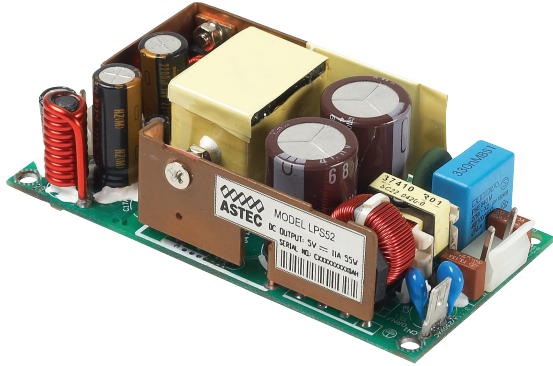


# 60 Watts

## LPS50-M Series

### Preliminary



### Special Features

- Medical Safety Approvals
- Universal input
- 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
- UL Class II available, consult factory

### Environmental

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.

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

### Electrical Specs

#### Input

Input range	90-264 VAC (wide range) 127-300 VDC
Frequency	47-440 Hz
Inrush current	<50 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 VDE 0878 PT3 class B conducted
Safety ground leakage current	275 uA @ 50/60 Hz, 264 VAC input

#### Output

Maximum power	60 W for convection (LPS52, 55W)
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.

### Safety

<b>UL</b>	UL 60950-1
<b>CUL</b>	CSA-C22.2 No. 601.1-M90
<b>NEMKO</b>	IEC/EN60950-1
<b>TUV</b>	EN60950-1
<b>CB</b>	Certificate and report
<b>CE</b>	LVD
<b>CCC</b>	GB4943

## AMERICAS

5810 Van Allen Way  
Carlsbad, CA 92008  
Telephone: 760-930-4600  
Facsimile: 760-930-0698

## EUROPE

Astec House, Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX, UK  
Telephone: 44 (1384) 842-211  
Facsimile: 44(1384) 843-355

## ASIA

Units 2111-2116, Level 21  
Tower 1, Metroplaza  
223, Hing Fong Road  
Fwai Fong, New Territories  
Hong Kong  
Telephone: 852-2437-9662  
Facsimile: 852-2402-4426



## Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Peak Load1	Regulation2	Ripple P/P (PARD)3
LPS52-M	5 V	0 A	11 A	12 A	±2%	50 mV
LPS53-M	12 V	0 A	5 A	5.4 A	±2%	120 mV
LPS54-M	15 V	0 A	4 A	4.4 A	±2%	150 mV
LPS55-M	24 V	0 A	2.5 A	2.8 A	±2%	240 mV
LPS58-M	48 V	0 A	1.25 A	1.4 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  $\mu$ F (tantalum capacitor) in parallel with a 0.1  $\mu$ F capacitor at rated line voltage and load ranges.

## Pin Assignments

Connector	LPS52	LPS53	LPS54	LPS55	LPS58
SK1-1	Neutral	Neutral	Neutral	Neutral	Neutral
SK1-3	Line	Line	Line	Line	Line

SK2-1	+5 V	+12 V	+15V	+24V	+48
SK2-2	+5 V	+12 V	+15V	+24V	+48
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: 08-58-0111

DC Outputs: Molex 09-50-8061 (USA)  
09-91-0600 (UK)  
PINS: 08-58-0111

Astec 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  $\pm 0.02$ " ( $\pm 0.5$ 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: 1 year
7. Weight: .41lbs/.18kg

