

LPS60 Series

60 Watts

Total Power: 60 - 80 Watts
Input Voltage: 85 - 264 VAC
120 - 300VDC
of Outputs: Single



Special Features

- Universal input
- 3" x 5" footprint
- Remote sense
- Built in EMI filter
- Low output ripple
- Adjustable output voltage
- Overload protection
- 110 KHz switching frequency
- LPX60 enclosure kit available

Safety

VDE 0805/EN60950 (IEC950)
11774-3336-1255
(LC #86665)
UL UL1950
E132002
CSA CSA 22.2-234 Level 3
LR53982C
NEMKO EN 60950/EMKO-TUE
P95100123
(74-sec) 203
CB Certificate and report
1521, 1522, 1523, 1524
CE Mark (LVD)

Electrical Specifications

Input

Input range	85 - 264 VAC (wide range) 120 - 300VDC
Frequency	47-440 Hz
Inrush current	<18A peak @ 115VAC, <36 A peak @230 VAC, cold start @ 25°C
Input current	1.5A max. (RMS) @ 115 VAC
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B conducted; VDE0878PT3 Class B conducted
Safety ground leakage current	<0.5mA @ 50/60 Hz; 264VAC input

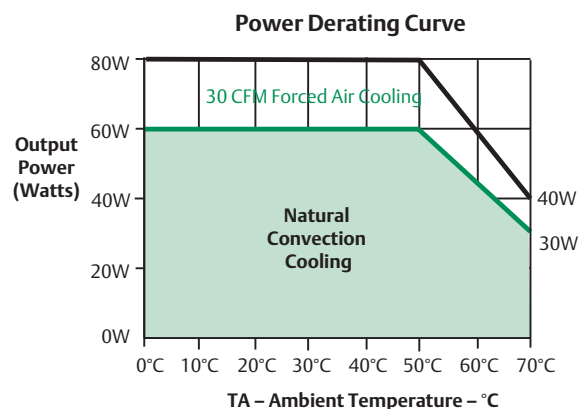
Output

Maximum power	60W for convection; 80W with 30CFM forced air
Adjustment range	-5, +10% minimum
Hold-up time	20ms @ 60W 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 - 6.7VDC. Other outputs 10% to 25% above nominal output
Remote sense	Compensates for 0.5V lead drop min. Will operate without remote sense connected. Reverse connection protected.

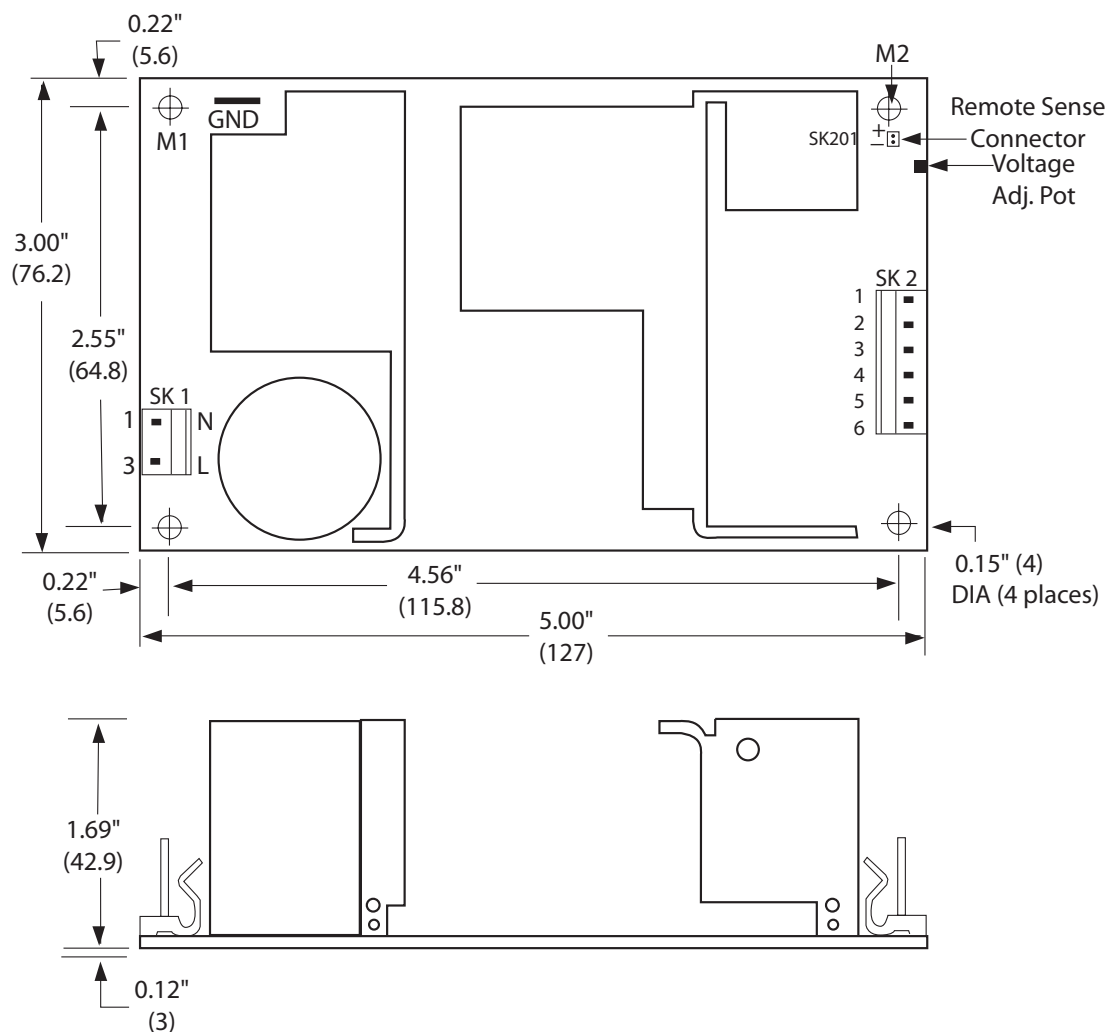


Environmental Specifications

Operating temperature:	0° to 50°C ambient derate each output as 2.5% per degree from 50° to 70°C, -20°C startup
Storage temperature:	-40°C to +85°C
Electromagnetic susceptibility:	designed to meet IEC801, -2, -3, -4, -5, -6, Level 3
Humidity:	Operating; non-condensing 5% to 95% RH
Vibration:	Three orthogonal axes, sweep at 1cot/min, 5 min. dwell at four major resonances 0.75G peak 5Hz to 500Hz, operational
Temperature coefficient	±0.04% per °C
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions



Mechanical Drawing



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
LPS61	3.3V	2A	12A	16A	18A	±2%	33mV
LPS62	5V	0A	12A	16A	18A	±2%	50mV
LPS63	12V	0A	5A	6.7A	7.5A	±2%	120mV
LPS64	15V	0A	4A	5.3A	6A	±2%	150mV
LPS65	24V	0A	2.5A	3.3A	3.8A	±2%	240mV
LPS68	48V	0A	1.3A	1.7A	1.9A	±2%	480mV

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 (tantalum capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.

Pin Assignments

Connector	LPS61	LPS62	LPS63	LPS65	LPS66
SK1-1	Neutral	Neutral	Neutral	Neutral	Neutral
SK1-3	Line	Line	Line	Line	Line
SK2-1	3.3V	+12V	+15V	+24	48V
SK2-2	3.3V	+12V	+15V	+24	48V
SK2-3	3.3V	+12V	+15V	+24	48V
SK2-4	Common	Common	Common	Common	Common
SK2-5	Common	Common	Common	Common	Common
SK2-6	Common	Common	Common	Common	Common
SK201-1	+Sense	+Sense	+Sense	+Sense	+Sense
SK201-2	-Sense	-Sense	-Sense	-Sense	-Sense

Mating Connectors

AC Input: Molex 09-50-8031 (USA) **Not required for (-T) option**
09-91-0300 (UK)
PINS: 08-58-0111

DC Outputs: Molex 09-50-8061 (USA) **Not required for (-T) option**
09-91-0600 (UK)
PINS: 08-58-0113

Remote Sense: Molex 22-01-2025
PINS: 08-52-0113

Astec 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
7. Weight: 0.75lbs/0.34kg

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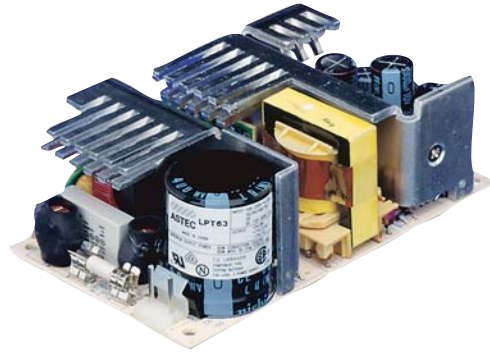
- AC Power
- Connectivity
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- Integrated Cabinet Solutions
- Outside Plant
- Precision Cooling
- Site Monitoring and Services

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LPT60 Series

60 Watts

Total Power: 60 - 80 Watts
Input Voltage: 85 - 264 VAC
120 - 300VDC
of Outputs: Triple



Special Features

- Universal input
- 3" x 5" footprint
- Remote sense on main output
- Built-in EMI filter
- Low output ripple
- Adjustable main output
- Overvoltage protection
- Overload protection
- 110 KHz switching frequency
- LPX60 enclosure kit available

Safety

VDE	0805/EN60950 (IEC950) 11774-3336-1255 (LC #86665)
UL	UL1950 E132002
CSA	CSA 22.2-234 Level 3 LR53982C
NEMKO	EN 60950/EMKO-TUE P95100123 (74-sec) 203
CB	Certificate and report 1518, 1519, 1520
CE	Mark (LVD)

Electrical Specifications

Input

Input range	85-264VAC 120-300VDC
Frequency	47-440Hz
Inrush current	<18A peak @ 115VAC; <36A peak @ 230VAC, cold start @ 25°C
Input current	1.5A max. (RMS) @ 115VAC
Efficiency	70% typical at full load (60% for LPT61)
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	60W for convection (LPT61, 35W); 80W with 30CFW forced air (LPT61, 55W)
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.



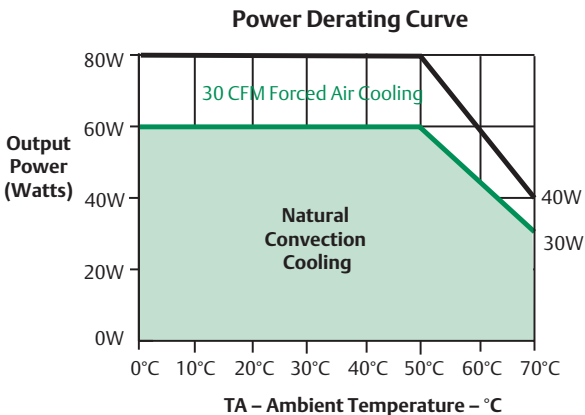
Environmental Specifications

Operating temperature:	0° to 50°C ambient derate each output at 2.5% per degree from 50° to 70°C, -20°C startup
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

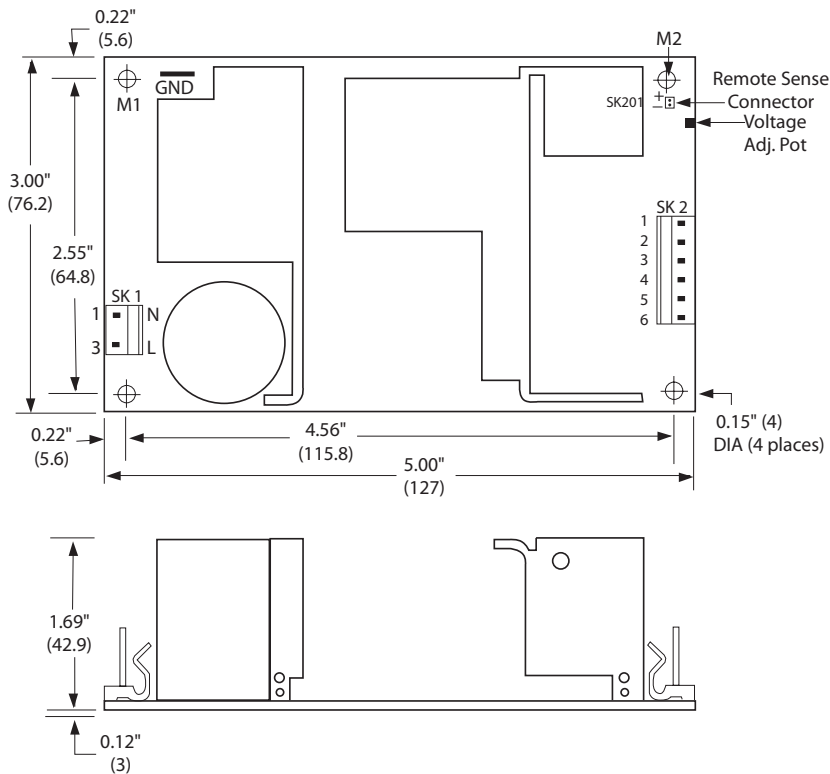
Ordering Information

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
LPT61	+3.3V	0.7A	5A	8.5A	9.5A	±2%	50mV
	+5V	0A	2.5A	3.0A	3.3A	±2%	50mV
	+12V	0A	0.5A	1.0A	1A	±5%	120mV
LPT62	+5V	0.7A	7A	8A	10A	±2%	50mV
	+12V	0.3A	3A	3.5A	6A	±5%	120mV
	-12V	0A	0.7A	1A	1.5A	±5%	120mV
LPT63	+5V	0.7A	7A	8A	10A	±2%	50mV
	+15V	0.3A	2.8A	3.3A	4A	±5%	150mV
	-15V	0A	0.7A	1A	1.5A	±5%	150mV
LPT64	+5V	0.7A	7A	8A	10A	±2%	50mV
	+12V	0.3A	3A	3.5A	6A	±5%	120mV
	-5V	0A	0.7A	1A	1.5A	±5%	50mV
LPT65	+5V	0.7A	7A	8A	10A	±2%	50mV
	+24V	0.1A	1.5A	2.0A	3A	±7%	240mV
	+12V	0A	0.7A	1A	1.5A	±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.



Mechanical Drawing



Pin Assignments

Connector	LPT61	LPT62	LPT63	LPT64	LPT65
SK1-1	Neutral	Neutral	Neutral	Neutral	Neutral
SK1-3	Line	Line	Line	Line	Line
SK2-1	5V	+12V	+15V	+12V	+24V
SK2-2	3.3V	+5V	+5V	+5V	+5V
SK2-3	3.3V	+5V	+5V	+5V	+5V
SK2-4	Common	Common	Common	Common	Common
SK2-5	Common	Common	Common	Common	Common
SK2-6	+12V	-12V	-15V	-5V	+12V
SK201-1	+Sense	+Sense	+Sense	+Sense	+Sense
SK201-2	-Sense	-Sense	-Sense	-Sense	-Sense

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Remote Sense: Molex 22-01-2025
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- 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: 0.75lbs/0.34kg

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