

# 350 Watts LPQ350 Series

**Total Power:** 350 Watts  
**Input Voltage:** 85-264 VAC  
 120-300 VDC  
**# of Outputs:** Quad



## Electrical Specs

### Input

Input range	85-264 VAC; 120-300 VDC
Frequency	47-440 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 4
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

## 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

MTBF demonstrated: >550,000 hours at full load and 25°C ambient conditions

## Safety

<b>VDE</b>	0805/EN60950 (IEC950)	21310-3336-0001
<b>UL</b>	UL1950	E186249
<b>CSA</b>	CSA 22.2-234 Level 5	LR109492C
<b>NEMKO</b>	EN 60950/EMKO-TUE	P97102061 (74-sec) 203
<b>CB</b>	Certificate and report	4048, 4049
<b>CE</b>	Mark (LVD)	

rev 12.10.03

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

Americas: (760) 930-4600

Europe (UK) 44 (1384) 842-211

Asia (HK) 852-2437-9662

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  
Tower 1, 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 30 CFM Forced Air	Peak Load <sup>a</sup>	Regulation <sup>a</sup>	Ripple P/P (PARD) <sup>b</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.

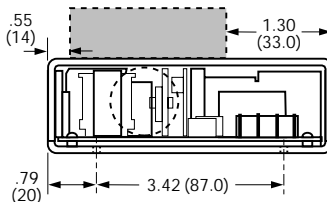
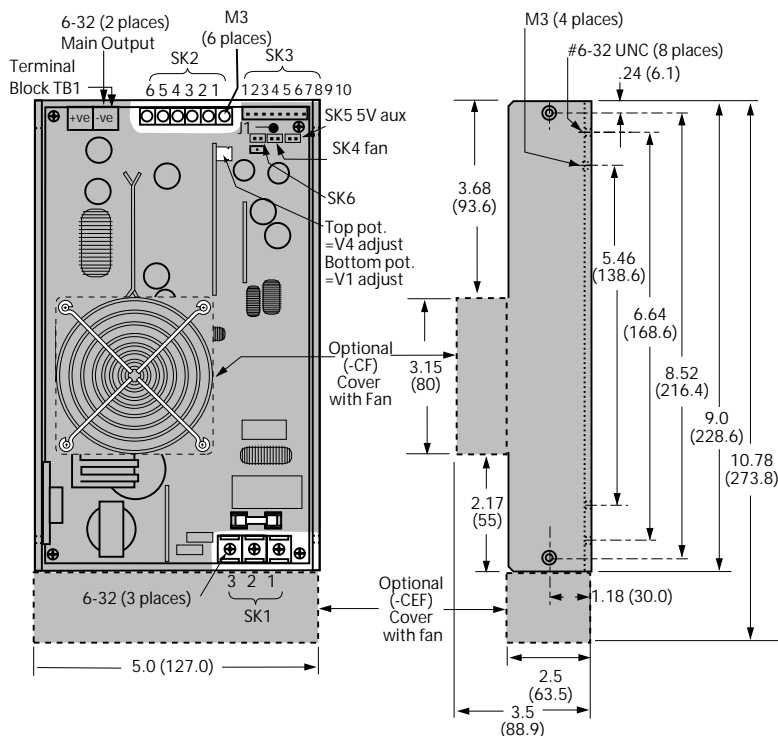
## Pin Assignments

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

### Mating Connectors

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
4. 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.