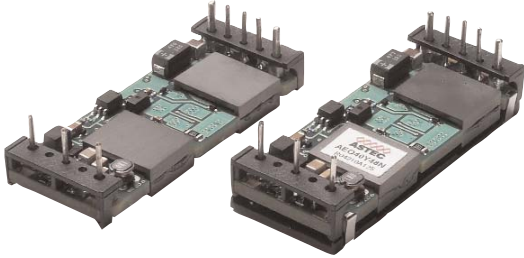


# 120Watts

## AEO/ALO40

High Efficiency



Total Power: 120 Watts  
 Input Voltages: 48V  
 No. of Outputs: Single

### Electrical Specs

#### Input

|                         |                                             |
|-------------------------|---------------------------------------------|
| Input Range             | 36 to 75 VDC                                |
| Input Surge             | 100V /100ms                                 |
| Input UVLO              | 33 - 36 V (UVLO ON)<br>31 - 34 V (UVLO OFF) |
| Efficiency <sup>2</sup> | 93% @ 5 V (typical)                         |

#### Output

|                             |                                                                               |
|-----------------------------|-------------------------------------------------------------------------------|
| Line / Load Regulation      | < 0.1% V <sub>O</sub> (typical)                                               |
| Load Current                | Up to 40A for V <sub>O</sub> ≤ 1.8V                                           |
| Noise/Ripple <sup>1</sup>   | 30mV <sub>PK-PK</sub> (typical)                                               |
| Transient Response          | 2% typical deviation<br>(50% to 75% Step Load)<br>< 100μs 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<br>(Positive or Negative Logic) |

### 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

### Environmental

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 Hrs

### Safety

UL, cUL 60950-1 Recognized

TUV EN60950-1 Licensed

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 223, Hing Fong Road  
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 Hong Kong  
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 Facsimile: 852-2402-4426



## Ordering Information

| Input Voltage | Output Voltage | Output Current | Efficiency <sup>2</sup> | Model Number               |
|---------------|----------------|----------------|-------------------------|----------------------------|
| 36V to 75V    | 12.0V          | 10A            | 93.0%                   | A(X)O10B48 (N) - (6)(S)(L) |
| 36V to 75V    | 5.0V           | 20A            | 92.0%                   | A(X)O20A48 (N) - (6)(S)(L) |
| 36V to 75V    | 3.3V           | 30A            | 91.0%                   | A(X)O30F48 (N) - (6)(S)(L) |
| 36V to 75V    | 2.5V           | 35A            | 89.5%                   | A(X)O35G48 (N) - (6)(S)(L) |
| 36V to 75V    | 1.8V           | 40A            | 88.0%                   | A(X)O40Y48 (N) - (6)(S)(L) |
| 36V to 75V    | 1.5V           | 40A            | 86.0%                   | A(X)O40M48 (N) - (6)(S)(L) |
| 36V to 75V    | 1.2V           | 40A            | 85.0%                   | A(X)O40K48 (N) - (6)(S)(L) |

OPTIONS:

(X) : "L" = Open Frame / Low Profile  
 "E" = Baseplate 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)

(S) : "-S" = Surface Mount Termination (default is Through Hole Termination with no suffix "-S" required)<sup>7</sup>

(L) : "L" = RoHS compliant (RoHS 6) / "Blank" - RoHS compliant with Lead (PB) in solder exemption (RoHS 5)

## Pin Assignment

### Single Output

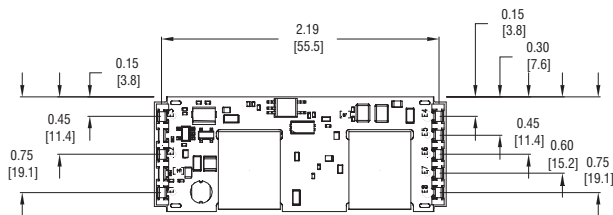
1. +Vin
2. Enable (On/Off)
3. -Vin
4. -V<sub>OUT</sub>
5. -Sense
6. Trim
7. +Sense
8. +V<sub>OUT</sub>

Notes:

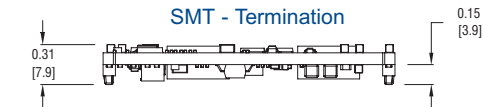
1. Measured at 20 MHz bandwidth with external 10 μF tant. capacitor in parallel with 0.1 μF ceramic capacitor connected across +V<sub>out</sub> and -V<sub>out</sub>; 220 μF e-cap or equivalent connected across +V<sub>in</sub> and -V<sub>in</sub>.
2. Efficiency measurements are typical values taken at full load, nominal line and T<sub>A</sub> = 25°C.
3. All specifications are typical at nominal line, full load and T<sub>A</sub> = 25°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) Ø = 0.062 [1.57], others Ø = 0.04 [1.0] (6X).
6. Technical Reference Notes should be consulted for detailed information when available.
7. AEOxxxxx-Sx series (surface mount termination with baseplate) are not reflow compatible.
8. Warranty 2 yrs.

Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use and application. (REV 02: MARCH 7, 2007)

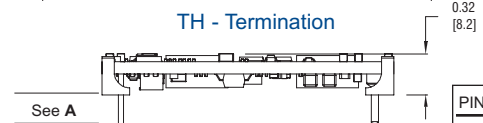
### ALO - OPENFRAME



### SMT - Termination

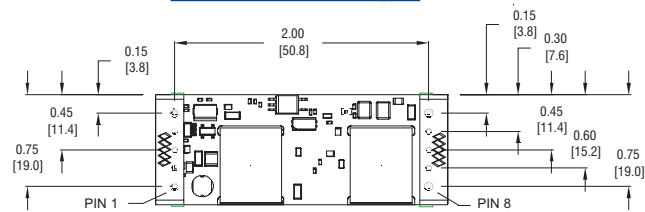


### TH - Termination

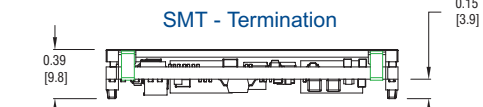


| PIN LENGTH      | A                                  |
|-----------------|------------------------------------|
| Std Pin Length: | 0.189 [4.8] MIN<br>0.205 [5.2] MAX |
| "-6" Option:    | 0.137 [3.5] MIN<br>0.152 [3.9] MAX |

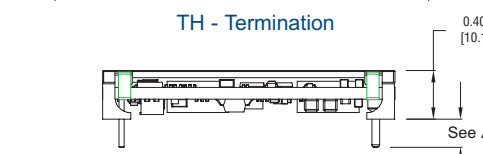
### AEO - BASEPLATE



### SMT - Termination



### TH - Termination





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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