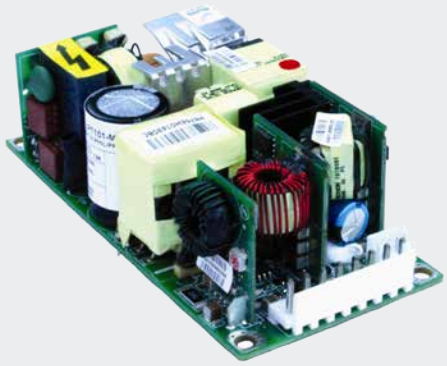
ARTESYN LPT100-M SERIES

130 Watts



Advanced Energy's Artesyn LPT100-M series of triple output open-frame AC-DC power supplies features ITE and medical safety approvals. There is a choice of four models, covering output voltages from 3.3 V to 24 V. The power supplies have a typical full load power conversion efficiency of 82% and with a height of only 1.28 inches offer a power density in excess of 12 watts per cubic inch. LPT100-M power supplies are primarily designed for use in information technology equipment (ITE) and light industrial systems, as well as for equipment intended for non-patient contact and non-patient critical use in low power medical, dental and laboratory applications.

Data Sheet

Total Power:

130 Watts

Input Voltage:

90 - 264 Vac

# of Outputs:

Triple

SPECIAL FEATURES

- Medical and ITE safeties
- Active power factor correction
- 2” x 4” footprint
- Less than 1U high
- EN61000-3-2 compliant
- Remote sense
- Power fail
- Adjustable main output
- Built-in Class B EMI filter
- Overvoltage protection
- Overload protection
- Thermal overload protection
- LPX100 enclosure kit available
- RoHS compliant

SAFETY

TUV	62368, 60601-1
UL	62368, 60601-1
CSA	62368, 60601-1
NEMKO	62368, 60601-1
AUSTEL	62368, 60601-1
CB	Certificate & report
CE	Mark (LVD)

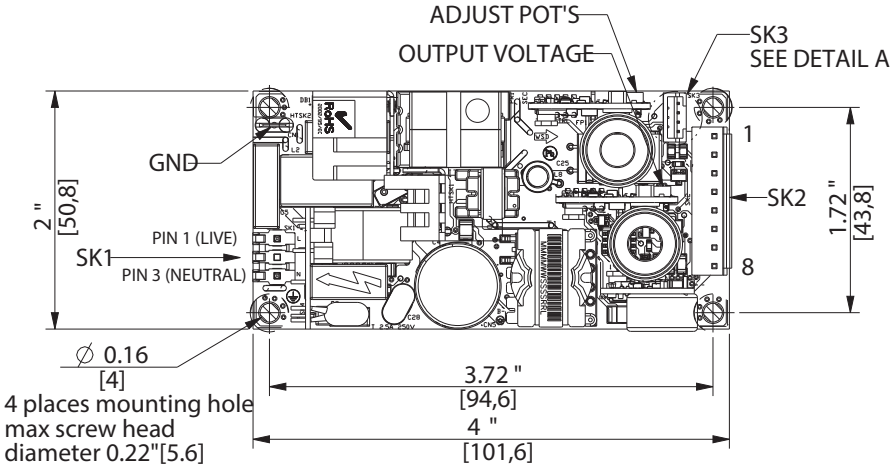
ELECTRICAL SPECIFICATIONS

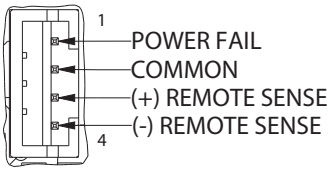
Input	
Input range	90 - 264 Vac; 127 - 300 Vdc
Frequency	47 - 63 Hz
Inrush current	50 A max., cold start @ 25 °C
Efficiency	82% typical at full load
EMI/RFI	FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B conducted; VDE0878PT3 Class B conducted
Safety ground leakage current	275 µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	130 W with 200 LFM forced air
Adjustment range	All outputs adjustable: -20%, +10%, except for +24V output on LPT104-M which will be -10%, +20% and 3.3 V output on the LPT101-M +10%, -15%
Hold-up time	10 ms @ 130 W load, 120 Vac input
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110 - 160% above rating for V1 & V2, 150 - 250% for V3
Overvoltage protection	15 - 35% above nominal output
Logical Control	
Power failure	Active LowTTL logic signal goes high 100 - 500 msec after main output; it goes low at least 6 msec before loss of regulation
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

ENVIRONMENTAL SPECIFICATIONS

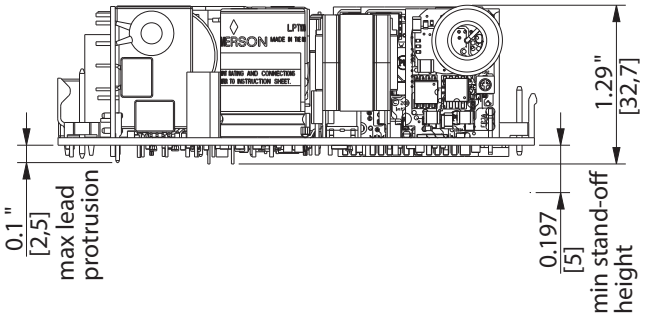
Operating temperature	0 °C to 50 °C ambient derate each output as 2.5% per degree from 50 °C to 70 °C. -20 °C start up
Storage temperature	-40 °C to +85 °C
Electromagnetic susceptibility:	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 90% RH, non-operating, non-condensing 10% - 95%
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF calculated	583,000 hours at full load and 25 °C ambient conditions. 230 Vac input, Bellcore

MECHANICAL DRAWING





SK3
DETAIL A



ORDERING INFORMATION

Model Number	Output Voltage	Minimum Load	Maximum Load with 30CFM Forced Air	Peak Load	Regulation[2]	Ripple P/P (PARD)[3]
LPT101-M	+3.3 V	0 A	18 A	20 A	±2%	50 mV
	+5 V	0 A	9 A	10 A	±5%	50 mV
	+12 V	0 A	2.3 A	2.3 A	±5%	120 mV
LPT102-M	+5 V	0 A	18 A	20 A	±2%	50 mV
	+12 V	0 A	9 A	10 A	±5%	120 mV
	-12 V	0 A	2 A	2 A	±5%	120 mV
LPT103-M	+5 V	0 A	18 A	20 A	±2%	50 mV
	+15 V	0 A	7.2 A	8 A	±5%	150 mV
	-15 V	0 A	1.5 A	2 A	±5%	150 mV
LPT104-M	+5 V	0 A	18 A	20 A	±2%	50 mV
	+24 V	0 A	3 A	3.5 A	±7%	240 mV
	+12 V	0 A	2.3 A	2.3 A	±5%	120 mV

1. Peak current lasting < 15 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 (tantalum capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
4. 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.

PIN ASSIGNMENTS

Connector	LPT100-M	
SK1	PIN 1	Live
	PIN 3	Neutral
SK2	PIN 1	V1out
	PIN 2	V1out
	PIN 3	GND
	PIN 4	GND
	PIN 5	GND
	PIN 6	GND
	PIN 7	V2out
	PIN 8	V3out
SK3	PIN 1	Power Fail
	PIN 2	GND
	PIN 3	+ Remote Sense
	PIN 4	- Remote Sense

MATING CONNECTORS

AC Input (SK1)	Molex 09-50-3031 PINS: 08-52-0072
AC Ground	Molex 01-90020001
DC Output (SK2)	JST VHR-8N PINS: SVH-21T-P1.1
Remote Sense (SK3)	JST PHR-4; PINS: SPH-002T-PO.5S OR LANDWIN 2001S0400; PINS: 2005T
Artesyn Embedded Power Connector Kit #70-841-026, includes all of the above	

Notes:
1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±.02".
3. All mounting holes should be grounded for EMI purpose
4. Mounting M1 is safety ground connection
5. This power supply requires mounting on metal standoffs 0.20" (5 m) in height.
6. For DC input an external DC safety rated fuse must be used.
7. Warranty: 2 year
8. Weight: 0.44 lb. / 0.20 kg

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.

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