

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
- RoHS compliant
- 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	< 75 μA @ 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	20 ms @ 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	5 V 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		



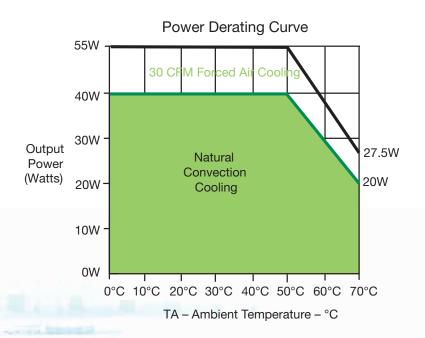
Environmental Specifications		
Operating temperature	0° to 50 °C ambient. Derate each output 2.5% per degree from 50° to 70 °C, -20 °C startup	
Storage temperature	-40 °C to +85 °C	
Temperature coefficient	± 0.4% per °C	
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 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 Info	ormation						
Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load¹	Requiation ²	Ripple P/P(PARD) ³
LPS42-M	5 V	0A	8 A	11 A	12 A	± 2%	50mV
LPS43-M	12 V	0A	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	0A	1.6 A	2.3 A	2.5 A	± 2%	240 mV

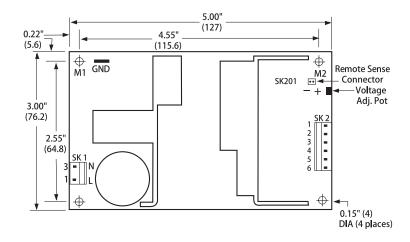
- 1. Peak current lasting < 30 seconds with a maximum 10% duty cycle.
- 2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.

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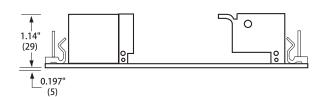
- 3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
- 4. This product is a Component Power Supply and is only for inclusion by professional installers within other equipment and must not be operated as a standalone product. EMC compliance to appropriate standards must be verified at the system level. This product is for sale to OEMs and System Integrators, including through Distribution Channels. It is not intended for sale to End Users.



Mechanical Drawing



In the the



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 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 0.5mm)
- 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 years7. Weight: 0.5lbs/0.23kg

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LPS40-M Series-DS 11Dec2019

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