X-RAY SOURCE

160 kV MICROFOCUS X-RAY SOURCE L10711-03

FEATURES

- **High Stability**
- **Dual Cathode Mode**
  High Resolution: 0.25 µm (S Mode)
  High Intensity : 8 W / 16 W ⑤ (W Mode)
- **No High Voltage Cable Connection Required**
- **Easy to Replace Cathode**
- **Easy Operation**

SPECIFICATIONS

Parameter		Description / Value	
		S mode	W mode
Cathode material		LaB_6 (Single crystal)	W (Tungsten)
Maximum tube voltage ①		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 Interlock 1 / Interlock 2		External short-circuit method (Normally closed) 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) ⑦	
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 ⑧ / 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: ①Maximum tube voltage during the warm-up period.
②X-ray chart use
③Guaranteed values are defined separately
④Suitable measurement conditions (environment and equipments) are necessary.
⑤When the optional diamond window is selected (Sold separately)
⑥Auto switching
⑦Manual switching
⑧This weight includes turbo pump, turbo pump controller, vacuum gauge and vacuum valve.

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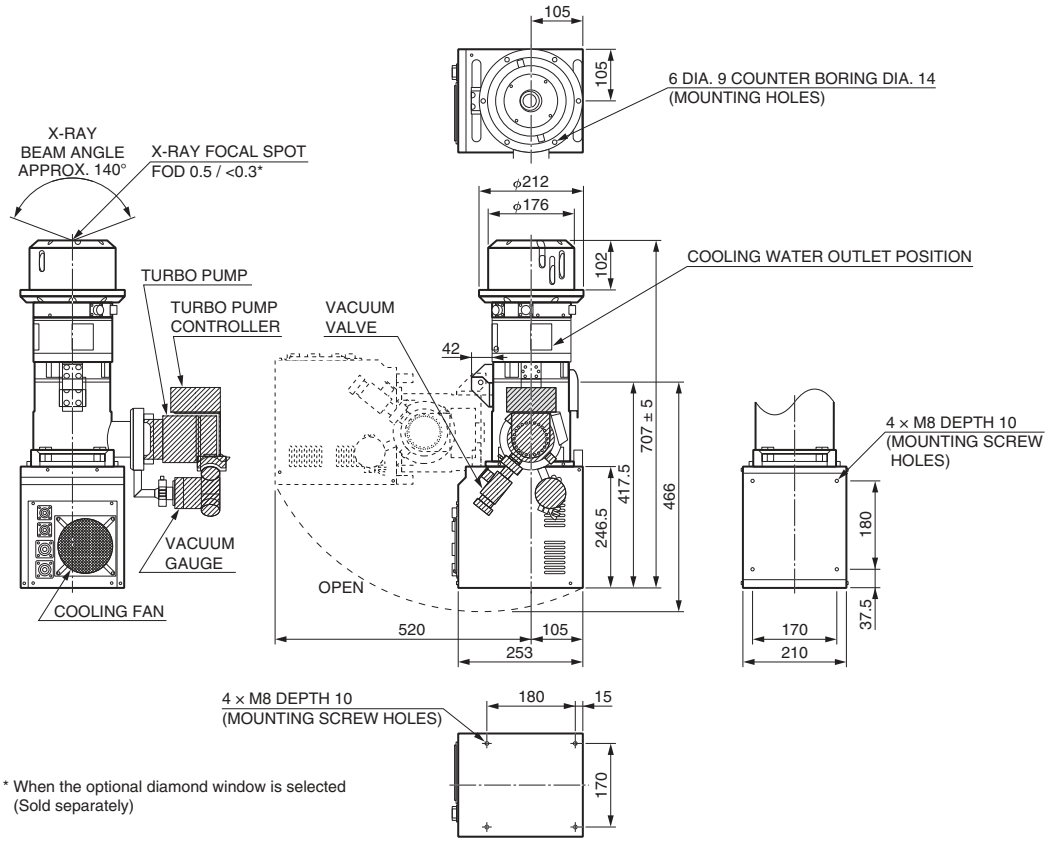
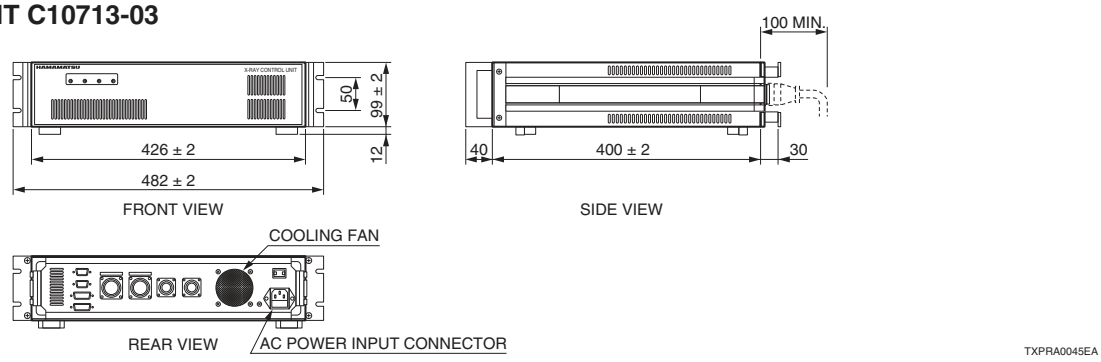
DIMENSIONAL OUTLINES (Unit: mm)

●X-RAY TUBE UNIT L10712-03



●X-RAY CONTROL UNIT C10713-03



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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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