

# ELPAC MWA050 SERIES CLASS I

50 Watt  
Medical Desktop Power Supply

- Safety Approval - IEC60601-1 Class I 3.1 Edition
- EMC safety - IEC/EN 60601-1-2 4<sup>th</sup> edition
- Low Leakage Current
- High Efficiency: Level V
- High Power Density 7.46W/in<sup>3</sup>
- Lifetime Expectation >5 years
- LED Indicator
- 5-Year Limited Warranty



INPUT	
Input Voltage	85 – 264VAC (100 – 240VAC Nominal)
Input Frequency	47 – 63Hz (50-60Hz Rated)
Input Current	<1.5A-0.6A rms
Inrush Current	<60A at 230VAC cold start
Power Factor	N/A
Zero Load Power	<0.5W
Earth Leakage Current (Typical)	<200µA @ 132VAC @ 60Hz
	<400µA @ 264VAC @ 60Hz
Touch Leakage Current	<50µA @ 132VAC @ 60Hz
	<100µA @ 264VAC @ 60Hz

OUTPUT	
Output Voltage	See Table
Total Regulation	±5%
Minimum Load	No minimum load required
Start-Up Delay	<2.0s
Hold-Up Time	>10ms at any input voltage of full load
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	110 – 135%
Over Temperature Protection	Active - Recoverable
Over Current Protection	108 – 180%
Short Circuit Protection	Shutdown, auto-restart (hiccup mode)

Notes

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

Model Number	Output Voltage	Output Current	Peak Current <sup>1</sup>	Total Regulation <sup>2</sup>	Typical Efficiency <sup>3</sup>
MWA030005A-10A	5.0V	6.0A	7.2A	±5%	84.0%
MWA050009A-10A	9.0V	5.0A	6.6A	±5%	87.0%
MWA050012A-10A	12.0V	4.16A	5.0A	±5%	88.0%
MWA050015A-10A	15.0V	3.33A	4.0A	±5%	89.0%
MWA050018A-10A	18.0V	2.77A	3.3A	±5%	90.0%
MWA050024A-10A	24.0V	2.08A	2.5A	±5%	90.0%
MWA050048A-10A	48.0V	1.04A	1.25A	±5%	90.0%

Notes

1) Maximum peak load (60W) 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).

4) AC cord not included-AC cord part number 67400-277-AB can be ordered separately.

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General	
Efficiency	Avg. Efficiency 88.5% @ 115VAC; Avg. Efficiency 87.5% @ 230VAC;
MTBF	min. 200,000 hours, SR-332 issue 3
Size	3.54" (90.0mm) x 1.91" (48.6mm) x 0.99" (25.2mm)
Weight	0.55 LBS (0.25 Kg)
Power Density	7.46W/in <sup>3</sup>

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	5-93%, non-condensing
Cooling	Natural Convection
Vibration	Unites meet MIL-STD-810G Figure 514.6C-1 category 4

EMC & Safety	
Emissions	FCC class B, CISPR11 class B IEC/EN60601-1-2(Ed.4) EN61000-3-2, -3
Immunity	EN61000-4-2, -3, -4, -5, -6, -11
Certified by TUV to the following:	cTUVus
	ANSI/AAMI ES60601-1:2005+A2+A1
	CAN/CSA-C22.2 No.60601-1:14
	CB per IEC60601-1 3.1 Edition
	CE marked to LVD and CE EMC

Input & Output Configuration	
Standard Input Cable	Not Provided-Available Separately(P/N 67400-277-AB)
Connection on Power Supply Body	IEC 320 C6 Receptacle
Standard Output Cable	4ft
Output Cable Cord Size	2x16awg (5V, 9V, 12V, 15V) 2x18awg (18V, 24V) 2x20awg (48V)
Output Cable Connector	Switchcraft 760 or equivalent
Output Cable Mating Connector	Switchcraft 712A or equivalent

Output Pin Assignments	
Center	+V1
Outside	Return


