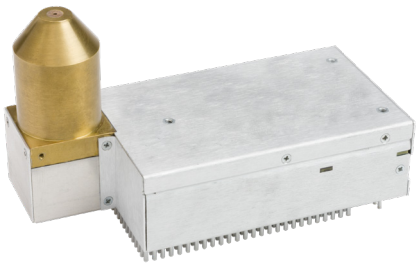
50kV MAGPRO™

DataSheet



MAGPRO 50kV 12W

Moxtek® MAGPRO 50kV 12W X-ray sources are built for portable and benchtop XRF instruments, with a primary focus on enabling continuous operation to extend the equipment's lifespan.

Feature	Benefits
Small, compact design	Close coupling of detector/source
Lightweight	Portable, easy to integrate
Stable output	High Precision of measurements, low detection limits
Multiple communication protocols	Improved heavy element analysis
High x-ray output	Short sampling time
Small spot size	Possible coupling with optics, good image resolution
Anode grounded	Close coupling to detector
Compact air-cooled design	Small for portable applications
Small focal spot for imaging or XRF	Integrated radiation shielding
Various target materials available for XRF	Vacuum seal surface for easy integration

Applications

XRF

- Elemental composition
- Scrap metal sorting
- Monitoring

XRD

- Powder diffraction
- Residual stress
- Thickness gaging

Imaging

- Food inspection
- NDT

Notes

- Operating Temperature: Moxtek recommends a warm up period @ 30kV 400µA of 10 minutes before running below 0°C

Mechanical Specifications

Tube type: Metal-ceramic
Operating Temperature: +10º to +50º C
Storage Temperature: -30º to +85º C
Cooling: Forced air
Weight: ~1100g (typical)
Available Targets: Ag, Rh, W

X-ray Tube Characteristics

Anode Type: Transmission
HV Polarity: Grounded anode
Tube Voltage Operating Range: -6kV to -50kV
Beam Current: 50µA to 1000µA
Continuous Power: 12W
Focal Spot: ~500µm FWHM
Window: 125µm or 250µm Beryllium
RoHS Compliant: RoHS 3
Standard Warranty: 1 year or 2000 operating hours

X-ray Tube Characteristics

-Limiting maximum current to 200µA will improve lifetime rating

⚠ WARNING

X-rays are emitted from the sides and ends of this product when energized. Moxtek takes actions to reduce the exposure rate from X-rays emitted from the sides through the use of various shielding agents inherent to this product design. It is the buyer's responsibility to ensure adequate protection is provided in the testing and manufacturing of the final product and that users are adequately shielded from incidental exposure.

This product contains a beryllium window. The inhalation of fumes or dust from beryllium metal (or its compounds) are hazardous. Corrosion may occur on the beryllium window during use, these should not be scraped off, machined, or removed. Disposal of the tube unit should conform to federal, state, and local regulations governing beryllium.

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