

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

AC5-12-1621

PRODUCT DATA SHEET - PAGE 1 OF 3

CCFL INVERTER

(For Multiple Tube Applications)

10/16/06

GENERAL DESCRIPTION

The AC5-12-1621 is designed to power 4 CCFL's to a nominal power level of 24 watts from a +12V source.

Intensity control is accomplished by the user providing a variable dc level at pin 5 of CON1.

Intensity control has a logarithmic response, see chart page 3.

Enable control is accomplished at pin 3 of CON1.

A +5V reference is available at pin 4 of CON1 for external use.

All outputs are open and short circuit protected.

MECHANICAL / ENVIRONMENTAL

Weight = 60 grams

Humidity < 90% non-condensing

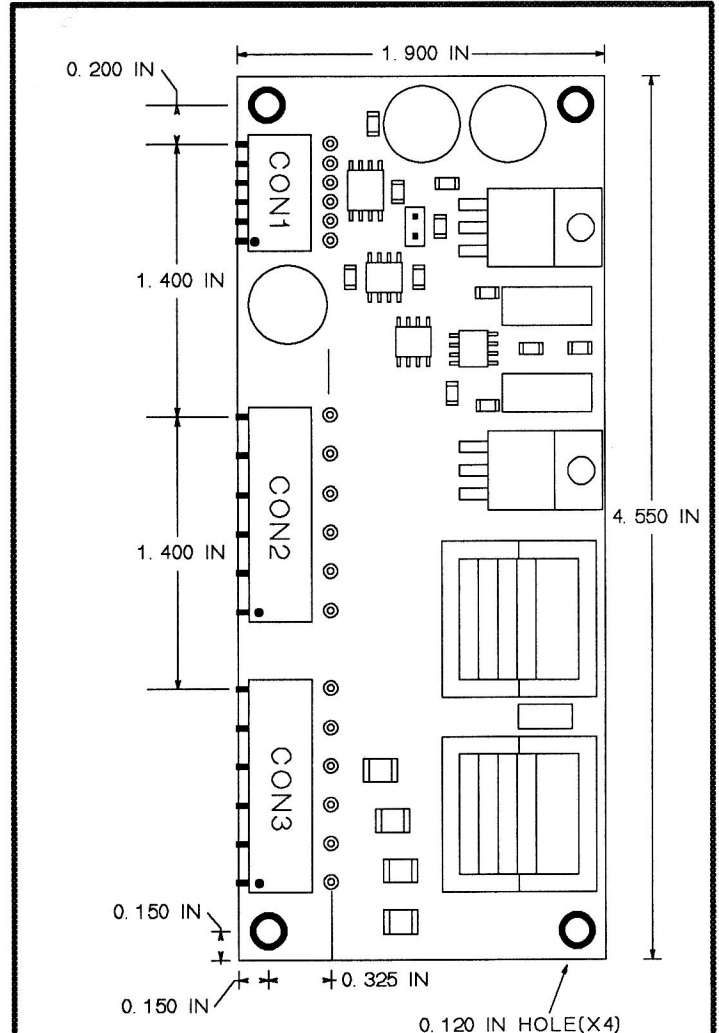
Size (L x W x H) = 4.55 x 1.90 x 0.575

PCB thickness = 0.062 IN

Mounting Holes = 0.120 IN diameter (X4)

Input Power & Control Connector = CON1

CCFL Output Connector = CON3



PROFILE = 0.575 IN

CON1
MOLEX 22-28-1063

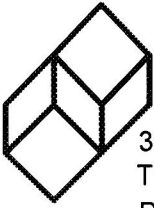
CON3
MOLEX 22-28-1113

PIN #

PIN #

1 +12V
2 GND
3 ENABLE
4 LOGIC HI
5 VCNTL
6 PWM OUT

1 CCFL 4
2 NC
3 CCFL 3
4 NC
5 CCFL 2
6 NC
7 CCFL 1
8 NC
9 NC
10 NC
11 CCFL COMMON



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MAXIMUM RATINGS*

10/16/06

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)	-0.3 to 5.3	Vdc
Iop	Current sourced or sinked from any Output Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	33	W
Top	Operating Temperature (Still air ambient around Inverter)	0 to +70	DegC
Tstg	Storage Temperature	-40 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	775	1150	Vrms
Vcntl	Intensity Control Voltage	0	5.0	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Lsv = 960Vrms, Vcntl = +5V, Enable = +5V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage	Open circuit	2000		Vrms
Lout	Lamp Output Current		5.6	7.0	mArms
Lfreq	Lamp-Current Frequency		24.3	29.7	Khz
Pfreq	PWM Dimming Frequency	Vcntl (Pin 5) = +2.5V	258	274	Hz
Pdc	PWM Duty Cycle Range	Vcntl (Pin 5) = 0 to +5V (see log chart)	0	100	%
ENoff	Enable Control, unit OFF	(Pin 3)		0.8	Vdc
ENon	Enable Control, unit ON	(Pin 3)	2.0		Vdc
+5Vout	+5V Reference Out	(Pin 4) 10K load to ground	4.6	5.25	Vdc
Iin	Input Current Draw			2.5	Adc
Eff	Electrical Efficiency		90		%

AC5-12-1621 Logarithmic Intensity

Control Response pg 3 of 3

