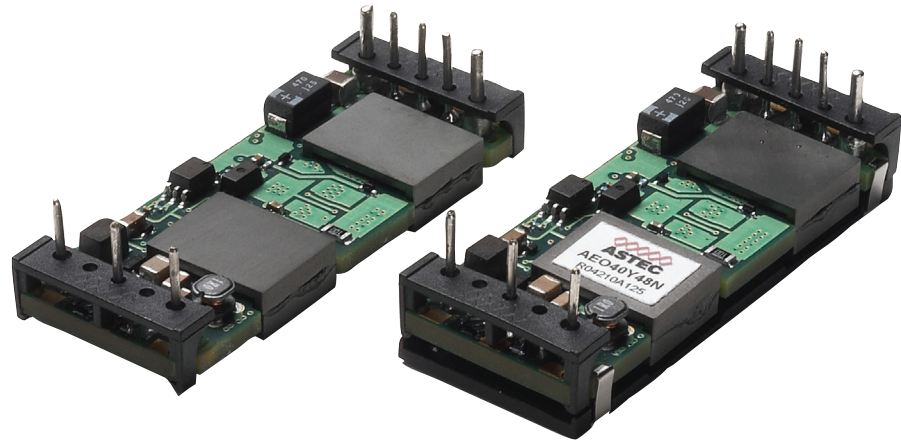


## AEO/ALO Series

66/120 Watts

**Total Power:** Up to 120 Watts  
**Input Voltage:** 48V  
**# of Outputs:** Single



### Special Features

- 2.3" x 0.9" Industry Standard 8th brick outline
- Baseplate or Openframe construction
- Low Ripple and Noise
- Regulation to zero load
- High Capacitive load start-up
- Fixed Frequency Switching for EMI predictability
- Industry Standard features: Input UVLO with hysteresis, Enable, OVP, OCP, OTP, Output, VoltageTrim, Differential Remote Sense
- Meets Basic Insulation
- EU Directive 2002/95/EC compliant for RoHS

## Electrical Specifications

Input	
Input range:	36 - 75VDC
Input surge:	100V / 100ms
Input UVLO:	33-36 V (UVLO ON) 31-31 V (UVLO OFF)
Efficiency <sup>2</sup> :	93% @ 5V (typical)
Output	
Line / Load Regulation:	<0.1% v <sub>O</sub> (typical)
Load Current:	Up to 25A for V <sub>O</sub> ≤ 1.8V
Noise / Ripple <sup>1</sup> :	20mV <sub>PK-PK</sub> (typical for V <sub>O</sub> ≤ 2.5V)
Transient Response:	2% typical deviation (50% to 75% Step Load) <100us settling time (typ)
Over Voltage Protection:	130% V <sub>O</sub> typ (autorecovery)
Over Current Protection:	130% I <sub>O,max</sub> typ (autorecovery)
Over Temperature Protection:	115°C average PCB temperature (autorecovery)
Switching Frequency:	Fixed Frequency
Isolation Voltage:	1500Vdc
Control	
Output Voltage Trim:	±10% V <sub>O,NOM</sub>
Enable:	TTL compatible (Positive or Negative logic)

### Safety

**UL, cUL** 60950-1 Recognized  
**TUV** EN60950-1 Licensed



## Environmental Specifications

Operating ambient temperature	
Openframe:	-40 °C to +85 °C Ambient
Baseplate:	-40 °C to +100 °C Case
Storage temperature:	-55 °C to +125 °C
MTBF:	>1 Million hours

### Ordering Information

120W Series			
Output Voltage	Output Voltage	Efficiency	Model Number
12.0 V	10.0 A	93.0%	ALO10B48N-L
5.0 V	20.0 A	92.0%	ALO20A48N-L
3.3 V	30.0 A	91.0%	ALO30F48N-L
2.5 V	35.0 A	89.5%	ALO35G48N-L
1.8 V	40.0 A	88.0%	ALO40Y48N-L
1.5 V	40.0 A	86.0%	ALO40M48N-L
1.2 V	40.0 A	85.0%	ALO40K48N-L
Not for New Designs - Please check LES A Series			
66W Series			
Output Voltage	Output Voltage	Efficiency	Model Number
12.0 V	4.0 A	93.0%	ALO4B48N-L
5.0 V	12.0 A	92.0%	ALO12A48N-L
3.3 V	20.0 A	91.0%	ALO20F48N-L
2.5 V	20.0 A	90.0%	ALO20G48N-L
1.8 V	25.0 A	88.5%	ALO25Y48N-L
1.5 V	25.0 A	86.5%	ALO25M48N-L
1.2 V	25.0 A	85.5%	ALO25K48N-L
Not for New Designs - Please check LES B Series			

### Options

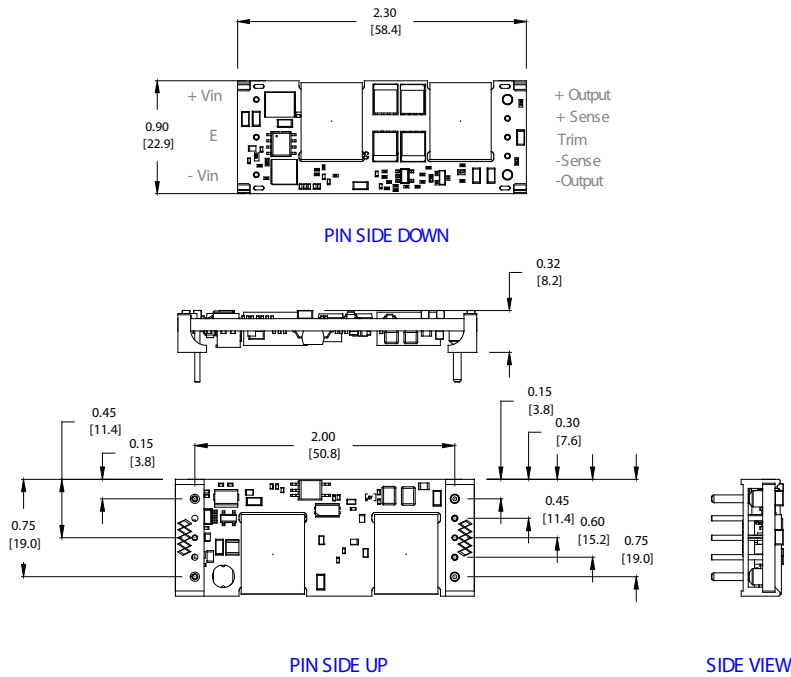
A	Construction	Size	Output Current	Output Voltage	Input Voltage	Remote ON/OFF Logic	-	PIN Length O/P Termination	RoHS Designation
	<b>L</b>	<b>O</b>	<b>10</b>	<b>B</b>	<b>48</b>	<b>N</b>	-	<b>6</b>	<b>L</b>
	L = Low Profile; Openframe E = Baseplate	O = 8th Brick	10 = 10 Amps 20 = 20 Amps 30 = 30 Amps 35 = 35 Amps 40 = 40 Amps	B = 12.0V A = 5.0V F = 3.3V G = 2.5V Y = 1.8V M = 1.5V K = 1.2V	48 = 48V (36-75 V Range)	N = Negative Blank = Positive		Through Hole: 6 = 3.6mm Blank = 5mm  S = Surface Mount* *Available for Low Profile; Openframe (ALO) Version only	L = RoHS 6/6 Blank = RoHS 5/6

Mechanical Drawing

OPEN FRAME THROUGH HOLE

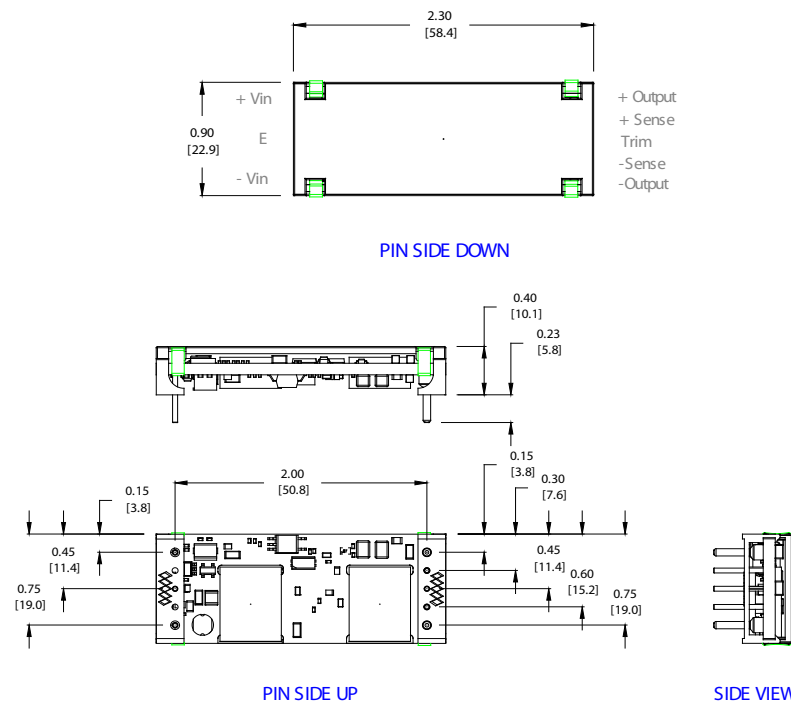
Rev. 09.30.08\_100  
AEO/ALO25 Series  
3 of 4

ALO SERIES THRU HOLE PIN



BASEPLATE THROUGH HOLE

AEO SERIES THRU HOLE PIN



Pin Assignments

Single Output

1. +Vin
2. Enable (On/off)
3. -Vin
4. -VOUT
5. -Sense
6. Trim
7. +Sense
8. +VOUT

Notes:

1. Measured at 20 MHz bandwidth with external 10  $\mu$ F tant. capacitor in parallel with 0.1  $\mu$ F ceramic capacitor connected across +Vout and -Vout; 220  $\mu$ F e-cap or equivalent connected across +Vin and -Vin.
2. Efficiency measurements are typical values taken at full load, nominal line 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 [mm]. Pin placement tolerance  $\pm 0.005$  [0.127]. Mechanical Tolerance  $\pm 0.02$  [0.5], recommended surface mount pads (min: 0.080 x 0.112 [2.03 x 2.84] / max: 0.092 x 0.124 [2.34 x 3.15]); through hole pin diameter (Pins 4 & 8)  $\phi = 0.062$  [1.57], others  $\phi = 0.04$  [1.0] (6X).
6. Technical Reference Notes should be consulted for detailed information when available.
8. Warranty 2yrs.

PIN LENGTH	A
Std Pin Length:	0.189 [4.8] MIN 0.205 [5.2] MAX
"-6" Option:	0.137 [3.5] MIN 0.152 [3.9] MAX

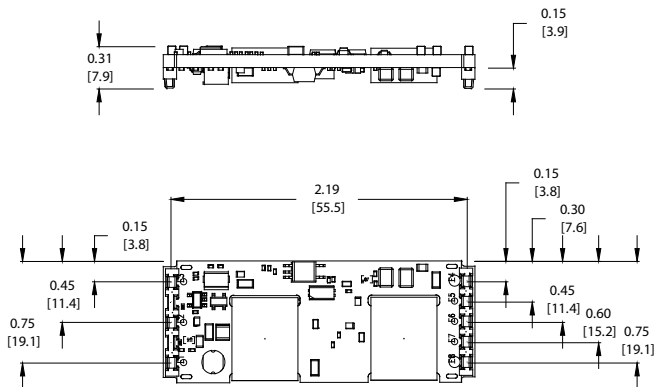
Mechanical Drawing

OPEN FRAME SURFACE MOUNT

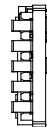
ALO OPEN FRAME SMT PIN



PIN SIDE DOWN



PIN SIDE UP



SIDE VIEW

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