

## 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



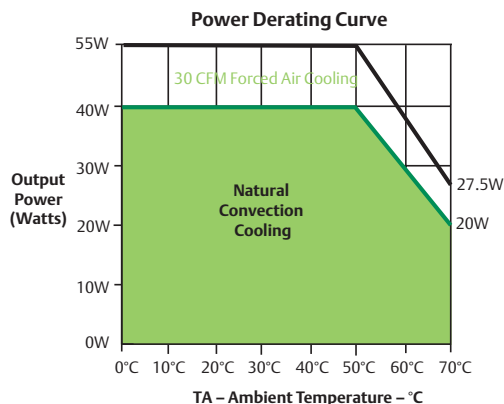
## Environmental Specifications

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

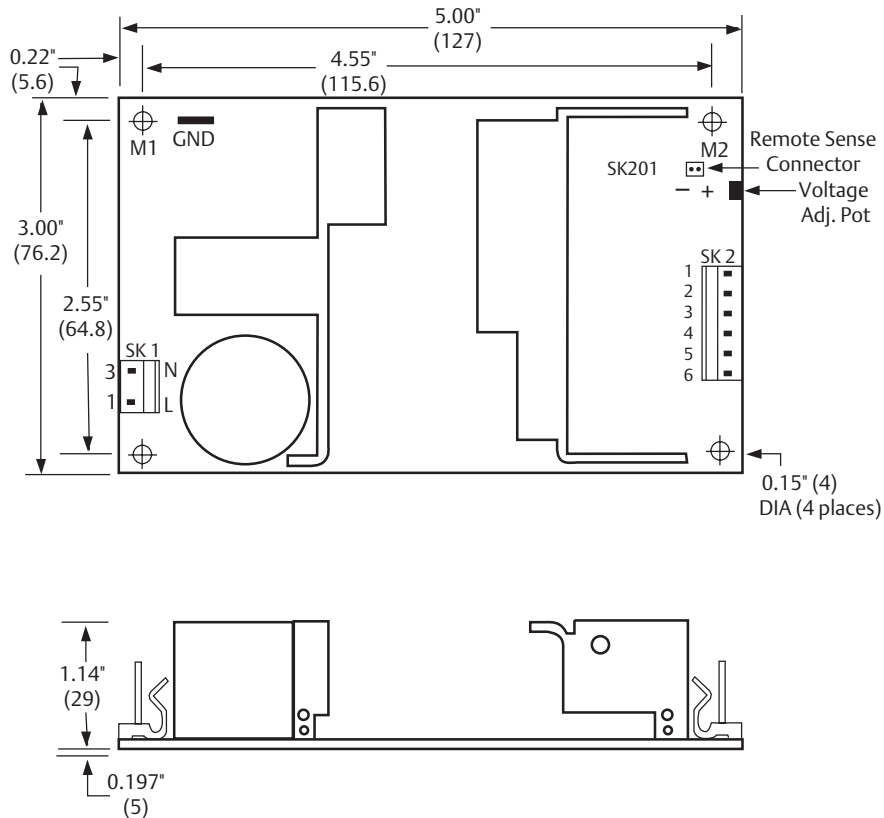
## Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PAR) <sup>3</sup>
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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## 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