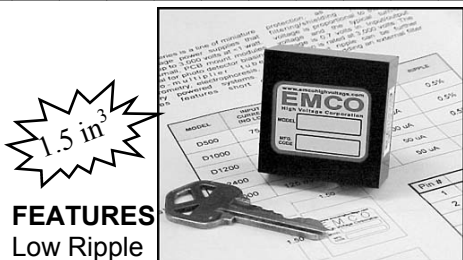


Miniature DC to HV DC Converters

0 to + or -100 through 0 to + or -6,000 VDC @ 1.5 Watts
G Series



FEATURES

- Low Ripple
- Miniature Case Size
- Short Circuit Protection
- Low EMI/RFI Sinewave Oscillator
- Proportional Input/Output
- User-Selectable Output Polarity
- Low Leakage Current
- MTBF: >2.29 million hrs per Bellcore TR-332

OPTIONS

- Output Center Tap, See CT Series
- External Mounting Box, See AB Series
- Low Power Consumption, See GP Series
- Epoxy: Low Outgassing (NASA approved per ASTM E-595-93)
UL 94 V0 flammability rating
- RoHS(- 'R' suffix denotes the product is designed to meet RoHS requirements i.e G01R)
- Extended Operating & Storage Temperature: Contact Factory

APPLICATIONS

- Non-impact Printers
- Sustaining Ion Pumps
- Piezo Devices
- Vacuum Gauges
- Photomultiplier Tubes
- Spectrometry
- Electrostatic Chucks
- Lamp Ignition and Drive
- Displays (see AC output option)

PHYSICAL CHARACTERISTICS

- SIZE: 1.5 x 1.5 x 0.63 (38.1 x 38.1 x 16.0)
- WEIGHT: 1.5 Ounces (43 Grams) Approx.
- PACKAGING: Fully Encapsulated
- CASE MATERIAL: Glass-filled Epoxy
- PINS: .031 (.79) Diameter, 0.2 (5.1) Long

ELECTRICAL SPECIFICATIONS*4

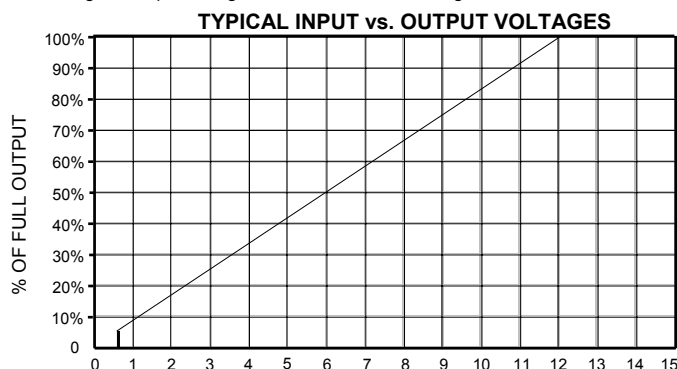
- INPUT VOLTAGE: 0 to 12 Volts
- TYPICAL TURN-ON VOLTAGE: 0.7 Volts
- OUTPUT VOLTAGE: See Table
- OUTPUT VOLTAGE TOLERANCE: (+/-3% typical)
- OUTPUT VARIANCE ACROSS LOAD RANGE:
(-10%, typical)⁶
- OUTPUT CURRENT: See Table
- RIPPLE: See Table
- ISOLATION: 3,500 Volts + Vout
- OPERATING TEMP: -10° to +60° C

The G Series is a line of miniature, versatile component level building blocks that provide up to 6,000 VDC, positive or negative, in a compact PC mount package. The isolated output is directly proportional to the input, and is linear from approximately 0.7 volts in. Excellent filtering techniques and a low noise quasi-sinewave oscillator provide clean, reliable DC to HV DC conversion with low ripple, and low EMI/RFI. The isolated output allows for user selectable output

polarity. An output center-tap option which, when grounded, provides both positive and negative outputs from one compact, low cost module. The pin pattern on the G Series allows for a direct drop-in replacement for many larger high voltage modules. Positive and negative outputs are typically balanced within 20%. The GPMT model has been specifically designed for biasing PMT's. Contact our Applications Department for immediate technical assistance.

MODEL	INPUT*2 CURRENT (NO LOAD)	INPUT *2 CURRENT (FULL LOAD)	OUTPUT*3 VOLTAGE	OUTPUT*5 CURRENT	RIPPLE P-P
G01	<100 mA	<250 mA	0 to +/-100V	0 to 15 mA	<1.75%
G02	<100 mA	<250 mA	0 to +/-200V	0 to 7.5 mA	<0.75%
G03	<100 mA	<250 mA	0 to +/-300V	0 to 5 mA	<0.75%
G04	<100 mA	<250 mA	0 to +/-400V	0 to 3.75 mA	<0.75%
G05	<100 mA	<250 mA	0 to +/-500V	0 to 3 mA	<0.02%
G06	<100 mA	<250 mA	0 to +/-600V	0 to 2.5 mA	<0.1%
G10	<100 mA	<250 mA	0 to +/-1,000V	0 to 1.5 mA	<0.1%
G12	<150 mA	<275 mA	0 to +/-1,200V	0 to 1.25 mA	<0.1%
G15	<125 mA	<275 mA	0 to +/-1,500V	0 to 1 mA	<0.5%
G20	<165 mA	<275 mA	0 to +/-2,000V	0 to 0.75 mA	<0.5%
G25	<125 mA	<275 mA	0 to +/-2,500V	0 to 0.6 mA	<1.0%
G30	<125 mA	<300 mA	0 to +/-3,000V	0 to 0.5 mA	<2.0%
G40*1	<125 mA	<300 mA	0 to +/-4,000V	0 to 0.37 mA	<1.0%
G50*1	<125 mA	<300 mA	0 to +/-5,000V	0 to 0.3 mA	<2.0%
G60*1	<125 mA	<300 mA	0 to +/-6,000V	0 to 0.25 mA	<2.0%
Photomultiplier Model					
GPMT	<35 mA	<75 mA	0 to +/-1,250	0 to 350 uA	<.05%

- *Notes 1. Models G40, G50 & G60 do not have internal bleeder resistors on the output. Provisions must be made externally to discharge the output capacitors if this feature is desired.
- 2. At Maximum Rated Output Voltage.
- 3. Output Voltage is load dependent. Under light or no load conditions, reduce input voltage so maximum rated output voltage is not exceeded.
- 4. Specifications after 30 minute warm-up, full load, at 25°C unless otherwise noted.
- 5. The rated output current is available at full output voltage and must be derated proportionally as the input voltage decreases. For example: a 500V, 1.5W unit, rated at 3mA at 500V will provide 1.5mA at 250V out.
- 6. Indicates the change in output voltage as the load current changes from 0mA to max rated output current.

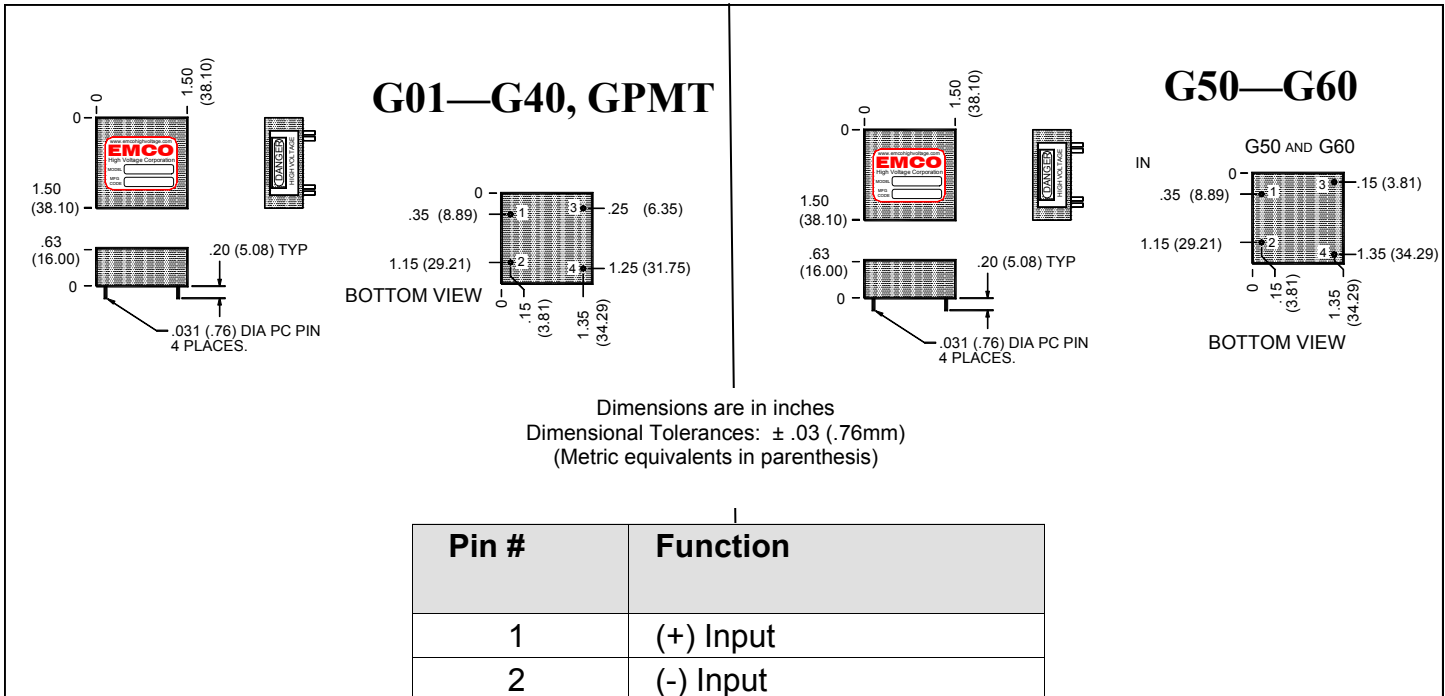


INPUT VOLTAGE

4726AZ

e-mail sales@emcohighvoltage.com
Web site www.emcohighvoltage.com

Phone (209) 267-1630 Fax (209) 267-0282
70 Forest Products Road, Sutter Creek CA 95685



Pin #	Function
1	(+) Input
2	(-) Input
3	(+) Output
4	(-) Output
5	Center Tap <i>(optional)</i>

