



MTB080 Series

65 - 100 W Medical Open Frame Power Supply

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

Elpac Part Number	Output Voltage	Output Current ¹	Peak Current ²	Total Regulation ³	Typical Efficiency ⁴
MTB080009A	9.0V	7.2A	10.0A	±5%	88%
MTB080012A	12.0V	6.7A	8.3A	±5%	90%
MTB080015A	15.0V	5.4A	6.7A	±5%	90%
MTB080024A	24.0V	3.4A	4.2A	±5%	91%

Notes

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)

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 (Typical)	<75 μ A @ 132VAC @ 60Hz <120 μ A @ 264VAC @ 60Hz
Patient Leakage Current	<40 μ A @ 132VAC @ 60Hz <60 μ A @ 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

* Ripple and noise measured with 20MHz bandwidth; 10 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor.


General

Efficiency	Avg Efficiency 89.6% @ 115VAC; 90.3% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	4.00" x 2.00" x 1.01" 101.6mm x 50.8mm x 25.7mm
Weight	0.37 lbs (.166 kg)
Power Density	12.5W/in ³

Environmental

Operating Temperature	0 – 50°C (Full load to 50°C, derate linearly to 50% load at 70°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 ²

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.601.1-M90
	CB per IEC60601-1
	CE marked to LVD

Input Configuration

Connection on Power Supply Body	AMP p/n 640445-3 (or equivalent)
Mating Connector	AMP p/n 640250-3 (or equivalent)

Output Configuration

Connector (PSU Side)	AMP p/n 640445-6 (or equivalent)
Mating Connector	AMP p/n 640250-6 (or equivalent)

Input Pin Assignments (P1)

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

Output Pin Assignments (P2)

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

