

GNT60 MEDICAL SERIES SINGLE OUTPUT POWER SUPPLY

Low Power Medical Power Supplies 60 Watt AC/DC Universal Input Power Supply

SUMMARY

- 100 240 Vac nominal input range
- Overvoltage and short circuit protection
- Approved to UL, CSA and EN Standards
- Class II input available (G2T60)

The GNT60 Series is a 60 W universal input AC/DC power supply in a very small footprint. With the medical approvals the GNT60 is ideal for a variety of medical device applications including, small single board computers, battery charging, and running small motors, pumps, and solenoids. The series with full approval to EN60601-1 and EN60950 Standard, improves design-in time and reduces end system compliance costs.



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

SPECIFICATIONS

OUPUT SPECIFICATIONS		
Output Power	Natural Convection	60 Watts max.(65 W with airflow)
Total Regulation		See table
Rise time	At turn-on	2.0 s max.
Transient response	Main output 50% 0.2 A/ms	5% max. dev. 1 ms recovery to 1%
Temperature Coef- ficient		+/-0.03%/oC
Overvoltage protection		125% +/-10%
Short Circuit protection	Power cycling	Yes

INPUT SPECIFICATIONS		
Input Voltage range	Universal input	100-240 nom (85 - 264 max) Vac
Input frequency		55 Hz +/- 10 Hz
Input surge current	Thermistor limited	37 A max.
Ground Leakage current	264 Vac 60 Hz	200 μA (400 μA single fault)
Input current	120 Vac	1.2 A
	230 Vac	0.7 A
Input fuse	F1,F2	3.15 A

EMC INFORMATION			
RF emissions	EN55011	Conducted Class B Radiated Class A	
Line freq. harmonics	EN61000-3-2	Complies	
Voltage fluctuations	EN61000-3-3	Complies	
ESD	EN61000-4-2	Contact 6 kV Air 8 kV	
Radiated immunity	EN61000-4-3	3 V/m	
Fast Transients (EFT)	EN61000-4-4	2 kV	
Line surge immunity	EN61000-4-5	Differential 1 kV Common 2 kV	
Conducted immunity	EN61000-4-6	3 Vrms	
Power freq. mag. field	EN61000-4-8	3 A/m	
Voltage dip immunity	EN61000-4-11	95% dip, 0.5 cycle 60% dip, 5 cycles 30% dip, 25 cycles	
Note: Voltage dip immunity at 100 V is done with a 20% load			

ENVIRONMENTA		
Thermal Performance	operating ambient (see ratings chart)	0-70 °C
	non-operating	-40 to +85 °C
	0 - 50 °C Convection cooled	60 Watts
	50 -70 °C ambient Convection cooled	derate to 50%
Relative Humidity	non-condensing	5% - 95% RH
Maximum Altitude	operating / non-operating	10,000 ft. / 40,000 ft. max.
Vibration	5 Hz- 500 Hz	2.5 g rms
Shock	per MIL-STD-810E	516.4 part IV

GENERAL SPECIFICATIONS		
Hold-up time	120 Vac, 60 Hz	16 ms at 60 Watts output
Efficiency	120 Vac 60 W output	>80 %
isolation voltage	input to ouput input to ground	4000 Vac 1500 Vac
Switching frequency	fixed	60 KHz, +/- 5 KHz
Safety Approvals		UL/EN/IEC 60601-1 CSA22.2 No.601 UL/EN/IEC 60950-1 CSA22.2 No.60950-1
Maximum weight		140 g (0.29 lbs)

MODEL NUMBER	40°C Convection	50°C Convection	50°C Airflow	RIPPLE	REGULATION
GNT60-12	12 V 4.2 A	12 V 3.35 A	12 V 5.0 A	120 mV	2%
GNT60-15	15 V 4.0 A	15 V 3.7 A	15 V 4.35 A	150 mV	2%
GNT60-24	24 V 2.1 A	24 V 1.9 A	24 V 2.7 A	150 mV	2%
GNT60-48	48 V 1.1 A	48 V 0.95 A	48 V 1.35 A	300 mV	2%

NOTES

- 1. Convection cooling rating is 40 Watts worst case (GNT60-12 @ 50°C)
- 2. When the input voltage is less than 90 Vac the operating temperature range is 0°C to 40°C. The ripple and regulation specs. may not be met.
- 3. Peak output rating is 70 Watts for 1 minute.
- 4. Noise 0.5% RMS, 1% Pk-Pk, 20 MHz Bandwidth, differential mode. Measured with scope probe directly across output terminals of the power supply.
- 5. Heatsink temperatures should not be allowed to exceed 90 °C
- 6. Installation data is online at www.condorpower.com

MECHANICAL NOTES			
INPUT	J1 AMP P/N 640445-2 TB1		
	PIN 1 AC LINE	PIN 1 AC LINE	
	PIN 2 AC NEUTRAL	PIN 2 AC NEUTRAL	
GROUND	0.187 FASTON		

OUTPUT	J2 AMP P/N 640445-4	TB2
	PIN 1 COMMON	PIN 1 COMMON
	PIN 2 COMMON	PIN 2 OUTPUT 1
	PIN 3 OUTPUT 1	
	PIN 4 OUTPUT 1	

MATING CONNECTOR (TYCO/AMP)			
INPUT HOUSING 640250-2 CONTACT 640706-1			
OUTPUT	HOUSING 640250-4	CONTACT 640706-1	

