

On-board type, Non-dimming, 4.5W, For 1 and 2 bulbs

TDK DC-AC Inverter

# CXA-L10A/-L10L

## FEATURES

- The CXA-L10 series inverters for 2-cold cathode fluorescent lamps support a wide range of CCFL devices and are characterized by highly stable output current.
- Employing a resonance-type push-pull circuit, these inverters deliver 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%).

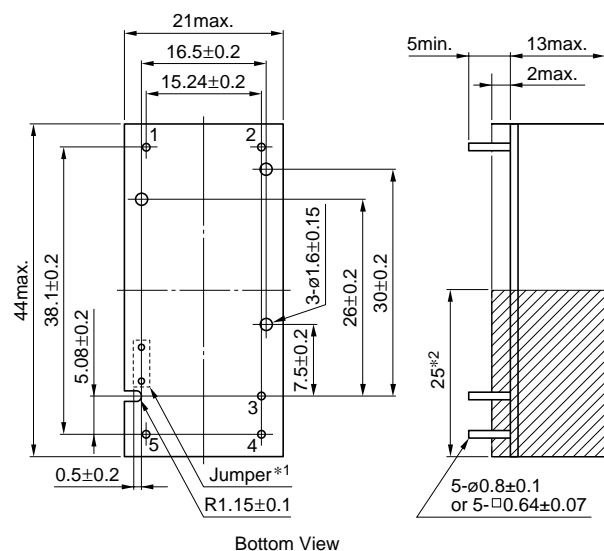
## APPLICATIONS

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

## TEMPERATURE AND HUMIDITY RANGES

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

## SHAPES AND DIMENSIONS



Bottom View

\*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.

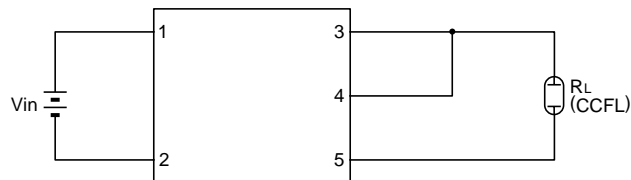
Weight: 11g typ.

Dimensions in mm

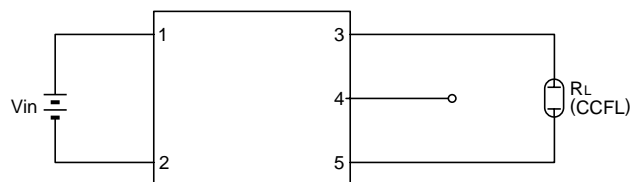
\*2 High-voltage generator (The entire surface within a range of 25mm away from the end of the base in the output)

## CIRCUIT DIAGRAMS

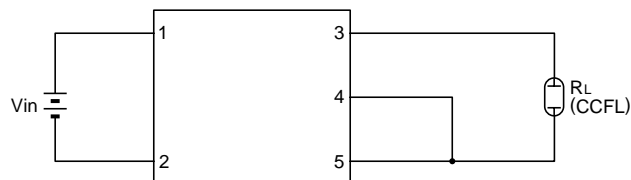
### CONNECTION A



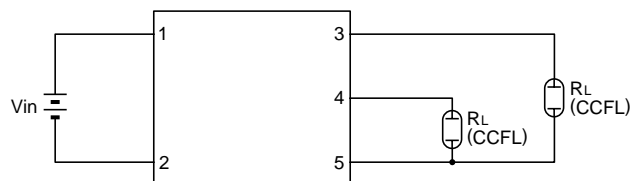
### CONNECTION B



### CONNECTION C



### CONNECTION D



## TERMINAL NUMBERS AND FUNCTIONS

Terminal No.	Functions	CXA-L10A	CXA-L10L	Symbol
1	Input voltage Edc	0 to 6V 5V[nom.]	0 to 14.4V 12V[nom.]	$V_{in}$
2		0V	0V	GND
3	Output 1 [High voltage] Irms	5mA	5mA	$V_{HIGH1}$
4	Output 2 [High voltage] Irms	5mA	5mA	$V_{HIGH2}$
5	Output[Low voltage]	0V	0V	$V_{LOW}$

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# CXA-L10A/-L10L

## ELECTRICAL CHARACTERISTICS

### 5V INPUT TYPE/CXA-L10A

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>	9	10	11	5±1%	23±5	30
				8	10	12	5±5%	-10 to +60	23 to 37
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.8	1.2	5±5%	-10 to +60	23 to 37
	Oscillation frequency	kHz	F <sub>L</sub>	25	30	35	5±5%	-10 to +60	23 to 37
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	5±5%	-10 to +60	∞
	Output power	W	P <sub>out</sub>	—	—	4.5	5±5%	-10 to +60	—
B	Output current I <sub>rms</sub>	mA	I <sub>out</sub>	5.2	6	6.6	5±1%	23±5	50
				4.6	6	7.2	5±5%	-10 to +60	38 to 62
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.51	0.77	5±5%	-10 to +60	38 to 62
	Oscillation frequency	kHz	F <sub>L</sub>	30	35	40	5±5%	-10 to +60	38 to 62
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	5±5%	-10 to +60	∞
	Output power	W	P <sub>out</sub>	—	—	2.7	5±5%	-10 to +60	—
C	Output current I <sub>rms</sub>	mA	I <sub>out</sub>	4.5	5	5.6	5±1%	23±5	60
				4	5	6.1	5±5%	-10 to +60	45 to 75
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.45	0.68	5±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	F <sub>L</sub>	25	30	35	5±5%	-10 to +60	45 to 75
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	5±5%	-10 to +60	∞
	Output power	W	P <sub>out</sub>	—	—	2.25	5±5%	-10 to +60	—
D	Output current I <sub>rms</sub>	mA	I <sub>out1</sub>	4.5	5	5.5	5±1%	23±5	60
			I <sub>out2</sub>	4.5	5	5.5	5±1%	23±5	60
			I <sub>out1</sub>	4	5	6	5±5%	-10 to +60	45 to 75
			I <sub>out2</sub>	4	5	6	5±5%	-10 to +60	45 to 75
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.8	1.2	5±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	F <sub>L</sub>	25	30	35	5±5%	-10 to +60	45 to 75
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	5±5%	-10 to +60	∞
	Output power	W	P <sub>out</sub>	—	—	2.25×2	5±5%	-10 to +60	—

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# CXA-L10A/-L10L

## ELECTRICAL CHARACTERISTICS

### 12V INPUT TYPE/CXA-L10L

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>	9	10	11	12±1%	23±5	30
				8	10	12	12±5%	-10 to +60	23 to 37
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.32	0.48	12±5%	-10 to +60	23 to 37
	Oscillation frequency	kHz	F <sub>L</sub>	25	30	35	12±5%	-10 to +60	23 to 37
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	4.5	12±5%	-10 to +60	—	
B	Output current I <sub>rms</sub>	mA	I <sub>out</sub>	5.3	6	6.7	12±1%	23±5	50
				4.7	6	7.3	12±5%	-10 to +60	38 to 62
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.2	0.3	12±5%	-10 to +60	38 to 62
	Oscillation frequency	kHz	F <sub>L</sub>	30	35	40	12±5%	-10 to +60	38 to 62
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	2.7	12±5%	-10 to +60	—	
C	Output current I <sub>rms</sub>	mA	I <sub>out</sub>	4.5	5	5.6	12±1%	23±5	60
				4	5	6.1	12±5%	-10 to +60	45 to 75
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.18	0.27	12±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	F <sub>L</sub>	25	30	35	12±5%	-10 to +60	45 to 75
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	2.25	12±5%	-10 to +60	—	
D	Output current I <sub>rms</sub>	mA	I <sub>out1</sub>	4.5	5	5.5	12±1%	23±5	60
			I <sub>out2</sub>	4.5	5	5.5	12±1%	23±5	60
			I <sub>out1</sub>	4	5	6	12±5%	-10 to +60	45 to 75
			I <sub>out2</sub>	4	5	6	12±5%	-10 to +60	45 to 75
	Input current I <sub>dc</sub>	A	I <sub>in</sub>	—	0.32	0.48	12±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	F <sub>L</sub>	25	30	35	12±5%	-10 to +60	45 to 75
	Open circuit output voltage E <sub>rms</sub>	V	V <sub>open</sub>	800	900	—	12±5%	-10 to +60	∞
Output power	W	P <sub>out</sub>	—	—	2.25×2	12±5%	-10 to +60	—	

