

XRD, XRF SERIES
60 & 70kV, 4kW
Analytical X-Ray Power Supplies

DESCRIPTION

UNIPOWER High Voltage Division XRD and XRF Series power supplies combine a stable 0.05%, low-ripple high voltage power source with one or more filament supplies in one compact, well-proven package. This series offers models optimized for use in a wide variety of analytical, and medical applications.

Two key strengths of UNIPOWER's High Voltage Division X-Ray power supplies are reliability and stability. These qualities are achieved through the use of modular circuit architectures that benefit from UNIPOWER's High Voltage Division's 40 plus years of high-voltage experience.

Another contributor is the use of a proprietary solid high-dielectric encapsulation medium in most units, thus reducing weight and footprint. Finally, a deliberate "guard band" approach to the design uses components and systems with ratings that substantially exceed their typical in-service loads.

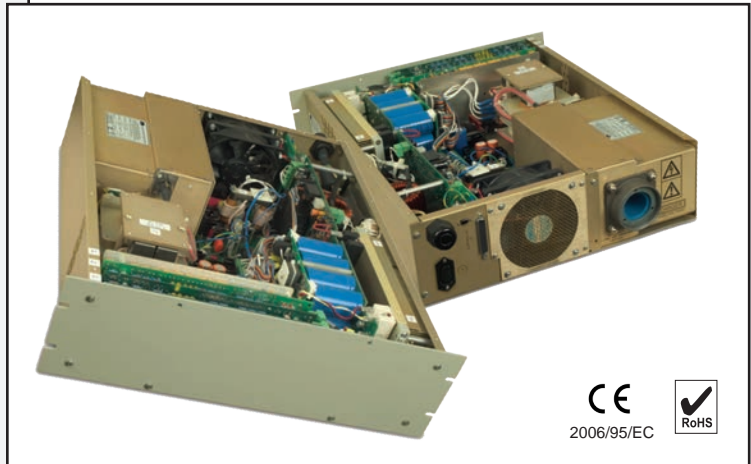
FEATURES

- ◆ Highly Stable
- ◆ Compact, Lightweight Design
- ◆ Digital Microprocessor Control
- ◆ Low Stored Energy
- ◆ Superior Arc Management with Configurable Arc Handling
- ◆ Over Voltage Protection

ONE-YEAR WARRANTY

SAFETY COMPLIANCE

UL 601010/ EN601010



STANDARD MODELS

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT POWER	POLARITY
XRD-60-125N-STD-L17	-60kV	0-125mA	4kW	Negative
XRF-70-150P-STD-D17	+70kV	0-150mA	4kW	Positive

Customised versions and alternate polarities are available

Contact UNIPOWER to discuss your application and define the right part number for your specific application.

SPECIFICATIONS

Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted.

BASE MODEL (APPLICATION)	XRD-60-125N (X-Ray Diffraction)	XRF-70-150P (X-Ray Fluorescence)
Output (HV)		
DC Output Voltage	-60kV	+70kV
Output Current	0-125mA	0-150mA
Max. Output Power	4kW	4kW
Polarity	Negative	Positive
Efficiency	>85%	
Ripple/Noise (pk-pk)	0.03% rms (0.085% p-p) <1kHz, 0.3% rms (0.85% p-p) >1kHz	
Accuracy	<0.5%	
Long Term Stability	0.01% over 10hrs after 30min warmup	
Temperature Coefficient, Vout	50ppm/°C	
Line Regulation	+0.005% High to Low Line	
Load Regulation	+0.005% NL to FL	
Voltage Ramp Up	Programmable from 20ms to 10 sec when using RS232 control	
Arc Protection	Programmable Arc Counter, 1 to 32 arcs in 10 sec based on dl/dt detection	
Emission Current Regulation		
Line	+0.005% High to Low Line	
Load	0.005%	
Temperature Coefficient, Iem	<50ppm/ °C	
Long Term Stability	<0.1% over 10 hours	
Accuracy	<0.5%	
Output (Filament)		
Output Voltage, Current	0-13VDC, 12A	0-15VDC, 12A
Ripple/Noise (pk-pk)	1%rms<100Hz, 3%>100Hz	1%rms<100Hz
Input		
Voltage Range	230VAC (+10/-15%)	
Phases	1	
Line Frequency	47-63Hz	
User Interface		
High Voltage Output	US Fed std 3 pin - C, S, shorted	US Fed std 3 pin - C, L, S, shorted
Remote Control	RS232 or Analog Interface	
AC Input	IEC60320 Inlet	
Mechanical / Environmental		
Dimensions (inches)	19"W x 5.25"H x 22"D	
Weight	<65lbs	
Operating Temp.	0°C to +40°C	
Storage Temp.	-20°C to +85°C	
Humidity	5 to 95%RH non-condensing	
MTBF	>50,000 hrs	
Safety	UL/IEC/EN61010-1	

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OUTLINE

