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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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On-board type, Non-dimming, 9W, For 1 and 2 bulbs

TDK DC-AC Inverter

# CXA-P10A-P/-P10L-P/-P10M-P

## FEATURES

- The CXA-P10 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.
- Safe design that includes a built-in overcurrent protection element.

## APPLICATIONS

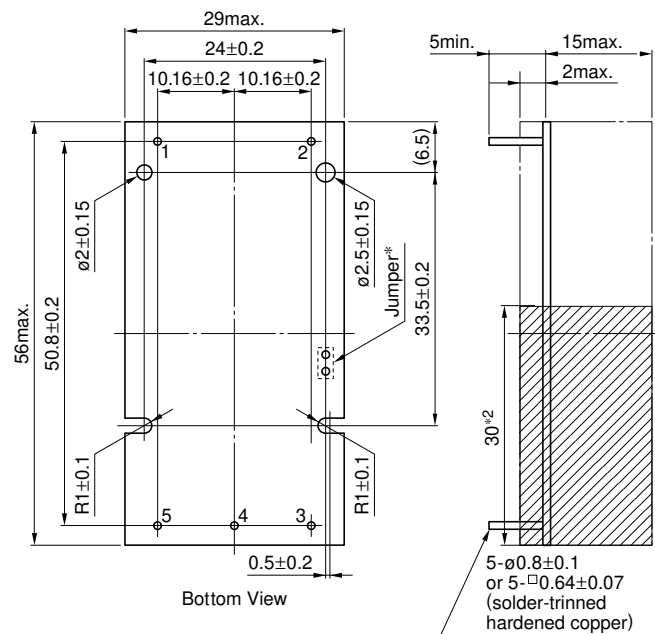
Industrial and other equipment employing LCD panels, products employing small lamps, information terminal devices.

## 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

### CXA-P10A-P/-P10L-P/-P10M-P



\*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.

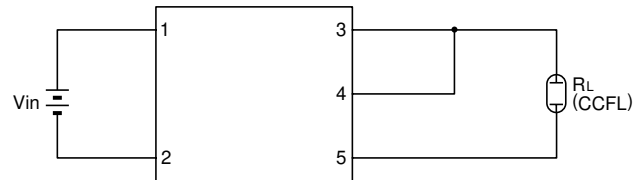
\*2 High-voltage generator (The entire surface within a range of 30mm away from the end of the base in the output)

Weight: 25g typ.

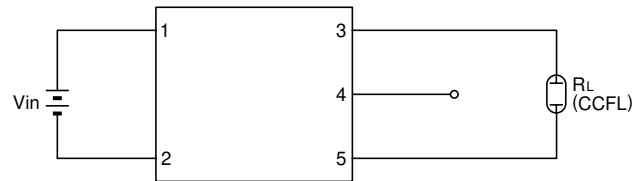
Dimensions in mm

## CIRCUIT DIAGRAMS

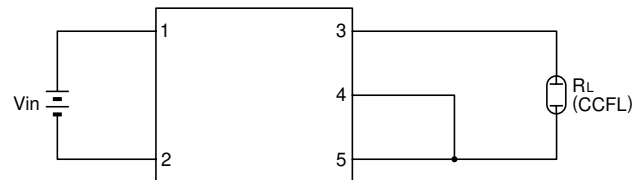
### CONNECTION A



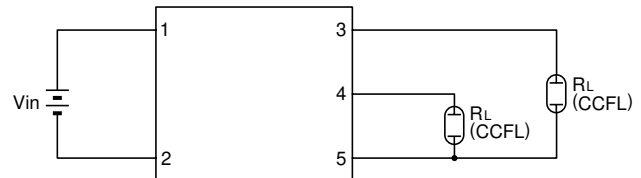
### CONNECTION B



### CONNECTION C



### CONNECTION D



## TERMINAL NUMBERS AND FUNCTIONS

Terminal No.	Functions	CXA-P10A-P	CXA-P10L-P	CXA-P10M-P	Symbol
1	Input voltage Edc	0 to 6V 5V[nom.]	0 to 14.4V 12V[nom.]	0 to 28.8V 24V[nom.]	V <sub>in</sub>
2		0V	0V	0V	GND
3	Output 1[High voltage] Irms	5mA	5mA	5mA	V <sub>HIGH1</sub>
4	Output 2[High voltage] Irms	5mA	5mA	5mA	V <sub>HIGH2</sub>
5	Output [Low voltage]	0V	0V	0V	V <sub>LOW</sub>

On-board type, Non-dimming, 9W, For 1 and 2 bulbs

TDK DC-AC Inverter

# CXA-P10A-P/-P10L-P/-P10M-P

## ELECTRICAL CHARACTERISTICS

### 5V INPUT TYPE/CXA-P10A-P

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	60
				8	10	12	5±5%	-10 to +60	50 to 70
	Input current Idc	A	Iin	—	1.56	2.34	5±5%	-10 to +60	50 to 70
	Oscillation frequency	kHz	FL	32	37	42	5±5%	-10 to +60	50 to 70
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	5±5%	-10 to +60	∞
	Output power	W	Pout	—	—	9	5±5%	-10 to +60	—
B	Output current Irms	mA	Iout	5.1	6	6.5	5±1%	23±5	100
				4.5	6	7.1	5±5%	-10 to +60	80 to 120
	Input current Idc	A	Iin	—	0.92	1.35	5±5%	-10 to +60	80 to 120
	Oscillation frequency	kHz	FL	37	42	47	5±5%	-10 to +60	80 to 120
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	5±5%	-10 to +60	∞
	Output power	W	Pout	—	—	5.4	5±5%	-10 to +60	—
C	Output current Irms	mA	Iout	4.3	5	5.5	5±1%	23±5	120
				3.8	5	6	5±5%	-10 to +60	100 to 140
	Input current Idc	A	Iin	—	0.86	1.28	5±5%	-10 to +60	100 to 140
	Oscillation frequency	kHz	FL	32	37	42	5±5%	-10 to +60	100 to 140
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	5±5%	-10 to +60	∞
	Output power	W	Pout	—	—	4.5	5±5%	-10 to +60	—
D	Output current Irms	mA	Iout1	4.5	5	5.5	5±1%	23±5	120
			Iout2	4.5	5	5.5	5±1%	23±5	120
			Iout1	4	5	6	5±5%	-10 to +60	100 to 140
			Iout2	4	5	6	5±5%	-10 to +60	100 to 140
	Input current Idc	A	Iin	—	1.47	2.21	5±5%	-10 to +60	100 to 140
	Oscillation frequency	kHz	FL	32	37	42	5±5%	-10 to +60	100 to 140
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	5±5%	-10 to +60	∞
	Output power	W	Pout	—	—	4.5×2	5±5%	-10 to +60	—

On-board type, Non-dimming, 9W, For 1 and 2 bulbs

TDK DC-AC Inverter

# CXA-P10A-P/-P10L-P/-P10M-P

## ELECTRICAL CHARACTERISTICS

### 12V INPUT TYPE/CXA-P10L-P

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	60
				8	10	12	12±5%	-10 to +60	50 to 70
	Input current Idc	A	Iin	—	0.7	1.05	12±5%	-10 to +60	50 to 70
	Oscillation frequency	kHz	FL	25	30	35	12±5%	-10 to +60	50 to 70
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	12±5%	-10 to +60	∞
	Output power	W	Pout	—	—	9	12±5%	-10 to +60	—
B	Output current Irms	mA	Iout	5.1	6	6.5	12±1%	23±5	100
				4.5	6	7.1	12±5%	-10 to +60	80 to 120
	Input current Idc	A	Iin	—	0.4	0.6	12±5%	-10 to +60	80 to 120
	Oscillation frequency	kHz	FL	29	34	39	12±5%	-10 to +60	80 to 120
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	12±5%	-10 to +60	∞
	Output power	W	Pout	—	—	5.4	12±5%	-10 to +60	—
C	Output current Irms	mA	Iout	4.3	5	5.5	12±1%	23±5	120
				3.8	5	6	12±5%	-10 to +60	100 to 140
	Input current Idc	A	Iin	—	0.38	0.57	12±5%	-10 to +60	100 to 140
	Oscillation frequency	kHz	FL	25	30	35	12±5%	-10 to +60	100 to 140
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	12±5%	-10 to +60	∞
	Output power	W	Pout	—	—	4.5	12±5%	-10 to +60	—
D	Output current Irms	mA	Iout1	4.5	5	5.5	12±1%	23±5	120
			Iout2	4.5	5	5.5	12±1%	23±5	120
			Iout1	4	5	6	12±5%	-10 to +60	100 to 140
			Iout2	4	5	6	12±5%	-10 to +60	100 to 140
	Input current Idc	A	Iin	—	0.7	1.05	12±5%	-10 to +60	100 to 140
	Oscillation frequency	kHz	FL	25	30	35	12±5%	-10 to +60	100 to 140
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	12±5%	-10 to +60	∞
	Output power	W	Pout	—	—	4.5×2	12±5%	-10 to +60	—

On-board type, Non-dimming, 9W, For 1 and 2 bulbs

TDK DC-AC Inverter

# CXA-P10A-P/-P10L-P/-P10M-P

## ELECTRICAL CHARACTERISTICS

### 24V INPUT TYPE/CXA-P10M-P

Connections	Items	Unit	Symbol	Specifications			Conditions		
				min.	typ.	max.	Vin(V)	Ta(°C)	RL(kΩ)
A	Output current Irms	mA	Iout	9	10	11	24±1%	23±5	60
				8	10	12	24±5%	-10 to +60	50 to 70
	Input current Idc	A	Iin	—	0.3	0.45	24±5%	-10 to +60	50 to 70
	Oscillation frequency	kHz	FL	21	26	31	24±5%	-10 to +60	50 to 70
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	24±5%	-10 to +60	∞
	Output power	W	Pout	—	—	6	24±5%	-10 to +60	—
B	Output current Irms	mA	Iout	5.1	6	6.5	24±1%	23±5	100
				4.5	6	7.1	24±5%	-10 to +60	80 to 120
	Input current Idc	A	Iin	—	0.18	0.27	24±5%	-10 to +60	80 to 120
	Oscillation frequency	kHz	FL	25	30	35	24±5%	-10 to +60	80 to 120
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	24±5%	-10 to +60	∞
	Output power	W	Pout	—	—	5.4	24±5%	-10 to +60	—
C	Output current Irms	mA	Iout	4.3	5	5.5	24±1%	23±5	120
				3.8	5	6	24±5%	-10 to +60	100 to 140
	Input current Idc	A	Iin	—	0.17	0.26	24±5%	-10 to +60	100 to 140
	Oscillation frequency	kHz	FL	21	26	31	24±5%	-10 to +60	100 to 140
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	24±5%	-10 to +60	∞
	Output power	W	Pout	—	—	4.5	24±5%	-10 to +60	—
D	Output current Irms	mA	Iout1	4.5	5	5.5	24±1%	23±5	120
			Iout2	4.5	5	5.5	24±1%	23±5	120
			Iout1	4	5	6	24±5%	-10 to +60	100 to 140
			Iout2	4	5	6	24±5%	-10 to +60	100 to 140
	Input current Idc	A	Iin	—	0.3	0.45	24±5%	-10 to +60	100 to 140
	Oscillation frequency	kHz	FL	21	26	31	24±5%	-10 to +60	100 to 140
	Open circuit output voltage Erms	V	Vopen	1300	1500	—	24±5%	-10 to +60	∞
	Output power	W	Pout	—	—	4.5×2	24±5%	-10 to +60	—

