LPS Series
110 Watts • Single Output

The LPS Series of power supplies is an AC/DC universal input, single output design offering the latest in high technology performance. This rugged PCB design measures only 4" x 7" and features Class B EMI, high efficiency, and very high reliability. The LPS Series is ideal for telecommunications and computer peripheral applications, test and industrial equipment, medical instrumentation, and business machines.

Special Features
• Universal input
• High efficiency
• Remote sense
• Built-in EMI filter
• Low output ripple
• All outputs fully regulated
• Adjustable output
• Overvoltage protection
• Overload protection
• Optional L bracket (-B suffix)
• Cover kit available

Environmental
Operating temperature: 0° to 50°C ambient; derate each output at 2.5% per degree from 50° to 70°C

Electromagnetic susceptibility:
designed to meet IEC 801,-2, -3, -4, -5, Level 3

Humidity: Operating; non-condensing 5% to 95%

Vibration: Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75 peak 5 Hz to 500 Hz, operational

Storage temperature: -40° to 85°C

Temperature coefficient: ± .04% per degree C

MTBF demonstrated: > 550,000 hours at full load and 25°C ambient conditions

Electrical Specifications

Input
Input range . . . . . . . 85 VAC to 264 VAC; 120 to 370 VDC
Frequency . . . . . . . 47 - 440 Hz
Inrush current . . . . . < 18 A peak @ 115 VAC; < 36 A peak @ 230 VAC, cold start @ 25°C
Input current . . . . . 2.5 A max. (RMS) @ 115 VAC
Efficiency . . . . . . . . . 70% typical at full load
EMI filter . . . . . . . . . Meets FCC Class B, CISPR 22 Class B (includes EN55022 class B conducted and VDE 0878 PT3 class B conducted)

Safety ground
leakage current . . . < 0.5mA @ 50/60Hz, 264 VAC input

Output
Maximum power . . . 80 W for convection; 110 W with 30 CFM forced air
Adjustment range . . ± 5% minimum
Hold-up time . . . . . 20 ms at 110 watt load and 115 VAC nominal line
Overload protection . . . Short circuit protection. Case overload protected @ 110% to 145% above peak rating
Overvoltage protection . . . 5V output: 6.0 to 6.7 VDC. Other outputs 10% to 25% above nominal output

Safety
VDE 0805/EN60950 (IEC950) 11774-3336-1245 (LC #84997)
UL UL1950 E132002
CSA CSA 22.2-234 Level 3 LR53982C
NEMKO EN 60950/EMKO-TUE (74-sec) 203 P95100376
BABT EN60950/BS7002
CB Certificate and report
CE Mark

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### Ordering Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Output Voltage</th>
<th>Minimum Load</th>
<th>Maximum Load with Convection Cooling</th>
<th>Maximum Load with 30 CFM Forced Air</th>
<th>Peak Load</th>
<th>Regulation²</th>
<th>Ripple P/P (PARD)³</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPS112</td>
<td>5 V</td>
<td>0 A</td>
<td>16 A</td>
<td>22 A</td>
<td>25 A</td>
<td>±2%</td>
<td>50 mV</td>
</tr>
<tr>
<td>LPS113</td>
<td>12 V</td>
<td>0 A</td>
<td>6.7 A</td>
<td>9.2 A</td>
<td>10.4 A</td>
<td>±2%</td>
<td>120 mV</td>
</tr>
<tr>
<td>LPS114</td>
<td>15 V</td>
<td>0 A</td>
<td>5.3 A</td>
<td>7.3 A</td>
<td>8.3 A</td>
<td>±2%</td>
<td>150 mV</td>
</tr>
<tr>
<td>LPS115</td>
<td>24 V</td>
<td>0 A</td>
<td>3.3 A</td>
<td>4.6 A</td>
<td>5.2 A</td>
<td>±2%</td>
<td>240 mV</td>
</tr>
<tr>
<td>LPS118</td>
<td>48 V</td>
<td>0 A</td>
<td>1.7 A</td>
<td>2.3 A</td>
<td>2.6 A</td>
<td>±2%</td>
<td>480 mV</td>
</tr>
</tbody>
</table>

1. Peak current lasting < 30 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 in parallel with a 0.1 μF capacitor at rated line voltage and load.

Note: -B suffix added to model number indicates L bracket option.

### Drawings

- **Connector LPS112, LPS113, LPS114, LPS115, LPS118**
  - SK1-1: Neutral
  - SK1-2: Line
  - SK1-3: GND
  - SK2-1: +5 V
  - SK2-2: +5 V
  - SK2-3: +5 V
  - SK2-4: Common
  - SK2-5: Common
  - SK2-6: Common
  - SK2-7: Common
  - SK2-8: +5 V
  - SK2-9: +5 V
  - SK201-1: +sense
  - SK201-2: -sense

- **(-B) BRACKET**
  - #6-32 PEM
  - 6 places

### Pin Assignments

- **AC Input**: Molex 09-50-8051 (USA)
  - 09-91-0500 (UK)
  - PINS: 08-58-0111

- **DC Outputs**: Molex 09-50-8091 (USA)
  - 09-91-0900 (UK)
  - PINS: 08-58-0111

- **Remote sense**: Molex 22-01-1022 (USA)
  - 22-01-1023 (UK)

### Notes

1. Specifications subject to change without notice.
2. All dimensions are in inches (mm).
3. Specifications are for convection rating unless otherwise stated.
4. Mounting holes M1 and M2 should be grounded for EMI purposes.
5. Mounting hole M1 is safety ground connection.
6. Warranty: 1 year
7. Weight: 1.25 lb / 0.57 kg