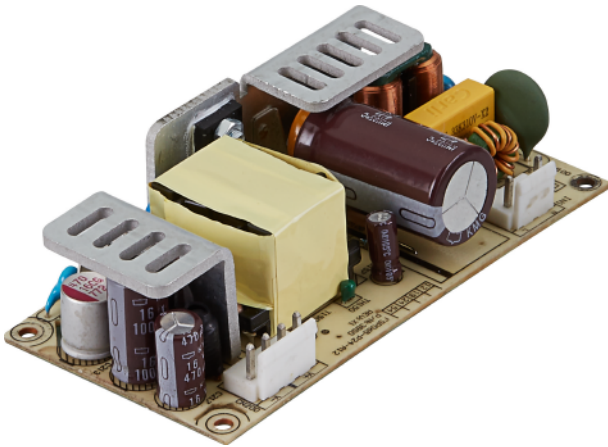


# FSP065-P24 A Series

## FEATURES

- Class-II design
- Design to meet IEC 60950-1, IEC 60065-1, and IEC 62368-1 safety standard
- Compact dimension 2"x4"x1.04"
- No load power consumption less than 0.21W
- EN 55032 Class B radiated emission
- Surge protection  $\pm 2$  KV diff,  $\pm 4$  KV com
- High altitude 5000 meters operation
- OTP, Brown out protection



## SAFETY STANDARD APPROVAL



## DESCRIPTION

This AC-DC switching power supplies in a package of 2 x 4 inches is a compact Class-II PSU and no load power consumption less than 0.21W. This PSU is capable of delivering 65 watts continuous power at convection cooling and 50°C operation temperature. Product is suitable for audio & video, 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	$\leq 0.21$ W
Touch current:	250 $\mu$ A max. @ 264 VAC, 63 Hz

## OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Total output power:	65W
Ripple and noise:	$\pm 1\%$ .
Protection:	
Over voltage:	Set at 110~130% of nominal output voltage, auto recovery
Short circuit & Over current:	Output protected to short circuit condition, auto recovery
Over temperature:	Detected by thermistor, auto recovery
Brown out:	Set at 70VAC
Temperature coefficient:	All outputs $\pm 0.04\%$ /°C maximum
Transient response:	Maximum excursion of 5% or better on all models, recovering to 1% of final value within 500 $\mu$ s after a 25% step load change

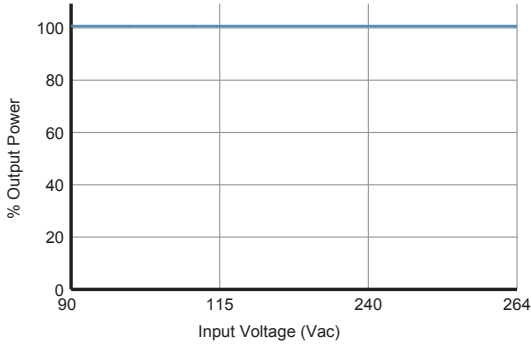
## ENVIRONMENTAL SPECIFICATIONS

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

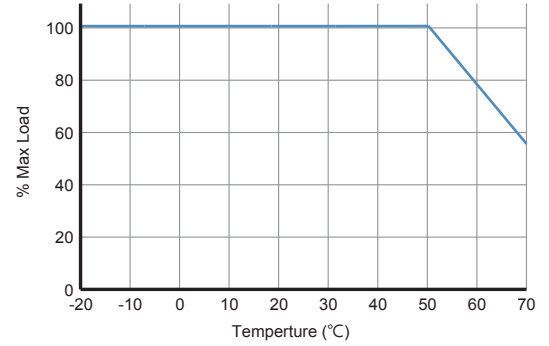
## GENERAL SPECIFICATIONS

Efficiency:	See rating chart.
Power turn on time	1.0 Sec maxi.
Hold-up time:	10 mS minimum @ 100% load & 115 VAC
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	55A @ 115VAC @ 25°C cold start 100A @ 230 VAC @ 25°C cold start
Operating altitude:	5000 meters above sea level
Withstand voltage:	3000 VAC from input to output,
Isolation Resistance:	Input to output 100M ohm @ 500Vdc, 25°C
MTBF:	400,000 hours minimum at full load at 25°C 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, $\pm 8$ KV air and $\pm 4$ KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, $\pm 1$ KV
EN61000-4-5:	Surge, $\pm 2$ KV diff, $\pm 4$ 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

**INPUT VOLTAGE DERATING CURVE**



**OUTPUT POWER DERATING CURVE**



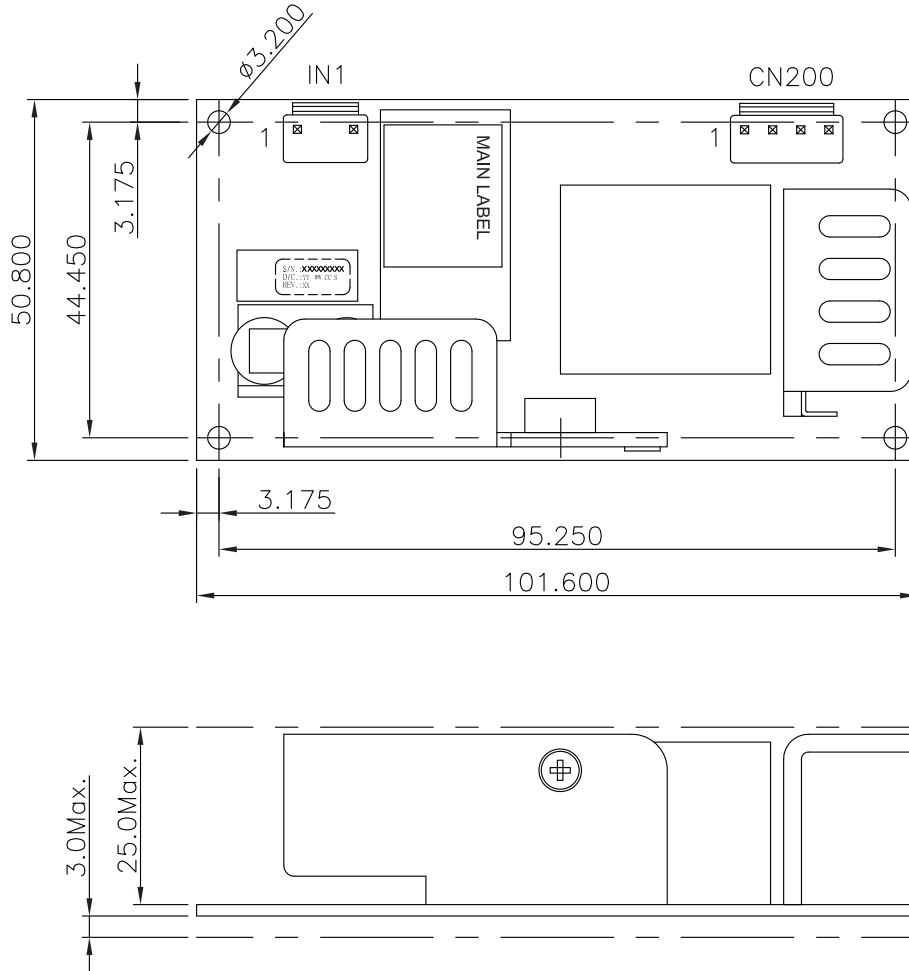
**OUTPUT VOLTAGE/CURRENT RATING CHART**

Model	Output Voltage	Min. Load	Max. Current	Tolerance	Ripple & Noise	Max. Power	Efficiency 115 / 230 Vac
FSP065-P24-A12	12 V	0 A	5.40 A	±3%	120 mV	65W	88 / 89%
FSP065-P24-A19	19 V	0 A	3.42 A	±3%	190 mV	65W	89 / 90%
FSP065-P24-A24	24 V	0 A	2.70 A	±3%	240 mV	65W	90 / 90%
FSP065-P24-A54	54 V	0 A	1.20 A	±3%	300 mV	65W	91 / 92%

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.

**MECHANICAL SPECIFICATIONS**



Pin assignment:

1. IN1: JST B2P3-VH or EQU

Pin No.	Function
1	Neutral
2	NC
3	Line

2. CN200: JST B4P-VH or EQU

Pin No.	Function
1, 2	V+
3, 4	RTN

3. Dimension (L\*W\*H):

101.6 \* 50.8 \* 26.6 mm  
 4" \* 2" \* 1.047"

4. Weight:

125 grams. (0.275 lbs.) approx.