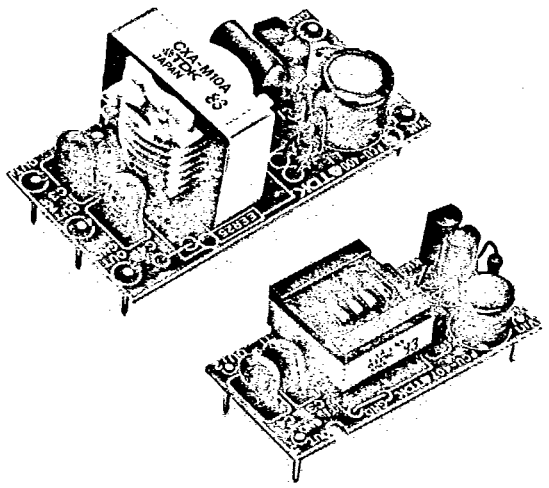
TDK DC to DC Converters, DC to AC Inverters

3W to 9W

CXA SERIES DC TO AC INVERTERS

TDK CXA series of DC to AC inverters are low-noise, (EMI/RFI) high-frequency power sources developed for driving cold cathode discharge lamps operating at 20kHz or higher.
These inverters are designed to handle a wide range of lamp characteristics.



FEATURES

- Constant current output ensures compatibility with a wide range of discharge lamps.
- High-efficiency resonant circuitry produces low-noise, sinusoidal-wave output.
- Single or twin lamps used capability allows use in four different configurations.
- Full protection against open circuits, short circuits, and overheat conditions provides dependable operation.
- Compact size and light weight facilitate PC board mounting.

APPLICATIONS

- LCD displays
- Compact floodlights
- Facsimile machine reading function
- Photocopier erase and exposure functions

PRODUCT IDENTIFICATION

CXA- K 10 A
(1) (2) (3) (4)

(1) TDK DC to AC inverter
(2) Power output (W)
K: 3 watts, L: 4.5 watts, M: 6 watts, N: 6 watts, P: 9 watts
(3) Sum total output current (mA)
(4) Input voltage (V)
A: 5Vdc, L: 12Vdc, M: 24Vdc

TEMPERATURE AND HUMIDITY RANGES

Operating temperature range	−10 to +60°C [+14 to +140°F]
Storage temperature range	−20 to +85°C [−4 to +185°F]
Humidity	95%max (Maximum wet-bulb temperature: 38°C [100.4°F])

SHAPES AND DIMENSIONS

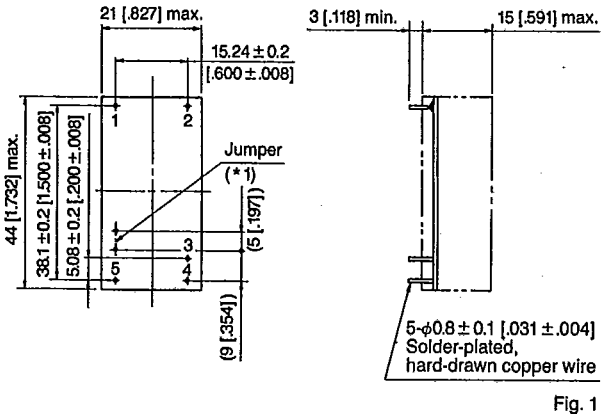


Fig. 1

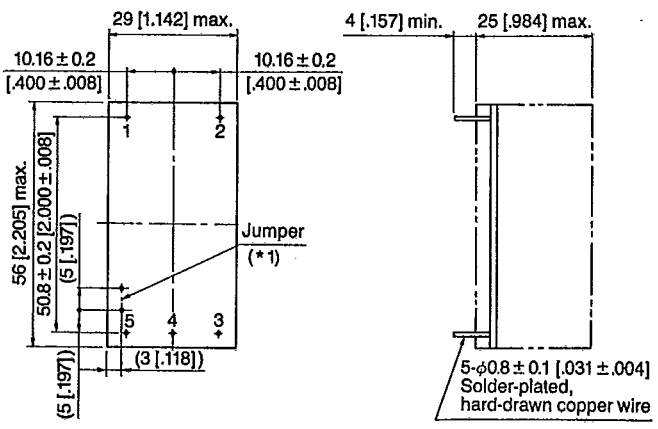
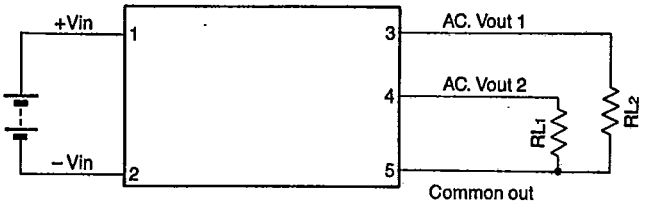


Fig. 2

Dimensions in mm [inches]

Terminal Pin Configuration



Terminal pin No.	
1	+Vin
2	– Vin
3	AC Vout 1
4	AC Vout 2
5	Common out

- Terminal numbers 2 and 5 are connected by the jumper (*1). Cut this jumper to let the secondary side float with respect to the primary side.
- Standard application is driving two lamps. Three lamps can also be driven as follows:
  1. A lamp drawing twice the inverter's rated output current can be driven by connecting terminals 3 and 4.
  2. A lamp drawing 1.2 times the inverter's rated output current can be driven by opening terminal 4.
  3. A lamp drawing the inverter's rated output current can be driven by connecting terminals 4 and 5.

Contact TDK if you wish to use the inverter to drive one lamp.

ELECTRICAL CHARACTERISTICS

Part No.	Input voltage (V)	Open circuit output voltage (Vrms) typ.	Output voltage (Vrms) max.	Output current (mAac)	Efficiency (%) typ.	Frequency (kHz) typ.	Weight (g)	Shapes and dimensions
CXA-K10A	5±10%	600	300	5×2	80	30	11	Fig. 1
CXA-K10L	12±10%	600	300	5×2	80			
CXA-L10A	5±10%	900	450	5×2	80			
CXA-L10L	12±10%	900	450	5×2	80			
CXA-M10A	5±10%	1200	600	5×2	80	30	27	Fig. 2
CXA-M10L	12±10%	1200	600	5×2	80			
CXA-M10M	24±10%	1200	600	5×2	80			
CXA-N20L	12±10%	600	300	10×2	85			
CXA-P20L	12±10%	900	450	10×2	85			

Operational precautions:
- *Keep the ripple noise present in the applied input voltage to within ±3% p-p of the rated input voltage.*
- *Do not use ultrasonic cleaning methods to remove excess residual flux after soldering. The presence of small quantities of flux after soldering does not necessary indicate that cleaning is required. If you cannot decide whether cleaning is necessary, contact TDK.*