

DC to AC Inverters

Conformity to RoHS Directive

On-board type, Non-dimming, 9W, for 1 and 2 Bulbs

CXA Series CXA-P20L-L

FEATURES

- The CXA-P20L-L 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%).
- It is a product conforming to RoHS directive.

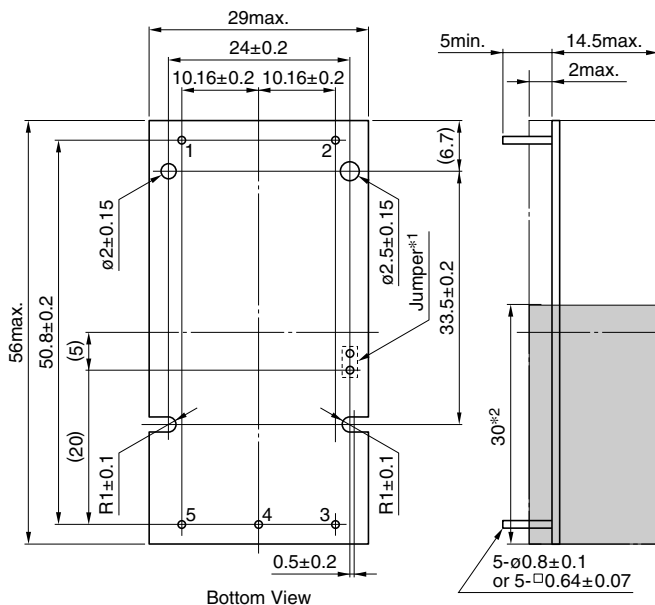
APPLICATIONS

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.

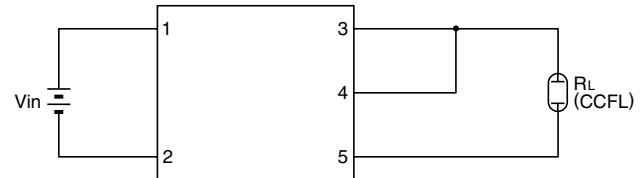
Weight: 21g typ.

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

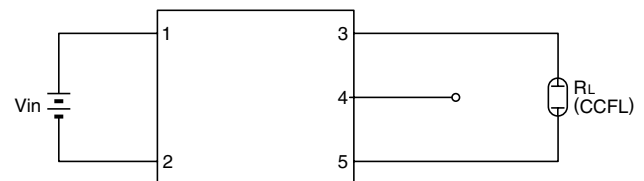
Dimensions in mm

CIRCUIT DIAGRAMS

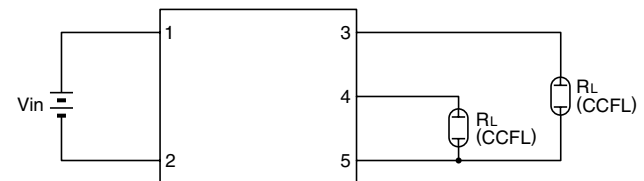
CONNECTION A



CONNECTION B



CONNECTION C



TERMINAL NUMBERS AND FUNCTIONS

Terminal No.	Functions	Symbol
1	Input voltage Edc	11.4 to 12.6V 12V[nom.] Vin
2		0V GND
3	Output 1 [High voltage] Irms	10mA V _{HIGH1}
4	Output 2 [High voltage] Irms	10mA V _{HIGH2}
5	Output[Low voltage]	0V V _{LOW}

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

CXA-P20L-L

ELECTRICAL CHARACTERISTICS

12V INPUT TYPE/CXA-P20L-L

Connections	Items	Unit	Symbol	Specifications			Conditions		
				min.	typ.	max.	V _{in} (V)	T _a (°C)	R _L (kΩ)
A	Output current I _{rms}	mA	I _{out}	18	20	22	12±1%	23±5	15
				16	20	24	12±5%	-10 to +60	11.2 to 18.8
	Input current I _{dc}	A	I _{in}	—	0.63	0.95	12±5%	-10 to +60	11.2 to 18.8
	Oscillation frequency	kHz	F _L	23	28	33	12±5%	-10 to +60	11.2 to 18.8
	Open circuit output voltage E _{rms}	V	V _{open}	800	900	—	12±5%	-10 to +60	∞
Output power	W	P _{out}	—	—	9	12±5%	-10 to +60	—	
B	Output current I _{rms}	mA	I _{out}	10	12	13	12±1%	23±5	25
				9	12	14	12±5%	-10 to +60	19 to 31
	Input current I _{dc}	A	I _{in}	—	0.42	0.64	12±5%	-10 to +60	19 to 31
	Oscillation frequency	kHz	F _L	27	32	37	12±5%	-10 to +60	19 to 31
	Open circuit output voltage E _{rms}	V	V _{open}	800	900	—	12±5%	-10 to +60	∞
Output power	W	P _{out}	—	—	5.4	12±5%	-10 to +60	—	
C	Output current I _{rms}	mA	I _{out1}	9	10	11	12±1%	23±5	30
			I _{out2}	9	10	11	12±1%	23±5	30
			I _{out1}	8	10	12	12±5%	-10 to +60	22.5 to 37.5
			I _{out2}	8	10	12	12±5%	-10 to +60	22.5 to 37.5
	Input current I _{dc}	A	I _{in}	—	0.63	0.95	12±5%	-10 to +60	22.5 to 37.5
	Oscillation frequency	kHz	F _L	23	28	33	12±5%	-10 to +60	22.5 to 37.5
	Open circuit output voltage E _{rms}	V	V _{open}	800	900	—	12±5%	-10 to +60	∞
Output power	W	P _{out}	—	—	9	12±5%	-10 to +60	—	

