



AMERICAN HIGH VOLTAGE

EC Series Mini-Sized Modules

**HIGH VOLTAGE
POWER SUPPLY**



EC Series - Isolation Mini-Sized Modules

- Output proportional to Input
- Voltages from 6.3V to 3kVDC
- Isolation to 20 kV
- 5 Watt power levels

The EC Series are special DC to DC converters that are used whenever a floating source of voltage is needed. Although the SC, CT and SQ modules provide floating output, their maximum "floatability" is limited to less than 5 kVDC. The EC series may be floated up to 20 kV maximum between input and output.

The output voltage of the EC power supply is directly proportional to the input voltage with normal operating voltage of 12 VDC. The two output leads are fully floating and isolated from the input by over 1T Ohm (@ 25 deg C) with less than 30 pF of coupling capacitance. This permits either positive or negative polarity operation. All EC units are reverse input voltage and short circuit protected.

TYPICAL APPLICATIONS

General Lab Use
Klystron Grid control
Floating Filament Voltage
Floating Grid Supply
Floating Bias Voltage

SPECIFICATIONS

Input Voltage:

12 VDC Input Standard

Output Voltage:

From 6.3VDC to 3,000 VDC
See "model selection table"

Output Polarity:

Output is floating

Output Current:

depends upon power level
See "model selection table"

SPECIFICATIONS Continued

Voltage Regulation

20% NL – FL (typical) Resistive load

Ripple:

1% maximum at full load

Temperature Coefficient:

100 ppm/ °C

Stability:

< 0.3% 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:

5 W Module 12 Vin: 675 mA

Power Efficiency:

70% typical

Encapsulation:

Epoxy potting

Short Circuit Ability:

Fold-back circuitry

Switching Frequency:

Typical 30kHz

**HIGH VOLTAGE
for the
WORLD**

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www.ahv.com
American High Voltage is an
ISO 9001 company

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SPECIFICATIONS Continued

Cooling:

Convection: 5W module = 20 ° C case temperature rise

Dimensions:

4.0 L x 1.5 W x 0.75 H (101.6mm x 38.1mm x 19.1mm)

Weight:

7.2 oz (200 grams)

Encapsulation:

Epoxy potting

Finish:

Smooth Diallyl-Phthalate Thermoset Case

Terminations:

Electro-Gold Plated Brass pins (4)

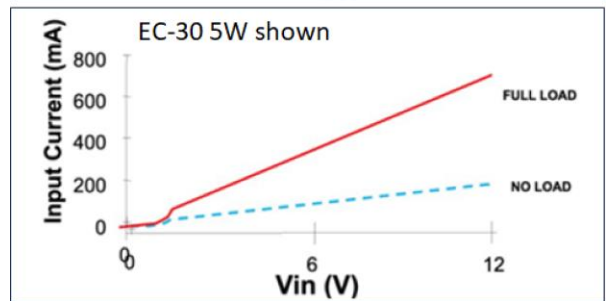
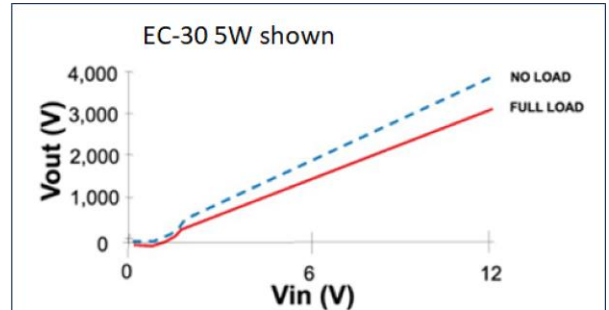
MODEL SELECTION TABLE

Model	Voltage	Power Available
EC-0.062	0 – 6.30v	5w
EC-0.126	0 – 12.6v	5w
EC-10	0 – 1,000v	5w
EC-30	0 – 3,000v	5w

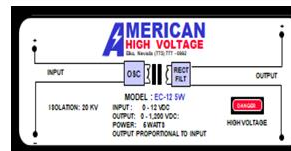
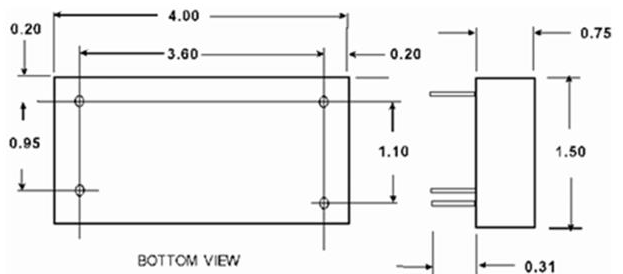
All EC units are 5 Watt devices

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

PERFORMANCE CHARTS



MECHANICAL DIMENSIONS



ORDERING INFORMATION

EC – XX 5W / Z

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

Example:

EC – 0.063 5W: Maximum output = 6.3VDC 5 Watts 12 VDC input
EC – 10 5W/5V: Maximum output = 1,000 V 5Watts 5VDC input

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