◆ Available from 3KVA to 15KVA in wide voltage range
- ◆ Multi stage battery charging including temperature compensation
- ◆ Fast changeover time
- ◆ High inrush current
- ◆ Current sharing between Solar & AC when present
- ◆ Auto DG start-stop as per requirement
- ◆ Digital display with keypad control
- ◆ RS-485 with extended touch screen display
- ◆ Data logging with storage and GPRS monitoring

## APPLICATIONS

- ◆ Data Center
- ◆ Site Office
- ◆ Farm Houses
- ◆ Telecom Shelters
- ◆ Petrol Pumps
- ◆ Pipe Lines
- ◆ Railway Signaling etc.
- ◆ Hospitals / Apartments

## STATCON'S PRODUCT RANGE FOR SOLAR APPLICATIONS

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

# HYBRID SOLAR INVERTER

## TECHNICAL DETAILS

<b>INVERTER</b>				
Nominal Battery Voltage*	48V	96V	120V	240V
Nominal Capacity	3kVA	6kVA	10kVA	15kVA
Synchronized Voltage Range	230V ± 15%			
Synchronized Frequency Range	50Hz. ± 5%			
Efficiency	> 85%			
<b>SOLAR CHARGE CONTROLLER</b>				
Type	MPPT			
MPPT Charge Controller Range*	1 – 3KWp	4 – 6KWp	10 – 12KWp	15 – 20KWp
MPPT Range	60-130V <sub>mp</sub>	120-230V <sub>mp</sub>	150-250V <sub>mp</sub>	300-450V <sub>mp</sub>
Max. PV Voltage	170V ∞	300V ∞	320V ∞	600V ∞
<b>MAINS CHARGER</b>				
Input Voltage	230V ± 15%			
Input Frequency	50Hz. ± 5%			
<b>OTHERS</b>				
Display	Graphical Display with Keypad			
LED Indications	<ul style="list-style-type: none"> <li>• Mains On</li> <li>• Alarm On</li> <li>• Buzzer Mute</li> </ul>			
Protections	<ul style="list-style-type: none"> <li>• Inverter Over voltage</li> <li>• Inverter Over Load</li> <li>• Inverter Over Temperature</li> <li>• PV Under / Over Voltage Cut-off</li> <li>• Battery Reverse Polarity Protection</li> <li>• Mains Under / Over Frequency</li> </ul>		<ul style="list-style-type: none"> <li>• Mains Under / Over Voltage</li> <li>• Battery Under Voltage</li> <li>• Short Circuit Protection</li> <li>• Surge Protection</li> <li>• Anti-Islanding</li> </ul>	
Display Parameters	<ul style="list-style-type: none"> <li>• Inverter Voltage &amp; Current</li> <li>• Battery Voltage &amp; Current</li> <li>• CO<sub>2</sub> Saved</li> </ul>		<ul style="list-style-type: none"> <li>• Mains Voltage &amp; Current</li> <li>• PV-V, PV-KWhr.</li> <li>• Ambient Temp.</li> </ul>	
Features	<ul style="list-style-type: none"> <li>• Three stage battery charging for better battery life</li> <li>• Battery current limiting</li> <li>• Temp. compensation for VRLA type battery</li> <li>• Battery type supported – Lead Acid Tubular, VRLA, Ni-Cd.</li> <li>• Inbuilt data logging</li> <li>• GPRS mounting of all parameters</li> </ul>			
Communication Type	RS-232 or RS-485 or GPRS (To be specified with order)			
Operating Temperature	0°C to 50°C			
Enclosure	IP-31, Wall mounted (upto 6KVA) / Floor standing indoor type			

Different voltage can also be offered.

\* Higher rating MPPT with different inverter rating can also be offered.

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