HIGH-FREQUENCY X-RAY GENERATORS

ISAIND HF

32 to 56 kW series · single and three phase



Precise power for every X-ray room.

The ISAIND HF series brings together five high-frequency generators from 40 to 150 kV and up to 800 mA, ready for new rooms and for upgrading analog rooms to digital radiography (DR). They integrate with your tube, your bucky and your flat panel detector, and are calibrated from software.

40–150 kV	≤1 ms	10–800 mA	32–56 kW
kV range	kV rise @ 100 kV	Tube current	Nominal power · up to 70 kW

FOR DR retrofit · Room integrators · OEM manufacturers · Distributors · Hospitals

Models: HF-32S · HF-40S · HF-40T · HF-50T · HF-56T — S = single phase · T = three phase

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KEY BENEFITS

Accurate exposures, simple integration and a generator built to last

Ready for DR retrofit
Flat panel detector sync interlock, Bucky Start/Ready signals and a communication protocol for imaging software: convert analog rooms to digital without replacing the whole room.

Works with your tube
Compatible with single-phase, three-phase, low-speed, high-speed and dual-speed tubes. Dual-speed automatic rotor control with variable-frequency drive.

kV and mA precision
kV ±5% @ ≥100 kV, tube current ±(5% + 1 mA) and mAs ±(5% + 0.2 mAs) @ ≥10 ms. Built-in tube curves and automatic filament calibration.

Fast response
kV rise ≤1 ms @ 100 kV and exposures from 1 to 10,000 ms, driven by a fast-response high-voltage inverter control algorithm.

Rugged high-voltage tank
Monolithic die-cast tank, vacuum oil filling and high insulation level: withstands 240 kV. Five-stage EMC filtering.

Easy integration and calibration
Mini or full console plus configuration software: filament calibration, profile import, log export and interface status setup.



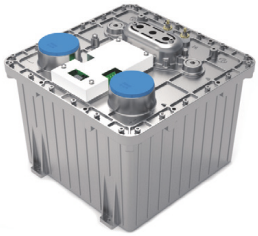
Mini console
One-key power on/off, dual-stage exposure button, audible and visual indicators.



Full console
Full control of kV, mA, mAs and time, with dual-stage exposure button.



Configuration software
Filament calibration, profile import, log export and interface configuration.



Monolithic HV tank
Die-cast, vacuum oil filled, 240 kV insulation.

CHOOSE YOUR MODEL

HF-32S
SINGLE PHASE
220 VAC

32 / 40 kW
Nominal / max. power

10–400 mA
Tube current

HF-40S
SINGLE PHASE
220 VAC

40 / 50 kW
Nominal / max. power

10–500 mA
Tube current

HF-40T
THREE PHASE
380 VAC

40 / 50 kW
Nominal / max. power

10–500 mA
Tube current

HF-50T
THREE PHASE
380 VAC

50 / 63 kW
Nominal / max. power

10–630 mA
Tube current

HF-56T
THREE PHASE
380/400 VAC

56 / 70 kW
Nominal / max. power

10–800 mA
Tube current

TECHNICAL SPECIFICATIONS

ISAIND HF series datasheet

MODEL	HF-32S	HF-40S	HF-40T	HF-50T	HF-56T
Phase	Single phase		Three phase		
Input voltage	220 VAC · 50/60 Hz		380 VAC · 50/60 Hz		380/400 VAC · 50/60 Hz
Nominal / maximum power	32 kW / 40 kW	40 kW / 50 kW	40 kW / 50 kW	50 kW / 63 kW	56 kW / 70 kW
kV range	40–150 kV				
kV accuracy	±5% @ ≥100 kV · 4 kV @ <100 kV				
kV rise time	≤1 ms @ 100 kV (10%–90%)				
Tube current range	10–400 mA	10–500 mA		10–630 mA	10–800 mA
Tube current accuracy	±(5% + 1 mA) @ ≥10 ms · ±(20% + 1 mA) @ <10 ms				
mAs range	0.1–400 mAs		0.1–1000 mAs		
mAs accuracy	±(5% + 0.2 mAs) @ ≥10 ms · ±(10% + 0.2 mAs) @ <10 ms				
Exposure time	1–10,000 ms				
Exposure time accuracy	±(2% + 0.5 ms) @ ≥10 ms · ±(5% + 1 ms) @ <10 ms				
Rotor control	Dual-speed automatic control				
Optional	AEC / DAP				
Dimensions	700 × 400 × 680 mm				
Weight	110 kg		78 kg		

INTERFACES

INTERFACE	FUNCTION
Room light	Relay-type output signal for indicator light
Bucky Start	Output signal for X-ray exposure synchronization
Bucky Ready	Input signal for X-ray exposure synchronization
Tube thermal switch	Input signal for X-ray tube thermal switch
Interlock	Input for flat panel detector exposure synchronization
Door interlock	Input detecting the status of the shielded lead door
Bucky supply	24 VDC / 110 VAC / 220 VAC output to Bucky
Collimator supply	24 V output to the collimator
AEC	Ionization chamber connection for automatic exposure control
DAP	Software-based dose area product calculation
Emergency stop	External emergency stop button connection
Communication protocol	Communication with imaging software and custom protocol
X-ray tube	Compatible with single-phase, three-phase, low-speed, high-speed and dual-speed tubes

Specifications subject to change without notice. Images for reference only. Please confirm the configuration with ISAIND before purchase; import and registration requirements vary by country.

INTEGRATION

From cabinet to room: a generator built for integrators



Reference integration in an X-ray room with table, wall bucky and flat panel detector.



Inside the cabinet: accessible control and power electronics with integrated HV tank (700 × 400 × 680 mm).

WHO IS THE ISAIND HF SERIES FOR?

Integrators & manufacturers

A generator with standard interfaces to equip conventional and DR rooms with your own table, bucky and detector.

Retrofit workshops

Replace aging generators and move analog rooms to digital with flat panel detector synchronization.

Distributors

Five single- and three-phase models to cover everything from clinics to hospitals.

Hospitals & clinics

Renew your room's generator and gain precision and repeatability in every exposure.

Request the full datasheet and a proposal for your project

Tell us your tube, your mains supply (220 or 380/400 VAC) and your detector, and we will recommend the right model. We serve projects worldwide.

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