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AEO/ALO Series

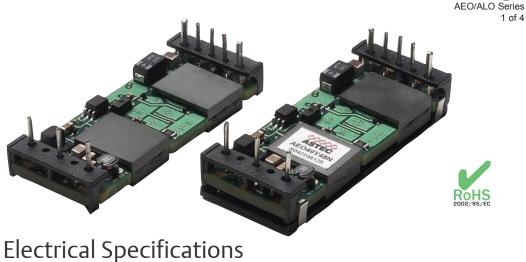
66/120 Watts

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



lectrical Specificati

 Input

 Input range:
 36 - 75VDC

 Input surge:
 100V / 100ms

 Input UVLO:
 33-36 V (UVLO ON)

 31-31 V (UVLO OFF)

 Efficiency²:
 93% @ 5V (typical)

Output

Line / Load Regulation: $<0.1\% \text{ v}_0$ (typical) Load Current: Up to 25A for Vo \leq 1.8V Noise / Ripple¹: $20\text{mV}_{\text{PK-PK}}$ (typical for Vo \leq 2.5V)

Transient Response: 2% typical deviation (50% to 75% Step Load)

<100us settling time (typ)

Over Voltage Protection: $130\% \text{ V}_{\circ}$ typ (autorecovery) Over Current Protection: $130\% \text{ I}_{\circ,\text{max}}$ typ (autorecovery)

Over Temperature Protection: 115°C average PCB temperature (autorecovery)

Switching Frequency: Fixed Frequency Isolation Voltage: 1500Vdc

Control

Output Voltage Trim: ±10% V_{O,NOM}

Enable: TTL compatible (Positive or Negative logic)

Safety

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





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Environmental Specifications Operating ambient temperature Openframe: -40 °C to +85 °C Ambien

-40 °C to +85 °C Ambient Baseplate: -40 °C to +100 °C Case -55 °C to +125 °C

Storage temperature: MTBF: >1 Million hours

Ordering In	formation			
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	Not for New Designs - Please check LES B Series
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
Α	L	О	10	В	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

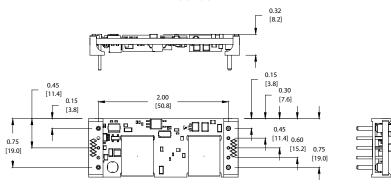
OPEN FRAME THROUGH HOLE

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ALO SERIES THRU HOLE PIN + Output + Vin __ + Sense 0.90 • 🛮 Trim [22.9] -Sense - Vin -Output

PIN SIDE DOWN

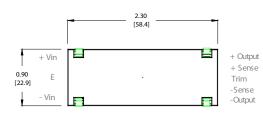


PIN SIDE UP

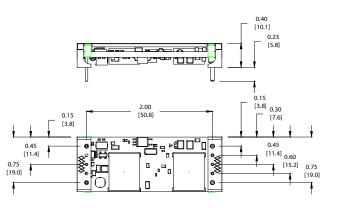
SIDE VIEW

BASEPLATE THROUGH HOLE

AEO SERIES THRU HOLE PIN



PIN SIDE DOWN



PIN SIDE UP



SIDE VIEW

i ili Assigililielits						
Sin	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 μF tant. capacitor in parallel with 0.1 μF ceramic capacitor connected +Vout and -Vout; 220 μF 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°C 3. All specifications are typical at
- nominal line, full load and T_A = 25°C unless otherwise noted.

 4. All specifications subject to
- change without notice.
- 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: 0092 x 0.124 [2.34 x 3.15]); through hole pin diameter (Pins 4 & 8) ϕ = 0.062 [1.57], others $\phi = 0.04$ [1.0] (6X).
- Technical Reference Notes should be consulted for detailed information when available.
- 8. Warranty 2yrs.

PIN LENGTH	Α
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

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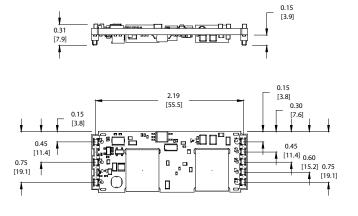
Mechanical Drawing

OPEN FRAME SURFACE MOUNT

ALO OPEN FRAME SMT PIN



PIN SIDE DOWN





PIN SIDE UP SIDE VIEW

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