



**APPLIED  
CONCEPTS INC.**

397 Route 281 - P.O. BOX 1175  
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[www.acipower.com](http://www.acipower.com)

**AC7-12-1392**

PRODUCT OVERVIEW SHEET - PAGE 1 OF 2

**CCFL INVERTER**  
*(For Dual Tube Applications)*

3/8/05

**GENERAL DESCRIPTION**

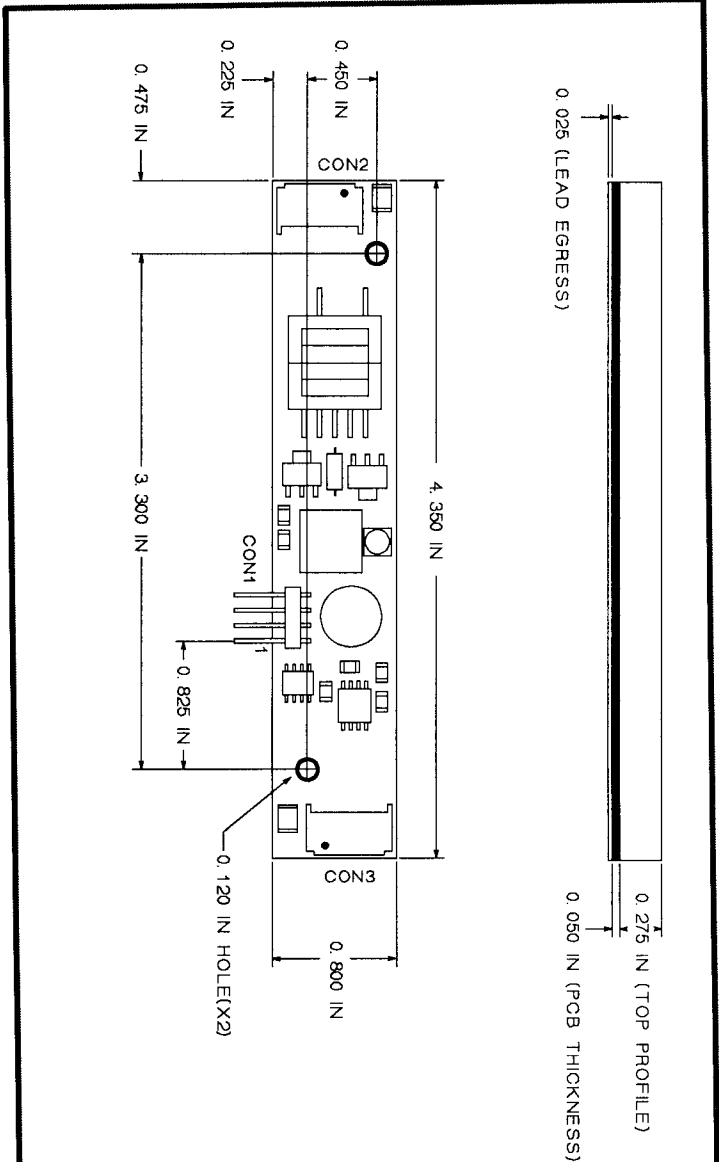
The AC7-12-1392 is designed to power 2 CCFL's at a nominal current level of 6.0mA per tube.

The AC7-12-1392 features analog dimming control via a dc control level of 3.5V(off) to 0V(full-on) @ pin 3 of CON1. A dc reference voltage(+5V) is available @ pin 4 of CON1 for external use.

All outputs are open and short circuit protected.

**MECHANICAL / ENVIRONMENTAL**

- Weight = 14.1 grams
- Altitude = 10,000 Ft maximum
- Humidity < 85% non-condensing
- Size (L x W x H) = 4.35 IN x 0.8 IN x 0.35 IN
- PCB thickness = 0.047 IN
- Mounting Holes = 0.12 IN diameter (X2)
- Input Power & Control Connector = CON1
- CCFL Output Connector = CON2, CON3



INPUT CONNECTOR  
CON1  
MOLEX 22-28-8041

OUTPUT CONNECTOR  
CON2, CON3  
JST SM03(4 0)B-BHS-1-TB

PIN #	FUNCTION
1	+VIN
2	GND
3	VCNTL
4	LOGIC HI OUT

PIN #	FUNCTION
1	CCFL HOT
2	NC
3	CCFL COLD



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## MAXIMUM RATINGS\*

3/8/05

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 14	Vdc
Vip	Voltage applied to any Input Pin (Referenced to Ground)	-0.7 to 5.7	Vdc
Iop	Current sourced or sinked from any Output Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	7.3	W
Top	Operating Temperature (Still air ambient around Inverter)	0 to +70	DegC
Tstg	Storage Temperature	-20 to +105	DegC

\* Maximum Ratings are those values beyond which damage to the inverter may occur

## RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	10.8	13.2	Vdc
Lsv	Cold Cathode Fluorescent Lamp Sustaining Voltage	300	700	Vrms
Vcntl	Intensity Control Voltage	0	3.5	Vdc

## ELECTRICAL CHARACTERISTICS

Vin = +12V, Lsv = 420Vrms, Vcntl = 0V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1450		Vrms
Lout	Lamp Output Current	PWM Duty Cycle @ 100%	5.4	6.6	mArms
Lfreq	Lamp-Current Frequency		48	59	Khz
Pfreq	PWM Dimming Frequency	Vcntl (Pin 3) = +1.75V	95	101	Hz
Pdc	PWM Duty Cycle Range	Vcntl (Pin 3) = +3.5 to 0V	1	100	%
+5Vout	+5V Reference Out (Pin 4)	10k load to ground	4.6	5.3	Vdc
Iin	Input Current Draw			0.52	Adc
Eff	Electrical Efficiency		88		%