

A detailed view of an industrial X-ray tube. It features a central vertical assembly with a white ceramic insulator at the top, surrounded by a series of metal rings. Below this, there are several horizontal metal rings, each with a small circular opening. The entire assembly is housed within a metallic enclosure. The lighting is dramatic, with strong highlights and deep shadows, emphasizing the metallic textures and the complex geometry of the components.

Industrial X-Ray

Innovation in High Energy



High Energy Solutions from COMET

With the High Energy Product Line, COMET is extending the limits of X-Ray technology.

The High Energy Product Line

is the answer to the increasing market need of higher penetration capability.

The modular solution:

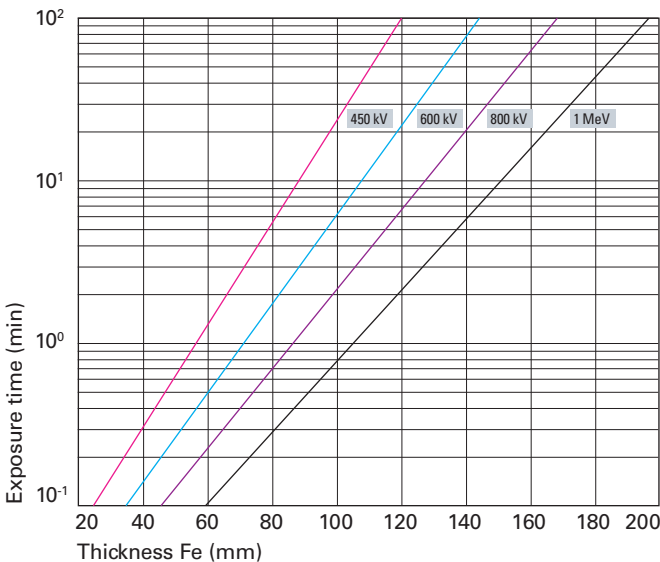
XRS 600 is the worldwide smallest 600kV X-Ray Source.

The heart of XRS 600 is the 600kV tube assembly of the MXC product line. MXC combines COMET's proven and established HP-Technology with the novel isolator integrated anode cooling technology (**patent pending**). The HP Technology stands for highest throughput with the best resolution which is key especially for CT-Applications. The proven arc resistant generator technology is a further plus of XRS. Our high sophisticated arc detection and arc suppression feature results in the shortest CT scan time.

The innovation: XRS 800 is the worldwide only 800kV

(1 MeV under development) multi-energy X-Ray Source. With the stepless control of kV and mA from 400kV up to 800kV (1 MeV) XRS 800 provides all the advantages of the conventional X-Ray Sources.

Exposure Chart for Stainless Steel, FFD = 1 m, FD2, D7 @ 4.5 kW



Specifications subject to change without notice

The core of XRS 800 is a newly developed metal ceramic cascaded tube.



Patent pending

With the cascade concept the biggest weakness of conventional tubes is solved: inhomogeneous electrical field distribution! Roughly 900kV distributed over 16 ceramic discs connected with bleeder resistors and protected with corona rings gives this single ended tube incredible high voltage stability.

Customer Benefits XRS 800 and XRS 600

- Stepless control of kV and mA
- Easy to install, easy to operate
- Suitable for factory floor application
- Higher penetration shorter exposure times
- Higher resolution by using HP-Technology
- Arc resistant design will increase efficiency
- Arc suppression minimizes the number of restarts

XRS 800

- Maintenance-free SF₆ isolated
- Easy approval: approval based on X-Ray radiation regulations



| |
|---|
| Ordering No. |
| Voltage range |
| Adjustment increments (minimum step) |
| Accuracy |
| High voltage ripple |
| Current range |
| Adjustment standard range |
| High resolution range (recommended) |
| Accuracy (at constant temperature) |
| Maximum Power |
| High voltage connector type |
| Control Unit |
| Dimensions (W x H x D) mm |
| Weight |
| Power supply |
| Dimensions (W x H x D) mm |
| Weight |
| High voltage Tank |
| Isolation medium |
| Dimensions (W x H x D) mm |
| Weight |
| Operational temperature Range |
| Storage Temperature Range |
| Tube data |
| Nominal tube voltage |
| Continuous rating |
| Focal spot acc EN 12543 |
| Max Tube current |
| Inherent Filtration |
| Target Material |
| Target Angle |
| Radiation coverage |
| Cooling medium |
| Temperature at inlet, max. |
| Mounting flange |

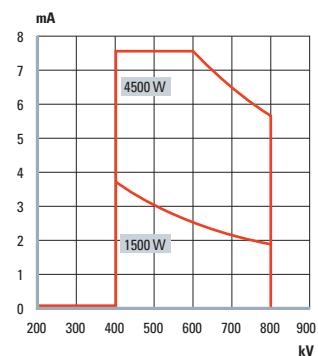
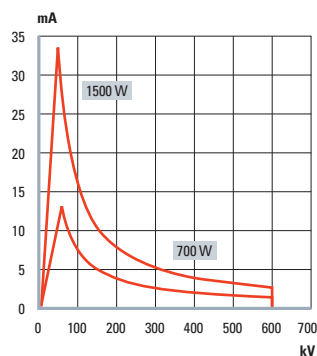
XRS-600

| |
|---|
| on request |
| 20 kV – 600 kV |
| 0.2 kV/step |
| +/- 1% of demand value +/- 0.2 kV |
| 10 V/mA, min 40 V |
| 0 – 15 mA |
| in 0.05 mA steps from 0.5 mA in 0.01 mA steps from 0.5 mA to max. value |
| +/- 0.2% of demand value +/- 0.01 mA |
| 4500 W |
| R30 |
| XRG |
| 483 x 133 x 300 |
| 12.5 kg |
| XRP-Power |
| 340 x 350 x 628 |
| 45 kg |
| XRP-T300K/XRP-T600A |
| Oil |
| approx. 725 x 555 x 430 |
| approx. 165 kg |
| 0 – 40 °C |
| - 25 – 70 °C |
| MXC-600HP11 |
| 600 kV |
| 700 W / 1500 W |
| d = 0.4 mm* / d = 1.0 mm |
| 34 mA |
| 5 mm Be |
| W |
| 11° |
| 40° x 30° |
| Oil |
| 50 °C |
| R 30 |

XRS-800

| |
|---|
| on request |
| 400 kV – 800 kV |
| 0.1 kV/step |
| < +/- 1% |
| < +/- 0.5% PP |
| 0 – 7.5 mA |
| 0.05 mA |
| n/a |
| 4500 W |
| n/a |
| Controlled via PC |
| n/a |
| XRP-800 |
| 900 x 1300 x 650 |
| approx. 150 kg |
| n/a |
| Sulfurhexafluoride (SF ₆), pressure 6 bar |
| approx. 2000 x 800 x 800 (w/o shielding) |
| approx. 600 kg (w/o shielding) |
| 0 – 40 °C |
| 0 – 60 °C |
| 800 kV |
| 1500 W / 4500 W |
| d = 2.5 mm / d = 5.0 mm |
| 7.5 mA |
| 2 mm Cu |
| W |
| 20° |
| 90° x 20° |
| Water |
| 35 °C |
| n/a |

Tube diagram



* Threshold: 25%

COMET is a successful international technology company in the growth markets of security, inspection, electronics and communication. As an expert in the field of applied physics, COMET provides a complete and highly flexible portfolio of components, modules, systems and services from a single source.

COMET Industrial X-Ray is an experienced supplier of components and modules for industrial X-Ray applications and is proud of its reputation as the preferred engineering partner in terms of innovation potential, know how, flexibility and speed.

COMET – The X-perts for security, inspection, electronics and communication



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