



# Seifert 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 even in 24/7 Testing Machines applications.

**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.

 **Waygate Technologies**

a Baker Hughes business

# Technical specifications

High voltage generator	HP160	HP225
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 (w x d x h)	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	195 kg (429.9 lbs)	190 kg (418.87 lbs)
<b>Tube voltage</b>		
Presele and settings	From 5 to 160 kV in 1 kV	From 5 to 225 kV in 1 kV
Dig display of set and act values	3 digits (set); 4 digits (act)	3 digits (set) ; 4 digits (act)
Display resolution	1 kV (set); 0,1 kV (act)	1 kV (set) ; 0,1 kV (act)
Accuracy	<1%	<1%
Reproducibility	<0.01%	<0.25%
Temperature drift	<80 ppm/K	<100 ppm/K
<b>Tube current</b>		
Presele and settings	From 0.1 to 45 mA in 0.1 mA	From 0.1 to 45 mA in 0.1 mA
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	<100 ppm/K	<100 ppm/K
<b>Exposure time</b>		
Programmable timer	1	1
Presele 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
Presele and setting	2 ... 120 s or deactivated	2 ... 120 s or deactivated
<b>Programmed mode</b>		
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
<b>Control module</b>		
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)
<b>Connected loads</b>		
Power connection	AUX: 1N PE 230 V ±10% 50/60 Hz 10 A, MAIN: 3N PE 400/230 V ±10% 50/60 Hz 20 A or 1N PE 230 V ±10% 50/60 Hz 63 A, 3-phase, grounded neutral TN-S or TN-C-S mains (star connected system), optional 3-phase isolation transformer	AUX: 1N PE 230 V ±10% 50/60 Hz 10 A, MAIN: 3N PE 400/230 V ±10% 50/60 Hz 20 A or 1N PE 230 V ±10% 50/60 Hz 63 A, 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 mm <sup>2</sup> )	Separate grounding for X-ray tube and high voltage generator (minimum 6 mm <sup>2</sup> )
Mains fuses	AUX: 10 A (1N PE) MAIN: 63 A (1N PE) or 20 A (3N PE) Time-delay fuses, customer-supplied	AUX: 10 A (1N PE) MAIN: 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

High voltage generator	HP320	HP450	HR240
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 (w x d x h)	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	190+140 kg (418.87 + 308.64 lbs)	190+140 kg (418.87 + 308.64 lbs)	170 kg (374.78 lbs)
Tube voltage			
Pre-set and settings	From 10 to 320 kV in 1 kV	From 10 to 450 kV in 1 kV	From 5 to 240 kV in 1 kV
Dig display of set and act values	3 digits (set); 4 digits (act)	3 digits (set); 4 digits (act)	3 digits
Display resolution	1 kV (set); 0.1 kV (act)	1 kV (set); 0.1 kV (act)	1 kV
Accuracy	<1%	<1%	<1%
Reproducibility	<0.01%	<0.01%	<0.01%
Temperature drift	<80 ppm/K	<80 ppm/K	<80 ppm/K
Tube current			
Pre-set and settings	From 0.1 to 45 mA in 0.1 mA	From 0.1 to 45 mA in 0.1 mA	From 0.01 to 3 mA in 0.001 mA
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	<100 ppm/K	<100 ppm/K	<100 ppm/K
Exposure time			
Programmable timer	1	1	1
Pre-set 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
Pre-set 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 tube	—
Operation history	Stored on SD	Stored on SD	—
Warm-up history	Stored on SD	Stored on SD	—

<b>Control module</b>			
<b>Dimension (w x d x h)</b>	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")	—
<b>Weight</b>	3.8 kg (8.37 lbs)	3.8 kg (8.37 lbs)	—
<b>Connected loads</b>			
<b>Power connection</b>	AUX: 1N PE 230 V ±10% 50/60 Hz 10 A, MAIN: 3N PE 400/230 V ±10% 50/60 Hz 20 A or 1N PE 230 V ±10% 50/60 Hz 63 A, 3-phase, grounded neutral TN-S or TN-C-S mains (star connected system), optional 3-phase isolation transformer	AUX: 1N PE 230 V ±10% 50/60 Hz 10 A, MAIN: 3N PE 400/230 V ±10% 50/60 Hz 20 A or 1N PE 230 V ±10% 50/60 Hz 63 A, 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 10 A AUX, 1N PE 230 V ± 10% 50/60 HZ 10 A MAIN
<b>Grounding</b>	Separate grounding for X-ray tube and high voltage generator (min. 6 mm <sup>2</sup> )	Separate grounding for X-ray tube and high voltage generator (min. 6 mm <sup>2</sup> )	Separate grounding for X-ray tube and high voltage generator (min. 6 mm <sup>2</sup> )
<b>Mains fuses</b>	AUX: 10 A (1N PE) MAIN: 63 A (1N PE) or 20 A (3N PE) time-delay fuses, customer-supplied	AUX: 10 A (1N PE) MAIN: 63 A (1N PE) or 20 A (3N PE) time-delay fuses, customer-supplied	10 A (1N PE) integrated into aux switch, 10 A (1N PE) integrated into main switch
<b>Operating temperature range</b>	0 °C to +40 °C	0 °C to +40 °C	0 °C to +40 °C
<b>Storage temperature range</b>	-30 °C to +70 °C	-30 °C to +70 °C	-30 °C to +70 °C

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