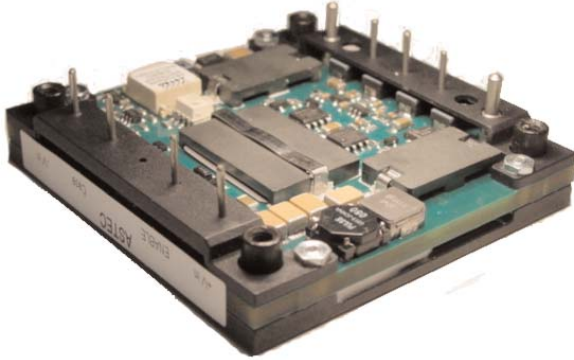


# 300W

## AEH25

### Ultra High Efficiency



Total Power: 300 Watts (12V @ 25A)  
 Input Voltages: 48 V  
 No. of Outputs: Single

### Electrical Specs

#### Input

|             |                     |
|-------------|---------------------|
| Input range | 36-75 VDC           |
| Input Surge | 100V / 100ms        |
| Efficiency  | 93% @ 12V (Typical) |

#### Control

|        |   |
|--------|---|
| Enable | TTL compatible<br>(positive or negative enable logic control options) |
|--------|---|

#### Output

|                                  |   |
|----------------------------------|---|
| Regulation<br>(Line, Load, Temp) | <2%   |
| Ripple and Noise <sup>1</sup>    | 120mV typical   |
| Remote Sense                     | Up to 10%Vout   |
| Output Voltage Adjust<br>Range   | ±10% of nominal output  |
| Transient Response               | 180mV typical output deviation<br>25% step change<br>300 μS recovery time |
| Overvoltage Protection           | 115% nominal output   |
| Overcurrent Protection           | 116% I <sub>o</sub> nominal   |
| Isolation Voltage                | 1500 Vdc  |

### Special Features

- High efficiency, 12V@ 93% (Typical)
- Industry Standard Half Brick baseplate design
- Low output ripple and noise
- High capacitive load limit on start-up
- Remote sense compensation
- Regulation to zero load
- Fixed frequency switching
- Industry Std features: Input UVLO, OCP, OVP, OTP; Short ckt protection; ±10% Output Adjust
- Positive or Negative enable logic control option
- Meets Basic Insulation

### Environmental

Operating temperature  
-40°C to +100°C Baseplate

Storage temperature: -55°C to +125°C

Overtemperature protection: 110°C typical

MTBF: >1 million hours

### Safety

UL, cUL 60950 Recognized

TUV EN60950 Licensed

AMERICAS

5810 Van Allen Way  
Carlsbad, CA 92008  
Telephone: 760-930-4600  
Facsimile: 760-930-0698

EUROPE

Astec House, Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX, UK  
Telephone: 44 (1384) 842-211  
Facsimile: 44 (1384) 843-355

ASIA

Units 2111-2116, Level 21  
Tower 1, Metroplaza  
223, Hing Fong Road  
Fwai Fong, New Territories  
Hong Kong  
Telephone: 852-2437-9662  
Facsimile: 852-2402-4426



AEH25B48

## Ordering Information

| Input Voltage | Output Voltage / Current | Efficiency | Model Number          |
|---------------|--------------------------|------------|-----------------------|
| 36V to 75V    | 12V @ 25A                | 93%        | AEH25B48(N)-(5)(6)(T) |

OPTION:    suffix "N"                    = Negative Enable  
               non suffix "N"         = Positive Enable (default)  
               suffix "-6"                = 3.7mm pin length  
               suffix "-5"                = 4.5mm pin length  
               default pin length        = 5mm nominal pin length  
               suffix "T"                = "Tuned" version for slow start up time

Typical efficiency measurement taken at nominal line, full load, 25°C ambient.

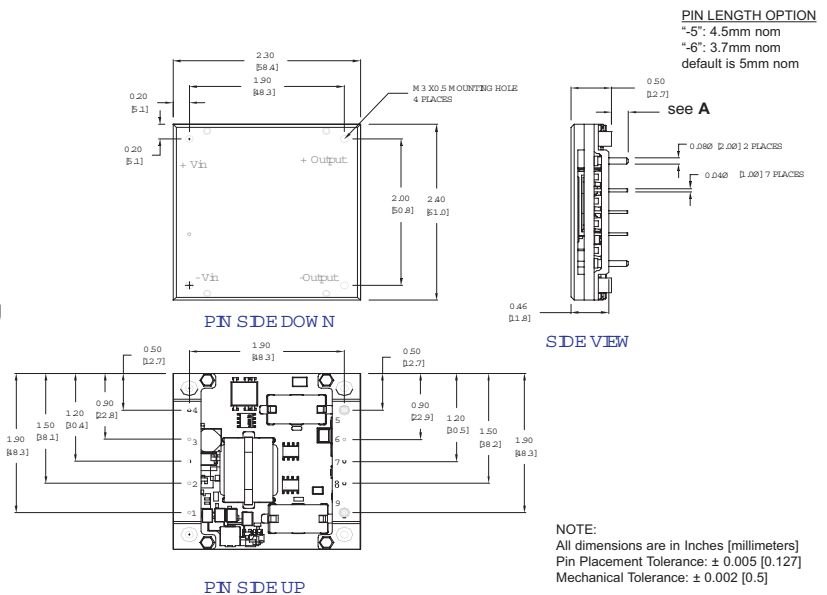
## Pin Assignments

### Single Output

1. +Vin
2. Enable (On/Off)
3. Case (AEH)
4. -Vin
5. - Output
6. - Sense
7. Trim
8. + Sense
9. + Output

Notes:

1. 20 MHz BW with external 10uF/25V tantalum in parallel with 0.1uF/50V X7R ceramic capacitor placed across the output.
2. Requires a 2.2 uf, 100V film capacitor connected between +V in and -V in to meet FCC class A and ETS300-386-1 requirements for conducted noise. Consult Factory for filtering information to meet FCC class B, VDE or EIC specifications.
3. All specifications are typical at nominal line, full load, and 25°C unless otherwise noted.
4. All specifications subject to change without notice. Mechanical drawings are for reference only
5. Technical Reference Notes should be consulted for detailed information when available
6. Warranty: 1yr



\* Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use or application. (REV06: JANUARY 26, 2006)