1000 Watts

SHP1000 Series

- Rugged Industrial Construction
- Variable Fan Speed for Noise Reduction
- -20 °C to +70 °C Operation
- 5 V Standby
- AC OK, Remote On/Off and Active Current Share
- Screw Terminals
- 3 Year Warranty

Specification

Input

Input Voltage	• 85-264 VAC, derate output power 10% <90 VAC
Input Frequency	• 47-63 Hz
Input Current	• TBA A at 115 VAC typical TBA A at 230 VAC with 650 W load
Inrush Current	• 40 A max at 264 VAC
Power Factor	• EN61000-3-2 class A compliant
Earth Leakage Current	• 1.0 mA max 264 VAC 60 Hz
Input Protection	• T TBA A / 250 V internal in line fuse

Output

Output Voltage	• 12-48 VDC (see tables)
Output Voltage Trim	• ±10% V1
Initial Set Accuracy	• ±1% V1, ±5% V3
Minimum Load	• No minimum load required
Start Up Delay	• 500 ms max
Start Up Rise Time	• 50 ms
Hold Up Time	• 20 ms minimum
Drift	• ±0.2% after 20 min warm up
Line Regulation	• ±0.5% maximum
Load Regulation	• ±1% V1, ±5% V3
Transient Response	• 4% max. deviation, recovery to within 1% in 500 µs for a 50-75-50% load change
Ripple & Noise	• 1% pk-pk V1, 20 MHz bandwidth
Overvoltage Protection	• 115-145% Vnom, recycle input to reset
Overtemperature Protection	• Auto reset
Overload Protection	• 110-140%, V1 only
Short Circuit Protection	• Auto recovery
Temperature Coefficient	• 0.05% / °C
Remote Sense	• Compensates for 0.5 V total voltage drop
Remote On/Off	• Uncommitted isolated optocoupler diode, powered diode inhibits V1 & V2 fan supply
Current Share	• Single wire current share

General

Efficiency	• 86% typical
Isolation	• 3000 VAC input to output, 1500 VAC input to ground, 500 VDC output to ground
Switching Frequency	• PFC 70 KHz, main converter 200 KHz typical
Power Density	• TBA W/in^3
Signals	• AC OK, remote on/off, current share
MTBF	• 300 KHrs to MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	• -20 °C to +70 °C, derate linearly from +50 °C at 2.5% / °C to 50% load at +70 °C
Cooling	• Forced cooled via integral fans
Operating Humidity	• 95% RH, non-condensing
Storage Temperature	• -40 °C to +85 °C
Operating Altitude	• 3000 m
Shock	• 30 g pk, half sine, 6 axes
Vibration	• 2 g rms, 5 Hz to 500 kHz, 3 axes

EMC & Safety

Emissions	• EN55022 level B conducted EN55022 level A radiated
Harmonic Currents	• EN61000-3-2, class A
Voltage Flicker	• EN61000-3-3
Radiated Immunity	• EN61000-4-3, level 3 Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, installation class 3, Perf Criteria A
Conducted Immunity	• EN61000-4-6, level 3, Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% 10 ms, 60% 100 ms, 100% 5000 ms, Perf Criteria A, B, B
Safety Approvals (Pending)	• IEC60950-1 CB report, CSA 22.2 No. 60950-1, UL60950-1, TUV, EN60950-1

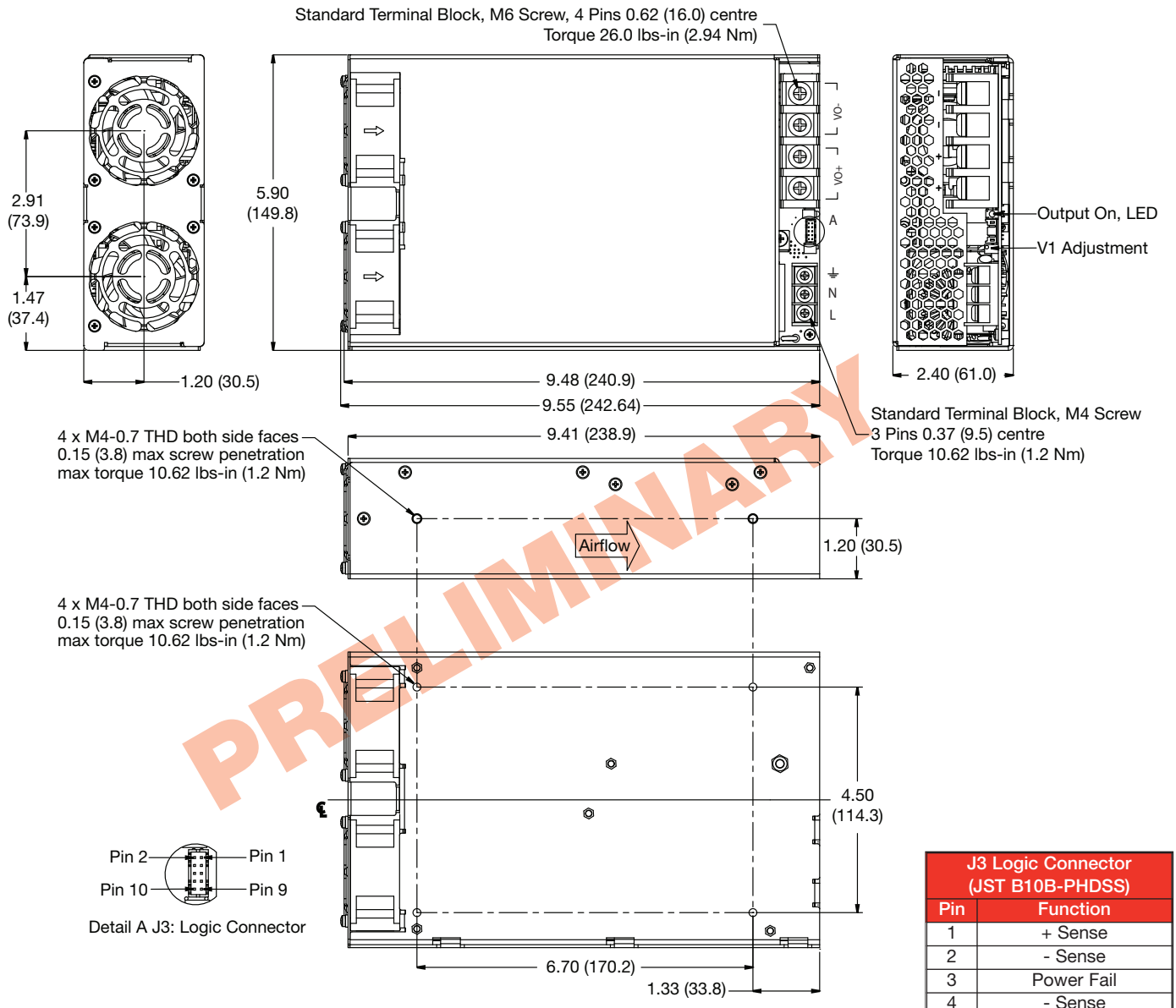
Models and Ratings

Output Voltage V1	Max Output Current V1	Standby Supply V2	Max Output Power	Model Number
12 V	83.0 A	5 V / 1.0 A	1001 W	SHP1000PS12
15 V	67.0 A	5 V / 1.0 A	1010 W	SHP1000PS15
24 V	42.0 A	5 V / 1.0 A	1013 W	SHP1000PS24
28 V	36.0 A	5 V / 1.0 A	1013 W	SHP1000PS28
36 V	28.0 A	5 V / 1.0 A	1013 W	SHP1000PS36
48 V	21.0 A	5 V / 1.0 A	1013 W	SHP1000PS48

Notes

1. U Channel models require a minimum of 5.5 m/s airflow from the system.

Mechanical Details



J3 Logic Connector (JST B10B-PHDSS)	
Pin	Function
1	+ Sense
2	- Sense
3	Power Fail
4	- Sense
5	Current Share
6	Current Share
7	+ Inhibit
8	- Inhibit
9	+5 V Standby
10	5 V Standby Return

Notes

1. Dimensions shown in inches (mm).
2. Weight: TBA
3. J2 Mating plug: JST part no. PHDR-10VS, contact: 26-22 AWG JST part no. SPHD-001T-P0.5.