

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 | | |



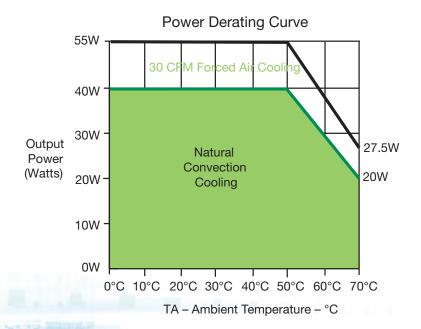
| Environmental Specifications | | |
|--------------------------------|---|--|
| Operating temperature | 0° to 50 °C ambient. Derate each output 2.5% per degree from 50° to 70 °C, -20 °C startup | |
| Storage temperature | -40 °C to +85 °C | |
| Temperature coefficient | ± 0.4% per °C | |
| Electromagnetic 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 Information | | | | | | | |
|----------------------|-------------------|-----------------|--------------------------------------|--|------------------------|-------------------------|----------------------------------|
| Model Number | Output Voltaqe | Minimum Load | Maximum Load with Convection Cooling | Maximum Load with 30CFM Forced Air | Peak Load ¹ | 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 |

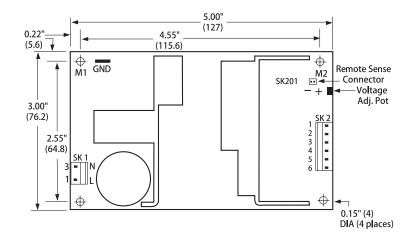
- 1. Peak current lasting < 30 seconds with a maximum 10% duty cycle.
- 2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.

11 11 1

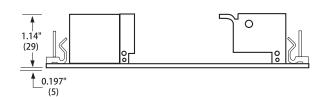
- 3. Peak-to-peak with 20 MHz bandwidth and 10 μ F in parallel with a 0.1 μ F capacitor at rated line voltage and load ranges.
- 4. This product is a Component Power Supply and is only for inclusion by professional installers within other equipment and must not be operated as a standalone product. EMC 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



11-11-11



| 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 °C unless otherwise stated.
- 6. Warranty: 2 years 7. Weight: 0.5lbs/0.23kg

WORLDWIDE OFFICES

Americas

2900 S.Diablo Way Tempe, AZ 85282 +1 888 412 7832

Europe (UK)

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

Asia (HK)

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



www.artesyn.com

For more information: www.artesyn.com/power For support: productsupport.ep@artesyn.com