Rev. 07.23.07 LPS40-M Series 1 of 3

# **LPS40-M Series**

## 40 Watts

### Medical

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

# of Outputs: Triple



# **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
- Overload protection
- 110 KHz switching frequency
- LPX40 enclosure kit available

- Overvoltage protection

# Safety

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

CEMark (LVD)

# **Electrical Specifications**

### Input

Input range 85-264 VAC; 120-300 VDC

Frequency 47-440 Hz

Inrush current <18A peak @ 115VAC; <36A peak @ 230VAC, cold start @ 25°C

Input current 1A max. (RMS) @ 115VAC Efficiency 70% typical at full load

FCC Class B conducted; CISPR 22 Class A conducted; EMI filter

EN55022 Class A conducted; VDE 0878 PT3 Class A conducted

<75μA @ 50/60 Hz, 264 VAC input Safety ground

leakage current

### Output

Maximum power 40W for convection; 55W with 30CFM forced air

Adjustment range -5. +10% minimum

Hold-up time 20ms @ 40W load, 115VAC nominal line Overload protection Short circuit protection on all outputs

Case overload protected @ 110-145% above peak rating

Overvoltage protection 5V output; 5.7 to 6.7VDC. Other outputs 10% to 25%

above nominal output

Compensates for 0.5 V lead drop minimum. Remote sense

Will operate without remote sense connected.

Reverse connection protected.





Rev. 07.23.07 LPS40-M Series

# **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:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ Temperature coefficient:  $\pm 0.4\%$  per  $^{\circ}\text{C}$ 

Electromagnetic

susceptibility: Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3

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

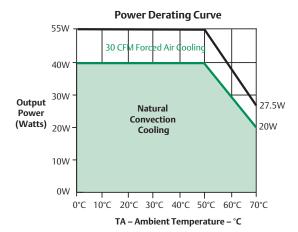
Vibration: Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at

four major resonances 0.75G peak 5Hz to 500Hz, operational

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

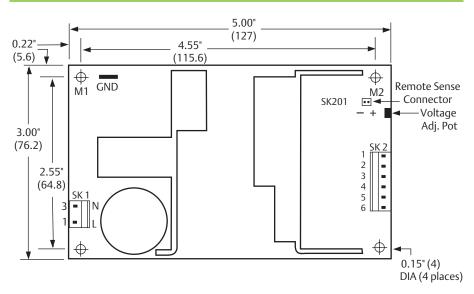
Ordering Information												
Model Number	Output Voltage		Maximum Load with Convection Cooling		Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>					
LPS42-M	5V	0A	8A	11A	12A	±2%	50 mV					
LPS43-M	12V	0A	3.3A	4.5A	5A	±2%	120 mV					
LPS44-M	15V	0A	2.6A	3.6A	4A	±2%	150mV					
LPS45-M	24V	0A	1.6A	2.3A	2.5A	±2%	240mV					

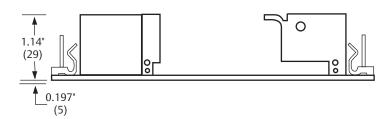
- 1. Peak current lasting <30 seconds with a maximum 10% duty cycle.
- 2. At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
- 3. Peak-to-peak with 20 MHz bandwidth and 10  $\mu\text{F}$  in parallel with a 0.1  $\mu\text{F}$  capacitor at rated line voltage and load ranges.



Rev. 07.23.07 LPS40-M Series 3 of 3

### **Mechanical Drawing**





### Mating Connectors

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

Pin Assignments

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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

Remote Sense: Molex 22-01-2025

PINS: 08-50-0114
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.
- 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

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