

LPS40-M Series

40 Watts Medical

Data Sheet

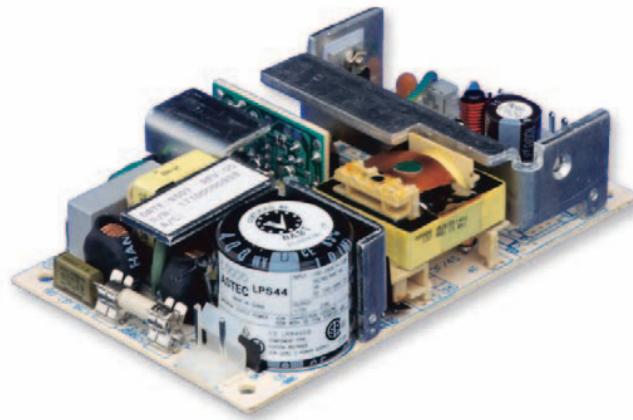
Total Power: 40 - 55 Watts
Input Voltage: 85-264 VAC
120-300 VDC
of Outputs: Single

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 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:	< 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

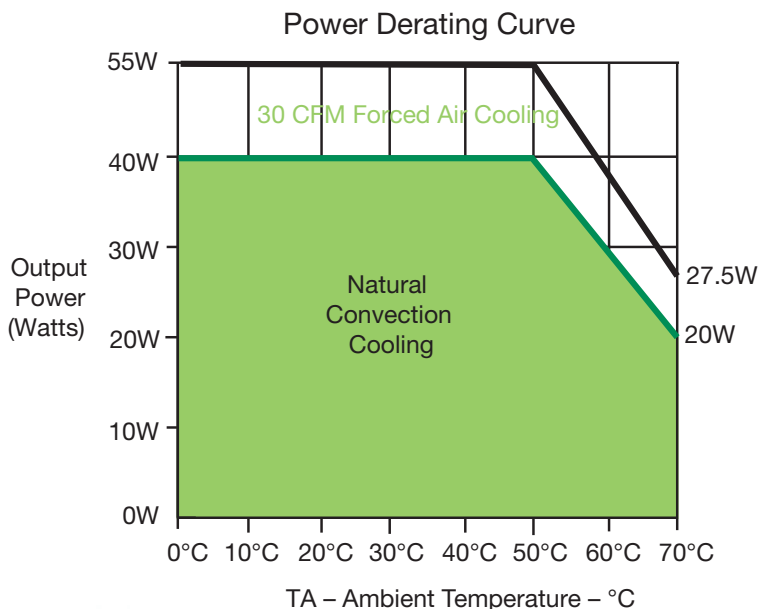
Environmental Specifications

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

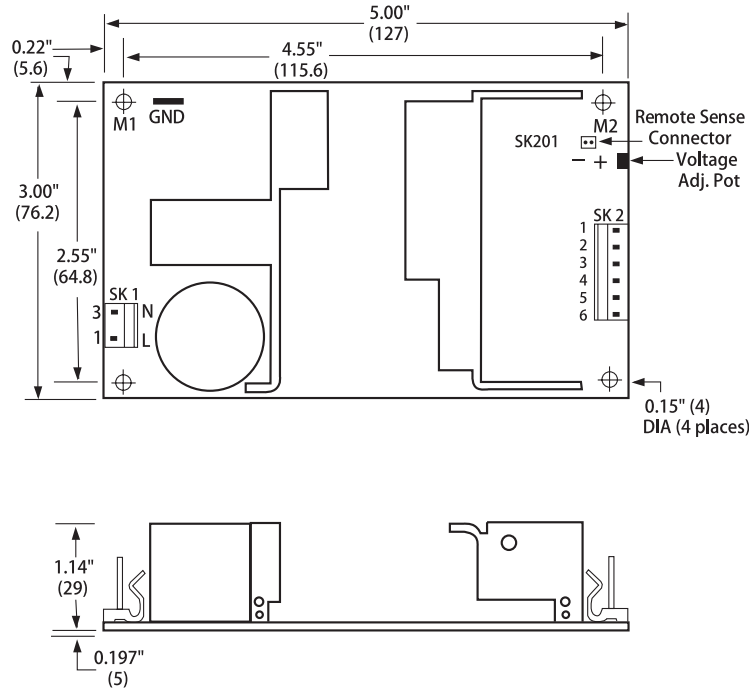
Ordering Information

Model Number	Output Voltage	Minimun Load	Maxlmun Load with Convection Cooling	Maximun Load with 30CFM Forced Air	Peak Load ¹	Regulation 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.
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



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 $\pm 0.02'' (\pm 0.5\text{mm})$
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 years
7. Weight: 0.5lbs/0.23kg

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