# 250 Watts
# LPS250 Series

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

## 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 conditionsation

## 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*

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|---|---|
| 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. |

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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 (PARD)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 ;atch

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

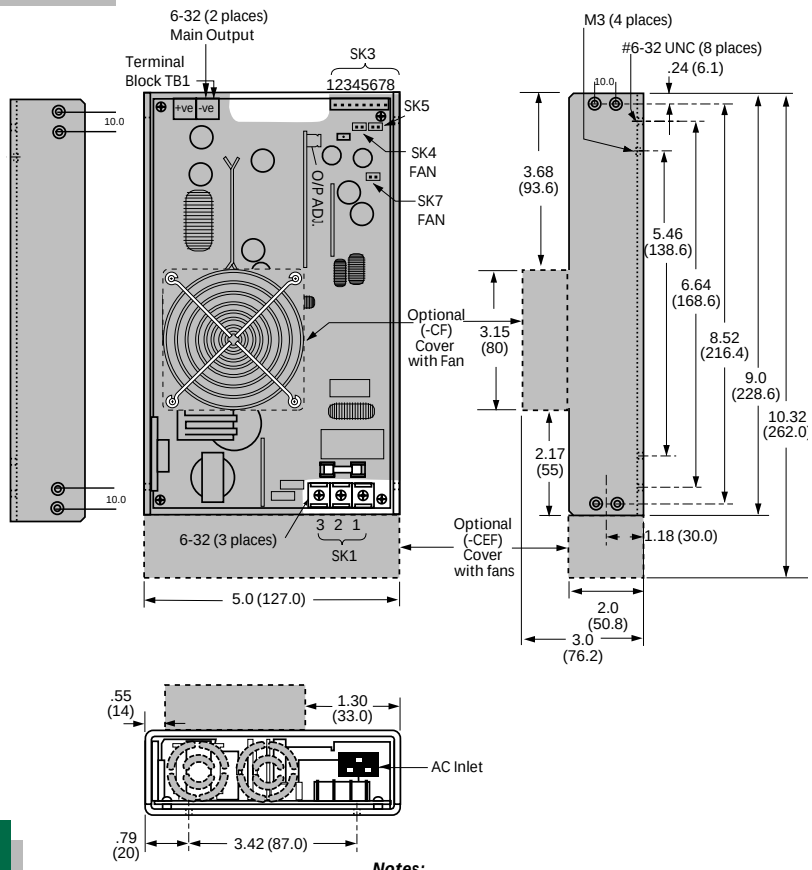
***Connector***

| | | |
|---|---|---|
| **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<br>PINS:08-70-0057 |
| **SK4** | Molex 22-01-3027<br>PINS: 08-50-0114 |
| **SK5** | Molex 22-01-3027<br>PINS: 08-50-0114 |
| **SK7** | Molex 22-01-3027<br>PINS: 08-50-0114 |

Astec Connector Kit #70-841-005, includes all the above.




# Safety

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

***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