

LT Series 2000 Watt Regulated High Voltage DC Power Supplies

Up To 150 kV...
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.



Models from 0 to 1 kV through 0 to 150 kV.

The LT Series are 2000 watt sophisticated, well-regulated, high voltage DC power supplies. Rack-panel height is only 8.75 inches. The LT is offered with dual analog voltage and current meters or, optionally, with dual digital meters or a blank panel for OEM/systems applications.

Features:

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

Air Insulated. The LT 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. LT 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% rated voltage. All units operate down to zero output with very slight degradation of performance.)

Input: 198-264 V RMS, single-phase, 48-63 Hz, <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: <15 Joules, 60 kV; <30 Joules, 125 kV.

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 + 1 V RMS at full load (0.1% for 150kV).

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

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

Current Monitor: 0 to +10 V 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 60 kV (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 degree C, operating; -40 to +85 degree 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, +10 V 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: 0-1.5 V off, 2.5-15 V on.

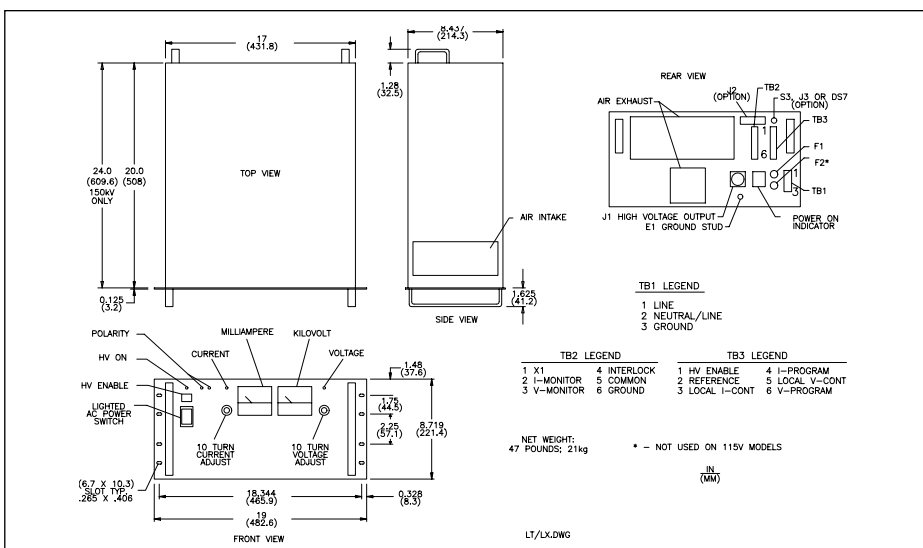
Options

Symbol Description

200	200 V \pm 10% input, 48-63 Hz. Derate currents by 10%, maximum 1800 W.
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 \pm 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		LT1R2000	0-1kV	0-2000mA	RG-59	8.75 in.
		LT1.5R1300	0-1.5kV	0-1300mA	RG-59	8.75 in.
		LT2R1000	0-2kV	0-1000mA	RG-59	8.75 in.
		LT3R660	0-3kV	0-660mA	RG-59	8.75 in.
		LT5R400	0-5kV	0-400mA	RG-59	8.75 in.
		LT6R330	0-6kV	0-330mA	RG-58	8.75 in.
LT8P250	LT8N250	LT8R250	0-8kV	0-250mA	RG-8U	8.75 in.
LT10P200	LT10N200	LT10R200	0-10kV	0-200mA	RG-8U	8.75 in.
LT12P165	LT12N165	LT12R165	0-12kV	0-165mA	RG-8U	8.75 in.
LT15P132	LT15N132	LT15R132	0-15kV	0-132mA	RG-8U	8.75 in.
LT20P100	LT20N100	LT20R100	0-20kV	0-100mA	RG-8U	8.75 in.
LT30P66	LT30N66	LT30R66	0-30kV	0-66mA	RG-8U	8.75 in.
LT40P50	LT40N50	LT40R50	0-40kV	0-50mA	RG-8U	8.75 in.
LT50P40	LT50N40	LT50R40	0-50kV	0-40mA	RG-8U	8.75 in.
LT60P33	LT60N33	LT60R33	0-60kV	0-33mA	RG-8U	8.75 in.
LT80P25	LT80N25	LT80R25	0-80kV	0-25mA	DS 2124	8.75 in.
LT100P20	LT100N20	LT100R20	0-100kV	0-20mA	DS 2124	8.75 in.
LT125P16	LT125N16	LT125R16	0-125kV	0-16mA	DS 2121	8.75 in.
LT150P10	LT150N10	LT150R10	0-150kV	0-10mA	DS 2121	8.75 in.



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