

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 60Amps

## AEH60

## ALH60 (Open Frame)

### Ultra High Efficiency Half Brick



Total Power: 200 Watts (3.3V @ 60A)  
 Input Voltages: 48 V  
 No. of Outputs: Single

### Electrical Specs

#### Input

Input range 36-75 VDC  
 Input Surge 100V / 100ms  
 Efficiency 91% @ 3.3V (Typical)

#### Control

Enable TTL compatible  
 (positive or negative enable logic control options)

#### Output

Regulation (Line, Load, Temp) <2%  
 Ripple and Noise<sup>1</sup> 2% typical (100mVp-p max)  
 Remote Sense Up to 10%Vout  
 Output Voltage Adjust Range ±10% of nominal output  
 Transient Response 60mV typical output deviation  
 25% step change  
 150 μS recovery time

Overvoltage Protection 135% nominal output (latching)  
 Over Current Protection 115% of full load (latching)  
 Over Temperature Protection Shutdown - autorecovery mode  
 Isolation Voltage 1500 Vdc

### Special Features

- High efficiency, 3.3V@ 91% (Typical)
- Baseplate (AEH) or Open frame (ALH) 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 (AEH60)  
 -40°C to +85°C Ambient (ALH60)

Storage temperature: -55°C to +125°C

Overtemperature protection: 115°C PCB Temperature (Typical)

MTBF: >1 million hours

### Safety

UL, cUL 60950 Recognized  
 TUV EN60950 Licensed



## Ordering Information

Input Voltage	Output Voltage	Efficiency	Model Number
48V	3.3V @ 60A	91% (Typ)	AEH60F48(N)
48V	2.5V @ 60A	90% (Typ)	AEH60G48(N)
48V	2.5V @ 60A	90% (Typ)	AEH60G48N-6T (see note 3)
48V	1.8V @ 60A	89% (Typ)	AEH60Y48(N)
48V	1.2V @ 60A	85% (Typ)	AEH60K48(N)
48V	3.3V @ 60A	91% (Typ)	ALH60F48(N)
48V	2.5V @ 60A	90% (Typ)	ALH60G48(N)
48V	1.8V @ 60A	89% (Typ)	ALH60Y48(N)
48V	1.2V @ 60A	85% (Typ)	ALH60K48(N)

OPTION: suffix "N" = Negative Enable (default is Positive Enable without suffix "N")  
Standard pin length is 5mm nominal. Consult factory for other options.

## Pin Assignments

### Single Output

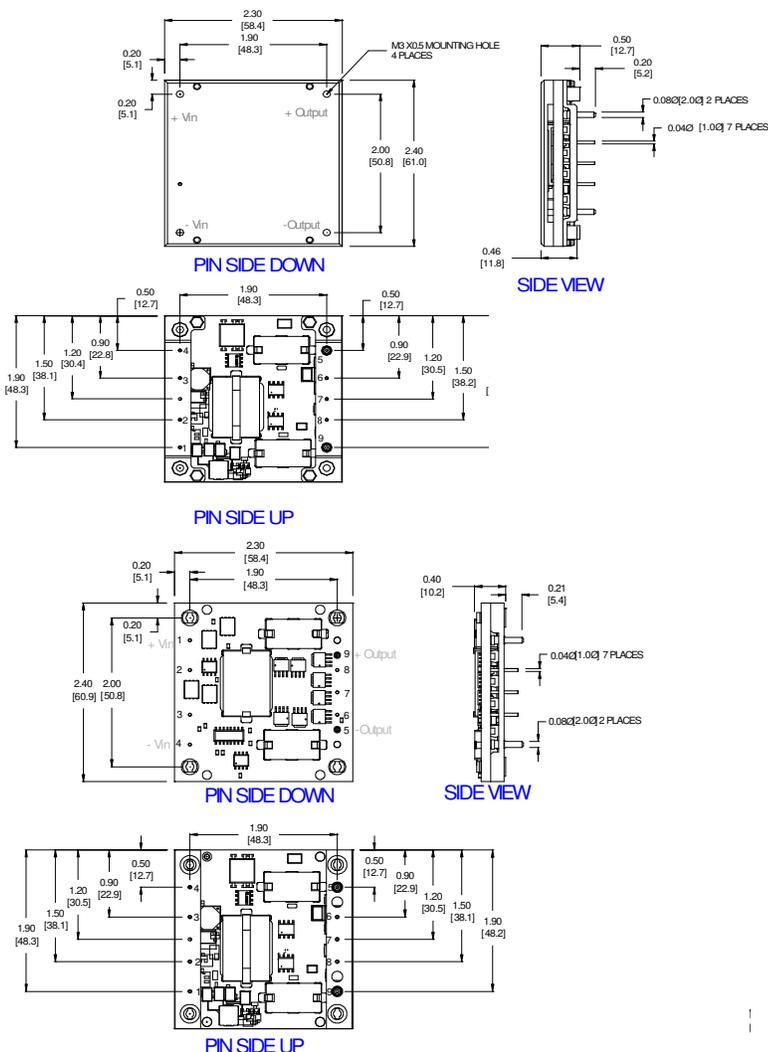
1. +Vin
2. Enable (On/Off)
3. Case (AEH version)
4. -Vin
5. - Output
6. - Sense
7. Trim
8. + Sense
9. + Output

### Notes:

1. 20 mHz bandwidth. External 10 uF tant. capacitor + 0.1 uF cer. capacitor placed from +V out to -Vout.
2. Requires a 2.2 mf, 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. Suffix "-6" for 3.7mm nominal pin length, "T" for tuned version for specific transient response requirement. Minimum output capacitance required. Refer to Technical reference Notes for details.
4. All specifications are typical at nominal line, full load, and 25°C unless otherwise noted.
5. All specifications subject to change without notice. Mechanical drawings are for reference only
6. Technical Reference Notes should be consulted for detailed information when available
7. 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. (REV05: FEBRUARY 2, 2004)

### AEH - BASEPLATE



### ALH - BASEPLATE