

## AED/ALD17

150 Watts

Total Power: 150 Watts  
Input Voltage: 48V  
# of Outputs: Single

### Special Features

- High efficiency (96% 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                 | 36V to 55V   |
| Efficiency                  | 96%@ 9.6V (typical)                                |
| Over Voltage Protection     | 60V typical  |
| Input UVLO                  | 36 to 37.5V  |
| Output                      |  |
| Output current              | 17A max  |
| Line regulation             | -25% / +15% Vo, nom                                |
| Load regulation             | 5% Vo (typical)                                    |
| Noise/ripple <sup>1</sup>   | 90mV (typical)                                     |
| Over current limit          | Auto-restart                                       |
| Over temperature protection | 115°C average PCB temperature (autorecovery)       |
| Switching frequency         | 165kHz   |
| Control                     |  |
| Enable                      | TTL compatible (positive or negative enable logic) |
| Isolation Voltage           |  |
| Input to Output             | 2000Vdc 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 <sup>2</sup> | Model Number         |
|---------------|----------------|----------------|-------------------------|----------------------|
| 38 - 55V      | 9.6V           | 17A            | 96% Typ                 | A(X)D17Q50(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" = 3.7mm nominal pin length (default is 5mm nominal pin length with no suffix "-6" required)
- (L) : "L" = RoHS Compliant (RoHS 6)  
without "L" = RoHS Compliant with lead (Pb) in solder exemption (RoHS 5)

## Pin Assignments

### Single Output

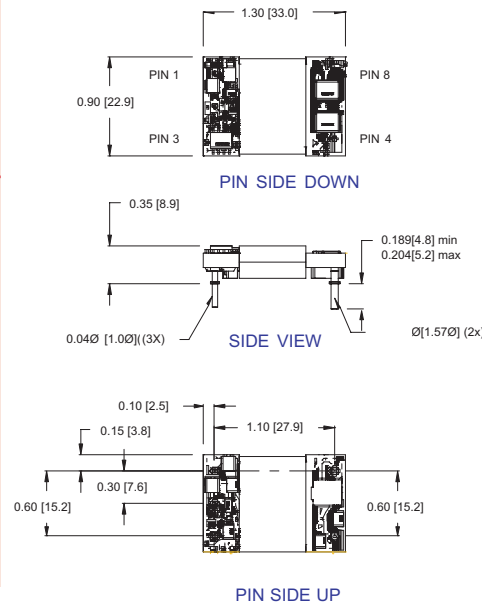
1. +Vin
2. Enable
3. -Vin
4. -Vout
5. Blank
6. Blank
7. Blank
8. +Vout

Notes:

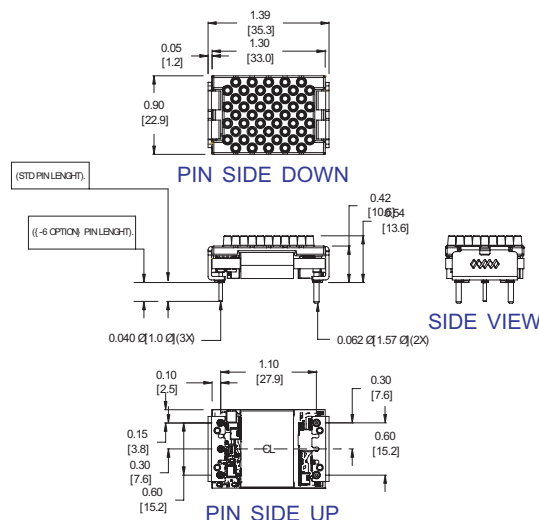
1. 20 MHz bandwidth. External 10 uF tant. capacitor in parallel with 1 uF ceramic capacitor placed across the output and secondary return ground.
2. Efficiency measurements are typical values taken at 48V input, nominal output, full load and  $T_A = 25^\circ\text{C}$ .
3. All specifications are typical 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  $\pm 0.005$  [0.127]. Mechanical Tolerance  $\pm 0.02$  [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 Drawing

### ALD Series



### AED Series



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