



**Programmable, Digital,
Wide-Range Adjustable Current & Dimming**

Constant Current LED Driver

**Model Number:
AC-50CD1.4PTNZ
AC50CD1.4APBTNZ**

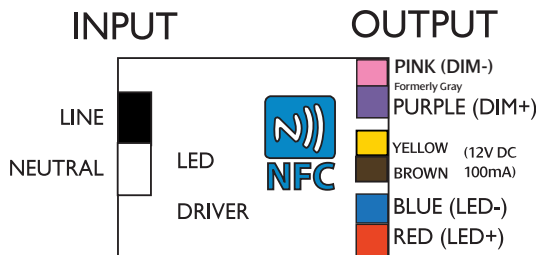
Input Voltage: 120-277V
Input Frequency: 50/60Hz
Side and Bottom Mounts/Lead Options
< 1 Sec. Start time/(Starting with batch code AKT.48)
Dim-to 1% (Default)

Electrical Specifications:

Output Power	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
50 W	60 W	0.5 A @ 120 V, 0.22 A @ 277 V	>0.90	<20	15-55 V	400 mA - 1400 mA	90°C	0°C	83%	64	0-10 V	1-100%

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

WIRING:



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

PHYSICAL:



Dimensions	Length	Width	Height	Mounting
AC-50CD1.4APTNZ	5.23"	2.48"	1.18"	4.84"
AC-50CD1.4APBTNZ	4.56"	2.48"	1.18"	2"

Tref Max Value (°C)	Tc/Tref Value (°C)	Ta/Value (°C)
90	61.7	40

SAFETY:

- Class P Listed
- 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 (2 KV)
- For connections use wire rated for at least 90°C
- Ta: 50°C
- Type: HL Class 2
- Gray (-) dimming wire has been changed to pink per the 2020 NEC section 410.69 and NEMA.**
- Dim-To-Off Programming Option**
- Active: Code = 78 05 01 01
- Inactive: Code = 78 05 00 01

INSTALLATION:

- Max Remote installation distance is 18 ft
- 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°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 aceleds.com for complete warranty policy.

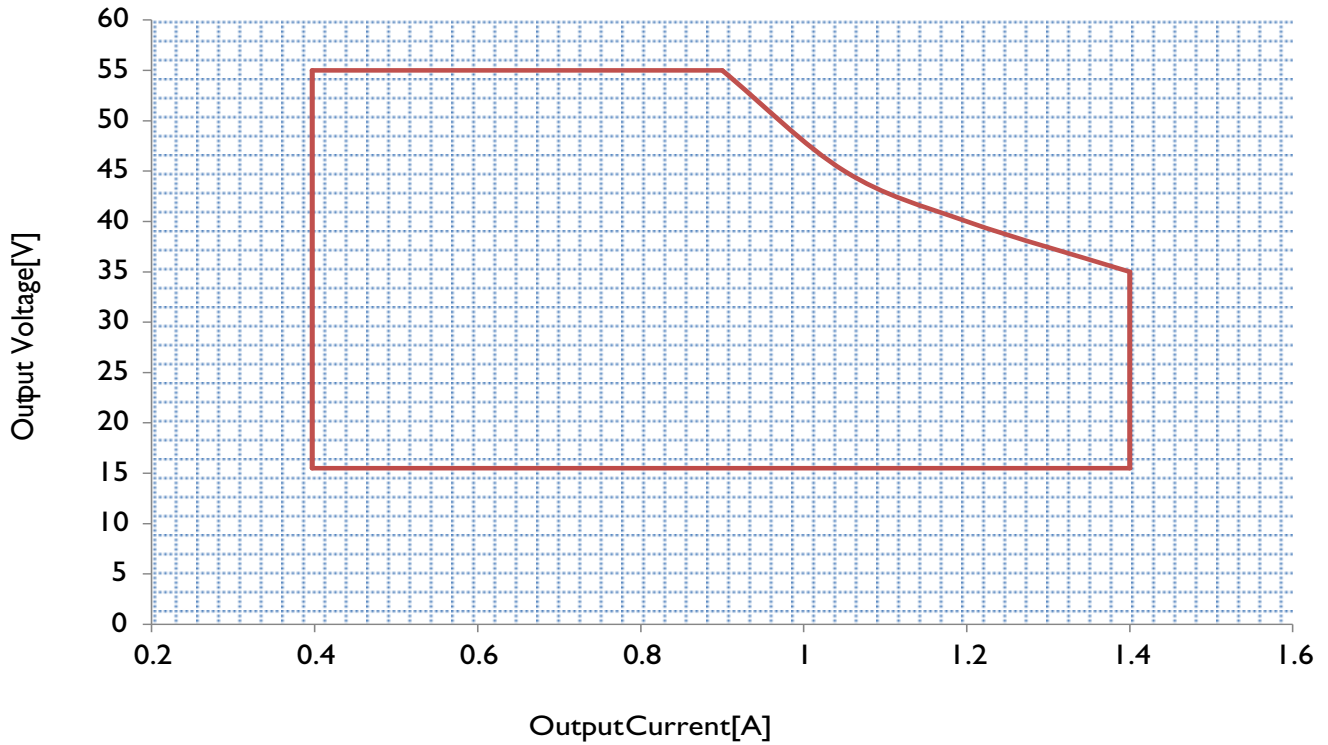
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Data is based upon tests performed by AC Electronics in a controlled environment and representative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications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



IOUT/VOUT CURVE

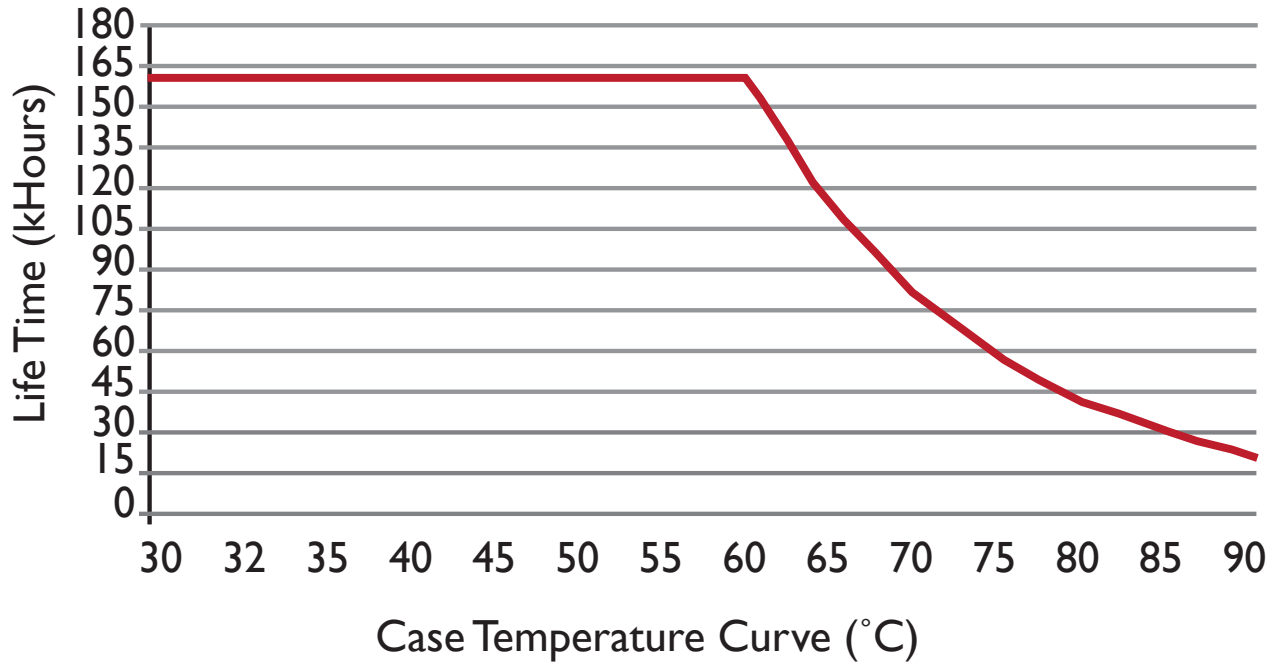
Use with [NFC-V Reader](#) App Available Free at Google App Store



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

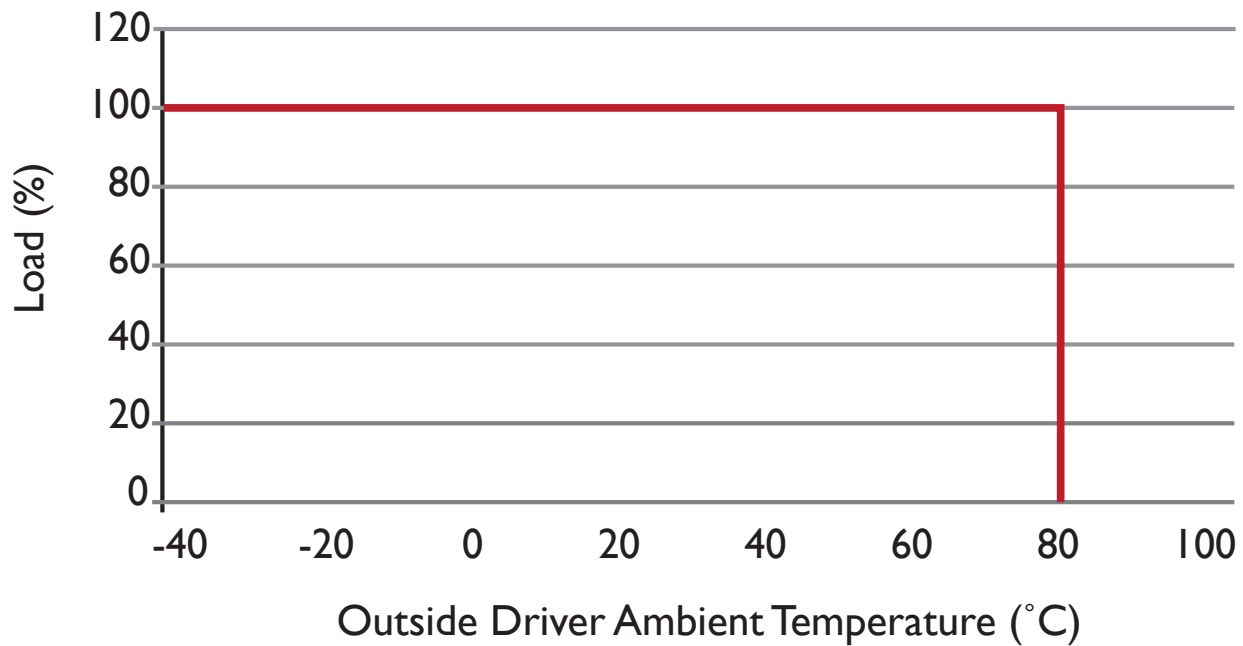
PERFORMANCE CHARACTERISTICS

Life Time v.s. Case Temperature Curve



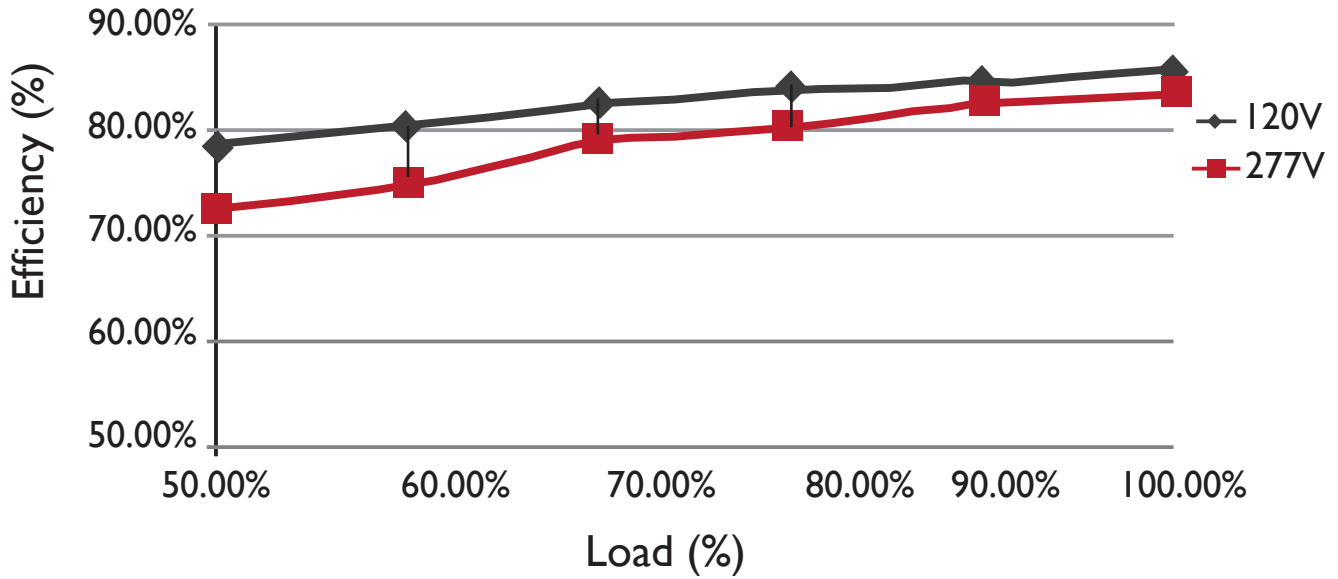
Derating Curve

120Vac & 277Vac

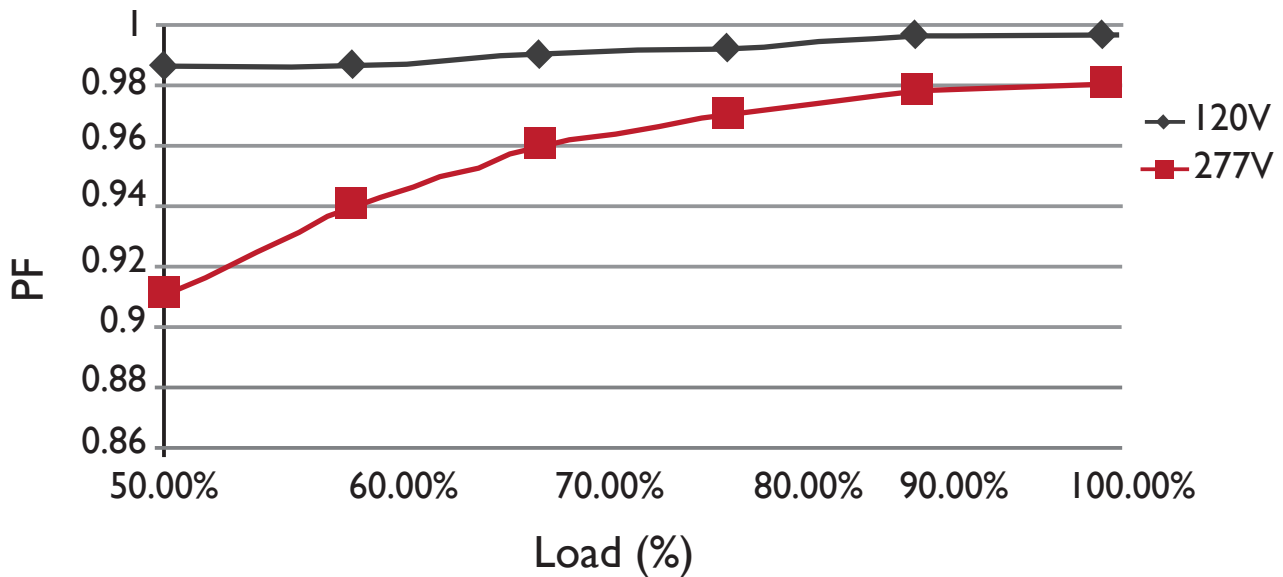


PERFORMANCE CHARACTERISTICS

Efficiency v.s. Load

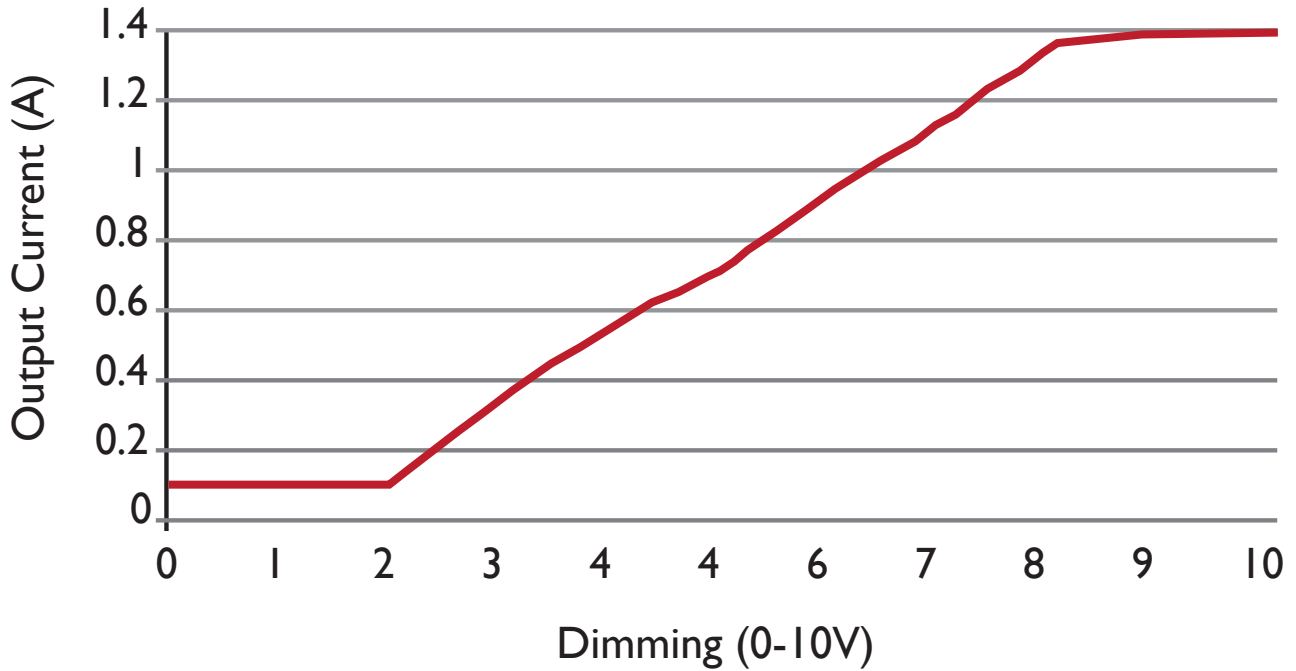


Power Factor v.s. Load



PERFORMANCE CHARACTERISTICS

Output Current v.s. Dimming



Output Current v.s. Resistance

