

# DC-AC INVERTER UNIT

PS-DA0284-01(S) (11 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for dual lamps.



**APPLICABLE LCD:**

- 6.4 to 15 inches double lamp type
- Lamp Voltage 687 Vrms
- Lamp Current 2 x 5 ~ 8 mArms
- Lamp Start Up Voltage 1.800 Vrms (Vin : 12 Vdc)

**FEATURES :**

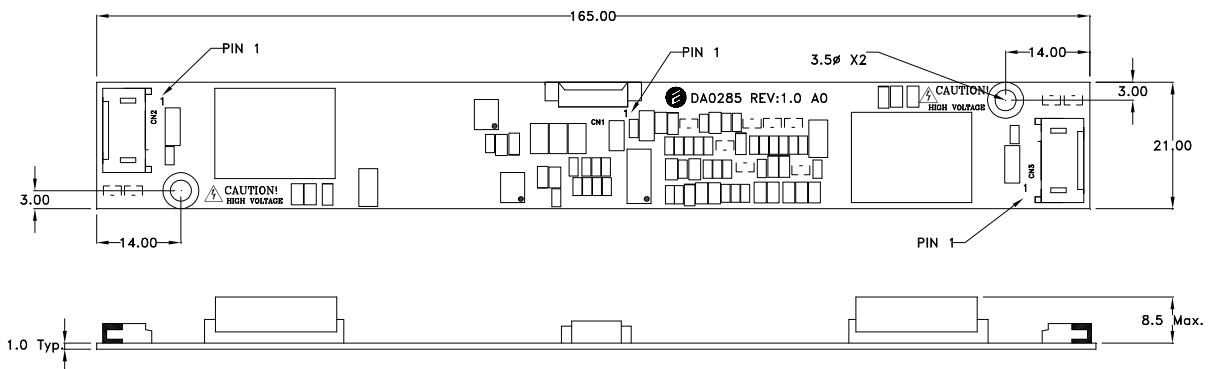
- Remote ON/OFF
- Open Lamp Detection
- RoHS compliant (S)

**TEMPERATURE & HUMIDITY :**

- Operating Temperature Range -20°C ~ +70°C
- Storage Temperature Range -40°C ~ +85°C
- Humidity 95 %RH max

Unit : mm  
Weight :24.0 (g) typ.

**DIMENSIONS :** L x W x H 165 x 21 x 9.5 mm



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=1mm
2	Connector CN1	1	53261-0871	Molex 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+2	Vin	10.8 ~ 13.2 Vdc
CN 1-3+4	GND	-
CN 1-5	Vrmt	0 ~ 0.4 = OFF / 2.0 ~ Vin = ON
CN 1-6	Vbr	Please look on page 3
CN 1-7	Set 1	See table 1 settings
CN 1-8	Set 2	See table 1 settings

**Output side CN2:**

Pin No.	Symbols	Ratings
CN 2-1	Vhigh	687 Vrms (5~8 mArms)
CN 2-2		
CN 2-3	Vlow	(GND)

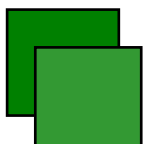
**Output side CN3:**

Pin No.	Symbols	Ratings
CN 3-1	Vhigh	687 Vrms (5~8 mArms)
CN 3-2		
CN 3-3	Vlow	(GND)

**Power Systems – The Power Solution**

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Table 1

Set 1 CN 1-7	Set 2 CN 1-8	Nominal output current
Open*	Open*	8.0 mArms
Open*	GND	7.0 mArms
GND	Open*	6.0 mArms
GND	GND	5.0 mArms

\* If driven by a logic signal it should be open collector or drain only, not a voltage source

## ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	lout	12±1.2	0	-20~+70	4.4	5.0	5.6	mArms	Duty 100%
Output Current	lout	12±1.2	0	-20~+70	5.4	6.0	6.6	mArms	Duty 100%
Output Current	lout	12±1.2	0	-20~+70	6.4	7.0	7.6	mArms	Duty 100%
Output Current	lout	12±1.2	0	-20~+70	7.4	8.0	8.6	mArms	Duty 100%
Output Current	lout	12±0.6	5	-20~+70	-	13	-	%	Duty Min
Input Current	lin	12±1.2	0	-20~+70	-	0.95	1.23	Adc	
Frequency	F	12±1.2	0	-20~+70	45	50	55	kHz	
Open Circuit Voltage	Vopen	11.4	0	-20~+70	1.600	1.800	2.000	Vrms	
No load Shutdown	Tsd	12±1.2	0	-20~+70	-	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.
- Note 2: Before apply any control signal into inverter, please provide Vcc first. Please follow the reversed sequence during power off. Power off control signal first, then power off Vcc.
- Note 3: CN 1-6 can also used with external PWM signal. The external PWM frequency should be in a range of 200 ~ 500Hz. For other frequency please request. The Low level is defined by 0 ~ 0.3 Vdc and the high level is defined by 2.2 ~ 5.0 Vdc.

## CONNECTOR/PINNING/ORDER KEY :

Model	Connector	Pinning	Connector	Pinning	
				CN2	CN3
DA0284-01-1-x	2x SM02(8.0)	1=H, 2=N.C, 3=L	CN2+CN3	1;3	1;3
DA0284-01-2-x	2x SM02 B-BHSS	1=H, 2=L	CN2+CN3	1;2	3;4
Model	Function of dimming		Level		
DA0284-01-x-1	Dimming external PWM-signal (70Khz)				
DA0284-01-x-2	Analog dimming (0~5Vdc)		0Vdc max. brightness		

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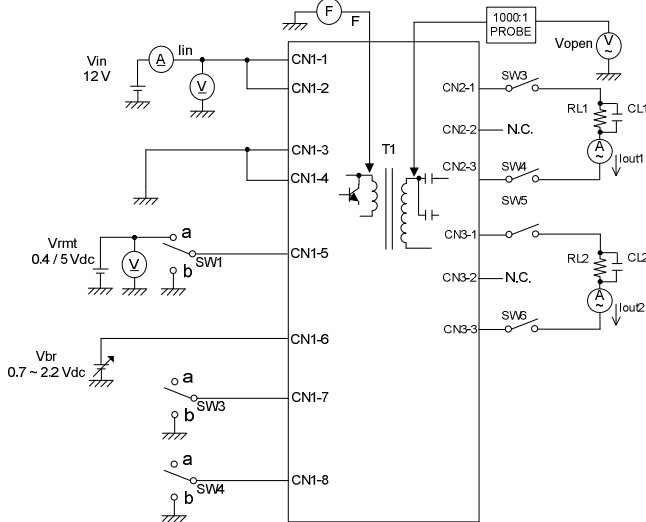
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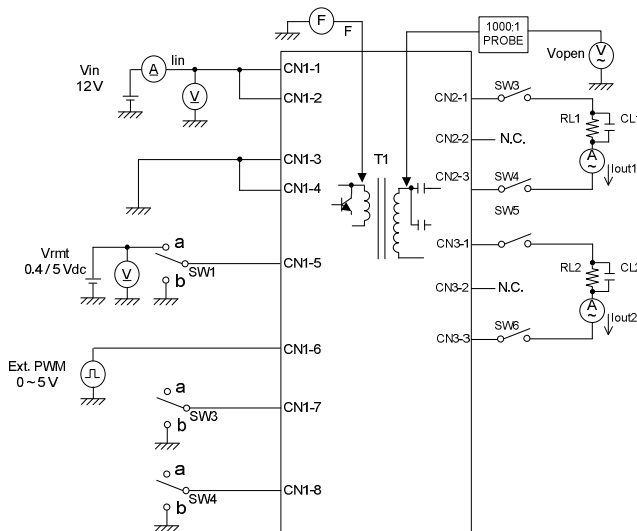
(PRELIMINARY INFORMATION)

### TEST CIRCUIT FOR VOLTAGE SOURCE CONTROL :



SW1	Operation of unit
a	Operation
b	Non operation

### TEST CIRCUIT FOR PWM SIGNAL CONTROL :



SW1	Operation of unit
a	Operation
b	Non operation

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