



**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-1666

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CCFL INVERTER

(For Single Tube Applications)

GENERAL DESCRIPTION

The AC-1666 is designed to power 1 CCFL up to a power level of 3.3 watts from a input voltage range of +17.5V to +36V.

The AC-1666 features Dimming control via a PWM signal presented @ pin 3 of CON1.

The output is open and short circuit protected.

PCB Assembly is potted in Insulcast (116FR)

Configuration controlled by ACI: CDI-0022

MECHANICAL / ENVIRONMENTAL

11/08/07

Weight = 110 grams

Altitude = 55,000 Ft maximum

Humidity < 95% non-condensing

Size (L x W x H) = 2.400 IN x 1.540 IN x 1.370 IN

Mounting Holes = 4-40UNC 2B (X4)

Input Power & Control signal connector = CON1

CCFL Output Connector = CON2

Mounts with 4, 4-40 tin plated brass standoffs.

Reference Mechanical Drawing AC-1666.



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MAXIMUM RATINGS*

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Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 38.5	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	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	5.2	W
Top	Operating Temperature (Still air ambient around Inverter)	-20 to +85	DegC
Tstg	Storage Temperature	-55 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)	17.5	36	Vdc
Lsv	Cold Cathode Fluorescent Lamp Sustaining Voltage	380	640	Vrms
PWMcntl	Intensity Control (PWM method)	72	88	Hz

ELECTRICAL CHARACTERISTICS

Vin = +27V, Lsv = 510Vrms unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1550		Vrms
Lout	Lamp Output Current		5.85	7.15	mArms
Lfreq	Lamp-Current Frequency		36	44	KHz
Pfreq	PWM Dimming Frequency	PWMcntl (PIN 3) = 50%	270	330	Hz
Pdc	PWM Duty Cycle Range	PWMcntl (PIN 3) = 0 to 100%	0	100	%
PWM _{VIH}	PWM Input High Voltage	(PIN 3)	2.4		Vdc
PWM _{VIL}	PWM Input Low Voltage	(PIN 3)		0.8	Vdc
TOs	Supervisor Time out	PDC = 10% TP1 = GND	0.5	1.0	Sec
Iin	Input Current Draw			0.190	Adc
Eff	Electrical Efficiency		80		%
DRmin	Minimum Dimming Ratio		250		:1



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Linear Response

