



ALD SERIES

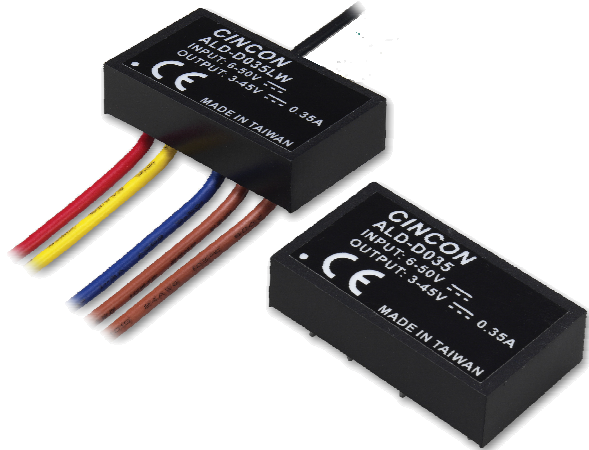
50.4 WATT

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
- * High Reliability
- * IP65 Protection

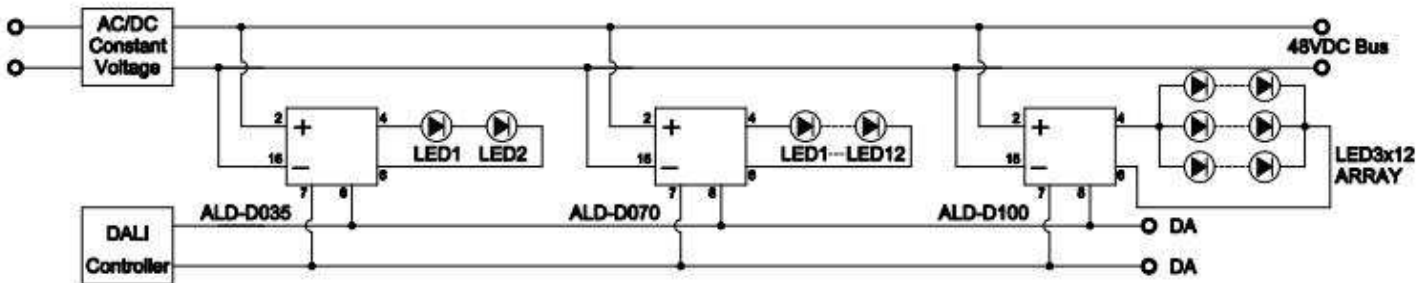


MODEL NUMBER	Input Voltage Range	Output Operating Voltage	Output Rated Current	Output Rated Power	Ripple and Noise (max.) Note2	Efficiency (TYPICAL) Note3
ALD-D035	6–50 VDC	3-45 VDC	350 mA	15.75 W	300 mVpp	95%
ALD-D050	6–50 VDC	3-45 VDC	500 mA	22.5 W	500 mVpp	95%
ALD-D070	6–50 VDC	3-45 VDC	700 mA	31.50 W	500 mVpp	95%
ALD-D100	6–50 VDC	3-45 VDC	1050 mA	47.25 W	500 mVpp	95%
ALD-D140	6–40 VDC	3-36 VDC	1400 mA	50.4 W	500 mVpp	95%

Note:

1. $3V < V_{in} - V_{out} < 30V_{dc}$, to keep current accuracy. Nominal Input Voltage: 48Vdc, 28Vdc (D140 models).
2. Ripple and Noise are measured at rated current, Nominal Input and 36Vdc or 24Vdc (D140 Models) Output and 20MHz Bandwidth with a 0.1uF Ceramic Capacitor.
3. Measured at Rated Current, Nominal Input and 36Vdc or 24Vdc (D140 Models) Output.
4. Acceptable Customer Modifications.

Installation Drawing



Specifications

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

INPUT SPECIFICATIONS:

Input Voltage 1400mA/other 6-40VDC/6-50Vdc
 Input Surge Voltage (1second) ... 1400mA/other 50Vdc/65Vdc max.
 Input Filter Capacitor
 Under Voltage Lockout Power up 4.2Vdc typ.
 Power down 3.8Vdc 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 500KHz typ.
 Operating Ambient Temperature -40~75°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
 Shock/Vibration MIL-STD-810F
 MTBF MIL-HDBK-217F/25°C 700Khrs typ.
 Dimensions Other: 1.60x0.93x0.40 Inches(40.6x23.5x10.1mm)
 T:2.354x1.339x0.646 Inches(59.80x34.01x16.40mm)
 Weight PIN/LW/T 18g/23g/30g
 Case Material Plastic Case

DALI Control:

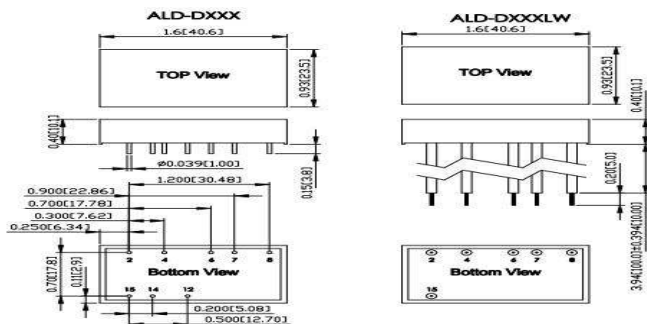
Output Current Dimming Range 5%-100%

SAFETY AND EMISSIONS:

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

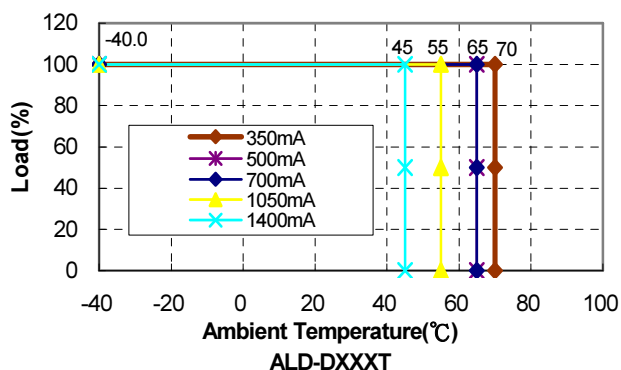
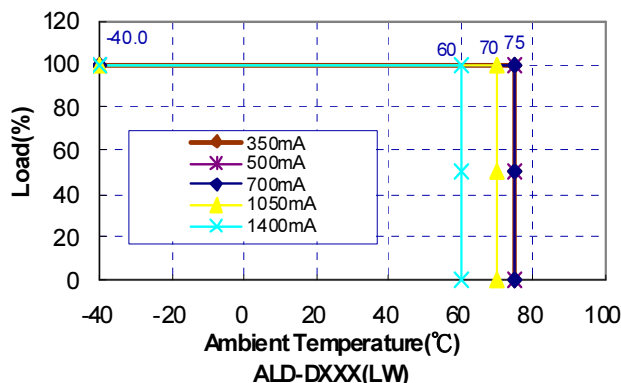
Mechanical Specification

NOTE: Pin Size is 0.020" Inch (0.5mm) DIA±0.05
 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		
Function	ALD-DXXX	ALD-DXXXLW
+V Input	2	2 (Red)
+V Output	4	4 (Yellow)
-V Output	6	6 (Blue)
DA	7	7 (Brown)
DA	8	8 (Brown)
Analogue Dimming	12	NC
PWM DIM	14	NC
-V Input	15	15 (Black)

ALD Derating Curve



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.
- Suffix "LW" to the model number with wire type.
- Suffix "T" to the model number with terminal type and only meets IP20
 Terminal: WAGO 250-108 or equivalent; wire range: 16~20 AWG.
- Acceptable customer modifications.