

# LPS50-M Series

60 Watts

**Total Power:** 55 - 60 Watts  
**Input Voltage:** 90 - 264 VAC  
**# of Outputs:** 127 - 300 VDC  
**Single**

## Special Features

- Medical Safety Approvals
- Universal input
- Less than 1U high
- 2" x 4" footprint
- Remote sense
- Overload and short circuit protection
- Adjustable Output Voltage
- 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
- UL Class I approved
- LPX50 enclosure kit available
- Dual AC fuses

## Safety

- **UL:** UL60601-1
- **CSA:** CSA-C22.2 No. 601.1-M90
- **VDE:** EN60601-1
- **CE:** LVD & EMC



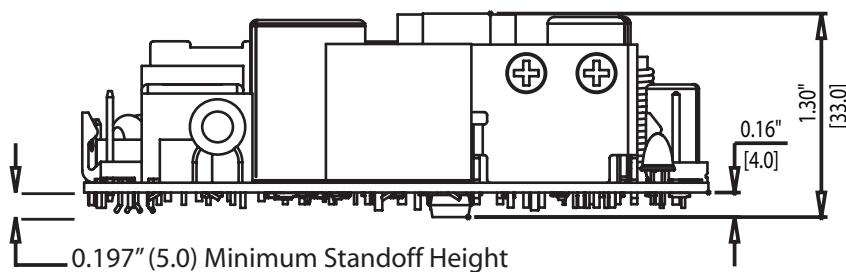
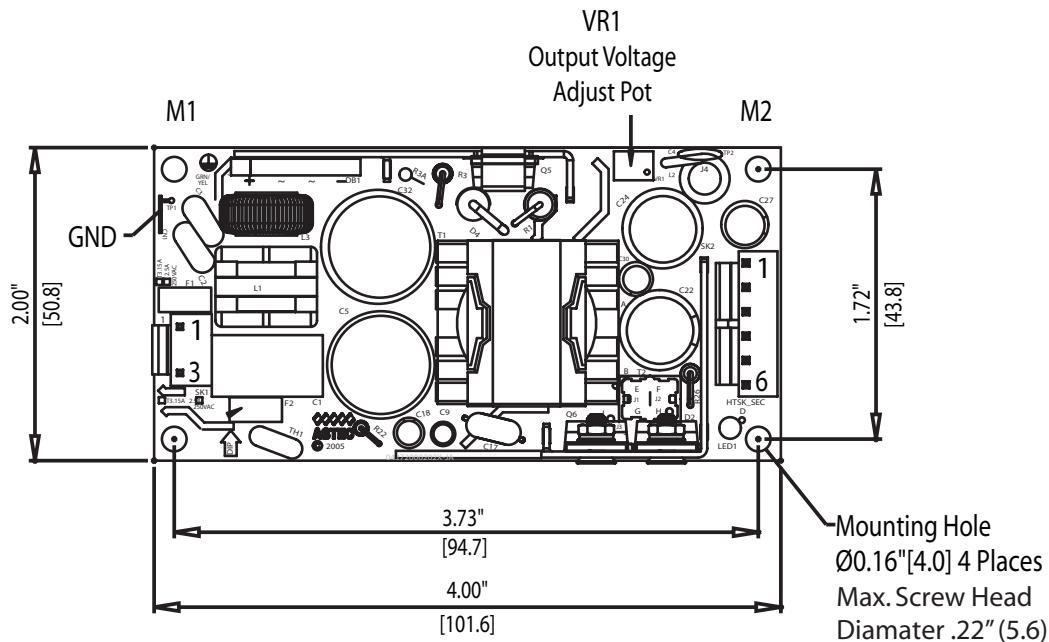
## Electrical Specifications

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
Input power:	< 74 Watts
Efficiency:	80% - 85% typical at full load
EMI/RFI:	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted, VDE0878PT3 Class B conducted
Safety ground leakage current:	275 uA @ 50/60 Hz; 264 VAC input
Output	
Maximum power:	60 W for convection (LPS52, 55 W)
Adjustment range:	± 20% minimum
Hold-up time:	10/20 ms 115/230 VAC input line
Overload protection:	Short circuit protection on all outputs. Case overload protected @ 110 - 160% of normal rating
Overvoltage protection:	30 - 50% above nominal output
Remote sense:	Compensates for 0.5 V lead drop max. Will operate without remote sense connected. Reverse connection protected.

## 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

## Mechanical Drawing



Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>
LPS52-M	5 V	0 A	11 A	12 A	13 A	± 2%	50 mV
LPS53-M	12 V	0 A	5 A	5.4 A	5.5 A	± 2%	120 mV
LPS54-M	15 V	0 A	4 A	4.4 A	4.4 A	± 2%	150 mV
LPS55-M	24 V	0 A	2.5 A	2.75 A	2.75 A	± 2%	240 mV
LPS58-M	48 V	0 A	1.25 A	1.35 A	1.38 A	± 2%	480 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	LPS52-M	LPS53-M	LPS54-M	LPS55-M	LPS58-M
SK1-1	Line	Line	Line	Line	Line
SK1-3	Neutral	Neutral	Neutral	Neutral	Neutral
SK2-1	+5 V	+12 V	+15 V	+24 V	+48 V
SK2-2	+5 V	+12 V	+15 V	+24 V	+48 V
SK2-3	Common	Common	Common	Common	Common
SK2-4	Common	Common	Common	Common	Common
SK2-5	-Sense	-Sense	-Sense	-Sense	-Sense
SK2-6	+Sense	+Sense	+Sense	+Sense	+Sense

Mating Connectors

AC Input: Molex 09-50-8031 (USA)  
09-93-0300 (UK)  
PINS: 08-52-0113

DC Outputs: Molex 09-50-8061 (USA)  
09-93-0600 (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: 0.41lbs/0.18kg

**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.Emerson.com/EmbeddedPower](http://www.Emerson.com/EmbeddedPower)  
[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.  
©2011 Emerson Electric Co.

# Mouser Electronics

Authorized Distributor

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

[Emerson Network Power:](#)

[LPS52-M](#) [LPS53-M](#) [LPS54-M](#) [LPS55-M](#) [LPS58-M](#)