



MWB100 Class II

100 Watt Medical Desktop Power Supply

- High Efficiency
- High Power Density 4.8W/in³
- Lifetime Expectation >5 years
- Hold-up Time >24ms at full load
- EISA, CEC Compliant
- Floating Output
- Medical Approval - EN60601-1 Class II

| Elpac Part Number | Output Voltage | Output Current | Peak Current ¹ | Total Regulation ² | Typical Efficiency ³ |
|-------------------|----------------|----------------|---------------------------|-------------------------------|---------------------------------|
| MWB100012A-12A | 12.0V | 8.3A | 10.0A | ±5% | 88% |
| MWB100015A-12A | 15.0V | 6.7A | 8.0A | ±5% | 89% |
| MWB100018A-12A | 18.0V | 5.6A | 6.7A | ±5% | 89% |
| MWB100024A-12A | 24.0V | 4.2A | 5.0A | ±5% | 89% |

Notes

1 Maximum peak load (120W) lasting 500ms with a maximum 10% duty cycle.

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

3 Typical at 115VAC (including output cable).

Input

| | |
|-----------------------------|----------------------------------|
| Input Voltage | 85 - 264VAC 100 - 240VAC Nominal |
| Input Frequency | 47 - 63Hz |
| Input Current | <2.3A rms |
| Inrush Current | <37A at 230VAC cold start |
| Zero Load Power Consumption | <0.5W |

Output

| | |
|-----------------------------|--|
| Output Voltage | See Table |
| Total Regulation | +/-5% |
| Minimum Load | No minimum load required |
| Start-Up Delay | <1s |
| Hold-Up Time | >24ms at any input voltage |
| 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; 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor.


General

| | |
|---------------|---|
| Efficiency | Avg Efficiency 88.9% @ 115VAC; 90.6% @ 230VAC |
| MTBF | min. 200,000 hours demonstrated |
| Size | 5.19" (132mm) x 3.07" (78mm) x 1.34" (34mm) |
| Weight | 1.1 lbs (0.50 kg) |
| Power Density | 4.8W/in ³ |

Environmental

| | |
|-----------------------|---|
| Operating Temperature | 0 – 60°C (Full load to 40°C, derate linearly to 50% load at 60°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

| | |
|---------------------------------|------------------------|
| Standard Input Cable | Not Provided |
| Connection on Power Supply Body | IEC 320 C18 Receptacle |

Output Configuration (12V)

| | |
|-----------------------|---|
| Standard Output Cable | 4 ft. |
| Cord Size | 2x16awg |
| Connector (PSU side) | Switchcraft DIN-8, P/N 15BL8MX (male pins) |
| Mating Connector | Switchcraft 62GB8FX or equivalent |

Output Configuration (15V, 18V 24V)

| | |
|-----------------------|---|
| Standard Output Cable | 6 ft. |
| Cord Size | 2x16awg |
| Connector (PSU side) | Switchcraft DIN-8, P/N 15BL8MX (male pins) |
| Mating Connector | Switchcraft 62GB8FX or equivalent |

Output Pin Assignments



| | |
|-------|--------|
| Pin 1 | +V1 |
| Pin 2 | +V1 |
| Pin 3 | Return |
| Pin 4 | +V1 |
| Pin 5 | Return |
| Pin 6 | +V1 |
| Pin 7 | Return |
| Pin 8 | Return |

