

## **MWC100 Series**

100 Watts Medical Switch Mode Power Supply

### >E Elpac Power Systems



### TECHNICAL SUPPORT

WORLDWIDE 1-888-357-2280 saleselpac@iccus.com www.iccus.com

**EUROPE** +44.1383.432920 saleseurope@iccus.com

#### **ENERGY STAR PARTNER**

As a Global Supplier of Power Supplies, we are committed to meeting energy efficiency standards around the world. That is why we have partnered with the ENERGY STAR® Program and engineer our Elpac Power Systems<sup>TM</sup> to meet strict energy-efficiency guidelines established by the EPA and the US Department of Energy (DOE). The Energy Star program has developed International partnerships with countries and organizations in major global markets. Those participating in the program include Australia, Canada, European Union, European Free Trade Association, Japan, New Zealand, and Taiwan.

Furthering our International commitment, we have signed the EU Code of Conduct on Efficiency of External Power Supplies. Our Elpac Power Systems™ MWC100 series meets the efficiency standards of the International ENERGY STAR® program and the EU Code of Conduct.



High Efficiency

- Power Factor Correction
- Lifetime Expectation >5 years
- Hold-Up Time >48ms at full load
- ENERGY STAR Level V
- EISA Compliant
- CEC Compliant
- Floating Output
- Medical Approval EN60601-1 Class I

Input	
Input Voltage	85 – 264VAC 100 – 240VAC Nominal
Input Frequency	47 – 63Hz
Input Current	<1.5A rms
Inrush Current	<37A at 230VAC cold start
Power Factor	>0.97
Zero Load Power Consumption	<0.5W
Touch Current/ Leakage Current	<150μA @ 132VAC @ 60Hz
	<250μA @ 264VAC @ 60Hz
Patient Leakage Current	<50μA @ 132VAC @ 60Hz
Patient Leakage Current	<80μA @ 264VAC @ 60Hz

Output	
Output Voltage	See Table
Total Regulation	+/-5%
Minimum Load	No minimum load required
Start-Up Delay	<1s
Hold-Up Time	>48ms 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)

<sup>\*</sup>visit www.iccus.com for complete details \*\*Ripple and noise measured with 20MHz bandwidth; 10μF tantalum capacitor in parallel with a 0.1μF ceramic capacitor.













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Model Number <sup>1</sup>	Output Voltage	Output Current	Peak Current <sup>2</sup>	Total Regulation <sup>3</sup>	Typical Efficiency <sup>4</sup>
MWC100012A-12A	12.0V	8.3A	10.0A	±5%	86%
MWC100015A-11A	15.0V	6.6A	8.0A	±5%	87%
MWC100018A-11A	18.0V	5.5A	6.7A	±5%	87%
MWC100024A-11A	24.0V	4.1A	5.0A	±5%	89%

#### Notes

- 1) All models ship standard with US version input cable.
- 2) Maximum peak load (120W) lasting 500ms with a maximum 10% duty cycle.
- 3) Includes initial setting, line regulation, load regulation, and thermal drift.
- 4) Typical at 115VAC (including output cable).

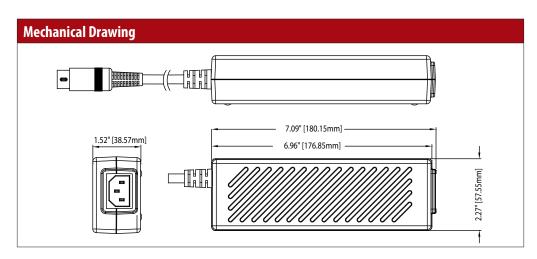
General	
Energy Star Efficiency	Avg Efficiency 87.4% @ 115VAC; 87.9% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	7.09" (180.2mm) x 2.27" (57.5mm) x 1.52" (38.6mm)
Weight	1.52 lbs (0.69 kg)
Power Density	4.2W/in <sup>3</sup>

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	
	cTUVus, cULus	
Certified by TUV to the	UL 60601-1	
following:	CAN/CSA-22.2 No.601.1-M90	
(To Riberton)	CB per IEC60601-1	
c Manager Us	CE marked to LVD	

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

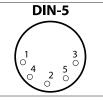
Output Configuration		
Standard Output Cable	4 ft for 12V 6 ft for 15V, 18V & 24V	
Connector (PSU side)	Switchcraft DIN-8, P/N 15BL8M for 12V Switchcraft DIN-5, P/N 05GM5M for 15V, 18V & 24V	
Mating Connector	Switchcraft 62GB5F (5 pin) or 62GB8F (8 pin) or equivalent	



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Certified by	UL 60601-1
following:	CAN/CSA-22.2 No.601.1-M90
C American U.S	CB per IEC60601-1
	CE marked to LVD

Output Pin A	ssignmeni	r2
Pin 1	+V1	
Pin 2	+V1	DIN-8
Pin 3	Return	
Pin 4	+V1	$\binom{6}{1} \binom{6}{6} \binom{7}{6} \binom{3}{6}$
Pin 5	Return	$ \begin{pmatrix} 1 & 0 & 3 \\ 0 & & 0 \end{pmatrix} $
Pin 6	+V1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Pin 7	Return	
Pin 8	Return	

Pin 1	Return	
Pin 2	Return	
Pin 3	+V1	
Pin 4	Return	
Pin 5	+V1	



Ordering Options Available		
Floating Output Overmolding		
Ferrite Cores	Output Cord Lengths	
Custom Imprinting	Special Labeling	
Special Packaging		

