



AMERICAN HIGH VOLTAGE

SLR Series
MIL - Industrial Modules

HIGH VOLTAGE
POWER SUPPLY



The SLR Series high voltage power supplies are extremely well regulated sources of high voltage which offer low ripple and EMI. They are ideal for PMT and other noise sensitive applications and can provide outputs of up 5kV at 20 Watts. The output voltage of the SLR may be varied either by an internal trimpot or by an external voltage or resistance programing. On the SLR unit the output return is internally connected to the input power return. Both positive and negative output SLR power supplies are available. Each power supply may be programmed down to zero volts and offer 0.01% line and load regulation. All SLR's are reverse input voltage and short circuit protected. The SLR is a low cost alternative to rack mounted precision power supplies costing much more.

TYPICAL APPLICATIONS

Electron Microscope
PMT's
Electron beam Lithography
Pulsed Power
Kerr Cell
Ion Beam Source

SPECIFICATIONS

Input Voltage:

24 VDC Input

Output Voltage:

From 1,000 VDC to 5,000 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"

SLR Series 20 Watts – Regulated

- Regulated line and load 0.01%
- Positive or negative outputs available
- 1,000 VDC to 5,000 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:

0.001% maximum at full load

Temperature Coefficient:
50 ppm/ °C

Stability:

< 0.05% drift / hour after warm-up to operating temperature

Operating Temperature:
-55 °C to + 75 °C case temperature

Humidity:
10% to 90% RH non-condensing

Input Terminals:
Solder terminals

Output Terminals:
Solder terminal

Input Current:
20W Module: 150 mA (No load)
20W Module: 1280 mA (Full load)

Power Efficiency:
65% typical

Encapsulation:
Epoxy potting

Short Circuit Ability:
"Try-Again" circuitry

Switching Frequency:
Typical sinewave 30-50kHz



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

SPECIFICATIONS Continued

Cooling:

Convection: 20W module = 35 ° C case temperature rise

Dimensions:

5.0 L x 3.75 H x 1.75 T (127mm x 95.3mm x 44.5mm)

Weight:

33oz (925 grams)

Encapsulation:

Epoxy potting

Finish:

Black anodized aluminum case

Terminations:

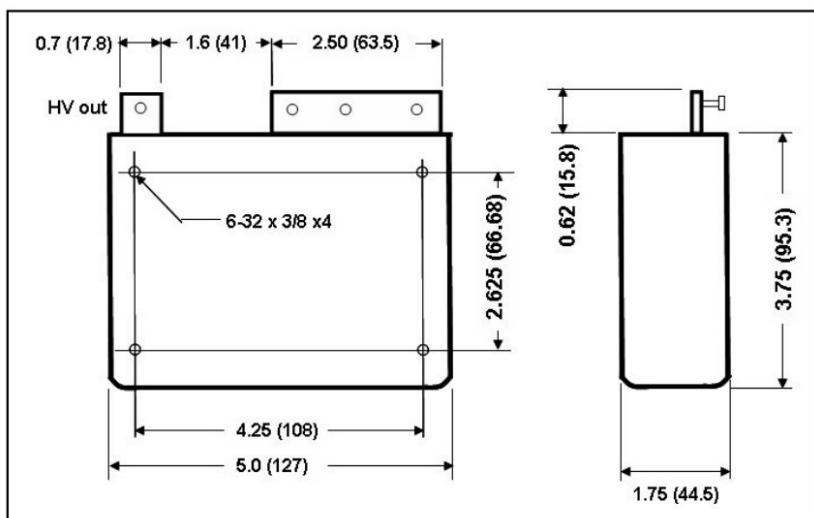
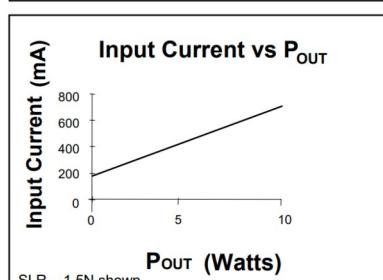
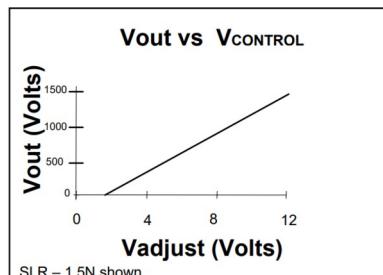
Solder terminals

MODEL SELECTION TABLE

| Model | Voltage | Power Available |
|--------|---------|-----------------|
| SLR-1P | +1,000v | 20w |
| SLR-1N | -1,000v | 20w |
| SLR-2P | +2,000v | 20w |
| SLR-2N | -2,000v | 20w |
| SLR-3P | +3,000v | 20w |
| SLR-3N | -3,000v | 20w |
| SLR-5P | +5,000v | 20w |
| SLR-5N | -5,000v | 20w |

The above products are available in:
15v, 28v (standard) or 48v input

PERFORMANCE CHARTS



Ordering Information:

SLR - X P or N / Z

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

Example:

SLR - 1P : Maximum output = 1,000V 24 VDC input
SLR-2N/ 48: Maximum output = -2,000v 48 VDC input



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