

FEATURES

- 12 watts per cubic inch
- >80% efficiency
- 1U high – SlimLine package
- Hot Pluggable
- Power Factor Corrected
- EN 61000-3-2 compliant
- Universal input
- UL, CSA, TÜV (IEC, EN), CB
- FCC, CISPR Class B EMI
- IEC, EN Immunity
- **Standard features include:**
 - Pilot bias
 - Power Fail monitor
 - DC Good signal
 - Hi Temp signal
 - Inhibit capability
 - Single wire current share
 - OVP on all models
 - Overload and short circuit protection
 - Reverse voltage protection
 - Fan output
- **Options and Accessories include:**
 - Redundancy with Or-ing diode
 - Nylon slides
 - Field terminations
 - End fan cover
 - Fan Fail signal
 - °C serial interface
 - 1U high racking system



DESCRIPTION

LA Series is part of Deltron's SlimLine group of 1U high power supplies with dimensions of 1.58"H x 3.35"W x 11.15"L. This series of single output models is rated up to 700 watts and is either hot-pluggable or optionally available with field terminations for system integration. Uniquely packaged and highly compact, LA Series modules fit a wide range of industrial, telecom and computer networking applications. Units can be paralleled for additional power or used in combination with other models to meet multiple output requirements. When used in Deltron's RA60A racking system, up to four LA Series units can be mounted in a 1U high rack space, to provide up to 2800 watts.

Designed to meet applicable NEBS standards, units feature a proven topology coupled with excellent thermal management to achieve outstanding performance and safety. Power Fail, DC Good and Hi Temp features provide logic signal for monitoring power supply status. All models are available with redundancy option for parallel or N+1 hot pluggable applications.

MODELS

Output	Max Power	Model
12V @ 50A	600	LA12-50-YY
24V @ 27A	650	LA24-27-YY
48V @ 14.6A	700	LA48-14.6-YY

Other ratings available on special order.
Replace the YY with the sum of the Option Codes below.

OPTIONS

Code	Function
00	None
01	Redundancy
02	Nylon slides
04	Fan Fail
08	Field Terminations
32	End Fan Cover

LA SERIES RACK SYSTEM

The **RA60A** 1U high, 19"-wide racking system is available for paralleling or N+1 redundant systems. The 1.75"-high by 12.0"-deep rack accommodates up to four LA Series power supplies providing up to 2800 watts.

Each power supply plugs into the backplane and is securely held in place by removable front panels. Individual output and signal connections are made via rear accessible studs and headers. A heavy duty barrier block is provided for input connections. Racks are designed to accept either EIA or Bellcore NEBS mounting and heavy-duty chassis slides.

LA SERIES SPECIFICATIONS

INPUT

90-264 VAC, 47-63 Hz. Contact factory for 85 VAC operation.

POWER FACTOR

0.99 typical.

EMISSIONS

EN 55022/CISPR 22, Class B Conducted. EN 61000-4-4, Level 3 Electrical Fast Transients. EN 61000-3-2, Harmonics.

IMMUNITY

EN 61000-4-2, Level 3 Electrostatic Discharge. EN 61000-4-4, Level 3 Electrical Fast Transients. EN 61000-4-5, Level 3 Surge.

INPUT SURGE

230VAC - 50 amps max. 115VAC - 25 amps max.

EFFICIENCY

Greater than 80%.

HOLDUP TIME

20 milliseconds from loss of AC power.

OUTPUTS

See model selection table. Outputs are trim adjustable $\pm 5\%$.

OUTPUT POLARITY

Output is floating from chassis and can be referenced to ground as required.

LINE REGULATION

Less than 0.2% for full line change.

LOAD REGULATION

Less than 1% for full load change.

MINIMUM LOAD

None required.

RIPPLE & NOISE

1%, pk.-pk., 20 MHz bandwidth.

OPERATING TEMPERATURE

0-70°C. Derate 2.5%/°C above 50°C.

COOLING

A minimum of 5 linear feet per second is required, directed through the unit for full rating. See optional fan cover.

TEMPERATURE COEFFICIENT

0.02%/°C typical.

DYNAMIC RESPONSE

Peak transient less than $\pm 2\%$ for a step load change from 75% to 50% or 100% max. Output recovers within 300 microseconds.

SAFETY

Certified to UL 60950-1, CSA 22.2 No. 60950-1-03, EN 60950-1:2001.

ISOLATION

Conforms to safety agency standards.

INPUT UNDERVOLTAGE

Protects against damage from undervoltage operation.

SOFT START

Units have soft start feature to protect critical components.

OVERVOLTAGE PROTECTION

Standard on all models. Latching action. Recycle input to restart.

REVERSE VOLTAGE PROTECTION

Output is protected up to 100% load ratings.

OVERLOAD & SHORT CIRCUIT

Output is current limited with automatic recovery when overload is removed.

CURRENT SHARE

Single wire current share.

THERMAL SHUTDOWN

Circuit cuts off supply in case of local over temperature. Units reset automatically when temperature returns to normal.

POWER FAIL MONITOR

Standard circuit provides TTL ACFAIL signal providing 4 millisecond warning before output drops by 5% after an input failure.

DC GOOD

Standard circuit provides an energized open collector when output is at least 90% of nominal value.

HI TEMP

TTL compatible logic signal provides warning when unit approaches thermal shutdown.

INHIBIT

TTL compatible system inhibit provided.

FAN OUTPUT

Nominal 12 VDC @ 8 watts maximum.

PILOT BIAS

5 VDC @ 0.25 Amps.

ENABLE

Enable pin must be shorted to Common for proper operation.

REMOTE SENSING

Standard on output.

SHOCK & VIBRATION

Shock per MIL-STD 810-E Method 516.4, Procedure I. Vibration per MIL-STD 810-E Method 514.4, Category 1, Procedure I.

MECHANICAL

Chassis dimensions are 1.58" H x 3.35" W x 11.15" L. Length includes end fan cover.

CONNECTIONS

Connections via Positronic connector.

WARRANTY

Deltron's 2 year Standard Warranty applies.

OPTIONS:

REDUNDANCY (Code 01)

Redundant operation with Or-ing diode coupled with standard single wire current sharing for use as a hot pluggable N+1 redundant system.

NYLON SLIDES (Code 02)

Power supply chassis mounted slides provide ease of pluggability for use with Deltron model RA60A or equivalent racking system.

FAN FAIL (Code 04)

TTL compatible logic signal provides warning when fan speed is inadequate to cool unit.

FIELD TERMINATIONS (Code 08)

Provides an alternative to Positronic hot-pluggable interface enabling customer to connect to power supply via field connections. Output terminals are 10-32 screws. Input terminals are via Euro block. A 14-pin header handles signals and function. Includes LEDs for AC Good, DC Good and Hi-Temp. Mating ribbon cable connector provided.

END FAN COVER (Code 32)

Optional cover with two brushless DC ball bearing end fans provides the required airflow for full rating. The end fan cover fits in 1.75" 1U rack height. It increases unit length by 1.30".

I²C SERIAL INTERFACE

Consult factory for specifications.

RACKING SYSTEM

The RA60A 1U high, 19" wide racking system is available for paralleling or N+1 redundant systems. The 1.75" H x 12.0" D rack accommodates up to four LA Series power supplies providing up to 2800 watts.

LAC-1

Mating connector kit consisting of Positronic PCIM right angle board-mount connector.

Specifications subject to change without notice..

