

APPLIED CONCEPTS INC.

397 Route 281 - P.O. BOX 1175
Tully, New York 13159-1175
Phone: (315) 696-6676 Fax: (315) 696-9923
www.acipower.com

AC7-12-1610

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CCFL INVERTER

(For Dual Tube Applications)

9/12/06

GENERAL DESCRIPTION

This AC7-12-1610 is designed to drive 2 CCFL's to a nominal current level of 6.0mA/tube.

Intensity control (0-100%) is accomplished by the user providing a variable dc level at pin 3 of CON1.

Enable control is accomplished @ pin 4 of CON1.

All outputs are open and short circuit protected.

MECHANICAL / ENVIRONMENTAL

Weight = 14.1 grams

Altitude = 10,000 Ft maximum

Humidity < 85% non-condensing

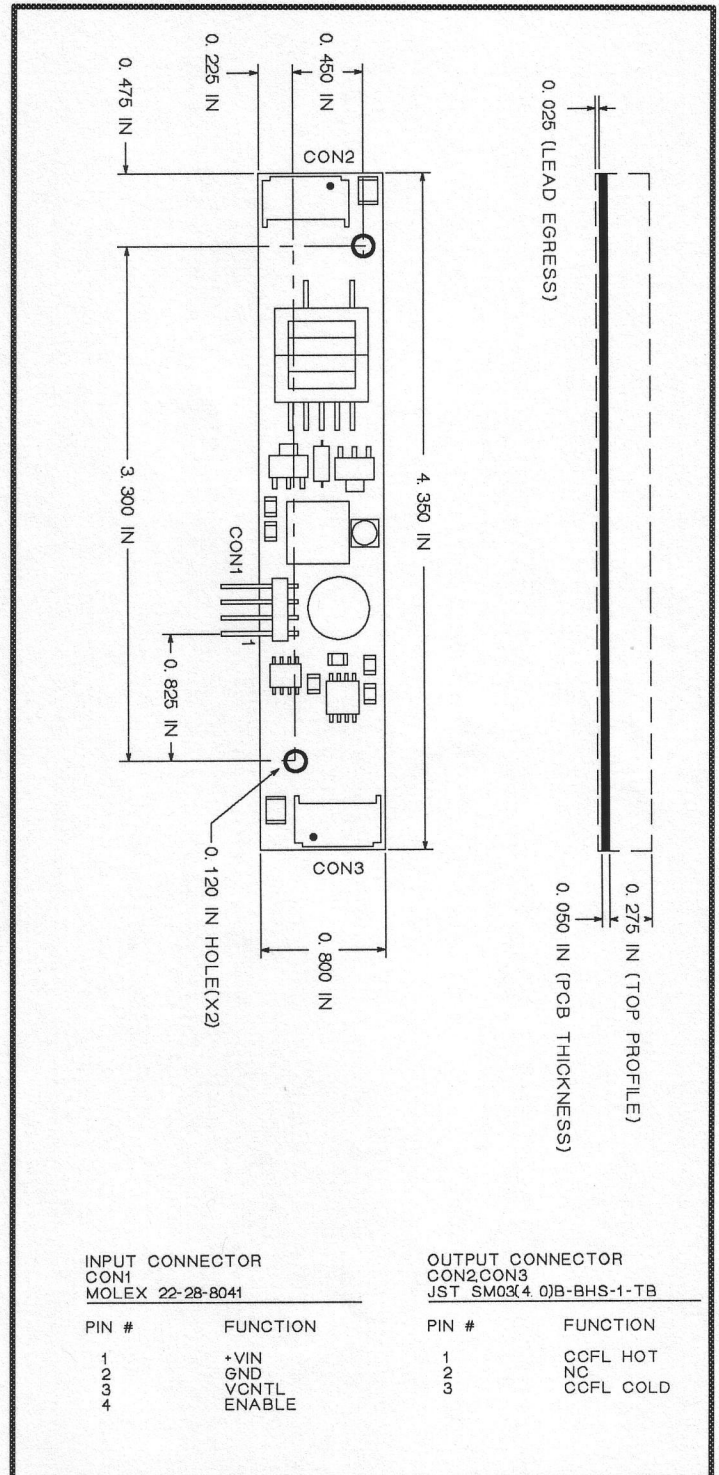
Size (L x W x H) = 4.35 IN x 0.8 IN x 0.35 IN

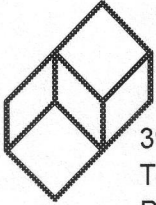
PCB thickness = 0.050 IN

Mounting Holes = 0.120 IN diameter (X2)

Input Power & Control Connector = CON1

CCFL Output Connectors = CON2, CON3





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MAXIMUM RATINGS*

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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)	6	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	250	450	Vrms
Vcntl	Intensity control voltage	0	3.0	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Lsv = 350Vrms, Vcntl = 0V, Enable = +5V unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1000		Vrms
Lout	Lamp Output Current		5.4	6.6	mArms
Lfreq	Lamp-Current Frequency		45	55	Khz
Pfreq	PWM Dimming Frequency	Vcntl = 1.5V	95	101	Hz
Pdc	PWM Duty Cycle Range	Vcntl (pin 3) = +3.0V to +0.1V	0	100	%
ENoff	Enable Control, unit OFF (Pin 4)			0.8	Vdc
ENon	Enable Control, unit ON (Pin 4)		2.0		Vdc
Iin	Input Current Draw	@ 12 V in		0.44	Adc
Eff	Electrical Efficiency		88		%