

# APPLIED CONCEPTS INC.

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

# AC-1562M

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## CCFL INVERTER (For Multiple Tube Applications)

10/11/05

### GENERAL DESCRIPTION

The AC-1562M is designed to power 5 CCFL's to a nominal power level of 19.25 watts from a nominal +12V source.

Intensity control (0-100%) is accomplished via a DC level on pin 6 of CON1.

Enable control is accomplished @ pin 5 of CON1.

A +5V reference voltage is available @ pin 7 of CON1 for external use.

A PWM output signal is available @ pin 8 of CON1 for external use.

All outputs are open and short circuit protected.

### MECHANICAL / ENVIRONMENTAL

Weight = 36 grams

Altitude = 10,000 Ft maximum

Humidity < 85% non-condensing

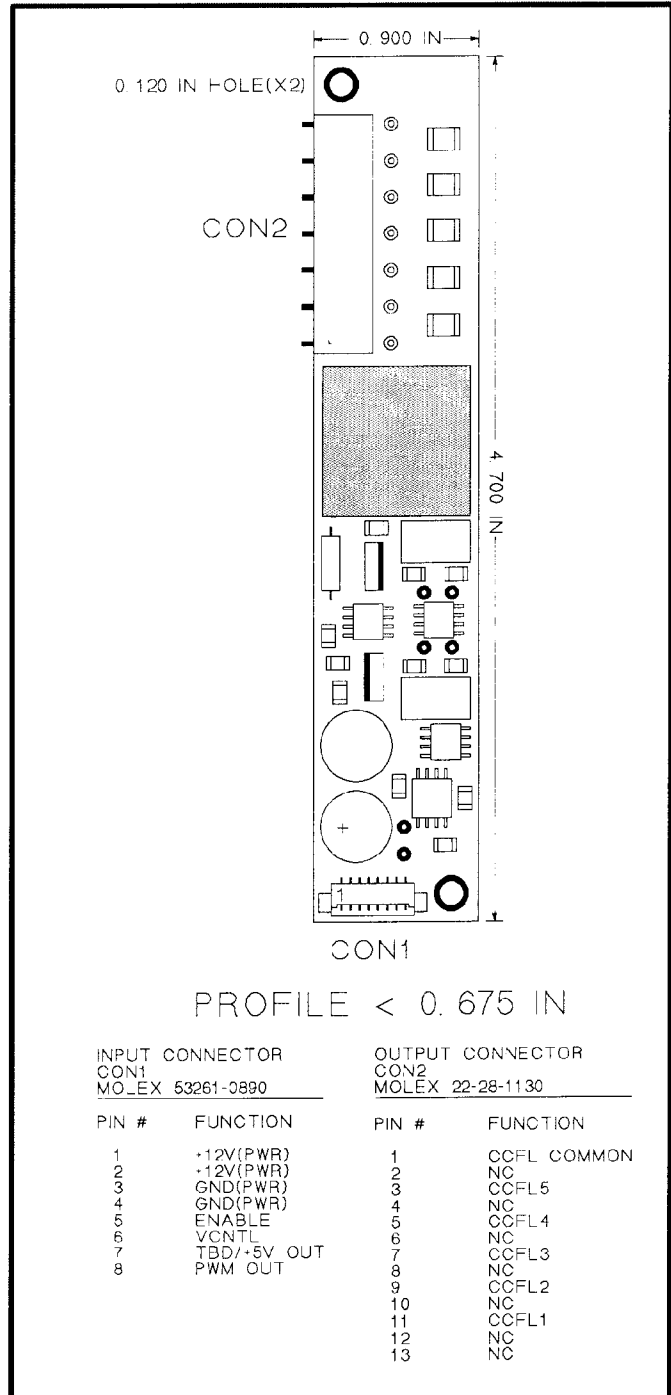
Size (L x W x H) = 4.7 IN x 0.9 IN x 0.675 IN

PCB thickness = 0.062 IN

Mounting holes = 0.120 IN DIA. (X2)

Input Power & Control Connector = CON1

CCFL Output Connector = CON2





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**MAXIMUM RATINGS\***

10/11/05

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 13.5	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
Pin	Input Power (DC Input Voltage x DC Input Current)	24	W
Top	Operating Temperature (Still air ambient around Inverter)	0 to +55	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	525	875	Vrms
Vcntl	Intensity Control Voltage	0.5	4.5	Vdc

**ELECTRICAL CHARACTERISTICS**

Vin = +12V, Lsv = 700Vrms, Vcntl = +4.5V, Enable = +5V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1800		Vrms
Lout	Lamp Output Current	PWM Duty Cycle @ 100%	5.0	6.0	mA
Lfreq	Lamp-Current Frequency		34	42	Khz
Pfreq	PWM Dimming Frequency	Vcntl (Pin 6) = +2.5V	142	150	Hz
Pdc	PWM Duty Cycle Range	Vcntl (Pin 6) = 0.5 to +4.5V	0	100	%
ENoff	Enable Control	Unit OFF (Pin 5)		0.5	Vdc
ENon	Enable Control	Unit ON (Pin 5)	2.0		Vdc
+5Vout	+5V Reference Out	10k load to ground (Pin 7)	4.6	5.3	Vdc
PWM out	PWM output signal	Vcntl (Pin 6) = +2.5V	142	150	Hz
Iin	Input Current Draw			1.95	A
Eff	Electrical Efficiency		90		%