



MODEL 6004



PRODUCTS & RESOURCES

Products

- Power Supplies
- Probes and Accessories
- Cables and Viewing Blocks

Resources

- Sales & Support
- Company

FEATURES

Double output high voltage power supply: 0 to -30 kV @ 500 μ A, 0 to 5 A @ 0 to 5 V

- Very stable -30 kV electron beam supply
- Arc and short circuit protection
- 5 A integrated filament supply floating at beam potential
- Remote programming of beam voltage
- Beam voltage, beam current, and filament current readouts
- Optimized for SEM and X-ray tube applications

DESCRIPTION

Model 6004 is an obsolete product and is no longer manufactured. Product information is shown here for the benefit of customers who are still using it.

Model 6004 is a power supply manufactured for scanning electron microscopes that require -30 kV beam voltages. A filament supply and focus supply are integrated into the gun box of the 6004, an isolated enclosure through which power is transferred. The -30 kV beam voltage elevates the gun box power supplies.

Digital or analog meter readouts are available for monitoring beam voltage and filament current. In the local operating mode, two ten-turn controls allow fine adjustment of filament current and beam voltage. In remote mode, a 0 to 10 volt programming voltage adjusts the beam voltage between 0 and -30 kV. A remote 0 to 5 volts will program the filament current between 0 and 5 A.

SPECIFICATIONS

Input	
Input voltage	120 VAC \pm 10% at 60 Hz
Line regulation	\pm 2 V
Output	
Output voltage	0 to -30 kV
Output current	500 μ A
Output ripple	200 mV peak-to-peak maximum
Output voltage stability	0.01% per 8 hours
Load regulation	\pm 2 V
Programming voltage	0 to 10 V input for 0 to -30 kV output
Filament supply	
Filament current	5 A \pm 0.3 A
Filament ripple current	< 200 mV peak-to-peak
Filament line regulation	< 20 mA
Filament load regulation	< 20 mA
Filament programming voltage	0 to 5 V input for 0 to 5 A output
Focus voltage	
Focus voltage output	1.5 kV
Focus voltage current	100 μ A
Bias voltage load regulation	< 0.1 μ A

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