



MTA040 Series

40 Watt Medical Open Frame Power Supply

- High Efficiency: Level V
- Fully Regulated DC Output
- Lifetime Expectation >5 years
- Hold-up Time >14ms at full load
- EISA & CEC Compliant
- Floating Output
- Safety Approval - EN60601-1 Class I

Elpac Part Number	Output Voltage	Output Current	Peak Current ¹	Total Regulation ²	Typical Efficiency ³
MTA040009A	9.0V	4.4A	5.3A	±5%	85%
MTA040012A	12.0V	3.3A	4.0A	±5%	87%
MTA040015A	15.0V	2.7A	3.2A	±5%	88%
MTA040024A	24.0V	1.7A	2.0A	±5%	87%

Notes

¹ Maximum peak load (48W) lasting 500ms with a maximum 10% duty cycle.

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

³ Typical at 115VAC

Input

Input Voltage	85 - 264VAC 100 - 240VAC Nominal
Input Frequency	47 - 63Hz
Input Current	<1.0A rms
Inrush Current	<37A at 230VAC cold start
Zero Load Power Consumption	<0.3W
Earth Leakage Current (Typical)	<60 μ A @ 132VAC @ 60Hz <80 μ A @ 264VAC @ 60Hz
Patient Leakage Current	<30 μ A @ 132VAC @ 60Hz <50 μ A @ 264VAC @ 60Hz

Output

Output Voltage	See Table
Total Regulation	+/-5%
Minimum Load	No minimum load required
Start-Up Delay	<250ms
Hold-Up Time	>14ms
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)

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 87.1% @ 115VAC; 87.1% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	4.00" x 2.00" x 0.99" 101.6mm x 50.81mm x 25.2mm
Weight	0.29 lbs (0.13 kg)
Power Density	5.76W/in ³

Environmental

Operating Temperature	0 – 70°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)

Output Pin Assignments

Pin 1	+V1
Pin 2	+V1
Pin 3	Return
Pin 4	Return
Pin 5	No Connection
Pin 6	No Connection

Input Pin Assignments (P1)

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

