



- **Complete X-Ray Generator Package**
- **Integrated High Voltage/Filament/Stator Supply**
- **Digital Interface—RS-232/RS-422**
- **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 RS-232/RS-422 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 AC 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

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 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: AC filament drive. Closed loop emission control regulates filament setting to provide desired Xray tube emission current.
Output: 0-7 amps at a compliance of 5.5 volts, maximum.
Dual Focal Spot: Standard

High Speed Starter:

Rotational Speed: Anode rotation speed of at least 10,000 RPM
Functionality: Boost and Brake capability provided

Control Interface:

Remote Interface: RS-232/RS-422 are standard.
Control Software: A VB GUI will be provided for RS-232/RS-422

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:

3 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:

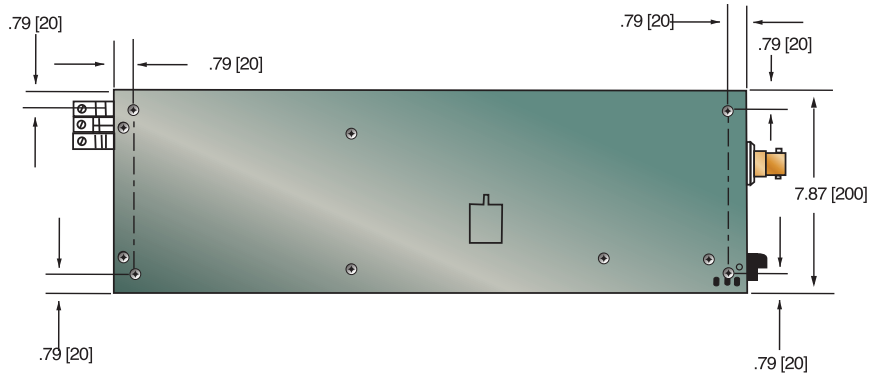
7.87" W X 3.93" D X 27.62" H
(200mm X 160mm X 701mm)

Weight:

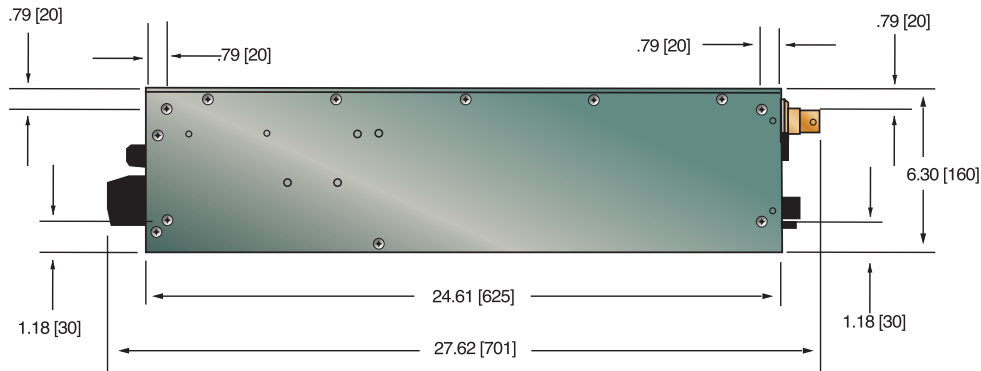
50 lbs. (22.68 kg)

DIMENSIONS: in.[mm]

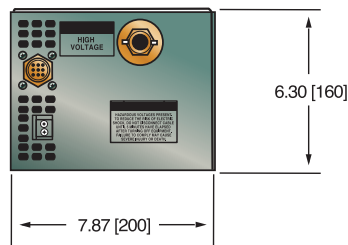
TOP VIEW



SIDE VIEW



FRONT VIEW



BACK VIEW

