PANORAMIC UNITS

SITEX & SITEXS

PORTABLE X-RAY GENERATOR

Increase the reliability of on-site X-ray techniques while decreasing their costs

OUR CHALLENGE...

« To increase the reliability of on-site X-ray techniques while decreasing their costs »

To successfully meet this challenge, ICM's engineers have worked at improving upon what we consider to be largely tried and tested techniques.

The technological options were determined at each development stage on the basis of quality, general reliability and the need to substantially increase the life of the X-ray tube.

If you are already impressed with the reliability of the **SITE**X and **SITE**XS generators, we are confident that you will be even more impressed with their outstanding performance levels. These performance levels will enable you to take advantage of the most favorable overall operating costs available to the market.

A SIMPLE & EFFECTIVE PRINCIPLE

All **SITE**X and **SITE**XS units contain a rod anode. This is the focal spot that is outside the SF_6-insulated high-voltage generator. As maximum advantages are derived from this ideal configuration, for one and the same thickness, the volume of lead required for standard radiation protection is considerably reduced.

Consequently, the reduced weight that is achieved makes it possible for further investments to be made in the quality and general improvement of the level of performance (robustness, cooling, accessories etc).

We can confirm that **SITE**X and **SITE**XS are among the lightest portable X-ray generators available to the market.

MEASUREMENT & CONTROL

Representing another first in a portable, the **SITE**X and **SITE**XS have a facility to ensure the direct and true measurement of the high voltage. This essential information enables the control system to guarantee the stability and reproducibility of the radiological parameters based on true high-voltage values rather than merely estimating an HV value based on dose output.

PERFORMANCE

A high-efficiency heat exchanger has been developed in collaboration with the Institute of Thermo-mechanics at the University of Liege. This results in the possibility of a 100% working cycle under completely safe conditions, whilst simultaneously reducing the anode temperature by 50%.

ENSURING PERFECT HOMOGENEITY

The **SITE**X and **SITE**XS panoramic X-ray tubes come equipped with a patented automatic system of beam correction. Perfect homogeneity is ensured thanks to a real time feedback loop adjustment and the EMR value achieved on the films is < 5%.

SITEXS, THE 'EXTRA-SMALL'...

These 'XS' X-ray generators are in fact reduced versions of the corresponding **SITE**X units available in 200, 225 and 250 kV versions and provide considerably more compactness.

SITEX & SITEXS panoramic technical specifications :

SITEX & XS PANORAMIC	UNITS	C1802S	C2007	C2257	C2505	C3005	C3205	C3605	XS-C2004	XS-C2254	XS-C2504
Output voltage range	kV	50 to 180	70 to 200	70 to 225	70 to 250	90 to 300	90 to 320	120 to 360	70 to 200	70 to 225	70 to 250
Output voltage selection step	kV	1	1	1	1	1	1	1	1	1	1
Tube current range	mA	1 to 3	1 to 7	1 to 7	1 to 5	1 to 5	1 to 5	1 to 5	1 to 4	1 to 4	1 to 4
Tube current range at full output	mA	2	7	7	5	5	5	5	4	4	4
Tube current selection step	mA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Radiation geometry	-	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.	Pan. Orthog.
Maximum useful angle of X-ray beam	(°)	360 x (2x20)	360 x (2x20)	360 x (2x20)	360 x (2x20)	360 x (2x20)	360 x (2x20)	360 x (2x20)	360 x (2x20)	360 x (2x20)	360 x (2x20)
Dimension of optical focal spot	mm	Ø4x0.5	Ø5x 0.8	Ø5x 0.8	Ø5x 0.8	Ø5 x 0.8	Ø5 x 0.8	Ø6 x 1.0	Ø5 x 0.8	Ø5 x 0.8	Ø5 x 0.8
Inherent filtration	mm	Equiv. 3.5 (Al)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)	2.5 (Al) + 0.4 (Ni)
Carrousel of internal diaphragms with lead cap	-		no	no	no	no	no	no	no	no	no
Working cycle at 40°C ambient temp.	%	50*	100	100	100	100	100	60	100	100	100
Operating temperature range	°C	-25 to +70	-25 to +70	-25 to +70	-25 to +70	-25 to +70	-25 to +70	-25 to +70	-25 to +70	-25 to +70	-25 to +70
Storage temperature range	°C	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80
SF6 insulation pressure at 20°C	kg/cm²	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Cooling fan supply voltage	VDC	24	24	24	24	24	24	24	24	24	24
Weatherproof level	-	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Penetration into steel at max power *(FFD=700mm/Film D7pb/D=1.5/T=20 min)*	mm Fe	18	36	44	48	62	66	74	32	39	45
Guard rings	-	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Position of interconnection socket	choice	Radial	Axial/Radial	Axial/Radial	Axial/Radial	Axial/Radial	Axial/Radial	Axial/Radial	Axial/Radial	Axial/Radial	Axial/Radial
Number of telescopic centring device *(FFD=700mm)*	-	-	3	3	3	3	3	3	-	-	-
Max. leakage dose at 1m according to DIN at full output	mSv/h	2.5	2.5	10	10	10	10	10	2.5	10	10
Microcontroller HT measurement circuit *(kV and mA)*	-	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Overall dimensions	mm	Ø250 x 653	Ø346 x 771	Ø346 x 771	Ø346 x 771	Ø346 x 831	Ø346 x 831	Ø400 x 930	Ø305 x 718	Ø305 x 718	Ø305 x 718
Total weight without guard rings	kg	9.5	28	28	28	32	32	48	19	19	19

* : Maximum continuous exposure time: 5 min.

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