

# DC-AC INVERTER UNIT

**PS-DA0104-066(S) (4 W SINGLE OUTPUTS)**

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for single lamps.  
Optimized for **Sharp Display : LQ104X2LX11**



**APPLICABLE LCD:**

- 15 to 17 inches single lamp type
- Lamp Voltage 630 Vrms
- Lamp Current 5.0 mArms
- Lamp Start Up Voltage 1.300 Vrms (Vin : 12 Vdc)

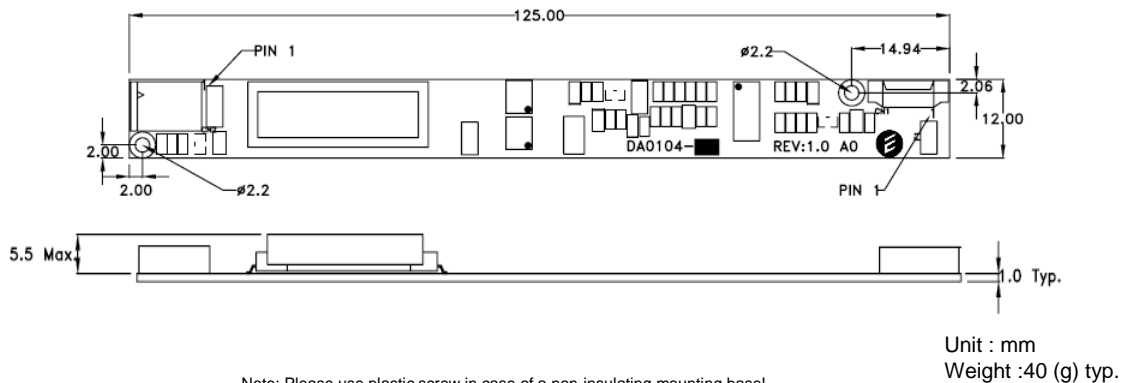
**FEATURES :**

- Remote ON/OFF
- Dimming Function
- RoHS compliant (S)
- Wide Input Range: 9 ~ 20,5 Vdc (If Vin is >19 Vdc the output current can get >10mArms during first failures)

**TEMPERATURE & HUMIDITY :**

- Operating Temperature Range 0°C ~ +50°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

**DIMENSIONS :** L x W x H **125 x 12 x 5.5 mm**



**Components**

| No. | Part Description | Qty. | Material                | Note           |
|-----|------------------|------|-------------------------|----------------|
| 1   | PCB              | 1    | UL94V-0 (FR-4 or CEM-3) | t=1mm          |
| 2   | Connector CN1    | 1    | 53261-0590              | Molex or equal |
| 3   | Connector CN2    | 1    | SM02B-BHSS-TB           | JST or equal   |

**Input side CN1:**

| Pin No.  | Symbols | Ratings                           |
|----------|---------|-----------------------------------|
| CN 1-1   | Vin     | 9 ~ 20,5 Vdc                      |
| CN 1-2+5 | GND     | -                                 |
| CN 1-3   | Vrmt    | 0 ~ 1.5 = OFF<br>/ 2.5 ~ Vin = ON |
| CN 1-4   | Vbr     | 0 ~ 5.0 Vdc                       |

**Output side CN2**

| Pin No. | Symbols | Ratings              |
|---------|---------|----------------------|
| CN 2-1  | Vhigh   | 630 Vrms (5.0 mArms) |
| CN 2-2  | Vlow    | (GND)                |

**Power Systems – The Power Solution**

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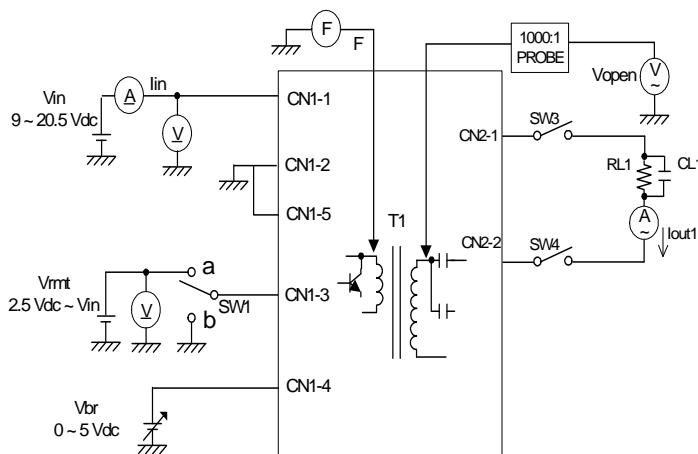
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**ELECTRICAL CHARACTERISTICS :**

| Parameters                  | Symbols | Conditions |         |         | Specification |       |       | Unit  | Note      |
|-----------------------------|---------|------------|---------|---------|---------------|-------|-------|-------|-----------|
|                             |         | Vin (V)    | Vbr (V) | Tu (°C) | Min.          | Typ.  | Max.  |       |           |
| <b>Output Current</b>       | lout    | 12±1.2     | 0.0     | 0 ~ +50 | 4.4           | 5.0   | 5.6   | mArms | Duty 100% |
| <b>Output Current</b>       | lout    | 12±0.6     | 5.0     | 0 ~ +50 | -             | 20    | -     | %     |           |
| <b>Input Current</b>        | lin     | 12±1.2     | 0.0     | 0 ~ +50 | -             | 0.29  | 0.57  | Adc   |           |
| <b>Frequency</b>            | F       | 12±1.2     | 0.0     | 0 ~ +50 | 45            | 50    | 55    | kHz   |           |
| <b>Open Circuit Voltage</b> | Vopen   | 11.4       | 0.0     | 0 ~ +50 | 1.000         | 1.300 | 1.800 | Vrms  |           |

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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