



AMERICAN HIGH VOLTAGE

SC Series Mini-Sized Modules

**HIGH VOLTAGE
POWER SUPPLY**



The SC Series high voltage power supplies are the workhorse of the high voltage industry. They provide isolated outputs of up to 15kV and 10 Watts in power depending upon the model. The output voltage of the SC power supply is directly proportional to the input voltage and the output ripple is typically less than 1% at full power. The two output leads are fully floating and isolated from the input by over 1T Ohm (@ 25 deg C) with less than 50 pF of coupling capacitance. This permits either positive or negative polarity operation. All SC's are reverse input voltage and short circuit protected.

TYPICAL APPLICATIONS

General Lab Use
Electrostatics
Bias Voltage
Grid Supply
Ion Source

SPECIFICATIONS

Input Voltage:

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

Output Voltage:

From 50 VDC to 15,000 VDC
See "model selection table"

Output Polarity

Output is floating

Output Current:

depends upon power level
See "model selection table"

SC Series Mini-Sized Modules

- Output proportional to Input
- Encapsulated
- 50 VDC to 15,000 VDC available
- 1.5, 3, 5 and 10 Watt power levels

SPECIFICATIONS Continued

Voltage Regulation:

10% NL – FL (typical)

Ripple:

1.0% at full output load

Temperature Coefficient:

100 ppm/ °C

Stability:

< 0.01% 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:

1.5 W Model 12 Vin: 175 mA
3 W Model 12 Vin: 350 mA
5 W Model 12 Vin: 575 mA
10 W Model 12 Vin: 855 mA

Power Efficiency:

70% typical

Encapsulation:

Epoxy potting

Short Circuit Ability:

Fold-back circuitry

HIGH VOLTAGE
for the
WORLD

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

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SPECIFICATIONS Continued

Cooling:

Convection: 3W module = 15 ° C case temperature rise

5W module = 25 ° C case temperature rise

Dimensions:

2.5 L x 1.5 W x 0.75 H (63.5mm x 38.1mm x 19.1mm)

Weight:

4.3 oz (120 grams)

Encapsulation:

Epoxy potting

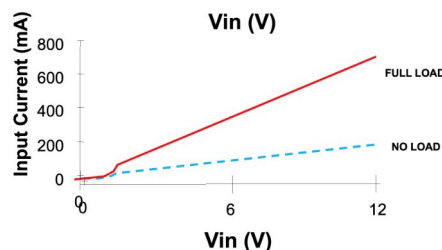
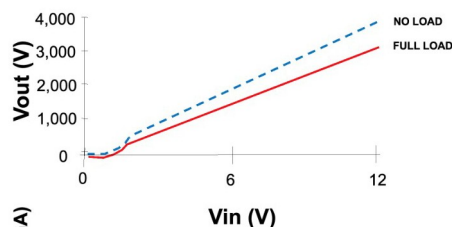
Finish:

Smooth Diallyl-Phthalate Thermoset Case

Terminations:

Gold Plated Brass pins (4)

PERFORMANCE CHARTS

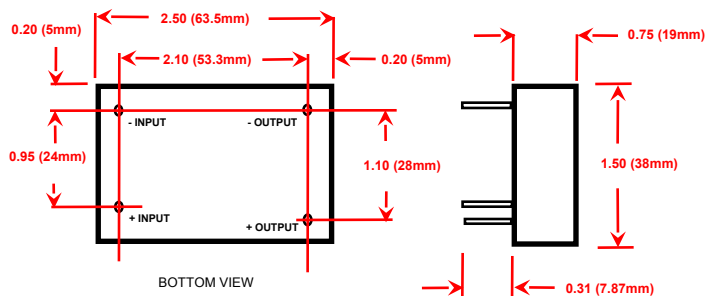
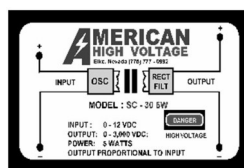


SC - 30 5W shown

MODEL SELECTION TABLE

Model	Voltage	Power Available				
SC-1	0 – 100v	1.5w	3w	5w	10w	
SC-2	0 – 200v	1.5w	3w	5w	10w	
SC-3	0 – 300v	1.5w	3w	5w	10w	
SC-5	0 – 500v	1.5w	3w	5w	10w	
SC-10	0 – 1kv	1.5w	3w	5w	10w	
SC-15	0 – 1.5kv	1.5w	3w	5w		
SC-20	0 – 2kv	1.5w	3w	5w		
SC-30	0 – 3kv	1.5w	3w	5w		
SC-40	0 – 4kv	1.5w	3w	5w		
SC-50	0 – 5kv	1.5w	3w	5w		
SC-75	0 – 7.5kv	1.5w	3w			
SC-90	0 – 9kv	2w				
SC-150	0 – 15kv	1.5w (positive or negative)				

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



Ordering Information:

SC – XX Y Watt / Z

Example:

SC – 30 5W: Maximum output = 3,000 V 5 Watts 12 VDC input

SC – 30 3W/5V: Maximum output = 3,000 V 3Watts 5VDC input

XX = Output voltage

Y = Maximum power

Z = Input voltage (blank if 12VDC)

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