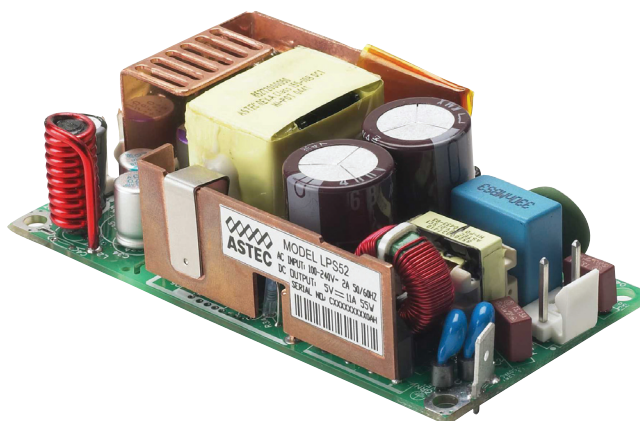


LPS50 Series

60 Watts

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



Special Features

- Universal input
- 2" x 4" footprint
- Less than 1U high
- 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
- LPS52(-I) and LPS53 (-I) extended temperature option: -40 °C to +80 °C
- 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:	< 60A peak @ 230 VAC, cold start @ 25 °C
Input power:	< 74 Watts
Efficiency:	80% - 85% 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:	< 0.5mA @ 50/60 Hz; 264 VAC input for class I; < 0.25mA @ 50/60Hz; 264 VAC input for class II

Output

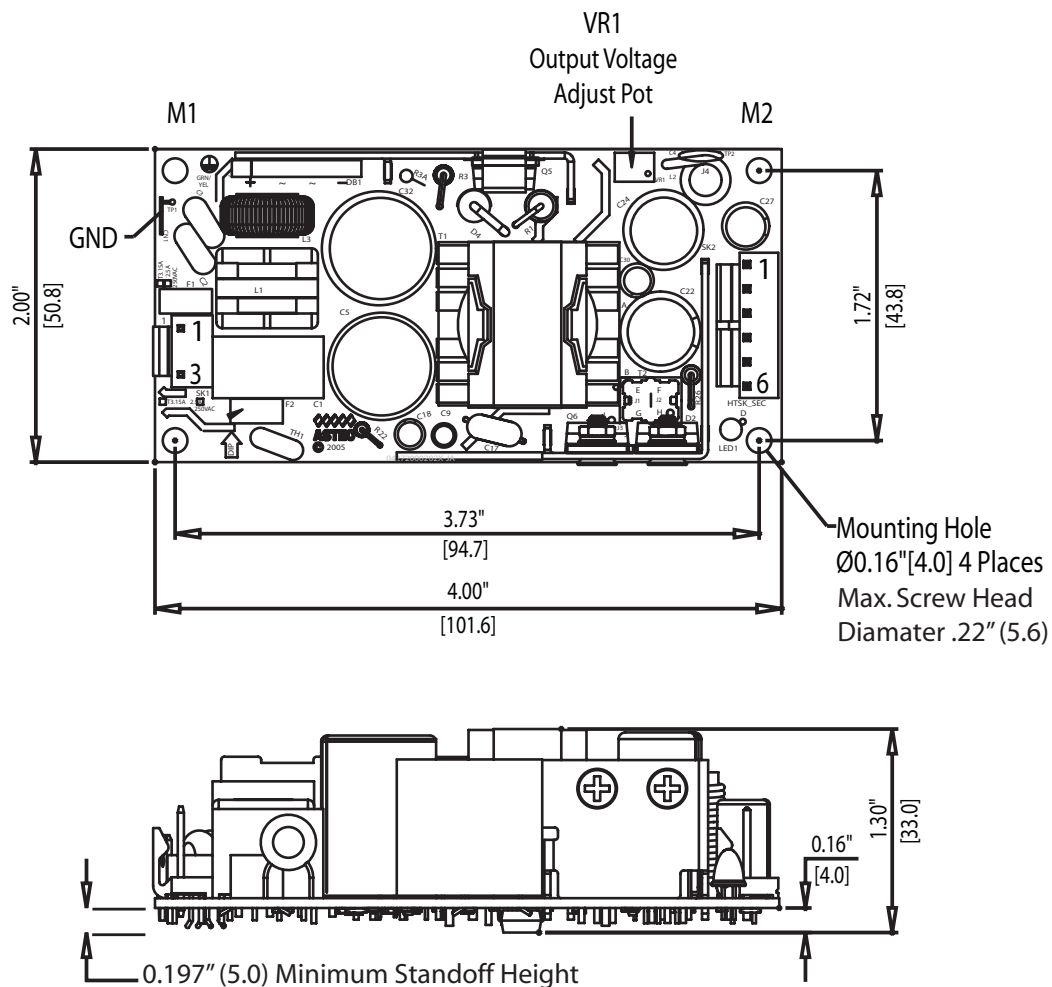
Maximum power:	60 W for convection (LPS52, 55 W)
Adjustment range:	± 20% minimum
Hold-up time:	10/20 ms 115/230 VAC Input line
Overload protection:	Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating
Overvoltage protection:	30-50% above nominal output
Remote sense:	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	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
LPS52	5V	0A	11A	12A	±2%	50mV
LPS52(-I)	5V	0A	11A	12A	±2%	50mV
LPS53	12V	0A	5A	5.4A	±2%	120mV
LPS53 (-I)	12V	0A	5A	5.4A	±2%	120mV
LPS54	15V	0A	4A	4.4A	±2%	150mV
LPS55	24V	0A	2.5A	2.75A	±2%	240mV
LPS58	48V	0A	1.25A	1.35A	±2%	480mV

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. LPS52(-I) is an extended temperature range model operating from -40 °C to +80 °C

Pin Assignments

Connector	LPS52	LPS53	LPS54	LPS55	LPS58
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)
09-91-0300 (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: 0.41lbs/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.PowerConversion.com
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:

[Advanced Energy:](#)

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