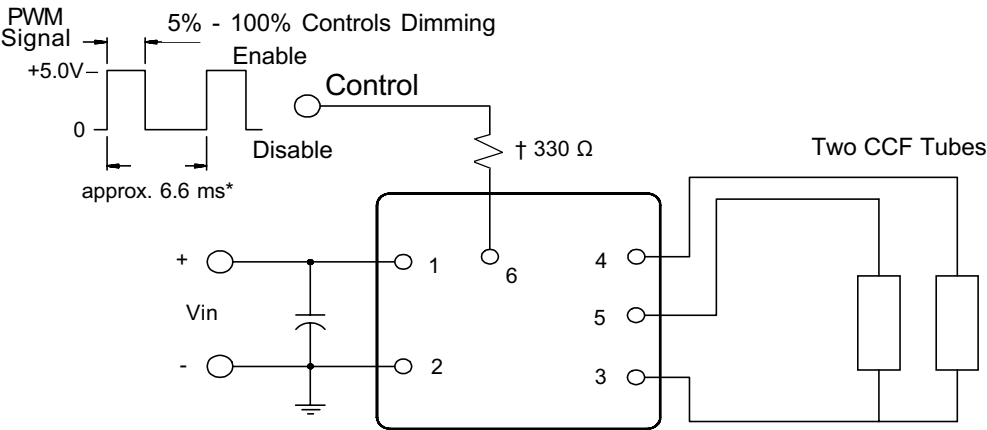


E1950C

E1950C Inverter with PWM Dimming/Disable



* should be selected to be compatible with LCD and display driver

† Please Note: Values for PWM Control Voltage and Control Resistor have been selected to maintain a Minimum Source Current of 15mAdc. Any deviations to the values specified above may result in unreliable operation and/or Inverter damage. Dimming of tubes is only possible by varying the Duty cycle of the PWM signal.



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2601 Wayne St., Endicott NY 13760
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<http://www.ergpower.com>

Specifications and
Applications Information

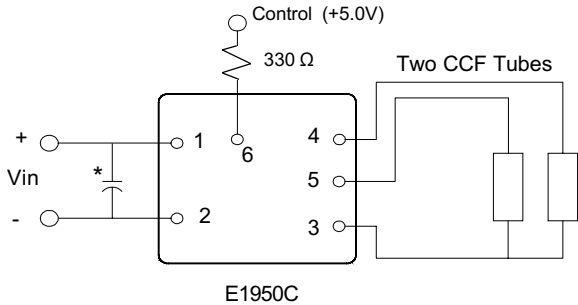
08/04/00 Preliminary

The ERG E1950C (E200II Series) dc to ac inverter is specifically designed to power the Sharp LQ10D421 LCD display module to a nominal brightness level from a +12 volt dc source.

The E1950C's small size and 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 Sharp LQ10D421 display where a PWM dimming control option is desired. Custom units, providing different inputs, outputs or package refinements are available.

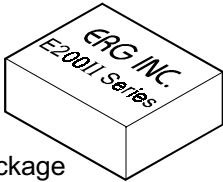
Connection Diagram



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

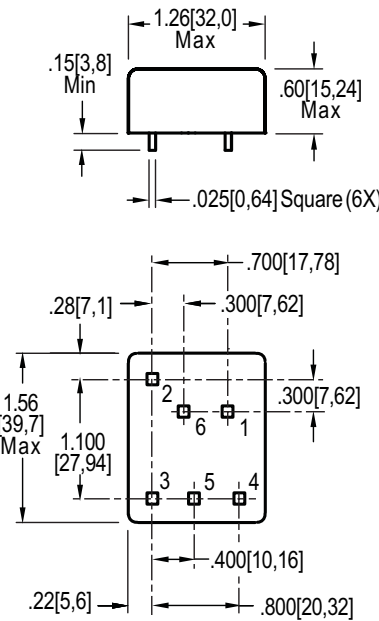
E1950C

Two Tube
DC to AC Inverter



E200II Package

Package Configuration



- 1. Vin(+)
- 2. Vin(-)
- 3. Common
- 4. Vout(AC)
- 5. Vout(AC)
- 6. Control



E1950C

Absolute Maximum Ratings

Rating	Symbol	Value	Units
Input Voltage Range	Vin	-0.3 to +13.5	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	+6 to 13.2	Vdc

Electrical Characteristics

Unless otherwise noted Vin = 12.00 Volts dc and Ta = 25 °C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current	Iin	-	0.57	0.64	Adc
Operating Frequency	Fo	24	29	34	KHz
Minimum Output Voltage	Vout (min)	1220	-	-	Vrms
Efficiency	η	-	88	-	%
Output Current per tube	Iout	-	6.0	-	marms
Output Voltage (When Powering each tube in the Sharp LQ10D421 display)	Vout	-	500	-	Vrms
Pin6 Input Current Requirement	-	-	15	-	madc

After tube has be allowed to warm-up for 5 minutes
External Disable Circuit shown on page 3.

Specifications subject to change without notice.

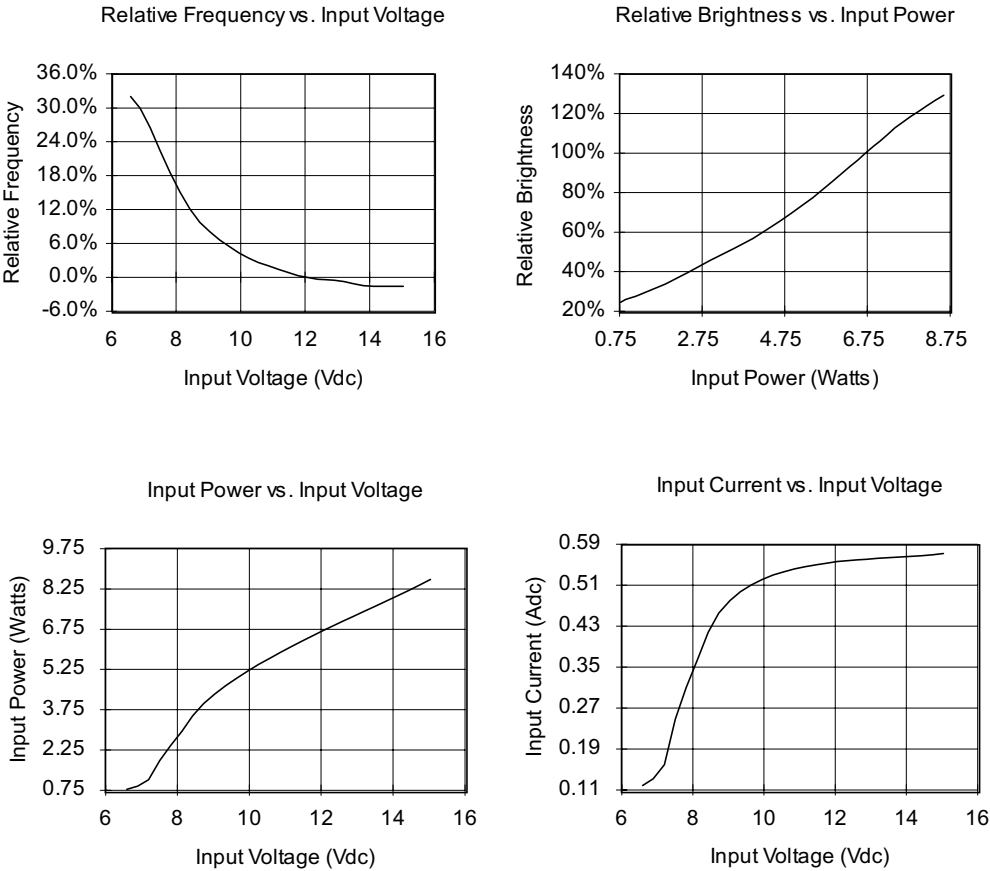


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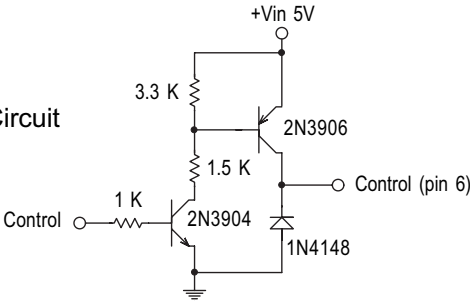
Made in USA

Typical Performance Curves

E1950C



Disable Circuit



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