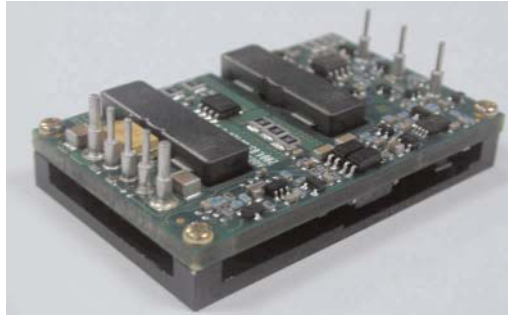


# ALQ12/AEQ12 Series

18 to 50.4 Watts

**Total Power:**  
132 Watts (for the 3.3 Vo device)  
48 Watts (for the 1.2 Vo device)  
**Input Voltage:** 36 - 75 VDC  
**# of Outputs:** Single



Rev. 07.15.10  
ALQ12/AEQ12 Series  
1 of 2



## Special Features

- Delivers up to 12 A output current (6.3 A for the 8 Vo)
- Basic Isolation
- Ultra High Efficiency
- Improved thermal performance: 12A (6.3A for the 8 V) at 55 °C at 1.5ms-1 (300LFM)
- High power density
- Low output noise
- Industry standard pinout
- 2:1 wide input voltage
- CNT function
- Remote sense
- Trim function: +10% / -20%
- Input under-voltage lockout
- Output over-current lockout
- Output over-voltage protection
- Over temperature protection
- RoHS Compliant

## Safety

UL cUL  
CSA  
EN0950

## Electrical Specifications

### Input

Input Range	36 to 75 VDC
Input Current (max.)	1.6 A
Input Reflected-ripple	20 mAp-p 5Hz to 20MHz: 12uH source impedance, TA=25 °C

### Current Output

### Output

Output voltage	8V, 3.3V, 1.8V, 1.5V nominal
Output Current	12A (6.3 A for the 8 Vo)
Efficiency	>80% (See ordering information)
Line output regulation	5 mV (3 mV Typical) : 1.5 V & 1.8 V device 10 mV (5 mV Typical) : 3.3 V device 15 mV (8 mV Typical) : 8.0 V device
Load Output Regulation	10 mV max ( 5 mV Typ) : 1.5 V and 1.8 V device 20 mV max (10 mV Typ) : 3.3 V and 8.0 V device
Switching Frequency	300 Khz

### Isolation

I/O isolation	1500 Vdc
Isolation Capacitance	2200 pF
Isolation Resistance	>10 Mohms

## Environmental Specifications

Operating ambient temperature range	-40 °C to 55 °C
Storage temperature	-55 °C to 125 °C
Temperature Regulation	0.02 %Vo/°C
Calculated MTBF	3.080 Million hours (typ.); Io=Io-max; Tc=25 °C

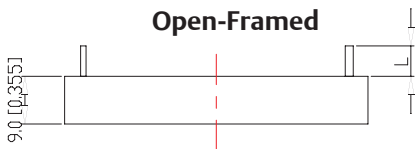
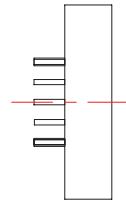
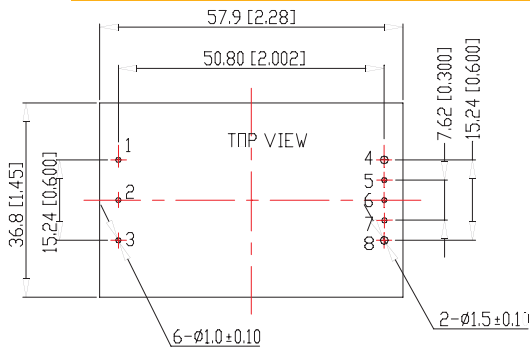


### Ordering Information

Vin (V)	Vout (V)	Iout (A)	Effy	Model Number
36-75	8	6.3	90%	AEQ06L48(N)-L (EOL)
36-75	3.3	12	88%	ALQ12F48(N)-L
36-75	1.8	12	84%	AEQ12Y48(N)-L
36-75	1.8	12	84%	ALQ12Y48(N)-L
36-75	1.5	12	82%	AEQ12M48(N)-L
36-75	1.5	12	82%	ALQ12M48(N)-L

Note: Option "N" is for the negative enabled option, omit if converter is positive enabled.

### Mechanical Drawing

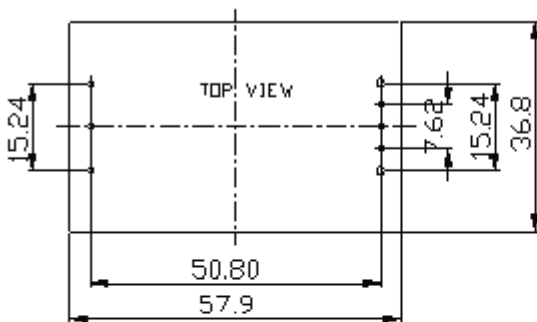


Open-Framed

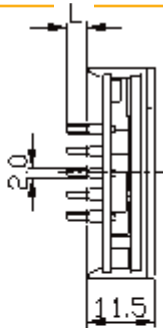
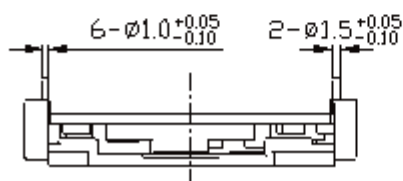
Pin Length Option

Device Code Suffix	L
-4	4.8mm $\pm$ 0.5mm
-6	3.8mm $\pm$ 0.5mm
-8	2.8mm $\pm$ 0.25mm
NONE	5.8mm $\pm$ 0.5mm

TOLERANCES : X.Xmm $\pm$ 0.15mm



Baseplate



Pin 1	+Vin	Pin 4	+Vo
Pin 2	CNT	Pin 5	+Sense
Pin 3	-Vin	Pin 6	Trim
		Pin 7	-Sense
		Pin 8	-Vo

5810 Van Allen Way  
Carlsbad, CA 92008  
USA  
Telephone: +1 760 930 4600  
Facsimile: +1 760 930 0698

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

14/F, Lu Plaza  
2 Wing Yip Street  
Kwun Tong, Kowloon  
Hong Kong  
Telephone: +852 2176 3333  
Facsimile: +852 2176 3888

For global contact, visit:

[www.Emerson.com/EmbeddedPower](http://www.Emerson.com/EmbeddedPower)  
[techsupport.embeddedpower@emerson.com](mailto:techsupport.embeddedpower@emerson.com)

While every precaution has been taken to ensure accuracy and completeness in this literature, Astec Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Printed in USA

**Emerson Network Power.**  
The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Power**
- Inbound Power
- Integrated Cabinet Solutions
- Outside Plant
- Precision Cooling
- Site Monitoring and Services

**EmersonNetworkPower.com**

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.  
©2010 Emerson Electric Co.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Emerson Network Power:](#)

[ALQ12F48](#) [ALQ12K48](#) [ALQ12K48N-L](#) [ALQ12Y48N](#)