



Endicott Research Group, Inc.

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

Specifications and Applications Information

02/24/05

Preliminary

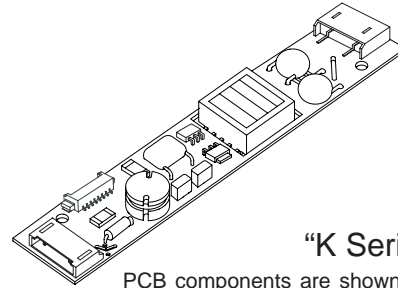
The ERG K3169 (8m Class) low profile dc to ac inverter is specifically designed to power the Kyocera TCG075VG2A LCD display module to a moderate brightness level from a +12 volt dc source.

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

K3169

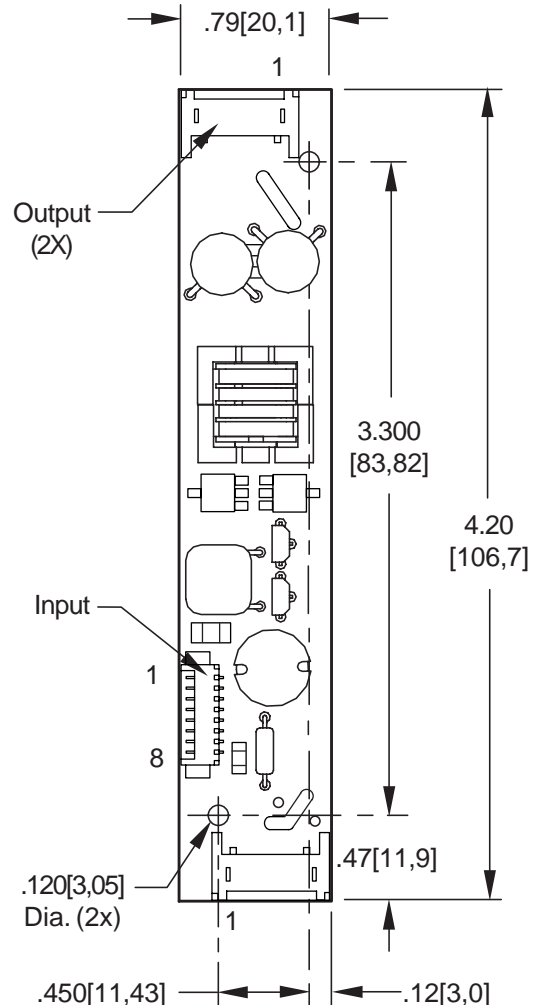
8m Class 2 Lamp DC to AC Inverter



"K Series" Package

PCB components are shown for reference only. Actual product may differ from that shown.

Package Configuration



PCB components are shown for reference only. Actual product may differ from that shown.

Connectors

Input Connector	Output Connectors
Molex 532-61-0890	JST SM02(8.0)B-BHS-1-TB
J1-1 Vin(+) J1-2 Vin(+) J1-3 GND J1-4 GND J1-5 Control * J1-6 N/C J1-7 N/C J1-8 N/C	J2-1 ACout J3-1 ACout J2-2 N/C J3-2 N/C J2-3 ACout J3-3 ACout

(* valid only with "C" jumper removed)

Absolute Maximum Ratings

Rating	Symbol	Value	Units
Input Voltage Range	V _{in}	-0.3 to +13.2	Vdc
Operating Temperature	T _o	-0 to +70	°C
Storage Temperature	T _{stg}	-40 to +85	°C

Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	V _{in}	+10.8 to 12.6	Vdc

Electrical Characteristics

Unless otherwise noted V_{in} = 12.00 Volts dc and T_a = 25°C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current ^(note 1)	I _{in}	-	.32	.37	Adc
Operating Frequency	F _o	35	40	45	KHz
Minimum Output Voltage	V _{out} (min)	1500	-	-	Vrms
Efficiency	-	-	91	-	%
Output Current (per lamp)	I _{out}	-	4	-	marms
Output Voltage (When powering the referenced display)	V _{out}	-	440	-	Vrms
Pin5 Input Current Requirement	-	-	2.4	-	madc

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

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.

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.



Endicott Research Group, Inc.

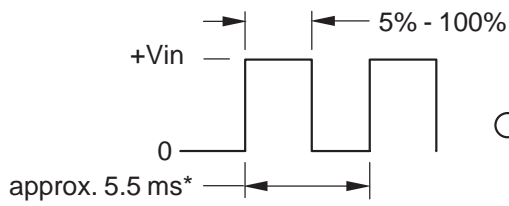
2601 Wayne St., Endicott, NY 13760
607-754-9187 Fax 607-754-9255
<http://www.ergpower.com>

Made in USA

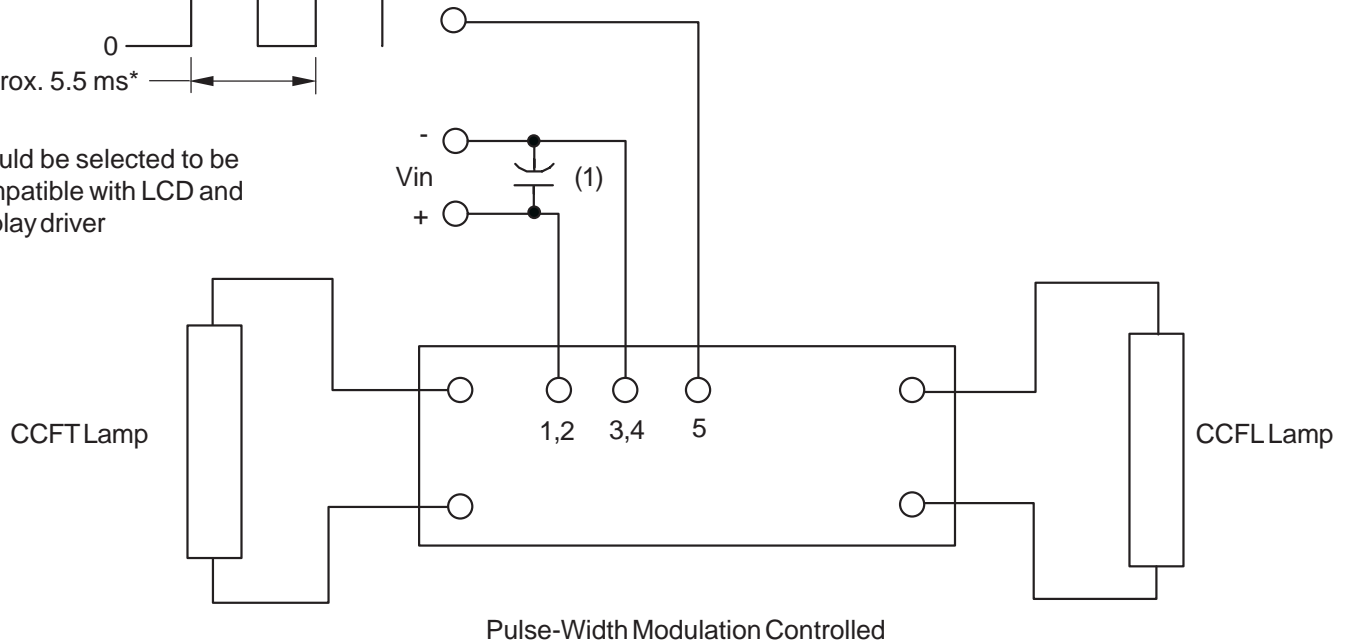


Dimming Option

K3169

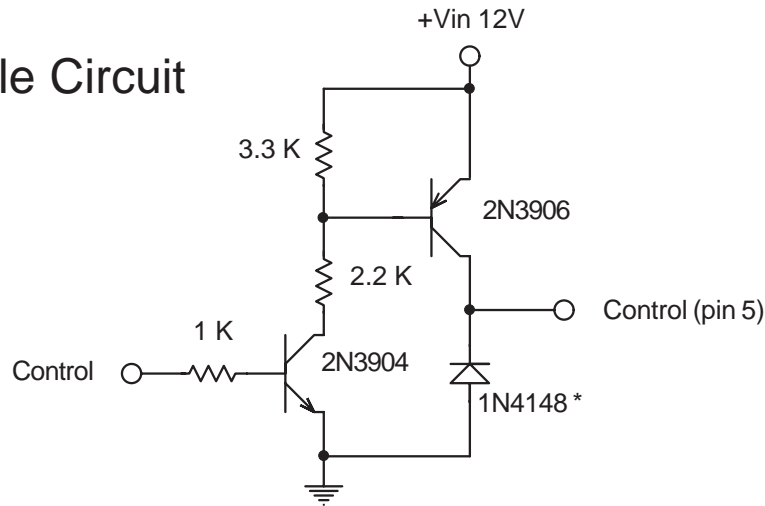


* should be selected to be compatible with LCD and display driver



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

Disable Circuit



* Remove 1N4148 in applications where excessive ground bounce voltages exist.



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.