



FSP030M-DxA Series

FEATURES

- 85Vac minimum operation voltage
- Compact size 110 x 50 x 32 mm
- OVP, OCP, OTP protection
- Meet EN55011 Class B
- Compliant with DOE level VI

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 µAmax. @ 264 VAC, 63 Hz |
| Earth leakage current | 150 µAmax. @ 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: | ±0.04% /°C maximum |
| 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 |

ENVIRONMENTAL SPECIFICATIONS

| | |
|------------------------|---------------------------|
| Operating temperature: | 0°C to +40°C |
| Storage temperature: | -20°C to +85°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: | ±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°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°C ambient, calculated per MIL-HDBK-217F |
| EMC Performance (IEC60601-1-2) | |
| EN55011: | Class B conducted, class B radiated |
| EN61000-3-2: | Harmonic distortion, class D |
| EN61000-3-3: | Line flicker |
| EN61000-4-2: | ESD, ±15 KV air and ±8 KV contact |
| EN61000-4-3: | Radiated immunity, 9-28 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, 3-6 Vrms |
| EN61000-4-8: | Magnetic field immunity, 30 A/m |
| EN61000-4-11: | Voltage dip immunity, 30% reduction for 500 ms, >100% reduction for 10 ms |

OUTPUT VOLTAGE/CURRENT RATING CHART

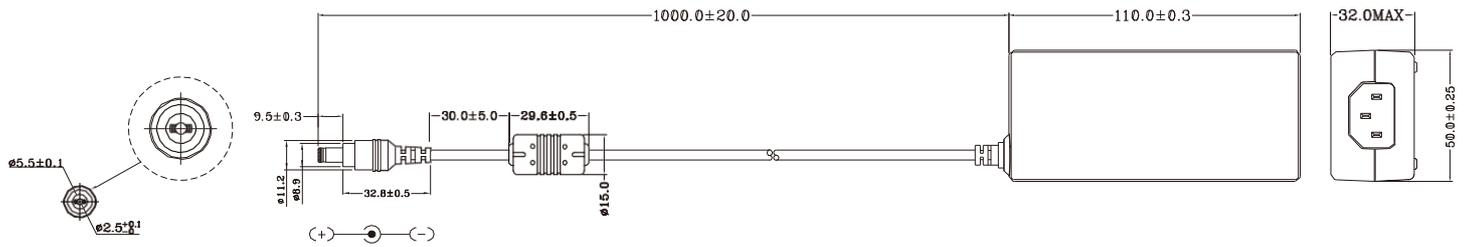
| Model No. | Output | | | | | | Average Active Efficiency (typical) @ 115 / 230 VAC |
|-------------|---------|--------------|--------------|-----------|-------------------------------|-------------------|--|
| | Voltage | Min. Current | Max. Current | Tolerance | Ripple & Noise ⁽¹⁾ | Max. Output Power | |
| 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:

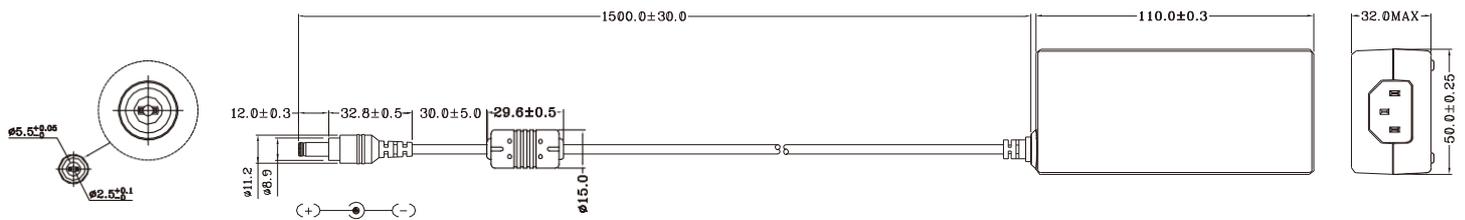
1. Ripple and noise is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS

Output 5 V



Output 12 V to 18 V



NOTES:

1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Output connector is 5.5 mm O.D., 2.5 mm I.D., 11.5 mm long barrel female connector, center positive voltage.
4. Weight: 180 grams (0.40 lbs.) approx.