

Excellence in High Voltage

MINIATURE HIGH VOLTAGE MODULES to 3kV MP001, MP2.5 & MP003

Applications:

Photomultiplier tubes

Lens & bias supplies

Test Equipment

- 2W programmable o/p Voltage
- Size 80mm x 55mm x 20mm (1kV)
- High stability, low ripple
- High frequency switch mode
- Short circuit and flashover proof
- 0-10 volt programming
- 24 hour burn in



This range of power supplies are miniature versions of the HP family giving up to 1kV, 2.5kV, or 3kV, at 2W. The units, which are programmable by a 0 to +10 volt signal, are intended to be mounted on a printed circuit board and offer high stability together with low drift. They use high frequency pulse width modulated switching techniques in conjunction with a ferrite step-up transformer to control the output voltage.

Applications include powering photomultiplier tubes, and electron multipliers in scientific and other instruments.

We manufacture a number of special versions of these units and would be pleased to discuss your volume application with you.

Electrical Specification

UNIT TYPE	POLARITY	OUTPUT	RIPPLE AT FULL LOAD
MP001P	POSITIVE	+50 volts to +1kV at 2mA	50mV peak to peak
MP001N	NEGATIVE	-50 volts to -1kV at 2mA	50mV peak to peak
MP2.5P	POSITIVE	+100 volts to -2.5kV at 1mA	125mV peak to peak
MP2.5N	NEGATIVE	-100 volts to -2.5kV at 1mA	125mV peak to peak
MP003P	POSITIVE	+125 volts to +3kV at 0.7mA	150mV peak to peak
MP003N	NEGATIVE	-125 volts to -3kV at 0.7mA	150mV peak to peak

Mechanical Specification

INPUT VOLTAGE: -	+24 volt d.c. $\pm 10\%$ at 0.25amp maximum.
CONTROL: -	Zero to +10V to gives zero to Max O/p Voltage $\pm 5\%$. ($Z_{in} > 100k$)
MONITOR: -	Zero to +10V corresponds to Zero to Max o/p Voltage ($Z_{out} = 10k$) Optional only on 1kV units – always fitted to 2.5kV & 3kV units.
LINE REGULATION: -	Better than 100ppm for 1V change in input voltage.
LOAD REGULATION: -	Better than 100ppm for 0 to full load.
RIPPLE:-	Better than 50ppm peak to peak (measured at maximum voltage and current).
TEMPERATURE CO-EFFICIENT: -	Typically $< 200ppm/^\circ C$. Tighter versions available.
OPERATING TEMPERATURE: -	0 $^\circ C$ to +50 $^\circ C$
STORAGE TEMPERATURE: -	-35 $^\circ C$ to +85 $^\circ C$
R.F.I.: -	Choke input filter
Size: -	80mm x 55mm x 20mm. – MP001 80mm x 60mm x 35mm. – MP2.5 & MP003
OUTPUT:-	Pins for 1kV, o/p by flying lead for units $> 1kV$.

Order Code:	Series Code	o/p kV	Polarity	Options Code	Temp Co
	MP	001 = 1kV 2.5 = 2.5kV 003= 3kV	P= +ve N= -ve	AA= no options AV= Voltage Monitor Fitted	200
e.g	-1kV MP series with Voltage Monitor Option fitted: MP001NAV200				

