

LPS40 Series

40 Watts

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



Special Features

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

Safety

- **UL** UL60950
E132002
- **CSA** CSA 22.2-234 Level 3
LR53982C
- **NEMKO** EN 60950/EMKO-TUE
P94100375 (74-sec)203
- **CB** Certificate and report
1119, 1125, 1126, 1127
- **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; < 36 A peak @ 230 VAC, cold start @ 25 °C |
| Input current: | 1 A max. (RMS) @ 115 VAC |
| Efficiency: | 70% typical at full load |
| EMI filter: | FCC Class B conducted; CISPR 22 Class B conducted; 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: | 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 |



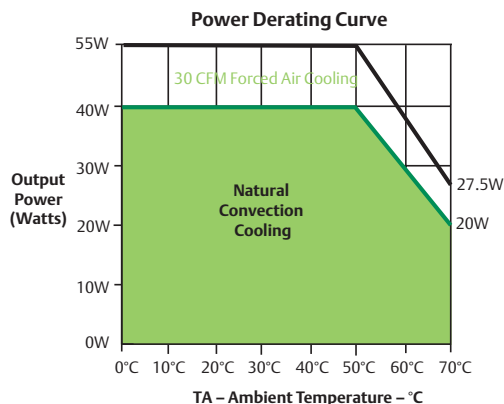
Environmental Specifications

| | |
|---------------------------------|---|
| Operating temperature: | 0° to 50 °C ambient. Derate each output 2.5% per degree from 50° to 70 °C, -20 °C start up. |
| 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 5Hz to 500Hz, operational |
| MTBF demonstrated: | > 550,000 hours at full load and 25 °C ambient conditions |

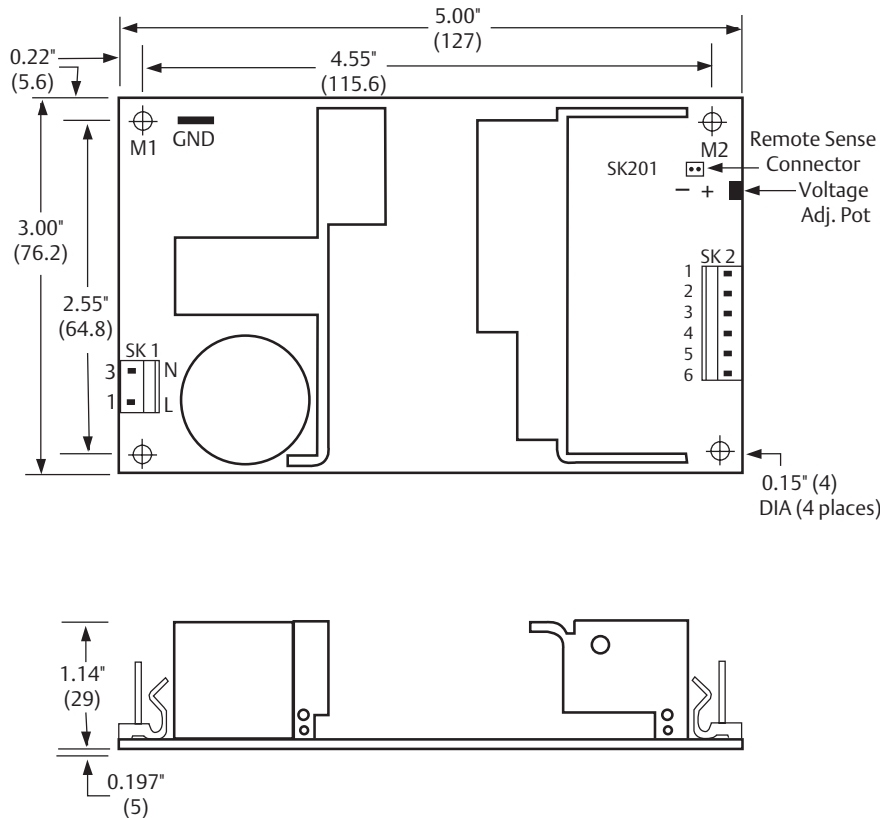
Ordering Information

| 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 (PAR) ³ |
|--------------|----------------|--------------|--------------------------------------|------------------------------------|------------------------|-------------------------|-------------------------------|
| LPS41(-T) | 3.3 V | 0A | 8 A | 11 A | 12 A | ± 2% | 50 mV |
| LPS42(-T) | 5 V | 0A | 8 A | 11 A | 12 A | ± 2% | 50 mV |
| LPS43(-T) | 12 V | 0A | 3.3 A | 4.5 A | 5 A | ± 2% | 120 mV |
| LPS44(-T) | 15 V | 0A | 2.6 A | 3.6 A | 4 A | ± 2% | 150mV |
| LPS45(-T) | 24 V | 0A | 1.7 A | 2.3 A | 2.5 A | ± 2% | 240mV |
| LPS48(-T) | 48 V | 0A | 0.9 A | 1.2 A | 1.3 A | ± 2% | 480 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.
4. (-T) indicates Terminal Block option for input and output (instead of Molex type)



Mechanical Drawing



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- Surge Protection

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Pin Assignments

| Connector | LPS41 | LPS42 | LPS43 | LPS44 | LPS45 | LPS48 |
|-----------|---------|---------|---------|---------|---------|---------|
| SK1-1 | Line | Line | Line | Line | Line | Line |
| SK1-3 | Neutral | Neutral | Neutral | Neutral | Neutral | Neutral |
| SK2-1 | +3.3V | +5V | +12V | +15V | +24V | +48V |
| SK2-2 | +3.3V | +5V | +12V | +15V | +24V | +48V |
| SK2-3 | +3.3V | +5V | +12V | +15V | +24V | +48V |
| SK2-4 | Common | Common | Common | Common | Common | Common |
| SK2-5 | Common | Common | Common | Common | Common | Common |
| SK2-6 | Common | Common | Common | Common | Common | Common |
| SK201-1 | +Sense | +Sense | +Sense | +Sense | +Sense | +Sense |
| SK201-2 | -Sense | -Sense | -Sense | -Sense | -Sense | -Sense |

Mating Connectors

AC Input: Molex 09-50-8031 (USA) Not required for (-T) option
09-91-0300 (UK)
PINS: 08-52-0113

DC Outputs: Molex 09-50-8061 (USA) Not required for (-T) option
09-91-0600 (UK)
PINS: 08-52-0113

Remote Sense: Molex 22-01-2025
PINS: 08-52-0123

Emerson Network Power Connector Kit #70-841-006, includes all of the above

- Specifications subject to change without notice.
- All dimensions in inches (mm), tolerance is $\pm 0.02"$ ($\pm 0.5\text{mm}$)
- Mounting holes M1 and M2 should be grounded for EMI purposes.
- Mounting hole M1 is safety ground connection.
- Specifications are for convection rating at factory settings at 115 VAC input, 25°C unless otherwise stated.
- Warranty: 2 year
- Weight: 0.5 lbs/0.23kg