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

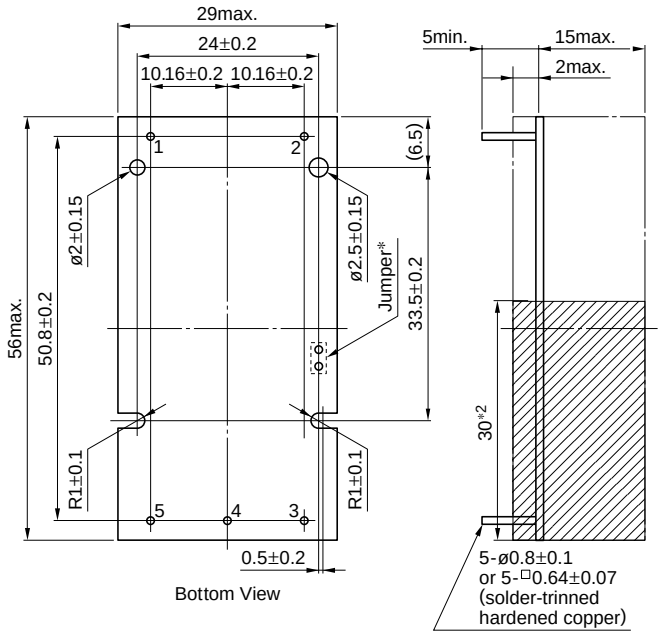
Industrial and other equipment employing LCD panels, products employing small lamps, information terminal devices.

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.

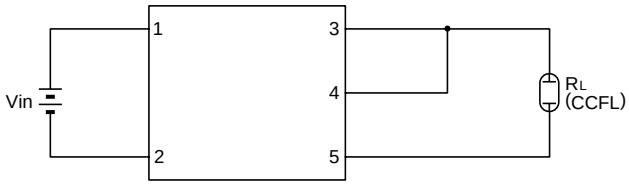
*2 High-voltage generator (The entire surface within a range of 30mm away from the end of the base in the output)

Weight: 25g typ.

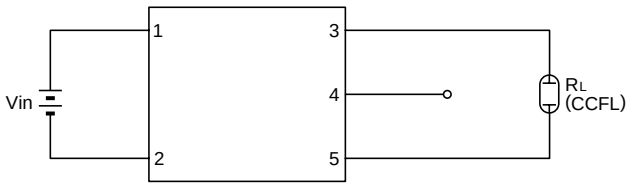
Dimensions in mm

CIRCUIT DIAGRAMS

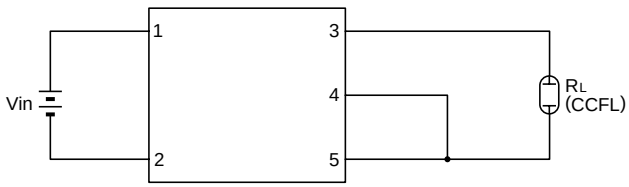
CONNECTION A



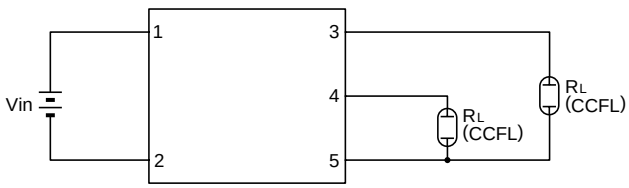
CONNECTION B



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.]	Vin
2		0V	0V	0V	GND
3	Output 1[High voltage] Irms	5mA	5mA	5mA	V_{HIGH1}
4	Output 2[High voltage] Irms	5mA	5mA	5mA	V_{HIGH2}
5	Output [Low voltage]	0V	0V	0V	V_{LOW}

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)	R_L(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	F_L	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	F_L	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	F_L	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	F_L	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)	R_L(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	F_L	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	F_L	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	F_L	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	F_L	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)	R_L(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	F_L	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	F_L	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	F_L	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	F_L	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	—

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