

MQXR Industrial X-ray Systems



MQXR Industrial X-ray units are available in 160 - 450kV energy ranges and are widely used in a multitude of industries for radiography inspection where continuous operation is of essence. These units are configured to precisely meet every customer's unique inspection requirements and offer unmatched reliability even at 100% duty cycles.



X-ray Tubes



X-ray Generator



X-ray Cooler



XRV Controller



HV Cables

MQXR 160 Series

		MQXR 160	MQXR 160B	MQXR 160B1	MQXR 160A	MQXR 160C	MQXR 160C1
X-Ray Tube	Maximum Tube Voltage	160 kV					
	Cooling Medium	Water					
	Focal Spot Size	Small – 0.4mm x Large – 1.0mm			Small – 1.0mm x Large – 3.0mm		
	Max Power Rating	1800W with 4L / min			1600W with 4 L / min		
	Radiation Coverage	40°x30°			40°		
	Target Angle	11°			20°		
	Weight (Approx)	7.5kg					
Generator	DC Output Voltage Range	10-160 kV	5 – 160 kV	10 – 160 kV	10-160 kV	5 – 160 kV	10 – 160 kV
	kV accuracy	0.25%	± 1% of Demand Value	± 1% of Demand Value	0.25%	± 1% of Demand Value	± 1% of Demand Value
	Output Current Range	0-30/ 50mA	0 – 30mA	0 – 30mA	0-50mA	0 – 30mA	0 – 30mA
	mA accuracy	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value
	Maximum Output Power	1.8/ 3.0/ 4.0kW	4.0kW	3.2kW	4.0kW	4.0kW	3.2kW
	High Voltage isolation	Silicon Encapsulation	Resin Encapsulation with oil	Resin Encapsulation with oil	Silicon Encapsulation	Resin Encapsulation with oil	Resin Encapsulation with oil
	HV Ripple	<0.025%	Less Than 5.0V/ mA with 10M High Voltage Cable	Less Than 5.0V/ mA with 10M High Voltage Cable	<0.025%	Less Than 5.0V/ mA with 10M High Voltage Cable	Less Than 5.0V/ mA with 10M High Voltage Cable
	Interface	Analog, RS-232, Ethernet and USB	Analogue/ RS232/ RS422/ Ethernet	Analogue/ RS232/ RS422/ Ethernet	Analog RS-232 Ethernet and USB	Analogue/ RS232/ RS422/ Ethernet	Analogue/ RS232/ RS422
	Dimensions (Approx.)	256mm x 436mm x 609mm	400mm x 586mm x 613mm	435mm x 729mm x 667mm	256mm x 436mm x 609mm	400mm x 586mm x 613mm	435mm x 729mm x 667mm
	Weight	68Kg	130kg	220kg	68Kg	130kg	220 kg
Cooler	Cooling Tank Capacity(Approx.)	3.7Liters					
	Pump Capacity	6 L / min at 4bar					
	Power Rating	3.0 kW					
	Mains Voltage	230V ± 10% 50 / 60Hz					
	Dimensions (WxHxD)	479mm x 398mm x 481mm					
	Weight	38.5 kg without filling					
Controller	Input Voltage	220Vac ± 10%					
	Resolution	1280x800					
	kV Resolution	0.1kV					
	mA Resolution	0.01mA / 0.1mA					
	GUI based Controller	Yes					
	Automatic Warm up programmes	Yes					
	Features	Selectable tube profile, 7"/ 10" Touch Display					
	Connector	RS-232 Serial ports / USB / Ethernet					
	No of storable program techniques	More than 600					
HV Cable	R24 (5 / 10 / 15 / 20mtrs)						
Compliance Standards	CE, EN 61010-1 & EN 61326-1/ EN 50081-2 & EN50082-2						
* Specifications are subject to change without notice. AERB * Regulatory approved models							

MQXR 225 Series

		MQXR 225	MQXR 225B1	MQXR 225B	MQXR 225A	MQXR 225C	MQXR 225C1
X-Ray Tube	Max peak voltage cooling medium	225kV					
	Cooling Medium	Water					
	Max Continuous Rating small focus cooling flow	0.4mm of 800W with 4L / min			1mm of 640W with 4Litre / min		
	Max Continuous Rating large focus cooling flow	1mm of 1800W with 4L / min			3mm of 1600W with 4Litre / min		
	Radiation Coverage	30°x40°			40°		
	Target Angle	11°			20°		
	Weight (Approx.)	10.5Kg					
Generator	DC Output Voltage Range	10-225 kV	5-225 kV	20–225 kV	10-225 kV	5-225 kV	20–225 kV
	kV accuracy	0.25%	± 1% of Demand Value	± 1% of Demand Value	0.25%	± 1% of Demand Value	± 1% of Demand Value
	Maximum Output Rated Current	0-30mA	0-30mA	0 – 30mA	0-30mA	0-30mA	0 – 30mA
	mA accuracy	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value
	Maximum Output Power	1.8/ 3.0/ 4.0kW	4.5kW	3.2kW	1.8/ 3.0/ 4.0kW	4.5kW	3.2kW
	High Voltage isolation	Silicon Encapsulation	Resin Encapsulation with oil	Resin Encapsulation with oil	Silicon Encapsulation	Resin Encapsulation with oil	Resin Encapsulation with oil
	HV Ripple	<0.025%/ <0.05%/ <0.1%	Less Than 5.0V/ mA with 10M High Voltage Cable	Less Than 5.0V /mA with 10M High Voltage Cable	<0.025%/ <0.05%/ <0.1%	Less Than 5.0V /mA with 10M High Voltage Cable	Less Than 5.0V /mA with 10M High Voltage Cable
	Dimensions (Approx.)	404mm x 432mm x 780mm	412mm x 663mm x 805mm	435mm x 780mm x 818mm	404mm x 432mm x 780mm	412mm x 663mm x 805mm	435mm x 780mm x 818mm
	Weight	109kg	165Kg	240kg	109kg	165Kg	240kg
Cooler	Cooling Tank Capacity(Approx.)	3.7Liters					
	Pump Capacity	6 L / min at 4bar					
	Power Rating	3.0kW					
	Mains Voltage	230V ± 10% 50 / 60Hz					
	Dimensions (WxHxD)	479mm x 398mm x 481mm					
	Weight	38.5 kg without filling					
Controller	Input Voltage	220Vac ± 10%					
	Resolution	1280x800					
	kV Resolution	0.1kV					
	mA Resolution	0.01mA / 0.1mA					
	GUI based Controller	Yes					
	Automatic Warm up programmes	Yes					
	Features	Selectable tube profile, 7"/ 10" Touch Display / LED DISPLAY					
	Connector	RS-232 Serial ports / USB / ETHERNET					
	No of storable program techniques	More than 600					
HV Cable	R24, R28 & R30 (5 / 10 / 15 / 20 mtrs)						
Compliance Standards	CE, EN 61010-1 & EN 61326-1/ EN 50081-2 & EN50082-2						
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MQXR 320 Series

		MQXR 320	MQXR 320B	MQXR 320B1	MQXR 320B2	MQXR 320A	MQXR 320C	MQXR 320C1	MQXR 320C2
X-Ray Tube	Max peak voltage	320kV							
	cooling medium	Oil							
	Cooling Medium	Oil							
	Max Continuous Rating small focus cooling flow	0.4mm of 800W with 14Litre / min			1.9mm of 640W with 14Litre / min			3.0mm of 1500W with 14Litre / min	
	Max Continuous Rating large focus cooling flow	1.0mm of 1800W with 14Litre / min			3.6mm of 1600W with14Litre / min			5.5mm 4200W with14Litre / min	
	Radiation Coverage	30°x40°			40°				
	Target Angle	11°			20°				
	Weight (Approx)	40.0kg			41.0kg				
Generator	DC Output Voltage Range	10 – 320 kV	10 – 320 kV	10 – 320 kV	30 – 320 kV	10 – 320 kV	10 – 320 kV	30 – 320 kV	10 – 320 kV
	kV accuracy	0.25%	± 1% of Demand Value	± 1% of Demand Value	± 1% of Demand Value	0.25%	± 1% of Demand Value	± 1% of Demand Value	0.25%
	Maxium Output Rated Current	0-30mA	0 – 1mA	0 – 25 mA	0 – 3mA	0-30mA	0 – 25mA	0 – 3mA	0-30mA
	mA accuracy	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value	± 0.5% of Demand Value	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value	0.25%
	Maxium Output Power	1.8kW	1.8kW	4.kW	4.kW	1.8kW	4.kW	4.kW	1.8kW
	High Voltage isolation	Silicon Encapsul ation	Resin Encapsula tion with oil	Resin Encapsula tion with oil	Resin Encapsulati on with oil	Silicon Encapsulati on	Resin Encapsulation with oil	Resin Encapsulation with oil	Silicon Encapsulation
	HV Ripple	<0.025%/ <0.1% with high stability	<5.0V/ mA with 10M High Voltage Cable					Less Than 10.0V/ mA with 10M High Voltage Cable	<0.025%/ <0.1% with high stability
	Interface	Analog RS-232 ethernet and USB	Analogue / RS232/ RS422	Analogu e/ RS232 / RS422/ Ethernet	Analogue / RS232/ RS422	Analog RS-232 ethernet and USB	Analogue/ RS232/ RS422/ Ethernet	Analogue/ RS232/ RS422	Analog RS-232 ethernet and USB
	Dimensions (Approx)	256mm x 436mm x 609mm	364mm x 565mm x 613 mm	412mm x 586mm x 613 mm	435mm x 729mm x 667 mm	256mm x 436mm x 609mm	412mm x 586mm x 613 mm	435mm x 729mm x 667mm	256mm x 436mm x 609mm
	Weight	136kg	185kg	240kg	380kg	136kg	240kg	380kg	136kg
Cooler	Cooling Tank Capacity	23 litres							
	Pump Capacity	> 22 l / min at 3.5 bar							
	Power Rating	4500W							
	Mains Voltage	230V ± 10% / 50 / 60 Hz							
Controller	Input Voltage	220Vac ± 10%							
	Resolution	1280x800							
	kV Resolution	0.1kV							
	mA Resolution	0.01mA / 0.1mA							
	GUI based Controller	Yes							
	Automatic Warm up programmes	Yes							
	Features	Selectable tube profile, 7"/ 10" Touch Display / LED DISPLAY							
	Connector	RS-232 Serial ports/ USB/ ETHERNET							
HV Cable	No of storable program techniques	More than 600							
		R24 - R24 (5 / 10 / 15 / 20mtrs)							
Compliance Standards		CE, EN 61010-1 & EN 61326-1 / EN 50081-2 & EN50082-2							
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MQXR 450 Series

		MQXR 450	MQXR 450B	MQXR 450B1	MQXR 450A	MQXR 450C	MQXR 450C1
X-Ray Tube	Max peak voltage cooling medium	450kV					
	Cooling Medium	Oil					
	Max Continuous Rating small focus cooling flow	0.4mm of 700W with 14Litre / min			2.5mm of 900W with 14Litre / min		
	Max Continuous Rating large focus cooling flow	1mm of 1500W with 14Litre / min			5.5mm of 4500W with 14Litre / min		
	Radiation Coverage	30°x40°			40°		
	Target Angle	11°			30°		
	Weight (Approx)	95kg			95kg		
Generator	DC Output Voltage Range	0 to ±225 kV	10 – 320 kV	40 – 450 kV	0 to ± 225 kV	10 – 320 kV	40 – 450 kV
	kV accuracy	0.25%	± 1% of Demand Value	± 1% of Demand Value	0.25%	± 1% of Demand Value	± 1% of Demand Value
	Output Rated Current	0-30mA	0 – 20mA	0 – 20mA	0-30mA	0 – 20mA	0 – 20mA
	mA accuracy	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value	0.25%	± 0.5% of Demand Value	± 0.5% of Demand Value
	Maximum Output Power	1.8kW / 4.5kW	4.5kW	4.5kW	1.8kW / 4.5kW	4.5kW	4.5kW
	High Voltage isolation	Silicon Encapsulation	Resin Encapsulation with oil	Resin Encapsulation with oil	Silicon Encapsulation	Resin Encapsulation with oil	Resin Encapsulation with oil
	HV Ripple	<0.025% / <0.1% with high stability	Less than 10.0V/mA with 10M High Voltage Cable	Less Than 10.0V/mA with 10M High Voltage Cable	<0.025% / <0.1% with high stability	Less than 10.0V/mA with 10M High Voltage Cable	Less Than 10.0V/ mA with 10M High Voltage Cable
	Interface	Analog, RS-232 ethernet and USB	Analog, RS-232 ethernet and USB	Analog, RS-232 ethernet and USB	Analog, RS-232 ethernet and USB	Analog, RS-232 ethernet and USB	Analog, RS-232 ethernet and USB
	Dimensions (Approx.)	404mm x 432mm x 780mm	412mm x 785mm x 667mm	435mm x 780mm x 818mm	404mm x 432mm x 780mm	412mm x 785mm x 667 mm	435mm x 780mm x 818 mm
	Weight	218kg	305kg	430kg	218kg	305kg	430kg
Cooler	Cooling Tank Capacity	23ltrs					
	Pump Capacity	> 22 l / min at 3.5bar					
	Power Rating	4500W					
	Mains Voltage	230V ± 10% / 50 / 60Hz					
Controller	Input Voltage	220Vac ± 10%					
	Resolution	1280x800					
	kv Resolution	0.1kv					
	mA Resolution	0.01mA / 0.1mA					
	GUI based Controller	Yes					
	Automatic Warm up programmes	Yes					
	Features	Selectable tube profile, 7"/ 10" Touch Display / LED DISPLAY					
Connector	RS-232 Serial ports / USB / ETHERNET						
No of storable program techniques	More than 600						
HV Cable	R28 & R30 (5 / 10 / 15 / 20mtrs)						
Compliance Standards	CE, EN 61010-1 & EN 61326-1/EN 50081-2 & EN50082-2						
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Features & Benefits

- ▶ High reliability with industry leading accuracy, efficiency and MTBF values
- ▶ Built around the concept of field serviceability to ensure highest uptime
- ▶ Best in class values of ripple and high stability combined with the ability to handle wide variation in input voltage
- ▶ Proven performance across industries
- ▶ Subject to extensive in-house testing, at a modular and a system level, prior to delivery
- ▶ 100% duty cycle and are suitable for operation across a wide range of ambient conditions
- ▶ Backed by superior service support from factory trained personnel
- ▶ CE Certified & compliant with AERB regulatory requirements

Our Clients



About MQS Technologies

MQS Technologies (formerly MedeQuip Services) is a diversified firm with Design, manufacturing & maintenance capabilities that offers custom solutions for engineering & healthcare applications.

Focused on three business lines - Non-Destructive Testing, Aerospace & Defense and Healthcare, our USP lies in leveraging decades of multidisciplinary expertise in electronics, electro-mechanical, mechanical and software domains, to provide user-friendly products and services for a wide range of industries.



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