

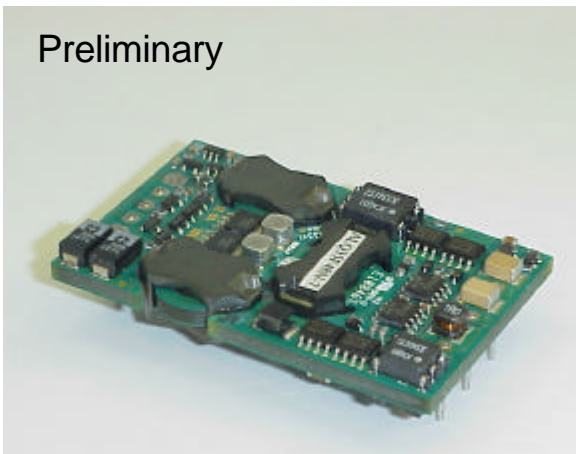
# 40 Amps

## ALQ40

High Efficiency Quarter Brick

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

### Preliminary



### Electrical Specs

#### Input

Input Range 36 to 75 VDC  
 Input Surge 100V /100ms  
 Efficiency 91% @3.3V Typ

#### Output

Load Regulation 10mV typical down to no load  
 (3V3 output and below)  
 Line Regulation 10mV typical  
 (3V3 output and below)  
 Voltage Tolerance ±1%  
 Noise/Ripple 100mV max typ  
 150mV max for 5V

Remote sense Up to 10% of Vo  
 Transient Response 5% max deviation with 25% to 75% full  
 (output 5V and above)  
 200mV (output below 5V)  
 500µs (max) recovery  
 Overvoltage Protection 140% nominal output  
 Current Limit 140% nominal output  
 Switching Frequency 200KHz (typ)

#### Control

Voltage Adjust 90 to 110% for 5V output  
 80 to 110% for 3.3V and below  
 Enable TTL compatible  
 (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

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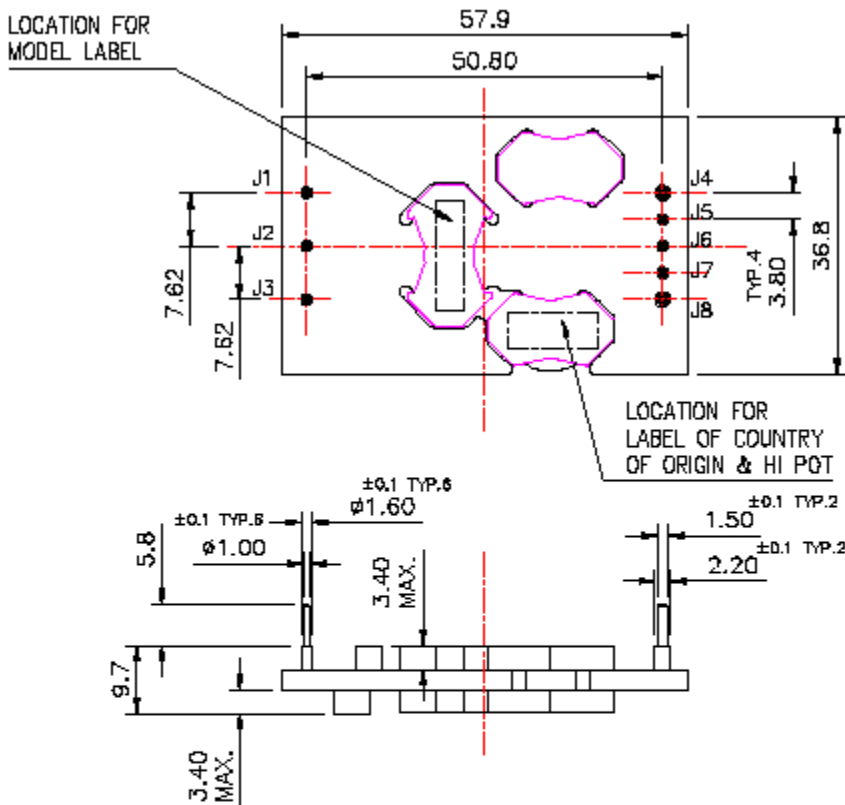


**Ordering Information**

| 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