MS 3W REGULATED PCB MOUNT HV POWER SUPPLY

SPELLMAN HIGH VOLTAGE ELECTRONICS CORPORATION

- ***LOW COST***
- ***OUTPUT VOLTAGES UP TO 3KV***
- ***3 WATTS POWER RATING***
- ***REMOTE CONTROL***
- ***POSITIVE OR NEGATIVE POLARITY***
- ***ARC AND CONTINUOUS SHORT-CIRCUIT PROTECTED***
- ***LOW STORED ENERGY***
- ***HIGH RELIABILITY***
- ***INTERNAL 5V REFERENCE AVAILABLE***
- ***OEM CUSTOMIZATION AVAILABLE***

Spellman's MS Modules have been designed for printed circuit board mounting with high reliability, small size and light weight. Each module provides 3W of output power to 3kV with well regulated low ripple, high stability and high voltage in a versatile, compact cost-effective design. The modules incorporate remote control and arc & short-circuit protection. Radiated pickup is eliminated by sealing each module in an aluminum enclosure.

TYPICAL APPLICATIONS

Photomultiplier Tubes
Precision Lenses
Image Intensifiers
Nuclear Instruments
Spectroscopy

OPTIONS

P Preset Output Voltage
C External Programming
I Isolated Input to Output
Isolation Voltage: 40V for units up to 1kV
100V for units >1kV

SPECIFICATIONS

Input Voltage:
+12Vdc ±1V. Other input voltages also available.

Input Current:
< 0.56A at full output.

Output Voltage:
Continuously adjustable over each entire range
Models available in either positive or negative polarity.
See table for voltage ranges.

Line Regulation:
< 0.005% for input change of 1 volt.

Load Regulation:
< 0.05% for 100µA to full load change. (at max. voltage)

Output Voltage Control:
Option to be set at factory. Either:
1) Preset output voltage
2) External control:
External potentiometer (5Kohm)
Remote voltage programming 0-5V gives 0 to full output

Output Power: 3W continuous.

Voltage Regulation:
Line: 0.005% for input change of 1 Volt.
Load: 0.05% for 100µA to full load change at maximum voltage.

Ripple: < 0.01% p-p of full output voltage.

Temperature:
Operating: 0°C to +50°C.
Storage: -35°C to +85°C.

Temperature Coefficient: 50ppm/°C typical.

Stability:
< 0.05%/8 hrs at constant operating conditions after one hour warm-up.

Humidity: 0 to 90% non-condensing.

Dimensions:
Up to 1000Vdc:
.87"H x 2.1"W x 3.1"D (23mm x 53mm x 78mm).
1000V to 3000Vdc:
1.1"H x 2.36"W x 4.2"D (28mm x 60mm x 106mm).

Weight:
Up to 1000V: 0.2lb (80g).
Over 1000V: 0.4lb (160g).

Regulatory Approvals:
Compliant to 2004/108/EC, the EMC Directive and 2006/95/EC, the Low Voltage Directive.

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128018-001 REV.E
Spellman High Voltage is an ISO 9001:2000 and ISO 14001:2004 registered company

MS SELECTION TABLE

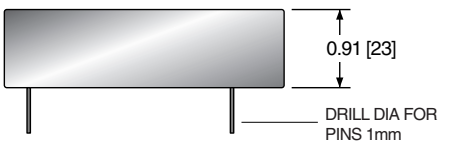
OUTPUT VOLTAGE (V)	OUTPUT CURRENT (mA)	RIPPLE V (p-p)	MODEL
300	10	0.03	MS0.3*
500	6	0.05	MS0.5*
750	4	0.075	MS0.75*
1000	3	0.10	MS1*
1500	2	0.15	MS1.5*
2000	1.5	0.20	MS2*
2500	1.2	0.25	MS2.5*
3000	1	0.30	MS3*

*Specify "P" for positive polarity or "N" for negative polarity.

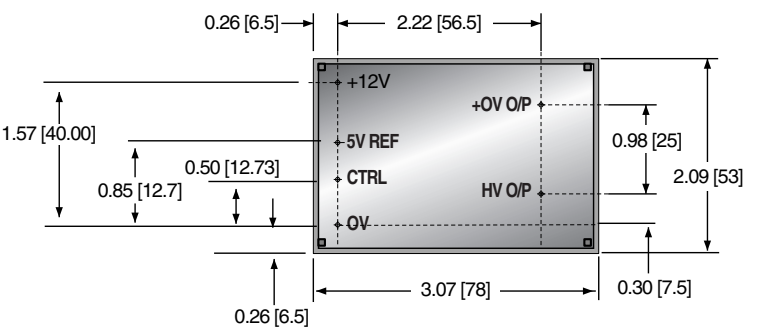
DIMENSIONS: in.[mm]

UNIT UP TO 1000V

SIDE VIEW

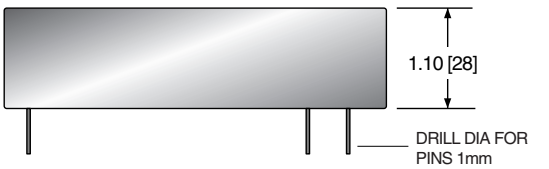


BOTTOM VIEW

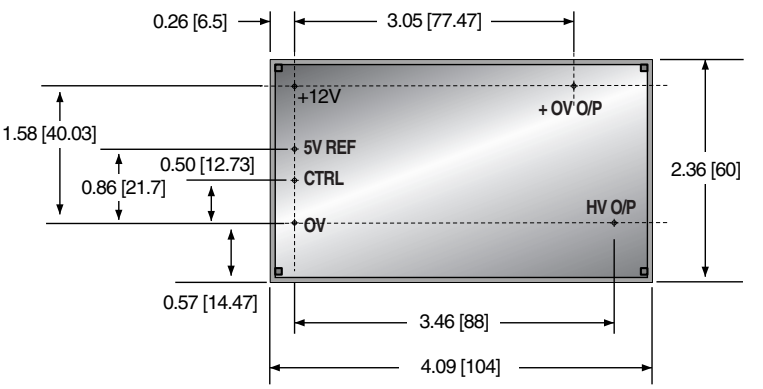


UNIT > 1000V UP TO 3000V

SIDE VIEW



BOTTOM VIEW



View on pins.
Recommended hole size
for terminals 1mm.

CE

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