ROHS 2002/95/EC

### Rev. 08.20.12 LPS60 Series 1 of 3

# **LPS60 Series**

60 Watts

**Total Power:** 60 - 80 Watts Input Voltage: 85 - 264 Vac 120 - 300Vdc # of Outputs: Single



- 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

UL UL60950 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** 

Liectifical opecifications						
Input						
Input range:	85 - 264 Vac (wide range) 120 - 300 Vdc					
Frequency:	47-440 Hz					
Inrush current:	<18A peak @ 115 Vac, <36 A peak @230 Vac, cold start @ 25 °C					
Input current:	1.5 A max. (RMS) @ 115 Vac					
Efficiency:	70% typical at full load					
EMI filter:	FCC Class B conducted; CISPR22 Class B conducted; EN550 Class B conducted; VDE0878PT3 Class B conducted					
Safety ground leakage current:	<0.5 mA @ 50/60 Hz; 264 Vac input					
Output						
Maximum power:	60 W for convection; 80 W with 30 CFM forced air					
Adjustment range	-5, +10% minimum					
Hold-up time	20 ms @ 60 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 - 6.7 Vdc. Other outputs 10% to 25% above nominal output					
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.					

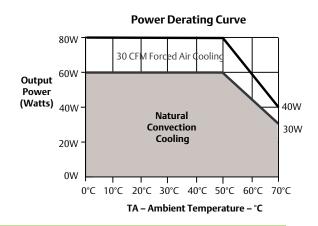




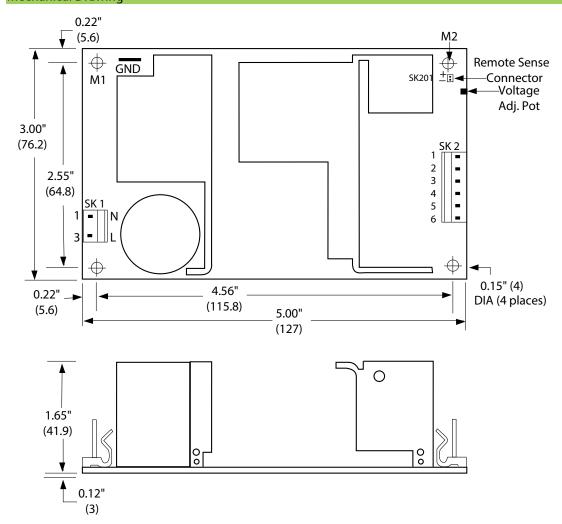
### Rev. 08.20.12 LPS60 Series 2 of 3

# **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 1 cot/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational			
	Temperature coefficient	±0.04% per °C			
	MTBF demonstrated	>550,000 hours at full load and 25 °C ambient conditions			



## **Mechanical Drawing**



	Rev. 08.20.12
Americas	LPS60 Series
Aillericas	3 of 3
5810 Van Allen Way	

Ordering Information								
Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM forced Air	Peak Load¹	Regulation <sup>2</sup>	Ripple P/P (PARD)³	
LPS61	3.3 V	2 A	12 A	16 A	18 A	±2%	33 mV	
LPS62	5 V	0 A	12 A	16 A	18 A	±2%	50 mV	
LPS63	12 V	0 A	5 A	6.7 A	7.5 A	±2%	120 mV	
LPS64	15 V	0 A	4 A	5.3 A	6 A	±2%	150 mV	
LPS65	24 V	0 A	2.5 A	3.3 A	3.8 A	±2%	240 mV	
LPS68	48 V	0 A	1.3 A	1.7 A	1.9 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  $\mu$ F (tantalum capacitor) in parallel with a 0.1  $\mu$ F capacitor at rated line voltage and load ranges.

Pin Assignments							
Connector	LPS61	LPS62	LPS63	LPS64	LPS65	LPS68	
SK1-1	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	
SK1-3	Line	Line	Line	Line	Line	Line	
SK2-1	3.3 V	5 V	+12 V	+15 V	+24 V	48 V	
SK2-2	3.3 V	5 V	+12 V	+15 V	+24 V	48 V	
SK2-3	3.3 V	5 V	+12 V	+15 V	+24 V	48 V	
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

Molex 09-50-8031 (USA) Not required for (-T) option AC Input:

09-91-0300 (UK) PINS: 08-58-0111

DC Outputs: Molex 09-50-8061 (USA) Not required for (-T) option

09-93-0600 (UK)

PINS: 08-52-0113

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.
- 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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