

**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

AC-1618B

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CCFL INVERTER

(For Dual Tube Applications)

1/10/08

GENERAL DESCRIPTION

The AC-1618B is designed to power 2 CCFLs up to a power level of 8.6 watts from a nominal +12V source.

Intensity control is accomplished via a DC level @ pin 6 of CON1.

Enable control is accomplished @ pin 5 of CON1.

A lamp-out detect signal is available @ pin 8 of CON1.

All outputs are open and short circuit protected.

MECHANICAL / ENVIRONMENTAL

Weight = 28.2 grams

Altitude = 55,000 Ft maximum

Humidity < 85% non-condensing

Size (L x W x H) = 4.600 IN x 0.900 IN x 0.422 IN

PCB thickness = 0.062 IN

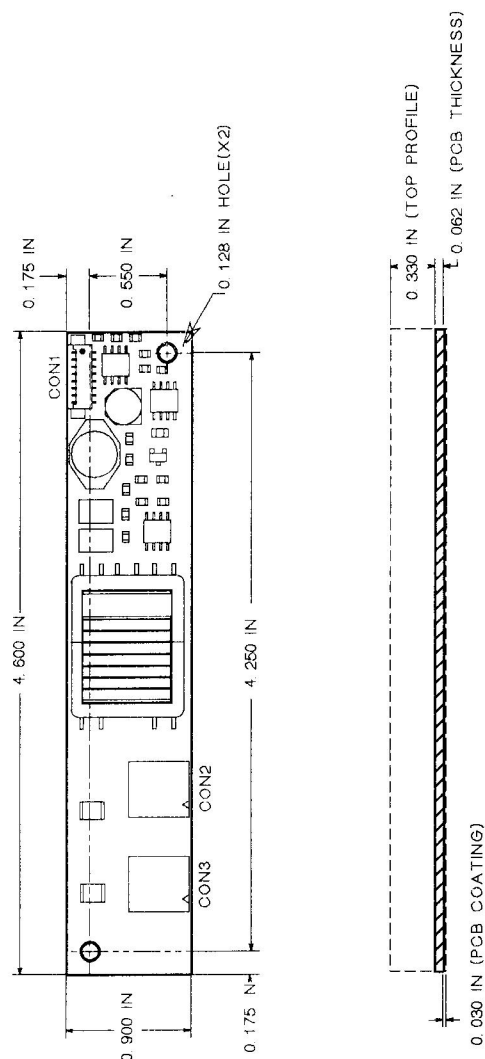
Mounting Holes = 0.128 IN diameter (X2)

Input Power & Control Connector = CON1

CCFL Output Connectors = CON2, CON3

Part/Date-code label located on top of transformer

Non RoHS compliant



INPUT CONNECTOR
CON1
MOLEX 53261-0890

PIN #	FUNCTION
1	+12V(PWR)
2	+12V(PWR)
3	GND(PWR)
4	GND(PWR)
5	ENABLE
6	INTENSITY CNTL
7	GND(PWR)
8	LAMP OUT

OUTPUT CONNECTOR
CON2 & CON3
JST SM02B-BHTS-B-TB

PIN #	FUNCTION
1	CCFL HOT
2	CCFL COLD



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MAXIMUM RATINGS*

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Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 15	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	mA _{dc}
Pin	Input Power (DC Input Voltage x DC Input Current)	12.5	W
Top	Operating Temperature (Still air ambient around Inverter)	-20 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)	11.4	12.6	Vdc
Lsv	Cold Cathode Fluorescent Lamp Sustaining Voltage	535	895	V _{rms}
Vcntl	Intensity Control Voltage	0	5	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Lsv = 715V_{rms}, Vcntl = +5V, Enable = +5V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1800		V _{rms}
Lout	Lamp Output Current		5.4	6.6	mA _{rms}
Lfreq	Lamp-Current Frequency		51	63	Khz
Pfreq	PWM Dimming Frequency	Intensity cntl (Pin 6) = +2.5V	95	101	Hz
Pdc	PWM Duty Cycle Range	Intensity cntl (Pin 6) = +5V to +0V	10	100	%
ENoff	Enable Control, unit OFF	Enable (Pin 5)		0.7	Vdc
ENon	Enable Control, unit ON	Enable (Pin 5)	2.0		Vdc
LO _A	Lamp-out detect (Active)	1 or 2 lamp(s) out	4.5		Vdc
LO _{IA}	Lamp-out detect (Inactive)			0.7	Vdc
Vctpk	Peak center-tap voltage	@ cathode of zener diode		26	V _{pk}
Iin	Input Current Draw			0.925	A _{dc}
Eff	Electrical Efficiency		85		%