



ELPAC MWA020 CLASS I

20 Watt
Medical Desktop Power Supply

- High Efficiency
- Fully Regulated DC Output
- 5Year Limited Warranty
- Holdup Time>18ms at full load
- Safety ApprovalEN60601-1 Class I 3rd edition
- Level V, EuP Directive Compliant
- LED Indicator



INPUT	
Input Voltage	85-264VAC; 100-240VAC Nominal
Input Frequency	47 – 63Hz
Input Current	<0.5A rms
Inrush Current	<50A at 230VAC cold start
Zero Load Power Consumption	<0.3W
Earth Leakage Current (Typical)	<100µA @ 132VAC @ 60Hz
	<150µA @ 264VAC @ 60Hz

OUTPUT	
Output Voltage	See Model Overview Table
Total Regulation	+/-5%
Minimum Load	No minimum load required
Start-Up Delay	<1.5s
Hold-Up Time	>18ms at any input voltage
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	112 – 135%
Over Temperature Protection	Active - Recoverable; plus Passive - Non 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.

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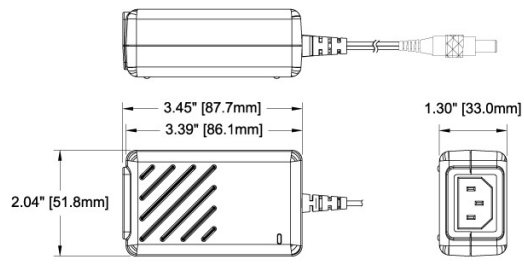
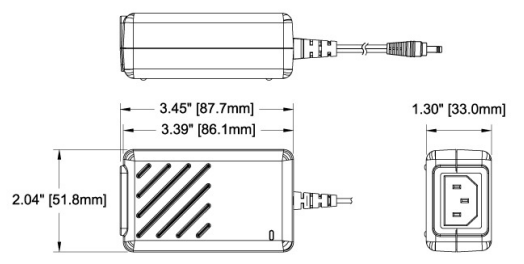
Model Number	Output Voltage	Output Current	Peak Current ¹	Total Regulation ²	Typical Efficiency ³
MWA020005A-10A	5.0V	4.0A	4.2A	±5%	80%
MWA020009A-10A	9.0V	2.22A	2.3A	±5%	83%
MWA020012A-10A	12.0V	1.67A	1.75A	±5%	84%
MWA020024A-10A	24.0V	0.84A	0.87A	±5%	86%

Notes

- 1) Maximum peak load (180W) 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).

General		Environmental		EMC & Safety	
Efficiency	Avg. Efficiency 83.4% @ 115VAC; 82.8% @ 230VAC	Operating Temperature	0 – 60°C (Full load to 40°C, derate linearly to 50% load at 60°C)	Emissions	FCC class B, CISPR11 class B EN61000-3-2, -3
MTBF	min. 200,000 hours demonstrated	Storage Temperature	-40°C to +85°C	Immunity	EN61000-4-2, -3, -4, -5, -6, -8, -11
Size	3.45" (87.7mm) x 2.04" (51.8mm) x 1.30" (33.0mm)	Relative Humidity	5-95%, non-condensing	Certified by TUV to the following:	cTUVus
Weight	5V 0.4lbs (0.2Kg); 24V 0.3 lbs (0.16Kg)	Cooling	Natural Convection		UL 60601-1
Power Density	3.0W/in ³	Vibration	All units production tested to 19.6m/s ²		CAN/CSA-22.2 No.601.1-M90
					CB per IEC60601-1
					CE marked to LVD

Input Configuration		Output Configuration		Output Pin Assignments	
Standard Input Cable	Not Provided	Standard Output Cable	6 ft	Center	+V1
Connection on Power Supply Body	IEC 320 C14 Receptacle	Cord Size	16AWG zip (5V, 9V); 18AWG zip (12V); 20AWG zip (24V)	Outside	Return
		Connector (PSU side)	Switchcraft 760 or equivalent		
		Mating Connector	Switchcraft 760 or equivalent		

Mechanical Drawing	
5V and 9V Model  MWA020005A-10A / MWA020009A-10A	12V and 24V Model  MWA020012A-10A / MWA020024A-10A