

Proportional DC to HV DC Converters

www.emcohighvoltage.com

EMCO
High Voltage Corporation

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 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,
(consult factory)

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

MODEL	INPUT CURRENT (NO LOAD)	INPUT CURRENT (FULL LOAD)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE
E01	<175 mA	<425 mA	0 to 12	0 to +/-100	30 mA	1.5%
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%
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	.025%
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*	<175 mA	<350 mA	0 to 15	0 to +/-7,000	0.43 mA	1%
E80*	<175 mA	<300 mA	0 to 15	0 to +/-8,000	0.25 mA	1%
E101*	<175 mA	<300 mA	0 to 15	0 to +/-10,000	0.2 mA	1.5%
E121*	<175 mA	<300 mA	0 to 15	0 to +/-12,000	0.16 mA	1.5%

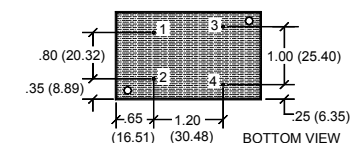
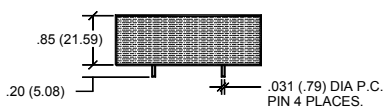
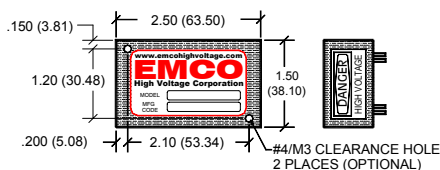
* This unit has flying leads on the output and clearance holes for mounting

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

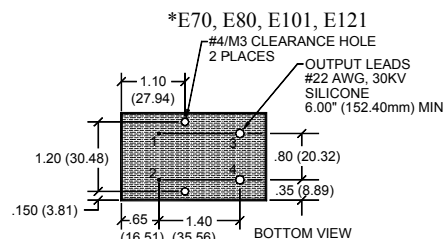
ELECTRICAL SPECIFICATIONS

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
EFFICIENCY: >60% Typical
REGULATION: 10% Typical
OPERATING TEMP: -10° to +60° C



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

Dimensions are in Inches
Dimensional Tolerances: ± .03 (± .76)
(Metric Equivalents in Parentheses)



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