

DESCRIPTION

This series is a Class-II design in 2x4 inches, open PCB constructed AC/DC switching power supplies and PSU are capable of delivering 45 watts (5V is 35 watts) of continuous output power at convection cooling.

FEATURES

- Class-II design suitable for BF class insulation
- Compact size 2" x4" x1.12"
- Wide operation voltage 85~264Vac
- Wide operation temperature -20~50°C
- No load power consumption less than 0.3W
- High altitude 5000 meters operation
- EN55011 /55022 level B emissions
- OVP, OPP, OTP protection

INPUT SPECIFICATIONS

Input voltage:	85-264 VAC
Input frequency:	47-63 Hz
Input current:	0.9 A (rms) for 100 VAC 0.5 A (rms) for 240 VAC
Touch current:	100 µA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	See rating chart
Protection:	
OVP	Latch off
OPP & Shorted	Auto recovery
OTP:	Latch off
Temperature coefficient:	All outputs $\pm 0.04\%$ /°C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 µs after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20°C to +70°C
Storage temperature:	-40°C to +85°C
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50°C linearly to 70% at +70°C,

FSP045M-B24 SERIES



RoHS



SAFETY STANDARD APPROVALS



UL 60601-1, CSA C22.2 No. 601.1 (TBC)



TÜV EN 60601-1 (TBC)

GENERAL SPECIFICATIONS

Efficiency:	See rating chart.
Hold-up time:	12 ms minimum at 110 VAC
Line regulation:	$\pm 1\%$ maximum at full load
Inrush current:	25 A @ 115 VAC, or 50 A @ 230 VAC, at 25°C cold start
Withstand voltage:	4000 VAC from input to output (2 MOPP)
MTBF:	250,000 hours at full load at 25°C ambient, calculated per MIL-HDBK-217F
EMC Performance	
EN55011/EN55022:	Class B conducted, class B radiated
FCC:	Class B conducted, class B radiated
VCCI:	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, class A and D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ± 8 KV air and ± 6 KV contact
EN61000-4-3:	Radiated immunity, 10 V/m
EN61000-4-4:	Fast transient/burst, ± 2 KV
EN61000-4-5:	Surge, ± 1 KV diff., ± 2 KV com
EN61000-4-6:	Conducted immunity, 3 Vrms
EN61000-4-8:	Magnetic field immunity, 30 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, 60% reduction for 100 ms and >95% reduction for 10 ms

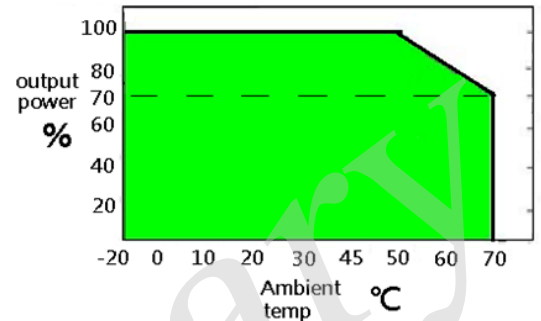
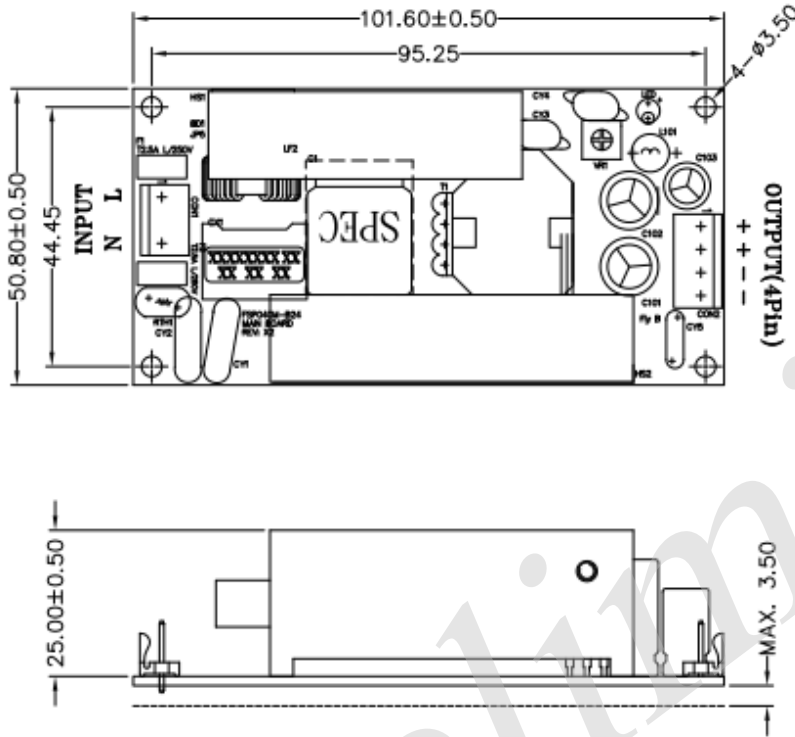
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output						Efficiency (typical) 115/230 Vac
	V1	Min. load	Max. Current	Tolerance	Ripple & Noise	Max. Power	
FSP035M-B24-05	5 V	0 A	7.0 A	±3%	50 mV	35 W	76 % / 78%
FSP045M-B24-12	12 V	0 A	3.75 A	±3%	120 mV	45 W	85 % / 87%
FSP045M-B24-15	15 V	0 A	3.0 A	±3%	150 mV	45 W	87 % / 89%
FSP045M-B24-18	18 V	0 A	2.5 A	±3%	180 mV	45 W	87 % / 89%
FSP045M-B24-24	24 V	0 A	1.875 A	±3%	200 mV	45 W	87 % / 89%

NOTE:
Ripple and noise is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 47 µF electrolytic capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS

OUTPUT POWER DERATING CURVE



- NOTES:
1. Dimensions shown in inches [mm]. Tolerance 0.02 [0.5] maximum
 2. Connector CN1: JST B3P-VH or equivalent, mating with JST VHR housing and terminal SVH-21T-P1.1 or equivalent.
 3. Connector CN2: JST B4P-VH or equivalent, mating with JST VHR housing and terminal SVH-21T-P1.1 or equivalent.

CONNECTOR PIN CHART

Connector	CN1		CN2			
Pin No.	N	L	1	2	3	4
Output	Neutral	Line	+V1		V1 Return	

Weight: 205 grams (0.45 lbs.) approx.