ADVANCE
by signify

LED Driver

Xitanium

XI077C320V024FNS1

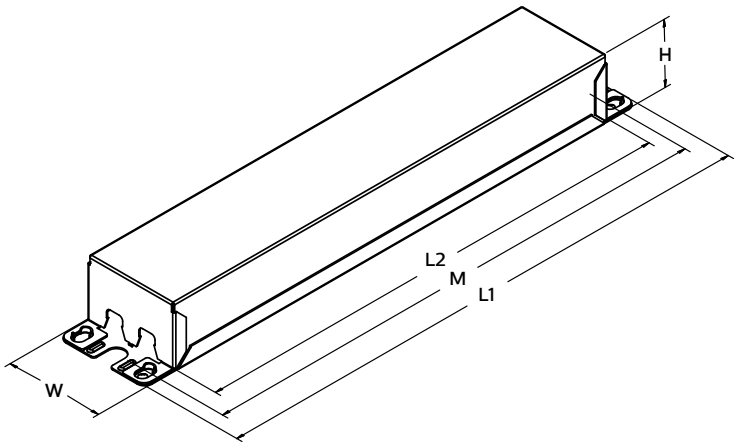
The Advance Xitanium portfolio provides high-performance and reliable driver solutions for lighting applications. The Xitanium LED drivers with both constant voltage (CV) and constant current (CC) mode are compatible with respective loads and allow the user to utilize the same driver for CV and CC applications. 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

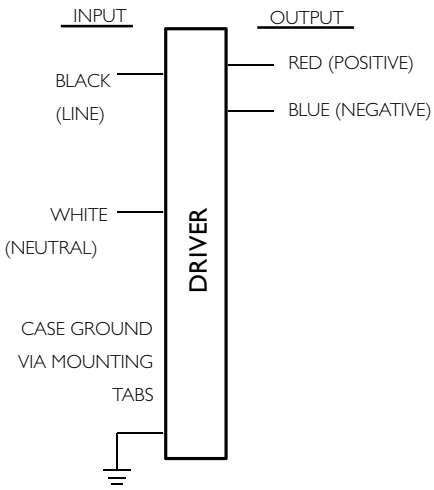
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max. Load and 75°C Case	Max. Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max. Load (%)	Power Factor @ Max. Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating
120	77	12-24 CC Mode	3.2	86.5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



RoHS COMPLIANT

Intertek
Class P
Conforms to UL STD 8750
Certified to CAN/CSA STD C22.2 No. 250.13

LISTED E321253
Class P
LED class 2 output
For Dry and Damp Location

Xitanium XI077C320V024FNS1

77W 120–277V 3.2A

Features

- 50,000+ hour lifetime[1]
- Excellent thermal performance
- Can be used in constant current (CC) or constant voltage (CV) mode[2]

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

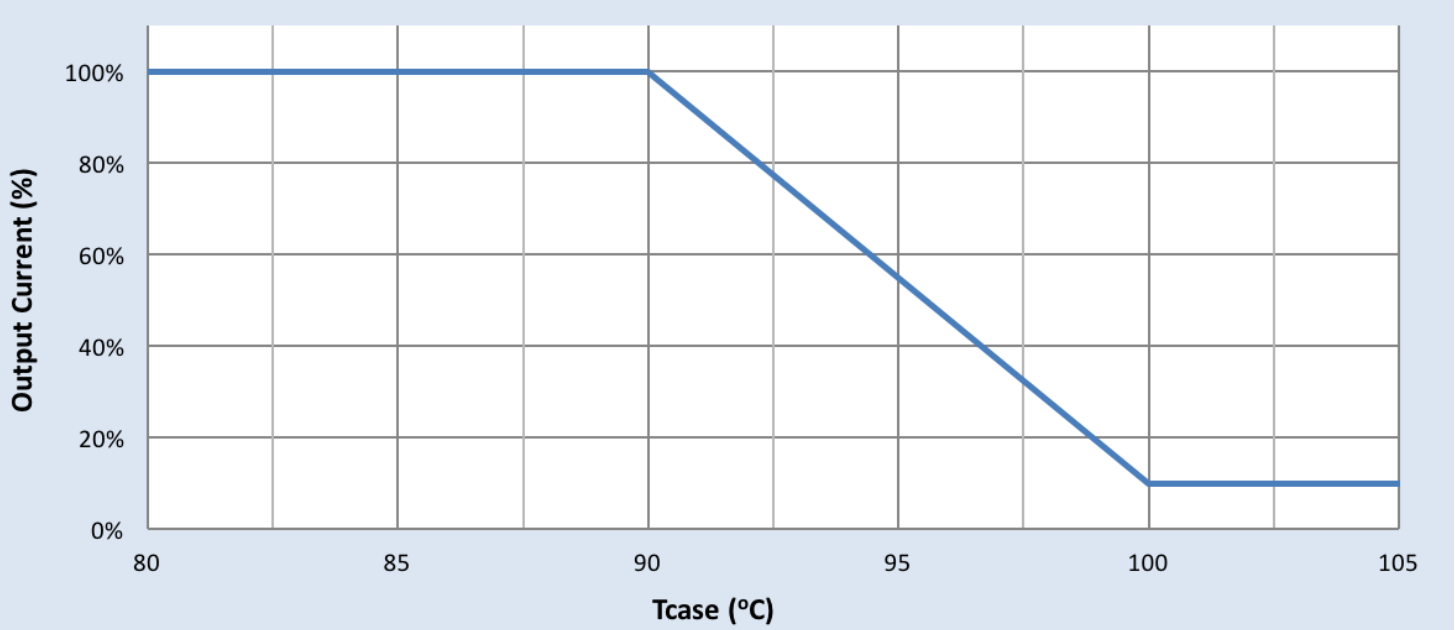
Order Information	
Full Product Code	XI077C320V024FNS1M (Mid-Pack, 20pcs/Box) 12NC: 929001708113
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108 Vac
Max. Mains Voltage Operational	305 Vac
Output Information	
Maximum Open Circuit Voltage	24Vdc
Output Current Ripple (in CC mode) (ripple = peak 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, CSA 250.13 Class P
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB 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.

Electrical Specifications

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

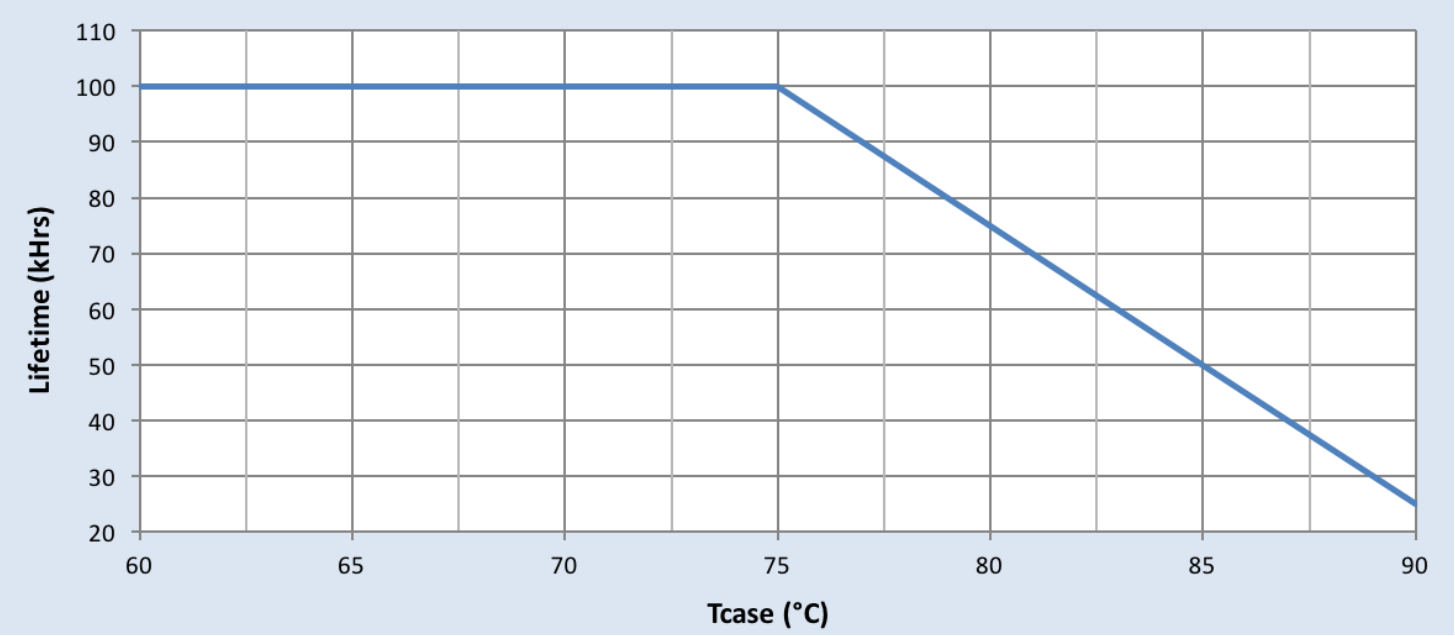
Output Current Vs. Driver Case Temperature



Note

There is ±5°C tolerance on the driver case temperature.

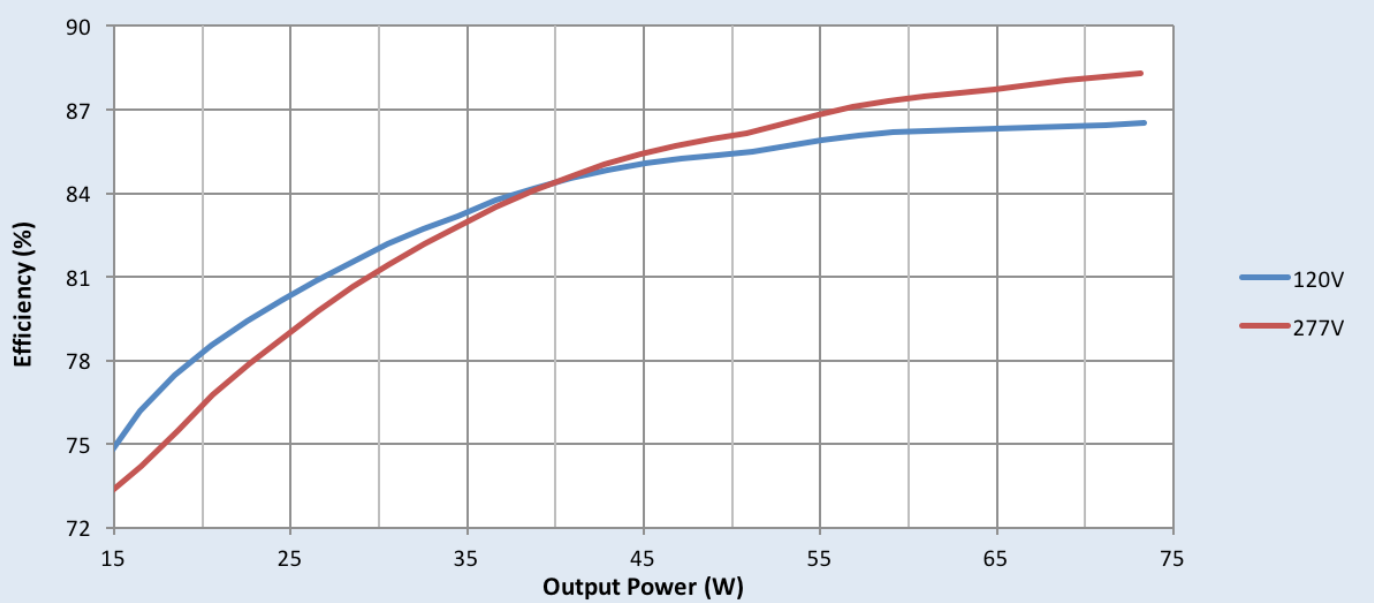
Driver Lifetime Vs. Driver Case Temperature



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



Performance Characteristics

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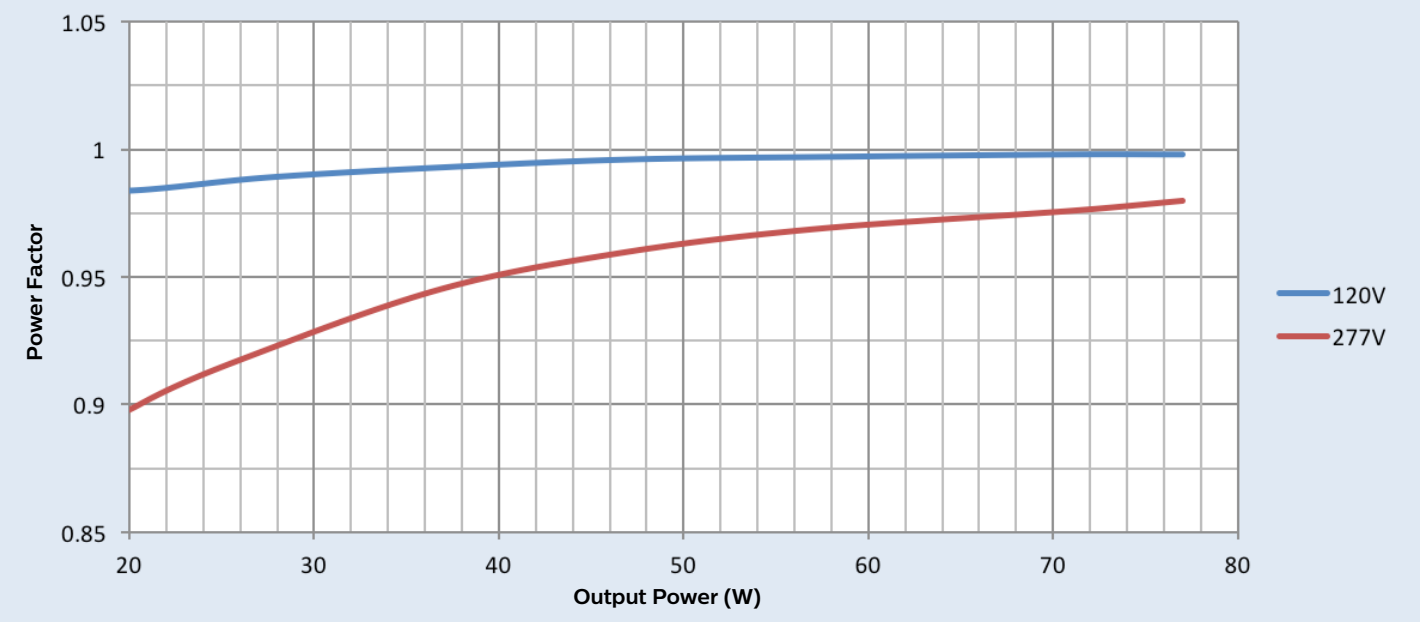
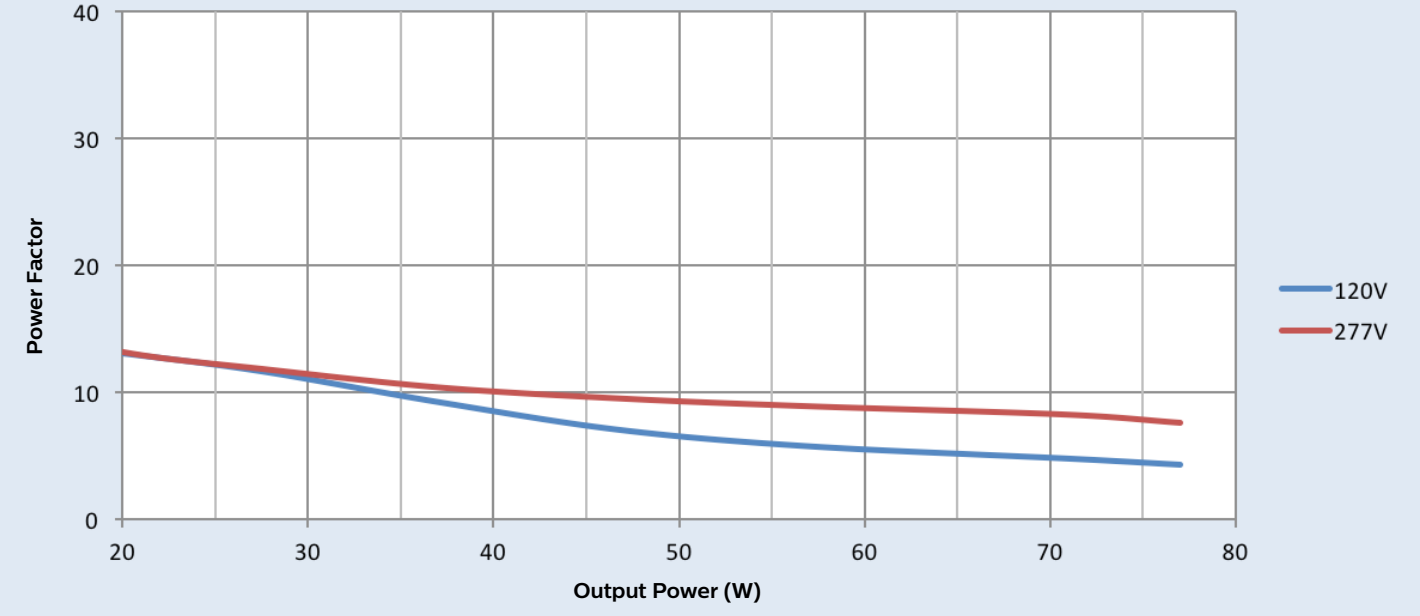
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



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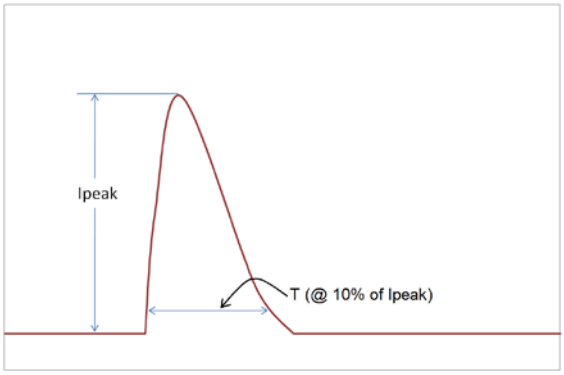
77W 120-277V 3.2A

Inrush Current Info



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

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 Combination Wave (w/t 2Ω)	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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