

The Advance Xtanium SR LED driver can help reduce complexity and cost of light fixtures used in industrial high-bay and outdoor wireless connected lighting systems. It features a standard digital interface to enable direct connection to SR-certified components. Functionality that ordinarily would require additional auxiliary components is integrated into the driver. The result is a simple, cost-effective light fixture that can enable every fixture to become a wireless node.

### Specifications

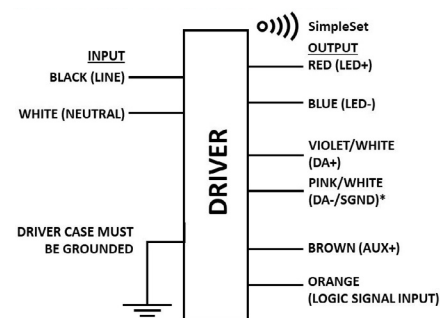
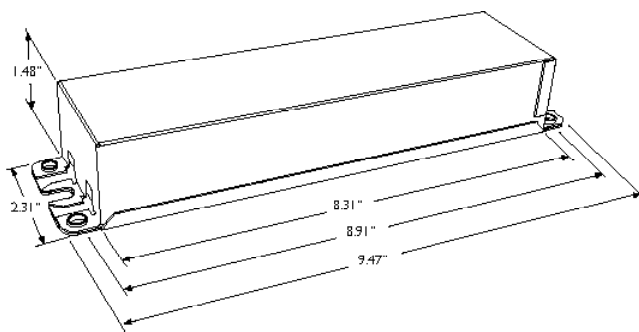
Input Voltage (Vrms)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max. Load and 70°C Case	Max. Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W) <sup>1</sup>	Inrush Current (Apk/10%-µs)	THD @ Max. Load	Power Factor @ Max. Load	Surge Protection Common/Diff (KV)	Weight (Lbs/kgs)	Envir. Protection Rating	Dimming	Dimming Range	Min. Output Current (A)	Driver Type
120	95	20-54	0.10-2.75	88	Life - 85°C UL - 90°C	0.90	112	54 / 280	<10%	>0.95	6/6	2.1 lbs / 0.95 kgs	UL damp & dry	DALI	5% - 100%	0.030	Constant Current
277		Class 2 Output		90		0.39		133 / 270									

### Enclosure

	In. (mm)
Case Length	8.31 (211.1)
Case Width	2.31 (58.6)
Case Height	1.48 (37.6)
Mounting Length	8.91 (226.3)
Overall Length	9.47 (240.5)

### Wiring Diagram

Dimming	Wire Length (mm)
Black (Line)	270 (± 30)
White (Neutral)	270 (± 30)
Red (Positive, LED Output)	270 (± 30)
Blue (Negative, LED output)	270 (± 30)
Violet (Positive, 0-10V)	270 (± 30)
Pink (Negative, 0-10V)	270 (± 30)



#### WARNING:

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

1. Based on 1W load from SR power supply.



# Xitanium SR XI095C275V054VPF1

## 95W 120-277V 2.75A SR

### Electrical Specifications

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

#### Features

- Compatible with SR-certified devices
- Standard SR digital interface including integral power supply
- Accurate energy metering
- Drive current setting via SimpleSet
- 5-year limited warranty<sup>1</sup>

#### Benefits

- Enables interoperability with multiple sensor/network system vendors
- Reduces cost and complexity of industrial high-bay connected lighting systems<sup>2</sup>
- Eliminates need for high-voltage relays to increase system reliability
- 4% metering accuracy
- Form factor and wattage rating common in high-bay applications

#### Application

- Industrial high-bay
- Area
- Parking garages
- Floodlights

### Product Data

Ordering Information	
Order Code	XI095C275V054VPF1
Full Product Code	XI095C275V054VPF1M (Mid-pack, 10pcs/box)
Full Product Name	XITANIUM 95W 120-277V 2.75A SR
Global Trade Identification Number (GTIN)	781087151440
Input Information	
Inrush Current	Per NEMA 410
Line Voltage (AC operation)	120-277VAC +/- 10%
Line Current	0.90A @ 120V, 0.39A @ 277V
Line Frequency	50/60Hz
Surge Protection	Refer to table
Output Information	
Output Voltage Range	20VDC to 54VDC
Output Current Range	0.10A to 2.75A
Output Current Ripple	<15% at max. Iout (ripple = pk-avg/avg) Low frequency (<120 Hz) content <1%
Output Current Tolerance	±5% at max. output current
Open Circuit Voltage	54VDC
Protections	Short Circuit and Open Circuit Protection for LED + and LED-
Control Lead Current Leakage (SR, LSI)	0.01mA, recommended max number of control circuits in parallel refer to Design-In Guide
Features	
AOC (adjustable output current)	0.10A to 2.75A via SimpleSet programming (refer to graphs and notes)
Life	50,000 hr nom. @ TC 85°C; 100,000 hr nom. @ TC 75°C (refer to graphs)
Suitable for Outdoor Use?	Yes
Interfaces	SimpleSet, SR

1. 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. Functionality that ordinarily would require additional auxiliary components is integrated into the driver.

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95W 120-277V 2.75A SR

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## Product Data (continued)

<b>Min. Ambient Temp</b>	-40°C
<b>Max. Case Temperature (Tcase)</b>	Life - 85°C; UL - 90°C
<b>Input Over-voltage</b>	Can survive input over-voltage stress of 320VAC for 48 hours and 350VAC for 2 hours
<b>Earth Leakage Current</b>	0.75 mA [max.]
<b>THD Total</b>	Refer to graph
<b>Power Factor</b>	Refer to graph
<b>Efficiency</b>	Refer to graph
<b>Power Reporting Accuracy</b>	± 4% in performance window and under nominal operating conditions
<b>SR Interface</b>	
<b>Digital Protocol</b>	Specifications available to SR-Certified Partners
<b>SR Power Supply</b>	Specifications available to SR-Certified Partners
<b>Environment &amp; Approbation</b>	
<b>Agency Approbations</b>	UL 8750, UL 1310, UL 935, NOM, cUL
<b>Audible Noise</b>	<24dB Class A
<b>Isolation Between Output and Input</b>	Refer to table
<b>Isolation of Controls</b>	Refer to table
<b>EMC (electromagnetic compliance)</b>	Meets FCC 47 Part 15 Class A
<b>Envir. Protection Rating</b>	UL Dry & Damp
<b>Net Weight Per Piece</b>	2.1 lbs / 0.95 kgs

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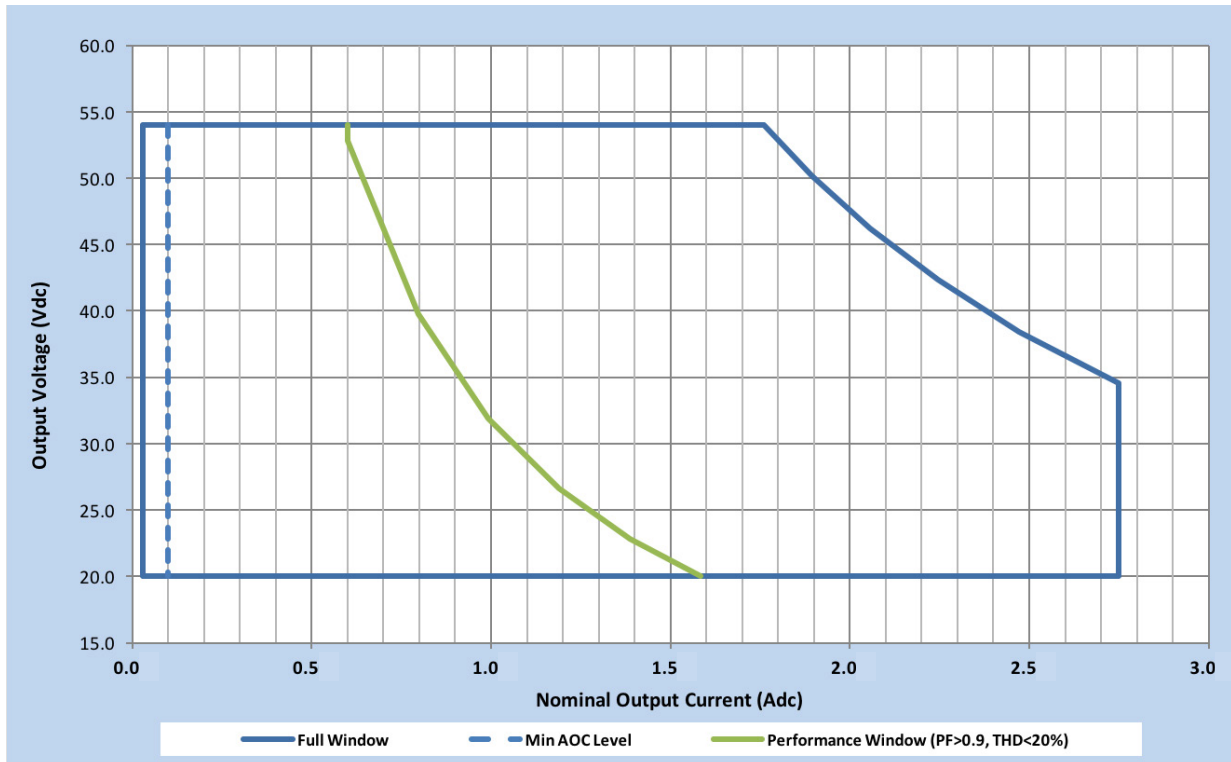
95W 120-277V 2.75A SR

## Electrical Specifications

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## Operating Window

The driver current cutback feature provides for an increased output voltage with a reduced output current during abnormal LED operation, such as cold weather starting. Output tolerance +/-5%.



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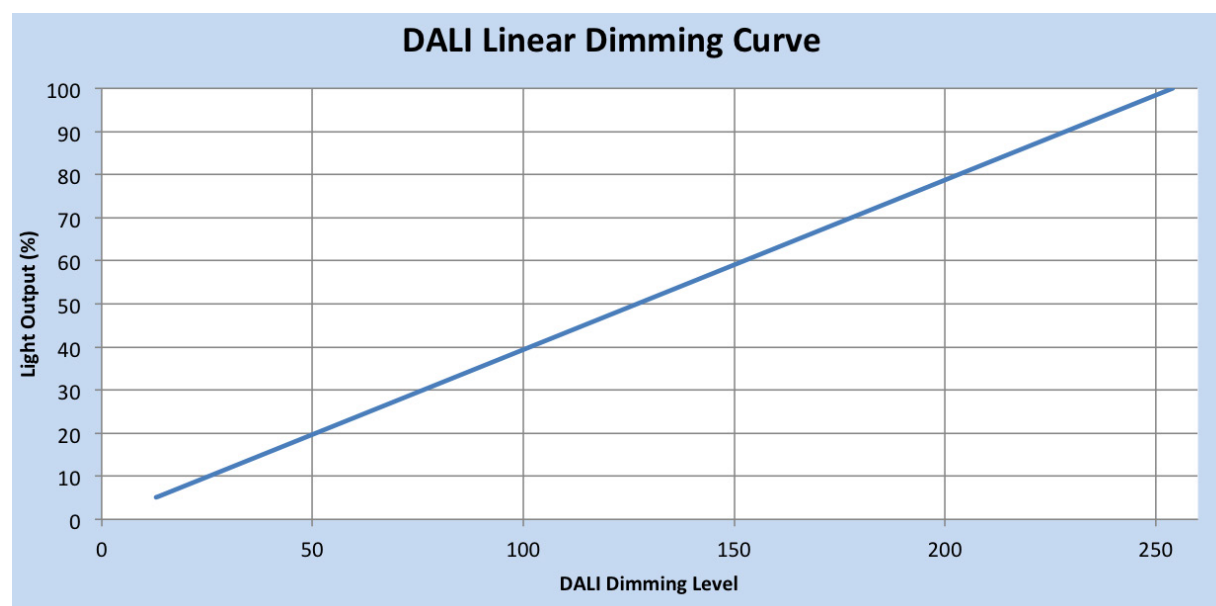
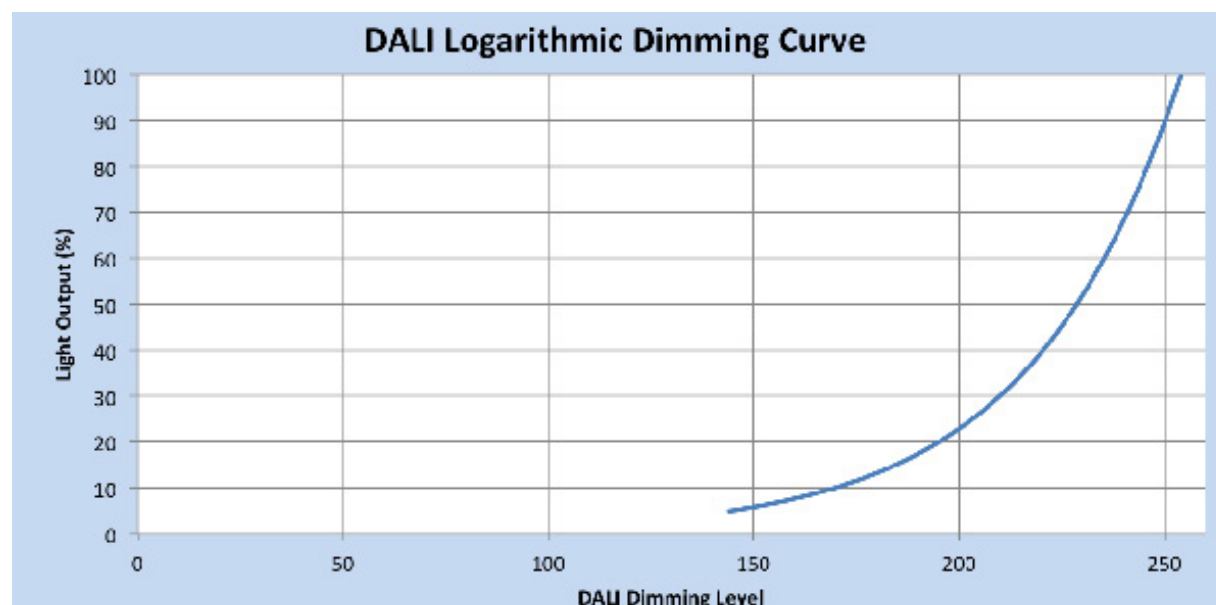
95W 120-277V 2.75A SR

## Electrical Specifications

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## Dimming Characteristics

SR drivers use a logarithmic dimming curve as default. Dimming is accomplished through the 2-wire DALI connection to the sensor. DALI standard IEC62386\_102 Edition 2 defines the logarithmic dimming curve. DALI standard IEC62386\_101 Edition 2 defines the linear dimming curve as well as the command for switching between logarithmic and linear curves.



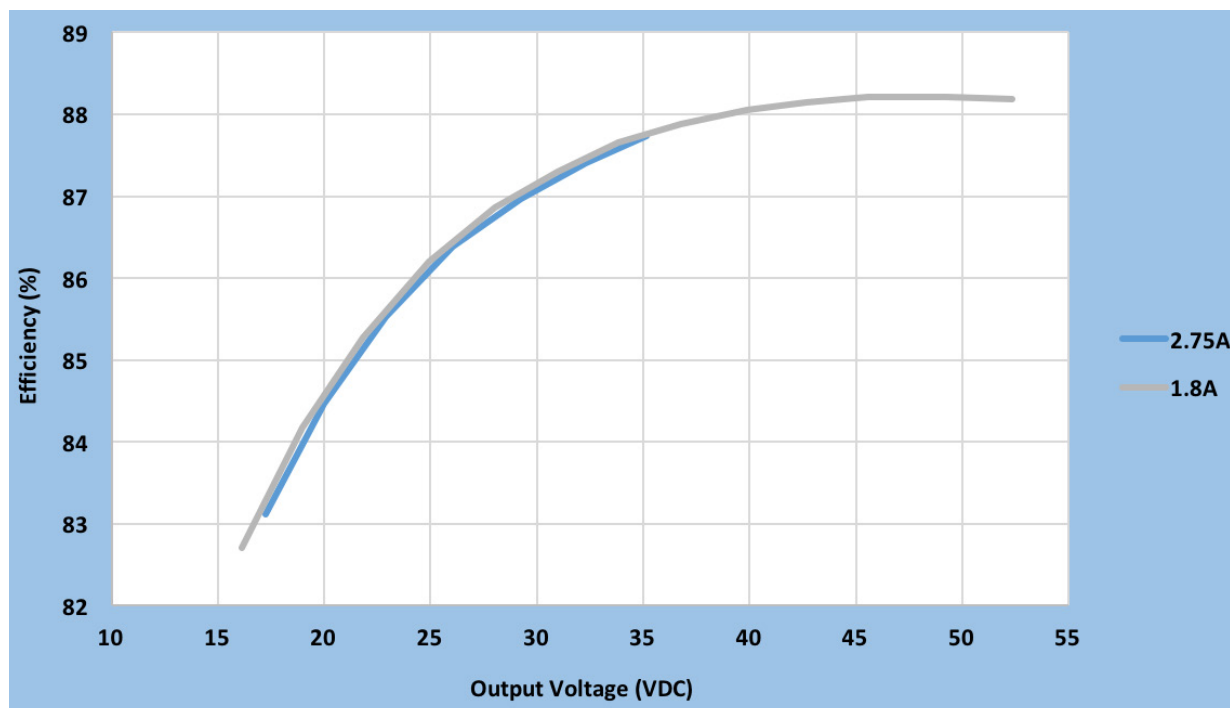
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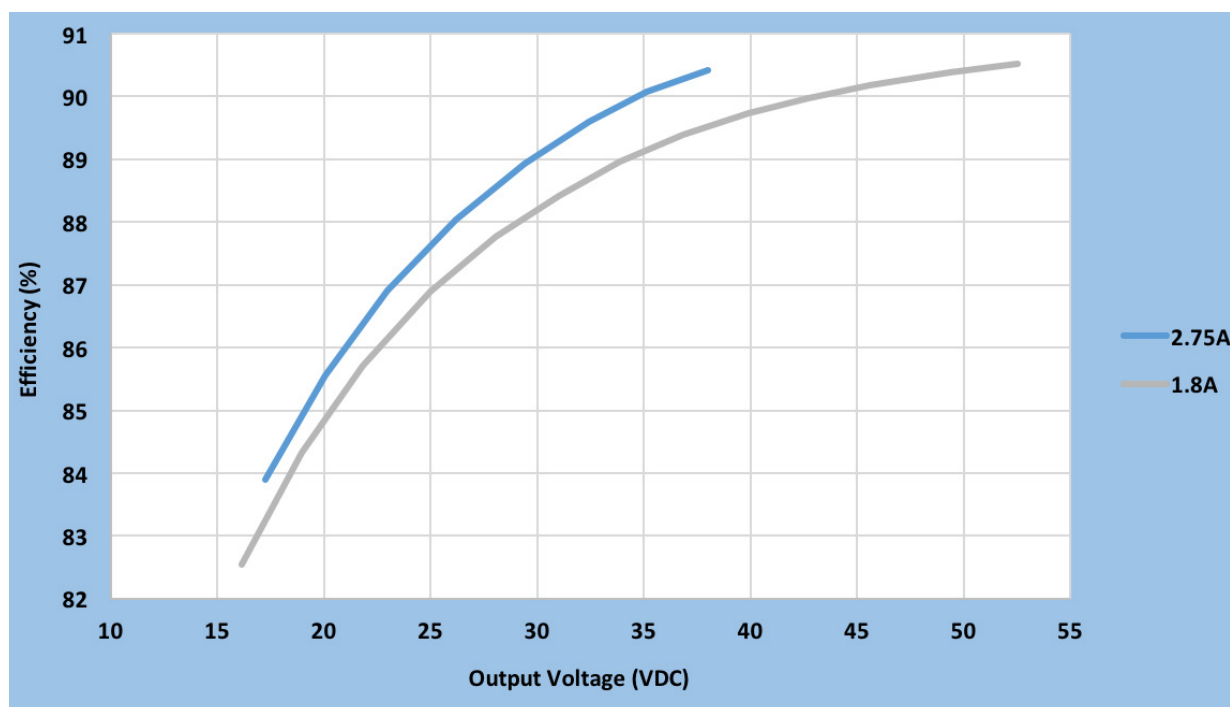
## Performance Characteristics

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. Data below at 70°C Tcase.

### Efficiency Vs. Output Voltage @ 120VAC



### Efficiency Vs. Output Voltage @ 277VAC



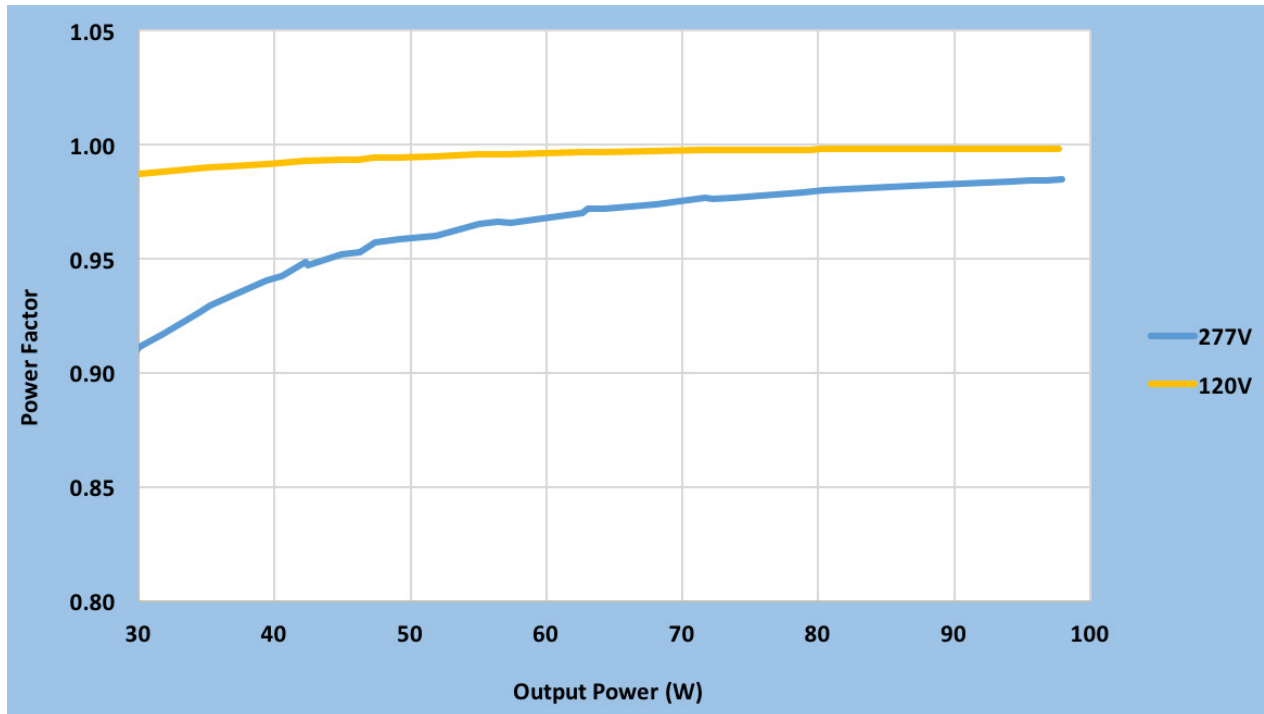
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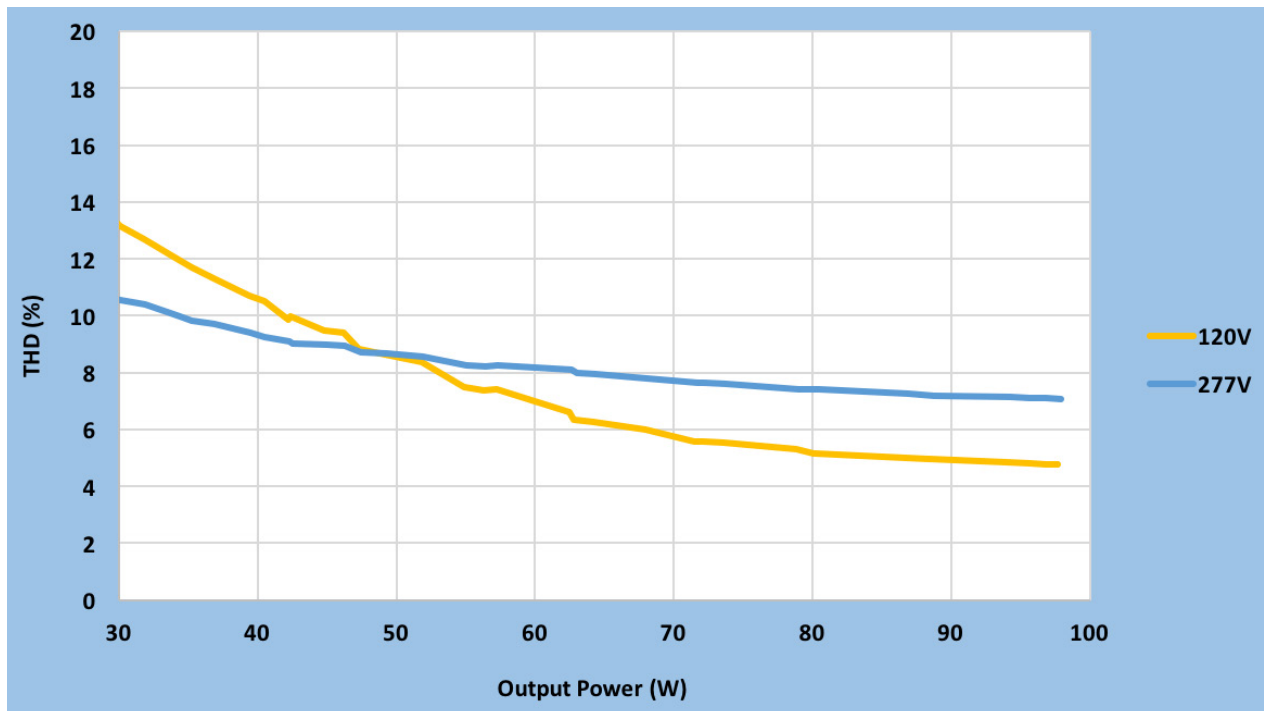
## Performance Characteristics

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### Power Factor Vs. Output Power



### Total Harmonic Distortion Vs. Output Power



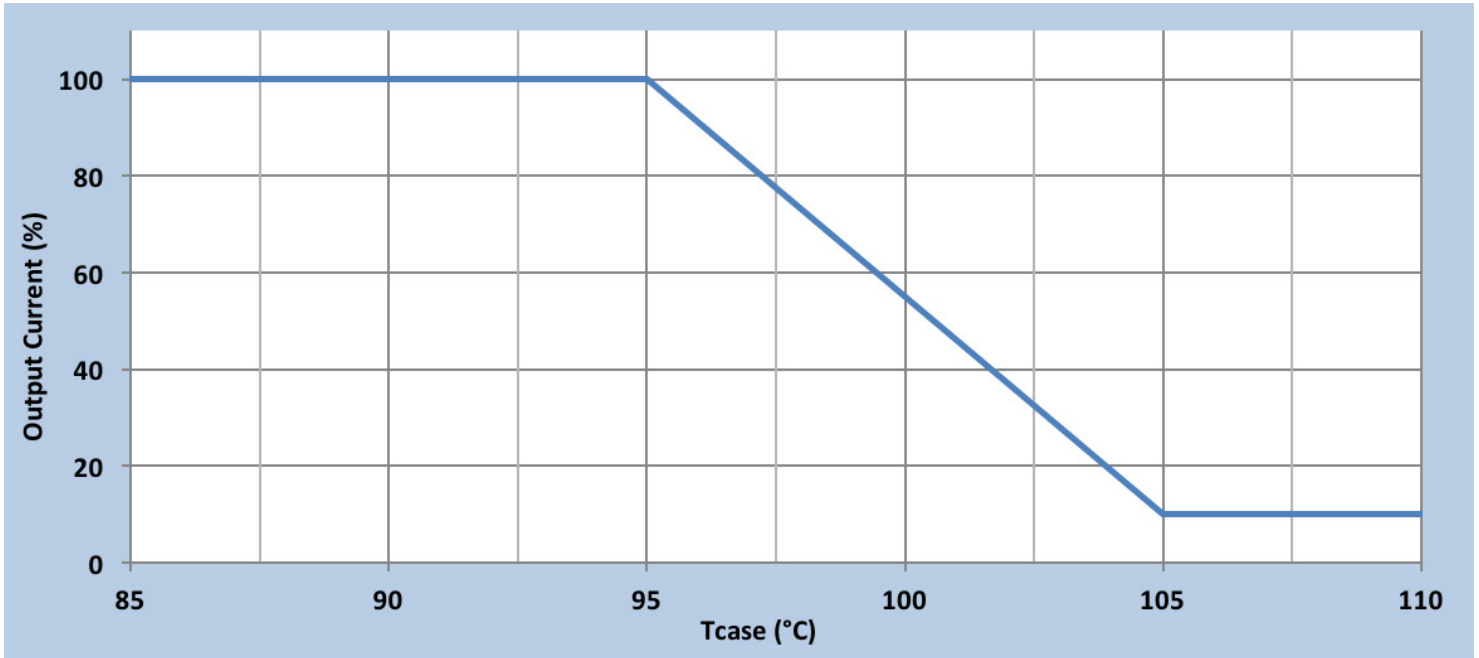
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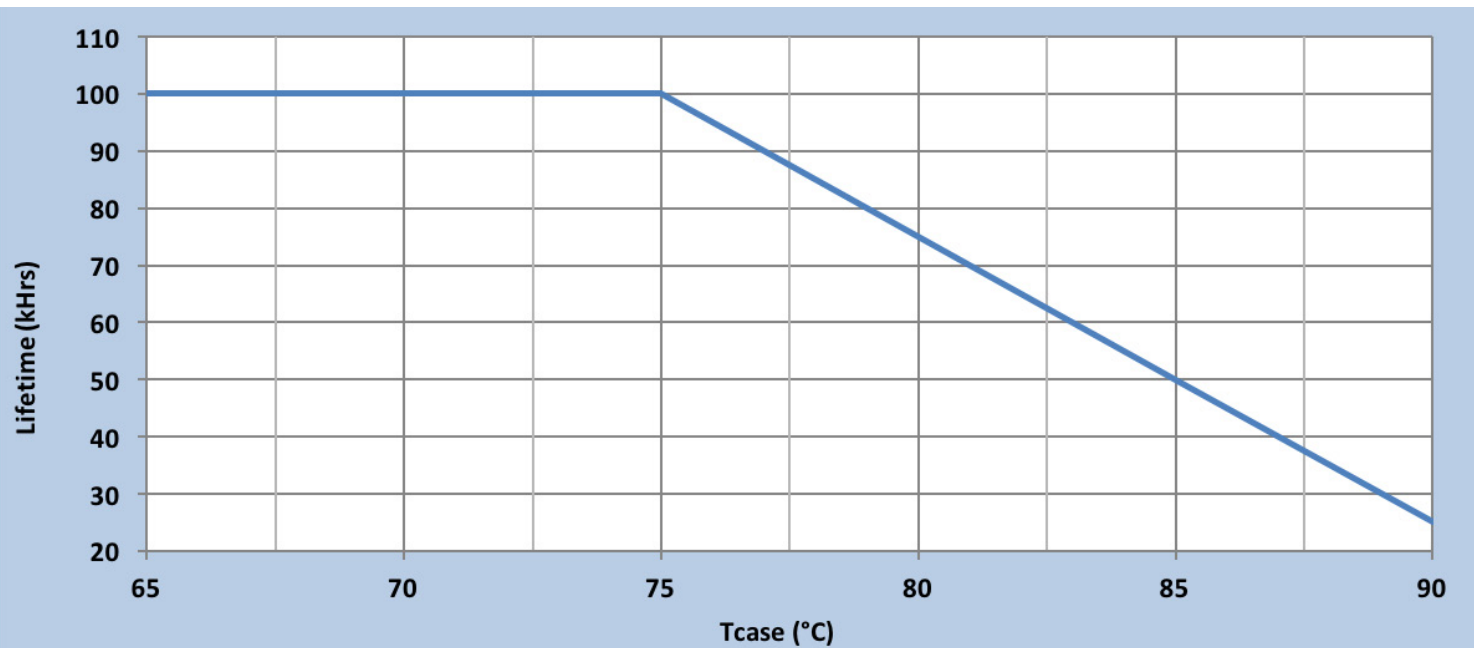
## Electrical Specifications

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### Output Current Vs. Driver Case Temperature



### Driver Lifetime Vs. Driver Case Temperature

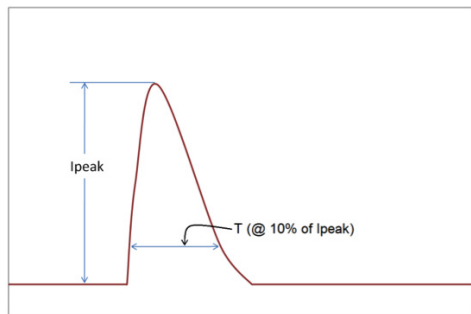




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## Inrush Current Info



Vin	I <sub>peak</sub>	T (@ 10% of I <sub>peak</sub> )
120 Vac	54A	280μs
277 Vac	133A	270μs

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 2 <sub>2</sub> )	6kV	6kV

## Isolation

Isolation	Input Leads	Output Leads	SR Leads (SR+, SR-/SGND), Class 2 Only	Enclosure
Input Leads	NA	2xU+1kV	2xU+1kV	2xU+1kV
Output Leads, Class 2	2xU+1kV	NA	500Vrms	500Vrms
SR Leads (SR+, SR-/SGND), Class 2	2xU+1kV	500Vrms	NA	500Vrms
Enclosure	2xU+1kV	500Vrms	500Vrms	NA

U = Max. input voltage

