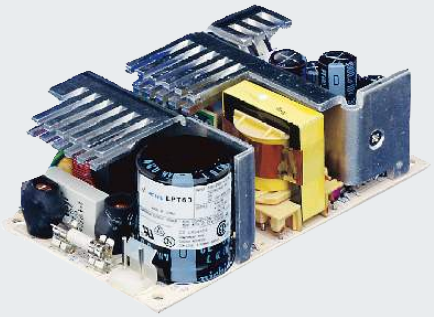
ARTESYN LPT60-M SERIES

60 W



Advanced Energy's Artesyn LPT60-M series of open-frame AC-DC power supplies comprises two triple output models covering standard voltages from -15 V to 15 V. Both models accept a universal input of 85 to 264 VAC or 120 to 300 VDC and feature medical safety approvals, with a very low safety ground leakage current of less than 75 mA. These compact switch-mode power supplies feature main output overvoltage protection and remote sense, with short-circuit protection on all outputs. LPT60-M series power supplies provide 60 W of output power with free air convection cooling and 80 W with 30 CFM of forced air. They are suitable for a wide variety of of medical, laboratory and dental applications, as well as low power industrial applications.

AT A GLANCE

Total Power:

60 to 80 W

Input Voltage:

85 to 264 VAC
120 to 300 VDC

# of Outputs:

Triple

RoHS

SPECIAL FEATURES

- Medical safety approvals
- Universal input
- 3" x 5" footprint
- Remote sense on main output
- Built-in EMI filter
- Low output ripple
- Adjustable 5V output
- Overvoltage protection
- Overload protection
- 110 KHz switching frequency
- LPX60 enclosure kit available
- RoHS compliant

SAFETY

UL+CUL	ES60601-1
CB	IEC 62368-1
	IEC 60601-1
CE	Mark (LVD)
UKCA	Mark

ELECTRICAL SPECIFICATIONS

Input	
Input range	85 to 264 VAC 120 to 300 VDC
Frequency	47 to 440 Hz
Inrush current	<18 A peak @ 115 VAC <36 A peak @ 230 VAC, cold start @ 25 °C
Input current	1.5A max. (RMS) @ 115VAC
Efficiency	70% typical at full load
EMI	FCC Class A conducted, CISPR 22 Class A conducted EN55022 Class A conducted, VDE 0878 PT3 Class A conducted
Safety ground leakage current	<75 µA max. @ 50/60 Hz, 264 VAC input
Output	
Maximum power	60 W for convection, 80 W with 30 CFW forced air
Cross regulation	±2% on output 1, ±5% on outputs 2, 3
Adjustment range	-5, +10% minimum
Hold-up time	20 ms @ 60 W load, 115 VAC nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110% to 145% of peak rating
Overvoltage protection	5.7 to 6.7 V on the main output
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected

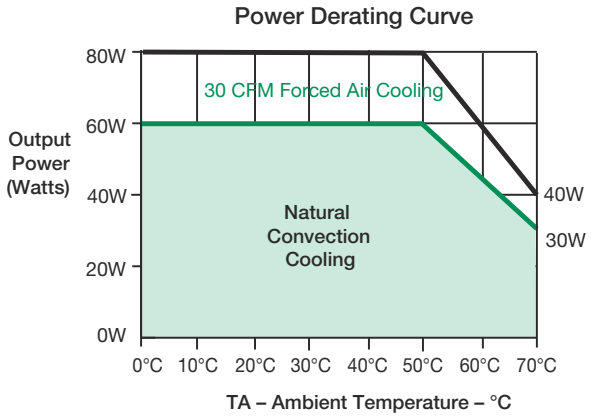
ENVIRONMENTAL SPECIFICATIONS

Operating temperature	0 °C to 50 °C ambient derate each output at 2.5% per degree from 50 °C to 70 °C, -20 °C startup
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating, non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational
Storage temperature	-40 °C to 85 °C
Temperature coefficient	±.04% per °C
MTBF demonstrated	>550,000 hours at full load and 25 °C ambient conditions

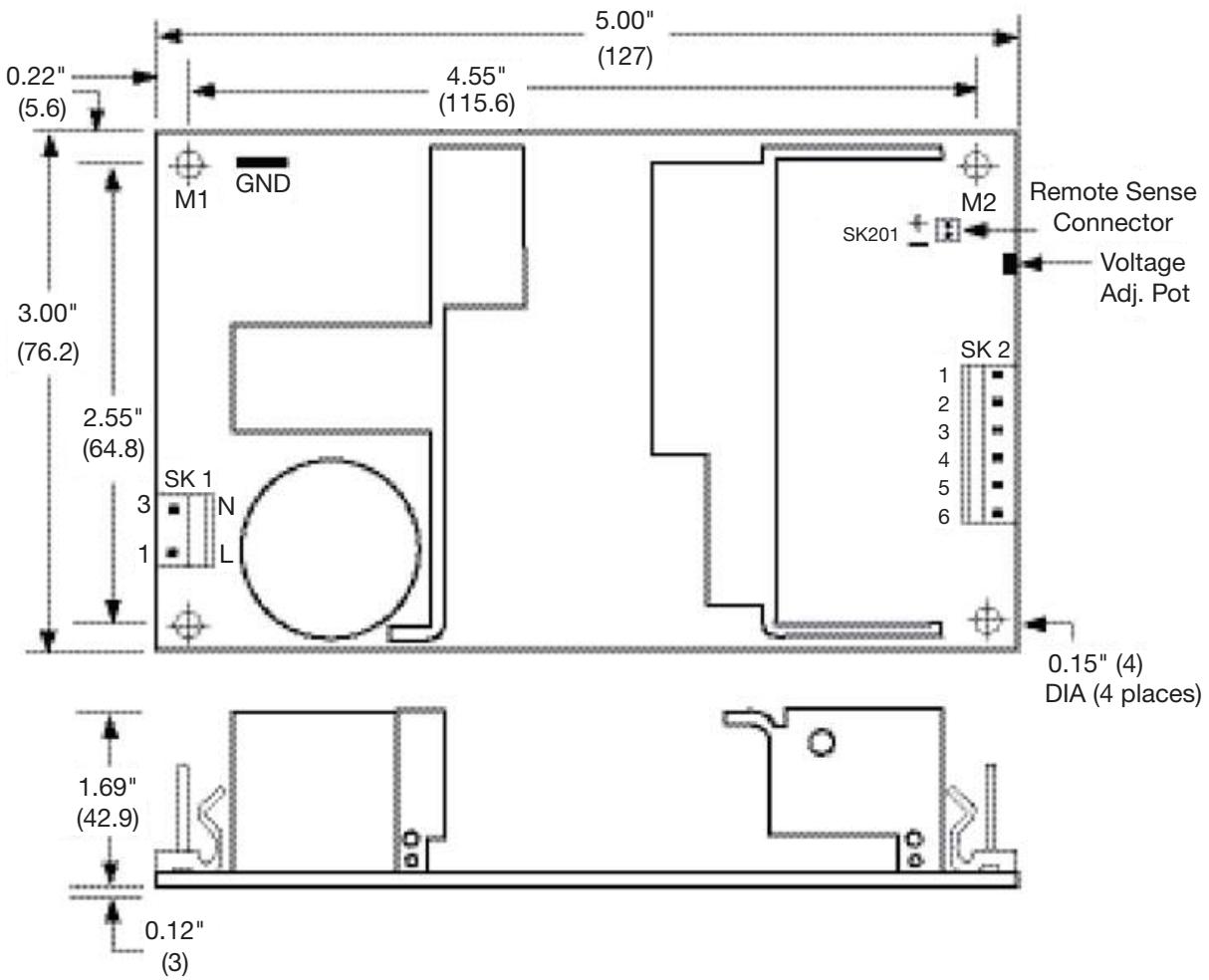
ORDERING INFORMATION

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load[1]	Regulation[2]	Ripple P/P (PARD)[3]
LPT62-M	+5 V +12 V -12 V	0.7 A 0.3 A 0 A	7 A 3 A 0.7 A	8 A 3.5 A 1 A	10 A 6 A 1.5 A	±2% ±5% ±5%	50 mV 120 mV 120 mV
LPT63-M	+5 V +15 V -15 V	0.7 A 0.3 A 0 A	7 A 2.8 A 0.7 A	8 A 3.3 A 1 A	10 A 4 A 1.5 A	±2% ±5% ±5%	50 mV 150 mV 150 mV

1. Peak current lasting < 30 seconds with a maximum 10% duty cycle.
2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
4. Minimum Loads are required.
5. This product is a Component Power Supply and is only for inclusion by professional installers within other equipment and must not be operated as a standalone product. EMC compliance to appropriate standards must be verified at the system level. This product is for sale to OEMs and System Integrators, including through Distribution Channels. It is not intended for sale to End Users.



MECHANICAL DRAWING



PIN ASSIGNMENTS

Connector	LPT62-M	LPT63-M
SK1-1	Line	Line
SK1-3	Neutral	Neutral
SK2-1	+12V	+15V
SK2-2	+5V	+5V
SK2-3	+5V	+5V
SK2-4	Common	Common
SK2-5	Common	Common
SK2-6	-12V	-15V
SK201-1	+Sense	+Sense
SK201-2	-Sense	-Sense

MATING CONNECTORS

AC Input	Molex 09-50-8031 (USA) 09-93-0300 (UK) PINS: 08-58-0111
DC Outputs	Molex 09-50-8061 (USA) 09-93-0600 (UK) PINS: 08-52-0113
Remote Sense	Molex 22-01-2025 PINS: 08-52-0113
Astec Connector Kit #70-841-006, includes all of the above	

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 VAC input, 25°C unless otherwise stated.
6. Warranty: 2 years.
7. Weight: 0.75lbs/0.34kg.

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three 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

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ENG-LPT60-M-235-01 4.20