

## SPH-1200



### Featuring:

- Diode isolated output for hot swap
- “Zero wire” slope program current sharing for redundancy
- High power density: 5 W/cu. in.
- Industry standard DIN connector
- Universal AC input
- 0.99 typical power factor
- DC power good and AC power fail signals
- True remote inhibit
- Monotonic turn-on and turn-off

### STANDARD SPH SERIES

MODEL	OUTPUT RATING	PWR OUT
SPH-1200-24	24V @ 50A	1200
SPH-1200-28	28V @ 42A	1200
SPH-1200-48	48V @ 25A	1200

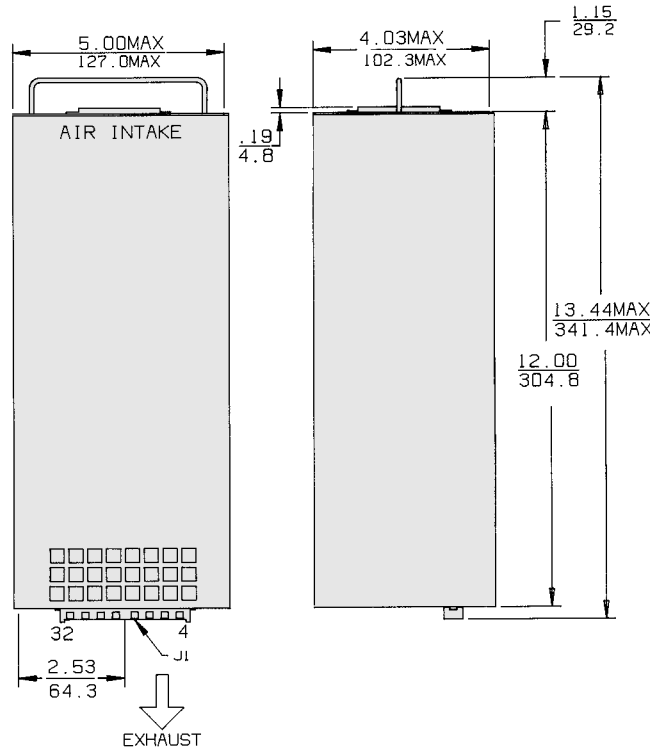
The SPH-1200 series provides low-cost, highly reliable, N+1 redundant hot swap power for critical applications.

These 1200-watt single-output power supplies include an integral fan and are available with a front panel and handle for front access in sub-system racks or without handles for embedded applications.

Power factor correction, OR-ing diodes, and current sharing make the SPH series an ideal choice for communications and data processing systems utilizing distributed power or redundant power architecture.



**SPH-1200**  
7.3 lbs - 3.3 kgs



Dimensions:      Inches  
     Millimeters

**SPECIFICATIONS: ALL MODELS**

**INPUT**  
**AC Input:** 105-264 Vac continuous range, 47 to 63 Hz. Internally fused for 20 A.  
**Power Factor:** 0.99 typical at full load. Meets EN61000-3-2.  
**Inrush:** Cold start ac current is less than 75 A at 115 Vac and 150 A at 230 Vac for 8 ms typical. Limited by thermistor.  
**Holdup Time:** 16 ms minimum after removal of power at full load.  
**Efficiency:** 80% minimum  
**AC Power Fail:** Provides TTL "0" 5 ms before output voltage goes out of regulation band upon loss of AC power.  
**Brownout Protection:** Holds regulation to 85 Vac for 30 seconds maximum.

**OUTPUT**  
**Adjustability:** User adjustable  $\pm 5\%$  minimum.  
**Line Regulation:**  $\pm 0.2\%$   
**Load Regulation:**  $\pm 2\%$  (Slope Program) from 0 to 100% load change.  
**Turn On Delay:** 1 second typical  
**Output Rise Time:** (from 10% to 90%) 20 ms typical.  
**Ripple & Noise:** Less than 1% p-p, measured at 20 MHz bandwidth.  
**Temperature Coefficient:** 0.02% per degree C.  
**Stability:** 0.1% over 8 hours after 30 minutes warm-up.  
**Transient Response:** Output voltage returns to within 1% in less than 500  $\mu$ s for a 50% load change. Peak transient does not exceed 3%.  
**Overload Protection:** Electronic current limit, 120% maximum.  
**Overvoltage Protection:** Protects load against power supply induced overvoltage. Trip point is factory set so that output voltage cannot exceed 136% of nominal. Requires AC input to be cycled to reset.  
**Remote Inhibit:** Contact closure or a TTL level "0" turns off DC output.  
**DC Power Good:** Provides a TTL "0" open collector when output is above 90% of nominal. Maximum pull-up voltage 30 Vdc; maximum sink current, 10 mA.  
**Redundancy:** Built-in OR-ing diode, slope program current sharing, and DIN blade connector provide "hot swap" and "N+1" capabilities. Current sharing remains within 10% of the unit's full output rating given 0.2% initial accuracy in the output voltage setting.  
**Status Indicators:** Green LED on the front panel indicates normal operation (ACPF high and DCPG low)

**ENVIRONMENTAL**  
**Thermal Protection:** Shuts down power supply if overheated. Automatic recovery.  
**Temperature Range:** 0° to 50°C at full ratings.

**Safety Agencies:** Approved to UL1950; CSA 22.2 #950; IEC 950 and TÜV EN60950, Class 1 SELV, CE 73/23/EEC/93/68/EEC (low voltage directive).  
**Conducted RFI:** Meets FCC Part 15, Subpart J, Class A; EN55022 Class B; and CISPR 22 Class B.  
**Cooling:** Self-cooled by internal ball-bearing fan.

**OPTIONS**

**Option "R", Rack Mount Panel:** Special panel is required for rack mounting.  
 Consult factory for other available options.

**AC INPUT (105-264 VAC Continuous Range)**

LOCATION	115 VAC	230 VAC	CONNECTOR
Z32	Line	Line 1	See Below
D30	Neutral	Line 2	
Z28	Safety Ground	Safety Ground	

**DC OUTPUT**

FUNCTION	LOCATION	NOTES	CONNECTOR
Output Voltage	Z12 D14 Z16 D18	(+) to Polarity	Eurocard Connector - Male DIN 41 612 Level 1- Type H
	Z4 D6 Z8 D10	(-) to Polarity	

**STATUS AND CONTROL**

FUNCTION	LOCATION	NOTES	CONNECTOR
DC Power Good	Z20	Reference to to Common	See above
AC Power Fail	D22		
Inhibit	Z24		