E Series

Precision High Voltage DC/DC Converter Module
11.5~15 or 22~32 VDC Input / 500~3000 VDC Output

DESCRIPTION

The LHV Power E-Series miniature precision power supplies offer 5 Watts of high voltage power in a package just 4.5 cubic inches. They are intended to be designed into customers equipment as a component.

These units are available in one of two input voltage ranges: 11.5 to +15 VDC or +22 to +32 VDC.

The output is enabled through a TTL compatable ENABLE+ signal (pin 8).

The output voltage is fully adjustable over the specified voltage range by one or more of the following means:

1. A remote ADJUST voltage feed (pin 6). Output voltage is 1000 x VADJUST [2]
2. A series programming resistor between the internal REFERENCE (pin 5) and ADJUST(pin 6), using the 10kΩ internal impedance of ADJUST to ANALOG GROUND (pin 7) as divider.

The E-Series units provide two monitoring signals:

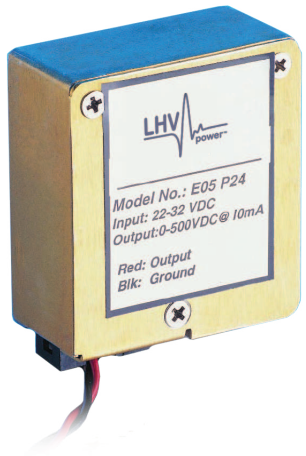
1. Voltage Monitor, a buffered 1000:1[2] divider with 10kΩ output impedance that provides the absolute output voltage reading.
2. Current Monitor, a buffered current sense resistor with 10kΩ output impedance that monitors output current, including the offset current in the internal feedback resistors.

The LHV Power E-Series high voltage converters are fully encapsulated in UL approved, RTV potting material, and packaged in an anodized aluminium case which provides electrostatic shielding.E-Series units are 100% tested before shipment, and protected by warranty against defects in material or workmanship.

SPECIFICATIONS

ENABLE+ "0" Voltage	<0.7 VDC [1]
ENABLE+ Input Impedance	10kΩ [1]
REFERENCE Output Voltage	5 VDC
REFERENCE Output Impedance	100Ω and 0.1µF to GND
ADJUST Input Impedance	10kΩ and 0.01µF to GND
Voltage and Current Monitor Impedance	10kΩ and 0.01µF to GND
ADJUST to Output Ratio	1000 x Input Voltage [2]
Voltage Monitor Ratio	ABS (1V/1000V) [2]
Current Monitor Ratio	ABS (1V/1mA)
Output Arc Suppression Resistor	1kΩ Carbon Composition
Temp Coefficient	<100 ppm/°C

(1) - ENABLE+ has an internal 10kΩ pull-up resistor to +5VDC
(2) - For model E05 replace 1000 with 100



FEATURES

- 5 Watt output
- <0.01% Line and load regulation
- Low temperature coefficient
- Low ripple and 1/F noise
- Compact size
- Remote adjust option
- Remote enable
- Remote voltage and current monitoring
- CE Marked

APPLICATIONS

- Ultrasonic transducers
- Gamma cameras
- Electron beam deflection
- Electrorheological fluids
- Spectroscopy
- Scintillation counters
- Electrostatic lenses (SEMs, STMs)

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MODEL CONFIGURATION

	MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE
A	E05	0-500 VDC	10mA	<10mV
	E10	0-1000 VDC	5mA	<15mV
	E15	0-1500 VDC	3mA	<20mV
	E20	0-2000 VDC	2.5mA	<30mV
	E30	0-3000 VDC	1.6mA	<50mV
B	P	Positive Output		
	N	Negative Output		
C	12	11.5 to 15VDC Input		
	24	22 to 32 VDC Input		

Example of Model Configuration:

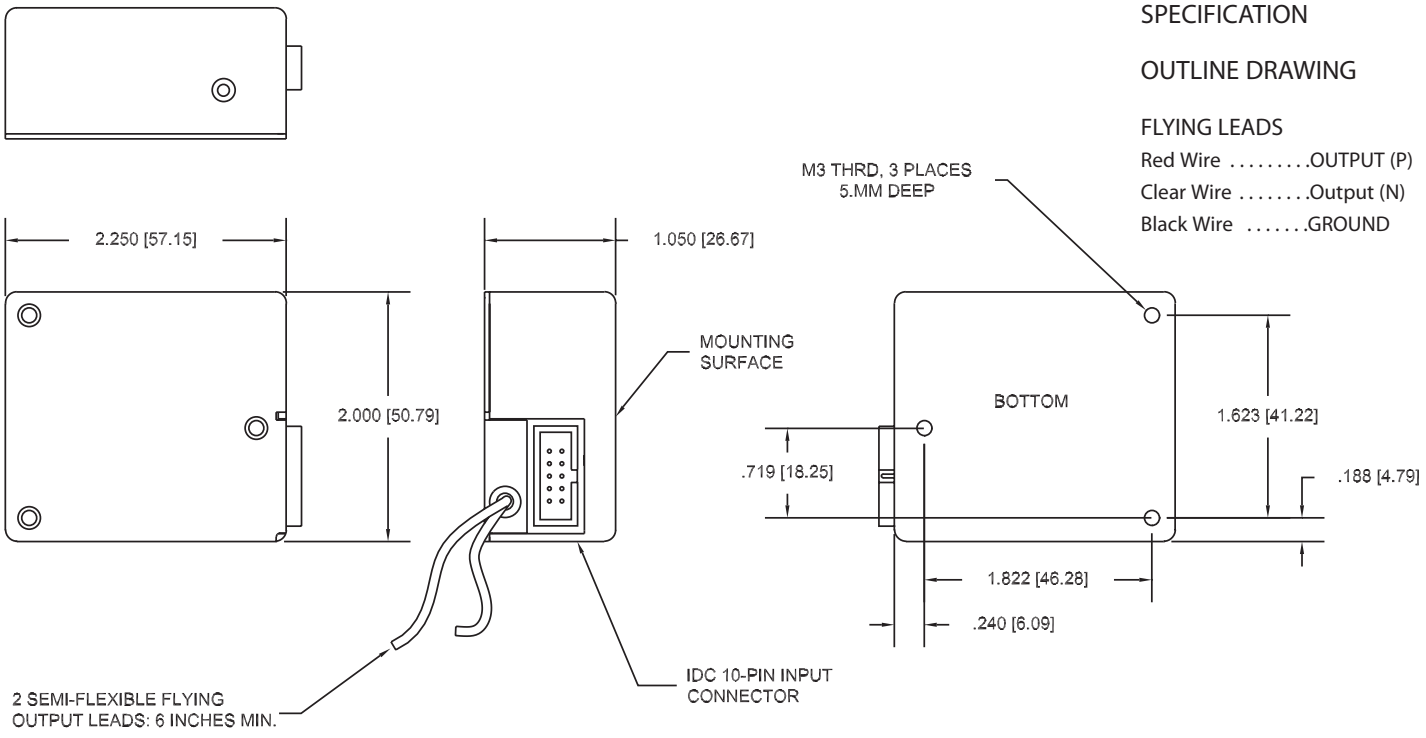
E10	P	24
A	B	C

INPUT CONNECTOR PINOUT (IDC 10-pin)

Designation	Pin
+VCC (12 VDC or 24 VDC)	1 and 2
VOLTAGE MONITOR ABS (1V/1000V)	3
CURRENT MONITOR ABS (1V/1mA)	4
REFERENCE OUT 5 VDC	5
ADJUST	6
ANALOG GROUND	7
ENABLE+	8
-VCC (RETURN)/GROUND	9 and 10

SPECIFICATION

OUTLINE DRAWING



FLYING LEADS
Red Wire .....OUTPUT (P)
Clear Wire .....Output (N)
Black Wire .....GROUND

Drawing dimensions are in inches (mm)