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

ACL-V1-1737

CCFL INVERTER

(For Multiple Tube Applications)

10/09/07

GENERAL DESCRIPTION

The ACL-V1-1737 is designed to power 12 CCFL's to a nominal power level of 36 watts from nominal +12V source.

Intensity control is accomplished via a DC level @ pin 4 of CON1.

Enable control is accomplished @ pin 7 of CON1.

A dc reference voltage is available @ pin 1 of CON1 for external use.

All outputs are open and short circuit protected.

MECHANICAL / ENVIRONMENTAL

Weight = 88 grams

Altitude = 10,000 Ft maximum

Humidity < 85% non-condensing

Size (L x W x H) = 8.3 IN x 1.5 IN x 0.575 IN

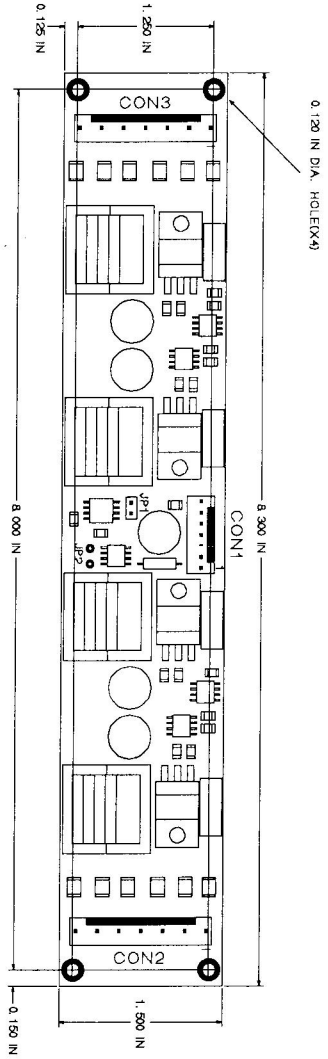
PCB thickness = 0.062 IN

Mounting Holes = 0.120 IN diameter (X4)

Input Power & Control Connector = CON1

CCFL Output Connectors = CON2,CON3

PROFILE:
0. 575 IN



CON1
MOLEX 22-28-0070

PIN #	
1	+5V OUTPUT
2	+12V INPUT(PWR)
3	+12V INPUT(PWR)
4	VCNTL
5	GND(PWR)
6	GND(PWR)
7	ENABLE

CON2(CON3)
MOLEX 22-28-0130

PIN #	
1	CCFL 1(7)
2	NC
3	CCFL 2(8)
4	NC
5	CCFL 3(9)
6	NC
7	CCFL 4(10)
8	NC
9	CCFL 5(11)
10	NC
11	CCFL 6(12)
12	NC
13	CCFL COM

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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)	51	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 Flourescent Lamp Sustaining Voltage	460	565	Vrms
Vcntl	Intensity Control Voltage	0	5.0	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Lsv = 515Vrms, Vcntl = +5V, Enable =+5V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1400		Vrms
Lout	Lamp Output Current	PWM Duty Cycle @ 100%	5.2	6.35	mArms
Lfreq	Lamp-Current Frequency		57	70	Khz
Pfreq	PWM Dimming Frequency	Vcntl (Pin 4) = +2.5V	175	215	Hz
Pdc	PWM Duty Cycle Range	Vcntl (Pin 4) = 0V to +5V	0	100	%
ENoff	Enable Control	Unit OFF (Pin 7)		0.7	Vdc
ENon	Enable Control	Unit ON (Pin 7)	2.0		Vdc
+5Vout	+5V Reference Out	10k load to ground (Pin 1)	4.6	5.3	Vdc
Iin	Input Current Draw	@ 12V		3.85	Adc
Eff	Electrical Efficiency		85		%