

LPQ 150

150 Watts

LPQ 150 Series

Total Power	110 - 150 Watts
Input Voltages	85 - 132 / 170 -264 VAC 220 - 370 VDC
# of Outputs	Quad



SPECIAL FEATURES

- Auto ranging input
- Remote sense on main output
- Remote inhibit
- Single wire current sharing
- Power fail
- Built-in EMI filter
- Low output ripple
- Overvoltage protection
- Overload protection
- Adjustable isolated 4th output (On LPQ152 and LPQ153 models)
- Cover (-C suffix).

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 SPECIFICATIONS

Input

Input range 85-132 VAC or 170-264 VAC automatically selected. 220-370 VDC
Frequency 47-63 Hz
Inrush current 38 A max, cold start @ 25°C
Efficiency 75% 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 leakage current 0.5 mA @ 50/60 Hz, 264 VAC input

Output

Maximum power 110 W convection (75 W with cover)
150 W with 30 CFM forced air (130 W with cover)
Adjustment range ±5% on main; 5-25 V on 4th output on LPQ 152 & LPQ 153
Cross regulation ±2% on output 1; ±3% on outputs 2, 3 & 4
Hold-up time 20 ms @ 110 W load at 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

Logic Control

Power failure TTL logic signal goes high 50-150 msec after 5 V output. It goes low at least 3 msec before loss of regulation
Remote inhibit Requires an external TTL high signal to inhibit outputs
Remote sense 5V output: compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

SAFETY

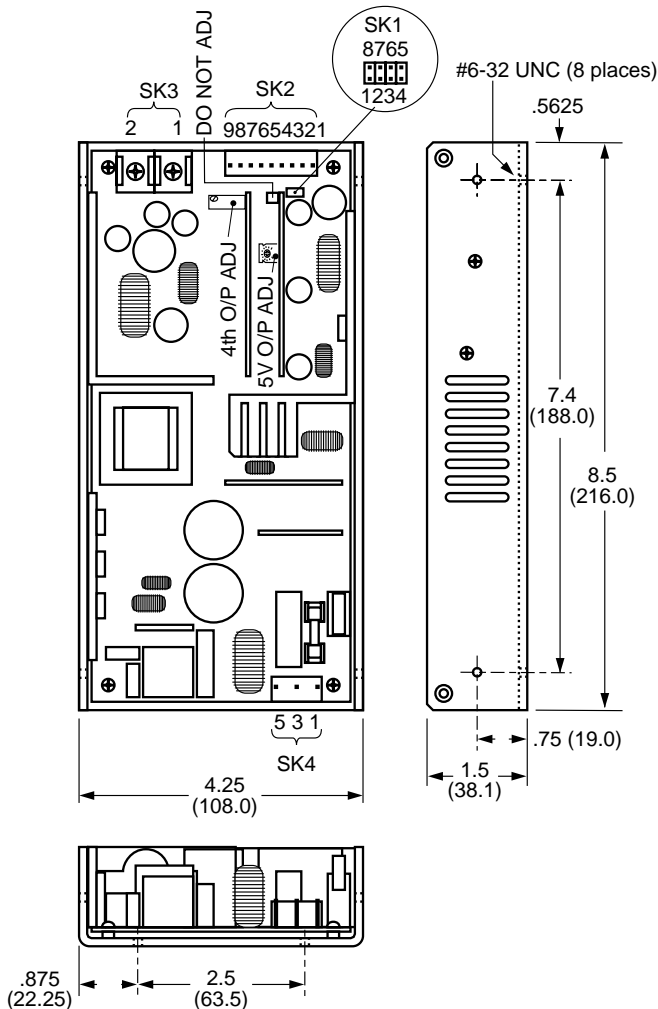
VDE	0805/EN60950 (IEC950)	11774-3336-1260 (LC# 88585)
UL	UL1950	EI32002
CSA	CSA 22.2-234 Level 3	LR53982
NEMKO	EN 60950/EMKO-TUE (74-sec) 203	P95102999
BABT	EN60950/BS7002	606842
CB	Certificate and report	2061
CE	Mark (LVD)	

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
LPQ152-C	5 V	2 A	15 A	22 A	30 A	±2%	50 mV
	12 V	.1 A	6 A	8 A	10 A	±3%	120 mV
	-12 V	.1 A	2 A	2.5 A	3 A	±3%	120 mV
	±5-25 V	0 A	2.5 A	3 A	3 A	±3%	240 mV, max.
LPQ153-C	5 V	2 A	15 A	22 A	30 A	±2%	50 mV
	15 V	.1 A	4.8 A	6.4 A	8 A	±3%	150 mV
	-15 V	.1 A	1.6 A	2 A	2.4 A	±3%	150 mV
	±5-25 V	0 A	2.5 A	3 A	3 A	±3%	240 mV, max.
LPQ154-C	5 V	2 A	15 A	22 A	30 A	±2%	50 mV
	12 V	.1 A	6 A	8 A	10 A	±3%	120 mV
	-12 V	.1 A	2 A	2.5 A	3 A	±3%	120 mV
	24 V	.5 A	3.5 A	4.5 A	5 A	+10 / -5%	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. 4th output adjustable 5-25 V factory set at 5 V. Output is isolated from other outputs, can be referenced positive or negative
5. Minimum loads are required for correct operation, unit will self protect if not connected.

DRAWINGS



PIN ASSIGNMENTS

Connector	LPQ152	LPQ153	LPQ154	
SK1	PIN 1	INHIBIT -ve	INHIBIT -ve	INHIBIT -ve
	PIN 2	INHIBIT +ve	INHIBIT +ve	INHIBIT +ve
	PIN 3	+12 V	+12 V	+12 V
	PIN 4	No Connection	No Connection	No Connection
	PIN 5	COMMON	COMMON	COMMON
	PIN 6	-5V SENSE	-5V SENSE	-5V SENSE
	PIN 7	+5V SENSE	+5V SENSE	+5V SENSE
	PIN 8	I CURRENT SHARE	I CURRENT SHARE	I CURRENT SHARE
SK2	PIN 1,2	+12 V	+15 V	+12 V
	PIN 3,4,5	COMMON	COMMON	COMMON
	PIN 6	-12 V	-15 V	-12 V
	PIN 7	POK	POK	POK
	PIN 8	+5 V to +25 V (Float)	+5 V to +25 V (Float)	+24 V
PIN 9	COMMON (Float)	COMMON (Float)	COMMON	
SK3	TB-1	COMMON	COMMON	COMMON
	TB-2	+5 V	+5 V	+5 V
SK4	PIN 1	GROUND	GROUND	GROUND
	PIN 3	LINE	LINE	LINE
	PIN 5	NEUTRAL	NEUTRAL	NEUTRAL

MATING CONNECTORS

(SK4) AC Input: Molex 09-50-8051 (USA)
Molex 24-03-4050 (UK)
PINS: 08-38-0189

(SK2) Aux DC Output/Power fail:
Molex 09-50-8091 (USA)
Molex 24-03-4090 (UK)
PINS: 08-58-0189

(SK1) Remote sense/Remote inhibit:
Molex 51110-0851
PINS: 50394-8051

Astec Connector Kit #70-841-010

NOTES

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Remote inhibit requires an external 5V @ 10mA to activate.
5. Mounting (6-32) maximum insertion depth is 0.15".
6. Warranty: 1 year
7. Weight: 1.75 lb. / 0.80 kg
8. LPQ112 and LPQ153. 4th output connect pin 9 to 3-5 for positive output on pin 8; connect pin 8 to 3-5 for negative output on pin 9
9. Current share: Connect to same pin on the second power supply to enable current share.

