



X-Ray module

XRS-600

Stationary X-Ray modules

Comet X-ray provides a broad range of X-ray modules which are designed to be effectively integrated for maximum customization. Our choice of metal ceramic X-ray tubes is unmatched for industrial applications, allowing the X-ray module to be fully optimized for your image chain. By choosing exactly the elements you need for your system, you can reduce the cost incurred by additional, unnecessary, built-in accessories.

With just one single point of contact, we are your one-stop shop. As the only manufacturer of both X-ray tubes and generators, we supply all the integrated components for your X-ray module, reducing the coordination work for your supply chain. All XRS modules are functionally tested as a module before delivery to reduce integration and testing times. The test report is your guarantee of peace of mind.

A user-friendly interface gives you easy access to protocols to provide smoother workflows from installation to operation. Combine this with easy access and control of key generator parameters for a swifter and more cost-efficient installation process.

Compact and Powerful

The XRS-600 expands Comet's advanced range of X-ray modules for non-destructive testing, delivering exceptional penetration power for the fast and accurate inspection of large and dense parts. Designed for seamless integration, it is ideal for demanding factory floor applications, ensuring both reliability and efficiency.

With stepless control of kV and mA, the XRS-600 allows precise exposure adjustments, optimizing image quality and inspection speed. Its 600 kV capability enables excellent penetration while maintaining high resolution, ensuring detailed imaging even for high-density materials.

Comet's proven HP technology enhances performance, while the arc-resistant design improves operational stability. Integrated arc suppression minimizes restarts, maximizing uptime and productivity. Easy to install and operate, the XRS-600 is the ideal solution for industries requiring powerful, high-penetration X-ray systems for reliable non-destructive testing.

Product Specifications

Generator	XRP-600/4500/2
Voltage Range	20 – 600 kV
Adjustment Increments (minimum step)	≤ 0.2 kV increments
Accuracy	± 1 % of output value ±0.2 kV
Reproducibility (at constant temperature)	±0.01% of max. kV value
Temperature-Induced Drift	80 ppm/°C
High-Voltage Ripple (with 10m high-voltage cable)	10 V/mA (min 40V)
Emission Current Range	0 - 10 mA
Adjustment Increments	0.05 mA
High resolution range (recommended)	0.01 mA steps
Absolute Accuracy	± 0.2% of output value ± 0.01% mA
Reproducibility (at constant temperature)	2 uA
Temperature-Induced Drift	50 ppm/°C
Maximum Power	4500 W
Interfaces	
High-Voltage Connector Type	R30
Control Unit	XRG-600
Dimensions (WxHxD)	483x133x300 mm
Weight	12.5 kg
Power Supply	XRP-Power-600
High Voltage Tank (Oil Insulated)	XRP-T300K/XRP-T600A
Dimensions (WxHxD)	950 mm x 510 mm x 557 mm 950 mm x 417 mm x 557 mm
Weight	405 kg

General Information

For more information and instructions regarding operation and installation of XRS X-ray modules, cooling, connection of the X-ray tube and radiation protection, please consult the XRS operator manual.

Product Specifications

Nominal tube voltage MXR-601HP/11	600 kV
Power rating (all modes)	700 W 1500 W
Focal spot acc. EN 12543 : 2008	d=0.7 mm d=2.0 mm
Filament current, max.	3.7 A 4.1 A
Filament voltage, typical	2.0 V 4.9 V
Inherent filtration	5 mm Be
Target material	W
Target angle	11°
Radiation coverage	40° x 30°
Leakage radiation, in 1m distance	10 mSv/h
Cooling medium	Oil
Cooling medium flow, min.	14 l/min
Temperature at inlet, max.	50 °C
Weight	ca. 145 kg
Terminal type	R30
Product No.	915395.51

Power rating chart

Power rating at a given filament current

