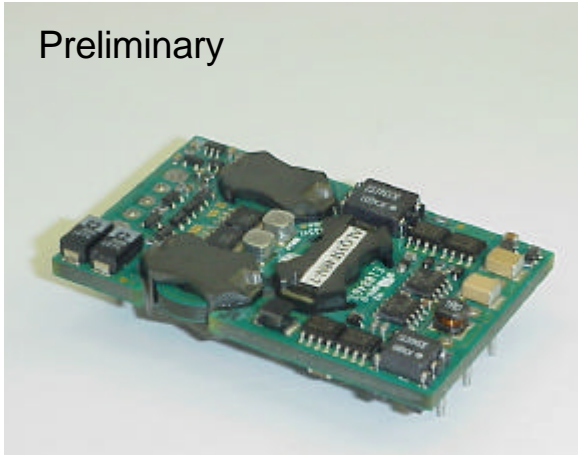


# 40 Amps

## ALQ40

High Efficiency Quarter Brick

Total Power: 144W  
 Input Voltages: 48V  
 No. of Outputs: Single



Preliminary

### Electrical Specs

|                        |   |
|------------------------|---|
| <b>Input</b>           |   |
| Input Range            | 36 to 75 VDC  |
| Input Surge            | 100V /100ms   |
| Efficiency             | 91% @3.3V Typ   |
| <b>Output</b>          |   |
| Load Regulation        | 10mV typical down to no load<br>(3V3 output and below)  |
| Line Regulation        | 10mV typical<br>(3V3 output and below)  |
| Voltage Tolerance      | ±1%   |
| Noise/Ripple           | 100mV max typ<br>150mV max for 5V   |
| Remote sense           | Up to 10% of Vo   |
| Transient Response     | 5% max deviation with 25% to 75% full<br>(output 5V and above)<br>200mV (output below 5V)<br>500µs (max) recovery |
| Overvoltage Protection | 140% nominal output   |
| Current Limit          | 140% nominal output   |
| Switching Frequency    | 200KHz (typ)  |
| <b>Control</b>         |   |
| Voltage Adjust         | 90 to 110% for 5V output<br>80 to 110% for 3.3V and below   |
| Enable                 | TTL compatible<br>(positive & negative enable options)  |

### Special Features

- High efficiency (91% Typical)
- -40°C to +70°C Ambient Air Operation
- Industry standard package  
1.48" x 2.30" x 0.38"
- High capacitive load limit on start-up
- Remote sense compensation
- Basic insulation
- Regulation to zero load
- Fixed frequency switching (200KHz)

### Environmental

Ambient air operating temperature range:  
-40°C to +70°C

Storage temperature: -40°C to +125°C

Overtemperature protection: 115°C typical

MTBF: > 1 million hours

### Safety

UL,cUL 60950

TUV EN60950



**AMERICAS**

5810 Van Allen Way  
 Carlsbad, CA 92008  
 Telephone: 760-930-4600  
 Facsimile: 760-930-0698

**EUROPE**

Astec House, Waterfront Business Park  
 Merry Hill, Dudley  
 West Midlands, DY5 1LX, UK  
 Telephone: 44 (1384) 842-211  
 Facsimile: 44 (1384) 843-355

**ASIA**

Units 2111-2116, Level 21  
 Tower1, Metroplaza  
 223, Hing Fong Road  
 Fwai Fong, New Territories  
 Hong Kong  
 Telephone: 852-2437-9662  
 Facsimile: 852-2402-4426

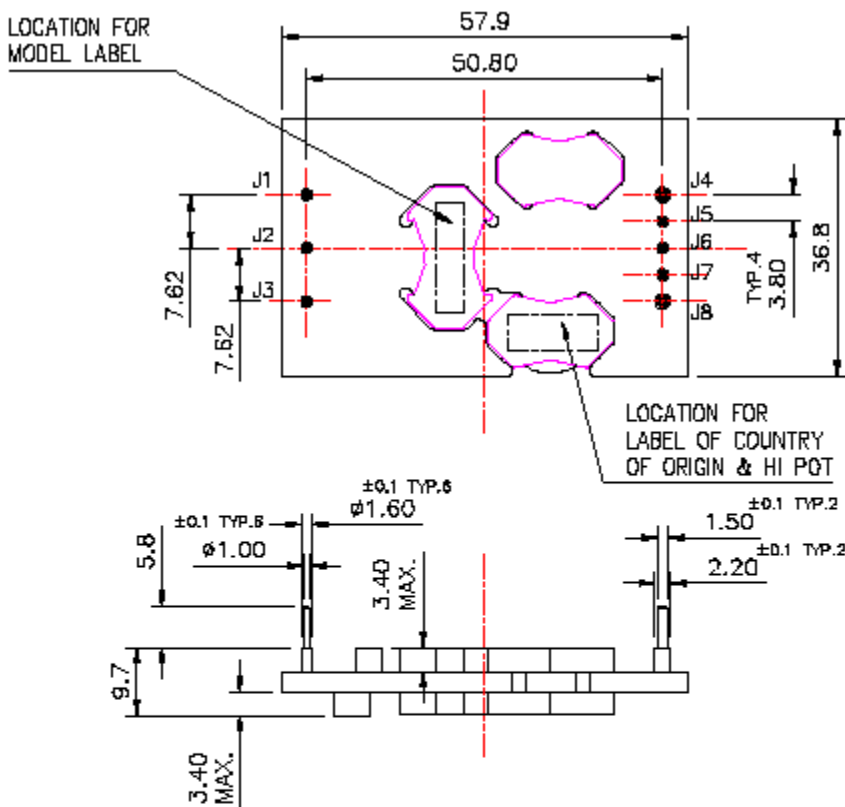


**Ordering Information**

| Input Voltage | Output Voltage | Output Current | Efficiency | Model Number |
|---------------|----------------|----------------|------------|--------------|
| 36V to 75V    | 5.0V           | 25A            | 91% Typ    | ALQ25A48     |
| 36V to 75V    | 3.3V           | 35A            | 90% Typ    | ALQ35F48     |
| 36V to 75V    | 2.5V           | 40A            | 89% Typ    | ALQ40G48     |
| 36V to 75V    | 1.8V           | 40A            | 87% Typ    | ALQ40Y48     |
| 36V to 75V    | 1.5V           | 40A            | 85% Typ    | ALQ40M48     |
| 36V to 75V    | 1.2V           | 40A            | 84% Typ    | ALQ40K48     |

NOTES: "N" = Negative logic enable (without "N" = Positive logic enable)

**Pin Assignments**



- J1: -Vin
- J2: ENABLE
- J3: +Vin
- J4: -Vo
- J5: -SENSE
- J6: TRIM
- J7: +SENSE
- J8: +Vo

**Notes:**

Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.

Specifications subject to change without