

DC-AC INVERTER UNIT

CXA-0217 (CXA-P1212-VJL) (7W DUAL OUTPUTS WITH DIMMING FUNCTION) (PRELIMINARY INFORMATION)

DESCRIPTION :

This DC to AC Inverter was developed for large size LCD panel as Multiple Media, Replacement of CRT Monitor and other general Purpose.

APPLICABLE LCD:

- 11 to 14 inches Double lamps type
- Lamp Voltage 660V
- Lamp Current 6mA



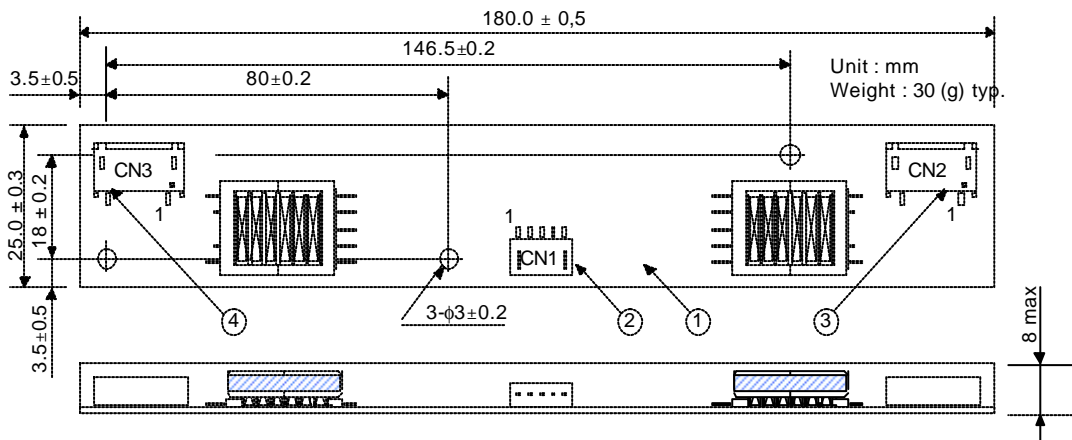
FEATURES :

- Current Feedback Circuit
- High Efficiency
- Low noise with voltage resonant circuit
- Regulated output current
- Output Current Feedback Circuit for each Lamp
- 8mm Low Profile.

TEMPERATURE & HUMIDITY :

- Operating Temperature Range 0 °C ~ +70°C
- Storage Temperature Range -30 °C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS :

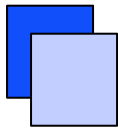


| No. | Part Discription | Qty. | Material | Note |
|-----|------------------|------|-------------------------|--------|
| 1 | PCB | 1 | UL94V-0 (FR-4 or CEM-3) | t=1 mm |
| 2 | Connector CN1 | 1 | S5B-PH-SM3 | JST |
| 3 | Connector CN2 | 1 | SM02(8.0)B-BHS-1 | JST |
| 4 | Connector CN3 | 1 | SM02(8.0)B-BHS-1 | JST |

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Web: www.Power-Systems.de
Email: Info@Power-Systems.de

Address: Dörnet 8 ; 74360 Ilsfeld-Auenstein / Germany
Tel. : + 49 / 70 62 / 67 59 - 6
Fax: + 49 / 70 62 / 67 59 - 80



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Input Side CN1:

| Pin No. | Symbols | Ratings |
|---------|------------------|--|
| CN 1-1 | V _{in} | 9.6-14.4V |
| CN 1-2 | GND | 0V |
| CN 1-3 | V _{br} | 0~3,4V |
| CN 1-4 | - | N.C. |
| CN 1-5 | V _{rmt} | Input 5V 0~0.4V: OFF 5,0~7,0: ON |

Output Side CN2:

| Pin No. | Symbols | Ratings |
|---------|--------------------|----------|
| CN 2-1 | V _{HIGH1} | 660 Vrms |
| CN 2-2 | N.C. | - |
| CN 2-3 | V _{LOW1} | (2V) |

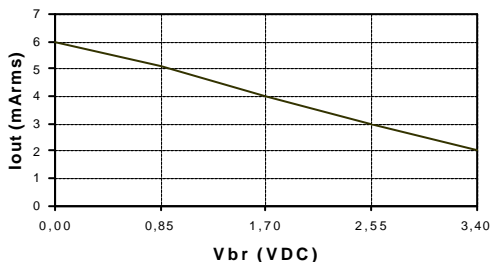
Output Side CN3:

| Pin No. | Symbols | Ratings |
|---------|--------------------|----------|
| CN 3-1 | V _{HIGH2} | 660 Vrms |
| CN 3-2 | N.C. | - |
| CN 3-3 | V _{LOW2} | (2V) |

ELECTRICAL CHARACTERISTICS :

| Items | Symbols | Conditions | | | | Specification | | | Unit | | |
|-----------------------|---------------------|---|----------------------|---------------------|---------------------|---------------------|--------|------|-------|-------|-------|
| | | V _{in} (V) | V _{rmt} (V) | V _{br} (V) | T _a (°C) | RL1 (KW) / RL2 (KW) | Min. | Typ. | | Max. | |
| Output Current | I _{out1/2} | 12±2.4 | 5~7 | 0 | 0~70 | 76~114 | 5.3 | 6.0 | 6.7 | mArms | |
| | | 12±1.2 | | | | 95±0.5 | 5.5 | 6.0 | 6.5 | | |
| Input Current | I _{in} | 12±2.4 | | 0~3.4 | | 0 | 76~114 | - | 0.76 | 1.3 | A DC |
| | | 12±1.2 | | | | | | - | 0.76 | 1.2 | |
| Frequency | F | 12±2.4 | | 0 | | 0 | 95 | 52 | 58 | 64 | kHz |
| | | 12±1.2 | | | | | | 52 | 58 | 64 | |
| Open Circuit Voltage | V _{open} | 12±2.4 | | 0~3.4 | | 0 | ∞ | 1400 | 1500 | 2000 | Vrms |
| | | 12±1.2 | | | | | | 1400 | 1500 | 2000 | |
| Dimming Function | I _{out1/2} | 12±2.4 | | 3.4 | | 0 | 250 | 1.65 | 2.0 | 2.45 | mArms |
| | | 12±1.2 | | | | | | 1.7 | 2.0 | 2.4 | |
| CN1-3 Impedance | - | Between CN1-2 and CN1-3 Impedance | | | | - | 11 | - | kW | | |
| Insulation Resistance | - | Between Input and PCB not pattern DC500V | | | | 100 | - | - | MW | | |
| Dielectric Strength | - | Between Input and PCB not pattern. Trip current 10mA for 1min. | | | | 1 | - | - | kVrms | | |

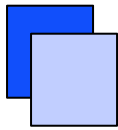
DIMMING CHARACTERISTICS (Reference)



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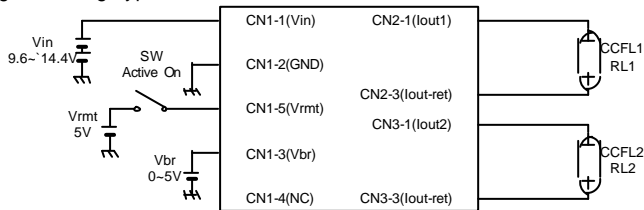


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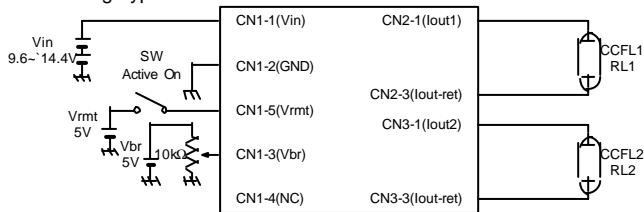
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APPLICATION (for example)

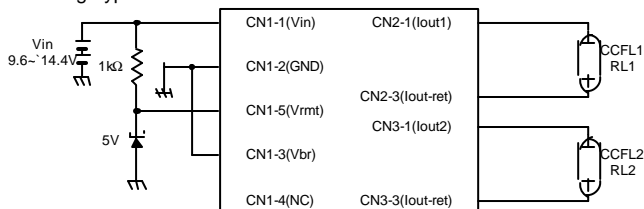
Voltage Dimming Type



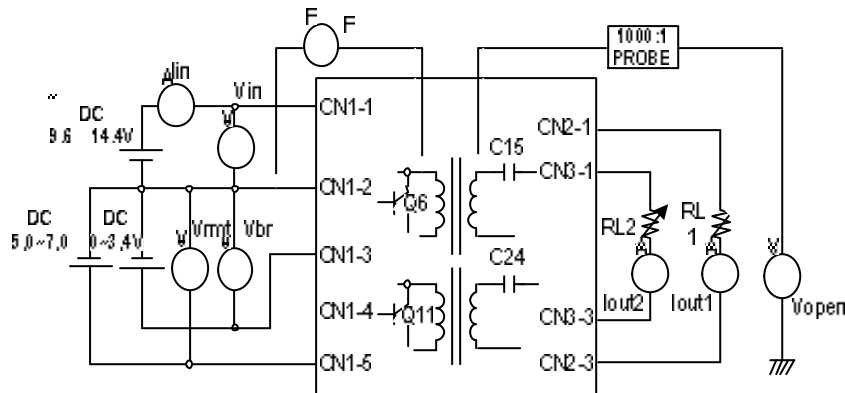
Resistor Dimming Type



None Dimming Type



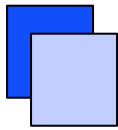
TEST CIRCUIT



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- Note 1. For circuit connection, please refer to test circuit diagram.
- Note 2. Please use minimum of 2mm clearance (all directions) between inverter high voltage area and any conductors. Please refer to mechanical drawing for marking of high voltage area.
- Note 3. Open voltage (strike voltage) is measured across the transformer secondary winding at no load as the reading at the output connector would be less than the actual value
- Note 4. If the start up voltage falls below Cold Cathode Tube strike voltage, the CCFL will not light up easily specially at lower ambient temperature. Please review mounting instruction to avoid any abnormal operation due to coupling/leakage capacitance of inverter high voltage area to any surrounding conductor.
- Note 5. Please check your lamp characteristic for minimum operational current and set the limit point in your design to avoid flickering and/or abnormal operation.
- Note 6. For proper operation of circuit protection (FUSE or IC PROTECTOR), please use minimum of 2A capacity for input power supply.
- Note 7. A start up sequence of Vrmt is the sametime of Vin turning on or after
- Note 8. CN1-3 has brightness and remote functions. These functions are operated by voltage of Vbr as below:
Luminance is max. at Vbr = 0V; Luminance is min. at Vbr = 3.4V
Vbr ≥ 4.75V ⇒ No operation (Vrmt = 5~7V)

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