

EDITOR HFe Series

HIGH FREQUENCY X-RAY GENERATORS

X-Ray Generators for Radiography and Fluoroscopy

technical specifications



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Radiographic and Fluoroscopic Imaging Solutions... Powered by Spellman.

EDITOR HFe Series

HIGH FREQUENCY X-RAY GENERATORS

- ✓ **Modular, back-plane design for simplified serviceability and support**
- ✓ **Isolated circuit breakers improve trouble shooting and increase safety by giving service engineers the ability to power down specific sections of the generator as needed**
- ✓ **Extensive tube library: supporting most X-Ray tubes on the market**
- ✓ **Comprehensive PC service utility tool**

With over 70 years of high voltage innovation, world-class ISO certified production facilities and global support network, Spellman can meet the needs of OEM system manufacturers by providing custom engineered solutions that enable equipment manufacturers to improve their systems' performance, reliability, cost and bottom line.

As the world's leading independent manufacturer of X-Ray generators and Monoblock® X-Ray sources, Spellman High Voltage is proud to offer the HFe Series of standard and custom high frequency diagnostic X-Ray generators for medical imaging. These versatile, high performance, high frequency X-Ray generators are feature packed and offer world-class performance specifications with power levels from 40kW to 80kW. Compatible with most digital interfaces and X-Ray room system mechanics, the HFe Series is the intelligent choice for the medical OEM.

Typical Applications

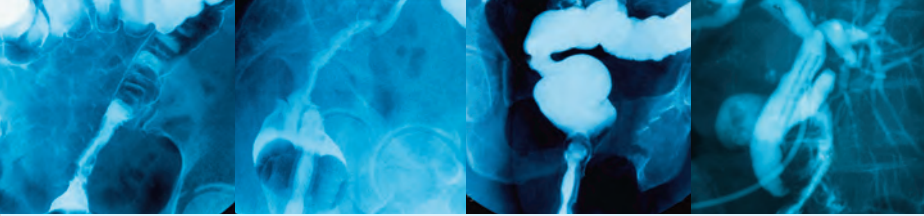
- Remote R&F
- Classical R&F
- Urology
- Molecular Imaging
- Image Guided Radiation Therapy

Standard Radiographic & Fluoroscopic Options

- Interface for Automatic Exposure Control
- Interface for dose measuring devices and workstations offering integrated readouts
- Continuous Fluoroscopy
- Pulsed Fluoroscopy
- Automatic Brightness Stabilization
- Powering 1 tube and 2 tube configurations
- Integrated 3 Phase starter
- Windows based Software simplifies integration of the EDITOR HFe generator to any workstation



*EDITOR HFe-1M Vertical Cabinet
(cover removed for clarity)
See back page for specifications*

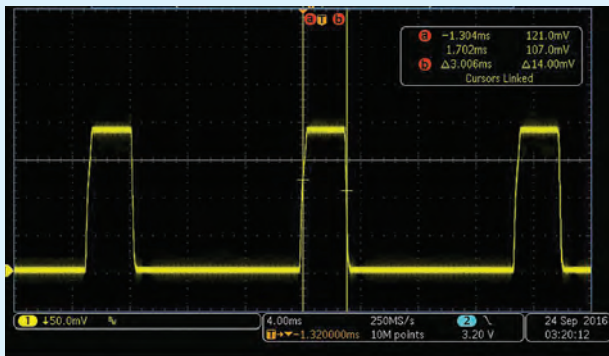


Custom Engineering

- Spellman has vast design and production experience in high duty cycle applications and has demonstrated this competence in modern CT, Proton Therapy, Functional/Molecular Imaging and image guided radiation therapy
- Over three decades of IGBT inverter design experience
- Hfe X-Ray generator without grid control is capable of sub 5 mS exposure helps our customers achieve superlative tomographic images

Grid Control Technology

- CANBUS communication within the HFe allows for market leading responsiveness and stability
- Grid control technology allows for sharper rise & fall times = better image quality
- Gridded X-Ray tubes allow highly accurate and reproducible pulses down to 1mS reducing patient movement caused image degradation and optimizing the dose required for imaging

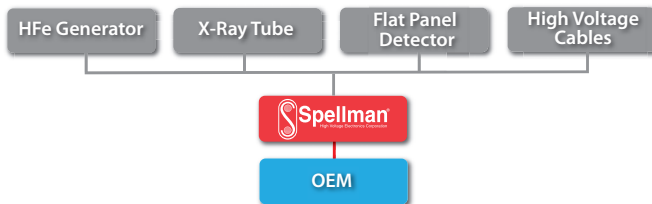


70kV @ 80mA, 3mS pulse width. Scope traces represent radiation per pulse (μGy)

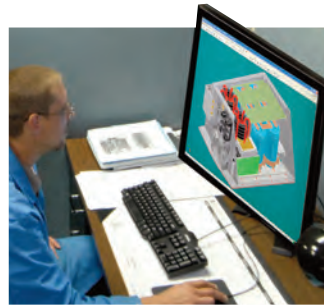
Single Source Efficiency/Subsystem Solutions

- Subsystem components are received into one of Spellman's Medical ISO 13485 facilities
- All components undergo quality control and verification inspection by Spellman engineers
- Components are tested individually then integrated and calibrated as part of a system
- Shipped as one complete subsystem to customer for installation
- 24 hr global technical support

Simplify Your OEM Supply Chain with Pretested, Calibrated, Subsystem Solutions from One Global Resource.



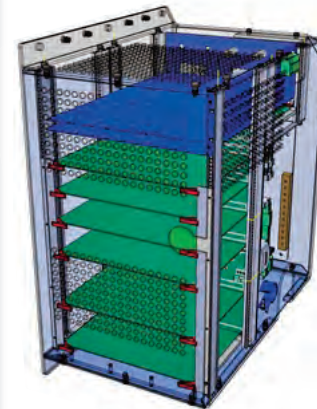
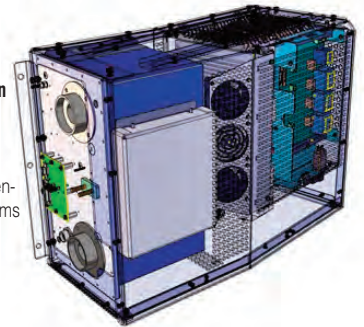
Editor HFe and OEM Customization... a team effort.



- 1 Launch Platform**
A wide diversity of medical applications are served using Spellman power supplies. Spellman has many base platform products to begin customization with

2 Understanding your application and your customers

Engineering teams with deep system and application-level knowledge can make recommendations to your engineering teams to enhance your X-Ray system



- 3 Global engineering resources**
R&D engineering across three continents, with multiple competencies (hardware, electrical, software/firmware) at each site are overseen by a project engineer dedicated to the success of your product

4 Production and Process Control

- Vertically integrated manufacturing enable fast/flexible reactions to customer needs
- Products can be manufactured at multiple Spellman sites
- Standardized processes, training and equipment
- Global ERP system



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Radiography and Fluoroscopy SPECIFICATIONS for Standard Models

MODEL	EDITOR HFe 401	EDITOR HFe 501	EDITOR HFe 601	EDITOR HFe 801
Output Power	40kW	50kW	65kW	80kW
mA/kW @ 0, 1s				
@ 40kV	400 / 16	400 / 16	400 / 16	400 / 16
@ 60kV	500 / 30	650 / 39	800 / 48	800 / 48
@ 80kV	500 / 40	625 / 50	800 / 64	800 / 64
@ 100kV	400 / 40	500 / 50	650 / 65	800 / 80
@ 125kV	320 / 40	400 / 50	520 / 65	640 / 80
@ 150kV	266 / 40	330 / 50	430 / 65	530 / 80
Continuous falling load (with AEC)	Yes			
kV range for exposure	40-150kV			
Increments of	1kV			
or in (steps)	27 steps			
kV accuracy	±(5%+1kV)			
mA range for exposure in	10-500 mA 18 steps	10-650 mA 19 steps	10-800 mA 20 steps	10-800 mA 20 steps
mA accuracy	±(6% +1mA) ±(10% +1mA for ms≤10ms)			
Max. mA @ max kV	500mA @ 80kV	650mA @ 76kV	800mA @ 81kV	800mA @ 100kV
ms range for exposure in	1-6300 ms 38 steps			
ms accuracy	±(4% +1ms) ±(10% +1ms for ms≤10ms)			
mAs range in	0.5-600 mAs 32 steps			
mAs range (optional) in	0.5-1000 mAs 34 steps			
mAs accuracy	±(10% +0, 2mAs)			
Fluoroscopy Option	Yes			
kV range for fluoroscopy	40-125kV			
Increments of	1kV			
mA range for fluoroscopy	0.5-5.0mA			
High current fluoroscopy	1-20mA			
Pulsed fluoroscopy	10-150mA			
Max. mA @ max kV				
Continuous	8.2mA @ 125kV			
Pulsed	150mA @ 125kV			
Automatic Exposure Control (AEC) interface	Optional			
AEC mAs range	0.5-600 mAs			
Interface for Air Kerma/ Dose Area Product	Optional			
Printer and PC interface	RS-232			
High Speed Starter HSS1/HSS2	Optional			
Generator operating control console	Optional			
Digital integration w/o console	Ethernet and RS-232			
Dimensions	21.65 [55cm] W x 19.29 [49cm] D x 38.18 [97cm] H			
Weight	266lbs. [121kg]			

Please consult factory regarding product configuration availability and regulatory requirements for specific markets

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