

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 W

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 3.2 edition
- CE Mark



ELECTRICAL SPECIFICATIONS

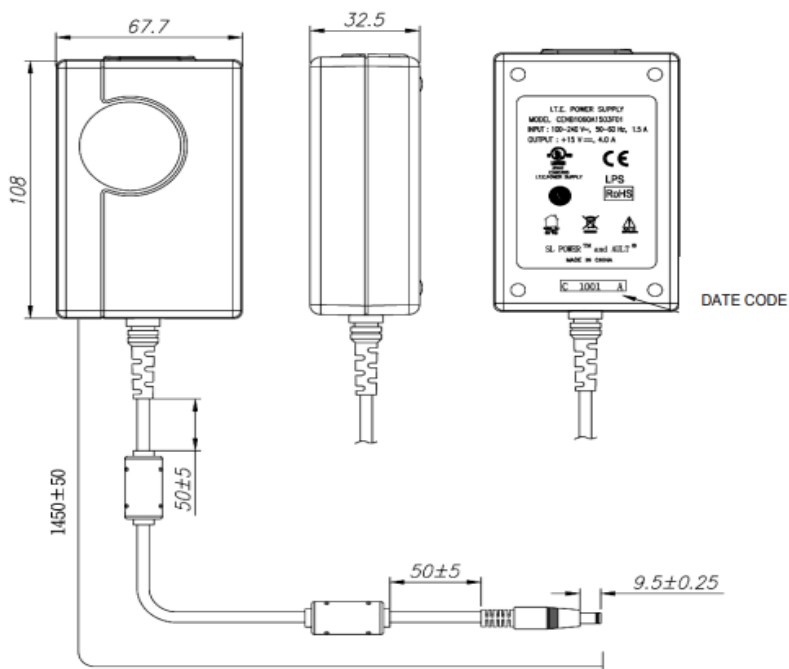
Input	
Input Range	100 to 240 VAC, ±10%, 47 to 63 Hz, 1Ø
Input Current	1.5 A @ 100 VAC
Inrush Current	60 A max., cold start @ 264 VAC input
Input Fuses	Internal Primary Current Fuse provided (2A, 250Vac rated)
Efficiency	Meets EISA2007, CEC Efficiency Level V, EU (EC) No 278/2009 Phase II
No Load Input 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, 3.2 edition
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

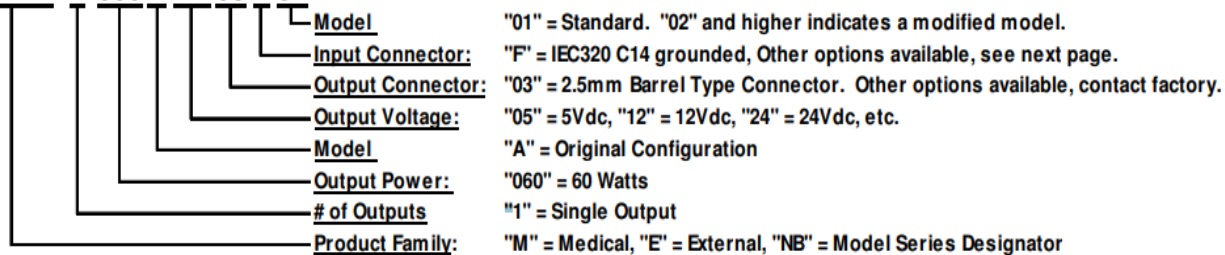
Model Number	Volts	Output Current	Output Power	Ripple & Noise ¹	Line Regulation	Load Regulation
MENB1060A0551F01	5.0 V	7.00 A	35.0 W	50mV pk-pk	± 1%	± 5%
MENB1060A0903F01	9.0 V	6.00 A	54.0 W	90mV pk-pk	± 1%	± 5%
MENB1060A1203F01	12.0 V	5.00 A	60.0 W	120mV pk-pk	± 1%	± 5%
MENB1060A1503F01	15.0 V	4.00 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 (F)	Ungrounded (Q)	"Shaver" (N)			

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



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ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than four decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

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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