X-RAY SOURCE **160 kV MICROFOCUS X-RAY SOURCE 10711-03**

FEATURES

- High Stability
- Dual Cathode Mode
 High Resolution: 0.25 µm (S Mode)
 High Intensity : 8 W / 16 W[®] (W Mode)
- •No High Voltage Cable Connection Required
- Easy to Replace Cathode
- Easy Operation



SPECIFICATIONS

Parameter		Description / Value	
		S mode	W mode
Cathode material		LaB6 (Single crystal)	W (Tungsten)
Maximum tube voltage 10		110 kV	162 kV
X-ray tube voltage setting range		20 kV to 100 kV	20 kV to 160 kV
X-ray tube current setting range		0 μA to 200 μA	
Minimum resolution 23		0.25 µm ^④	0.8 µm
Maximum target current		30 μA / 80 μA ^⑤	50 μA / 100 μA ^⑤
Target type		Transmission type	
X-ray beam angle (Max.)		Approx. 140 degrees	
Target material		Tungsten	
X-ray output window material		Beryllium / Diamond ⁽⁵⁾	
Focus to object distance (FOD)		0.5 mm / <0.3 mm ⁽⁵⁾	
Protection		External short-circuit method (Normally closed)	
Interlock 1 / Interlock 2		36 V DC / 12 V DC	
Input voltage (AC)	X-ray control unit	100 V to 240 V (50 Hz / 60 Hz) ⁶	
	Power supply for turbo pump controller	100 V to 240 V (50 Hz / 60 Hz) ⁶	
	Rotary pump	115 V / 230 V (50 Hz / 60 Hz) 🗇	
Power consumption (Max.)	X-ray control unit	410 VA	
	Turbo pump set	600 W	
Rated output		Continuous operation	
Cooling method		Water cooling	
Weight	X-ray tube unit / X-ray control unit	Approx. 82 kg [®] / Approx. 8 kg	
	Rotary pump	Approx. 11 kg	
Operating ambient temperature	X-ray tube unit / X-ray control unit	+15 °C to +40 °C	
Storage temperature	X-ray tube unit / X-ray control unit	+5 °C to +50 °C	
Operating and storage humidity	X-ray tube unit / X-ray control unit	20 % to 85 % (No condensation)	

NOTE: 1) Maximum tube voltage during the warm-up period.

②X-ray chart use

3 Guaranteed values are defined separately

0 Suitable measurement conditions (environment and equipments) are necessary.

 $(\underline{5})$ When the optional diamond window is selected (Sold separately)

6 Auto switching

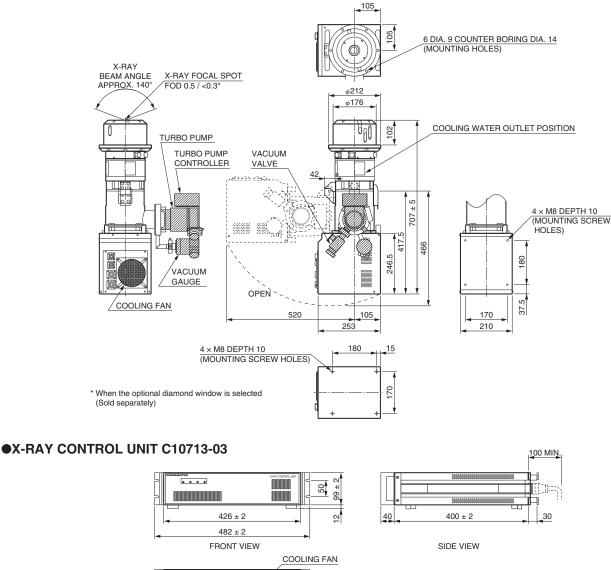
⑦Manual switching

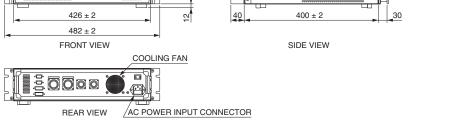
(8) This weight includes turbo pump, turbo pump controller, vacuum gauge and vacuum valve.



DIMENSIONAL OUTLINES (Unit: mm)

•X-RAY TUBE UNIT L10712-03





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System configuration of L10713-03: X-ray tube unit (L10712-03) + X-ray control unit (C10713-03) + turbo pump set + accessories

PRE-CAUTION TO USE

- 1. X-ray emitted from this device is harmful for human body. And it should be necessary for the operator to protect himself/herself from it. 2. During an operation, the X-ray tube unit should be installed in the X-ray shielded facility or area in order to avoid any X-ray leakage.
- Also the interlock system in X-ray control unit should be always used in order to avoid any misoperation.

OPERATIONAL CAUTION

The product may be subject to governmental occupational radiation hazardous regulation therefore the necessary application must be field according to the local regulation.

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