



MWB100 Series

100 Watt Medical Desktop Power Supply

- High Efficiency
- High Power Density 4.8W/in³
- Lifetime Expectation >5 years
- Hold-up Time >24ms at full load
- EISA, CEC Compliant
- Floating Output
- Medical Approval - EN60601-1 Class II

Elpac Part Number	Output Voltage	Output Current	Peak Current ¹	Total Regulation ²	Typical Efficiency ³
MWB100012A-12A	12.0V	8.3A	10.0A	±5%	88%
MWB100015A-12A	15.0V	6.7A	8.0A	±5%	89%
MWB100018A-12A	18.0V	5.6A	6.7A	±5%	89%
MWB100024A-12A	24.0V	4.2A	5.0A	±5%	89%

Notes

1 Maximum peak load (120W) lasting 500ms with a maximum 10% duty cycle.

2 Includes initial setting, line regulation, load regulation, and thermal drift.

3 Typical at 115VAC (including output cable).

Input	
Input Voltage	85 - 264VAC 100 - 240VAC Nominal
Input Frequency	47 - 63Hz
Input Current	<2.3A rms
Inrush Current	<37A at 230VAC cold start
Zero Load Power Consumption	<0.5W
Earth Leakage Current	<150µA @ 132VAC @ 60Hz <250µA @ 264VAC @ 60Hz
Patient Leakage Current	<50µA @ 132VAC @ 60Hz <80µA @ 264VAC @ 60Hz

Output	
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)


Notes

* Ripple and noise measured with 20MHz bandwidth; 10 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor.

General	
Efficiency	Avg Efficiency 88.9% @ 115VAC; 90.6% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	5.19" (132mm) x 3.07" (78mm) x 1.34" (34mm)
Weight	1.1 lbs (0.50 kg)
Power Density	4.8W/in ³

Environmental	
Operating Temperature	0 – 60°C (Full load to 40°C, derate linearly to 50% load at 60°C)
Storage Temperature	-40°C to +85°C
Relative Humidity	5-95%, non-condensing
Cooling	Natural Convection
Vibration	All units production tested to 19.6m/s ²

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 CB per IEC60601-1 CE marked to LVD

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