ISOVOLT titan|neo

Robust, reliable stationary X-ray generators

The ISOVOLT titan|neo generator powers a range of radiographic inspection technology—delivering the most reliable, consistent results in even the highest accuracy applications. So you can increase precision and inspect multiple parts each day.

Increased reproducibility: Reduce exposure times for various materials in several operation modes with high, stable radiation and fluctuations <0.05%.

Greater dependability: An extended tube range and maximum current ensure enhanced imaging contrast and high penetration power.

Unmatched flexibility: Its modular design includes intelligent tube integration and permanent system monitoring—offering unmatched ramp-up times* and a 100% duty cycle for continuous operation in inline systems**.

Features

POWERFUL PERFORMANCE

PERMANENT SYSTEM MONITORING

MODULAR DESIGN FOR EASY INTEGRATION

CONVENIENT, USER-FRIENDLY CONTROLS

BUILT-IN SAFETY FEATURES

*Depending on permissible tube data.
**Subject to operational generator cooling.

Technical specifications†

High voltage generator	160 kV Unipolar	225 kV Unipolar
Max out voltage kV	-160	-225
Max out current mA	45	45
Max out power kW	4,5 (limited by tube spec)	4,5 (limited by tube spec)
Insulation	Oil	Oil
Housing dim wxdxh	340 x 945 x 750 mm 13.38" x 37.20" x 29.52"	340 x 945 x 750 mm 13.38" x 37.20" x 29.52"
Weight	200 kg , 440.92 lbs	200 kg , 440.92 lbs
Tube voltage		
Presel and settings	From 5 to 160kV in 1kV	From 5 to 225kV in 1kV
Dig display of set and act values	3 digits (set); 4 digits (act)	3 digits (set) ; 4 digits (act)
Display resolution	1kV (set); 0,1 kV (act)	1kV (set) ; 0,1 kV (act)
Accuracy	<1%	<1%
Reproducibility	<0,01%	<0,01%
Temperature drift	<80ppm/K	<80ppm/K
Tube current		
Presel and settings	From 0,1 to 45mA in 0,1mA	From 0,1 to 45mA in 0,1mA
Dig display of set and act values	3 digits	3 digits
Display resolution	0,1 mA	0,1 mA
Accuracy	<1%	<1%
Reproducibility	<0,25%	<0,25%
Temperature drift	<100ppm/K	<100ppm/K
Exposure time		
Programmable timer	1	1
Presel and setting	1 .. 9999 s	1 .. 9999 s
Dig display of set and act values	4 digits	4 digits
Prewarning	Audible and visible	Audible and visible
Presel and setting	2 .. 120 s or deactivated	2 .. 120 s or deactivated
Programmed mode		
Number of storable programs	250	250
Warm-up	Auto mode based on real time clock	Auto mode based on real time clock
X-ray tube set up	8 Tube selectable from a database of 40 pre-programmed tubes	8 Tube selectable from a database of 40 pre-programmed tubes
Operation history	Stored on SD	Stored on SD
Warm-up history	Stored on SD	Stored on SD
Control module		
Dimension wxdxh	440 x 114 x 295 mm 17.32" x 4.48" x 11.61"	440 x 114 x 295 mm 17.32" x 4.48" x 11.61"
Weight	3.8 kg, 8.37 lbs	3.8 kg, 8.37 lbs
Connected loads		
Power connection	1N PE 230 V ± 10% 50/60 Hz 3N PE 400/230 V ±10%, 50/60 Hz, 3-Phase, Grounded Neutral TN-S or TN-C-S Mains (Star Connected System, Optional 3-Phase Isolation Transformer)	1N PE 230 V ± 10% 50/60 Hz 3N PE 400/230 V ±10%, 50/60 Hz, 3-Phase, Grounded Neutral TN-S or TN-C-S Mains (Star Connected System, Optional 3-Phase Isolation Transformer)
Grounding	Separate Grounding for X-ray Tube and High Voltage Generator (Minimum 6 mm2)	Separate Grounding for X-ray Tube and High Voltage Generator (Minimum 6 mm2)
Mains fuses	63 A (1N PE) or 20 A (3N PE) Time-Delay Fuses, Customer-Supplied	63 A (1N PE) or 20 A (3N PE) Time-Delay Fuses, Customer-Supplied
Operating temperature range	0°C to +40°C	0°C to +40°C
Storage temperature range	-30°C to +70°C	-30°C to +70°C

†Technical specifications are preliminary and subject to change.

High voltage generator	320 KV Bipolar	450 KV Bipolar	240 HR
Max out voltage kV	320	450	-240
Max out current mA	45	45	3
Max out power kW	4.5 (limited by tube spec)	4.5 (limited by tube spec)	0.320 (limited by tube spec)
Insulation	Oil	Oil	Oil
Housing dim wxdxh	(340 x 945 x 750) + (340 x 945 x 540) mm (13.38" x 37.20" x 29.52") + (13.38" x 37.20" x 21.25")	(340 x 945 x 750) + (340 x 945 x 540) mm (13.38" x 37.20" x 29.52") + (13.38" x 37.20" x 21.25")	340 x 945 x 750 mm (13.38" x 37.20" x 29.52")
Weight	200+140 (kg) 440.92 + 308.64 (lbs)	200+140 (kg) 440.92 + 308.64 (lbs)	170 kg, 374.78 lbs
Tube voltage			
Presel and settings	From 10 to 320 kV in 1 kV	From 10 to 450 kV in 1 kV	From 5 to 240kV in 1kV
Dig display of set and act values	3 digits (set); 4 digits (act)	3 digits (set) ; 4 digits (act)	3 digits
Display resolution	1kV (set); 0,1 kV (act)	1kV (set) ; 0,1 kV (act)	1kV
Accuracy	<1%	<1%	<1%
Reproducibility	<0,01%	<0,01%	<0,01%
Temperature drift	<80ppm/K	<80ppm/K	<80ppm/K
Tube current			
Presel and settings	From 0,1 to 45mA in 0,1mA	From 0,1 to 45mA in 0,1mA	From 0,01 to 3mA in 0,001mA
Dig display of set and act values	3 digits	3 digits	4 digits
Display resolution	0,1 mA	0,1 mA	0,001 mA
Accuracy	<1%	<1%	<1%
Reproducibility	<0,25%	<0,25%	<0,25%
Temperature drift	<100ppm/K	<100ppm/K	<100ppm/K
Exposure time			
Programmable timer	1	1	1
Presel and setting	1 .. 9999 s	1 .. 9999 s	1 .. 32767 s (xs-control)
Dig display of set and act values	4 digits	4 digits	5 digits
Prewarning	Audible and visible	Audible and visible	Audible and visible
Presel and setting	2 .. 120 s or deactivated	2 .. 120 s or deactivated	2 .. 255 s or deactivated
Programmed mode			
Number of storable programs	250	250	—
Warm-up	Auto mode based on real time clock	Auto mode based on real time clock	Automated Intelligent Tube conditioning
X-ray tube set up	8 Tube selectable from a database of 45 pre-programmed tube	8 Tube selectable from a database of 45 pre-programmed tubes	—
Operation history	Stored on SD	Stored on SD	—
Warm-up history	Stored on SD	Stored on SD	—
Control module			
Dimension wxdxh	440 x 114 x 295 mm 17.32" x 4.48" x 11.61"	440 x 114 x 295 mm 17.32" x 4.48" x 11.61"	—
Weight	3.8 kg, 8.37 lbs	3.8 kg, 8.37 lbs	—
Connected loads			
Power connection	1N PE 230 V ± 10% 50/60 Hz 3N PE 400/230 V ±10%, 50/60 Hz, 3-Phase, Grounded Neutral TN-S or TN-C-S Mains (Star Connected System, Optional 3-Phase Isolation Transformer)	1N PE 230 V ± 10% 50/60 Hz 3N PE 400/230 V ±10%, 50/60 Hz, 3-Phase, Grounded Neutral TN-S or TN-C-S Mains (Star Connected System, Optional 3-Phase Isolation Transformer)	1N PE 230 V ± 10% 50/60 Hz Aux, 1N PE 230 V ± 10% 50/60 Hz Main
Grounding	Separate Grounding for X-ray Tube and High Voltage Generator (Min. 6 mm2)	Separate Grounding for X-ray Tube and High Voltage Generator (Min. 6 mm2)	Separate Grounding for X-ray Tube and High Voltage Generator (Min. 6 mm2)
Mains fuses	63 A (1N PE) or 20 A (3N PE) Time-Delay Fuses, Customer-Supplied	63 A (1N PE) or 20 A (3N PE) Time- Delay Fuses, Customer-Supplied	13,5 A (1N PE) integrated into Aux switch13,5 A (1N PE) integrated into Main switch
Operating temperature range	0°C to +40°C	0°C to +40°C	0°C to +40°C
Storage temperature range	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C

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