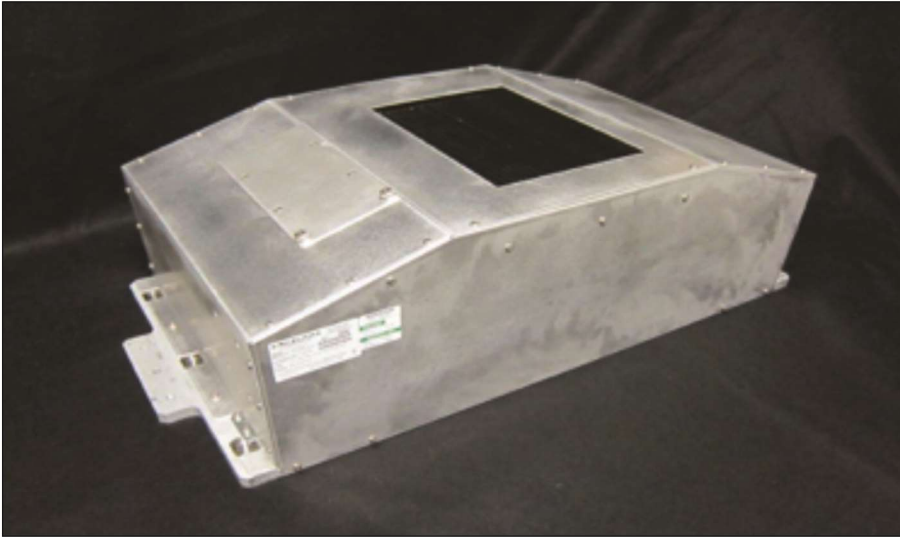


Omniblock® X-ray Source



Features

- Designed to EN61010 and IEC601-1
- Universal Input and active PFC
- CW or pulsed output
- High efficiency
- Compact size
- Fast dynamic response
- Low stored energy
- High stability, low ripple and noise
- High frequency Zero Voltage Switching, Zero Current Switching power converters
- Applicable for CT scanners at up to 20G rms

Applications

- Baggage Screening
- Medical Imaging
- X-ray Analysis
- Food Inspection
- Irradiation
- Process Control

Omniblock® integrated X-ray tube and power supply in a single enclosure

Omniblock® X-ray generators from Excelitas Technologies integrate the high voltage source and X-ray tube into one housing.

This design configuration eliminates the high voltage cables and connectors reducing cost while improving system design flexibility. They are specifically designed for generating X-rays in static or rotating applications using proven designs of upto 180KV and 2.4KW.

Typical applications for Omniblock® X-ray generators include baggage

screening, medical imaging, food inspection, industrial analysis and many

other costs sensitive and space limited X-ray applications.

www.excelitas.com

Omniblock®

X-ray Source

Specifications

Description	Limit	Limit	Limit
Output voltage	160KV	160KV	180KV
Emission Current	4.0 mA	8.0 mA	13.3 mA
Fan Beam	90° x 7°	85° x 4°	102° x 10.5°
Mains Input voltage	1PH, 200-240V +/- 10%, 50/60Hz	1PH, 200-240V +/- 10%, 50/60Hz	1PH, 200-240V +/- 10%, 50/60Hz
Focal Spot	2.5mm x 0.8mm	1.5mm nominal	2.4mm(+/- 0.2mm)
Inherent filtration	1.5mm glass,10mm oil, 1mm Al	1.5mm glass, 0.8mm Be, 13mm oil, 1mm Al	1mm Copper
Anode angle	15° Nominal	20° Nominal	20° Nominal
Target material	Tungsten	Tungsten	Tungsten
X-ray setting time to within 1%	Less than 500 ms	1000ms	1000ms
Duty Cycle	Designed to operate continuously or pulsed	Designed to operate continuously or pulsed	Designed to operate continuously
Cooling	Forced air-cooled with fans operating when required	Fan forced air over integrated heat exchanger 25% EG water, and circulating oil over X-ray tube	Integrated heat exchanger 25% EG Water
Weight	58kg (128lbs)	84kg (185lbs)	110kg (240lbs)
Output voltage and current regulation	Less than 0.5% over the input voltage range	Less than 0.5% over the input voltage range	Less than 0.5% over the input voltage range
Remote Interlock	X-ray on/off signal	X-ray on/off signal	X-ray on/off signal
Serial Com. Interface	RS422 hardware, Excelitas software, kV, mA settings and output status.	RS422 hardware, Excelitas software, kV, mA settings and output status.	RS422 hardware, Excelitas software, kV, mA settings and output status
Temperature sensor	Auto out of range shut-off with notification through output status	Auto out of range shut-off with notification through output status	Auto out of range shut-off with notification through output status
Surface Radiation Leakage	Less than 0.3mR/hour at 0.1 meters (excl. interface at beam port)	Less than 0.5mR/hour at 5cm (excl. interface at beam port)	Less than 0.2mR/hour at 0.1 meters (excl. interface at beam port)
Mechanical	Rotating gantry application up to 20G rms	Rotating gantry application up to 15G rms	Rotating gantry application up to 20G rms
Operating Temperature	0°C to 40°C	10°C to 40°C	0°C to 35°C
Storage Temperature	-20°C to 60°C	-20°C to 70°C	-20°C to 70°C
Operating humidity	5-90% non-condensing	5-90% non-condensing	5-90% non-condensing
X-Ray Tube Type	Glass	Metal ceramic	Metal ceramic
Regulatory	Designed to EN61010	Designed to EN61010	Designed to EN61010

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