Rev. 08.13.07 LPQ110 Series 1 of 3

LPQ110 Series110 Watts

Total Power: 80 - 110 Watts Input Voltage: 85-264 VAC 120-300 VDC

of Outputs: Quad





Special Features

- Universal input
- High efficiency
- Remote sense on main output
- Built-in EMI filter
- Low output ripple
- Adjustable 5 V output
- Overvoltage protection
- Overload protection
- Adjustable floating 4th output (On LPQ112 and LPQ113)
- Power fail
- Optional L bracket (-B suffix)
- Cover kit available LPX110-C

Safety

VDE 0805/EN60950 (IEC950)

11774-3336-1245 (LC #84997)

UL UL1950 É132002 **CSA** CSA 22.2-234 Level 3

LR53982C

NEMKOEN 60950/EMKO-TUE

P94102464 (74-sec) 203

BABT EN60950/BS7002

PS/605823

CB Certificate and report

1423, 1424, 1425

CE Mark (LVD)

Electrical Specifications

Input

Input range 85 - 264 Vac; 120 - 300 Vdc

Frequency 47 - 440 Hz

Inrush current < 18 A peak @ 115 Vac; < 36 A peak @ 230 Vac, cold start @ 25 °C

Efficiency 70% typical at full load

EMI filter Meets FCC Class B conducted

CISPR 22 Class B conducted EN55022 Class B conducted VDE 0878 PT3 Class B conducted

Safety ground 0.5 mA @ 50/60 Hz, 264 Vac input

leakage current

Output

Maximum power 80 W convection 110 W with 30 CFM forced air

Adjustment range ± 5% min. on main; 5 - 25 V on 4th output on LPQ112 and LPQ113

Cross regulation $\pm 2\%$ on output 1; $\pm 3\%$ on outputs 2, 3 & 4 Hold-up time $\pm 2\%$ on output 1; $\pm 3\%$ on outputs 2, 3 & 4

Overload protection Short circuit protection on all outputs. Case overload protected @ 110-145%

above peak rating

Overvoltage protection 5.7 - 6.7 VDC on main output. Latching type, recycle AC to reset





Rev. 08.13.07 LPQ110 Series 2 of 3

Logic ControlPower failureTTL logic signal goes high 50 - 150 msec after 5 V output. It goes low at least 4 msec before loss of regulationRemote senseCompensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature: 0° to 50 °C ambient. Derate each output 2.5% per degree from

50° to 70 °C (except for -C version).

Storage temperature: $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ Temperature coefficient: $\pm 0.4\%$ per $^{\circ}\text{C}$

Electromagnetic Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3

susceptibility:

Humidity: Operating; non-condensing 5% to 95%

Vibration: Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at

four major resonances 0.75G peak 5Hz to 500Hz, 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 Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
LPQ112	5 V	2 A	9 A	11 A	15 A	± 2%	50 mV
	12 V	0 A	4.5 A	5 A	9 A	± 3%	120 mV
	-12 V	0 A	0.7 A	1.0 A	1.5 A	± 5%	120 mV
	± 5 - 25 V	0 A	2.5 A	3 A	3.5 A	± 3%	240mV, max
LPQ113	5 V	2 A	9 A	11 A	15 A	± 2%	50 mV
	15 V	0 A	4.5 A	5 A	9 A	± 3%	150 mV
	-15 V	0 A	0.7 A	1.0 A	1.5 A	± 5%	150 mV
	± 5 - 25 V	0 A	2.5 A	3 A	3.5 A	± 3%	240mV, max
LPQ114	5 V	2 A	9 A	11 A	15 A	± 2%	50 mV
	12 V	0 A	4.5 A	5 A	9 A	± 3%	120 mV
	-12 V	0 A	0.7 A	1.0 A	1.5 A	± 5%	120 mV
	-12 V	0.5 A	3.5 A	4.5 A	5 A	+10 / -5%	240mV
						•	

- 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 adjustable 5 to 25 V, factory set at 5 V.
- 5. Minimum loads are required.

Note: -B suffix added to the model number indicates L bracket option.

Pin Assignments							
Connector	LPQ112	LPQ113	LPQ114				
SK1-1	GND	GND	GND				
SK1-3	Neutral	Neutral	Neutral				
SK1-5	Line	Line	Line				
SK2-1	+5 V	+5 V	+5 V				
SK2-2	+5 V	+5 V	+5 V				
SK2-3	+5 V	+5 V	+5 V				
SK2-4	Common	Common	Common				
SK2-5	Common	Common	Common				
SK2-6	Common	Common	Common				
SK2-7	Common	Common	Common				
SK2-8	+12 V	+15 V	+12 V				
SK2-9	+12 V	+15 V	+12 V				
SK2-10	-12 V	-15 V	-12 V				
SK2-11	+5-25 V	+5-25 V	+24 V				
SK2-12	-5-25 V	-5-25 V	Common				
SK201-1	+sense	+sense	+sense				
SK201-2	-sense	-sense	-sense				
SK202-1	POK	POK	POK				
SK202-2	GND	GND	GND				

Mating Connectors

AC Input: Molex 09-50-8051 (USA) 09-91-0500 (UK)

PINS: 08-58-0111

DC Outputs: Molex 09-50-8121 (USA) 09-91-1200 (UK) PINS: 08-58-0111

Remote Molex 22-01-1022 (USA) Sense 22-01-1023 (UK)

Sense 22-01-1023 (UK) Power Fail: PINS: 08-50-0114 Astec Connector Kit #70-841-006, includes all of

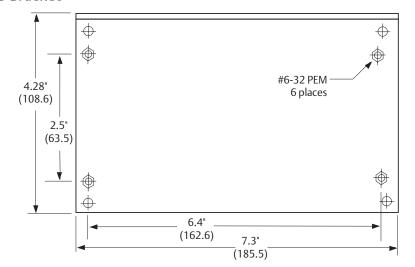
the above

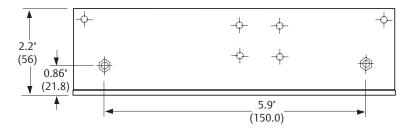
- 1. Specifications subject to change without notice.
- 2. All dimensions in inches (mm), tolerance is ± 0.02" (± 0.5mm)
- 3. Specifications are for convection rating at factory settings unless otherwise stated.
- 4. Mounting holes M1 and M2 should be grounded for EMI purposes.
- 5. Mounting hole M1 is safety ground connection.
- 6. L bracket mounting (6-32) maximum insertion depth is .20" (5).
- 7. Warranty: 2 year
- 8. Weight: 1.25 lb./0.57 kg

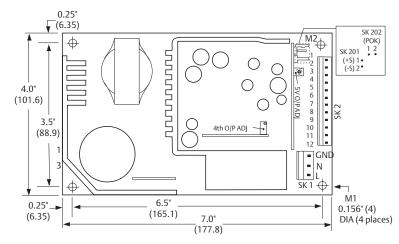
Rev. 08.13.07 LPQ110 Series 3 of 3

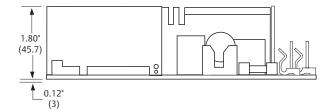
Mechanical Drawing

-B Bracket









Americas

5810 Van Allen Way Carlsbad, CA 92008 USA

Telephone: +1 760 930 4600 Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park Merry Hill, Dudley West Midlands, DY5 1LX United Kingdom

Telephone: +44 (0) 1384 842 211 Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza 2 Wing Yip Street Kwun Tong, Kowloon Hong Kong

Telephone: +852 2176 3333 Facsimile: +852 2176 3888

For global contact, visit:

www.Emerson.com/EmbeddedPower techsupport.embeddedpower @emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.

The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2010 Emerson Electric Co.