Sparkle Power Inc

FSP GROUP

80W ITE POWER SUPPLY

FSP080-P24 A Series

RoHS

CE

DESCRIPTION

This AC-DC switching power supplies in a package of 2 x 4 inches is a Class-II PSU and no load power consumption less than 0.21W. This PSU is capable of delivering 80 watts continuous power at convection cooling and 50℃ operation temperature. Product is suitable for audio & video, display, information and networking application.

FEATURES

- Class-II design
- Design to meet IEC 60950-1& IEC 62368-1 safety standard
- Compact dimension 2"x4"x1.181"
- No load power consumption less than 0.21W
- EN 55032 Class B radiated emission
- High altitude 5000 meters operation
- OTP & Brown out protection

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	1.7 A (rms) for 115 VAC 0.8 A (rms) for 230 VAC
No load power consumption	≦0.21W
Touch leakage current:	250 uA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Total output power:	80W
Ripple and noise:	±1%.
Protection:	
Over voltage	Set at 130% of nominal output voltage and latch off
Short circuit & overcurrent	Output protected to short circuit condition and latch off
Over temperature	Detected by thermistor and latch off
Brown out	Set at 65VAC
Temperature coefficient:	All outputs ±0.04% /℃ maximum
Transient response:	Maximum excursion of 5% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20℃ to +70℃
Storage temperature:	-40℃ to +85℃
Relative humidity:	5% to 95% non-condensing
Derating:	Output power de-rate from 100% at +50℃ linearly to 50% at +70℃, Output power de-rate from 100% at 100Vac linearly to 90% at 90Vac.

SAFETY STANDARD (PENDING)

CB — IEC 62368-1, IEC 60950-1

C SP US — UL 62368-1,
CAN/CSA 22.2 No.62368-1-14

GENERAL SPECIFICATIONS

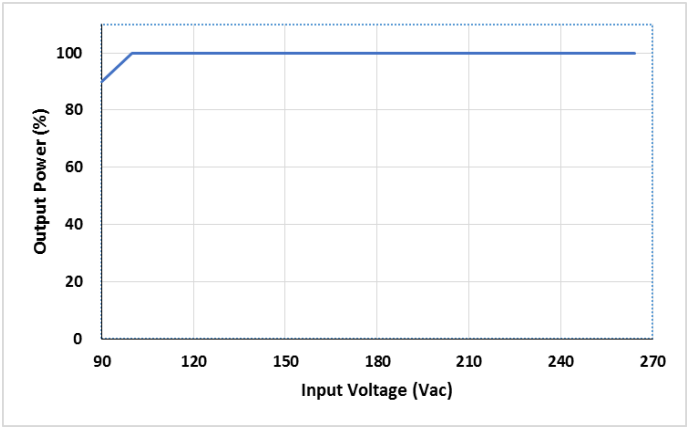
Efficiency:	Refer to rating chart.
Power turn on time	1.0 Sec maxi.
Hold-up time:	10 mS minimum @ 100% load & 115 VAC
Line regulation:	±0.5% maximum at full load
Inrush current:	70A @ 115VAC @ 25℃ cold start 100A @ 230 VAC @ 25℃ cold start
Withstand voltage:	3000 VAC from input to output,
Isolation Resistance:	Input to output 100M ohm @ 500Vdc, 25℃
MTBF:	300,000 hours minimum at full load at 25℃ ambient, calculated per BELL CORE SR-332
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
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, ±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, 3 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 VOLTAGE / CURRENT RATING CHART

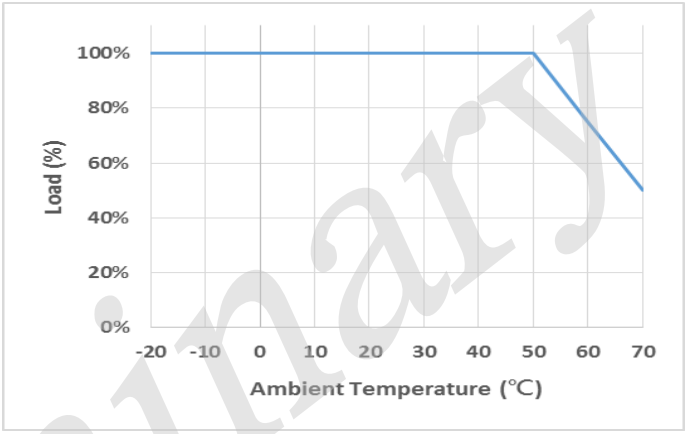
Model	Output Voltage	Min. Load	Max. Current	Tolerance	Ripple & Noise(1)	Max. Power	Efficiency 115 / 230 Vac
FSP080-P24-A12	12 V	0 A	6.67 A	±3%	120 mV	80W	86 / 88%
FSP080-P24-A24	24 V	0 A	3.33 A	±3%	240 mV	80W	87 / 90%

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.

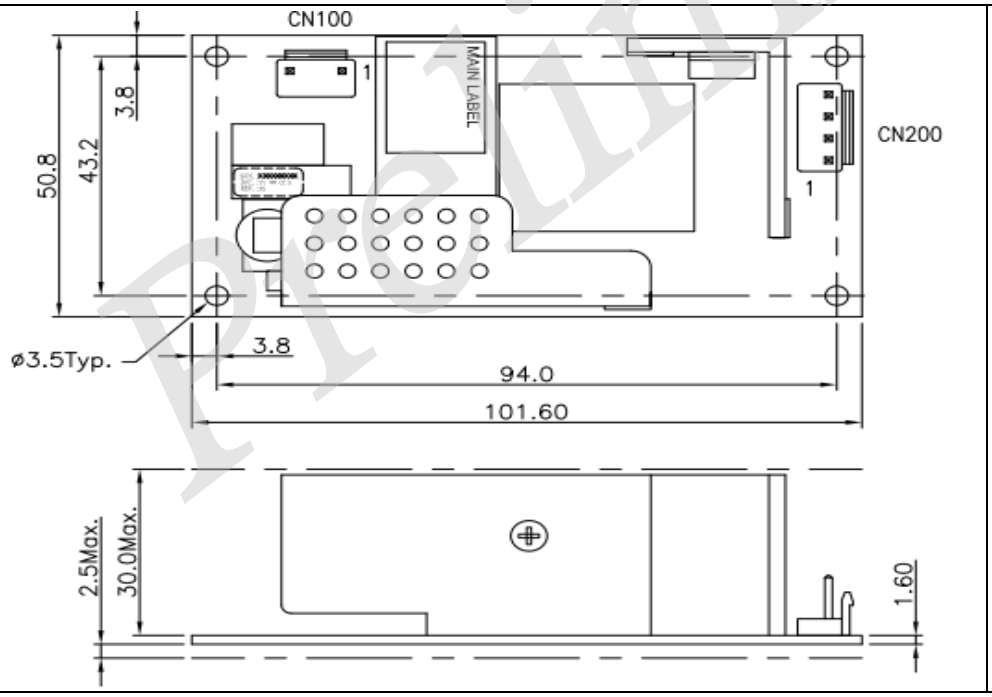
OUTPUT POWER DERATING vs INPUT VOLTAGE



OUTPUT POWER DERATING vs AMBIENT TEMP.



MECHANICAL SPECIFICATIONS



Pin assignment:

Input connector (CN100):

Pin No.	Function	Wafer
1	Line	J.S.T B2P3-VH or equivalent
2		
3	Neutral	

Matting connector:
J.S.T housing VHR-3N,
Crimp PIN SVH-21T-P1.1 or equivalent.

Output connector (CN200):

Pin No.	Function	Wafer
1, 2	+V	J.S.T B4P-VH or equivalent
3, 4	Return	

Matting connector:
J.S.T housing VHR-4N,
Crimp PIN SVH-41T-P1.1 or equivalent.

Dimension (L*W*H): 101.6 * 50.8 * 30 mm / 4" * 2" * 1.181"
Weight: 134 grams. (0.295 lbs.) approx.

We reserve the right to have amendments to spec before product release.

Website: http://SparklePower.com Email: Sparkle@SparklePower.com
Fremont Office: 48502 Kato Rd, Fremont, CA 94538 T: (408)519-8888 F: (408)519-9999 LA Office: 17071 Green Dr, City of Industry, CA 91745 T: (626)839-7180 F: (626)839-3395