

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	≤0.21A
Touch current:	250 uA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Total output power:	65W
Protection:	
Over voltage (12V, 24V) (5V)	SSet at 110~130%, 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

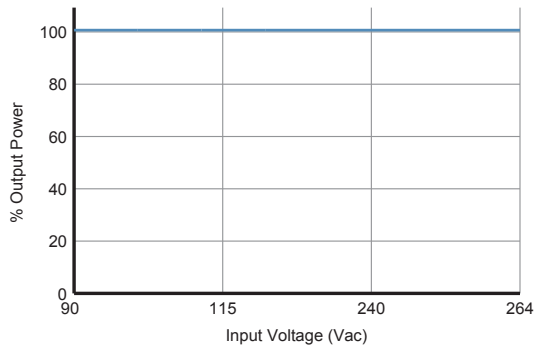
ENVIRONMENTAL SPECIFICATIONS

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

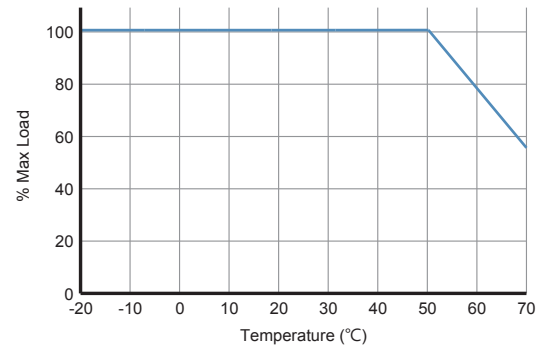
GENERAL SPECIFICATIONS

Efficiency:	See rating chart.
Power turn on time	1.0 Sec maxi.
Hold-up time:	10 mS minimum @ 100% load & 115 VAC 20 mS minimum @ 100% load & 230 VAC
Line regulation:	±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 TELCORDIA SR-332
EMC Performance	
EN55032	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, ±1 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, 240Vac 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



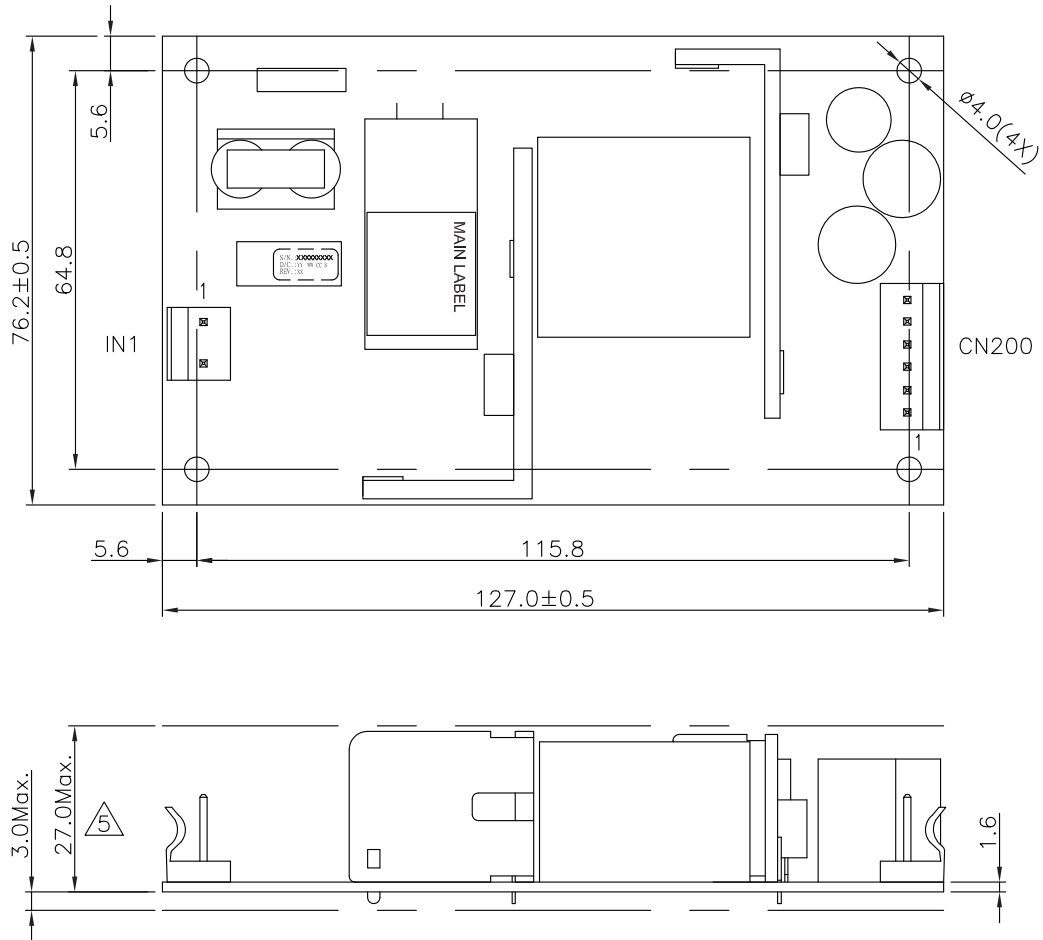
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output Voltage	Min. Load	Max. Current	Tolerance	Ripple & Noise	Max. Power	Efficiency 115 / 230 Vac
FSP065-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:

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 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



Pin assignment:
Input connector (IN1):

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

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