

# 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)



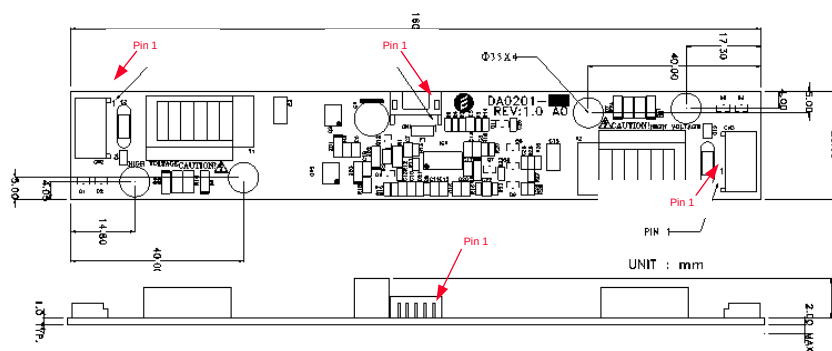
## FEATURES :

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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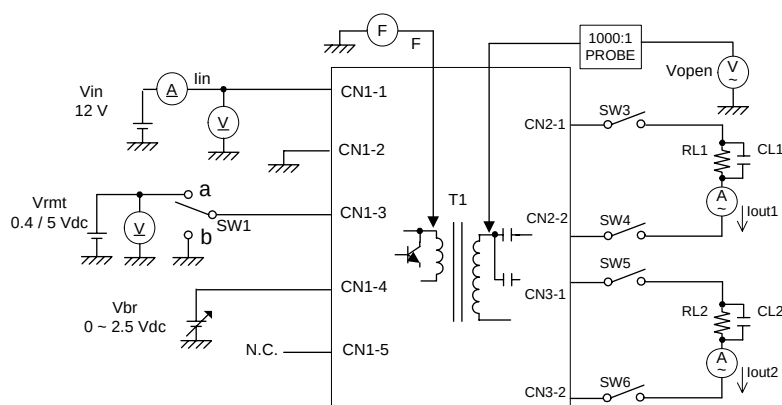
(PRELIMINARY INFORMATION)

## 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   | mA rms | 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   | A dc   |              |
| 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 | V rms  |              |
| 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 :



| SW1 | Operation of unit |
|-----|-------------------|
| a   | Operation         |
| b   | Non operation     |

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