

# DC-AC INVERTER UNIT

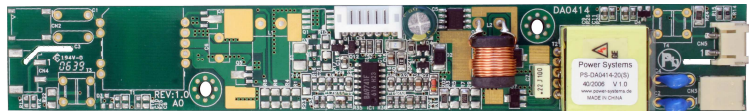
## PS-DA0414-20(S) (14 W DUAL OUTPUTS)

### DESCRIPTION :

This DC/AC Inverter is developed for notebook computers and other kinds of TFT displays with CCFL backlight system. Optimized for **Optrex: T-51863D150J-FW-A-AA; T-51511D150FW-A-AA and T-51863D150J-FW-A-AA (AA)**.

### APPLICABLE LCD:

15 to 20 inches dual lamps  
 Lamp voltage 1000 Vrms  
 Lamp current 2 x 7.0 mArms  
 Lamp Start Up Voltage 1.800 Vrms (Vin : 12 Vdc)



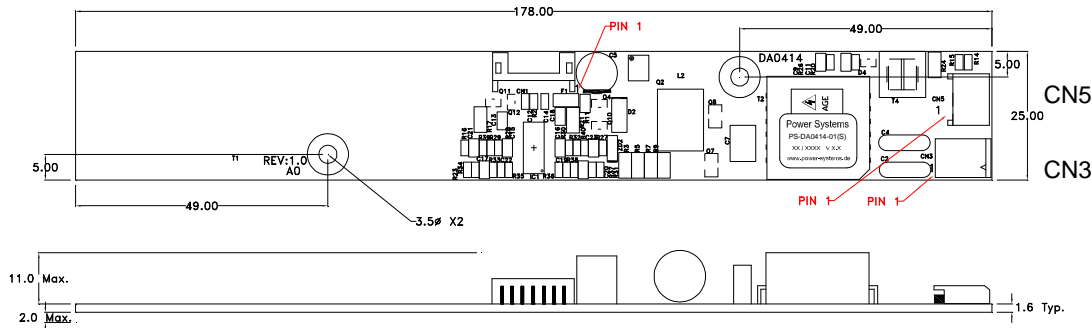
### FEATURES :

- Current feedback circuit
- High efficiency
- Internal voltage dimming
- Regulated output current
- RoHS compliant (S)

### TEMPERATURE & HUMIDITY :

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

### DIMENSIONS : L x W x H 170 x 25 x 12.6 mm



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

Unit : mm  
 Weight :40 (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	S7B-PH-SM3-TB	JST or equal
3	Connector CN3	1	SM02B-BHSS-1-TB	JST or equal
4	Connector CN5	1	SM02(4.0)B-BHS-1-TB	JST or equal

## Power Systems – The Power Solution

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## PS-DA0414-20(S) (14 W DUAL OUTPUTS)

### Input side CN1:

Pin No.	Symbols	Ratings
CN 1-1+2	Vin	10.8 ~ 13.2 Vdc
CN 1-3;4;6	GND	-
CN 1-5	Vrmt	0 ~ 0.5 = OFF / 2.5 ~ 5.0 = ON
CN 1-7	Vbr	0 ~ 5.0 Vdc

### Output side CN3

Pin No.	Symbols	Ratings
CN 3-1	Vhigh	1.000 Vrms (7.0 mArms)
CN 3-2	Vhigh	1.000 Vrms (7.0 mArms)

### Output side CN5

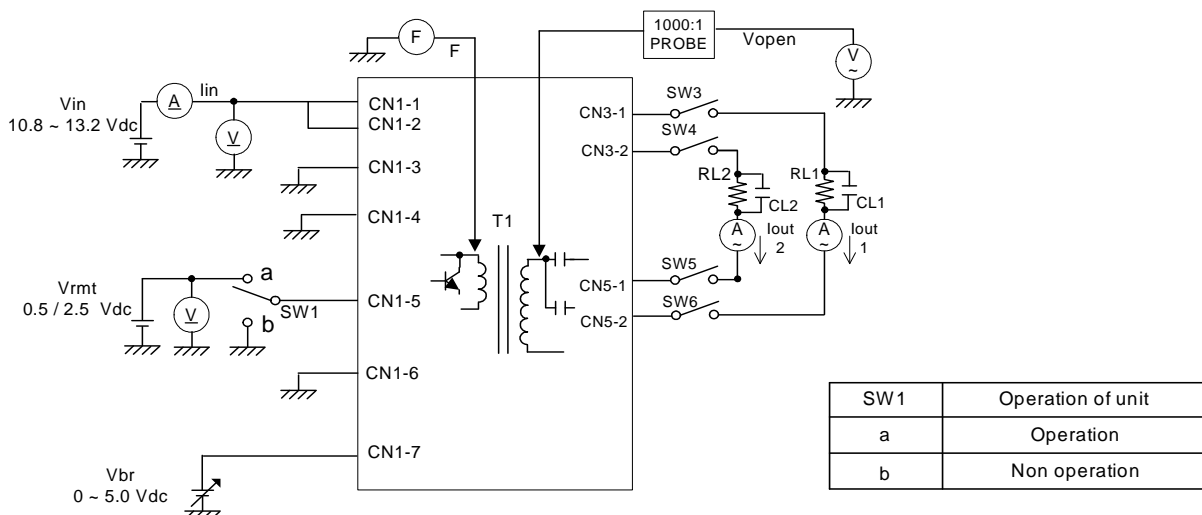
Pin No.	Symbols	Ratings
CN 5-1	Vlow	(GND)
CN 5-2	Vlow	(GND)

### 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	-20 ~ +70	6.5	7.0	7.5	mArms	Vdim = 0V
Output Current	Iout	12±1.2	5.0	-20 ~ +70	2.5	3.0	3.5	mArms	Vdim = 5.0V
Input Current	Iin	12±1.2	0.0	-20 ~ +70	-	1.4	1.6	A <sub>dc</sub>	
Frequency	F	12±1.2	0.0	-20 ~ +70	42.5	50	57.5	kHz	
Open Circuit Voltage	Vopen	11.4	0.0	-20 ~ +70	1.700	1.800	2.000	Vrms	without load
No Load Shutdown	Tsd	12±1.2	0.0	-20 ~ +85	1.0	-	-	sec	without load

Note 1 : Please keep a minimum of 2mm clearance in all directions between inverter high voltage areas and any conductors.

### TEST CIRCUIT :



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