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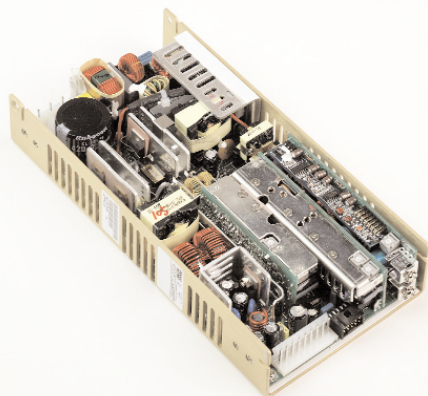
[70-841-015](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

175 Watts LPQ172 Series

Total Power: 110-175 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
- DC power good
- 5 V standby output
- Adjustable floating 4th output
- Optional cover (-C suffix)

Environmental

Operating temperature: 0° to 50°C ambient
 derate each output at 2.5% per degree from

50° to 70°C (except for -C version)

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

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	110 W convection (75 W with cover) 175 W with 30 CFM forced air (130 W with cover)
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; 15 to 35%
Standby output	5 V @ 200 mA regulated ±5%

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 Requires contact closure to inhibit outputs
Remote inhibit	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.
Remote sense	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation
DC Ok	

Safety

VDE	0805/EN60950 (IEC950)
UL	UL1950
CB	Certificate and report
CSA	CSA 22.2-234 Level 3
CE	Mark (LVD)
NEMKO	EN 60950/EMKO-TUE

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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
LPQ172	5 V (3.3 - 5.5 V)	0 A	15 A	30 A	32 A	±2%	50 mV
	12 V	0 A	6 A	8 A	10 A	±3%	120 mV
	-12 V (-12 -15 V)	0 A	1.5 A	3 A	3.5 A	±3%	<1%
	±3.3-25 V	0.5 A*	2 A	5 A	5.5 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 and is limited to 50C operation.

Pin Assignments

Connector LPQ172

SK1	PIN 1	N/C
	PIN 2	5V Standby
	PIN 3	N/C
	PIN 4	V1 SWP
	PIN 5	Common
	PIN 6	+V1 sense
	PIN 7	Sense common
	PIN 8	Remote inhibit
	PIN 9	DC power good
	PIN 10	POK
SK2	PIN 1,2	+12 V
	PIN 3,4,5	Common
	PIN 6	-12 V
	PIN 7	POK
	PIN 8	+3.3 V to +25 V (Float)
PIN 9	Common (Float)	
SK3	TB-1	COMMON
	TB-2	+5 V (3.3V to 5.5V)
SK4	PIN 1	GROUND
	PIN 3	LINE
	PIN 5	NEUTRAL

Mating Connectors

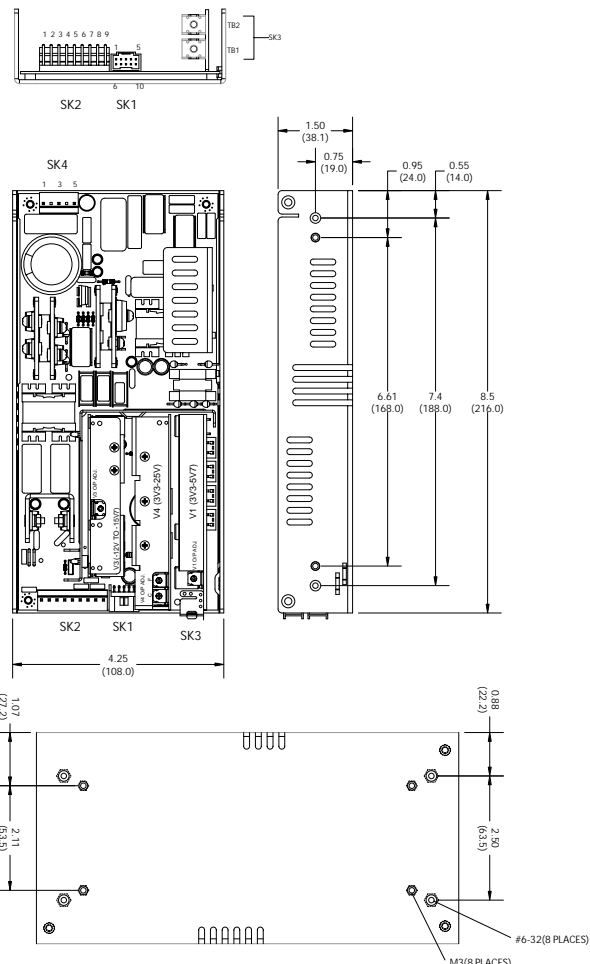
(SK4) AC Input: Molex 09-50-8051 (USA)
 Molex 09-91-0500 (UK)
 PINS: 08-58-0111

(SK3) Main output: Molex BB-124-08

(SK2) Aux DC Output/Power fail: Molex 09-50-8091 (USA)
 Molex 09-91-0900 (UK)
 PINS: 08-58-0111

(SK1) Control Signals: Molex 90142-0010 (USA)
 PINS: 90119-2110 or
 Amp: 87977-3
 PINS: 87309-8

Astec connector kit #70-841-015, includes all 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: 2 lb / 0.91 kg