

# DC-AC INVERTER UNIT

**PS-M04D12S3-NJ1L-142(S)** (6,5 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for dual lamps.  
Optimized for **Kyocera: TCG075VG2A**

**APPLICABLE LCD:**

- 6.4 to 12 inches double lamp type
- Lamp Voltage 440 Vrms
- Lamp Current 4.0 mArms
- Lamp Start Up Voltage min. 1.250 Vrms (Vin : 12 Vdc)



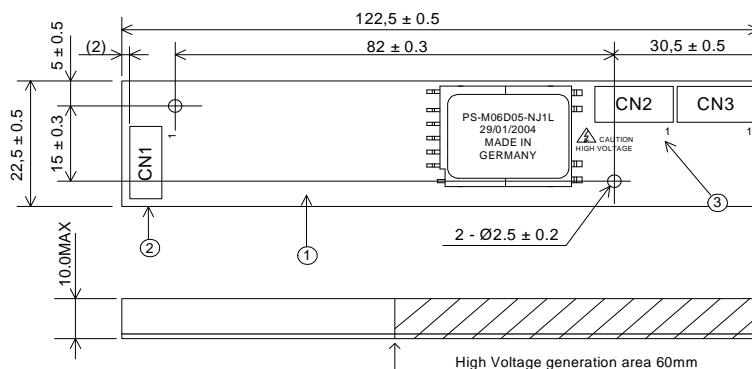
**FEATURES :**

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

**TEMPERATURE & HUMIDITY :**

- Operating Temperature Range -10°C ~ +70°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

**DIMENSIONS :** L x W x H **123 x 23 x 10mm**



Unit : mm  
Weight :20 (g) typ.

**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 + CN3	2	SM02(8.0)B-BHS-1-TB	JST or equal

**Input side CN1:**

Pin No.	Symbols	Ratings
CN 1-1	Vin	12 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	Vhigh	440 Vrms (4.0 mArms)
CN 2-2	Vlow	0Vdc

**Output side CN3:**

Pin No.	Symbols	Ratings
CN 3-1	Vhigh	440 Vrms (4.0 mArms)
CN 3-2	Vlow	0Vdc

**Power Systems – The Power Solution**

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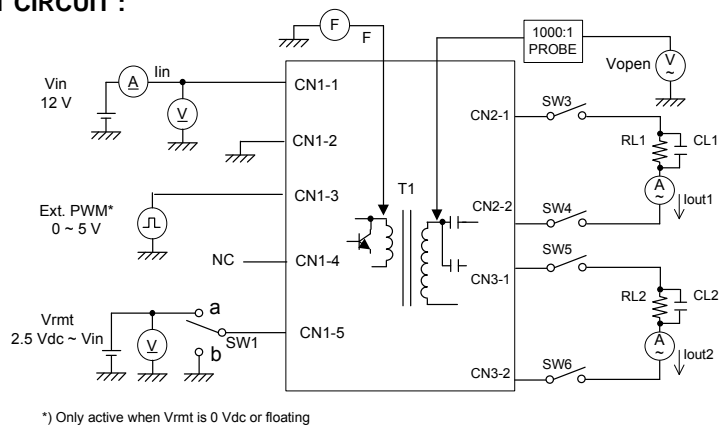
## ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vrmt (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout1+2	12±0.5	5±0.25	0 ~ +60	3.5	4.0	4.5	mArms	
Output Current	Iout1+2	12±1	5±0.25	0 ~ +60	3.0	4.0	5.0	mArms	
Input Current	Iin	12±1	5±0.25	0 ~ +60	-	1.6	2.5	A <sub>dc</sub>	
Frequency	F	12±1	5±0.25	0 ~ +60	50	60	70	kHz	
Open Circuit Voltage	Vopen	12±1	5±0.25	0 ~ +60	1.250	-	-	V <sub>rms</sub>	

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: You can use external PWM or Remote ON / OFF. Not both together.  
In case of both together Remote ON / OFF has priority and ext. PWM is out of function.  
If using ext. PWM let CN1-5 open.

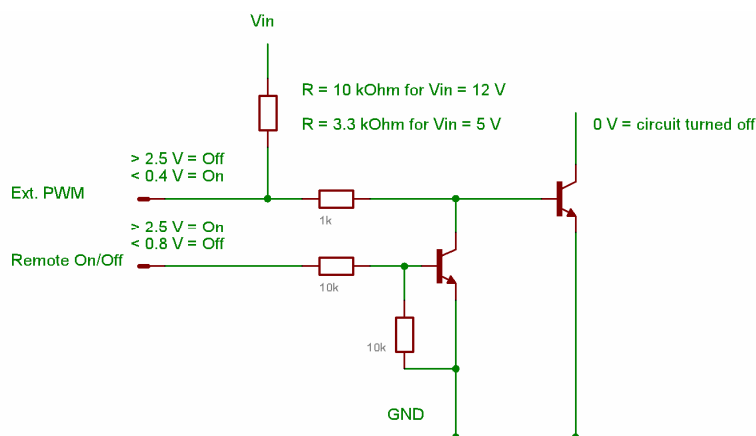
## TEST CIRCUIT :



SW1	Operation of unit
a	Operation
b	Non operation

\*) Only active when Vrmt is 0 Vdc or floating

## External PWM-Dimming / Remote ON / OFF Detailed Circuit Diagram :



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