

# MJ Series 15 Watt Regulated High Voltage DC Modules

Premium  
Performance...  
Low Cost

Small Size  
and Weight

Fully RoHS  
Compliant

The MJ Series of 15 watt high voltage supplies are air insulated, fast response units, with tight regulation and low arc discharge currents

Please refer to Technology > Applications page on our web site for typical applications.

The MJ Series models, ordered with 230 VAC nominal input, are fully compliant with the Following European Directives:

EN61000-3-2, Line Harmonics.  
EN61010/ IEC61010, Safety.  
EN61000-6-4, Conducted and Radiated Emissions.  
EN61000-6-2:2005, Conducted and Radiated Immunity  
2011/65/EU, Restriction of the use of Hazardous Substances (RoHS)



Models from 0-3kVDC through 0-30kVDC; weight < 7.5 lbs.

## Features:

### Current Regulation Unequaled in a Module of This Price Range.

For example, the regulation from short circuit to rated voltage for the 15 kV, 1 mA model is  $\pm 500$  nanoamperes.

### Glassman's "Air Insulated"

designs are completely serviceable; this module is not an epoxy block "throw away".

**AC Input:** Eliminates the need, and expense of an auxiliary DC power source.

**Standard Accessories:** Detachable 8' shielded output cable, and mating control connector.

**Constant Voltage/Current Operation - Standard**

**Low Stored Energy:** Less than 200 millijoules for most models.

"Multi-Mode" operation permits maximum user flexibility.

- Local voltage or current control, user selectable.
- Remote voltage and/or current control via 0 - +10 volt signal.
- Remote voltage and/or current control via potentiometers.

**Protection:** Overload, short circuit, and arc protection is provided by automatic current regulation and by careful surge limiting design.

**External Interlock Terminals**

**TTL Enable/Disable**

**Warranty.** All power supplies are warranted for three years. A formal warranty statement is available.

## Specifications

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

**Input:** 105-125V RMS or 210-250V RMS (must be specified when ordering), 48-63Hz single phase, 0.25 amperes. 3 position terminal block with cover provided. 400Hz input available. (DC input available for quantity orders - contact factory)

**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. Voltage accuracy is 1% of setting + 0.5% of rated. Repeatability is <0.1% of rated.

**Stored Energy:** 15kV model, < 200 millijoules; 30kV model, < 400 millijoules.

**Voltage Regulation:** Better than 0.005% line and load.

**Ripple:** < 0.05% RMS of rated voltage at full load. Ripple is proportional to load and decreases linearly to approximately 0.01% at no load.

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

**Voltage Monitor:** Zero to + 10V DC signal is provided for zero to rated voltage. Accuracy is 1% of reading + 0.5% of rated. Output impedance is 10 K.

**Current Monitor:** Zero to +10V DC signal is provided for zero to rated current. Accuracy, 1% of reading +0.05% of rated. Output impedance is 10 K.

**Stability:** 0.01% per hour. after 1/2 hour warm-up. 0.05% per 8 hours.

**Voltage Rise/Decay Time Constant:** Using either the HV on/off or remote voltage control, with a 50% load, the output voltage will rise or decay with a typical time constant of 50 milliseconds (100 mS maximum).

**Temperature Coefficient:** 0.01% per degree C.

**Ambient Temperature:** -20 degree C to +60 degree C, operating; -40 degree C to + 85 degree C storage.

**Polarity:** Available with either positive or negative polarity with respect to chassis ground.

**Protection:** Automatic current regulation protects the power supply against all overload conditions, including arcs and short circuits.

Fuses, surge limiting resistors, and low energy components provide the ultimate protection.

**Output Cable:** Detachable, 8 foot. RG8U shielded high voltage coaxial cable is provided.

**Controls:** A DB15S D-subminiature connector, and mating plug, is provided for all control input functions. These include common, + 10 volt

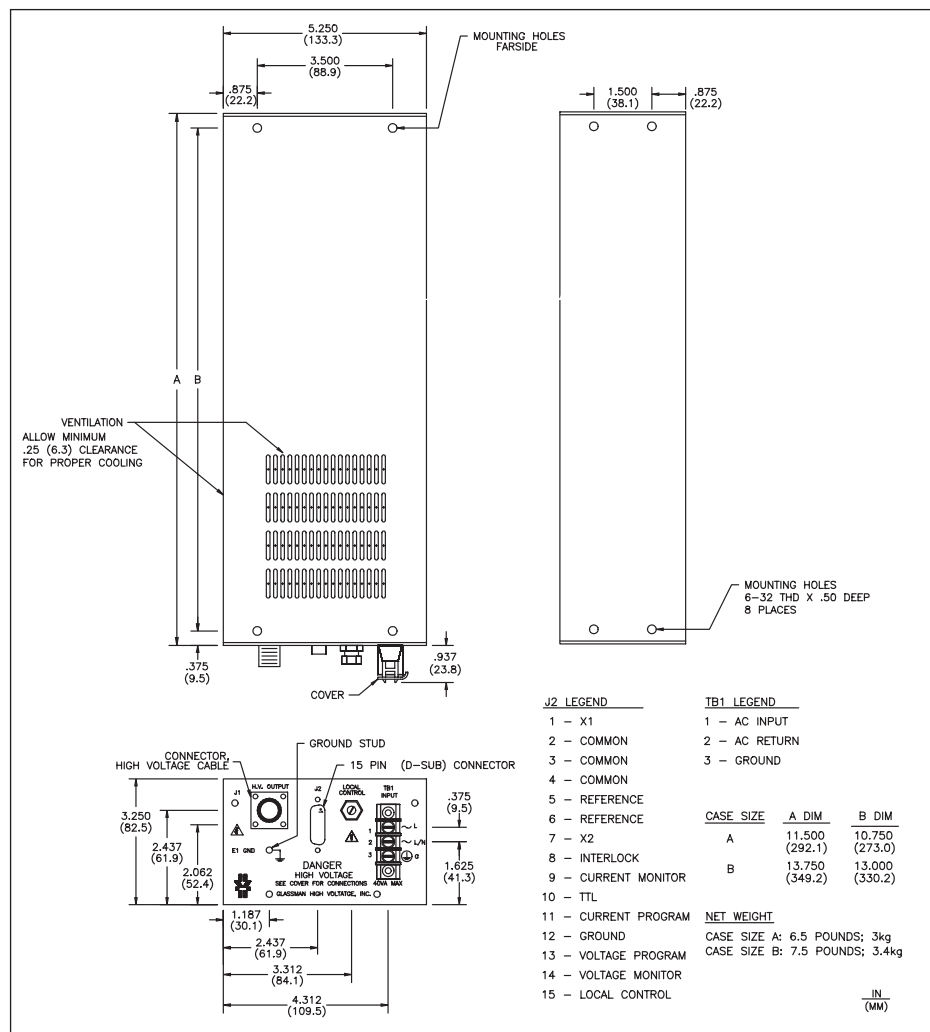
reference, interlock, current monitor, current program, voltage monitor, voltage program, TTL, ground, and local control.

**External Interlock:** Open off, closed on.

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

## Models:

Positive Polarity	Negative Polarity	Output Voltage	Output Current	Output Cable	Case Size
MJ3P5000	MJ3N5000	0-3 kV	0-5 mA	RG-8U	A
MJ5P3000	MJ5N3000	0-5 kV	0-3 mA	RG-8U	A
MJ10P1500	MJ10N1500	0-10 kV	0-1.5 mA	RG-8U	A
MJ15P1000	MJ15N1000	0-15 kV	0-1 mA	RG-8U	A
MJ20P700	MJ20N700	0-20 kV	0-0.7 mA	RG-8U	B
MJ30P400	MJ30N400	0-30 kV	0-0.4 mA	RG-8U	B



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