Astec Industry Standard

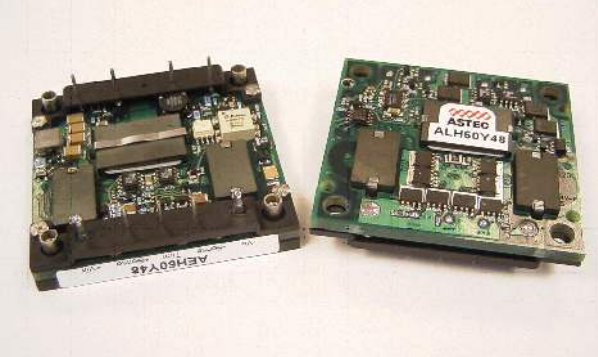
60Amps

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

AMERICAS

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ASIA

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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

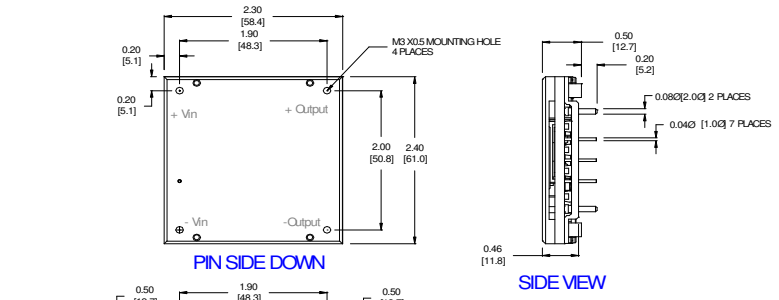
Single Output

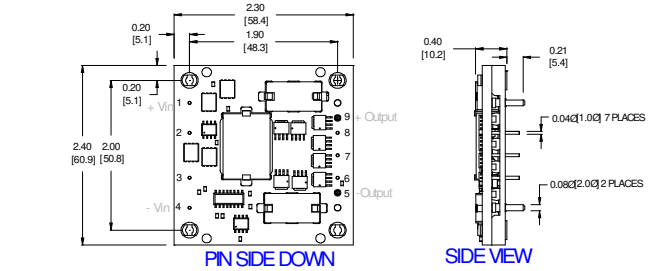
1. +Vin
2. Enable (On/Off)
3. Case (AEH version)
4. -Vin
5. - Output
6. - Sense
7. Trim
8. + Sense
9. + Output

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