



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MVA100 Series

100 Watt Medical Open Frame Power Supply

- High Efficiency: Level V
- Up to 120W with Forced Air
- High Power Density 8.7W/in³
- Hold-up Time >24ms at full load
- EISA & CEC Compliant
- Output Floating
- Medical Approval - EN60601-1 Class I 3rd Edition
- Class II available, consult factory

| Elpac Part Number | Output Voltage | Output Current ¹ | Peak Current | Total Regulation ² | Typical Efficiency ³ |
|-------------------|----------------|-----------------------------|--------------|-------------------------------|---------------------------------|
| MVA100012A | 12.0V | 8.3A | 10.0A | ±5% | 90% |
| MVA100015A | 15.0V | 6.7A | 8.0A | ±5% | 90% |
| MVA100018A | 18.0V | 5.6A | 6.7A | ±5% | 91% |
| MVA100024A | 24.0V | 4.2A | 5.0A | ±5% | 92% |

Notes

¹ With convection cooling. 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 and full load.

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 | <0.5W |
| Patient Leakage Current | <50 μ A @ 132VAC @ 60Hz <80 μ A @ 264VAC @ 60Hz |
| Touch Leakage Current | <125 μ A @ 132VAC @ 60Hz <175 μ A @ 264VAC @ 60Hz |

Output

| | |
|-----------------------------|--|
| Output Voltage | See Table |
| Total Regulation | +/-5% |
| Minimum Load | No minimum load required |
| Start-Up Delay | <750ms |
| 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; 10 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor.


General

| | |
|---------------|--|
| Efficiency | Avg Efficiency 88.6% @ 115VAC; 89.5% @ 230VAC |
| MTBF | min. 200,000 hours demonstrated |
| Size | 4.50" x 2.5" x 1.22" 114mm x 63.5mm x 30.9mm |
| Weight | 0.45 lbs (.20 kg) |
| Power Density | 8.7W/in ³ (at 120W) |

Environmental

| | |
|-----------------------|---|
| Operating Temperature | 0 – 70°C (Full load to 50°C, derate linearly to 50% load at 70°C) |
| Storage Temperature | -40°C to +85°C |
| Relative Humidity | 5-95%, non-condensing |
| Cooling | Natural Convection (100W) or Forced Air (120W) |
| 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 2nd and 3rd Edition |
| | CE marked to LVD |

Input Configuration

| | |
|---------------------------------|----------------------------------|
| Connection on Power Supply Body | AMP p/n 640445-3 (or equivalent) |
| Mating Connector | AMP p/n 640250-3 (or equivalent) |

Output Configuration

| | |
|----------------------|----------------------------------|
| Connector (PSU Side) | AMP p/n 640445-8 (or equivalent) |
| Mating Connector | AMP p/n 640250-8 (or equivalent) |

Input Pin Assignments (P1)

| | |
|-------|-----------------|
| Pin 1 | AC Line |
| Pin 2 | <not assembled> |
| Pin 3 | AC Neutral |

Output Pin Assignments

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

