

## ELECTRICAL SPECIFICATIONS\*3

PARAMETER	VALUE
INPUT VOLTAGE	0 TO 5, 12, OR 24V (FOR MODELS UP TO 3KV)
	0 TO 5V (FOR MODELS OVER 3KV)
TURN-ON VOLTAGE	<0.7 VDC
ISOLATION	< +/- 500V BIAS ON PIN 4
OUTPUT VOLTAGE TOLERANCE	+10%, -10% FULL LOAD, MAX. INPUT VOLTAGE
INPUT/OUTPUT COUPLING CAPACITANCE	<250 pf TYPICAL
INPUT/OUTPUT LEAKAGE CURRENT	<50 nA TYPICAL
CONTROL PIN	0 to MAX. INPUT VOLTAGE
INTERNAL OSCILLATOR FREQUENCY	50kHz - 350kHz
STANDARD TEMPERATURE RANGES	OPERATING: -25° TO +75°C <sup>6</sup> (CASE)
	STORAGE: -55° TO +105°C
EXTENDED TEMPERATURE RANGES (-T OPTION)	OPERATING: -55 TO +85°C <sup>6</sup> (CASE) [A Models / 1.0W]
	STORAGE: -55° TO +105°C

## DETAILED PRODUCT DESCRIPTION

The A Series is a new line of ultra-miniature, DC to HV DC converters that set an industry standard in high voltage miniaturization. This unique package occupies less than one tenth of a cubic inch of volume<sup>5</sup>, and features an extremely low profile of only 0.250 inches (6.35mm)! Controllable output voltages range from 100 volts to 6000 volts. These component-sized converters are ideal for applications requiring minimal size and weight.

Turn-on voltage is very low at less than 0.7 volts, allowing for wide output voltage operating range. Use of a resonant, quasi-sinewave oscillator and fully shielded transformer result in clean, reliable high voltage conversion with inherently low ripple, EMI/RFI and input ripple current, making this product ideal for integration into noise sensitive equipment.

A separate high impedance control pin is standard and is designed for external error amplifier and/or DAC control in closed or open loop systems.

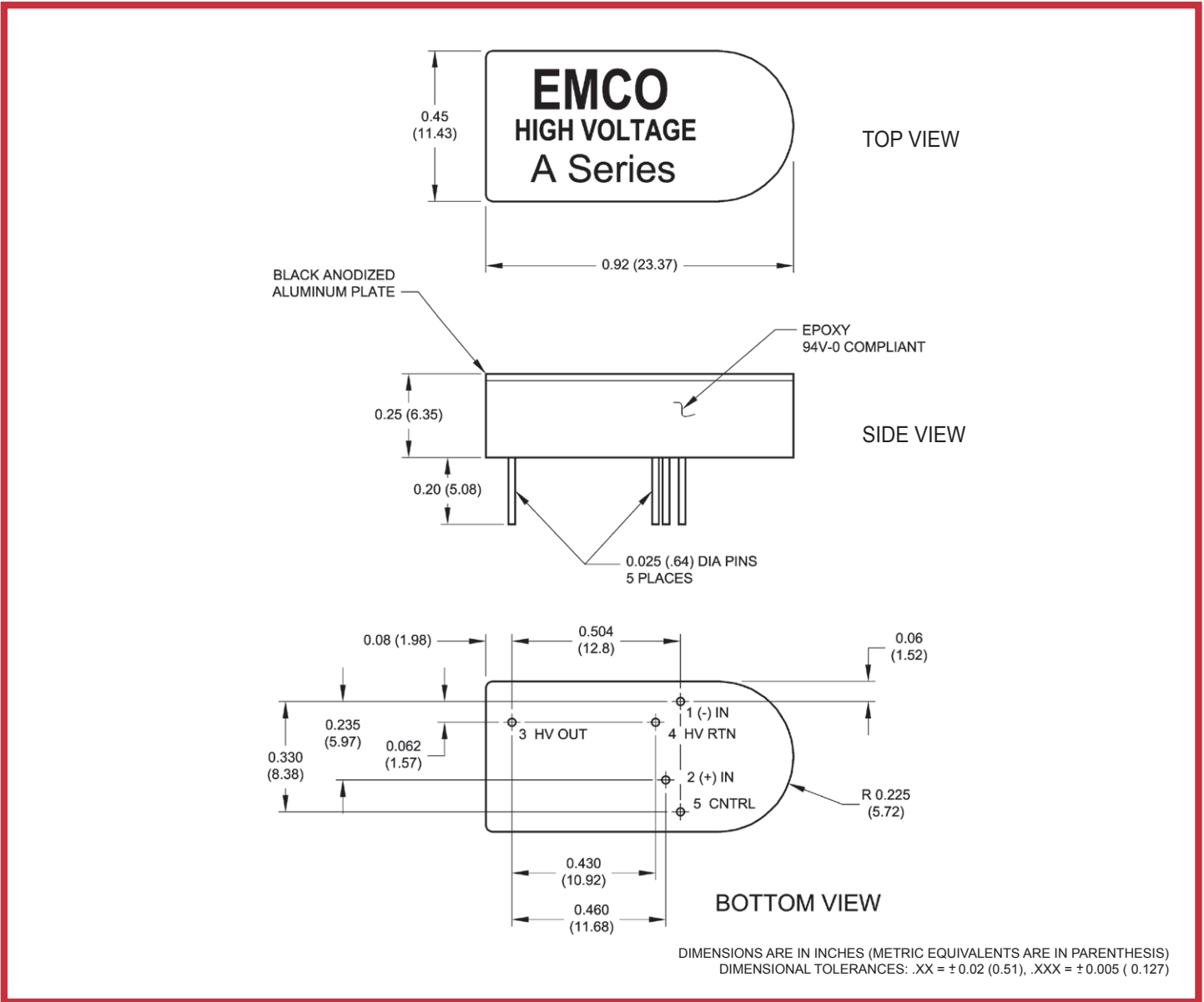
Or simply connect the control pin to the + input for proportional input to output operation (see schematic and performance charts below).

Output power is 1 watt standard, with 1.5 watts available as an option. No minimum load is required. A proprietary vacuum encapsulation process and custom 94V-0 listed, high performance formula are used to achieve excellent high voltage and thermal properties. Isolation is +/- 500V bias on the output return. Input to output leakage current is very low at less than 100 nA and coupling capacitance is also low at <250 pF.

The new A Series leverages EMCO's Best-in-Class long term reliability, utilizing proven DC to high voltage DC conversion technology, perfected by over four decades of high voltage design experience in the most demanding applications. Our extensive in-house capabilities enable us to meet specific customer requirements with standard, modified and custom solutions quickly, easily, and economically. Technical assistance is readily available.

Small quantities available from stock from our factory or our stocking distributor in Switzerland, Condatas AG. For large quantity requests please consult our factory or our stocking distributor in Switzerland, Condatas AG.

MECHANICAL SPECIFICATIONS (100V - 2,000V)



PARAMETER	VALUE
WEIGHT	< 0.20 OZ. (5.66 GRAMS)
VOLUME	< 0.10 CUBIC INCHES (1.696 CUBIC CENTIMETERS)
DIMENSIONS	0.92L (23.37L) x 0.45W (11.43W) x 0.25H (6.35H)

PIN #	FUNCTION
1	(-) INPUT
2	(+) INPUT
3	HV OUT
4	HV RTN
5	CONTROL