



“GRID SMART” MICROINVERTER (SP201-1)



Introducing the Grid Smart Inverter

The first breakthrough in inverter technology in over a decade

Simple Installation Plug and Play

Grid Smart will derive maximum power from any solar panel regardless of its age or condition. It is forward and backward to any manufacturer and impedance matching is not required as in the string inverter approach.

Provides Increased Power Harvesting

Grid Smart's patented technology operates over a much wider input voltage range than does other inverters. So, it will come on earlier and stay on later each day to provide the maximum KWH each month. The Grid Smart will even produce power on most rainy days!

Maximizes Power

This micro inverter provides the most total power from the array as the output from each panel is individually maximized. String inverters set themselves to the average panel output from string.

Grid Friendly

Grid Smart provides both active and reactive power. Most inverters provide only active power. This reduces the strain on the power grid.

AC Line Conditioning

Grid Smart provides conditioning to the AC line by improving Power Factor and compensating for reactive loads. This reduces out-of-phase power disturbance and increasing power unity. This happens 24 hours a day.

Individual Web Based Control

Each Grid Smart inverter has an individual IP address. The user can immediately monitor and detect faulty or under achieving panels.

Next Generation Inverter

This inverter has been chosen by the most sophisticated users in the world. This is because Grid Smart provides the best performance and ROI in the industry.

Electrical Characteristics			
Power Source	Solar Voltage Panel	Startup Time Initial Power On	300 Seconds
Overload Current Protection Circuit	Current Limiting	Power Extraction Method	Proprietary Power Transfer and Tracking
Efficiency	91%		
Physical Characteristics			
Output Connector	3 pin IP67 connector	Wire Size	Min. 12 Gauge
Solar Panel DC Input Converter	MC3, MC4 or Tyco Solarlok	Dimensions	9.75" x 7.25" x 2.50"
Weight	9.0 lbs. / 4.1 kg	Outdoor Use	Yes
Enclosure Rating	NEMA 6	Mounting	Indoor/Outdoor
Environmental Characteristics			
Operating Temperature Min.	-40° C	Operating Temperature Max.	60° C
Tropicalization	Yes	Humidity	95% non condensing
PV Panel (input)			
Max. PV Open Circuit Voltage	42V DC	Min. PV Operational Voltage	16V DC
Max. Solar Panel Wattage	200W	Min. Solar Panel Wattage	100W
Reverse Polarity Protection	Yes	Max. Input Short Circuit Current	10A DC
Rated Input Current	8A	Overcurrent Protection	Yes
AC (output)			
AC Output Voltage	108-120-132V AC 60Hz	AC Overcurrent Protection	Yes
AC Output Rated Current	1.5A	AC Output Max. Current	1.75A
AC Output Power Factor Range	-.64 to 1.0	AC Output Max. Fault Current	6.3A
Monitoring			
Input / Output Status	Ethernet		