

## HIGH VOLTAGE POWER SUPPLIES

# G603 Series



60 kV High Voltage Power Supply for SEMs, Direct Write Lithography, X-Ray Nanotube Applications

The G603 high voltage power supplies offer very high stability in E-beam applications.

- Max Output Power: Accelerator: 6 W, Extractor: 4 W; Suppressor: 0.02 W, Heater: 15 W; Focus: 0.75 W
- Max Output Voltage: Up to — 60 kV (accelerator)
- Ripple: < 2 ppm (75 mVpp) (accelerator); Floating Suppressor (-1 kV); Extractor (+10 kV); Filament (3 A) and optional focus (+25 kV)
- Temperature Coefficient: < 25ppm°C (Accelerator)
- Control Interface: Digital



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Advanced Energy's G603 series are dependable, flexible, high-stability power supplies that meet the multiple application needs of electron beam applications. With low ripple and high stability, G603 series supplies also feature full digital control and monitoring using fiber-isolated 29-bit CAN.

[HVPS Overview Brochure >](#)

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### Benefits

- Enable better efficiency, more consistent operation, low variance to component change, greater reliability, and easier testing
- Customize with standard and specialized accessories to simplify installation, configuration, and operation
- Minimize setup and configuration times with easy-to-use digital control and monitoring

### Features

- Low ripple and high stability for high-resolution systems
- Customer-defined derivatives available upon request
- Easy-to-use digital control and monitoring using fiber-isolated 29-bit CAN
- RoHS compliant to EU directive 2011/65/EU

## Compare Products

Model



G603 Series



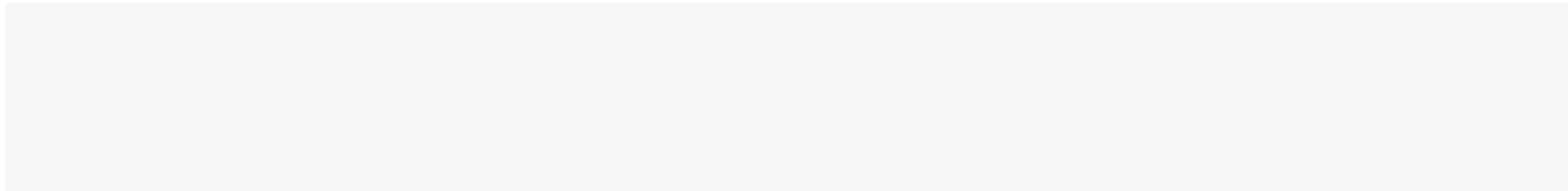
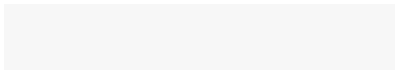
EG353 >



IP100 >

Classification	60 kV E-Beam power supply	35 kV SEM power supply	Vacuum chamber power supply
Maximum Output Voltage	Accelerator: -60 kV, 100 $\mu$ A Extractor: +10 kV, 400 $\mu$ A Suppressor: -1 kV, 20 $\mu$ A Focus: +25 kV, 30 $\mu$ A Heater: +5 V, 3 A	Accelerator: -30 kV, 200 $\mu$ A (-35 kV for conditioning) Extractor: +10 kV, 400 $\mu$ A Suppressor: -1 kV, 100 $\mu$ A Heater: +5 V, 3 A	7 kV
Maximum Output Power	Accelerator: 6 W Extractor: 4 W Suppressor: 0.2 W Focus: 0.75 W Heater: 15 W	Accelerator: 6 W Extractor: 4 W Suppressor: 0.1 W Heater: 15 W	115 W
Type	Single Output (non-reversing)	Single Output (non-reversing)	Single Output
Ripple (Best Performance)	Accelerator: < 2 ppm (75 mVpp) Extractor: < 4 ppm (35 mVpp) Suppressor: < 25 ppm (25 mVpp) Focus: < 4 ppm (100 mV) Heater: LF < 1 mApp, HF < 5 mVpp with a 1 $\Omega$ load	Accelerator: < 2 ppm (50 mVpp) Extractor: < 2 ppm (20 mVpp) Suppressor: < 30 ppm (30 mVpp) Heater: LF < 1 mA pp, HF < 5 mVpp with a 1 $\Omega$ load	< 4286 ppm (< 30 Vpp)
Volume (Smallest)	0.042 m <sup>3</sup> (1.48 ft <sup>3</sup> )	0.010 m <sup>3</sup> (0.366 ft <sup>3</sup> )	4964 cm <sup>3</sup> (0.175 ft <sup>3</sup> )

Model)



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