

FSP030M-DxA Series

FEATURES

- 85Vac minimum operation voltage
- Compact size 110 x 50 x 32 mm
- OVP, OCP, OTP protection
- Meet EN55011/EN55032 and FCC Class B
- Compliant with DOE level VI & ErP tier 2 efficiency



SAFETY STANDARD APPROVAL



DESCRIPTION

This is a high efficiency series AC/DC switching power supplies which can deliver 30W continuous output power and 25W for 5V model. High efficiency feature comply with DOE Level VI & compact dimension with an IEC320/C14 inlet to mate with interchangeable cord for world-wide use. All models meet EN55011, EN55032 and FCC class B emission limits.

INPUT SPECIFICATIONS

Input voltage:	85-264 VAC
Input frequency:	47-63 Hz
Input current:	0.8 A (rms) for 115 VAC 0.35 A (rms) for 230 VAC
Touch leakage current:	100 μ A max. @ 264 VAC, 63 Hz
Earth leakage current	150 μ A max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage /current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	See rating chart
Protection:	
OVP	140% max. and Latch off
OCP & Shorted	150% maxi. and Auto recovery
Temperature coefficient:	$\pm 0.04\%$ / $^{\circ}$ C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 μ s after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0 $^{\circ}$ C to +40 $^{\circ}$ C
Storage temperature:	-20 $^{\circ}$ C to +85 $^{\circ}$ C
Relative humidity:	10% to 90% non-condensing

GENERAL SPECIFICATIONS

Hold-up time:	12 ms minimum at 115 VAC
Turn on delay time:	1.0 Sec maximum at 115 or 230 VAC
Efficiency:	Average > 87.7% (12V, 15V, 18V) Average > 84.25% (5V)
No load power consumption:	Less than 0.1 W
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	40A @ 115 VAC or 100A @ 230 VAC for 25W 35A @ 115 VAC or 85A @ 230 VAC for 30W at 25 $^{\circ}$ C cold start
Operation altitude:	5000 meters
Withstand voltage:	4000 VAC from input to output (2 MOPP) 1500 VAC from input to ground 500 VAC from output to ground
MTBF:	300,000 hours at full load at 25 $^{\circ}$ C ambient, calculated per MIL-HDBK-217F
EMC Performance (IEC60601-1-2)	
EN55011/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 & D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ± 15 KV air and ± 8 KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, ± 2 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, 30% reduction for 500 mS, >95% reduction for 10 mS >95% reduction for 20 mS

30 WATT MEDICAL POWER SUPPLIES

FSP030M-DxA SERIES

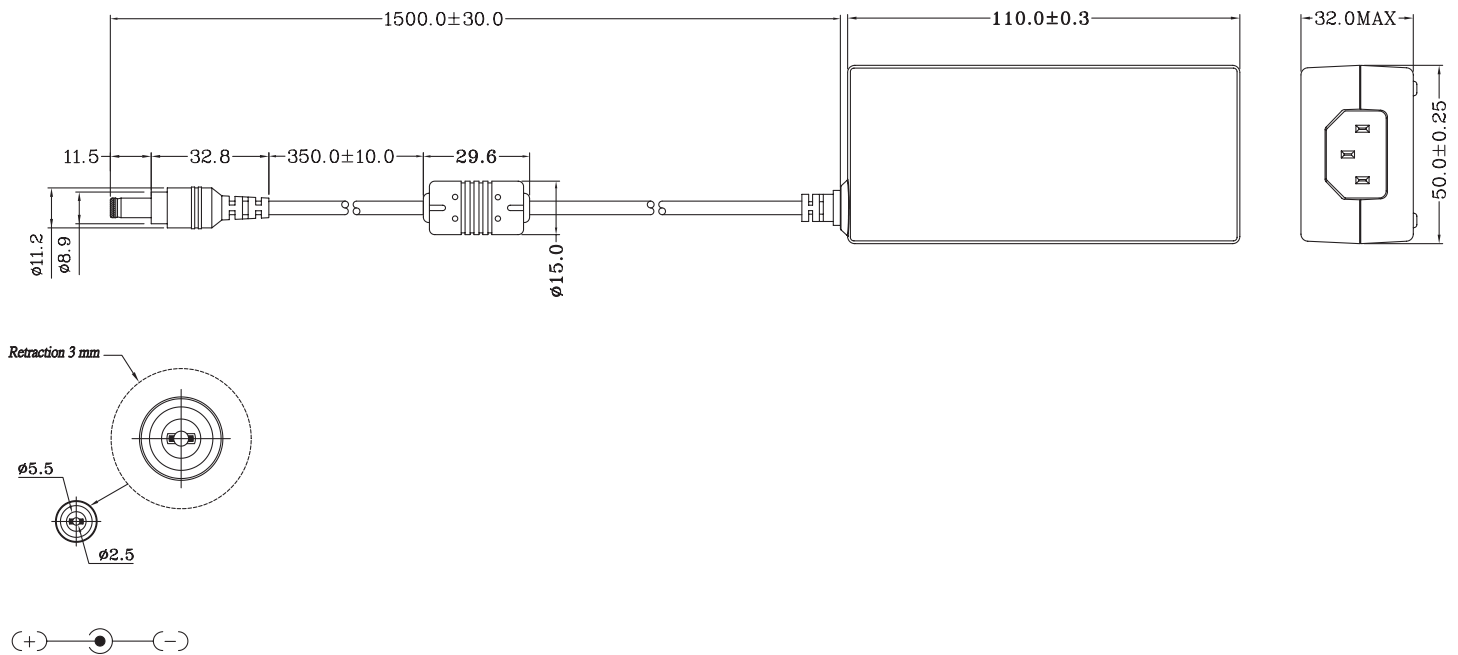
OUTPUT VOLTAGE/CURRENT RATING CHART

Model No.	Output						Average Active Efficiency (typical) @ 115 / 230 VAC
	Voltage	Min. Current	Max. Current	Tolerance	Ripple & Noise ⁽¹⁾	Max. Output Power	
FSP025M-DPA	5 V	0 A	5.0 A	±5%	100 mV	25 W	82 / 83 %
FSP030M-DHA	12 V	0 A	2.5 A	±5%	120 mV	30 W	87 / 88 %
FSP030M-DGA	15 V	0 A	2.0 A	±5%	150 mV	30 W	87 / 88 %
FSP030M-DDA	18 V	0 A	1.66 A	±5%	180 mV	30 W	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 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



NOTES:

- Dimensions shown in inches [mm]
- Tolerance 0.02 [0.5] maximum
- Output cable is 1500 mm, 18 AWG, except 1000 mm 16 AWG for 5V output models, so as to comply with CEC and DOE efficiency level VI requirements.
- Output connector is 5.5 mm O.D., 2.5 mm I.D., 11.5 mm long barrel female connector, center positive voltage.
- Weight: 180 grams (0.40 lbs.) approx.