



UNIVERSAL INPUT

FEATURES

- ◆ Wide range input 85 to 264VAC
- ◆ No load consumption < 0.5W
- ◆ Low safety ground leakage current
- ◆ Low ripple and noise
- ◆ Fast transient response
- ◆ Overcurrent, Short-circuit, Overvoltage, and Thermal protections
- ◆ 100% burn-in at full rated load
- ◆ Meets CEC and Energy Star efficiency level IV
- ◆ Meets EN55011, FCC Class B, VCC, EN61000 Class A,D
- ◆ Compliant with RoHS requirements

DESCRIPTION

This series of switching power supplies are specially designed for portable non-medical applications. They are capable of delivering up to 55 watts of continuous DC output power. Construction is a 94V-1 rated polyphenylene-oxide case with an IEC 320/C14 inlet to mate with interchangeable cord for world-wide use. All models meet CISPR 11 and FCC class B emission limits and comply with UL, CSA, IEC and CE requirements.

INPUT SPECIFICATIONS

Input Voltage	85 to 264 VAC
Input Frequency	47 to 63 Hz
Input Current	1.22A rms @ 115VAC, 60Hz 0.76A rms @ 230VAC, 50Hz
Inrush Current (at 25°C cold start)	15 amps @ 115VAC 30 amps @ 230VAC
Leakage Current (Touch current)	470µA max @ 115VAC 60Hz 850µA max @ 230VAC 50Hz

ENVIRONMENTAL

Operating Temperature	0 °C to +60 °C.
Storage Temperature	-40 °C to +85 °C
Operating Humidity	5% to 95% RH, non-condensing

FSA56P SERIES

50-55 WATT

SWITCHING POWER

SUPPLIES

GENERAL SPECIFICATIONS

Construction	94V-1 rated polyphenylene-oxide case
Connectors / Terminals	IEC 320/C14 inlet. Options for DC Out.
Switching Frequency	83KHz ± 10KHz
Efficiency	75% min , for all models
Turn on delay time	5 Sec max
Power Factor	0.95 typical
Dielectric Isolation	3000VAC from input to output 1500VAC from input to ground 500VAC from output to ground
MTBF (per MIL-HDBK-217F)	400,000 hours min at full load at 25 °C ambient

OUTPUT SPECIFICATIONS

Total Output Power	Refer to Rating Chart for each model
Derating Output Power	From 40 to 60 °C, Derate linearly from 100% to 50%
Output Voltage / Current, Adjustability, Peak Current	Refer to Rating Chart for each model
Minimum Load	No minimum load required
Hold Up Time	10 mSec min @ 110 VAC
Line Regulation	± 0.5% max at full load
Ripple and Noise	2% peak to peak max
Overvoltage Protection	On output #1 only, setting at 112-132% of Vnom output voltage
Overcurrent / Short Circuit Protection	Continuous protection with automatic recovery
Temperature Coefficient	±0.04% / °C max for all outputs
Transient Response	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 uS after a 25% step load change.

EMC and SAFETY (1)

EMC Performance Standard	EN55024
	EN61000-3-2, -3-3, -4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11
EN55022, FCC-15, VCCI	Class-B Conducted, Radiated
Safety Standards (certified to)	UL60950-1 3rd, CSA C22.2 No 60950-1 3rd, EN60950-1: (TUV)

(1) Products are rated for commercial environments and are not to be used nor are warranted in aerospace or life-support medical applications.



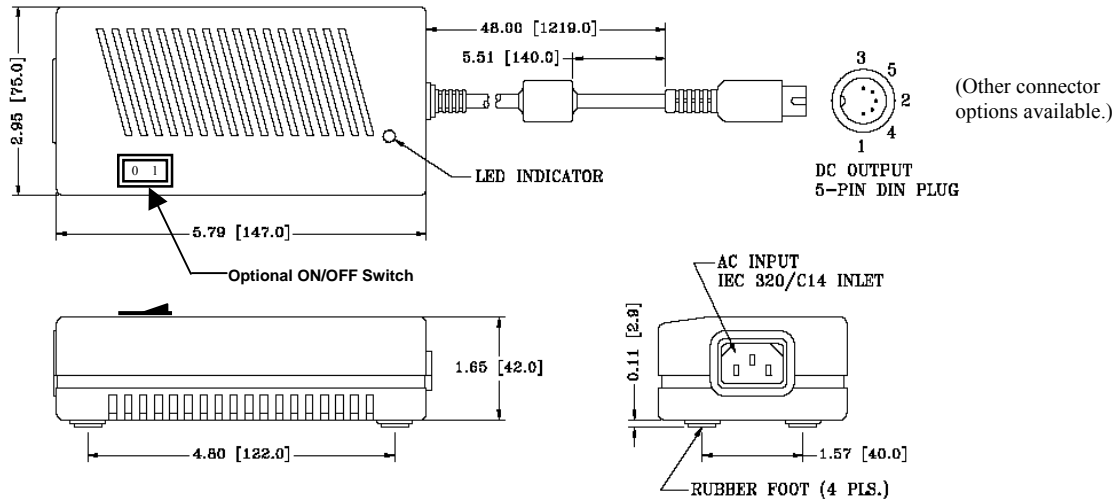
OUTPUT VOLTAGE / CURRENT RATINGS

MODEL	Vnom	Imin	Output		Tol.	Max Power
			I _{max}			
FSA56P12	11-13V	0A	4.2A		3%	50W
FSA56P13	13-17V	0A	3.7A		3%	55W
FSA56P13-1	17-21V	0A	3.1A		3%	55W
FSA56P14	21-27V	0A	2.3A		3%	55W
FSA56P16	27-33V	0A	1.9A		3%	55W
FSA56P17	33-39V	0A	1.6A		3%	55W
FSA56P18	48V	0A	1.2A		3%	55W

NOTE:

1. Ripple and noise: Measured peak-to-peak with 20MHz bandwidth and 10uF tantalum capacitor in parallel with a 0.1µF ceramic capacitor at rated line voltage and load ranges.
2. All models may be operated at no-load without damage.
3. The output voltage of all models, except for the 48V model, may be adjusted by user in the rated range, or set by factory to a desired value within the rated range at the request of a user when ordering.

MECHANICAL SPECIFICATIONS (mm / inches)



NOTES

1. Dimensions shown in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 1.21 lb, (550 g) approx.
4. DC output connector options are available. Contact Sales for details.
5. ON/OFF switch is optional. Contact Sales for details.

PIN ASSIGNMENTS

MODEL	PIN	1	2	3	4	5
FSA56P12 FSA56P13 FSA56P13-1		Return	Return	Output #1	Return	Output #1
FSA56P14 FSA56P16 FSA56P17						
FSA56P18						