# **MINT2270A**



270W Dual Output Series Medical – Universal Input Power Supply

- •270W Convection Cooled AC-DC Power Supply
- •Up to 90% Efficiency Typical
- Natural Interleaving Technology for PFC
- •LLC Technology for DC Converter
- •Remote ON/OFF by PS-ON Signal
- •Approved to EN/IEC/UL60601-1 for Medical
- ·DC-OK, AC-OK Signal Active
- .C € Compliant (LVD, RoHS)

#### 2 Year Warranty



#### International Safety Standard Approvals

## 



| Specifications All Specifi   | cations are typical at nominal input, full load at 25°C unless otherwise stated.          |
|--|---|
| AC Input   | Turn On Time  |
| 100-240VAC +/- 10%, 47-63 Hz single phase.   | Less than 2 seconds under all rated load conditions.                                      |
| Input Current  | Hold-up Time  |
| 115VAC: 3.0A max.  | 16 ms at 270W, nominal input (120VAC).  |
| Inrush Current   | Overvoltage Protection  |
| The inrush at 264VAC, at a cold start, will not exceed 45A.  | See chart for levels, latching type   |
| Input Fuse   | Overload Protection   |
| T6.3A, 250VAC fuse provided on all models.   | Hiccup Mode   |
| Power Factor   | Short Circuit Protection  |
| Complies with EN61000-3-2.   | Hiccup Mode   |
| Efficiency   | Overtemperature Protection  |
| 90% typical.   | Provided on all models, auto-recovery.  |
| Output Power   | Medical Safety Standards  |
| 270W continuous.   | EN/IEC/UL 60601-1, CSA22.2, No. 60601.1   |
| <b>Ripple and Noise</b>  | Isolation   |
| 1% pk-pk max., 20MHz BW, differential mode. Measured with noise                                      | Input-Output: 4000VAC, Input-Ground: 1500VAC, Output-Ground:                              |
| probe directly across output terminals.  | 707VDC  |
| Output Voltages  | Earth Leakage Current   |
| See chart.   | 260µA typical at 264Vac, 50Hz.  |
| Total Regulation   | <b>Operating Temperature</b>  |
| See chart.   | 0° to 70°C, refer to derating curve.  |
| Minimum Load   | Storage Temperature   |
| Not required.  | -40 to +85°C.   |
| Transient Response<br>500µs max. for a 50% load step, with 5mSec high load and 5mSec low<br>load.    | Relative Humidity<br>5% to 95%, non-condensing  |
| Enclosure Dimensions & Weight<br>3.35"W x 7.17"L x 1.17"H. See outline drawing.<br>Weight: 550 grams | MTBF (Mean-Time-Between-Failure):<br>325,000 hours at 40°C operating ambient temperature. |

### **MINT2270A** 270W Dual Output Series

Medical – Universal Input Power Supply



#### 2 Year Warranty

| Output Parameters |               |                     |                   |                   |                     |              |              |  |
|-------------------|---------------|---------------------|-------------------|-------------------|---------------------|--------------|--------------|--|
| Model<br>Number   | Output<br>No. | Output<br>Volts (V) | Output<br>Current | Ripple<br>& Noise | Total<br>Regulation | OCP<br>Limit | OVP<br>Limit |  |
| MINT2270A1976E0X  | 1             | 5V                  | 0.2A              | 1%                | 5%                  | 1.5A         | 7.0V         |  |
|                   | 2             | 24V                 | 11.25A            | 1%                | 2%                  | 15.5A        | 30.0V        |  |

Note: "X" in model number as shown above is replaced by a numeral which will signify the remote on/off configuration, or other potential modifications. See model number key below.

#### Specifications (continued)

| <b>Remote ON/OFF (PS-ON):</b><br>On = logic high, off = logic low or open.<br>Model suffix "01" will be in the normally OFF configuration. Model suffix<br>"02" will be in the normally "ON" configuration. | ShockOperating:Half-sine, 20 $g_{pk}$ , 10 ms, 3 axes, 6 shocks totalNon-Operating:Half-sine, 40 $g_{pk}$ , 10 ms, 3 axes, 6 shocks total   |
|---|---|
| AC-OK Signal<br>"High" when input voltage exceeds 68VAC, "Low" when input voltage is less<br>than 68VAC.  | VibrationOperating: $0.003 \text{ g}^2/\text{Hz}$ , 1.5 grms overall, 3 axes, 10 min. / axisNon-Operating: $0.026 \text{ g}^2/\text{Hz}$ , 5.0 grms overall, 3 axes, 1 hr. / axis |
| <b>DC-OK Signal</b><br>"High" when the 24V output is within normal range. "Low" upon an<br>overvoltage, overcurrent, undervoltage, or short circuit condition, or when<br>the PS-ON is disabled ("OFF").    | Altitude<br>Operating: -500 to 10,000 ft. MSL<br>Non-Operating: -500 to 40,000 ft. MSL  |

#### **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  |



## **MINT2270A**

270W Dual Output Series

50% 40% 30% 20% 10% 0%

0

25

Medical – Universal Input Power Supply

## POWER ELE

2 Year Warranty



Data Sheet © 2010 SL Power Electronics Corp. The information and specifications contained herein are believed to be correct at the time of publication. Rev. 11/2/2010 However, SL Power accepts no responsibility for consequences arising from reproduction errors or inaccuracies. Specifications are subject to change without notice.

temperature

40

50

60

70

# SL