# H Series

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## 0.3kV - 10kV, 15W
## REGULATED, PROGRAMMABLE,
## HIGH VOLTAGE POWER SUPPLIES

EMCO HIGH VOLTAGE CORPORATION

- 0 to 100% Programmability
- Output Voltage Monitor
- Short Circuit Protection
- Reverse Polarity Protection
- Arc Protection
- Low EMI / RFI, Shielded Metal Case
- Input / Output Filtering


## • APPLICATIONS

- Piezo devices, HV op amp rails
- Ultrasonic transducers, Lamp ignition & drive
- Electrophoresis, Capacitor Charging
- Lasers, General Lab Use

The H Series is a line of compact, regulated power supplies featuring 15 watts of continuous output power. This line features 0 to 100% programmability via a 0 to 5 volt programming voltage. A 0 to 5 volt output voltage monitor is provided. Short circuit, arc, and reverse polarity protection are standard. Technical assistance is readily available.

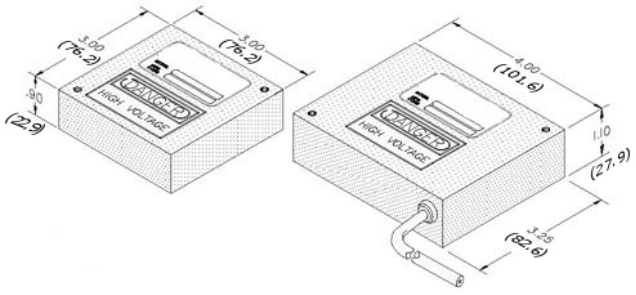
| Model | Output Voltage | Output*1 Current | Ripple | Regulation (load) | Case Size |
|---|---|---|---|---|---|
| H03P | 0 - +0.3kV | 50mA | <1.0% | <0.75% | A |
| H03N | 0 - −0.3kV | 50mA | <1.0% | <0.75% | A |
| H05P | 0 - +0.5kV | 30mA | <0.5% | <0.20% | A |
| H05N | 0 - −0.5kV | 30mA | <0.5% | <0.20% | A |
| H10P | 0 - +1kV | 15mA | <0.01% | <0.20% | A |
| H10N | 0 - −1kV | 15mA | <0.01% | <0.20% | A |
| H15P | 0 - +1.5kV | 10mA | <0.025% | <0.20% | A |
| H15N | 0 - −1.5kV | 10mA | <0.02% | <0.20% | A |
| H20P | 0 - +2kV | 7.5mA | <0.03% | <0.20% | A |
| H20N | 0 - −2kV | 7.5mA | <0.03% | <0.20% | A |
| H30P | 0 - +3kV | 5mA | <0.75% | <0.20% | A |
| H30N | 0 - −3kV | 5mA | <1.0% | <0.20% | A |
| H40P | 0 - +4kV | 3.75mA | <0.75% | <0.20% | A |
| H40N | 0 - −4kV | 3.75mA | <0.75% | <0.20% | A |
| H50P | 0 - +5kV | 3mA | <0.75% | <0.20% | A |
| H50N | 0 - −5kV | 3mA | <0.75% | <0.20% | A |
| H60P | 0 - +6kV | 2.5mA | <0.75% | <0.50% | A |
| H60N | 0 - −6kV | 2.5mA | <0.75% | <0.20% | A |
| H101P | 0 - +10kV | 1.5mA | <1.0% | <0.20% | B |

*1 At Maximum Rated Output Voltage.

## • SPECIFICATIONS

| | |
|---|---|
| Input Voltage: | 24V (±0.5 V) |
| Output Voltage: | See Table |
| Output Current: | See Table |
| Programming Voltage: | 0 to +5V, <100μA |
| Regulation: | Line: <0.2%<br>Load: See table |
| Input Current: | No Load: <0.5A<br>Full Load: <1.5A |
| Temperature Coefficient: | <200ppm/°C |
| Ripple: | See Table |
| Operating Temp.: | -10°C to +50°C |
| Storage Temp.: | -20°C to +90°C |
| Maximum Case Temp.: | +85°C (measured at points indicated) |
| Weight: | Case A: 283.5 grams<br>Case B: 510.3 grams |
| Packaging: | Fully Encapsulated |
| Case Material: | Black Anodized Aluminum |
| Pins: | 1.02mm Dia.,<br>Case A: 7.62mm Min. Length<br>Case B: 5.08mm Min. Length |

## • DIMENSIONS




Dimensions are in inches
Dimensional Tolerances: ± .03 (.76mm)
(Metric equivalents in parenthesis)

Case A: 3.0 (76.2) x 3.0 (76.2) x 0.90 (22.9)
Case B: 3.25 (82.6) x 4.0 (101.6) x 1.10 (27.9)



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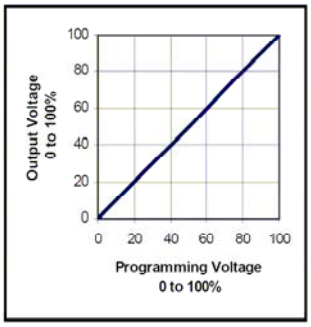
- **OPTIONS** (Through H60)

**H** Mounting Holes
(add H to model number, e.g. H10NH)
**-R** RoHS Compliant
Epoxy: **A**. Low Outgassing (NASA approved per ASTM E-595-93)
**B**. UL 94 V0 flammability rating
Alternate Input Voltages available.

Programming Voltage vs Output Voltage



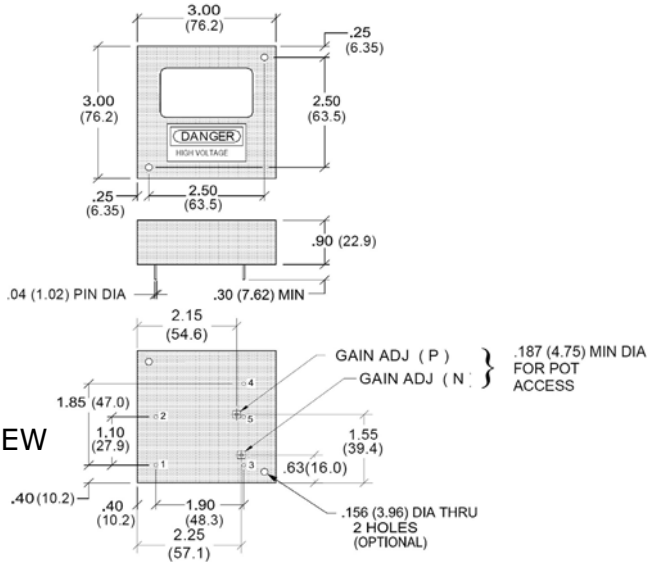

## CASE A

| Pin # | Function |
|---|---|
| 1 | +24V Input |
| 2 | Ground |
| 3 | Programming Volts: 0 to +5V |
| 4 | High Voltage Output |
| 5 | Voltage Monitor:<br>Positive Outputs: 0 to +5V = 0 to 100% V out<br>Negative Outputs: 0 to – 5V = 0 to 100% V out |

Dimensions are in Inches
Dimensional Tolerances: ±0.03 (.76mm)
(Metric equivalents in parenthesis)

NOTE:
RUN SEPARATE GROUND PATHS FOR POWER AND SIGNAL GROUNDS.

BOTTOM VIEW



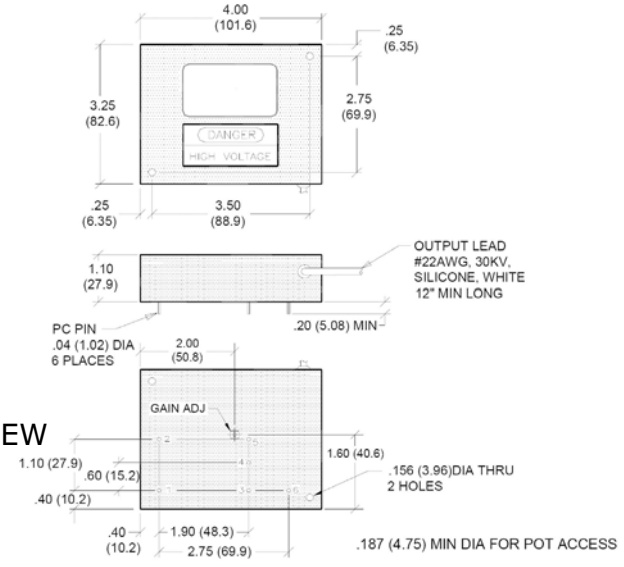

## CASE B

| Pin # | Function |
|---|---|
| 1 | +24V DC |
| 2 | Ground |
| 3 | Programming Volts: 0 to +5V |
| 4 | Programming Return |
| 5 | Voltage Monitor:<br>0 to 5V = 0 to 100% V out |
| 6 | Output Return |

Dimensions are in Inches
Dimensional Tolerances: ±0.03 (.76mm)
(Metric equivalents in parenthesis)

NOTE:
RUN SEPARATE GROUND PATHS FOR POWER AND SIGNAL GROUNDS.

BOTTOM VIEW



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