

# LPS 250

250 Watts

## LPS 250 Series

<b>Total Power</b>	<b>200 - 250 Watts</b>
<b>Input Voltages</b>	<b>85 - 264 VAC 120 - 370 VDC</b>
<b># of Outputs</b>	<b>Single</b>



### SPECIAL FEATURES

- Active power factor correction
- IEC EN61000-3-2 compliance
- Remote sense & remote inhibit
- Power fail
- Single wire current sharing
- Built-in EMI filter
- Low output ripple
- 2 Supervisory outputs 5 V and 12 V
- Overvoltage protection
- Overload protection
- Thermal overload protection
- DC power good
- Cover -C
- Optional top with fan cover -CF
- Optional end fan cover -CEF

### ENVIRONMENTAL

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

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 0.7 G 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

### ELECTRICAL SPECIFICATIONS

#### Input

Input range ..... 85-264 VAC; 120-370 VDC  
Frequency ..... 47-440 Hz  
Inrush current ..... 20 A max., cold start @ 25°C  
Efficiency ..... 75% typical at full load  
EMI filter ..... FCC Class B conducted and radiated  
CISPR 22 Class B conducted and radiated  
EN55022 Class B conducted and radiated  
VDE 0878 PT3 Class B conducted and radiated  
Power factor ..... 0.99 typical  
Safety ground  
leakage current ..... <0.5 mA @ 50/60 Hz, 264 VAC input

#### Output

Maximum power ..... With cover: 250 W with 30 CFM forced air.  
(-C) (-CF) (CEF)  
Minimum load ..... Minimum load required, see table  
Adjustment range ..... 2:1 wide ratio  
Supervisory output ..... 5 V @ 100 mA regulated; 12V @ 500 mA  
Hold-up time ..... 20 ms @ 250 W load, 115 VAC nominal line at factory voltage setting  
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 min. Will operate without remote sense connected. Reverse connection protected.

#### Logic Control

Power failure ..... TTL logic signal goes high 50-150 msec after 5 V output. It goes low at least 4 msec before loss of regulation  
Remote on/off ..... Requires an external contact (N.O or N.C) to inhibit outputs  
DC OK ..... TTL logic goes high 50-150 msec after the output. It goes low when there is loss of regulation.

### SAFETY

<b>VDE</b>	0805/EN60950 (IEC950)	11774-3336-1262
<b>UL</b>	UL1950	E132002
<b>CSA</b>	CSA 22.2-234 Level 5	LR53982C
<b>NEMKO</b>	EN 60950/EMKO-TUE (74-sec) 203	P95103843
<b>BABT</b>	EN60950/BS7002	PS/606027
<b>CB</b>	Certificate and report	2241

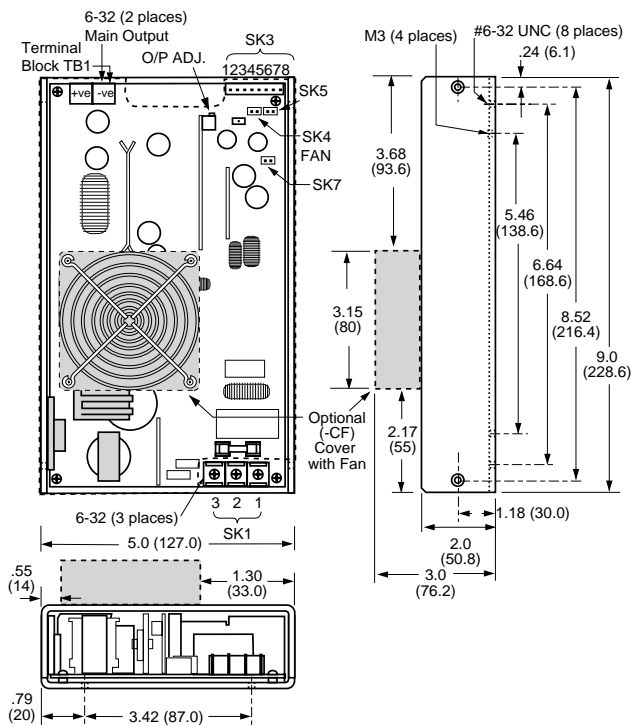
## ORDERING INFORMATION

Model Number	Output Voltage	Minimum Load	Maximum Load with 30 CFM Forced Air	Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>
LPS252-C	5 V (3-6 V)	1.50 A	50 A	60 A	±2%	50 mV
LPS253-C	12 V (6-12 V)	0.63 A	21 A	25 A	±2%	120 mV
LPS254-C	15 V (12-24 V)	0.50 A	16.7 A	20 A	±2%	150 mV
LPS255-C	24 V (24-48 V)	0.32 A	10.4 A	12.5 A	±2%	240 mV

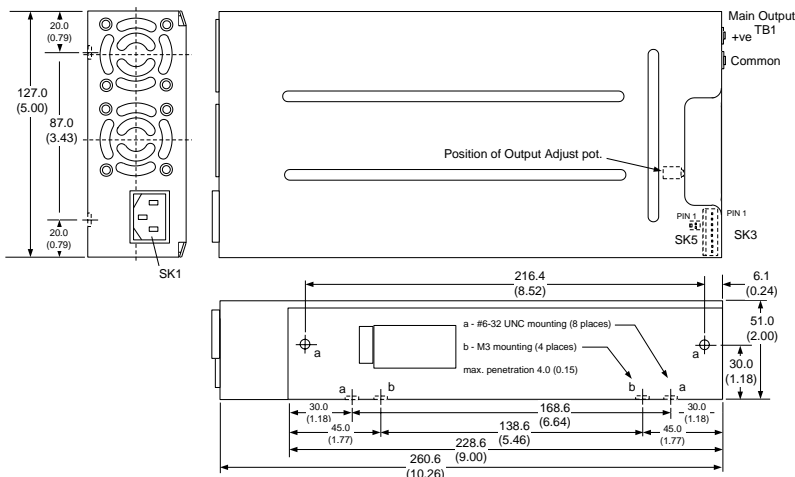
1. Peak current lasting <30 seconds with a maximum 10% duty cycle.
2. At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
4. If optional CF or CEF fans are not used, 30CFM forced air cooling needs to be provided and is required through the length of the power supply. Not convection rated.
5. Output voltage adjustment requires a minimum load.

Note: -CF suffix added to the model number indicates cover with top fan. -CEF suffix added to the model number indicates cover with dual end mounted fan cover and AC inlet.

## DRAWINGS



Optional (-CEF) cover with end fans



## PIN ASSIGNMENTS

### Connector

SK1	PIN 1	Neutral
	PIN 2	Line
	PIN 3	Ground

TB1	±
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SK3	PIN 1	+ Remote sense
	PIN 2	- Remote sense
	PIN 3	Remote inhibit (N.O)
	PIN 4	Remote inhibit (N.C)
	PIN 5	Common
	PIN 6	Current share
	PIN 7	Power Fail
	PIN 8	DC Power Good

SK3, SK4	PIN 1	+ Fan's power source (12 V @ 500 mA)
	PIN 2	- Fan's power source (12 V @ 500 mA)
SK5	PIN 1	+ Supervisory output supply (5 V @ 100 mA)
	PIN 2	- Supervisory output supply (5 V @ 100 mA)

## MATING CONNECTORS

**SK3** Molex 22-01-2085  
PINS: 08-50-0114

**SK4** Molex 22-01-3027  
PINS: 08-50-0114

**SK5** Molex 22-01-3027  
PINS: 08-50-0114

**SK7** Molex 22-01-3027  
PINS: 08-50-0114

Astec Connector Kit #70-841-005

## NOTES

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±.02".
3. Specifications are at factory settings.
4. To enable normally closed remote inhibit, cut jumper J1.
5. Mounting maximum insertion depth is 0.12" (3mm).
6. Warranty: 1 year
7. Weight: 2.6 lb / 1.19 kg
8. Current share - connect to same pin on the second power supply to enable equal current share between units

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