

# GNT200

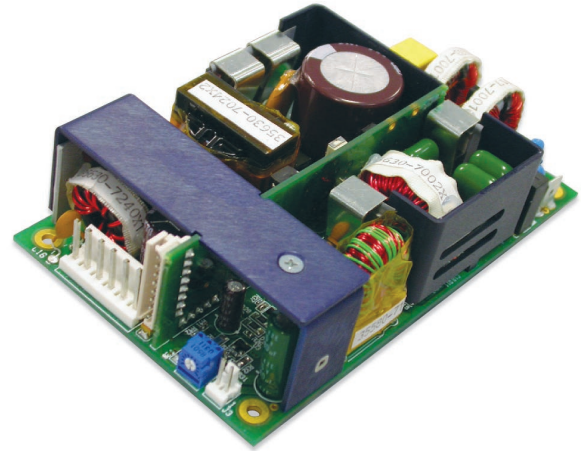
## Front End Series 200 Watt AC/DC



**Universal Input Power Supply**

**2 Year Warranty**

- Wide Range Input 100-240 VAC with PFC
- Inhibit, Enable, Power Signals and Remote Sense Standard
- Power Density 10-13W/in<sup>3</sup>
- Compact (3.0" x 5.0" x 1.25")
- High Efficiency 90% Typical
- Main Output and Two Aux Outputs
- Conducted EMI Class B
- Approved to CSA/EN/IEC/UL 60950-1 for ITE
- Approved to EN/IEC/UL 60601-1 and CSA22.2 No. 601.1 for Medical
- Also Available in Class II (G2T200)
- CB Report Available (for IEC60601-1 Standard)



International Safety Standard Approvals

**CONDOR™**



**RoHS**



### Specifications

All specifications are typical at nominal input, full load at 25°C unless otherwise stated

<b>AC Input</b> 100-240VAC, 50/60 Hz, single phase. 80-270VAC, 45-65 Hz max.	<b>Turn On Time</b> 500 ms max.
<b>Input Current</b> 120VAC, 3 A. 230VAC, 1.5 A.	<b>Hold-up Time</b> 20 ms at 200 W.
<b>Inrush Current</b> Limited by internal thermistor. The inrush at 240VAC, averaged over the first AC half-cycle under cold start conditions will not exceed 38A.	<b>Over/Undershoot</b> 3.5% max.
<b>Input Fuses</b> F1 and F2, T4A/250V.	<b>Overload Protection</b> Cycling type, 250 W nominal limit.
<b>Power Factor</b> 0.98 typical, 0.96 minimum.	<b>Overvoltage Protection</b> See chart.
<b>Earth Leakage Current</b> 100 uA at 120VAC NC, 400 uA at 264VAC SFC.	<b>Ripple and Noise</b> 1% pk-pk max., 20 MHz BW, 0.1 µF and 10 µF caps on probe.
<b>Output Power</b> 200 W continuous with 200 lfm airflow. See chart for convection ratings.	<b>ITE Safety Standards</b> CSA/EN/IEC/UL 60950-1.
<b>Peak Output Power</b> 240 W for 1 minute, 10% duty cycle.	<b>Medical Safety Standards</b> EN/IEC/UL 60601-1, CSA 22.2 No. 601.1.
<b>Output Voltage</b> See chart.	<b>Thermal Considerations</b> Keeping the following components below these temperatures indicates amount of cooling is sufficient: Q1: 90°C max, T4: 110°C max.
<b>Voltage Adjustability</b> Adjustable potentiometer capable of ±5% change from nominal setting.	<b>Switching Frequency</b> Output 195 kHz +/-12 kHz, PFC 130 kHz.
<b>Minimum Load</b> Not required.	<b>MTBF</b> 300K hours per Telcordia.
<b>Total Regulation</b> See chart.	<b>Overtemperature Protection</b> Automatic.
<b>Transient Response</b> 500 µs to 1%, 50% load step, $\Delta i/\Delta t < 0.2$ A/µs. Maximum voltage deviation is 3.5%.	<b>Efficiency</b> 90% typical at 230VAC, 87% typical at 120VAC.

# GNT200

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### Universal Input Power Supply

Model Number	Volts	Output Current 100VAC Convection	Output Current 240VAC Convection	90-270VAC Fan Cooled	Ripple & Noise	Total Regulation	OVP Threshold
GNT212G	12 V	8.3 A	12.5 A	16.7 A	120 mV	+/-2%	14.0 V +/-1 V
GNT215G	15 V	6.7 A	10.0 A	13.3 A	150 mV	+/-2%	17.6 V +/-1 V
GNT218G	18 V	5.6 A	8.3 A	11.1 A	180 mV	+/-2%	20.8 V +/-1 V
GNT224G	24 V	4.2 A	6.3 A	8.3 A	240 mV	+/-2%	27.5 V +/-1 V
GNT228G	28 V	3.6 A	5.4 A	7.1 A	280 mV	+/-2%	32.0 V +/-1.5 V
GNT236G	36 V	2.5 A	3.9 A	5.6 A	360 mV	+/-2%	42.0 V +/-1.5 V
GNT248G	48 V	1.9 A	2.9 A	4.2 A	480 mV	+/-2%	55.0 V +/-2 V

#### Note

1. When input voltage <90 Vac, derate output power by approximately 20%.
2. Convection ratings shown are for 40°C ambient. Derate load 2.5%/°C to 70°C.
3. Fan cooled rating of 200 W @ 50°C requires 200 lfm airflow over unit.

#### General Specifications (continued from p. 1)

##### Temperature Coefficient

0.03%/°C typical on all outputs.

##### Signals

PS Off - High to Inhibit.  
Inhibit - Low to Inhibit.  
Pwr OK - High 100 - 200 ms after DC OK.  
Pwr OK - Power fail low 4 ms warning.  
DC OK - High when output >92%.  
Aux Output - 12 Vdc @ 250mA.  
Aux Output - 5 V @ 100mA, always on.

##### EMC/EMI Compliance

Conducted Emissions	EN55011/22	Class B; FCC Class B
Line Freq. Harmonics	EN61000-3-2	Class A
Voltage Fluctuations	EN61000-3-3	
Static Discharge	EN61000-4-2	6 kV contact, 8kV air
RF Field Susceptibility	EN61000-4-3	3 V/meter
Fast Transients/Bursts EFT	EN61000-4-4	2 kV, 5 kHz -criteria B
Surge Susceptibility	EN61000-4-5	1 kV diff., 2 kV com. -criteria B
Conducted Immunity	EN61000-4-6	3 Vrms
Power Freq. Mag. Field	EN61000-4-8	3 A/m
Voltage Dips Immunity	EN61000-4-11	Contact Factory

#### Environmental Specifications

##### Operating Temperature

0 to 70°C (see chart).

##### Storage Temperature

-40 to +85°C.

##### Operating Altitude

-500 to 10,000 ft.

##### Non-operating Altitude

-500 to 40,000 ft.

##### Relative Humidity

5% - 95%, non condensing.

##### Vibration

5 Hz - 500 Hz, 5 g<sub>rms</sub>.

##### Shock

MIL-STD-810E, 516.4 part IV.

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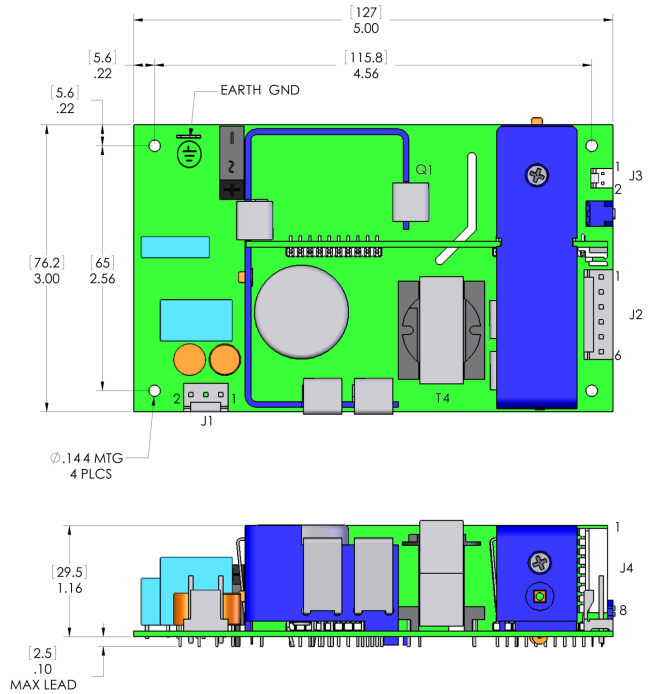
Universal Input Power Supply

## Mounting Options

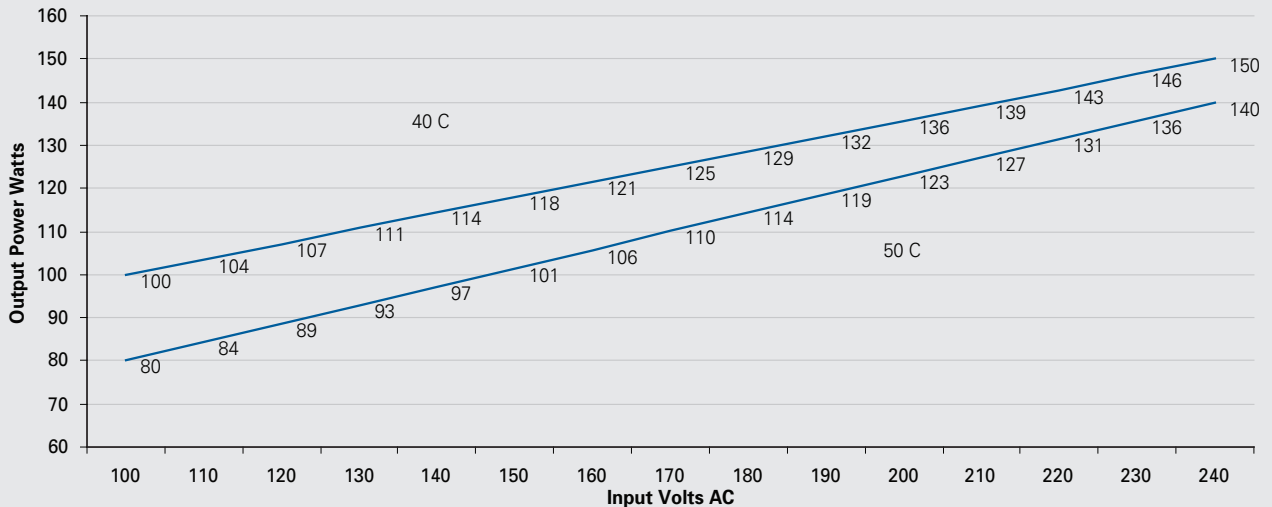
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WEIGHT: 0.68 Lbs (350g)

- J1: AC INPUT AMP 640445-3  
 PIN 1) AC LINE  
 PIN 2) AC NEUTRAL  
 MATING CONNECTOR: MOLEX 09-50-3031  
 MATING PINS: MOLEX 08-52-0112
- J2: DC OUTPUT AMP 640445-6  
 PIN 1) +Vout  
 PIN 2) +Vout  
 PIN 3) +Vout  
 PIN 4) COMMON  
 PIN 5) COMMON  
 PIN 6) COMMON  
 MATING CONNECTOR: MOLEX 09-50-3061  
 MATING PINS: MOLEX 08-52-0112
- J3: FAN OUTPUT AMP 640456-2  
 PIN 1) +12V @ 0.25A  
 PIN 2) FAN RTN (COMMON)  
 MATING CONNECTOR: AMP 1375820-2  
 MATING PINS: AMP 1375813-3
- J4: SIGNALS MOLEX 22-05-7085  
 PIN 1) PS OFF  
 PIN 2) INHIBIT  
 PIN 3) PWR OK  
 PIN 4) DC OK  
 PIN 5) SIGNAL RTN (COMMON)  
 PIN 6) +5V @ 0.1A  
 PIN 7) -SENSE  
 PIN 8) +SENSE  
 MATING CONNECTOR: MOLEX 50-37-6083  
 MATING PINS: MOLEX 08-70-1040
- EARTH GROUND: 0.25" x 0.032" FASTON TAB



## Convection Power vs. Line Voltage & Temperature



\* With 200 lfm air flow unit rated at 200 W.

