



# ALD SERIES

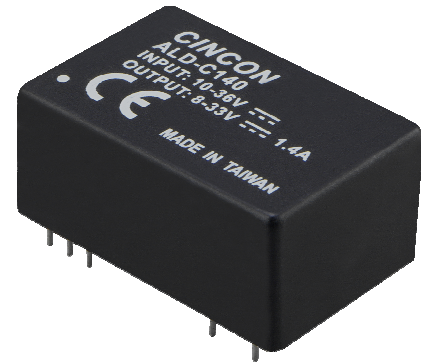
## 57 WATT

### BUCK LED DRIVER with DALI



## Features

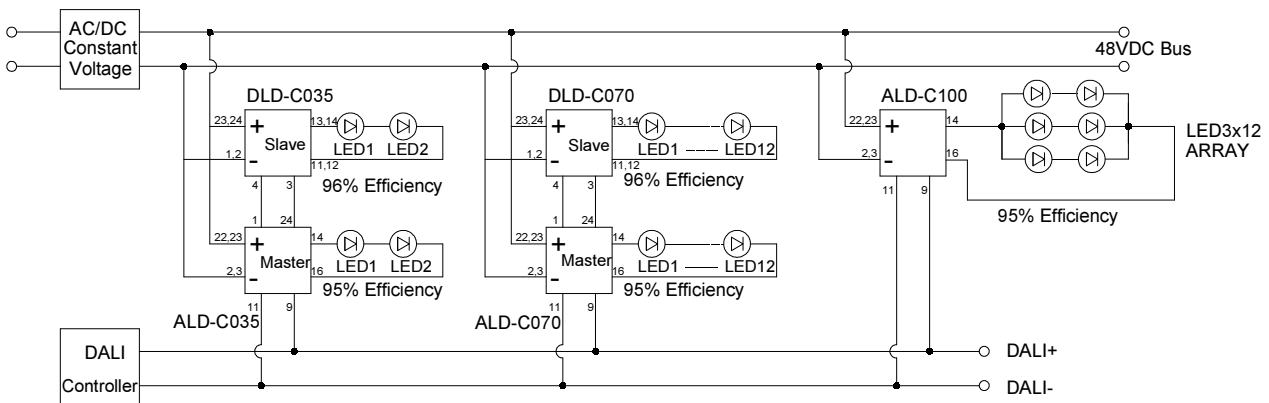
- \* LED Driver Current up to 1400mA
- \* Constant Current Output
- \* Digital Address Lighting Interface (DALI)
- \* High Efficiency up to 95%
- \* Continuous Short Circuit Protection
- \* DIP24 package
- \* High Reliability
- \* IP67 Protection



MODEL	INPUT VOLTAGE	OUTPUT OPERATING VOLTAGE	OUTPUT RATED CURRENT	OUTPUT RATED POWER	RIPPLE & NOISE (max.) NOTE2	%EFF. (Typ) NOTE3
ALD-C035(LW)	4.5-60 VDC	2-57 VDC	350 mA	20 W	300 mVpp	95%
ALD-C070(LW)	4.5-60 VDC	2-57 VDC	700 mA	40 W	500 mVpp	95%
ALD-C100(LW)	4.5-60 VDC	2-57 VDC	1000 mA	57 W	500 mVpp	95%
ALD-C140(LW)	10-36 VDC	8-33 VDC	1400 mA	46.2 W	500 mVpp	95%

### Note:

1.  $3V < V_{in} - V_{out} < 30V_{dc}$ , to keep current accuracy. Nominal Input Voltage: 48Vdc, 28Vdc (C140 models)
2. Ripple and Noise are measured at rated current, Nominal Input and 36Vdc or 24Vdc (C140 models) output and 20MHz bandwidth with a 0.1uF ceramic capacitor.
3. Measured at rated current, Nominal Input and 36Vdc or 24Vdc (C140 models) output.
4. When used in the DALI system should be higher than 5.5V input voltage.
5. Acceptable customer modifications.



## Specifications

All specifications are Typical at nominal line, full load and 25°C unless otherwise noted

### INPUT SPECIFICATIONS:

Input Voltage ..... 1400mA/other ..... 10-36VDC/4.5-60Vdc  
 Input Surge Voltage (1second) ..... 1400mA/other ..... 50Vdc/65Vdc max.  
 Input Filter ..... Capacitor  
 Under Voltage Lockout ..... Power up ..... 8.0Vdc/4.0Vdc typ.  
 Power down ..... 6.9Vdc/3.7Vdc typ.

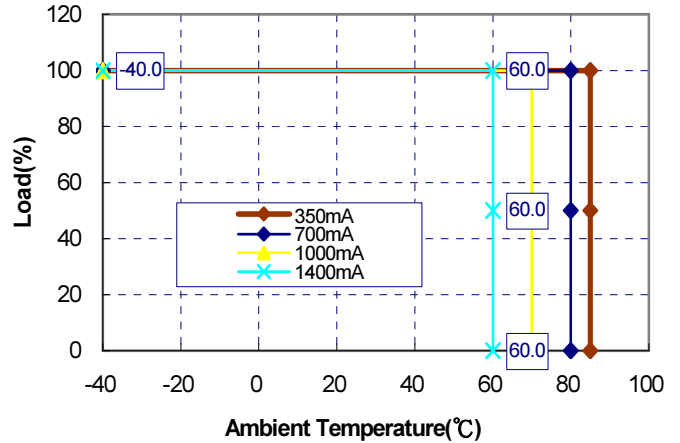
### OUTPUT SPECIFICATIONS:

Constant Current Accuracy ..... (note1) ..... ±5% max.  
 Current Line Regulation ..... (note2) ..... ±5% max.  
 Current Load Regulation ..... (note3) ..... ±5% max.  
 Short Circuit Protection ..... Constant Current with Auto Recovery  
 Start up time ..... 60ms max.

### GENERAL SPECIFICATIONS:

Efficiency ..... See Table  
 Temperature Coefficient ..... ±0.05%/°C (0~50°C)  
 Isolation Voltage ..... Non-isolation  
 Switching Frequency ... 1400mA/Others ..... 50-500KHz/ 300KHz typ.  
 Operating Ambient Temperature ..... -40 ~ 85°C see Derating Curve  
 Case Temperature ..... 100°C max.  
 Cooling ..... Natural Convection  
 Storage Temperature ..... -55 ~ 125°C  
 Operating Humidity ..... 10%~95%RH non-condensing  
 Operating Altitude ..... Sea Level to 3000m  
 Vibration ..... 0~500Hz, 2G 60min./1cycle, period for 3hours, 3 axes  
 Shock ..... 30g peak, half sine, 6 axes  
 MTBF, MIL-HDBK-217F (25°C) ..... >1.6Mhrs  
 Dimensions ..... 1.25x0.80x0.50 Inches(31.8x20.3x12.7 mm)  
 Weight ..... 18g  
 Case Material ..... Plastic Case

## ALD Derating Curve



### DALI Control:

Output Current Range ..... 10%-100%

### SAFETY AND EMISSIONS:

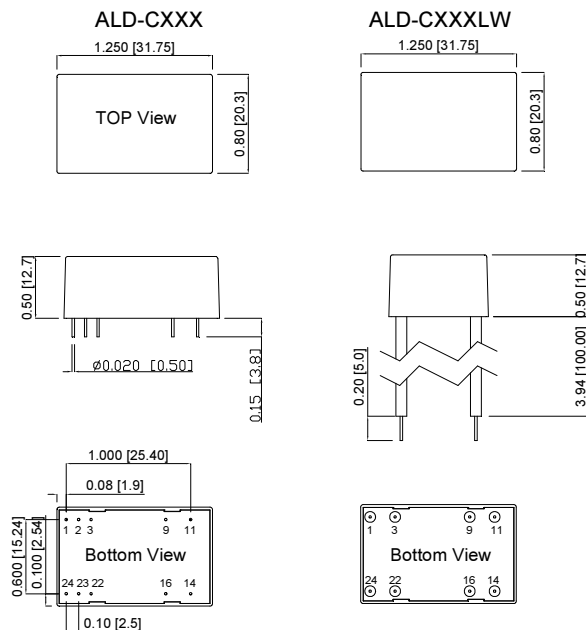
EMI ..... EN55022/EN55015 Class B  
 EMS ..... EN61547, EN61000-4-2,3,4,5,6

### NOTE:

- 3V < Vin - Vout < 30Vdc, to keep current accuracy.
- Current Line regulation is measured from High Line to Low Line.
- Current Load regulation is measured from high to low operating voltage.
- When used in the DALI system should be higher than 5.5V input voltage.
- Acceptable customer modifications.

## Mechanical Specification

All Dimensions in Inches[mm]  
 Tolerance Inches: x.xx=±0.02, x.xxx=±0.010  
 Millimeters: x.x=±0.5, x.xx=±0.25



ALD CONNECTION		
ALD-CXXX	ALD-CXXXLW	Function
1	1 (Green)	PWM/ON/OFF
2&3	3 (Black)	-V Input
9	9 (Brown)	DA
11	11 (Brown)	DA
14	14 (Yellow)	+V Output
16	16 (Blue)	-V Output
22&23	22 (Red)	+V Input
24	24 (White)	Analogue Dimming