

## Solar Inverter with MPPT Charge Controller

### SOLAR INVERTER WITH MPPT CHARGE CONTROLLER

SIGNUS series inverters delivers unsurpassed clean true sine wave output for all appliance in the office, home and industries. Signus solar inverters can be connected to a wide variety of battery types and to endure non-stop 24 hours operation. The built-in MPPT charge controller provides efficient charge ability without risk of over charging. The solar charger works in parallel with the mains power and is designed to prioritize solar charging over mains charging during peak solar power durations. The compact and modular design makes installations easier and cost effective.

#### Key Features

- ★ Pure Sine wave output with minimized harmonics
- ★ Optimized for MPPT battery charging
- ★ MPPT efficiency >99%
- ★ Priority algorithm for solar over AC mains charging of batteries
- ★ Can be used as stand-alone UPS for energy saving applications
- ★ Designed to work with a wide variety of battery types like VRLA, Lead Acid and Lithium Polymer batteries

## SOLAR INVERTER WITH MPPT CHARGE CONTROLLER SPECIFICATIONS

SPECIFICATION	MODEL	SMI-500	SMI-1000	SMI-1500	SMI-2000	SMI-3000
<b>LOAD RATING</b>						
Watts (PF > 0.8)		500	1000	1500	2000	3000
VA		600	1250	1875	2500	3750
<b>BATTERY PARAMETERS</b>						
Battery Voltage		24V	36V	48V	72V	96V
Max. Mains Charging Current		15A	15A	15A	15A	15A
Charging Method	Bulk, Absorption and Float Full Utilization of Solar. Current sharing from mains for larger load requirement					
Temperature Compensation	5mv per Deg C per Cell					
<b>SOLAR PARAMETERS</b>						
Solar Charging Method	MPPT					
Max. Solar Panel Voltage	80V	100V	150V	200V	200V	
Max. Solar Charging Current	20A	30A	30A	30A	30A	
Conversion Efficiency	> 97%					
Conversion Mode	Buck Mode					
<b>AC INPUT VOLTAGE</b>						
Mains AC Low Cut-Off	175 ±5V					
Main AC High Cut-Off	265 ±5V					
Battery Charging V-Range	180 - 265V					
<b>AC INPUT VOLTAGE</b>						
Output AC Voltage	220 (±5%)					
Waveform	Sine Wave					
Frequency	50 ±0.3 Hz					
No. of Phases	1					
Power Factor	> 0.8					
Efficiency	> 80%					
<b>PROTECTION</b>						
DC Battery Reversed	Fuse					
Galvanic Isolation	Yes					
AC Short Circuit	Fuse					
Overload	Yes					
High Internal Temperature	Automatic Shut Down					
<b>DISPLAY</b>						
LCD Display	16 Character, 2 Line, Backlit LCD Display (Optional)					
LED Indicators	1: Battery Status, 2:UPS ON, 3:Overload, 4:Error					
LCD Display Parameters	1: Mains Voltage, 2:Inverter Voltage, 3: Battery Voltage, 4: Battery Current, 5:Operating Mode, 6:Battery Temperature, 7: Solar Panel Voltage, 8:Solar Charging Current					
<b>ENVIRONMENTAL</b>						
Operating/Storage Temp.	0-40 °C / 0-75 °C					
Humidity	0-90% Non Condensing					
Noise	< 50db					
<b>COMMUNICATION</b>						
RS232 / RS485	Optional (Factory preset to either RS232 or RS485)					
Software on PC	Optional: To control and indicate status and measurable values					



3/531 Kundrathur Road, Madanandapuram,  
Porur, Chennai - 600 116. India.

 **POWERSOFT SYSTEMS**

12, Pillayar Koil St., Vijayshanthi Bldgs.  
T. Nagar, Chennai - 600 017  
Phone: (44) 2814 0386, Mobile: 94440 34160  
Email: powersoft\_systems@yahoo.com  
Website: www.powersoftsystems.com