

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.

| | |
|--|--|
| AC Input 100-240VAC +/- 10%, 47-63 Hz single phase. | Turn On Time Less than 2 seconds under all rated load conditions. |
| Input Current 115VAC: 3.0A max. | Hold-up Time 16 ms at 270W, nominal input (120VAC). |
| Inrush Current The inrush at 264VAC, at a cold start, will not exceed 45A. | Overvoltage Protection See chart for levels, latching type |
| Input Fuse T6.3A, 250VAC fuse provided on all models. | Overload Protection Hiccup Mode |
| Power Factor Complies with EN61000-3-2. | Short Circuit Protection Hiccup Mode |
| Efficiency 90% typical. | Overtemperature Protection Provided on all models, auto-recovery. |
| Output Power 270W continuous. | Medical Safety Standards EN/IEC/UL 60601-1, CSA22.2, No. 60601.1 |
| Ripple and Noise 1% pk-pk max., 20MHz BW, differential mode. Measured with noise probe directly across output terminals. | Isolation Input-Output: 4000VAC, Input-Ground: 1500VAC, Output-Ground: 707VDC |
| Output Voltages See chart. | Earth Leakage Current 260µA typical at 264Vac, 50Hz. |
| Total Regulation See chart. | Operating Temperature 0° to 70°C, refer to derating curve. |
| Minimum Load Not required. | Storage Temperature -40 to +85°C. |
| Transient Response 500µs max. for a 50% load step, with 5mSec high load and 5mSec low load. | Relative Humidity 5% to 95%, non-condensing |
| Enclosure Dimensions & Weight 3.35"W x 7.17"L x 1.17"H. See outline drawing. Weight: 550 grams | MTBF (Mean-Time-Between-Failure): 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_{pk}, 10 ms, 3 axes, 6 shocks total
Non-Operating: Half-sine, 40 g_{pk}, 10 ms, 3 axes, 6 shocks total

Vibration

Operating: 0.003 g²/Hz, 1.5 g_{rms} overall, 3 axes, 10 min. / axis
Non-Operating: 0.026 g²/Hz, 5.0 g_{rms} 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

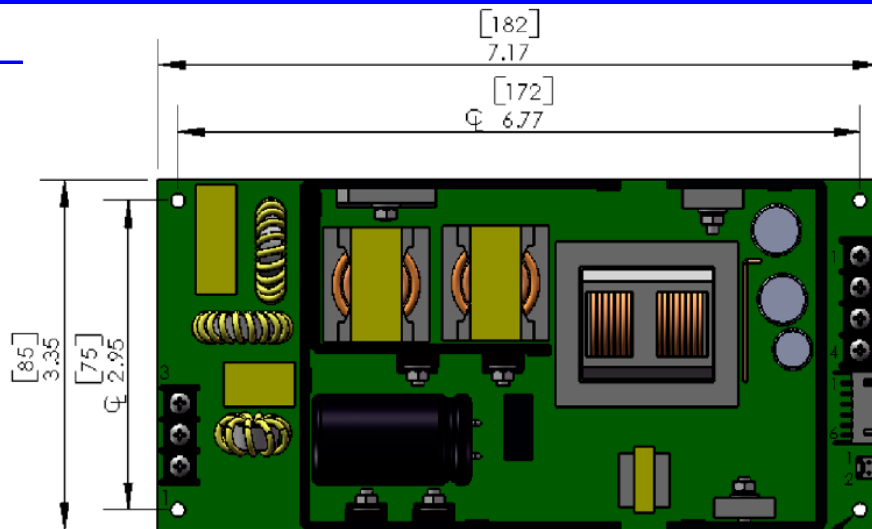
- PIN 1) RTN PIN 3) 24V
- PIN 2) RTN PIN 4) 24V

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

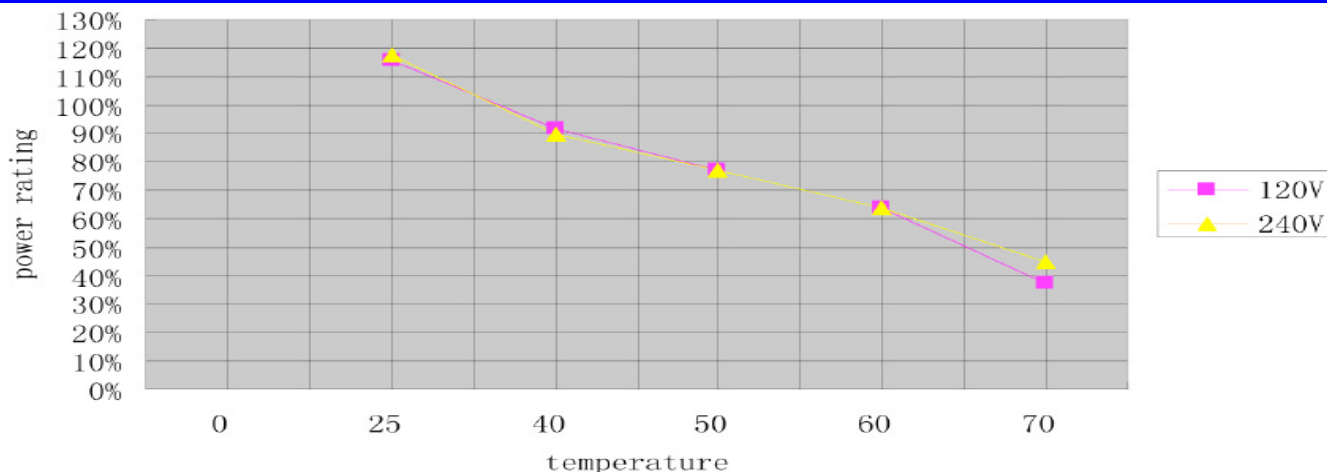
CON4: AMP 1375820-2, PINS: 1375913-3



MAX LEAD PROTRUSION

Tolerance: 0.02" [0.5mm]

Output Power Derating Curve



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