



The **Advance Xitanium portfolio** provides high-performance and reliable driver solutions for lighting applications. The Xitanium LED drivers with both constant voltage (CV) and constant current (CC) mode are compatible with respective loads and allow the user to utilize the same driver for CV and CC applications. The drivers provide general illumination for outdoor applications, including LED signs and canopy lights. They can also be used in indoor CV applications such as strip and bar lights or under-cabinet lighting, ambient lighting and low-bay and high-bay industrial lighting.

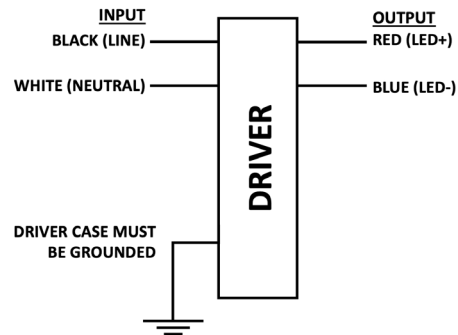
Specifications

Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max. Load and 75°C Case	Max. Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max. Load (%)	Power Factor @ Max. Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating	Driver Type
120	77	12-24	3.2	86.5	85°C	0.74	90	<10%	>0.95	4	UL damp & dry and Type HL	Constant Current
277		CC Mode Class 2 Output		88.3		0.32						

Enclosure

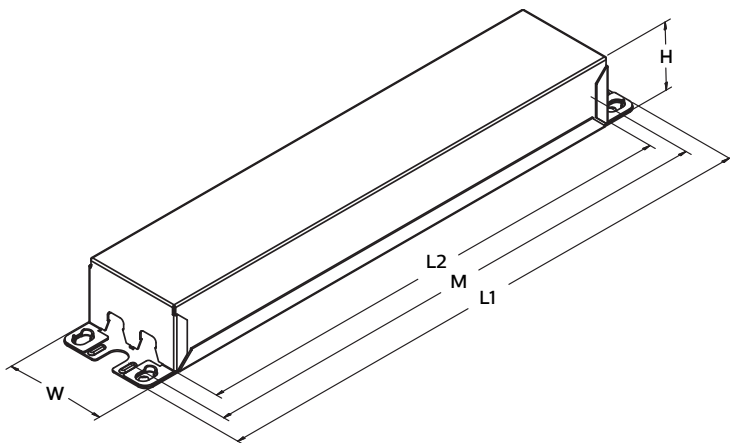
	In. (mm)
Case Length (L2)	8.34 (211.7)
Case Width (W)	1.70 (43.1)
Case Height (H)	1.12 (28.5)
Mounting Length (M)	8.89 (225.8)
Overall Length (L1)	9.45 (240)

Wiring Diagram



Warning

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



Xitanium XI077C320V024FNS1

77W 120-277V 3.2A

Features

- 50,000+ hour lifetime¹
- Excellent thermal performance
- Can be used in constant current (CC) or constant voltage (CV) mode²

Benefits

- Enables long life luminaire designs
- Allows luminaire designs for a wide range of ambient environments

Application

- Area
- Roadway
- Ambient, bar and strip lights
- Exterior and canopy lighting

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XI077C320V024FNS1M (Mid-Pack, 20pcs/Box) 12NC: 929001708113
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108 Vac
Max. Mains Voltage Operational	305 Vac
Output Information	
Maximum Open Circuit Voltage	24Vdc
Output Current Ripple (in CC mode) (ripple = peak to average / average)	15% max. @ max. Iout Low frequency (≤ 120 Hz) content $< 5\%$
Output Current Tolerance (at maximum output current)	$< 5\%$
CV Mode Load Type	Designed for passive as well as active CV mode loads
CV Mode Load Range (@ ~ 23.5V)	0.1 - 3.2Adc
Protections	Short Circuit, Open Circuit Protection for LED + and LED – and Temperature Foldback
CV and CC Mode	Driver can operate in both CC and CV mode, based on the type of load connected to the driver.
Environment & Approbation	
Operating Ambient Temp. Range	-40°C to +55°C
Max. Case Temperature (Tcase)	85°C
Agency Approbations	UL 8750, cUL, Class P (UL, cUL)
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	< 24 dB Class A
Weight	1.4 Lbs/0.63 kgs

1. Advance Xitanium LED drivers are manufactured to engineering standards correlating to a designed and average life expectancy of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTTF modeling.
2. For active constant voltage (CV) loads, operation with desired CV loads must be verified for the load range specified in the end application.

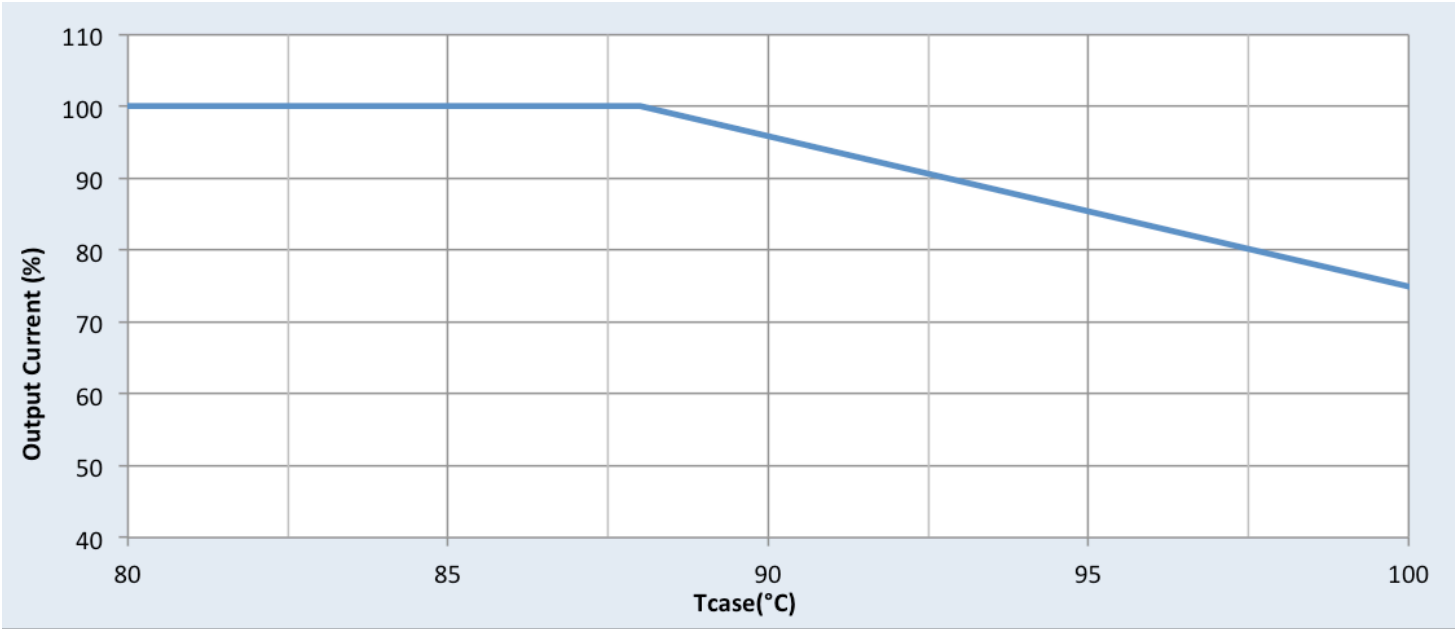
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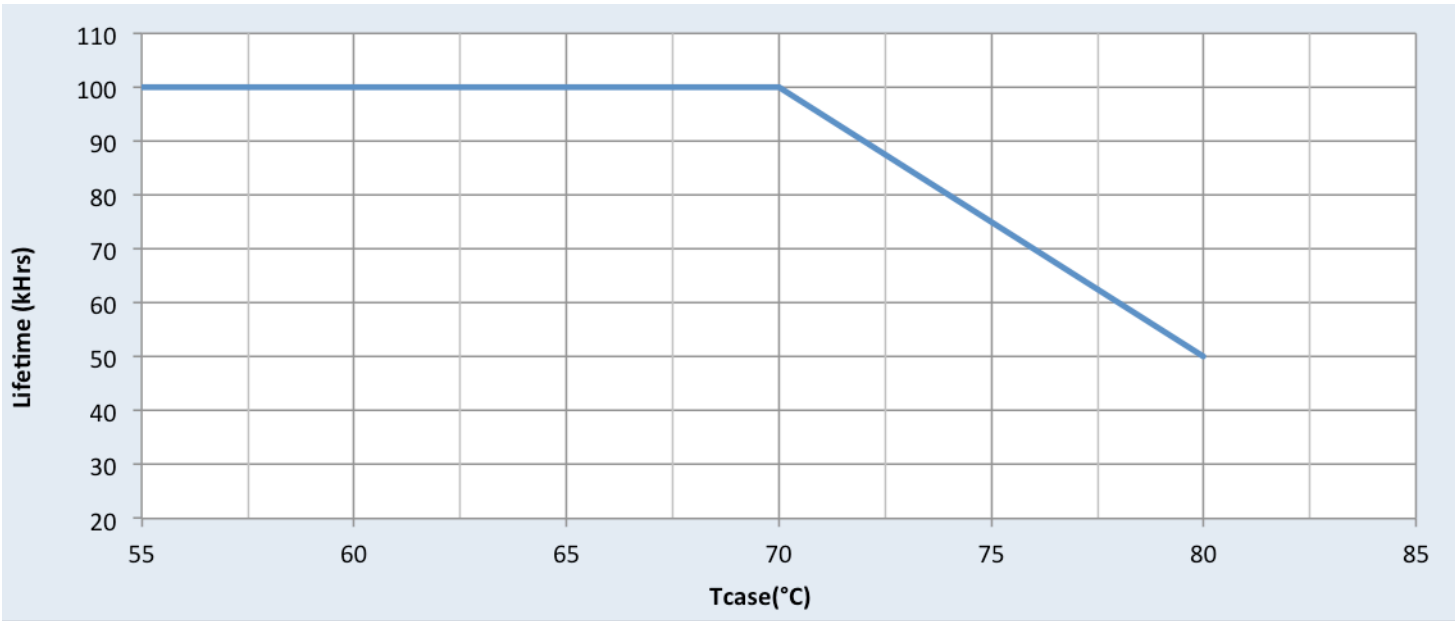
Output Current Vs. Driver Case Temperature



Note

There is $\pm 5^{\circ}\text{C}$ tolerance on the driver case temperature.

Driver Lifetime Vs. Driver Case Temperature



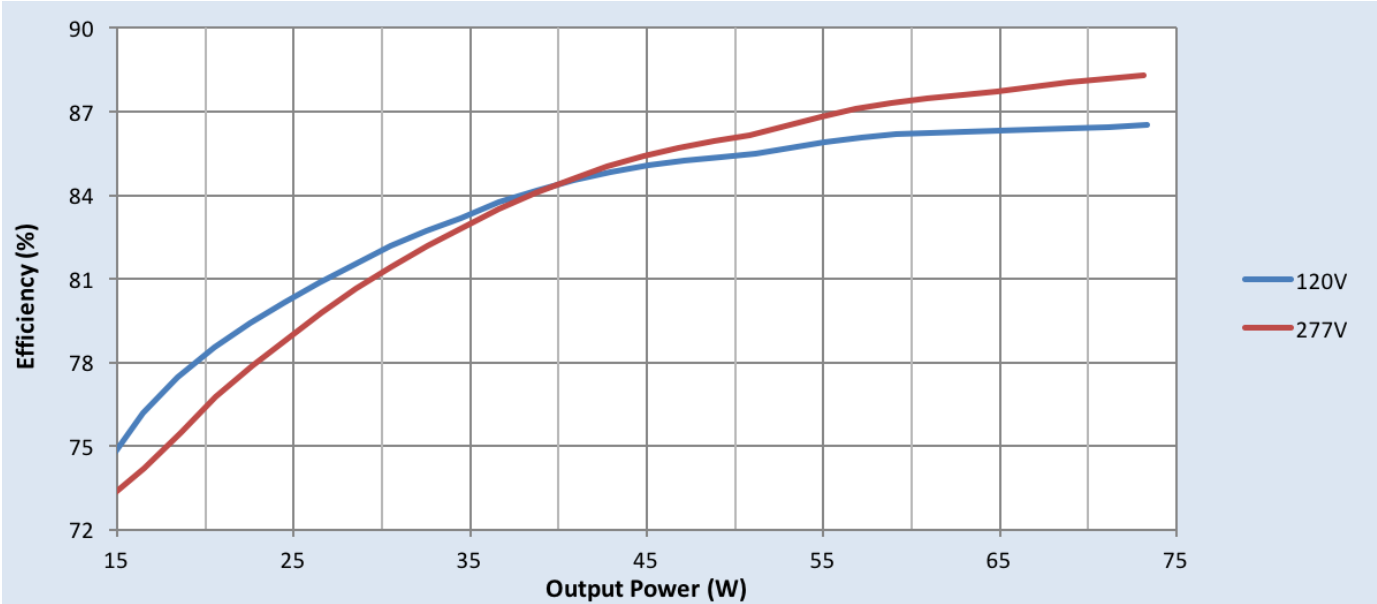
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Performance Characteristics

Based on measurements on a typical sample at 75°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Efficiency Vs. Output Voltage



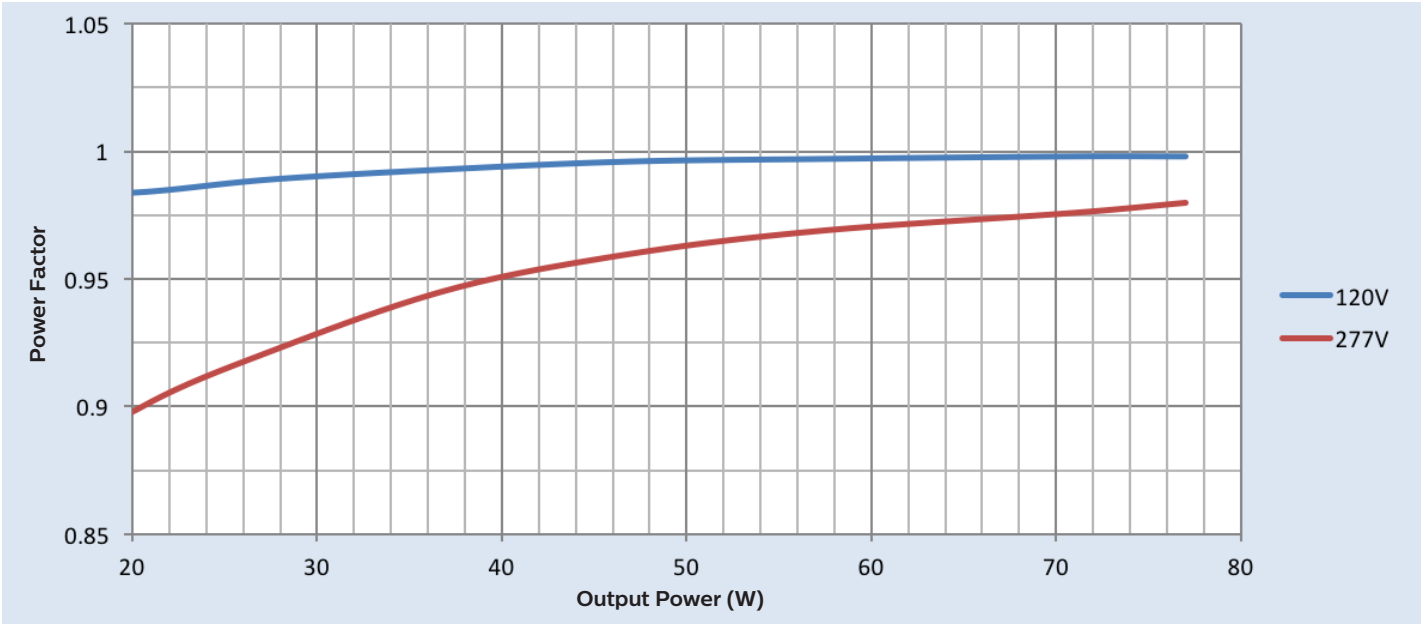
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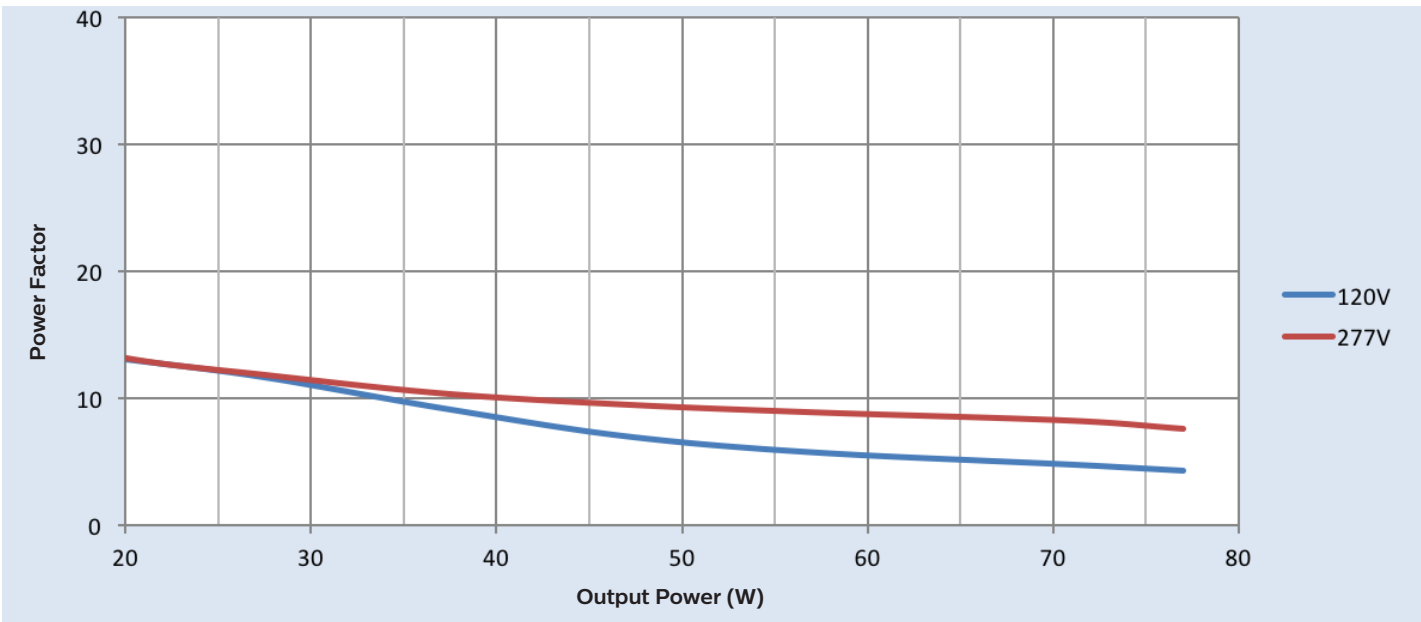
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Power Factor Vs. Output Power



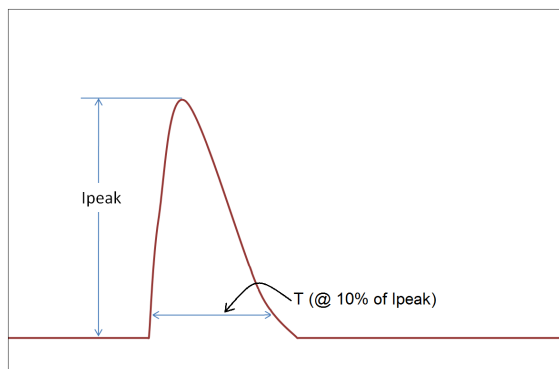
Total Harmonic Distortion (THD) Vs. Output Power



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Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	27.7A	187.5 μ S
277 Vrms	87A	178 μ S

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)
1.2/50 μ s Combination Wave (w/t 2 Ω)	4kV	4kV

Isolation

Isolation	Input	Output	Enclosure
Input	NA	2xU+1kV	2xU+1kV
Output	2xU+1kV	NA	500
Enclosure	2xU+1kV	500	NA

U = Max. input voltage



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