

AED/ALD13B50

1/16th Brick IBC Series

Total Power: 150 Watts
Input Voltage: 38 - 60 Vdc
Output Voltage: 12 Vdc



Special Features

- Intermediate Bus Converter for Front End (DPA) Distributed Power Architecture application
- High efficiency (95% Typical)
- Industry standard package 16th Brick 0.90" x 1.30"
- High capacitive load limit on start-up
- Output Enable Pin
- Undervoltage lockout
- Over Temperature Protection
- Meets Basic Insulation
- EU directive 2002/95/EC compliant for RoHS

Safety

- UL, cUL: 60950
- TUV: EN60950

Electrical Specifications

Input	
Input range:	38 V to 60 V
Efficiency:	95%@ 12 V (typical)
Over Voltage Protection:	67 V typical
Input UVLO:	33 V to 38 V
Output	
Output current:	13 A max
Output Voltage over line, load and temperature:	8.7 V to 15 V
Noise/ripple ¹ :	180 mV (typical)
Over current limit:	Auto-restart
Over temperature protection:	110 °C minimum (autorecovery)
Switching frequency:	165 kHz
Control	
Enable:	TTL compatible (positive or negative enable logic)
Isolation Voltage:	
Input to Output:	2000 Vdc max

Environmental Specifications

Operating ambient temperature range:	-40 °C to +85 °C ambient
Storage temperature:	-55 °C to +125 °C
MTBF:	> 1 million hours

Ordering Information

Input Voltage	Output Voltage	Output Current	Efficiency ²	Model Number
38 - 60V	12 V	13 A	95% Typ	A(X)D13B50(N)-(6)(L)

Options:

- (X) : "L" = Open Frame / Low Profile
"E" = Heatplate Construction
- (N) : "N" = Designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)
- (6) : "-6" = 3.7 mm nominal pin length (default is 5 mm nominal pin length with no suffix "-6" required)
- (L) : "L" = RoHS Compliant (RoHS 6)

Pin Connections

Single Output

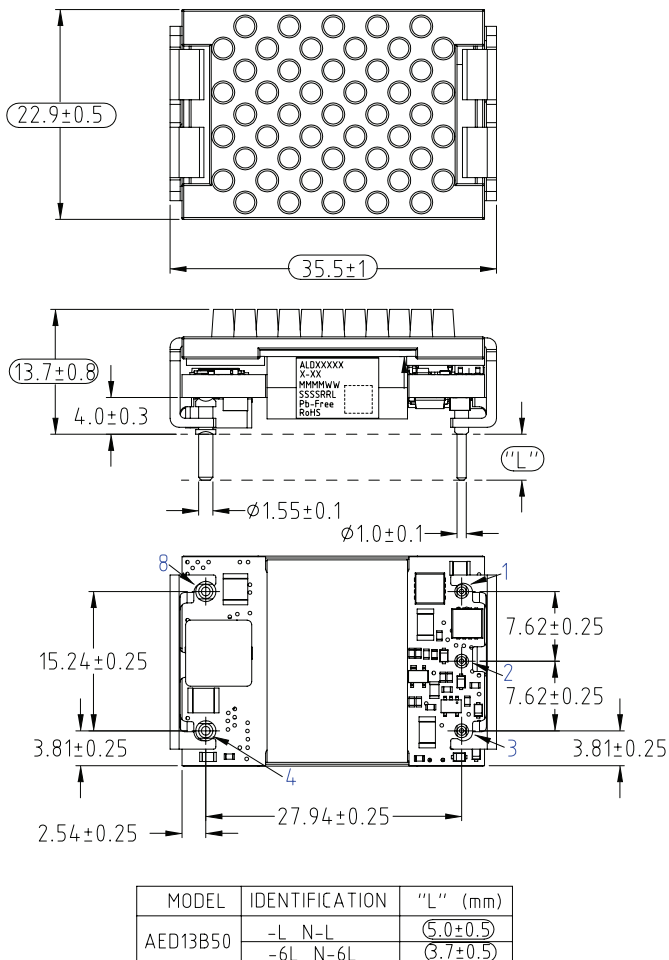
1. +Vin
2. Enable
3. -Vin
4. -Vout
5. Blank
6. Blank
7. Blank
8. +Vout

Notes:

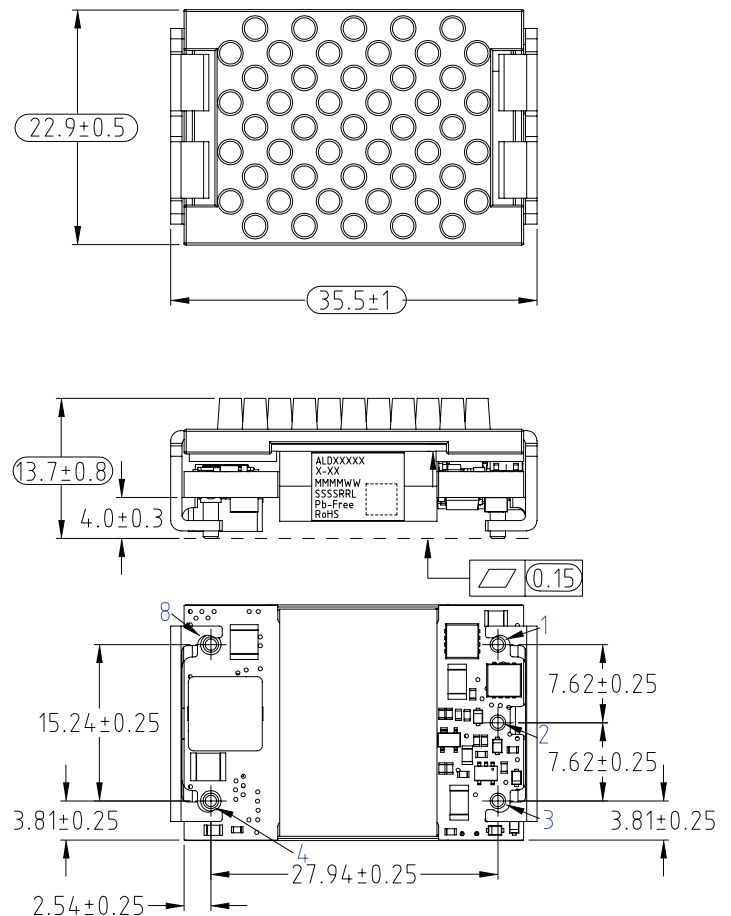
1. 20 MHz bandwidth. External 10 uF tant. capacitor in parallel with 1 uF ceramic capacitor placed across the output and secondary return ground.
2. Efficiency measurements are typical values taken at 48 V input, nominal output, full load and $T_A = 25^\circ\text{C}$.
3. All specifications are typical at nominal line, full load and $T_A = 25^\circ\text{C}$ unless otherwise noted.
4. All specifications subject to change without notice.
5. Mechanical drawings are for reference only. Dimensions are in inches [millimeters]. Pin placement tolerance ± 0.005 [0.127]. Mechanical Tolerance ± 0.02 [0.5]. Pin diameter, $\varnothing = 0.06$ " for Pin 4 (-Vout) and Pin 8 (+Vout), the rest of the pins are $\varnothing = 0.04$ ".
6. Technical Reference Notes should be consulted for detailed information when available.
7. Warranty 1yr.

Mechanical Drawings

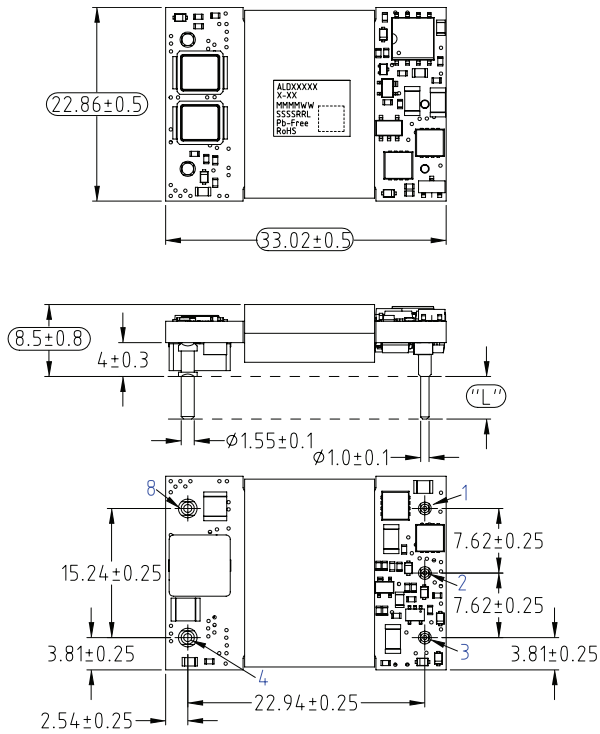
AED13B50-L



AED13B50-SL

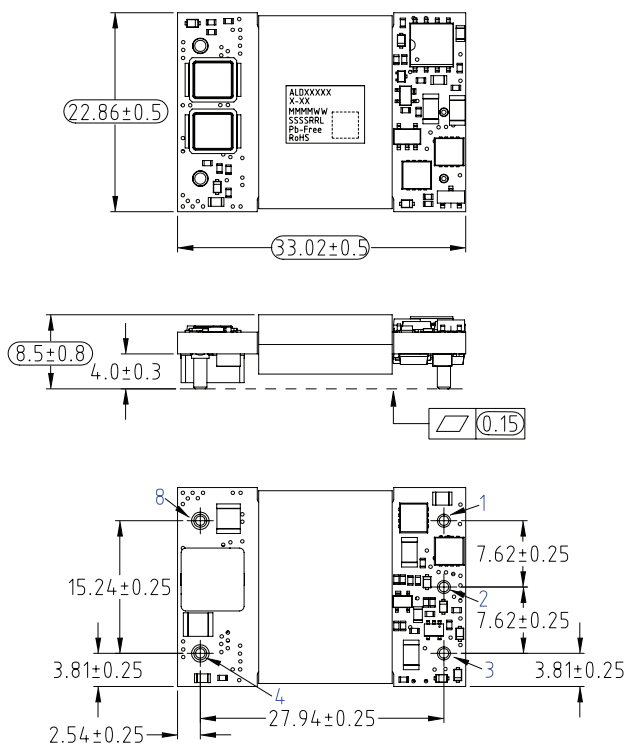


ALD13B50-L



MODEL	IDENTIFICATION	"L" (mm)
ALD13B50	-L N-L	(5.0±0.5)
	-6L N-6L	(3.7±0.5)

ALD13B50-SL



Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.PowerConversion.com
techsupport.embeddedpower@emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.
The global leader in enabling
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2009 Emerson Electric Co.