

GENERAL PURPOSE HIGH VOLTAGE MODULES KS005, KS010, KS020, KS030


APPLIED KILOVOLTS

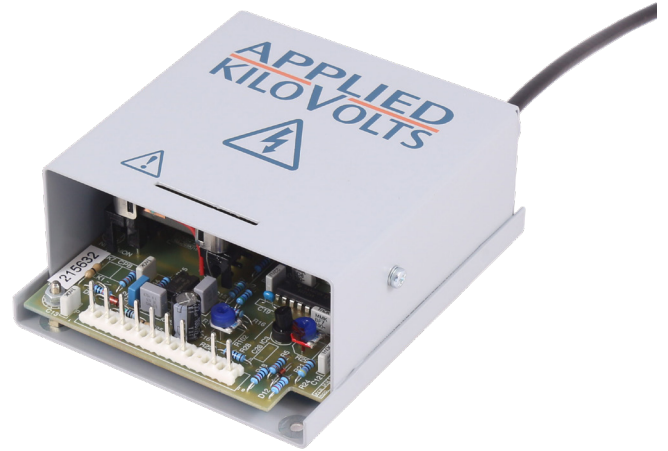
KS Series

Application:

Monitor CRTs, lens voltages, focus & high voltage bias, ion pumps, image intensifiers, electrostatics

Features:

- 5kV, 10kV, 20kV & 30kV
- High frequency switch mode
- Internal control or externally programmable
- Flashover proof
- 24 hour burn in
- General purpose
- UL recognised as a component under UL category OGTK2, evaluated under UL61010-1-2nd Edition File no E254121 



These stabilised miniature power supplies are available in either positive or negative polarity at output voltages of 5kV, 10kV, 20kV and 30kV. They are intended for general purpose applications and the output voltage can be controlled by internal or external potentiometers or by an external 10 volt analogue control voltage. The units are pin compatible with the high precision HP series and similar to the 100 watt HW series of power supplies (please see separate data sheets).

All units use high frequency switching techniques, in conjunction with a ferrite step-up transformer to control the output. All high voltage components are vacuum encapsulated in silicon rubber.

ELECTRICAL SPECIFICATIONS: KS SERIES

UNIT TYPE	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE (pk-pk)	TEMP-CO / °C	SIZE (mm)	WEIGHT (kg)
KS005xAA300	+50 volts to 5kV	1mA	<0.02%	<300ppm	115 x 98 x 47	0.9
KS010xAA300	100 volts to 10kV	0.5mA	<0.02%	<300ppm	115 x 98 x 47	0.9
KS020xAA300	250 volts to 20kV	0.2mA	<0.02%	<300ppm	115 x 98 x 47	0.9
KS030xAA300	500 volts to 30kV	0.1mA	<0.02%	<300ppm	115 x 98 x 47	0.9

KSxxxPAA300 for +ve o/p versions, and KSxxxNAA300 for -ve o/p versions

ELECTRICAL SPECIFICATION

Input:	+24V dc $\pm 10\%$ <0.5A. 0V input common to HV return and chassis
Control of output:	Internal potentiometer External potentiometer 10V analogue signal. (0.2V to +10V gives 2% to max o/p, tolerance $\pm 2\%$). Zin 20Kohm
Voltage monitor:	0.2V to +10V $\pm 3\%$ for 2% to +100%. (Zout= 10k)
Output Temperature Co-efficient:	<300ppm/°C
Drift (after 1 hour warm up):	<0.05% per hour, <0.25% over an 8 hour period
Line regulation:	<0.1% for 1V change in input voltage
Load regulation:	<0.1% for load change from 10% to maximum load
Protection (all outputs):	Protected against short-down and intermittent arcing

KS Series

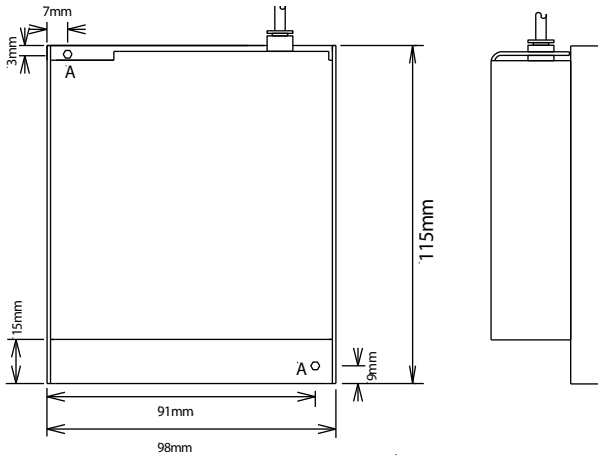
MECHANICAL SPECIFICATION

Mountings:	2 off M3 clearance holes		
Input & control:	10 way 0.2" Molex connector		
Output:	Flying lead, 0.5m of URM43 screened (shielded) cable (KS030P & N by 0.7m of TV30)		

ENVIRONMENTAL SPECIFICATION

Temperature, operating:	+10°C to +50°C	Humidity (RH) <31°C non-condensing:	80% maximum
Temperature, storage:	-35°C to +85°C	Humidity (RH) >30°C non-condensing:	Decrease linearly to 50% at 40°C
Altitude, operating:	Up to 2,000m	Altitude, storage	Up to 18,000m

The unit is to be supplied from a current limited supply providing 24V dc, impulse limited to overvoltage Category I (of IEC60364-4-443).
For use in an environment of pollution degree 2.



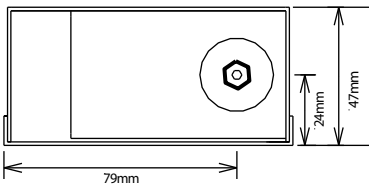
Fixing Holes
2 off M3 Clearance holes marked 'A'

PIN ASSIGNMENTS

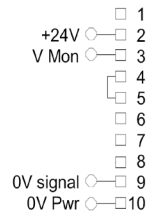
1	nc
2	+24V dc input
3	Voltage monitor o/p
4	Control link see diags below
5	Control link see diags below
6	Control link see diags below
7	Voltage control Input ¹
8	Reserved
9	Signal ground
10	0V power return

Notes:

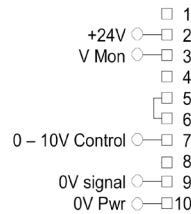
- Control voltage must be between -0.5V & 10.2V



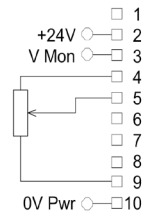
INTERNAL POTENTIOMETER



EXTERNAL 0 to 10V



EXTERNAL POTENTIOMETER



PART NUMBER SELECTION

SERIES CODE: KS

O/P kV	POLARITY	OPTIONS CODE	TEMP-CO/°C
005= 5kV	P= +ve	AA= no options	300ppm
020= 20kV	N= -ve		

Example: +10kV KS series: KS010PAA300

Special configurations are available for custom requirements in volume applications.

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