



ALD SERIES

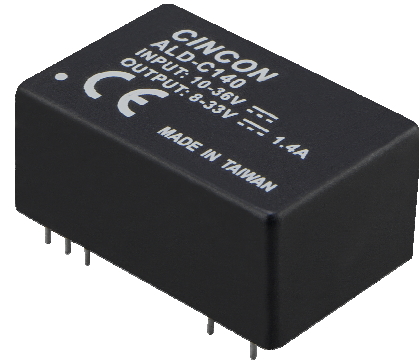
57 WATT

BUCK LED DRIVER with DALI



Features

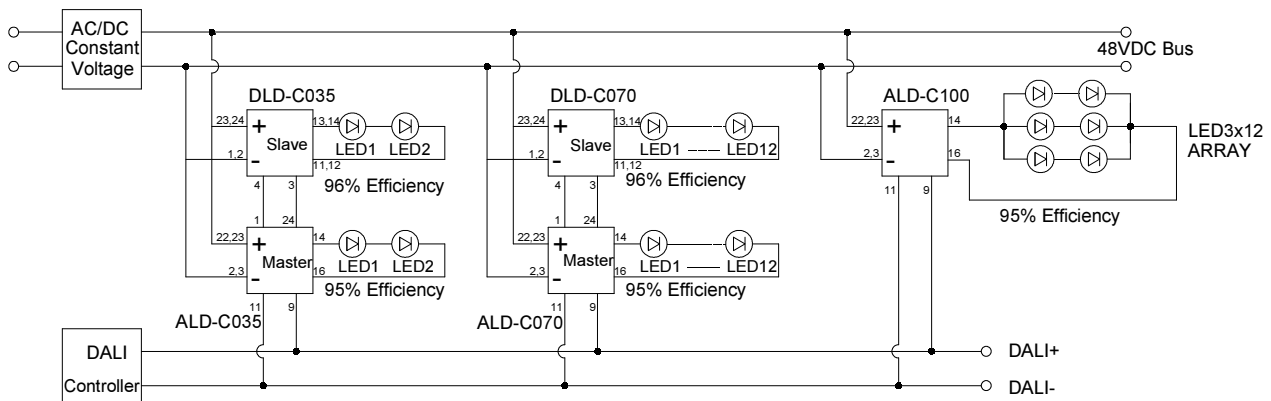
- * LED Driver Current up to 1400mA
- * Constant Current Output
- * Digital Address Lighting Interface (DALI)
- * High Efficiency up to 95%
- * Continuous Short Circuit Protection
- * DIP24 package
- * High Reliability
- * IP67 Protection



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.



ALD Derating Curve

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

INPUT SPECIFICATIONS:

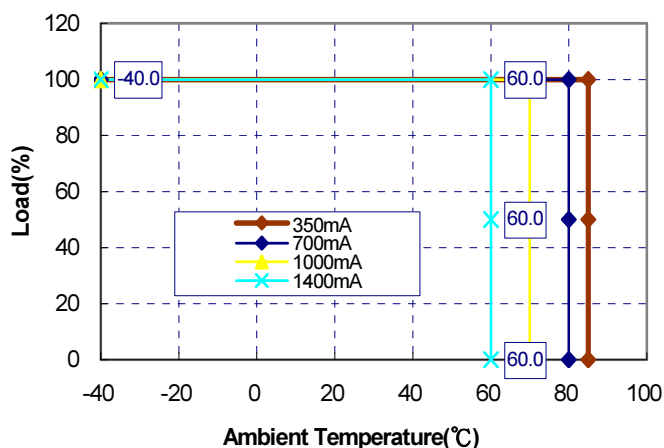
Input Voltage	1400mA/other	10-36VDC/4.5-60Vdc
Input Surge Voltage (1second)	1400mA/other	50Vdc/65Vdc max.
Input Filter		Capacitor
Under Voltage Lockout	Power up	8.0Vdc/4.0Vdc typ.
	Power down	6.9Vdc/3.7Vdc typ.

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	$\pm 0.05\%/^{\circ}\text{C}$ (0~50 $^{\circ}\text{C}$)
Isolation Voltage	Non-isolation
Switching Frequency ... 1400mA/Others	50-500KHz/ 300KHz typ.
Operating Ambient Temperature	-40 ~ 85 $^{\circ}\text{C}$ see Derating Curve
Case Temperature	100 $^{\circ}\text{C}$ max.
Cooling	Natural Convection
Storage Temperature	-55 ~ 125 $^{\circ}\text{C}$
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 $^{\circ}\text{C}$)	>1.6Mhrs
Dimensions	1.25x0.80x0.50 Inches(31.8x20.3x12.7 mm)
Weight	18g
Case Material	Plastic Case

**DALI Control:**

Output Current Range 10%-100%

SAFETY AND EMISSIONS:

EMI EN55022/EN55015 Class B

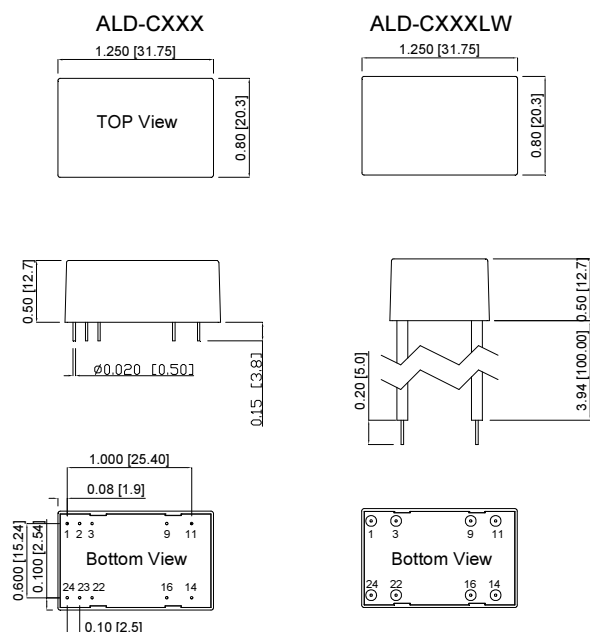
EMS EN61547, EN61000-4-2, 3, 4, 5, 6

NOTE:

1. $3V < V_{in} - V_{out} < 30V_{dc}$, to keep current accuracy.
2. Current Line regulation is measured from High Line to Low Line.
3. Current Load regulation is measured from high to low operating voltage.
4. When used in the DALI system should be higher than 5.5V input voltage.
5. 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