250 Watts
LPQ250 Series

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

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

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.

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
BABT	EN60950/BS7002	605936
CB	Certificate and report	2186
CE	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 (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.

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. 4th output 5-25 V factory set at 5 V.
5. Minimum Load is are required.
6. 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.

Note: -CF suffix added to the model number indicates cover with top fan. -CEF suffix added to the model number indicates cover with dial end mounted fan cover and AC inlet.

Pin Assignments

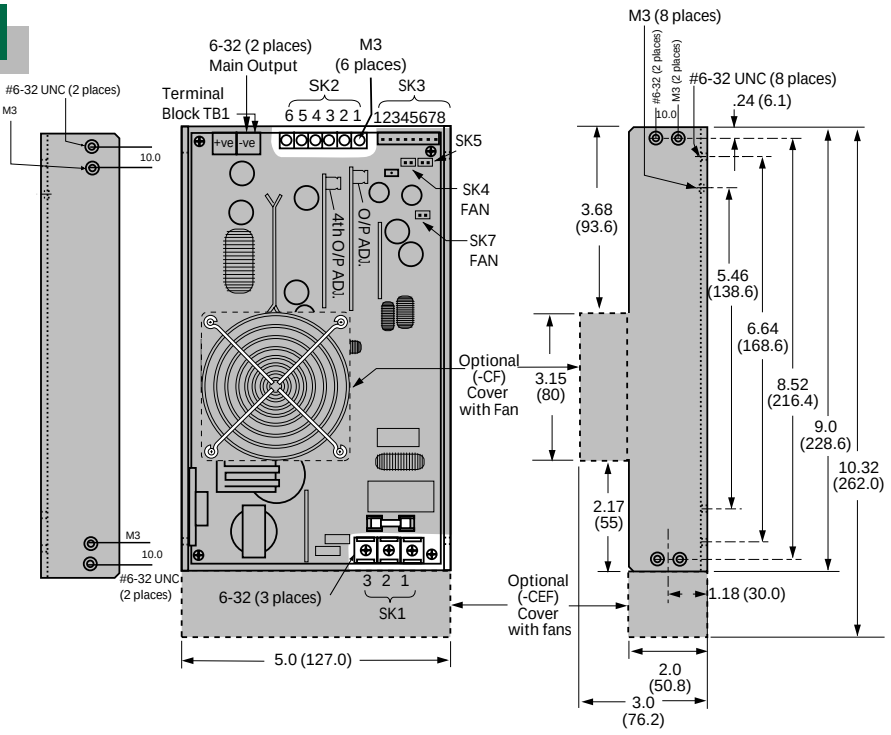
Connector

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.



Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance ±.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: 3.1 lb. / 1.41 kg