

# 60 Amps AEQ/ALQ60

High Efficiency Quarter Brick



Total Power: 108W  
Input Voltages: 48V  
No. of Outputs: Single

## Electrical Specs

### Input

Input Range	36 to 75 VDC
Input Surge	100V /100ms
Efficiency	> 90%@1.8V (50% to 100% load)

### Output

Line Regulation	±0.2%Vo
Load Regulation	±0.2%Vo
Noise/Ripple	25mV typ
Remote sense	Up to 10% of Vo
Transient Response	4% deviation typical 50% to 75% Load change 0.1A/μs Slew Rate 150μs recovery

Overvoltage Protection	125% Vo
Current Limit	115% nominal output
Switching Frequency	480kHz

### Control

Voltage Adjust	90 to 110% Vo
Enable	TTL compatible (Positive or Negative enable options)

## Special Features

- High efficiency
- Industry standard package 1.45" x 2.30"
- Baseplate (AEQ) or Openframe (ALQ) construction
- High capacitive load limit on start-up
- 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 +85°C ambient (ALQ - Openframe)  
-40°C to +105°C baseplate (AEQ - 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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AEQ / ALQ60Y48

## Ordering Information

Input Voltage	Output Voltage	Output Current	Efficiency	Model Number
36V to 75V	1.8V	60A	90% Typ	AEQ60Y48(N) - (6)(3)(L)
36V to 75V	1.8V	60A	90% Typ	ALQ60Y48(N) - (6)(3)(L)

**OPTIONS**

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

## Pin Assignments

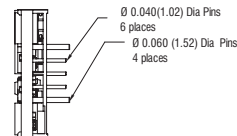
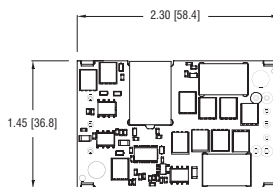
**Single Output**

1. +Vin
2. Enable
3. - Vin
4. Common (OPTIONAL)
5. Common
6. - Sense
7. Trim
8. + Sense
9. + Vout
10. + Vout (OPTIONAL)

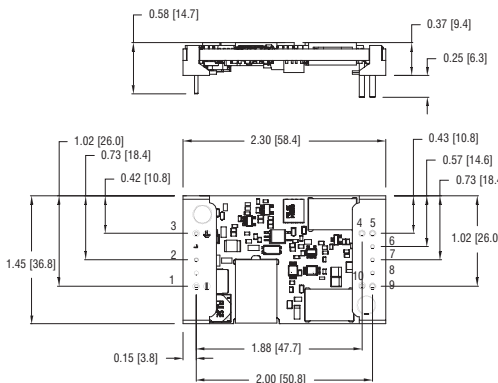
**Notes:**

1. Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.
2. Consult the Technical Reference Notes for more detailed information.
3. Dimensions provided in the mechanical outline are nominal values.
4. At high line,  $V_{IN} = 75V$  and no load,  $V_O = 0A$ , the module requires 1500 $\mu$ F capacitive load to provide greater than 45° of phase margin.
5. Specifications subject to change without notice.
6. 2 Years warranty.

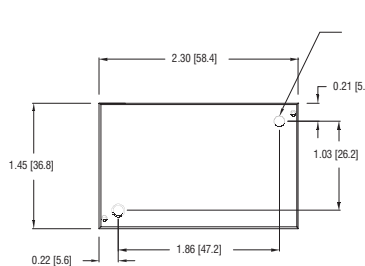
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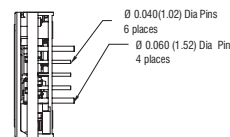
**ALQ - Open Frame Series**



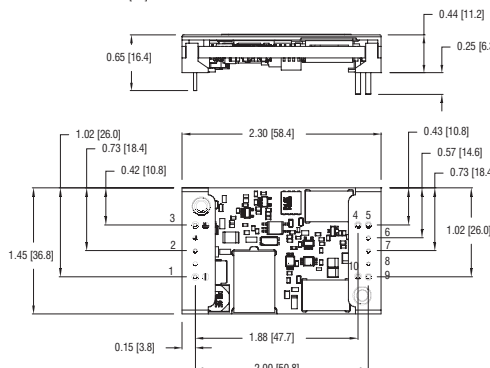
All dimensions are in Inches [mm].  
 Pin placement tolerance 0.005[0.127].



Mounting Insert (2 PLCS)  
 M3 X 0.5 THROUGH  
 MAXIMUM SCREW TORQUE 3.9 IN LBS (0.44 N·m)



**AEQ - Baseplate Series**



Astec Industry Standard