



ELPAC MWA220 SERIES CLASS I

220 Watt
Medical Desktop Power Supply

- Medical Approval - EN60601-1 Class I 3.1 Edition
- EMC safety - IEC/EN 60601-1-2 4th edition
- Low Leakage Current
- High Efficiency: Level V
- High Power Density 5.9W/in³
- Lifetime Expectation >5 years
- LED Indicator
- IPX1 rated
- 5-Year Limited Warranty



| INPUT | |
|---------------------------------|------------------------------------|
| Input Voltage | 85 – 264VAC (100 – 240VAC Nominal) |
| Input Frequency | 47 – 63Hz (50-60Hz Rated) |
| Input Current | 3.0A-1.3A rms |
| Inrush Current | <37A at 230VAC cold start |
| Power Factor | >0.97 |
| Zero Load Power | <0.5W |
| Earth Leakage Current (Typical) | <200µA @ 132VAC @ 60Hz |
| | <400µA @ 264VAC @ 60Hz |
| 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 | >20ms at any input voltage of full load |
| Ripple & Noise | <1% pk-pk ** |
| Over Voltage Protection | 110 – 135% |
| Over Temperature Protection | Active - Recoverable; Passive - Non recoverable |
| Over Current Protection | 105 – 110% |
| 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 ¹ | Total Regulation ² | Typical Efficiency ³ |
|----------------|----------------|----------------|---------------------------|-------------------------------|---------------------------------|
| MWA220012A-13A | 12.0V | 18.3A | 19.0A | ±5% | 89% |
| MWA220015A-13A | 15.0V | 14.6A | 15.2A | ±5% | 89% |
| MWA220018A-13A | 18.0V | 12.2A | 12.7A | ±5% | 90% |
| MWA220024A-12A | 24.0V | 9.2A | 9.5A | ±5% | 90% |
| MWA220028A-12A | 28.0V | 7.8A | 8.0A | ±5% | 90% |
| MWA220032A-12A | 32.0V | 6.8A | 7.0A | ±5% | 91% |
| MWA220048A-11A | 48.0V | 4.6A | 4.7A | ±5% | 91% |

Notes

1) Maximum peak load (228W) 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 67400-185-EB can be ordered separately.

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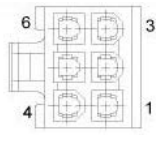
| General | |
|---------------|--|
| Efficiency | Avg. Efficiency 90.5% @ 115VAC; Avg. Efficiency 92.5% @ 230VAC; |
| MTBF | min. 200,000 hours, SR-332 issue 3 |
| Size | 8.19" (208.0mm) x 2.88" (73.1mm) x 1.56" (39.5mm) |
| Weight | 2.1 LBS (0.95 Kg) |
| Power Density | 5.9W/in ³ |

| 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 | 5-93%, non-condensing |
| Cooling | Natural Convection |
| Vibration | Unites meet MIL-STD-810G Figure 514.6C-1 category 4 |

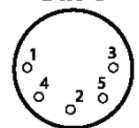
| EMC & Safety | |
|------------------------------------|--|
| Emissions | FCC class B, CISPR11 class B IEC/EN60601-1-2(Ed.4) EN61000-3-2, -3 |
| Immunity | EN61000-4-2, -3, -4, -5, -6, -11 |
| Certified by TUV to the following: | cTUVus |
| | ANSI/AAMI ES60601-1:2005+A2+A1 |
| | CAN/CSA-C22.2 No.60601-1:14 |
| | 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 67400-185-EB) |
| Connection on Power Supply Body | IEC 320 C14 Receptacle |
| Standard Output Cable | 4ft for 12V 15V, 18V 6ft for 24V, 28V, 32V, 48V |
| Output Cable Cord Size | 4x16awg (12V, 15V, 18V) 6 pin 4x18awg (24V, 28V, 32V) DIN-8 2x16awg (48V) DIN-5 |
| Output Cable Connector | Molex 6 pin P/N 39-01-2065 Switchcraft DIN-8, P/N 15BL8MX Switchcraft DIN-5, P/N 05GM5MX |
| Output Cable Mating Connector | Molex 39-01-2061 or 26-01-3116 Switchcraft 62GB8FX(8 pin) or equivalent Switchcraft 57GB5FX(5 pin) or equivalent |

| Output Pin Assignments | |
|------------------------|----------|
| Pin 1 | Return |
| Pin 2 | Return |
| Pin 3 | Shield |
| Pin 4 | +V1 |
| Pin 5 | +V1 |
| Pin 6 | Not Used |



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



| 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 |

