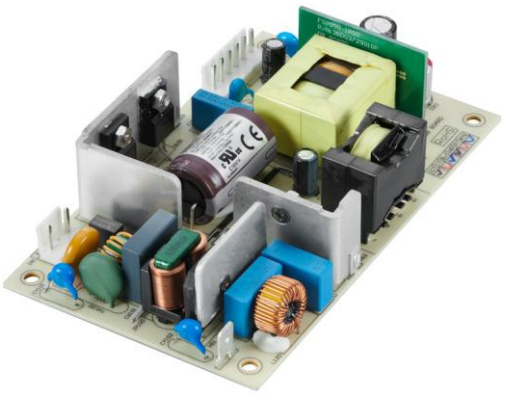
TECHNICAL DATASHEET

150W ITE POWER SUPPLIES

FSP150-P35 series



FSP150-P35 series

FEATURES

- Class-I design
- IEC 62368-1 safety standard
- Low profile 127 x 76.2 x 28.6 mm
- Standby power less than 0.5W
- EN 55032 Class B radiated emission
- Surge protection ±2 KV diff, ±4 KV com
- High altitude 5000 meters operation
- 12V fan driver

SAFETY STANDARD APPROVAL

*Certificate is in progress. Please contact sales before design.

DESCRIPTION

This AC-DC switching power supplies in a package of 3 x 5 inches is a Class-I PSU and the standby power is less than 0.5W at 0.2W load condition.This PSU is capable of delivering 150 watts continuous power at 14 CFM forced air cooling or 100 watts continuous power at convection cooling and 50℃ operation temperature. Product is suitable for display, information, and networking application.

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
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:	Auto-recovery
Short circuit & Over current:	Output protected to short circuit condition and auto recovery
Over temperature:	Detected by thermistor and auto-recovery

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20℃~+70℃
Storage temperature:	-40℃~+85℃
Relative humidity:	10% to 95% non-condensing
Derating:	Derate from 100% at +50℃ linearly to 50% at +70℃, applicable to both convection and forced-air cooling conditions

GENERAL SPECIFICATIONS

Power factor:	0.98 minimum @ 115VAC & 100% load 0.9 minimum @ 230VAC & 100% load
Efficiency:	See rating chart.
Power turn-on time:	1.0 Sec maxi.
Hold-up time:	20 mS minimum at 115 VAC @ 100W 8 mS minimum at 115VAC @ 150W
Line regulation:	±0.5% maximum at full load
Inrush current:	60 A @ 115 VAC, at 25℃ cold start 120 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:	400,000 hours mini. at full load at 25℃ ambient, calculated per Telcordia SR-332
EMC Performance	
EN55032	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, class 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

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150W ITE POWER SUPPLIES

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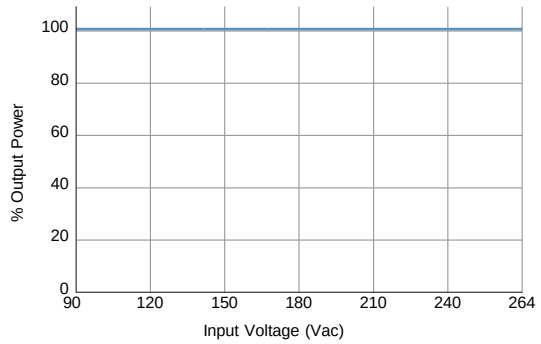
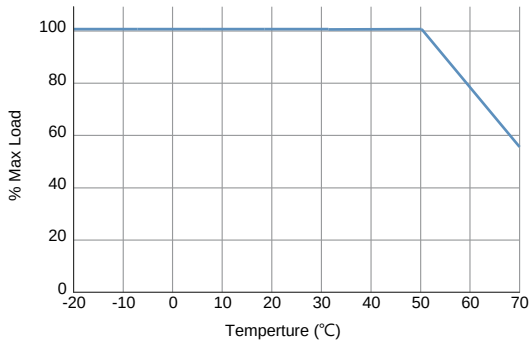
INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE



OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output							Efficiency (typical)
	V1	Min. Current	Max. Current convenction	Max. Current 14CFM	Tolerance	Ripple & Noise (1)	Max. Power(2)	@ 115 / 230 Vac
FSP150-P35-D12	12V	0A	8.4	12.5A	±3 %	150mV	100W/150W	88 / 90%
FSP150-P35-D24	24V	0A	4.17	6.25A	±3 %	200mV	100W/150W	88 / 90%
FSP150-P35-D54	54V	0A	1.85A	2.77A	±3 %	300mV	100W/150W	88 / 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 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 14 CFM forced air provided by user.

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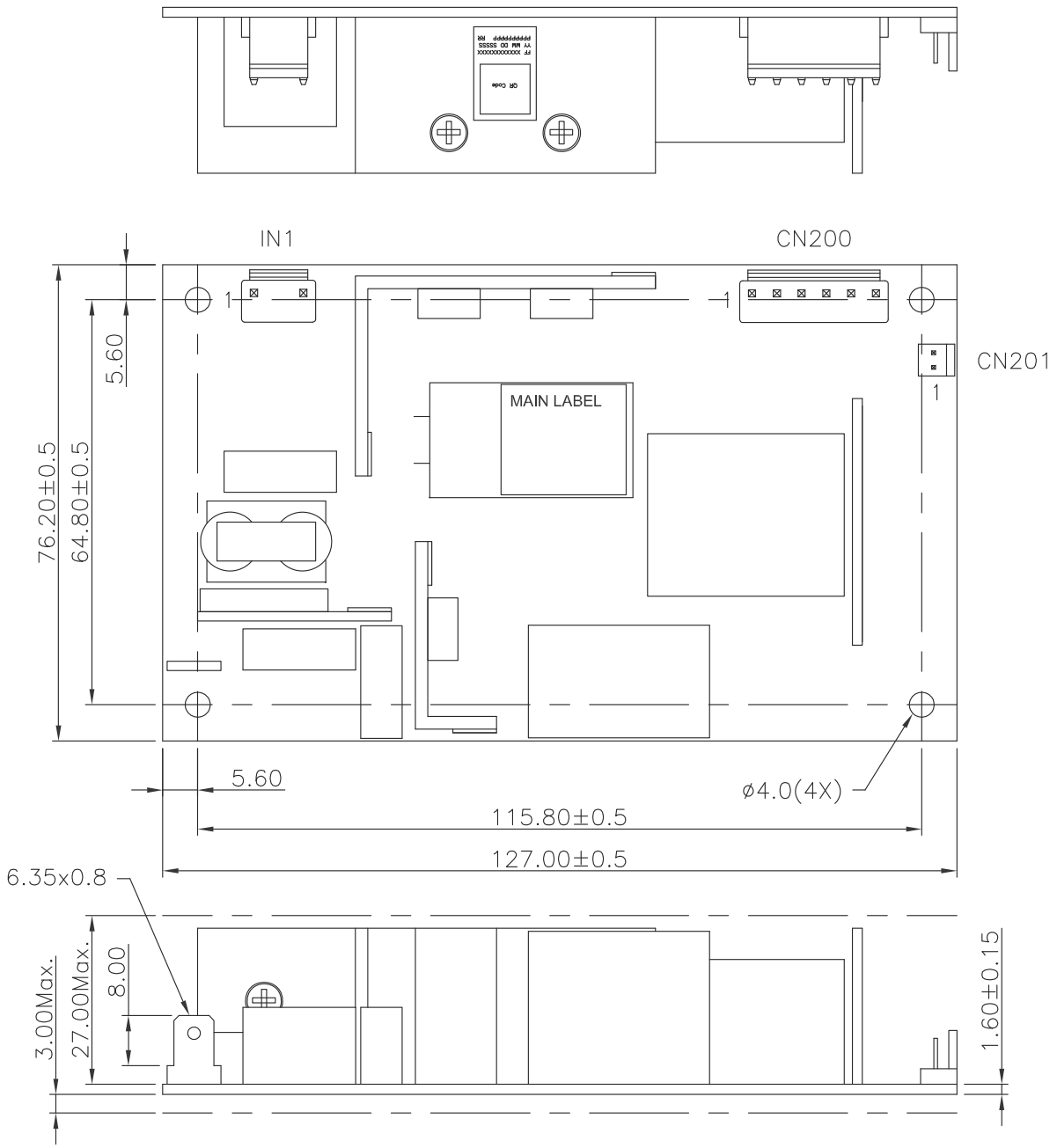
MECHANICAL SPECIFICATIONS



Pin assignment of IN1:

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

Pin assignment of CN200:

Pin No.	Function	Wafer
1, 2, 3	+12V	JW A3963WV2-6P or EQUIV
4, 5, 6	GND	

Pin assignment of CN201:

Pin No.	Function	Wafer
1	+12V	JW A3963WV2-2P or EQUIV
2	GND	

NOTES:
1. Dimension (L*W*H): 127 x 76.2 x 27 mm
2. To ensure compliance with level B emissions, connect the three PCB mounting holes with metallic standoffs to the chassis.
3. Weight: 187 grams / 0.412 lbs. approx.

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