

FSP100-P35-C12

FEATURES

- Class-I Design
- IEC 62368-1 safety standard
- EN55032 Class B radiated emission
- Standby power less than 0.5W

SAFETY STANDARD APPROVAL



DESCRIPTION

This AC-DC switching power supplies in a package of 127 x 76.2 x 27 mm is a Class-I (with Protection Earth) safety construction and feature with 0.5W low input power consumption at 0.2W load which is comply with Energy Star requirement. This PSU is capable of delivering 100 watts continuous at 50°C operation temperature. Product is suitable for audio & video, information and networking applications.

INPUT SPECIFICATIONS

Input voltage:	100 to 240 VAC
Input frequency:	47.5-63 Hz
Input current:	1.5A (rms) for 115 VAC 1 A (rms) for 230 VAC
Earth leakage current:	750 μ Amax. @ 264 VAC, 50 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Total output power:	100 watts maximum
Ripple and noise:	See rating chart
Protection:	
OVP	Latch and no damage
OCP & Shorted	Auto recovery
OTP	Auto recovery

ENVIRONMENTAL SPECIFICATIONS

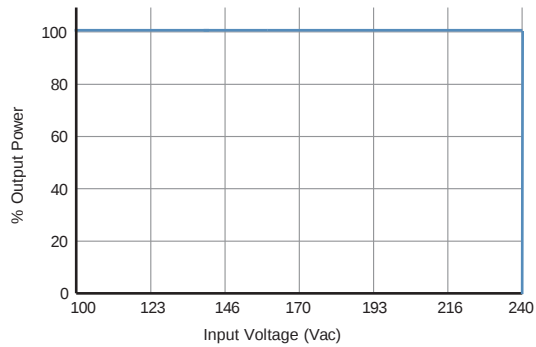
Operating temperature:	-20°C to +70°C
Storage temperature:	-40°C to +85°C
Relative humidity:	10% to 95% non-condensing
Derating:	See derating curve

GENERAL SPECIFICATIONS

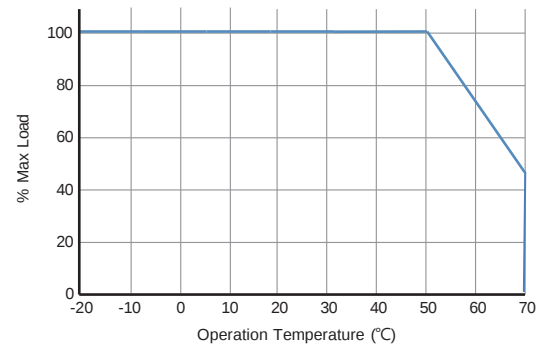
Fuse protection:	4A, 250Vac
Operating altitude :	5000 meters above sea level
Efficiency:	Refer to rating table
Turn-On Delay Time	≤ 1 sec at 115 VAC
Hold-up time:	20 mS minimum @ 115/230 VAC & 100% load
Line regulation:	$\pm 1\%$ maximum at full load
Inrush current:	60 A @ 115 VAC / 60 Hz, at 25°C cold start 120 A @ 230VAC / 50 Hz, at 25°C cold start
Power factor:	≥ 0.95 @ 115 VAC, ≥ 0.89 @ 230 VAC
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
MTBF:	620K hours mini. at full load at 25°C ambient temperature, calculated per Telcordia SR-332
EMC Performance	
EN55032:	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, class A and D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ± 15 KV air and ± 8 KV contact
EN61000-4-3:	Radiated, Radio Frequency, Electromagnetic field (RS): 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 Radio Frequency Disturbances (CS), 3Vrms
EN61000-4-8:	Power Frequency Magnetic field, 3 A/m
EN61000-4-11:	Voltage dip immunity & voltage interruptions 30% reduction for 500mS, criteria A >95% reduction for 10mS, criteria A >95% reduction for 5000mS, criteria B

DERATING CURVE

INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE



OUTPUT VOLTAGE/CURRENT RATING CHART

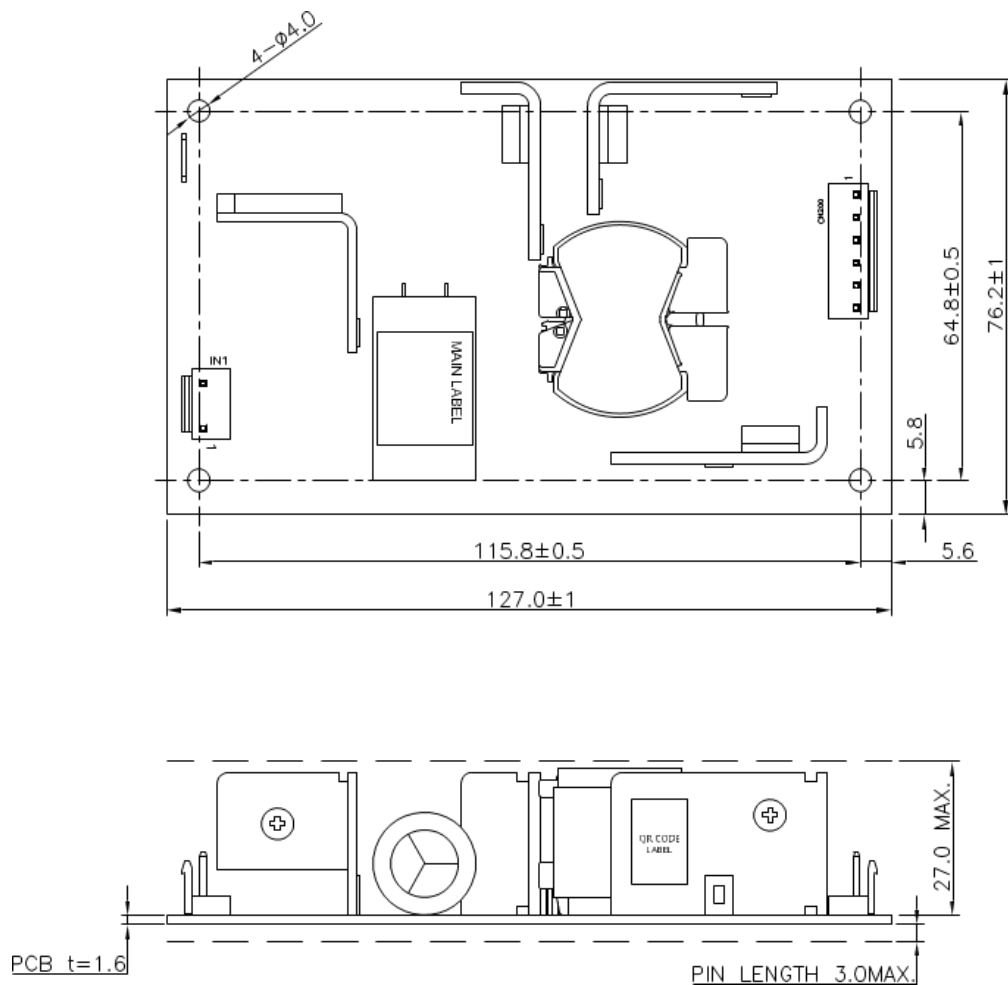
Model	Output						Efficiency (typical)
	V1	Min. Current	Max. Current	Tolerance	Ripple & Noise ⁽¹⁾	Max. Power	@ 115 / 230 Vac
FSP100-P35-C12	12 V	0A	8.35A	±3%	120 mV	100W	88 / 90%

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

MECHANICAL SPECIFICATIONS

PCB form factor



Pin assignment of IN1

Pin No.	Function	Wafer
1	N	JST B2P3-VH or EQUIVALENT
2		
3	L	

Pin assignment of CN200

Pin No.	Function	Wafer
1	-V	JST B6P-VH or EQUIVALENT
2	-V	
3	-V	
4	+V	
5	+V	
6	+V	

NOTES:

1. Dimension showed in mm.
2. To ensure compliance with level B emissions, connect the three PCB mounting holes with metallic standoffs to the chassis.
3. Weight: PCB form factor 188 grams (0.414 lbs.) approx.