

**ANALIX™
A-40 Series**

- ◆ The ANALIX A-40 series, a water-cooled, grounded anode X-ray tube designed for X-ray diffractometry.
- ◆ Four Beryllium windows hermetically sealed to metal body.
- ◆ Standard target materials, Co, Cr, Cu, Fe, Mo and W.

Electrical:

Circuit:

High Voltage Generator	Constant Potential High-Voltage Generator
Grounding	Anode Grounded
Nominal X-ray Tube Voltage	60 kV
Focal Spot	1 × 10 mm
Starting Tube Voltage	10 kV or Less

Mechanical:

Dimensions	See Dimensional Outline
Overall Length	217 mm
Diameter of Maximum Part	φ67.8 mm
Target:	
Angle	Zero Degree
Material	Co, Cr, Cu, Fe, Mo, W
Inherent Filtration	0.3 mm Beryllium
X-ray Beam Angle	Approx. 4.5°
X-ray Port	4 Directions
Weight	Approx. 1.3 kg
Cooling:	
Method	Water cooled
Quantity of Water	Minimum 3.5 ℓ/min
Temperature	35°C or Less
Maximum Water Pressure	490 kPa
Pressure Drop	Approx. 98 kPa

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

Maximum X-ray Tube Voltage 60 kV
 Minimum X-ray Tube Voltage 10 kV
 Maximum X-ray Tube Current 50 mA
 Maximum Filament Current 3.8 A
 Filament Frequency Limits 20 kHz or Less
 Maximum Input:

Tube Name	Targets	Maximum Input Power
A-40-Mo	Mo	2.4 kW
A-40-W	W	2.4 kW
A-40-Cr	Cr	2.0 kW
A-40-Cu	Cu	2.0 kW
A-40-Co	Co	1.8 kW
A-40-Fe	Fe	1.5 kW

Environmental Limits

Operating Limits:

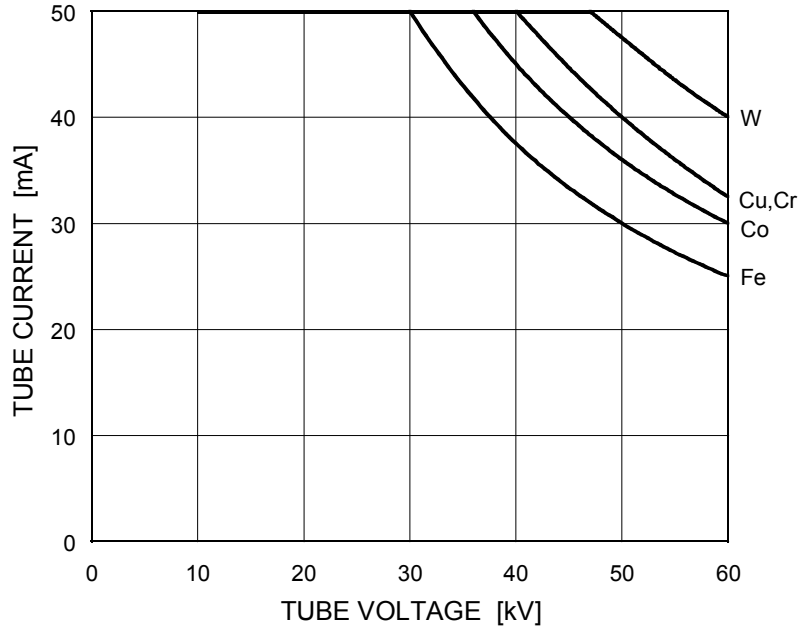
Temperature	10 ~ 40 °C
Humidity	85 % or Less (No condensation)
Atmospheric Pressure	70 ~ 106 kPa
Vibration and Shock	Use it in environment without vibration and a shock

Shipping and Storage Limits:

Temperature	-20 ~ 70 °C
Humidity	85 % or Less (No condensation)
Atmospheric Pressure	50 ~ 106 kPa
Vibration	4.9 m/s ² or Less
Shock	98 m/s ² or Less

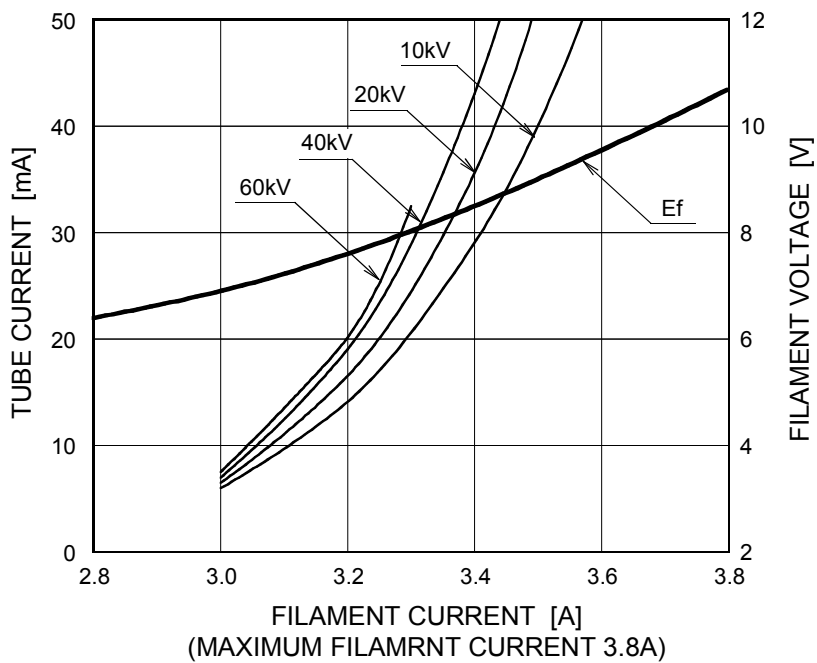
Maximum Rating Charts (Absolute Maximum Rating Charts)

Constant Potential High-Voltage Generator



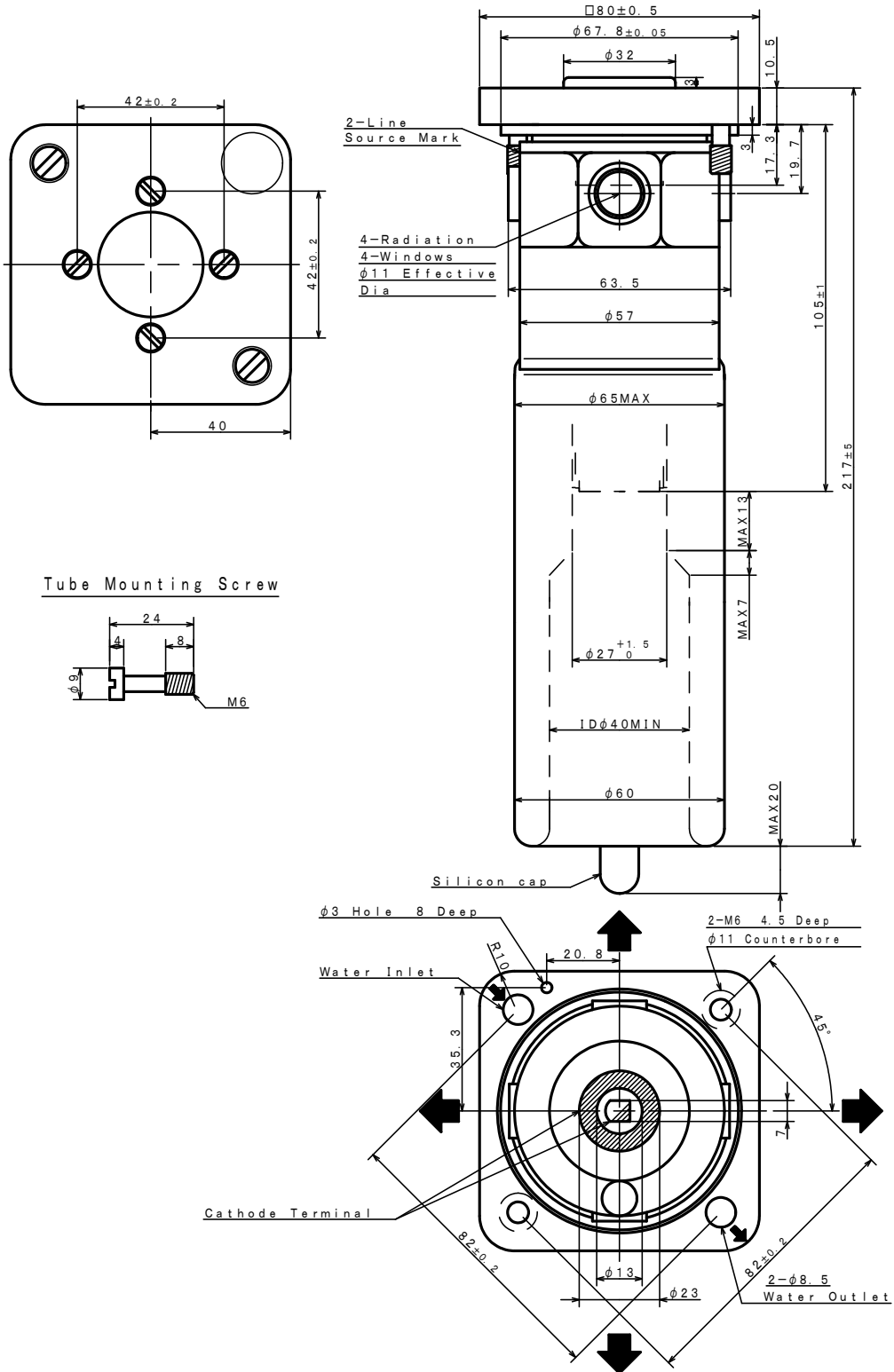
Tube Current & Filament Characteristics

Constant Potential High-Voltage Generator



Dimensional Outline

Unit: mm



- Note (1) Mark ➡ Indicates the direction of central X-ray.
 (2) The window mark in white gives a line source. This focus lies in A-A' axis.
 (3) The material of target is signified with the chemical element symbol.



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·The head office of Canon Electron Tubes & Devices Co., Ltd. has been certified to meet all the requirements of Environmental Management System ISO14001.
·Canon Electron Tubes & Devices Co., Ltd. has been certified to meet all the requirements of Quality Management Systems ISO9001 and ISO13485.
Product scope is referred to the following URL. <https://etd.canon/eng/company/quality.htm>.