



## MSMP150 Series

### 150 W Medical Open Frame Power Supply

- Wide Range AC Input
- Power Factor Correction
- +5V Standby & Fan Power
- Fully regulated DC output
- Output Floating
- High Efficiency
- Medical Approval - EN60601-1 Class I
- EISA Compliant
- RoHs Compliant

Elpac Part Number	Output Voltage	Output Current	Typical Efficiency
MSMP15012F	12.0V	12.5A	82%
MSMP15015F	15.0V	10.0A	83%
MSMP15024F	24.0V	6.2A	85%
MSMP15028F	28.0V	5.3A	86%
MSMP15048F	48.0V	3.2A	85%

#### Input

Input Voltage	85 - 264VAC 100 - 240VAC Nominal
Input Frequency	47 - 63Hz
Input Current	5A @ 100VAC
Touch Leakage Current	<75 $\mu$ A @ 132VAC @ 60Hz <75 $\mu$ A @ 264VAC @ 60Hz

#### Output

Output Voltage	See Table
Total Regulation	+/-5%

Minimum Load	No minimum load required
Start-Up Delay	<1s
Hold-Up Time	>20ms at full load, 115VAC
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	110-135%
Over Temperature Protection	Active - Recoverable; plus Passive - Non Recoverable
Over Current Protection	120 - 180%
Short Circuit Protection	Pulsing Mode Auto Recovery


### General

Efficiency	Avg Efficiency % @ 115VAC; % @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	5.25
Weight	2.0 lbs (0.91 kg)

### Environmental

Operating Temperature	0 – 50°C (Full load to 50°C, derate linearly to 50% load at 70°C)
Storage Temperature	-40°C to +85°C
Relative Humidity	5-95%, non-condensing
Cooling	Natural Convection (250W) or Forced Air (350W)
Vibration	All units production tested to 19.6m/s <sup>2</sup>

### EMC & Safety

Emissions	FCC class B, CISPR11 class B EN61000-3-2, Class D
Immunity	EN61000-4-2, -3, -4, -5, -6, -8, -11
Certified by TUV to the following:	cTUVus  UL 60601-1 CAN/CSA-22.2 No.601.1-M90 CB per IEC60601-1 CE marked to LVD



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