

### 65W Medical Open frame

FSP065M-P24 Series



## FSP065M-P24 Series

#### **FEATURES**

- Class-II design
- IEC60601-1 & IEC 62368-1 compliance
- EN55011 class B compliance
- Standby power less than 0.5W
- Form factor 2" x 4"

### SAFETY STANDARD APPROVAL







### **DESCRIPTION**

The AC-DC switching power supplies in a package of 2 x 4 inches are Class-II safety construction and feature 0.5W low input power consumption at 0.2W, which complies with Energy Star requirement. Less audible noise is suitable for quiet design requirement. PSU is capable of delivering 65 watts continuous power under convection cooling and at 50°C operation temperature.

### **INPUT SPECIFICATIONS**

Input voltage: 90 to 264 VAC Input frequency: 47-63 Hz

Input current: 1.5 A Max for 115 / 230 VAC Touch current: ≤ 100 µA @ 264VAC, 63Hz

### **OUTPUT SPECIFICATIONS**

Output voltage/current: See rating chart. Total output power: 65 watts maximum

Ripple and noise: 1% peak to peak maximum

Protection:

OVP Auto recovery 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: 5% to 95% non-condensing

Derating: Derate from 100% at +50°C linearly to

50% at +70°C, applicable to convection and forced-air cooling conditions.

### **GENERAL SPECIFICATIONS**

Fuse protection T3.15AH, 250Vac @ Line & Neutral

Efficiency: Refer to rating table

Turn-On Delay Time: ≤ 3 sec

≥10 mS mini. @ 115VAC Hold-up time: Line regulation: ±0.2% maximum at full load

Inrush current: ≤ 30A @ 115VAC. 25°C& cold start

≤ 60A @ 230VAC, 25°C& cold start

Withstand voltage: 4000 VAC from input to output (2 MOPP)

1500 VAC from input to ground (1 MOPP) 1500 VAC from output to ground (1 MOPP)

Isolation resistance: Input to output 100M ohm @ 500Vdc

369,611 hours mini. at full load at 25°C ambient MTBF:

temperature, calculated per Telcordia SR-332

EMC Performance (IEC60601-1-2)

Class B conducted, class B radiated EN 55011:

Harmonic distortion, Class D EN61000-3-2:

FN61000-3-3: Line flicker

FN61000-4-2 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. FN61000-4-6: Conducted immunity, 3 Vrms FN61000-4-8: Magnetic field immunity, 30 A/m EN61000-4-11:

Voltage dip immunity,

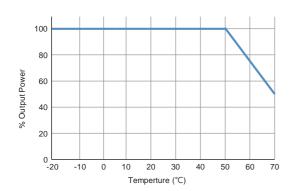
30% reduction for 500 ms 60% reduction for 100 ms >95% reduction for 10 ms

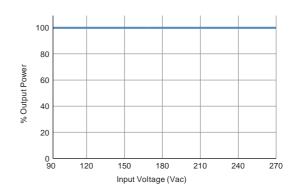


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### **OUTPUT POWER DERATING CURVE**





### **OUTPUT VOLTAGE/CURRENT RATING CHART**

Model		Efficiency						
	V1	Min.	Max. Current	T-1	Ripple &	Max. Power	(typical) @ 115 / 230 VAC	
		Current	Convection	Tol.	Noise (2)	Convection		
FSP065M-P24-A12	12 V	0 A	5.42A	±3 %	120 mV	65W	87 / 89%	
FSP065M-P24-A15	15 V	0 A	4.34A	±3 %	150 mV	65W	87 / 89%	
FSP065M-P24-A19	19 V	0 A	3.43A	±3 %	190 mV	65W	87 / 89%	
FSP065M-P24-A24	24 V	0 A	2.71A	±3 %	240 mV	65W	87 / 89%	

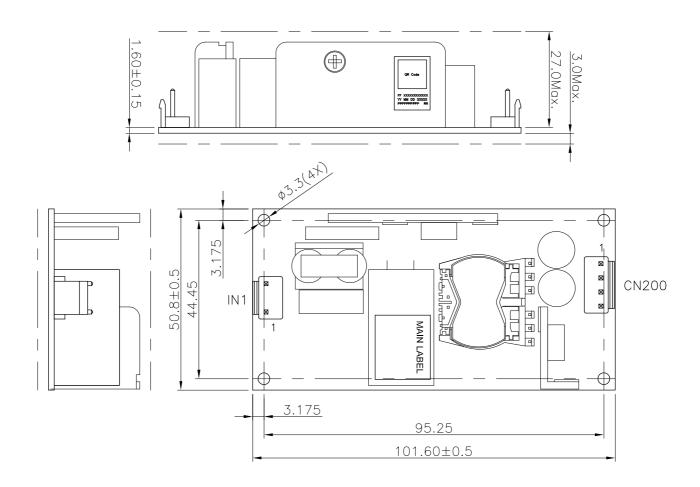
- 1. Forced air 18.4 CFM to be provide by user.
- 2. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 µFtantalum (or electrolytic) capacitor in parallel with a 0.1 µFtantalum (or electroly



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### **MECHANICAL SPECIFICATIONS**



### CONNECTOR PIN CHART

CONNECTOR		IN1		CN200				
PIN NO.	1	2	3	1	2	3	4	
OUTPUT	Neutral		Line	+V	+V	GND	GND	

### NOTES:

- 1. Dimensions shown in mm
- Connector IN1: JST B2P3-VH or equivalent.
  Connector CN200: JST B4P-VH or equivalent..
- 4. Weight: 104.5 grams (0.23 lbs.) approx.