

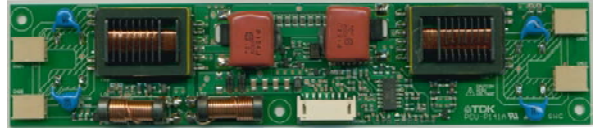
DC-AC INVERTER UNIT

CXA-0349 (QUAD OUTPUTS WITH DIMMING FUNCTION)

DESCRIPTION :

This low profile DC to AC Inverter is developed for quad lamps LCD back-light.
Application includes LCD Monitor and Industrial PC.

Applicable LCD; 15 inch quad lamp type
Lamp Voltage 650Vrms
Lamp Current 6.5mArms
Lamp Start Up Voltage 2100Vrms (Vin : 12V)



FEATURES :

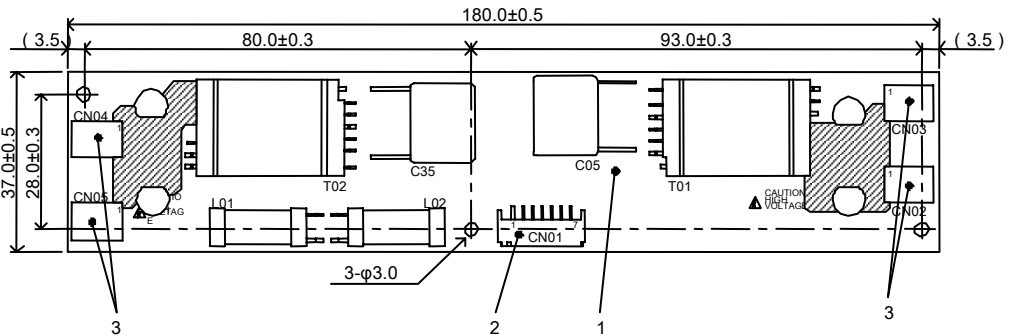
- PWM dimming
- Current Feedback Circuit
- Regulated output current
- Silicon coating in High Voltage area

TEMPERATURE & HUMIDITY :

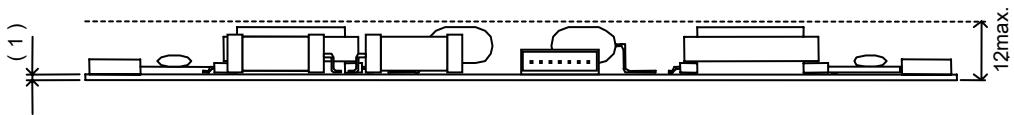
Operating Temperature Range	-10°C ~ +70°C
Storage Temperature Range	-30°C ~ +85°C
Humidity	95 %RH max

DIMENSIONS :

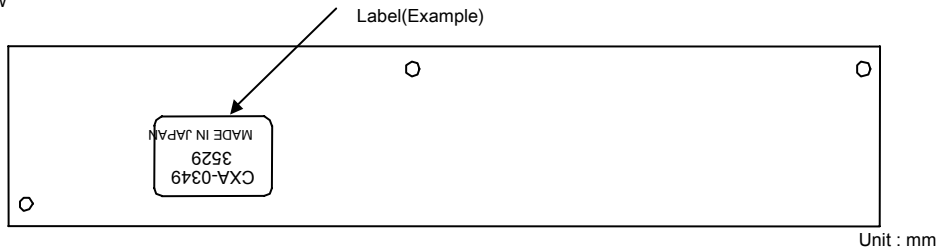
Top View



Side View



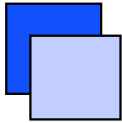
Bottom View



Power Systems – The Power Solution

Web: www.Power-Systems.de
Email: Info@Power-Systems.de

Address: Dörnet 8 ; 74360 Ilfeld-Auenstein / Germany
Tel. : + 49 / 70 62 / 67 59 - 6
Fax: + 49 / 70 62 / 67 59 - 80



CXA-0349 (QUAD OUTPUTS WITH DIMMING FUNCTION)

No.	Part Description	Qty.	Note	
1	PWB	1	UL94V-0	t=1.0mm
2	Connector CN1	1	S7B-PH-SM3	(JST)
3	Connector CN2,3,4,5	4	SM02B-BHSS-1	(JST)

CN1 : S7B-PH-SM3 (JST)

Pin	Symbol		Note
CN1-1	Vin	10.8 ~ 13.2V	Input Voltage
CN1-2			
CN1-3	GND	0 V	Grand
CN1-4			
CN1-5	Vbr / Rbr	0 ~ 2.5V / 0 ~ 50k	Brightness Control
CN1-6	Vst *1	0V / 5V	Alarm Signal
CN1-7	Vrmt	0 ~ 0.4V : OFF 2.5V ~ Vin : ON	Remote Terminal

CN2,CN3,CN4,CN5 : SM02B-BHSS-1 (JST)

Pin	Symbol	Note
CN2-1 / CN2-2	Vhigh1 / Vlow1	6.5mArms (650Vrms)
CN3-1 / CN3-2	Vhigh2 / Vlow2	6.5mArms (650Vrms)
CN4-1 / CN4-2	Vhigh3 / Vlow3	6.5mArms (650Vrms)
CN5-1 / CN5-2	Vhigh4 / Vlow4	6.5mArms (650Vrms)

*1. This is an output pin and it is active high (+5V) if any Lamp opens / fails

ELECTRICAL CHARACTERISTICS :

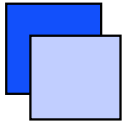
Parameters	Symbol	Conditions					Specifications		
		Vin (V)	Vrmt (V)	Vbr (V) / Rbr (kΩ)	Ta (°C)	RL1 ~ 4 (kΩ)	min.	typ.	max.
Output Current	I _{out} (mArms)	12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	80	6.0	6.7	7.4
		12 ± 1.2	5 ± 0.25	0 / 0	23 ± 5	80	6.2	6.7	7.2
		12 ± 1.2	5 ± 0.25	2.5 / 50	-10 ~ 70	80	1.4 / 1.1	2.4 / 2.1	3.4 / 3.1
Input Current1	I _{lin1} (Adc)	12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	80	-	1.56	2.0
Input Current2	I _{lin2} (mAdc)	12 ± 1.2	0 ± 0.25	0 / 0	-10 ~ 70	80	-	-	1
Frequency	f _L (kHz)	12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	80	40	45	50
Open Voltage	V _{open} (Vrms)	0.8 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	∞	1800	2100	-
		12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	R1 open	4.5	5.0	5.5
Alarm Signal	V _{st} (Vdc)	12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	R2 open	4.5	5.0	5.5
		12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	R3 open	4.5	5.0	5.5
		12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	R4 open	4.5	5.0	5.5
		12 ± 1.2	5 ± 0.25	0 / 0	-10 ~ 70	All of connect	-	0.1	0.5

Note 1 : Open circuit on all lamps for more than 3 seconds, will shut the inverter down

Power Systems – The Power Solution

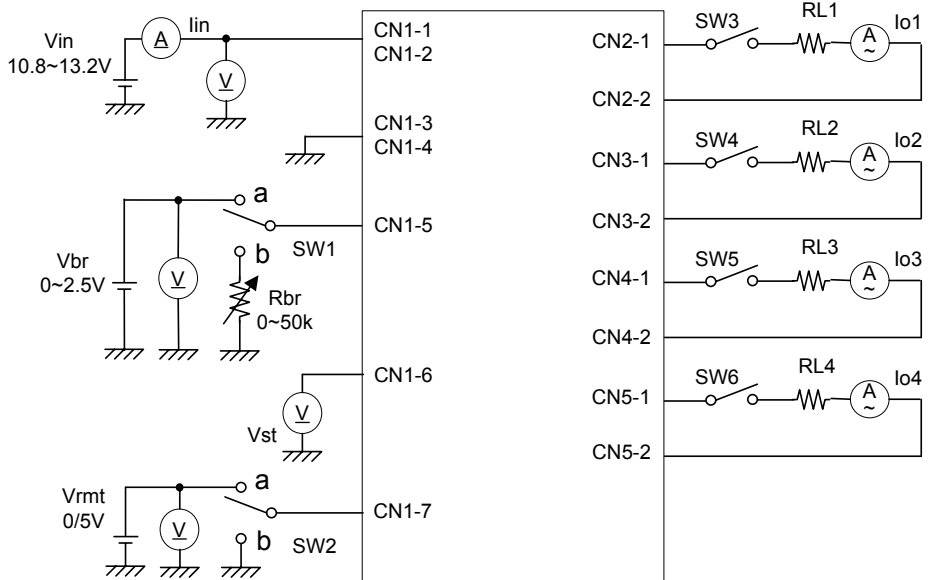
Web: www.Power-Systems.de
 Email: Info@Power-Systems.de

Address: Dörnet 8 ; 74360 Ilfeld-Auenstein / Germany
 Tel. : + 49 / 70 62 / 67 59 - 6
 Fax: + 49 / 70 62 / 67 59 - 80



CXA-0349 (QUAD OUTPUTS WITH DIMMING FUNCTION)

TEST CIRCUIT:



Vbr=0V :Brightness MAX.
Rbr=0 :Brightness MAX.

Note2. SW1(ON/OFF) Operation is as following;

SW1	Operation of unit
a	Voltage dimming Vbr=0~2.5V
b	Variable resistance dimming VR=0~50k

Note3. SW2(ON/OFF) Operation is as following;

SW2	Operation of unit
a	Operation
b	Non operation
Open	Non operation

Note4. SW3~6(Open/Close) Operation is as following;

SW3~5	Operation of warning signal
Open	Operation (5V output)
Close	Non operation (0V output)

Note 5 : In the circuit; if any of switches SW3,SW4,SW5 or SW6 opens, then the alarm signal will be active (+5V).

Power Systems – The Power Solution

Web: www.Power-Systems.de
Email: Info@Power-Systems.de

Address: Dörnet 8 ; 74360 Ilsfeld-Auenstein / Germany
Tel. : + 49 / 70 62 / 67 59 - 6
Fax: + 49 / 70 62 / 67 59 - 80

