

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 $\pm 0.2\%V_o$
Load Regulation $\pm 0.2\%V_o$
Noise/Ripple 25mV typ
Remote sense Up to 10% of V_o
Transient Response 4% deviation typical
50% to 75% Load change
0.1A/ μ s Slew Rate
150 μ s recovery
Overvoltage Protection 125% V_o
Current Limit 115% nominal output
Switching Frequency 480kHz

Control

Voltage Adjust 90 to 110% V_o
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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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

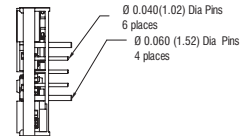
Single Output

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

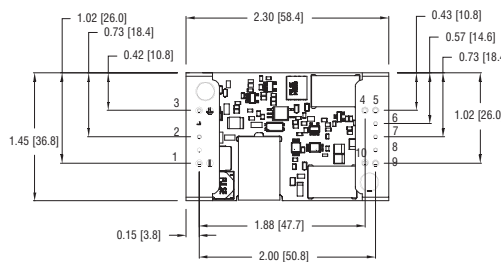
Notes:

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 μF capacitive load to provide greater than 45° of phase margin.
5. Specifications subject to change without notice.
6. 2 Years 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. (REV03: DECEMBER 20, 2006)

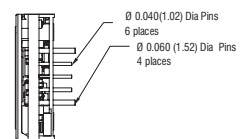
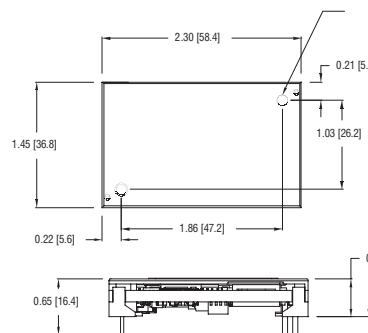


ALQ - Open Frame Series

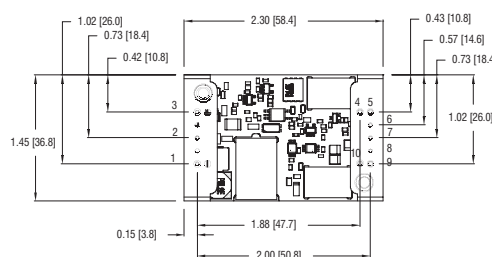


All dimensions are in Inches [mm].
Pin placement tolerance 0.005[0.127].

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



AEQ - Baseplate Series



AEQ / ALQ60Y48

Astec Industry Standard