

SL POWER MENB1060 Series

60 W Single Output External Power Adapter
Medical Grade



Medical

Advanced Energy's SL Power MENB1060 series of desktop AC-DC external power adapter comprises four output models. All models feature medical safety approvals and accept a universal input of 100 to 240 VAC. MENB1060 series power adapters provide up to 60 Watts of output power with Impact-Resistant Polycarbonate enclosure and are ideal for applications that are used in environments where AC mains power may be noisy or unstable and equipment shutdown is not an option.

AT A GLANCE

Total Power

60 Watts

Input Voltage

100 to 240 VAC

of Outputs

Single

SPECIAL FEATURES

- Approved to EN/IEC/UL60601-1 edition with isolation levels which satisfy the 2 MOPP requirements
- Desktop Styles
- Up to 60 W of AC-DC Power
- Impact-Resistant Polycarbonate Enclosure
- Meets EISA2007, CEC Efficiency Level V, EU (EC) No 278/2009 Phase II
- No load Power Consumption <0.5W
- 5V to 24V Single Output Models
- >100,000 Hours MTBF
- 3 Years Warranty
- Modified and Custom Designs Available
- Regulated Output with Low Ripple
- RoHS Compliant

SAFETY

- IEC/EN/CSA/UL60601-1
- CE Mark



ELECTRICAL SPECIFICATIONS

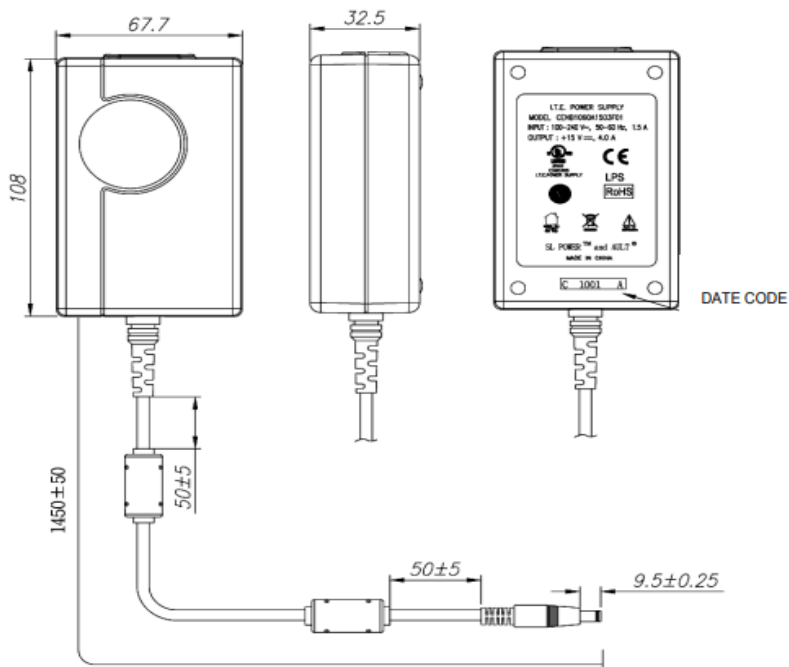
Input	
Input Range	100 to 240 VAC, ±10%, 47 to 63 Hz, 1Ø
Input Current	1.5 A @ 100 VAC
Inrush Current	60 A max., cold start @ 264 VAC input
Input Fuses	Internal Primary Current Fuse provided (2A, 250Vac rated)
Efficiency	Meets EISA2007, CEC Efficiency Level V, EU (EC) No 278/2009 Phase II
No Load Input Power	<0.5 W
Topology	Switching – Fixed Frequency Flyback
Output	
Output Voltage	See models chart on page 4
Output Power	See models chart for specific voltage model ratings
Hold Up Time	18 mS min. @ 115Vac, 60 mS min. @ 240 Vac
Ripple and Noise	1% pk-pk max., 20MHz BW
Line & Load Voltage Regulation	Line: +/- 1%, Load: +/-5%
Minimum Load	Not required
Output Cable	5V – 9V models: #18AWG (UL2464), 1,200mm, 4 conductor 12V – 15V models: #18AWG (UL2464), 1,500mm, 4 conductor 18V – 24V models: #18AWG (UL2464), 1,500mm, 2 conductor
Output Connector	5V model: Molex 39-01-2060 or equiv. (Ault #51) Other models: 2.5mm barrel type (Ault #3), center contact positive (+)
Transient Response	500 us max, 50% load step
Protection	
Overload Protection	Hiccup Mode
Short Circuit Protection	Hiccup Mode
EMC Specifications	
Safety Standards	Approved to EN/IEC/CSA/UL60601-1
Radiated Emissions	EN55011 Class B, FCC Part 15, Class B.
Conducted Emissions	EN55011 Class B, FCC Part 15, Class B.
Line Frequency Harmonics	EN61000-3-2, Class A
Voltage Fluctuations/Flicker	EN61000-3-3
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, Criteria A
Isolation	
Isolation	Input to Output: 5656 VDC Input to Ground: 1500 VAC Output to Ground: 500 VDC

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0°C to 40°C. no derating
Storage Temperature	-30°C to +85°C
Relative Humidity	5% to 95%, non-condensing
Weight	400 g
Case Material	Black 94V0 Polycarbonate
Altitude	0 to 10,000 ft
MTBF	>100,000 hours (calculated)
Dimensions (W x L x H)	108mm x 67.7mm x 32.5mm

Note:
All specifications are typical at nominal input, full load, at 25°C ambient unless noted.

MECHANICAL DRAWING



Dimensions are in mm (Cable length is 1500mm on 12V thru 24V models)

ORDERING INFORMATION

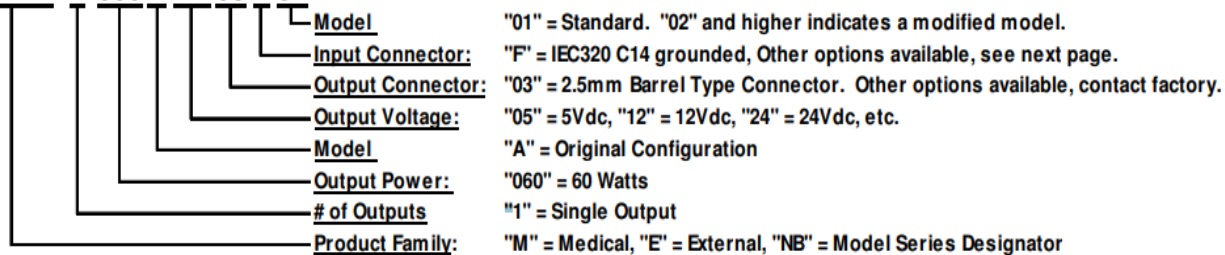
Model Number	Volts	Output Current	Output Power	Ripple & Noise ¹	Line Regulation	Load Regulation
MENB1060A0551F01	5.0 V	7.00 A	35.0 W	50mV pk-pk	± 1%	± 5%
MENB1060A0903F01	9.0 V	6.00 A	54.0 W	90mV pk-pk	± 1%	± 5%
MENB1060A1203F01	12.0 V	5.00 A	60.0 W	120mV pk-pk	± 1%	± 5%
MENB1060A1503F01	15.0 V	4.00 A	60.0 W	150mV pk-pk	± 1%	± 5%
MENB1060A1803F01	18.0 V	3.40 A	61.2 W	180mV pk-pk	± 1%	± 5%
MENB1060A2403F01	24.0 V	2.70 A	64.8 W	240mV pk-pk	± 1%	± 5%

Notes:

1. Part numbers above include #3 output connector and IEC320 C14 grounded input receptacle. See below for other options.

Model Number Key

MENB 1 060 A VV 03 F 01



AC Input Receptacle Options			Output Connector		
			3		
IEC320 C14	IEC320 C18	IEC320 C8			51
Grounded	Ungrounded	"Shaver"			
(F)	(Q)	(N)			

Notes: Contact factory for "Q" and "N" option availability.
 Pins 1,4 = (+), Pins 3,6 = (-)



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ABOUT ADVANCED ENERGY

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Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE | TRUST

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