

# LPS 60 Medical

60 Watts

## LPS 60 Series

<b>Total Power</b>	<b>60 - 80 Watts</b>
<b>Input Voltages</b>	<b>85 - 264 VAC 120 - 370 VDC</b>
<b># of Outputs</b>	<b>Single</b>



### SPECIAL FEATURES

- Medical safety approvals
- Universal input
- High efficiency
- Remote sense
- Built-in EMI filter
- Low output ripple
- Adjustable output
- Overvoltage protection
- Overload protection
- Enclosure kit available (see page 62)

### 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, -6, 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 G peak 5 Hz to 500 Hz, operational

Storage temperature: -40° to 85°C

Temperature coefficient: ±.04% per °C

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

### ELECTRICAL SPECIFICATIONS

#### Input

Input range ..... 85-264 VAC  
120-370 VDC

Frequency ..... 47-440 Hz

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

Input current ..... 1.5 A max. (RMS) @ 115 VAC

Efficiency ..... 70% typical at full load

EMI filter ..... FCC Class A conducted  
CISPR 22 Class A conducted  
EN55022 class A conducted  
VDE 0878 PT3 class A conducted

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

#### Output

Maximum power ..... 60 W for convection;  
80 W with 30 CFM forced air

Minimum load ..... minimum load required, see table

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.  
Case overload protected @ 110-145%  
above peak rating

Overvoltage protection ..... 5 V output: 5.7-6.7 VDC. Other outputs  
10% to 25% above nominal output

Remote sense ..... +5V output compensates for 0.5 V lead  
drop min. Will operate without remote  
sense connected. Reverse connection  
protected.

### SAFETY

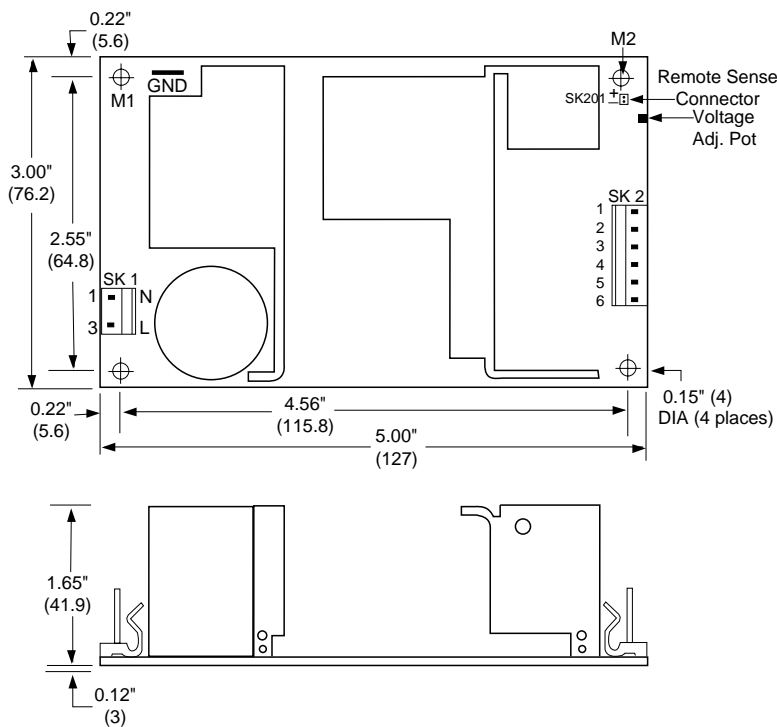
<b>VDE</b>	0750/EN60601-1 (IEC601)	21310-3336-0015
<b>UL</b>	UL2601	E182560
<b>CSA</b>	CSA 22.2 No. 601.1	LR109492
<b>CE</b>	Mark (LVD)	

## ORDERING INFORMATION

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30 CFM Forced Air	Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>
LPS63-M	12 V	0 A	5 A	6.7 A	7.5 A	±2%	120 mV
LPS64-M	15 V	0 A	4 A	5.3 A	6 A	±2%	150 mV
LPS65-M	24 V	0 A	2.5 A	3.3 A	3.8 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.

## DRAWINGS



## PIN ASSIGNMENTS

Connector	LPS63-M	LPS64-M	LPS65-M
SK1-1	Neutral	Neutral	Neutral
SK1-3	Line	Line	Line
SK2-1	+12 V	+15 V	+24 V
SK2-2	+12 V	+15 V	+24 V
SK2-3	+12 V	+15 V	+24 V
SK2-4	Common	Common	Common
SK2-5	Common	Common	Common
SK2-6	Common	Common	Common
SK201-1	+Sense	+Sense	+Sense
SK201-2	-Sense	-Sense	-Sense

## MATING CONNECTORS

AC Input: Molex 09-50-8031 (USA)  
26-03-4030 (UK)  
PINS: 05-58-0189

DC Outputs: Molex 09-50-8061 (USA)  
26-03-4061 (UK)  
PINS: 05-58-0189

Remote Sense: Molex 22-01-2025  
PINS: 08-50-0114

Astec Connector Kit #70-841-006

## NOTES

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±.02".
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: 1 year
7. Weight: 0.75 lb. / 0.34 kg

## Power Derating Curve

