

# Portable Metal Ceramic Tubes

Industrial X-Ray

Overview





#### **About Portable Metal Ceramic Tubes**

COMET's Portable Metal Ceramic tubes are designed for use in highly demanding field-tests applications such as pipe inspection, welding inspection, and aerospace testing. Because of their high reliability and stability, our tubes are also used in other X-Ray applications like Thickness Gauging and Non Destructive Testing.

The tube consists of a ceramic isolator and a metal envelope with air cooled anode especially designed to be continuously operated at max voltage and power.

Because of the metal ceramic design the tube's main advantages are:

- Low weight
- Very rugged mechanical design
- Small dimensions
- No oil insulation necessary
- No choke effect due to space charges
- Integrated heat sink (on request)

For special applications or for special demands for focal spot size, power and/or packaging, COMET is prepared to provide customized solutions.

#### **"One Stop Shop" for Industrial X-Ray Sources:**

COMET's XRS Subsystems COMET is pleased to offer all of the necessary components for a customized X-Ray Source: The new XRS subsystems each contain a COMET X-Ray tube, high voltage generator with cables and coolers designed for easy integration that will optimize system performance.

All XRS subsystems are factory prepared and tested for hassle free installation and operation.

This novel solution demonstrates COMET's continuous commitment and investment in delivering real added value to our worldwide customer base.

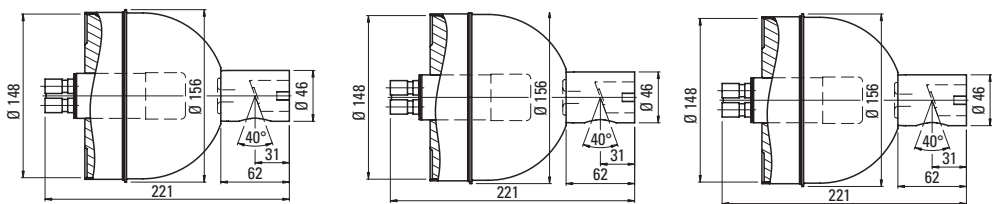
#### **About the Business Unit Industrial X-Ray**

COMET Industrial X-Ray is an experienced supplier of components and modules for industrial X-Ray applications and is proud of its reputation as the preferred engineering partner in terms of innovation potential, know how, flexibility and speed. Our product range features X-Ray tubes and sources with small focal spot resolution ( $< 1 \mu\text{m}$ ) up to 6 kW in output for more power demanding requirements: from the smallest footprint for use in portable units to 800 kV fixed gantry systems that are suitable for cargo screening.

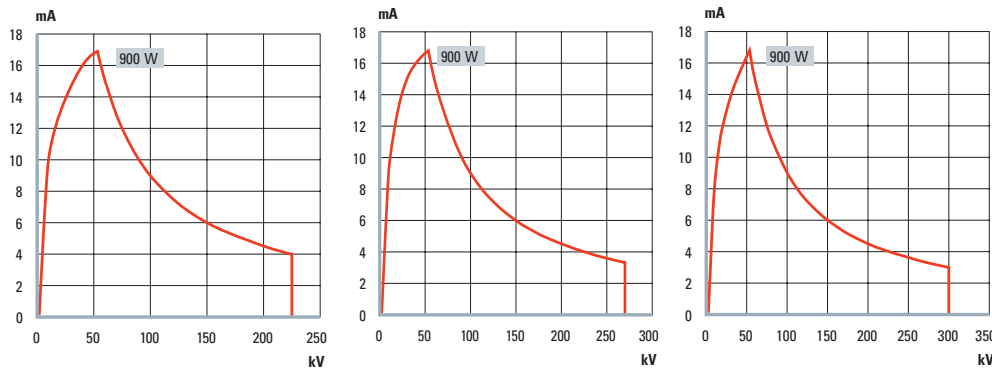


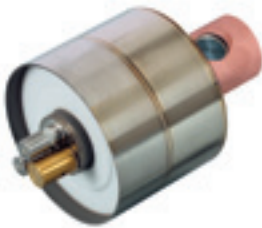
	MIR-225E	MIR-270E	MIR-300E
Ordering No.	915329.01	915329.11	915329.21
Nominal tube voltage	225 kV	270 kV	300 kV
Continuous rating	900 W	900 W	900 W
Focal spot acc. EN 12543	d = 3.0 mm	d = 3.0 mm	d = 3.0 mm
Filament current, max.	3.8 A	3.8 A	3.8 A
Filament voltage, typical	5.0 V	5.0 V	5.0 V
Inherent filtration	0.8 mm Be	0.8 mm Be	0.8 mm Be
Target material	W	W	W
Target angle	20°	20°	20°
Radiation coverage	60° x 40°	60° x 40°	60° x 40°
Cooling medium	Air	Air	Air
Anode temperature, max.	100° C	100° C	100° C
Weight	2.6 kg	2.6 kg	2.6 kg

Outline drawing



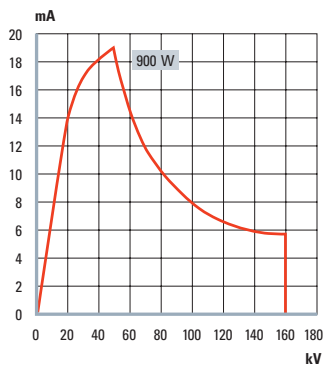
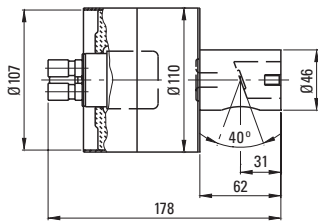
Tube diagram





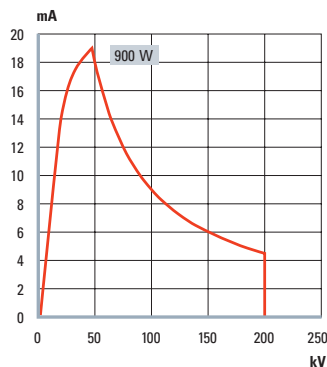
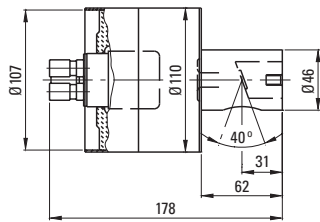
MIR-160E

915328.11
160 kV
900 W
d = 3.0 mm
3.8 A
4.6 V
0.8 mm Be
W
20°
60° x 40°
Air
100° C
1.9 kg



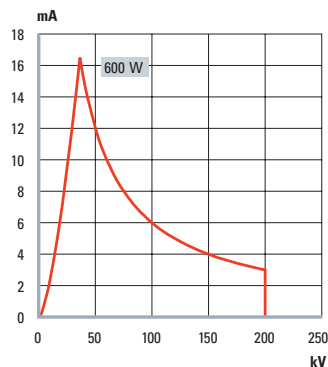
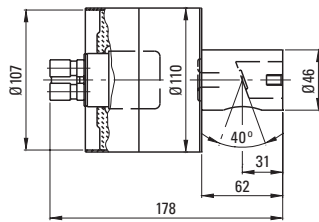
MIR-200E

915328.01
200 kV
900 W
d = 3.0 mm
3.8 A
4.6 V
0.8 mm Be
W
20°
60° x 40°
Air
100° C
1.9 kg



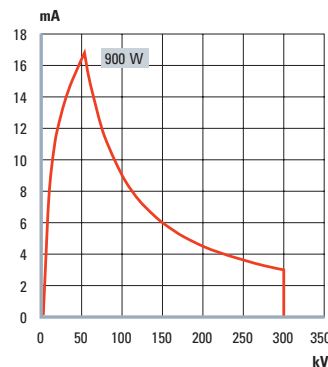
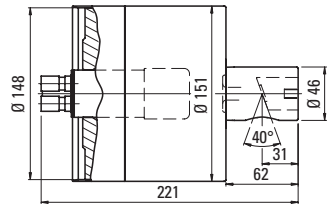
MIR-201E

915352.01
200 kV
600 W
d = 1.0 mm
4.1 A
3.0 V
0.8 mm Be
W
20°
60° x 40°
Air
100° C
1.9 kg



MIR-301E

915338.01
300 kV
900 W
d = 3.0 mm
3.8 A
4.6 V
0.8 mm Be
W
20°
60° x 40°
Air
100° C
3.7 kg



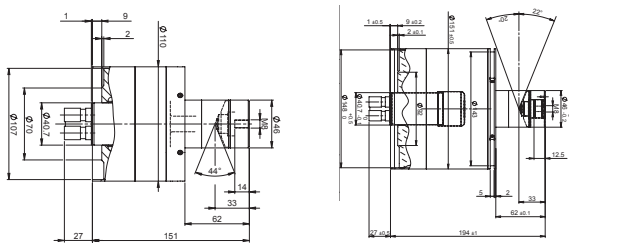


Ordering No.	915333.01
Nominal tube voltage	200 kV
Continuous rating	600 W
Focal spot acc. EN 12543	l = 0.4 mm / w = 4.0 mm
Former focal spot design.	0.4 x 4.0
Filament current, max.	4.2 A
Filament voltage, typical	2.3 V
Inherent filtration	0.4 mm Fe/Ni/Co
Target material	W
Target angle	22°
Radiation coverage	360° x 40°
Cooling medium	Air
Anode temperature, max.	120° C
Weight	3.0 kg

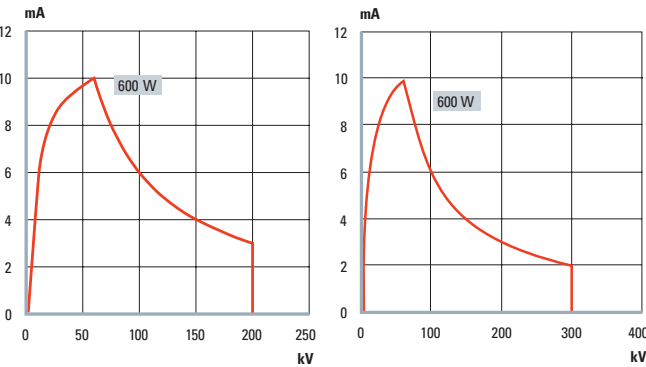
MIRP-200E	915333.01
Nominal tube voltage	200 kV
Continuous rating	600 W
Focal spot acc. EN 12543	l = 0.4 mm / w = 4.0 mm
Former focal spot design.	0.4 x 4.0
Filament current, max.	4.2 A
Filament voltage, typical	2.3 V
Inherent filtration	0.4 mm Fe/Ni/Co
Target material	W
Target angle	22°
Radiation coverage	360° x 40°
Cooling medium	Air
Anode temperature, max.	120° C
Weight	3.0 kg

MIRP-301E	915354.01
Nominal tube voltage	300 kV
Continuous rating	600 W
Focal spot acc. EN 12543	l = 0.5 mm / w = 5.5 mm
Former focal spot design.	0.4 x 4.0
Filament current, max.	4.2 A
Filament voltage, typical	2.3 V
Inherent filtration	0.4 mm Fe/Ni/Co
Target material	W
Target angle	22°
Radiation coverage	360° x 40°
Cooling medium	Air
Anode temperature, max.	120° C
Weight	3.2 kg

Outline drawing



Tube diagram







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Technology with Passion

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