TECHNICAL DATASHEET

# 60W Medical Adapter

## FSP060M Series

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### FEATURES

· Class II design safety standard compliance
· IEC60601-1 & IEC 62368-1
· Energy efficiency DOE Level VI
· No load power consumption ≦ 0.21W
· High altitude 5000M operation
· Compliant with RoHS requirement
· Meet EN55011

### SAFETY STANDARD APPROVAL

c UL us E211696 TÜVRheinland CERTIFIED EN 60601-1 IEC 60601-1 CE

### DESCRIPTION

This series of medical adapters are Class II design (with safety-protected earth) with IEC-320/C8 AC inlet. Maximum 60W continued output power at 40℃ operation temperature. High-efficiency features comply with US DOE requirements. All models meet EN 55011 conducted and radiated emission.

### INPUT SPECIFICATIONS

| | |
|---|---|
| Input voltage: | 90-264 VAC |
| Input frequency: | 47-63 Hz |
| Input current: | < 1.4 A (rms) / 115 VAC |
| | < 0.8 A (rms) / 230 VAC |
| Touch current: | ≤ 100 μA / 264 VAC, 63 Hz |

### OUTPUT SPECIFICATIONS

| | |
|---|---|
| Output voltage/current: | See rating chart |
| Maximum output power: | 60W |
| Protection: | |
| OVP: | Latch off |
| OCP & Shorted: | Auto recovery |
| OTP: | Latch off |

### ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| Operating temperature: | 0℃~+40℃ |
| Storage temperature: | -20℃~+85℃ |
| Operating humidity: | 5% to 95% RH non-condensing |
| Storage humidity: | 5% to 95% RH non-condensing |

### GENERAL SPECIFICATIONS

| | |
|---|---|
| Efficiency: | See rating chart |
| Hold-up time: | 10 ms minimum at 115Vac/60Hz |
| Line regulation: | ±1% maximum at full load |
| Inrush current: | 35 A @ 115 VAC or 100 A @ 230 VAC, at 25℃ cold start |
| Operating altitude : | 5000 meters |
| Withstand voltage: | 4000 VAC from input to output (2 MOPP) |
| | 1500 VAC from input to ground (1 MOPP) |
| | 500 VAC from output to ground |
| MTBF: | 150,000 hours at full load at 25℃ 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, 3 V/m |
| EN61000-4-4: | Fast transient/burst, ±2 KV Surge, |
| EN61000-4-5: | ±1 KV diff., ±2 KV com. Conducted |
| EN61000-4-6: | immunity, 3 Vrms Magnetic field |
| EN61000-4-8: | immunity, 30 A/m |
| EN61000-4-11: | Voltage dip immunity, |
| | 30% reduction for 500 ms |
| | 60% reduction for 100 ms |
| | >95% reduction for 10 ms |

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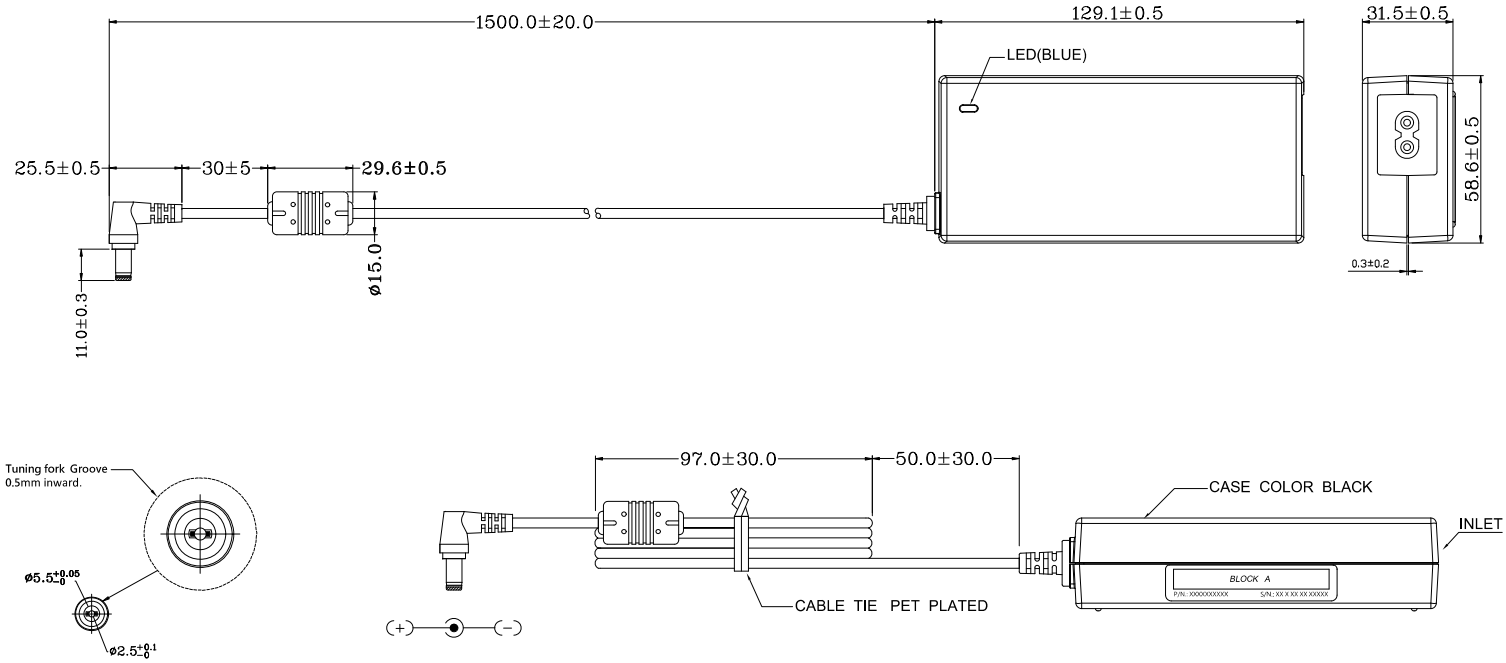
### OUTPUT VOLTAGE/CURRENT RATING CHART

| Model | Input Socket | Output | | | | | | Average Active Efficiency (typical) @115V / 230V(2) |
|---|---|---|---|---|---|---|---|---|
| | | Voltage | Min. Current | Max. Current | Tolerance | Ripple & Noise(1) | Max. Power | |
| FSP060M-DHC3 | C8 | 12 V | 0 A | 5.00A | ±5% | 120 mV | 60W | 89% / 90% |
| FSP060M-DBC3 | C8 | 19 V | 0 A | 3.16A | ±5% | 190 mV | 60W | 91% / 92% |
| FSP060M-DAC3 | C8 | 24 V | 0 A | 2.50A | ±5% | 240 mV | 60W | 90% / 91% |

NOTES:
1. Ripple and noise measurements shall be made with an oscilloscope of at least 20MHz bandwidth. Output shall be bypassed at the connector with a 0.1μF ceramic disk capacitor and a 10μF electrolytic capacitor to simulate system loading.
2. Average Active Efficiency measurements shall be tested at 100%, 75%, 50%, 25%, and 10% of nameplate output current and no load condition.

### MECHANICAL SPECIFICATIONS




NOTES:
1. Dimensions shown in mm.
2. Weight: 245 grams (0.54 lbs.) approx.