

250 Watts LPQ250 Series

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



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	±5% min. on main: 5-25 V on 4th output
Supervisory outputs	5 V @ 100 mA regulated, 12 V @ 500 mA
Hold-up time	16 ms @ 250 W load, 115 VAC nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output: 5.7-6.7 VDC.

Logic Control

Power failure	TTL logic signal goes high 50-150 msec after 5V 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 5 V 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 EN61000-3-2 compliance
- Remote sense on main output
- Power fail and remote inhibit
- Single wire current sharing
- Built-in EMI filter
- Adjustable floating 4th output
- 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 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

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	P95103550
CB	Certificate and report	2186
CE	Mark (LVD)	

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rev 12.14.03



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Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with 30 CFM Forced Air	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
LPQ252-C	+5 V	3 A	35 A	40 A	±2%	50 mV
	+12 V	0 A	10 A	12 A	±3%	120 mV
	-12 V	0 A	6 A	8 A	±3%	120 mV
	±5-25 V	0 A	6 A	8 A	±3%	240 mV, max.
LPQ253-C	+5 V	3 A	35 A	40 A	±2%	50 mV
	+15 V	0 A	10 A	12 A	±3%	150 mV
	-15 V	0 A	6 A	8 A	±3%	150 mV
	±5-25 V	0 A	6 A	8 A	±3%	240 mV, max.

- Peak current lasting <30 seconds with a maximum 10% duty cycle.
- At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
- 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.
- 4th output 5-25 V factory set at 5 V.
- Minimum Load is are required.
- 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. Note convection rated.

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

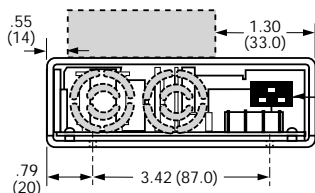
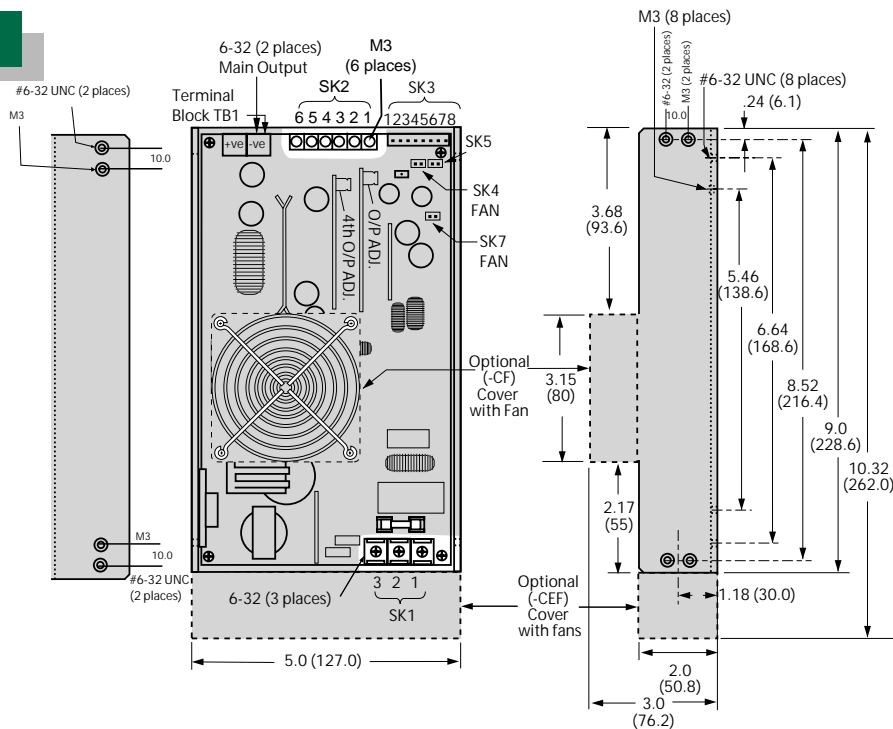
Connector

- SK1**
 - PIN 1 Neutral
 - PIN 2 Line
 - PIN 3 Ground
- SK2**
 - PIN 1 +12 / 15 V
 - PIN 2 Common
 - PIN 3 Common
 - PIN 4 -12 / 15 V
 - PIN 5 5-25 V RET Float
 - PIN 6 5-25 V Float
- 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 of the above.



AC Inlet

Notes:

- Specifications subject to change without notice.
- All dimensions in inches (mm), tolerance ±.02".
- Specifications are at factory settings.
- To enable normally closed remote inhibit, cut jumper J1
- Mounting maximum insertion depth is 0.12".
- Warranty: 1 year
- Weight: 3.1 lb. / 1.41 kg