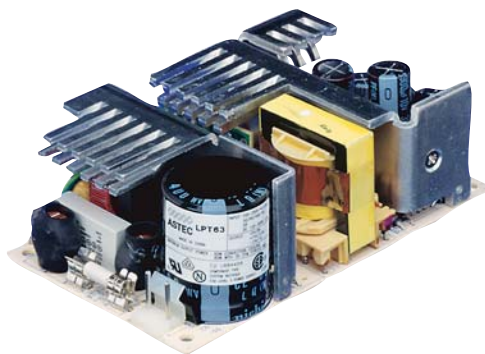


## LPS60 Series

60 Watts

**Total Power:** 60 - 80 Watts  
**Input Voltage:** 85 - 264 Vac  
120 - 300Vdc  
**# of Outputs:** Single



Rev. 05.27.08  
LPS60 Series  
1 of 3

### Special Features

- Universal input
- 3" x 5" footprint
- Remote sense
- Built in EMI filter
- Low output ripple
- Adjustable output voltage
- Overload protection
- 110 KHz switching frequency
- LPX60 enclosure kit available

### Safety

|              |   |
|--------------|---|
| <b>VDE</b>   | 0805/EN60950 (IEC950)<br>11774-3336-1255<br>(LC #86665) |
| <b>UL</b>    | UL1950<br>E132002                                       |
| <b>CSA</b>   | CSA 22.2-234 Level 3<br>LR53982C                        |
| <b>NEMKO</b> | EN 60950/EMKO-TUE<br>P95100123<br>(74-sec) 203          |
| <b>CB</b>    | Certificate and report<br>1521, 1522, 1523, 1524        |
| <b>CE</b>    | Mark (LVD)  |

## Electrical Specifications

### Input

|                                   |  |
|-----------------------------------|--|
| Input range:                      | 85 - 264 Vac (wide range)<br>120 - 300 Vdc   |
| Frequency:                        | 47-440 Hz  |
| Inrush current:                   | <18A peak @ 115 Vac, <36 A peak @230 Vac,<br>cold start @ 25 °C  |
| Input current:                    | 1.5 A max. (RMS) @ 115 Vac   |
| Efficiency:                       | 70% typical at full load   |
| EMI filter:                       | FCC Class B conducted; CISPR22 Class B conducted; EN55022<br>Class B conducted; VDE0878PT3 Class B conducted |
| Safety ground leakage<br>current: | <0.5 mA @ 50/60 Hz; 264 Vac input  |

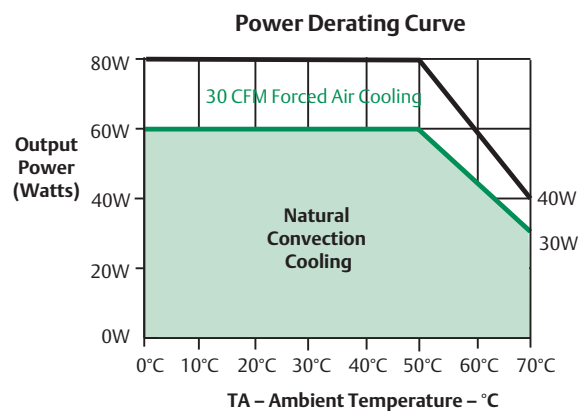
### Output

|                        |  |
|------------------------|--|
| Maximum power:         | 60 W for convection; 80 W with 30 CFM forced air   |
| Adjustment range       | -5, +10% minimum   |
| Hold-up time           | 20 ms @ 60 W load, 115 Vac nominal line  |
| Overload protection    | Short circuit protection on all outputs.<br>Case overload protected @ 110-145% above peak rating                   |
| Overvoltage protection | 5 V output; 5.7 - 6.7 Vdc. Other outputs 10% to 25%<br>above nominal output  |
| Remote sense           | Compensates for 0.5 V lead drop min. Will operate without<br>remote sense connected. Reverse connection protected. |

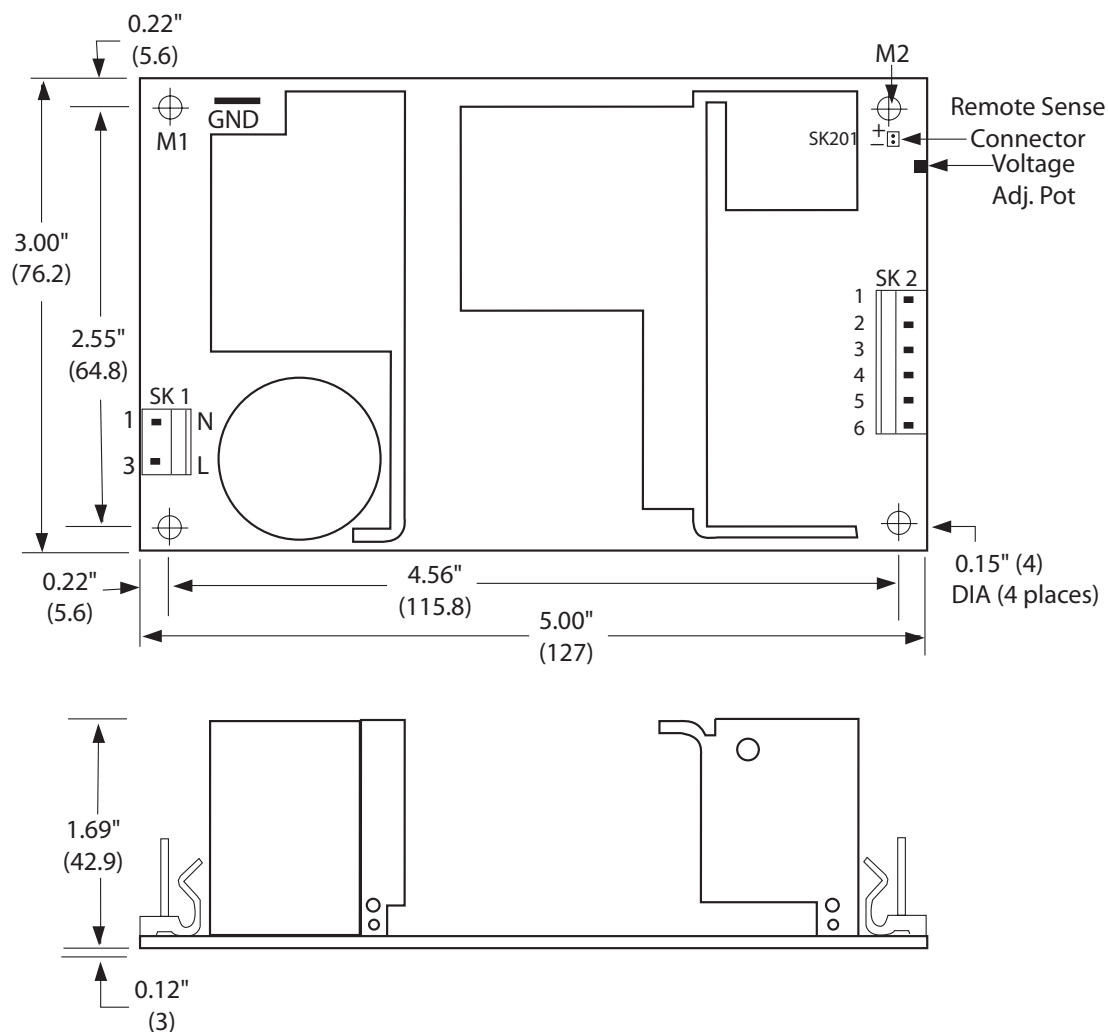


## Environmental Specifications

|                                 |  |
|---------------------------------|--|
| Operating temperature:          | 0° to 50 °C ambient derate each output as 2.5% per degree from 50° to 70 °C, -20 °C startup                              |
| Storage temperature:            | -40°C to +85 °C  |
| Electromagnetic susceptibility: | designed to meet IEC801, -2, -3, -4, -5, -6, Level 3   |
| Humidity:                       | Operating; non-condensing 5% to 95% RH   |
| Vibration:                      | Three orthogonal axes, sweep at 1 cot/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational |
| Temperature coefficient         | ±0.04% per °C  |
| 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> |
|--------------|----------------|--------------|--------------------------------------|------------------------------------|------------------------|-------------------------|--------------------------------|
| LPS61        | 3.3 V          | 2 A          | 12 A                                 | 16 A                               | 18 A                   | ±2%                     | 33 mV                          |
| LPS62        | 5 V            | 0 A          | 12 A                                 | 16 A                               | 18 A                   | ±2%                     | 50 mV                          |
| LPS63        | 12 V           | 0 A          | 5 A                                  | 6.7 A                              | 7.5 A                  | ±2%                     | 120 mV                         |
| LPS64        | 15 V           | 0 A          | 4 A                                  | 5.3 A                              | 6 A                    | ±2%                     | 150 mV                         |
| LPS65        | 24 V           | 0 A          | 2.5 A                                | 3.3 A                              | 3.8 A                  | ±2%                     | 240 mV                         |
| LPS68        | 48 V           | 0 A          | 1.3 A                                | 1.7 A                              | 1.9 A                  | ±2%                     | 480 mV                         |

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 (tantalum capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.

## Pin Assignments

| Connector | LPS61   | LPS62   | LPS63   | LPS64   | LPS65   | LPS68   |
|-----------|---------|---------|---------|---------|---------|---------|
| SK1-1     | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| SK1-3     | Line    | Line    | Line    | Line    | Line    | Line    |
| SK2-1     | 3.3 V   | 5 V     | +12 V   | +15 V   | +24 V   | 48 V    |
| SK2- 2    | 3.3 V   | 5 V     | +12 V   | +15 V   | +24 V   | 48 V    |
| SK2- 3    | 3.3 V   | 5 V     | +12 V   | +15 V   | +24 V   | 48 V    |
| SK2-4     | Common  | Common  | Common  | Common  | Common  | Common  |
| SK2-5     | Common  | Common  | Common  | Common  | Common  | Common  |
| SK2-6     | Common  | Common  | Common  | Common  | Common  | Common  |
| SK201-1   | +Sense  | +Sense  | +Sense  | +Sense  | +Sense  | +Sense  |
| SK201-2   | -Sense  | -Sense  | -Sense  | -Sense  | -Sense  | -Sense  |

## Mating Connectors

**AC Input:** Molex 09-50-8031 (USA) **Not required for (-T) option**  
09-91-0300 (UK)  
PINS: 08-58-0111

**DC Outputs:** Molex 09-50-8061 (USA) **Not required for (-T) option**  
09-91-0600 (UK)  
PINS: 08-58-0113

**Remote Sense:** Molex 22-01-2025  
PINS: 08-52-0113

Astec Connector Kit #70-841-006, includes all of the above

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: 0.75lbs/0.34kg

## 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](http://www.powerconversion.com)

[techsupport.embeddedpower@emerson.com](mailto:techsupport.embeddedpower@emerson.com)

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