

## 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**

OUPUT SPECIFICATIONS		
Output Power	150 I.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 Coef- ficient		+/-0.03%/oC
Overvoltage protection		125% +/-10%
Short Circuit protection	Power cycling	Yes

INPUT SPECIFIC		
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 <sub>ms</sub>
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 ℃	
	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 Non-operating	1.5 g <sub>ms</sub> 20-2000 Hz 5 g <sub>ms</sub> 20-2000 Hz	
Shock	Operating Non-operating	20 g <sub>pk</sub> 10 ms, half-sine 40 g . 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 input to ground	4000 Vac 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%

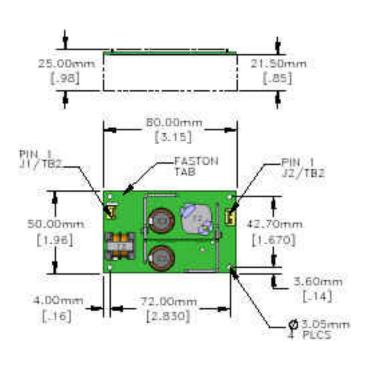
## **NOTES**

- 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



Condor DC Power Supplies Inc. 2311 Statham Parkway, Oxnard CA, 93033, USA. Phone: (805) 486 4565 Fax: (805) 487 8911 Email: condor@condordc.com GNT30 Rev H 11/11/05.

Data Sheet © 2005 Condor DC Power Supplies Inc. The information and specifications contained in this data sheet are believed to be correct at time of publication. However, Condor accepts no responsibility for consequences arising from reproduction errors or inaccuracies. Specifications are subject to change without notice.