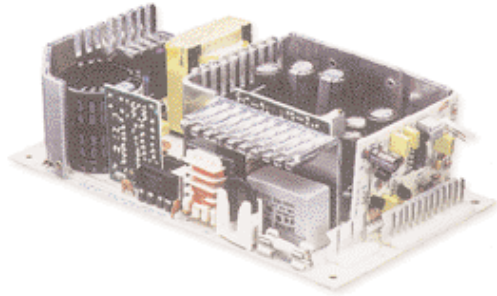


110 Watts LPQ110 Series

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

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
 0.75 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	<18 A peak @ 115 VAC; <36 A peak @ 230 VAC, cold start @ 25°C
Input current	2.5 A max. (RMS) @ 115 VAC
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted CISPR 22 Class B conducted EN55022 Class B conducted VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 VAC input

Output

Maximum power	80 W for 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	±2% on output 1; ±3% on outputs 2, 3 & 4
Hold-up time	20 ms @ 80 W load, 115 VAC nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5.7-6.7 VDC on main output. Latching type, recycle AC to reset.

Logic Control

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 sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Electrical Specs

VDE	0805/EN60950 (IEC950)	11774-3336-1245 (LC #84997)
UL	UL1950	E132002
CSA	CSA 22.2-234 Level 3	LR53982C
NEMKO	EN 60950/EMKO-TUE (74-sec) 203	P94102464
CB	Certificate and report	1423, 1424, 1425
CE	Mark (LVD)	

rev 12.10.03

Technical Support: (888) 41-ASTEC or (407) 241-2752

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Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30 CFM 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%	240 mV, 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%	240 mV, max.
LPQ114	5 V	2A	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
	24 V	0.5 A	3.5 A	4.5 A	5 A	+10 / -5%	240 mV

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

Note: -B suffix added to 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 sense/Power fail:

Molex 22-01-1022 (USA)

22-01-1023 (UK)

PINS: 08-50-0114

Astec Connector Kit #70-841-008, includes all of the above.

Notes:

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

-B Bracket

