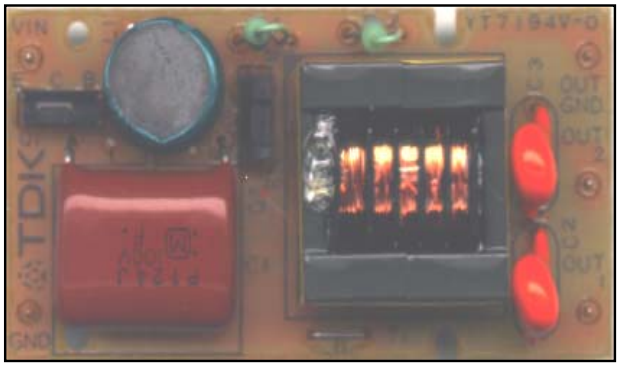
DC-AC INVERTER UNIT

CXA-M10M-L (6W SINGLE & DUAL OUTPUTS, PCB MOUNTABLE) (STANDARD)

DESCRIPTION :

TDK DC/AC Inverter, CXA-series, are low-noise, high frequency power sources developed for driving Cold Cathode Fluorescent Lamps operating at 20~80 kHz. These inverters are designed to handle a wide range of lamp characteristics.



FEATURES :

Constant current output ensures compatibility with a wide range of discharge lamps.

High efficiency resonant circuitry produces low-noise, sinusoidal-wave output.

One-lamp/two-lamp combined-use capability allows use in four different configurations.

Common ground or floating bulb configurations.

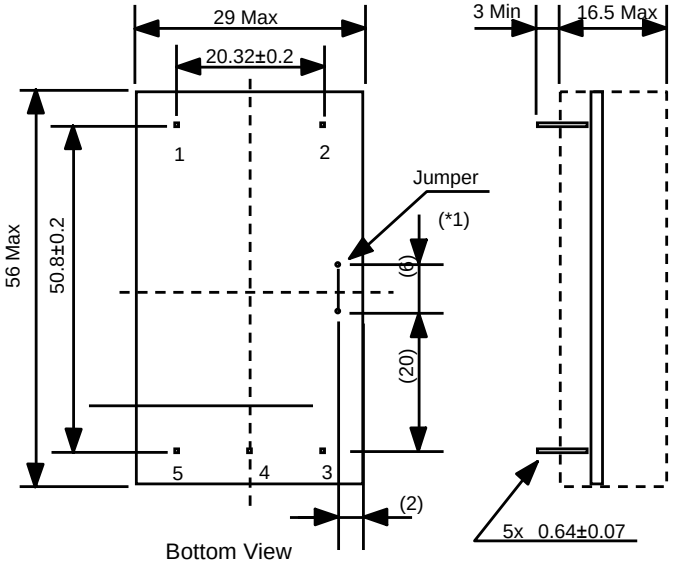
Compact size and light weight facilitate PC board mounting.

High Efficiency (80%)

TEMPERATURE & HUMDITY :

Operating Temperature Range	-10 ˚C ~ +60˚C
Storage Temperature Range	-20 ˚C ~ +85˚C
Humidity	95%RH max (No dew)

DIMENSIONS :



Unit : mm
Weight: 21.0g typ.

Pin	Symbol	Note
1	Vin	0 ~ 28,8 Vdc
2	GND	0 Vdc
3	Iout1	
4	Iout2	
5	Iout-ret	

*1 Remove for Isolated Ground Unit : mm

Power Systems – The Power Solution

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

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

CXA-M10M-L (6W SINGLE & DUAL OUTPUTS, PCB MOUNTABLE) (STANDARD)

CONNECTOR CONFIGURATION:

Pin No.	Symbols	Ratings
1	Vin	24V
2	GND	0V
3	OUT1	400Vrms
4	OUT2	400Vrms
5	OUT GND	0V

ABSOLUTE MAXIMUM RATINGS:

Items	Symbols	Specification	Unit
Input Voltage	Vin	0~28.8	VDC
Output Power	Pout	6	W

ELECTRICAL CHARACTERISTICS:

Items	Symbols	Conditions			Specification			Unit	Connection
		Vin [V]	Ta [°C]	RL [Kω]	Min.	Typ.	Max.		
Output Current	Iout	24±0.24	23±5	40	9	10	11	mArms	1
		24±1.2	-10~60	30~50	8	10	12		
Input Current	Iin	24±1.2	-10~60	30~50	-	210	330	mA DC	
Frequency	F	24±1.2	-10~60	30~50	23	28	33	kHz	
Open Circuit Voltage	Vopen	24±1.2	-10~60	∞	1000	1200	-	Vrms	
Output Current	Iout	24±0.24	23±5	67	5.0	6	6.4	mArms	2
		24±1.2	-10~60	50~84	4.4	6	7.0		
Input Current	Iin	24±1.2	-10~60	50~84	-	140	210	mA DC	
Frequency	F	24±1.2	-10~60	50~84	26	31	36	kHz	
Open Circuit Voltage	Vopen	24±1.2	-10~60	∞	1000	1200	-	Vrms	
Output Current	Iout	24±0.24	23±5	80	4.3	5	5.5	mArms	3
		24±1.2	-10~60	60~100	3.8	5	6.0		
Input Current	Iin	24±1.2	-10~60	60~100	-	120	190	mA DC	
Frequency	F	24±1.2	-10~60	60~100	23	28	33	kHz	
Open Circuit Voltage	Vopen	24±1.2	-10~60	∞	1000	1200	-	Vrms	
Output Current	Iout1 / Iout2	24±0.24	23±5	80	4.5/4.5	5/5	5.5/5.5	mArms	4
		24±1.2	-10~60	60~100	4/4	5/5	6/6		
Input Current	Iin	24±1.2	-10~60	60~100	-	210	330	mA DC	
Frequency	F	24±1.2	-10~60	60~100	23	28	33	kHz	
Open Circuit Voltage	Vopen	24±1.2	-10~60	∞	1000	1200	-	Vrms	

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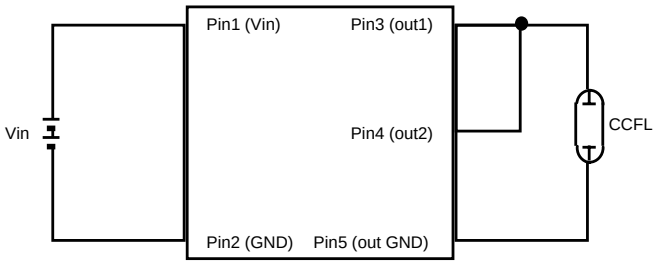
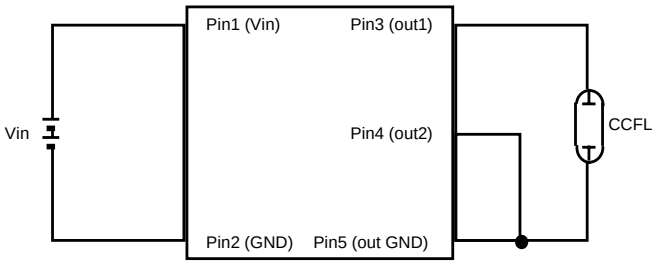
APPLICATION:

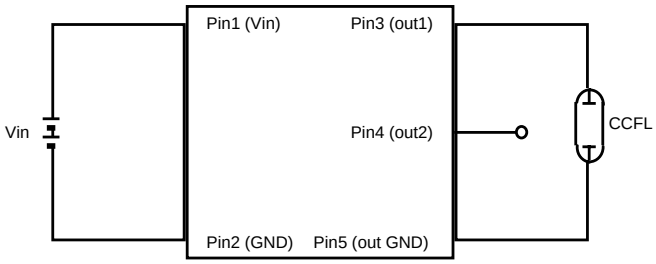
Connection 1



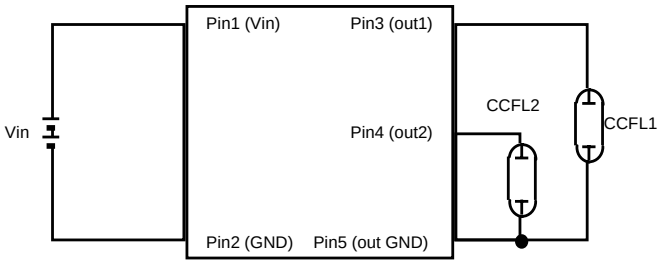
Connection 3



Connection 2



Connection 4



Note 1. For circuit connection, please prefer to test circuit diagram.

Note 2. Please use minimum of 2mm clearance (all directions) between inverter high voltage area and any conductors. Please refer to mechanical drawing for marking of high voltage area.

Note 3. Open voltage (strike voltage) is measured across the transformer secondary winding at no load as the reading at the output connector would be less than the actual value.

Note 4. If the start up voltage falls below Cold Cathode Tube strike voltage, the CCFL will not light up easily specially at lower ambient temperature. Please review mounting instruction to avoid any abnormal operation due to coupling/leakage capacitance of inverter high voltage area to any surrounding conductor.

Note 5. For operation in floating mode, please remove jumper (J1) on top side of PCB that pin2 and pin5.

Note 6. To prevent electrical discharge from high voltage area, please use non-conductive fastener in U mounting hole.

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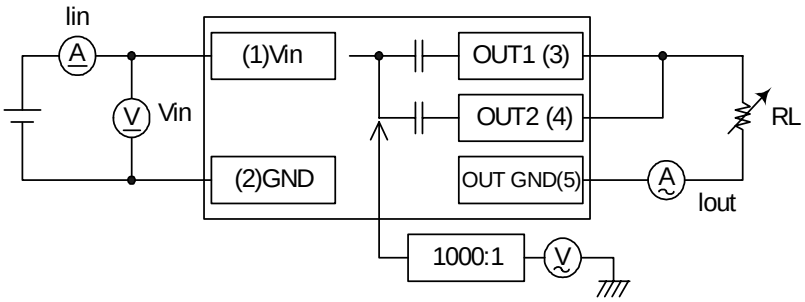
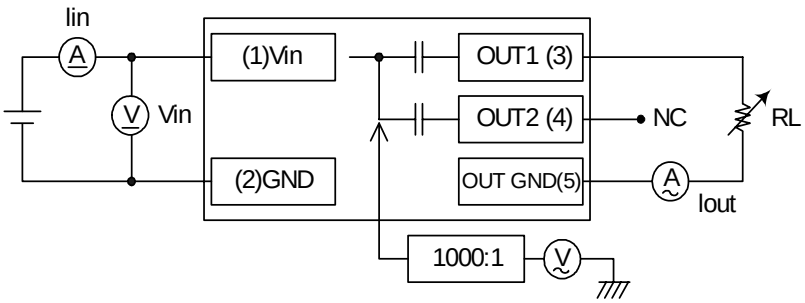
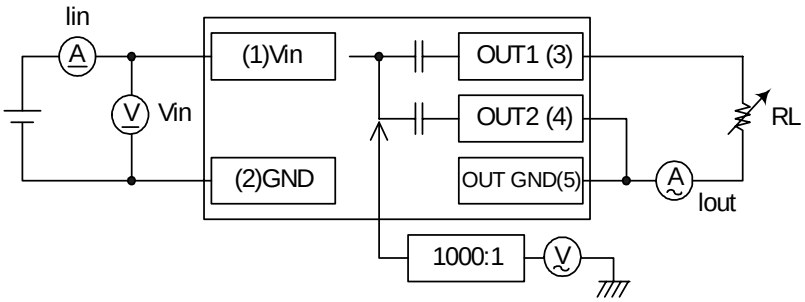
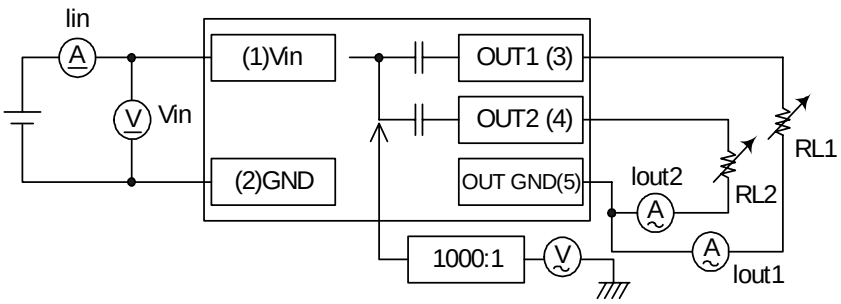
TEST CIRCUIT

Connection	Test circuit	Notes
1		Short of OUT1,OUT2
2		Open of OUT2
3		Short of OUT2,OUT GND
4		

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