

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	<18A peak @ 115VAC; <36A peak @ 230VAC, cold start @ 25°C
Input current	1A max. (RMS) @ 115VAC
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	40W for convection; 55W with 30CFM forced air
Adjustment range	-5, +10% minimum
Hold-up time	20ms @ 40W load, 115VAC nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5V output; 5.7 to 6.7VDC. 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



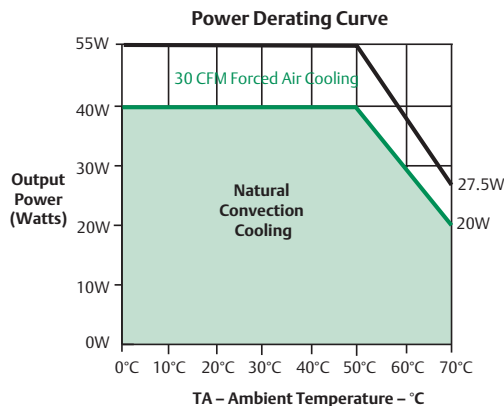
Environmental Specifications

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

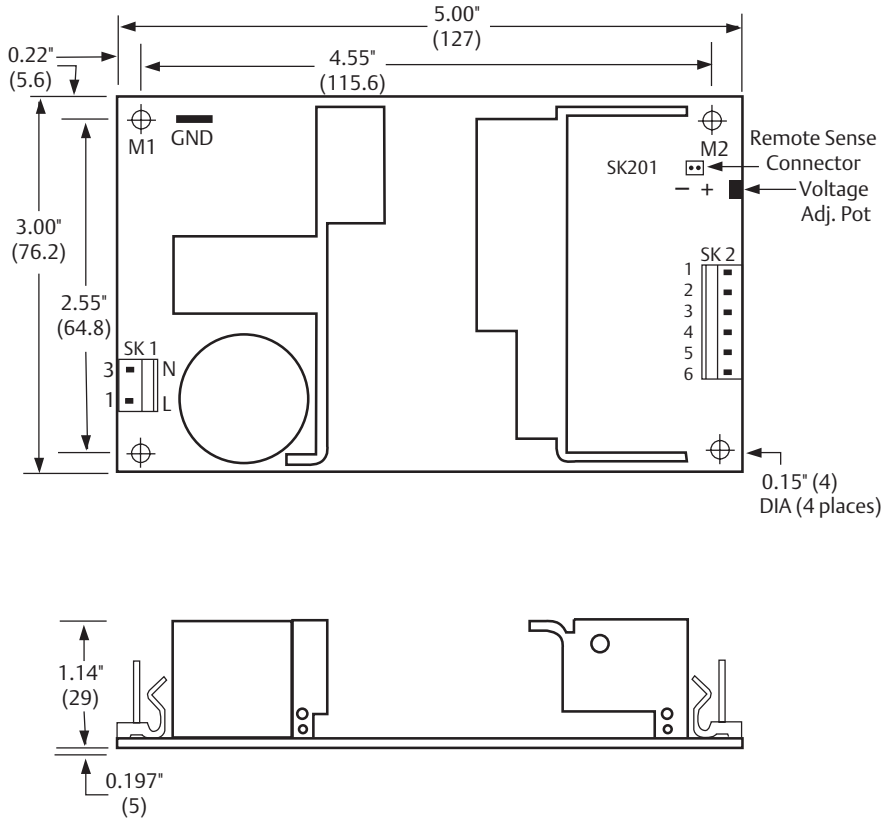
Ordering Information

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)	3.3V	0A	8A	11A	12A	±2%	50 mV
LPS42(-T)	5V	0A	8A	11A	12A	±2%	50 mV
LPS43(-T)	12V	0A	3.3A	4.5A	5A	±2%	120 mV
LPS44(-T)	15V	0A	2.6A	3.6A	4A	±2%	150mV
LPS45(-T)	24V	0A	1.7A	2.3A	2.5A	±2%	240mV
LPS48(-T)	48V	0A	0.9A	1.2A	1.3A	±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



Astec

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

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

13-15, Shing Wan Road
Tai Wai, Shatin, N. T.
Hong Kong
Telephone: +852 2699 2868
Facsimile: +852 2699 1770

For global contact, visit:

www.astecpower.com
technicalsupport@astec.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.

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

Astec Connector Kit #70-841-006, includes all of the above

- Specifications subject to change without notice.
- All dimensions in inches (mm), tolerance is ± 0.02 " (± 0.5 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: 0.5lbs/0.23kg

Emerson Network Power.
The global leader in enabling
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Power**
- Inbound Power
- Integrated Cabinet Solutions
- Outside Plant
- Precision Cooling
- Site Monitoring and Services

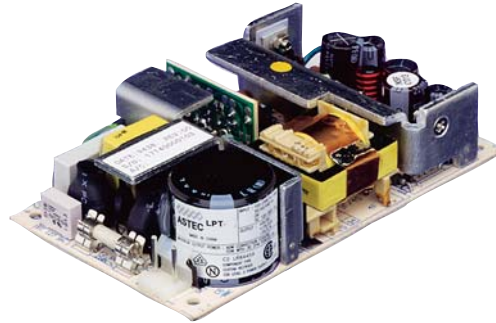
EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2007 Emerson Electric Co.

LPT40 Series

40 Watts

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



Special Features

- Universal input
- 3" x 5" footprint
- Less than 1U high
- Remote sense on main output
- Terminal Block option (-T)
- 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
CSA	CSA 22.2-234 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	<18A peak @ 115VAC; <36A peak @ 230VAC, cold start @ 25°C
Input current	1A max. (RMS) @ 115VAC
Efficiency	70% typical at full load (60% for LPT41)
EMI	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	40W for convection (LPT41, 25W); 55W with 30CFW 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.



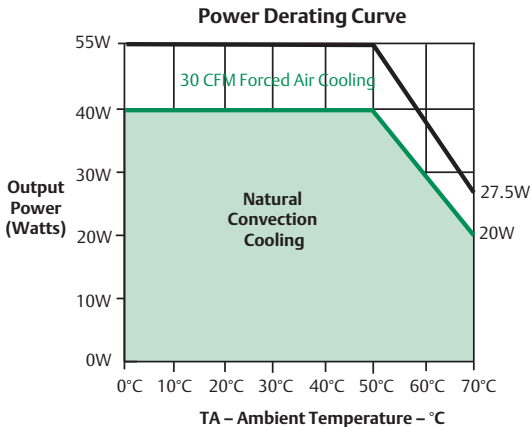
Environmental Specifications

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

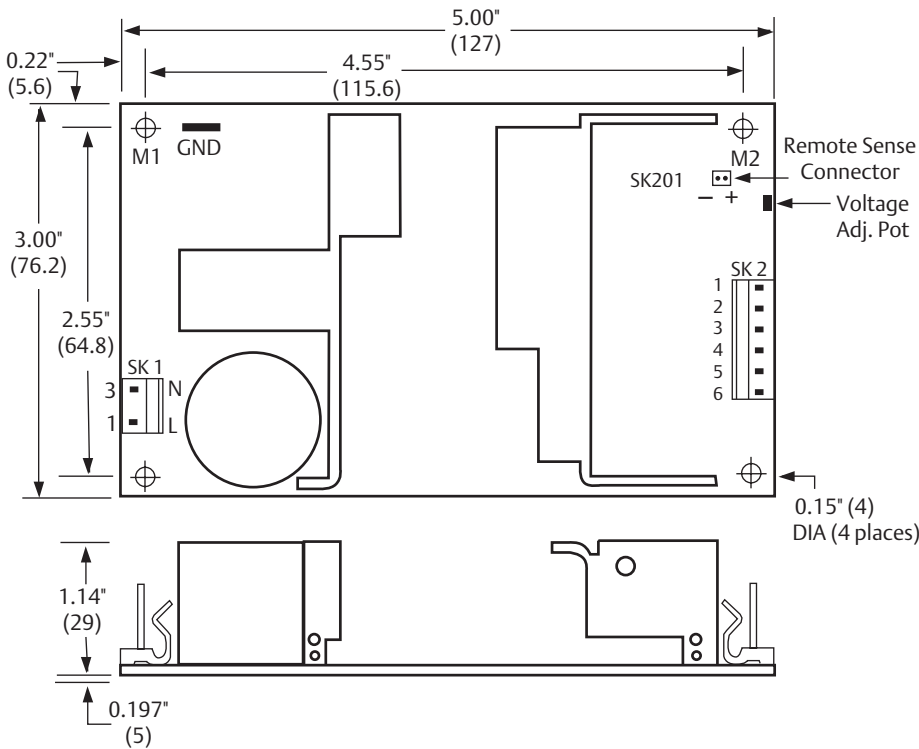
Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection cooling	Maximum Load with 30CFM Forced Air	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
LPT41(-T)	+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(-T)	+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(-T)	+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(-T)	+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(-T)	+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(-T)	+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(-T)	+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.
5. (-T) indicates Terminal Block option for input and output (instead of Molex type)



Mechanical Drawing



Astec

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

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

13-15, Shing Wan Road
Tai Wai, Shatin, N. T.
Hong Kong
Telephone: +852 2699 2868
Facsimile: +852 2699 1770

For global contact, visit:
www.astecpower.com
technicalsupport@astec.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.

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) **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

Astec Connector Kit #70-841-006, includes all of the above

- Specifications subject to change without notice.
- All dimensions in inches (mm), tolerance is ± 0.02 " (± 0.5 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: 0.5lbs/0.23kg

Emerson Network Power.
The global leader in enabling
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Power**
- Inbound Power
- Integrated Cabinet Solutions
- Outside Plant
- Precision Cooling
- Site Monitoring and Services

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2007 Emerson Electric Co.