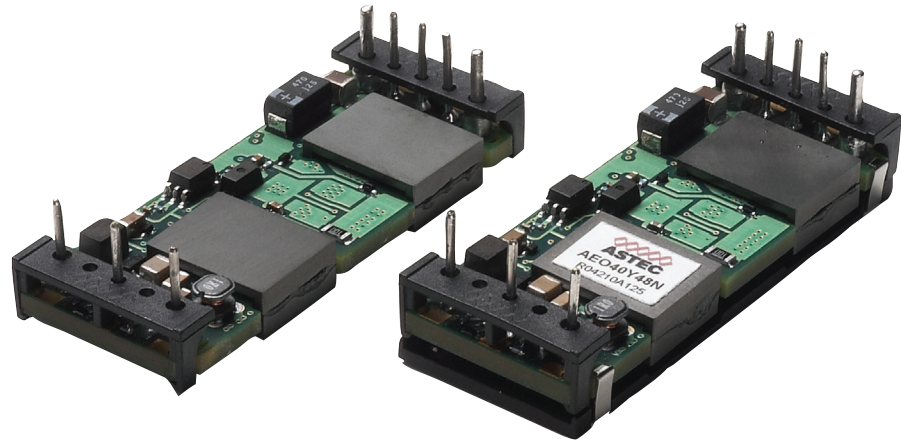


AEO/ALO Series

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 ² :	93% @ 5V (typical)
Output	
Line / Load Regulation:	<0.1% v_o (typical)
Load Current:	Up to 25A for $V_o \leq 1.8V$
Noise / Ripple ¹ :	20mV _{PK-PK} (typical for $V_o \leq 2.5V$)
Transient Response:	2% typical deviation (50% to 75% Step Load) <100us settling time (typ)
Over Voltage Protection:	130% V_o typ (autorecovery)
Over Current Protection:	130% $I_{o,max}$ typ (autorecovery)
Over Temperature Protection:	115°C average PCB temperature (autorecovery)
Switching Frequency:	Fixed Frequency
Isolation Voltage:	1500Vdc
Control	
Output Voltage Trim:	$\pm 10\% V_{o,NOM}$
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	Not for New Designs - Please check LES A Series
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	Not for New Designs - Please check LES B Series
5.0 V	12.0 A	92.0%	ALO12A48N-L	Not for New Designs - Please check LES B Series
3.3 V	20.0 A	91.0%	ALO20F48N-L	Not for New Designs - Please check LES B Series
2.5 V	20.0 A	90.0%	ALO20G48N-L	Not for New Designs - Please check LES B Series
1.8 V	25.0 A	88.5%	ALO25Y48N-L	Not for New Designs - Please check LES B Series
1.5 V	25.0 A	86.5%	ALO25M48N-L	Not for New Designs - Please check LES B Series
1.2 V	25.0 A	85.5%	ALO25K48N-L	Not for New Designs - Please check LES B Series

Options

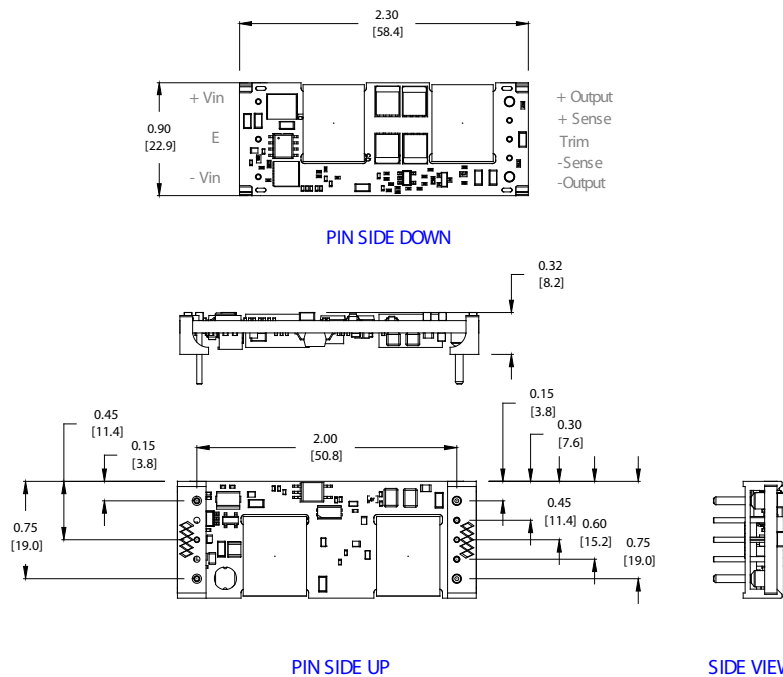
	Construction	Size	Output Current	Output Voltage	Input Voltage	Remote ON/OFF Logic		PIN Length O/P Termination	RoHS Designation
A	L	O	10	B	48	N	-	6	L
	L = Low Profile; Openframe E = Baseplate	O = 8th Brick	10 = 10 Amps 20 = 20 Amps 30 = 30 Amps 35 = 35 Amps 40 = 40 Amps	B = 12.0V A = 5.0V F = 3.3V G = 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



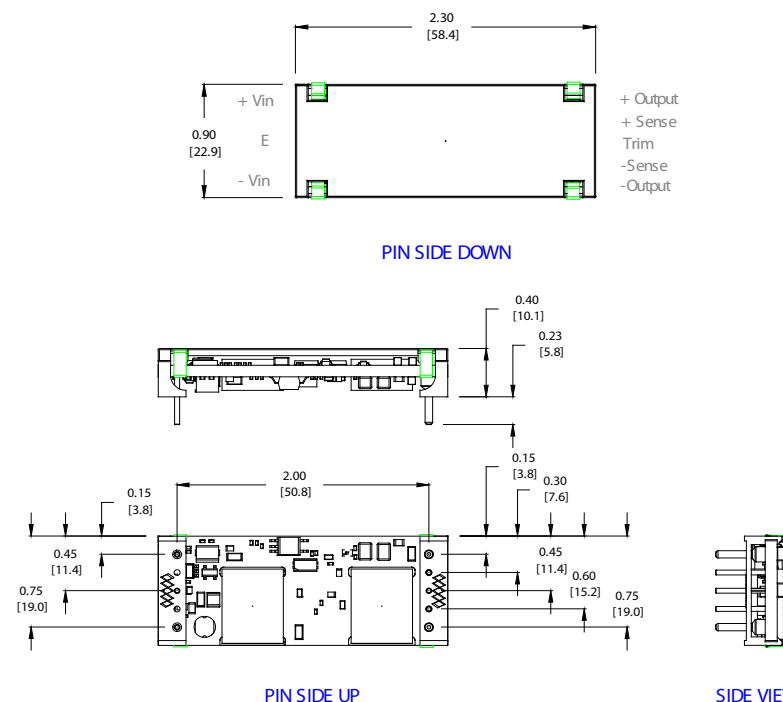
PIN SIDE DOWN

PIN SIDE UP

SIDE VIEW

BASEPLATE THROUGH HOLE

AEO SERIES THRU HOLE PIN



PIN SIDE DOWN

PIN SIDE UP

SIDE VIEW

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 μ F tant. capacitor in parallel with 0.1 μ F ceramic capacitor connected across +Vout and -Vout; 220 μ 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 ± 0.005 [0.127]. Mechanical Tolerance ± 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

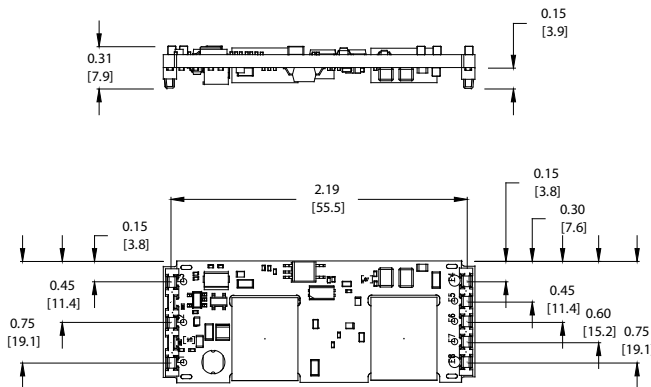
Mechanical Drawing

OPEN FRAME SURFACE MOUNT

ALO OPEN FRAME SMT PIN

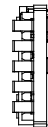


PIN SIDE DOWN



PIN SIDE UP

SIDE VIEW



Rev. 09.30.08_100
AEO/ALO25 Series
4 of 4

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[ALO30F48-6L](#)