

XAD

AC to DC, constant current, 2 channel LED drivers

Xicato designs and develops light sources and electronics that enable architects, designers and building managers to create beautiful, smart spaces in which people love to live and work. With thousands of installations around the globe, Xicato continues to be a leading supplier of high quality lighting solutions. Xicato is defining the future of intelligent light sources by integrating electronics, software and connectivity. Founded in 2007, Xicato's headquarters is based in Silicon Valley and the company has offices in China, Europe and the US.

For further information, visit xicato.com.

XAD

The XAD line of highly efficient AC drivers from Xicato are designed for smart lighting control with all the features expected in an industry benchmark product. They offer best-in-class dimming, reliability and durability in standard form factors that work seamlessly with different LED luminaire designs and lighting applications.

- Constant Current (CC) and Constant Voltage (CV) are offered in the same form factors
- Range of power and programmable drive currents for CC
- Excellent flicker-free performance
- Dim to 0.1% to with smooth transition to off on both CC and CV drivers
- Dimming smoothly in 0.1% steps
- Low inrush current and THD
- High power factor and efficiency
- Support 0-10V or DALI2 controls, with Bluetooth option on every driver
- Dual channel option for tunable white with Bluetooth option
- Auxiliary output on every unit
- Terminals with tool-less strain relief

Ordering Guide

Part Numbering Convention/Order Codes

Product Family	Output	Output Channels	Control Protocol	Output Power	Output Current	Physical Design
XAD = Xicato AC (to DC) Driver	DCC = dimmable constant current	01 = 1ch	010= 0-10V	60 = 60W	700 = 350-700mA	PTBF1 = plastic housing, terminal blocks
		02 = 2ch	DA2 = DALI 2	100 = 100W	1400 = 700-1400mA	PWSF1 = plastic housing, wire leads
				For 2ch, power per channel is half of total power	For 2ch, total current is sum of current in 2 channels, which may not be half	

Operating Conditions

Operating temperature	Storage temperature	IP rating	Circuit protection	Lifetime
-30°C to +70°C (10-95% RH, non-condensing) Derated above 50°C	-40°C to +85°C (5-95% RH, non-condensing)	IP22	Over temperature OTP @ >88°C Short Circuit (SCP) Hiccup Mode Over Power (OPP) <120%	Life expectancy of >50K hours at $T_C \leq 65^\circ\text{C}$ MTBF >700K hours, Telecordia SR-332, 115/230Vac, $T_C \leq 65^\circ\text{C}$

Performance Characteristics

XAD

	60W	100W
Part Number	XAD-DCC-02-010-60-700-PTBF1 XAD-DCC-02-010-60-700-PWSF1 XAD-DCC-02-010-60-1400-PTBF1 XAD-DCC-02-010-60-1400-PWSF1 XAD-DCC-02-DA2-60-700-PTBF1 XAD-DCC-02-DA2-60-1400-PTBF1	XAD-DCC-02-010-100-1400-PTBF1 XAD-DCC-02-010-100-1400-PWSF1 XAD-DCC-02-DA2-100-1400-PTBF1
Control protocol	0-10V or DALI2, w/BLE mesh option	
Dimming range	100% to 0.1%	
Dimming curve options	Programmable by user as LOG, LINEAR	
Dimming method		
Input voltage	100-277VAC	
Input frequency	50-60 Hz	
Maximum input current	0.8A @ 115Vac 0.4A @ 230/277Vac	1.4A @ 115Vac 0.7A @ 230/277Vac
Efficiency @ full load	≥85%	
Power factor @ full load	>90%	
Maximum inrush current AC	<10A	
THD @ full load	<20%	
Maximum standby power	≤0.5W	
Maximum output power	60W	100W
Number of outputs	2	
Output Current¹	Programmable range 350-700mA	Programmable range 700-1400mA
Output Voltage (LED Vf) Range	2.5V – 52V	
Output tolerance	±3%	
Auxiliary output voltage	12V DC	
Auxiliary output current	50mA (current limited)	
Max auxiliary output power	0.6W	

Notes:

- Output current will be automatically limited to ensure power rating is not exceeded. For example, if the LED Vf is 48V, then the maximum current for the 60W XAD will be 1200mA.

Dimming Profiles

Fig. 1

Intensity vs Voltage (0-100%), 0-10V

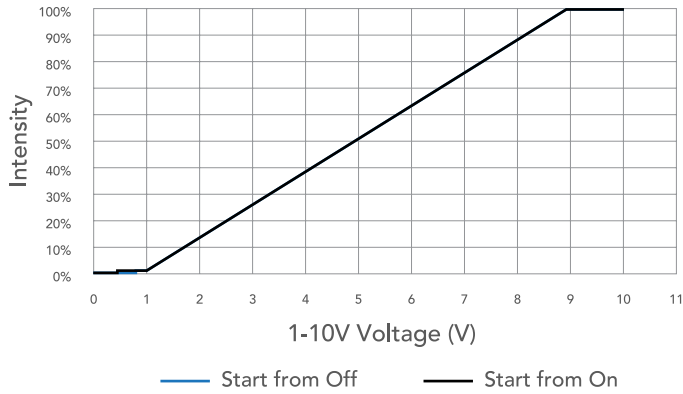


Fig. 2

Intensity vs Voltage (0-2%), 0-10V

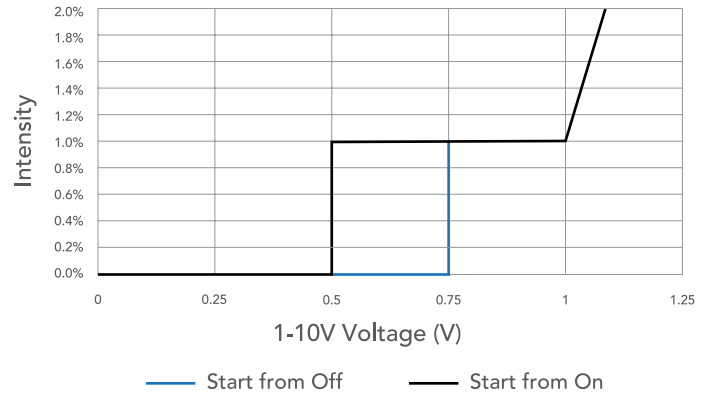


Fig. 3

Intensity vs DALI Level, LOG

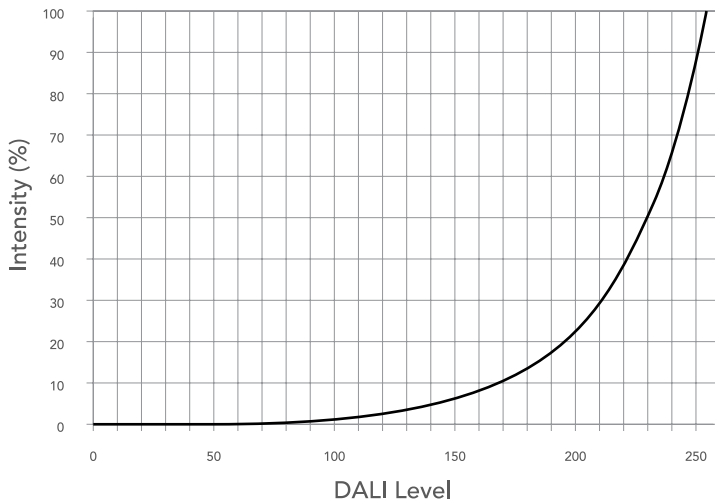
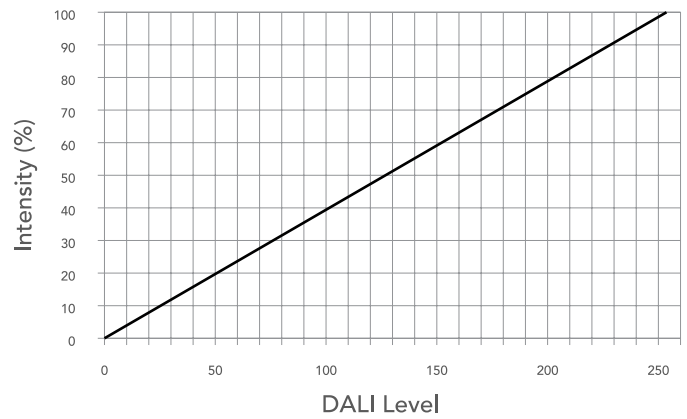


Fig. 4

Intensity vs DALI Level, LINEAR



Mechanical Drawings

Fig 5. 60W AC Driver Enclosure

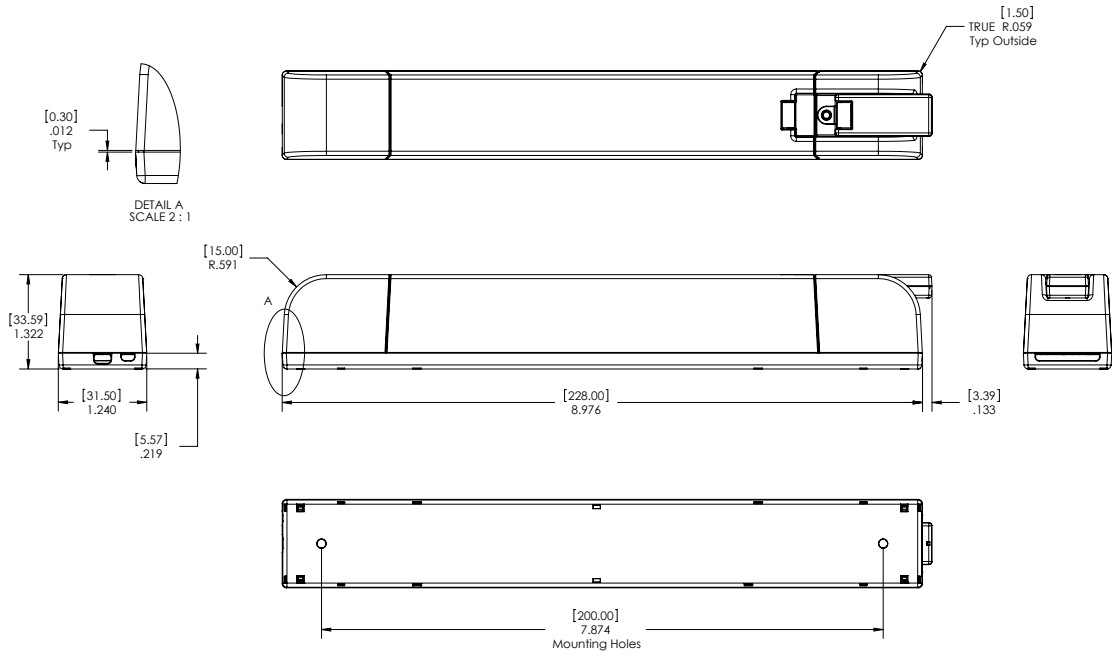
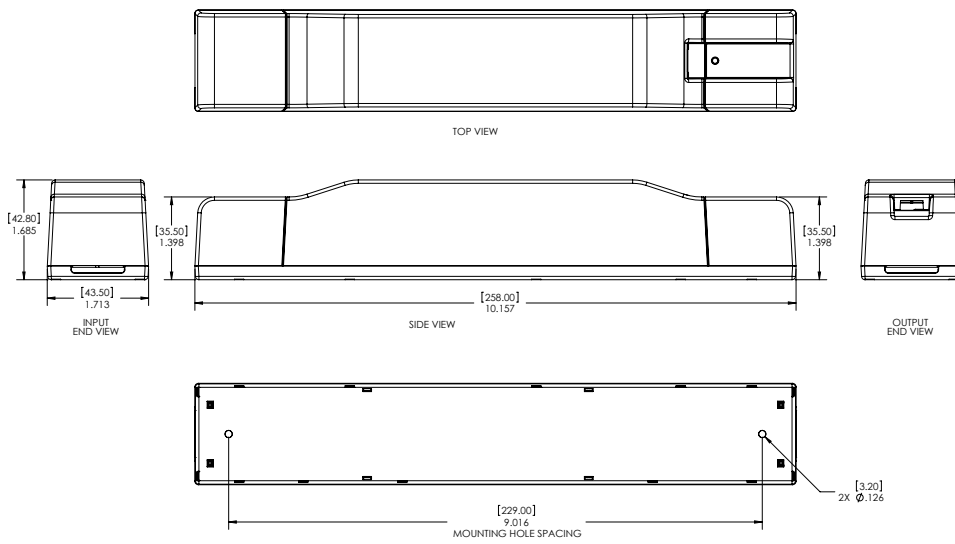


Fig 6. 100W AC Driver Enclosure

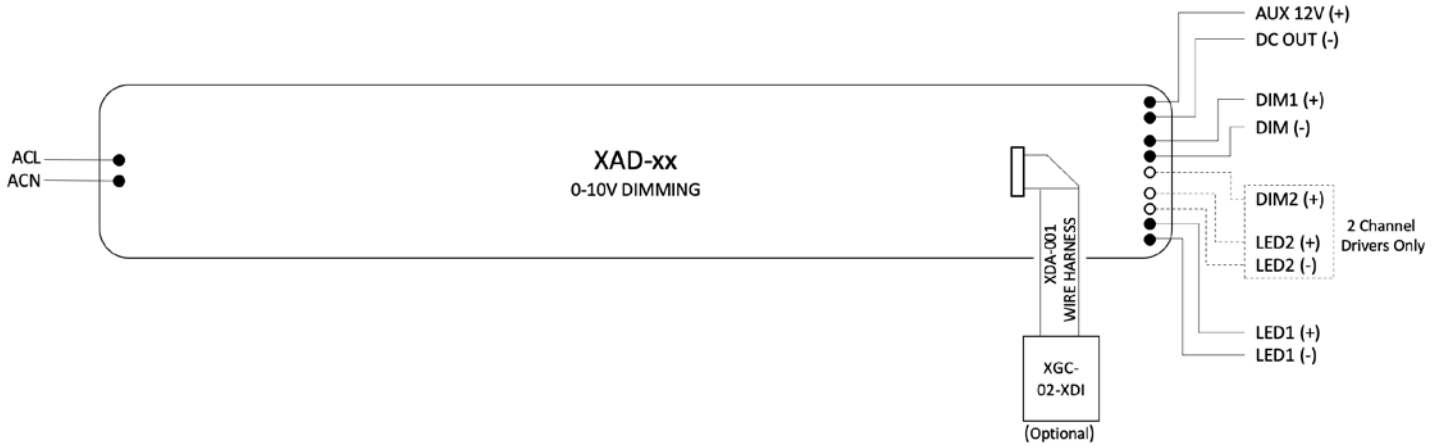


	60W	100W
Dimensions	228mm x 31.5mm x 33.6mm	258mm x 43.5mm x 42.5mm
Weight	TBD	TBD

Wiring Diagram

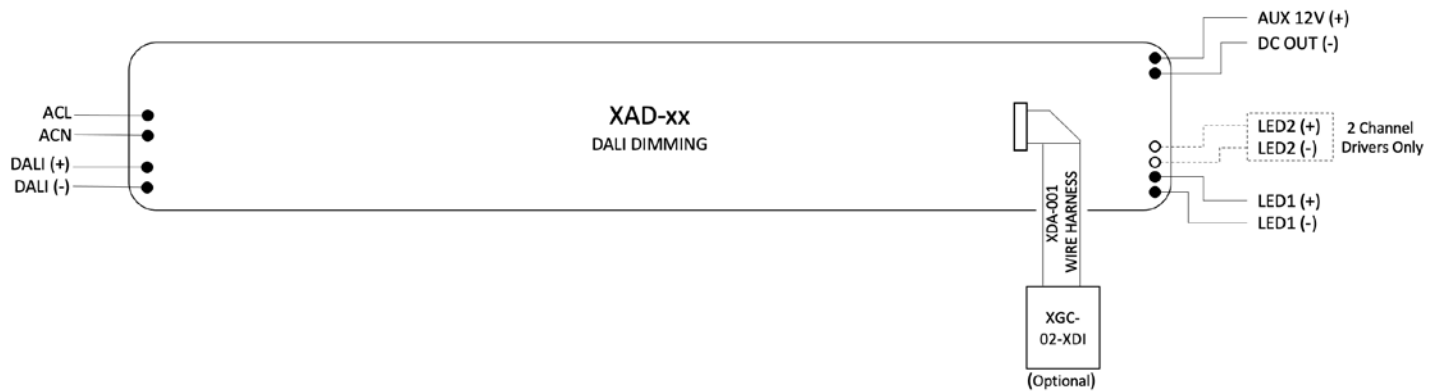
DIM

Fig 7. Connections for 0-10V controls



DALI

Fig 8. Connections for DALI controls



Wiring Specifications

Input	20-16 AWG / 0.5-1.5 mm ²
Output	24-20 AWG / 0.2-0.5 mm ²

Regulatory Information

Electrical Safety & Handling

CE	EN 61347-1/-2-13, EN 62384, EN 55015, EN 55022, EN 61000-3-2, EN 61547, EN 60929 annex E, IEC 62386-207 (DALI)
UL	Listed according to UL1310 and UL8750 (class 2 output)
ENEC	EN 61347-1/-2-13
FCC	Title 47CFR Part 15 Class B
RoHS3	Directives 2011/65/EU-2015/863/EU



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