

ELPAC MTB080 SERIES

65 - 100 Watt

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



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) | <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 any input voltage |
| 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; 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor.

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| Model 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% |
| MTB080018A | 18.0V | 4.5A | 5.3A | ±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)

| General | | Environmental | | EMC & Safety | |
|---------------|---|-----------------------|---|------------------------------------|--|
| Efficiency | Avg. Efficiency 89.6% @ 115VAC; 90.3% @ 230VAC | Operating Temperature | 0 – 50°C (Full load to 50°C, derate linearly to 50% load at 70°C) | Emissions | FCC class B, CISPR11 class B EN61000-3-2, -3 |
| MTBF | min. 200,000 hours demonstrated | Storage Temperature | -40°C to +85°C | Immunity | EN61000-4-2, -3, -4, -5, -6, -8, -11 |
| Size | 4.00" (101.6mm) x 2.00" (50.8mm) x 1.01" (25.7mm) | Relative Humidity | 5-95%, non-condensing | Certified by TUV to the following: | cTUVus |
| Weight | 0.37 lbs (.166 kg) | Cooling | Natural Convection | | UL 60601-1 |
| Power Density | 12.5W/in ³ | Vibration | All units production tested to 19.6m/s ² | | CAN/CSA-22.2 No.601.1-M90 |
| | | | | | CB per IEC60601-1 |
| | | | | | CE marked to LVD |

| Input Configuration | | Output Configuration | | Output Pin Assignments (P2) | | |
|---------------------------------|----------------------------------|----------------------|----------------------------------|-----------------------------|--------|--|
| Connection on Power Supply Body | AMP p/n 640445-3 (or equivalent) | Connector (PSU Side) | AMP p/n 640445-6 (or equivalent) | Pin 1 | +Vout | |
| Mating Connector | AMP p/n 640250-3 (or equivalent) | Mating Connector | AMP p/n 640250-6 (or equivalent) | Pin 2 | +Vout | |
| | | | | Pin 3 | Return | |
| | | | | Pin 4 | Return | |
| | | | | Pin 5 | N/C | |
| | | | | Pin 6 | N/C | |

