

WR Series 250 Watt Regulated High Voltage DC Power Supplies

Up to 125 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 85 kV through 0 to 125 kV

The WR Series is a natural extension to our lower voltage ER Series...providing high voltage ranges to 125 kV in only 5.25 inches of panel height. Three control panel configurations are available...analog, digital, or blank. Together with a full complement of standard remote controls, this makes the WR Series compatible with most applications and environments. And all this powerful performance is available at an affordable price.

Features:

Constant Voltage/Constant Current Operation. Automatic crossover from voltage or current regulation modes is provided as dictated by load conditions.

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

Tight Regulation. Voltage regulation is better than 0.005%, line or load, and current regulation is better than 0.05% from short circuit to rated voltage.

Fast Transient Response. The supply responds to a 50% load transient in less than 3 milliseconds.

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/disable switch and an AC power On/Off switch complete the panel controls.

L.E.D.'s indicate when high voltage is on 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.

Remote Control Facilities. As standard, all WR Series supplies provide output voltage and current program/monitor terminals. TTL high voltage enable/disable, safety interlock terminals, and a +10 volt reference source.

Small Size and Weight. WR Series power supplies consume only 5.25 inches of panel height. Weight is 30 pounds typical.

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

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.



Designing Solutions for High Voltage Power Supply Applications

GLASSMAN HIGH VOLTAGE INC.

124 West Main Street, PO Box 317, High Bridge, NJ 08829-0317
(908) 638-3800 • Fax (908) 638-3700 • www.glassmanhv.com

GLASSMAN EUROPE Limited (UK)
+44 1256 883007 FAX +44 1256 883017
E-mail: Glassman_europe@glassmanhv.com

GLASSMAN JAPAN High Voltage Limited
+81 45 902 9988 FAX +81 45 902 2268
E-mail: Glassman_japan@glassmanhv.com

Specifications

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

Input: 105-125 V RMS, 48-63 Hz single phase, <6 A. Connector per IEC 320 with mating line cord.

Efficiency: Typically 85% 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: 11 joules, max.

Voltage Regulation: <0.005% line and load.

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

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

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

Current Monitor: 0 to +10 V DC for zero to rated current. Accuracy, 1% of reading + .05% of rated current. Reversible 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 400 ms rise or decay time constant for 125 kV model, using HV on/off or remote voltage control, with 25% resistive load.

Temperature Coefficient: 0.01%/°C.

Ambient Temperature: -20 to +40°C operating, -40 to +85°C storage.

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

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

Accessories: Detachable 8-foot shielded HV Coaxial cable (see Model Chart for cable type) and 6-foot detachable line cord provided.

Remote controls: Common, +10 V reference, interlock, current monitor, current program, voltage monitor, voltage program, TTL, and ground, provided on a rear mounted terminal block.

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

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

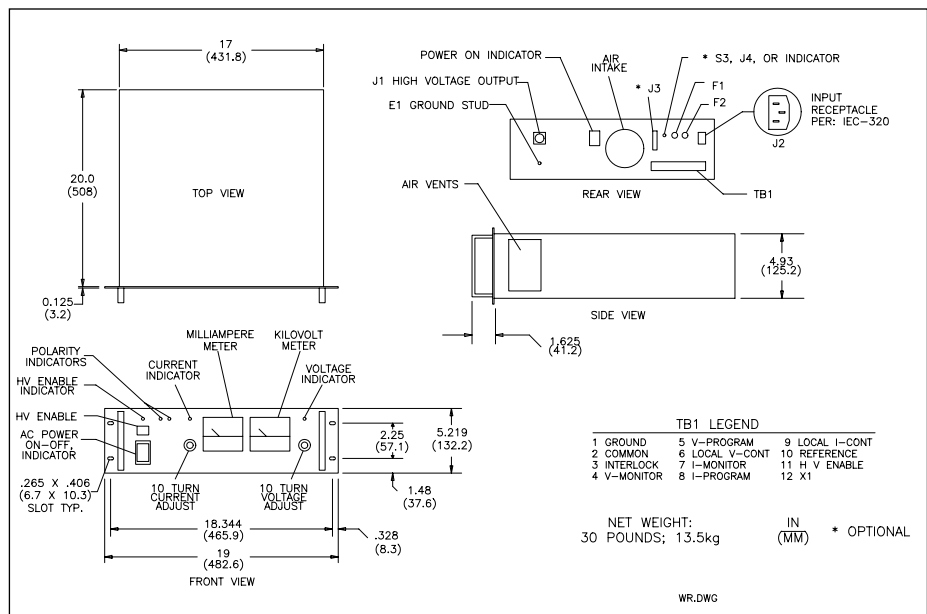
Options

Symbol Description

- 100 100 V input, rated 90-110 V RMS, 48-63 Hz.
- 220 220 V input, rated 200-264 V RMS, 48-63 Hz.
- 400 48-420 Hz, available on standard model and options 100 and 220.
- 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 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 program/monitor.

Models

Positive Polarity	Negative Polarity	Reversible Polarity	Output Voltage (kV)	Output Current (mA)	Output Cable Provided
WR85P3.5	WR85N3.5	WR85R3.5	0-85	0-3.5	DS2121
WR100P2.5	WR100N2.5	WR100R2.5	0-100	0-2.5	DS2121
WR125P2	WR125N2	WR125R2	0-125	0-2	DS2121



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