Astec Industry Standard

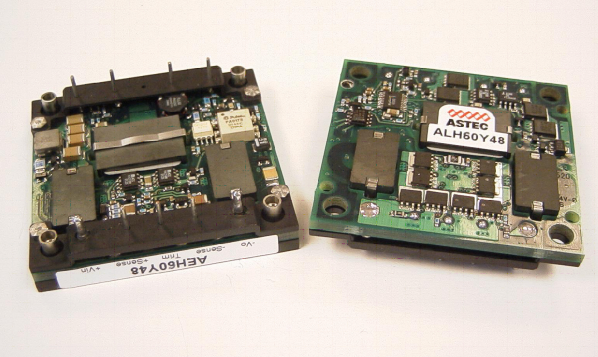
# 60Amps

# AEH60

# ALH60 (Open Frame)

## Ultra High Efficiency Half Brick

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




## 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

## 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[1] | 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 |
| Overv Voltage Protection | 135% nominal output (latching) |
| Over Current Protection | 115% of full load (latching) |
| Over Temperature Protection | Shutdown - autorecovery mode |
| Isolation Voltage | 1500 Vdc |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## 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

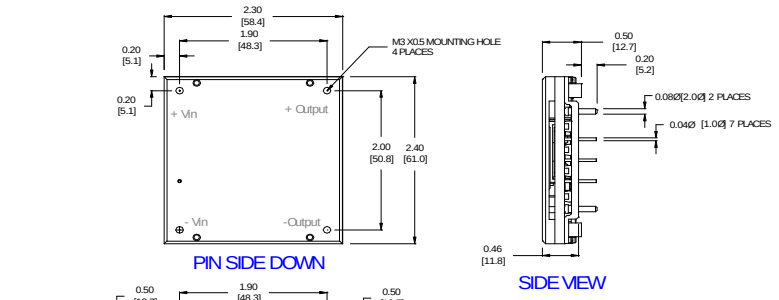
Single Output

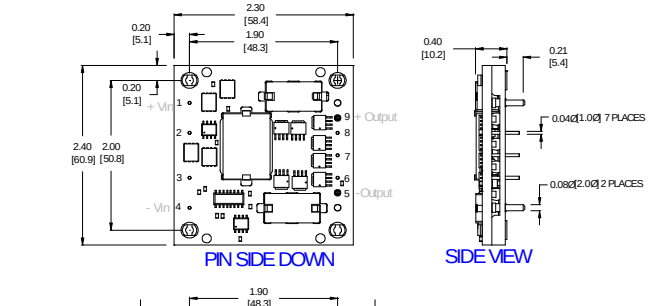
1. +Vin
2. Enable (On/Off)
3. Case (AEH version)
4. -Vin
5. - Output
6. - Sense
7. Trim
8. + Sense
9. + Output

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 refernce 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

AEH - BASEPLATE




ALH - BASEPLATE

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