SPF-500, SPF-750, SPF-1000 Commercial Series
500-1000 Watts Single Output, Forced Current Sharing



FEATURES:

- Forced current sharing for N +1 redundancy
- Universal ac input
- 0.99 typical power factor
- Low ripple and noise
- Dc power good and ac power fail signals
- True remote inhibit
- Monotonic turn-on and turn-off

SPECIFICATIONS:

INPUT
Ac Input: 90-264 Vac continuous range, 47 to 63 Hz. 750 W units fused for 15 A. 1000 W units fused for 20 A.
Power Factor: 0.99 typical at full load. Meets EN61000-3-2 Class A.
Inrush: Cold start ac current is less than 50 A at 115 Vac and 100 A at 230 Vac for 500 W and 750 W models; 90 A at 115 Vac and 180 A at 230 Vac for 1000 W models. Limited by thermistor.
Brownout Protection: Continuous range units hold regulation to 85 Vac.
Holdup Time: 20 ms minimum after removal of power at full load.
Efficiency: 75% typical.
Ac Power Fail: Provides TTL "0" 5 ms before output voltage goes out of regulation band upon loss of power.
OUTPUT
Adjustability: User adjustable ±5% minimum.
Line & Load Reg: ±1% over ac input range and 0 to 100% load change.
Ripple & Noise: Less than 1% p-p or 100 mV, whichever is greater.
Remote Sense: Compensates for 250 mV total line drop. Open sense lead protection. (See Redundancy, below.)
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 µs for a 50% load change. Peak transient does not exceed 5%.
Overload Protection: All outputs are protected against overload and short circuit. Automatic recovery upon removal of fault.
Overvoltage Protection: Protects load against power supply induced overvoltage. Trip point is factory set so that output voltage cannot exceed 136% of nominal.
Remote Inhibit: Contact closure to the negative sense line or a TTL level "0" turns off dc output.
Dc Power Good (5 V Outputs): Provides a TTL "1" open collector when output is above 4.6 V nominal.
Redundancy: External OR-ing diodes and forced current sharing provide "N+1" capability. Remote sense (+S) compensates for additional 0.6 V diode voltage drop. When the current sharing terminal is connected between units, current sharing remains within 10% of the unit's full output current rating.
Reverse Voltage: Protected against reverse voltage up to supply current rating.
ENVIRONMENTAL
Thermal Protection: Shuts down power supply if overheated. Automatic recovery.

Temperature Range: 0° to 50°C at full ratings.
Safety Agencies: Most models are approved to UL1950; CSA 22.2 #234; IEC 950 and TÜV EN60950, Class 1 SELV., CE 72/23/EEC/93/68EEC (low voltage directive).
Conducted RFI: Meets FCC Part 15, Class A; EN55022 Class B.
Output Isolation: Isolated from ground 50 Vdc.
Cooling: Self cooled by internal ball-bearing fans.

OPTIONS:
Consult factory for available options.

AC INPUT (90-264 VAC Continuous Range)

FUNCTION	115 VAC*	230 VAC	CONNECTOR
TB1-(L)	Line	Line 1	Barrier strip
TB1-(N)	Neutral	Line 2	#6-32 screws 3/8 centers
TB1-(GND)	Safety Ground	Safety Ground	

DC OUTPUT

FUNCTION	MODEL	LOCATION	CONNECTOR
Output	All SPF-500 models	Terminal +V	Bus bars #8-32 screws 2PL
		Terminal -V	
Voltage	All SPF-750 models	Terminal +V	Bus bars #1/4-20 screws 2PL
		Terminal -V	
	SPF-1000-24,28,36,48	Terminal +V	Bus bars #10-32 screws 2PL
		Terminal -V	

STATUS AND CONTROL

FUNCTION	SPF-500	SPF-750	SPF-1000	CONNECTOR
Remote Sense	J1-2 (S+)	J1-5 (S+)	J3-7 (S+)	AMP MTA TYPE
	J1-1 (S-)	J1-4 (S-)	J3-8 (S-)	#640456-6 (J1-500W)
Power Good	J1-7	J1-3	J3-5	or #640656-3 (J2-500W)
Inhibit	J1-5	J1-2	J3-4	or #640656-6 (J1-750W) or #640456-8 (J3-
Current Share	J1-6	J1-6	J3-6	1000W) pin headers (locking)
Ac Power Fail	J1-8	J1-1	J3-3	
Aux. Fan Voltage	J2-1 (+12V)	N/A	J3-1 (+12V)	
	J2-2 (Rtn)	N/A	J3-2 (RTN)	
Signal Ground	J1-10	N/A	N/A	

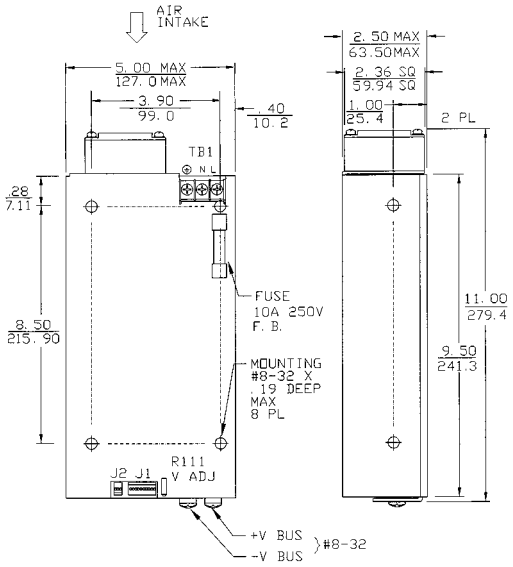
SPF-500, SPF-750, SPF-1000 Single Output

Commercial Model	Power Out	Output No.	Output	Output Minimum	Output Maximum	Total Regulation
SPF-500-12	500	1	+12 V	0 A	42 A	1%
SPF-500-15	500	1	+15 V	0 A	34 A	1%
SPF-500-24	500	1	+24 V	0 A	21 A	1%
SPF-500-28	500	1	+28 V	0 A	18 A	1%
SPF-500-48	500	1	+48 V	0 A	10.4 A	1%
SPF-750-12	750	1	+12 V	0 A	62 A	1%
SPF-750-15	750	1	+15 V	0 A	50 A	1%
SPF-750-24	750	1	+24 V	0 A	31 A	1%
SPF-750-28	750	1	+28 V	0 A	27 A	1%
SPF-750-48	750	1	+48 V	0 A	16 A	1%
SPF-1000-24	1000	1	+24 V	0 A	42 A	1%
SPF-1000-28	1000	1	+28 V	0 A	36 A	1%
SPF-1000-36	1000	1	+36V	0 A	28 A	1%
SPF-1000-48	1000	1	+48 V	0 A	21 A	1%

SPF-500, SPF-750, SPF-1000 MECHANICAL SPECIFICATIONS

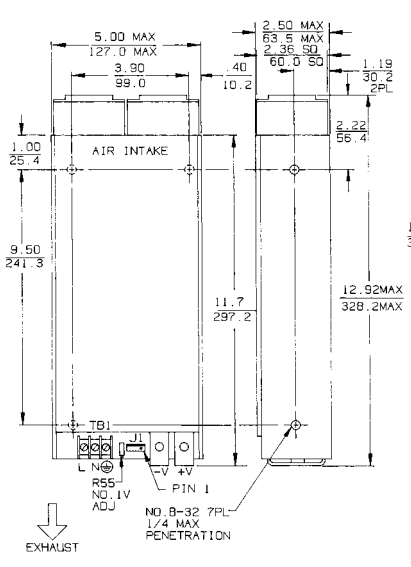
SPF-500

3.8 lb - 1.7 kg



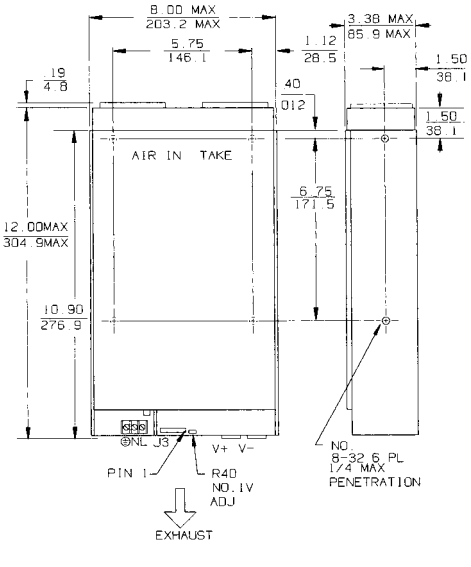
SPF-750

4.7 lb - 2.1 kg



SPF-1000

10.4 lb -4.7 kg



Dimensions: Inches
Millimeters