DESCRIPTION

This series AC-DC switching power supplies in a package of 3 x 5 x 1.42 inches are capable of delivering 100 watts continuous power at forced air cooling or 80W at convection cooling. The units are constructed on a printed circuit board. They are designed for information technology equipment, industrial and telecom applications.

FEATURES

- 500Vac withstand between PE and RETURN
- High altitude 5000 meters operation
- OTP, Brown-Out protection

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	2.0 A (rms) for 115 VAC
	1.2 A (rms) for 230 VAC
Earth leakage current:	1000 μA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Total output power:	100W
Protection:	
Over voltage:	Set at 115~150% of rated output voltage and latch off
Short & Over current:	Output protected to short circuit condition. Auto recovery
Over temperature:	Detected by thermistor and latch off
Brown-out	Auto recovery
Temperature coefficient:	All outputs ±0.04% /℃ maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

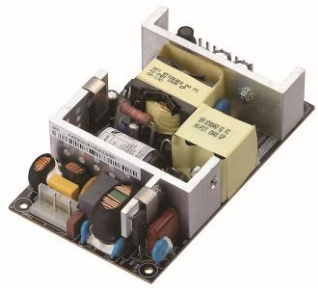
ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0℃ to +70℃
Storage temperature:	-20℃ to +85℃
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50℃ linearly to 50% at +70℃, applicable to convection and forced-air cooling conditions

FSP100-1B01 SERIES

RoHS

CE



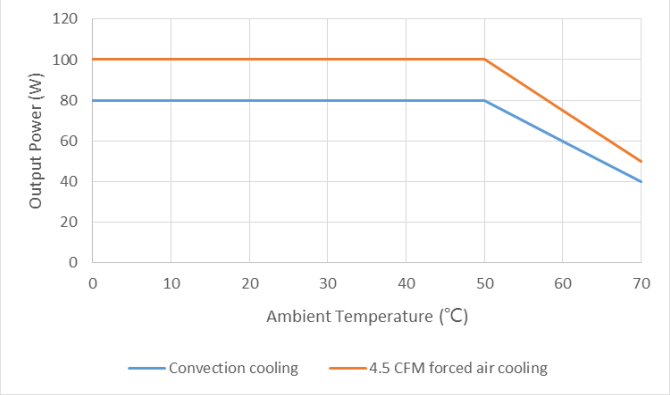
SAFETY STANDARD APPROVAL

CB IEC 60950-1

GENERAL SPECIFICATIONS

Power factor:	0.98 min at 100% load and 115VAC
	0.95 min. at 100% load and 230VAC
Efficiency:	See rating chart.
Hold-up time:	16 ms minimum at 115 VAC
Line regulation:	±0.5% maximum at full load
Inrush current:	70 A @ 115 VAC, at 25℃ cold start
	140 A @ 230 VAC, at 25℃ cold start
Withstand voltage:	3000 VAC from input to output, 1500 VAC from input to ground, 500 VAC from output to ground
MTBF:	250,000 hours at full load at 25℃ ambient, calculated per MIL-HDBK-217F
EMC Performance	
EN55032	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 ±4 KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, ±1 KV
EN61000-4-5:	Surge, ±1 KV diff., ±2 KV com
EN61000-4-6:	Conducted immunity, 3 Vrms
EN61000-4-8:	Magnetic field immunity, 1 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, criteria A >95% reduction for 10 ms, criteria A >95% reduction for 5000 mS, criteria B

OUTPUT POWER DERATING CURVE

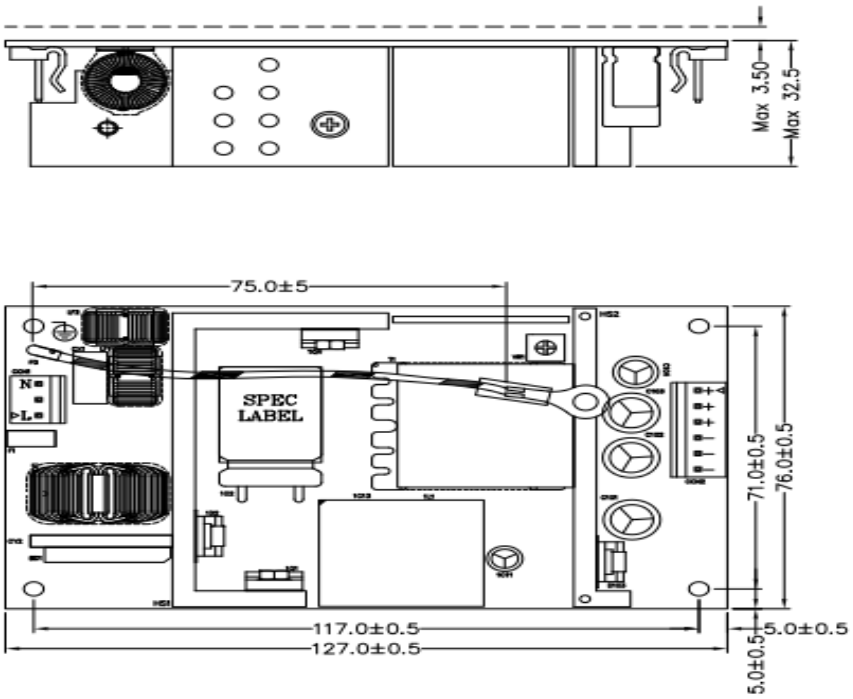


OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output							Efficiency
	V1	Min. Load	Max. Current convection	Max. Current 4.5 CFM	Tol.	Ripple & Noise(1)	Max. Power(2)	115/230 Vac (typical)
FSP100-1B01-12	12 V	0 A	6.67 A	8.33 A	±3%	120 mV	80 W / 100 W	85 / 86%
FSP100-1B01-24	24 V	0 A	3.34 A	4.16 A	±3%	240 mV	80 W / 100 W	85 / 86%
FSP100-1B01-36	36 V	0 A	2.23 A	2.78 A	±3%	360 mV	80 W / 100 W	87 / 88%
FSP100-1B01-48	48 V	0 A	1.67 A	2.10 A	±3%	480 mV	80 W / 100 W	87 / 88%

NOTES:
1. 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 10 μF tantalum capacitor in parallel with a 0.1 μF ceramic capacitor across the output.
2. The first value of max. power is at convection cooling. The second value is with 4.5 CFM forced air provided by user.

MECHANICAL SPECIFICATIONS



NOTES:
1. Dimensions shown in mm.
2. Input connector (CN1): JWT A3961WV2-6P or equivalent.
3. Output connector (CN2): JWT A3961WV2-3P-D or equivalent.
4. Ground wire with ring terminal.
5. Weight: 315 grams (0.694 lbs.) approx..

PIN CHART

CONNECTOR	AC INPUT (CN1)			RING TERMINAL WIRE	DC OUPUT (CN2)					
PIN NO.	1	2	3		1	2	3	4	5	6
OUTPUT	LIVE	--	NEUTRAL	PROTECT EARTH	V+			RETURN		