

## ALD15 Series

15 Amps

### Data Sheet

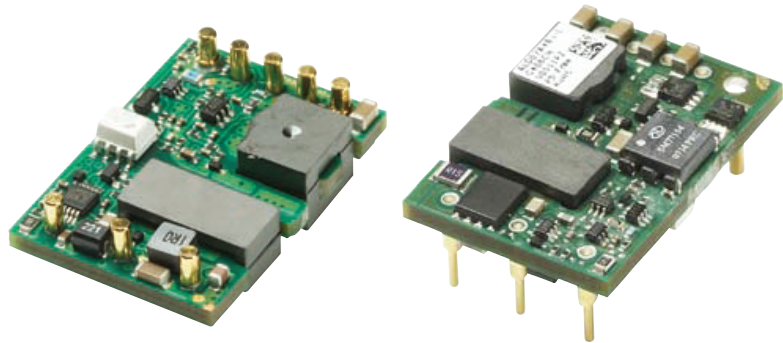
**Total Power:** 35 Watts  
**Input Voltage:** 48 V  
**# of Outputs:** Single

### SPECIAL FEATURES

- High efficiency
- -40 °C to +75 °C ambient air operation
- 1.30" x 0.90" x 0.35" TH or SMT package
- High capacitive load limit on start-up
- Industry standard feature sets: UVLO, OVP, OCP, OTP, on/off enable, remote sense, output trim
- Basic insulation
- Regulation to zero load
- Fixed frequency switching
- EU Directive 2002/95/EC compliant for RoHS

### SAFETY

- UL, cUL: 60950-1
- TUV: EN60950-1



### Electrical Specifications

Input	
Input range	36 to 76 Vdc
Input surge	100 V / 100 ms
Efficiency	90.5% @ 12 V
Output	
Line regulation	±0.1% Vo (typical)
Load regulation	±0.1% Vo (typical)
Noise/ripple <sup>1</sup>	40 mVp-p (typical)
Remote sense	Up to 10% of Vo
Transient response	3% Vo (typical deviation) 50% to 75% load change 80 µs setting time (typical)
Ovoltage protection	125% Vo typical (autorecovery)
Overcurrent protection	115% Io typical (autorecovery)
Overtemperature protection	115 °C average PCB temperature (autorecovery)
Switching frequency	Fixed frequency
Isolation voltage	1500 Vdc minimum (2000 Vdc ALD10F48N)
Control	
Voltage adjust	90 - 100% Vo
Enable	TTL compatible

### Environmental Specifications

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

## Ordering Information

Model Number	Input Voltage	Output Voltage	Output Current	Efficiency <sup>2</sup>
ALD03B48(N)-(L)/(6L)/(SL)	36 - 75 V	12 V	2.75 A	90.5%
ALD07A48(N)-(L)/(6L)/(SL)	36 - 75 V	5.0 V	7.00 A	91%
ALD10F48(N)-(L)/(6L)/(SL)	36 - 75 V	3.3 V	10.00 A	90%
ALD11G48(N)-(L)/(6L)/(SL)	36 - 75 V	2.5 V	11.00 A	89%
ALD13Y48(N)-(L)/(6L)/(SL)	36 - 75 V	1.8 V	13.00 A	87%
ALD15M48(N)-(L)/(6L)/(SL)	36 - 75 V	1.5 V	15.00 A	85%
ALD15K48(N)-(L)/(6L)/(SL)	36 - 75 V	1.2 V	15.00 A	84%

Notes:

Efficiency values taken at nominal input full load condition, 25 °C ambient temperature.

Options:

"N" = Designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)

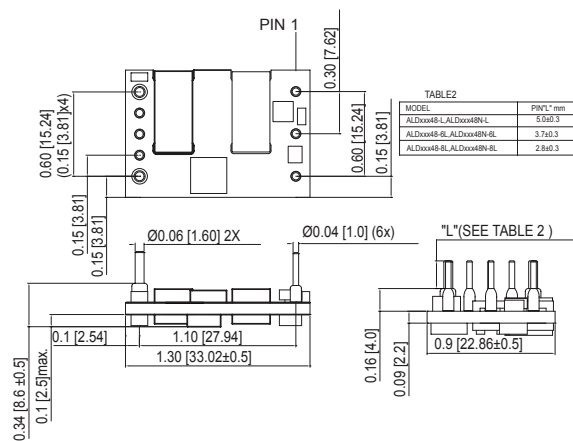
"L" = RoHS compliant

"-6L" = 3.7 mm nominal pin length (default is 5 mm nominal pin length with no suffix "-6" required), RoHS compliant

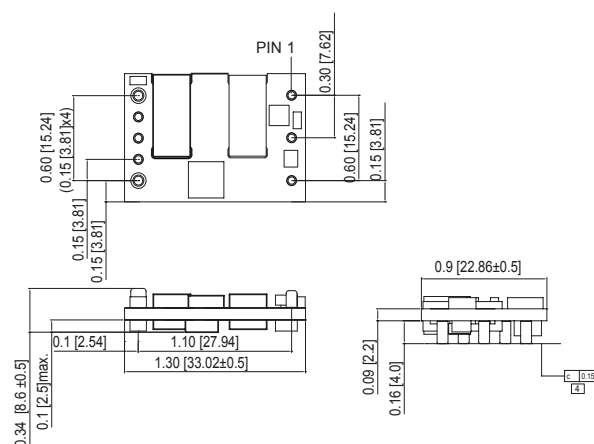
"-SL" = Surface Mount Termination (default is thru hole termination with no suffix "-S" required) RoHS compliant. STRL designates Taped and Reeled option for SMT.

## Mechanical Drawings

### Through-hole Termination



### Surface-mount Termination



### Pin Assignments

Single Output	
Pin 1	+Vin
Pin 2	Enable
Pin 3	-Vin
Pin 4	-Vout
Pin 5	-Sense
Pin 6	Trim
Pin 7	+Sense
Pin 8	+Vout

## Mechanical Drawings

### Recommended PAD/Hole Pattern

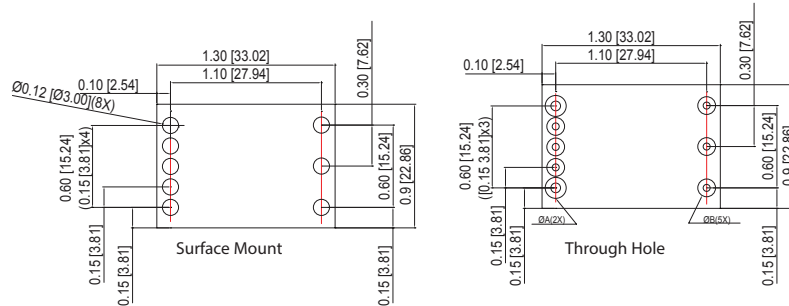
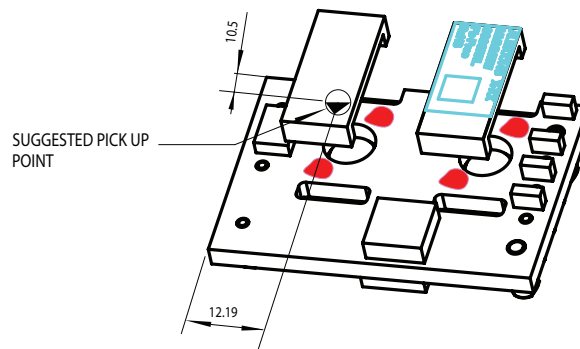


TABLE1

HOLE & PAD DIAMETER FOR CUSTOMER (RECOMMENDED)		
	HOLE DIAMETER (Ød)	PAD DIAMETER (ØD)
ØA	Ø1.9	Ø2.9
ØB	Ø1.3	Ø2.3

### Recommended Pick-up Point



#### Notes:

- 20 MHz bandwidth. External 10 µF tant. capacitor in parallel with 0.1µF ceramic capacitor placed across +Vout and -Vout; 33 µF e-cap or equivalent placed across +Vin and -Vin.
- Efficiency measurements taken at full load, nominal line and TA = 25 °C
- All specifications are typical at nominal line, full load and TA = 25 °C unless otherwise noted.
- Mechanical drawings are for reference only. Dimensions are in inches [mm]. Mechanical tolerance ± 0.020 [± 0.50]
- Technical Reference Notes should be consulted for detailed information when available.
- All specifications subject to change without notice.
- Warranty two (2) years.
- The through-hole terminated modules are intended for wave soldering process.

## WORLDWIDE OFFICES

### Americas

2900 S.Diablo Way  
Tempe, AZ 85282  
USA  
+1 888 412 7832

### Europe (UK)

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

### Asia (HK)

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

**ARTESYN**  
EMBEDDED TECHNOLOGIES

[www.artesyn.com](http://www.artesyn.com)

Artesyn Embedded Technologies, Artesyn and the Artesyn Embedded Technologies logo are trademarks and service marks of Artesyn Embedded Technologies, Inc. All other names and logos referred to are trade names, trademarks, or registered trademarks of their respective owners. © 2015 Artesyn Embedded Technologies, Inc. All rights reserved. For full legal terms and conditions, please visit [www.artesyn.com/legal](http://www.artesyn.com/legal).

For more information: [www.artesyn.com/power](http://www.artesyn.com/power)  
For support: [productsupport.ep@artesyn.com](mailto:productsupport.ep@artesyn.com)