



Medical



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 CSA/EN/IEC/UL60950-1 2nd Edition	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

AC Input	100-240Vac, ±10%, 47-63Hz, 1Æ 120-370Vdc
Input Current	115Vac: 1.8A, 230Vac: 0.9A
Inrush Current	264Vac, cold start: will not exceed 55A
Input Fuses	F1, F2: 4.00A, 250VAC fuses provided on all models
Earth Leakage Current	<275µA@264Vac, 60Hz, NC; <400µA SFC
Efficiency	88% typical

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



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 ² /Hz, 1.5grms overall, 3 axes, 10 min/axis, Non-Operating: 0.026g ² /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

Conducted Emissions	EN55011/22 Class B, FCC Part 15, Subpart B, Class B
Radiated Emissions	EN55011/22; FCC Part 15, Class A with 6dB Margin
Static Discharge Immunity	EN61000-4-2, Criteria A, 6kV Contact Discharge, 8kV air discharge
Radiated RF Immunity	EN61000-4-3, 3V/m, Criteria A
EFT/Burst Immunity	EN61000-4-4, 2kV/5kHz, Criteria A
Line Surge Immunity	EN61000-4-5, 1kV differential, 2kV common-mode, Criteria A
Conducted RF Immunity	EN61000-4-6, 3Vrms, Criteria A
Power Frequency Magnetic Field Immunity	EN61000-4-8, 3A/m, Criteria A
Voltage Dip Immunity	EN61000-4-11, 5% Vnom: 0.5cycle; 40% Vnom: 5 cycles, 70% Vnom: 25 cycles, Criteria A
Line Harmonic Emissions	EN61000-3-2, Class A, B, C, & D
Flicker Test	EN61000-3-3, Complies (dmax<6%)

RELIABILITY

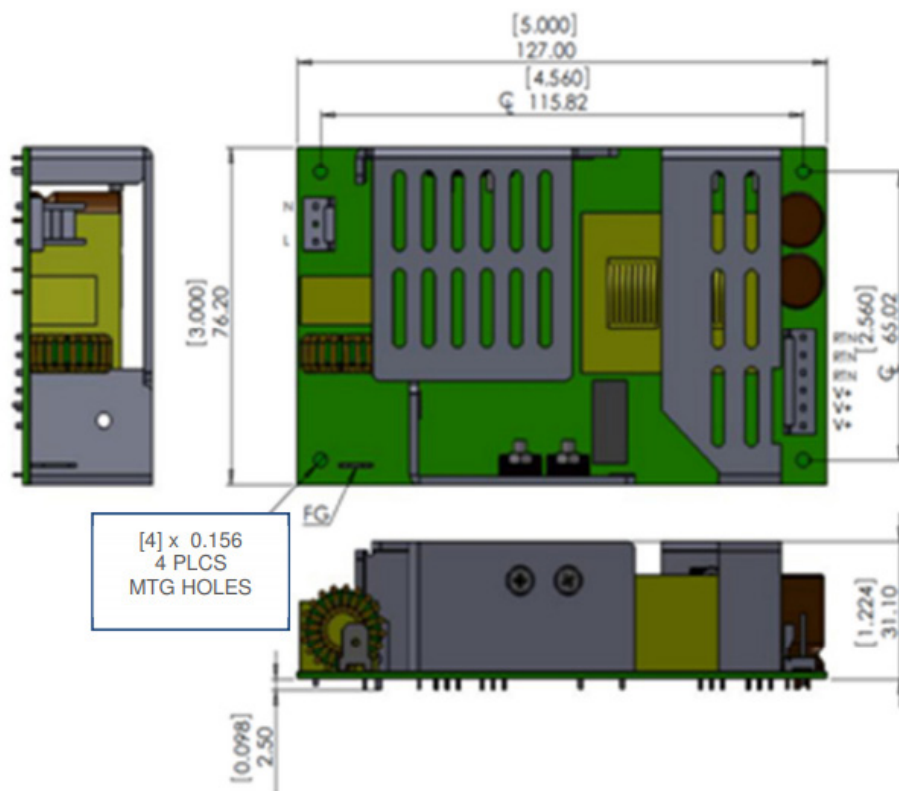
MTBF	214,194 hours, 25°C, 110Vac
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SAFETY

Safety Standards	EN/CSA/UL/IEC 60601-1, 3rd Edition EN/CSA/UL/IEC 60950-1, 2nd Edition
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MECHANICAL DRAWINGS



Notes:

1. 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