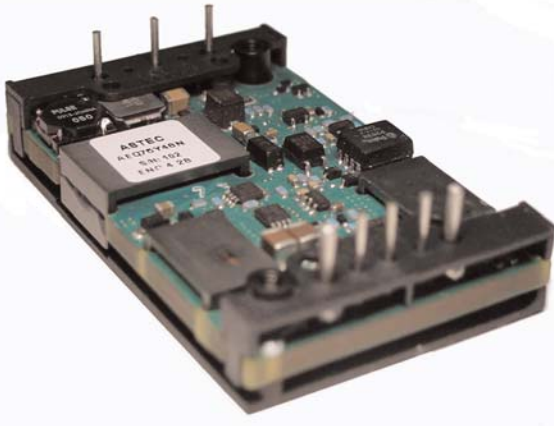


# 75 Amps AEQ75Y48

High Efficiency Quarter Brick



Total Power: 135W  
Input Voltages: 48V  
No. of Outputs: Single

## Electrical Specs

### Input

|             |              |
|-------------|--------------|
| Input Range | 36 to 75 VDC |
| Input Surge | 100V /100ms  |
| Efficiency  | 89% typical  |

### Output

|                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| Output Current         | 75A max                                                                               |
| Line/Load Regulation   | <0.15%Vo typical                                                                      |
| Noise/Ripple           | 25mV typical                                                                          |
| Remote sense           | Up to 10% of Vo                                                                       |
| Transient Response     | 4% deviation typical<br>50% to 75% Load change<br>0.1A/μs Slew Rate<br>100μs recovery |
| Overvoltage Protection | 120% Vo (autorecovery)                                                                |
| Current Limit          | 110% Io (autorecovery)                                                                |
| Switching Frequency    | 500kHz                                                                                |

### Control

|                |                                                        |
|----------------|--------------------------------------------------------|
| Voltage Adjust | 90 to 110% Vo                                          |
| Enable         | TTL compatible<br>(Positive or Negative Logic options) |

## Special Features

- High Efficiency
- Baseplate construction
- Industry standard package 1.45" x 2.30"
- Redundant output power pins
- Startup and stable operation at high capacitive load
- Remote sense compensation
- Regulation to zero load
- Fixed frequency switching
- Basic insulation
- EU Directive 2002/95/EC Compliant for RoHS

## Environmental

Operating temperature range:  
-40°C to +105°C Baseplate  
Storage temperature: -40°C to +125°C  
Overtemperature protection: 115°C PCB  
temperature (Typical)  
MTBF: > 1 million hours

## Safety

UL, cUL 60950  
TUV EN60950

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AEQ75Y48

## Ordering Information

| Input Voltage | Output Voltage | Output Current | Efficiency | Model Number            |
|---------------|----------------|----------------|------------|-------------------------|
| 36V to 75V    | 1.8V           | 75A            | 89% Typ    | AEQ75Y48(N) - (6)(3)(L) |

### OPTIONS

suffix "N" = Negative Logic Enable (without suffix "N" designates Positive Logic Enable)  
suffix "6" = 3.7mm nominal pin length (5mm pin length default)  
suffix "-3" = single pair of output pins (Pins 4 and 10 unstuffed)  
without suffix "-3" = double pair of output pins (Pins 4, 5, 9, 10 are present)  
suffix "L" = RoHS compliant (RoHS 6) / "Blanks" = RoHS compliant with Lead (Pb) in solder exemption (RoHS 5)

## Pin Assignments

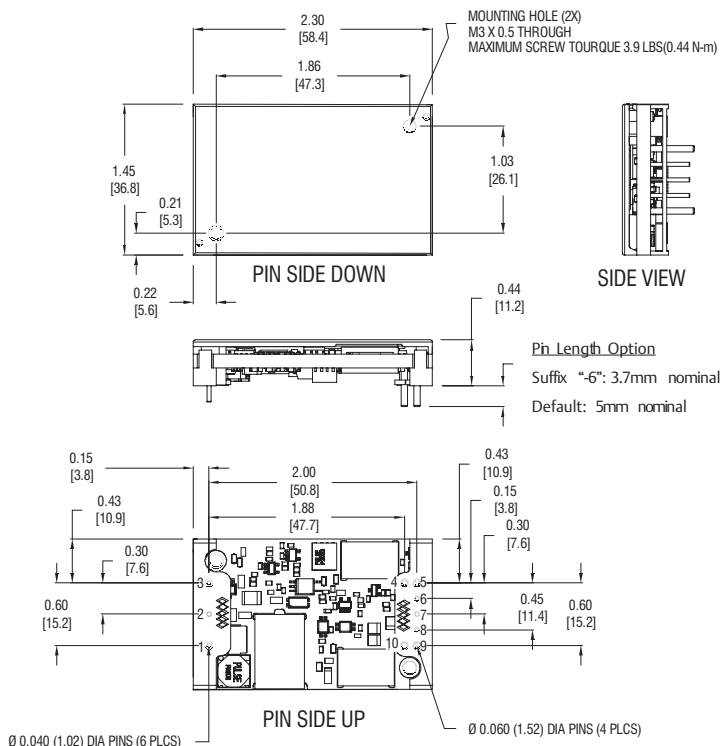
### Single Output

- +Vin
- Enable
- Vin
- Common (OPTIONAL)
- Common
- Sense
- Trim
- + Sense
- + Vout
- + Vout (OPTIONAL)

### Notes:

- Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.
- Consult the Technical Reference Notes for more detailed information.
- Dimensions provided in the mechanical outline are nominal values.
- Specifications subject to change without notice.
- 2 Year warranty

\* 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. (REV02: DECEMBER 20, 2006)



Astec Industry