

MENB1090

Universal Input 90 Watt Series



Medical Switch-Mode Power Supply

3 Year Warranty

- 100-240VAC Universal Input
- Meets EISA2007, CEC Efficiency Level V, EU (EC) No 278/2009 Phase II
- Desktop Style
- 12V to 24V Single Output Models, up to 90W
- Modified and Custom Designs Available
- Regulated Output with Low Ripple
- Impact-Resistant Polycarbonate Enclosure
- No Load Power Consumption <0.5W
- Meets UL/EN/IEC60601-1



Specifications

All Specifications are typical at nominal input, full load at 25°C unless otherwise stated.

| | | | |
|----------------------|---|--------------------------|---|
| AC Input | 100-240VAC, +/-10%, 47-63 Hz, 1Ø | MTBF | >100,000 hours (calculated) |
| Input Current | 100Vac: 2.0A | Hold-up Time | 18 ms min. @ 115Vac, 60 ms min. @ 230 Vac |
| Inrush Current | 60A peak @ 264Vac | Overload Protection | Hiccup Mode |
| Input Fuse | 3.15A, 250V Internal Primary Current Fuse is provided | Short Circuit Protection | Hiccup Mode |
| Efficiency | Meets International Efficiency Level V | Topology | Switching – Fixed Frequency Flyback |
| Output Voltage | See chart | Safety and EMC Approvals | EN/IEC/CSA/UL60601-1 EMC: See chart |
| Output Power | See chart | Dielectric Withstand | Input-Output: 5,656Vdc Input-GND: 1,500 Vac, Output-GND: 500Vdc |
| Ripple and Noise | 1% pk-pk max., 20MHz BW | Operating Temperature | 0° to 40°C, no derating |
| Line/Load Regulation | Line: +/- 1%, Load: +/-5% | Storage Temperature | -30 to +85°C |
| Transient Response | 500µs max., 50% load step, typical | Relative Humidity | 5% to 95%, non-condensing |
| Minimum Load | Not required | Altitude | 0 to 10,000 ft |
| Case Material | Black 94V0 Polycarbonate | Output Connections | Cable: 18AWG, 1,500mm, 4 conductor Connector: Ault #3, 2.5mm barrel or #51, 6-pin Molex. See drawings. |
| Case Dimensions | 129 x 77 x 40mm See outline drawing | Weight | 600g |

EMI/EMC Compliance

| | |
|---|---|
| Conducted Emissions | FCC Part 15, Class B, EN55011 Class B, EN55024 |
| Radiated Emissions | FCC Part 15, Class B, EN55011 Class B, EN55024 |
| Voltage Fluctuations | EN61000-3-3, Line Flicker |
| Static Discharge Immunity | EN61000-4-2, 6kV Contact Discharge, 8kV air discharge |
| Radiated RF Immunity | EN61000-4-3, 3V/m. |
| EFT/Burst Immunity | EN61000-4-4, 2kV/5kHz.. |
| Line Surge Immunity | EN61000-4-5, 1kV differential, 2kV common-mode |
| Conducted RF Immunity | EN61000-4-6, 3Vrms |
| Power Frequency Magnetic Field Immunity | EN61000-4-8, 3A/m |
| Voltage Dip Immunity | EN61000-4-11 crit. A, 100Vac 60Hz, 40%/5 cycles with 70% full load. |
| Line Frequency Harmonics | EN61000-3-2, Class A |

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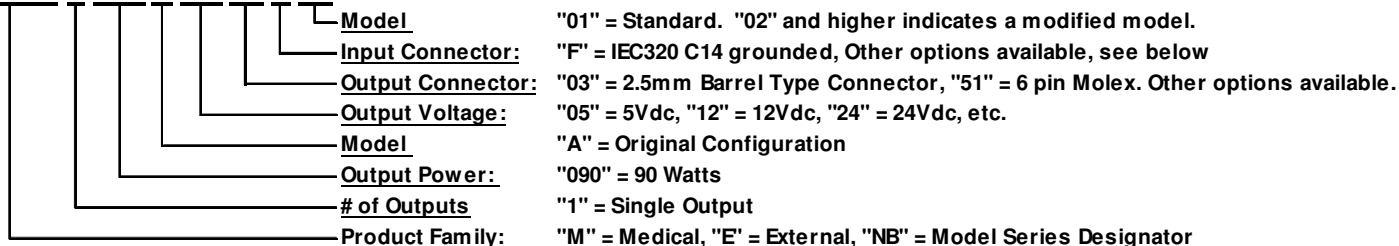
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| Model Number | Volts (V) | Output Current (max) | Max Watts | Ripple (Vp-p max) |
|------------------|-----------|----------------------|-----------|-------------------|
| MENB1090A1251F01 | 12 V | 7.0 A | 84.0 W | 120mV |
| MENB1090A1503F01 | 15 V | 6.0 A | 90.0 W | 150mV |
| MENB1090A1803F01 | 18 V | 5.0 A | 90.0 W | 180mV |
| MENB1090A2403F01 | 24 V | 3.75 A | 90.0 W | 240mV |

Model Number Key

MENB 1 090 A VV 03 F 01



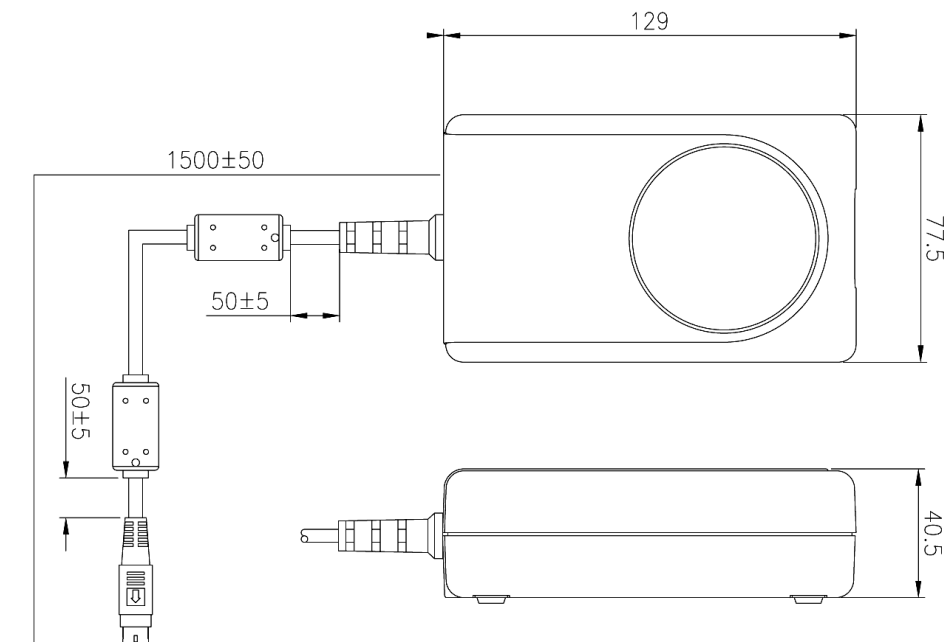
| Input Receptacle | Output Connector | Output Connector (12V models) |
|--|------------------|-------------------------------|
| <p>IEC320 C14 - Class I Grounded (F)</p> | <p>3</p> | <p>51</p> |

"#3" Connector is 2.5mm barrel type, center (+)

"#51" Connector is Molex 39-01-2060 or equivalent.

"#51" Connector Pinout: Pins 1, 4: (+), Pins 3, 6: (-). Mate = Molex 39-01-2061 or equiv.

Outline Drawing



DIN connector shown. Standard connector is "#3" or "#51" connector. See above.

Dimensions are in mm