



**Endicott Research Group, Inc.**

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**E1728**

## Specifications and Applications Information

6/1/95

Preliminary

### Single Tube DC to AC Inverter

The E1728 (E200II Series) dc to ac inverter is specifically designed to power the Kyocera KCS6448ESTT LCD VGA display to a moderate brightness level from a +5 volt dc source.

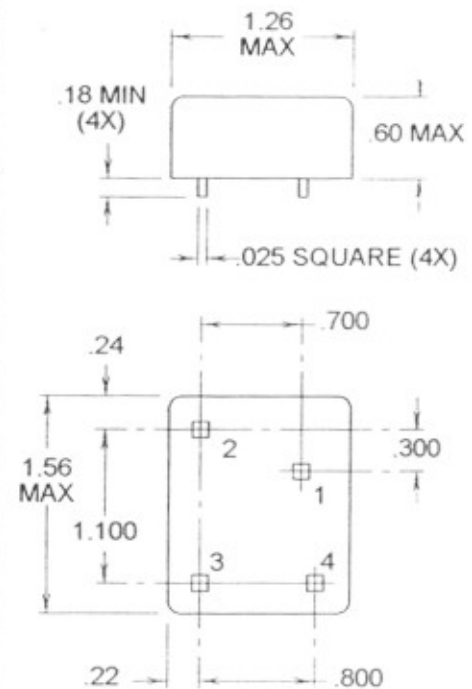
The E1728's small size, encapsulated package and low input power requirements (typically 3.3 watts) makes it the ideal power source for battery applications where small size, high efficiency and reliability are critical.

This standard inverter is designed to satisfy the most common cold-cathode lighting requirements for the KCS6448ESTT display. Custom units, providing different inputs, outputs or package refinements are available.



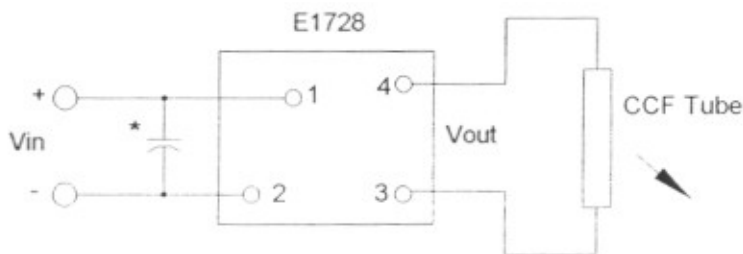
E200 Package

### Package Configuration



1. Vin(+)
2. Vin(-)
3. Vout(AC)
4. Vout(AC)

### Connection Diagram



\* Input bypass capacitor may be required (10uf - 100uf)

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## Absolute Maximum Ratings

Rating	Symbol	Value	Units
Input Voltage Range	Vin	-0.3 to +6	Vdc
Operating Temperature	To	0 to +70	°C
Storage Temperature	Tstg	-40 to +85	°C

## Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	Vin	+2.5 to 5.5	Vdc

## Electrical Characteristics

Unless otherwise noted Vin = 5.00 Volts dc and Ta = 25°C

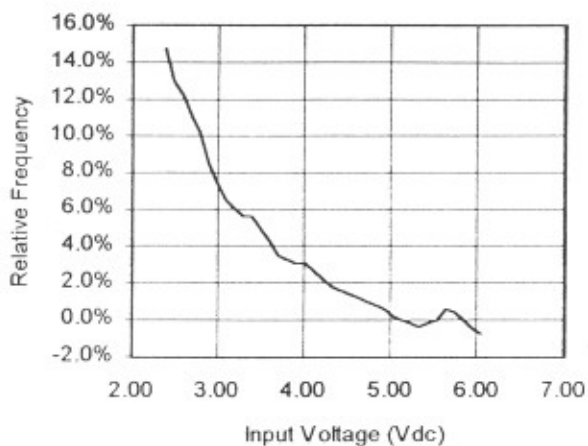
Characteristic	Symbol	Min	Typ	Max	Units
Input Current	Iin	-	0.65	0.75	Adc
Operating Frequency	Fo	25	30	35	KHz
Minimum Output Voltage	Vout (min)	1250	-	-	Vrms
Efficiency	$\eta$	-	90	-	%
Output Current	Iout	-	5.4	-	marms
Output Voltage (When Powering a Kyocera KCS6448ESTT display)	Vout	-	540	-	Vrms

After tube has been allowed to warm-up for 5 minutes

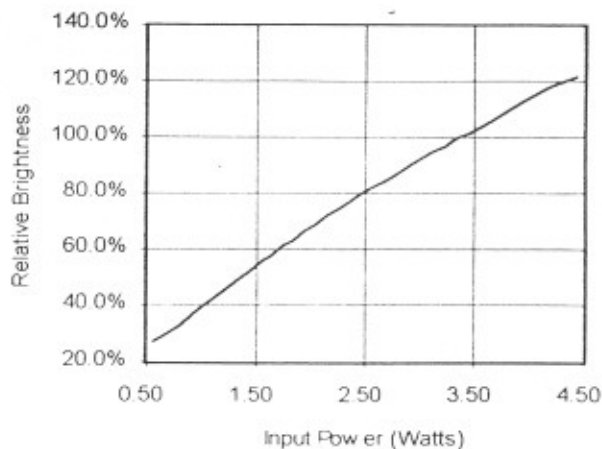
Specifications subject to change without notice

## Typical Performance Curves

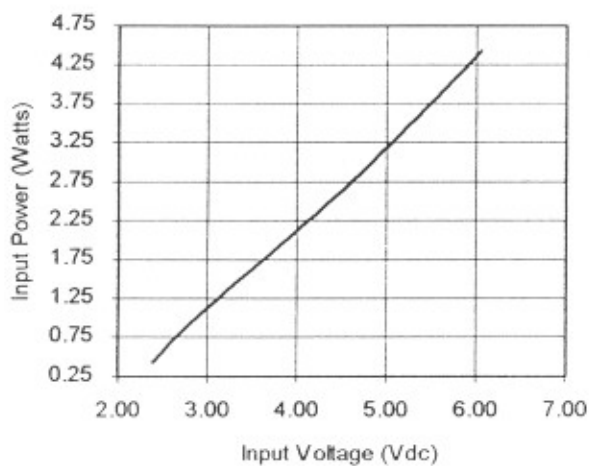
Relative Frequency vs. Input Voltage



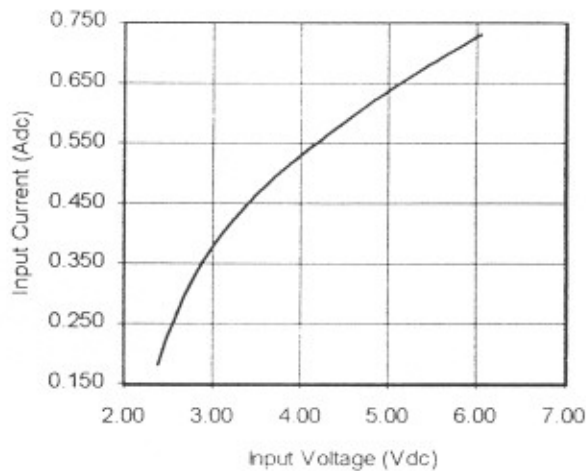
Relative Brightness vs. Input Power



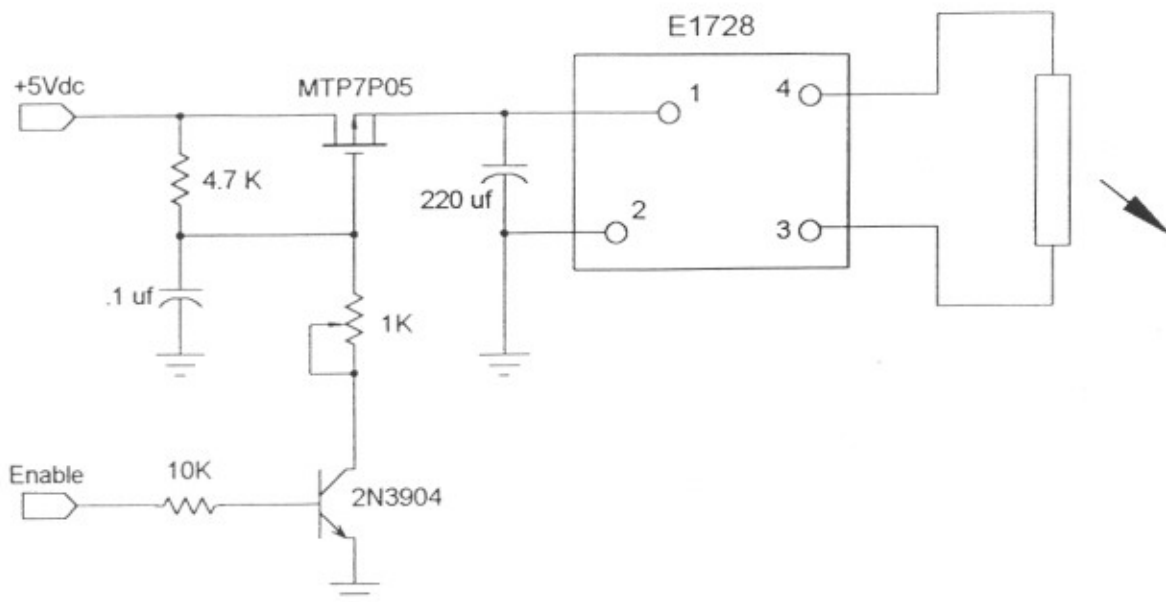
Input Power vs. Input Voltage



Input Current vs. Input Voltage

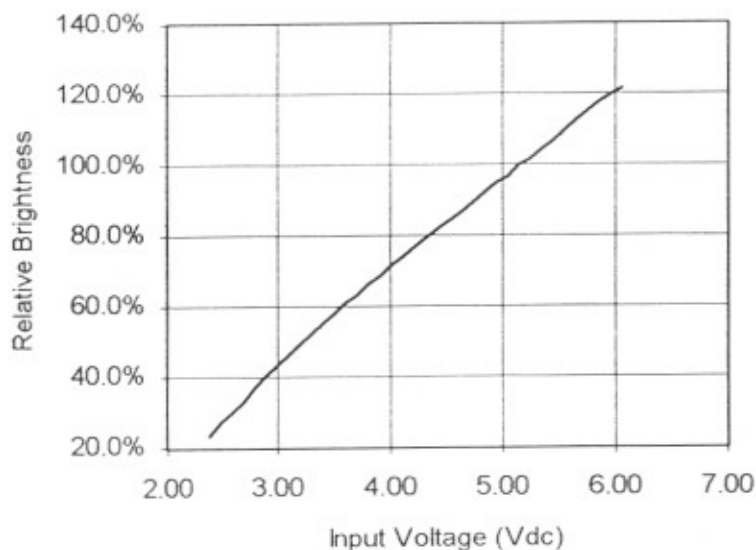


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## Optional Dimming Circuit with Enable

### Relative Brightness vs. Input Voltage



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Made in U.S.A.