

ER Series 300 Watt Regulated High Voltage DC Power Supplies

Laboratory Performance...

High Power Density...

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 1kV through 0 to 75kV, 3.5 inch panel height 18 pounds.

The ER Series models are sophisticated, medium power, high voltage power supplies. The "designed in" versatility of this standard product line finds itself at home in most applications/environments. With three control panel configurations... analog, digital or blank... and a full complement of standard remote controls, you might think high price. Not in Glassman's case, just high quality.

Features:

Air Insulated. As in all standard Glassman power supplies, the ER 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 voltage or current regulated mode dependent on the load conditions.

Low Ripple. Better than 0.02% of rated voltage at full load.

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

Fast Transient Response. Less than 3 milliseconds for a 50% load transient.

Front Panel Controls (Analog and Digital Versions). Ten-turn voltage and current controls with locking vernier dials. AC power ON/OFF and high voltage enable switches.

Remote Control Facilities.

As standard, all ER Series power 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. ER Series power supplies consume only 3.5" of vertical panel height. Total weight is 18 pounds.

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 + 10V signals is provided. Voltage accuracy is 0.5% of setting, 0.2% of rated. Repeatability is <0.1% of rated.

Stored Energy: 20 kV model, 1.5 joules; 60 kV model, <4 joules.

Voltage Regulation: <0.005% +1mV/mA, line and load.

Ripple: <0.02% RMS of rated voltage +0.5V at full load; models 1.5kV and lower, 400mV (500mV Japan).

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 current. Accuracy, 0.5% of reading + .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 and 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 (300 ms for 75 kV model) using HV (on/off) or remote voltage control with 75% 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 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 panel 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.

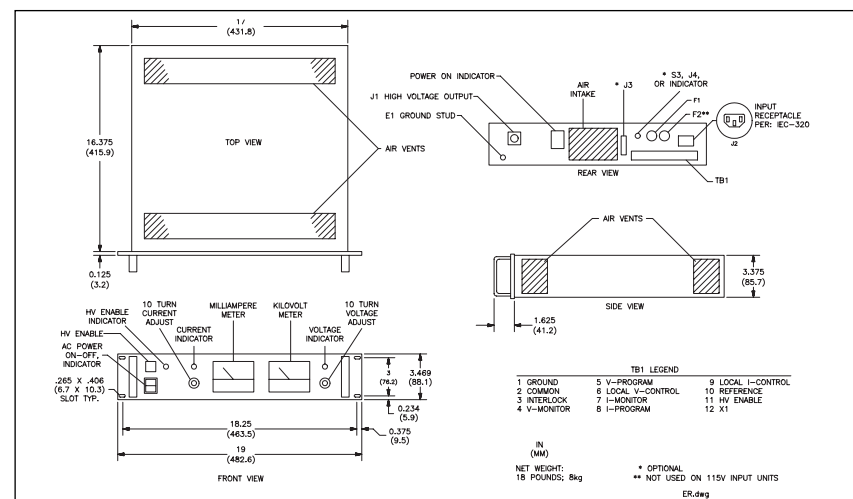
Options

Symbol Description

100	100 V input, rated 90-110 V RMS, 48-63 Hz.
220	220 V input, rated 200-264 V R MS, 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	Output Current	Output Cable
Reversible Polarity Only			ER1R300	0-1kV	0-300mA
			ER1.5R200	0-1.5kV	0-200mA
			ER2R150	0-2kV	0-150mA
			ER3R100	0-3kV	0-100mA
			ER5R60	0-5kV	0-60mA
			ER6R50	0-6kV	0-50mA
ER10P30	ER10N30	ER10R30	0-10kV	0-30mA	RG-8U
ER15P20	ER15N20	ER15R20	0-15kV	0-20mA	RG-8U
ER20P15	ER20N15	ER20R15	0-20kV	0-15mA	RG-8U
ER25P12	ER25N12	ER25R12	0-25kV	0-12mA	RG-8U
ER30P10	ER30N10	ER30R10	0-30kV	0-10mA	RG-8U
ER40P7.5	ER40N7.5	ER40R7.5	0-40kV	0-7.5mA	RG-8U
ER50P6	ER50N6	ER50R6	0-50kV	0-6mA	RG-8U
ER60P5	ER60N5	ER60R5	0-60kV	0-5mA	RG-8U
ER75P4	ER75N4	ER75R4	0-75kV	0-4mA	DS2124



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