

# 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

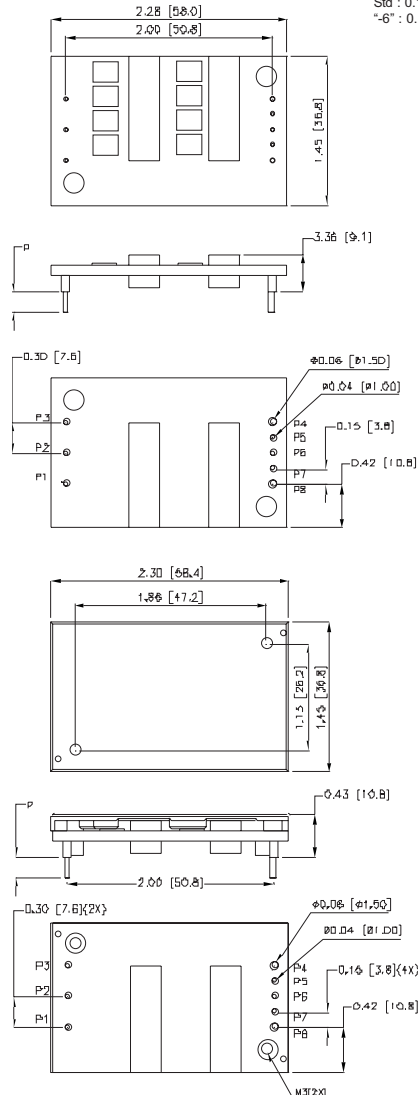
### Notes:

- 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]



\* 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.

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