

145 Watts LPQ142 Series

Total Power: 110-145 Watts
Input Voltage: 85-264 VAC
120-300 VDC
of Outputs: Quad



Special Features

- Active power factor correction
- IEC EN61000-3-2 compliance
- Adjustable outputs on 1, 3 & 4
- Remote sense on main output
- Single wire current sharing
- Power fail and remote inhibit
- Built-in EMI filter
- Low output ripple
- Overvoltage protection
- Overload protection
- Thermal overload protection
- Adjustable floating 4th output
- Optional cover (-C suffix)
- Optional fan cover (-CF 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
EN61000-4, -2, -3, -4, -5, -6, -8, -11, 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: $\pm .04\%$ 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	47-63 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
Power factor	0.99 typical
Safety ground leakage current	1.0 mA @ 50/60 Hz, 264 VAC input

Output

Maximum power	80 W convection (60 W with cover-C) 145 W with 30 CFM forced air (100 W with cover-C)
Adjustment range	3.3 - 5.5V on main; -12 - 15V on 3rd output 3.3 - 25 V on 4th output
Hold-up time	20 ms @145 W load at nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	Tracks outputs 1, 3 & 4; 10 to 35%

Logic Control

AC Power failure	TTL logic signal goes high 100 - 500 msec after V1 output; It goes low at least 4 msec before loss of regulation
Remote inhibit	TTL High disables output. Contact closure causes outputs to "bounce"
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.
DC-OK	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation

Safety

VDE	60950
UL	60950
CB	Certificate and report
CSA	60950
CE	Mark (LVD)
NEMKO	EN 60950/EMKO-TUE

AMERICAS

5810 Van Allen Way
Carlsbad, CA 92008
Telephone: 760-930-4600
Facsimile: 760-930-0698

EUROPE

Astec House, Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX, UK
Telephone: 44 (1384) 842-211
Facsimile: 44 (1384) 843-355

ASIA

Units 2111-2116, Level 21
Tower 1, Metroplaza
223, Hing Fong Road
Fwai Fong, New Territories
Hong Kong
Telephone: 852-2437-9662
Facsimile: 852-2402-4426



Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30 CFM Forced Air	Peak Load	Regulation ²	Ripple P/P(PARD) ³
LPQ142	5 V (3.3 - 5.5 V)	0 A	12 A	25 A	27 A	±2%	50 mV
	12 V	0 A	5 A	6 A	9 A	±3%	120 mV
	-12 V (-12 -15 V)	0 A	1 A	1.5 A	2 A	±3%	<1%
	±3.3-25 V	0.5 A	1.5 A	4.5 A	5 A	±3%	<50mV or 1%

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 3.3-25 V factory set at 5 V.
5. *Minimum loads are required when output set below 5 Volts
6. Remote inhibit resets OVP latch

Note: -C suffix added to the model number indicates cover option.
-CF suffix added to the model number indicates fan cover option.

Pin Assignments

Connector LPQ142

SK1	PIN 1	GROUND
	PIN 3	NEUTRAL
	PIN 5	LINE
SK2	PIN 1	+12 V
	PIN 2	COMMON
	PIN 3	-12 V
	PIN 4	COMMON
	PIN 5	+5 V to +25 V (Float)
	PIN 6	COMMON (Float)
SK4	TB-1	COMMON
	TB-2	+5 V
SK6	PIN 1	N/C
	PIN 2	DC OK
	PIN 3	N/C
	PIN 4	V1 SWP
	PIN 5	Common
	PIN 6	+V1 sense
	PIN 7	Sense common
	PIN 8	+ inhibit
	PIN 9	- inhibit
	PIN 10	Power fail

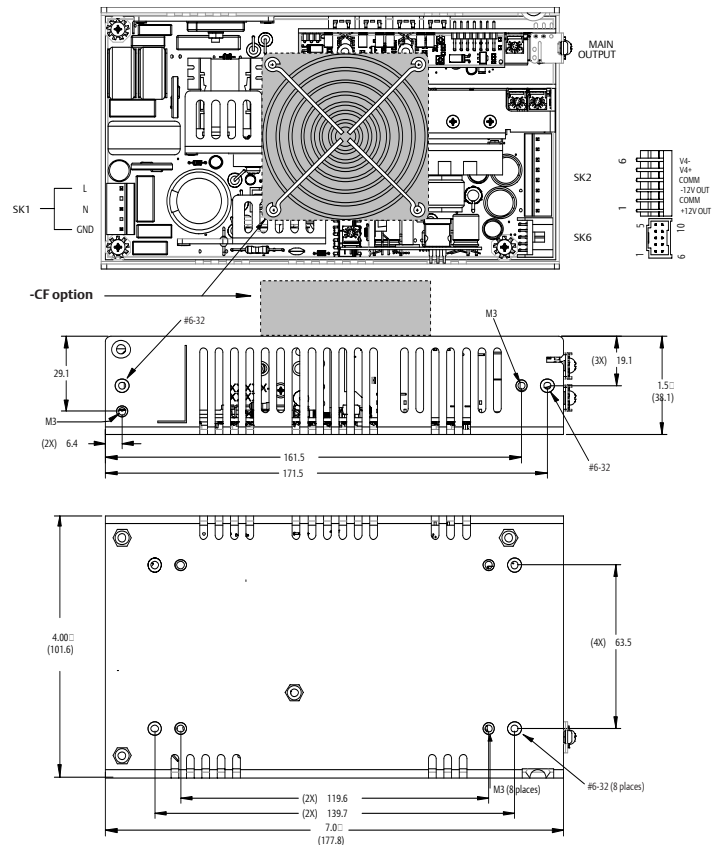
Mating Connectors

(SK1) AC Input: Molex 09-50-8051 (USA)
Molex 09-91-0500 (UK)
PINS: 08-58-0111

(SK2) Aux DC Output: Molex 09-50-8061 (USA)
Molex 09-91-0600 (UK)
PINS: 08-58-0111

(SK6) Control Signals: Molex 90142-0010 (USA)
PINS: 90119-2110 or
Amp: 87977-3
PINS: 87309-8

(SK4) Main output: Molex BB-124-08
Astec connector kit #70-841-017, includes al of the above.



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. Mounting screw maximum insertion depth is 0.12".
5. Warranty: 1 year
6. Weight: 1.63 lb / 0.74 kg