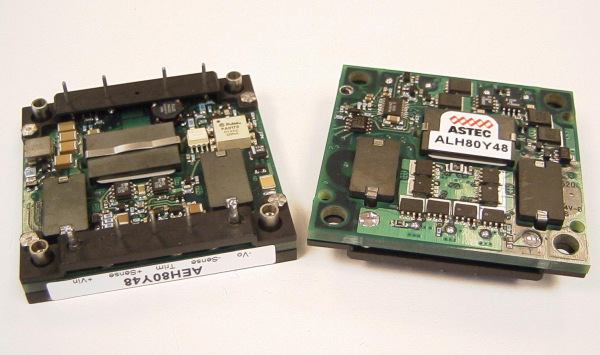
Astec Industry Standard

80Amps
AEH80
ALH80 (Open Frame)

Ultra High Efficiency

Total Power:	144 Watts (1.8V@80Amps)
Input Voltages:	48 V
No. of Outputs:	Single

PRELIMINARY



Special Features

- Ultra High efficiency, 1.8V@87% (Typical)
- Open Frame (ALH80) and Baseplate (AEH80)
- Redundant In-line Output Pins Option
- Positive and Negative enable function
- Low output ripple and noise
- High capacitive load limit on start-up
- Remote sense compensation
- Regulation to zero load
- Fixed frequency switching (200 kHz)

Environmental

Operating temperature
-40°C to +100°C Baseplate (AEH80)
-40°C to +85°C Ambient Air (ALH80)

Storage temperature: -55°C to +125°C

Overtemperature protection: 115°C PCB Temperature (Typical)

MTBF: >1 million hours

Safety

UL, CUL 60950 Recognized (Pending)

TUV EN60950 Licensed (Pending)

Electrical Specs

Input

Input range	36-75 VDC
Input Surge	100V / 100ms
Efficiency	87%@1.8V (Typical)

Control

Enable	TTL compatible (positive & negative enable options)

Output

Regulation (Line, Load, Temp)	<2%
Ripple and noise	50mV p-p typical
Remote sense	Up to 10%Vout
Output voltage adjust range	+/-10% of nominal output
Transient Response	4% deviation with 50% to 75% step load 300 µs recovery
Overvoltage Protection	130% nominal output

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Ordering Information

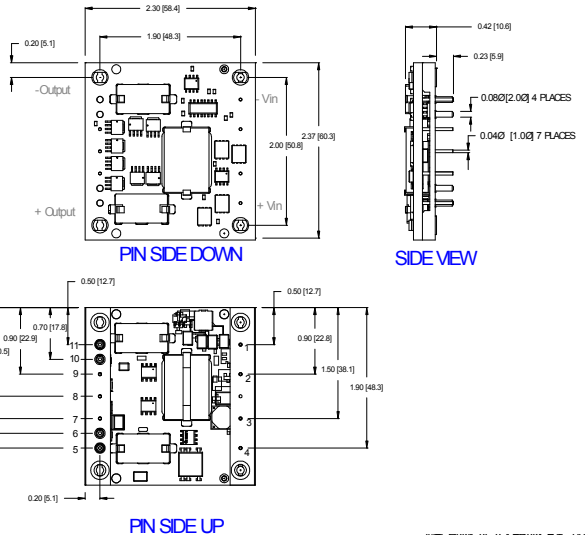
Input Voltage	Output Voltage	Efficiency	Model Number
48V	1.8V @ 80A	87% (Typ)*	AEH80Y48
48V	1.5V @ 80A	85% (Typ)	AEH80M48
48V	1.2V @ 80A	83% (Typ)	AEH80K48
48V	1.8V @ 80A	87% (Typ)	ALH80Y48
48V	1.5V @ 80A	85% (Typ)	ALH80M48
48V	1.2V @ 80A	83% (Typ)	ALH80K48

* Typical Efficiency measured at nominal input voltage at an ambient temperature of Ta = 25°C.
OPTIONS: suffix "N" = for Negative Enable (default is Positive Enable without Suffix "N")
suffix "-3" = Standard half brick pinout with Pins 6 and 10 removed

Pin Assignments

Single Output

1. +Vin
2. Enable (on/off)
3. Case
4. -Vin
5. +Output
6. +Output (optional pin)
7. + Sense
8. Trim
9. - Sense
10. -Output (optional pin)
11. -Output



Notes:

1. 20 mHz bandwidth. External 10 uF tant. capacitor + 0.1 uF cer. capacitor placed from +V out to -V out.
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. 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

* This is a Preliminary Data Sheet. Aastec 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 (FEBRUARY 13, 2003)