

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



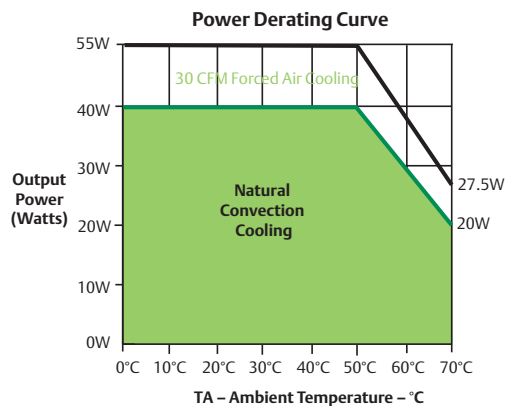
Environmental Specifications

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

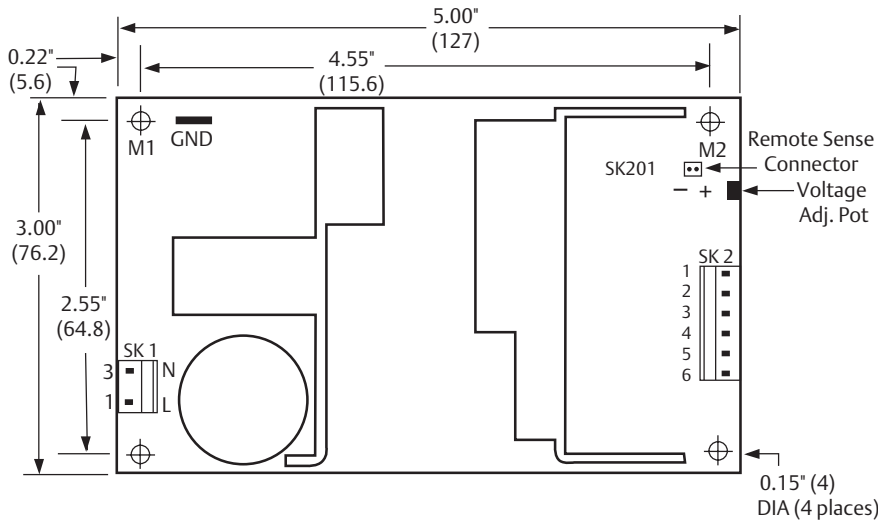
Ordering Information

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 (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 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



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

Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.PowerConversion.com
techsupport.embeddedpower@emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.

The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2009 Emerson Electric Co.