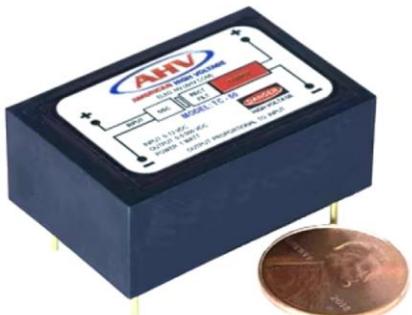




AMERICAN HIGH VOLTAGE

TC Series Micro-Sized

HIGH VOLTAGE POWER SUPPLY



The TC Series are a broad line of micro-sized, high reliability DC to DC converters supplying up to 5,000 volts in only 0.563 cubic inches. These tiny converters are ideal for applications requiring minimal size and weight. The output is directly proportional to the input voltage and is linear from 0.7V input to maximum input voltage, allowing for an easily adjustable output. Their power output is limited to 1 Watt at full output voltage. Ripple is kept low by using a sinewave resonant oscillator. All TC units offer reverse polarity and short circuit protection.

TYPICAL APPLICATIONS

General Lab Use
Electrostatics
Bias Voltage
Op-Amp Supply
Pulse Generator
Ultrasonics

SPECIFICATIONS

Input Voltage:

5 VDC Input (dash 5Vin Models)
12 VDC Input Standard
24 VDC Input (dash 24Vin Models)
48 VDC Input (dash 48in Models)

Output Voltage:

From 100VDC to 5,000VDC
See "model selection table"

Output Polarity:

Output is floating from input

Output Current:

depends upon Vout
See "model selection table"
Power is limited to 1 Watt

TC Series – 1Watt Micro-Sized Modules

- Output proportional to Input
- Floating output
- 100V to 5kV Output Voltages Available
- Sinewave Resonant Oscillator

SPECIFICATIONS Continued

Voltage Regulation

10% NL – FL (typical) Resistive load

Ripple:

1% maximum at full load each side

Temperature Coefficient:

100 ppm/ °C

Stability:

< 0.1% drift / hour after warm-up to operating temperature

Operating Temperature:

-55 °C to +100 °C case temperature

Humidity:

10% to 90% RH non-condensing

Input Terminals:

Gold pins (0.04 inch diameter x 0.25 inch length)

Output Terminals:

Gold Pins (0.04 inch diameter x 0.25 inch length)

Input Current:

No Load: 30 mA
Full Load: 125 mA

Power Efficiency:

70% typical

Encapsulation:

Epoxy potting

Short Circuit Ability:

Fold-back circuitry

Switching Frequency:

Typical 30kHz

HIGH VOLTAGE
for the
WORLD

Corporate Office:
2002 Idaho Street
Elko, Nevada 89801
(775) 777-3631

www.ahv.com
American High Voltage is an
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SPECIFICATIONS Continued

Cooling:

Convection: 1W full load = 10 ° C case temperature rise

Dimensions:

1.5 L x 1.0 W x 0.50 H (38.1mm x 25.4mm x 12.7mm)
Volume = 0.75 inch³ (12.3 cm³)

Weight:

2.0 oz (55 grams)

Encapsulation:

Epoxy potting

Finish:

Smooth Diallyl-Phthalate Thermoset Case

Terminations:

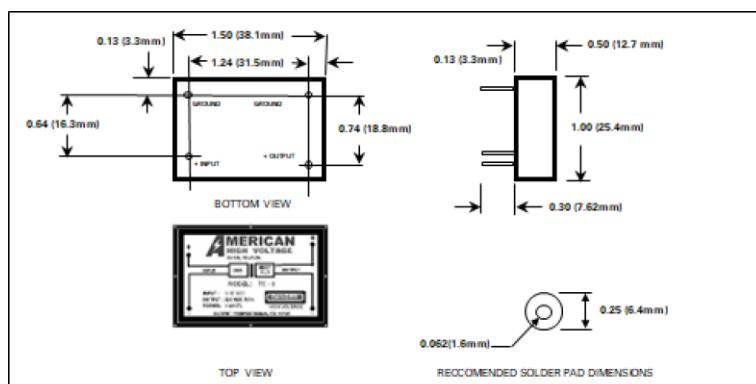
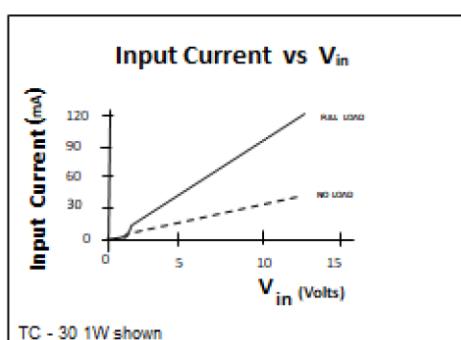
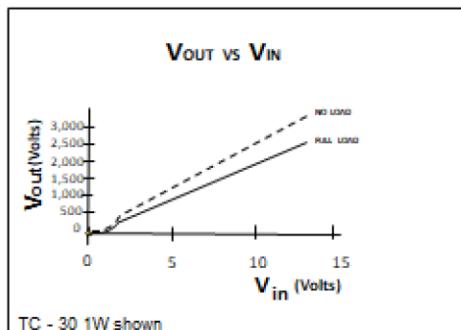
Electro-Gold Plated Brass pins (4)

MODEL SELECTION TABLE

Model	Voltage	Power Available
TC-1	100v	1w
TC-2	200v	1w
TC-3	300v	1w
TC-5	500v	1w
TC-10	1,000v	1w
TC-12	1,200v	1w
TC-15	1,500v	1w
TC-20	2,000v	1w
TC-30	3,000v	1w
TC-40	4,000v	1w
TC-50	5,000v	1w
TC-60	6,000v	1w

The above products are available in:
5V, 12V (standard), 24v , or 48v input

PERFORMANCE CHARTS



Ordering Information:

TC – XX 1 Watt / ZVin

XX = Output voltage
Z = Input voltage (blank if 12VDC)

Example:

TC – 30: Maximum output = 3,000V 1Watt 12 VDC input
TC – 10 /5Vin: Maximum output = 1,000V 1Watt 5VDC input

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