Performix 160 A X-Ray Tube Assembly
Consisting of X-Ray Tube Type 2216450 and X-Ray Tube Housing Type 2216500-2

OPERATING DOCUMENTATION

Naudojimo dokumentacija

2309761-6-1EN
Revision 1

Chapter 2 X-Ray Tube 2216450

1 Description

1.1 General

The 2216450 X–Ray tube is equipped with tube housing 2216500-2 for Performix 160 A X-Ray Tube Assembly, Model 2216500, 2216500–3.

Illustration 2-1:

The main characteristics of this tube are given below.

1.2 Characteristics

Eil. nr. 1.1

Table 2-1:

Subject	Specifications	Reference Standards*
Nominal continuous anode input power**	20.0/55.8/112.9 kW	IEC 60613/2010
Maximum anode heat content	2 740 000 Joules	IEC 60613/2010
Anode heating and cooling curves	See Anode Heating and Cooling Curves	IEC 60613/2010
Maximum anode cooling rate (Continuous)	6.72 kW	JIS Z 4704
Single load rating	See Single load rating	IEC 60613/2010
Serial load rating	See Serial load rating	IEC 60613/2010
Target material	Tungsten	IEC 60601-2-28/1993 and IEC 60601-2-28/2010
Reference axis	Normal to longitudinal axis to X-Ray tube. See Section 1.3	IEC 60601-2-28/1993 and IEC 60601-2-28/2010
Target angle with respect to the specified reference axis	11° 15'	IEC 60601-2-28/1993 and IEC 60601-2-28/2010

Eil. nr. 1.2

Eil. nr. 1.3

Eil. nr. 1.4

Subject	Specifications	Reference Standards*
X-ray Radiation Angle	22.5 degrees	JIS Z 4704
Nominal focal spot value****	0.3, 0.6, 1.0	IEC 60336/1993 and IEC 60336/2005
Maximum Focal Spot Measurements for IEC Focal Spots	IEC 1.0 => Maximum Length = 2.0 mm Maximum Width = 1.4 mm IEC 0.6 Maximum Length = 1.3 Maximum Width = 0.9 mm IEC 0.3 => Maximum Length = 0.65 mm Maximum Width = 0.45 mm	JIS Z 4704
Distance between axes of focal spots 1.0 and 0.6	≤ +/- 0.5 mm	
Modulation transfer function	See Modulation transfer function	IEC 60336/1993 and IEC 60336/2005
Minimal inherent filtration***	0.01 mm Al equivalent at 70 kV	
Nominal high voltage	125 kV	IEC 60613/2010
Nominal maximum cathode to ground voltage	62.5 kV	JIS Z 4704
Nominal maximum anode to ground voltage	62.5 kV	JIS Z 4704
Anode rotation	7 800 rpm, 130 Hz	IEC 60601-2-28/1993 and IEC 60613/2010
Maximum current filament	7.5 A	IEC 60613/2010
Electron emission curves	See Electron Emission Curves	IEC 60613/2010
Filament voltage and current curves.	See Typical Filament Voltage / Current Curves	JIS Z 4704
Disc diameter	160 mm	
Weight	11.8 kg +/- 0.1 kg	

NOTE: *Reference standard means that compliance with this standard is stated.

**For an equivalent anode input power of 100 W.

***Determined according theoretical method of calculating from BIRCH and MARSHALL.

****Electron emission from the 0.6 focal spot is controlled by grid up to 125 kV at V_{g1} = –370 +/- 6%