



- **COMPLETE X-RAY GENERATOR PACKAGE**
- **INTEGRATED HIGH VOLTAGE/FILAMENT/STATOR SUPPLY**
- **DIGITAL INTERFACE—USB, ETHERNET AND RS232**
- **EXCELLENT STABILITY AND REGULATION**

Spellman's new MAMX Series of X-Ray generators set the standard for compact, high performance Mammography applications. Microprocessor based SMT control circuitry provides your choice of USB, Ethernet or RS232 interfacing. Spellman's proprietary pulse width modulated inverter topology allows for unprecedented efficiencies and power densities. A solid encapsulated high voltage section further reduces size and provides reliable, maintenance free operation.

The internal DC output, current regulated filament supply is controlled via sophisticated emission current regulation circuitry to provide accurate and stable X-ray tube currents. A high speed starter complete with Boost and Brake functions is also incorporated into this efficient, space saving X-ray generator.

SPECIFICATIONS

Input Voltage:

Standard

Mains - 380 to 415Vac, 3 phase, $\pm 10\%$ 50/60Hertz
 Auxiliary - 230Vac, single phase, $\pm 10\%$, 50/60Hertz

Optional

Mains & Auxiliary - 180 to 264Vac, single phase, 50/60 Hertz

Output Voltage: 20kV to 40kV

Polarity: Positive, for grounded cathode X-ray tube

Accuracy: $< 1\%$

Reproducibility: $< 0.5\%$

Settling Time: $\leq 50\text{ms}$ to within 95% of programmed voltage

Ripple: $\leq 1\%$ rms $> 10\text{ kHz}$, 0.1% rms below 10 kHz

Stability: $\leq 0.01\%$ per 8 hours

Temperature

Coefficient: $\leq 100\text{ppm}/^\circ\text{C}$

Emission Current: 50mA to 230mA

Power: 9kW peak, 1.17kW average
 (13% duty cycle)

Accuracy: $< 1\%$

Reproducibility: $< 0.5\%$

Settling Time: $\leq 70\text{ms}$ to within 95% of programmed current

Filament:

Configuration: DC filament drive. Closed loop emission control regulates filament setting to provide desired Xray tube emission current.

Output: 0-6 amps at a compliance of 5.5 volts, maximum.

Dual Focal Spot: Available as an option.

High Speed Starter:

Rotational Speed: Anode rotation speed of at least 10,000 RPM

Functionality: Boost and Brake capability provided

Control Interface:

Remote Interface: USB, Ethernet and RS232 are standard.

Control Software: A VB GUI will be provided for RS-232/USB, the Ethernet interface will have an embedded applet for control.

Environmental:

Operating Temperature:
 0°C to $+40^\circ\text{C}$

Storage Temperature:
 -40°C to $+85^\circ\text{C}$

Humidity: 20% to 85% RH, non-condensing

Input Connector:

4 position terminal block (mains),
 2 position terminal block (aux)

HV Output Connector:

60kV, Claymount CA-3 type

Stator/Filament Connector:

9 pin AMP 211769-1

Interface Connector:

25 pin D connector

Cooling:

Forced air

Dimensions:

7.87" W X 3.93" D X 27.62" H
 (200mm X 160mm X 701mm)

Weight:

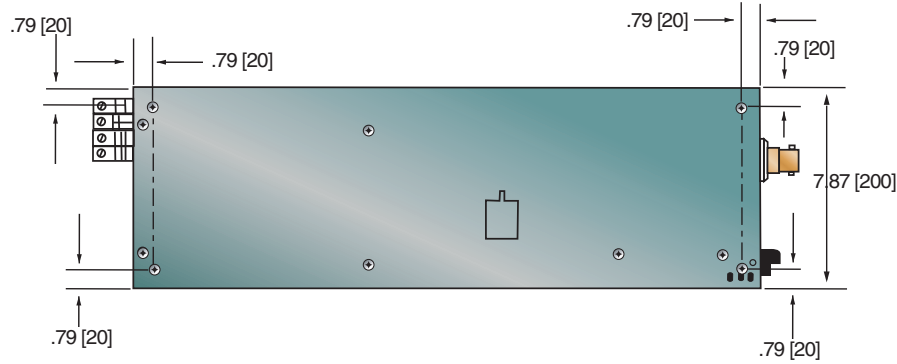
50 lbs. (22.68 kg)

Regulatory Approvals:

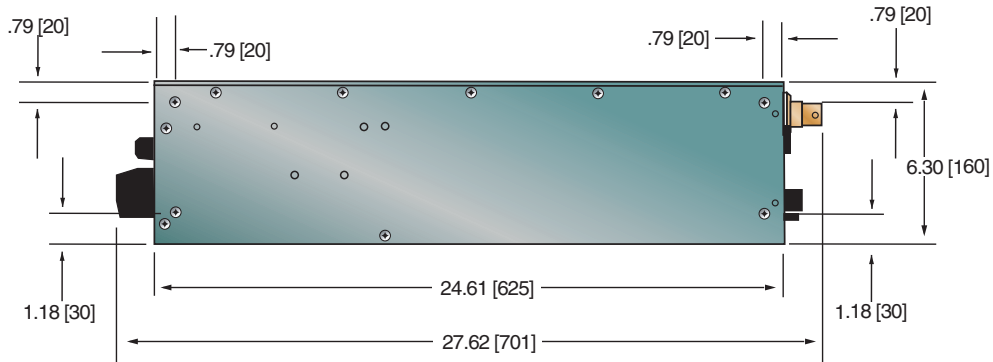
Compliant to 2004/108/EC, The EMC Directive and 2006/95/EC, The Low Voltage Directive.

DIMENSIONS: in.[mm]

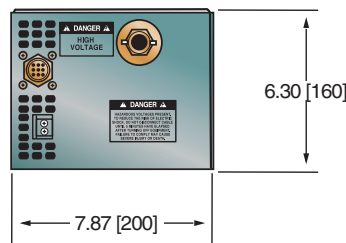
TOP VIEW



SIDE VIEW



FRONT VIEW



BACK VIEW

