

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 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 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 (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

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% /ºC	
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 _{ms} 20-2000 Hz 5 g _{ms} 20-2000 Hz	
Shock	Operating Non-operating	20 g _{pk} 10 ms, half-sine 40 g _{pk} 10 ms half-sine	

EN61000-4-3	3 V/m
EN61000-4-4	2 kV
EN61000-4-5	1 kV diff /2 kV cm
EN61000-4-6	3 V _{ms}
EN61000-4-8	3 A/m
EN61000-4-11	5 cycles 40 % vnom 0.5 Watts. 25 cycles 70 % vnom 20 W
	EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-8

Level B

Level A

Complies

Complies

6 kV air

8 kV contact

EMC INFORMATION

Conducted emissions

Radiated emissions

Line freq. harmonics

Voltage fluctuations

ESD Air

ESD Contact

Radiated in Fast Transi Line surge Conducted Power freq. Voltage dip EN55011

EN55011

EN61000-3-2

EN61000-3-3

EN61000-4-2

EN61000-4-2

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%

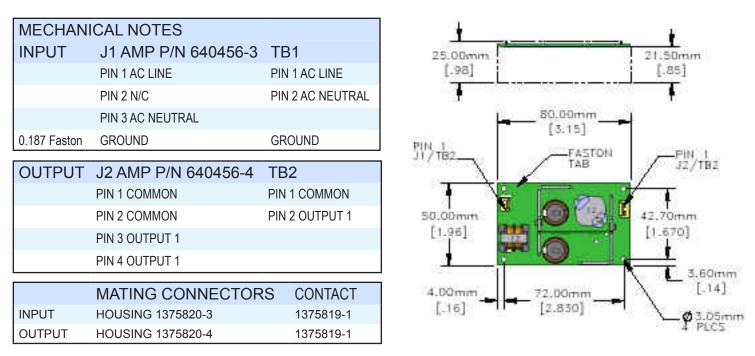
NOTES

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)



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.