

# Power Supplies

## CXA Series CXA-L10A/-L10L

### DC to AC Inverters

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

#### 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%).

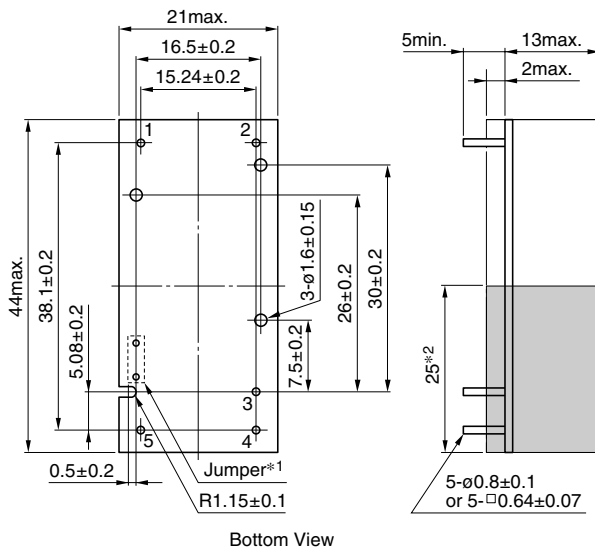
#### APPLICATIONS

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

#### TEMPERATURE AND HUMIDITY RANGES

Temperature range (°C)	Operating	-10 to +60
	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.

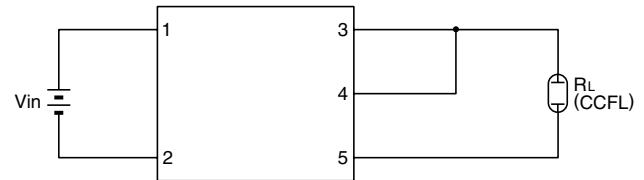
\*2 : High-voltage generator (The entire surface within a range of 25mm away from the end of the base in the output)

Weight: 11g typ.

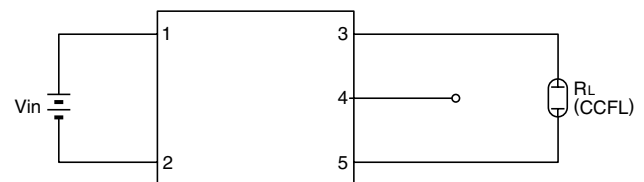
Dimensions in mm

#### CIRCUIT DIAGRAMS

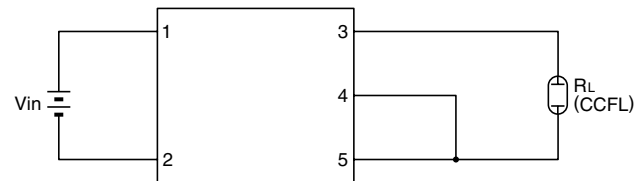
##### CONNECTION A



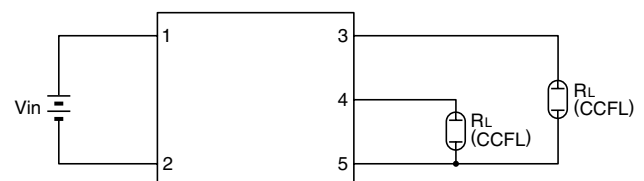
##### CONNECTION B



##### CONNECTION C



##### CONNECTION D



#### TERMINAL NUMBERS AND FUNCTIONS

Terminal No.	Functions	CXA-L10A	CXA-L10L	Symbol
1	Input voltage E <sub>dc</sub>	0 to 6V	0 to 14.4V	V <sub>in</sub>
2		5V[nom.]	12V[nom.]	
3	Output 1 [High voltage] I <sub>rms</sub>	0V	0V	GND
4	Output 2 [High voltage] I <sub>rms</sub>	5mA	5mA	V <sub>HIGH1</sub>
5	Output [Low voltage]	5mA	5mA	V <sub>HIGH2</sub>
		0V	0V	V <sub>LOW</sub>

# Power Supplies

## CXA Series CXA-L10A/-L10L

DC to AC Inverters

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

### ELECTRICAL CHARACTERISTICS

#### 5V INPUT TYPE/CXA-L10A

Connections	Items	Unit	Symbol	Specifications			Conditions		
				min.	typ.	max.	Vin(V)	Ta(°C)	RL(kΩ)
A	Output current Irms	mA	Iout	9	10	11	5±1%	23±5	30
				8	10	12	5±5%	-10 to +60	23 to 37
	Input current Idc	A	Iin	—	0.8	1.2	5±5%	-10 to +60	23 to 37
	Oscillation frequency	kHz	FL	25	30	35	5±5%	-10 to +60	23 to 37
	Open circuit output voltage Erms	V	Vopen	800	900	—	5±5%	-10 to +60	∞
Output power	W	Pout	—	—	4.5	5±5%	-10 to +60	—	
B	Output current Irms	mA	Iout	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 Idc	A	Iin	—	0.51	0.77	5±5%	-10 to +60	38 to 62
	Oscillation frequency	kHz	FL	30	35	40	5±5%	-10 to +60	38 to 62
	Open circuit output voltage Erms	V	Vopen	800	900	—	5±5%	-10 to +60	∞
Output power	W	Pout	—	—	2.7	5±5%	-10 to +60	—	
C	Output current Irms	mA	Iout	4.5	5	5.6	5±1%	23±5	60
				4	5	6.1	5±5%	-10 to +60	45 to 75
	Input current Idc	A	Iin	—	0.45	0.68	5±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	FL	25	30	35	5±5%	-10 to +60	45 to 75
	Open circuit output voltage Erms	V	Vopen	800	900	—	5±5%	-10 to +60	∞
Output power	W	Pout	—	—	2.25	5±5%	-10 to +60	—	
D	Output current Irms	mA	Iout1	4.5	5	5.5	5±1%	23±5	60
			Iout2	4.5	5	5.5	5±1%	23±5	60
			Iout1	4	5	6	5±5%	-10 to +60	45 to 75
			Iout2	4	5	6	5±5%	-10 to +60	45 to 75
	Input current Idc	A	Iin	—	0.8	1.2	5±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	FL	25	30	35	5±5%	-10 to +60	45 to 75
	Open circuit output voltage Erms	V	Vopen	800	900	—	5±5%	-10 to +60	∞
Output power	W	Pout	—	—	2.25×2	5±5%	-10 to +60	—	

# Power Supplies

## CXA Series CXA-L10A/-L10L

DC to AC Inverters

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

### ELECTRICAL CHARACTERISTICS

#### 12V INPUT TYPE/CXA-L10L

Connections	Items	Unit	Symbol	Specifications			Conditions		
				min.	typ.	max.	Vin(V)	Ta(°C)	RL(kΩ)
A	Output current Irms	mA	Iout	9	10	11	12±1%	23±5	30
				8	10	12	12±5%	-10 to +60	23 to 37
	Input current Idc	A	Iin	—	0.32	0.48	12±5%	-10 to +60	23 to 37
	Oscillation frequency	kHz	FL	25	30	35	12±5%	-10 to +60	23 to 37
	Open circuit output voltage Erms	V	Vopen	800	900	—	12±5%	-10 to +60	∞
Output power	W	Pout	—	—	4.5	12±5%	-10 to +60	—	
B	Output current Irms	mA	Iout	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 Idc	A	Iin	—	0.2	0.3	12±5%	-10 to +60	38 to 62
	Oscillation frequency	kHz	FL	30	35	40	12±5%	-10 to +60	38 to 62
	Open circuit output voltage Erms	V	Vopen	800	900	—	12±5%	-10 to +60	∞
Output power	W	Pout	—	—	2.7	12±5%	-10 to +60	—	
C	Output current Irms	mA	Iout	4.5	5	5.6	12±1%	23±5	60
				4	5	6.1	12±5%	-10 to +60	45 to 75
	Input current Idc	A	Iin	—	0.18	0.27	12±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	FL	25	30	35	12±5%	-10 to +60	45 to 75
	Open circuit output voltage Erms	V	Vopen	800	900	—	12±5%	-10 to +60	∞
Output power	W	Pout	—	—	2.25	12±5%	-10 to +60	—	
D	Output current Irms	mA	Iout1	4.5	5	5.5	12±1%	23±5	60
			Iout2	4.5	5	5.5	12±1%	23±5	60
			Iout1	4	5	6	12±5%	-10 to +60	45 to 75
			Iout2	4	5	6	12±5%	-10 to +60	45 to 75
	Input current Idc	A	Iin	—	0.32	0.48	12±5%	-10 to +60	45 to 75
	Oscillation frequency	kHz	FL	25	30	35	12±5%	-10 to +60	45 to 75
	Open circuit output voltage Erms	V	Vopen	800	900	—	12±5%	-10 to +60	∞
Output power	W	Pout	—	—	2.25×2	12±5%	-10 to +60	—	

