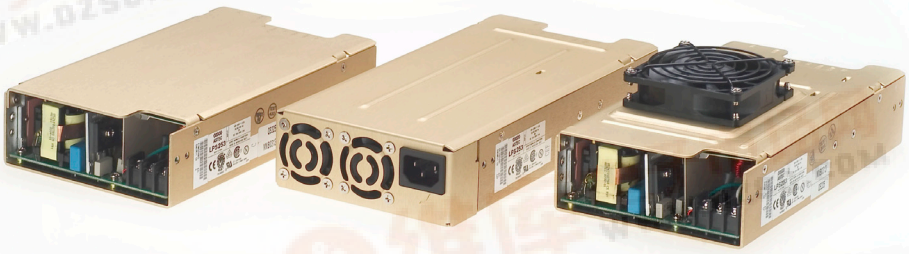
Embedded Power for
Business-Critical Continuity

LPS250 Series

250 Watts

Total Power: 250 Watts
Input Voltage: 85-264 Vac
120 - 300 Vdc
# of Outputs: Single



RoHS 2002/95/EC

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
- 2:1 Wide range output voltage adjust
- 2 Supervisory outputs 5 V and 12 V
- Overvoltage protection
- Overload protection
- Thermal overload protection
- DC power good
- 120 kHz switching frequency
- Cover -C
- Optional top with fan cover -CF
- Optional end fan cover -CEF

Safety

- **VDE** 0805/EN60950 (IEC950) 11774-3336-1262
- **UL** UL1950 EI32002
- **CSA** CSA 22.2-234 Level 5 LR53982C
- **NEMKO** EN 60950/EMKO-TUE P95102999 (74-sec) 203
- **CB** Certificate and report 2186
- **CE** Mark (LVD)

Electrical Specifications

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
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)
Supervisory output:	5 V @ 100 mA regulated; 12 V @ 500 mA
Adjustment range:	2:1 wide ratio
Hold-up time:	20 ms @ 250 W load, 115 VAC nominal line
Overload protection:	Short circuit protection on all outputs. Case overload protected @ 10-145% above peak rating
Overvoltage protection:	5 V output: 5.7 to 6.7 VDC. Other models 10% to 25% above nominal output

ASTEC

EMERSON Network Power

Logic Control	
Power failure:	TTL Logic signal goes high 50-150 msec after 5 V output. It goes low at least 4 ms 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 minimum, will operate without remote sense connected. Reverse connection protected

Environmental Specifications

Operating temperature:	0° to 50 °C ambient; derate each output at 2.5% per degree from 50° to 70 °C
Storage temperature:	-40 °C to +85 °C
Temperature coefficient:	± 0.4% per °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
MTBF demonstrated:	> 550,000 hours at full load and 25 °C ambient conditions

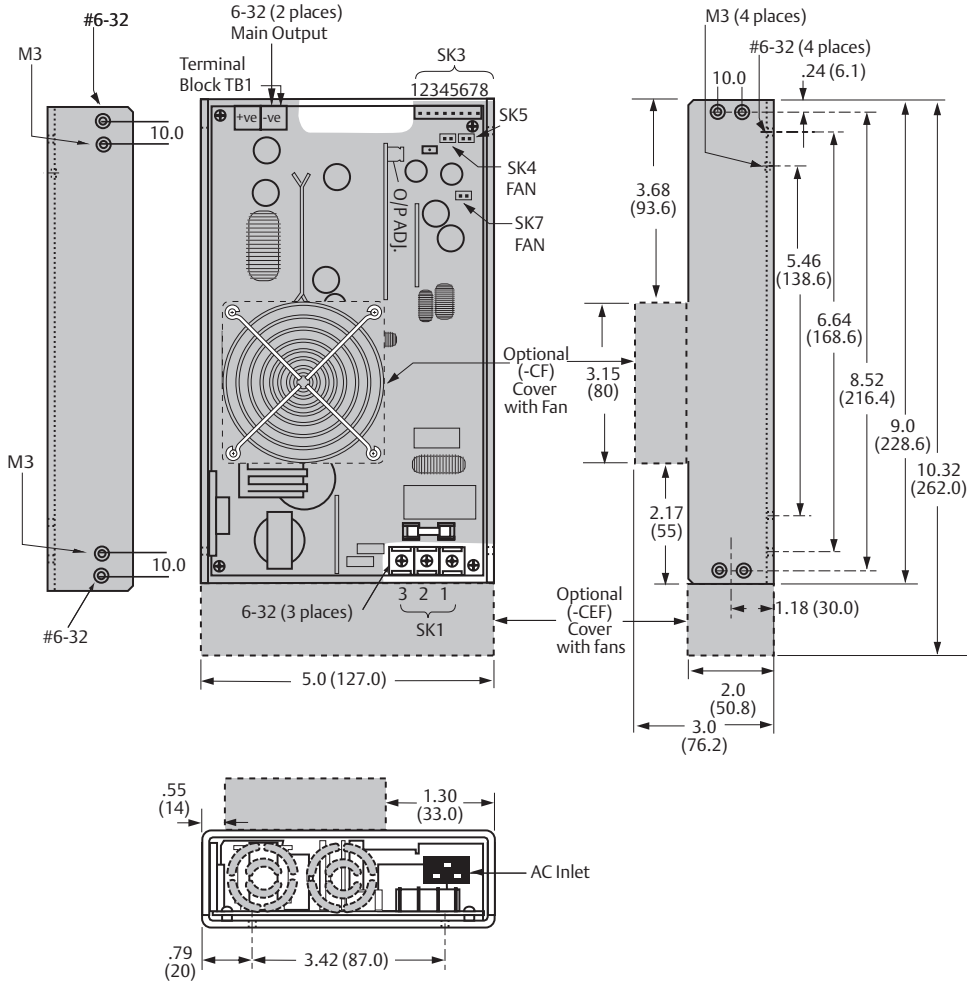
Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with 30CFM Forced Air	Peak Load [1]	Regulation [2]	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 (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.

Mechanical Drawing



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

Emerson Network Power Connector Kit #70-841-005, 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. 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: 2 year
7. Weight: 2.6 lb / 1.19 kg

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