DX Series

XP Power

1.5W

DC-HVDC CONVERTER

The DX series is a line of high voltage power supplies providing up to 25,000 VDC for applications requiring a compact source of clean, reliable, low cost high voltage.

This unit exhibits low noise and EMI/RFI by utilizing a quasisinewave oscillator and a fully enclosed ferrite pot core transformer. The output voltage is controlled by an external potentiometer or resistor. The high voltage connection is made through a 30kV silicone wire.

Features

- 12V & 24V Inputs
- Outputs up to 25kV
- Short Circuit Protected
- Resistance Programming
- Proportional Operation
- Low Noise Oscillator Design

Typical Applications

- Capacitor Charging
- Ionization
- Dielectric Testing
- Testing
- Air Cleaning
- Electro-static Generators

Dimensions

3.75" x 1.50" x 1.00" (95.3 x 38.1 x 25.4mm)

Models & Ratings

Model Number	Output Voltage	Output Current	Input Voltage
DX120R	+1.8kV to +12kV	100µA	12V
DX150N	-2.4kV to -15kV	100µA	
DX200	+3kV to +20kV	75µA	
DX250	+4kV to +25kV	60µA	
DX250-24	+10kV to +25kV	60µA	24V
DX250-24R	+10kV to +25kV	60µA	

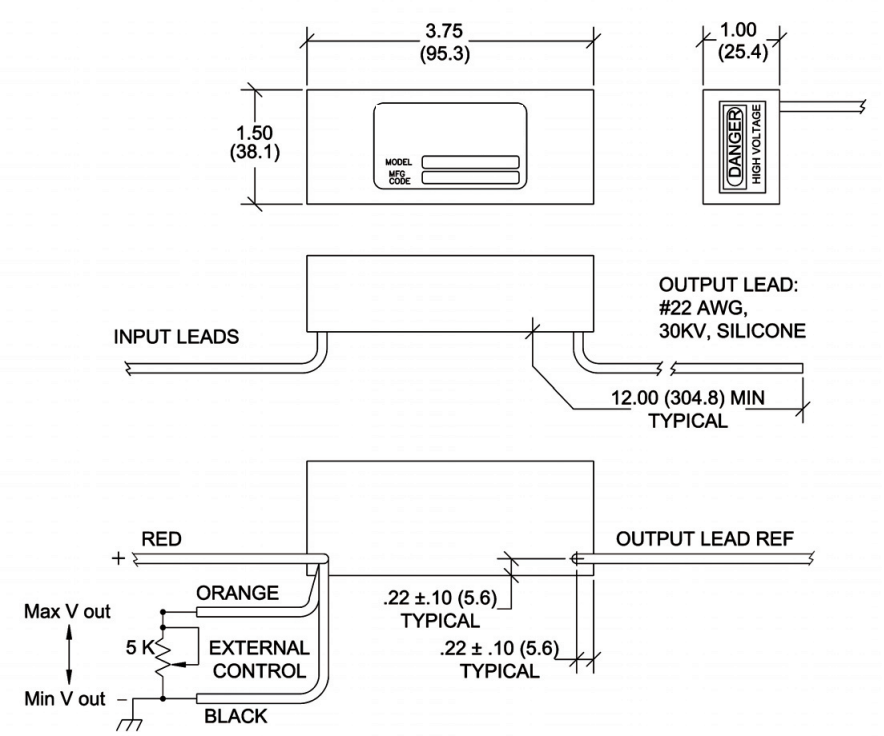
Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage Range	11.4	12	13.2	VDC	
Input Current, No Load			200	mA	For 12V input models
Input Current, Full Load			500	mA	
Input Voltage Range	22.8	24	26.4	VDC	
Input Current, No Load			150	mA	For 24V input models
Input Current, Full Load			250	mA	

Output

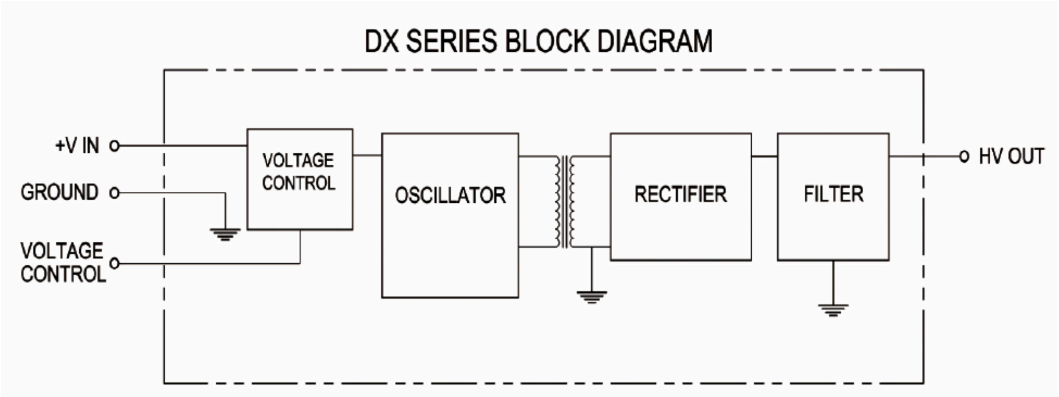
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage			25	kV	See Models & Ratings
Output Current			100	µA	See Models & Ratings
Output Voltage Tolerance			5	%	Nominal Vin, full load
Ripple and Noise			2	% pk-pk	
Switching Frequency	30		80	kHz	
Construction	DAP case material. Solid vacuum encapsulation, UL94 V-0 rated				
Operating Temperature	-10		+50	°C	Case temperature
Storage Temperature	-25		+90	°C	

Mechanical Details



Pin Connections	
Pin	**Function**
Red	(+) Input
Black	Ground
Orange	Resistance Programming
White	High Voltage Output

Block Diagram



Notes:

1. Maximum rated output current is available at maximum output voltage.
2. Specifications after 1 hour warm-up, full load, 25°C, unless otherwise noted.
3. Proper thermal management techniques are required to maintain safe case temperature.
4. Use a 5kΩ potentiometer for programming the output voltage. Connect potentiometer wiper to orange wire.
5. R suffix is used as a RoHS designator for legacy part numbers.
6. All dimensions are in inches (mm)
7. Weight: 7oz (198g)
8. Tolerance: X.XX±0.03 (0.76)