

## ALQ/AEQ20B48

20 Amps

**Total Power:** 240 Watts  
**Input Voltage:** 48V  
**# of Outputs:** 1

### Special Features

- Quarter brick industry standard outline
- Baseplate or openframe low profile construction
- Industry Standard features :  
Input UVLO with hysteresis, Enable, OVP, OCP, OTP, output Voltage Trim, Differential Remote Sense
- Fixed switching frequency for EMI predictability
- Prebias startup capable
- RoHS compliant
- Meets Basic Insulation
- EU directive 2002/95/EC compliant for RoHS

### Safety

UL, cUL 60950  
TUV EN60950



## Electrical Specifications

| Input                       |                                                               |
|-----------------------------|---------------------------------------------------------------|
| Input range                 | 36V to 75VDC                                                  |
| Input surge                 | 100V / 100ms                                                  |
| Efficiency                  | 93% (typical)                                                 |
| Output                      |                                                               |
| Line regulation             | ± 0.1% (typical)                                              |
| Load regulation             | ± 0.1% (typical)                                              |
| Noise/ripple <sup>1</sup>   | 60mV (typical)                                                |
| Transient response          | 5% deviation<br>(50% to 75% step load)<br><250µs setting time |
| Over current protection     | 130% Io (autorecovery)                                        |
| Over voltage protection     | 120% Vo (autorecovery)                                        |
| Over temperature protection | 115°C average PCB temperature (autorecovery)                  |
| Switching frequency         | 150kHz                                                        |
| Isolation voltage           | 2250 Vdc                                                      |
| Control                     |                                                               |
| Enable on/off               | Positive or negative logic options; TTL compatible            |

## Environmental Specifications

|                                         |                        |
|-----------------------------------------|------------------------|
| Operating ambient air temperature range | -40°C to +85°C ambient |
| Storage temperature                     | -40°C to +125°C        |
| MTBF                                    | >1 million hours       |



## Ordering Information

| Input Voltage | Output Voltage | Output Current | Efficiency <sup>2</sup> | Model Number     |
|---------------|----------------|----------------|-------------------------|------------------|
| 36 - 75V      | 12V            | 20A            | 93% Typ                 | ALQ20B48(N)-(6)L |
| 36 - 75V      | 12V            | 20A            | 93% Typ                 | AEQ20B48(N)-(6)L |

Options:

- (N) : "N" = designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)  
(6) : "-6" = 3.7mm nominal pin length (default is 5mm nominal pin length with no suffix "-6" required)

Notes:

- ALQ : = openframe construction  
AEQ : = baseplate construction  
L : = RoHS Compliant (RoHS 6)

## Pin Assignments

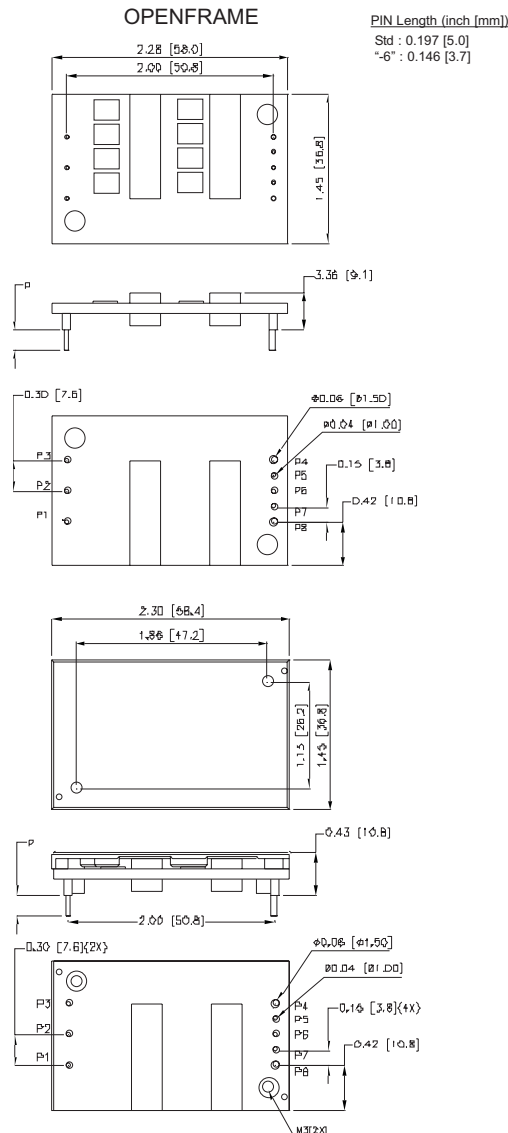
### Single Output

1. +Vin
2. Enable on/off
3. -Vin
4. -Vout
5. - Sense
6. Trim
7. + Sense
8. +Vout

Notes:

1. Measured at 20 MHz bandwidth with external 10 uF tant. capacitor in parallel with 1 uF ceramic capacitor placed across +Vout and -Vout, T<sub>A</sub> = 25°C.
2. Efficiency measurements taken at nominal line V<sub>IN</sub> = 48V input, I<sub>o</sub> = 100% load, T<sub>A</sub> = 25°C.
3. All specifications are considered typical values unless otherwise noted and are subject to change without notice.
4. 2 year warranty.
5. Consult factory for further product technical details.

## Mechanical Drawing



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