

ELPAC MTB080 SERIES CLASS I

80 Watt
Medical Open Frame Power Supply

- Medical Approval – IEC/EN60601-1 Class I 3.2 Edition
- EMC safety – IEC/EN 60601-1-2 4.1 Edition
- Low Leakage Current
- High Efficiency: Level V
- Up to 96W with Forced Air
- High Power Density 9.0W/in³
- Lifetime Expectation >5 years
- Floating Output
- 5-Year Limited Warranty



INPUT	
Input Voltage	90 – 264VAC (100 – 240VAC Nominal)
Input Frequency	47 – 63Hz (50-60Hz Rated)
Input Current	2.3A-1.0A rms
Inrush Current	<37A at 230VAC cold start
Power Factor	N/A
Zero Load Power	<0.21W
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	<1.5s
Hold-Up Time	>20ms at any input voltage of full load
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	110 – 135%
Over Temperature Protection	Active - Recoverable; Passive - Non recoverable
Over Current Protection	120 – 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	Forced Air Current ¹	Total Regulation ²	Typical Efficiency ³
MTB065009A ⁴	9.0V	7.2A	10.0A	±5%	86.0%/88.0%
MTB080012A	12.0V	6.67A	8.0A	±5%	89.0%/90.5%
MTB080015A	15.0V	5.33A	6.4A	±5%	89.0%/91.0%
MTB080018A	18.0V	4.44A	5.33A	±5%	89.5%/91.5%
MTB080024A	24.0V	3.33A	4.0A	±5%	90.5%/92.0%

Notes

1) Maximum peak load (96W) lasting 500ms with a maximum 10% duty cycle, Sustained output current (96W) with minimum 100 LFM.

2) Includes initial setting, line regulation, load regulation, and thermal drift.

3) Typical Efficiency at 80W full Load 115/230 VAC.

4) MTB065009A maximum output is 65W, peak load is 90W, MTB065009A module cannot meet level V.

WARNING: Do not modify this equipment without authorization of the manufacturer.

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General

Avg. Efficiency	9V: 84.5% @115V; 86.0% @230V; 12V: 87.5% @115V; 88.5% @230V; 15V: 88.0% @115V; 89.5% @230V; 18V: 88.0% @115V; 90.0% @230V; 24V: 88.5% @115V; 90.0% @230V;
MTBF	min. 200,000 hours, SR-332 issue 3
Size	4.00" (101.6mm) x 2.00" (50.8mm) x 1.11" (28.2mm)
Weight	0.37 LBS (0.166 Kg)
Power Density	9.0W/in ³
Altitude (Operating)	2000M

Environmental

Operating Temperature	0–50°C
Storage Temperature	-40°C to +85°C
Relative Humidity	5-93%, non-condensing
Cooling	Natural Convection (80W) or Forced Air (96W)
Vibration	Unites meet MIL-STD-810G Figure 514.6C-1 category 4

EMC & Safety

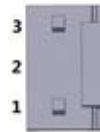
Emissions	FCC class B, CISPR11 class B IEC/EN60601-1-2(Ed.4.1) EN61000-3-2, -3
Immunity	EN61000-4-2, -3, -4, -5, -6, -11
Certified by TUV to the following:	cTUVus
	ANSI/AAMI ES60601-1:2005+A2+A1
	CAN/CSA-C22.2 No.60601-1:14
	CB per IEC60601-1 3.2 Edition
	CE marked to LVD and CE EMC /CCC

Input & Output Configuration

Standard Input Cable	Not Provided, input mating connector: AMP#640250-3 or equivalent
Connection on Power Supply Body	AMP#640445-3 or equivalent
Standard Output Cable	Not Provided
Output Cable Cord Size	N/A
Output Cable Connector	AMP#640445-6 or equivalent
Output Cable Mating Connector	AMP#640250-6 or equivalent

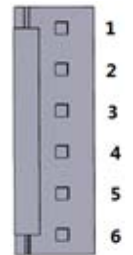
Input Pin Assignments

Pin 1	AC Neutral
Pin 2	not assembled
Pin 3	AC Line

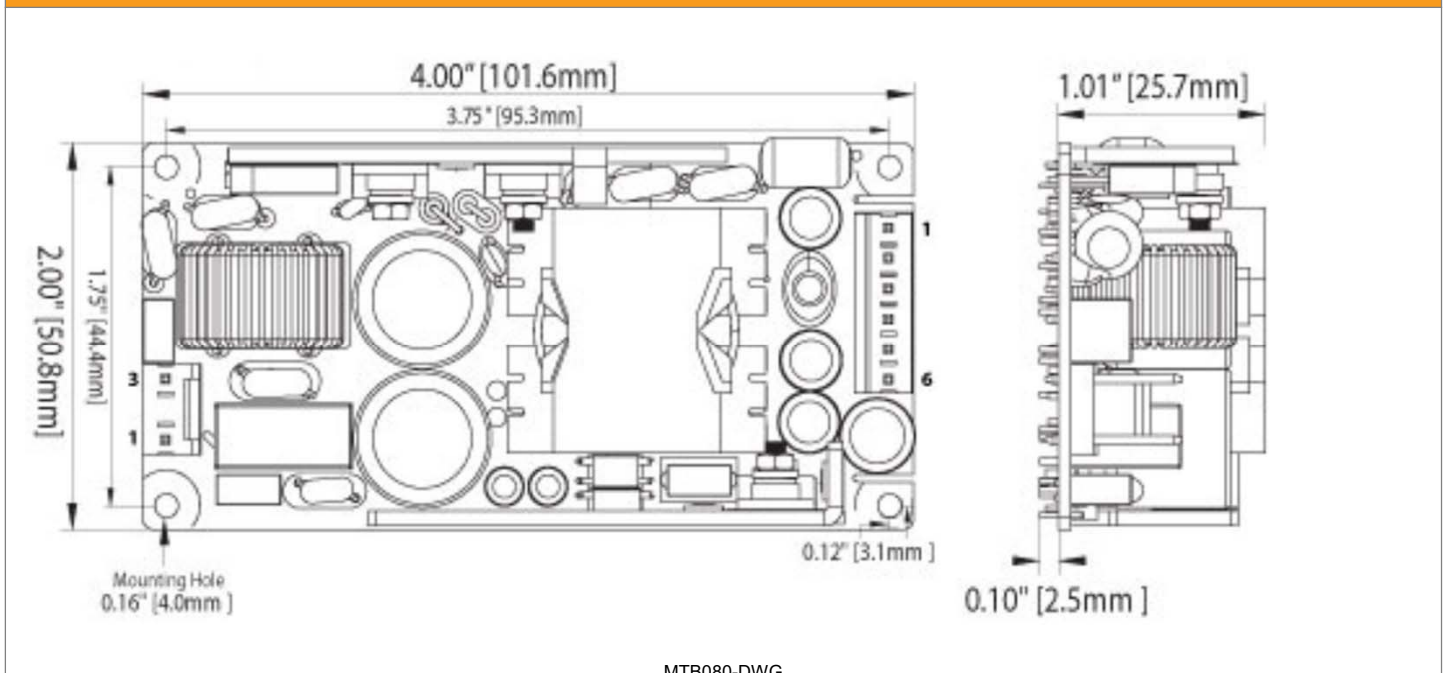


Output Pin Assignments

Pin 1	+V1
Pin 2	+V1
Pin 3	Return
Pin 4	Return
Pin 5	N/C
Pin 6	N/C



Mechanical Drawing



MTB080-DWG