LED Driver

ADVANCE

by (s) ignify

Xitanium

XI063C150V042CNS1





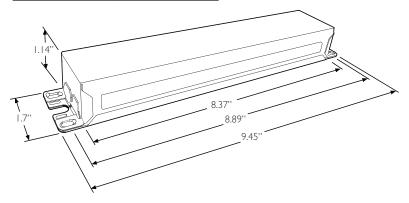
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. **The Advance Xitanium LED Outdoor Driver portfolio** offers a range of products specially designed to operate LED solutions in outdoor applications. These drivers are designed for hard-wired integration into outdoor luminaires for the most rugged applications. They operate to specification under wide temperature and electrical ranges to ensure reliability.

Specifications

Input Voltage (Vrms)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max. Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	Inrush Current (A _{pk} /10%- µs)	THD @ Max. Load	Power Factor @ Max. Load	Surge Protection Common/ Diff (KV)	Weight (Lbs/kgs)	Envir. Protection Rating	Driver Type
120		27 - 42	150	86	0000	0.62	74	37/313	<15%	. 0 00	4.44	1 40 /0 07	UL Dry &	Constant
277	277 63	Output	Class 2 1.50 Output	87	90°C	0.28	74	83/299	<15%	>0.90	4/4	1.48/0.67	Damp	Current

Enclosure

	In. (mm)
Case Length	8.37 (212.6)
Case Width	1.70 (43.2)
Case Height	1.14 (29.0)
Mounting Length	8.89 (225.8)
Overall Length	9.45 (240.0)



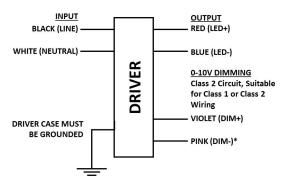
UL Conditions of Acceptability:

Please contact your representative for a copy of the latest UL Conditions of Acceptability (COA).

Warning

- Install in accordance with national and local electrical codes.
- The field-wiring leads or push-in terminals shall be fully enclosed.

Wiring Diagram



Input and output use lead-wires.

Lead-wires are 18AWG solid copper.

 $105^{\circ}\text{C}/600\text{V}$ per UL1316 and $90^{\circ}\text{C}/1000\text{V}$ per UL1452.

Lead Length outside enclosure:

280 mm (+50.8mm/-25.4mm) on all wires.

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog Class 2 Wiring	15% ~ 100%	0.225	NA



63W 120-277V 1.50A 0-10V

Electrical Specifications

All the specifications are typical and at 25°C Tcase unless specified otherwise.

Features

- UL Class 2 output, high drive current (1.5A)
- 50,000+ hour lifetime¹
- Increased thermal capability (90°C Tcase max)²

Benefits

- · Tailored specifically for various COB arrays
- Enables long life luminaire designs
- Allows luminaire designs for higher ambient temperatures

Application

- Pathways
- · Parking garages
- · City street lighting
- Roadway

Product Data

Order Information						
Order Code	XI063C150V042CNS1					
Full Product Code	XI063C150V042CNS1M (Mid-Pack 20pcs/Box)					
Full Product Name	XITANIUM 63W 1.50A 0-10V INT-S					
Line Voltage	120-277Vac_rms					
Line Current	0.62A @ 120V, 0.28A @ 277V					
Line Frequency	50/60Hz					
Min. Mains Voltage Operational	108V [min]					
Max. Mains Voltage Operational	305V [max]					
THD (total)	Refer to graph					
Power Factor (PF)	Refer to graph					
Inrush Current	Per NEMA 410					
Lightning Surge Protection	Refer to table					
Output Information						
Output Voltage Range	27V to 42Vdc					
Maximum Open Circuit Voltage	46Vdc					
Output Current (ripple = peak to average / average)	15% max @ max lout and max Vout (1.5A/42V) Low frequency (<120 Hz) content <5%					
Protections	Short Circuit and Open Circuit Protection for LED + and LED -					
Ambient Temp Range	-40°C to +55°C					
Max Case Temperature (Tcase)	90°C					
Features						
Interfaces	0-10V dimming					
0-10V Dimming Specifications	See dim curve for detail.					
Environment & Approbation						
Environmental Protection Rating	UL damp and dry					
Agency Approbations	UL8750, UL1310, UL935					
Electromagnetic Compliance	FCC Title 47 Part 15 Class A					
Isolation	Refer to table					
Audible Noise	<24dB Class A					

Footnotes on last page.

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Electrical Specifications

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0-10V Dimming Curve:

LED Current Tolerance at 1500mA \leq +-5% and \leq +- 10% at any dim level (sample to sample)

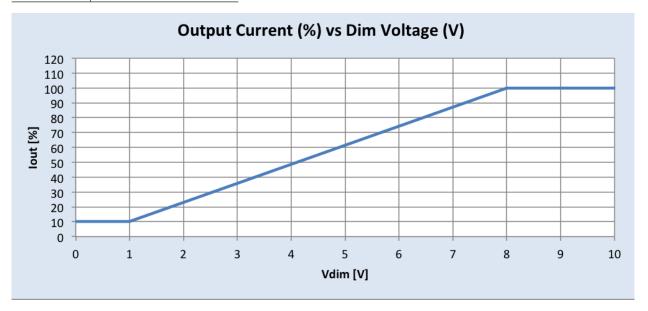
Minimum Dim Level: 15% of lout (225mA nominal)

Maximum output voltage on the dimming wires: 13V

The dimming lead leakage current is 0.01mA. The maximum number of drivers that can be connected in parallel to one dimming control circuit is based on this dimming lead leakage current and the calculation is described in the corresponding Design-in Guide.

Approved Dimmer List

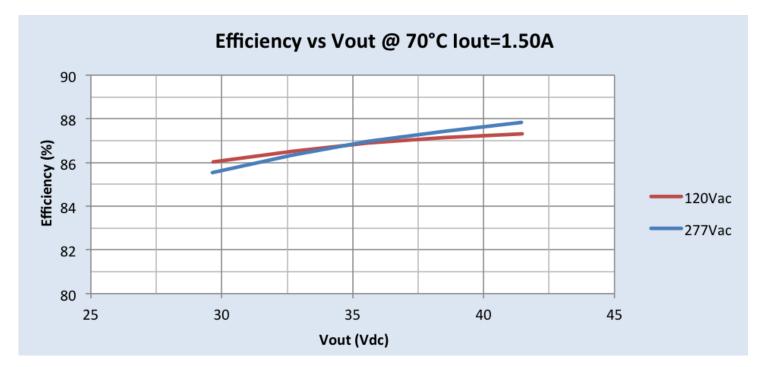
Manufacturer	Manufacturer Part Number			
Lutron	Visit www.lutron.com/ advance for a list of dimmers (Mark VII) that will work with this driver			
Leviton	IllumaTech IP7 series			
Advance	Sunrise - SR1200ZTUNV			



63W 120-277V 1.50A 0-10V

Performance Characteristics

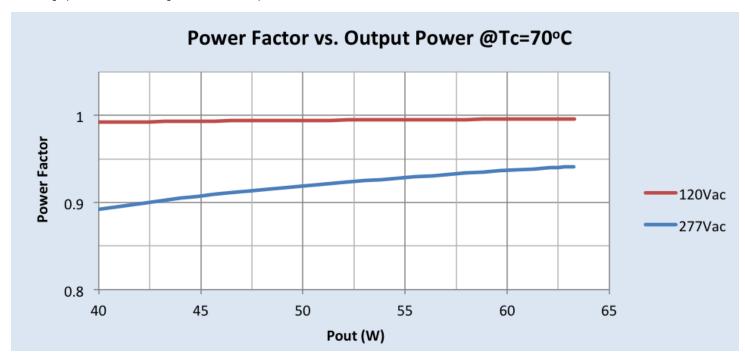
Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

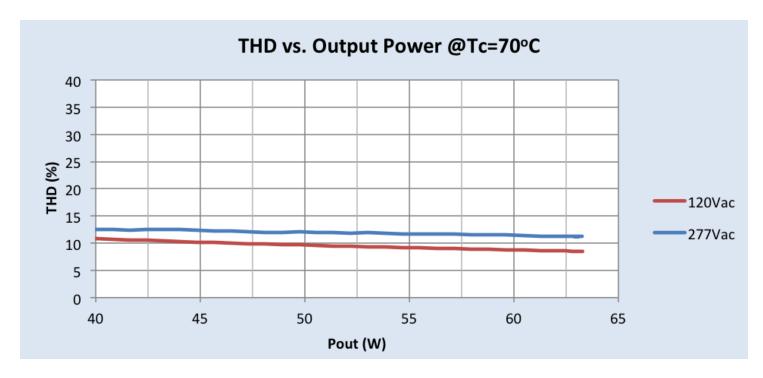


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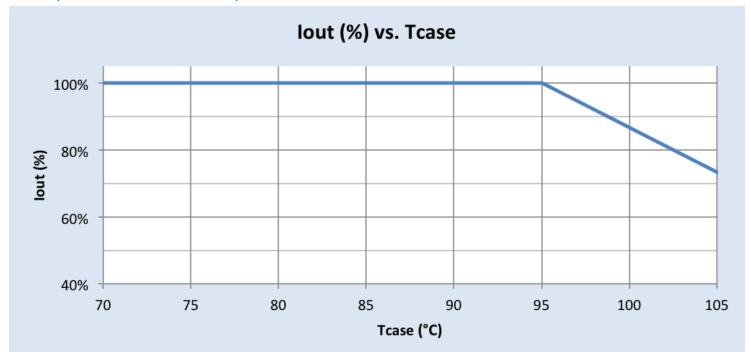


63W 120-277V 1.50A 0-10V

Electrical Specifications

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Output Current vs. Driver Case Temperature:

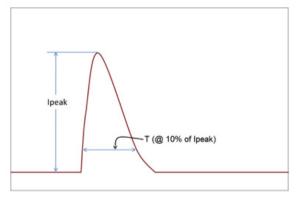


Driver Lifetime Vs. Driver Case Temperature:



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Inrush Current Info:



Vin	lpeak	T (@ 10% of Ipeak)		
120 Vrms	37A	313µS		
277 Vrms	83A	299µS		

Inrush current is measured at peak of the corresponding line voltage, source impedance per NEMA 410.

Lightning Surge Info:

ANSI Surge Type	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)		
1.2/50µs - 8/20µs	4kV	4kV		
Combination Wave (w/t 22)				

Isolation:

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	NA	2xU+1kV	2.5KVac	2xU+1kV
Output	2xU+1KV	NA	NA	500V
0-10V (Class 2)	2.5KVac	NA	NA	500V

Footnotes

- Advance Xitanium LED Drivers are designed and manufactured to engineering standards correlating to an average life expectancy
 of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTBF modeling.
- 2. Based upon these drivers having a 90°C max case temperature, while the standard is 80°C for outdoor drivers.

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