

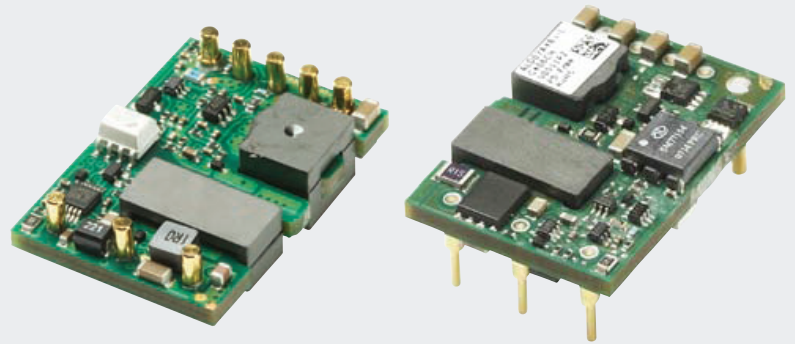


**THE DATASHEET OF
ALD07A48N-6L**



ARTESYN ALD15 SERIES

15 Amps



The ALD series of sixteenth-brick isolated DC-DC converters comprises seven single output models offering fully regulated voltages of 1.2 V, 1.5 V, 1.8 V, 2.5 V, 3.3 V, 5.0 V or 12.0 V. The 1.2 V and 1.5 V models can deliver up to 15 amps. These converters have a wide 2:1 input range of 36 to 75 Vdc and are designed primarily for use with standard 48 V telecommunications equipment supplies. Rated at 35 watts, they employ an open-frame construction, offer up to 91% efficiency and accommodate an ambient operating temperature range of -40 to 85°C. The converters use fixed frequency switching to minimize the need for EMI filtering.

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/ripple1	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))
Overvoltage 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)
Isolation	
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

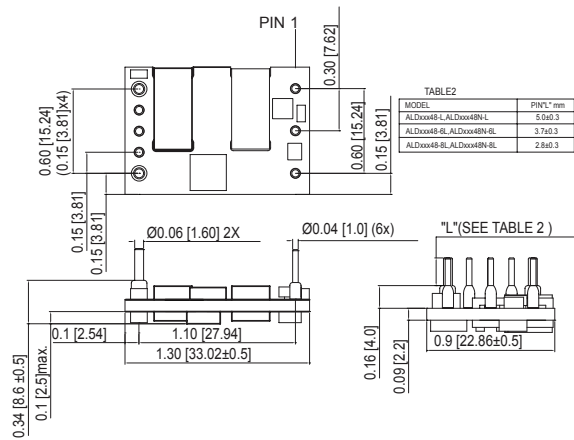
ORDERING INFORMATION

Model Number	Input Voltage	Output Voltage	Output Current	Efficiency ²
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%

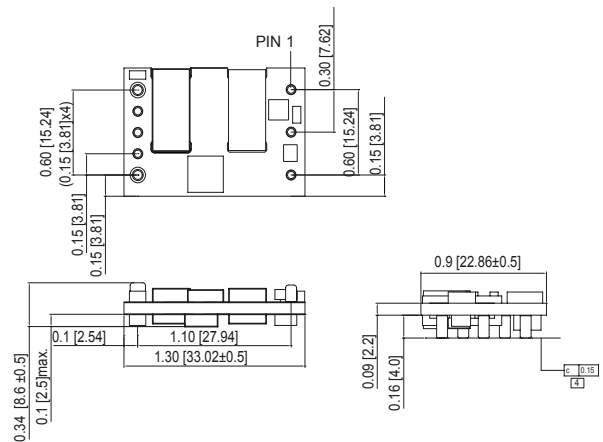
Notes:
 Efficiency values taken at nominal input full load condition, 25 °C ambient temperature.
 Options:
 "N" = Designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)
 "L" = RoHS compliant
 "-6L" = 3.7 mm nominal pin length (default is 5 mm nominal pin length with 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

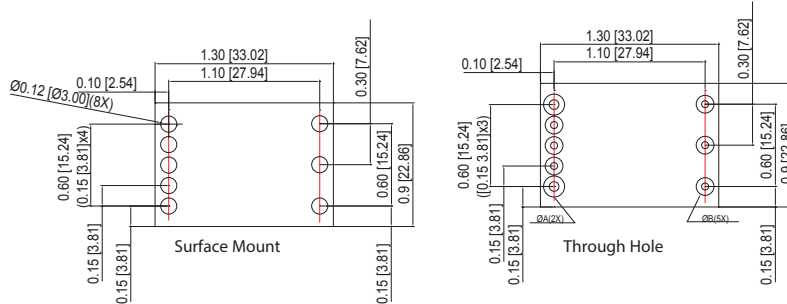
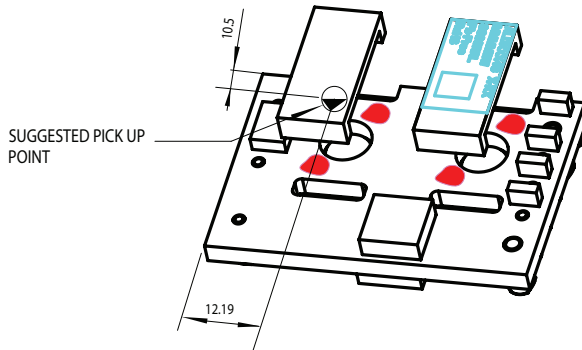


TABLE1

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.



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