



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## MWA020 Class I

### 20 Watt Medical Desktop Power Supply

- High Efficiency
- Fully Regulated DC Output
- 5-Year Limited Warranty
- Hold-up Time > 18ms at full load
- Safety Approval-EN60601-1 Class I 3rd edition
- Level V, EuP Directive Compliant
- LED Indicator

Elpac Part Number	Output Voltage	Output Current	Peak Current <sup>1</sup>	Total Regulation <sup>2</sup>	Typical Efficiency <sup>3</sup>
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 (21W) 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	<0.5A rms
Inrush Current	<50A @ 230VAC cold start
Zero Load Power Consumption	<0.3W
Earth Leakage Current (Typical)	<100µA @ 132VAC @ 60Hz (typical) <150µA @ 264VAC @ 60Hz (typical)

## 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)


## General

Efficiency	Avg Efficiency 83.4% at 115VAC; 82.8% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	3.45" x 2.04" x 1.30"   87.7mm x 51.8mm x 33.0mm
Weight	5V 0.4lbs (0.2Kg); 24V 0.3 lbs (0.16Kg)
Power Density	3.0 W/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	5-95%, non-condensing
Cooling	Natural Convection
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
	CB per IEC60601-1 2nd and 3rd Edition
	CE marked to LVD Directive

## Input Configuration

Standard Input Cable	Not Provided
Connection on Power Supply Body	IEC 320 C14 Receptacle

## Output Configuration

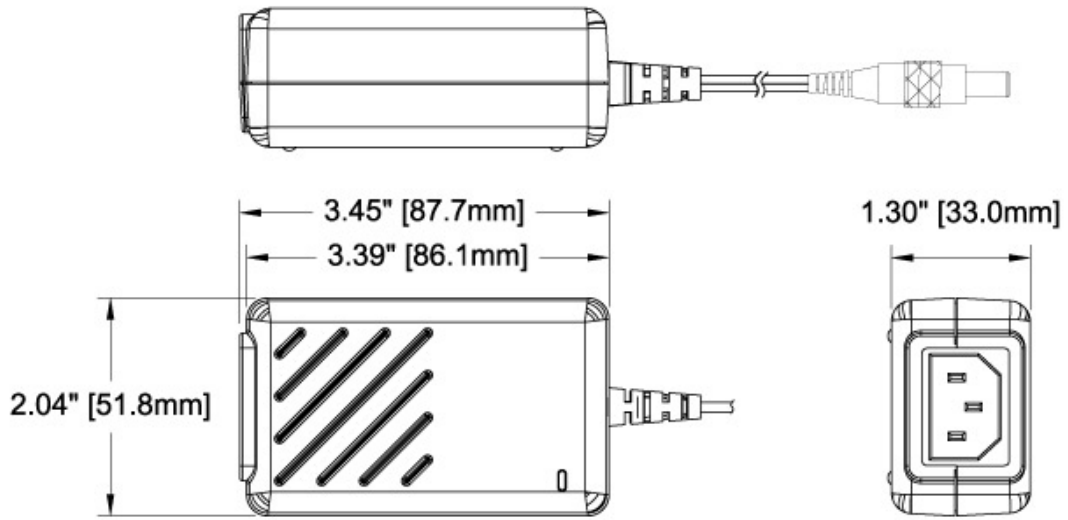
Standard Output Cable	6 ft.
Cord Size	16AWG zip (5V, 9V) 18AWG zip (12V) 20AWG zip (24V)
Connector (PSU side)	Switchcraft 760 or equivalent
Mating Connector	Switchcraft 712A or equivalent

## Output Pin Assignments



Center	+v1
Outside	Return

5V and 9V Model



12V and 24V Model

