

Product Data

No. MPDCT0136EAF

APPLICATION

The rotating-anode X-ray tube MegaCool™ features a large heat capacity and a high anode cooling rate. This tube is designed for use with the Aquilion™ system.

FEATURES

• Large X-ray heat capacity

MegaCool achieves the large capacity of 7.5 MHU through an improved mechanism and an enlarged target. It is effective for fast scanning, where high X-ray power is required for a short time, and for multiple helical scans.

• High cooling rate

MegaCool achieves a maximum cooling rate of 1,386 kHU/min by using a new target with fins, by grounding the anode, and by using ceramics for insulation.

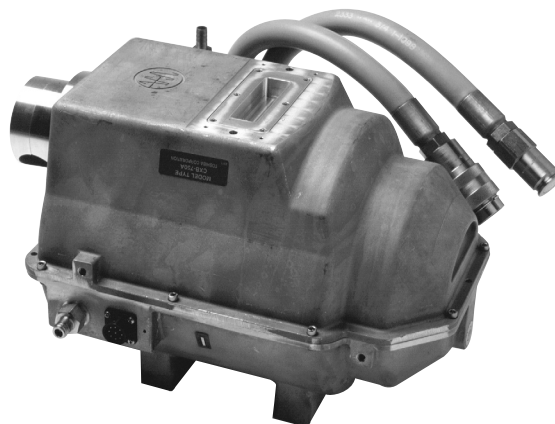
• High reliability

MegaCool achieves stable rotation of the target by providing a structure that supports the target on both sides. The X-ray tube unit and the heat exchanger unit are separate units and can be replaced independently, improving reliability and servicing.

COMPOSITION

Standard composition

	CXB-750C/1B	CXB-750C/2B
	CXB-750D/1A	CXB-750D/2A
	CXB-750D/3A	CXB-750D/4A
• X-ray tube	1	1
• Heat exchanger	1	–
• Technical information	1	1



X-ray tube with the heat exchanger removed.

PERFORMANCE SPECIFICATIONS

X-ray tube specifications

- Anode heat capacity: 7,500 kHU
- Max. anode cooling rate: 1,386 kHU/min (16.5 kW)
- Actual anode cooling rate: 1,008 kHU/min (12 kW)
- Electrical ratings
 - Max. tube voltage: 150 kV
 - Max. tube current: 500 mA, 600 mA*
- Inherent filtration of the radiation aperture: 1.0 mm Al or more
- X-ray shielding: Less than 0.88 mGy
- Focal spot size
 - IEC standard, nominal: 0.9 mm × 0.8 mm (small)
1.6 mm × 1.4 mm (large)
- Safety devices: Thermal switch, oil-flow switch, pressure switch, pressure relief valve, explosion-proof valve

Throughput

- Max. exposure time for helical scan (large focus)
 - 120 kV/600 mA: 15 s*
 - 120 kV/500 mA: 15 s, 18 s*
 - 120 kV/400 mA: 40 s
 - 120 kV/300 mA: 60 s
 - 120 kV/200 mA: 100 s
 - 120 kV/180 mA: 100 s

* CXB-750D/3A, /4A only.

DIMENSIONS AND MASS

Unit	Dimensions W × L × H	Mass
	mm (in)	kg (lb)
X-ray tube	300 × 490 × 310 (11.8 × 19.3 × 12.2)	68.5 (151)
Heat exchanger	500 × 460 × 260 (19.7 × 18.1 × 10.2)	30.0 (66.1)

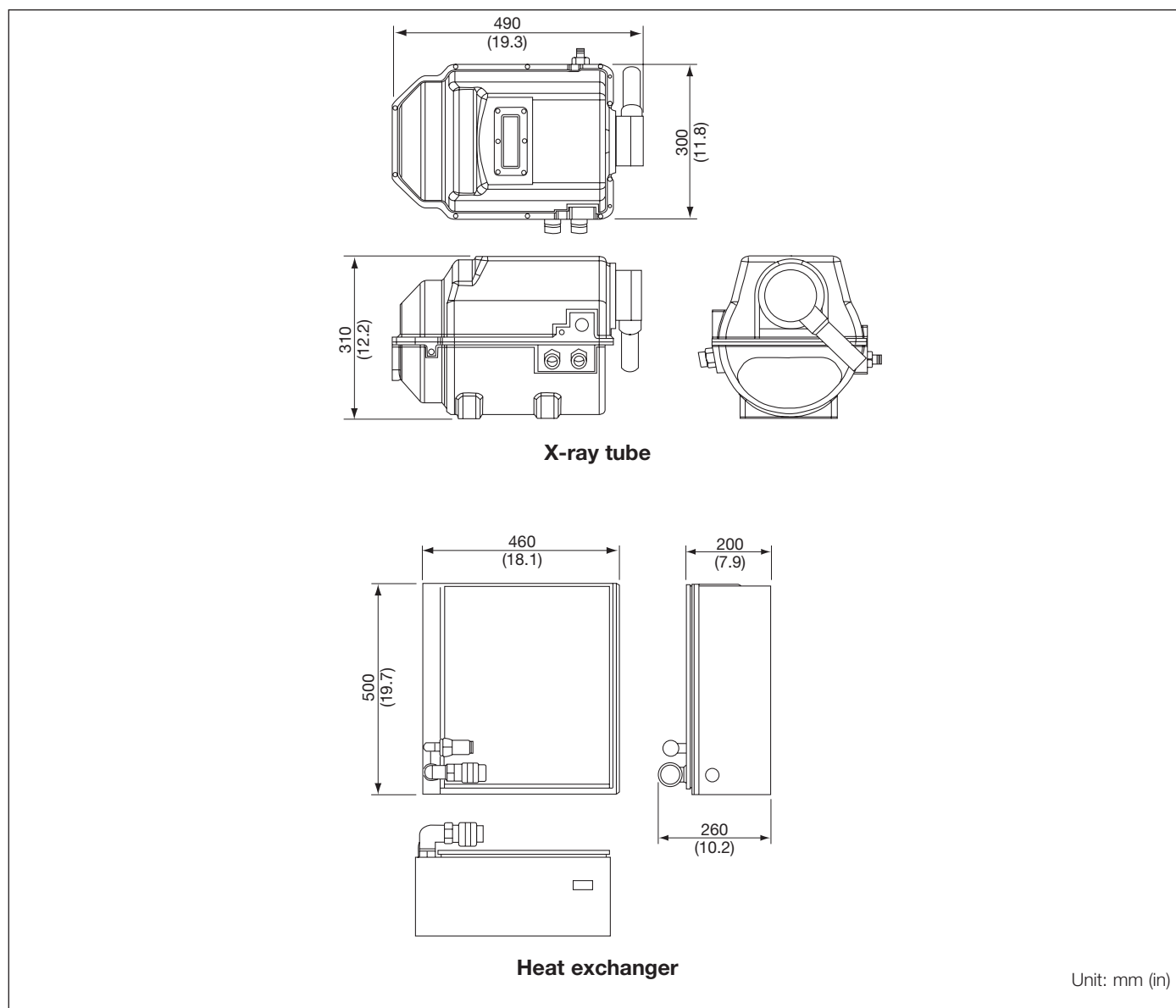
POWER REQUIREMENTS

Power is supplied from the CT system.

AMBIENT CONDITIONS

Same as those specified for the CT system.

OUTLINE DRAWING



TOSHIBA MEDICAL SYSTEMS CORPORATION

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