Rev. 10.15.07 LPQ350 Series 1 of 3

LPS350 Series

350 Watts

Total Power: 350 Watts Input Voltage: 85-264Vac 120 - 300 Vdc

of Outputs: Quad





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

Safety

VDE 0805/EN60950 (IEC950) 21310-3336-0001

UL UL1950 El86249

CSA CSA 22.2-234 Level 5

LR109492C

NEMKO EN 60950/EMKO-TUE

P97102061 (74-sec) 203

BABT EN60950/BS7002 607019

CB Cer tificate and report

4048, 4049

CE Mark (LVD)

Electrical Specifications

put			

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 0.5 mA @ 50/60 Hz, 264 VAC input

leakage current

Output

Maximum power With cover: 350 W with 30 CFM forced air, (-C) (-CF) (-CEF)

Adjustment range \pm 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





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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 connected. Reverse connection protected		

Environmental Specifications

Operating temperature: 0° to 50 °C ambient;

derate each output at 2.5% per degree from 50° to 70 °C

Storage temperature: $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ Temperature coefficient: $\pm 0.4\%$ per $^{\circ}\text{C}$

Electromagnetic Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3

susceptibility:

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 5Hz to 500Hz, operational

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

Ordering Information						
Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
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 ₁ 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 ₁ 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

riii Assigiiiileiits		
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
	DIM 3	(5V@100mA)
circ	PIN 2	– Common
SK6	PIN 1	+ Fan 2
	PIN 2	(12V@150mA) – Common
	IIIVZ	- Common

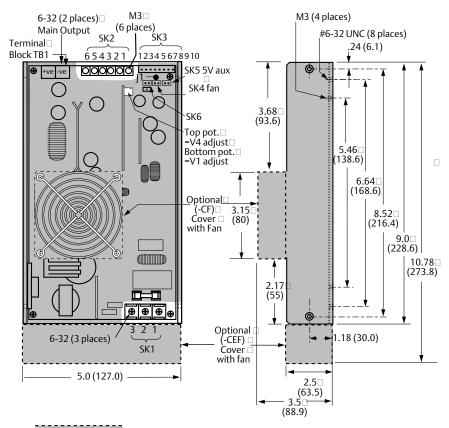
Mating Connectors

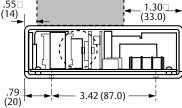
SK3	Molex: 22-01-1084
	PINS: 08-70-0057
SK4	Molex 22-01-3027
	PINS: 08-50-0114
SK5	Molex 22-01-3027
	PINS: 08-50-0114
SK6	Molex 22-01-3027
	PINS: 08-50-0114

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

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Mechanical Drawing





Notes:

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

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