

MR Series 300 Watt Regulated High Voltage DC Modules

Models from 0-1 kV DC through 0-5 kV DC

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



Modules from 0 to 1 kV through 0 to 5 kV, 3.38" high x 7.25" wide x 16" deep. SHV connector version shown, Alden connector available.

The MR Series... a sophisticated, medium power, high voltage power supply designed to meet international safety approvals... is packaged as a space-saving module that avoids the cost of expensive panels and displays. However, no compromises in performance and operating features have been made. The result is a power supply that offers outstanding value for a wide range of demanding applications.

Features:

Air Insulated. Single printed circuit board construction for easy access. Air insulation for serviceability and light weight.

Constant Voltage/Constant Current/Current Trip Operation. Automatic crossover from constant voltage regulation to current control for protection from overloads, arcs, and shorts. Current control is user configured for constant current regulation or current trip.

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

Tight Regulation. Voltage regulation better than 0.005%, line or load; current regulation better than 0.1% from short circuit to rated voltage.

Fast Transient Response. Less than 2 milliseconds for a 50% load transient.

Local Control and Indicator. Ten-turn control for either voltage or current. Power ON indicator.

Remote Interface Connections. Voltage or current local control, voltage and current program and monitor terminals, current regulation/trip, TTL high voltage enable, safety interlock terminals, +10 volt reference source, common, and chassis ground.

Small Size and Weight. 3.375" (85.4 mm) H x 7.25" (184.2) W x 16.00" (406) D. Weight less than 11 pounds (5 kg.)

Output Connector and Cable. Choice of Alden connector with unshielded silicone wire or SHV connector with RG-59 shielded cable.

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: 103-132 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 potentiometer with 0.05% resolution, or by external 0 to 10V signals is provided. Linearity is <1% of rated. Voltage accuracy is 0.5% of setting, 0.2% of rated. Repeatability is <0.1% of rated.

Stored Energy: <0.5 joules.

Voltage Regulation: <0.005% for line variations. For load variations, add 1 mV/mA.

Ripple: <0.02% RMS of rated voltage + 300 mV RMS.

Current Regulation: <0.1% of rated current 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 + 0.05% of rated current.

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 TTL on/off or remote voltage control with a minimum of 15% resistive load.

Temperature Coefficient: 0.01%/°C.

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

Polarity: Positive or negative with respect to chassis ground.

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

Accessories: Detachable 8-foot HV cable (see Models chart for choice of output connector and cable type) and 6-foot detachable line cord provided.

Remote Connections: Common, +10V reference, interlock, current program, current monitor, voltage program, voltage monitor, TTL HV enable, current regulation/trip, and chassis ground.

External Interlock: Open off, closed on.

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

Options

Symbol Description

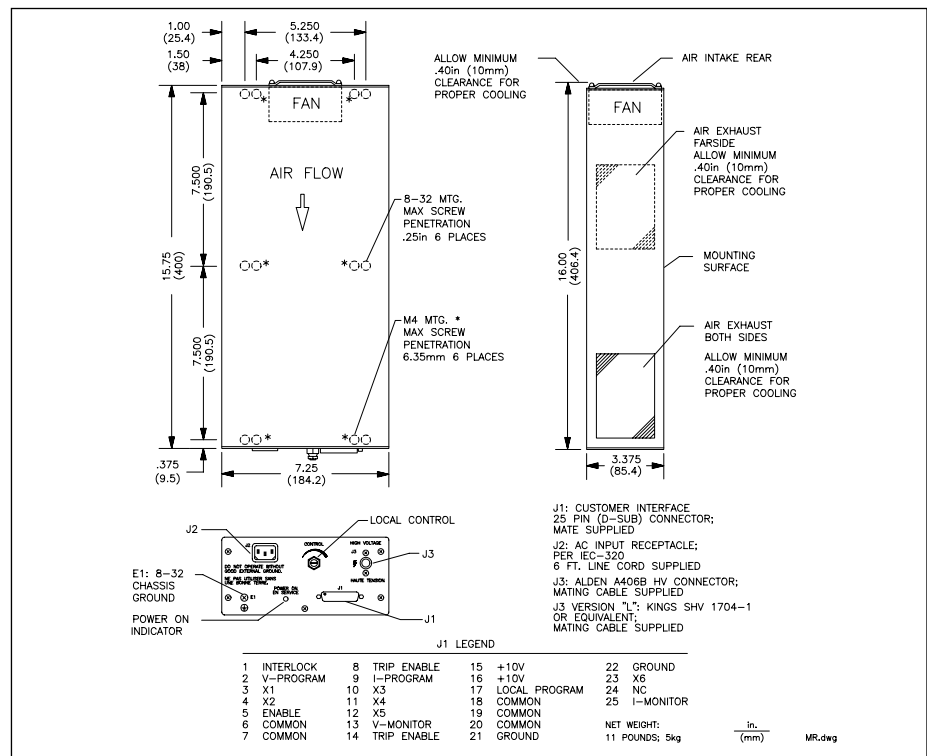
- 100 100 V input, rated 90-110 V RMS, 48-63 Hz.
- 200 200 V input, rated 180-220 V RMS, 48-63 Hz.
- 220 220 V input, rated 198-264 V RMS, 48-63 Hz.
- 400 48-420 Hz, available on standard models and options 100, 200, and 220.
- SS Slow start ramp, up to 30 seconds. Specify time.
- 5VC 0-5 V voltage and current program/monitor.

Models (Alden Connector)

Positive Polarity	Negative Polarity	Output Voltage	Output Current	Output Cable
MR1P300	MR1N300	0-1 kV	0-300 mA	Silicone wire
MR1.5P200	MR1.5N200	0-1.5 kV	0-200 mA	
MR2P150	MR2N150	0-2 kV	0-150 mA	
MR3P100	MR3N100	0-3 kV	0-100 mA	
MR5P60	MR5N60	0-5 kV	0-60 mA	

Models (SHV Connector)

Positive Polarity	Negative Polarity	Output Voltage	Output Current	Output Cable
MR1P300L	MR1N300L	0-1 kV	0-300 mA	RG-59
MR1.5P200L	MR1.5N200L	0-1.5 kV	0-200 mA	
MR2P150L	MR2N150L	0-2 kV	0-150 mA	
MR3P100L	MR3N100L	0-3 kV	0-100 mA	
MR5P60L	MR5N60L	0-5 kV	0-60 mA	



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