

## MINT1180 Family

### 180W Single Output Medical Grade





#### **FEATURES AND BENEFITS**



3" x 5" x 1.3" Package	180W Convection Cooled Power
Ideal for 1U Applications	Class I and Class II versions
Universal Input 90-264 VAC	Approved to CSA/EN/IEC/UL60601-1, 3rd Edition, 2 x MOPP Isolation
Approved to EN/CSA/IEC/UL62368-1	Efficiency 90% typical
3 Year Warranty	RoHS Compliant



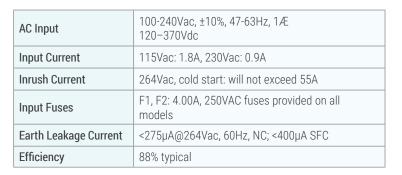


## MODEL SELECTION

Model Number	Volts	Output Current*	Minimum Load	Ripple & Noise**	Total Regulation	OVP Threshold
MINT1180A1275K01	12V	15.0A	0A	120mV pk-pk	±3%	14.0 ± 1.1V
MINT1180A1575K01	15V	12.0A	0A	150mV pk-pk	±3%	18.5 ± 1.2V
MINT1180A1875K01	18V	10.0A	0A	180mV pk-pk	±3%	21.5 ± 2.0V
MINT1180A2475K01	24V	7.50A	0A	240mV pk-pk	±3%	29.0 ± 2.5V
MINT1180A2875K01	28V	6.40A	0A	280mV pk-pk	±3%	33.5 ± 2.5V
MINT1180A3275K01	32V	5.62A	0A	320mV pk-pk	±3%	36.0 ± 3.0V
MINT1180A4875K01	48V	3.75A	0A	480mV pk-pk	±3%	56.0 ± 3.0V

Notes: 1. \* Total convection power is 180 Watts. 2. \*\* Measured with noise probe directly across output terminals, and load terminated with 0.1µF ceramic and 10µF low ESR capacitors.

### **INPUT**



## OUTPUT

Output Voltage	See models chart
Output Power	180W convection cooled
Turn On Time	Less than 3 sec. @115Vac & Full Load
Hold-up Time	>16mS at 180W, 120Vac
Ripple and Noise	See models chart
Total Regulation	+/- 3% combined line, load and initial setting.
Switching Frequency	PFC: Fixed, 65kHz, Main Converter: Variable 35- 200kHz, 65-70kHz at full load.
Minimum Load	Not required
Transient Response	500μS typ. for return to within 0.5% of nominal, 50% load step. Di/Dt <0.2A/μS. Max Volt Deviation = 3%
Voltage Adjustability	Fixed output

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### **PROTECTION**

Overvoltage Protection	OVP latch at 110%-130% of rated output voltage.		
Short Circuit Protection	Provided - no damage will occur if the output is shorted, auto recovery		
Overtemperature Protection	Provided, self-recovering Automatic power shutdown at TC 135°C/115°C		
Overload Protection	120% to 140% of current rating, Hiccup Mode		

## **ENVIRONMENT**

Operating Temperature	-10°C to +70°C, Start Up at -40°C, full load		
Relative Humidity	5% to 95%, non-condensing		
Weight	325g		
Dimensions	W: 3.0" x L: 5.0" x H: 1.3"		
Altitude	Operating: -500 to 10,000 ft. Non-operating: -500 to 40,000 ft.		
Storage Temperature	-40°C to +85°C		
Vibration	Operating: 0.003g <sup>2</sup> /Hz, 1.5grms overall, 3 axes, 10 min/axis, Non-Operating: 0.026g <sup>2</sup> /Hz, 5.0grms overall, 3 axes, 1 hr/axis		
Shock	Operating: Half-sine, 20gpk, 10ms, 3 axes, 6 shocks total, Non-Operating: Half-sine, 40 gpk, 10 ms, 3 axes, 6 shocks total		

## ISOLATION

Isolation	Input-Output: 4000Vac, 2 x MOPP Input-Ground: 1800Vac, 1 x MOPP Output-Ground: 1500Vac
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### **EMI/EMC COMPLIANCE**

EN55011/22 Class B, FCC Part 15, Subpart B, Class B
EN55011/22; FCC Part 15, Class A with 6dB Margin
EN61000-4-2, Criteria A, 6kV Contact Discharge, 8kV air discharge
EN61000-4-3, 3V/m. Criteria A
EN61000-4-4, 2kV/5kHz, Criteria A
EN61000-4-5, 1kV differential, 2kV common- mode, Criteria A
EN61000-4-6, 3Vrms, Criteria A
EN61000-4-8, 3A/m, Criteria A
EN61000-4-11, 5% Vnom: 0.5cycle; 40% Vnom: 5 cycles, 70% Vnom: 25 cycles, Criteria A
EN61000-3-2, Class A, B, C, & D
EN61000-3-3, Complies (dmax<6%)

## **RELIABILITY**

MTBF	214,194 hours, 25°C, 110Vac
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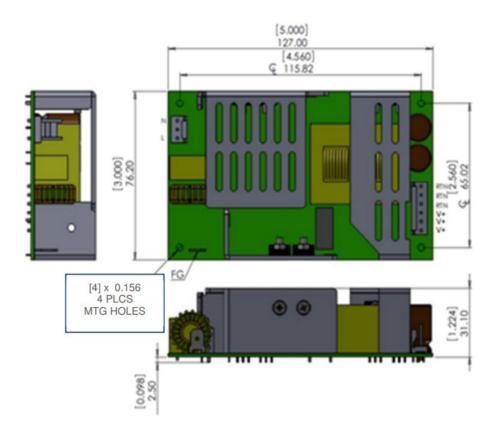
## **SAFETY**

Safety Standards	EN/CSA/UL/IEC 60601-1, 3rd Edition		
	Approved to EN/CSA/IEC/UL62368-1		

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#### **MECHANICAL DRAWINGS**



#### Notes:

- All dimensions in inches (mm), tolerance is +/-0.000".
- 2. Mounting holes should be grounded for EMI purposes.
- 3. FG is safety ground connection.
- 4. The power supply requires mounting on metal standoffs 0.20'' (5mm) in height, min.

#### **CONNECTOR INFORMATION**

Input Connector J100	Ground (FG)	DC Output Connector J300
PIN 1) AC LINE PIN 2) EMPTY PIN 3) AC NEUTRAL	0.25" FASTON TAB	Term. 1,2,3: RTN Term. 4,5,6: +Vout
Mating Connector: AMP 640250-3 Pins: 640252-2	Mating Connector: Molex 190020001	Mating Connector: AMP 640250-6 Pins: 640252-2

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