g100 RF REV.Q 80 kW

Radiographic / Fluoroscopic 80 kW High Frequency generator

Product Data

Radiological features

Application	Radiographic / Fluoroscopic
Power	80 kW
High voltage frequency	400 kHz (max)
Radiography	
kVp range	40 – 150 kV in 1 kVp increments
kVp accuracy	±2% for 90 kVp – 110 kVp, ± (5% + 1 kVp) for 40 – 150 kV
High voltage ripple	<1 kV at 100 kV and 5 mA with 21 m (70 ft) cables
Rise Time (10% - 90%)	< 0.75 ms (< 0.5 ms typ.)
mA Range	10 - 1000 mA / R10
mA accuracy	± 5% for exposures ≥10 mAs, ± (5% + 1 mA) for exposures < 10 mAs ± 20% for exposures < 5 ms or ≤0.5 mAs
Exposure timer range	1 ms – 6300 ms / R10
Exposure timer accuracy (measured at 75% points of kV waveform)	± (2% + 0.5 ms) from 5 ms to 6300 ms ± (10% + 1 ms) <= 5ms (<= 0.5 mAs)
mAs range	0.1 – 1000 mAs / R10
mAs accuracy	± (10% + 0.2 mAs)
Continuous fluoroscopy	
kVp range	40 - 125 kV in 1 kV steps
kVp accuracy	± (2% + 1 kVp) for 90 kVp – 110 kVp, ± (5% + 1 kVp) for 40 – 125 kV
High voltage ripple	< 1 kV at 110 kV & 5 mA with 21 m (70 ft) cables
mA range	0.5 - 20 mA in 0.1 mA steps
mA accuracy	(± 5% + 1 mA) or (± 5% for exposures ≥ 6.7 mA measured at >50 ms); ± 20% for exposures < 6.7 mA
Exposure timer range	Acoustic alarm after 5'. X-ray interruption after 10'
Pulsed fluoroscopy	
kVp range	40 - 125 kV in 1 kV steps
kVp accuracy	± 2% for 90 kVp – 110 kVp, ± (5% + 1 kVp) for 40 – 125 kV
mA range	10-20 mA in 0.1 mA steps; 21-99 mA in 1 mA steps
mA accuracy	(± 5% + 1 mA) or (± 5% for exposures ≥ 6.7 mA measured at >50 ms); ± 20% for exposures < 6.7 mA
Pulse rates	25, 12, 6, 3, 1 and 1/2 p/s

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	30, 15, 7.5, 3, 1 @ 60 Hz Different parameters can be available with digital imaging systems
Pulse width	1 – 40 ms in 1 ms steps, up to 50% duty cycle

Standard functionality

Working technique	- 3 points (kV, mA, s) - 2 points (kV, mAs) - 1 point (kV) with AEC (option) - 0 point with AEC (option). A transfer table allows automatic kV and mA setting in function of the last kV value used in fluoroscopy
Anatomical technique	1024 programs (8 body regions, 8 organs, 4 projections, 3 adult sizes + 1 pediatric). More than 20000 programs for touch screen console (option)
High speed selection	Automatic, depending on tube load
mA calibration	mA self calibration during each exposure
Fluoro parameters adjustment	Automatic or manual mA and kV adjustment
Safeties	Overload, Overvoltage, Overcurrent, Anode temperature, Anode rotation
User interface	- Digital alphanumeric display with menu driven parameters selection for anatomical technique and user dialogue. Numeric LED display for radiographic and fluoroscopic parameters (kV, mA/mAs, time) - Color graphic user interface on touch screen console (option)
Technical service interface	GenWeb™ Web based remote diagnostics and technical support
Communication ports	USB, CAN Bus, Ethernet, RS285, RS232
Console language choice	Italian, English, French, German, Spanish, Cyrillic, Swedish
Focus selection	Manual or automatic selection of 2 focus
Anode heat calculator	Real time calculation and display of anode heat content (HU%)
Working stations (bucky)	6
Tubes	1 standard; 2 optional
Tube rotor supply	Low speed standard; High speed optional

Additional functionality with TDI Interface (option)

Tomography	Automatic selection of tomographic times with Villa's remote control tables
High contrast pulsed fluoroscopy	- With 1Kx1K TV chains. The operator can adjust from gener-

	ator console the frame rate from 1 to 25 fr/s. - With digital acquisition system DIVA-D. The frame rate can be adjusted by the operator from digital system console. See DIVA-D technical data for further information The fluoro current can be adjusted among 40/60/80/99 mA during generator setup. For the USA version the pulsed fluoroscopy current is fixed at 40mA. (according to FDA regulations for maximum patient dose rate)
Falling load technique	Standard. It can be used in AEC and mAs operation
Fluoro control at table keyboard	Fluoro parameters (automatic or manual fluoroscopy modality, manual kV increments and decrements) are adjusted directly from remote controlled table console or from conventional tilting tables onboard keyboard
Serial communication line	RS 232 serial port for communication with digital acquisition system for automatic selection of exposure parameters

AEC (option)

AEC technique	1 point
Numbers of receptors	Up to 4
Measuring chamber	3 fields
Screen-film combination	3 choices
Film darkening adjustment	11 steps or 17 steps (choice at installation)
Falling load technique	Optional. It can be used in AEC and mAs operation

Integrated DAP meter (option)

Type	Ionization chamber
Number of ionization chambers	Up to 2
Parameters display	- Rad mode: the DAP measures and displays Dose-Area Product (mGycm^2) - Fluoroscopy mode: the DAP may be programmed to display accumulated dose-area product (mGycm^2) or DAP rate (mGycm^2/s)
Printer	Optional. It allows to print the accumulated dose-area product (mGycm^2), the date and time on labels

Air Kerma function (option)

Air Kerma function	The generator calculates and displays the cumulative Air Kerma (mGy) and Air Kerma rate (mGy/min)

Accessories

X-ray handswitch	Option

Touch screen console	Option. It replaces the standard membrane console. Based on a color touch screen LCD 15.6" (39,6 cm) display

Electrical features

Power supply voltage	400 - 480 Vac ±10% three phase
Frequency	50/60 Hz
Line impedance	0.11 ohm @ 400 Vac 0.15 ohm @ 480 Vac
Line voltage compensation	Automatic
Momentary current	155 A per phase @ 400 Vac 130 A per phase @ 480 Vac
Standby current	5 A
Power rating	105 kVA

Dimensions and weights

Item	Dimensions	Weight
Control desk (without pedestal)	422x313x94 mm (WxDxH)	3.7 kg
Touch screen console 15.6" (option)	400x69x314 mm (WxDxH)	6.5 kg
Electrical cabinet	407x508x1066 mm (WxDxH)	100 kg
HT transformer	Integrated in the cabinet	

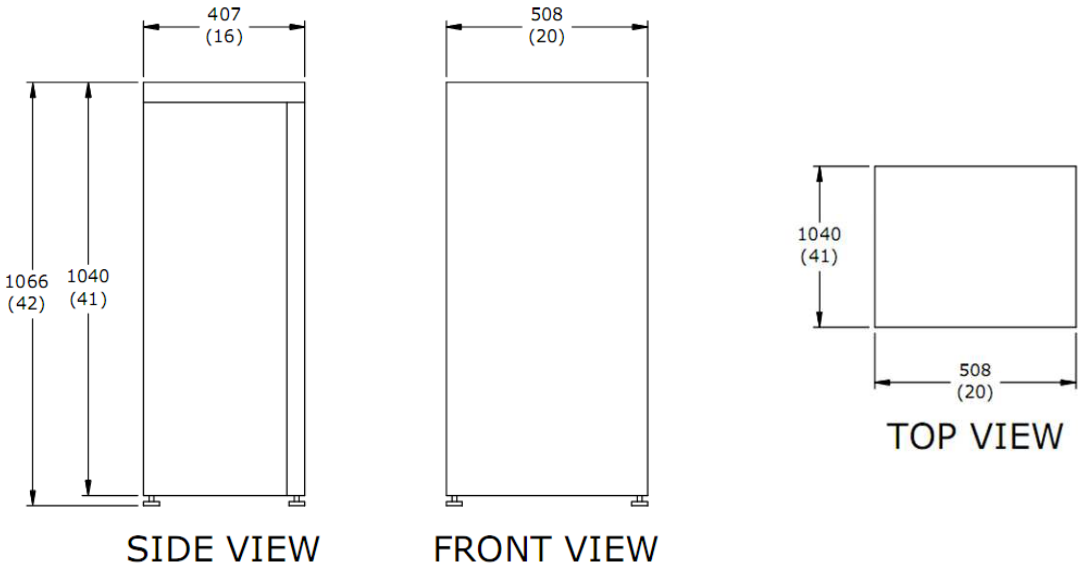
Environmental characteristics

Item	Operating	Transport and storage
Temperature	10 to 40 °C (50 to 140 °F)	-25 to 70 °C (-13 to 158 °F)
Relative humidity	20 to 80% non condensing	5 to 95% non condensing
Pressure	700 to 1100 hPa	700 to 1100 hPa

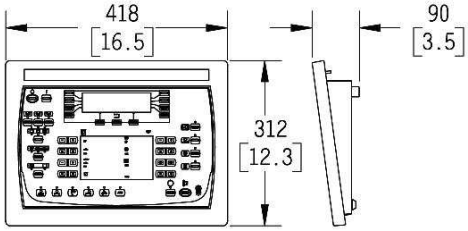
Standards and Regulations

CE 0086	CE symbol grants the product compliance to the European Directive for Medical Devices 93/42/EEC and its revised versions as a class IIB device
C SA US	c-CSA-us approval means that the product meets the requirements of the applicable US and Canadian standards
FDA	FDA approval grants the product compliance to US Code of Federal Regulations title 21 subchapter j
Santé Canada Health Canada	Health Canada Licence grants the product compliance to the Canadian Medical Device Regulations SOR/98-282 and Radiation Emitting Devices Act – C34

Dimensions in millimeters (inches)



Electronics cabinet



Control console

Note: Products are continuously under review in the light of technical advancement. The actual specification may therefore be subject to improvement or modification without notice.

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Company with Quality System certified by

ISO 9001:2015 ISO 13485:2016