

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)
- RoHS Compliant Model Available (G suffix)



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, running small motors, pumps, and solenoids. The series, with approval to 60601-1 and 60950 standards, improves design-in time and reduces end system compliance costs.

Specifications:



OUTPUT SPECIFICATIONS		
Output Power	Natural Convection	60 Watts max.(65 W with airflow) See table
Total Regulation		See table
Rise time	At turn-on	2.0 s max.
Transient response	Main output 50% 0.2 A/ μ s	3.55% max. dev. 1 μ s recovery to 0.5%
Temperature Coefficient		+/-0.03%/ $^{\circ}$ C
Overvoltage protection		108% to 130%
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	300 μ A max. (400 μ A single fault)
Input current	120 Vac	1.2 A
	230 Vac	0.7 A
Input fuse	F1,F2	3.15 A

EMC INFORMATION		
Conducted emissions	EN55011	Level B
Radiated emissions	EN55011	Level A
Line freq. harmonics	EN61000-3-2	Complies
Voltage fluctuations	EN61000-3-3	Complies
ESD Air	EN61000-4-2	8 kV contact
ESD Contact	EN61000-4-2	6 kV air
Radiated immunity	EN61000-4-3	3 V/m
Fast Transients (EFT)	EN61000-4-4	2 kV
Line surge immunity	EN61000-4-5	1 kV diff /2 kV cm
Conducted immunity	EN61000-4-6	3 Vrms
Power freq. mag. field	EN61000-4-8	3 A/m
Voltage dip immunity	EN61000-4-11 100 Vac	5 cycles 40 % Vnom 22% load 25 cycles 70 % Vnom 52% load 0.5 cycles <5% Vnom 88% load

ENVIRONMENTAL SPECIFICATIONS		
Thermal Performance	operating ambient (see ratings chart)	0-70 $^{\circ}$ C
	non-operating	-40 to +85 $^{\circ}$ C
	0 - 50 $^{\circ}$ C	Full load. See table.
	50 -70 $^{\circ}$ C ambient	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

All specifications are typical at nominal input, full load at 25 $^{\circ}$ C unless otherwise stated

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 1st Edition CSA22.2 No.60950-1-03
Maximum weight		140 g (0.29 lbs)

MODEL NUMBER	50°C Airflow	40°C Convection	50°C Convection	RIPPLE	REGULATION
GNT60-12	12 V 5.0 A	12 V 4.2 A	12 V 3.35 A	120 mV	2%
GNT60-15	15 V 4.35 A	15 V 4.0 A	15 V 3.7 A	150 mV	2%
GNT60-24	24 V 2.7 A	24 V 2.1 A	24 V 1.9 A	240 mV	2%
GNT60-48	48 V @ 1.35 A	48 V @ 1.1 A	48 V @ 0.95 A	480 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
7. Add "G" suffix to model number for RoHS compliant model.

Mechanical Notes

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

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

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

