# 350 Watts LPQ350 Series

Total Power: 350 Watts
Input Voltage: 85-264 VAC
120-300 VDC

# of Outputs: Quad

# **Electrical Specs**



## **Special Features**

- Active power factor correction
- IEC EN61000-3-2 compliance
- Remote sense on 1st and 4th output
- Power fail and remote inhibit
- Single wire current sharing
- · Built-in EMI filter
- Adjustable floating 4th output
- 2 Supervisory output 5 V and 12 V
- Overvoltage protection
- · Overload protection
- Thermal overload protection
- DC power good
- 135 khz switching frequency
- Cover -C
- Optional with fan cover -CF
- Optional end-mounted fan -CEF

### **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 IEC 801, -2, -3, -4, -5, -6, 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

0.7 G peak 5 Hz to 500 Hz, operational Storage temperature: -40° to 85°C

Temperature coefficient: ±.04% per °C

Americas: (760) 930-4600

MTBF demonstrated: >550,000 hours at full load

and 25°C ambient conditions

Input

Input range 85-264 VAC; 120-300 VDC

Frequency 47-440 Hz

Inrush current 38 A max., cold start @ 25°C Efficiency 75% typical at full load

EMI filter FCC Class B conducted and radiated CISPR 22 Class B conducted and

radiated EN55022 Class B conducted and radiated VDE 0878 PT3 Class B

conducted and radiated.

Power factor 0.99 typical

Safety ground leakage

current <0.5 mA @ 50/60 Hz, 264 VAC input

Output

Maximum power With cover: 350 W with 30 CFM forced

air, (-C) (-CF) (-CEF)

Adjustment range ± 5% min. on main: 3.3-24 V on output

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Supervisory output 5 V @ 500 mA regulated, 12 @ 150 mA

X2

Hold-up time 20 ms @ 350 W load, 115 VAC nominal

line

Overload protection Short circuit protection on all outputs.

Case overload protected @ 110-145%

above peak rating

Overvoltage protection 5 V output: 5.7-6.7 VDC.

Logic Control

Power failure TTL logic signal goes high 50-150 msec

after 5 V output. It goes low at least 4

msec before loss of regulation

Remote on/off Requires an external contact (N.O or

N.C) to inhibit outputs

DC-OK TTL logic goes high 50-150 msec after

5 V output. It goes low when there is

loss of regulation.

Remote sense Compensates for 0.5 V lead drop min.

Will operate without remote sense

connection

Safety

**VDE** 0805/EN60950 (IEC950) 21310-3336-0001 **UL** UL1950 E186249

**UL** UL1950 E186249 CSA CSA 22.2-234 Level 5 LR109492C

**NEMKO** EN 60950/EMKO-TUE P97102061 (74-sec) 203

CB Certificate and report 4048, 4049

CE Mark (LVD)

rev 12.10.03

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

Europe (UK) 44 (1384) 842-211 Asia (HK) 85

Asia (HK) 852-2437-9662



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EUROPE

Facsimile: 852-2402-4426



# **Ordering Information**

					Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>s</sup>	
Model Number	Output Voltage	Minimum Load	Maximum Load with 30 CFM Forced Air	Peak Load <sup>r</sup>			
LPQ352-C	+5 V	5 A	50 A	60 A	±2%	50 mV	
	+12 V	0 A	12 A	14 A	±3%	120 mV	
	-12 V	0 A	6 A	8 A	±3%	120 mV	
	3.3-24 V	*1 A	6 A	8 A	±3%	240 mV, max.	
LPQ353-C	+5 V	5 A	50 A	60 A	±2%	50 mV	
	+15 V	0 A	12 A	14 A	±3%	150 mV	
	-15 V	0 A	6 A	8 A	±3%	150 mV	
	3.3-24 V	*1 A	6 A	8 A	±3%	240 mV, max.	

- 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 3.3-24 V factory set at 5 V.
- 5. \* Minimum load required when the output is set below 5 volts.
- 6. If optional CF or CEF fans are not used, 30CFM forced air cooling needs to be provided and is required through the length of the power supply. Not convection rated.
- 7. Remote inhibit resets OVP latch

Note: -CF suffix added to the model number indicates cover with fan,

-CEF suffix added to model number indicates end-mounted fan chassis.

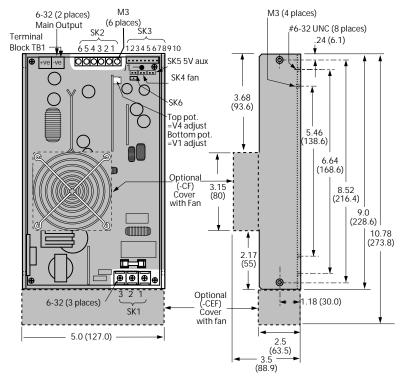
## **Pin Assignments**

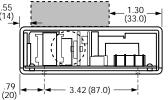
SK1	PIN 1 PIN 2 PIN 3	Neutral Line Ground
SK2	PIN 3 PIN 2 PIN 3 PIN 4 PIN 5	+12 / 15 V Common Common -12 / 15 V 3.3-25 V RET Float
SK3	PIN 6 PIN 1	3.3-25 V Float + Sense V 4
383	PIN 1 PIN 2 PIN 3 PIN 4 PIN 5 PIN 6 PIN 7 PIN 8 PIN 9 PIN 10	+ Sense V 4 - Sense V 4 + Sense V 1 - Sense V 1 POK C.Share DC-OK Inhibit (N.O.) Inhibit (N.C.)
SK4	PIN 1 PIN 2	+ Fan 1 (12V@150mA) – Common
SK5	PIN 1 PIN 2	+ 5V aux (5V@100mA) – Common
SK6	PIN 1 PIN 2	+ Fan 2 (12V@150mA) – Common

#### Mating Connectors

iviatiliy	COMMECTORS
SK3	Molex: 22-01-1084
	PINS: 08-70-0057
SK4	Molex 22-01-3027
	PINS: 08-50-0114
SK5	Molex 22-01-3027
	PINS: 08-50-0114
SK6	Molex 22-01-3027
	PINS: 08-50-0114

Astec Connector Kit #70-841-011, includes all of the above.





#### Notes:

- 1. Specifications subject to change without notice.
- 2. All dimensions in inches (mm), tolerance ±.02".
- 3. Specifications are at factory settings
- To enable normally closed Remote Inhibit, cut Jumper J1.
- 5. Mounting maximum insertion depth is 0.12".
- 6. Warranty: 1 year
- 7. Weight: 4 lb. / 1.8kg.

