



Endicott Research Group, Inc.

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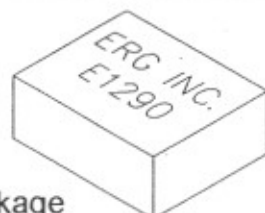
E1290

Specifications and Applications Information

6/26/92

Preliminary

E1290 Two Tube DC to AC Inverter



E200II Package

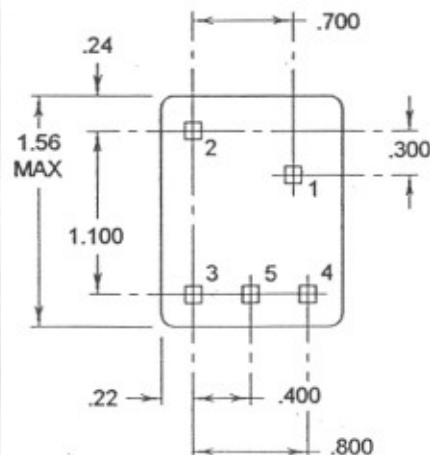
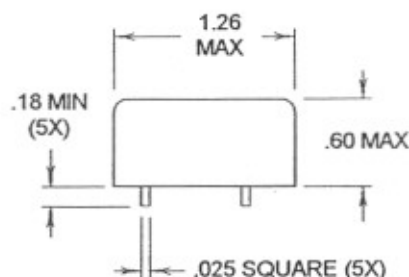
The ERG E1290 (E200II Series) dc to ac inverter is specifically designed to power the Sharp LQ9D011 color TFT-LCD display module to a moderate brightness level from a +12 volt dc source.

The E1290's small size, encapsulated package any very low input power requirements (typically 5 watts) makes it the ideal power source for 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 LQ9D011 display. Custom units, providing different inputs, outputs or package refinements are available.

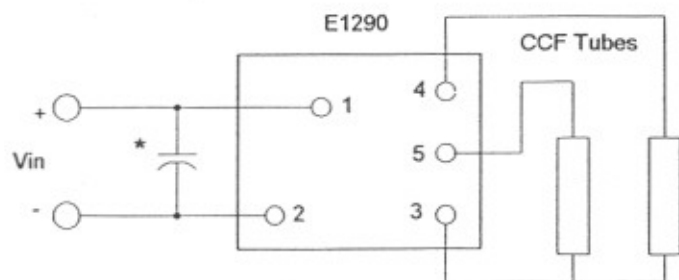
Reference: Sharp Specification: LD-3954 12/13/91

Package Configuration



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

Connection Diagram



* Input bypass capacitor may be required (25uf - 220uf)

E1290

ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	Value	Units
Input Voltage Range	Vin	-0.3 to 13.2	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	8.0 to 12.6	Vdc

ELECTRICAL CHARACTERISTICS

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

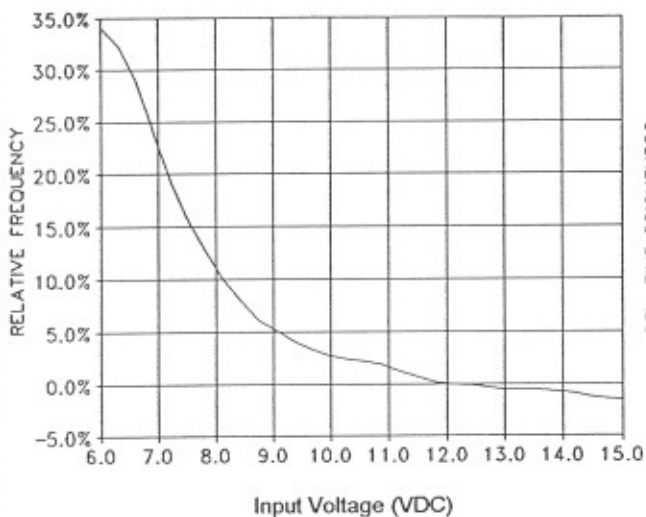
Characteristic	Symbol	Min	Typ	Max	Units
Input Current (Vin = 12.00 Volts dc)	lin	-	0.42	0.47	Adc
Operating Frequency (Vin = 12.00 Volts dc)	Fo	-	27.0	32.0	Khz
Minimum Output Voltage (Vin = 12.00 Volts Ta = 25 °C)	Vout(min)	1200	-	-	Vrms
Efficiency	eff	-	87.0	-	%
Output Current (each tube)	Iout	-	5.5	-	marms
Output Voltage (When powering a Sharp LQ9D011 display)	Vout	-	400	-	Vrms

After tubes has been allowed to warm-up for 5 minutes.

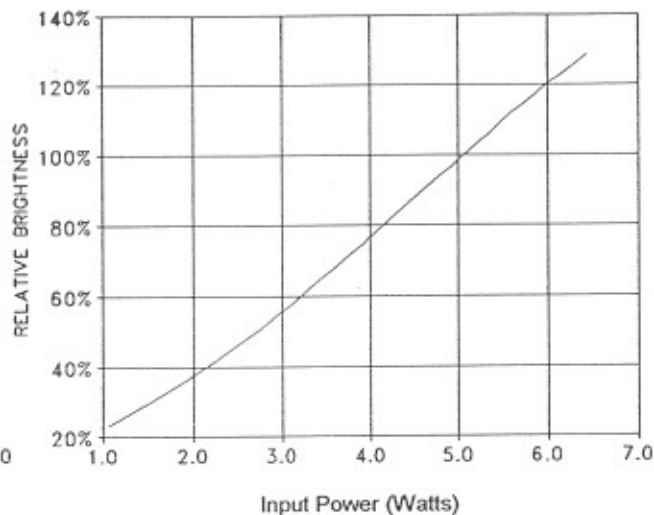
Specifications subject to change without notice.

Typical Performance Curves

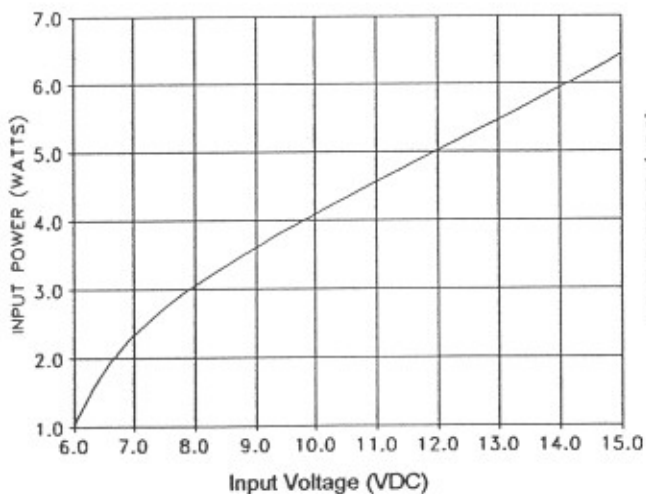
Relative Frequency vs. Input Voltage



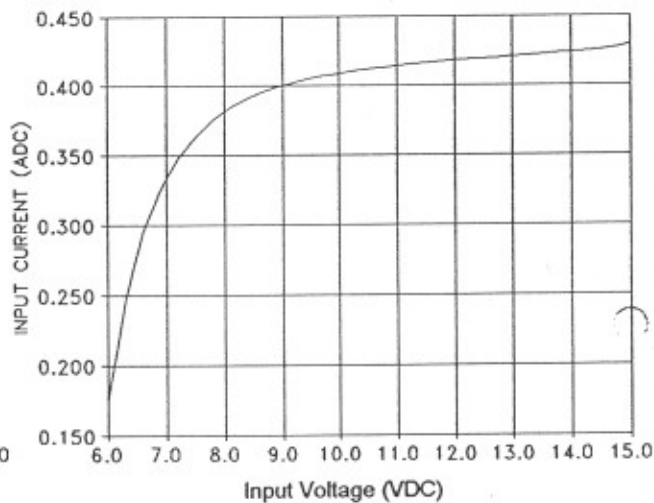
Relative Brightness vs. Input Power



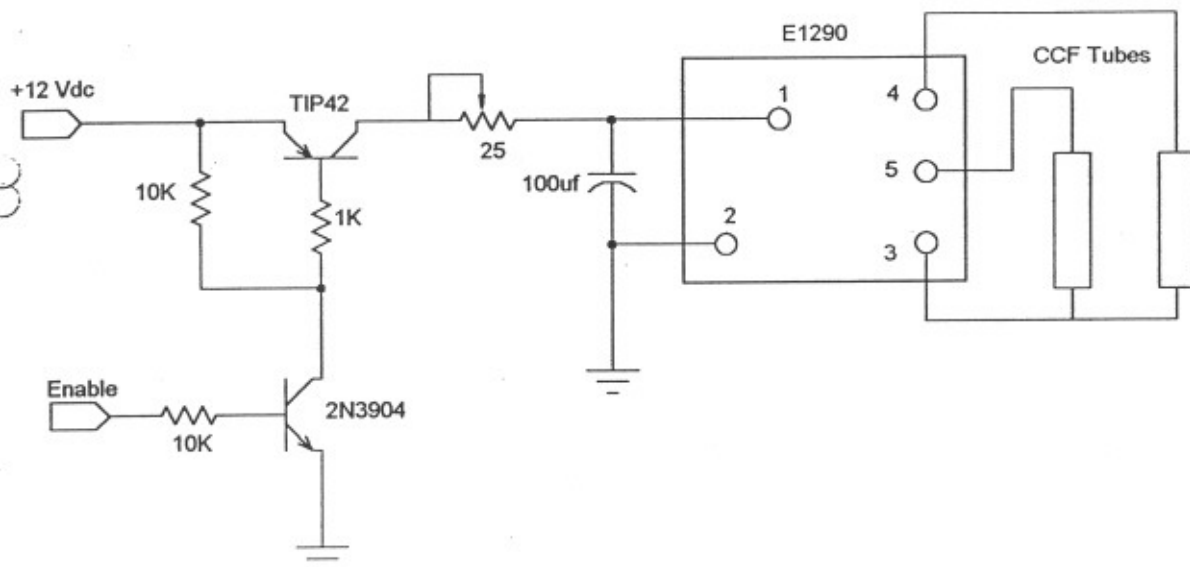
Input Power vs. Input Voltage



Input Current vs. Input Voltage

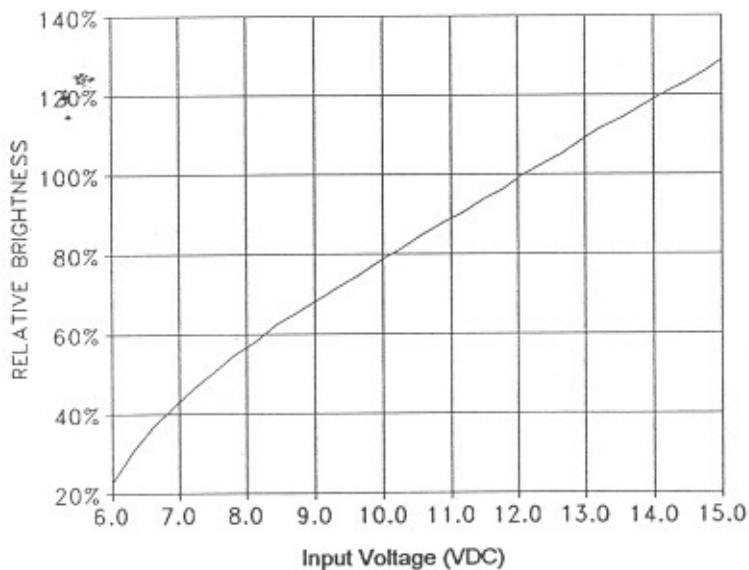


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Optional Dimming Circuit with 5 Volt Enable

Relative Brightness vs. Input Voltage



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