X-Ray Tubes

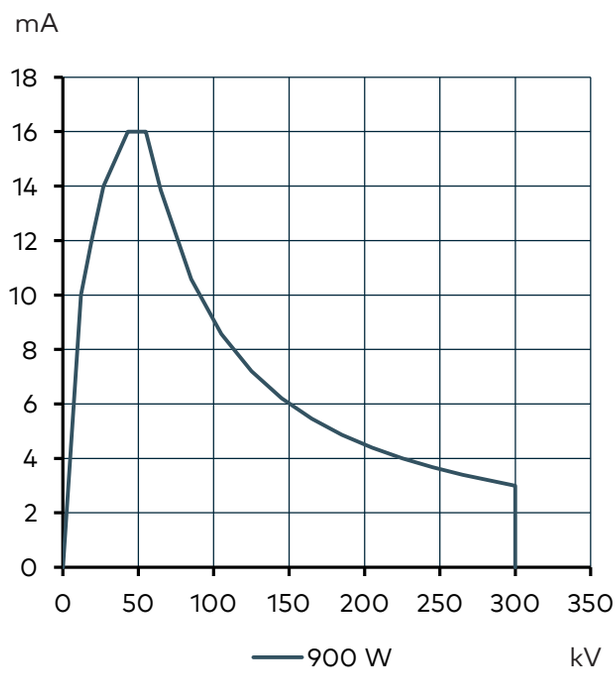
MIR-301E

Product Description

The MIR-301E is a unipolar air-cooled X-ray tube insert without integrated radiation protection. It comprises a single focal spot, a tungsten anode and a directional beam. The tube is specifically designed for non-destructive imaging applications.

Power rating chart

Power rating at a given filament current



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Product Specifications

Nominal tube voltage	300 kV
Continuous rating	900 W
Focal spot acc. to EN12543-2:2008	d = 3.0 mm
Typical focal spot acc. to ASTM E1165-20[1,2]	d = 2.6 mm
Typical focal spot class acc. to ASTM E1165-20[1,2]	FS 2-4
Filament current, max	3.8 A
Filament voltage, typical	4.6 V
Inherent filtration	0.8 ± 0.1 mm Be
Target material	W
Target angle	20°
Radiation coverage	60° x 40°
Weight	3.9 kg
Product No.	915338.01

Cooling

Cooling medium	forced air cooled recommended
Anode temperature, max.	100°C

1 Typical values are provided for reference only and do not represent guaranteed specifications.

2 ASTM E1165-20 and DIN EN ISO 32543-1:2025-12 describe the same focal-spot size measurement procedure.

Comet AG
3175 Flamatt
Switzerland
xray.comet.tech

General Information

General

The control of high-voltage, tube current and filament current as well as the design of the cooling system and the radiation protection are within the responsibility of the integrator. Settings in the generator must assure that the X-ray tube will be protected against overcurrent, overvoltage and lack of cooling. Otherwise the tube and/or the radiation protection may be damaged and become a hazard. For detailed instructions always refer to the "X-Ray Tube Manual."

Radiation protection

When installing an X-ray tube assembly into an X-ray equipment and/or operating an X-ray equipment, the responsibility for radiation protection is with the integrator. Compliance with local regulatory requirements and limit values must be assured. After each tube exchange, repair, modification or upgrade of the unit, radiation protection integrity should be performed. Comet does not measure the leakage radiation for this product, therefore this vlue cannot be stated. Any modification of a Comet product will result in the warranty being invalidated.

Conditioning

This tube has been conditioned at Comet up to the nominal voltage. The user has the responsibility that the final conditioning in the tube housing will be performed by trained personnel only and according to an approved scheme. The voltage during conditioning is limited to the nominal voltage.

Cooling

The cooling system is not supplied by Comet. Prior to operating the tube the coolant must be turned on. The customer has to make sure that the coolant flow meets the required cooling conditions. When the tube is switched off, the coolant flow must continue for at least 2 minutes in order to protect the anode from overheating.

Doc. No. 50005374
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