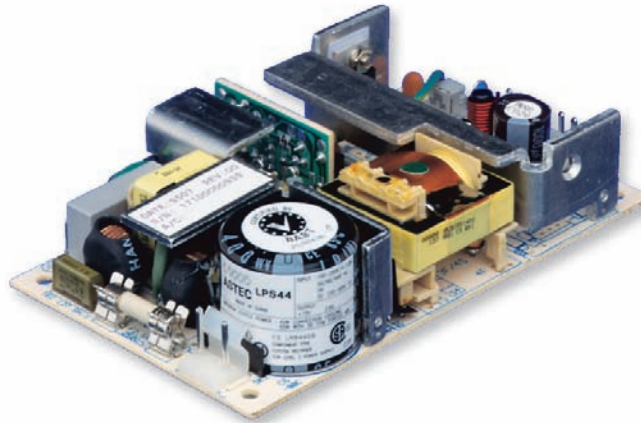


## LPS40-M Series

### 40 Watts Medical

**Total Power:** 40-55 Watts  
**Input Voltage:** 85-264 VAC  
120-300 VDC  
**# of Outputs:** Single



### Special Features

- Medical safety approvals
- Universal input
- 3" x 5" footprint
- Less than 1U high
- Remote sense on main output
- Low output ripple
- Adjustable 5V output
- Overvoltage protection
- Overload protection
- 110 KHz switching frequency
- LPX40 enclosure kit available

### Safety

- **VDE** 0750/EN60601-1 (IEC601)
- **UL** UL2601 E182560
- **CSA** CSA 22.2 No.601.1 LR109492
- **CE Mark** (LVD)

## Electrical Specifications

| Input                          |   |
|--------------------------------|---|
| Input range:                   | 85 - 264 VAC; 120 - 300 VDC   |
| Frequency:                     | 47 - 440 Hz   |
| Inrush current:                | < 18A peak @ 115 VAC; <36A peak @ 230 VAC, cold start @ 25 °C   |
| Input current:                 | 1A max. (RMS) @ 115 VAC   |
| Efficiency:                    | 70% typical at full load  |
| EMI filter:                    | FCC Class B conducted; CISPR 22 Class A conducted; EN55022 Class A conducted; VDE 0878 PT3 Class A conducted              |
| Safety ground leakage current: | < 75µA @ 50/60 Hz, 264 VAC input  |
| Output                         |   |
| Maximum power:                 | 40 W for convection; 55 W with 30CFM forced air   |
| Adjustment range:              | -5, +10% minimum  |
| Hold-up time:                  | 20ms @ 40 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:        | 5V output; 5.7 to 6.7 VDC. Other outputs 10% to 25% above nominal output  |
| Remote sense:                  | Compensates for 0.5 V lead drop minimum.<br>Will operate without remote sense connected.<br>Reverse connection protected. |



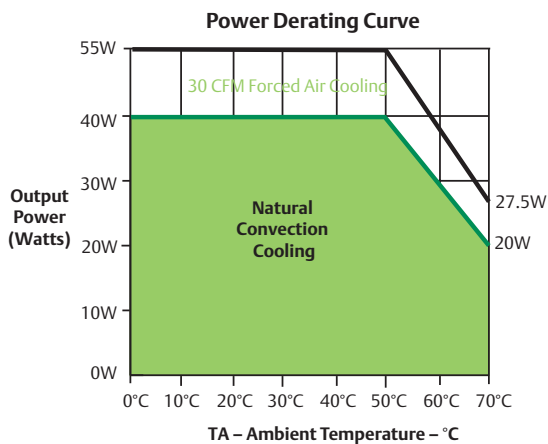
## Environmental Specifications

|                                 |   |
|---------------------------------|---|
| Operating temperature:          | 0° to 50 °C ambient. Derate each output 2.5% per degree from 50° to 70 °C, -20 °C startup                               |
| Storage temperature:            | -40 °C to +85 °C  |
| Temperature coefficient:        | ± 0.4% per °C   |
| Electromagnetic susceptibility: | Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3   |
| Humidity:                       | Operating; non-condensing 5% to 95% RH  |
| Vibration:                      | Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5 Hz to 500 Hz, operational |
| MTBF demonstrated:              | > 550,000 hours at full load and 25 °C ambient conditions   |

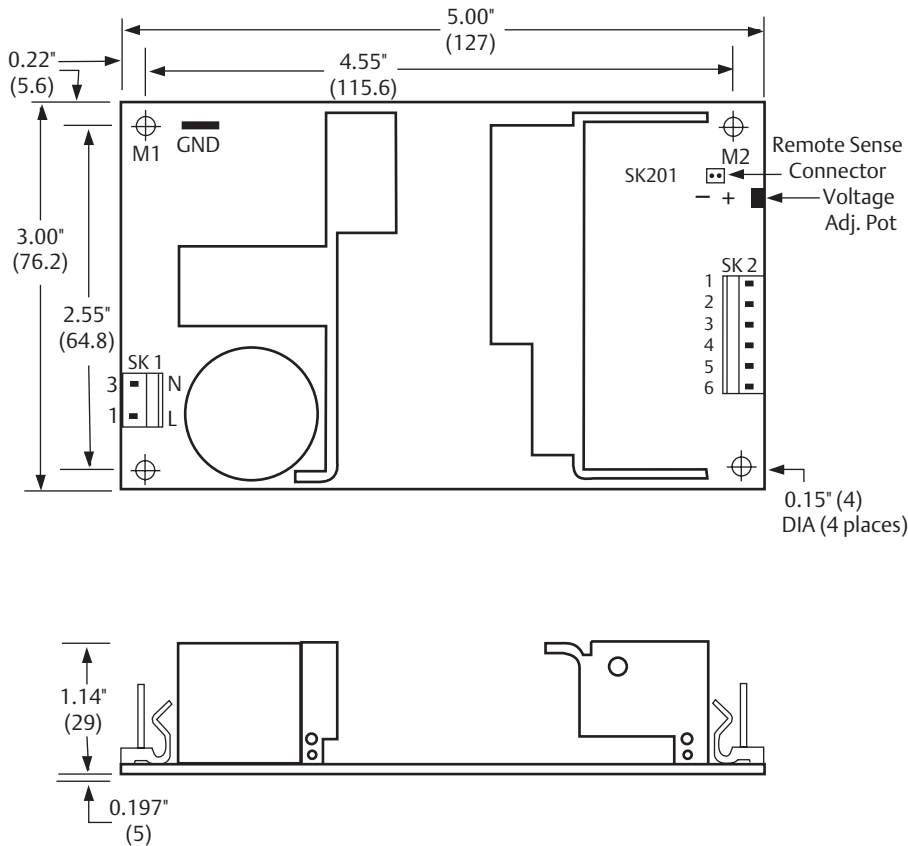
## Ordering Information

| 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> |
|--------------|----------------|--------------|--------------------------------------|------------------------------------|------------------------|-------------------------|--------------------------------|
| LPS42-M      | 5 V            | 0 A          | 8 A                                  | 11 A                               | 12 A                   | ± 2%                    | 50mV                           |
| LPS43-M      | 12 V           | 0 A          | 3.3 A                                | 4.5 A                              | 5 A                    | ± 2%                    | 120 mV                         |
| LPS44-M      | 15 V           | 0 A          | 2.6 A                                | 3.6 A                              | 4 A                    | ± 2%                    | 150 mV                         |
| LPS45-M      | 24 V           | 0 A          | 1.6 A                                | 2.3 A                              | 2.5 A                  | ± 2%                    | 240 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 in parallel with a 0.1 μF capacitor at rated line voltage and load ranges.



## Mechanical Drawing



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- Services
- Surge Protection

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### Pin Assignments

| Connector | LPS42-M | LPS43-M | LPS44-M | LPS45-M |
|-----------|---------|---------|---------|---------|
| SK1-1     | Neutral | Neutral | Neutral | Neutral |
| SK1-3     | Line    | Line    | Line    | Line    |
| SK2-1     | +5V     | +12V    | +15V    | +24V    |
| SK2-2     | +5V     | +12V    | +15V    | +24V    |
| SK2-3     | +5V     | +12V    | +15V    | +24V    |
| SK2-4     | Common  | Common  | Common  | Common  |
| SK2-5     | Common  | Common  | Common  | Common  |
| SK2-6     | Common  | Common  | Common  | Common  |
| SK201-1   | +Sense  | +Sense  | +Sense  | +Sense  |
| SK201-2   | -Sense  | -Sense  | -Sense  | -Sense  |

### Mating Connectors

|  |   |
|--|---|
| AC Input:  | Molex 09-50-8031 (USA)<br>09-91-0300 (UK)<br>PINS: 08-52-0113 |
| DC Outputs:  | Molex 09-50-8061 (USA)<br>09-91-0600 (UK)<br>PINS: 08-52-0113 |
| Remote Sense:  | Molex 22-01-2025<br>PINS: 08-52-0123                          |
| Emerson Network Power 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 $\pm 0.02"$ ( $\pm 0.5\text{mm}$ )                                |   |
| 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: 2 year  |   |
| 7. Weight: 0.5lbs/0.23kg   |   |