



XR250 Range

24/48V input, 125kV industrial xray PSU



Specification Summary

The Genvolt XR250 illustrates Genvolt's capability to produce innovative designs in response to challenging specifications. Genvolt has a stock of design techniques and approaches for solving unusual problems presented by customers. The model shown here is designed to operate from a 24 to 48VDC supply, in the harsh environment of a steel strip rolling mill where it is positioned between the rollers. Because this is a very hot environment, water-cooling is mandated. This flows through a labyrinth of holes around the electronics and the HV areas. The source is connected directly to an X-ray tube and it is the intensity of the X-rays passing through the steel which is used as the feedback parameter for controlling the pressure on the rollers and thus the thickness of the metal strip produced. This calls for a highly stable HV source, both in terms of the voltage applied to the cathode of the tube and also the anode current. The latter is regulated in a closed-loop manner by the HV supply to a high degree of stability and repeatability.

Basic Specification

Input Voltage	24-48VDC
Output Voltage	125kV negative polarity
Output Current	0-2.5mA (derated from 100kV at 250W maximum)
Filament Supply	6V/5ARMS @ 25kHz under closed-loop control
Control Interface	0-10V for zero to maximum of controlled parameter. Logic-compatible command inputs and outputs. Fault monitoring and diagnostic outputs