

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 help ensure reliability.

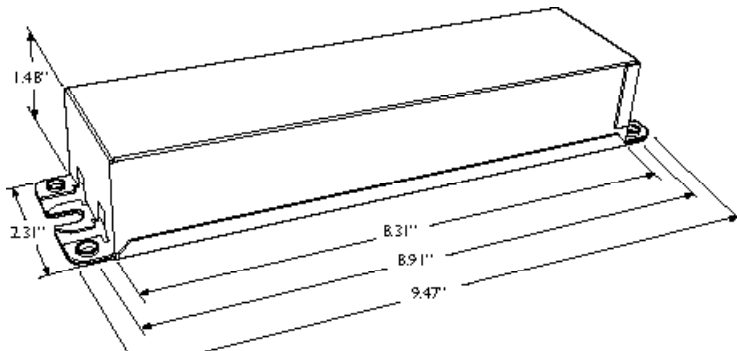
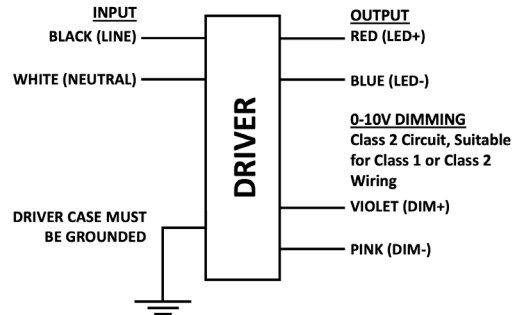
### Specifications

| Input Voltage (Vac) | Output Power (W) | Output Voltage (V) | Output Current (A) | Efficiency@ Max Load and 70°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                 | 150              | 30-100             | 1.5                | 90                                 | 80°C                | 1.4               | 169                  | <10%               | >0.95                   | 6                                 | UL damp & dry and Type HL | Constant Current |
| 277                 |                  |                    |                    | 92.5                               |                     | 0.6               |                      |                    |                         |                                   |                           |                  |

### 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                           | Dimming Range (with specified dimmers) | Minimum Output Current (A) |
|-----------------------------------|--|----------------------------|
| 0-10V Analog Class 1 and 2 Wiring | 10% - 100%                             | 0.15                       |

### Warning

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

# Xitanium XI150C150V100CNF1

150W 120-277V 1.5A 0-10V

## Features

- 50,000+ hour lifetime<sup>1</sup>
- Excellent thermal performance
- 6kV combi-wave surge rating to comply with ANSI C82.77-5 CAT C low

## Benefits

- Enables long life luminaire designs
- Allows luminaire designs for a wide range of ambient environments
- No external surge protection required to pass C82.77-5 CAT C low

## Application

- Area
- Roadway
- Parking garages
- Floodlights

## Electrical Specifications

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

## Product Data

| Order Information   |   |
|---|---|
| Full Product Code   | XI150C150V100CNF1M (Mid-Pack, 10pcs/Box)  |
| Line Frequency  | 50/60Hz   |
| Min. Mains Voltage Operational                                | 108 Vac   |
| Max. Mains Voltage Operational                                | 305 Vac   |
| Output Information  |   |
| Maximum Open Circuit Voltage                                  | 160Vdc  |
| Output Current Ripple<br>(ripple = peak to average / average) | 15% max @ max Iout<br>Low frequency ( $\leq 120$ Hz) content <5%                    |
| Output Current Tolerance<br>(at maximum output current)       | <5%   |
| Protections   | Short Circuit, Open Circuit Protection for LED + and LED - and Temperature Foldback |
| Features  |   |
| 0-10V Dimming   | 150 $\mu$ A ( $\pm 3\%$ ) source current from driver. See dim curve for detail.     |
| Environment & Approbation                                     |   |
| Operating Ambient Temp. Range                                 | -40°C to +55°C  |
| Max Case Temperature (Tcase)                                  | 80°C  |
| Agency Approbations   | UL 8750   |
| Electromagnetic Compliance                                    | FCC Title 47 Part 15 Class A  |
| Audible Noise   | <24dB Class A   |
| Weight  | 2.1 Lbs / 0.95 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.

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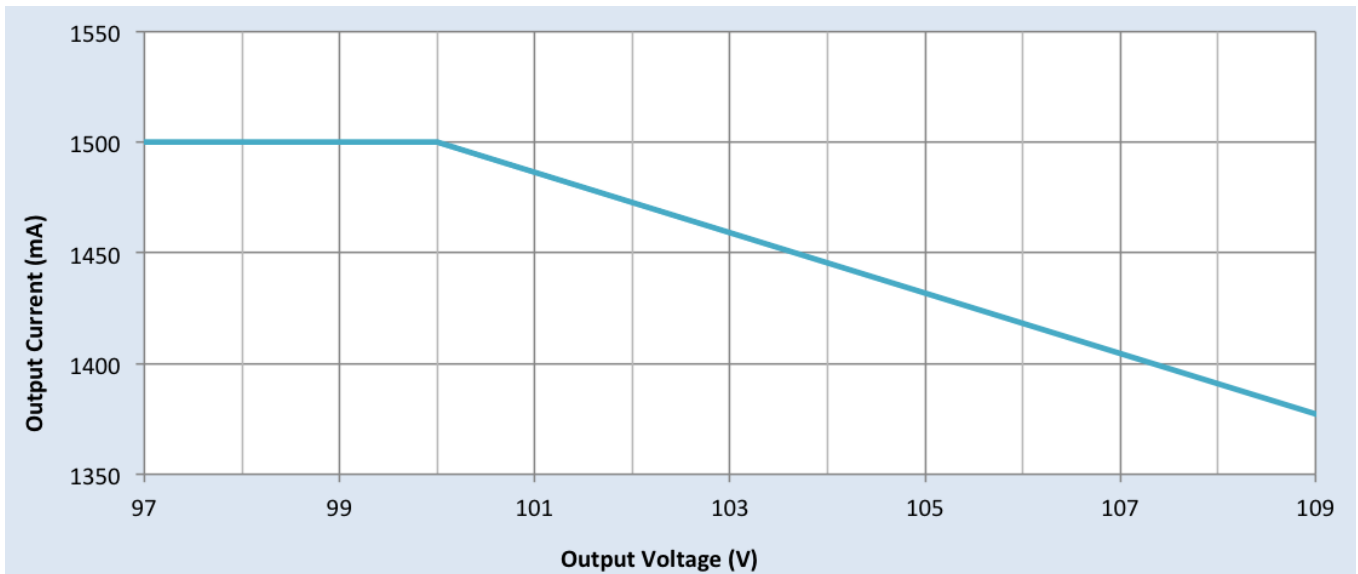
150W 120-277V 1.5A 0-10V

## Electrical Specifications

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## Driver Current Cutback

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.



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## Electrical Specifications

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## 0-10V Dimming Curve

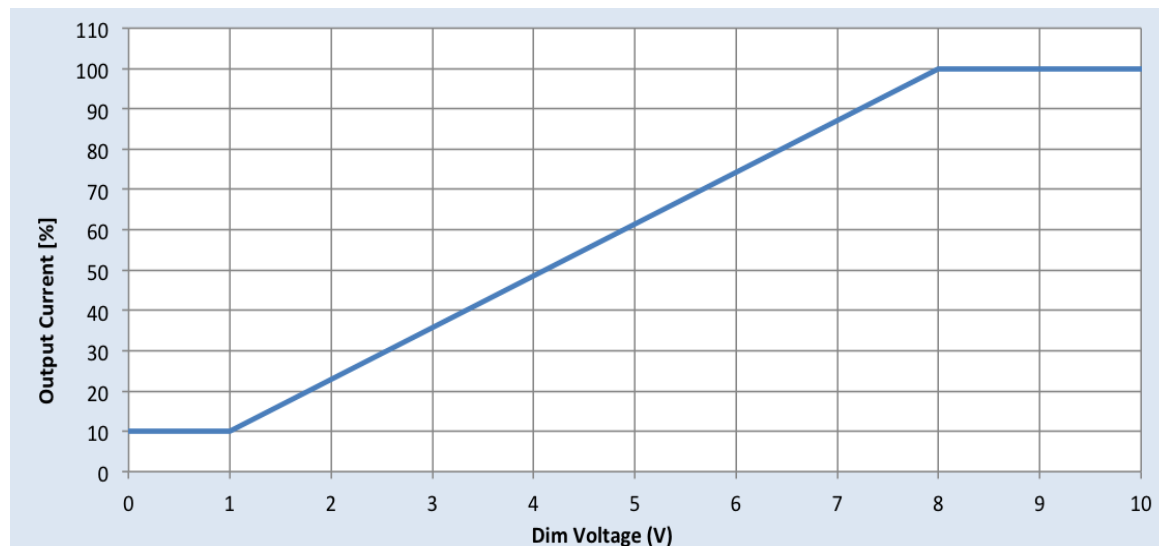
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

Minimum dim level: Factory default 10% of Iout

Maximum output voltage on the dimming wires: 12V

## Approved Dimmer List

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



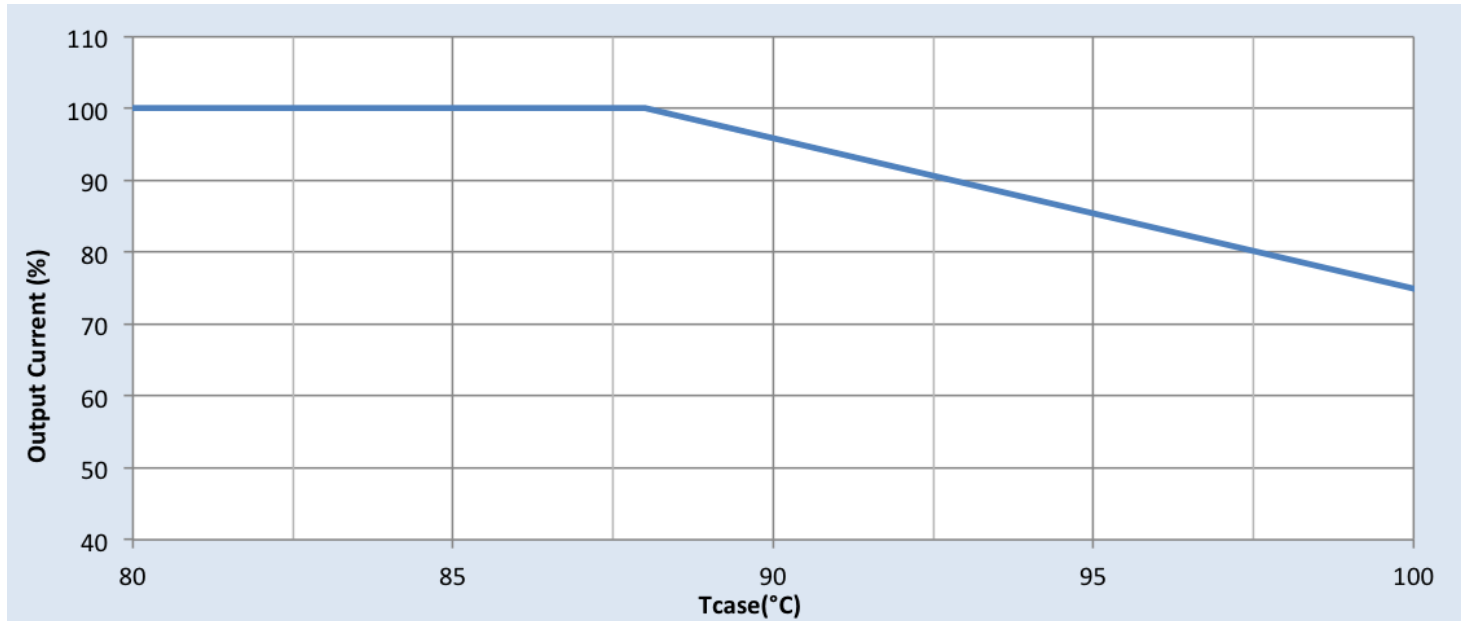
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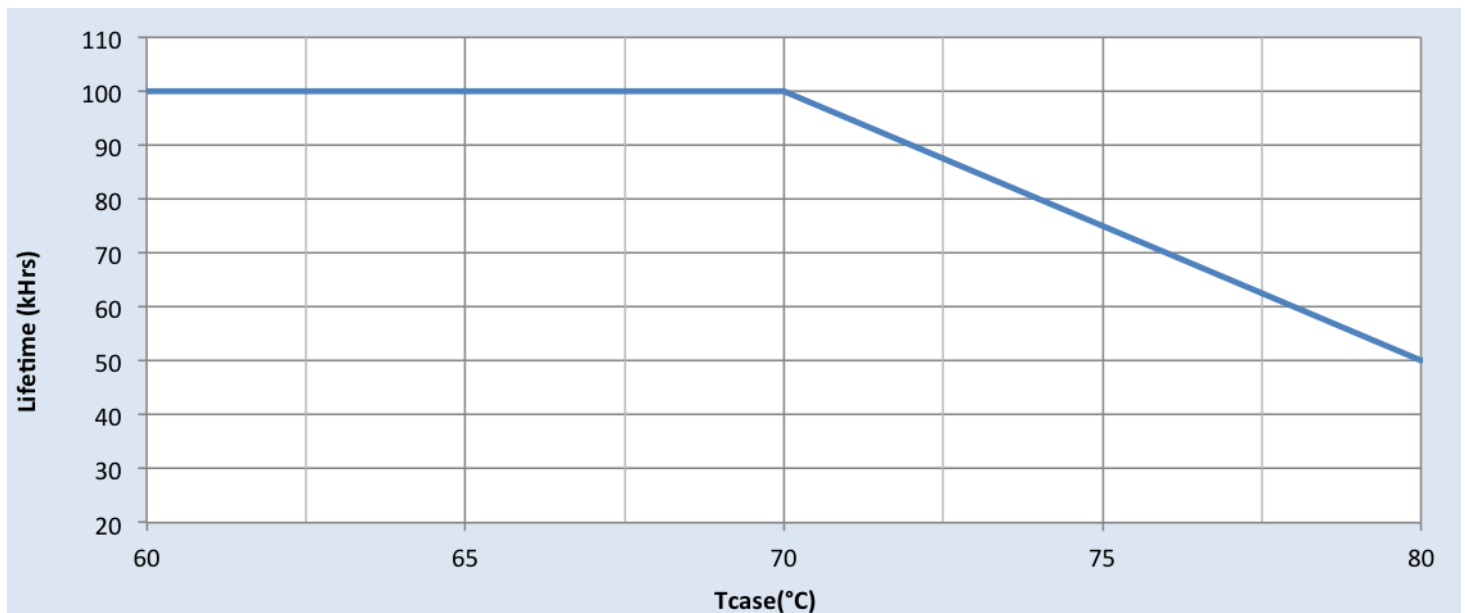
## Output Current Vs. Driver Case Temperature



## Note

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

## Driver Lifetime vs. Driver Case Temperature



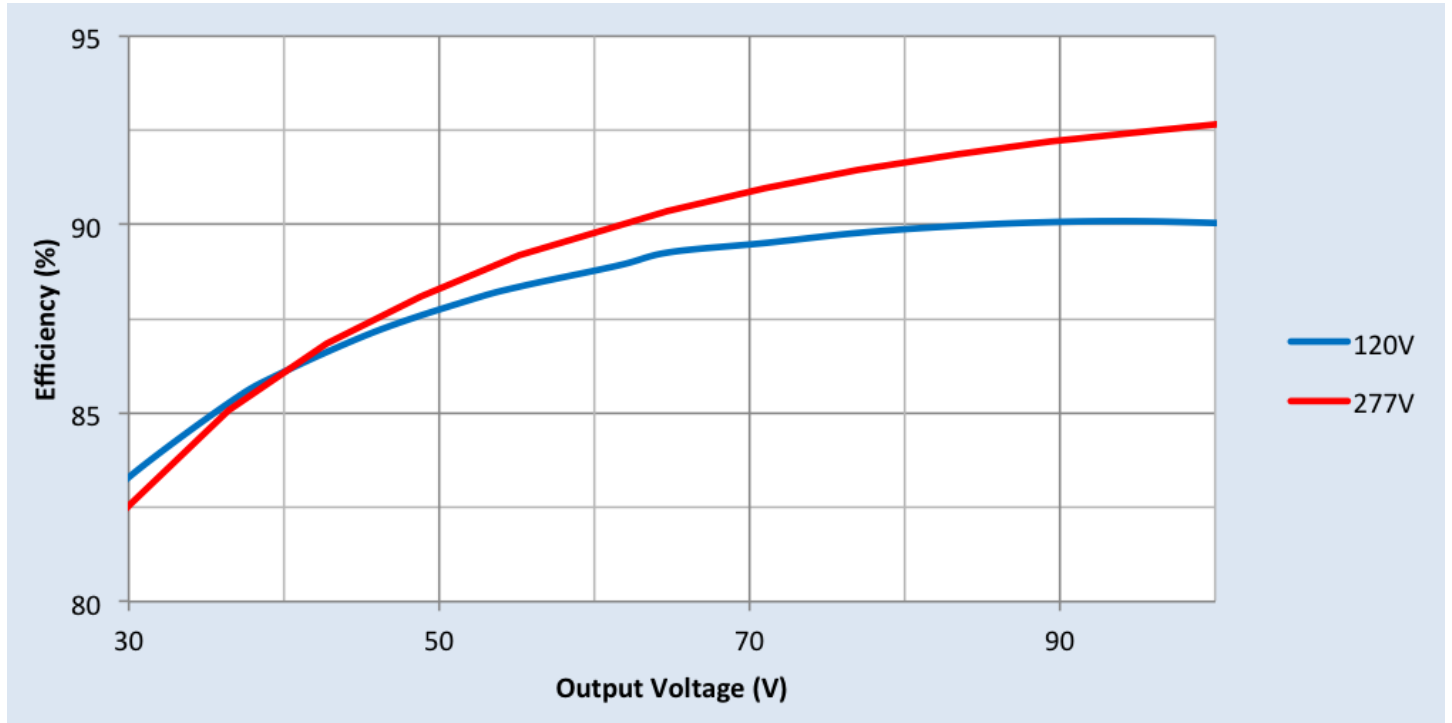
# Xitanium XI150C150V100CNF1

150W 120-277V 1.5A 0-10V

## Performance Characteristics

Based on measurements on a typical sample at 70°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

## Efficiency Vs. Output Voltage



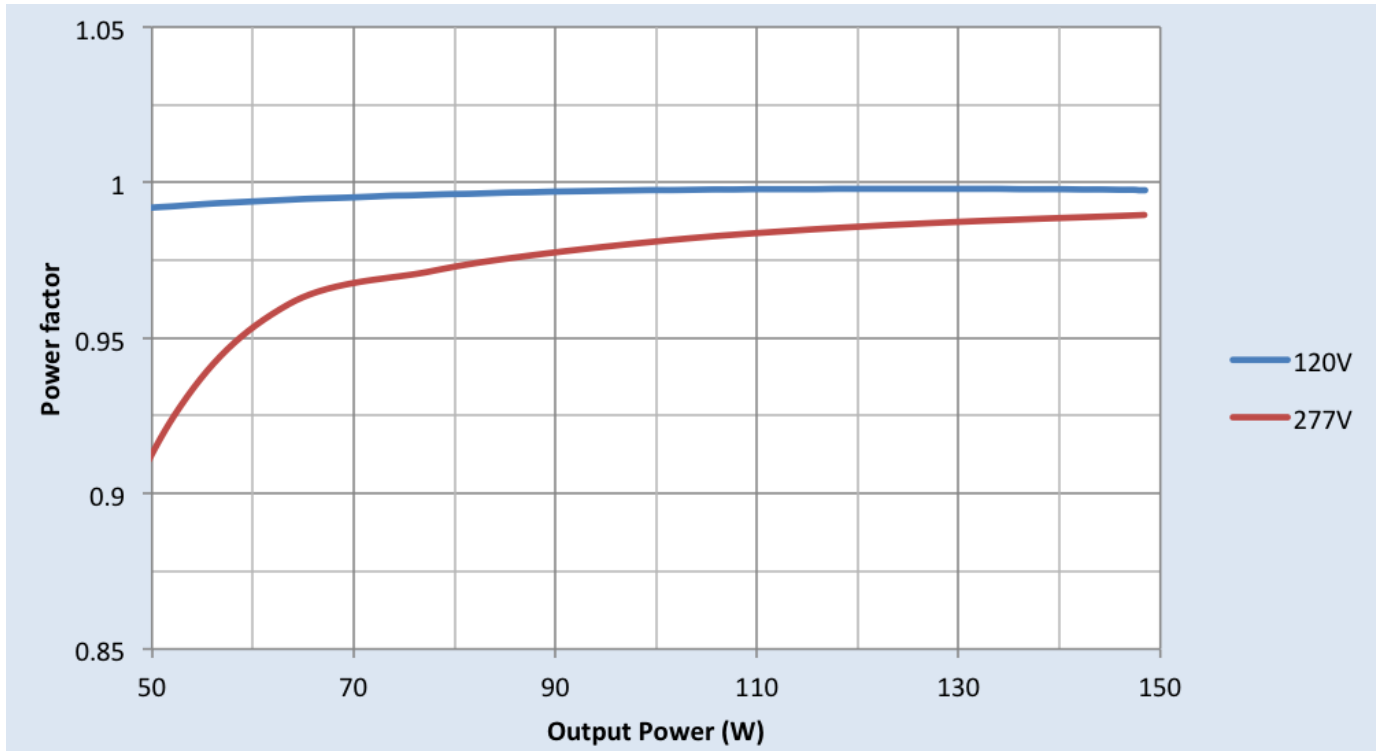
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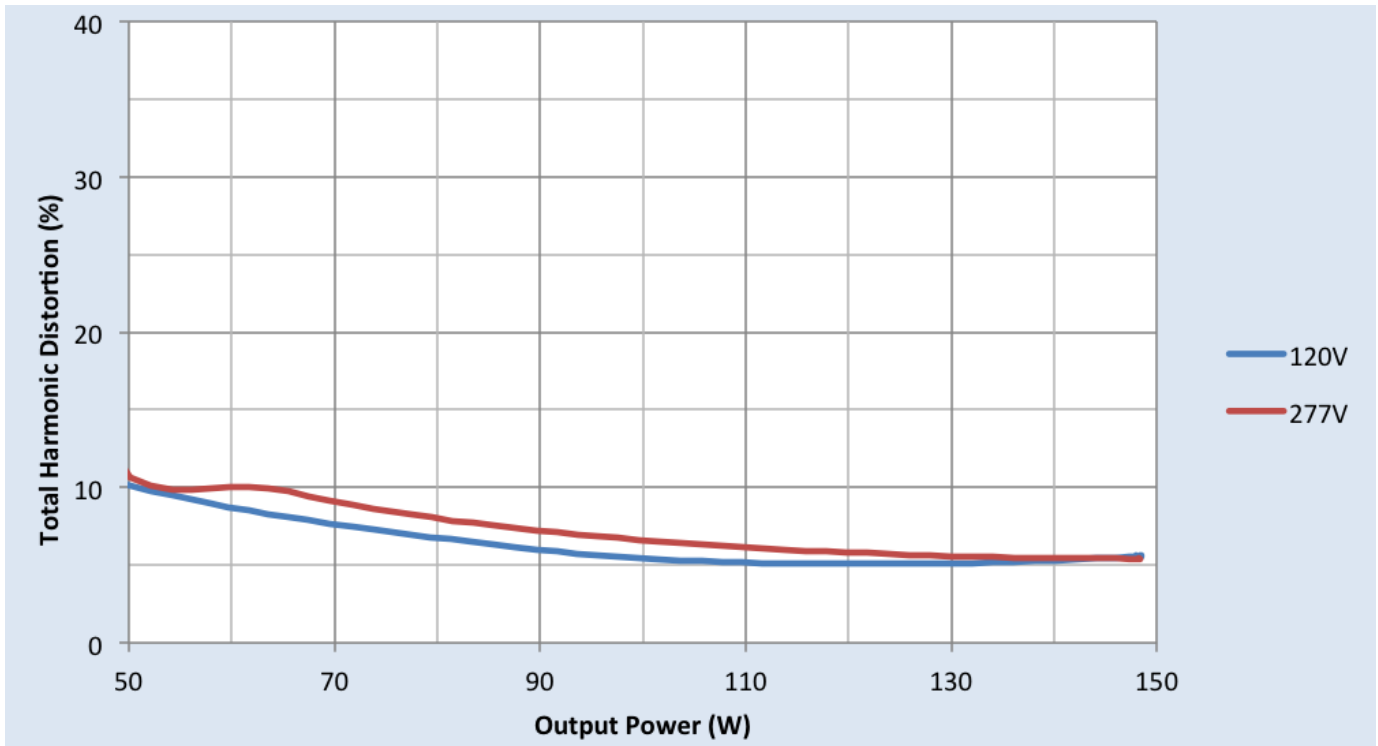
## Performance Characteristics

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### Power Factor Vs. Output Power



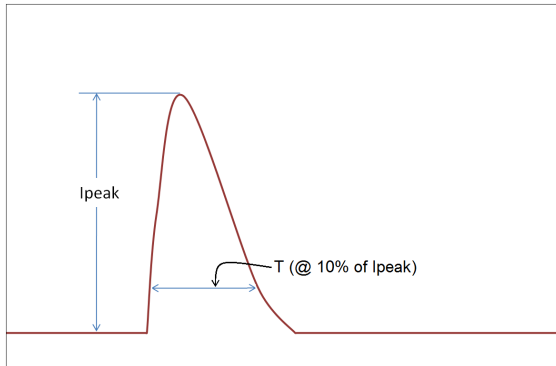
### Total Harmonic Distortion (THD) Vs. Output Power



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## Inrush Current Info



| $V_{in}$ | $I_{peak}$ | $T$ (@ 10% of $I_{peak}$ ) |
|----------|------------|----------------------------|
| 120 Vrms | 32A        | 298 $\mu$ S                |
| 277 Vrms | 110.4A     | 273 $\mu$ 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 $\mu$ s Combination Wave (w/t 2 $\Omega$ ) | 6kV                     | 6kV                           |

## Isolation

| Isolation | Input   | Output  | 0-10V | Enclosure |
|-----------|---------|---------|-------|-----------|
| Input     | NA      | 2xU+1kV | 2.5kV | 2xU+1kV   |
| Output    | 2xU+1kV | NA      | 2.5kV | 2xU+1kV   |
| 0-10V     | 2.5kV   | 2.5kV   | NA    | 2xU+1kV   |

U = Max input voltage

## UL Conditions of Acceptability

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

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