LPS40-M Series 40 Watts Medical

Total Power: Input Voltage:

of Outputs:

40-55 Watts 85-264 VAC 120-300 VDC Single





Rev. 9.8.09_28 LPS40-M Series

1 of 3

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.





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



Rev. 9.8.09_28 LPS40-M Series 2 of 3

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 ¹	Regulation ²	Ripple P/P (PARD) ³
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 μ F in parallel with a 0.1 μ F capacitor at rated line voltage and load ranges.



Rev. 9.8.09_28 LPS40-M Series

3 of 3

Mechanical Drawing





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

M	Mating Connectors		
AC	Input:	Molex 09-50-8031 (USA) 09-91-0300 (UK) PINS: 08-52-0113	
DC	Outputs:	Molex 09-50-8061 (USA) 09-91-0600 (UK) PINS: 08-52-0113	
Rer	mote Sense:	Molex 22-01-2025 PINS: 08-52-0123	
	erson Netwo above	rk Power Connector Kit #70-841-006, includes all of	
1.	1. Specifications subject to change without notice.		
2.	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.		
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

Americas

5810 Van Allen Way Carlsbad, CA 92008 USA Telephone: +1 760 930 4600 Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park Merry Hill, Dudley West Midlands, DY5 1LX United Kingdom Telephone: +44 (0) 1384 842 211 Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza 2 Wing Yip Street Kwun Tong, Kowloon Hong Kong Telephone: +852 2176 3333 Facsimile: +852 2176 3888

For global contact, visit:

www.PowerConversion.com

techsupport.embeddedpower @emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.

The global leader in enabling business-critical continuity.

- AC Power
 Connectivity
 DC Power
 Embedded Computing
 Embedded Power
 Monitoring
 Outside Plant
 Power Switching & Controls
 Precision Cooling
 Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2009 Emerson Electric Co.