

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

Maximum Output Power 1.8/3.0/4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 3.2kW High Voltage isolation Silicon Encapsulation Encapsulation with oil Silicon Encapsulation With oil Sil			MQXR 160	MQXR 160B	MQXR 160B1	MQXR 160A	MQXR 160C	MQXR 160C1				
Focal Spot Size Small 0.4mm x Large 1.0mm Small 1.0mm x Large 3.0mm			160 kV									
X-Ray Tube Max Power Rating 1800W with 4 L / min 1600W with	X-Ray Tube	Cooling Medium	Water									
Radiation Coverage		Focal Spot Size	Small -	- 0.4mm x Large	– 1.0mm	Small – 1.0mm x Large – 3.0mm						
Target Angle Weight (Approx) To To To To To To To T		Max Power Rating	1:	800W with 4L/m	nin	16	00W with 4 L/m	in				
DC Output Voltage Range		Radiation Coverage		40°x30°			40°					
DC Output Voltage Range				11°	7.							
RV accuracy		DC Output Voltage	10-160 kV	5 – 160 kV		_	5 – 160 kV	10 – 160 kV				
Range		ū	0.25%	() 75%		0.25%						
Maximum Output 18/3.0/4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 3.2kW 4.0kW 3.2kW 4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 4.0kW 3.2kW 4.0kW 4.0kW 4.0kW 3.2kW 4.0kW 4.0k		•	0-30/50mA		0 – 30mA	0-50mA						
Power 189 50) 4-0,000 S2RW 4-0,0		mA accuracy	0.25%			0.25%		± 0.5% of Demand Value				
Cenerator High Voltage isolation Encapsulation Encapsulation Encapsulation With oil W		·	1.8/3.0/4.0kW	4.0kW	3.2kW	4.0kW	4.0kW	3.2kW				
HV Ripple	Generator	High Voltage isolation		Encapsulation	Encapsulation		Encapsulation	Encapsulation				
Interface		HV Ripple	<0.025%	mA with 10M High Voltage	mA with 10M High Voltage	<0.025%	mA with 10M High Voltage	High Voltage				
Dimensions (Approx.) 436mm x 609mm 613mm 667mm 609mm 613mm 667mm 609mm 613mm 667mm 609mm 613mm 667mm 667mm 609mm 613mm 667mm 667mm 609mm 613mm 667mm 667mm 609mm 613mm 620 kg 130 kg 220 kg 220 kg 130 kg 220 kg			Ethernet and	RS232/RS422/	RS232/RS422/ Ethernet	Ethernet and	RS232/RS422/					
Cooling Tank Capacity Capac		Dimensions (Approx.)	436mm x	586mm x	729mm x	436mm x	586mm x	729mm x				
Capacity(Approx.) Pump Capacity 6 L / min at 4bar		Weight	68Kg	130kg	220kg	68Kg	130kg	220 kg				
Power Rating 3.0 kW Mains Voltage 230V ± 10% 50 / 60Hz Dimensions (WxHxD) 479mm x 398mm x 481mm Weight 38.5 kg without filling		•	3.7Liters									
Mains Voltage 230V ± 10% 50 / 60Hz Dimensions (WxHxD) 479mm x 398mm x 481mm Weight 38.5 kg without filling		Pump Capacity										
Dimensions (WxHxD)	Cooler											
Neight 38.5 kg without filling		Mains Voltage	230V ± 10% 50 / 60Hz									
Input Voltage Resolution Resoluti	I	Dimensions (WxHxD)										
Resolution kV Resolution O.1kV mA Resolution GUI based Controller Automatic Warm up programmes Features Connector No of storable program techniques Resolution O.1kV Yes Selectable tube profile, 7"/10" Touch Display RS-232 Serial ports / USB / Ethernet More than 600 R24 (5/10/15/20mtrs) Compliance CE EN 61010-1 & EN 61326-1 / EN 50081-2 & EN50082-2		Weight	38.5 kg without filling									
kV Resolution mA Resolution GUI based Controller Automatic Warm up programmes Features Connector No of storable program techniques FY Cable RY Cable Selectable tube profile, 7"/10" Touch Display RS-232 Serial ports / USB / Ethernet More than 600 R24 (5/10/15/20mtrs) CE EN 61010-18 EN 61326-1/EN 50081-28 EN50082-2												
mA Resolution GUI based Controller Automatic Warm up programmes Features Connector No of storable program techniques HV Cable Compliance Teatures RS-232 Serial ports / USB / Ethernet More than 600 R24 (5 / 10 / 15 / 20mtrs) CE EN 61010-1 & EN 61326-1 / EN 50081-2 & EN50082-2	Controller											
Controller GUI based Controller Automatic Warm up programmes Features Connector No of storable program techniques HV Cable Compliance GUI based Controller Yes Yes Selectable tube profile, 7"/10" Touch Display RS-232 Serial ports / USB / Ethernet More than 600 R24 (5 / 10 / 15 / 20mtrs)												
Automatic Warm up programmes Features Connector No of storable program techniques HV Cable Compliance Automatic Warm up programmes Selectable tube profile, 7"/10" Touch Display RS-232 Serial ports / USB / Ethernet More than 600 R24 (5 / 10 / 15 / 20mtrs)												
Features Connector No of storable program techniques FYES Selectable tube profile, 7"/ 10" Touch Display RS-232 Serial ports / USB / Ethernet More than 600 RY Cable RY												
Connector No of storable program techniques HV Cable Compliance Connector RS-232 Serial ports / USB / Ethernet More than 600 R24 (5 / 10 / 15 / 20mtrs)		•	5			Yes						
No of storable program techniques More than 600 HV Cable R24 (5/10/15/20mtrs) Compliance CE EN 61010-1 & EN 61326-1/EN 50081-2 & EN50082-2		Features		Se	electable tube pro	ofile, 7"/ 10" Touch	n Display					
## Program techniques ### Cable R24 (5/10/15/20mtrs) Compliance CF EN 61010-1 & EN 61326-1/EN 50081-2 & EN50082-2		Connector	RS-232 Serial ports / USB / Ethernet									
Compliance CE EN 61010-1 & EN 61326-1 / EN 50081-2 & EN50082-2			More than 600									
Compliance CE EN 61010-1 & EN 61326-1 / EN 50081-2 & EN50082-2	HV Cable		R24 (5/10/15/20mtrs)									
	•		CE,				-2					
* Specifications are subject to change without notice, AERB * Regulatory approved models		* Specification	s are subject to	o change withou	ut notice, AERB *	Regulatory app	roved 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	0.4mr	n of 800W with 4	L/min	1mm of 640W with 4Litre/min						
	Max Continuous Rating large focus cooling flow	lmm	of 1800W with 41	L/min	3mm of 1600W with 4Litre/min						
	Radiation Coverage		30°x40°		40°						
	Target Angle	11° 20°									
	Weight (Approx.)			10.5	skg						
	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				
Generator	High Voltage isolation	Silicon Encapsulation	Resin Encapsulation with oil	Encapsulation Encapsulation Encaps		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				
	Cooling Tank Capacity(Approx.)	3.7Liters									
	Pump Capacity	6 L / min at 4bar									
Cooler	Power Rating	3.0kW									
	Mains Voltage	230V ± 10% 50 / 60Hz									
	Dimensions (WxHxD) Weight	479mm x 398mm x 481mm									
	Input Voltage	38.5 kg without filling 220Vac ± 10%									
	Resolution	220Vac ± 10% 1280x800									
	kV Resolution	0.1kV									
Controller	mA Resolution	0.01mA / 0.1mA									
	GUI based Controller			Ye	es						
	Automatic Warm up programmes	Yes									
	Features	Selectable tube profile, 7"/10" Touch Display / LED DISPLAY									
	Connector		R	S-232 Serial ports	/USB/ETHERN	ET					
	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 6	51326-1/ EN 50081-	2 & EN50082-2						
	* Specificatio	ns are subject to	change without	notice, AERB * Re	gulatory approv	red models					

MQXR 320 Series

		320	320B	320B1	320	XR B2	MQX 320.		MQXR 320C1		MQXR 320C2				
	Max peak voltage cooling medium					320	OkV								
	Cooling Medium	Oil													
	Max Continuous	3.0mr							nm of 1500W						
	Rating small focus cooling flow	0.4mm of 800W with 14Litre/min				1.9mm	of 64	0W with 14Litre	e/min		14Litre/mir				
X-Ray Tube	Max Continuous Rating large focus cooling flow	1.0mm of 1800W with 14Litre/min				3.6mm	00W with14Litr	e/min	/ min 5.5mm 4200W with14Litre / min						
	Radiation Coverage	30°x40°						40)°						
	Target Angle		11					20							
	Weight (Approx)		40.0)kg				41.0	kg						
	DC Output	10 – 320	10 –	10 – 320	30 –	10 – 32	0 kV	10 – 320 kV	30 – 320	kV	10 – 320 k\				
	Voltage Range	kV	320 kV	kV	320 kV	52	•	020							
	kV accuracy	0.25%	± 1% of Demand Value	± 1% of Demand Value	± 1% of Demand Value	d 0.25	%	± 1% of Demand Value	± 1% o Demar Value	nd	0.25%				
	Maxium Output Rated Current	0-30mA	0 – 1mA	0 – 25 mA	0 – 3mA	0-301	mΑ	0 – 25mA	0 – 3m	Α	0-30mA				
	mA accuracy	0.25%	± 0.5% of Demand Value		± 0.5% o Demand Value		%	± 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					
Generator	High Voltage isolation	Silicon Encapsul ation	Resin Encapsula tion with oil	Resin Encapsul ation with oil	Resin Encapsula on with c	Silico ati Encaps oil on	sulati	Resin Encapsulation with oil	Resin Encapsula with o	ation	Silicon Encapsulatio				
	HV Ripple	<0.025%/ <0.1% with high stability	<0.1% th high <5.0V/ mA with 10M High Voltage Cable					Cable	Less The 10.0V/ n with 10M I Voltage C	nA High	<0.025%/ <0.1% with high stabilit				
	Interface	Analog RS-232 ethernet and USB	Analogue /RS232/ RS422	Analogu e/RS232 /RS422/ Ethernet	Analogue / RS232/ RS422	Analog RS-232 ethernet and USB		logue/ RS232/ 422/ Ethernet	Analogu RS232/RS		Analog RS 232 etherne and USB				
	I)imancione		565mm x		729mm x	x 256mm x 412mm x x 436mm x 586mm x 609mm 613 mm		435mm 729mm 667mr	ıχ	256mm x 436mm x 609mm					
	Weight	136kg	185kg	240kg	380kg	136kg		240kg	380kg	3	136kg				
	Cooling Tank Capacity					23 li	tres								
Cooler	Pump Capacity	> 22 I / min at 3.5 bar													
	Power Rating	4500W													
	Mains Voltage	230V ± 10% / 50 / 60 Hz													
	Input Voltage					220V	ac ± 1	0%							
	Resolution					128	0x80	0							
	kV Resolution					C).1kV								
	mA Resolution					0.01m		lmA							
	GUI based Contro						Yes								
0	Automatic Warm														
Controller	programmes	чÞ					Yes								
	Features			Selectab	le tube pr	ofile, 7"/10	D" Tou	ıch Displav/LE	D DISPLA	Y					
	Connector	Selectable tube profile, 7"/ 10" Touch Display / LED DISPLAY RS-232 Serial ports/ USB/ ETHERNET													
	No of storable program technique	More than 600													
HV Cable	p. ogram teemingt	R24 - R24 (5/10/15/20mtrs)													
Compliance Standards				CE, EN	61010-1 &	EN 61326-	1 / EN	50081-2 & EN5	0082-2						

MQXR 450 Series

		MQXR 450	MQXR 450B	MQXR 450B1	MQXR 450A	MQXR 450C	MQXR 450C1				
	Max peak voltage	450kV									
	cooling medium Cooling Medium	Oil									
	Max Continuous				JII						
	Rating small focus cooling flow		of 700W with 14	-Litre / min	2.5mm of 900W with 14Litre/min						
X-Ray Tube	Max Continuous Rating large focus cooling flow	1mm of	f 1500W with 14L	itre / min	5.5mm of 4500W with 14Litre/min						
	Radiation Coverage		30°x40°			40°					
	Target Angle		11°		30°						
	Weight (Approx)		95kg		95kg						
	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				
Generator	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	10.0V/MA WITH	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				
	Cooling Tank Capacity			23	ltrs						
Cooler	Pump Capacity	> 22 l / min at 3.5bar									
	Power Rating	4500W									
	Mains Voltage	230V ± 10% / 50 / 60Hz									
	Input Voltage	220Vac ± 10%									
	Resolution	1280x800									
	kv Resolution			0.7	lkv						
	mA Resolution	0.01mA / 0.1mA									
	GUI based Controller	Yes									
Controller	Automatic Warm up programmes	Yes									
	Features		Selectable t	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 / 20)mtrs)						
Compliance	CE, EN 61010-1 & EN 61326-1/EN 50081-2 & EN50082-2										

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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