

On-board type, Non-dimming, 8.4W, For 1 and 2 bulbs

TDK DC-AC Inverter

# CXA-M14L-P

## FEATURES

- The CXA-M14L-P inverter for 2-cold cathode fluorescent lamps supports a wide range of CCFL devices and is characterized by highly stable output current.
- Employing a resonance-type push-pull circuit, this inverter delivers sine wave output with very low noise levels.
- Through the use of four different connection methods and combinations of 1 and 2 lamps, different output currents can be selected.
- Compact, lightweight printed circuit board design.
- High efficiency (typically 80%).
- Safe design that includes a built-in overcurrent protection element.

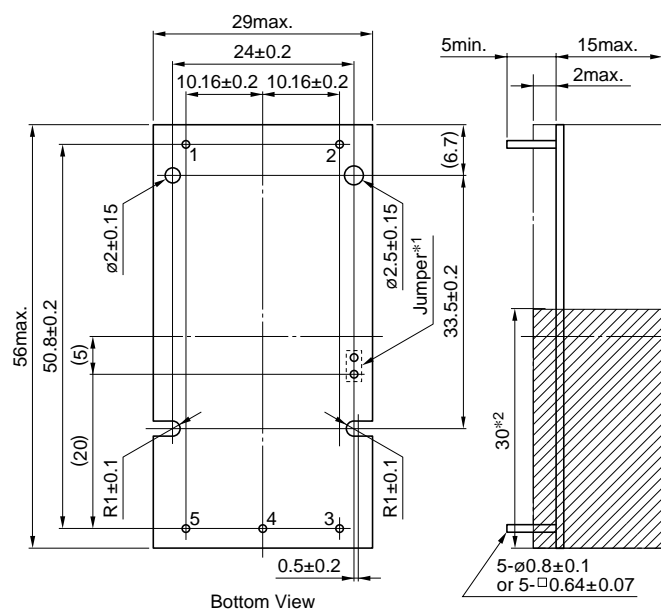
## APPLICATIONS

Industrial and other equipment employing LCD panels, products employing small lamps, information terminal devices

## TEMPERATURE AND HUMIDITY RANGES

Temperature range (°C)	Operating	-10 to +60
	Storage	-20 to +85
Humidity range(%RH)		95max. [Maximum wet-bulb temperature 38°C]

## SHAPES AND DIMENSIONS



\*1 Terminal numbers 2 and 5 are connected by the jumper.  
Cut this jumper to let the secondary side float with respect to the primary side.

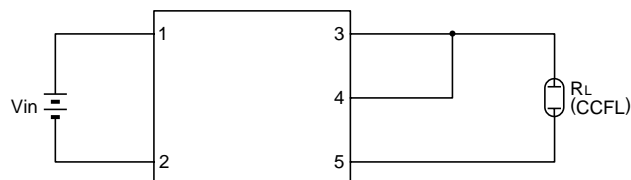
\*2 High-voltage generator (The entire surface within a range of 30mm away from the end of the base in the output)

Weight: 21g typ.

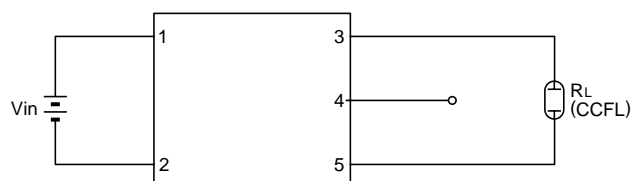
Dimensions in mm

## CIRCUIT DIAGRAMS

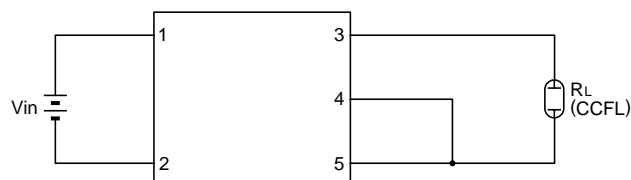
### CONNECTION A



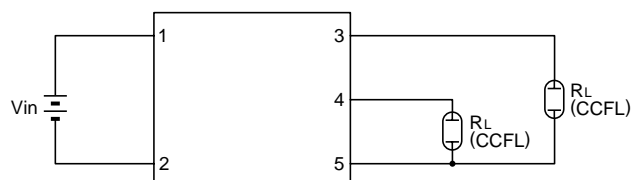
### CONNECTION B



### CONNECTION C



### CONNECTION D



## TERMINAL NUMBERS AND FUNCTIONS

Terminal No.	Functions		Symbol
1	Input voltage Edc	0 to 14.4V 12V[nom.]	V <sub>in</sub>
2		0V	GND
3	Output 1 [High voltage] I <sub>rms</sub>	7mA	V <sub>HIGH1</sub>
4	Output 2 [High voltage] I <sub>rms</sub>	7mA	V <sub>HIGH2</sub>
5	Output[Low voltage]	0V	V <sub>Low</sub>

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## ELECTRICAL CHARACTERISTICS

### 12V INPUT TYPE/CXA-M14L-P

Connections	Items	Unit	Symbol	Specifications			Conditions		
				min.	typ.	max.	V <sub>in</sub> (V)	T <sub>a</sub> (°C)	R <sub>L</sub> (kΩ)
A	Output current I <sub>rms</sub>	mA	I <sub>out</sub>	12.6	14	15.4	12±1%	23±5	28.5
				11.2	14	16.8	12±5%	-10 to +60	21.5 to 35.5
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.57	0.86	12±5%	-10 to +60	21.5 to 35.5
	Oscillation frequency	kHz	F <sub>L</sub>	23	28	33	12±5%	-10 to +60	21.5 to 35.5
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	1300	1500	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	8.4	12±5%	-10 to +60	—	
B	Output current I <sub>rms</sub>	mA	I <sub>out</sub>	7	8	9	12±1%	23±5	50
				6.2	8	9.8	12±5%	-10 to +60	37.5 to 62.5
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.36	0.54	12±5%	-10 to +60	37.5 to 62.5
	Oscillation frequency	kHz	F <sub>L</sub>	27	32	37	12±5%	-10 to +60	37.5 to 62.5
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	1300	1500	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	4.8	12±5%	-10 to +60	—	
C	Output current I <sub>rms</sub>	mA	I <sub>out</sub>	6.1	7	7.9	12±1%	23±5	57
				5.4	7	8.6	12±5%	-10 to +60	43 to 71
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.33	0.5	12±5%	-10 to +60	43 to 71
	Oscillation frequency	kHz	F <sub>L</sub>	23	28	33	12±5%	-10 to +60	43 to 71
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	1300	1500	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	4.2	12±5%	-10 to +60	—	
D	Output current I <sub>rms</sub>	mA	I <sub>out1</sub>	6.3	7	7.7	12±1%	23±5	57
			I <sub>out2</sub>	6.3	7	7.7	12±1%	23±5	57
			I <sub>out1</sub>	5.6	7	8.4	12±5%	-10 to +60	43 to 71
			I <sub>out2</sub>	5.6	7	8.4	12±5%	-10 to +60	43 to 71
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.57	0.86	12±5%	-10 to +60	43 to 71
	Oscillation frequency	kHz	F <sub>L</sub>	23	28	33	12±5%	-10 to +60	43 to 71
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	1300	1500	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	4.2×2	12±5%	-10 to +60	—	

