

## LPT50 Series

55 Watts

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



## Special Features

- 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
- UL Class I approved
- LPX50 enclosure kit available

## Safety

- **UL:** UL 60950-1
- **CSA:** CSA-C22.2 No. 60950-1
- **TUV:** EN60950-1
- **CB:** Certificate and report
- **CE:** LVD & EMC

## 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  
Safety ground leakage current: 0.5 mA @ 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° to 50 °C ambient. Derate each output as 2.5% per degree from 50° 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 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 (PARD) <sup>3</sup>
LPT51	+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	+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	+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	+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.

## Pin Assignments

Connector	LPT51	LPT52	LPT53	LPT54
SK1-1	Neutral	Neutral	Neutral	Neutral
SK1-3	Line	Line	Line	Line
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

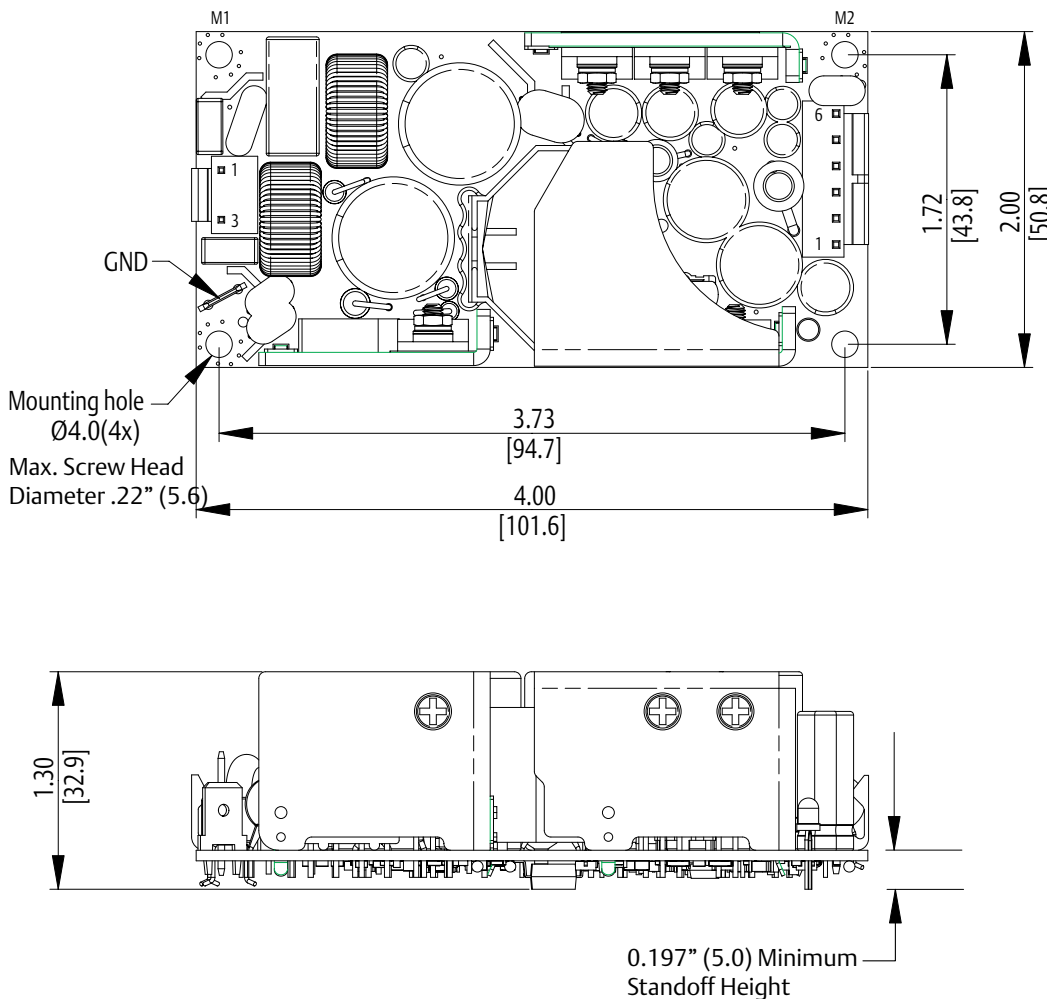
DC Outputs: Molex 09-50-8061 (USA)  
09-91-0600 (UK)  
PINS: 08-52-0113

Emerson Network Power Connector Kit #70-841-006, includes all of the above

### Notes:

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 year
7. Weight: 0.45 lbs/0.20 kg

## Mechanical Drawing



### Americas

5810 Van Allen Way  
Carlsbad, CA 92008  
USA  
Telephone: +1 760 930 4600  
Facsimile: +1 760 930 0698

### Europe (UK)

Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX  
United Kingdom  
Telephone: +44 (0) 1384 842 211  
Facsimile: +44 (0) 1384 843 355

### Asia (HK)

14/F, Lu Plaza  
2 Wing Yip Street  
Kwun Tong, Kowloon  
Hong Kong  
Telephone: +852 2176 3333  
Facsimile: +852 2176 3888

For global contact, visit:

[www.PowerConversion.com](http://www.PowerConversion.com)  
[techsupport.embeddedpower@emerson.com](mailto:techsupport.embeddedpower@emerson.com)

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

**Emerson Network Power.**  
The global leader in enabling  
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

**EmersonNetworkPower.com**

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.  
©2008 Emerson Electric Co.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Artesyn Embedded Technologies:](#)

[LPT51](#)