DESCRIPTION

This AC-DC switching power supplies in a package of 2 x 4 inches is a Class-I PSU and no load power consumption less than 0.21W. This PSU is capable of delivering 150 watts continuous power at 7 CFM forced air cooling or 100 watts continuous power at convection cooling and 50℃ operation temperature. Product is suitable for audio & video, display, information, and networking application.

FEATURES

- Class-I design
- Design to meet IEC 60950-1, IEC 60065-1, IEC 62368-1 safety standard
- Low profile 2 x 4 x 1.2 inches
- No load power consumption less than 0.21W
- EN 55032 Class B radiated emission
- Surge protection ±2 KV diff, ±4 KV com
- High altitude 5000 meters operation
- OTP, Brown out protection
- Fan driver 12V

INPUT SPECIFICATIONS

Input voltage:	90~264 VAC
Input frequency:	47-63 Hz
Input current:	1.7 A (rms) for 115 VAC 0.85 A (rms) for 230 VAC
No load power consumption	≦0.21W
Earth leakage current:	0.75 mA max. @ 264 VAC, 63 Hz
Touch current:	0.25 mA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Fan driver:	Non-regulated 12V @ 500 mA max.
Total output power:	150W
Protection:	
Over voltage:	Latch off
Short circuit	Auto recovery
Over current:	Auto recovery
Over temperature:	Latch off
Brown out:	Set at 75VAC
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:	-20℃ to +70℃
Storage temperature:	-40℃ to +85℃
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50℃ linearly to 50% at +70℃, applicable to both convection and forced-air cooling conditions

FSP150-P24 SERIES

RoHS

CE

SAFETY STANDARD APPROVAL

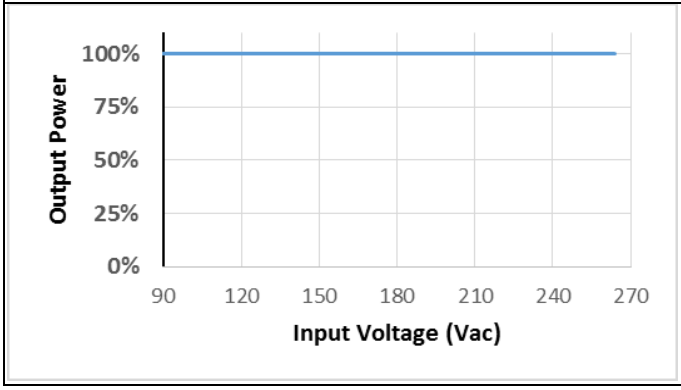
CB IEC 62368-1

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

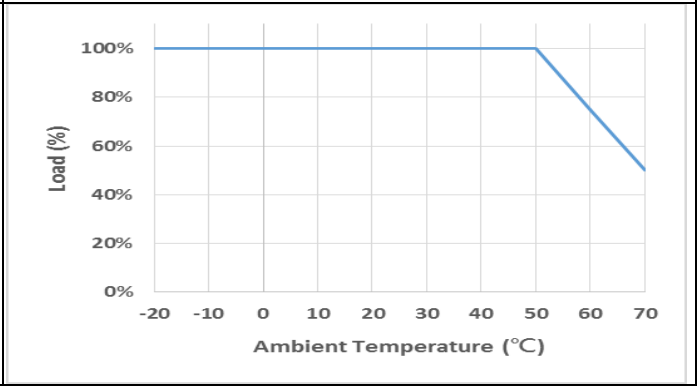
GENERAL SPECIFICATIONS

Power factor:	0.9 minimum
Efficiency:	See rating chart.
Hold-up time:	10 ms minimum at 120 VAC
Line regulation:	±0.5% maximum at full load
Inrush current:	80 A @ 115 VAC, at 25℃ cold start 160 A @ 230 VAC, at 25℃ cold start
Operating altitude:	5000 meters above sea level
Withstand voltage:	3000 VAC from input to output, 1500 VAC from input to ground, 1500 VAC from output to ground
Isolation Resistance:	Input to output 100M ohm @ 500Vdc, 25℃
MTBF:	200,000 hours 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 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, ±2 KV diff., ±4 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

INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE

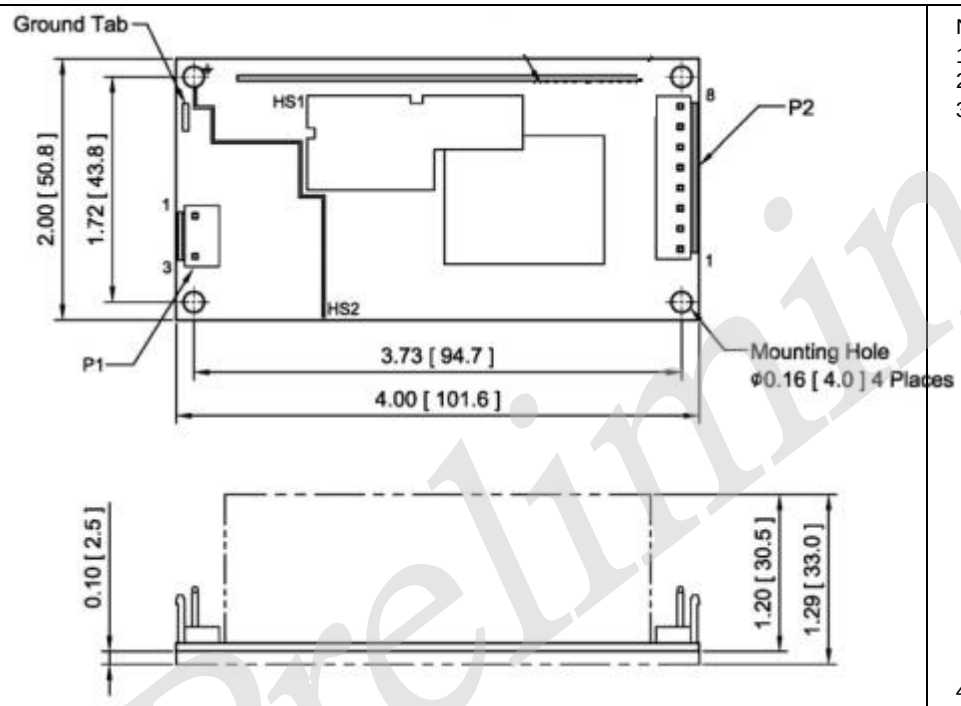


OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output							Efficiency
	V1	Min. Load	Max. Current convection	Max. Current 7 CFM	Tolerance	Ripple & Noise(1)	Max. Power(2)	Max. Power 115/230 Vac (typical)
FSP150-P24-A12	12 V	0 A	8.35 A	12.50 A	±3%	120 mV	100 W / 150 W	89 / 91%
FSP150-P24-A19	19 V	0 A	5.26 A	7.9 A	±3%	190 mV	100 W / 150 W	88 / 90%
FSP150-P24-A24	24 V	0 A	4.20 A	6.25 A	±3%	240 mV	100 W / 150 W	88 / 90%
FSP150-P24-A54	54 V	0 A	1.85 A	2.78 A	±3%	500 mV	100 W / 150 W	88 / 90%

Note:
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 47 µF electrical capacitor in parallel with a 0.1 µF ceramic capacitor across the output.
2. The first value of maximum current is at convection cooling. The second value is with 7 CFM forced air provided by user.

MECHANICAL SPECIFICATIONS



NOTES:
1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Pin assignment

Pin assignment of IN1

Pin No.	Function	Wafer
1	N	JWT A3963WV2-3P-D or EQUIV.
2		
3	L	

Pin assignment of CN200

Pin No.	Function	Wafer
1	v+	JWT A3963WV2-6P or EQUIV.
2	v+	
3	v+	
4	GND	
5	GND	
6	GND	

Pin assignment of CN201

Pin No.	Function	Wafer
1	+12V	JWT A2543WV2-2P or EQUIV.
2	GND	

4. Ground pad: 8 x 6.35 x 0.8 mm
5. Weight: 200 grams (0.44 lbs.) approx.