



## MWC100 Series

### 100 Watt Medical Desktop Power Supply

- 5-Year Limited Warranty
- High Efficiency: Level V
- Power Factor Correction
- High Power Density 4.8W/in<sup>3</sup>
- Lifetime Expectation >5 years
- Hold-up Time >48ms at full load
- EISA, CEC Compliant
- Floating output
- Medical Approval - EN60601-1 Class I

| Elpac Part Number | Output Voltage | Output Current | Peak Current <sup>1</sup> | Total Regulation <sup>2</sup> | Typical Efficiency <sup>3</sup> |
|-------------------|----------------|----------------|---------------------------|-------------------------------|---------------------------------|
| MWC100012A-12A    | 12.0V          | 8.3A           | 10.0A                     | ±5%                           | 86%                             |
| MWC100015A-12A    | 15.0V          | 6.6A           | 8.0A                      | ±5%                           | 87%                             |
| MWC100018A-11A    | 18.0V          | 5.5A           | 6.7A                      | ±5%                           | 87%                             |
| MWC100024A-11A    | 24.0V          | 4.1A           | 5.0A                      | ±5%                           | 89%                             |

#### Notes

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

<sup>2</sup> Includes initial setting, line regulation, load regulation, and thermal drift.

<sup>3</sup> Typical at 115VAC (including output cable).

## Input

|                                 |                                                  |
|---------------------------------|--------------------------------------------------|
| Input Voltage                   | 85 - 264VAC; 100 - 240VAC Nominal                |
| Input Frequency                 | 47 - 63Hz                                        |
| Input Current                   | <1.5A rms                                        |
| Inrush Current                  | <37A at 230VAC cold start                        |
| Power Factor                    | >0.97                                            |
| Zero Load Power Consumption     | <0.5W                                            |
| Earth Leakage Current (Typical) | <150µA @ 132VAC @ 60Hz<br><250µA @ 264VAC @ 60Hz |
| Patient Leakage Current         | <50µA @ 132VAC @ 60Hz<br><80µA @ 264VAC @ 60Hz   |

## Output

|                             |                                                      |
|-----------------------------|------------------------------------------------------|
| Output Voltage              | See Table                                            |
| Total Regulation            | +/-5%                                                |
| Minimum Load                | No minimum load required                             |
| Start-Up Delay              | <1s                                                  |
| Hold-Up Time                | >48ms 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 87.4% @ 115VAC; 87.9% @ 230VAC     |
| MTBF          | min. 200,000 hours demonstrated                   |
| Size          | 7.09" (180.2mm) x 2.27" (57.5mm) x 1.52" (38.6mm) |
| Weight        | 1.52 lbs (0.69 kg)                                |
| Power Density | 4.2W/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             | All units production tested to 19.6m/s <sup>2</sup>               |

## 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, cULus                                |
|  | UL 60601-1                                   |
|                                                                                   | CAN/CSA-22.2 No.601.1-M90                    |
|                                                                                   | CB per IEC60601-1 3rd edition                |
|                                                                                   | CE marked to LVD                             |

## Input Configuration

|                                 |                        |
|---------------------------------|------------------------|
| Standard Input Cable            | Not Provided           |
| Connection on Power Supply Body | IEC 320 C14 Receptacle |

## Output Configuration (12V Model Only)

|                       |                                              |
|-----------------------|----------------------------------------------|
| Standard Output Cable | 4 ft.                                        |
| Cord Size             | 4x18awg                                      |
| Connector (PSU side)  | Switchcraft DIN-8,<br>P/N 15BL8M (male pins) |
| Mating Connector      | Switchcraft 62GB8FX (8 pin) or equivalent    |

### Output Configuration (15V, 18V, 24V, 48V)

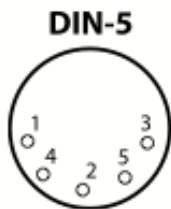
|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| Standard Output Cable | 6 ft.                                                  |
| Cord Size             | 4x18awg                                                |
| Connector (PSU side)  | Switchcraft DIN-5, P/N 05GM5MX for 15V, 18V, 24V & 48V |
| Mating Connector      | Switchcraft 57GB5FX (5 pin) 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 |

### Output Pin Assignments



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

