APPLIED CONCEPTS INC.
397 Route 281 - P.O. BOX 453
Tully, New York 13159-0453
Phone: (315) 696-6676 Fax: (315) 696-9923
www.acipower.com

AC7-12-1136

PRODUCT DATA SHEET

CCFL INVERTER

(For Dual Tube Applications)

5/31/00

The AC7-12-1136 is designed to drive 2 CCFL'S to a nominal current level of 6.0mA per tube.

Intensity control (0-100%) is accomplished by the user providing a variable dc level of 0V(off) to 5V(full-on) at pin 3 of CON1.

A +5V level is available at pin 4 of CON1 for powering the high-side of the intensity control potientiometer.

The lamp outputs are open and short circuit protected.

This unit conforms to the USER SELECTABLE OPERATIONAL CHART drive levels.

Specifications:

Vin = +12V +/- 10%

CCFL strike voltage = 1450Vrms @ Vin=12V

CCFL tube current = 6.0mA/tube @ 100% intensity/Vin=12V)

Recommended CCFL sustaining voltage = 400Vrms - 800Vrms

Nominal tube current frequency = 54khz +/- 10%

Nominal pwm frequency = 98Hz +/- 3%

Pwm duty cycle range = 0 to 100%

Average electrical efficiency >88%

*Additional control capability:**

Enable/Disable function

Simple button intensity control

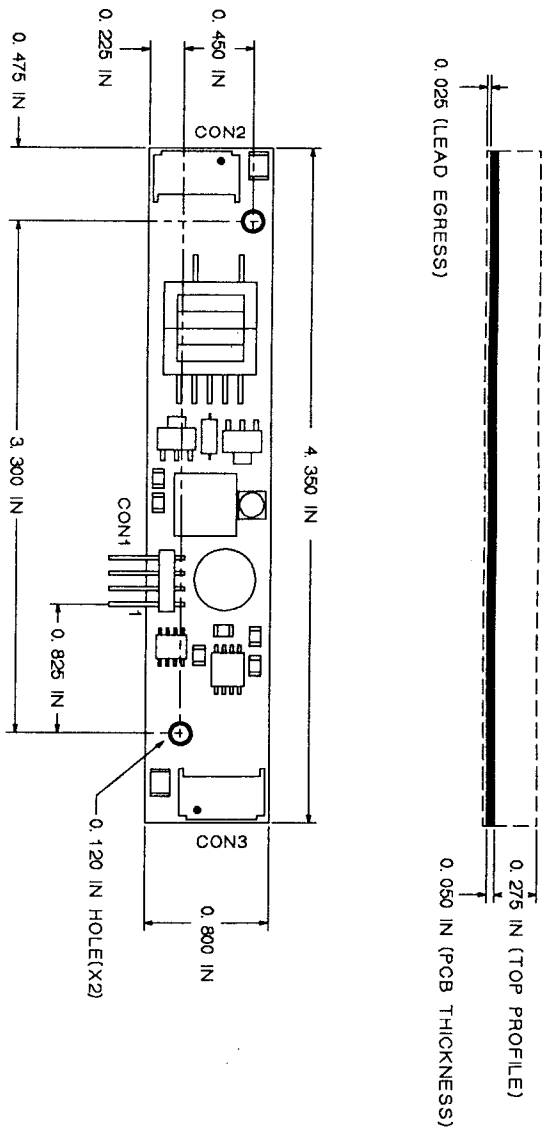
CDS ambient light sensor control

Synchronization to display frame-rate capable

Two-wire(variable resistance) intensity control

Serial communication control

* Please contact factory for information



INPUT CONNECTOR
CON1
MOLEX 22-28-8041

PIN #	FUNCTION
1	+VIN
2	GND
3	VCNTL
4	+5V OUT

OUTPUT CONNECTOR
CON2,CON3
JST SM03(4.0)B-BHS-1-TB

PIN #	FUNCTION
1	CCFL HOT
2	NC
3	CCFL COLD

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5/31/2000

AC7 - USER SELECTABLE OPERATIONAL CHART

Applicable Inverters:
AC7-05-1135
AC7-12-1136

DRIVE LEVEL	CURRENT (1 TUBE) marms	CURRENT (2 TUBE) marms	DUTY-CYCLE %	VCNTL volts	R-LIMIT kohms
1	0.40	0.30	5%	0.25	190.0
2	0.80	0.60	10%	0.50	90.0
3	1.20	0.90	15%	0.75	56.7
4	1.60	1.20	20%	1.00	40.0
5	2.00	1.50	25%	1.25	30.0
6	2.40	1.80	30%	1.50	23.3
7	2.80	2.10	35%	1.75	18.6
8	3.20	2.40	40%	2.00	15.0
9	3.60	2.70	45%	2.25	12.2
10	4.00	3.00	50%	2.50	10.0
11	4.40	3.30	55%	2.75	8.2
12	4.80	3.60	60%	3.00	6.7
13	5.20	3.90	65%	3.25	5.4
14	5.60	4.20	70%	3.50	4.3
15	6.00	4.50	75%	3.75	3.3
16	6.40	4.80	80%	4.00	2.5
17	6.80	5.10	85%	4.25	1.8
18	7.20	5.40	90%	4.50	1.1
19	7.60	5.70	95%	4.75	0.5
20	8.00	6.00	100%	5.00	0.0

EXTERNAL VOLTAGE CONTROL METHOD

Formula calculating control voltage(VCNTL) for desired output current

FOR 1 TUBE: VCNTL(volts) = 5(Itube/8) *where Itube is the desired tube current in mA*

FOR 2 TUBE: VCNTL(volts) = 5(Itube/6) *where Itube is the desired tube current in mA*

RESISTIVE CONTROL METHOD

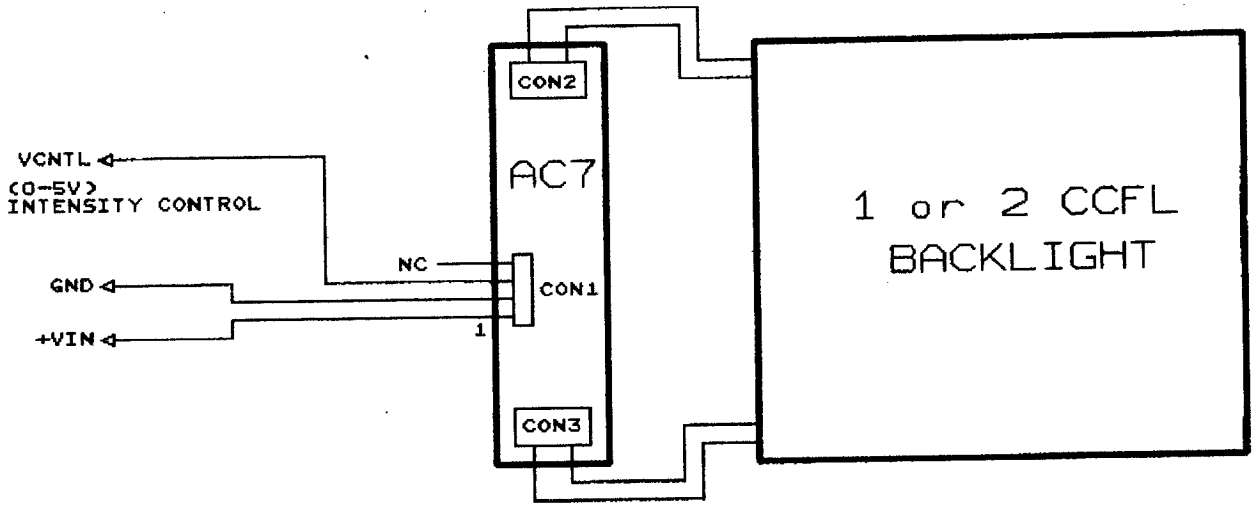
Formula calculating (R-LIMIT) for desired output current

FOR 1 TUBE: R-LIMIT(kohm) =10(8-Itube) / Itube *where Itube is the desired tube current in mA*

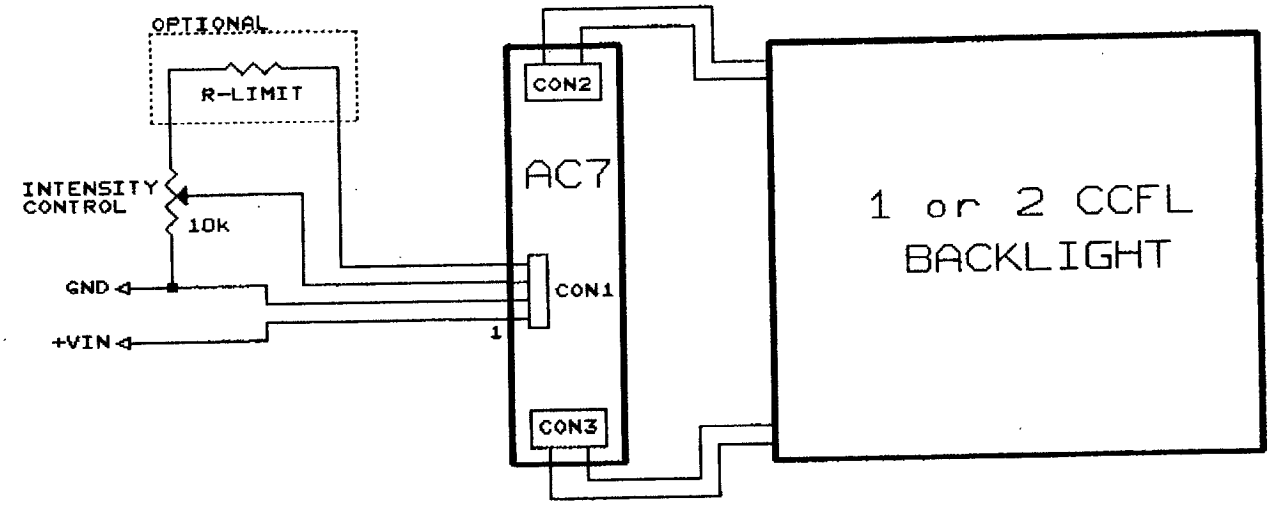
FOR 2 TUBE: R-LIMIT(kohm) =10(6-Itube) / Itube *where Itube is the desired tube current in mA*

AC7 DIMMING CONTROL METHODS

EXTERNAL VOLTAGE CONTROL METHOD



RESISTIVE CONTROL METHOD



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