

## LPS50 Series

60 Watts

**Total Power:** 55 - 60 Watts  
**Input Voltage:** 90 - 264 VAC  
127 - 300VDC  
**# 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
- UL Class II available, consult factory
- LPS52(-1) 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 - 300VDC
Frequency	47-440 Hz
Inrush current	<60A peak @ 230VAC, 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; 264VAC input for class I; <0.25mA @ 50/60Hz; 264VAC input for class II

### Output

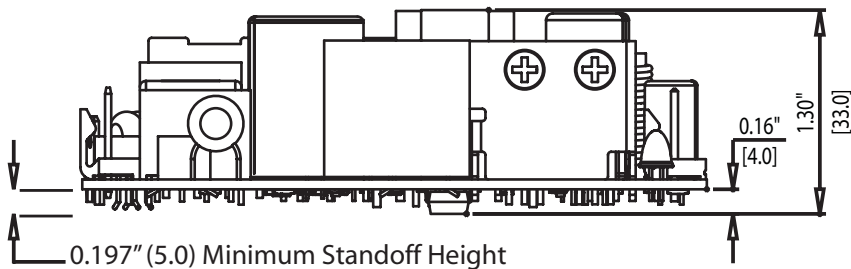
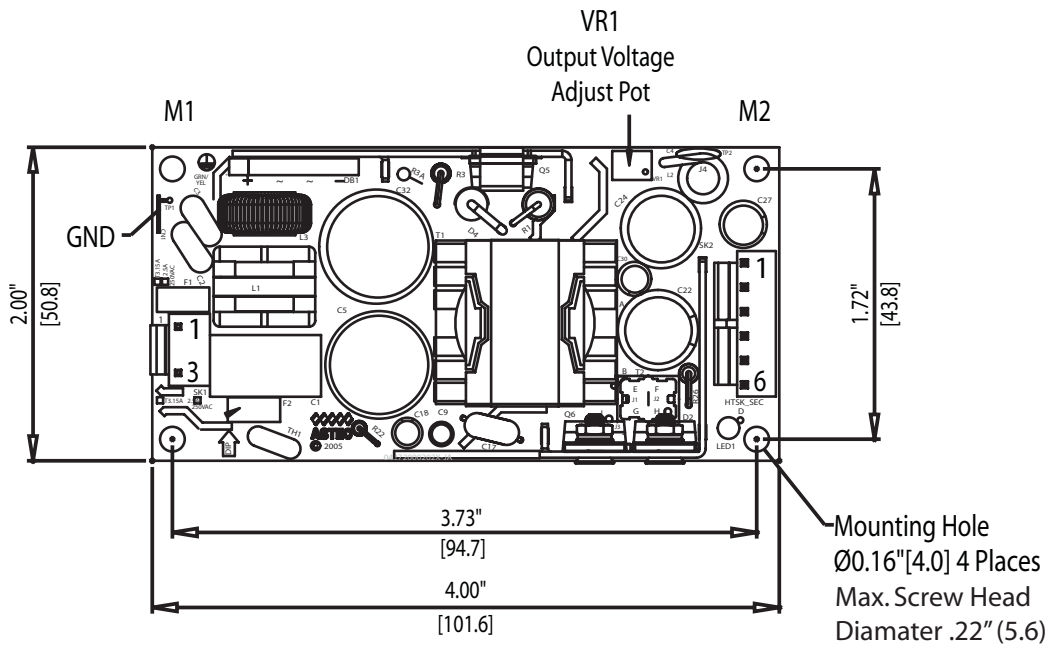
Maximum power	60W for convection (LPS52, 55W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 VAC Input line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 V lead drop max. Will operate without remote sense connected. Reverse connection protected.



# 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 <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>
LPS52(-I)	5V	0A	11A	12A	±2%	50mV
LPS53	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	+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: 08-52-0113

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

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 ±.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: .41lbs/.18kg

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