

Constant Current LED Driver

Model Number ACD50CD1.4A3C

Input Voltage: 120-277VAC

Dimming: 0 to 100%

Input Frequency: 50/60Hz

Surge Protection: 3KV

Side Mount/Leads

Dual Channel

PHYSICAL:

Dimensions	
Length	9.5"
Width	1.7"
Height	1.14"
Mounting	8.9"

TUNABLE WHITE LED DRIVER

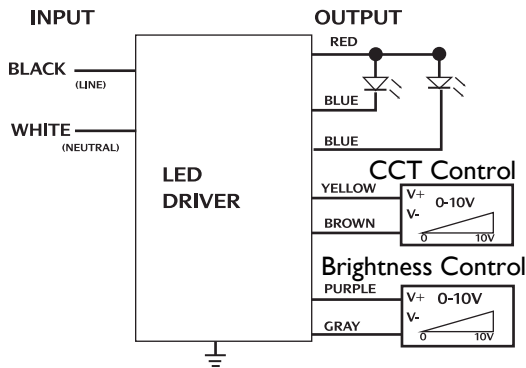
CCT Dimming
Dim-to-Off @ either channel for
CCT Control
Class P Listed



ELECTRICAL SPECIFICATIONS:

Output Power Per Channel	Input Power Per Channel	Input Current Total	Power Factor Min.	Max. THD	Output Voltage Per Channel	Output Current Per Channel	T case Max.	Minimum Starting Temp.	IP Rating	Dimming Protocol	Dimming Range	Efficiency Up To
50W	59W	0.5A@120V 0.22A@277V	>0.9	<20	22-36V	1400mA±5%	90° C	-40° C	65	0 to 10V	0 to 100%	86%

WIRING:



Lead Lengths					
Black	5.9"	Blue	5.9"	Purple	7.1"
White	5.9"	Red	5.9"	Gray	7.1"
Yellow	7.1"	Brown	7.1"		

Approved Dimmers		
LUTRON DVTV-WH	LEVITON DS710-10Z	LEVITON IP710-DL

SAFETY & PERFORMANCE:

- Class P Listed
- Class 2
- Class A sound rating
- Overload Protection
- Open/Short Circuit Protection
- LED driver has a life expectancy of 50,000 hours at Tcase of ≤75°C
- LED driver has a life expectancy of 100,000 hours at Tcase of ≤65°C
- Warranty: 5 yrs based on max case temp of <75°C; 3 yrs based on max case temp of 90°C*
- Input/Output Isolation
- FCC Title 47 CFR Part 15
- Surge Protection (3 KV)

INSTALLATION:

- LED drivers shall be installed inside electrical enclosures
- 22 AWG 600V/105C tinned stranded copper lead-wires are required to use in installation
- Max Remote installation distance is 18 ft



*AC Electronics/AC LED Power Designs warrants to the purchaser that each LED Driver will be free from defects in material or workmanship for a period of 5 years from date of manufacture when operated at max case temp of up to ≤75°C when properly installed and under normal conditions of use. See aceleds.com for complete warranty policy.

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Data is based upon tests performed by AC Electronics in a controlled environment and representative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.



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ACD50CDI.4A3C Performance Characteristics

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	108V	120/277 V	305V	
Input Current	-	-	0.5A RMS	@120Vac input with full load
Input Frequency	47Hz	60Hz	63Hz	
Leakage Current	-	-	0.7mA	@120Vac input
Turn On Time	-	-	1.0s	@120Vac input at full load
Hold Up Time	-	-	0.1s	@Nominal input and full load
Efficiency	84%	86%	88%	@277Vac input at full load
Standby Power	-	-	3W	
Current Total Harmonic	-	-	20%	

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Voltage	22V	-	36V	
Output Current	-	1400mA	-	
No-Load Output Voltage	40V	50V	60V	
Rated Current	1330mA	1400mA	1470mA	
Rated Power	-	50W	-	
Line Regulation	-	-	±5%	
Output Current Ripple	-	±10%	-	

General Specifications

Parameter	Min.	Typ.	Max.	Notes
MTBF	-	100,000 Hours	-	@25°C ambient temperature
Lifespan Time	75,000 Hours	-	-	In the range of specification required by normal use of the power supply at ambient temperature 55°C
ColdStart	-	-	1.0s	@-40°C

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Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operation Temperature	-40°C	-	50°C	
Storage Temperature	-40°C	-	80°C	
Humidity	10%	-	90%	

High Temperature Durability	Switch ON/OFF Test
Power storage environment at 80°C 24 hours, will not damage the electrical, mechanical properties and also not cause other adverse reactions.	Power at ambient temperature 25°C 1s/on, 1s/off, last up to 10,000 cycles, will not damage the electrical, mechanical properties and also not cause other adverse reactions.

Safety and EMC Compliance

Safety Standards	Withstand Voltage	Isolation Resistance	EMC Standards	
			EMI	EMS
UL 8750 UL1310	I/P-O/P: 2.0K Vac I/P-FG: 2.0K Vac O/P-FG: 0.5K Vac	I/P-O/P: I/P-FG: O/P-FG: 100Mohm/500VDC	FCC Part 15 class A UL8750 CSA C22.2 No. 250.13-14	FCC Part 15 class A UL 8750

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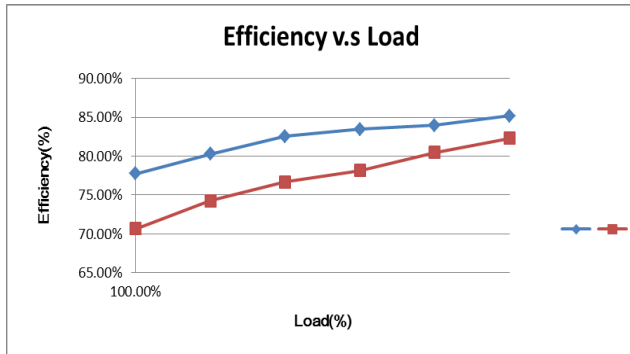
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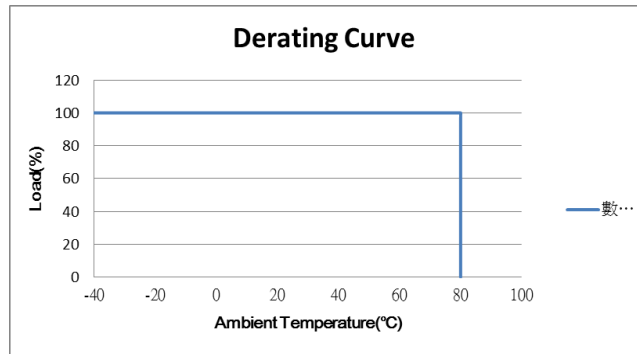
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ACD50CDI.4A3C Performance Characteristics

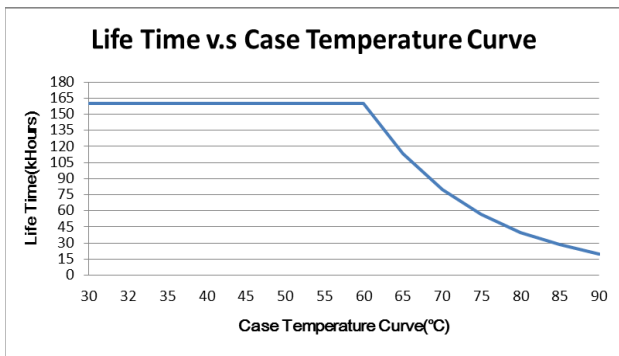
Efficiency V.S. Load



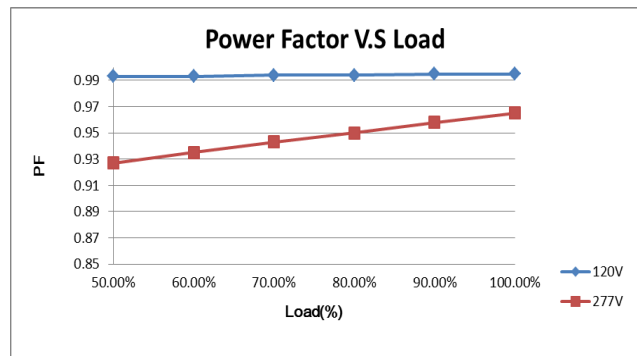
Derating Curve



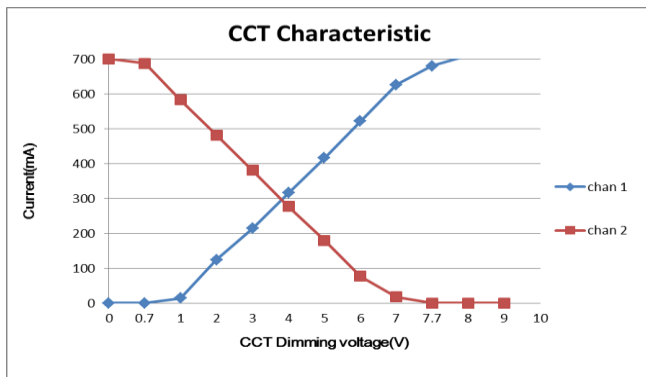
Life Time Curve



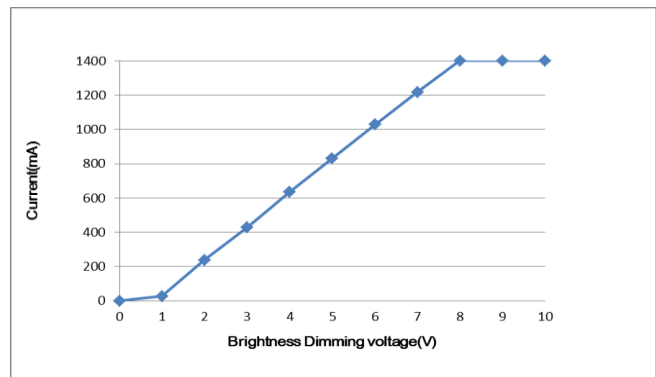
Power Factor V.S. Load



Brightness Dimming Voltage at 4V



Dimming Characteristic



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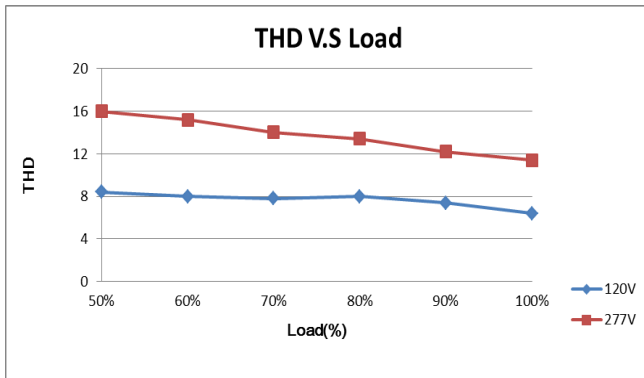
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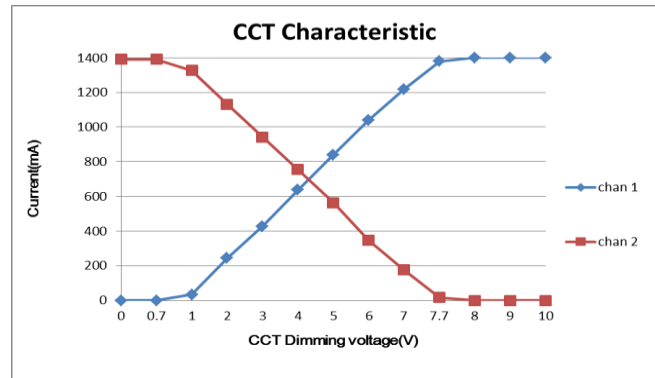
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ACD50CDI.4A3C Performance Characteristics

THD V.S. Load



Brightness Dimming Voltage at 10V



Compatible LED Modules Samsung T-Series

Model	Output Current	Output Voltage	CCT Range	# Modules	Length
T562C	750mA	18V	2700K - 6500K	2	22"
T282C	750mA	9V	2700K - 6500K	3	11"



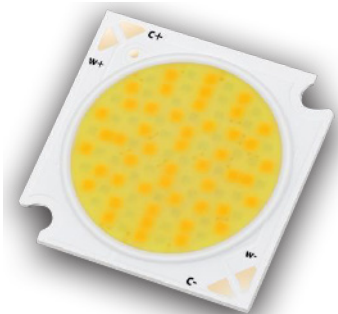
Compatible LED Modules - Luxtech - Linear Dynamic White

Model	Output Current	Output Voltage	CCT Range	Length
LN-DN	640mA	27V	2700K - 6500K	22" - 5.5"



Compatible COB Samsung T-Series

Model	CRI Min.	Nominal CCT(K)	Channel	Flux@Tj=25°C (lm) Min	Flux@Tj=25°C (lm) Typ.
LC020T	80	2700K	W	2237	2355
		6500K	C	2543	2676
LC020T	90	2700K	W	1858	1956
		5000K	C	2161	2275



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