RAY 12

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SIEMENS Healthineers

Features and benefits

Siemens Healthineers RAY 12

This compact X-ray tube assembly was developed for use in radiography and fluoroscopy systems.

The integrated high quality tube with glass design has two superimposed focal spots and a reinforced 74 mm anode.

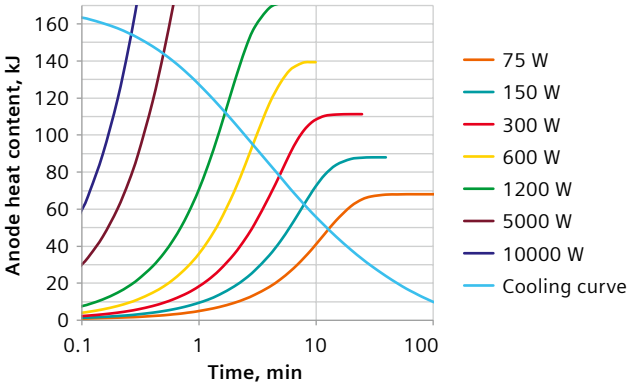
- Available with 1- and 3-phase stator
- Designed for high patient throughput with 450 W tube assembly cooling power (with fan)
- Compact tube housing
- High long-term dose yield
- Excellent quality and reliability

Technical data

Nominal voltage	150 kV		IEC 60613 (2010)
Nominal voltage Fluoroscopy	110 kV		
Nominal focal spot value	0.6	1.2	IEC 60336 (2005)
Nominal anode input power (60 Hz)	22 kW	54 kW	IEC 60613 (1989) (at 300 W average anode input power)
Nominal radiographic anode input power (60 Hz)	22 kW	54 kW	IEC 60613 (2010)
Filament heating maximum current maximum voltage	 4.6 A ≈ 9.0 V	 5.5 A ≈ 15.0 V	AC < 50 kHz
Anode angle	12°		
Anode heat storage capacity	170 kJ = 230 kHU		IEC 60613 (1989)
Anode drive frequencies for exposure	50 / 60 Hz		
Heat storage capacity of assembly	1.0 MJ = 1.35 MHU		IEC 60613 (1989)
Max. continuous heat dissipation of assembly (without / with fan)	275 W / 450 W		IEC 60613 (2010) (at ambient temperature < 25 °C)
Radiation leakage	≤ 0.8 mGy/h		IEC 60601-1-3 (2008)
Total inherent filtration	2.5 mm Al / 75 kV		IEC 60522 (2003), IEC 60601-1-3 (2008)
Weight (incl. flange)	≈ 18 kg		

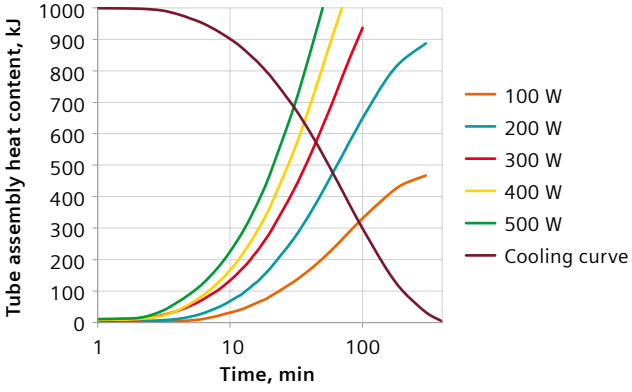
Heating and cooling curves

Anode



According to IEC 60613 (1989)

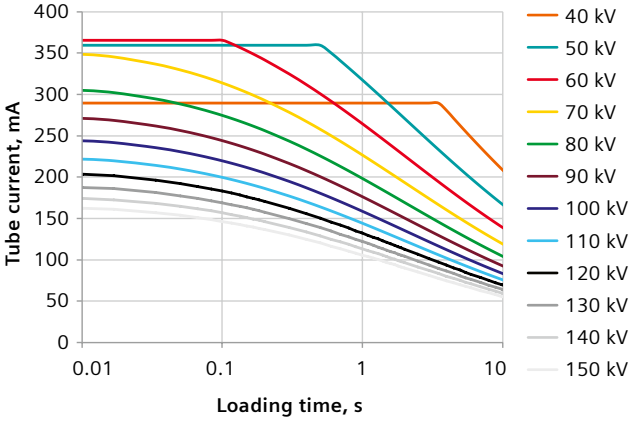
X-ray tube assembly (without fan)



According to IEC 60613 (1989)

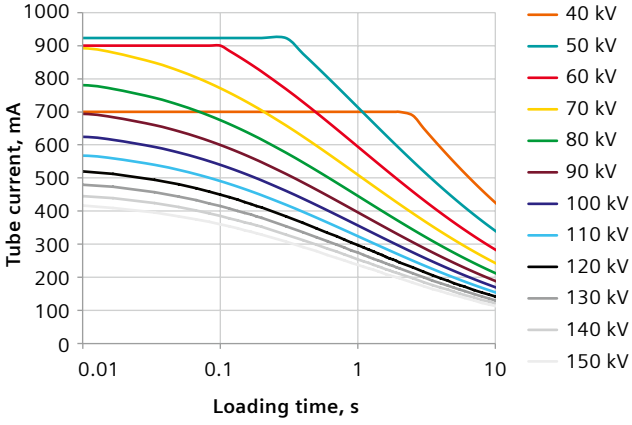
Rating charts

Focal spot IEC 0.6



According to IEC 60613 (1989)
Anode drive 50 / 60 Hz
Thermal anode reference power 300 W

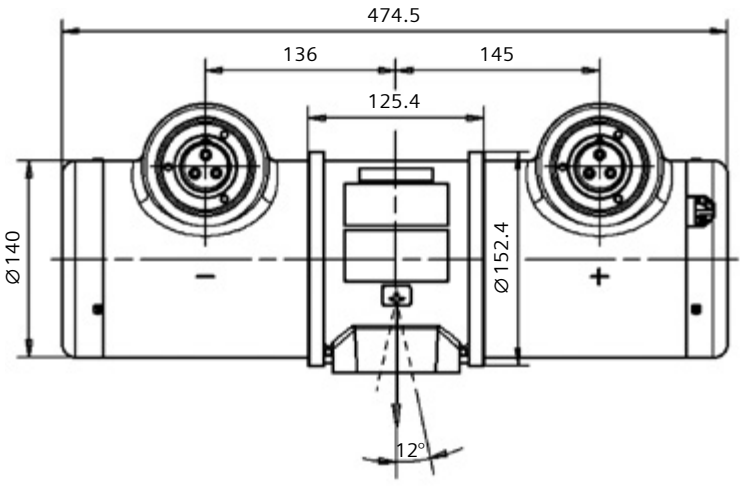
Focal spot IEC 1.2



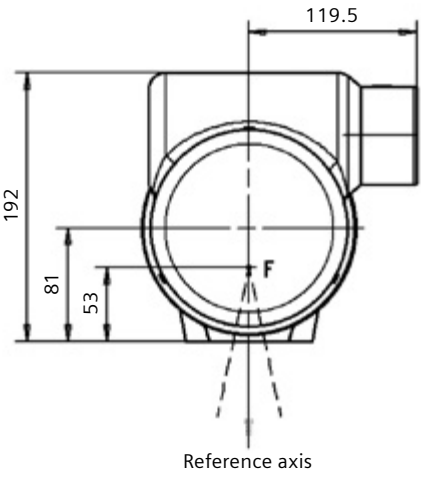
According to IEC 60613 (1989)
Anode drive 50 / 60 Hz
Thermal anode reference power 300 W

Dimensions

Front view



Side view



Trunnion rings, high-voltage cables, stator cables with shielding and safety switch cables are optionally available.

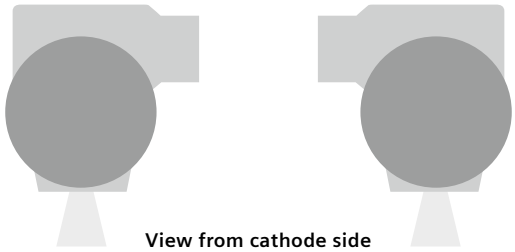
F = Focus position
Dimensions are given in mm.

Types and material numbers

	1-phase drive, without collimator flange	3-phase drive, without collimator flange	3-phase drive, with collimator flange
Housing	RAY-12S_1	RAY-12S_3	RAY-12S_3F
90° Mat.-No.	7037166	7036994	7037224
Housing	RAY-12_1	RAY-12_3	–
90° reverse Mat.-No.	7037158	7036317	–

Horn angles

90° **90° reverse**



View from cathode side

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