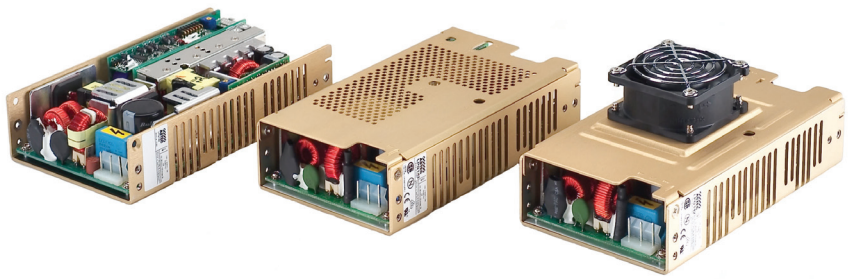
Rev. 11.17.08_103
LPQ142 Series

LPQ142 Series

145 Watts

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



RoHS 2002/95/EC

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)

Safety

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

Electrical Specifications

Input	
Input range:	85-264 VAC; 120-300 VDC
Frequency:	47-67 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 @175 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%

ASTEC

EMERSON Network Power

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:	Requires contact closure to inhibit outputs
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

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 °C to +85 °C
Temperature coefficient:	±0.4% per °C
Electromagnetic susceptibility:	Designed to meet IE61000-4, -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 0.75G 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]
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
	-12V (-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

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

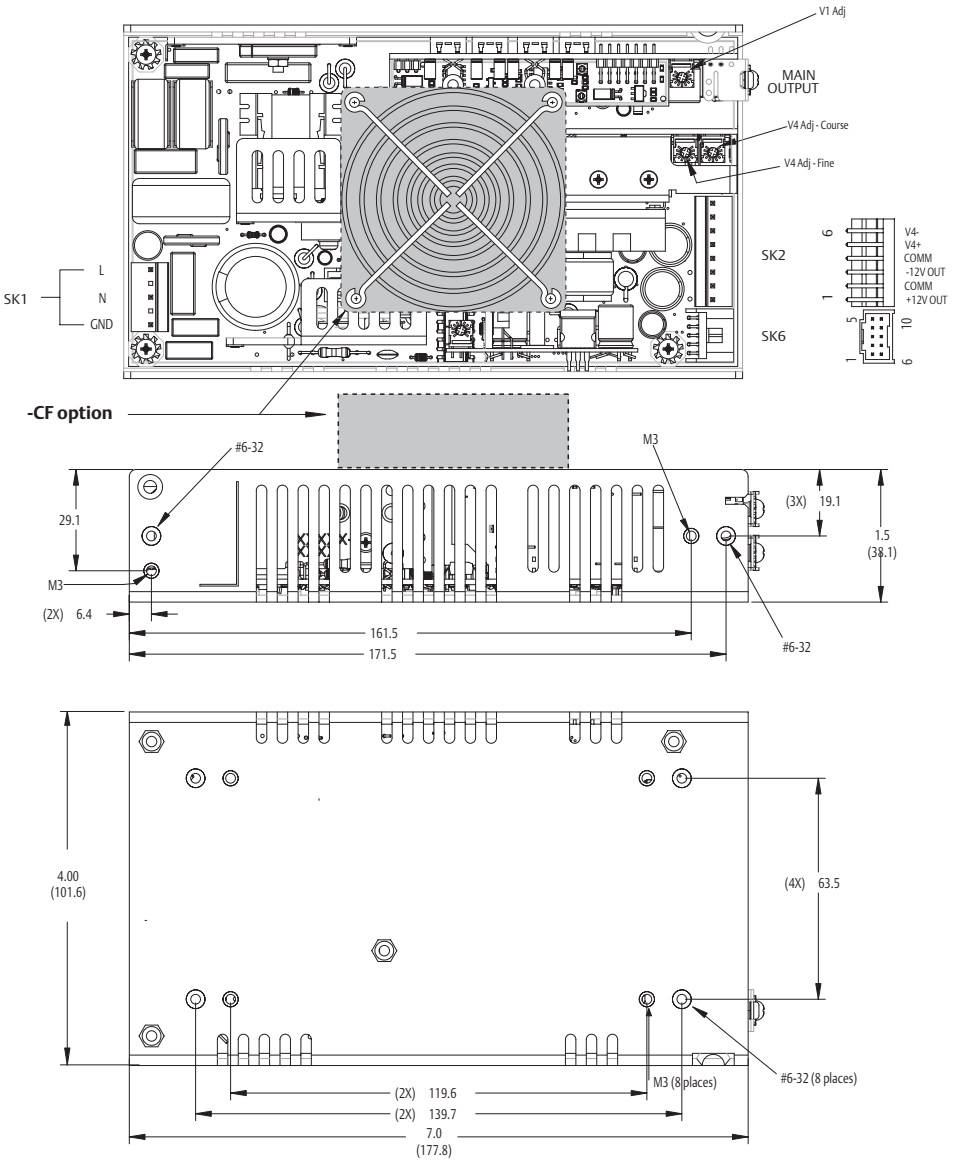
(SK2) Aux DC Output: Molex 09-50-8061 (USA)
Molex 09-91-0600 (UK)
PINS: 08-58-0111

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

(SK4) Main output: Molex BB-19141-0058

Emerson Network Power connector kit #70-841-017, includes al of the above.

Mechanical Drawing



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: 2 year
6. Weight: 1.63 lb / 0.74 kg

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.powerconversion.com

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.
©2008 Emerson Electric Co.