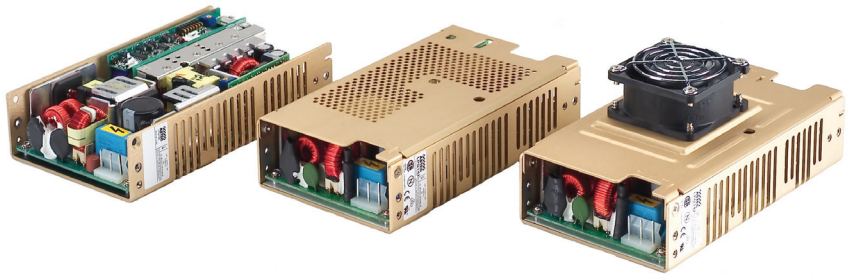
LPQ142 Series

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%

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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

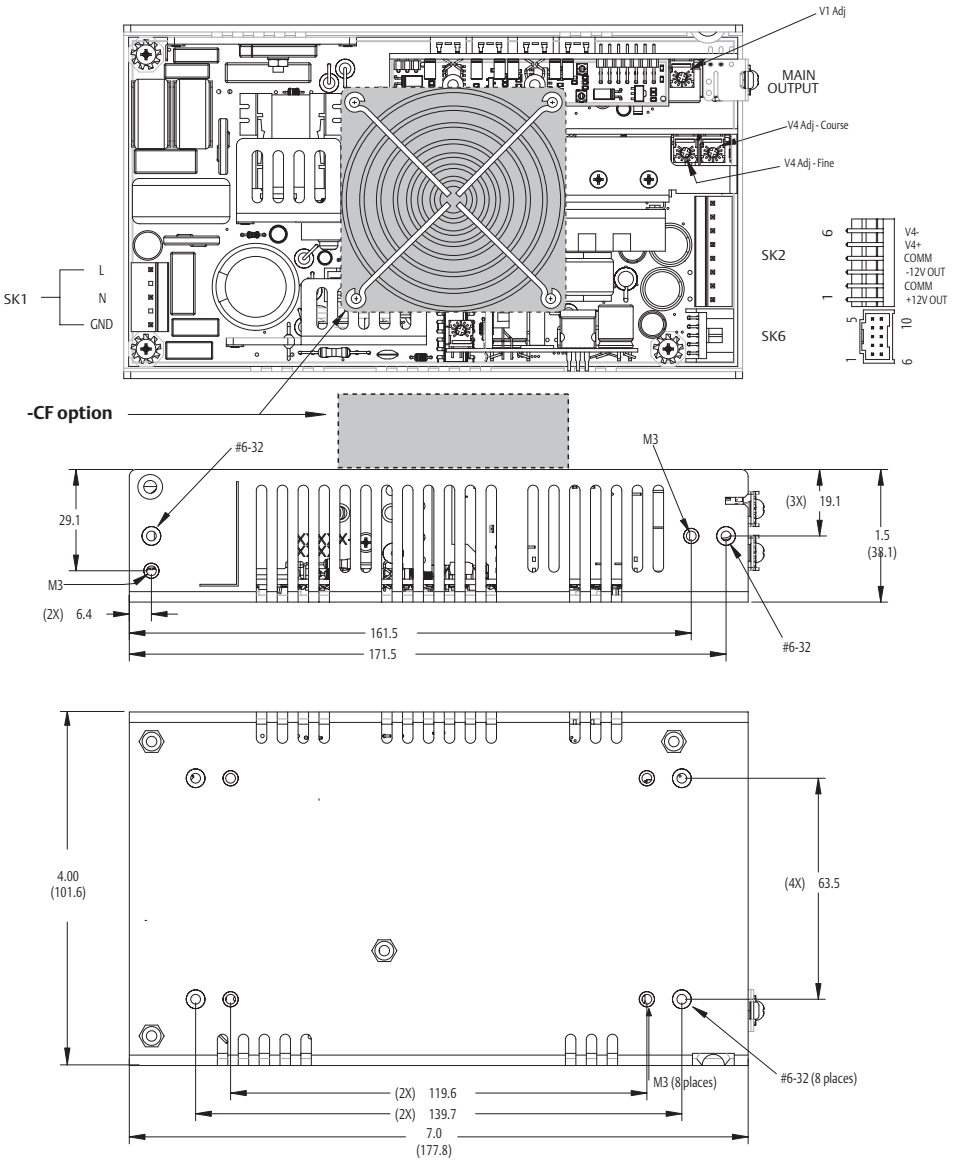
(SK2) Aux DC Output: Molex 09-50-8061 (USA)
Molex 09-91-0600 (UK)
PINS: 08-58-0111

(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

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