

# DC-AC INVERTER UNIT

**PS-DA0201-170-B(S) (10 W DUAL OUTPUTS)**

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for dual lamps.  
 Optimized for Sharp: LQ150X1LG71\_TL\_LD-19251C 20070220  
 LQ150X1LG81\_TL\_LD-19356A 20070319

**APPLICABLE LCD:**

6.4 to 15 inches double lamp type  
 Lamp Voltage 675 Vrms  
 Lamp Current 2 x 6.5 mArms  
 Lamp Start Up Voltage 1.680 Vrms (Vin : 12 Vdc)



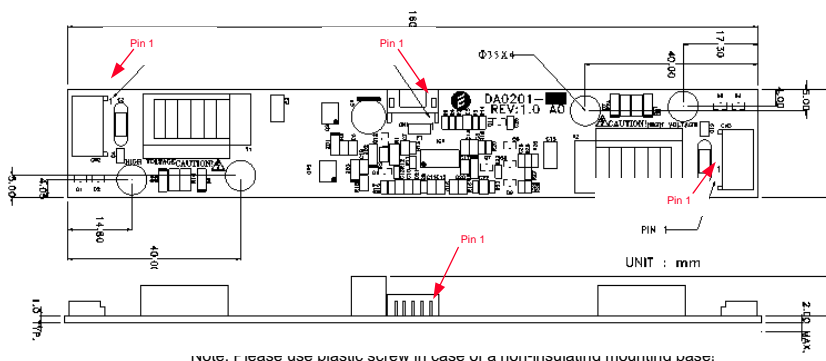
**FEATURES :**

Remote ON/OFF  
 Open Lamp Detection  
 RoHS compliant (S)

**TEMPERATURE & HUMIDITY :**

Operating Temperature Range 0°C ~ +60°C  
 Storage Temperature Range -40°C ~ +85°C  
 Humidity 95 %RH max

**DIMENSIONS :** L x W x H 160 x 25 x 12 mm



Unit : mm  
 Weight :24,2 (g) typ.

**Components**

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

**Input side CN1:**

| Pin No. | Symbols | Ratings                        |
|---------|---------|--------------------------------|
| CN 1-1  | Vin     | 10.8 ~ 13.2 Vdc                |
| CN 1-2  | GND     | -                              |
| CN 1-3  | Vrmt    | 0 ~ 0.4 = OFF / 2.5 ~ Vin = ON |
| CN 1-4  | Vbr     | 0 ~ 2.5 Vdc                    |
| CN 1-5  | N.C.    | -                              |

**Output side CN2:**

| Pin No. | Symbols | Ratings              |
|---------|---------|----------------------|
| CN 2-1  | Vhigh   | 675 Vrms (6.5 mArms) |
| CN 2-2  | Vlow    | (GND)                |

**Output side CN3:**

| Pin No. | Symbols | Ratings              |
|---------|---------|----------------------|
| CN 3-1  | Vhigh   | 675 Vrms (6.5 mArms) |
| CN 3-2  | Vlow    | (GND)                |

**Power Systems – The Power Solution**

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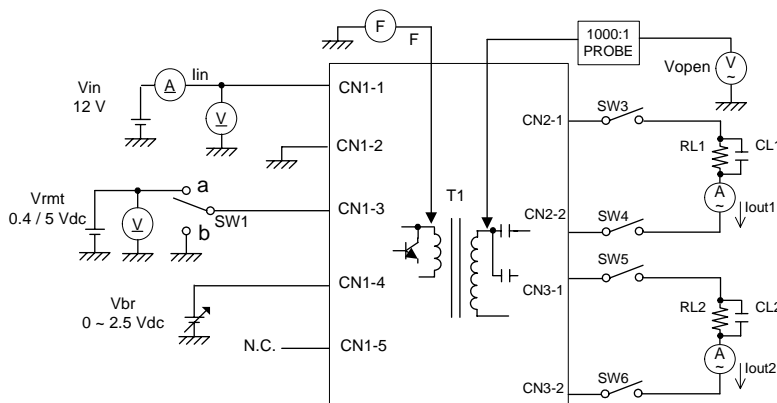
(PRELIMINARY INFORMATION)

## ELECTRICAL CHARACTERISTICS :

| Parameters           | Symbols | Conditions |         |         | Specification |       |       | Unit  | Note         |
|----------------------|---------|------------|---------|---------|---------------|-------|-------|-------|--------------|
|                      |         | Vin (V)    | Vbr (V) | Tu (°C) | Min.          | Typ.  | Max.  |       |              |
| Output Current       | Iout    | 12±1.2     | 0.0     | 0 ~ +60 | 6.0           | 6.5   | 7.0   | mArms | Duty 100%    |
| Output Current       | Iout    | 12±0.6     | 2.5     | 0 ~ +60 | -             | 20    | -     | %     | Duty Min     |
| Input Current        | Iin     | 12±1.2     | 0.0     | 0 ~ +60 | -             | 0.88  | 1.2   | Adc   |              |
| Frequency            | F       | 12±1.2     | 0.0     | 0 ~ +60 | 40            | 60    | 70    | kHz   |              |
| Open Circuit Voltage | Vopen   | 11.4       | 0.0     | 0 ~ +60 | 1.680         | 1.750 | 1.900 | Vrms  |              |
| No load Shutdown     | Tsd     | 12±1.2     | 0.0     | 0 ~ +60 | -             | 1.0   | -     | sec   | without load |

Note 1 : Please keep minimum of 2mm clearance (all directions) between inverter high voltage area as marked on mechanical drawing and any conductors.

## TEST CIRCUIT :



| SW 1 | Operation of unit |
|------|-------------------|
| a    | Operation         |
| b    | Non operation     |

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