X-RAY SOURCE L10711-25

FEATURES

- High stability
- Dual cathode mode

High resolution: 0.25 µm (S mode) High intensity: 9.6 W (W mode)

- No high voltage cable connection required
- Easy to replace cathode
- Easy operation



SPECIFICATIONS

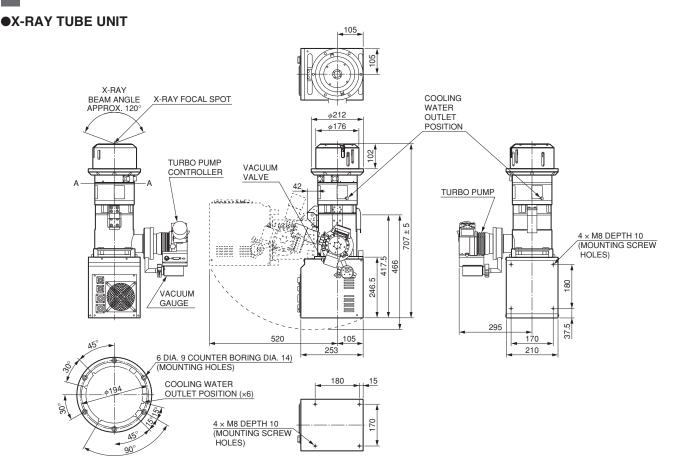
| Parameter | | Description / Value | |
|-----------------------------------|--------------------------------------|---|-----------------|
| | | S mode | W mode |
| Cathode material | | LaB ₆ (Single crystal) | W (Tungsten) |
| Maximum tube voltage ^① | | 110 kV | 168 kV |
| X-ray tube voltage setting 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 | | 50 μA | 60 μΑ |
| Target type | | Transmission type | |
| X-ray beam angle (Max.) | | Approx. 120° | |
| Target material | | Tungsten | |
| X-ray output window material | | Diamond | |
| Focus to object distance (FOD) | | 0.3 mm | |
| 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) ^⑤ | |
| Power consumption (Max.) | X-ray control unit | 400 VA | |
| Rated output | | Continuous operation | |
| Cooling method | X-ray tube unit / X-ray control unit | Water cooling | |
| Weight | X-ray tube unit / X-ray control unit | Approx. 80 kg [®] / Approx. 8 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 | | 20 % to 85 % (No condensation) | |

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

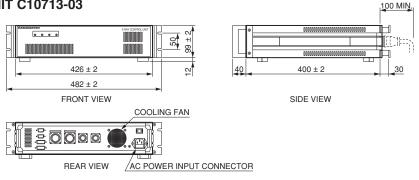
- ②X-ray chart use
- 3Guaranteed values are defined separately
- 4 Suitable measurement conditions (environment and equipments) are necessary.
- ⑤ Auto switching
- ⑥This weight includes turbo pump, turbo pump controller, vacuum gauge and vacuum valve.



DIMENSIONAL OUTLINES (Unit: mm)



•X-RAY CONTROL UNIT C10713-03



System configuration of L10711-25: X-ray tube unit + X-ray control unit (C10713-03) + 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.

Windows® is a registered trademark of Microsoft Corporation in the United States and/or other countries. Other product and software names mentioned herein may be either registered trademarks or trademarks of their respective owners

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office. Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2025 Hamamatsu Photonics K.K.

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

Electron Tube/Laser Applied Sales

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539-62-5245, Fax: (81)539-62-2205

S14-5, Snimokanzo, Iwata City, Snizuoka Pret., 438-0193, Japan, Telephone: (81)539-62-5245, Fax: (81)539-62-2205

U.S.A.: HAMAMATSU CORPORATION: 360 Foothill Road, Bridgewater, NJ 08807, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218

Germany: HAMAMATSU PHOTONICS DEUTSCHLAND GMBH: Arzbergerstr. 10, 82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-265-8 E-mail: info@hamamatsu.de

France: HAMAMATSU PHOTONICS SARLIC: 13 Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 10, E-mail: info@hamamatsu.fr

United Kingdom: HAMAMATSU PHOTONICS UK LIMITED: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire, AL7 1BW, UK, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: HAMAMATSU PHOTONICS NORDEN AB: Torshamnsgatan 35 16440 Kista, Sweden, Telephone: (46)8-509 031 01, Fax: (46)8-509 031 01 E-mail: info@hamamatsu.se

Italy: HAMAMATSU PHOTONICS ITALIA S.R.L.: Strada della Moia, 1 int. 6, 20044 Arsee (Milano), Italy, Telephone: (46)8-509 031 01, Fax: (46)8-509 031 01 E-mail: info@hamamatsu.ic

China: HAMAMATSU PHOTONICS (CHINA) Co., LTD::1216 Tiower B, Jiaming Center, 27 Dongsanhuan Beilu; Chaoyang District, 100020 Beijing, PR. China; Telephone: (86)10-6886-2006, Fax: (86)10-6588-2606 E-mail: hog@hamamatsu.com.cn

Taiwan: HAMAMATSU PHOTONICS KOREA CO., LTD::1317-1, No.101, Section 2, Gongdao 5th Road, East Dist., Hsinchu City, 300046, Taiwan(R.O.C.), Telephone: (88)3-659-0080, Fax: (886)3-659-0081 E-mail: info@hamamatsu.com.cn

TXPR1039E01

MAY 2025 IP

TXPRA0045EA