

VJX

Powering Technology That Matters



VJ X-RAY PRODUCT CATALOG

Integrated X-Ray Sources & High Voltage Generators

VJ X-RAY Division of the VJ GROUP

VJ X-Ray was founded in 2007 with one mission. To bring out the best in your x-ray systems with our high voltage technology. To achieve this, we gathered industry leading engineers and tasked them with pushing the boundaries of component design and quality for every OEM partner. Our engineering team leverages over three decades of combined experience in x-ray technology to create customizable solutions for any application.

We serve our global OEM partners from our facilities in Bohemia, New York (USA) and SIP, Suzhou (China). The key to our success as a global leader in x-ray technology is our drive to listen to and anticipate our customers' needs. The world's leading OEMs trust us because of our emphasis on the quality, performance, and reliability of our products. This allows our customers to hone their x-ray systems while we focus on our mission.

Powering technology that matters.



New York, NY

50,000+
UNITS SHIPPED

600+
CUSTOMIZED SOLUTIONS ENGINEERED

200+
WORLD LEADING OEMS SHIPPED



Core strengths



Suzhou, China

Expertise

With our accumulated knowledge designing, developing, and maintaining our production of over 600 models, we are well equipped to find your solution. Coupled with our experience, we have strong relationships with x-ray tube manufacturers globally which enable us to launch new products every single year.

In addition, we have unfettered access to a world leading DR + CT company which provide VJX with a unique advantage of robustly testing out products before bringing them to market, ensuring high reliability and performance.

Reliability

We're worldwide, and constantly expanding our production and service capacity. Our multi-sourcing strategy minimizes supply chain risk for our OEM partners.

Our standardized manufacturing processes across production facilities ensure consistent product quality.

Values

We put the confidentiality of all our OEM partners above all else. We implement NDAs for every unique solution and are committed to keeping information safe and secure.

Product Overview



IXS Series Integrated X-Ray Sources

The IXS Series of integrated sources include the high voltage power supply, X-ray tube, and control electronics into single compact products. These units boast high stability and performance over a wide range of operating voltage and current. Versatile design allows customization based on application need, and seamless integration into OEM systems.

Specification Range

Output Voltage : 20–200 kV
Output Current : 0.05–25.0 mA
Output Power : 5–1000 W
Focal Spot Size : 35 μ m–1.2 mm



HVG Series High Voltage Generators

The HVG/HVL Series of High Voltage Generators offer high stability and reliability over a variety of voltage and current outputs.

Units can be unipolar or bi-polar and can be customized per OEM requirements. The High Voltage Generators are compatible with most commonly used X-ray tubes, allowing for effortless OEM integration.

Specification Range

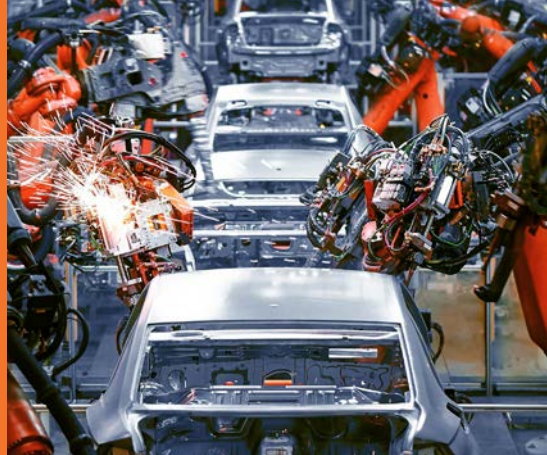
Output Voltage : 10–450 kV
Output Current : 0–30 mA
Output Power : 130W–4500 W

Industries Served

Security



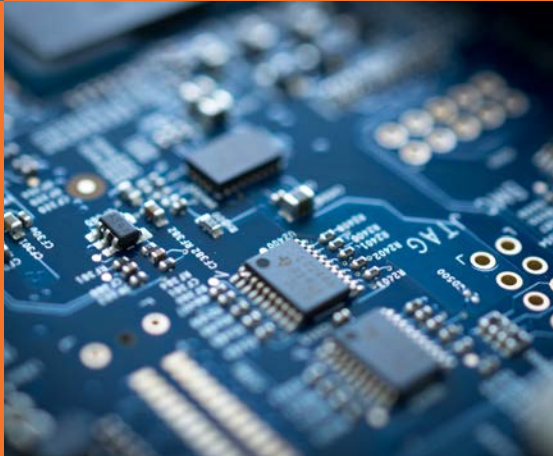
Industrial



Food



Medical



Analytical
Instrumentation



Electronics



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HVG - High Voltage Generators

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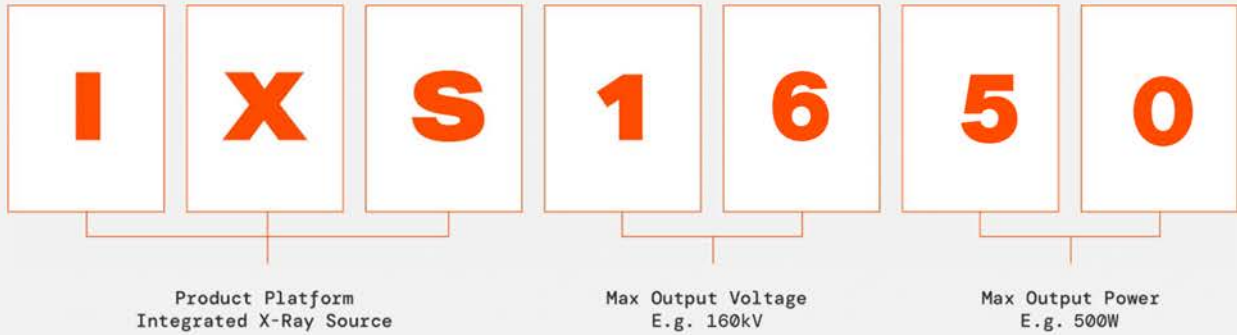
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|----------------------|----|
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|----------------------|----|

Accessories & Options

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|---|----|
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| External Battery and Convertor | |
| Recommended Kit for Electronic Protection | |
| Transport Cases | |

HOW WE NAME OUR PRODUCTS



Industry Application Overview



Security



IXS1620
160kV, 200W

PG. 42-43



IXS161k
160kV, 1-1.5k

PG. 48-49



IXS2050
200kV, 500W

PG. 52-53



Food



IXS0835
80kV, 350W

PG. 22-23



IXS1015
100kV, 150W

PG. 28-29



IXS1650
160kV, 500W

PG. 44-45



Industrial



IXS1650
160kV, 500W

PG. 44-45



IXS2050
200kV, 500W

PG. 52-53



HVG225
225kV, 30W

PG. 66-67



Medical



IXS0808
80kV, 80W

PG. 16-17



IXS101k
100kV, 1kW

PG. 34-35



IXS1015
100kV, 150W

PG. 28-29

HOW WE NAME OUR PRODUCTS

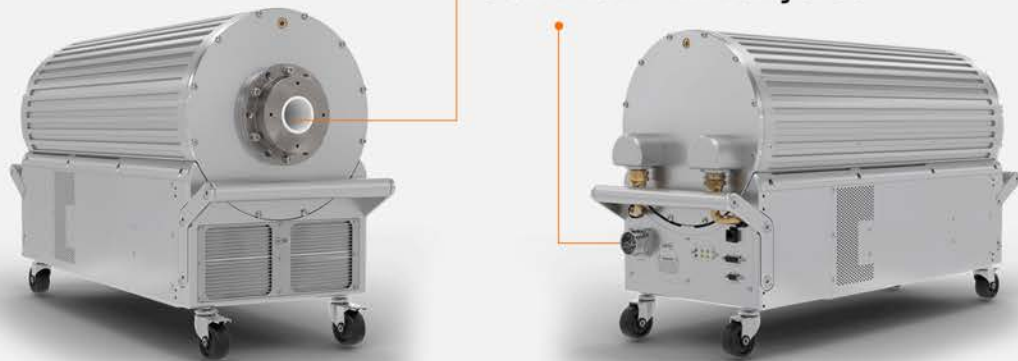


Product Platform
High Voltage Generator

Max Output Voltage
E.g. 225kV

High Voltage
Connector

Control Interface



Meet The HVG/HVL Family



PP. 60-61

HVG060 Mini
60kV, 150W



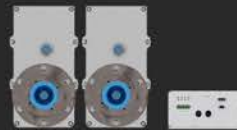
PP. 62-63

HVG075 Mini
75kV, 350W/600W



PP. 64-65

HVG100
100kV, 1000W



PP. 66

HVL100-320
100-320kV
1kW max



PP. 66-69

HVG160-450
160-450kV
2-4.5kW



IXS041K Beryllium Window

40 kV, 1000 W

Applications

- Food Inspection
- Industrial NDT

Key Features

- Integrated High Voltage Generator, Metal ceramic X-ray tube, and Control Electronics
- Be-Window for Low kV, Soft X-ray Applications
- High Power with Water Cooling
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|--|--|
| Input Line Range | 220VAC±10%, 50/60 Hz |
| Output kV | 20 - 40 kV |
| Output mA | 1.0 - 25.0 mA |
| Output Power | 1000 W maximum continuous |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1. |
| Dimensions | Generator: 393mm x 275mm x 135mm Control unit: 264mm x 247mm x 70mm |
| Weight | Generator: 14 kg Control unit: 3 kg |

X-Ray Tube

| | |
|------------------------------|---|
| X-ray Tube Type | Be-Window Metal Ceramic |
| X-ray Focal Spot Size | 1.5 mm as per EN12543 (0.6 Nominal IEC60336) |
| Beam Port | Fan beam of 60° max. (Cone Beam available upon request) |

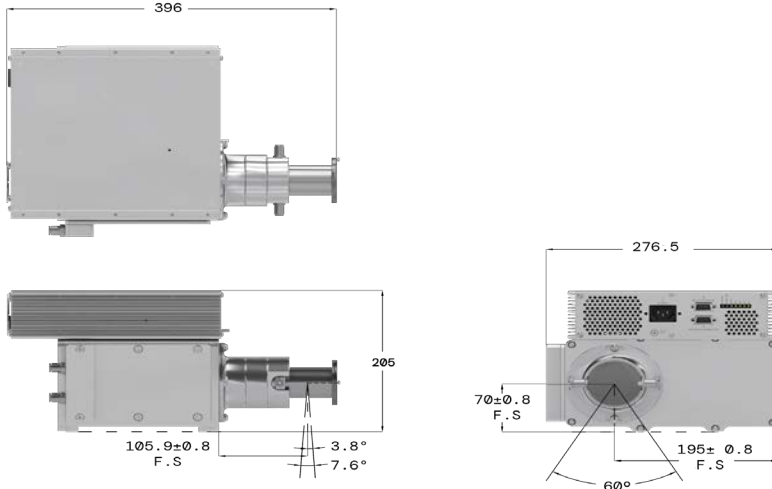
Operating Environment

| | |
|------------------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 55°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



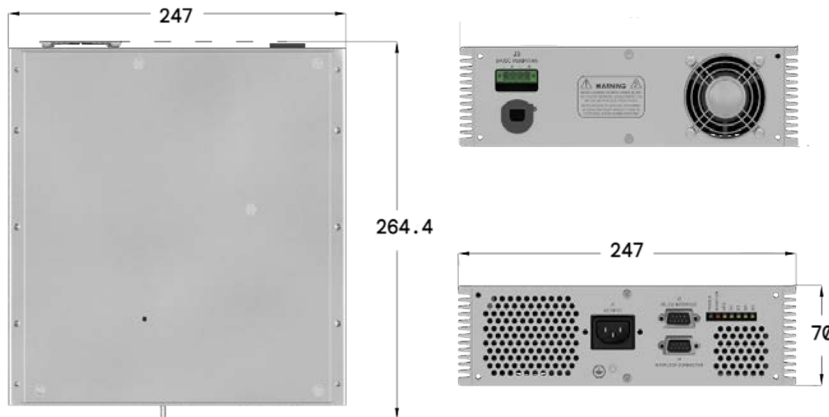
Generator

Unit: mm



Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|----------|--|
| OP | Over Power fault |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60±3°C. |
| OV | Over voltage fault |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |

J1: AC Input

| Pin Out | Name |
|---------|-------------------|
| N | Neutral |
| GND | Ground |
| L | 220VAC ±10% Input |

J2: Interlock

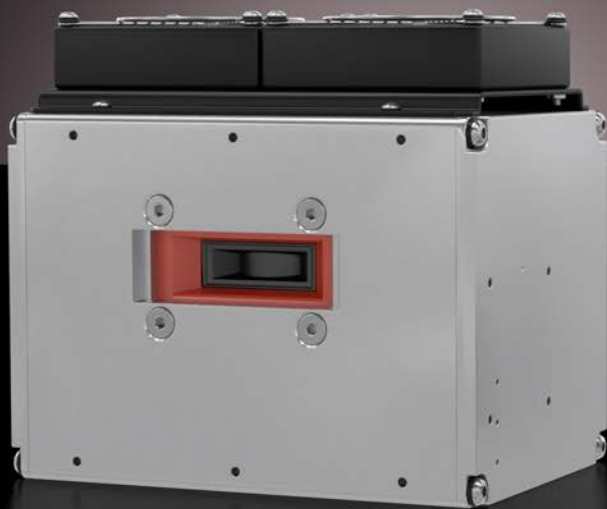
| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock In |
| 3 | X-ray on relay contact common |
| 4 | X-ray on relay contact N/C |
| 5 | X-ray on Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: RS232 Digital Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4: 24VDC Pump/Fan

| Pin Out | Name |
|---------|---------|
| + | +24 VDC |
| - | Return |
| + | +24 VDC |
| - | Return |



IXS0520

50 kV, 200 W

Applications

- Baggage Inspections
- Security Body Scanners
- Food Safety
- Industrial

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- Compact and Robust
- High Stability
- High Resolution: 0.4 nominal Focal Spot
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|--|--|
| Input Line Range | 110–220VAC ±10%, 50/60 Hz |
| Output kV | 20–50 kV up to 80 kV also available |
| Output mA | 0.5–4.0 mA |
| Output Power | 80 W continuous/ 200 W peak 30% or less Duty Cycle |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 226mm x 134mm x 188mm Control unit: 254mm x 134mm x 65mm |
| Weight | Generator: 11 Kg Control unit: 2 Kg |

X-Ray Tube

| | |
|------------------------------|--|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.4 nominal as per IEC60336 |
| Beam Port | Fan beam: 80° X 10°, 74° X 12° Cone beam: 25° |

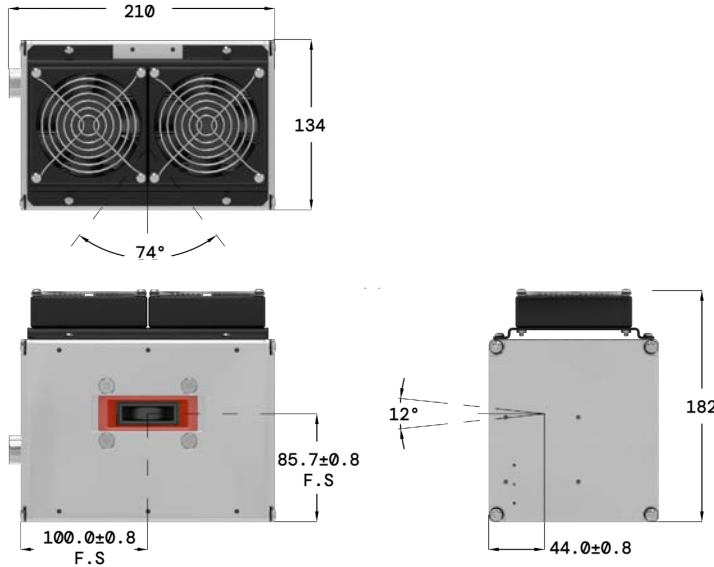
Operating Environment

| | |
|------------------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator

Unit: mm

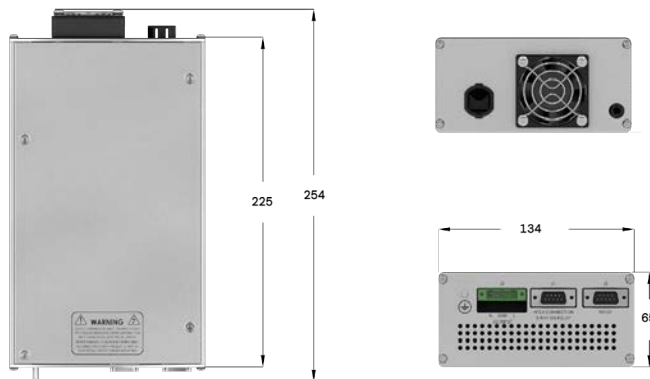


LED Indicators

| | |
|-----------------|---|
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |
| OV | Over voltage fault |
| OP | Illuminated when selected power exceeds the rated power |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |

Control Unit

Unit: mm



Graphical User Interface



J1: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J2: RS232 Digital Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: AC Input

| | |
|-----|-----------------------|
| N | Neutral |
| GND | Ground |
| L | 110–220VAC ±10% Input |



IXS0605 Beryllium Window

60 kV, 50 W

Applications

- Thickness Gauging
- X-Ray Fluorescence
- Sorting
- Material Analysis

Key Features

- Integrated High Voltage Power Supply, X-ray tube with Beryllium Window, and Control Electronics
- Highly Stable
- Radiation Shielded
- User Friendly RS232 Digital Interface
- 24 VDC Input

Specifications

| | |
|--|--|
| Input Line Range | 24 VDC \pm 10% |
| Output kV | 10-60 kV |
| Output mA | 0.05 - 2.0 mA |
| Output Power | 50 W continuous maximum |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1. |
| Dimensions | Generator: 125 mm x 75 mm x 168 mm Control unit: 80 mm x 173 mm x 38.5 mm |
| Weight | Generator: 2.4 kg Control unit: 0.4 kg |

X-Ray Tube

| | |
|------------------------------|-------------------------------|
| X-ray Tube Type | Glass Tube with Be-Window |
| X-ray Focal Spot Size | 1.0 mm (0.5 Nominal IEC60336) |
| Beam Port | Cone beam: 24° |

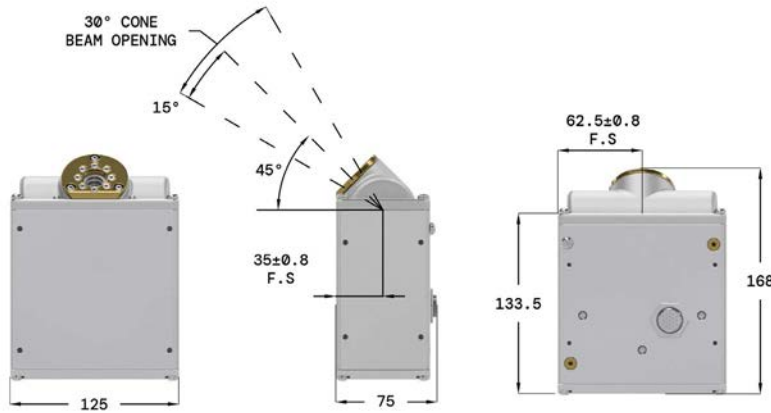
Operating Environment

| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator

Unit: mm



J1: 24 VDC Input Connector

| Pin Out | Name |
|---------|---------------------|
| 1 | Interlock Out |
| 2 | Interlock In |
| 3 | +24VDC Input |
| 4 | +24VDC Input Return |

J3: RS232 Digital Interface

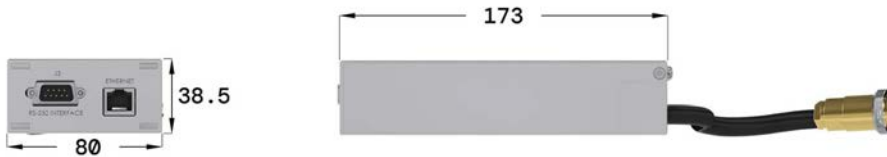
| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

Ethernet Digital Interface

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | GROUND |
| 8 | GROUND |

Control Unit

Unit: mm



Graphical User Interface





IXS0803

80 kV, 30 W

Applications

- Food & Pharmaceutical Inspections
- Fill Level Check

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- Radiation Shielded
- User Friendly RS232 Digital Interface
- 24 VDC Input

Specifications

| | |
|--|---|
| Input Line Range | 24VDC \pm 10% |
| Output kV | 20 - 80 kV |
| Output mA | 0 - 1.0 mA |
| Output Power | 30 W continuous maximum |
| Safety and Regulatory Compliances | Designed to meet CE EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 198 mm x 125 mm x 70 mm Control unit: 176 mm x 125 mm x 39 mm |
| Weight | Generator: 7 kg Control unit: 1 kg |

X-Ray Tube

| | |
|------------------------------|-----------------------------|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 |
| Beam Port | Cone beam: 25° |

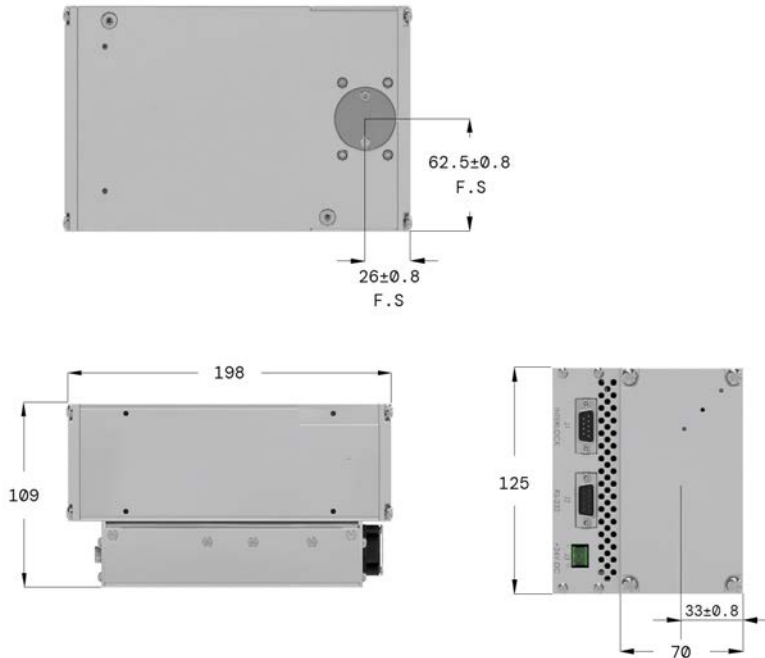
Operating Environment

| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-co ndensing |



Generator

Unit: mm



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when power is present |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over current fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over voltage fault |

J1: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|--------------------|
| 1 | Interlock 1 in |
| 2 | Interlock 1 in |
| 3 | Interlock 1 out |
| 4 | N/A |
| 5 | Interlock 2 in |
| 6 | Interlock 1 in |
| 7 | Interlock 1 out |
| 8 | Interlock 2 out |
| 9 | X-ray Enable (TBD) |

J2: RS232 Interface

| Pin Out | Name |
|---------|---------------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | External kV program |
| 7 | External mA program |
| 8 | External kV monitor |
| 9 | External mA monitor |

J3: Power Input

| L | G |
|---------------|--------|
| +24 VDC Input | Ground |

Graphical User Interface





IXS0808

80 kV, 80 W

Applications

- Food Inspection Systems
- Security Scanners
- Industrial NDT
- Product Quality Monitoring

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- Water Cooled Option for Improved Stability
- Compact and Robust
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|------------------|--|
| Input Line Range | 90–264 VAC, 50/60 Hz |
| Output kV | 20–80 kV |
| Output mA | 0.05 - 1.0 mA |
| Output Power | 80 W continuous maximum |
| Stability | kV: <0.01% per °C over the operational ambient temperature range |

| | |
|-----------------------------------|--|
| Safety and Regulatory Compliances | Designed to meet CE EN/UL61010-1 and EN61326-1 |
|-----------------------------------|--|

| | |
|------------|--|
| Dimensions | Generator: 273mm x 127mm x 192mm Control unit: 254mm x 134mm x 65mm |
|------------|--|

| | |
|--------|--|
| Weight | Generator: 11 Kg Control unit: 2 Kg |
|--------|--|

X-Ray Tube

| | |
|-----------------------|---|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 |
| Beam Port | Fan beam: 80° X 10° max Cone beam: 30° |

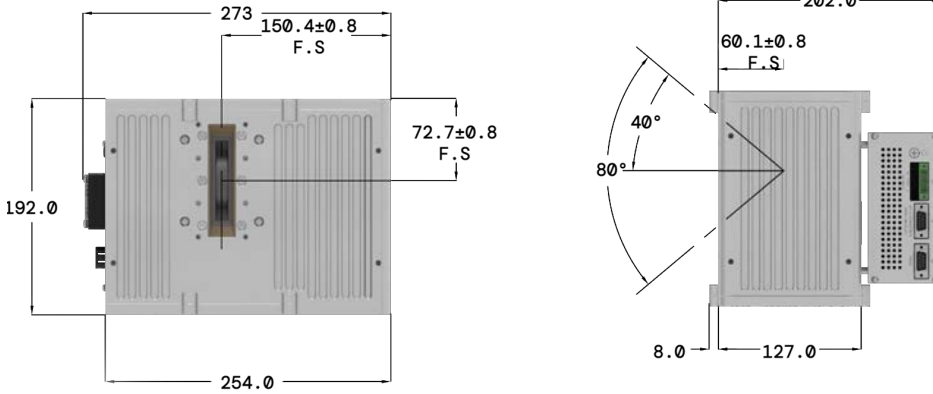
Operating Environment

| | |
|-----------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



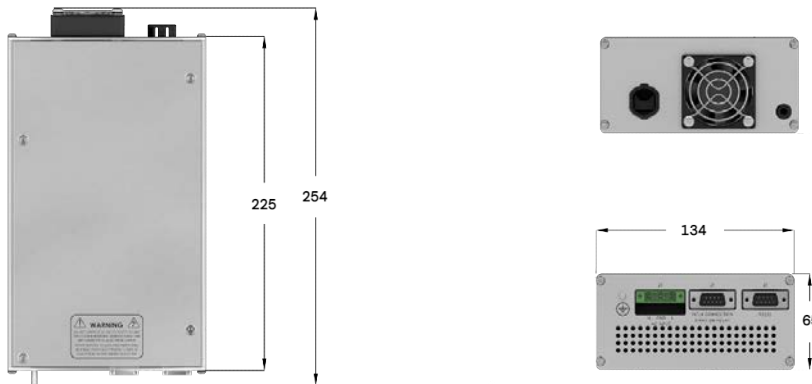
Generator

Unit: mm

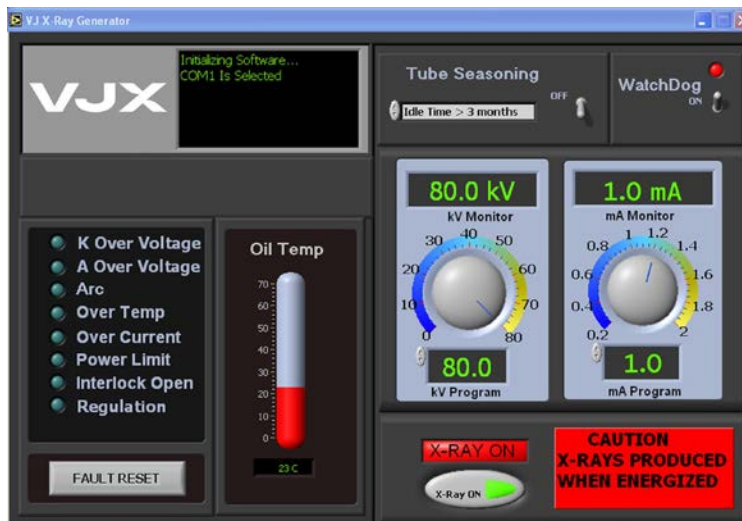


Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|----------|---|
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |
| OV | Over voltage fault |
| OP | Illuminated when selected power exceeds the rated power |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |

J1: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J2: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: AC Input

| | |
|-----|------------------|
| N | Neutral |
| GND | Ground |
| L | 90-264 VAC Input |



IXS0808 Mini-Focus

80 kV, 56 W

Applications

- Electronic Inspections
- Food & Pharmaceutical Safety Inspections
- Industrial

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- Wide Beam Angle
- High Resolution
- Compact and Robust
- Cone or Fan beam available for flat panel or line sensor detection
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|--|--|
| Input Line Range | 90–264 VAC, 50/60 Hz |
| Output Voltage | 20–80 kV |
| Output Current | 0.2 - 0.7 mA |
| Output Power | 56 W continuous maximum |
| Stability | kV: <0.01% per °C over the operational ambient temperature range |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 247mm x 187mm x 144mm Control unit: 254mm x 134mm x 65mm |
| Weight | Generator: 11 Kg Control unit: 2 Kg |

X-Ray Tube

| | |
|------------------------------|---|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 30-50 μ m |
| Beam Port | Fan beam: 80° X 10° max Cone beam: 30° |

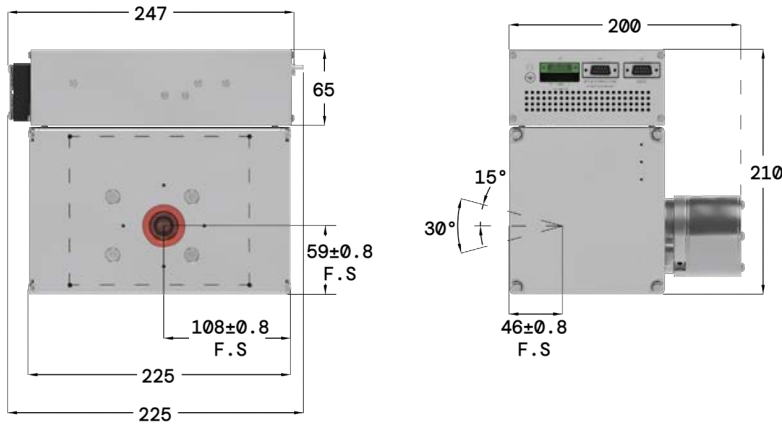
Operating Environment

| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



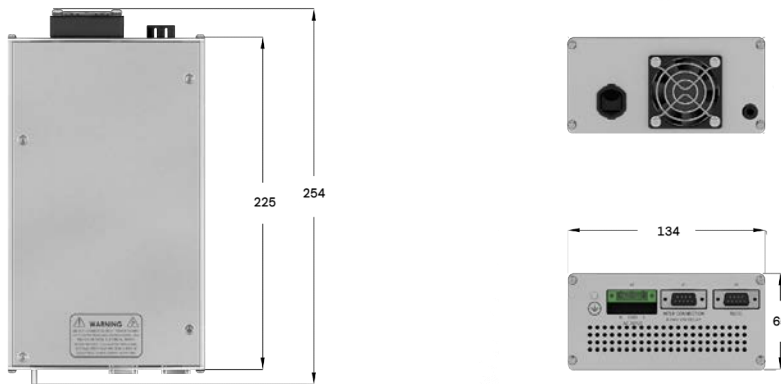
Generator

Unit: mm



Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|----------|---|
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |
| OV | Over voltage fault |
| OP | Illuminated when selected power exceeds the rated power |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |

J1: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J2: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: AC Input

| | |
|---|------------------|
| N | Neutral |
| G | Ground |
| L | 90-264 VAC Input |



IXS0810

Applications

- Industrial CT
- Electronic Inspection
- Veterinary Imaging

Key Features

- Integrated high voltage power supply, X-ray tube, and control electronics
- Small focal spot size with high output power
- DC input power

Specifications

Input Line Range 48 VDC \pm 2%, 2.5 Amps

Output kV 30-80 kV

Output mA 0.2-1.25 mA

Output Power 100 W

Safety and Regulatory Compliances Designed to meet CE, EN/UL61010-1 and EN61326-1.

Dimensions Generator: 125 mm x 75 mm x 168 mm
Control unit: 80 mm x 173 mm x 38.5 mm

Weight Generator: 11 kg
Control unit: 2 kg

X-Ray Tube

X-ray Tube Type Glass

X-ray Focal Spot Size 100-200 μ m

Beam Port Cone beam: 40°

Operating Environment

Operating Temperature 5°C to 40°C

Storage Temperature -20°C to 85°C

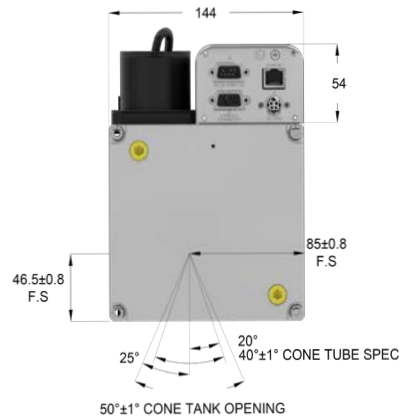
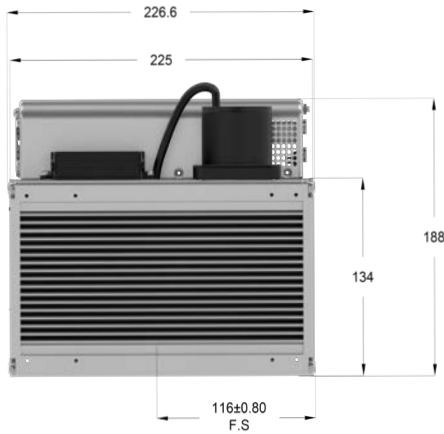
Thermal Cut Off 60°C \pm 3°C of oil temperature

Humidity 98% non-condensing



Generator & Control Unit

Unit: mm



J2: Interlock

| Pin Out | Name |
|---------|----------------------------|
| 1 | Interlock Out |
| 2 | Interlock In |
| 3 | X-Ray On Relay Common |
| 4 | X-Ray On Relay Contact N/C |
| 5 | X-Ray On Relay Contact N/O |
| 6 | X-Ray Prewarning |
| 7 | X-Ray Prewarning Return |
| 8 | N/A |
| 9 | N/A |

J3 Connector: RS232 Interface

| Pin Out | Name |
|---------|------|
| 1 | N/A |
| 2 | TX- |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

RJ45: Ethernet Digital Interface

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | GROUND |
| 8 | GROUND |

J4 Connector: DC Input

| Pn in | Name |
|-------|--------------------|
| 1 | +48VDC, 3.5A Input |
| 2 | 48VDC HV Return |
| 3 | N/A |
| 4 | N/A |

Graphical User Interface





IXS0835 Beryllium Window

80 kV, 350W

Applications

- Food Inspection
- Industrial NDT

Key Features

- Integrated High Voltage Generator, X-ray tube with Be-window and Control Electronics
- Low absorption and good resolution, perfect for soft X-ray applications
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|-----------------------------------|--|
| Input Line Range | 220 VAC \pm 10%, 50/60 Hz |
| Output kV | 30 - 80 kV |
| Output mA | 0.2 - 8.0 mA |
| Output Power | 350 W continuous maximum |
| Safety and Regulatory Compliances | Designed to meet CE EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 420mm x 143mm x 393mm Control unit: 264mm x 247mm x 70mm |
| Weight | Generator: 23 kg Control unit: 3 kg |

X-Ray Tube

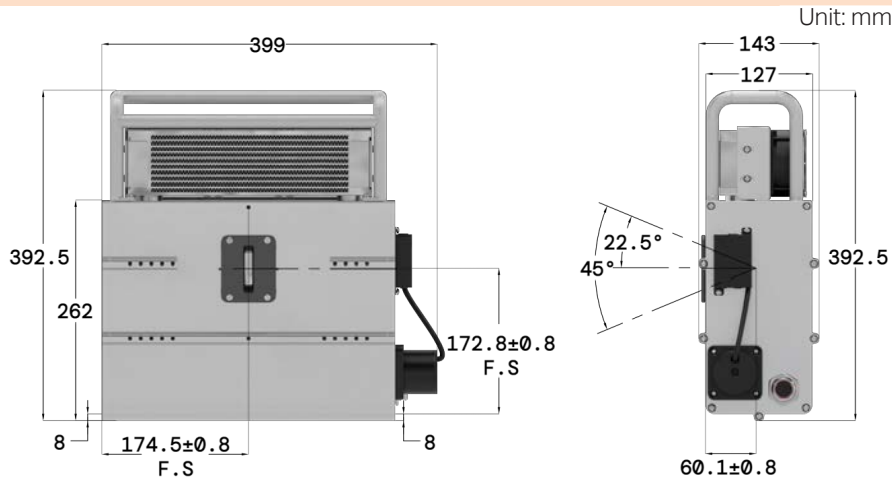
| | |
|-----------------------|------------------------------------|
| X-ray Tube Type | Glass with Be-Window |
| Inherent Filtration | 1.6mm Be |
| X-ray Focal Spot Size | 0.5 or 0.8 nominal as per IEC60336 |
| Beam Port | Fan beam: 45° |

Operating Environment

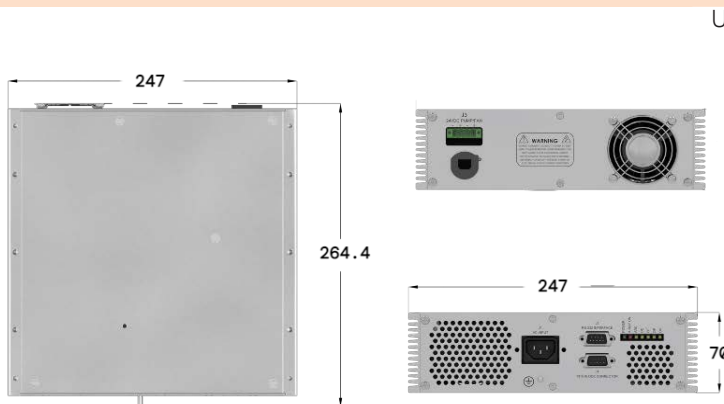
| | |
|-----------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator



Control Unit



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when Power is present |
| X-Ray On | Illuminated when Interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over Current Fault |
| OT | Illuminated when oil temperature exceeds 60±3°C |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over Voltage fault |

J1: AC Input

| | |
|------------|--------------------|
| N | Neutral |
| GND | Ground |
| L | 220 VAC ±10% Input |

J2: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: 24 VDC Pump/Fan

| | |
|---|---------|
| + | +24 VDC |
| - | Return |
| + | +24 VDC |
| - | Return |

J4: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



IXS0850

80 kV, 500 W

Applications

- Food Inspection
- Industrial NDT

Key Features

- Integrated High Voltage Generator, Metal Ceramic X-ray tube, and Control Electronics
- Robust Configuration with Metal Ceramic tube for High Power and Performance
- Radiation Shielded
- User Friendly RS232 and Ethernet Digital Interface

Specifications

| | |
|--|---|
| Input Line Range | 220 VAC \pm 10%, 50/60 Hz |
| Output kV | 30 - 80 kV |
| Output mA | 1.0 - 12.5mA |
| Output Power | 500 W continuous maximum (Up to 1 kW available upon request) |
| Safety and Regulatory Compliances | Designed to meet CE EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 384mm x 316mm x 160mm Control unit: 264mm x 247mm x 70 mm |
| Weight | Generator: 23 kg Control unit: 3 kg |

X-Ray Tube

| | |
|------------------------------|---|
| X-ray Tube Type | Be-Window Metal Ceramic |
| Inherent Filtration | 2.0mm Be |
| X-ray Focal Spot Size | 1.2 mm as per EN12543 (<0.5 nominal IEC60336) |
| Beam Port | Fan beam: 90° |

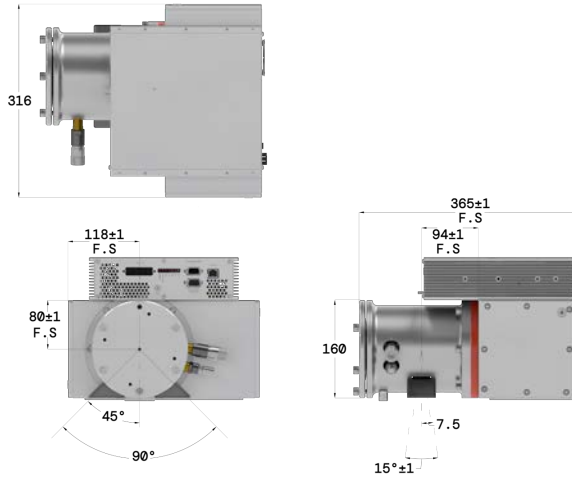
Operating Environment

| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



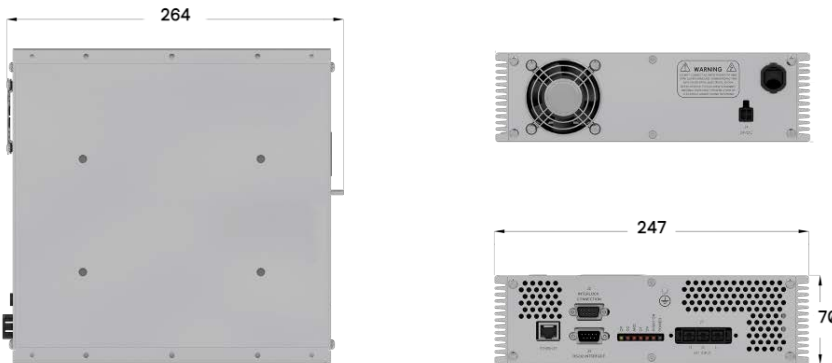
Generator

Unit: mm



Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when Power is present |
| X-RAY ON | Illuminated when Interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over Current Fault |
| OT | Illuminated when oil temperature exceeds 60±3°C |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over Voltage fault |

J1: AC Input

| | |
|----------|--------------------|
| N | Neutral |
| G | Ground |
| L | 220 VAC ±10% Input |

J2: Interlock (9 Pin Male)

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: RS232 (9 Pin Female)

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX-(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4: 24VDC

| Pin Out | Name |
|---------|---------------------------------|
| 1 | N/A |
| 2 | +24VDC Gnd |
| 3 | +24VDC@1.5A for Control Circuit |
| 4 | 24VDC Return for Control |



IXS1010

100 kV, 100 W

Applications

- Thickness Gauging
- X-ray Analysis

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- High Stability
- Form Factor Designed Specifically for Thickness Gauging
- Radiation Shielded
- User Friendly RS232 Digital Interface
- 24 VDC Input

Specifications

| | |
|--|---|
| Input Line Range | 24 VDC \pm 10% |
| Output kV | 30 - 100 kV |
| Output mA | 0.05 - 2.0 mA |
| Output Power | 100 W (Continuous) |
| kV Stability | 0.01% per $^{\circ}$ C over the operational ambient temperature range; 0.1% in 8 hours after 40 min warm up |
| Safety and Regulatory Compliances | Designed to meet CE EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 349mm x 156mm x 172mm |
| Weight | Generator: \sim 15 kg |

X-Ray Tube

| | |
|------------------------------|-----------------------------|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 |
| Beam Port | Cone beam: 40 $^{\circ}$ |

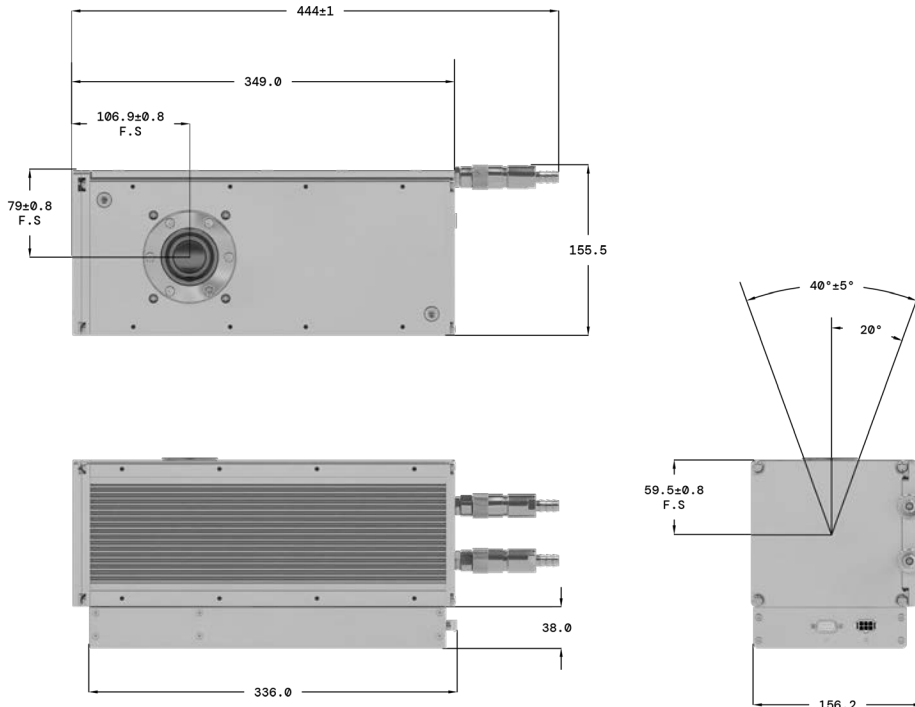
Operating Environment

| | |
|------------------------------|---|
| Operating Temperature | 5 $^{\circ}$ C to 40 $^{\circ}$ C |
| Storage Temperature | -20 $^{\circ}$ C to 85 $^{\circ}$ C |
| Thermal Cut Off | 60 $^{\circ}$ C \pm 3 $^{\circ}$ C of oil temperature |
| Humidity | 98% non-condensing |



Generator & Control Box

Unit: mm



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when Power is present |
| X-Ray On | Illuminated when Interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over Current Fault |
| OT | Illuminated when oil temperature exceeds 60±3°C |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over Voltage fault |

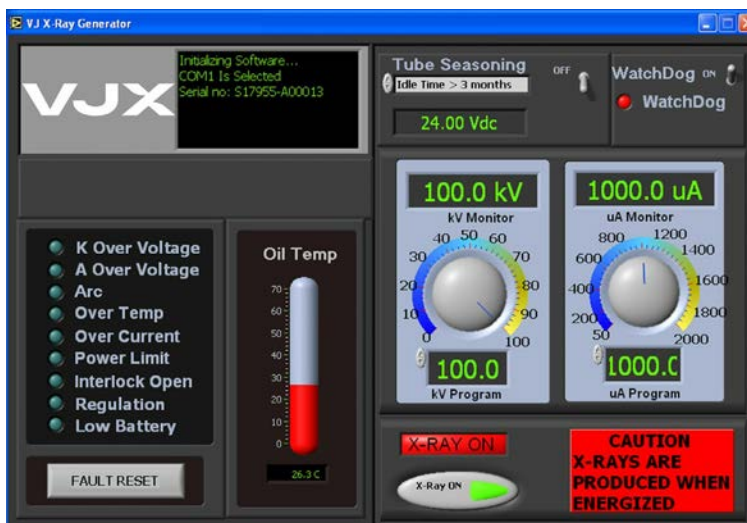
J1 Connector: (RS232 9 Pin Female)

| Pin Out | Name |
|---------|------------------------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX-(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A (or External kV Program) |
| 7 | N/A (or External mA Program) |
| 8 | N/A (or External kV Monitor) |
| 9 | N/A (or External mA Monitor) |

J2 Connector

| Pin Out | Name |
|---------|--------------------------------|
| 1 | +24VDC Input |
| 2 | +24VDC Input Return |
| 3 | Power Interlock Out |
| 4 | Power Interlock In |
| 5 | X-Ray On Lamp(24VDC,0.2A max.) |
| 6 | X-Ray On Lamp Return |

Graphical User Interface





IXS1015

100 kV, 150 W

Applications

- Food Inspection Systems
- Security Scanners
- Industrial NDT
- Product Quality

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- High Stability
- Compact and Robust
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|--|--|
| Input Line Range | 90–264 VAC, 50/60 Hz |
| Output kV | 30–100 kV |
| Output mA | 0.05–6.0 mA |
| Output Power | 150 W continuous maximum |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 254mm x 143mm x 210mm Control unit: 254mm x 134mm x 65mm |
| Weight | Generator: 14 Kg Control unit: 2 Kg |

X-Ray Tube - Control Unit

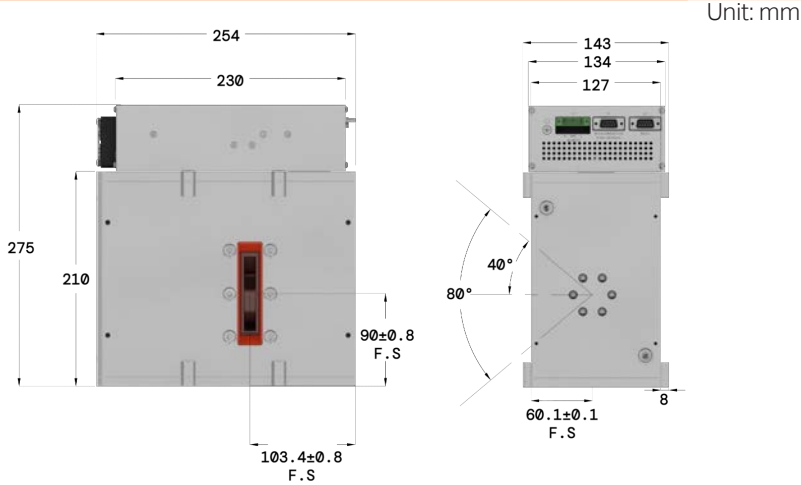
| | |
|------------------------------|---|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 0.5 available upon request |
| Beam Port | Fan beam: 80° X 10° max Cone beam: 30° |

Operating Environment

| | |
|------------------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |

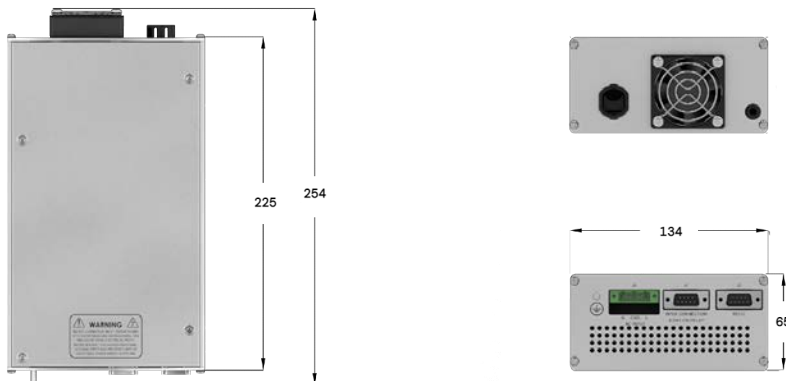


Generator



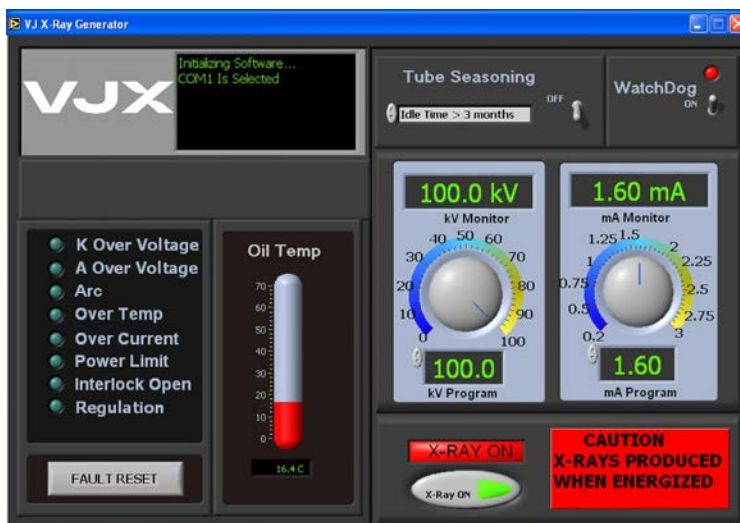
Unit: mm

Control Unit



Unit: mm

Graphical User Interface



LED Indicators

| | |
|----------|---|
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |
| OV | Over voltage fault |
| OP | Illuminated when selected power exceeds the rated power |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |

J1: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J2: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: AC Input

| | |
|-----|------------------|
| N | Neutral |
| GND | Ground |
| L | 90-264 VAC Input |



IXS1020

100 kV, 200 W

Applications

- Thickness Gauging
- X-ray Analysis
- Industrial NDT
- Security Scanners

Key Features

- Integrated High Voltage Generator, X-ray Tube, Control Electronics and Liquid to Liquid Heat Exchanger
- High Stability
- Compact and Robust
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|-------------------------|--|
| Input Line Range | 90–264 VAC, 50/60 Hz |
| Output kV | 25–100 kV |
| Output mA | 0.05–8.0 mA |
| Output Power | 200 W continuous maximum |
| Stability | kV: <0.01% per °C over the operational ambient temperature range |

| | |
|--|--|
| Safety and Regulatory Compliances | Designed to meet CE EN/UL61010-1 and EN61326-1 |
|--|--|

| | |
|-------------------|--|
| Dimensions | Generator: 254mm x 143mm x 210mm Control unit: 254mm x 134mm x 65mm |
|-------------------|--|

| | |
|---------------|--|
| Weight | Generator: 14 Kg Control unit: 2 Kg |
|---------------|--|

X-Ray Tube

| | |
|------------------------------|---|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 0.5 available upon request |
| Beam Port | Fan beam: 80° X 10° max - Cone beam: 30° |

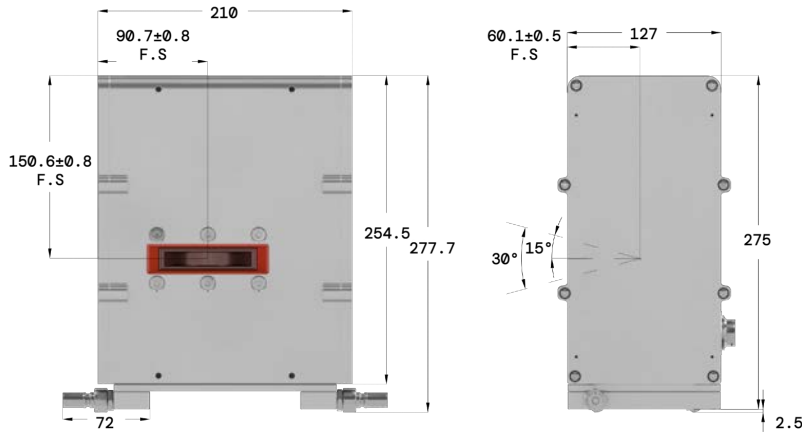
Operating Environment

| | |
|------------------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



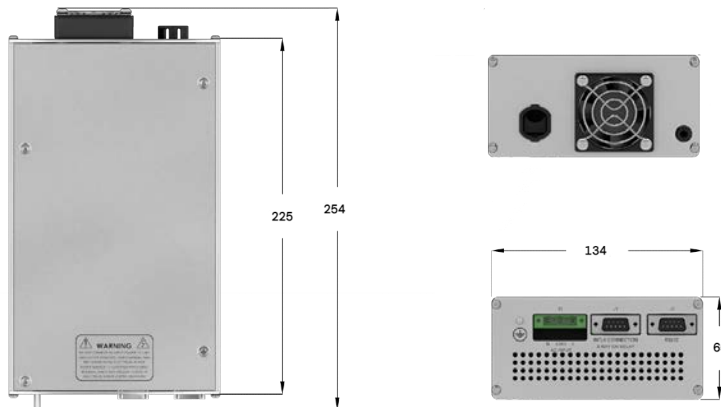
Generator

Unit: mm



Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |
| OV | Over voltage fault |
| OP | Illuminated when selected power exceeds the rated power |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |

J1: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J2: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: AC Input

| | |
|-----|------------------|
| N | Neutral |
| GND | Ground |
| L | 90-264 VAC Input |



IXS1050

100 kV, 500 W

Applications

- Dental CT
- Panoramic Dental
- Medical Research

Key Features

- Ideal for panoramic dental and CBCT applications
- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|--|---|
| Input Line Range | 220 VAC \pm 10%, 50/60 Hz |
| Output kV | 40 - 100 kV |
| Output mA | 2.0 - 10.0 mA |
| Output Power | 150 W continuous maximum 500W peak power up to 1 kW peak also available |
| Stability | kV: \pm 1.0% - mA: \pm 1.0% |
| Safety and Regulatory Compliances | Designed to meet CE, EN60601-1-3,CFDA, EN60601-1, EN60601-2-2, EN60601-1- 3 EN60601-2-7, EN60601-2-63 |
| Dimensions | Generator: 254mm x 192mm x 143mm Control unit: 264mm x 247mm x 70mm |
| Weight | Generator: 12 kg- Control unit: 3 kg |

X-Ray Tube

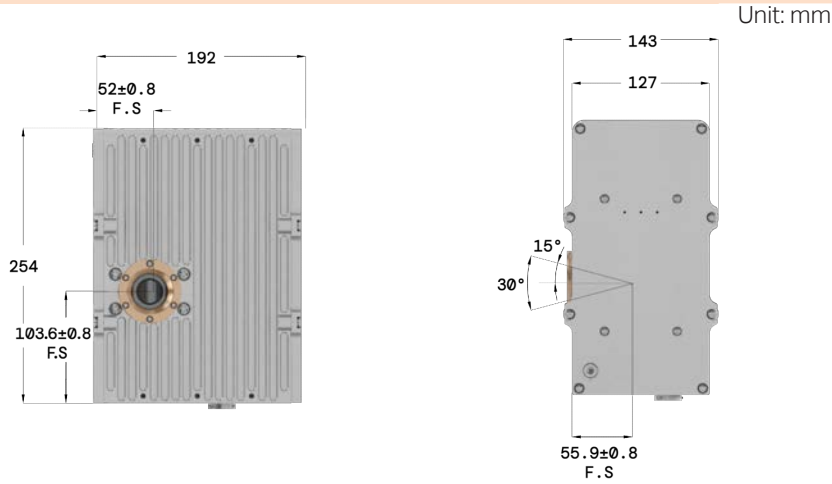
| | |
|------------------------------|--|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.4 nominal as per IEC60336 (Option for 0.2 FS with Limited Power) |
| Beam Port | Cone beam: 30° |

Operating Environment

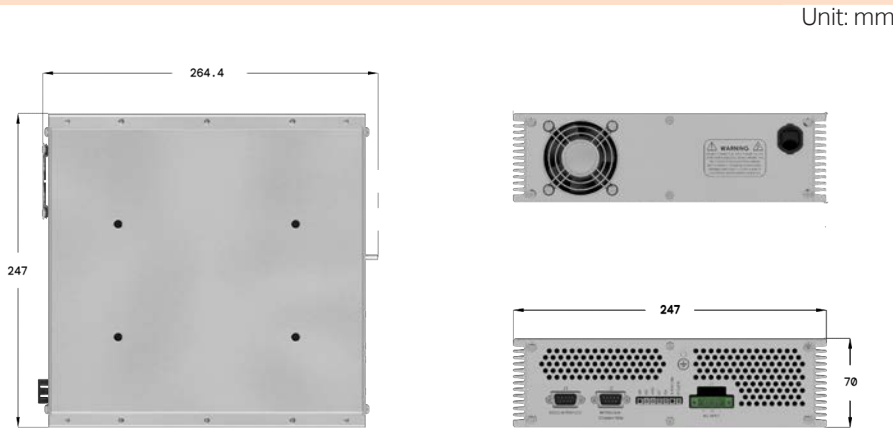
| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 80°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



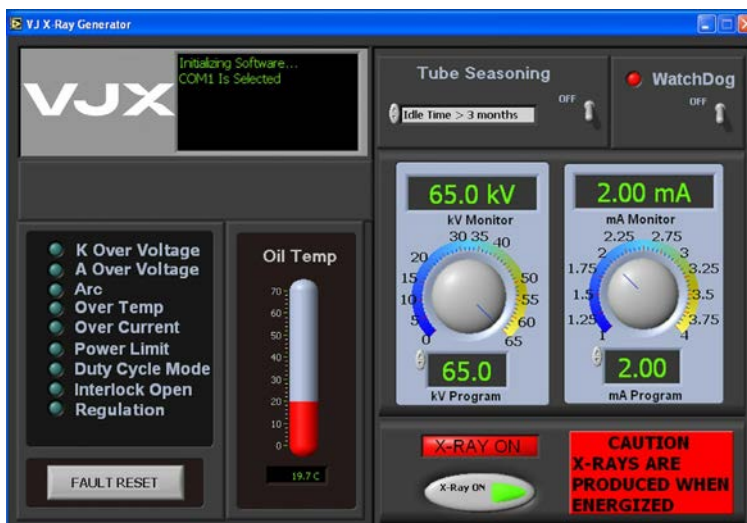
Generator



Control Unit



Graphical User Interface



LED Indicators

| | |
|----------|--|
| OP | Over Power fault |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60±3°C. |
| OV | Over voltage fault |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |

J1: AC Input

| | |
|-----|--------------------|
| N | Neutral |
| GND | Ground |
| L | 220 VAC ±10% Input |

J2: Interlock

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock In |
| 3 | X-ray on relay contact common |
| 4 | X-ray on relay contact N/C |
| 5 | X-ray on Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



IXS101k Pulsing

100 kV, 1 kW

Applications

- Dental X-Ray
- Panoramic and CT
- Medical Research

Key Features

- Ideal for panoramic dental and CBCT applications
- Pulsing and continuously operated integrated source
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|--|---|
| Input Line Range | 180 - 264 VAC \pm 10%, 50/60 Hz |
| Output kV | 60 - 100 kV |
| Output mA | 2.0 - 10.0 mA |
| Output Power | 1 kW Peak, 60 - 100 kV, 10 mA Continuous (Panoramic): 1kW, 20 sec. maximum exposure with duty cycle 10% or less Pulsing (CT): 1kW, 25 sec., Exposure Frame rate: up to 40 FPS |
| Stability | kV: \pm 0.5% - mA: \pm 0.5% |
| Safety and Regulatory Compliances | Designed to meet CE, EN60601-1-3, CFDA, EN60601-1, EN60601-1-2, EN60601-1-3, EN60601-2-7, EN60601-2-63, CSA |
| Dimensions | Tank: 274.1mm x 226mm x 114mm Control unit: 229mm x 64.5mm x 263.4mm |
| Weight | Generator: 7.5 kg - Control unit: 3 kg |

X-Ray Tube

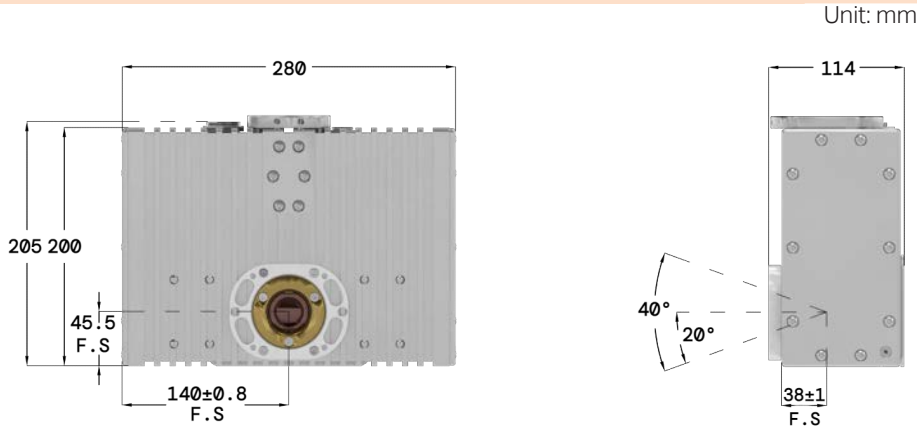
| | |
|------------------------------|----------------------------------|
| Target Material | Tungsten |
| Target Angle | 5 ° |
| X-ray Focal Spot Size | 0.5 nominal as per IEC60336-2005 |
| Beam Port | Cone beam: 40° |

Operating Environment

| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 80°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator



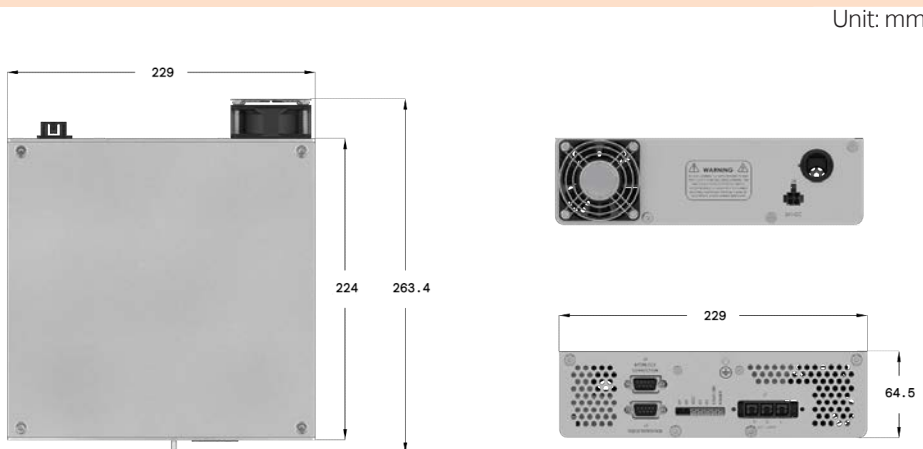
LED Indicators

| | |
|----------|--|
| OP | Over Power fault |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60±3°C. |
| OV | Over voltage fault |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |

J1: AC Input

| | |
|-----|---------------|
| N | Neutral |
| GND | Ground |
| L | 180 - 264 VAC |

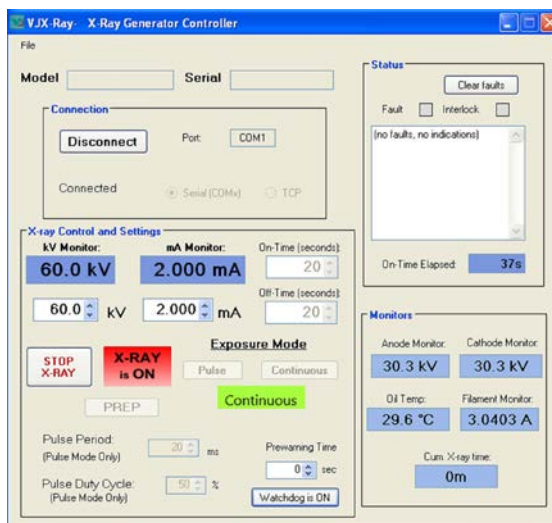
Control Unit



J2: Interlock

| Pin Out | Name |
|---------|--------------------------------|
| 1 | Interlock out |
| 2 | Interlock In |
| 3 | X-ray on relay common (SSR) |
| 4 | N/A |
| 5 | X-ray on Relay (SSR) N/O |
| 6 | X-ray Pre-Warning Common (SSR) |
| 7 | X-ray Pre-Warning (SSR) N/O |
| 8 | Signal Ground |
| 9 | Ext X-ray Enable (+24V) |

Graphical User Interface



J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4 Connector

| Pin Out | Name |
|---------|--------------|
| 1 | +24VDC @ 2A |
| 2 | 24VDC Return |



IXS1203 Mini-Focus

120 kV, 36 W

Applications

- Electronic Inspections
- Food & Pharmaceutical Safety Inspections
- Industrial CT

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- High Resolution
- Compact and Robust
- Cone or Fan beam available for flat panel or line sensor detection
- Radiation Shielded
- User Friendly RS232 and Ethernet Digital Interface

Specifications

| | |
|-----------------------------------|--|
| Input Line Range | 110-220 VAC±10%, 50/60 Hz |
| Output Voltage | 40–120 kV |
| Output Current | 0.05 - 0.3 mA |
| Output Power | 36 W continuous maximum |
| Stability | kV: <0.01% per °C over the operational ambient temperature range |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 408mm x 143mm x 393mm Control unit: 264mm x 247mm x 70mm |
| Weight | Generator: 23 kg Control unit: 3 kg |

X-Ray Tube

| | |
|-----------------------|--|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | .07 Nominal Per IEC60336 |
| Beam Port | Fan beam: 80° X 10° max Cone beam: 30°, 40° |

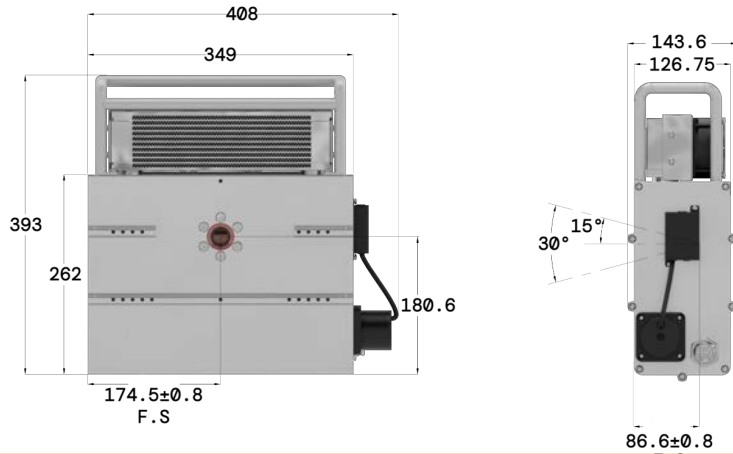
Operating Environment

| | |
|-----------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



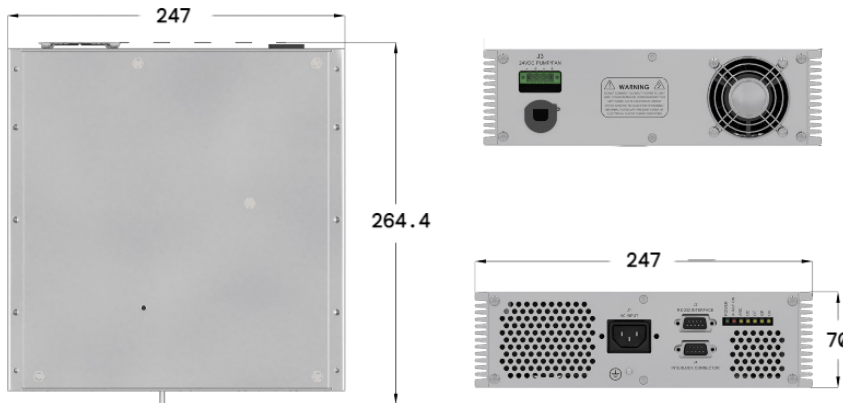
Generator

Unit: mm



Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |
| OV | Over voltage fault |
| OP | Illuminated when selected power exceeds the rated power |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |

J1: AC Input

| | |
|------------|-----------------------|
| N | Neutral |
| GND | Ground |
| L | 110-220 VAC±10% Input |

J2: RS232 Interface

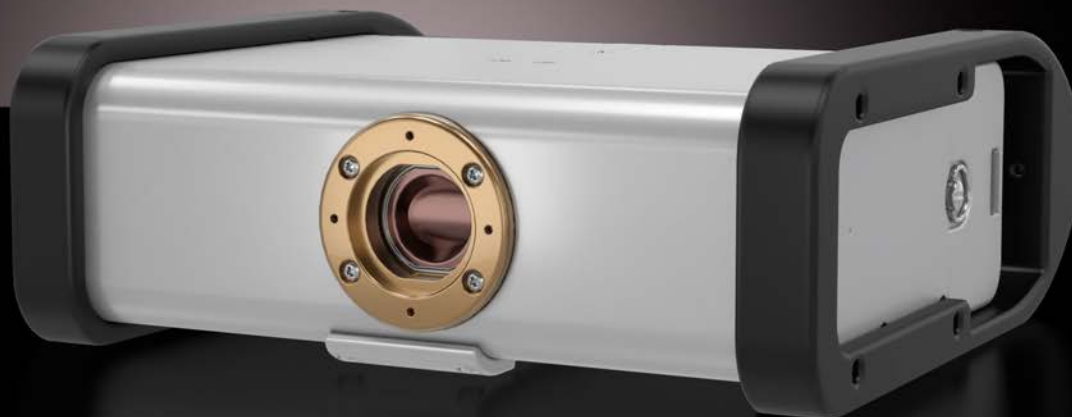
| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: 24 VDC Pump/Fan

| | |
|---|---------|
| + | +24 VDC |
| - | Return |
| + | +24 VDC |
| - | Return |

J4: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



IXS1212 Portable

120 kV, 120 W

Applications

- EOD for Military and Law Enforcement
- NDT Field Inspection
- Security
- General X-ray Operations

Key Features

- Battery Operated
- Integrated High Voltage Generator, X-ray Tube, Control Electronics, and Exchangeable Lithium Battery Pack
- Radiation Shielded
- Wifi, and Ethernet or RS232
- Accessories: Tripod Mount, Protective Cover, and Carrying Handle

Specifications

| | |
|--|--|
| Input Line Range | 24V LiFeO4 Battery Pack or 24VDC ± 10% (External Supply) |
| Output kV | 30–120 kV |
| Output mA | 0.2–1.0 mA |
| Battery Power | Continuous: 14min @120W (Based on new fully charged battery) Pulsing: 21min, 15sec. On/15sec. Off |
| Battery Charging Time | 2 hours from low line (21V) |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 261mm x 96mm x 245mm |
| Weight | 6.6 kg (Includes battery) |

X-Ray Tube

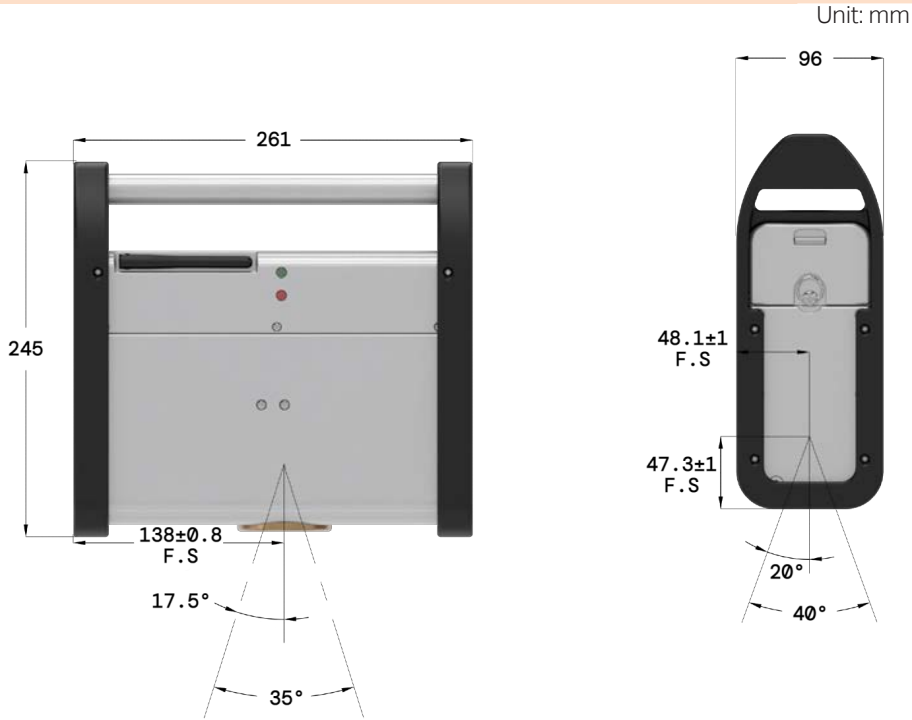
| | |
|------------------------------|------------------------------|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.5 nominal as per IEC60336 |
| Beam Port | Cone beam: 35°; Fan beam 60° |

Operating Environment

| | |
|------------------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -30°C to 80°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator

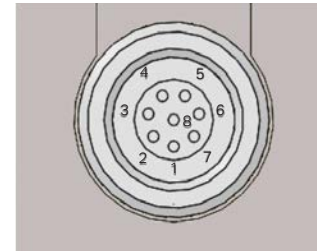


Connectors



| | |
|----|------------------------------------|
| J1 | Safety Key Lock |
| J2 | RJ45 Connector (Ethernet or RS232) |
| J3 | Input Power and Battery Charger |

Input Power Connector



| Pin Out | Name |
|---------|---------------------------------|
| 1 & 6 | 24VDC Return |
| 2 & 3 | 24VDC/12A External Power Supply |
| 4 | 24VDC Battery Charger |
| 5 | Battery Charger Return |
| 7 | Interlock Out |
| 8 | Interlock In |

Graphical User Interface



Accessories



| Item | Part Number | Description |
|------|-------------|--|
| 1 | AS3001-319M | Battery pack (inc. 24V LiFeO4 battery) |
| 2 | AS3001-320M | Charging Station |
| 3 | DS3000-041M | Protective Cover and Handle |
| 4 | DB3000-122M | Tripod Mount |
| 5 | DS3000-106 | Laser Alignment Guide |
| 6 | JP3000-019 | Transport Case |



IXS1515 Portable

150 kV, 150 W

Applications

- EOD for Military and Law Enforcement
- Security
- General X-ray Operations
- NDT Field Inspection

Key Features

- Battery Operated
- Integrated High Voltage Generator, X-ray Tube, Control Electronics, and Exchangeable Lithium Battery Pack
- Radiation Shielded
- Wifi, and Ethernet or RS232
- Accessories: Tripod Mount, Protective Cover, and Carrying Handle

Specifications

| | |
|-------------------------|--|
| Input Line Range | 24V LiFeO4 Battery Pack or 24VDC \pm 10% (External Supply) |
| Output kV | 30–150 kV |
| Output mA | 0.2–1.0 mA |
| Battery Power | Continuous: 14min @150W (Based on new fully charged battery) Pulsing: 21min, 15sec. On/15sec. Off |

| | |
|------------------------------|-----------------------------|
| Battery Charging Time | 2 hours from low line (21V) |
|------------------------------|-----------------------------|

| | |
|--|---|
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
|--|---|

| | |
|-------------------|---------------------------------|
| Dimensions | Generator: 261mm x 96mm x 245mm |
|-------------------|---------------------------------|

| | |
|---------------|---------------------------|
| Weight | 6.6 kg (Includes battery) |
|---------------|---------------------------|

X-Ray Tube

| | |
|------------------------------|------------------------------|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.5 nominal as per IEC60336 |
| Beam Port | Cone beam: 35°; Fan beam 60° |

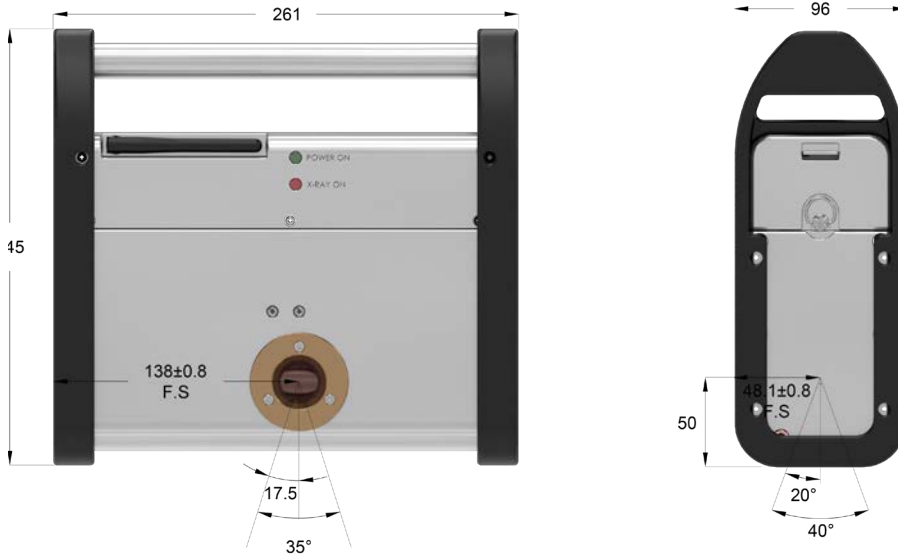
Operating Environment

| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -30°C to 80°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator

Unit: mm

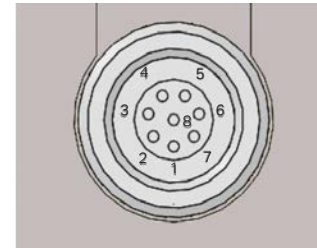


Connectors



| | |
|----|------------------------------------|
| J1 | Safety Key Lock |
| J2 | RJ45 Connector (Ethernet or RS232) |
| J3 | Input Power and Battery Charger |

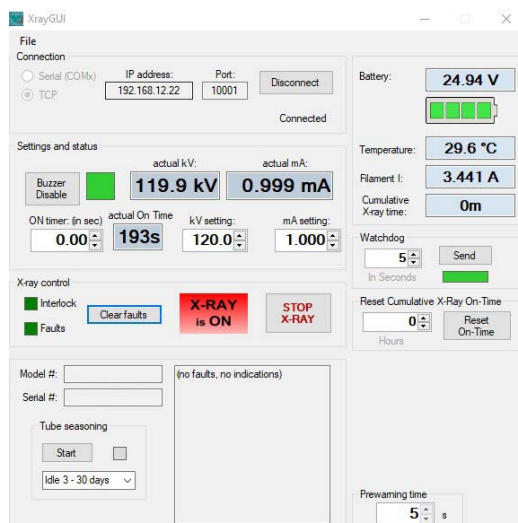
Input Power Connector



| Pin Out | Name |
|---------|---------------------------------|
| 1 & 6 | 24VDC Return |
| 2 & 3 | 24VDC/12A External Power Supply |
| 4 | 24VDC Battery Charger |
| 5 | 24VDC Return |
| 7 | Interlock Out |
| 8 | Interlock In |

Accessories

Graphical User Interface



| Item | Part Number | Description |
|------|-------------|--|
| 1 | AS3001-319M | Battery pack (inc. 24V LiFeO4 battery) |
| 2 | AS3001-320M | Charging Station |
| 3 | DS3000-041M | Protective Cover and Handle |
| 4 | DB3000-122M | Tripod Mount |
| 5 | DS3000-106 | Laser Alignment Guide |
| 6 | JP3000-019 | Transport Case |



IXS1620

160 kV, 200 W

Applications

- Medical Imaging
- Security Inspections
- Industrial NDT
- Food Inspection
- Quality

Key Features

- Integrated High Voltage Generator, X-ray Tube, and Control Electronics
- Compact and Robust
- Wide Beam Angle
- Fast Rise time
- Radiation Shielded
- User Friendly RS232 Digital Interface

Specifications

| | |
|------------------|---------------------------|
| Input Line Range | 110-220 VAC±10%, 50/60 Hz |
| Output kV | 30 - 160 kV |
| Output mA | 0.2 - 8.0 mA |
| Output Power | 200 W continuous |

Safety and Regulatory Compliances Designed to meet CE, EN/UL61010-1 and EN61326-1

Dimensions Generator: 409mm x 143mm x 385mm
Control unit: 264mm x 247mm x 70mm
(Smaller control unit for models ≤100kV)

Weight Generator: 23 Kg
Control unit: 3 Kg

X-Ray Tube

| | |
|-----------------------|---|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 0.5 available upon request |
| Beam Port | Fan beam: 80° X 10° Cone beam: 30°, 40° |

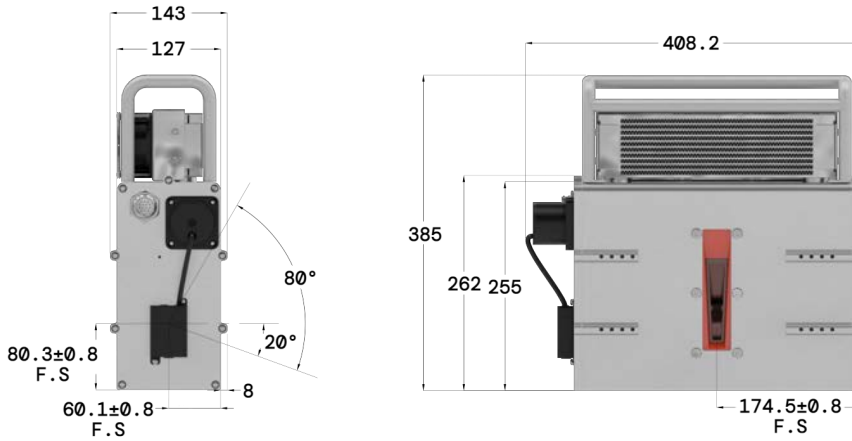
Operating Environment

| | |
|-----------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



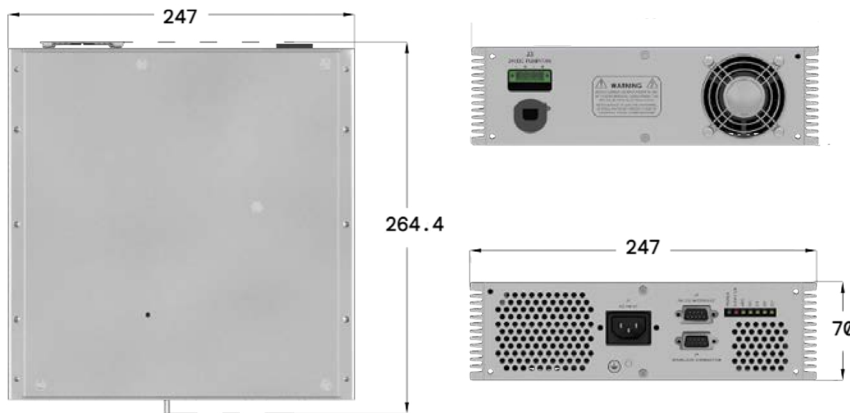
Generator

Unit: mm



Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when power is present |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over current fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over voltage fault |

J1: AC Input

| | |
|------------|-------------------------|
| N | Neutral |
| GND | Ground |
| L | 110-220 VAC ± 10% Input |

J2: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: 24 VDC Pump/Fan

| Pin Out | Name |
|---------|---------|
| + | +24 VDC |
| - | Return |
| + | +24 VDC |
| - | Return |

J4: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



IXS1650

160 kV, 500 W

Applications

- Industrial NDT
- Security Scanners
- Medical Research
- Product Quality Monitoring

Key Features

- Ideal Alternative to Conventional High Voltage Generator and X-ray Tube Setup
- Integrated High Voltage Generator, X-ray Tube, Control Electronics, and Heat Radiator
- Radiation Shielded
- Cone or Fan beam available for flat panel or line sensor detection
- User Friendly RS232 Digital Interface

Specifications

| | | |
|--|---|-----------------------|
| Input Line Range | 220 VAC \pm 10%, 50/60 Hz | |
| Output kV | 30–160 kV | |
| Output mA | 0.2 – 8.0 mA | |
| Output Power | 500 W continuous maximum | |
| Cooling | Air Cooled or liquid Cooled (Several heat exchanger options available) | |
| Radiation shield | Less than 0.5 mR/hr at 5 cm from the surface of the chassis as per FDA 21 CFR 1020.40 | |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 | |
| Dimensions | Generator | 419mm x 143mm x 393mm |
| | Control unit | 264mm x 247mm x 70mm |
| Weight | Generator | 23 Kg |
| | Control unit | 3 Kg |

X-Ray Tube

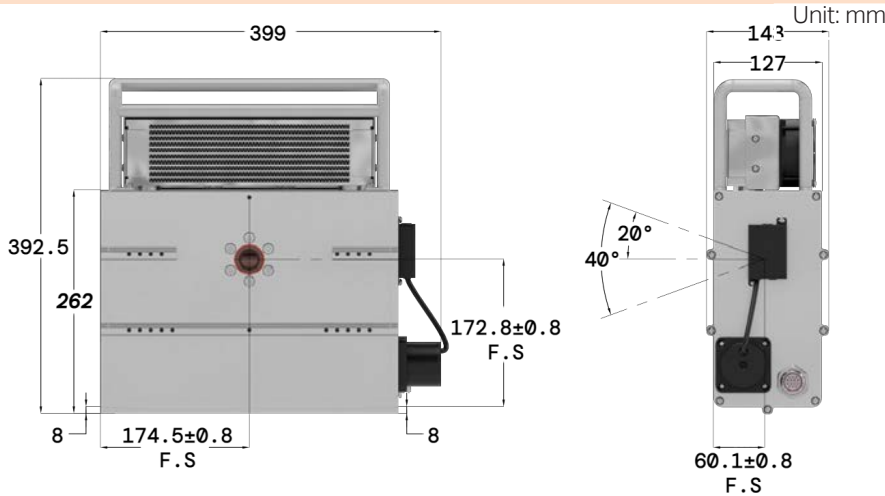
| | |
|------------------------------|---|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 0.5 available upon request |
| Beam Port | Fan beam: 80° X 10° Cone beam: 30°, 40° |

Operating Environment

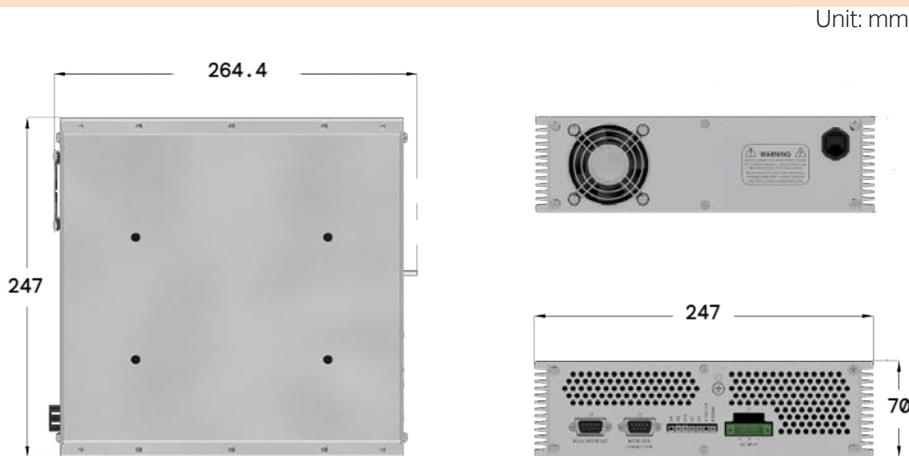
| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator



Control Unit



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when power is present |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over current fault |
| OT | Illuminated when oil temperature exceeds $60^{\circ}\text{C} \pm 3^{\circ}\text{C}$ |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over voltage fault |

J1: AC Input

| | |
|------------|--------------------------|
| N | Neutral |
| GND | Ground |
| L | 220 VAC $\pm 10\%$ Input |

J2: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



IXS1680

160 kV, 800 W

Applications

- Industrial NDT
- Sorting
- Food Inspection
- Security Scanners
- Medical Research

Key Features

- Ideal Alternative to Conventional High Voltage Generator and X-ray Tube Setup
- Integrated High Voltage Generator, X-ray Tube, Control Electronics, and Heat Radiator
- Radiation Shielded
- Cone or Fan beam available for flat panel or line sensor detection
- User Friendly RS232 Digital Interface
- Ethernet & Wifi (optional)

Specifications

| | |
|-----------------------------------|--|
| Input Line Range | 220 VAC ±10%, 50/60 Hz |
| Output kV | 40–160 kV |
| Output mA | 0.5–10.0 mA |
| Output Power | 800 W continuous maximum |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 408mm x 143mm x 419mm Control unit: 264mm x 247mm x 70mm |
| Weight | Generator: 23 Kg Control unit: 3 Kg |

X-Ray Tube

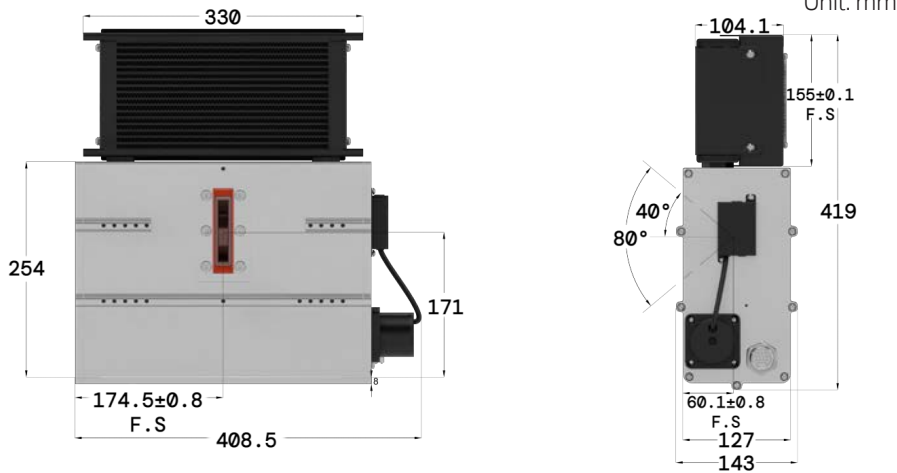
| | |
|-----------------------|--|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 1.2 nominal as per IEC60336 |
| Beam Port | Fan beam: 80° X 10° Cone beam: 30°, 40° |

Operating Environment

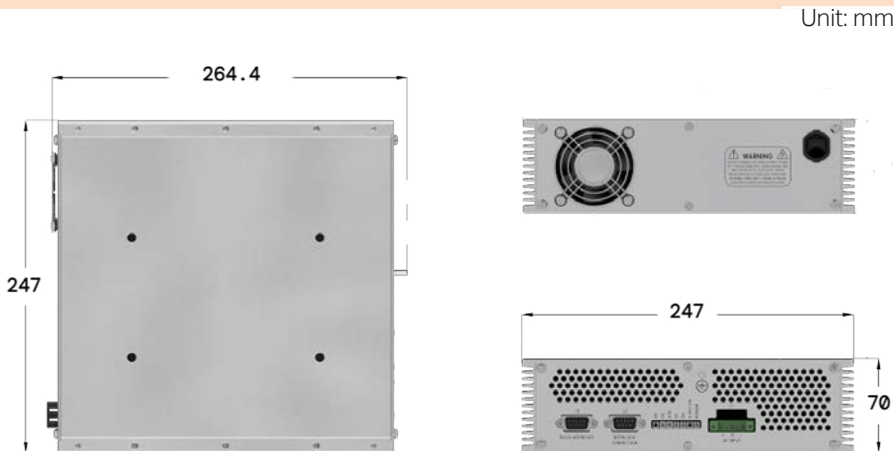
| | |
|-----------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



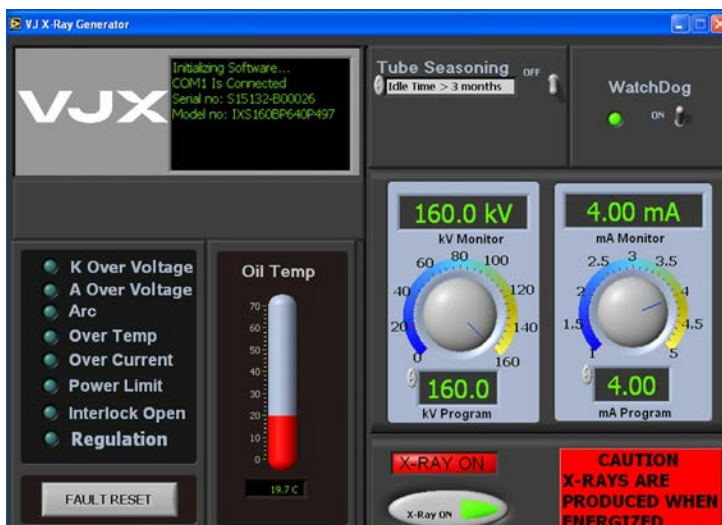
Generator



Control Unit



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when power is present |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over current fault |
| OT | Illuminated when oil temperature exceeds $60^{\circ}\text{C} \pm 3^{\circ}\text{C}$ |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over voltage fault |

J1: AC Input

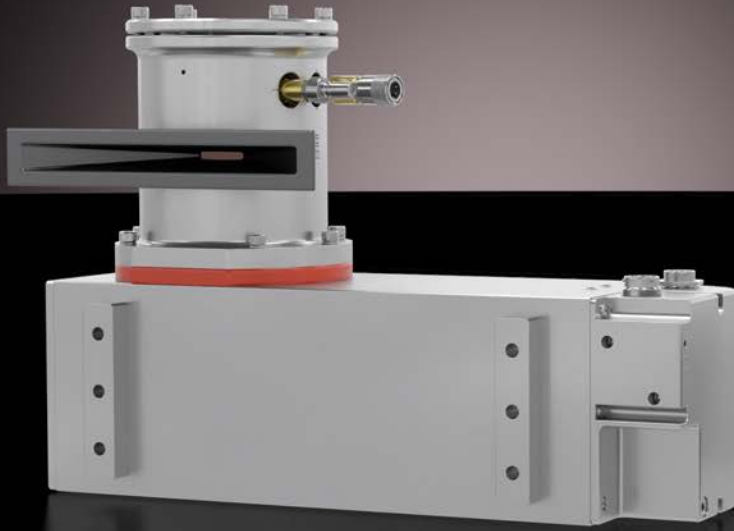
| | |
|------------|--------------------------|
| N | Neutral |
| GND | Ground |
| L | 220 VAC $\pm 10\%$ Input |

J2: Interlock Connection/ X-ray On Relay

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



IXS161k

160 kV, 1 -1.5 kW

Applications

- Industrial NDT
- Security
- Irradiation
- Sorting
- General X-ray Operations

Key Features

- Integrated High Voltage Generator, Metal Ceramic X-ray Tube, and Control Electronics
- Robust Configuration with Metal Ceramic tube for higher Performance and Power
- Designed to operate in rotational gantry attributed to its compactness
- Modular design for weight distribution and balance
- Radiation Shielded
- RS232 Digital Interface and Ethernet

Specifications

| | |
|------------------|------------------------------|
| Input Line Range | 220 VAC \pm 10%, 50/60 Hz |
| Output kV | 80-160 kV |
| Output mA | 1.0-8.0 mA |
| Output Power | 1kW continuous (up to 1.5kW) |

Safety and Regulatory Compliances Designed to meet CE, EN/UL61010-1 and EN61326-1

Dimensions Generator: 527mm x 214mm x 368mm
Control unit: 411 mm x 259mm x 133mm

Weight Generator: 36 Kg
Control unit: 10Kg

X-Ray Tube

| | |
|-----------------------------|---|
| X-ray Tube Type | Metal Ceramic, Anode Grounded |
| Beam Port & Focal Spot Size | Fan beam: 90° x 10° F.S. = 1.5 x 1.6mm Cone beam: 40° F.S. = 5.0mm (per EN12543) |

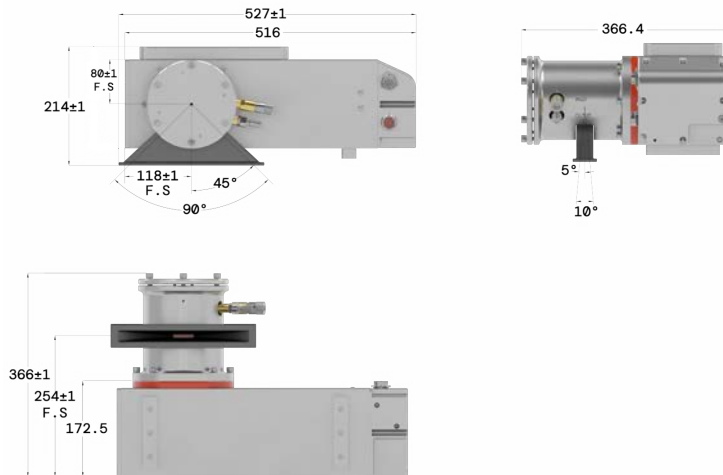
Operating Environment

| | |
|-----------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 80°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 10%-90% non-condensing |



Generator

Unit: mm

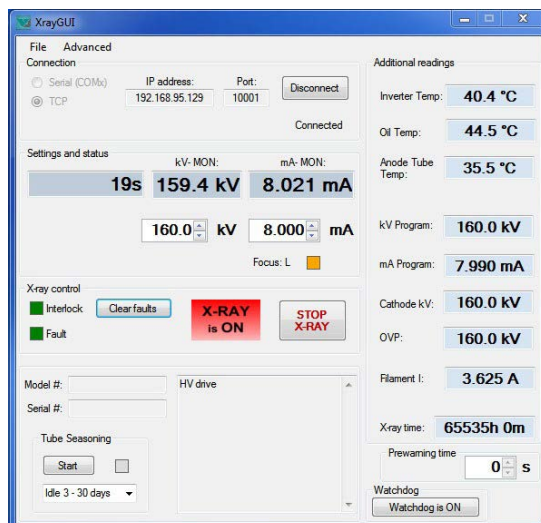


Control Unit

Unit: mm



Graphical User Interface



J1: AC Input

| | |
|-----|--------------------|
| L1 | Neutral |
| GND | Ground |
| L2 | 220 VAC ±10% Input |

J2: Interlock Connection

| Pin Out | Name |
|---------|----------------------------|
| 1 | Interlock out (15VDC) |
| 2 | Interlock In (15VDC) |
| 3 | Relay Contractor (+24V) IN |
| 4 | LED (24VDC) @ 100 mA max |
| 5 | LED (24VDC Return) |
| 6 | Ground |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |
| 10 | N/A |
| 11 | N/A |
| 12 | N/A |
| 13 | N/A |
| 14 | N/A |
| 15 | N/A |
| 16 | X-ray Pre-warning |
| 17 | N/A |
| 18 | N/A |
| 19 | Cooler Fault |
| 20 | N/A |
| 21 | N/A |
| 22 | X-ray Pre-warning Return |
| 23 | N/A |
| 24 | N/A |
| 25 | N/A |

J3: RS232 Interface

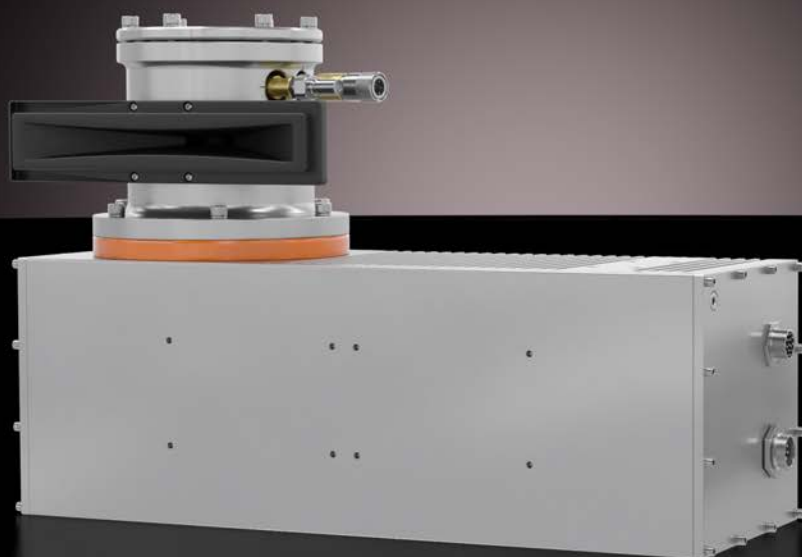
| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX- |
| 3 | RX + |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4: 24VDC Input

| Pin Out | Name |
|---------|--|
| 1 | +24 VDC @ 4A (for control circuit & fan) |
| 2 | 24VDC Return |
| 3 | N/A |
| 4 | N/A |

RJ45 Ethernet Digital Interface (USR-TCP232-T)

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX - |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | Ground |
| 8 | Ground |



IXS182k

180 kV, 2 -2.4kW

Applications

- Industrial NDT
- Security
- Irradiation
- Sorting
- General X-ray Operations

Key Features

- Integrated High Voltage Generator, Metal Ceramic X-ray Tube and Control Electronics
- Robust Configuration with Metal Ceramic tube for higher Performance and Power
- Designed to operate in rotational gantry attributed to its compactness
- Modular design for weight distribution and balance
- Radiation Shielded
- RS232 Digital Interface and Ethernet

Specifications

| | |
|--|---|
| Input Line Range | 220VAC \pm 10% , 50/60 Hz |
| Output kV | 90-180 kV |
| Output mA | 5.0-13.3 mA |
| Output Power | 2394W max. |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 698mm x 412mm x 250mm Control unit: 510mm x 263mm x 130mm |
| Weight | Generator:57Kg Control unit: 11Kg |

X-Ray Tube

| | |
|--|---|
| X-ray Tube Type | Be-Window Metal Ceramic |
| Beam Port & Focal Spot Size | 102° x 10°, F.S. = 2.4mm, 2.4kW max 60° x 40°, F.S. = 1.0mm, 1kW max |

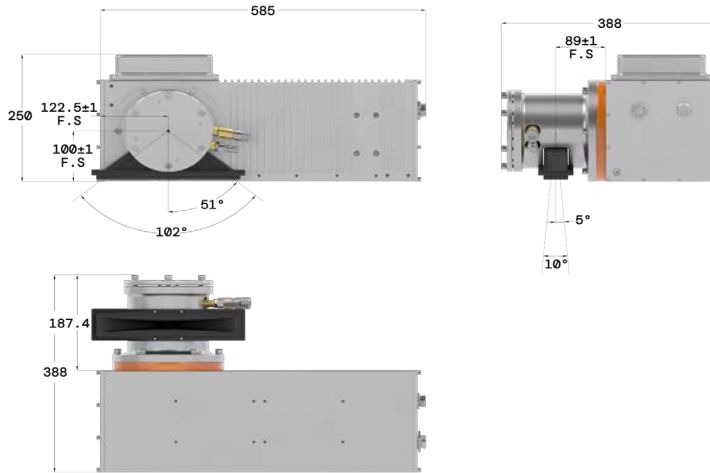
Operating Environment

| | |
|------------------------------|-----------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 80°C |
| Thermal Cut Off | 60°C \pm 3°C of oil temperature |
| Humidity | 10%-85% non-condensing |



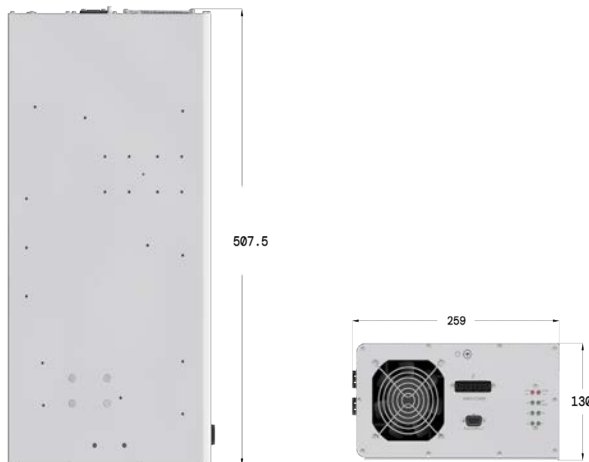
Generator

Unit: mm

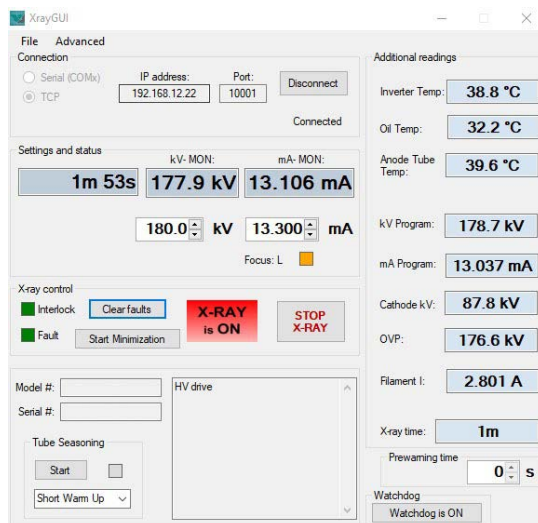


Control Unit

Unit: mm



Graphical User Interface



J1: AC Input

| | |
|-----|--------------------|
| L1 | Neutral |
| GND | Ground |
| L2 | 220 VAC ±10% Input |

J2: Interlock Connection

| Pin Out | Name |
|---------|----------------------------|
| 1 | Interlock out (15VDC) |
| 2 | Interlock In (15VDC) |
| 3 | Relay Contractor (+24V) IN |
| 4 | LED (24VDC) @ 100 mA max |
| 5 | LED (24VDC Return) |
| 6 | Ground |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |
| 10 | N/A |
| 11 | N/A |
| 12 | N/A |
| 13 | N/A |
| 14 | N/A |
| 15 | N/A |
| 16 | X-ray Pre-warning |
| 17 | N/A |
| 18 | N/A |
| 19 | Cooler Fault |
| 20 | N/A |
| 21 | N/A |
| 22 | X-ray Pre-warning Return |
| 23 | N/A |
| 24 | N/A |
| 25 | N/A |

J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX- |
| 3 | RX + |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4: 24VDC Input

| Pin Out | Name |
|---------|--|
| 1 | +24 VDC @ 4A (for control circuit & fan) |
| 2 | 24VDC Return |
| 3 | N/A |
| 4 | N/A |

RJ45 Ethernet Digital Interface (USR-TCP232-T)

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX - |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | Ground |
| 8 | Ground |



IXS2050

200 kV, 500 W

Applications

- Industrial NDT
- Security
- General X-ray Operations

Key Features

- Ideal Alternative to Conventional High Voltage Generator and X-ray Tube Setup
- Integrated High Voltage Generator, X-ray Tube, Control Electronics, and Heat Radiator
- Radiation Shielded
- Large Beam Angle Suitable for Compact System Design
- Cone or Fan beam available for flat panel or line sensor detection
- User Friendly RS232 Digital Interface (Ethernet Optional)

Specifications

| | |
|------------------------------|---|
| Input Line Range | 220VAC±10%, 50/60 Hz |
| Output kV | 80–200 kV |
| Output mA | 0.2–6.0 mA |
| Output Power | 500 W continuous maximum |
| Safety and Regulatory | Designed to meet CE, EN/UL61010-1 and EN61326-1 |
| Dimensions | Generator: 446 mm x 145 mm x 385mm Control Box : 264mm x 247mmx 70mm |
| Weight | Generator: 29.5 kg Control Unit: 3 kg |

X-Ray Tube

| | |
|------------------------------|--|
| X-ray Tube Type | Glass |
| X-ray Focal Spot Size | 0.8 nominal as per IEC60336 (0.2FS available at 150W max) |
| Beam Port | Fan beam: 90° x 10° (Beam port opening: 105° x 10° max) Cone beam : 40° |

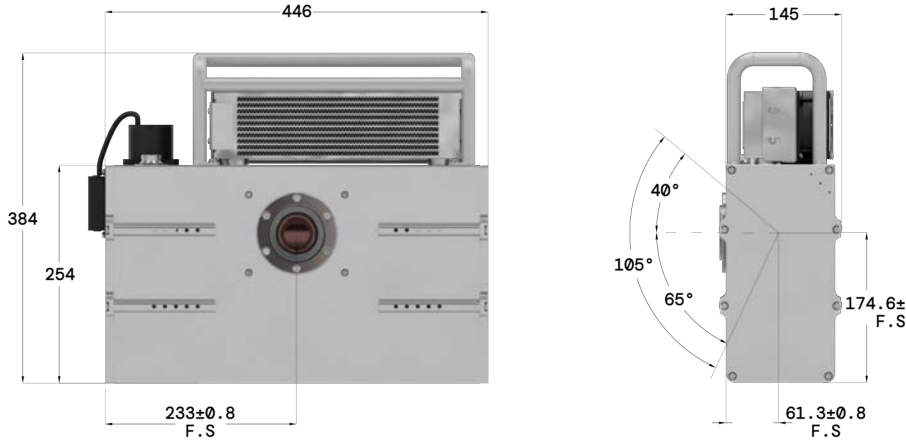
Operating Environment

| | |
|------------------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



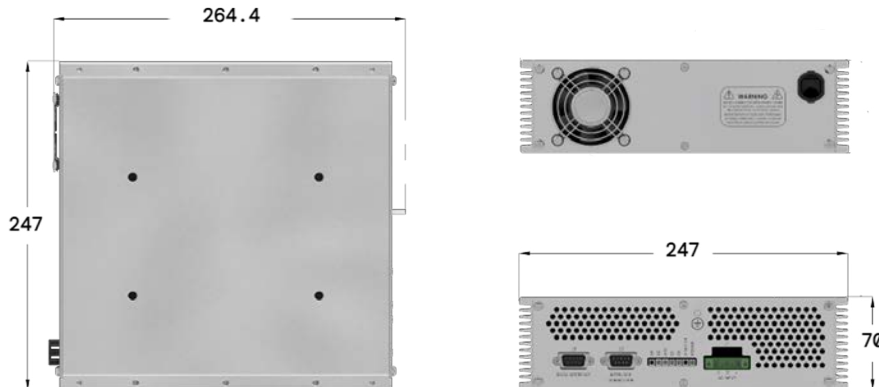
Generator

Unit: mm

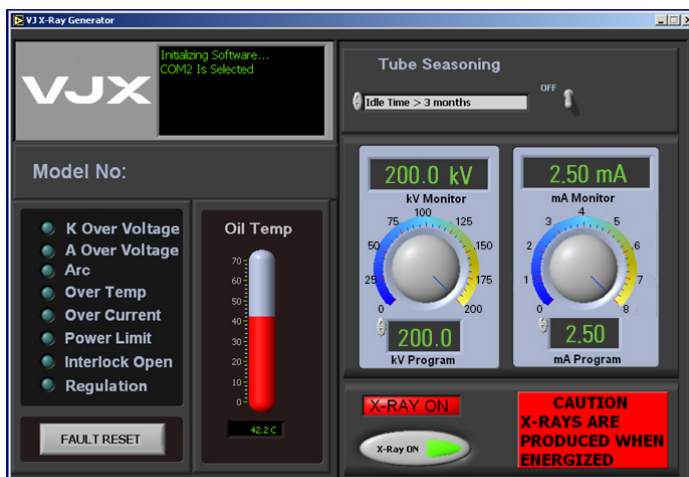


Control Unit

Unit: mm



Graphical User Interface



LED Indicators

| | |
|-----------------|---|
| POWER | Illuminated when power is present |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| ARC | ARC-ing fault |
| OC | Over current fault |
| OT | Illuminated when oil temperature exceeds 60°C ± 3°C |
| OP | Illuminated when selected power exceeds the rated power |
| OV | Over voltage fault |

J1: AC Input

| | |
|------------|--------------------|
| N | Neutral |
| GND | Ground |
| L | 220 VAC ±10% Input |

J2: Interlock (9 Pin Male)

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock in |
| 3 | X-ray On Relay contact common |
| 4 | X-ray On Relay contact N/C |
| 5 | X-ray On Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: RS232 Interface (9 Pin Female)

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



IXS3280

320 kV, 800 W

Applications

- Security Cargo Inspection
- Industrial NDT
- General X-ray Operations

Key Features

- Integrated high voltage generator, metal ceramic X-ray tube, control electronics, and cooling functionality
- Compact high kV package with no HV cable maintenance required
- Radiation shielded
- Liquid-to-liquid heat exchanger and oil cooling for efficient heat control
- Power factor correction for maximizing real power from AC supply
- Cone or fan beam available for flat panel or line sensor detection
- User friendly Ethernet and RS232 digital interface

Specifications

| | |
|-----------------------------------|---|
| Input Line Range | 230VAC±10%, 50/60 Hz |
| Output kV | 160–320 kV |
| Output mA | 0.2–2.5 mA |
| Output Power | 800 W continuous maximum |
| Safety and Regulatory Compliances | Designed to meet CE, EN/UL61010-1 and EN61326 |
| Dimensions | Generator: 545 mm x 626 mm x 240mm |
| Weight | 89 kg |

X-Ray Tube

| | |
|-----------------------|---|
| X-ray Tube Type | Metal Ceramic Tube |
| X-ray Focal Spot Size | 0.4mm Reference tube spec HPX-320-11FB (other compatible tube options available upon request) |
| Beam Port | Fan beam: 110° x 15° Cone beam : 30° x 40° |

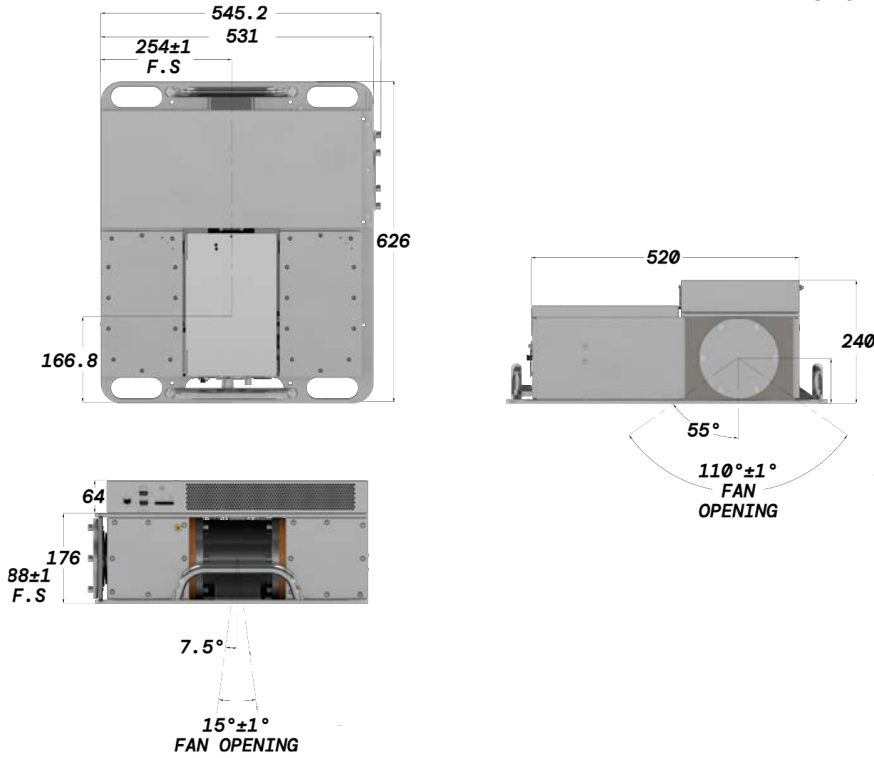
Operating Environment

| | |
|-----------------------|-------------------------------|
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 85°C |
| Thermal Cut Off | 60°C ± 3°C of oil temperature |
| Humidity | 98% non-condensing |



Generator

Unit: mm



J1: AC Input

| Pin Out | Name |
|---------|-------------|
| 1 | 230VAC Line |
| 2 | GND |
| 3 | Neutral |

J2: Interlock (9 Pin Male)

| Pin Out | Name |
|---------|--|
| 1 | Interlock Out (+24VDC) |
| 2 | Interlock In (Return) |
| 3 | X-ray On Relay Contact Common |
| 4 | X-ray On Relay Contact N/C (LH1502BACTR) |
| 5 | X-ray On Relay Contact N/O (LH1502BACTR) |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J3: RS232 (9 Pin Female)

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4: 24VDC

| Pin Out | Name |
|---------|--------------------------|
| 1 | +24VDC@1.0A for Pump |
| 2 | N/C |
| 3 | N/C |
| 4 | 24VDC Return for Control |

J5: RJ45 Ethernet Digital Interface

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | Ground |
| 8 | Ground |

Graphical User Interface





HVL100-320

100 –320 kV, 1000 W

Applications

- Industrial NDT
- Security Cargo Inspection
- Medical Irradiation & Sterilization
- General Purpose

Key Features

- Compact and lightweight
- Oil based insulation for efficient thermal dissipation
- Single Filament Supply
- Modular design provides flexible mounting configurations
- Standard R24 HV Connector
- RS232 and Ethernet Interface



| Model | HVL100 | HVL160 | HVL200 | HVL320 |
|---------------------------|---------------------|-------------|-----------------|-----------------|
| Max. Output Power (Note1) | 1.0kW | 1.0kW | 1.0kW | 1.0kW |
| Output KV (Note 2) | 50-100 | 80-160 | 100-200 | 160-320 |
| Output mA (Note2) | 0.5-15 | 0.5-6.25 | 0.5-10 | 0.5-6.25 |
| Output Polarity | Negative | Negative | Bipolar | Bipolar |
| Output HV Connector | R24 | R24 | R24 | R24 |
| Dimension (mm) | 317x247x143 | 524x225x160 | (2) 317x247x143 | (2) 524x225x160 |
| Weight (Tank/Control box) | 19kg/3kg | 19kg/3kg | 38kg/6kg | 38kg/6kg |
| Input Power | 220VAC ±10%,50/60Hz | | | |
| Input Current | 7A | 7A | 7A | 7A |
| Operating Temperature | 5 °C – 40 °C | | | |
| Storage Temperature | -20 °C – 80 °C | | | |
| Humidity | 98% non-condensing | | | |
| Cooling | Forced Air Cool | | | |
| Duty Cycle | 100% | | | |

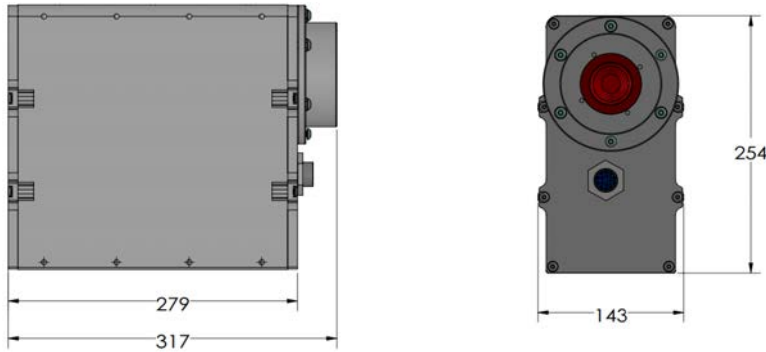
NOTES

1. Discuss with VJX Sales if greater than 1kW is required.
2. Specify kV and mA range setting to be defined for optimal performance.
3. Specify focal spot size configuration if tube comes with dual filament (large or small).

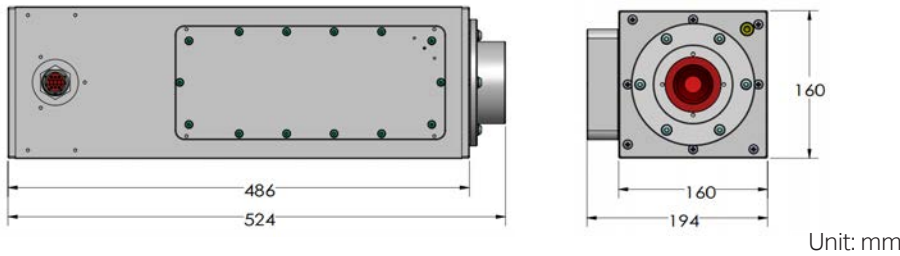


Generator Dimension

HVL100 Tank



HVL160 Tank



Unit: mm

LED Indicators

| | |
|-----------------|--|
| POWER | Illuminated When Power Is Present |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| Arc | Arcing Fault |
| OC | Over Current Fault |
| OT | Illuminated when oil temperature exceeds 60±3°C |
| OV | Over Voltage Fault |

J1: AC Input Connector

| Pin In | Name |
|--------|-------------|
| 1 | 230VAC Line |
| 2 | GND |
| 3 | Neutral |

J2 Connector : (Interlock 9 Pin Male)

| Pin Out | Name |
|---------|---------------------------------------|
| 1 | Interlock Out (+12VDC) |
| 2 | Interlock In (Return) |
| 3 | X-Ray On relay Contact Common |
| 4 | X-Ray on Relay N/C (LH1502BACTR) |
| 5 | X-Ray Relay Contact N/O (LH1502BACTR) |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

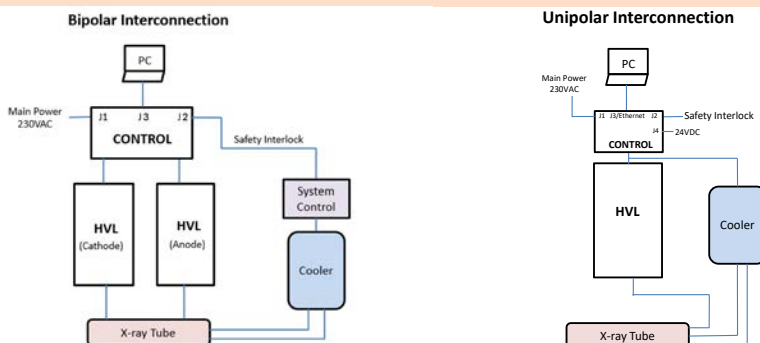
J3: RS232 Digital Interface Bipolar Configuration

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

Graphical User Interface



System Connection Diagram (Reference Only)



J4 Connector

| Pin In | Name |
|--------|---|
| 1 | +24VDC@1.0A for Pump |
| 2 | 24VDC Return for Pump |
| 3 | +24VDC@1.5A for Control Circuit & Control Fan |
| 4 | 24VDC Return for Control |



HVG060 THE HVG MINI

60 kV, 150 W

Applications

- X-Ray Fluorescence
- X-Ray Diffraction
- Sorting
- Material Analysis

Key Features

- Sub-compact HV package
- Flexible configuration with anode or cathode grounded tubes
- Plug and play functionality with CA11 or Mammoflex HV cables
- Standard Digital Interface: Ethernet, RS232
- Universal AC or DC input

Specifications

| | |
|--|--|
| Input Line Range | 90-264 VAC, 50/60Hz Option: 24 or 48 VDC |
| Output KV | 10–60kV, negative polarity with floating filament supply (Optional positive output polarity) |
| Output Current | 0.2-3.0mA (Per X-ray tube rating) |
| Output Power | 150 W maximum continuous (limited by tube spec) |
| Safety and Regulatory Compliances | Designed to meet CE, IEC/EN 61010-1, and EN61326-1 |
| Output Connectors | Claymount CA11 (Optional: Receptacle for Mammoflex HV Cable) |
| Insulation | Oil |
| Cooling | Self cooled, forced air |
| Dimensions | 80mm x 179mm x 205.8mm |
| Weight | 3.6 kg |

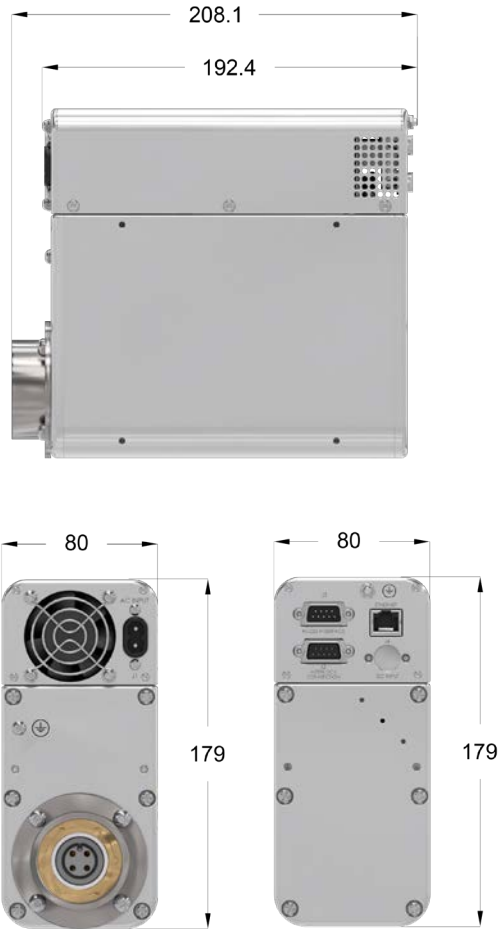
Operating Environment

| | |
|------------------------------|--------------------|
| Operating Temperature | 0°C to 40°C |
| Storage Temperature | -40°C to 80°C |
| Humidity | 98% non-condensing |



Generator

Unit: mm



J1: AC Input

| | |
|---|--------------------|
| N | Neutral |
| L | 90 - 264 VAC Input |

J2: Interlock

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock In |
| 3 | X-ray on relay contact common |
| 4 | X-ray on relay contact N/C |
| 5 | X-ray on Relay contact N/O |
| 6 | X-ray Prewarning |
| 7 | X-ray Prewarning Return |
| 8 | N/A |
| 9 | N/A |

J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4 Connector

| Pin In | Name |
|--------|--|
| 1 | +48 VDC @ 5A for HV |
| 2 | 48 VDC HV Return |
| 3 | +48 VDC @ 1A for Control Circuitry & Filament Supply |
| 4 | 48 VDC Return for Control |

Graphical User Interface



RJ45: Ethernet

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | Ground |
| 8 | Ground |

High Voltage Output (CA11)

| | |
|---|-----------------|
| C | HV Output |
| L | Filament Output |
| G | N/A |
| S | N/A |



HVG075 THE HVG MINI

75 kV, 350 W & 600 W

Applications

- Food Inspection
- Sorting
- Material Analysis
- X-Ray Fluorescence
- X-Ray Diffraction
- X-Ray Tube Testing

Key Features

- Sub-compact HV package
- Designed for anode grounded tube for efficient heat dissipation
- Standard Digital Interface: Ethernet, RS232

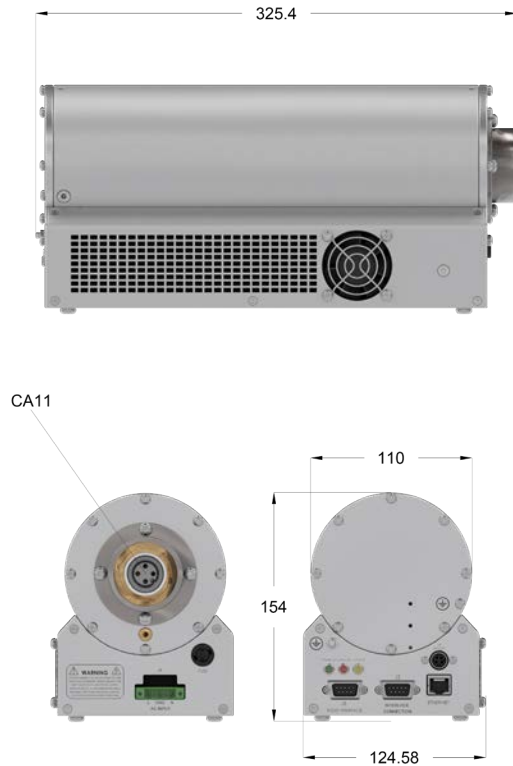
Specifications

| | | | |
|--|--|-----------------|-----------------|
| Input Line Range | 180-264 VAC, 50/60Hz | | |
| Output | Four models are available | | |
| | Output Power | kV Range | mA Range |
| | 350W | 20-40kV | 0.2-15mA |
| | 350W | 40-75kV | 0.2-7.5mA |
| | 600W | 20-40kV | 0.2-30mA |
| | 600W | 40-75kV | 0.2-15mA |
| Safety and Regulatory Compliances | Designed to meet CE, IEC/EN 61010-1, and EN61326-1 | | |
| Output Connectors | Claymount CA11 | | |
| Insulation | Oil | | |
| Cooling | Self cooled, forced air | | |
| Dimensions | 124.5mm x 154mm x 325.4mm | | |
| Weight | 5.0 kg | | |
| Operating Environment | | | |
| Operating Temperature | 0°C to 40°C | | |
| Storage Temperature | -40°C to 80°C | | |
| Humidity | 98% non-condensing | | |



Generator

Unit: mm



Graphical User Interface



J1: AC Input

| | |
|---|---------------------|
| N | Neutral |
| G | Ground |
| L | 180 - 264 VAC Input |

J2: Interlock

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock In |
| 3 | X-ray on relay contact common |
| 4 | X-ray on relay contact N/C |
| 5 | X-ray on Relay contact N/O |
| 6 | X-ray Prewarning |
| 7 | X-ray Prewarning Return |
| 8 | N/A |
| 9 | N/A |

J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4 Connector

| Pin In | Name |
|--------|--|
| 1 | +24VDC @ 1.25A for Control Circuitry & Fil. Supply |
| 2 | 24 VDC Return for Control |
| 3 | N/A |
| 4 | N/A |

RJ45: Ethernet

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | Ground |
| 8 | Ground |

High Voltage Output (CA11)

| | |
|---|-----------------|
| C | HV Output |
| L | Filament Output |
| G | N/A |
| S | N/A |



HVG100

100 kV, 1000 W

Applications

- Thickness Gauging
- Tire Inspection
- Industrial NDT
- Food & Packaging Inspections
- X-Ray Tube Testing

Key Features

- High Frequency
- Compact and Robust
- Power Factor Corrected
- User Friendly RS232 Digital Interface
- Field Serviceable

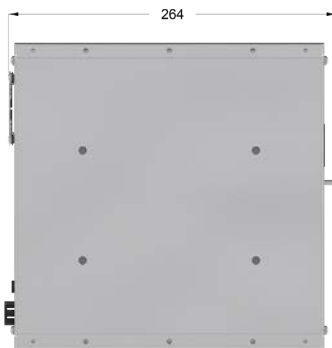
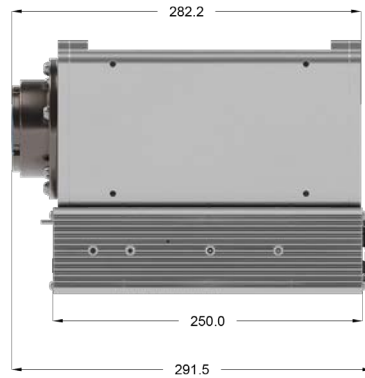
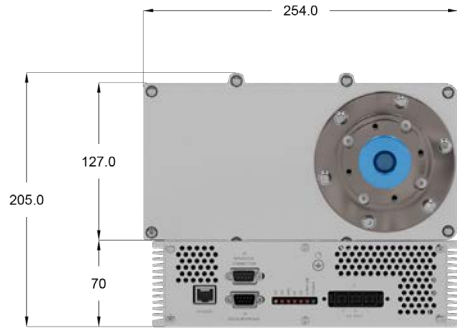
Specifications

| | |
|--|--|
| Input Line Range | 220VAC \pm 10%, 50/60Hz, 10 Amps RMS |
| Output KV | 30–100kV, negative or positive polarity |
| Output Current | 0-25mA (Per X-ray tube ratings) |
| Output Power | 1000 W maximum continuous output 1500 W also available upon request |
| mA Rise Time | Available on special request |
| Safety and Regulatory Compliances | Designed to meet IEC/EN 61010-1 |
| Output Connectors | Claymount CA1 (XR-7) HV connector Option: CA10 (R10), CA11 |
| Insulation | Oil |
| Cooling | Self cooled, forced air |
| Dimensions | Generator: 254mm x 277mm x 127mm |
| Weight | Generator: 13kg |
| Operating Environment | |
| Operating Temperature | 5°C to 40°C |
| Storage Temperature | -20°C to 80°C |
| Humidity | 98% non-condensing |



Generator

Unit: mm



LED Indicators

| | |
|----------|--|
| OP | Over Power fault |
| OC | Over current fault |
| ARC | ARC-ing fault |
| OT | Illuminated when oil temperature exceeds 60±3°C. |
| OV | Over voltage fault |
| X-Ray On | Illuminated when interlock is closed and HV is enabled |
| POWER | Illuminated when power is present |

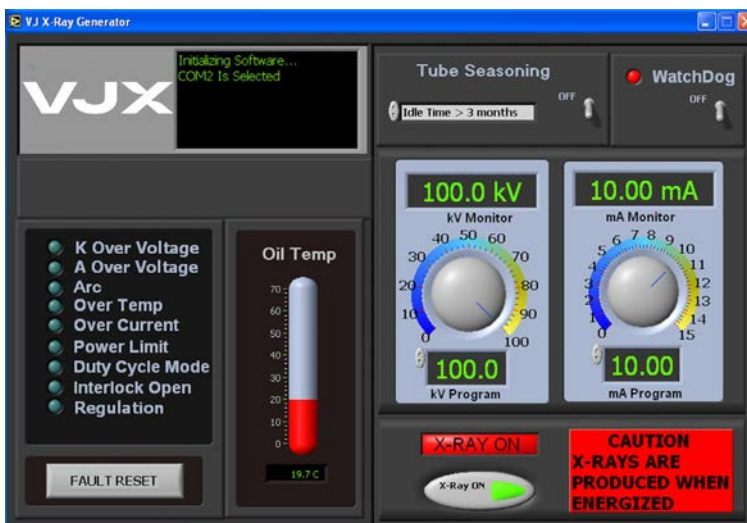
J1: AC Input

| | |
|-----|------------------|
| N | Neutral |
| GND | Ground |
| L | 220VAC ±10%Input |

J2: Interlock

| Pin Out | Name |
|---------|-------------------------------|
| 1 | Interlock out |
| 2 | Interlock In |
| 3 | X-ray on relay contact common |
| 4 | X-ray on relay contact N/C |
| 5 | X-ray on Relay contact N/O |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

Graphical User Interface



J3: RS232 Interface

| Pin Out | Name |
|---------|---------------|
| 1 | N/A |
| 2 | TX-(Transmit) |
| 3 | RX+(Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |



HVG160-450

160 – 450 kV, 2 – 4.5 kW

Applications

- Industrial NDT
- Security Cargo Inspection
- Medical Irradiation & Sterilization
- General Purpose

Key Features

- Compact form factor
- Oil based insulation for efficient thermal dissipation
- Fully enclosed, fan-less design for use in rugged environments
- Advanced HV design optimized for performance & reliability
- Plug and play compatibility with major tube brands
- Dual filament supplies controlled by closed-loop emission current control



| Model | HVG160 | | HVG225 | | HVG320 | | | HVG450 | | |
|-----------------------|---|--------|--------|--------|------------------------------------|---------|---------|---------|---------|---------|
| Max. Output Power | 2.0kW | 3.0kW | 2.0kW | 3.0kW | 2.0kW | 3.0kW | 4.5kW | 2.0kW | 3.0kW | 4.5kW |
| Output KV (see note) | 30-160 | 30-160 | 30-225 | 30-225 | 30-320 | 30-320 | 30-320 | 30-450 | 30-450 | 30-450 |
| Output mA (see note) | 0-30 | 0-30 | 0-30 | 0-30 | 0-30 | 0-30 | 0-30 | 0-30 | 0-30 | 0-30 |
| Output Polarity | - / + | - / + | - / + | - / + | Bipolar | Bipolar | Bipolar | Bipolar | Bipolar | Bipolar |
| Ripple | kV: 0.05% peak-peak; mA: 0.1% | | | | | | | | | |
| Stability | Less than 0.1% per 8hr after 1 hr warm-up | | | | | | | | | |
| Repeatability | kV: ±40V; mA: 0.1% | | | | | | | | | |
| Accuracy | kV: ±1.0%; mA: ±0.5% | | | | | | | | | |
| Output Rise Time | Preset 3 sec (1-10 sec adjustable) | | | | Preset 6 sec (1-10 sec adjustable) | | | | | |
| Output HV Connector | R24 | R24 | R28 | R28 | R24 | R24 | R24 | R28 | R28 | R28 |
| Operating Temperature | 5 °C to 40 °C | | | | | | | | | |
| Storage Temperature | -20 °C to 80 °C | | | | | | | | | |
| Humidity | 98% non-condensing | | | | | | | | | |
| Cooling | Forced Air Cool | | | | | | | | | |
| Duty Cycle | 100% | | | | | | | | | |
| Dimension (mm) | 280W x 774L x 452H | | | | (2) 280W x 774L x 452H | | | | | |
| Weight | 66kg | | | | 132kg | | | | | |
| Input Voltage | 220VAC ±10%, 50/60Hz, Single Phase | | | | | | | | | |
| Input Current | 13A | 20A | 13A | 20A | 13A | 20A | 30A | 13A | 20A | 30A |
| Communication | RS232 / Ethernet / Analog | | | | | | | | | |

NOTES

Specific kV and mA range setting to be discussed for optimal performance.



Generator Dimensions

Unit: mm



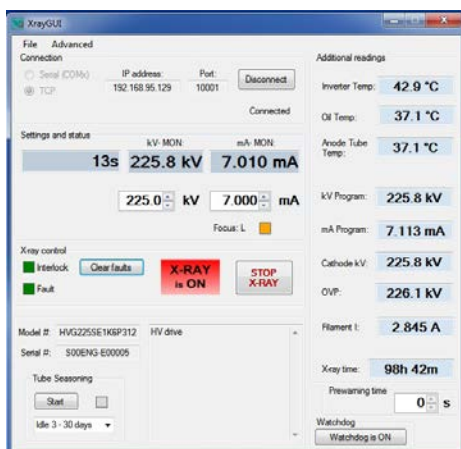
Control Interface Connections

Cathode

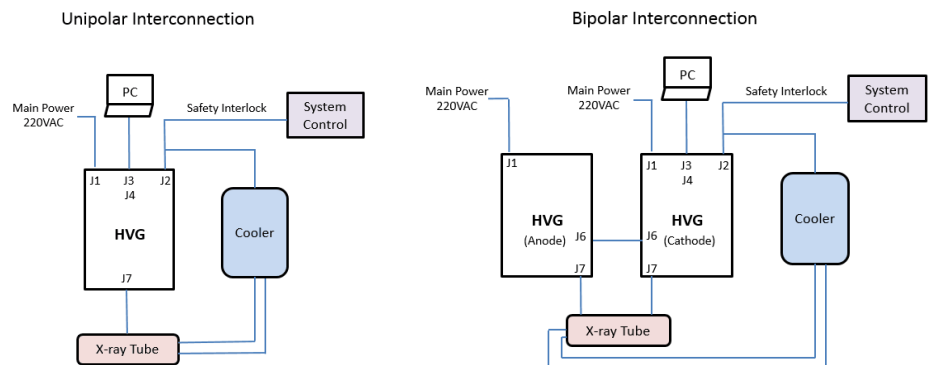
Anode



Graphical User Interface



System Connection Diagram (Reference Only)



LED Indicators

| | |
|-----------|--|
| X-RAY ON | Illuminated when interlock is closed and HV is enabled |
| OV | Over Voltage Fault |
| OC | Over Current Fault |
| OP | Over Power Fault When Exceeds Rated Power |
| Power | Illuminated When Power Is Present |
| REG-ERROR | Regulation Error |
| ARC | Arcing Fault |
| OT | Illuminated When Oil Temperature Exceeds 60±3°C. |

Connectors

| Connector | Description |
|-----------|--|
| J1 | Main & Auxiliary Input Power |
| J2 | Analog Interface |
| J3 | RS232 Digital Interface |
| J4 | RJ45 Ethernet Digital Interface |
| J6 | Bipolar Only: Anode Feedback/Control HV Connector |

J1 Connector: Main & Auxiliary AC Input (MS3102A24-11P, 9 Pin)

| Pin Out | Name |
|---------|-------------------|
| A | AUX – 230VAC |
| B | AUX – Ground |
| C | AUX – Neutral |
| D | Main – 220VAC±10% |
| E | Main – Ground |
| F | Main – Neutral |
| G | N/A |
| H | N/A |
| I | N/A |

J2 Connector: Analog Interface (15 Pin Male)

| Pin Out | Name |
|---------|---|
| 1 | Interlock Out (+24VDC) |
| 2 | Interlock In (+24VDC) |
| 3 | External +24V (for driving X-Ray On LED) |
| 4 | Failsafe Return (LED/Alarm) 100mA- 200mA return current |
| 5 | X-ray On +24VDC Output (LED/Alarm) |
| 6 | Ground |
| 7 | X-ray Pre-Warning |
| 8 | X-ray Pre-Warning Return |
| 9 | Cooler Fault |
| 10 | Not Used |
| 11 | Ground |
| 12 | Not Used |
| 13 | Not Used |
| 14 | Not Used |
| 15 | Not Used |

J3 Connector: RS232 Digital Interface (9 Pin Female)

| Pin Out | Name |
|---------|----------------|
| 1 | Not Used |
| 2 | TX- (Transmit) |
| 3 | RX+ (Received) |
| 4 | N/A |
| 5 | Signal Ground |
| 6 | N/A |
| 7 | N/A |
| 8 | N/A |
| 9 | N/A |

J4 Connector: RJ45 Ethernet Digital Interface (USR-TCP232-T,

| Pin Out | Name |
|---------|--------|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | N/A |
| 5 | N/A |
| 6 | RX- |
| 7 | Ground |
| 8 | Ground |

J5: Anode VAC Input (For Bipolar Configuration)

| Pin Out | Name |
|---------|---------|
| 1 | GND |
| 2 | NEUTRAL |
| 3 | LINE |

J6: Anode Feedback & Control (For Bipolar Configuration)

| Pin Out | Name |
|---------|----------------------|
| 1 | ANODE-kV-FDBK |
| 2 | N/A |
| 3 | N/A |
| 4 | ANODE-mA-FDBK |
| 5 | N/A |
| 6 | GND |
| 7 | ANODE-ARC-DETECT |
| 8 | N/A |
| 9 | ANODE-INV-DRIVE A |
| 10 | ANODE-INV-DRIVE B |
| 11 | ANODE INV-SENSE |
| 12 | ANODE-INV-TEMP-SENSE |
| 13 | ANODE OIL TEMP |
| 14 | +15V OUT |
| 15 | -15V OUT |

J7: High Voltage Connector (R28 or R24)

| Pin Out | Name |
|---------|-----------------------|
| C | HV Output |
| S | Small Filament Output |
| L | Large Filament Output |

Key Features

- Designed in conjunction with the IXS, HVG and HVL series generators
- Compact, Lightweight
- Capable of meeting the cooling performance up to 2kW
- Ability to operate IXS sources in high temperature environment
- Enhanced stability
- Allows sources to run continuous duty cycles
- Close-loop, maintenance free



**1.2 kW
CT Cooler**

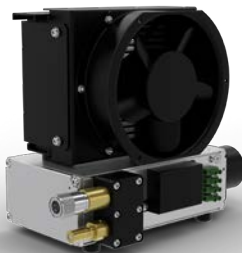


**2 kW
CT Cooler**

| Cooling Capacity | 500W | 800W | | 1200W | | 2000W | |
|------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Applications | Stationary | Stationary | CT | CT | Stationary | CT | Stationary |
| Input Power(DC Pump) | 24V, 0.3A(FAN) 24V, 0.9A(PUMP) | 24V, 2.2A(FAN) 24V, 0.9A(PUMP) | 24V, 2.2A(FAN) 24V, 0.9A(PUMP) | 24V, 2.2A(FAN) 24V, 1.2A(PUMP) | 24V, 2.2A(FAN) 24V, 1.2A(PUMP) | 24V, 2.6A(FAN) 24V, 1.8A(PUMP) | 24V, 2.6A(FAN) 24V, 1.8A(PUMP) |
| Unit Weight(Kg) | 6.3 | 8.5 | 11.2 | 13.8 | 14.1 | 26.2 | 26.5 |
| Dimension(mm) | 156 x 267 x 239 | 163 x 387 x 238 | 372 x 460 x 187 | 266 x 415 x 198 | 269 x 415 x 227 | 330 x 530 x 252 | 303 x 530 x 252 |
| Max Liquid Flow Rate (L/min) | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Cooling Hose ID Size(Inches) | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 |
| Number of Fans | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Ambient Temperature(°C) | ≤40° | ≤40° | ≤40° | ≤40° | ≤40° | ≤40° | ≤40° |
| Flow Swith | NO | YES | NO | NO | YES | NO | YES |

NOTES

1. Coolant Mix: 75% distill water, 25% ethylene glycol
2. Recommended Coolant: Dow therm SR-1



**500W
Stationary Cooler**



**800W
Stationary Cooler**



**800W
CT Cooler**



Subsystems

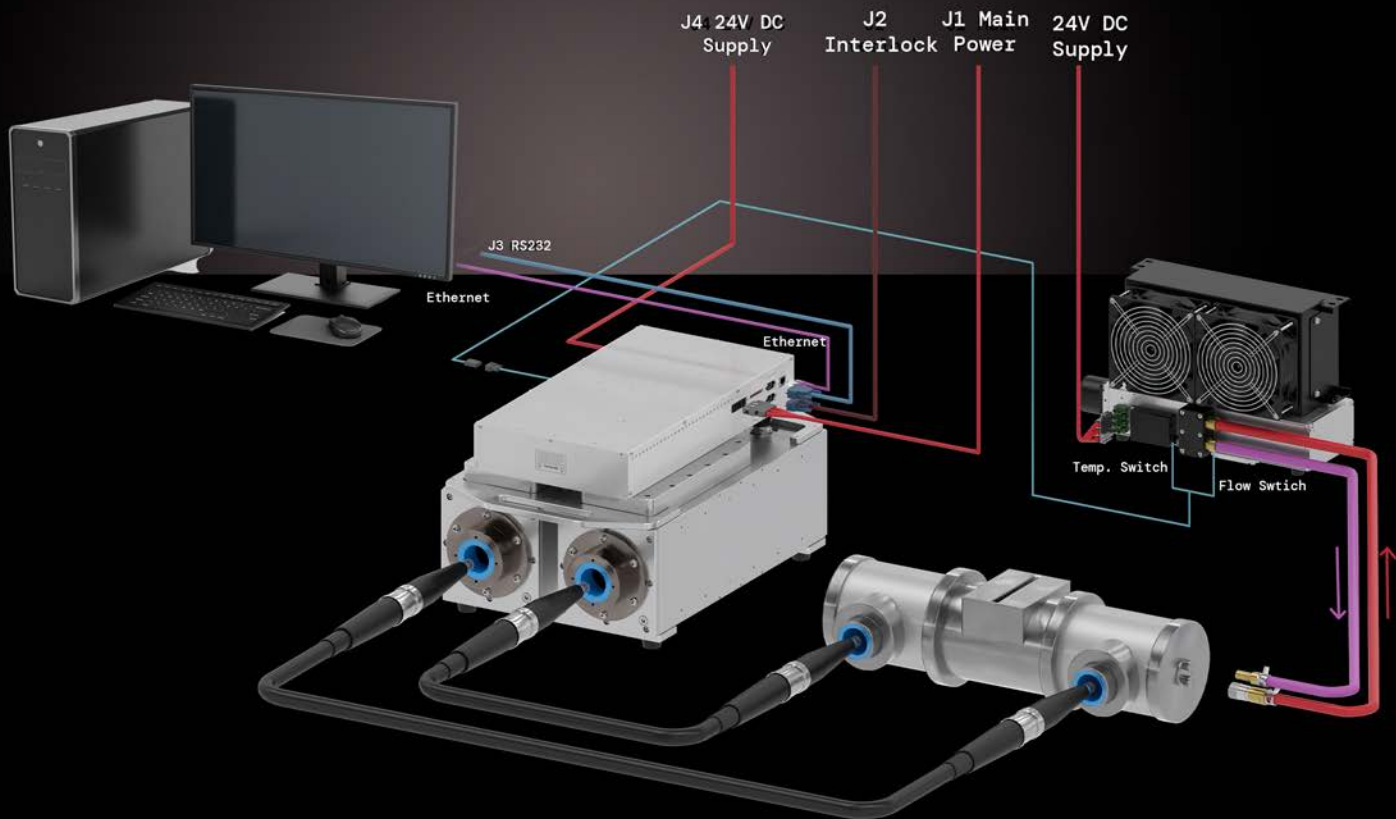
160 - 450kV, 4.5 kW Max

Applications

- Non-Destructive Testing
- Security Cargo Inspection
- Vehicle Inspection

Subsystem Contains

- Metal Ceramic X-Ray Tube
- High Voltage Generator
- High Voltage Cable
- Cooler or Chiller



Note: Please consult with VJX sales department for Various output power (160-450kV), configuration, tube manf. and model, cooler or chiller.

Standard Subsystem Configurations:

| Power Rating | VJX Generator | X-Ray Tube | | HV Cable (5 Meter, Spring Loaded) |
|---------------------|---------------|--------------|------------|--------------------------------------|
| | | Vendor P/N | VJX P/N | |
| 160kV, 800W | HVL160SE800 | HPX 160/11 | OT3000-167 | EW3000-281 |
| 160kV, 1.8kW | HVG160SE1K8 | MXR-160HP/11 | OT3000-174 | EW3000-281 |
| | | HPX 160/11 | OT3000-167 | EW3000-281 |
| 160kV, 3kW | HVG160SE3K0 | NDI 160/22 | OT3000-152 | EW3000-281 |
| 225kV, 1.8kW | HVG225SE1K8 | MXR-225HP/11 | OT3000-177 | EW3000-287 |
| | | HPX 225/11 | OT3000-169 | EW3000-287 |
| 225kV, 3kW | HVG225SE3K0 | MXR-225/22 | OT3000-194 | EW3000-287 |
| | | NDI 226 | OT3000-159 | EW3000-287 |
| 320kV, 640W | HVL320BP640 | NDI 320/26FB | OT3000-145 | EW3000-281 |
| 320kV, 1.8kW | HVG320BP1K8 | MXR-320HP/11 | OT3000-180 | EW3000-281 |
| | | HPX 320/11 | OT3000-170 | EW3000-281 |
| 320kV, 4.2kW | HVG320BP4K2 | MXR-320/26 | OT3000-179 | EW3000-281 |
| | | NDI 320/26 | OT3000-162 | EW3000-281 |
| 450kV, 1.5kW | HVG450BP1K5 | MXR-451HP/11 | OT3000-182 | EW3000-295 |
| | | HPX 450/11 | OT3000-171 | EW3000-295 |
| 450kV, 4.5kW | HVG450BP4K5 | MXR-451/26 | OT3000-181 | EW3000-295 |
| | | NDI 451 | OT3000-164 | EW3000-295 |

In addition to VJ X-Ray coolers, we offer the following external products to address wide ranges of applications:

| Cooling Capacity | Cooling Method | Vendor P/N | VJX P/N |
|------------------|-----------------------------------|--------------------|--------------|
| 1100W | Water to Air-cooled Refrigeration | SMC HRS012-AN-20-T | HXWS0-1k1K40 |
| 1700W | Water to Air-cooled Refrigeration | SMC HRS018-AN-20-T | HXWS0-1k7K36 |
| 2100W | Water to Air-cooled Refrigeration | SMC HRS024-AN-20-T | HXWS0-2k1K41 |
| 3000W | Water to Air Heat Exchanger | Laird WL3004 | HXWS0-3k0K37 |
| 3000W | Water to Water Heat Exchanger | Laird WW3001 | HXWS0-3k0k39 |
| 4500W | Oil to Air Heat Exchanger | Laird OL4503 | HXWS0-4k5k38 |

Accessories and Options

Portable Source Accessories

- Compact form factor
- Oil based insulation for efficient thermal dissipation
- Advanced HV design optimized for performance reliability
- Plug and play compatibility with major probe brands
- Filament supply controlled by closed-loop emission current control



Battery pack



Charging Station



Adapter



Generator shown with protective cover and handle



Laser Alignment Guide



Transport Case



Generator shown mounted on tripod

Item

Description

AS3001-319M Battery pack (inc. 24V LiFeO4 battery)

AS3001-320M Charging Station

EP3000 - 008P Adapter

DS3000-041M Protective Cover and Handle

DB3000-122M Tripod Mount

DS3000-106M Laser Alignment Guide

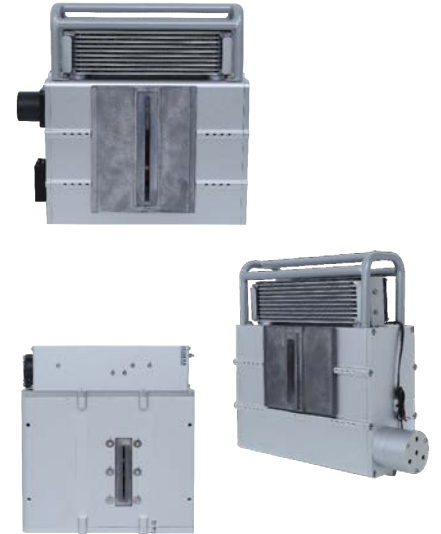
EJ3000-100P Antenna

JP3000-019P Transport Case

Collimators

| Item | Description | Image |
|------------|--|--|
| DF3000-009 | Asymmetrical Fan Beam 80°, 160kV with Flange |  |
| DF3000-096 | Symmetrical Fan Beam 75°, 160kV |  |
| DF3000-111 | Symmetrical Fan Beam 62°, 100kV |  |

Collimator on Generator



Accessories and Options

Recommended Kit for Electronic Protection



EMI Filter



Isolation Transformer

- Protects electronics from external factors, such as input power instability, transient surge, or electromagnetic disruption
- Recommend every system to equip with adequate isolation transformer and EMI filter, Consult with VJX sales for recommended kit.

| | |
|------------|---------------------------------------|
| EC3000-158 | Filter, EMI |
| ET3000-122 | Isolation Transformer, for 100W |
| ET3000-123 | Isolation Transformer, for 150W |
| ET3000-124 | Isolation Transformer, for 200W |
| ET3000-125 | Isolation Transformer, for 500W |
| ET3000-135 | Isolation Transformer, for 200kV/500W |
| ET3000-142 | Isolation Transformer, for 160kV/800W |

Transport Cases



- Rugged and reusable
- Ideal for field use and repair center for product transport

| | | |
|------------|-----------------------------|---------------|
| JP3000-005 | Case for IXS 160kV | 543x543x393mm |
| JP3000-018 | Case for IXS 100kV | 390x390x330mm |
| JP3000-019 | Case for IXS 120kV Portable | 400x370x195mm |

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