

**ANALIX™
A-41L Series**

- ◆ The ANALIX A-41L 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, Cr, Fe, Co, Cu and W.



General Data

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
Point ⁽¹⁾	1 × 1.4 mm
Line ⁽¹⁾	0.14 × 10 mm

Note (1) Projected focal spot dimensions at 8° take-off angle.

Mechanical:

Dimensions:

Overall Length	229.7 ± 5 mm
Diameter of Maximum Part	φ 67.8 ± 0.05 mm
Target:	
Angle	Zero Degree
Material	Cr, Fe, Co, Cu, W
Inherent Filtration	0.3 mm Beryllium
X-ray Coverage (Approx.)	8 Degrees
Weight (Approx.)	1.5 kg
Cooling Method.....	Water-Cooled
Cooling Water	Minimum 3.5 ℓ/min
Maximum Inlet Temperature	35 °C
Pressure Drop (Approx.)	9.8 × 10 ⁴ Pa
Maximum Water Pressure	4.9 × 10 ⁵ Pa

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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 Power:

Tube Name	Targets	Maximum Input Power
A-41L-W	Mo	2.4 kW
A-41L-Cr	Cr	2.0 kW
A-41L-Cu	Cu	2.0 kW
A-41L-Co	Co	1.8 kW
A-41L-Fe	Fe	1.5 kW

Environmental Limits

Operating Limits:

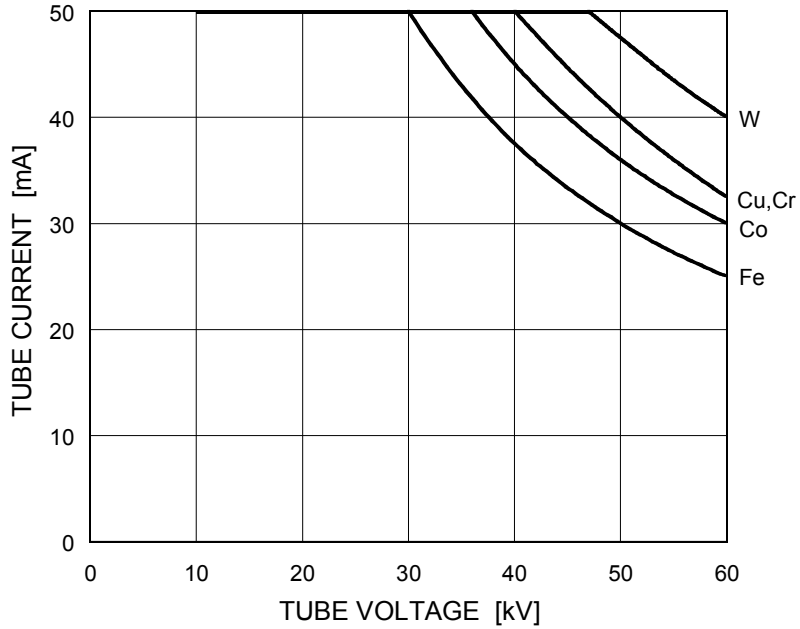
Temperature	10 ~ 40 °C
Humidity	85 % or Less (No condensation)
Atmospheric Pressure	70 ~ 106 kPa
Vibration and Shock	Use it in environment without vibration and a shock

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

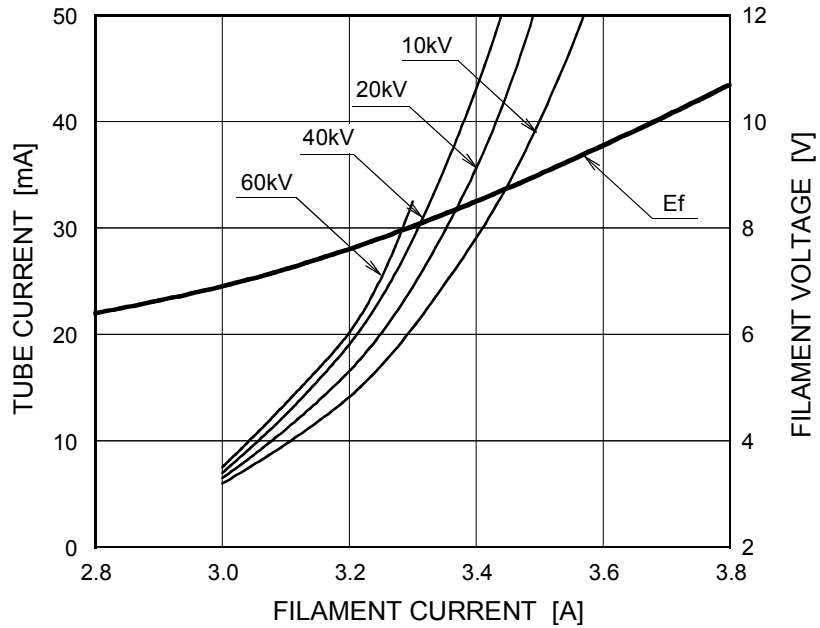
Maximum Rating Charts (Absolute Maximum Rating Charts)

Constant Potential High-Voltage Generator



Emission & Filament Characteristics

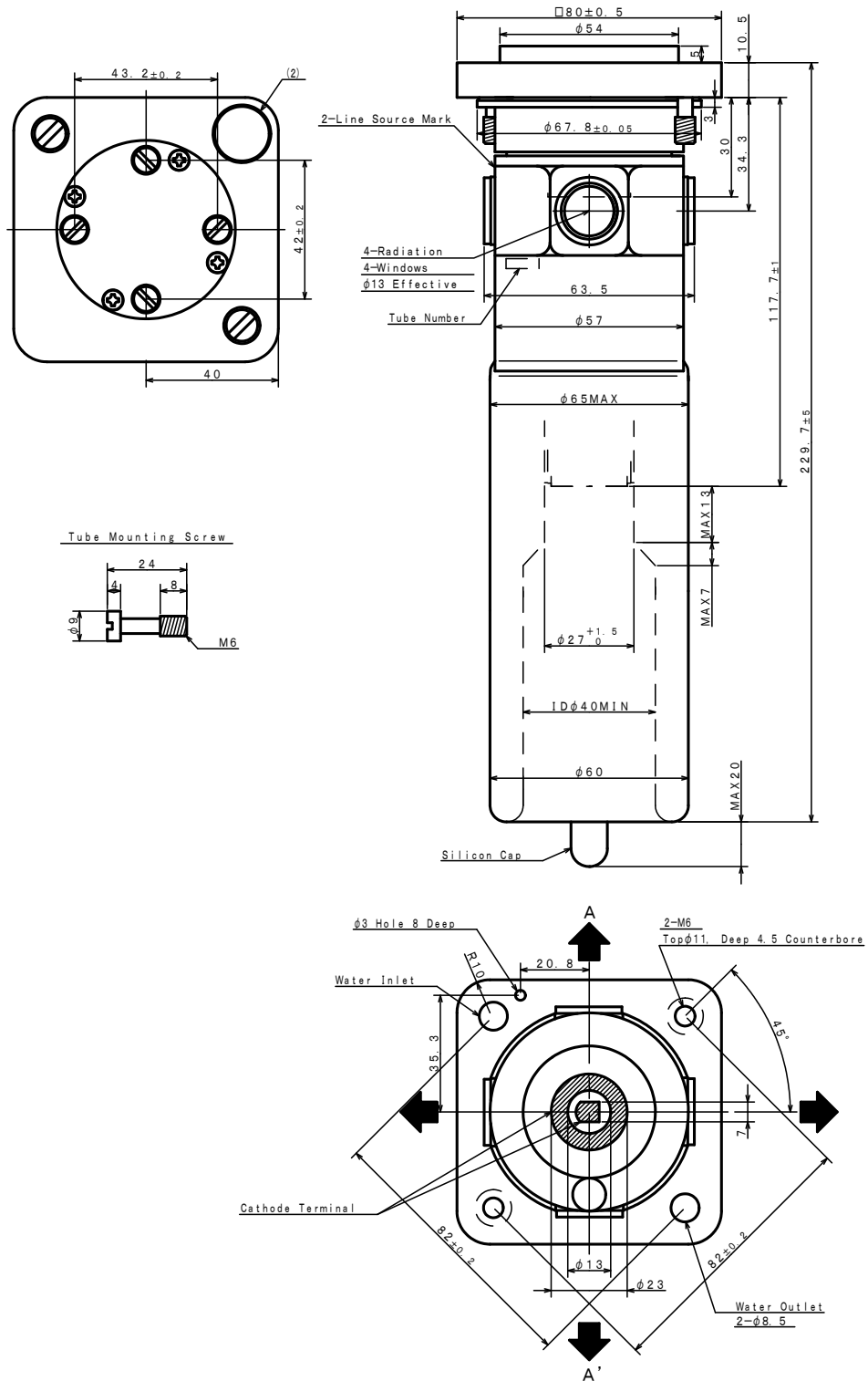
Constant Potential High-Voltage Generator



For Reference Only

Dimensional Outline

Unit: mm



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



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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>.