

E2725

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## Specifications and Applications Information

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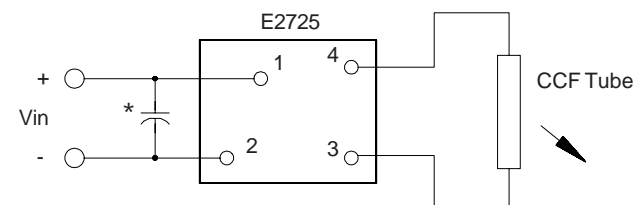
Preliminary

The ERG E2725 (E200II Series) dc to ac inverter is specifically designed to power the Hitachi SX16H003 LCD display module to a moderate brightness level from a +5 volt dc source.

The E2725's small size, encapsulated package makes it the ideal power source for applications where small size, high efficiency and reliability are critical.

This inverter is designed to satisfy the most common cold-cathode lighting requirements for the Hitachi SX16H003 display. Custom units, providing different inputs, outputs or package refinements are available.

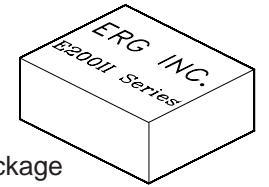
### Connection Diagram



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

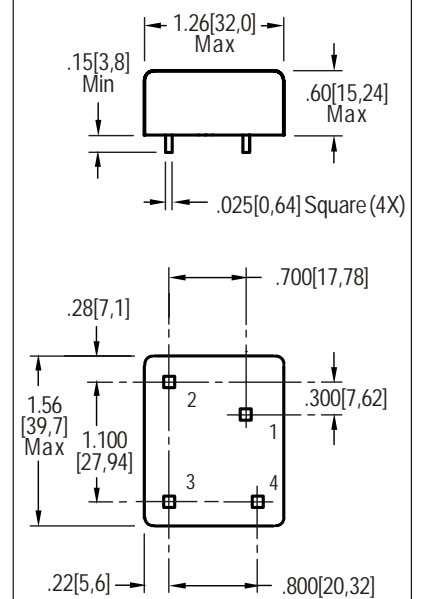
E2725

## Single Tube DC to AC Inverter

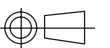


E200 Package

### Package Configuration



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



**Absolute Maximum Ratings**

| Rating                | Symbol           | Value        | Units |
|-----------------------|------------------|--------------|-------|
| Input Voltage Range   | V <sub>in</sub>  | -0.3 to +5.5 | Vdc   |
| Operating Temperature | T <sub>o</sub>   | -0 to +70    | °C    |
| Storage Temperature   | T <sub>stg</sub> | -40 to +85   | °C    |

**Recommended Operating Conditions**

| Rating        | Symbol          | Value       | Units |
|---------------|-----------------|-------------|-------|
| Input Voltage | V <sub>in</sub> | +2.5 to 5.5 | Vdc   |

**Electrical Characteristics**

Unless otherwise noted V<sub>in</sub> = 5.00 Volts dc and T<sub>a</sub> = 25°C

| Characteristic   | Symbol                 | Min  | Typ | Max | Units             |
|--|------------------------|------|-----|-----|-------------------|
| Input Current  | I <sub>in</sub>        | -    | .25 | .30 | A <sub>dc</sub>   |
| Operating Frequency  | F <sub>o</sub>         | 28   | 33  | 38  | KHz               |
| Minimum Output Voltage                                       | V <sub>out</sub> (min) | 1400 | -   | -   | V <sub>rms</sub>  |
| Efficiency (note 1)  | h                      | -    | 88  | -   | %                 |
| Output Current   | I <sub>out</sub>       | -    | 3   | -   | mA <sub>rms</sub> |
| Output Voltage<br>(When powering a Hitachi SX16H003 display) | V <sub>out</sub>       | -    | 560 | -   | V <sub>rms</sub>  |

After tube has be allowed to warm-up for 5 minutes Specifications subject to change without notice.

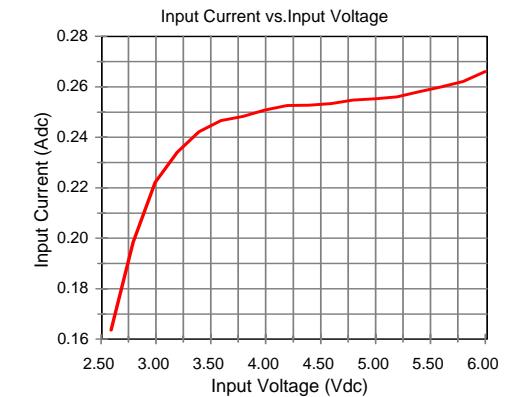
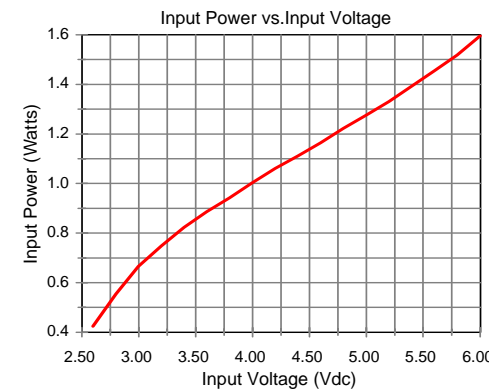
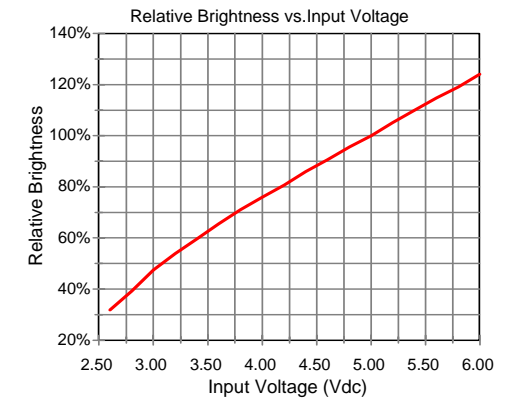
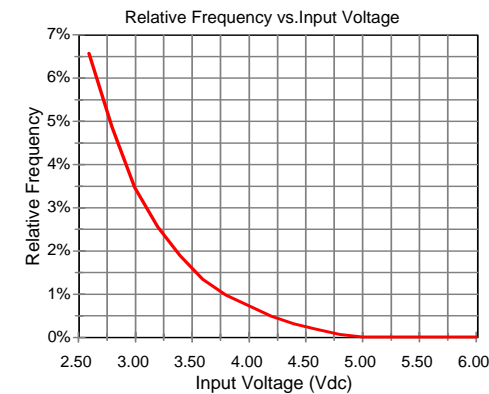
Note 1: Efficiency was calculated using an output voltage of 365 V<sub>rms</sub>.

Note 2: Inverter to display high voltage wire length must be short to minimize stray capacitance gains and losses.



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**Typical Performance Curves**



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