

## MK Series 75 Watt

## Regulated High Voltage DC Modules

## Medium Power Premium Performance...

## Low Cost

## Fully RoHS Compliant

The MK Series of 75 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 MK Series with 220 option, 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 0-1kVDC through 0-60kVDC; weight <11 lbs.

### Features:

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

For example, the regulation from short circuit to rated voltage for the 15kV, 5mA model is +2.5 microamperes.

Glassman's "Air Insulated" designs are completely serviceable; this module is not an epoxy block "throw-away."

#### AC Power "ON" Indicator

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

#### Constant Voltage/Current Operation - Standard

**Low Stored Energy.** Less than 800 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, 48-420Hz single phase, less than 1.5 amperes. 180 VA maximum at full load. C14 input connector per IEC 60320, with mating line cord, provided.

**Efficiency:** Better than 75% 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. Voltage accuracy is 1% of setting + 0.5% of rated. Repeatability is <0.1% of rated.

**Stored Energy:** 10kV model, 200 millijoules; 50kV model, 1 joule.

**Voltage Regulation:** Better than 0.005% + 1mV/mA, line and load.

**Ripple:** Better than 0.03% RMS of rated voltage +0.5V at full 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, 1% of reading + 0.5% of rated. Output impedance is 10 kΩ.

**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 75% load, the output voltage will rise or decay with a typical time constant of 50 milliseconds (100mS 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.

**AC Power "ON" Indicator.**

**Accessories:** Detachable 8' shielded output cable (see Models chart for

cable type), mating control connector, and line cord.

**Remote Controls:** A DB25S

D-subminiature connector and mating plug are 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.

**Enable/Disable:** 0 to 1.5V off, 2.5 – 15V on.

# Options

| Symbol | Description   |
|--------|---|
| 100    | 100 Volt input: rated for 90 to 110 volts RMS. 48-63 Hz.                          |
| 220    | 230 Volt input: rated for 198 to 253 volts RMS. 48-63 Hz. <b>Required for CE.</b> |
| 400    | 400Hz input: Available for standard and options 100 and 220.                      |
| K01    | RS-232/USB control and monitor  |
| K02    | RS-232/USB/Ethernet control and monitor   |

# Models

| Positive Polarity | Negative Polarity | Output Voltage | Output Current | Output Cable |
|-------------------|-------------------|----------------|----------------|--------------|
| MK1P75L           | MK1N75L           | 0-1kV          | 0-75mA         | RG-59        |
| MK1.5P50L         | MK1.5N50L         | 0-1.5kV        | 0-50mA         | RG-59        |
| MK2P37.5L         | MK2N37.5L         | 0-2kV          | 0-37.5mA       | RG-59        |
| MK3P25L           | MK3N25L           | 0-3kV          | 0-25mA         | RG-59        |
| MK5P15L           | MK5N15L           | 0-5kV          | 0-15mA         | RG-59        |
| MK10P7.5          | MK10N7.5          | 0-10kV         | 0-7.5mA        | RG-8U        |
| MK15P5            | MK15N5            | 0-15kV         | 0-5mA          | RG-8U        |
| MK20P3.7          | MK20N3.7          | 0-20kV         | 0-3.7mA        | RG-8U        |
| MK25P3            | MK25N3            | 0-25kV         | 0-3mA          | RG-8U        |
| MK30P2.5          | MK30N2.5          | 0-30kV         | 0-2.5mA        | RG-8U        |
| MK35P2            | MK35N2            | 0-35kV         | 0-2mA          | RG-8U        |
| MK40P1.8          | MK40N1.8          | 0-40kV         | 0-1.8mA        | RG-8U        |
| MK50P1.5          | MK50N1.5          | 0-50kV         | 0-1.5mA        | RG-8U        |
| MK60P1.2          | MK60N1.2          | 0-60kV         | 0-1.2mA        | RG-8U        |

