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.

YY1 Option: 115/230VAC selectable input; switch located on front panel for setting appropriate mains input.

"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. **Required for CE.**
400	400Hz input: Available for standard and options 100 and 220.
YY1	115/230 VAC selectable input; switch located on front panel. **(Not CE.)**
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

