

High-Performance X-Ray Source

Primux 3000

Primux 3000 offers a highly brilliant X-ray beam as a line or point at high power. It provides a robust design, maximum user safety, and straightforward integration.



Find out more

High power and high brilliance

The Primux 3000 sealed-tube X-ray source combines a modern X-ray tube with a superior high-voltage generator providing an ultra-brilliant X-ray beam across a power range of up to 3,000 W. The X-ray tube is available with all typical target materials such as Cu, Mo, Ag, or Cr and offers a small focus size of the line- or point-shaped X-ray beam. Its high brilliance makes Primux 3000 the optimal X-ray source for a wide range of X-ray analytical applications such as X-ray diffraction (XRD) or small-angle X-ray scattering (SAXS).

Clever design for maximum reliability

The Primux 3000 X-ray tube is housed in a proprietary, water-cooled jacket to ensure high thermal stability. Efficient cooling maintains excellent X-ray beam position stability and extends the tube's lifetime. The clever design of the compact tube tower enables quick switching between line and point focus by simply rotating the tube 90°, with all cables and cooling hoses remaining connected.

Maximum user safety

The robust design of the tube tower and shutter assembly ensures maximum radiation safety for the user by supporting multiple safety circuits. Integrated safety devices, such as a thermoswitch that monitors the tube temperature, guarantee maximum protection and extended equipment lifetime.

Smooth operation and continuous uptime

The control unit and the high-voltage generator each come in standard 19-inch racks. The smart user interface of the control unit allows efficient control and monitoring of all operating parameters. Automatic power ramp-up and shutdown routines ensure smooth operation of the maintenance-free X-ray source and maximum uptime of your X-ray analytical equipment.



Features and benefits

- Premium X-ray beam brilliance
- High stability of voltage and current
- Easy switching between line and point focus
- High thermal stability due to proprietary, water-cooled tube jacket
- Multiple safety circuits for maximum protection of user and equipment
- Straightforward integration into any advanced X-ray equipment
- Robust design for long lifetime
- Easy handling and exchange of X-ray tube
- Maintenance-free operation and low cost of ownership

Primux 3000	
Target material	Cu, Mo, Ag, or Cr
Focal type	Line or point (focus size depending on tube type)
Max. output current	55 mA
Cooling	Water cooling
Dimension tube tower (L x W x D)	355 mm x 160 mm x 155 mm
Weight	13.5 kg (with HV cable, excl. control unit)