

# 40 Amps

## ALQ40

High Efficiency Quarter Brick

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

Preliminary



### 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

### 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)

# 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

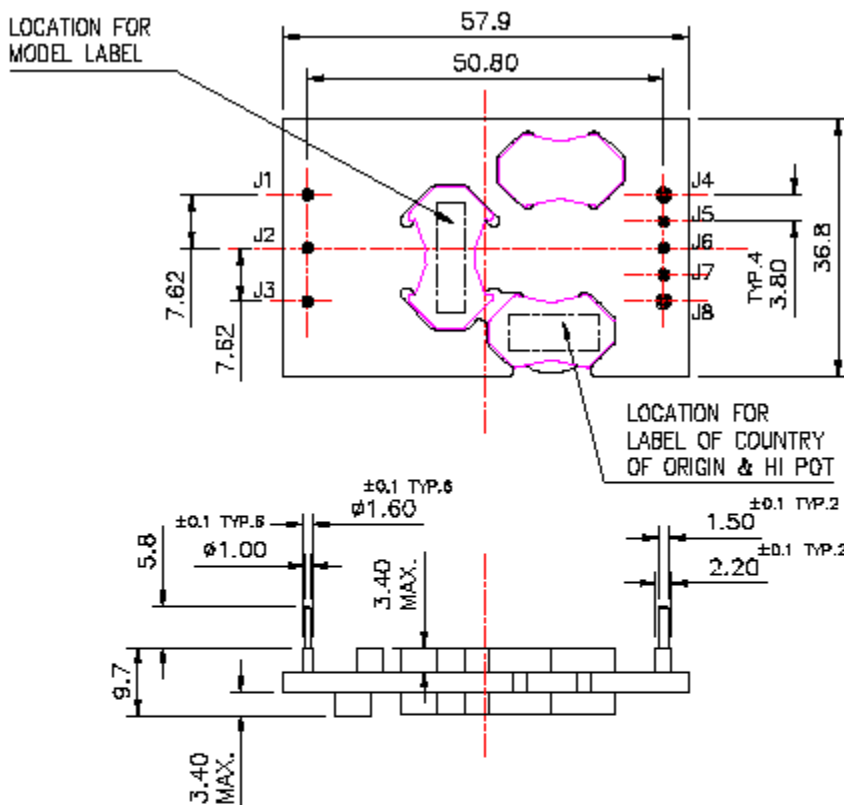


## Ordering Information

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

REV 3: Dec 2003

www.astecpower.com



ALQ40K48

EMERSON NETWORK POWER