

145 Watts LPQ142 Series

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



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

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: ± .04% per °C
 MTBF demonstrated: >550,000 hours at full load
 and 25°C ambient conditions

Safety

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

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

Americas: (760) 930-4600

Europe (UK) 44 (1384) 842-211

Asia (HK) 852-2437-9662



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

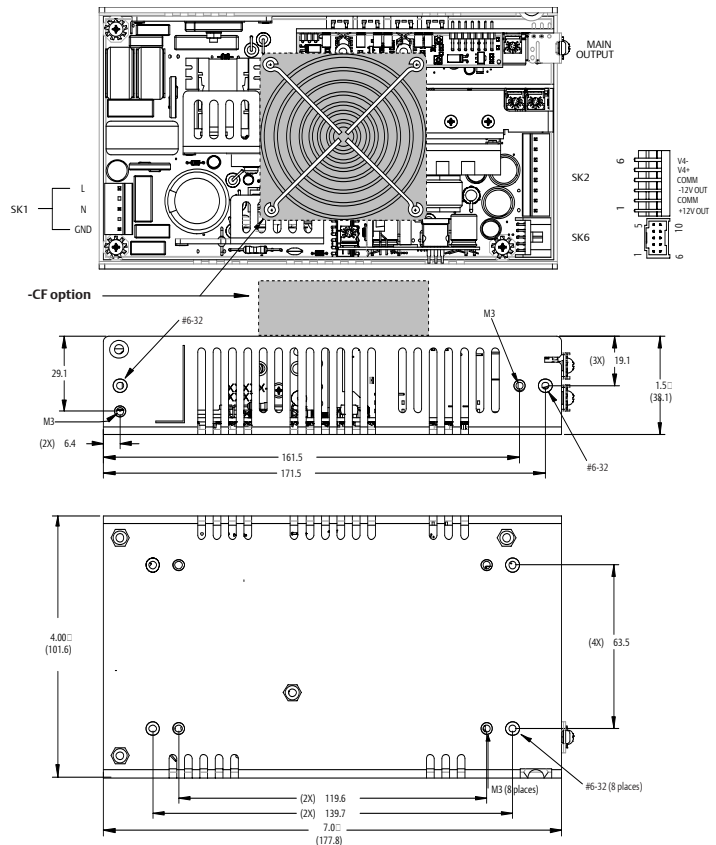
Mating Connectors

(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