



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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 (50% to 75% step load) <250µs setting time
Over current protection	130% I <sub>o</sub> (autorecovery)
Over voltage protection	120% V <sub>o</sub> (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

- +Vin
- Enable on/off
- Vin
- Vout
- Sense
- Trim
- +Sense
- +Vout

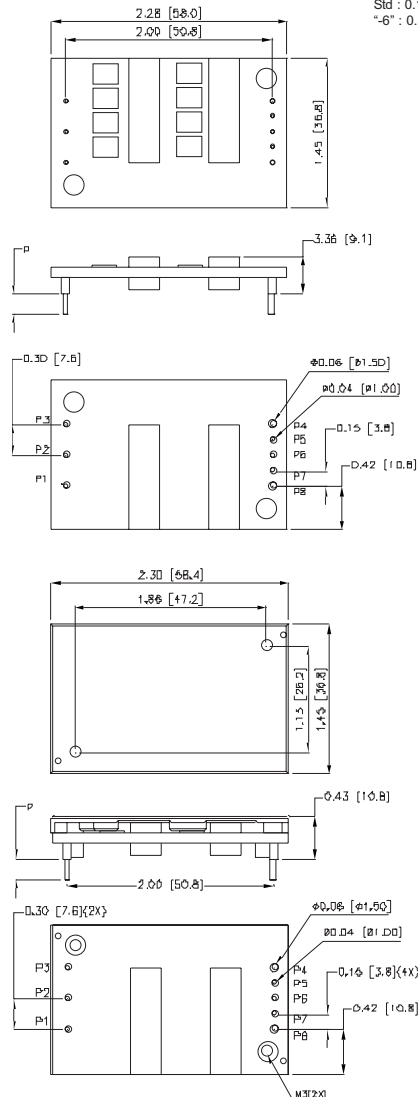
Notes:

- 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.
- Efficiency measurements taken at nominal line V<sub>IN</sub> = 48V input, I<sub>o</sub> = 100% load, T<sub>A</sub> = 25°C.
- All specifications are considered typical values unless otherwise noted and are subject to change without notice.
- 2 year warranty.
- Consult factory for further product technical details.

## Mechanical Drawing

### OPENFRAME

PIN Length (inch [mm])  
 Std : 0.197 [5.0]  
 "-6" : 0.146 [3.7]



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