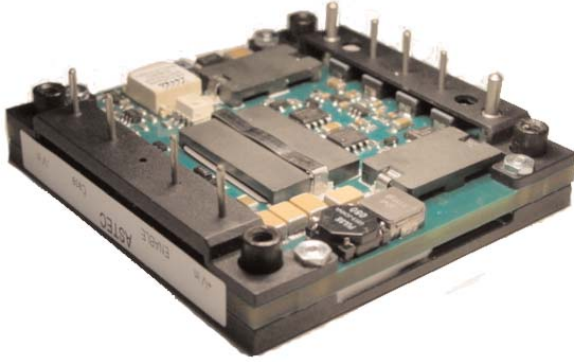


# 300W

## 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 (positive or negative enable logic control options)
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#### Output

Regulation (Line, Load, Temp)	<2%
Ripple and Noise <sup>1</sup>	120mV typical
Remote Sense	Up to 10%Vout
Output Voltage Adjust Range	±10% of nominal output
Transient Response	180mV typical output deviation 25% step change 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

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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.

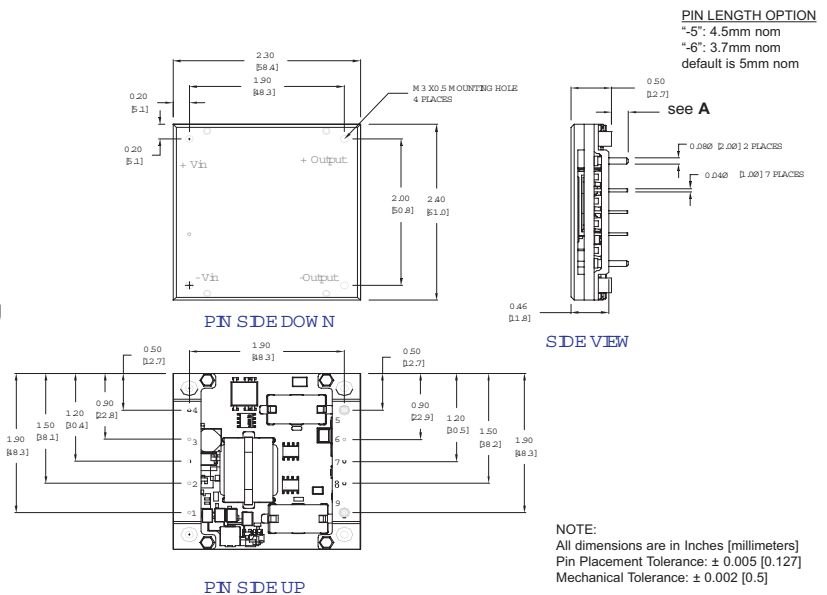
## Pin Assignments

### 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)

Astec Industry Standard