

GNT200

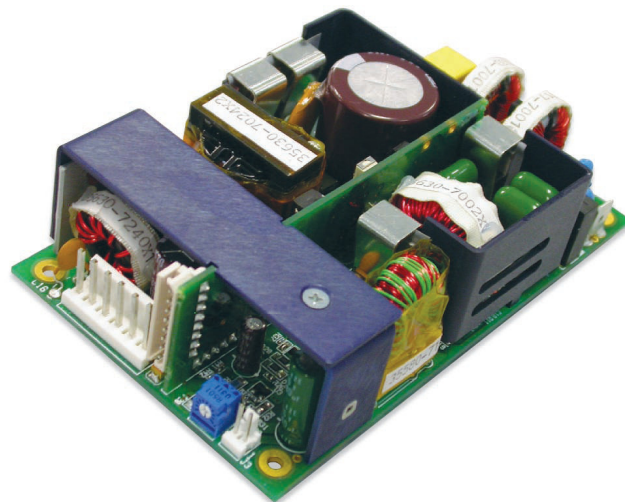
Front End Series 200W AC/DC

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/in³
- Compact (3.0" x 5.0" x 1.25")
- High Efficiency: 90% Typical
- Main Output and Two Auxiliary Outputs
- Conducted EMI meets Class B
- Approved to CSA/EN/IEC/UL 60950-1 for ITE
- Approved to EN/IEC/UL60601-1 and CSA 22.2 No. 601 for Medical
- Also Available in Class II (G2T200)
- CB Report Available (for IEC60601-1 standard)



International Safety Standard Approvals



Specifications

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

AC Input 100-240VAC, 50/60 Hz, single phase. 80-270VAC, 45-65 Hz max.	Turn On Time 500 ms max.
Input Current 120VAC: 3A. 230VAC: 1.5A.	Hold-up Time 20 ms at 200W.
Inrush Current Limited by internal thermistor. The inrush at 240VAC, averaged over the first AC half-cycle under cold start conditions will not exceed 38A.	Over/Undershoot 3.5% max.
Input Fuses F1 and F2, 4A/250V.	Overload Protection Cycling type, 250W nominal limit.
Power Factor 0.98 typical, 0.96 minimum.	Overvoltage Protection See chart.
Earth Leakage Current 100µA at 120VAC NC, 400µA at 264VAC, SFC.	Ripple and Noise 1% pk-pk max., 20MHz BW, 0.1µF and 10 µF caps on probe.
Output Power 200W continuous with 200lfm airflow. See chart for convection ratings.	ITE Safety Standards CSA/EN/IEC/UL 60950-1.
Peak Output Power 240W for 1 minute, 10% duty cycle.	Medical Safety Standards EN/IEC/UL 60601-1, CSA22.2 No. 601-1.
Output Voltage See chart.	Thermal Considerations Keeping the following components below these temperatures indicates sufficient cooling: Q1: 90°C max., T4: 110°C max.
Voltage Adjustability Adjustable potentiometer, capable of ±5% change from the nominal setting.	Switching Frequency Output: 195kHz ±12kHz, PFC: 130kHz.
Minimum Load Not required.	MTBF 300K hours per Telcordia.
Total Regulation See chart.	Overtemperature Protection Automatic.
Transient Response 500µs to 1%, 50% load step, $\Delta i/\Delta t < 0.2A/\mu s$. Maximum voltage deviation is 3.5%.	Efficiency 90% typical at 230VAC, 87% typical at 120VAC.

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

Notes

1. When the input voltage is <90Vac, 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 200W @ 50°C requires 200lfm of airflow over the unit.

General Specifications (continued from p. 1)

Temperature Coefficient

0.03% per °C typical on all units.

Signals

PS Off: High to Inhibit
 Inhibit: Low to Inhibit
 Pwr OK: Goes high 100ms to 200 ms after DC OK signal.
 Pwr OK: Power fail low – 4ms warning.
 DC OK: High when output is >92% of nominal.
 Aux. Output: 12Vdc @ 250mA
 Aux. Output: 5Vdc @ 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
 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
 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

Environment Specifications

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% to 95%, non-condensing

Vibration

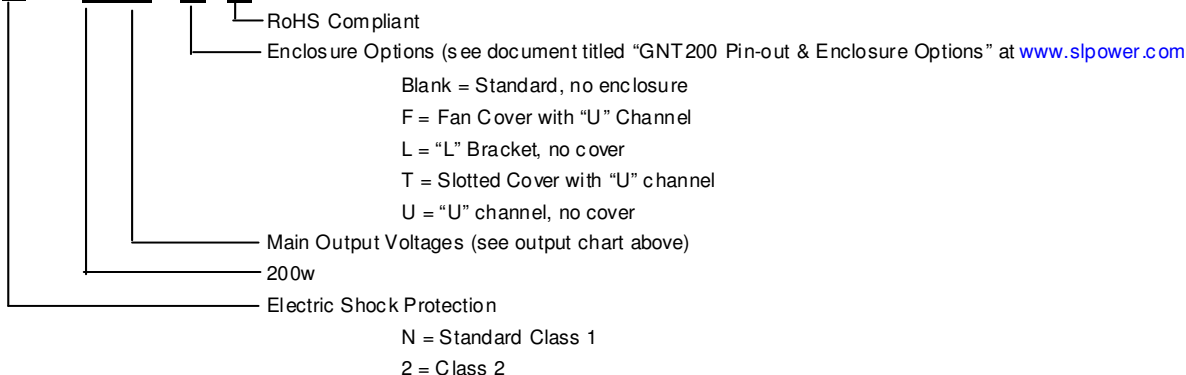
5 Hz – 500 Hz, 5 grms

Shock

MIL-STD-810E, 516.4 part IV

Model Number Configuration

GXT 2XX X X



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Mounting Options

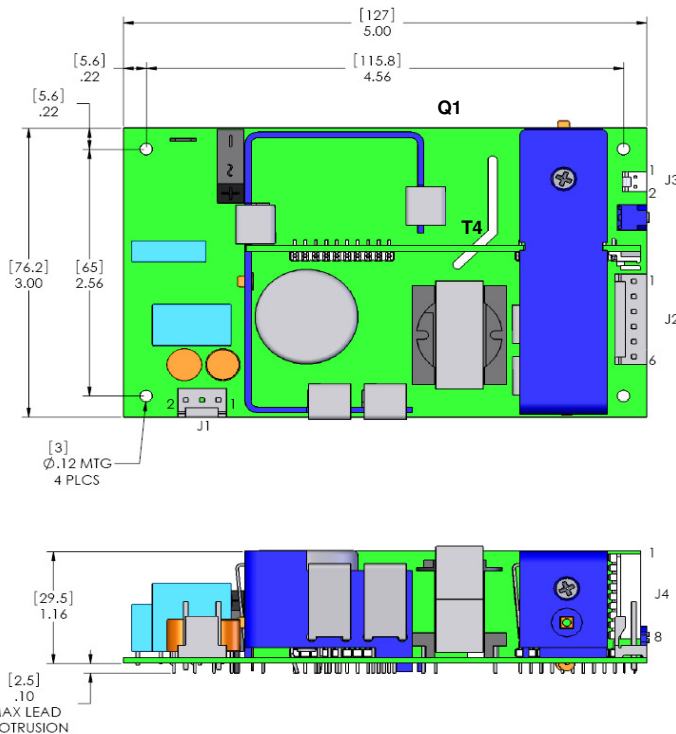
CONNECTOR INFORMATION

- J1:** AC INPUT - AMP# 640445-3
 PIN 1: AC LINE
 PIN 2: AC NEUTRAL
- J2:** DC OUTPUT - AMP# 640445-6
 PIN 1: +V out
 PIN 2: +V out
 PIN 3: +V out
 PIN 4: COMMON
 PIN 5: COMMON
 PIN 6: COMMON
- J3:** FAN OUTPUT - AMP# 640456-2
 PIN 1: +12Vdc @ 0.25A
 PIN 2: FAN RTN (COMMON)
- 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: +5Vdc @ 0.1A
 PIN 7: -SENSE
 PIN 8: +SENSE

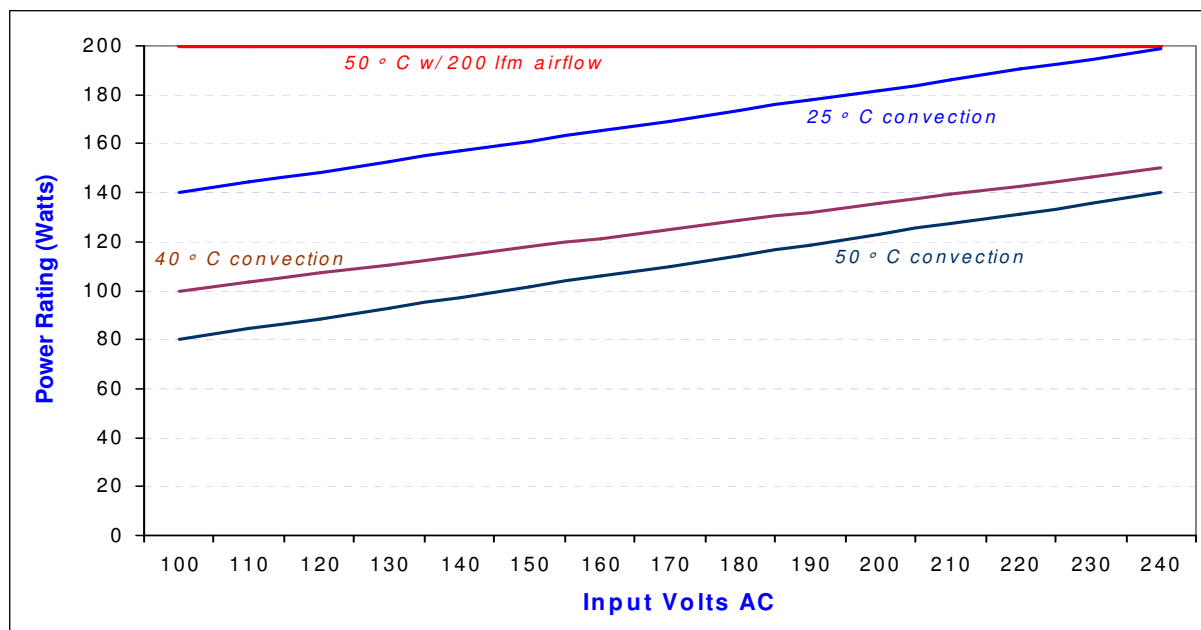
MATING CONNECTORS:

- J1:** MOLEX 09-50-3031, PINS: 08-52-0112
J2: MOLEX 09-50-3061, PINS: 08-52-0112
J3: AMP 1375820-2, PINS: 1375813-3
J4: MOLEX 50-37-5083, PINS: 08-70-1040

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 WEIGHT: 0.68 Lbs. (350g)



GNT200 Output Power vs. Line Voltage & Temperature



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