



AMERICAN HIGH VOLTAGE

SF Series  
MIL - Industrial Modules

HIGH VOLTAGE  
POWER SUPPLY



The SF series of power supplies offer regulated and adjustable output with power levels up to 15 Watts in a package just 6.4 cubic inches in size. Because the high voltage output is floating it is no connected to the input and any output polarity may be obtained. The output is isolated from the input by over 1T Ohm with less than 50 pF coupling capacitance. The output of the SF unit may be adjustable either by a trimpot or external voltage or resistance. Line regulation is better than 0.1% and load regulation is set at 3% from half load to full load condition. All SF's are reverse input voltage and short circuit protected.

#### TYPICAL APPLICATIONS

General Lab Use  
Electrostatics  
Bias Voltage  
Electrostatic Chuck  
Ion Source  
Geiger Counter Tubes

#### SPECIFICATIONS

**Input Voltage:**  
28 VDC Input

**Output Voltage:**  
From 100VDC to 10,000 VDC  
See "model selection table"

**Output Polarity:**  
Output is floating

**Output Current:**  
depends upon power level  
See "model selection table"

## SF Series 10 or 15 Watts Power

- Regulated line and load
- Floating output
- 100 VDC to 10,000 VDC outputs available
- Voltage or resistance programable

#### SPECIFICATIONS Continued

**Voltage Regulation:**  
3% Half Load – Full Load (typical) Resistive load

**Ripple:**  
1% maximum at full load

**Temperature Coefficient:**  
200 ppm/ °C

**Stability:**  
< 0.5% 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:**  
Teflon solder terminals

**Output Terminals:**  
Teflon solder terminals

**Input Current:**  
10 W Module: 150 mA (No load)  
10 W Module: 650 mA (Full load)  
15 W Module: 160 mA (No load)  
15 W Module: 850 mA (Full load)

**Power Efficiency:**  
60% typical

**Encapsulation:**  
RTV potting

**Short Circuit Ability:**  
Fold-back circuitry

**Switching Frequency:**  
Typical 40-50kHz

**HIGH VOLTAGE**  
for the  
**WORLD**

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

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## SF Series MIL - Industrial Modules

# HIGH VOLTAGE POWER SUPPLY

### SPECIFICATIONS Continued

#### Cooling:

Convection: 15W module = 55 ° C case temperature rise

#### Dimensions:

4.0 L x 2.0 W x 0.85 H (101.6mm x 50.8mm x 21.6mm)

#### Weight:

5.6 oz (156 grams)

#### Encapsulation:

Elastomer potting

#### Finish:

Black anodized aluminum case

#### Terminations:

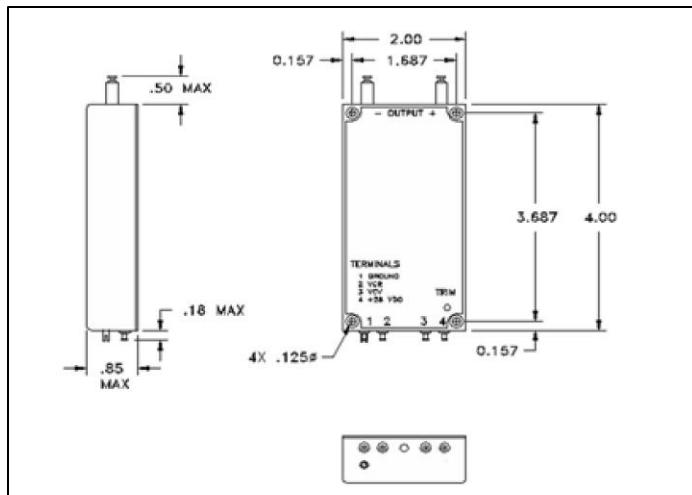
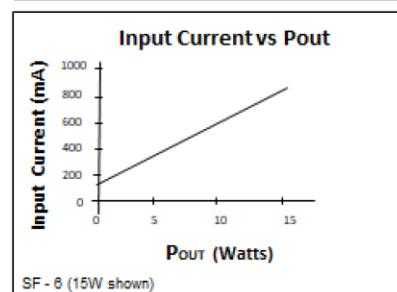
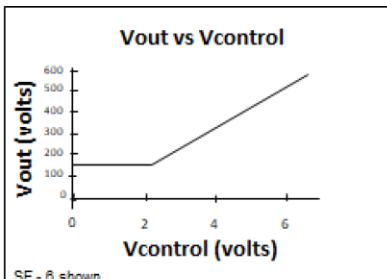
Teflon pins (6)

### MODEL SELECTION TABLE

Model	Voltage	Power Available
SF-1V	100v	10w
SF-1	100v	15w
SF-3V	300v	10w
SF-3	300v	15w
SF-6V	600v	10w
SF-6	600v	15w
SF-12V	1,200v	10w
SF-12	1,200v	15w
SF-25V	2,500v	10w
SF-25	2,500v	15w
SF-50V	5,000v	10w
SF-50	5,000v	15w
SF-100V	10,000v	10w
SF-100	10,000v	15W

The above products are available in:  
24v, 28v (standard) or 48v input

### PERFORMANCE CHARTS



### Ordering Information:

**SF - XXV / Z**

XX = Output voltage  
V = 10Watt units (leave blank for 15w)  
Z = Input voltage (blank if 28VDC)

#### Example:

SF - 3V : Maximum output = 300V 10W 28 VDC input  
SF - 6 / 24Vin: Maximum output = 600V 15W 24VDC input

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