



Programmable, Digital,
Wide-Range Adjustable Current & Dimming

Constant Current LED Driver Model Number: AC30CD700AP0Q

Input Voltage: 120-277V Input Frequency: 50/60Hz

Side and Bottom Mount/Leads Options

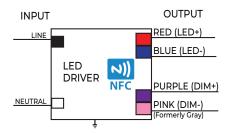
< 1 Sec. Start time/(Starting with batch code AKT.48)

Electrical Specifications:

Output Power Max	Input Power	Input Current	Min PF (full load)	Max THD (full load)	Output Voltage	Output Current	T case Max	Min, Starting Temp**	Efficiency Up To	IP Rating	Dimming Protocol	Dimming Range
30W	35W	0.3A @ 120V 0.13A @ 277V	>0.90	<20%	14 to 42V	125mA- 700mA ±15%	90°C	-40°C	85%	64	0 to 10V	0 to 100%

^{**} This driver can operate down to -40°C in a non-dimming condition. Below 0°C some fickler may be observed.

WIRING:



Note: Gray (-) dimming wire has been changed to pink per the 2020 NEC section 410.69 and NEMA.

Lead Lengths							
Black	5.9"	Blue	5.9"	Purple	7.1"		
White	5.9"	Red	5.9"	Pink	7.1"		

PHYSICAL:



Dimensions	Length	Width	Height	Mounting
AC30CD700AP0Q	6.22"	1.73"	1.22"	5.86"

Tref Max Value (°C)	Tc/Tref Value (°C)	Ta/Value (°C)
90	58.2	40

SAFETY:

- Class A sound rating
- $\cdot \, \mathsf{Overload} \, \, \mathsf{Protection} \, \,$
- · Open/Short Circuit Protection
- Input/Output Isolation
- 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*
- FCC Title 47 CFR Part 15
- Surge Protection (2 KV)
- $\cdot\,\mathsf{Dim}\text{-}\mathsf{To}\text{-}\mathsf{Off}\,\mathsf{Programming}\,\mathsf{Option}$
- Active Code: = 4C 04 01 02
- Inactive Code: = 4C 04 00 02

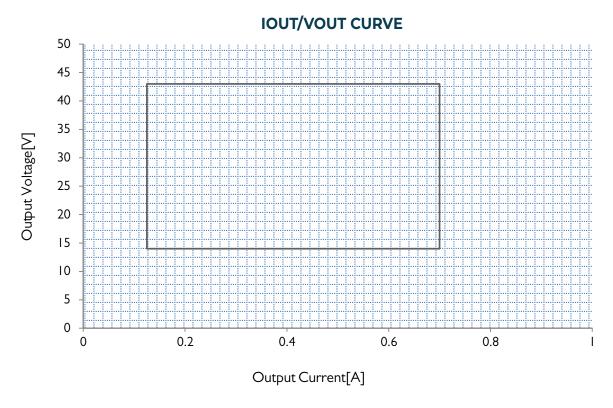
INSTALLATION:

- \cdot Max Remote installation distance is 18 ft
- \cdot LED driver cases should be grounded
- LED drivers shall be installed inside electrical enclosures
- 18 AWG 600V/105C tinned stranded copper lead-wires are required for installation

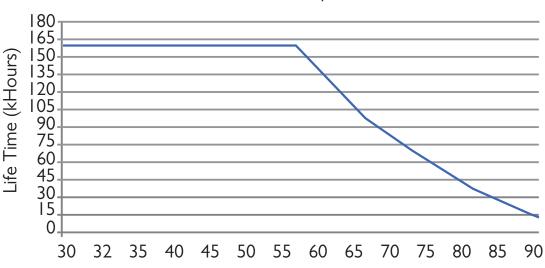


*AC Electronics/AC LED Power Designs warrants to the purchaser that each LED Driver will be free from defects in material or workmanship for a period of 5 years when operated at max case temp of up to $<75^{\circ}$ C; 3 years from date of manufacture when operated at a max case temp of up to 90° C when properly installed and under normal conditions of use. See <u>aceleds.com</u> for complete warranty policy.





CONTROL THE IOUT WITH THE PROGRAMMING WAND. DOWNLOAD SOFTWARE FROM http://www.aceleds.com/programmable.php

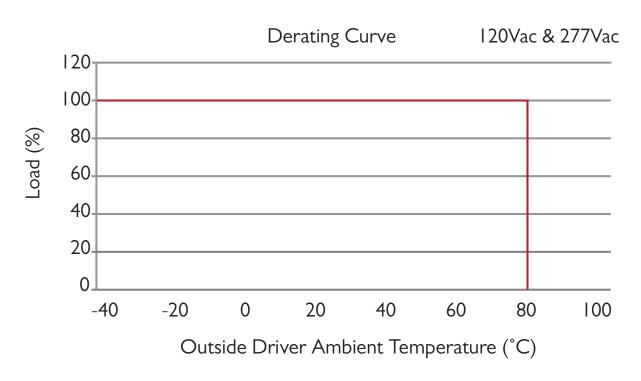


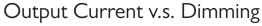
Case Temperature Curve (°C)

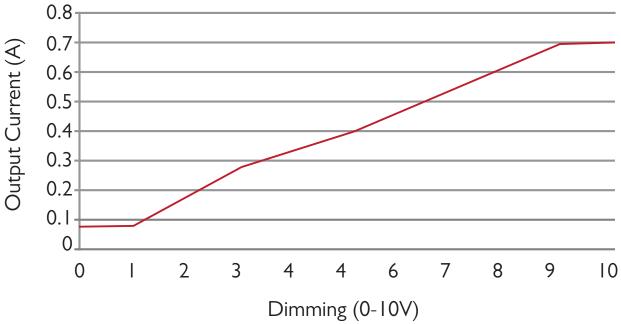
Life Time v.s. Case Temperature Curve



PERFORMANCE CHARACTERISTICS

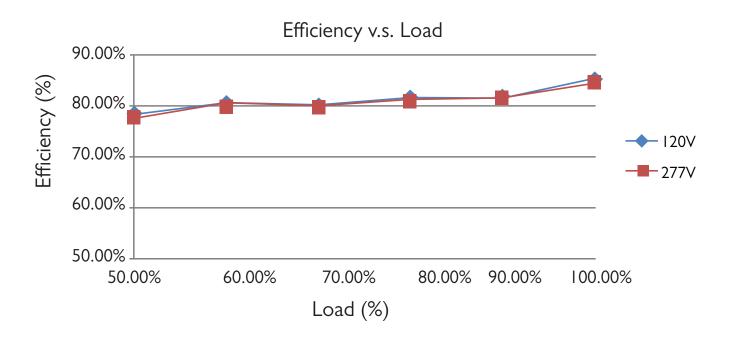


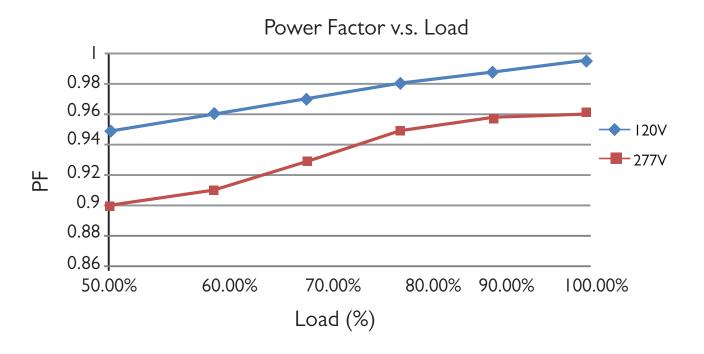






PERFORMANCE CHARACTERISTICS

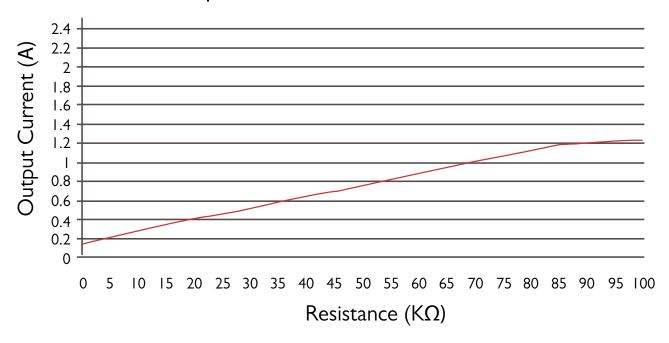






PERFORMANCE CHARACTERISTICS

Output Current v.s. Resistance





PROGRAMMABLE DRIVER OPTIONS (APP NOTE)

Put the programmable wand above the NFC mark of the driver to start programming

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Programmable Driver Options (App Note)

All programmable drivers accept a 16-bit hexadecimal code to program the output current (lout) of the driver. The lout programming codes are documented in the computer based-programming software (ST-TOOLS.exe) or from the driver's IOUTCODE.pdf file. The Locations below 0, 1, 2, 3 contain the basic code for a specific output current value (example 84 03 00 01 = 1050 mA for AC-50CD1.4APNZ).

Location | 0 | 1 | 2 | 3 |

Value | 00 | 00 | 00 | 00 |

For drivers containing Revision C of their firmware (contact factory for date code of implementation), it is also possible to adjust the minimum dimming level and the dimming speed. This adjustment is made by modifying location 2 of the programming code while keeping the other locations set for the desired output current. Specifically, the location 3 values are defined as:

- 00 => Dim to 1%, Speed ≤ 1.0 sec
- · 01 => Dim-To-OFF, Speed ≤ 1.0 sec
- · 02 => Dim to 10%, Speed ≤ 1.0 sec
- · 03 => Dim to 1%, Speed ≥ 2.5 sec
- · 04 => Dim-To-Off, Speed ≥ 2.5 sec
- · 05 => Dim to 10%, Speed ≥ 2.5 sec

As an example, if the programming code value of 84 03 00 01 is programmed, the output current will be 1050 mA, and the driver will dim to 1% and the dimming speed will be \leq 1.0 sec. If the programming code of 84 03 04 01 is programmed, the output current will be 1050 mA, and the driver will dim to off and the dimming speed will be \geq 2.5 sec.