

WX Series 1000 Watt Regulated High Voltage DC Power Supplies

Up To 75 kV...
5.25 Inch
Panel Height

Laboratory
Performance

Enhanced
Features

Fully compliant with the European harmonized EMI directive, EN50082-2, and with the low voltage (safety) directive, 73/23/EEC.



Models from 0 to 1 kV through 0 to 75 kV.

The WX Series provides 1000 watts of output power with voltage ranges up to 75 kV in a rack-panel height of only 5.25 inches, and weighs less than 30 pounds. Standard models have dual analog voltage and current meters. As an option, WX is available with dual digital meters or with a blank front panel for OEM/system applications. Local front panel controls and full remote controls are standard.

Features:

Pulse-Width Modulation. Off-the-line pulse-width modulation provides high efficiency and a reduced parts count for improved reliability.

Air Insulated. The WX Series features "air" as the primary dielectric medium. No oil or encapsulation to impede serviceability or increase weight.

Constant Voltage/Constant Current Operation. Automatic crossover from constant-voltage to constant-current regulation provides protection against overloads, arcs, and short circuits.

Low Ripple. Ripple is less than 0.05% of rated voltage at full load.

Tight Regulation. Voltage regulation is better than 0.005% for allowable line variations and 0.01% + 1 mV/mA for load variations. Current regulation is better than 0.05% from short circuit to rated voltage.

Front Panel Controls (Analog and Digital Versions). Separate 10-turn controls with locking vernier dials are used to set voltage and current levels. A high voltage enable switch and an AC power on/off switch complete the panel controls. L.E.D.'s indicate when high voltage is on, the output polarity, and whether the supply is operating in a voltage or current regulating mode. For the blank panel version, only a power on/off switch is provided on the panel.

Warranty. Standard power supplies are warranted for three years; OEM and modified power supplies are warranted for one year. A formal warranty statement is available.

Small Size and Weight. WX Series power supplies occupy only 5.25 inches of panel height. Net weight is less than 30 pounds.



Designing Solutions for High Voltage Power Supply Applications

GLASSMAN HIGH VOLTAGE INC.

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Specifications

(From 5% to 100% rated voltage. All units operate down to zero output with very slight degradation of performance.)

Input: 198-242 V RMS, 48-63 Hz, single-phase, <9.5A. Connector per IEC 320 with mating line cord terminated with NEMA 6-15 plug.

Efficiency: Typically 83% at full load.

Output: Continuous, stable adjustment, from 0 to rated voltage or current by panel mounted 10-turn potentiometers with 0.05% resolution, or by external 0 to 10V signals is provided. Voltage accuracy is 0.5% of setting, + 0.2% of rated. Repeatability is <0.1% of rated.

Stored Energy: 6 Joules, maximum, up to 50 kV. 9 Joules, maximum, 60 and 75 kV.

Voltage Regulation: <0.005% for the specified line variations and 0.01% + 1 mV/mA for load variations.

Ripple: <0.05% of rated voltage + 0.5 V RMS at full load.

Current Regulation: <0.1% from short circuit to rated voltage at any set current.

Voltage Monitor: 0 to + 10 V DC, equivalent to zero to rated voltage. Accuracy, 0.5% of reading + 0.2% of rated voltage.

Current Monitor: 0 to + 10 V DC, equivalent to zero to rated current. Accuracy, 1% of reading + 0.05% of rated current. Reversible polarity models: 1% of reading + 0.1% of rated.

Stability: 0.01% per hour after 1/2 hour warm-up. 0.05% per 8 hours.

Voltage Rise/Decay Time Constant: Typically 50 ms rise or decay time constant, using HV on/off or remote voltage control, with a 50% resistive load.

Temperature Coefficient: 0.01%/degree C.

Ambient Temperature: -20 to +45 degrees C, operating; -40 to +85 degrees C, storage.

Polarity: Positive, negative, or reversible with respect to chassis ground.

Protection: Automatic current regulation protects against all overloads, including arcs and shorts. Fuses, surge-limiting resistors, and low-energy components provide ultimate protection.

Accessories: Detachable 8-foot shielded HV coaxial cable (see Models chart for cable type) and 6-foot detachable line cord with NEMA 6-15 plug are provided.

Remote Controls: Common, +10 V reference, interlock, current monitor, current program, voltage monitor, voltage program, HV enable/disable, and ground provided on a rear panel mounted terminal block.

External Interlock: Open off, closed on. Normally latching except on blank panel version where it is non-latching.

HV Enable/Disable: 0-1.5 V off, 2.5-15 V on.

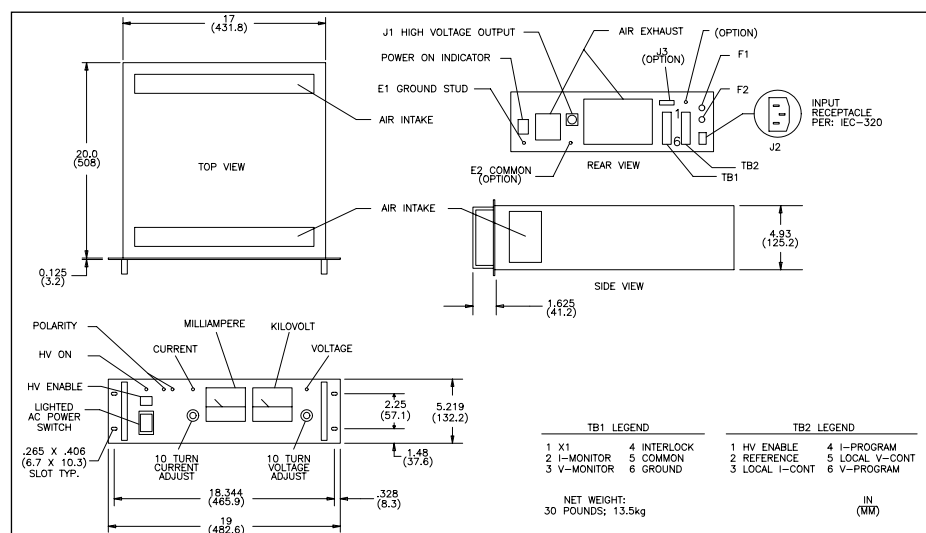
Options

Symbol Description

240	216-264 V input, 48-63 Hz.
DM	3-1/2 digit LCD panel meters.
NC	Blank front panel, power switch only.
CT	Current trip. Power supply trips off when the load current reaches the programmed level. This option has a rear panel switch that selects either "trip" operation or current limiting.
ZR	Zero start interlock. Voltage control, local or remote, must be at zero before accepting an enable signal.
SS	Slow start ramp of up to 30 seconds available. Specify time.
5VC	0-5 V voltage and current programming.

Models

Positive Polarity	Negative Polarity	Reversible Polarity	Output Voltage (kV)	Output Current (mA)	Output Cable Provided	
Reversible Only			WX1R1000	0-1	0-1000	RG-59
			WX1.5R700	0-1.5	0-700	RG-59
			WX2R500	0-2	0-500	RG-59
			WR3R350	0-3	0-350	RG-59
			WR5R200	0-5	0-200	RG-59
WX10P100	WX10N100	WX10R100	0-10	0-100	RG-8U	
WX15P70	WX15N70	WX15R70	0-15	0-70	RG-8U	
WX20P50	WX20N50	WX20R50	0-20	0-50	RG-8U	
WX30P35	WX30N35	WX30R35	0-30	0-35	RG-8U	
WX40P25	WX40N25	WX40R25	0-40	0-25	RG-8U	
WX50P20	WX50N20	WX50R20	0-50	0-20	RG-8U	
WX60P15	WX60N15	WX60R15	0-60	0-15	RG-8U	
WX75P12	WX75N12	WX75R12	0-75	0-12	DS2124	



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