

# MINT1110A

110W Single Output Series

Medical – Universal Input Power Supply



2 Year Warranty

- 110W Convection Cooled AC-DC Power Supply
- Universal Input 90-264 VAC
- Less than 1.27" Height
- Rugged EMC Compliant Design
- 3" x 5" Package
- Approved to EN/IEC/UL60601-1 for Medical
-   Compliant (LVD, RoHS)



International Safety Standard Approvals



## Specifications

All Specifications are typical at nominal input, full load at 25°C unless otherwise stated.

|                                                                                                                                    |                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>AC Input</b><br>100-240VAC +/- 10%, 47-63 Hz single phase.                                                                      | <b>Turn On Time</b><br>Less than 2 seconds under all rated load conditions.                    |
| <b>Input Current</b><br>115VAC: 1.4A.                                                                                              | <b>Hold-up Time</b><br>16 ms at 110W, nominal input (120VAC).                                  |
| <b>Inrush Current</b><br>The inrush at 264VAC, at a cold start, will not exceed 40A.                                               | <b>Overvoltage Protection</b><br>See chart for levels, latching type                           |
| <b>Input Fuses</b><br>F1, F2: 2.5A, 250VAC fuses provided on all models.                                                           | <b>Overload Protection</b><br>Hiccup Mode                                                      |
| <b>Power Factor</b><br>Complies with EN61000-3-2.                                                                                  | <b>Short Circuit Protection</b><br>Hiccup Mode                                                 |
| <b>Efficiency</b><br>87% typical.                                                                                                  | <b>Overtemperature Protection</b><br>Provided on all models.                                   |
| <b>Output Power</b><br>90 - 110W continuous.                                                                                       | <b>Medical Safety Standards</b><br>EN/IEC/UL 60601-1, CSA22.2, No. 601.1                       |
| <b>Ripple and Noise</b><br>1% pk-pk max., 20MHz BW, differential mode. Measured with noise probe directly across output terminals. | <b>Isolation</b><br>Input-Output: 4000VAC, Input-Ground: 1500VAC, Output-Ground: 500VDC        |
| <b>Output Voltage</b><br>See chart.                                                                                                | <b>Earth Leakage Current</b><br><130µA at 264VAC, 60Hz.                                        |
| <b>Minimum Load</b><br>Not required.                                                                                               | <b>Operating Temperature</b><br>0° to 70°C (derate from full rated power above 40°C)           |
| <b>Total Regulation</b><br>See chart.                                                                                              | <b>Output Power Derating</b><br>Derate Output Power by 2.5% per °C above 40°C, up to 70°C max. |
| <b>Transient Response</b><br>500µs max., 50% load step, typical.                                                                   | <b>Storage Temperature</b><br>-40 to +85°C.                                                    |
|                                                                                                                                    | <b>Relative Humidity</b><br>5% to 95%, non-condensing                                          |

# MINT1110A

## 110W Single Output Series

Medical – Universal Input Power Supply

2 Year Warranty



| Model Number     | Volts (V) | Output Current | Output Parameters |                  | OVP Threshold | Initial Setpoint Tolerance |
|------------------|-----------|----------------|-------------------|------------------|---------------|----------------------------|
|                  |           |                | Ripple & Noise    | Total Regulation |               |                            |
| MINT1110A1208K01 | 12V       | 7.5A           | 120mV             | ±2%              | 15.0 ± 1V     | ±1%                        |
| MINT1110A1508K01 | 15V       | 6.5A           | 150mV             | ±2%              | 18.0 ± 1V     | ±1%                        |
| MINT1110A1808K01 | 18V       | 5.8A           | 180mV             | ±2%              | 23.0 ± 1V     | ±1%                        |
| MINT1110A2408K01 | 24V       | 4.6A           | 240mV             | ±2%              | 28.0 ± 1V     | ±1%                        |

### Specifications (continued)

#### Vibration

Operating: 0.003 g<sup>2</sup>/Hz, 1.5 g<sub>rms</sub> overall, 3 axes, 10 min. / axis  
Non-Operating: 0.026 g<sup>2</sup>/Hz, 5.0 g<sub>rms</sub> overall, 3 axes, 1 hr. / axis

#### Shock

Operating: Half-sine, 20 g<sub>pk</sub>, 10 ms, 3 axes, 6 shocks total  
Non-Operating: Half-sine, 40 g<sub>pk</sub>, 10 ms, 3 axes, 6 shocks total

#### Enclosure Dimensions

See outline drawing.

#### Operating Altitude

-500 to 10,000 ft.

#### Weight

372 grams

#### Non-operating Altitude

-500 to 40,000 ft.

### EMI/EMC Compliance

|                                         |                                                               |
|-----------------------------------------|---------------------------------------------------------------|
| Conducted Emissions                     | EN55011 Class B, FCC Part 15, Class B.                        |
| Static Discharge Immunity               | EN61000-4-2, 6kV Contact Discharge, 8kV air discharge         |
| Radiated RF Immunity                    | EN61000-4-3, 10V/m.                                           |
| EFT/Burst Immunity                      | EN61000-4-4, 2kV/5kHz..                                       |
| Line Surge Immunity                     | EN61000-4-5, 1kV differential, 2kV common-mode                |
| Conducted RF Immunity                   | EN61000-4-6, 3Vrms                                            |
| Power Frequency Magnetic Field Immunity | EN61000-4-8, 3A/m                                             |
| Voltage Dip Immunity                    | EN61000-4-11 240VAC, 0%/0.5 cycle, 40%/5cycles, 70%/25 cycles |
| Line Frequency Harmonics                | EN61000-3-2, Class A                                          |

### Model Number Key

**MINT 1 110 A 12 08 K 01**

01 = Standard Configuration. 02 and higher indicate modified model.

Input Connector

Output Connector

Output Voltage

Model Configuration

Output Power (Watts)

# of Outputs

Product Family: "M" = Medical, "I" = Internal, "NT" = New Technology

# MINT1110A

110W Single Output Series

Medical – Universal Input Power Supply



2 Year Warranty

## Outline Drawing

### INPUT CONNECTOR:

J1 LANDWIN 3361P03E3TSN02

PIN 1) AC LINE

PIN 2) AC NEUTRAL

### OUTPUT CONNECTOR:

J2 LANDWIN P/N 3361P08E3T

PIN 1) +Vout PIN 5) -Vout

PIN 2) +Vout PIN 6) -Vout

PIN 3) +Vout PIN 7) -Vout

PIN 4) +Vout PIN 8) -Vout

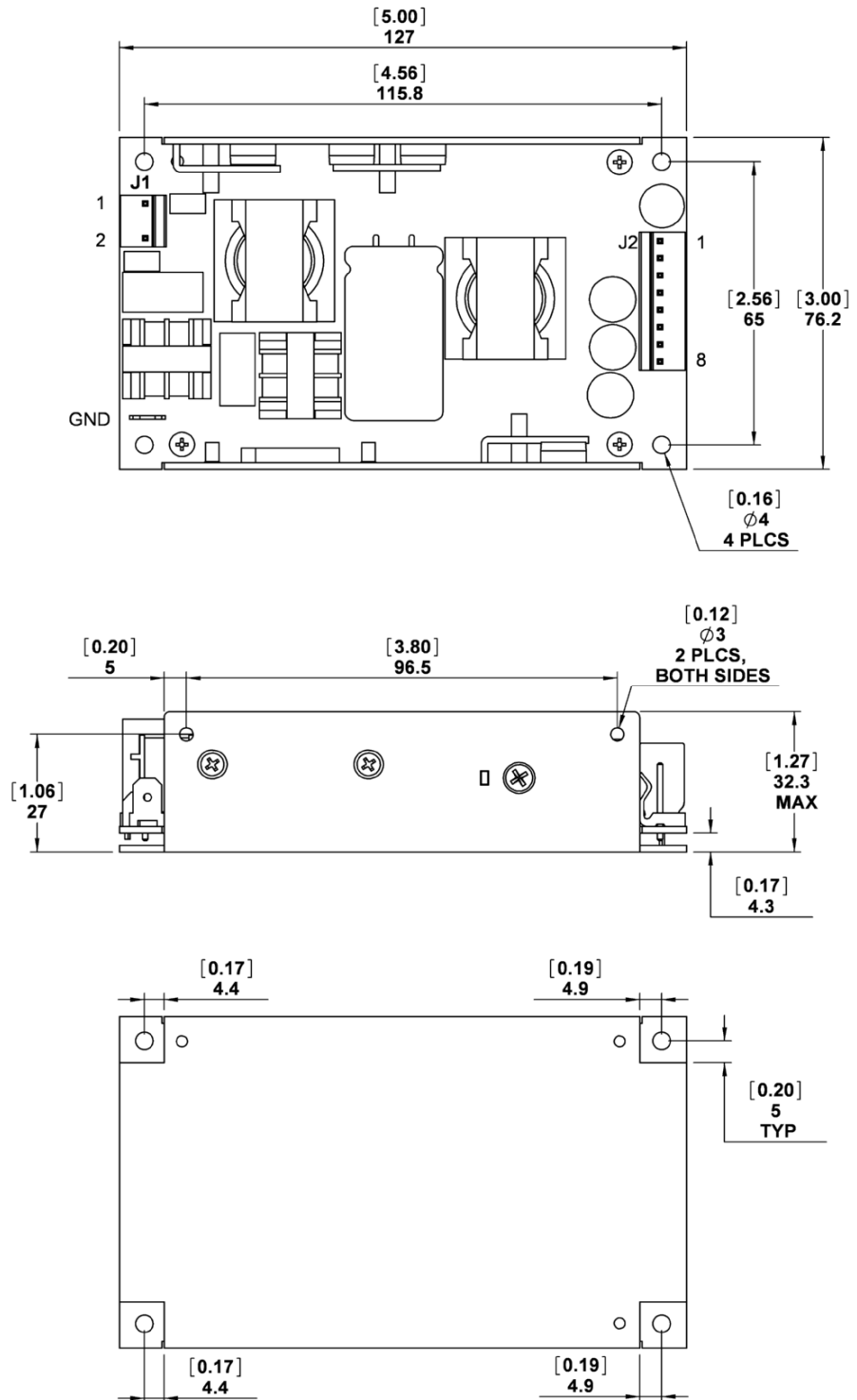
### MATING CONNECTORS:

P1 AMP P/N MTA-156-3P

P2 AMP P/N MTA-156-8P

### GROUND CONNECTION

0.250" FASTON TAB



Data Sheet © 2010 SL Power Electronics Corp. The information and specifications contained herein are believed to be correct at the time of publication. Rev. 5/24/2010  
However, SL Power accepts no responsibility for consequences arising from reproduction errors or inaccuracies. Specifications are subject to change without notice.