

## LPT40 Series

40 Watts

### Data Sheet

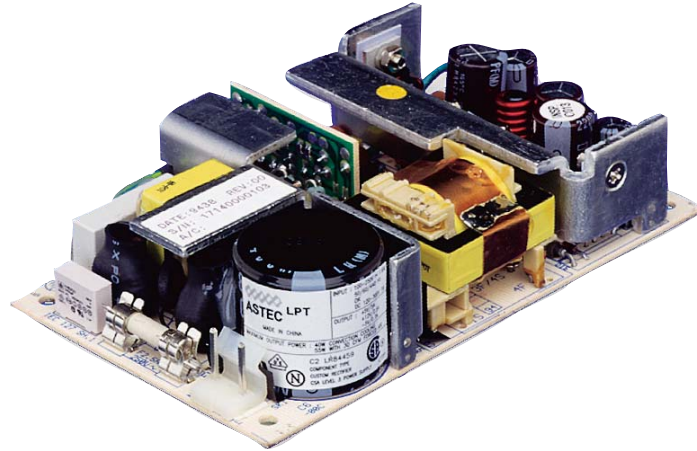
**Total Power: 44 - 55 Watts**  
**Input Voltage: 85-264 VAC**  
**120-300 VDC**  
**# of Outputs: Triple**

### SPECIAL FEATURES

- Universal input
- 3" x 5" footprint
- Less than 1U high
- Remote sense on main output
- Built-in EMI filter
- Low output ripple
- Adjustable main output
- Overvoltage protection
- Overload protection
- 110 KHz switching frequency
- LPX40 enclosure kit available

### SAFETY

- UL UL60950  
E132002
- cUL 60950  
Level 3 LR53982C
- NEMKO EN 60950/EMKO-TUE  
P95100411 (74-sec) 203
- CB Certificate and report  
1118, 1122, 1123, 1124
- CE Mark (LVD)



### Electrical Specifications

| Input                          |   |
|--------------------------------|---|
| Input range:                   | 85-264 VAC; 120-300 VDC   |
| Frequency:                     | 47-440 Hz   |
| Inrush current:                | < 18 A peak @ 115 VAC;<br>< 36A peak @ 230 VAC, cold start @ 25 °C  |
| Input current:                 | 1A max. (RMS) @ 115 VAC   |
| Efficiency:                    | 70% typical at full load (60% for LPT41)  |
| EMI:                           | FCC Class B conducted; CISPR 22 Class B conducted<br>EN55022 Class B conducted; VDE 0878 PT3 Class B conducted  |
| Safety ground leakage current: | < 0.5 mA @ 50/60 Hz, 264 VAC input  |
| Output                         |   |
| Maximum Power:                 | 40W for convection (LPT41, 25W);<br>55W with 30CFM forced air (LPT41, 41W)                                      |
| Cross regulation:              | ±2% on output 1; ±5% on outputs 2, 3  |
| Adjustment range:              | -5, +10% minimum  |
| Hold-up time:                  | 20ms @ 40W load, 115 VAC nominal line   |
| Overload protection:           | Short circuit protection on all outputs. Case overload protected @ 110% to 145% above peak rating               |
| Overvoltage protection:        | 5.7 to 6.7 VDC on the main output LPT41: 3.6 to 4.6VDC  |
| Remote sense:                  | Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected. |

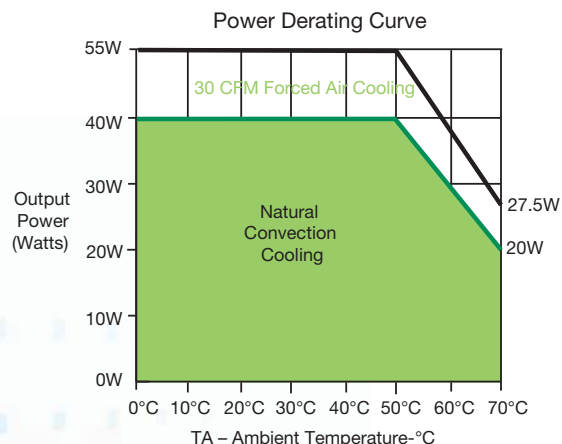
### Environmental Specifications

|                                 |   |
|---------------------------------|---|
| Operating temperature:          | 0° to 50 °C ambient derate each output at 2.5% per degree from 50° to 70 °C, -20 °C start up.                           |
| Electromagnetic susceptibility: | Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3   |
| Humidity:                       | Operating; non-condensing 5% to 95%   |
| 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 |
| Storage temperature:            | -40° to 85 °C   |
| Temperature coefficient:        | ±.04% per °C  |
| MTBF demonstrated:              | > 550,000 hours at full load and 25°C ambient conditions  |

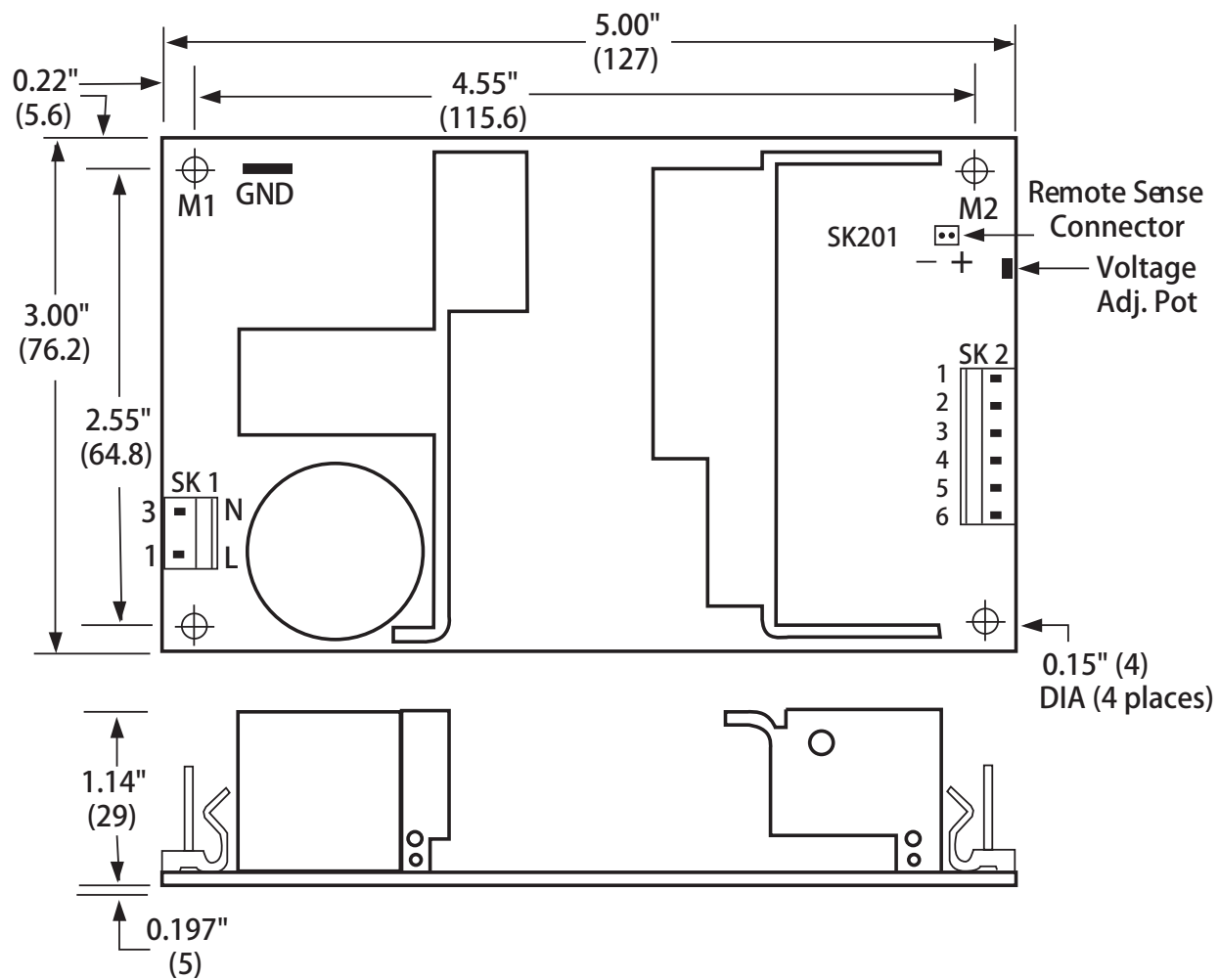
### Ordering Information

| Model Number | Output Voltage | Minimun Load | Maxlmun Load with Convection Cooling | Maximun Load with 30CFM forced Air | Peak Load <sup>1</sup> | Regulation <sup>2</sup> | Ripple P/P(PARD) <sup>3</sup> |
|--------------|----------------|--------------|--------------------------------------|------------------------------------|------------------------|-------------------------|-------------------------------|
| LPT41        | +3.3V          | 0.5A         | 4A                                   | 7A                                 | 7A                     | ±2%                     | 50mV                          |
|              | +5V            | 0A           | 1.5A                                 | 2.0A                               | 2.5A                   | ±2%                     | 50mV                          |
|              | +12V           | 0A           | 0.5A                                 | 0.7A                               | 0.7A                   | ±5%                     | 120mV                         |
| LPT42        | +5V            | 0.4A         | 4A                                   | 5A                                 | 7A                     | ±2%                     | 50mV                          |
|              | +12V           | 0.2A         | 2A                                   | 2.5A                               | 4A                     | ±5%                     | 120mV                         |
|              | -12V           | 0A           | 0.5A                                 | 0.7A                               | 1A                     | ±5%                     | 120mV                         |
| LPT43        | +5V            | 0.5A         | 6A                                   | 8A                                 | 9A                     | ±2%                     | 50mV                          |
|              | +12V           | 0A           | 0.5A                                 | 0.7A                               | 1A                     | ±5%                     | 120mV                         |
|              | -12V           | 0A           | 0.5A                                 | 0.7A                               | 1A                     | ±5%                     | 120mV                         |
| LPT44        | +5V            | 0.4A         | 4A                                   | 5A                                 | 7A                     | ±2%                     | 50mV                          |
|              | +12V           | 0.2A         | 2A                                   | 2.5A                               | 4A                     | ±5%                     | 120mV                         |
|              | -5V            | 0A           | 0.5A                                 | 0.7A                               | 1A                     | ±5%                     | 50mV                          |
| LPT45        | +5V            | 0.4A         | 4A                                   | 5A                                 | 7A                     | ±2%                     | 50mV                          |
|              | +15V           | 0.2A         | 2A                                   | 2.5A                               | 3A                     | ±5%                     | 150mV                         |
|              | -15V           | 0A           | 0.5A                                 | 0.7A                               | 1A                     | ±5%                     | 150mV                         |
| LPT46        | +5V            | 0.4A         | 4A                                   | 5A                                 | 6A                     | ±2%                     | 50mV                          |
|              | +24V           | 0.1A         | 1.0A                                 | 1.5A                               | 2A                     | ±7%                     | 240mV                         |
|              | +12V           | 0A           | 0.5A                                 | 0.7A                               | 1A                     | ±5%                     | 120mV                         |
| LPT47        | +5V            | 0.4A         | 4A                                   | 5A                                 | 6A                     | ±2%                     | 50mV                          |
|              | +24V           | 0.2A         | 1.0A                                 | 1.5A                               | 2A                     | ±7%                     | 240mV                         |
|              | -12V           | 0A           | 0.5A                                 | 0.7A                               | 1A                     | ±5%                     | 120mV                         |

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.
4. Minimum Loads are required.



Mechanical Drawing



## Pin Assignments

| Connector | LPT41   | LPT42   | LPT43   | LPT44   | LPT45   | LPT46   | LPT47   |
|-----------|---------|---------|---------|---------|---------|---------|---------|
| SK1-1     | Line    | Line    | Line    | Line    | Line    | Line    | Line    |
| SK1-3     | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| SK2-1     | 5V      | +12V    | +12V    | +12V    | +15V    | +24V    | +24V    |
| SK2-2     | 3.3V    | +5V     | +5V     | +5V     | +5V     | +5V     | +5V     |
| SK2-3     | 3.3V    | +5V     | +5V     | +5V     | +5V     | +5V     | +5V     |
| SK2-4     | Common  | Common  | Common  | Common  | Common  | Common  | Common  |
| SK2-5     | Common  | Common  | Common  | Common  | Common  | Common  | Common  |
| SK2-6     | 12V     | -12V    | -12V    | -5V     | -15V    | +12V    | -12V    |
| SK201-1   | +Sense  | +Sense  | +Sense  | +Sense  | +Sense  | +Sense  | +Sense  |
| SK201-2   | -Sense  | -Sense  | -Sense  | -Sense  | -Sense  | -Sense  | -Sense  |

## Mating Connectors

|  |   |
|--|---|
| AC Input:  | Molex 09-50-8031 (USA)<br>09-93-0300 (UK)<br>PINS: 08-52-0113 |
| DC Outputs:  | Molex 09-50-8061 (USA)<br>09-93-0600 (UK)<br>PINS: 08-52-0113 |
| Remote Sense:  | Molex 22-01-2025<br>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 year
7. Weight: 0.5lbs/0.23kg

## WORLDWIDE OFFICES

### Americas

2900 S.Diablo Way  
Tempe, AZ 85282  
USA  
+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

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For support: [productsupport.ep@artesyn.com](mailto:productsupport.ep@artesyn.com)