

Proportional DC to HV DC Converters

0 to + or - 100 through 0 to + or - 12,000 VDC up to 3 Watts
E Series



The E Series is a broad line of small, versatile, component level building blocks that provide up to 12,000 VDC at up to 3 watts continuous output power*² in a PCB mount package. This series features low ripple, noise, and EMI/RFI by utilizing a quasi-sinewave oscillator, excellent filtering techniques and a fully enclosed pot core transformer. The output voltage is

directly proportional to the input voltage, and is linear from approximately 0.7 volts to maximum input. The isolated output allows for user selectable output polarity. Options include mounting holes, external aluminum box, and an output center tap which, when grounded, provides both positive and negative outputs from one low cost module.

FEATURES

- Low Ripple
- Low EMI/RFI
- Proportional Input/Output
- Exceptional Reliability
- Compact, PCB Mount Package

OPTIONS

- External Mounting Box, See AB Series
- Output Center Tap, See CT Series
- Mounting Holes
- Alternate Pin Patterns Available
- Low Outgassing Epoxy

APPLICATIONS

- Electro-Static Field Generation
- HV Op Amps
- Grid Bias
- Spectrometry
- Piezo Devices
- Lamp Ignition
- Q Switches
- Ion Pumps
- Capacitor Charging
- Electrophoresis
- Image Intensifiers
- Printers

PHYSICAL CHARACTERISTICS

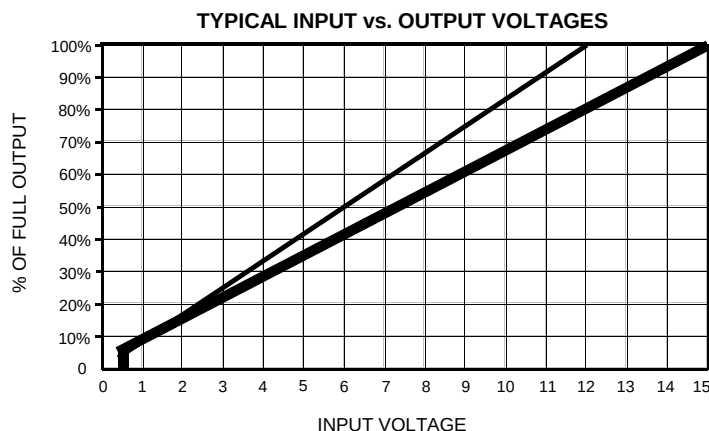
SIZE: 1.5 x 2.5 x 0.85 (38 x 64 x 22)
WEIGHT: 3 Ounces (85 grams) Approx.
PACKAGING: Epoxy Encapsulated
CASE MATERIAL: Glass-filled Epoxy
PINS: .031 (.79) Dia., .20 (5.1) Min. Length

ELECTRICAL SPECIFICATIONS

INPUT VOLTAGE: See Table
TYPICAL TURN-ON VOLTAGE: 0.7 Volts
OUTPUT VOLTAGE: See Table
OUTPUT CURRENT: See Table
RIPPLE: See Table
ISOLATION: 3,500 Volts +Vout
E70 – E121: 500V + Vout
EFFICIENCY: >60% Typical
OPERATING TEMP: -10° to +60° C
E70 – E121: -10° to +50° C

MODEL	INPUT CURRENT (NO LOAD)	INPUT CURRENT (FULL LOAD)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT* ² CURRENT	RIPPLE P-P
E01	<175 mA	<425 mA	0 to 12	0 to +/-100	30 mA	0.1%
E02	<125 mA	<400 mA	0 to 12	0 to +/-200	15 mA	0.25%
E02-5	<125 mA	<400 mA	0 to 12	0 to +/-250	12 mA	0.75%
E03	<125 mA	<400 mA	0 to 12	0 to +/-300	10 mA	1.0%
E05	<150 mA	<400 mA	0 to 12	0 to +/-500	6 mA	0.02%
E06	<175 mA	<400 mA	0 to 12	0 to +/-600	5 mA	0.1%
E08	<125 mA	<400 mA	0 to 12	0 to +/-800	3.75 mA	0.03%
E10	<125 mA	<400 mA	0 to 12	0 to +/-1,000	3 mA	0.03%
E15	<150 mA	<400 mA	0 to 12	0 to +/-1,500	2 mA	0.05%
E20	<175 mA	<425 mA	0 to 12	0 to +/-2,000	1.5 mA	0.25%
E30	<175 mA	<400 mA	0 to 15	0 to +/-3,000	1 mA	0.25%
E40	<175 mA	<400 mA	0 to 15	0 to +/-4,000	0.75 mA	0.5%
E50	<175 mA	<400 mA	0 to 15	0 to +/-5,000	0.6 mA	0.5%
E60	<175 mA	<400 mA	0 to 15	0 to +/-6,000	0.5 mA	0.5%
E70* ¹	<175 mA	<350 mA	0 to 15	0 to +/-7,000	0.43 mA	1%
E80* ¹	<175 mA	<300 mA	0 to 15	0 to +/-8,000	0.25 mA	1.25%
E101* ¹	<175 mA	<300 mA	0 to 15	0 to +/-10,000	0.2 mA	1.5%
E121* ¹	<175 mA	<300 mA	0 to 15	0 to +/-12,000	0.16 mA	1.5%

* Note 1. This unit has flying leads on the output and clearance holes for mounting
2. At Maximum Rated Output Voltage.



4719AH

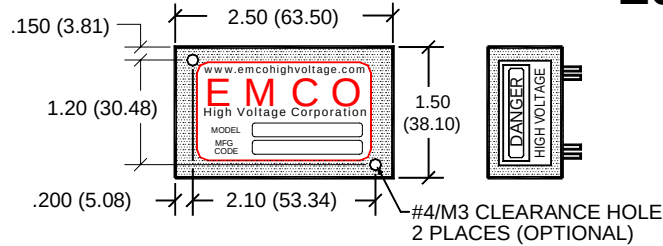
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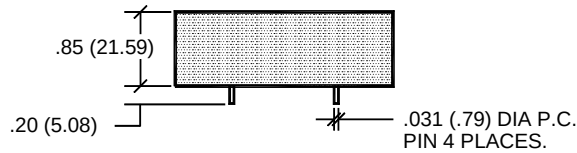
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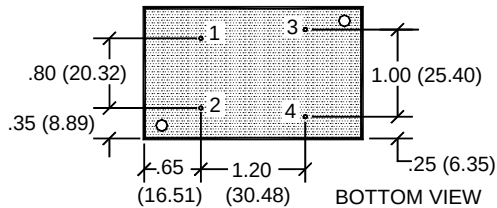
E01-E60



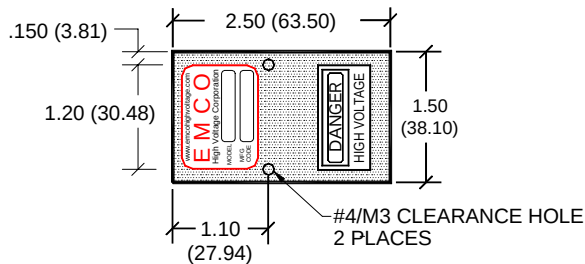
Pin #	Function
1	(+) Input
2	(-) Input
3	(+) Output
4	(-) Output



Dimensions are in Inches
Dimensional Tolerances: $\pm .03$ ($\pm .76$)
(Metric Equivalents in Parentheses)

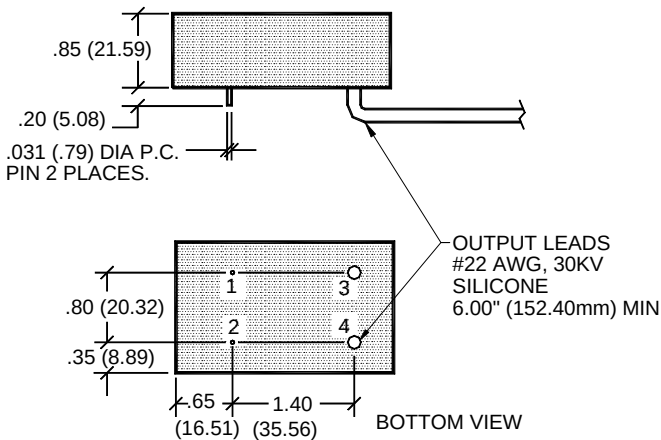


E70-E121



Pin #	Function
1	(+) Input
2	(-) Input
3*	(+) Output
4*	(-) Output

*Output Leads



Dimensions are in Inches
Dimensional Tolerances: $\pm .03$ ($\pm .76$)
(Metric Equivalents in Parentheses)