

# ELPAC MWA150 SERIES CLASS II

150 Watt  
Medical Desktop Power Supply

- Medical Approval - EN60601-1 Class II 3.1 Edition
- EMC safety - IEC/EN 60601-1-2 4<sup>th</sup> edition
- Low Leakage Current
- High Efficiency: Level V
- High Power Density 5.4W/in<sup>3</sup>
- Lifetime Expectation >5 years
- LED Indicator
- 5-Year Limited Warranty



| INPUT                           |                                    |
|---------------------------------|------------------------------------|
| Input Voltage                   | 85 – 264VAC (100 – 240VAC Nominal) |
| Input Frequency                 | 47 – 63Hz (50-60Hz Rated)          |
| Input Current                   | 2.0A-0.9A rms                      |
| Inrush Current                  | <37A at 230VAC cold start          |
| Power Factor                    | >0.97                              |
| Zero Load Power                 | <0.5W                              |
| Earth Leakage Current (Typical) | N/A                                |
|                                 | N/A                                |
| 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                | >25ms at any input voltage of full load            |
| Ripple & Noise              | <1% pk-pk **                                       |
| Over Voltage Protection     | 110 – 135%   |
| Over Temperature Protection | Active - Recoverable;<br>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 | Peak Current <sup>1</sup> | Total Regulation <sup>2</sup> | Typical Efficiency <sup>3</sup> |
|----------------|----------------|----------------|---------------------------|-------------------------------|---------------------------------|
| MWA150012B-12A | 12.0V          | 12.5A          | 15.0A                     | ±5%                           | 89%                             |
| MWA150015B-12A | 15.0V          | 10.0A          | 12.0A                     | ±5%                           | 90%                             |
| MWA150018B-11A | 18.0V          | 8.3A           | 10.0A                     | ±5%                           | 90%                             |
| MWA150024B-11A | 24.0V          | 6.3A           | 7.5A                      | ±5%                           | 91%                             |
| MWA150028B-11A | 28.0V          | 5.3A           | 6.4A                      | ±5%                           | 91%                             |
| MWA150048B-11A | 48.0V          | 3.2A           | 3.75A                     | ±5%                           | 92%                             |

Notes

1) Maximum peak load (180W) 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).

4) AC cord not included-AC cord part number 67400-242-AB can be ordered separately.

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| General       |  |
|---------------|--|
| Efficiency    | Avg. Efficiency 90.5% @ 115VAC;<br>Avg. Efficiency 92.5% @ 230VAC; |
| MTBF          | min. 200,000 hours, SR-332 issue 3                                 |
| Size          | 7.56" (192mm) x 2.45"<br>(62.2mm) x 1.52" (38.7mm)                 |
| Weight        | 1.55 LBS (0.7 Kg)  |
| Power Density | 5.4W/in <sup>3</sup>   |

| 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             | Unites meet MIL-STD-810G Figure 514.6C-1 category 4             |

| EMC & Safety                       |  |
|------------------------------------|--|
| Emissions                          | FCC class B, CISPR11 class B<br>IEC/EN60601-1-2(Ed.4)<br>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 3.1 Edition  |
|                                    | CE marked to LVD and CE EMC  |

| Input & Output Configuration    |   |
|---------------------------------|---|
| Standard Input Cable            | Not Provided Separately (P/N 67400-242-AB)  |
| Connection on Power Supply Body | IEC 320 C8 Receptacle   |
| Standard Output Cable           | 4ft for 12V 15V<br>6ft for 18V, 24V, 28V, 48V   |
| Output Cable Cord Size          | 4x16awg (12V, 15V, 18V)<br>4x18awg (24V*, 28V*, 48V*)   |
| Output Cable Connector          | Switchcraft DIN-8, P/N 15BL8M<br>Switchcraft DIN-5, P/N 05GM5MX   |
| Output Cable Mating Connector   | Switchcraft 62GB8FX(8 pin) or equivalent(12V, 15V, 18V, 24V)<br>Switchcraft 57GB5FX (5 pin) or equivalent(28V, 48V) |

| 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 |

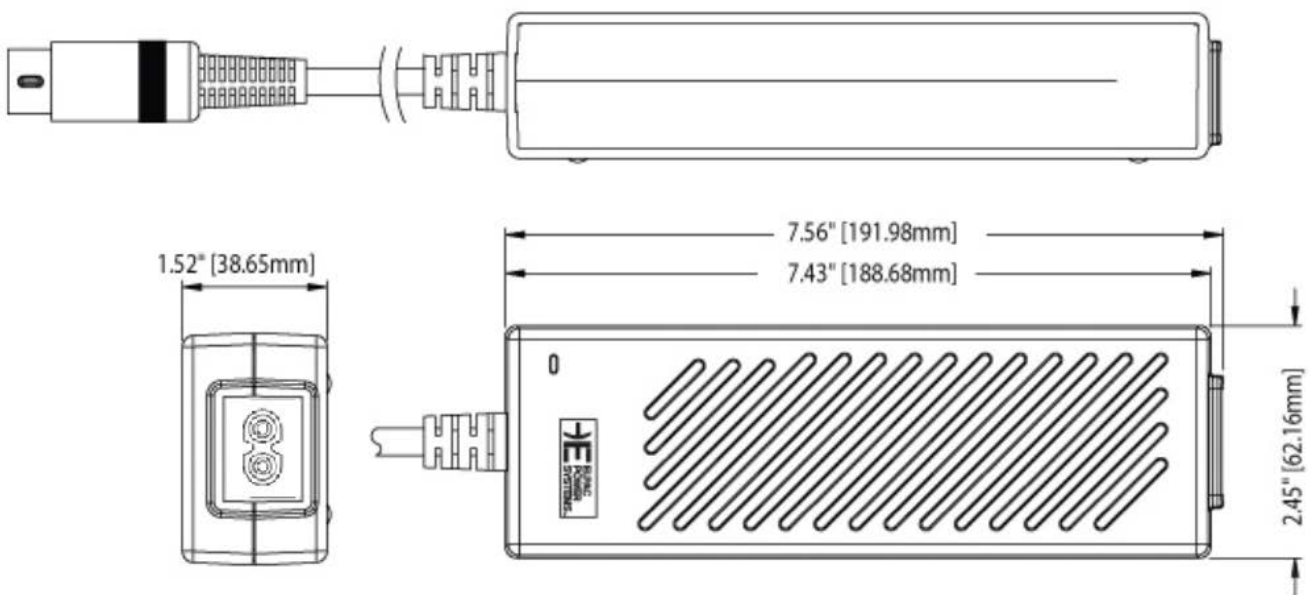


| Output Pin Assignments |        |
|------------------------|--------|
| Pin 1                  | +V1    |
| Pin 2                  | +V1    |
| Pin 3                  | Return |
| Pin 4                  | +V1    |
| Pin 5                  | Return |



\*with EMI bead

## Mechanical Drawing



MWA150-DWG