

## LPT50-M Series

55 Watts

### Data Sheet

**Total Power:** 47 - 55 Watts  
**Input Voltage:** 90 - 264 Vac  
 127 - 300 Vdc  
**# of Outputs:** Triple

### SPECIAL FEATURES

- Medical safety approvals
- Universal input
- 2" x 4" footprint
- Less than 1U high
- Overpower and short circuit protection
- High efficiency
- High MTBF
- Built in EMI filter (CISPR 22 Class B)
- LED power good indicator
- Input power < 74 watts
- Complies with EN61000 -3-2
- 85 kHz switching frequency
- Dual AC fuses
- UL Class I approved
- LPX100 enclosure kit available
- RoHS compliant

### SAFETY

- UL: UL 60601-1
- CSA: CSA-C22.2 No. 601.1-M90
- VDE: EN60601-1
- CE: LVD



### Electrical Specifications

Input	
Input range	90 - 264 Vac (wide range) 127 - 300 Vdc
Frequency	47 - 440 Hz
Inrush current	< 60 A peak @ 230 Vac, cold start @ 25 °C
Efficiency	80% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted, EN60601-1-2
Safety ground leakage current	275 µA @ 50/60 Hz; 264 Vac input
Output	
Maximum power	55 W for convection (LPT51, 47.4 W)
Hold-up time	10/20 ms 115/230 Vac input line
Overpower protection	Short circuit protection on all outputs. Case overpower protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output

### 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 startup
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 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
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	Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PAR) <sup>3</sup>
LPT51-M	+3.3 V	0.8 A	8 A	9 A	±2%	50 mV
	+5 V	0.1 A	3 A	4 A	±6%	50 mV
	+12 V	0 A	0.5 A	1 A	±5%	120 mV
LPT52-M	+5 V	0.5 A	8 A	9 A	±2%	50 mV
	+12 V	0.1 A	3 A	4 A	±5%	120 mV
	-12 V	0 A	0.5 A	1 A	±5%	120 mV
LPT53-M	+5 V	0.5 A	8 A	9 A	±2%	50 mV
	+15 V	0.1 A	2.4 A	3.2 A	±5%	150 mV
	-15 V	0 A	0.5 A	0.7 A	±5%	150 mV
LPT54-M	+5 V	0.5 A	8 A	9 A	±2%	50 mV
	+24 V	0.1 A	1.5 A	2 A	±7%	240 mV
	+12 V	0 A	0.5 A	0.7 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.

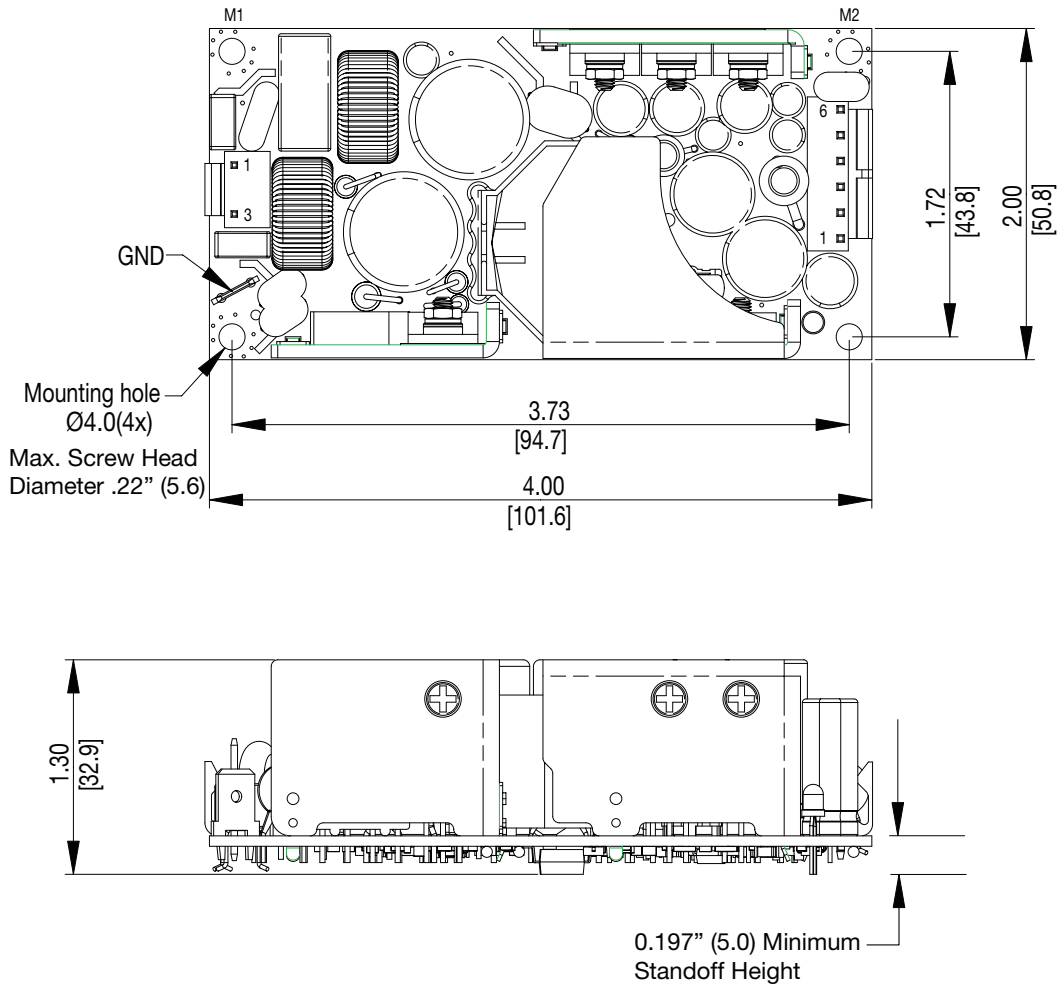
## Pin Assignments

Connector	LPT51-M	LPT52-M	LPT53-M	LPT54-M
SK1-1	Line	Line	Line	Line
SK1-3	Neutral	Neutral	Neutral	Neutral
SK2-1	+3.3 V	+5 V	+5 V	+5 V
SK2-2	+3.3 V	+5 V	+5 V	+5 V
SK2-3	Common	Common	Common	Common
SK2-4	Common	Common	Common	Common
SK2-5	+12 V	-12 V	-15 V	+12 V
SK2-6	5 V	+12 V	+15 V	+24 V

## Mating Connectors

AC Input	Molex 09-50-8031 (USA) 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA) 09-91-0600 (UK) PINS: 08-52-0113
Artesyn Embedded Technologies Connector Kit #70-841-006, includes all of the above	

Mechanical Drawing



Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is  $\pm 0.02'' (\pm 0.5\text{mm})$
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 year
7. Weight: 0.45 lbs/0.20 kg

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