



AMERICAN HIGH VOLTAGE

N Series
MIL - Industrial Modules

HIGH VOLTAGE
POWER SUPPLY



The N Series power supplies provide up to 3 watts of high voltage power in a package of just 3.6 cubic inches. The high voltage output is tightly regulated to better than 0.01% for line and load variations. Both positive and negative output models are available. The N models are ideal for photomultiplier, CRT, and other electro-optical applications where a source of high voltage up to 10kV is required. The standard input voltage is +24 VDC, drawing just under 300 mA at full rated 3 watt output with input current at no load less than 75 mA. The output high voltage return is electrically connected to the input power return. All N units 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:
24 VDC Input

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

Output Polarity:
Input return is common to output return
Positive or negative units are available

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

N Series 3 Watts – Regulated

- Regulated line and load 0.01%
- Positive or negative available
- 100 VDC to 10,000 VDC outputs available
- Voltage or resistance programable

SPECIFICATIONS Continued

Voltage Regulation:

0.01% No Load – Full Load (typical) Resistive load
0.01% Line regulation

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:

3W Module: 75 mA (No load)
3 W Module: 180 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

www.ahv.com
American High Voltage is an
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HIGH VOLTAGE POWER SUPPLY

SPECIFICATIONS Continued

Cooling:

Convection: 3W module = 25 ° C case temperature rise

Dimensions:

3.0 L x 1.5 W x 0.85 H (76.2mm x 38.1mm x 21.6mm)

Weight:

3.3oz (92 grams)

Encapsulation:

Elastomer potting

Finish:

Black anodized aluminum case

Terminations:

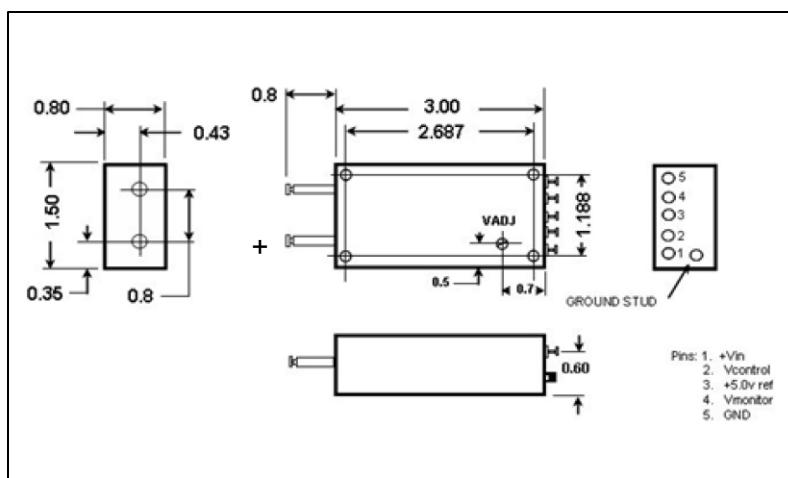
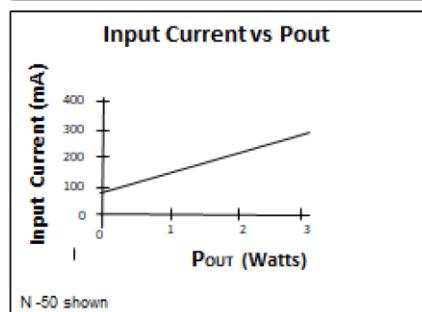
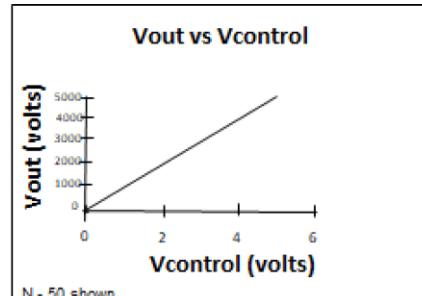
Teflon pins (6)

MODEL SELECTION TABLE

Model	Voltage	Power Available
N-1P	+100v	3w
N-1N	-100v	3w
N-3P	+300v	3w
N-3N	-300v	3w
N-5P	+500v	3w
N-5N	-500v	3w
N-10P	+1,000v	3w
N-10N	-1,000v	3w
N-25P	+2,500v	3w
N-25N	-2,500v	3w
N-50P	+5,000v	3w
N-50N	-5,000v	3w
N-100P	+10,000v	3w
N-100N	-10,000v	3w

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

PERFORMANCE CHARTS



Ordering Information:

N - XX P or N / Z

XX = Output voltage
Z = Input voltage (blank if 24VDC)

Example:

N - 5P : Maximum output = 500V 24 VDC input
N-50N / 48: Maximum output = 5,000V 48 VDC input

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