

# 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 CISPR22 Class B conducted and radiated EN55022 Class B conducted and radiated VDE0878 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
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.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

## 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: ±0.04% per °C

MTBF demonstrated: >550,000 hours at full load and 25°C ambient conditions

AMERICAS

5810 Van Allen Way  
 Carlsbad, CA 92008  
 Telephone: 760-930-4600  
 Facsimile: 760-930-0698

EUROPE

Astec House, Waterfront Business Park  
 Merry Hill, Dudley  
 West Midlands, DY5 1LX, UK  
 Telephone: 44 (1384) 842-211  
 Facsimile: 44 (1384) 843-355

ASIA

Units 2111-2116, Level 21  
 Tower 1, Metroplaza  
 223, Hing Fong Road  
 Kwai Fong, New Territories  
 Hong Kong  
 Telephone: 852-2437-9662  
 Facsimile: 852-2402-4426



## 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

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

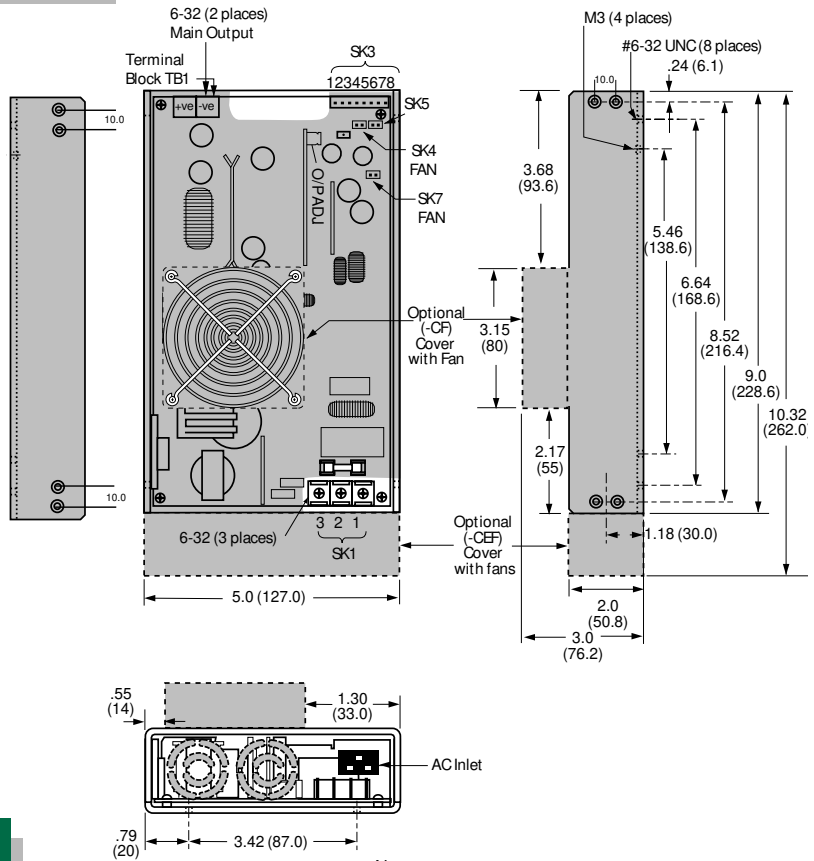
### Connector

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

## Safety

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