

**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-1836C

PRODUCT DATA SHEET - PAGE 1 OF 3

CCFL INVERTER

(For Multiple Tube Applications)

4/17/12

GENERAL DESCRIPTION

The AC-1836C is designed to power 6 CCFL's to a nominal power level of 57.8 and 63.5 watts from a nominal +24 and +26.4V source respectively.

Intensity control is accomplished by the user providing a variable dc level at pin 13 of J1 or a PWM signal at pin 14 of J1.

Enable control is accomplished at pin 12 of J1.

All outputs are short circuit protected.

Due to the high voltage nature of the AC-1836C inverter, do not operate the inverter without first connecting an appropriate display backlight.

This unit is RoHS compliant.

MECHANICAL / ENVIRONMENTAL

Weight = 230 grams

Altitude = 18,000 Ft maximum (Tested with shorting plugs inserted in CCFL Output Connectors)

Humidity < 90% non-condensing

Size (L x W x H) = 272mm x 95mm x 14mm

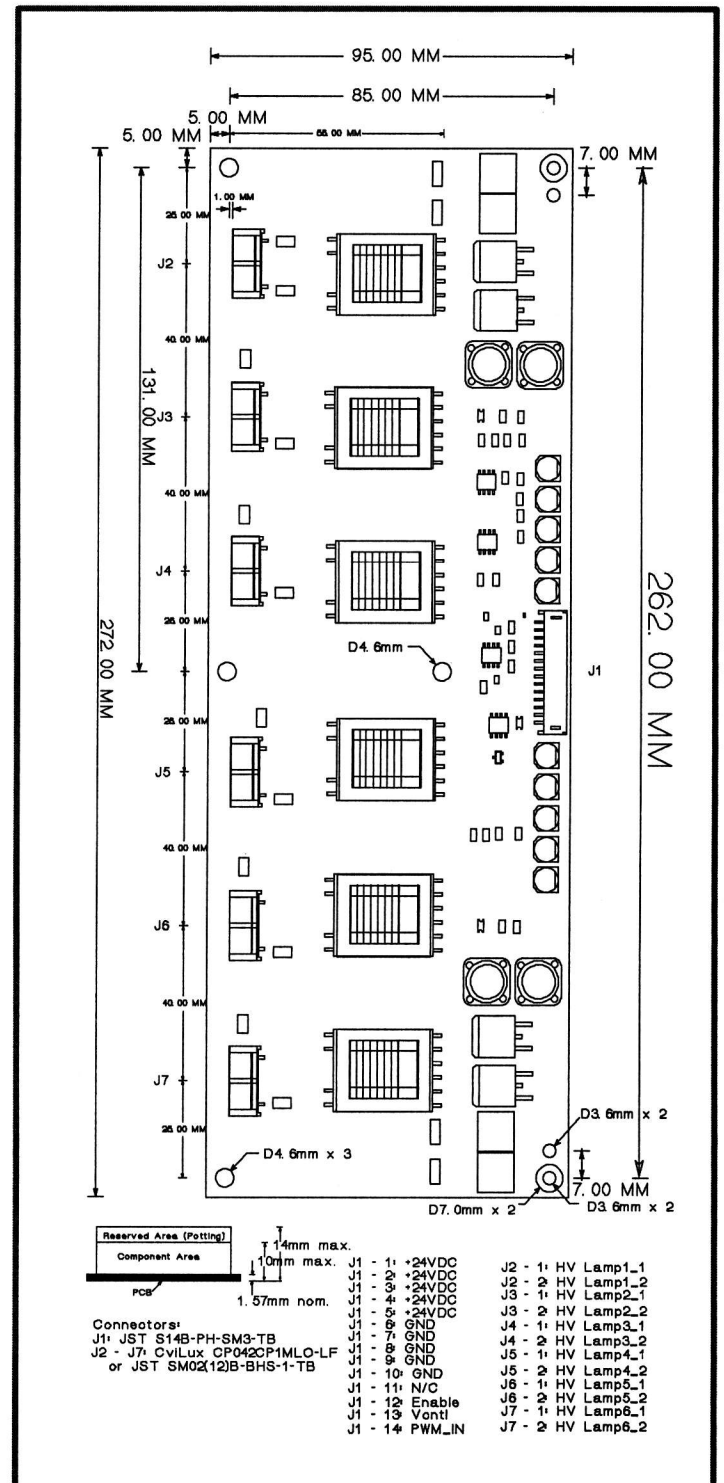
PCB thickness = 1.6mm

Mounting Holes = per mechanical specification

Input Power & Control Connector = J1

CCFL Output Connectors = J2, J3, J4, J5, J6, J7

This unit is conformal-coated with Insulcast 116FR





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-1836C

PRODUCT DATA SHEET - PAGE 2 OF 3

MAXIMUM RATINGS*

4/17/12

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.3 to 27	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)	79.5	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)	22.8	26.4	Vdc
Lsv	Cold Cathode Fluorescent Lamp Sustaining Voltage	1335	2050	Vrms
Vcntl	Intensity Control Voltage	0	5	Vdc
PWMcntl	Intensity Control (PWM method)	10	15	Khz

ELECTRICAL CHARACTERISTICS

Vin = +24V, Lsv = 1750, Enable = +5.0V, Vcntl = +5.0V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage	Open Circuit Open Circuit, Vin = 26.4V	3000 3300		Vrms Vrms
Lout	Lamp Output Current	Vin = 26.4V	5.0 5.5	6.0 6.6	mArms mArms
Lfreq	Lamp-Current Frequency		30	37	Khz
Pfreq	PWM Dimming Frequency		225	245	Hz
Pdc	PWM Duty Cycle Range	Vcntl = 0 to 5.0 V (Pin 13)	0	100	%
ENoff	Enable Control (Off)			0.5	Vdc
ENon	Enable Control (On)		2.0		Vdc
Iin	Input Current Draw	Vin = 26.4V		3.0 3.0	Adc Adc
Eff	Electrical Efficiency		90		%



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-1836C

PRODUCT DATA SHEET - PAGE 3 OF 3

CHANGE HISTORY

4/17/12

INVERTER PART #	DESCRIPTION	REVISION DATE
AC-1836C	Initial release. Changed to thru-hole primary tank caps from previous revision AC-1836B	8/1/11
AC-1836C	Adjusted overtone capacitors in response to reported flicker issues seen by customer in production.	3/5/12
AC-1836C	Updated datasheet to include 26.4V input operation	4/17/12