

DC-AC INVERTER UNIT

PS-DA0422-363(S) (17 W QUAD OUTPUTS)

(PRELIMINARY INFORMATION)

DESCRIPTION :

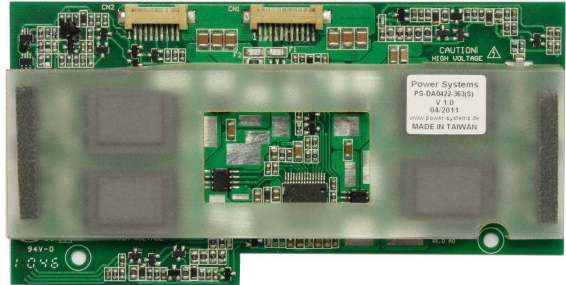
This DC/AC Inverter is developed and optimized for **NEC**

APPLICABLE LCD:

- 15 to 20 inches quad lamps
- Lamp current 4 x 6.0 mArms
- Lamp start up voltage 1.600 Vrms (Vin : 12 Vdc)

FEATURES :

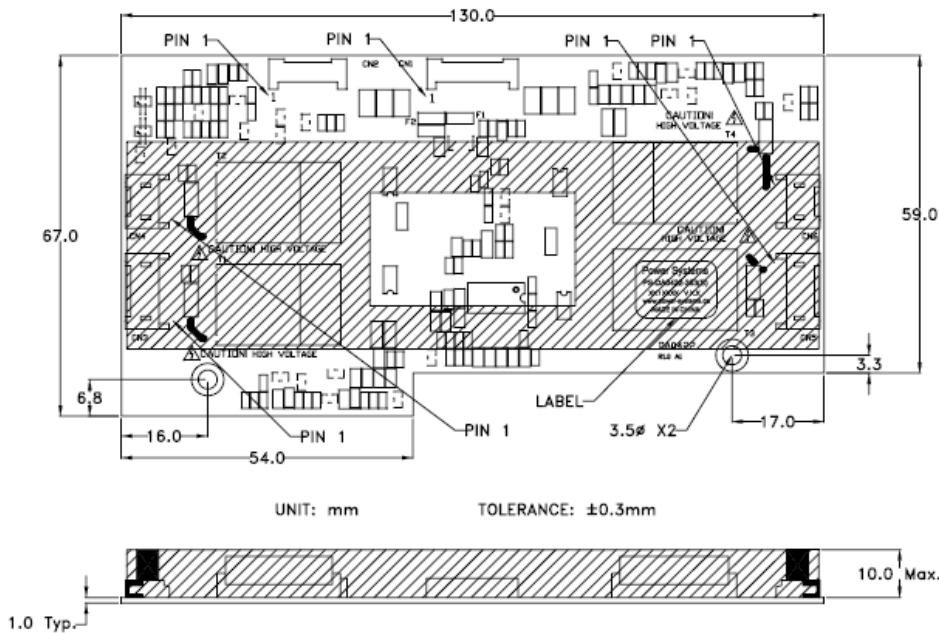
- Current feedback circuit
- High efficiency
- Special design
- Regulated output current
- RoHS compliant (S)



TEMPERATURE & HUMIDITY :

- Operating Temperature Range -20°C ~ +80°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS : L x W x H **130 x 67 x 10.0 mm**



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

Components

No.	Part Discription	Qty.	Material	Note
1	PCB	1	UL94V-0 (FR-4 or CEM-3)	t=1mm
2	Connector CN1	1	IL-Z-11PL-SMTY	JAE or equal
3	Connector CN2	1	IL-Z-9PL-SMTY	JAE or equal
4	Connector CN3 + CN5	2	SM02(8.0)B-BHS-1-TB	JST or equal
5	Connector CN4 + CN6	2	SM02(4.0)B-BHS-1-TB	JST or equal

Power Systems – The Power Solution

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Address: Hauptstr. 48 ; 74360 Ilfeld-Auenstein / Germany
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Input side CN1:

Pin No.	Symbols	Ratings
CN 1-1+2+3	Vin	10.8 ~ 13.2 Vdc
CN 1-4+5, 6, 9	GND	-
CN1-7	Lcont	Hi or OPEN = 100%, Low = 67%
CN1-8	Vrmt	Hi or OPEN = ON, Low = OFF
CN1-10	Vbr	Note 1
CN1-11	NC	

Input side CN2:

Pin No.	Symbols	Ratings
CN 2-1+2, 5, 8	GND	-
CN2-3	Lcont	Hi or OPEN = 100%, Low = 67%
CN2-4	Vrmt	Hi or OPEN = ON, Low = OFF
CN2-6	Vbr	Note 1
CN2-7	PWM	
CN2-9	PWM SEL	Note 2

Note 1 (PWM=OPEN and PWM SEL=HI or OPEN)

Luminance control (Lcont) = HIGH or OPEN
 Dimming = 1V Output Duty = 100%
 Dimming = 0V Output Duty = 20%

Luminance control (Lcon) = LOW
 Dimming = 1V Output Duty = 67%
 Dimming = 0V Output Duty = 20%

Luminance control (Lcon) = HIGH or OPEN
 Dimming R = 10K Output Duty = 100%
 Dimming R = 0K Output Duty = 20%

Luminance control (Lcon) = LOW
 Dimming R = 10K Output Duty = 67%
 Dimming R = 0K Output Duty = 20%

Note 2

Luminance control (Lcont) = HIGH or OPEN
 Duty = 100% Output Duty = 100%
 Duty = 20% Output Duty = 20%

Luminance control (Lcon) = LOW
 Duty = 100% Output Duty = 67%
 Duty = 20% Output Duty = 20%

PWM SEL = LOW

Luminance can be controlled by the duty value of input signal for PWM

Output side CN3 + CN5

Pin No.	Symbols	Ratings
CN 3/5-1	Vhigh	(6.0 mArms)
CN 3/5-2	Vlow	(GND)

Output side CN4 + CN6

Pin No.	Symbols	Ratings
CN 4/6-1	Vhigh	(6.0 mArms)
CN 4/6-2	Vlow	N.C.

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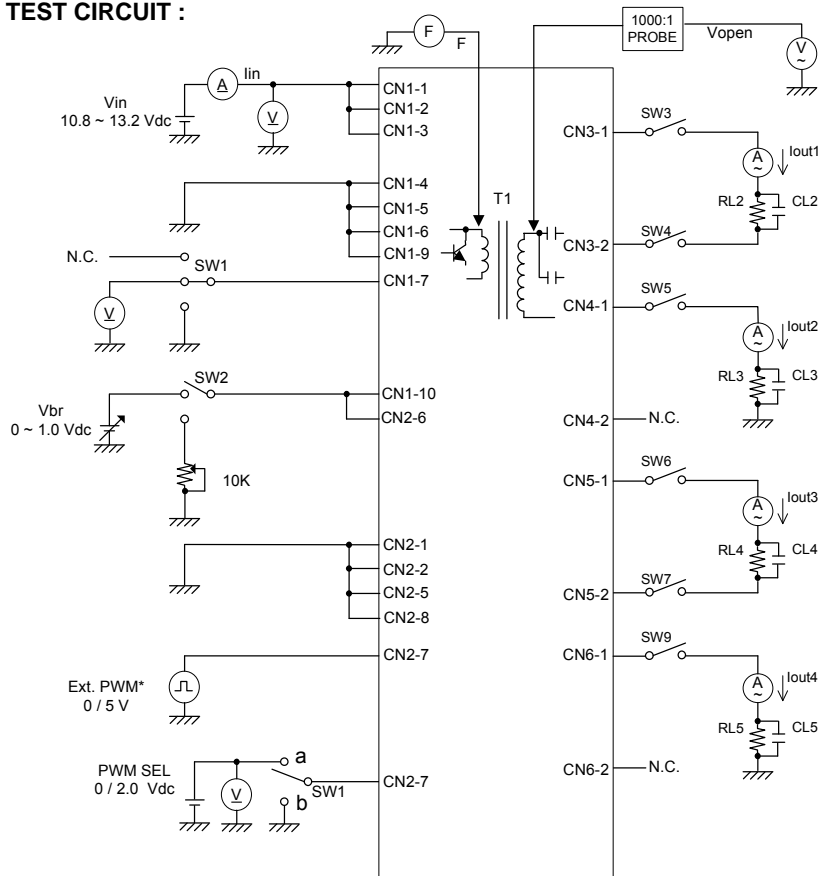
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ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	12±1.2	0.0	-20 ~ +80	5.0	6.0	7.0	mArms	Vdim=1V
Output Duty	%	12±1.2	1.0	-20 ~ +80	-	20	-	%	Vdim=0V
Input Current	Iin	12±1.2	0.0	-20 ~ +80	-	1.25	1.5	Adc	
Frequency	F	12±1.2	0.0	-20 ~ +80	51.0	56.0	61.0	kHz	
Open Circuit Voltage	Vopen	12±1.2	0.0	-20 ~ +80	1.400	1.600	1.900	Vrms	without load
Control on voltage	Von	12±1.2	0.0	-20 ~ +80	2.0		5.0	Vdc	
Control off volatge	Voff	12±1.2	0.0	-20 ~ +80	0.0		0.7	Vdc	
Dimming Control	Vdim	12±1.2	0.0	-20 ~ +80	0.0		1.0	Vdc	
PWM Signal Frequency	f	12±1.2	0.0	-20 ~ +80	150		300	Hz	
External PWM High	Vhigh	12±1.2	0.0	-20 ~ +80	2.5		5.0	Vdc	
Ecternal PWM Low	Vlow	12±1.2	0.0	-20 ~ +80	0.0		0.5	Vdc	
No Load Shutdown	Tsd	12±1.2	0.0	-20 ~ +80	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 as marked on mechanical drawing.

TEST CIRCUIT :



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