



## MSMP250 Series

### 250 W Medical Open Frame Power Supply

- High Efficiency: Level V
- Wide Range AC Input
- Power Factor Correction
- +5V Standby & Fan Power
- Fully Regulated DC Output
- EISA and CEC Compliant
- Floating Output
- ITE and Medical Grade Approval

Elpac Part Number	Output Voltage	Output Current	Typical Efficiency
MSMP25012F	12.0V	20.0A	88%
MSMP25015F	15.0V	16.5A	88%
MSMP25024F	24.0V	10.5A	88%
MSMP25028F	28.0V	9.0A	89%
MSMP25048F	48.0V	5.3A	88%

Input	
Input Voltage	85 - 264VAC 100 - 240VAC Nominal
Input Frequency	47 - 63Hz
Input Current	<5A rms
Inrush Current	<37A at 230VAC cold start
Power Factor	>0.98
Zero Load Power Consumption	<0.75W
Touch Leakage Current	<200 $\mu$ A @ 132VAC @ 60Hz <300 $\mu$ A @ 264VAC @ 60Hz

Output
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Output Voltage	See Table
Total Regulation	+/-5%
Minimum Load	No minimum load required
Start-Up Delay	<1s
Hold-Up Time	>24ms at any input voltage
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	shutdown, auto-restart (hiccup mode)

### General

Efficiency	Avg Efficiency 88.5% @ 115VAC; 90.6% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	8.00
Weight	2.1 lbs (0.95 kg)

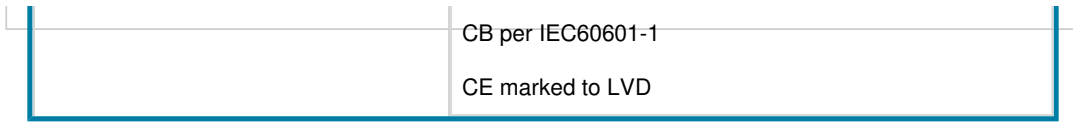
### Environmental

Operating Temperature	0 – 70°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, -3
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





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