

SCE Model 5500 Power Supply

This unit is equivalent to the old Venus Electronics (NY) now part of Eldec (WA) Model LR-15, with somewhat better specs.

Topology is a push-pull self-oscillating converter operating at about 40KHz. Transformer output feeds a x 4 multiplier to produce 15KV. Output control is achieved by modifying the drive transistor's operating point, which changes transformer's primary duty cycle. The tracking focus output is set a $V_{out}/20$, and is separately regulated against load changes. A G_1 (grid bias) of -150V (fixed) is also provided.

Unit is adjustable from 1 - 16KV either locally or remotely via a resistance or voltage.

SPECIFICATIONS

Electrical

Input:

- Voltage 24 to 32VDC
- Current 1.2A, full load

Output:

Anode:

- Voltage 1500KV - 15KV adjustable
- Current 1.3mA
- Regulation $\pm 0.1\%$ load, $\pm 0.1\%$ line
- Transient 20V per 100 μ A change in load current
- Ripple 0.15% p-p, maximum

Focus:

- Voltage Tracking type; 5% of main output; nominally 750V
- Current 1mA max
- Ripple 0.15% p-p, maximum

Cutoff:

- Voltage -150V fixed, ($\pm 8\%$)
- Current 1mA max
- Ripple 0.25% p-p, maximum

Protection Circuits

- Output Overload Supply protected against excessive load on output
- Short Circuit Protected against output shorts for an indefinite period
- Reverse Polarity Inputs protected against reverse polarity

Environmental

- Operating Temperature 0°C to + 65°C
- Humidity To 100% (fully encapsulated construction)
- Altitude 50,000 feet

Construction

- Weight 2 lbs.
- Marking Photo anodized aluminum label
- Potting Vacuum filled epoxy