



Endicott Research Group, Inc.

2601 Wayne St., Endicott, NY 13760
 607-754-9187 Fax 607-754-9255
<http://www.ergpower.com>

K2391

Specifications and Applications Information

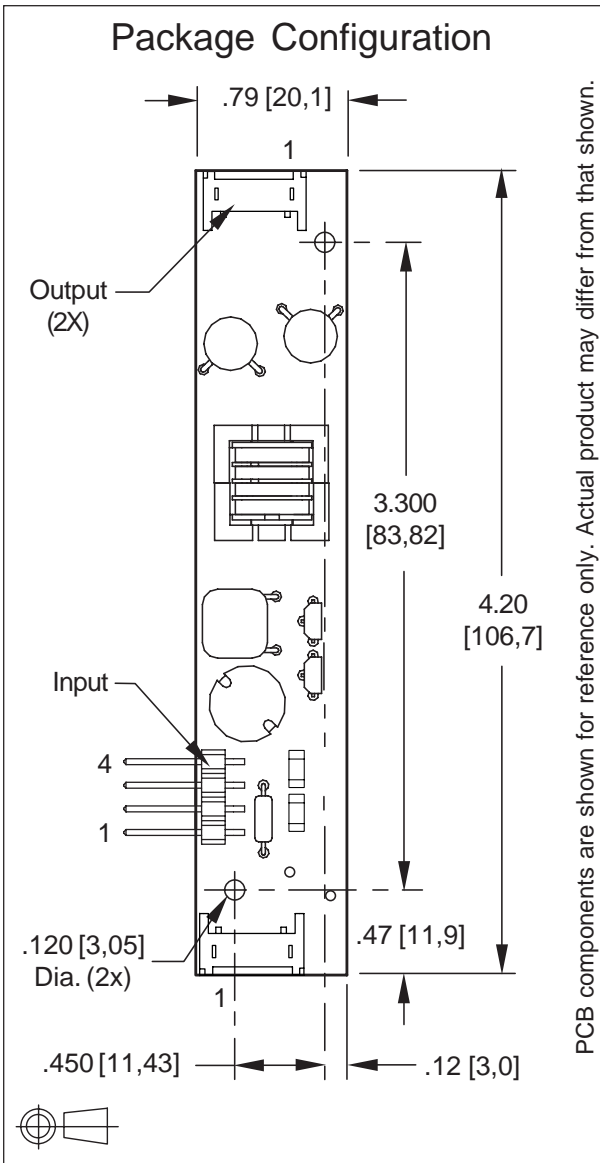
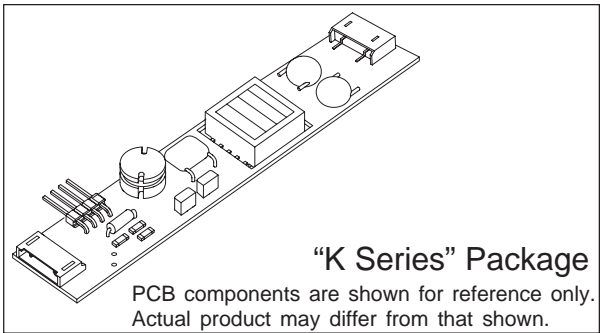
06/26/06 Preliminary

8m Class 2 Lamp DC to AC Inverter

The ERG K2391 (*8m Class*) low profile dc to ac inverter is specifically designed to power the Bi-Search BLP064V1-T LCD display module to a moderate brightness level from a +5 volt dc source.

This low profile inverter features:

- ✓ Less Than 8 mm in Height
- ✓ LCD Module Specific
- ✓ Display Compatible Output Connector
- ✓ Firm Specifications
- ✓ Application Information
- ✓ Designed, Manufactured and Supported in the USA
- ✓ Custom Input and Output Voltages
- ✓ Flexible System Interface
- ✓ Notebook Display Head Compatible



| Connectors | |
|---|--|
| Input Connector | Output Connectors |
| 4 pins are 0.315" [8,00] Long, 0.025" [0,63] Square and are on 0.100" [2,54] Centers. | JST SM02(8.0)B-BHS-1-TB |
| J1-1 Vin(+) J1-2 GND J1-3 Enable * J1-4 N/C | J2-1 ACout J3-1 ACout J2-2 ACout J3-2 ACout |
| * Valid with the "C" Jumper removed | |

Absolute Maximum Ratings

| Rating | Symbol | Value | Units |
|---------------------|--------|--------------|-------|
| Input Voltage Range | Vin | -0.3 to +5.5 | Vdc |
| Storage Temperature | Tstg | -40 to +85 | °C |

Operating Characteristics

With a load simulating the referenced display and lamp warm-up of 5 minutes.
Unless otherwise noted Vin = 5.00 Volts dc and Ta = 25°C.

| Characteristic | Symbol | Min | Typ | Max | Units |
|---|------------|-------|-------|-------|-------|
| Input Voltage | Vin | +4.50 | +5.00 | +5.25 | Vdc |
| Component Surface Temperature | Ts | -20 | - | +80 | °C |
| Input Current (note 1) | Iin | - | .97 | 1.1 | Adc |
| Operating Frequency | Fo | 40 | 45 | 50 | kHz |
| Minimum Output Voltage | Vout (min) | 1200 | - | - | Vrms |
| Efficiency | η | - | 76 | - | % |
| Output Current (per lamp) | Iout | - | 5.2 | - | mArms |
| Output Voltage | Vout | - | 355 | - | Vrms |
| Enable Pin Input Current Requirement (note 2) | Ien | - | 11 | - | mAdc |

Specifications subject to change without notice.

(Note 1) Input current in excess of maximum may indicate a load/inverter mismatch condition, which can result in reduced reliability. Please contact ERG technical support.

(Note 2) Valid only with the "C" jumper removed.

Application Notes:

- 1) The minimum distance from high voltage areas of the inverter to any conductive material should be .12 inches per kilovolt of starting voltage.
- 2) Mounting hardware should be non-conductive.
- 3) Open framed inverters should not be used in applications at altitudes over 10,000 feet.
- 4) Contact ERG for possible exceptions.



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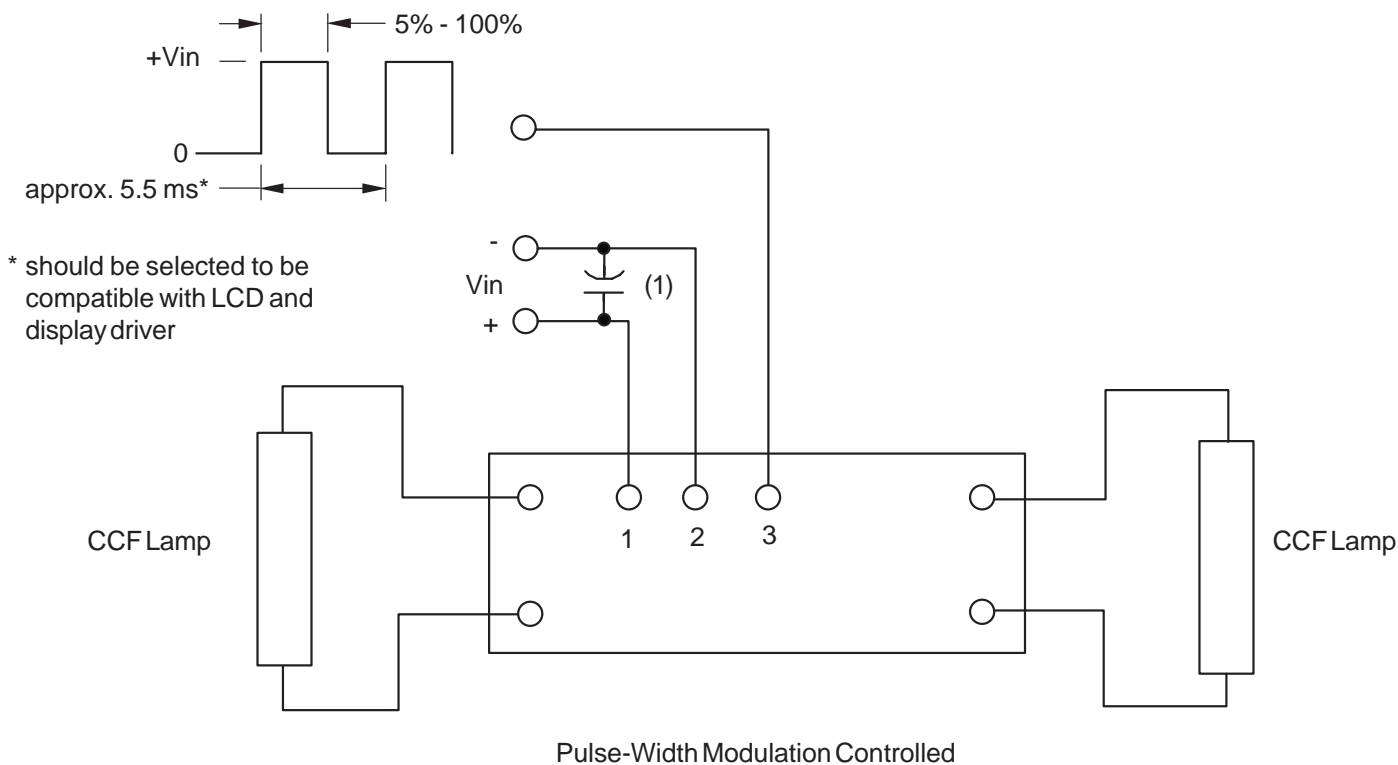
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Made in USA



PWM Dimming

(Valid only with the "C" Jumper removed)

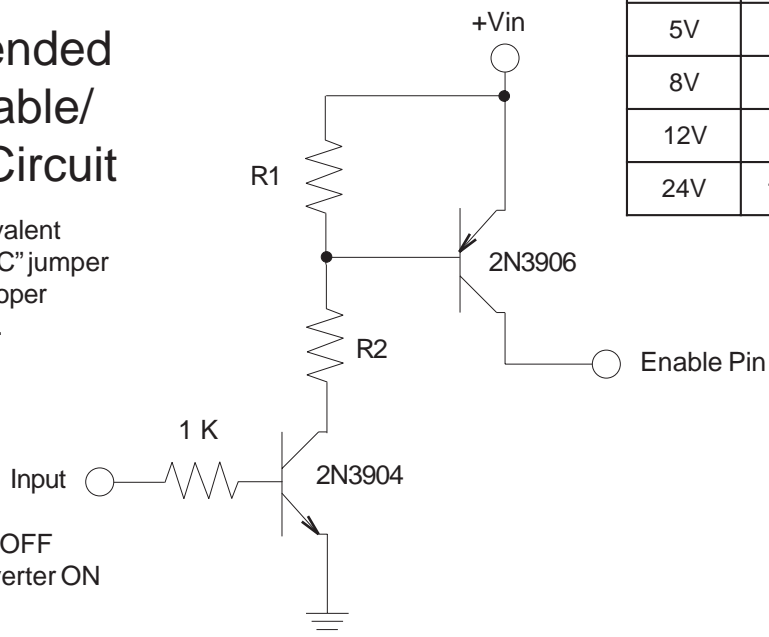


Note 1 - Low ESR type input by-pass capacitor (22 uf - 100 uf) may be required to reduce reflected ripple.

Recommended User Disable/Interface Circuit

Circuit or equivalent required with "C" jumper removed for proper inverter turnoff.

0-0.5V Inverter OFF
2.0V - 5.25V Inverter ON



| Vin | R1 | R2 |
|-----|-------|------|
| 5V | 3.3K | 1.5K |
| 8V | 3.3K | 1.8K |
| 12V | 3.3K | 2.2K |
| 24V | 10.0K | 8.2K |



Endicott Research Group, Inc. (ERG) reserves the right to make changes in circuit design and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by ERG is believed to be accurate and reliable. However, no responsibility is assumed by ERG for its use.