

# 65W ITE POWER SUPPLY

FSP065-P35 A Series



# FSP065-P35 A Series

#### **FEATURES**

- · Class-II design
- Design to meet IEC 60950-1, IEC 60065-1, IEC 62368-1 and EN 61558-1 safety standard
- Compact dimension 3"x5"x1.126"
- · No load power consumption less than 0.21W
- · EN 55032 Class B radiated emission
- · High altitude 5000 meters operation
- · OTP, Brown out protection

#### SAFETY STANDARD APPROVAL







#### **DESCRIPTION**

This AC-DC switching power supplies in a package of 3 x 5 inches is a 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, house hold (Europe), 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  $\leq 0.21A$ 

250 uA max. @ 264 VAC, 63 Hz Touch current:

### **OUTPUT SPECIFICATIONS**

Output voltage/current: See rating chart.

Total output power: 65W

Protection:

Over voltage (12V, 24V) SSet at 110~130%,

(5V)

Set at 180~200%,

of nominal output voltage,

Auto recovery

Short circuit &Over current: Output protected to short circuit

condition and auto recovery

Over temperature: Detected by thermistor, auto recovery Brown out: Set at 75VAC

Temperature coefficient: All outputs ±0.04% /°C 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**

-20°C~+70°C Operating temperature: Storage temperature: -40°C~+85°C

Operating humidity: 5% to 95% non-condensing

Derate from 100% at +50°C linearly to Derating: 50% at +70°C, applicable to convection

cooling condition

### **GENERAL SPECIFICATIONS**

Efficiency: See rating chart. Power turn on time 1.0 Sec maxi.

10 mS minimum @ 100% load & 115 VAC Hold-up time:

20 mS minimum @ 100% load & 230 VAC

Line regulation: ±0.5% maximum at full load 55A @ 115VAC @ 25°C cold start Inrush current: 100A @ 230 VAC @ 25°C cold start

5000 meters above sea level Operating altitude: 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 TELCORDIA SR-332

**EMC Performance** 

Class B conducted, class B radiated EN55032 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 Fast transient/burst, ±1 KV EN61000-4-4: EN61000-4-5: Surge, ±1 KV diff, ±2 KV com Conducted immunity, 3 Vrms FN61000-4-61 EN61000-4-8: Magnetic field immunity, 3 A/m Voltage dip immunity, 240Vac EN61000-4-11:

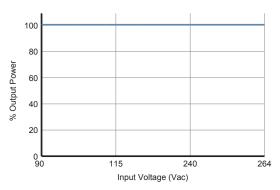
30% reduction for 500 ms, criteria A >95% reduction for 10 ms, criteria A >95% reduction for 5000 mS, criteria B



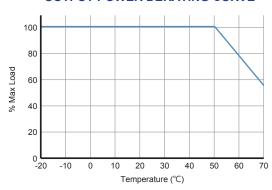
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## **INPUT VOLTAGE DERATING CURVE**



# **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-P35-A05	5 V	0 A	13.0 A	±3%	100 mV	65W	84 / 86%
FSP065-P35-A12	12 V	0 A	5.42 A	±3%	120 mV	65W	87 / 88%
FSP065-P35-A24	24 V	0 A	2.7 A	±3%	240 mV	65W	87 / 88%

### NOTES:

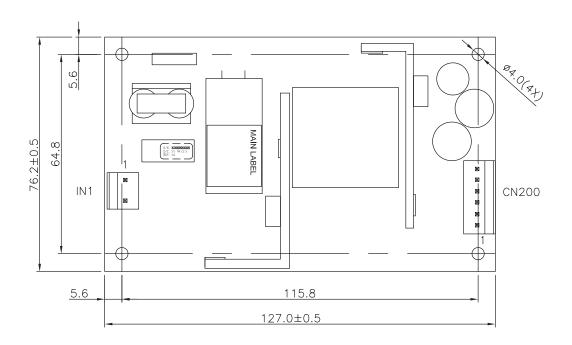
<sup>1.</sup> Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

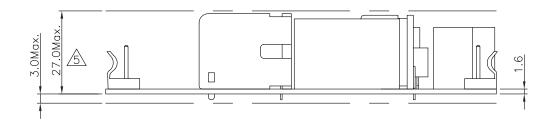


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### **MECHANICAL SPECIFICATIONS**





Pin assignment: Input connector (IN1):

Pin No.	Function	Wafer	
1	Line	MOLEX	
2		09-65-2029	
3	Neutral	or equivalent	

Matting connector: MOLEX housing 09-91-0300, Crimp PIN 08-50-0105 Output connector (CN200):

Pin No.	Function	Wafer	
1, 2, 3	Return	MOLEX 09-65-2068 or equivalent	
4, 5, 6	V+		

Matting connector: MOLEX housing 09-91-0600, Crimp PIN 08-50-0105 FG pad matting connector: Tyco housing SPS-21T-250