# DC-AC INVERTER UNIT

**PS-M06D05-NJ5L-160(S) (6,5 W DUAL OUTPUTS)** (PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for dual lamps.
Optimized for **AUO: G104SN02 V.1**

**APPLICABLE LCD:**

6.4 to 12 inches double lamp type
Lamp Voltage 470 Vrms
Lamp Current 6.0 mArms
Lamp Start Up Voltage 1.500 Vrms (Vin : 5 Vdc)

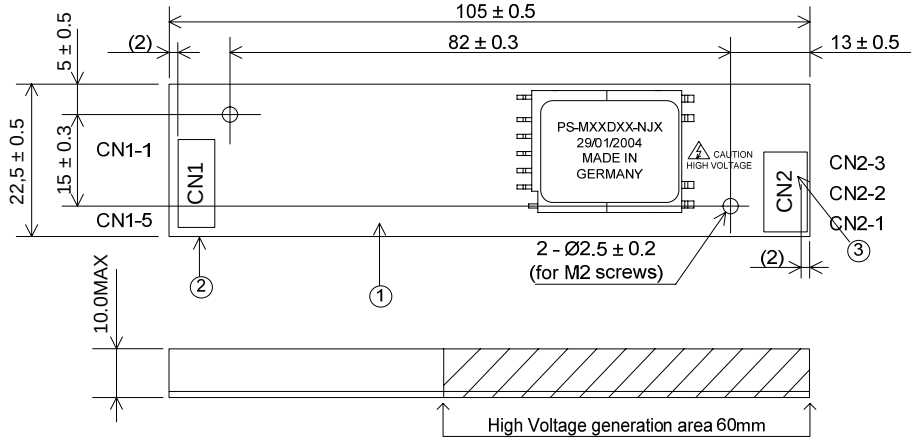
**FEATURES :**

Remote ON/OFF
Ext. PWM-Dimming Function
RoHS compliant (S)

**TEMPERATURE & HUMIDITY :**

| | |
|---|---|
| Operating Temperature Range | -20°C ~ +60°C |
| Storage Temperature Range | -20°C ~ +85°C |
| Humidity | 95 %RH max |

**DIMENSIONS : L x W x H 105 x 23 x 10 mm**




Unit : mm
Weight :20 (g) typ.

Note: Please use plastic screw in case of a non-insulating mounting base!

**Components**

| No. | Part Description | Qty. | Material | Note |
|---|---|---|---|---|
| 1 | PCB | 1 | UL94V-0 (FR-4 or CEM-3) | t=1.6mm |
| 2 | Connector CN1 | 1 | S5B-PH-SM3 | JST or equal |
| 3 | Connector CN2 | 1 | SM03(4.0)B-BHS | JST or equal |

**Input side CN1:**

| Pin No. | Symbols | Ratings |
|---|---|---|
| **CN 1-1** | Vin | 5 Vdc |
| **CN 1-2** | GND | |
| **CN 1-3** | Ext. PWM | 0 ~ 5 Vdc (L activ) |
| **CN 1-4** | N.C. | |
| **CN 1-5** | Vrmt | 0 / 5 Vdc (H activ) |

**Output side CN2:**

| Pin No. | Symbols | Ratings |
|---|---|---|
| **CN 2-1** | Vlow | GND |
| **CN 2-2+3** | Vhigh | 470 Vrms (6mArms) |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### ELECTRICAL CHARACTERISTICS :

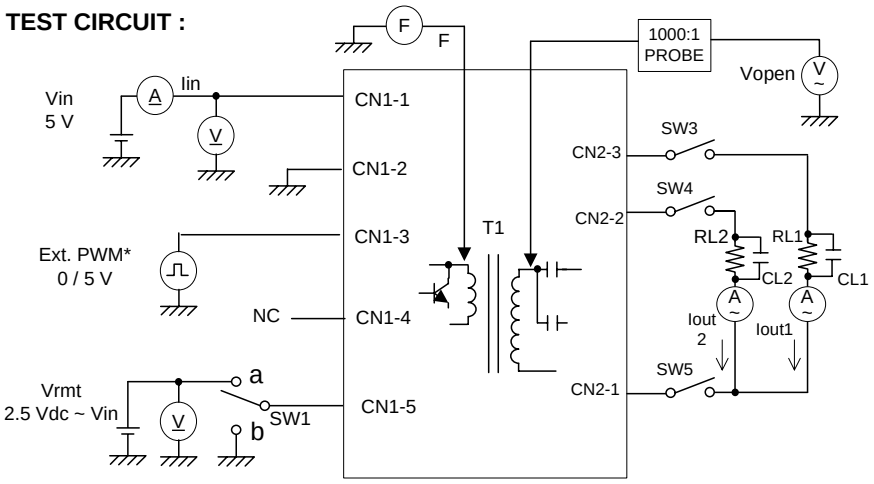
| Parameters | Symbols | Conditions | | | Specification | | | Unit | Note |
|---|---|---|---|---|---|---|---|---|---|
| | | Vin (V) | Vrmt (V) | Tu (°C) | Min. | Typ. | Max. | | |
| **Output Current** | Iout | 5±0.05 | 5±0.25 | -20 ~ +60 | 5.5 | 6.0 | 6.5 | mArms | Duty 100% |
| **Output Current** | Iout | 5±0.5 | 5±0.25 | -20 ~ +60 | 5.0 | 6.0 | 7.0 | mArms | |
| **Input Current** | Iin | 5±0.5 | 5±0.25 | -20 ~ +60 | - | 1.2 | 1.7 | Adc | |
| **Frequency** | F | 5±0.5 | 5±0.25 | -20 ~ +60 | 60 | 70 | 80 | kHz | |
| **Open Circuit Voltage** | Vopen | 4.75 | 5±0.25 | -20 ~ +60 | 1.400 | 1.500 | - | Vrms | |

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

Note 2: Remote ON/OFF (CN1-5) has priority and can not be used in combination with External PWM Dimming (CN1-3). When 'Ext. PWM' (CN1-3) is used 'Vrmt' (CN1-5) should not be connected.

Note 3: The external PWM frequency should be in a range of 100 ~ 500 Hz. For other frequency please request. The optimum is 250 Hz. Here you will normally not get a interference to the vertical sync. frequency.

### TEST CIRCUIT :




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

*) Only active when Vrmt is 0 Vdc or floating



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