

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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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

Model	"01" = Standard. "02" and higher indicates a modified model.
Input Connector:	"F" = IEC320 C14 grounded, Other options available, see below
Output Connector:	"03" = 2.5mm Barrel Type Connector, "51" = 6 pin Molex. Other options available.
Output Voltage:	"05" = 5Vdc, "12" = 12Vdc, "24" = 24Vdc, etc.
Model	"A" = Original Configuration
Output Power:	"090" = 90 Watts
# of Outputs	"1" = Single Output
Product Family:	"M" = Medical, "E" = External, "NB" = Model Series Designator

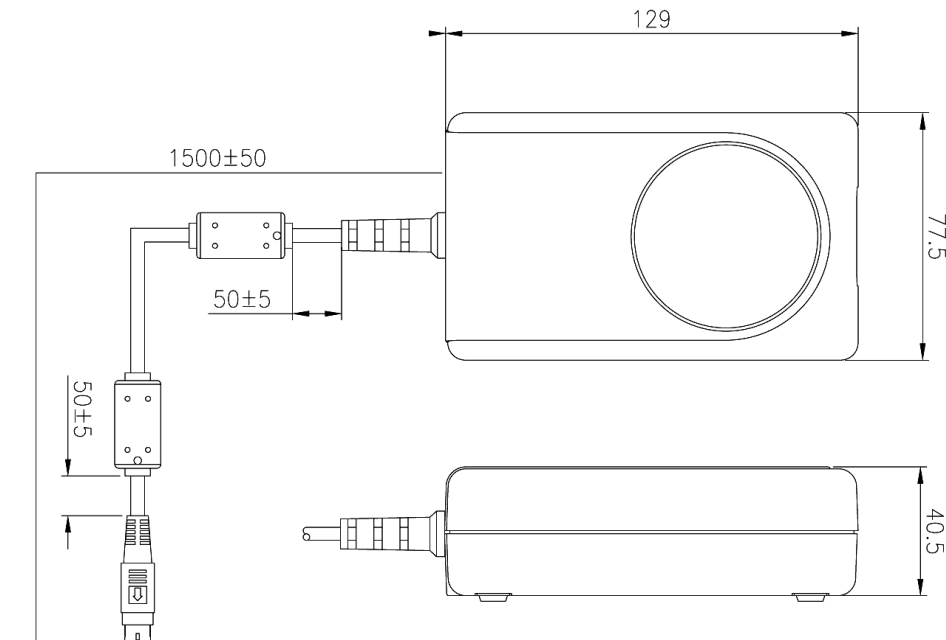
Input Receptacle	Output Connector	Output Connector (12V models)
<p>IEC320 C14 - Class I Grounded (F)</p>	<p>3</p>	<p>51</p>

"#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



Dimensions are in mm

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