Rev. 7.8.09 4 LPS40 Series 1 of 3

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 22.2-234 Level 3 CSA

LR53982C

• NEMKO EN 60950/EMKO-TUE P94100375 (74-sec)203

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

< 18 A peak @ 115 VAC; < 36 A peak @ 230 VAC, cold start @ 25 °C Inrush current:

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 < 0.5 mA @ 50/60 Hz, 264 VAC input

leakage current:

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





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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 Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3

susceptibility:

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

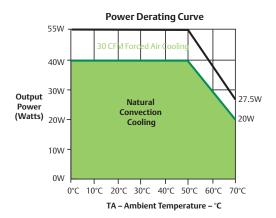
to 500Hz, operational

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 (PARD) 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					

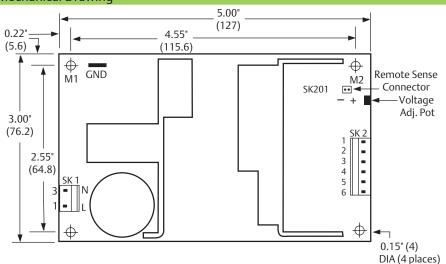
^{1.} Peak current lasting < 30 seconds with a maximum 10% duty cycle.

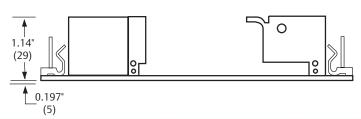
- 2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
- 3. Peak-to-peak with 20 MHz bandwidth and 10 μ F in parallel with a 0.1 μ F capacitor at rated line voltage and load ranges.
- 4. (-T) indicates Terminal Block option for input and output (instead of Molex type)



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Mechanical Drawing





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 Molex 22-01-2025

PINS: 08-52-0123 Emerson Network Power 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 ±0.02" (±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 year

Remote

Sense:

7. Weight: 0.5 lbs/0.23kg

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