

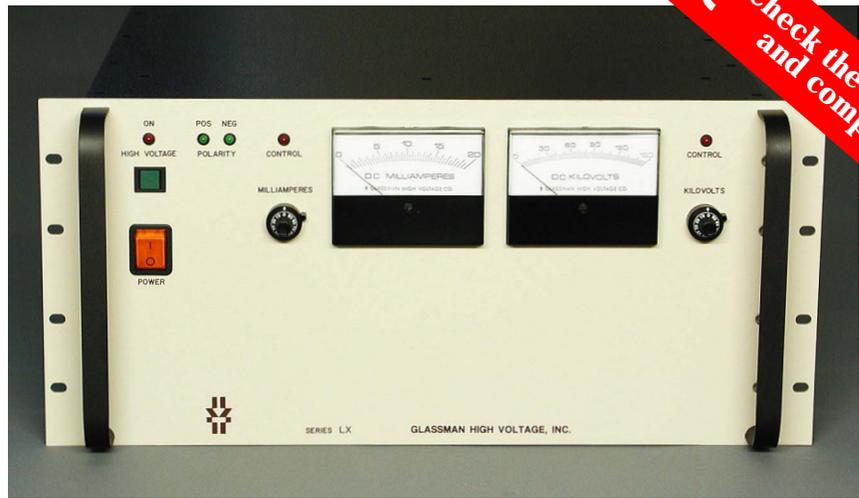
LX Series Extended Current* 1000 Watt Regulated High Voltage DC Power Supplies

Up To 150kV... 8.75 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.



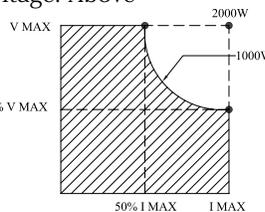
CE Check the specs... and compare

Models from 0 to 1kV through 0 to 150kV

The LX Series are 1000 watt regulated high voltage DC power supplies with an important difference ... maximum current ratings are equivalent to a 2000W supply! This maximum current, which is available for all output voltages up to 50% of rated voltage, should be of significant interest for many applications. The LX is offered with dual analog voltage and current meters or, optionally, with dual digital meters, or a blank panel for OEM/systems applications.

Features:

***Extended Current.** LX models have maximum current ratings that are equivalent to a 2000W supply. These currents are available up to 50% of rated output voltage. Above this point, current is derated to maintain a constant 1000 W maximum output.



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

Air Insulated. The LX Series features "air" as the primary dielectric medium. No oil or encapsulation is used 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 0.03% of rated voltage at full load.

Tight Regulation. Voltage regulation is better than 0.005% for allowable line and 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.

Small Size and Weight. LX Series power supplies occupy only 8.75 inches of panel height. Net weight is less than 47 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% of rated voltage. All units operate down to zero output with very slight degradation of performance.)

Input: Input: 102-132V RMS, single-phase, 48-63Hz, <20 A. A 3-position terminal block with protective cover is provided.

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: 60kV: 15J; 125kV: 30J.

Voltage Regulation: Better than 0.005% for specified line variations and 0.005% + 1 mV/mA for load variations.

Ripple: <0.03% of rated voltage + 1V RMS at full load (0.1% for 150 kV).

Current Regulation: Better than 0.1% from short circuit to rated voltage at any load condition.

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

Current Monitor: 0 to +10V equivalent to 0 to rated current. Accuracy, 1% reading + 0.05% rated for single polarity, 1% reading + 0.1% rated for reversible polarity.

Stability: 0.01% per hour after 1/2 hour warmup, 0.05% per 8 hours.

Voltage Rise/Decay Time Constant: 50 ms typical to 60kV (400 ms for higher voltages) with a 30% resistive load using either HV on/off or remote programming control.

Temperature Coefficient: 0.01% per degree C.

Ambient Temperature:

-20 to +40 degrees C, operating;
-40 to +85 degrees C, storage.

Polarity: Available with either positive, negative, or reversible polarity 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.

Accessory: Detachable 8-foot HV cable. See models chart for cable type.

Remote Controls: Terminal block is provided for all remote functions, including common, +10V reference, interlock, voltage and current program/monitor, HV Enable/Disable, ground, and local control.

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

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

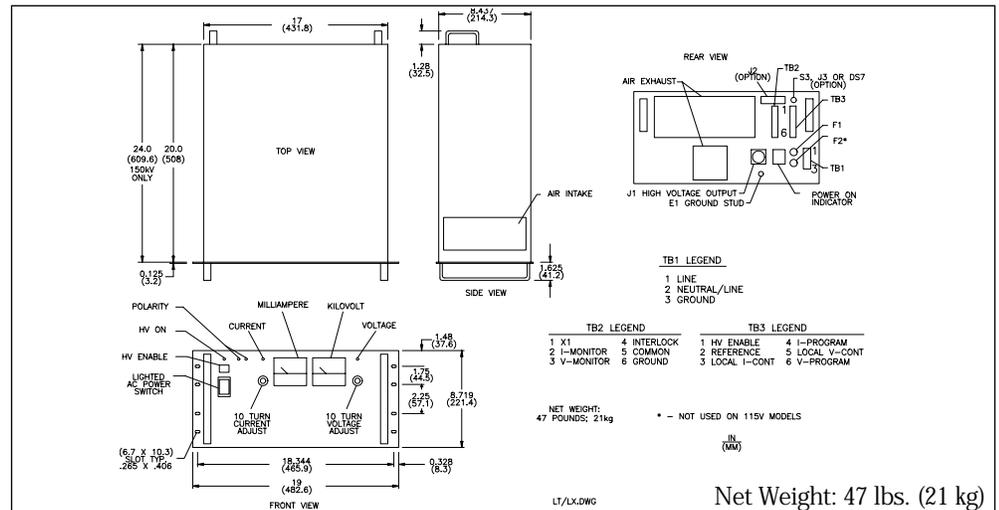
Options

Symbol	Description
100	100V ± 10% input, 48-63Hz. Derate currents by 20%, maximum 800W.
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. Specify standard times of 1, 2, 3, 5, 10, 15, 20, or 30 s +/- 20%
5VC	0-5 V voltage and current program/monitor.

Models

Positive Polarity	Negative Polarity	Reversible Polarity	Output Voltage	Output Current	Output Cable	Panel Height	
Reversible Polarity Only			LX1R2000	0-1kV	0-2000mA	RG-59	8.75 in.
			LX1.5R1300	0-1.5kV	0-1300mA	RG-59	8.75 in.
			LX2R1000	0-2kV	0-1000mA	RG-59	8.75 in.
			LX3R660	0-3kV	0-660mA	RG-59	8.75 in.
			LX5R400	0-5kV	0-400mA	RG-59	8.75 in.
			LX6R330	0-6kV	0-330mA	RG-58	8.75 in.
LX8P250	LX8N250	LX8R250	0-8kV	0-250mA	RG-8U	8.75 in.	
LX10P200	LX10N200	LX10R200	0-10kV	0-200mA	RG-8U	8.75 in.	
LX12P165	LX12N165	LX12R165	0-12kV	0-165mA	RG-8U	8.75 in.	
LX15P132	LX15N132	LX15R132	0-15kV	0-132mA	RG-8U	8.75 in.	
LX20P100	LX20N100	LX20R100	0-20kV	0-100mA	RG-8U	8.75 in.	
LX30P66	LX30N66	LX30R66	0-30kV	0-66mA	RG-8U	8.75 in.	
LX40P50	LX40N50	LX40R50	0-40kV	0-50mA	RG-8U	8.75 in.	
LX50P40	LX50N40	LX50R40	0-50kV	0-40mA	RG-8U	8.75 in.	
LX60P33	LX60N33	LX60R33	0-60kV	0-33mA	RG-8U	8.75 in.	
LX80P25	LX80N25	LX80R25	0-80kV	0-25mA	DS 2124	8.75 in.	
LX100P20	LX100N20	LX100R20	0-100kV	0-20mA	DS 2124	8.75 in.	
LX125P16	LX125N16	LX125R16	0-125kV	0-16mA	DS 2121	8.75 in.	
LX150P12	LX150N12	LX150R12	0-150kV	0-12mA	DS 2121	8.75 in.	

Note: Product of voltage and current automatically limited to 1000W maximum



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