

## MTB080 Series

65 - 100 Watts Medical Switch Mode Power Supply

### HE Elpac Power Systems.

HIGHER EFFICIENCY, HIGHER POWER DENSITY, UNCOMPROMISED RELIABILITY



#### TECHNICAL SUPPORT

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#### **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™ MTB080 series meets the efficiency standards of the International ENERGY STAR® program and the EU Code of Conduct.



#### 5-YEAR LIMITED WARRANTY\*

- High Efficiency
- High Power Density 12.5W/in³
- Output Floating
- Lifetime expectation >5 years
- Hold-up Time 28ms at full load
- ENERGY STAR Level V
- Medical Approval EN60601-1 Class I

Input	
Input Voltage	85 – 264VAC 100 – 240VAC Nominal
Input Frequency	47 – 63Hz
Input Current	<2A rms
Inrush Current	<37A at 230VAC cold start
Zero Load Power Consumption	<0.3W
Earth Leakage Current	<75μA @ 132VAC @ 60Hz
	<120μA @ 264VAC @ 60Hz
Patient Leakage Current	<40μA @ 132VAC @ 60Hz
	<60μA @ 264VAC @ 60Hz

Output	
Output Voltage	See Table
Total Regulation	+/-5%
Minimum Load	No minimum load required
Start-Up Delay	<0.2s
Hold-Up Time	>28ms at full load
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	120 -150%
Over Temperature Protection	Active - Recoverable; plus Passive - Non Recoverable
Over Current Protection	110 - 190%
Short Circuit Protection	shutdown, auto-restart (hiccup mode)

#### Notes

\*visit www.iccus.com for complete details

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







# MTB080 Series

65 - 100 Watts **Medical Switch Mode Power Supply** 

Model Number	Output Voltage	Output Current <sup>1</sup>	Peak Current <sup>2</sup>	Total Regulation <sup>3</sup>	Minimum Efficiency <sup>4</sup>
MTB080009A	9.0V	7.2A (65W)	10.0A (90W)	±5%	88%
MTB080012A	12.0V	6.7A (80W)	8.3A (100W)	±5%	90%
MTB080015A	15.0V	5.4A (80W)	6.7A (100W)	±5%	90%
MTB080024A	24.0V	3.4A (80W)	4.2A (100W)	±5%	91%

- 1) Maximum load current with natural convection cooling
- 2) Maximum peak load lasting up to 4 seconds with natural convection cooling, or maximum continuous output current with minimum 5 CFM airflow.
  3) Includes initial setting, line regulation, load, regulation, and thermal drift.
  4) Typical at 115VAC and full load (65W)

General	
Efficiency:	Avg. Efficiency 89.6% @115VAC, 90.3% at 230VAC
Energy Star Requirements:	Avg. Efficiency >87%, <0.3W Energy Consumption at No Load
MTBF	min. 200,000 hours demonstrated
Size	4.00" (101.6mm) x 2.00" (50.8mm) x 1.01" (25.7mm)
Weight	0.37 lbs (.166 Kg)
Power Density:	12.5W/in <sup>3</sup>

Environmental		
Operating Temperature	0 − 50°C @ full load, linearly derated to 50% load at 70°C	
Storage Temperature	-40°C to +85°	
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, CISPR22 class B, EN61000-3-2,-3	
Immunity	EN61000-4-2, -3, -4, -5, -6, -8, -11	
	cTUVus	
Certified by TUV to the	UL 60601-1	
following:	CAN/CSA-22.2 No.601.1-M90	
C. America US	CB per IEC60601-1	
	CE marked to LVD	

Input Configuration		
PSU side	AMP 640445-3 or equivalent	
Cable side	AMP 640250-3 or equivalent	

Output Configuration		
PSU side	AMP 640445-6 or equivalent	
Cable side	AMP 640250-6 or equivalent	

Mechanical Drawing	
4.00" [101.6mm]  3.76" [95.4mm]  1.75" [44.4mm]  Mounting Hole 0.16" [4.0mm]	1.01" [25.7mm] 0.10" [2.5mm]

Output Pin Assignments (P2)		
Pin 1	+Vout	
Pin 2	+Vout	
Pin 3	Return	
Pin 4	Return	
Pin 5	N/C	
Pin 6	N/C	

Input Pin Assignments (P1)	
Pin 1	AC Line
Pin 2	<not assembled=""></not>
Pin 3	AC Neutral

### **Ordering Options Available** (Contact Factory) **Grounded Output**

