

ROTANODE™
E7848  0197

Rotating Anode X-ray Tube

- ◆ Rotating anode X-ray tube for the purpose of general diagnostic X-ray procedures.
- ◆ Specially processed Rhenium-tungsten faced molybdenum target of 58 mm diameter.
- ◆ This tube has foci 1.3 and 0.8, and is available for a maximum tube voltage 130 kV.



General Data

Application **General Radiography**

Electrical:

Circuit:

High Voltage Generator Constant Potential High-Voltage Generator
 Grounding Center-grounded

Nominal X-ray Tube Voltage (IEC60613:2010):

Radiographic 130 kV

Nominal Focal Spot Value (IEC60336:2005):

Large Focus 1.3
 Small Focus 0.8

Nominal Anode Input Power (at 0.1s) See rating charts

Large Focus 32 kW
 Small Focus 16 kW

Nominal Radiographic Anode Input Power (IEC60613:2010):

Large Focus 29 kW
 Small Focus 15 kW

Anode Speed:

50 Hz Minimum 2700 min⁻¹

Mode of Operation Intermittent

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Mechanical:

Dimensions	See dimensional outline
Overall Length (Refer to Dimensional Outline)	220 mm
Maximum Diameter	81 mm
Target:	
Anode Angle	13.5 degrees
Diameter	58 mm
Construction	Rhenium-Tungsten faced Molybdenum
Inherent Filtration	At least 0.7 mm Al at 75 kV
Weight (Approx.)	1.2 kg
Cooling Method	Oil immersed (80°C Max.) and convection oil cooling

Absolute Maximum and Minimum Ratings
(At any time, these values must not be exceeded.)

Maximum X-ray Tube Voltage (IEC60613:2010):	
Radiographic	130 kV
Between Anode (or Cathode) and Ground	65 kV
Minimum X-ray Tube Voltage	50 kV
Maximum X-ray Tube Current (IEC60613:2010)	
Large Focus	See rating charts
Small Focus	470 mA
Small Focus	280 mA
Maximum Filament Current:	
Large Focus	5.2 A
Small Focus	5.1 A
Filament Voltage:	
Large Focus (At maximum filament current 5.2 A)	6.74 ~ 9.12 V
Small Focus (At maximum filament current 5.1 A)	5.27 ~ 7.13 V
Filament Frequency Limits	0 ~ 25 kHz
Continuous Anode Input Power (IEC60613:2010)	60 W (82 HU/s)
Thermal Characteristics:	
Anode Heat Content	80 kJ
Maximum Anode Heat Dissipation	250 W

Environmental Limits

Operating Limits (in dielectric oil):

Oil Temperature 10 ~ 80 °C

Oil Pressure 70 ~ 140 kPa

Shipping and Storages Limits:

Temperature -20 ~ 70 °C

Humidity 20 ~ 90 %

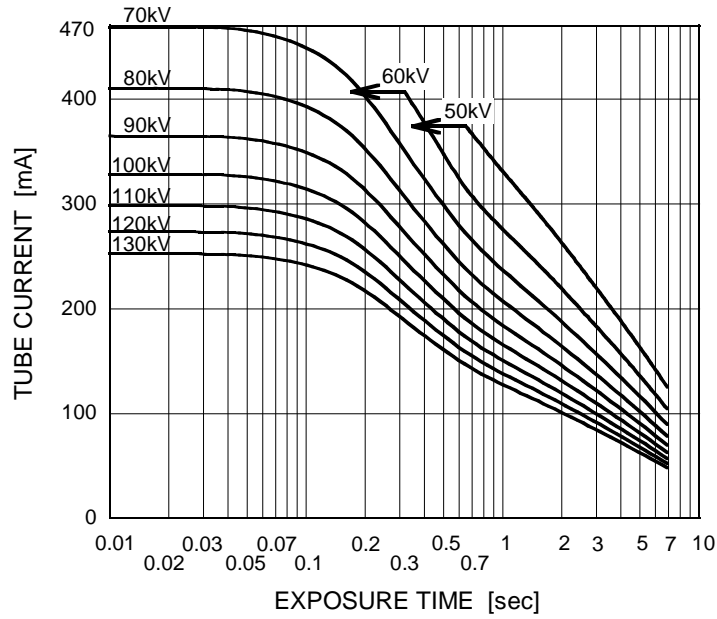
(No condensation)

Atmospheric Pressure 50 ~ 106 kPa

Maximum Rating Charts (Absolute Maximum Rating Charts)

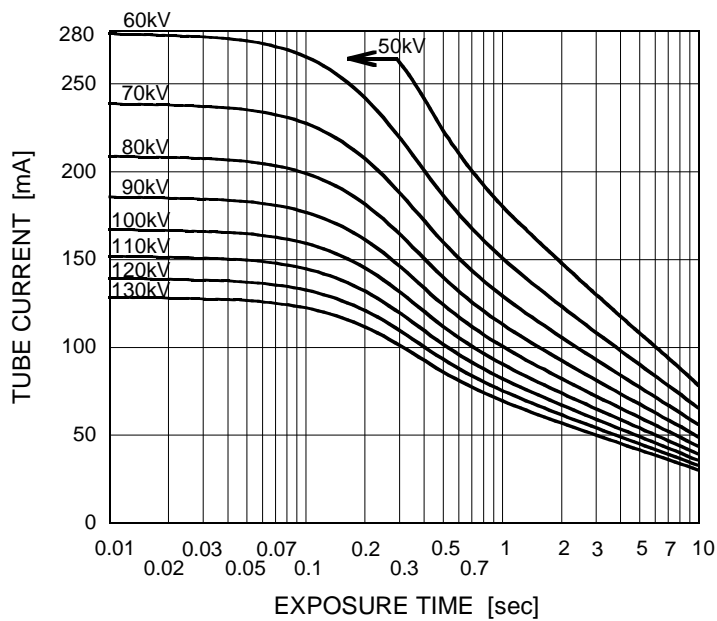
Conditions: Tube Voltage
Constant Potential High-Voltage Generator
Stator Power Frequency 50 Hz

Nominal Focal Spot Value: 1.3 ■



Refer to IEC60613:2010

Nominal Focal Spot Value: 0.8 □

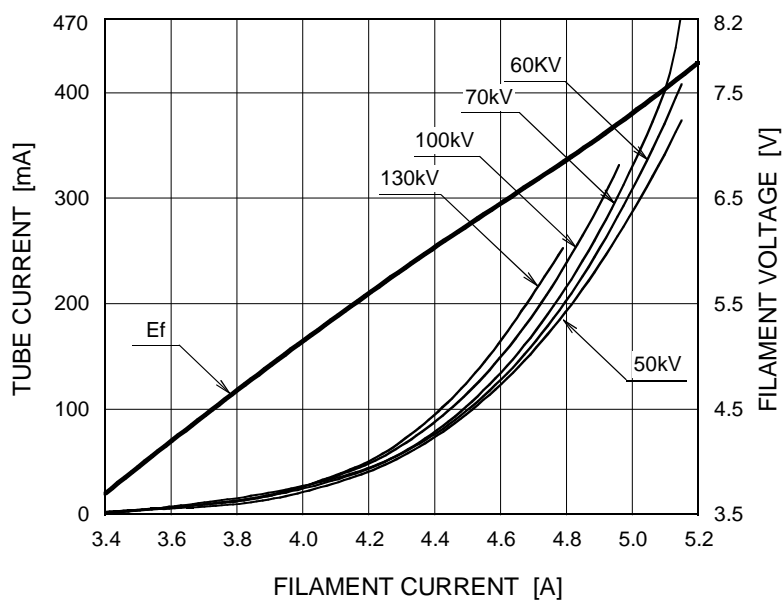


Refer to IEC60613:2010

Emission & Filament Characteristics

Constant Potential High-Voltage Generator

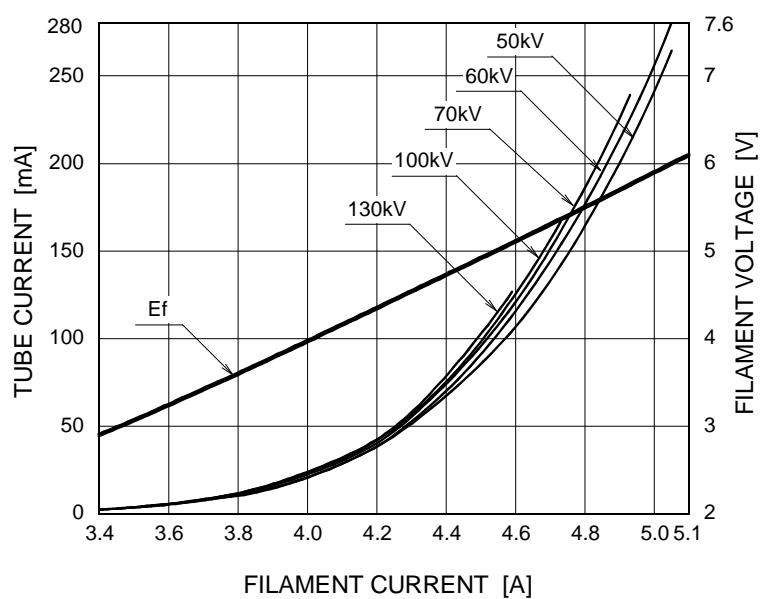
Nominal Focal Spot Value: 1.3 ■



Note 1) For Reference Only

Note 2) Refer to IEC60613:2010

Nominal Focal Spot Value: 0.8 □

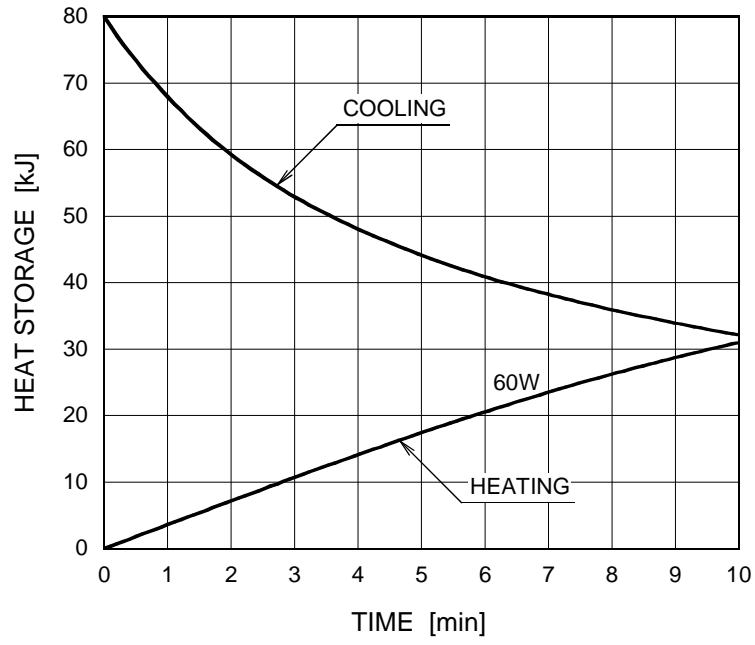


Note 1) For Reference Only

Note 2) Refer to IEC60613:2010

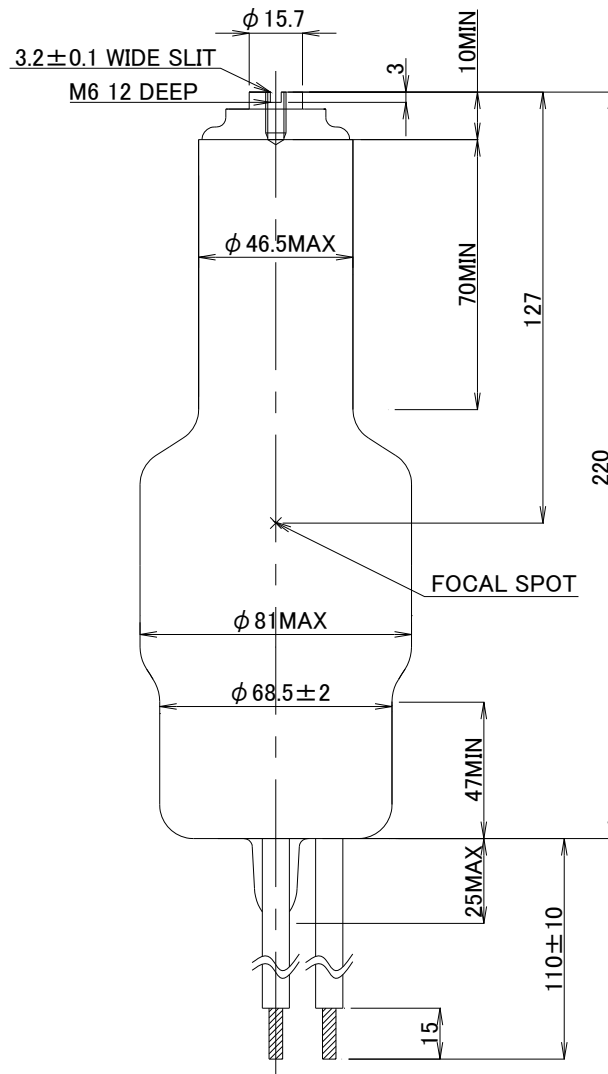
Thermal Characteristics

Anode Heating / Cooling Curve

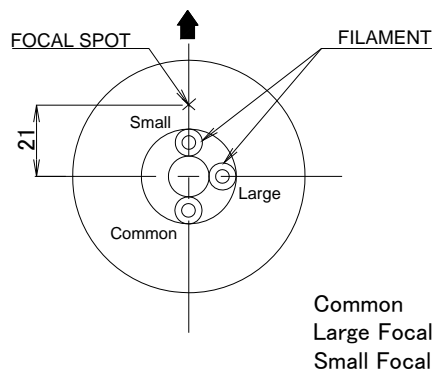


Dimensional Outline

Unit: mm



CENTRAL X-RAY



Note: Each cathode lead wire is insulated with colored vinyl pipe.

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