

# MINT2270A

270W Dual Output Series

Medical – Universal Input Power Supply



2 Year Warranty

- 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
- CE** 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: 3.0A max.  | <b>Hold-up Time</b><br>16 ms at 270W, nominal input (120VAC).                                    |
| <b>Inrush Current</b><br>The inrush at 264VAC, at a cold start, will not exceed 45A.   | <b>Overvoltage Protection</b><br>See chart for levels, latching type                             |
| <b>Input Fuse</b><br>T6.3A, 250VAC fuse 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>90% typical.  | <b>Overtemperature Protection</b><br>Provided on all models, auto-recovery.                      |
| <b>Output Power</b><br>270W continuous.  | <b>Medical Safety Standards</b><br>EN/IEC/UL 60601-1, CSA22.2, No. 60601.1                       |
| <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: 707VDC          |
| <b>Output Voltages</b><br>See chart.   | <b>Earth Leakage Current</b><br>260µA typical at 264Vac, 50Hz.                                   |
| <b>Total Regulation</b><br>See chart.  | <b>Operating Temperature</b><br>0° to 70°C, refer to derating curve.                             |
| <b>Minimum Load</b><br>Not required.   | <b>Storage Temperature</b><br>-40 to +85°C.  |
| <b>Transient Response</b><br>500µs max. for a 50% load step, with 5mSec high load and 5mSec low load.                              | <b>Relative Humidity</b><br>5% to 95%, non-condensing  |
| <b>Enclosure Dimensions &amp; Weight</b><br>3.35"W x 7.17"L x 1.17"H. See outline drawing.<br>Weight: 550 grams                    | <b>MTBF (Mean-Time-Between-Failure):</b><br>325,000 hours at 40°C operating ambient temperature. |

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| Model Number     | Output No. | Output Volts (V) | Output Parameters |                | Total Regulation | OCP Limit | OVP Limit |
|------------------|------------|------------------|-------------------|----------------|------------------|-----------|-----------|
|                  |            |                  | Output Current    | Ripple & Noise |                  |           |           |
| 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)

### Remote ON/OFF (PS-ON):

On = logic high, off = logic low or open.  
Model suffix "01" will be in the normally OFF configuration. Model suffix "02" will be in the normally "ON" configuration.

### AC-OK Signal

"High" when input voltage exceeds 68VAC, "Low" when input voltage is less than 68VAC.

### DC-OK Signal

"High" when the 24V output is within normal range. "Low" upon an overvoltage, overcurrent, undervoltage, or short circuit condition, or when the PS-ON is disabled ("OFF").

### 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

### 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

### Altitude

Operating: -500 to 10,000 ft. MSL  
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  |

## Model Number Key

**MINT 2 270 A 19 76 E 01**

- 01 = Standard Model, Remote ON/OFF in "OFF" configuration.
- 02 = Standard Model, Remote ON/OFF in "ON" configuration.
- 03 and higher indicates a modified model.

Input Connector

Output Connector

Output Voltage Configuration, "19" = 5V, 24V outputs

Model Configuration

Output Power (Watts)

# of Outputs

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

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## Outline Drawing & Connector Information

### INPUT, OUTPUT and SIGNAL CONNECTORS:

#### CON1 M3 Screw terminals, 7.62mm pitch

- PIN 1) GND
- PIN 2) AC NEUTRAL
- PIN 3) AC LINE

#### CON2 M3 Screw terminals, 7.62mm pitch

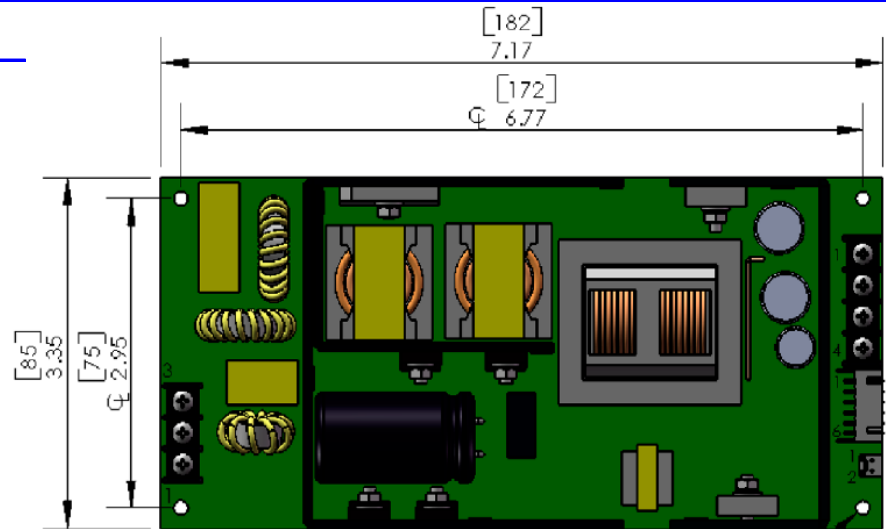
- PIN 1) RTN                      PIN 3) 24V
- PIN 2) RTN                      PIN 4) 24V

#### CON3 Landwin 2502P0600T

- PIN 1) RTN                      PIN 4) DC-OK
- PIN 2) RTN                      PIN 5) AC-OK
- PIN 3) 5V SB                    PIN 6) PS-ON

#### CON4 AMP 640456-2

- PIN 1) RTN                      PIN 2) 24V for FAN



### MATING CONNECTORS:

CON1, 2: Wire Lugs - Barrier width = 6.62mm

CON3: Landwin 2500S060, PINS: 2503T012P

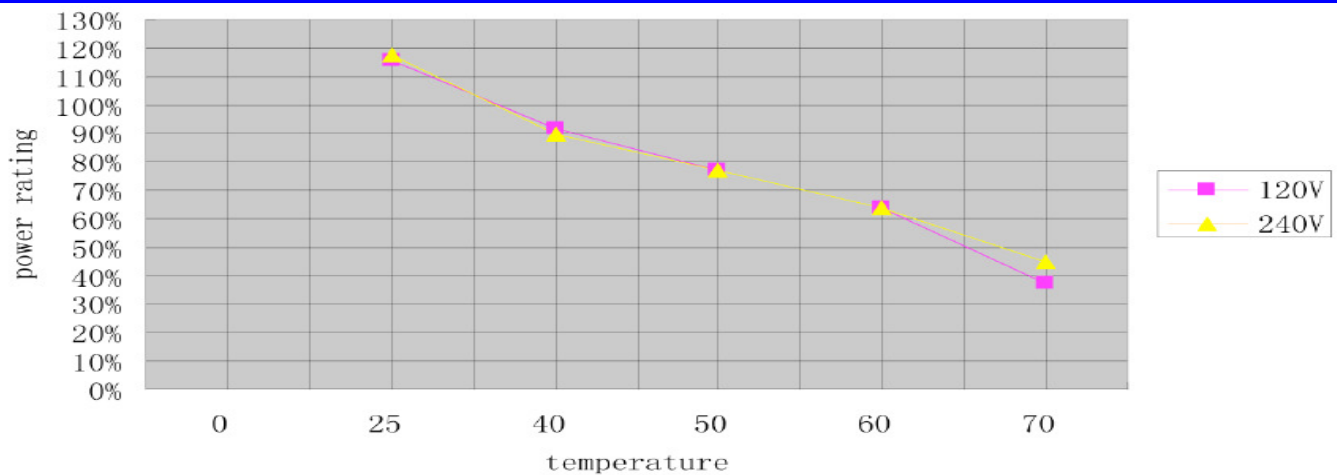
CON4: AMP 1375820-2, PINS: 1375913-3



MAX LEAD PROTRUSION

Tolerance: 0.02" [0.5mm]

## Output Power Derating Curve



## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

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