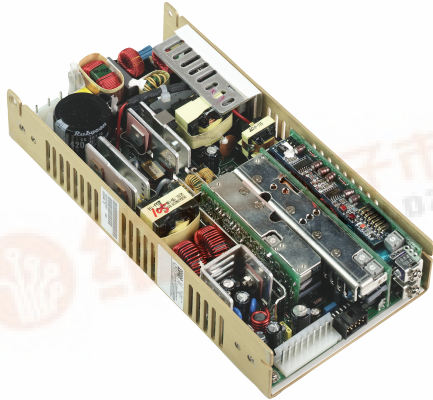


175 Watts LPQ170 Series

Total Power: 110-175 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 110 W convection (75 W with cover LPQ172)
85 W convection - LPQ173
175 W with 30 CFM forced air
(130 W with cover - LPQ172 only)
Adjustment range 3.3 - 5.5V on main; -12 - 15V on 3rd output
3.3 - 25 V on 4th output- LPQ172
3.3 - 5.5V on 4th output on LPQ173
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 $\pm 5\%$

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
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

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
Low temperature start -20°C
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: $\pm .04\%$ per °C
MTBF demonstrated: >550,000 hours at full
load and 25°C ambient conditions

Safety

VDE 0805/EN60950/IEC60950
UL 60950
CB Certificate and report
CSA CSA 60950 Level 3
CE Mark (LVD)
NEMKO EN 60950/EMKO-TSE



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
Tower1, 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
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%
LPQ173	5 V (3.3 - 5.5 V)	0 A	10 A	24 A	26 A	±2%	50 mV
	12 V	0 A	6 A	8 A	10 A	±3%	120 mV
	-12 V (-12 -15 V)	0 A	.2 A	3 A	3.5 A	±3%	<1%
	5 V (3.3 - 5.5 V)	0 A	10A	24 A	26 A	±2%	50mV

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 μ F in parallel with a 0.1 μ F 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
7. LPQ173-C has no convection rating.

Note: -C suffix added to the model number indicates cover option and is limited to 50C operation.

Pin Assignments

Connector	LPQ172	LPQ173
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)
SK3	TB-1, 3	COMMON
	TB-2	+5 V (3.3V to 5.5V)
	TB-4	N/C
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.



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

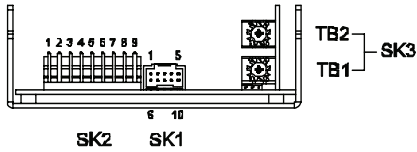
ASIA

Units 2111-2116, Level 21
Tower1, Metroplaza
223, Hing Fong Road
Fwai Fong, New Territories
Hong Kong
Telephone: 852-2437-9662
Facsimile: 852-2402-4426

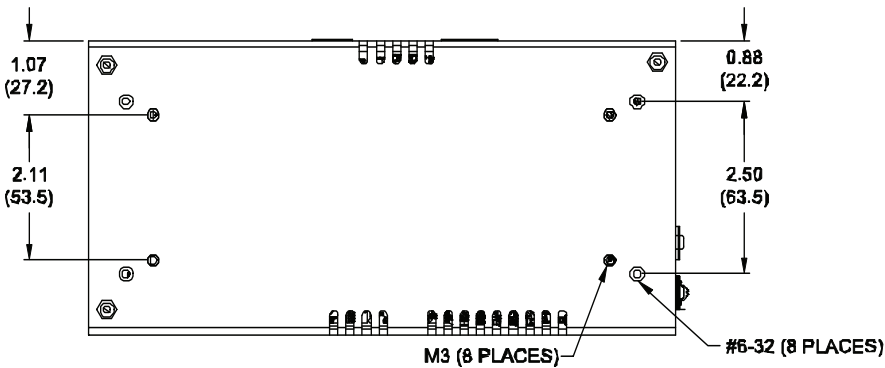
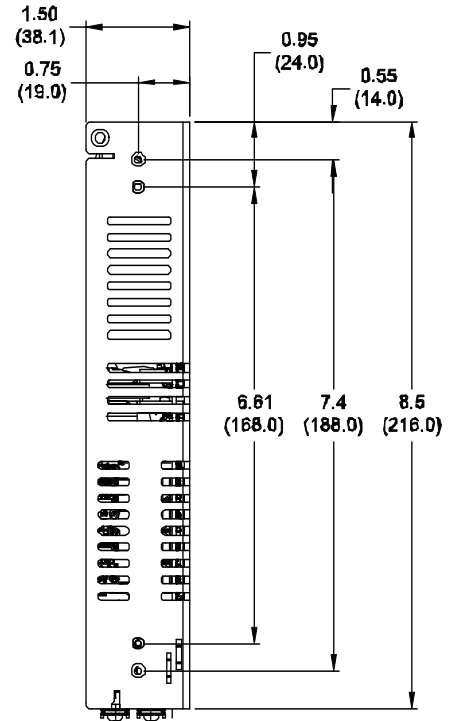
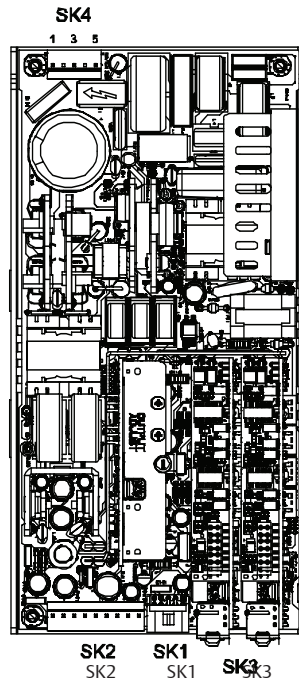
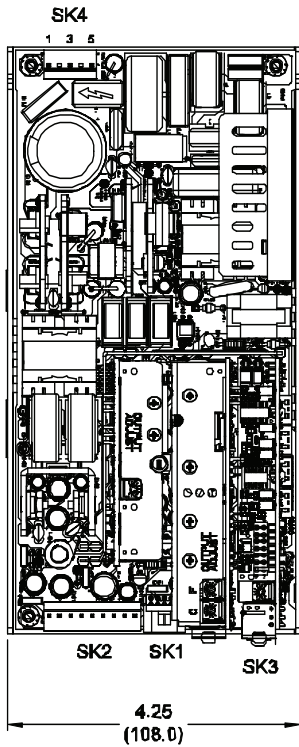
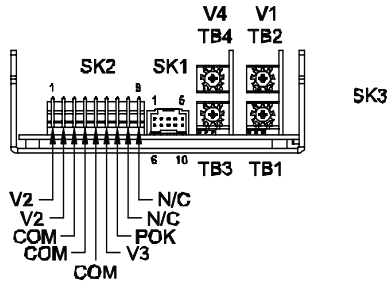


Mechanical Drawing

LPQ172



LPQ173



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