



## RAXON200LPB

Page 1 of 3



RAXON200LPB is an industrial X-ray source for producing a beam of high intensity X-rays with small focal spot and high stability which ensures uniform beam intensities and dose rate throughout its fan/cone-shaped beam. Stable voltage and electrical power applied to X-ray tube, guarantees stable dose exposure and high-quality images in digital radiography applications.

### Applications

- Industrial Radiography
- X-ray Imaging
- X-ray Irradiation
- Non-Destructive Testing
- Food Inspection
- Security Inspection
- Densitometry and Thickness Measurement

### Specifications

#### X-ray Characteristics:

Tube Type: Stationary anode, Glass tube, Tungsten target, Be filter

Focal Spot: 0.8mm (IEC 336)

Beam Filter: 3mm thick 6061 Al,  $\pm 0.01$

Beam Geometry: Symmetrical fan up to  $60^\circ \times 15^\circ$ , cone up to  $30^\circ$

#### Input Voltage:

$220 \pm 10\%$  Vac, 50/60Hz, 3A maximum

#### X-ray Tube Voltage:

Nominal X-ray tube voltage is adjustable between 100kV to 200kV with 10kV step

#### X-ray Tube Current:

0.2-1.5mA over specified tube voltage range

#### X-ray Tube Power:

300W, continuous mode

#### Voltage Regulation:

Line:  $\pm 0.1\%$  for a  $\pm 10\%$  input line change of nominal input line voltage

Load:  $\pm 0.1\%$  for a 0.2mA to 1.5mA load change

#### Voltage Accuracy:

Voltage measured across the X-ray tube is within  $\pm 2\%$  of the programmed value

#### Voltage Risetime:

Ramp time shall be  $< 400\text{ms}$  from 10% to 90% of rated output

#### Voltage Overshoot:

Within 5% of rated voltage in  $< 10\text{ms}$

**Voltage Ripple:**

Up to 2% pp of rated voltage

**Current Regulation:**

Line:  $\pm 0.1\%$  for a  $\pm 10\%$  input line change of nominal input line voltage

Load: 0.5% @ 100-200kV, 0.2mA to 1.5mA

**Current Accuracy:**

Current measured through the X-ray tube is within  $\pm 5\%$  of the programmed value

**Current Risetime:**

<400ms from 10% to 90% of rated output

**Arc Intervention:**

4 arcs in 10 seconds with a 200ms quench = Shutdown

**Filament Configuration:**

Internal high frequency AC filament drive with closed loop filament emission control

**Digital Interface:**

RS-232/USB/Ethernet Interface selectable port

**Control Software:**

A demo GUI for engineering evaluations will be provided for the RS-232/USB/Ethernet digital interface and Encoded Command Port for customized software

**Emergency Stop:**

A physical emergency stop is embedded for prompt shut down in case of emergency independent of software and microcontroller modules

**Operating Temperature:**

0°C to +40°C

**Storage Temperature:**

-40°C to +70°C

**Tube Cooling:**

Oil circulation and cooling (Optional)

**Humidity:**

10% to 95% relative humidity, non-condensing

**Motherboard Cooling:**

Natural convection augmented by customer provided 250cfm cooling fans for continuous operation

**Input Power Line Connector:**

Standard 3pin Line-Null-Earth connector

**Dimensions:**

1030mm x 575mm x 418mm

**Weight (Approx.):**

180 kg

**Installation Orientation:**

Can be mounted in any orientation.

**X-ray Leakage:**

Not to be greater than  $5\mu\text{S/hr}$  at 5cm outside the external surface (EN61010-1)

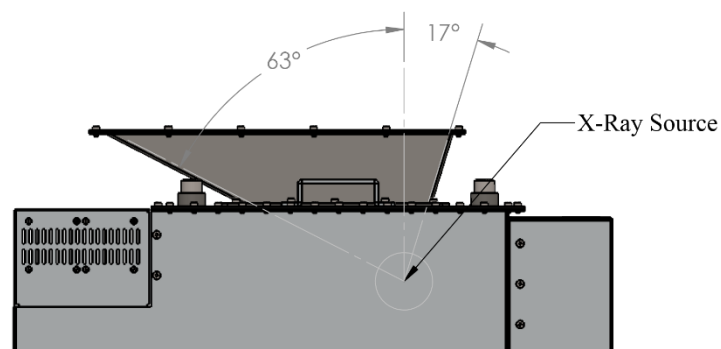
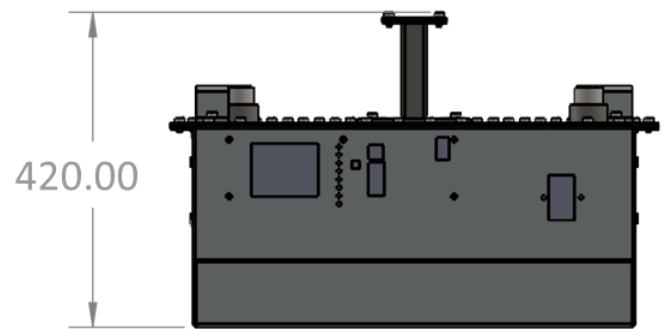
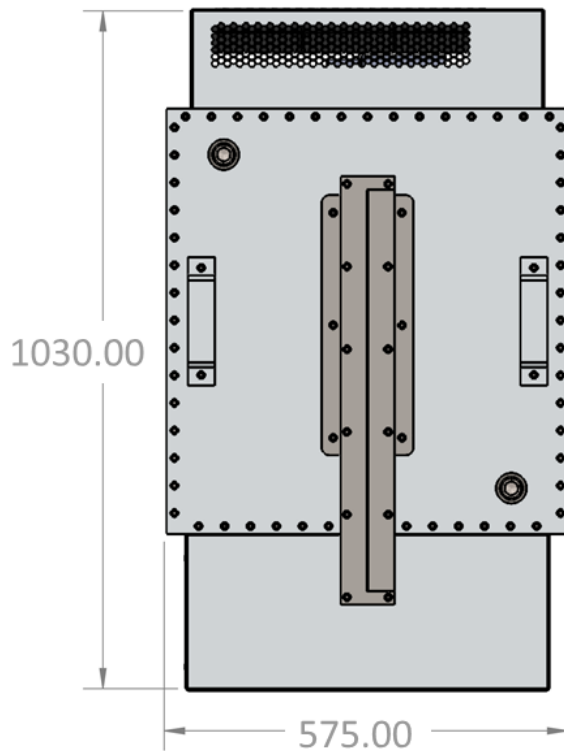
**Accessories:**

RS-232/USB Connection cable

Ethernet connection cable

User Manual

Software



Dimensions are in millimeters