### **MINT1180**





### Medical & ITE Power Supply

- ·3" x 5" x 1.3" Package
- ·Up to 180 W of AC-DC Power
- ·Convection Cooled
- ·Universal Input 90-264 Vac
- ·Meets Class B EMI, Conducted & Radiated
- ·Fits 1U Applications
- •Approved to EN/CSA/UL/IEC60601-1, 3rd Edition
- •Approved to EN/CSA/UL/IEC60950-1, 2<sup>nd</sup> Edition
- ·Efficiency up to 90%
- .C € Compliant (LVD, RoHS)
- Optional Chassis/Cover



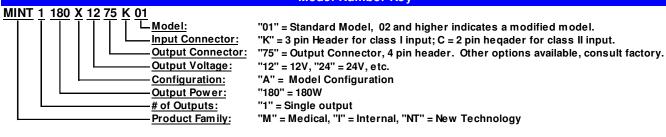


3 Year Warranty

# GRUS CE ROHS D

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 120-370 Vdc	Turn On Time	Less than 3 sec. @115Vac & Full Load
Input Current	115Vac: 1.8A, 230Vac: 0.9A	Hold-up Time	>16.7 ms at 180 W, 120Vac/60 Hz
Inrush Current	264Vac, cold start: will not exceed 55A	Overload Protection	120 to 150% of rating, cycling type
Input Fuses F1, F2	2: 3.15A, 250VAC fuses provided on all models	<b>Short Circuit Protection</b>	No damage to supply, auto recovery
Earth Leakage Current	<275μA@264V, 60Hz, NC; <400μA SFC	Overvoltage Protection	OVP latch at 110 to 130% of output voltage
Efficiency	88% typical for 12Vdc and 115Vac	Isolation Input	Input-Output: 4000Vac ut-Ground: 1800Vac, Output-Ground: 700Vdc
Output Power	Output Power  180W convection cooled  Operating Temperature  -10 to +70°C convect  Derate output power linearly to 50% between 50° and 70 (derate from 40°C for UL/EN/IEC60950		
•	500µs typ. for return to within 0.5% of nominal, step. $\Delta i/\Delta t < 0.2A/\mu S$ . Max Volt Deviation = 3%	Over Temperature Protect	etion Sensing transformer temperature, full load, latching type, requires power cycling
• •	t-pk, measured directly across output terminals, th 0.1μF ceramic and 10μF low ESR capacitors	Storage Temperature	-40 to +85°C
Output Voltage	See chart	Operating Altitude	-500 to 10,000 ft
Minimum Load	Not required	Non-operating Altitude	-500 to 40,000 ft
Total Regulation	+/- 3% combined line, load, and initial setting	Relative Humidity	5% to 95%, non-condensing
Vibration Operating: ( Non-Operating	0.003g <sup>2</sup> /Hz, 1.5g <sub>rms</sub> overall, 3 axes, 10 min/axis g: 0.026 g <sup>2</sup> /Hz, 5.0g <sub>rms</sub> overall, 3 axes, 1 hr/axis		alf-sine, 20 g <sub>pk</sub> , 10 ms, 3 axes, 6 shocks total alf-sine, 40 g <sub>pk</sub> , 10 ms, 3 axes, 6 shocks total
Switching Frequency Main of	PFC: Fixed at 65kHz, converter: 50–120kHz, typical 70kHz at full load	Medical Safety Standards	EN/CSA/UL/IEC 60601-1, 3rd Edition
Dimensions	W: 3.0" x L: 5.0" x H: 1.3", Weight: 325g	ITE Safety Standards	EN/CSA/UL/IEC 60950-1, 2nd Edition

### **Model Number Key**



## MINT1180





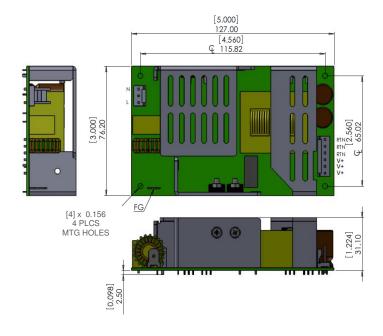
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Output Parameters					
Model Number	Volts (V)	Minimum Load	Output Current Convection	Total Regulation	OVP Threshold
MINT1180A1275K01	12 V	0 A	15.0A	±3%	14.0 ± 1.1V
MINT1180A1575K01	15 V	0 A	12.0A	±3%	18.5 ± 1.2V
MINT1180A1875K01	18 V	0 A	10.0A	±3%	21.5 ± 2.0V
MINT1180A2475K01	24 V	0 A	7.50A	±3%	29.0 ± 2.5V
MINT1180A2875K01	28 V	0 A	6.40A	±3%	33.5 ± 2.5V
MINT1180A3275K01	32 V	0 A	5.62A	±3%	36.0 ± 3.0V
MINT1180A4875K01	48 V	0 A	3.75A	±3%	56.0 ± 3.0V

EMI/EMC Compliance				
Conducted Emissions	EN55011/22 Class B, FCC Part 15, Subpart B, Class B			
Radiated Emissions	EN55011/22 Class B, FCC Part 15, Subpart B, Class B			
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%)			

### **Mechanical Drawings and Connector Information**



Input Connector – J100 (AMP 64137-1)  Mating Connector Molex 90-50-3031  Pins: 08-50-0105		
Pin 1	AC Line	
Pin 2	N.C.	
Pin 3	AC Neutral	

Output Connector – J300 (AMP 640445) Mating Connector: Molex 90-50-3041 Pins: Molex 08-50-0105		
Pin	n Signals	
1	RTN	
2	RTN	
3	RTN	
4	+V1	
5	+V1	
6	+V1	

#### Notes:

- Dimensions are in mm (inches with +/- 0.000 tolerance)
- Metal standoffs with 0.2" (5mm) height are required for mounting
- FG is ground connection
- Ground connector J101 P/N 1285 AMP

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