



GNT30 MEDICAL SERIES SINGLE OUTPUT POWER SUPPLY

Low Power Medical Power Supplies 30 Watt AC/DC Universal Input Power Supply

SUMMARY

- **90-264 Vac input range**
- **Overvoltage and short circuit protection**
- **Approved to UL, CSA and EN Standards**
- **Small 50 mm x 80 mm footprint**
- **Class II input available (G2T30)**

The GNT30 Series is a 30 W universal input AC/DC Power supply in a very small footprint. With the medical approvals the GNT30 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 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

OUTPUT SPECIFICATIONS		
Output Power	150 l.f.m. airflow	30 Watts max. (See note 4)
Total Regulation		See table
Turn-on time		1.5 s max.
Transient response	0.25 A/ms 50% load deviation	3.5% max. dev. 1 ms recovery to 1%
Temperature Coefficient		+/-0.03%/oC
Overvoltage protection		125% +/-10%
Short Circuit protection	Power cycling	Yes

INPUT SPECIFICATIONS		
Input Voltage range	Universal input	100-240 nom (90 - 264 max) Vac
Input frequency		55 Hz +/- 10 Hz
Input surge current		32 A max.
Ground Leakage current	132 Vac 60 Hz	100 µA (180 µA single fault)
Input current	120 Vac	0.6 A
	230 Vac	0.37 A
Input fuse	F1,F2	2.5 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 V _{rms}
Power freq. mag. field	EN61000-4-8	3 A/m
Voltage dip immunity	EN61000-4-11	5 cycles 40 % vnom 0.5 Watts. 25 cycles 70 % vnom 20 W

ENVIRONMENTAL SPECIFICATIONS		
Thermal Performance	operating ambient (see chart)	0-50 °C
	non-operating	-40 to +85 °C
	0 - 50 °C 150 l.f.m (See note 4.)	30 Watts
	50 -70 °C ambient 150 l.f.m	derate 2% /°C
Relative Humidity	non-condensing	0% - 95% RH
Maximum Altitude	operating / non-operating	10,000 ft. / 40,000 ft. max.
Vibration	Operating	1.5 g _{rms} 20-2000 Hz
	Non-operating	5 g _{rms} 20-2000 Hz
Shock	Operating	20 g _{pk} 10 ms, half-sine
	Non-operating	40 g _{pk} 10 ms half-sine



GENERAL SPECIFICATIONS		
Hold-up time	120 Vac, 60 Hz	16 ms at 30 Watts output
Efficiency	120 Vac 30 W output	>78 %
isolation voltage	input to ouput	4000 Vac
	input to ground	1500 Vac
Switching frequency	fixed	120 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		100 g (0.22 lbs)

MODEL NUMBER	40°C Convection	50°C Convection	50°C Airflow	RIPPLE	REGULATION
GNT30-5	5 V 4.0 A	5 V 3.2 A	5 V 6.0 A	50 mV	2%
GNT30-12	12 V 2.5 A	12 V 1.66 A	12 V 2.5 A	120 mV	2%
GNT30-15	15 V 2.0 A	15 V 1.06 A	15 V 2.0 A	150 mV	2%
GNT30-24	24 V 1.25 A	24 V 0.83 A	24 V 1.25 A	240 mV	2%
GNT30-28	28 V 1.07 A	28 V 0.8 A	28 V 1.07 A	280 mV	2%
GNT30-48	48 V 0.625 A	48 V 0.416 A	48 V 0.625 A	480 mV	2%

NOTES
1. 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.
2. Peak output current rating is for 1 minute and 10 % duty cycle.
3. Heatsink temperatures should not be allowed to exceed 90 °C
4. Output Voltage is adjustable +/- 5% of nominal. See installation instructions (www.condorpower.com)

MECHANICAL NOTES		
INPUT	J1 AMP P/N 640456-3	TB1
	PIN 1 AC LINE	PIN 1 AC LINE
	PIN 2 N/C	PIN 2 AC NEUTRAL
	PIN 3 AC NEUTRAL	
0.187 Faston	GROUND	GROUND

OUTPUT	J2 AMP P/N 640456-4	TB2
	PIN 1 COMMON	PIN 1 COMMON
	PIN 2 COMMON	PIN 2 OUTPUT 1
	PIN 3 OUTPUT 1	
	PIN 4 OUTPUT 1	

	MATING CONNECTORS	CONTACT
INPUT	HOUSING 1375820-3	1375819-1
OUTPUT	HOUSING 1375820-4	1375819-1

