

# 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

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

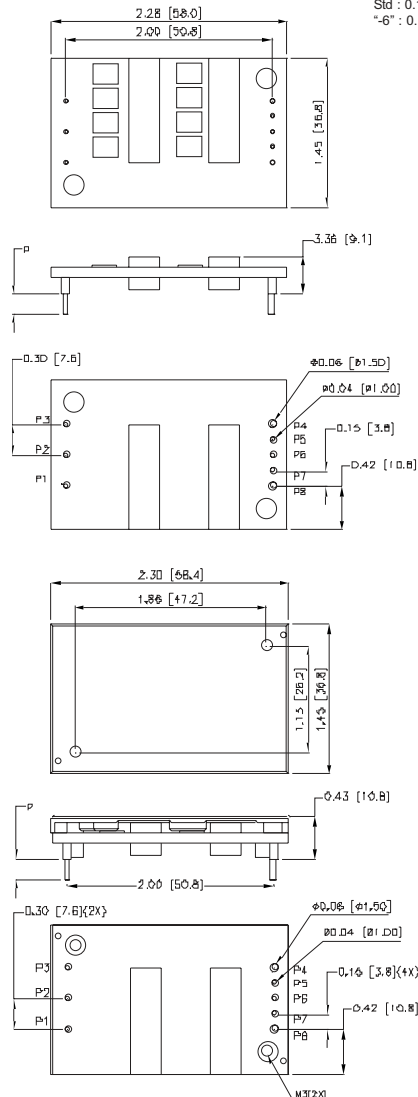
Notes:

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

### OPENFRAME

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



\* This is a Preliminary Data Sheet. Astec Power reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use or application.

## Astec Power

5810 Van Allen Way  
Carlsbad, CA 92008  
USA  
Telephone: +1 760 930 4600  
Facsimile: +1 760 930 0698  
Technical Support: +1 888 41 ASTEC  
or +1 407 241 2752

Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX  
United Kingdom  
Telephone: +44 (0) 1384 842 211  
Facsimile: +44 (0) 1384 843 355

Units 2111-2116, Level 21  
Tower 1, Metroplaza  
223, Hing Fong Road  
Kwai Fong, New Territories  
Hong Kong  
Telephone: +852 2437 9662  
Facsimile: +852 2402 4426

For global contact, visit:

[www.astecpower.com](http://www.astecpower.com)  
[technicalsupport@astec.com](mailto:technicalsupport@astec.com)

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Printed in USA

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