

# 250 Watts LPS250 Series

**Total Power:** 250 Watts  
**Input Voltage:** 85-264 VAC  
 120-300 VDC  
**# of Outputs:** Single



## Electrical Specs

### Input

Input range	85-264 VAC; 120-300 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)
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 models 10% to 25% above nominal output

### 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 Requires an external contact (N.O or N.C) to inhibit outputs
Remote on/off	TTL logic goes high 50-150 msec after the output. It goes low when there is loss of regulation.
DC-OK	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.
Remote sense	

## Special Features

- Active power factor correction
- IEC EN6100-3-2 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
- 120 kHz switching frequency
- 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

## 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	P95103550
<b>CB</b>	Certificate and report	2186
<b>CE</b>	Mark (LVD)	

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## Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with 30 CFM Forced Air	Peak Load1	Regulation2	Ripple P/P (PAR)3
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

**Notes:**

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.
6. Remote inhibit resets OVP latch

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.

## Pin Assignments

**Connector**

**SK1** PIN 1 Neutral  
PIN 2 Line  
PIN 3 Ground

**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 sharing  
PIN 7 Power Fail  
PIN 8 DC Power Good

**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)

**SK7** PIN 1 + Fan's power source (12 V @ 500 mA)  
PIN 2 - Fan's power source (12 V @ 500 mA)

**Mating Connectors**

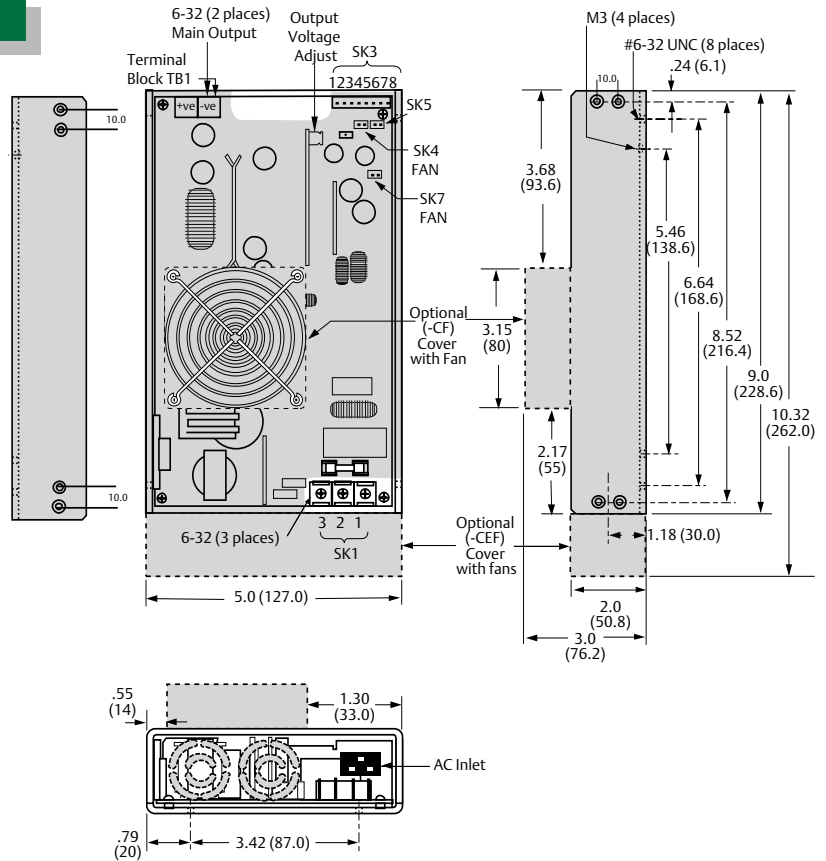
**SK3** Molex 22-01-1084  
PINS:08-70-0057

**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, includes all the above.



**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".
6. Warranty: 1 year
7. Weight: 2.6 lb / 1.19 kg