

# SNS-5600S

## 5600 WATTS

THREE PHASE WIDE RANGE INPUT WITH  
ACTIVE POWER FACTOR CORRECTION

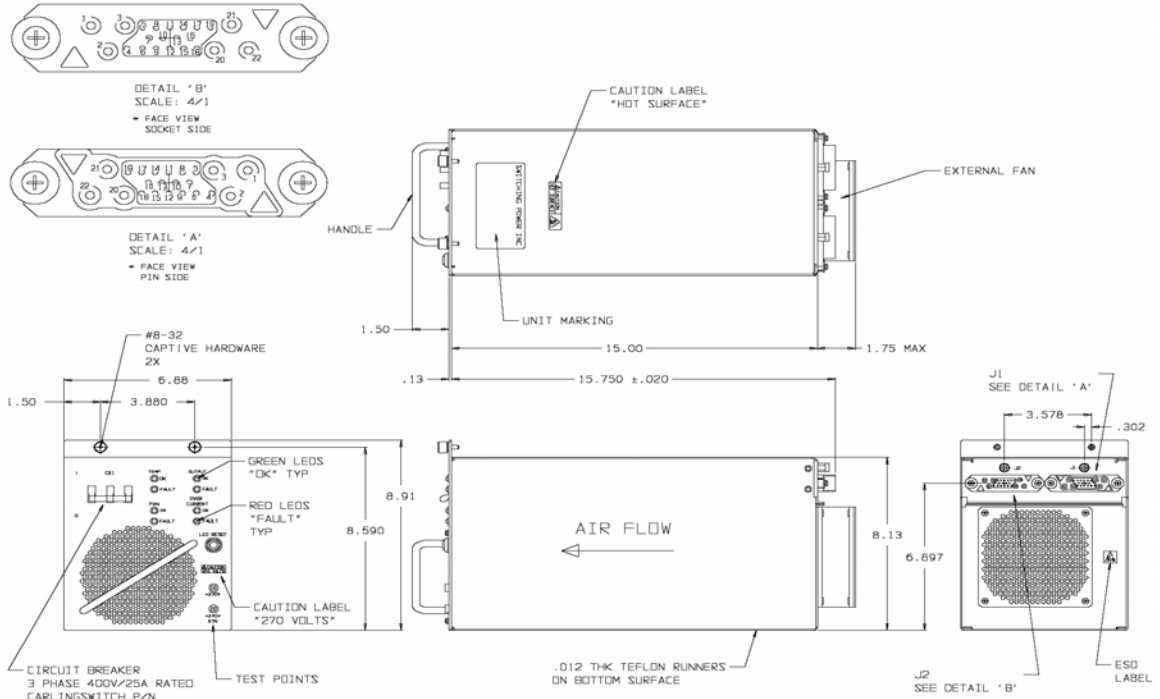


- 5600 Watts in 6.88" x 8.13" x 15.00" Size!
- 3 Phase 220V/60Hz and 380V/50Hz Input with Active power Factor Correction (Greater Than 0.99)
- Meets MIL-STD-1399, Section 300A (Type I) for the Voltage Ranges Specified
- Input Current THD not Exceeding 4%
- +270VDC/20.7A Output
- Patent Pending Topological Approach Resulting in Cancellation of all Harmonic Power Line Frequency on the Output Ripple Without the Need for Additional Large Output LC Filter
- True Hot Swap with Floating ELCON Mini-Drawer Connector
- N+1 Redundant with Internal Oring Diodes
- Active Zero Wire Current Share Allowing for Redundant Modules to Share With in 10% of Each Other
- Output Test Points on Front Panel
- LED Display for Output, Temp., Over Current and Fan Status
- Ruggedized Mechanical Design Meeting MIL-STD-810F, Method 514.5, Category 24, Procedure 1
- One Year Warranty

# SNS-5600S

J1 ELCDN P/N 221-0010-01100 8 #12 PIN CONTACTS AND 16 #20 PIN CONTACTS	
PIN NO.	SIGNAL
1	PHASE A
2	PHASE B
3	PHASE C
4	N/C
5	N/C
6	N/C
7	N/C
8	N/C
9	N/C
10	N/C
11	N/C
12	N/C
13	N/C
14	N/C
15	N/C
16	N/C
17	N/C
18	N/C
19	N/C
20	NEUTRAL
21	CHASSIS GROUND
22	N/C

J2 ELCDN P/N 221-0010-01100 8 #12 SOCKET CONTACTS AND 16 #20 SOCKET CONTACTS	
PIN NO.	SIGNAL
1	N/C
2	+270V/20_7A
3	N/C
4	N/C
5	DC ENABLE L
6	N/C
7	N/C
8	DC ENABLE RTN
9	N/C
10	N/C
11	N/C
12	N/C
13	N/C
14	N/C
15	N/C
16	N/C
17	FAULT L
18	N/C
19	FAULT RTN
20	N/C
21	+270V RTN
22	N/C



NOTES: UNLESS OTHERWISE SPECIFIED:  
 1. TOTAL POWER NOT TO EXCEED 5600 WATTS.  
 2. EXTERNAL SURFACES PAINTED WITH BLACK EPOXY PAINT. COLOR #37030 PER FED-STD-595.

Nominal Input Voltage	120/208VAC 3-phase, five wire 60Hz; 220/380VAC 3-phase, five wire 50Hz.
Frequency	60Hz ±5%; 50Hz ±5%.
Operational Input Voltage Range	120/208 ±10% 115/200 ±10% 220/380 ±10% Input Power Factor exceedind 0.99 at full load.
Input Current THD	<4% at full load
Input Load Balance	Current loading for any phase does not exceed the average of the currents in all 3 phases by more than 5%
Inrush Current	Less than 5msec. 50Apk at 418 VAC.
Fusing	(3 X 30 Ampere)/600VAC, Very fast acting.
Circuit Breaker	Located on front panel, 25A/480VAC Ultra Short delay.
Efficiency	87-90% (input line dependent)
Turn on time	1 sec max. from power up.
Line & Load Regulation	±1% over AC input range and 0 to 100% load change.
Minimum Load	No minimum load required.
Ripple & Noise	Through 20MHz less than 0.5% pk-pk.
Transient Response	Output excursion of less than 5% for full load step, recovery less than 500µsec.
Overshoot/Undershoot	No turn-on or turn-off overshoot.
Input Isolation	2200VDC from input to both chassis/output.
Output Isolation	Greater than 10 Meg ohms minimum when a DC potential of 1000V is applied between output (incl. returns) and chassis.
Reverse Voltage	Protected against reverse voltage to supply current rating.
Overvoltage Protection	Shutdown at 110-115% of nominal Vout. Recycle input power to reset.
Overtemperature Protection	Unit shuts down if overheated. Auto reset.
Input Leakage Current	Less than 3.5mA max at 380Vac.
Current Limiting	Current limit trip point less than 117% of rating. Hiccup mode with short circuit current less than 5A average.
Paralleling	Two or more supplies can be operated in parallel and will share load current within 10% of each other.
Redundant	Full power N+1 redundant with integral ORing diodes.
Enable	Floating OPTO input. Energize to turn on.
Output Setting	270V ±0.1V at full load.

FAULT Signal	Floating OPTO output which goes high whenever the output fails, output short circuit or overload, over temperature condition, Fan RPM less than 1/2 of normal
Indicators	GRN and RED LEDs on front panel indicating; - Output short circuit or overload - Output over voltage/under voltage - Over temperature - Fan RPM (threshold less than 1/2 of nominal)
Manual Reset	Button located on front panel to reset and test LEDs.
Test Points	Output test points located on front panel.
Cooling	Forced air cooled, back to front design; fans capable of overcoming a pressure differential of 0.5 inches of water between the air inlet and exhaust.
Operating Temp.	-32° C to +52° C
Non-Operating Temp.	-51° C to +75° C
Temperature Stability	Less than .02%/deg C over the operating temperature range.
I/O Connectors	Elcon Mini Drawer (x2).
Size/Weight	6.88" x 8.13" x 15.00" at 34 lbs max.
Environmental Meets (when installed in SPI's rack enclosure):	<ul style="list-style-type: none"> <li>High Temperature per MIL-STD-810F, Method 501.4 Procedure I &amp; II</li> <li>Low Temperature per MIL-STD-810F, Method 502.4 Procedure I &amp; II</li> <li>Humidity per MIL-STD-810F, Method 507.4</li> <li>Pressure Altitude per MIL-STD-810F, Method 500.4 Procedure I up to 40,000ft Non-operational</li> <li>Pressure Altitude per MIL-STD-810F, Method 500.4 Procedure I up to 10,000ft operational</li> <li>Fungus per MIL-STD-810F, Method 508.4</li> <li>Sand &amp; Dust per MIL-STD-810F, Method 514.5 Procedures I, II &amp; III, modified as; 0.1 g/m³ dust; 0.03 g/m³ sand</li> <li>Salt Fog per MIL-STD-810F, Method 509.4</li> <li>Vibration per Mil-STD-810F, Method 514.5 Category 24, Procedure I</li> <li>Shock; 15g for 40ms, half sine, each direction, all 3 axes</li> </ul>
EMI Meets (when installed in SPI's rack enclosure):	<ul style="list-style-type: none"> <li>RS103 (Army Ground, 30MHz - 18GHz)</li> <li>RE102 &amp; CE102</li> <li>CS101</li> <li>CS114 (Army Ground)</li> <li>CS115</li> <li>CS116 (10 Amps)</li> </ul>