

# **LPS40-M Series**

40 Watts Medical

### **Data Sheet**

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 E182560CSA CSA 22.2 No.601.1

CSA 22.2 No.601.1 LR109492

CE Mark (LVD)





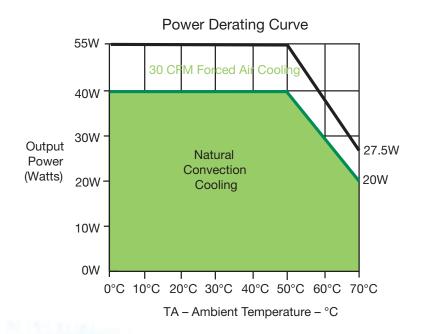
Electrical Specifications		
Input		
Input range:	85 - 264 VAC; 120 - 300 VDC	
Frequency:	47 - 440 Hz	
Inrush current:	< 18A peak @ 115 VAC; <36A peak @ 230 VAC, cold start @ 25 °C	
Input current:	1A max. (RMS) @ 115 VAC	
Efficiency:	70% typical at full load	
EMI filter:	FCC Class B conducted; CISPR 22 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 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 Will operate without remote sense connected Reverse connection protected	



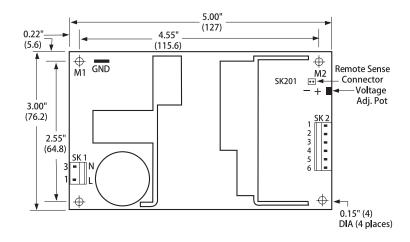
Environmental Specifications		
Operating temperature:	0° to 50 °C ambient. Derate each output 2.5% per degree from 50° to 70 °C, -20 °C startup	
Storage temperature:	-40 °C to +85 °C	
Temperature coefficient:	± 0.4% per °C	
Electromagnetic susceptibility:	Designed to meet IEC 801, -2, -3, -4, -5, -6, 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 Voltaqe	Minlmun Load	MaxImun Load with Convection Cooling	Maximun Load with 30CFM Forced Air	Peak Load <sup>1</sup>	Requiation <sup>2</sup>	Ripple P/P(PARD) <sup>3</sup>
LPS42-M	5 V	OA	8 A	11 A	12 A	± 2%	50mV
LPS43-M	12 V	OA	3.3 A	4.5 A	5 A	± 2%	120 mV
LPS44-M	15 V	0A	2.6 A	3.6 A	4 A	± 2%	150 mV
LPS45-M	24 V	OA	1.6 A	2.3 A	2.5 A	± 2%	240 mV

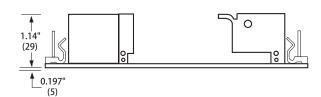
- 1. Peak current lasting < 30 seconds with a maximum 10% duty cycle.
- 2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
- 3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and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



### **Mechanical Drawing**



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Pin Assignments				
Connector	LPS42-M	LPS43-M	LPS44-M	LPS45-M
SK1-1	Line	Line	Line	Line
SK1-3	Neutral	Neutral	Neutral	Neutral
SK2-1	+5 V	+12 V	+15 V	+24 V
SK2-2	+5 V	+12 V	+15 V	+24 V
SK2-3	+5 V	+12 V	+15 V	+24 V
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) 09-93-0300 (UK) PINS: 08-52-0113	
DC Outputs:	Molex 09-50-8061 (USA) 09-93-0600 (UK) PINS: 08-52-0113	
Remote Sense:	Molex 22-01-2025 PINS: 08-52-0123	
Artesyn Embedded Technologies 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"( $\pm$  0.5mm)
- 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  $^{\circ}\text{C}$ unless otherwise stated.
- 6. Warranty: 2 years 7. Weight: 0.5lbs/0.23kg

### **WORLDWIDE OFFICES**

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