

# D Series



## 12 Volt Input Dc to Ac Inverter

## D10m65J4

The D10m65J4 is a generic dc to ac inverter designed to generate 6.5 mArms into a 750 - 950 volt load (CCFL) from a nominal 12 volt dc source. It can be easily dimmed using an external PWM signal.

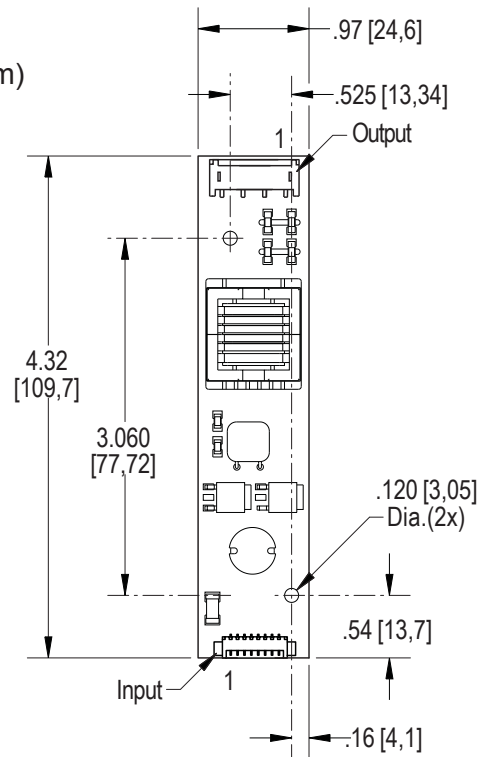
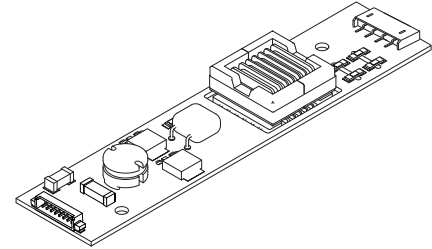
### FEATURES

- Low Profile (10mm)
- Display compatible connector
- High efficiency

### PHYSICAL SPECIFICATIONS

- Size: .97" x 4.32" x .39"  
(without input connector) (24,6mm x 135,1mm x 10mm)
- Weight: 15 grams
- Component Surface Temperature: -20° to +80°C
- Storage Temperature: -20° to +85°C
- Humidity: 95% RH Max

Characteristics	Value	Units	Note(s)
Input Voltage	10.8 - 12.6	Vdc	
Input Current	0.57 typ	Adc	$R_L = 131 \text{ kOhms}$
Minimum No Load Output Voltage	2100	Vrms	$V_{in} = 12.00 \text{ Vdc}$
Frequency	35 typ	kHz	$V_{in} = 12.00 \text{ Vdc}$
Output Current	6.5	mArms	$R_L = 131 \text{ kOhms}$
Efficiency	80	%	Typical
Enable Pin Input Current	9 typ	mAdc	$V_{in} = 12.00 \text{ Vdc}$
The maximum input current (which indicates an overload condition) is 1.0 Adc maximum			



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

Input Connector: Molex 53261-0871  
 Output Connector: JST SM04(4.0)B-BHS-1-TB or  
 Yeon Ho 20015WR-07A00

Inverters specifically designed to match most popular LCD modules are also available. Contact your authorized distributor or ERG direct.

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

Pin Descriptions	
J1-1 +Vin	J2-1 ACout
J1-2 +Vin	J2-2 N/C
J1-3 GND	J2-3 ACretrun
J1-4 GND	J2-4 ACreturn
J1-5 Enable/PWM	
J1-6 N/C	
J1-7 N/C	
J1-8 N/C	

# Connection and Application Information

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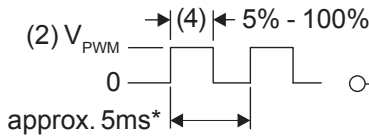
D10m65J4

## PWM Dimming

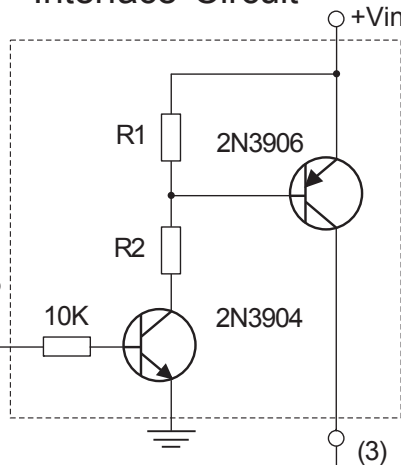
Circuit or equivalent required for proper inverter turnoff.

### Required User Enable/Disable Interface Circuit

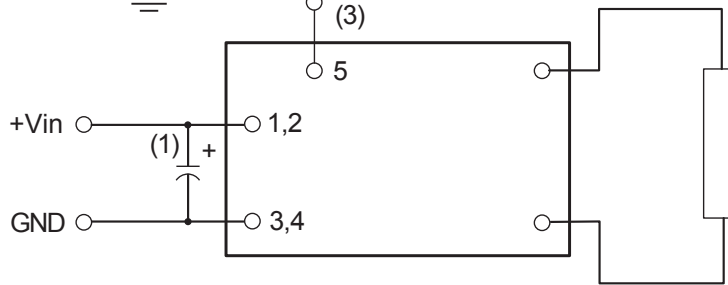
PWM frequency 100-300 Hz should be selected to be compatible with LCD and display driver.



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



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



- (1) Low ESR type input by-pass capacitor (22 uF - 100 uF) may be required to reduce reflected ripple.
- (2)  $V_{PWM}$  from 2.4V to less than or equal to +Vin.
- (3) Full brightness without PWM control requires that pin 5 be tied to +Vin. Pin 5 must be at 0V to turn off.
- (4) Duty Cycle 5% - 100%.



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Specifications are subject to change without notice. 01/05/11

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