



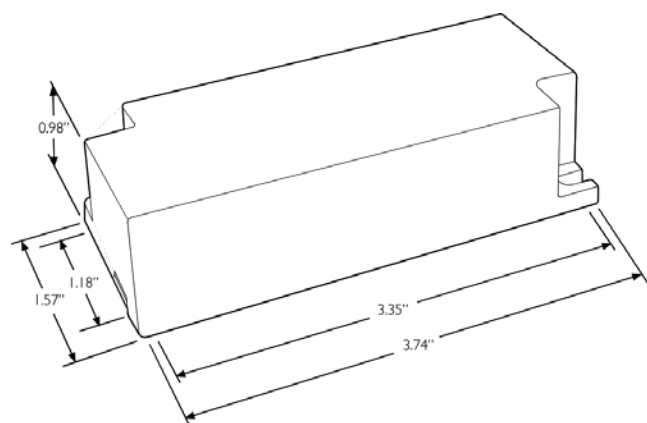
The Advance Xitanium range of phase-cut dimming LED drivers are perfectly suited for commercial fittings in downlight and track lighting applications. These models offer the flexibility of precise output of drive currents from selectable settings and are compatible with a variety of electronic low voltage dimmers to deliver reliably smooth dimming performance. The drivers are offered in a compact form factor suitable for use in elegantly unobtrusive fixture designs. Rated for long life with efficient performance, these drivers are excellent design choices for LED downlight fixtures offering the benefits of long-lasting energy savings with low maintenance costs.

Specifications

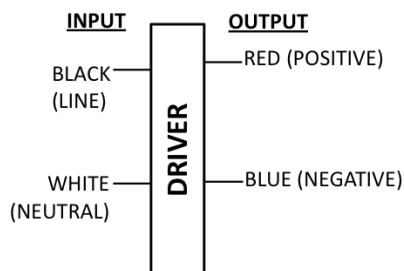
| Input Voltage (Vac) | Output Power (W) | Output Voltage (V) | Output Current (A) | Efficiency@ Max Load and 75°C Case | Max Case Temp. (°C) | Input Current (A) | Max. Input Power (W) | THD @ Max Load (%) | Power Factor @ Max Load | Surge Protection (Combi-Wave, KV) | Envir. Protection Rating |
|---------------------|------------------|--------------------|--------------------|------------------------------------|-----------------------|-------------------|----------------------|--------------------|-------------------------|-----------------------------------|--------------------------|
| 120 | 13 | 20 - 42 | 0.15 - 0.3 | 84 | Life-75°C Max-85°C | 0.12 | 15 | <10% | >0.95 | 2.5 | UL damp & dry |
| 277 | | | | 83 | | 0.06 | | <25% | | | |

Enclosure

| | In. (mm) |
|-----------------|-----------|
| Case Length | 3.74 (95) |
| Case Width | 1.57 (40) |
| Case Height | 0.98 (25) |
| Mounting Length | 3.35 (85) |
| Overall Length | |



Wiring Diagram



Input and output use lead wires.

Lead-wires are input 18AWG / output 22AWG 105C/600V stranded copper.

Standard lead length is 150mm (±10mm) on all wires outside the can.

All wires have tinned ends.

| Dimming | Dimming Range (with specified dimmers) | Minimum Output Current (A) | Other Comments |
|--|--|----------------------------|----------------|
| LE + TE Leading Edge & Trailing Edge | 2% ~ 100% | 0.003 | |



Class P
LED class 2 output
For Dry and Damp Location

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

Xitanium XI013C030V042RNP1

13W 0.15-0.3A 42V LE+TE INT

Features

- 50,000+ hour lifetime¹
- UL Class 2 output with adjustable drive current
- Leading edge/Trailing edge dimming
- Compact form factor

Benefits

- Enables easy design-in with excellent thermal performance
- Enables simple, fast, flexible application-specific configurations
- Enables light levels suited for the application
- Enables design of low-profile fixtures

Application

- Indoor downlight and track applications
- Retail, hospitality

Electrical Specifications

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

Product Data

| Order Information | |
|---|---|
| Full Product Code | XI013C030V042RNP1M (Mid-Pack, 48pcs/Box), 12NC: 929000765913 |
| Line Frequency | 50/60Hz |
| Min. Mains Voltage Operational | 108 Vac |
| Max. Mains Voltage Operational | 305 Vac |
| Output Information | |
| Maximum Open Circuit Voltage | < 60Vdc |
| Output Current Ripple | 30% max @ max Iout |
| Output Current Tolerance (within full output operating range) | 150mA: (-15% / +5%) 200mA: (-10% / +5%) 250mA: (-8% / +5%) 300mA: (-8% / +5%) Output Current variation includes effects of line & load regulation, temperature variation and component tolerances |
| Protections | Short Circuit, Open Circuit Protection for LED + and LED – and Temperature Foldback |
| Features | |
| 0-10V Dimming | LE + TE dimming |
| AOC (Adjustable Output Current) | 150mA to 300mA via DIP switches (refer to figure & notes in the Electrical Specification section) |
| Environment & Approbation | |
| Operating Ambient Temp. Range | -20°C to +50°C |
| Max. Case Temperature (Tcase) | Max. 85°C, Tcase Life: 75°C |
| Agency Approbations | UL8750, UL991, CSA250.13-14, C22.2 No. 0.8-12, Class P (UL, CSA, ETL) |
| Electromagnetic Compliance | FCC Title 47 Part 15 Class A, CAN ICES-005 (A) / NMB-005 (A) |
| Audible Noise | <24dB Class A |
| Weight | 0.27 Lbs / 0.122 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 MTBF modeling.

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LE + TE Dimming

Minimum Dim Level: 2% of Iout (minimum 3mA)

Approved Dimmer List

| Manufacturer | Manufacturer Part Number | Type of Dimmer | Min. Number of Drivers per Dimmer | Max. Number of Drivers per Dimmer |
|--------------|--------------------------|----------------|-----------------------------------|--|
| Lutron | DV-600P | Leading Edge | 1 | Dimmers can be loaded up to 80% of their max power rating. |
| | DVELV-303P | Trailing Edge | | |
| | NTELV-600 | Trailing Edge | | |
| | MAELV-600 | Trailing Edge | | |
| | SELV-300P | Trailing Edge | | |
| | DVLV-600P | Leading Edge | | |
| | NFTU-5A | Leading Edge | | |
| | CTCL-153P | Leading Edge | | |
| | GL-600H | Leading Edge | | |
| | S-600P | Leading Edge | | |
| | PHPM | 277V | | |
| | | | | |
| | | | | |

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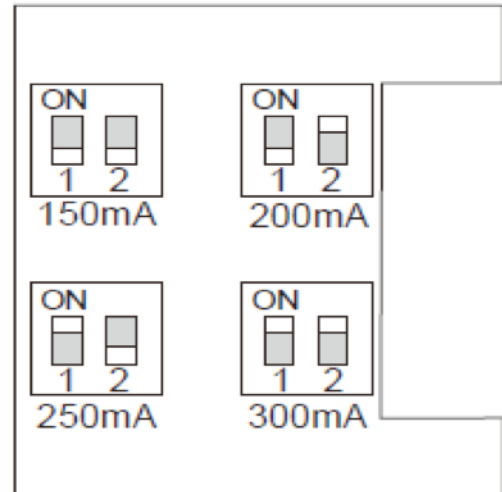
AOC (Adjustable Output Current) Settings

The output current of the driver can be adjusted using the two dip switches provided on the bottom of the driver. The below picture shows the switch positions required to set the current to different levels.

| Switch 1 | Switch 2 | Drive Current |
|----------|----------|-------------------------|
| OFF | OFF | 150mA |
| OFF | ON | 200mA |
| ON | OFF | 250mA |
| ON | ON | 300mA (factory default) |

Notes

The driver will be shipped out of factory with a default of 300mA.



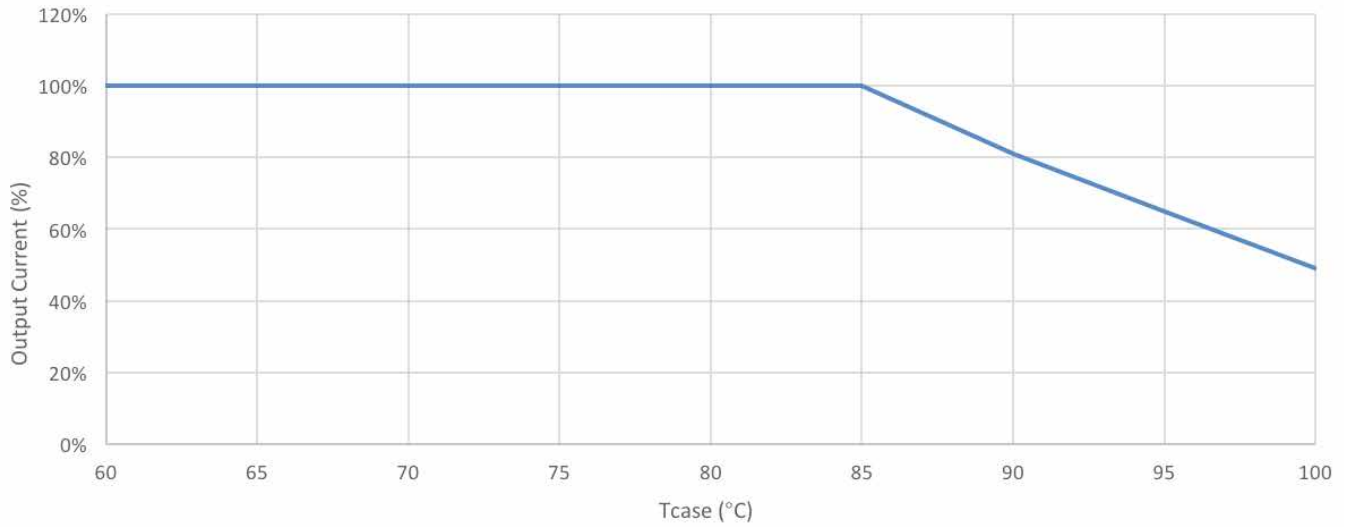
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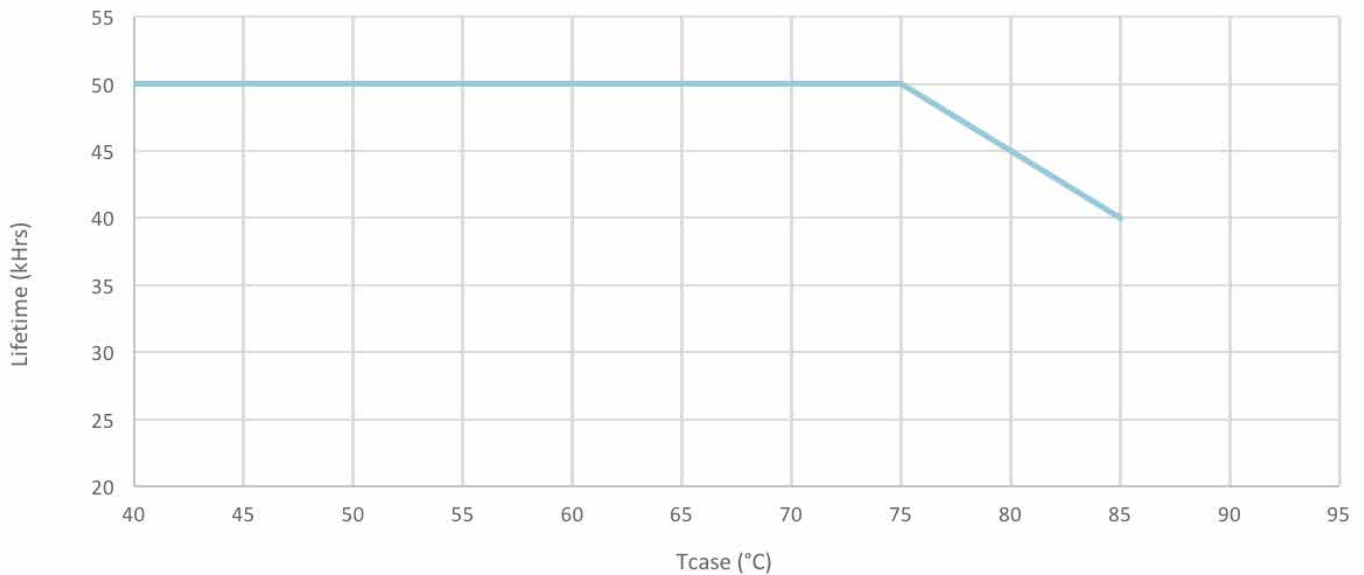
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Output Current Vs. Driver Case Temperature



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

Driver Lifetime Vs. Driver Case Temperature



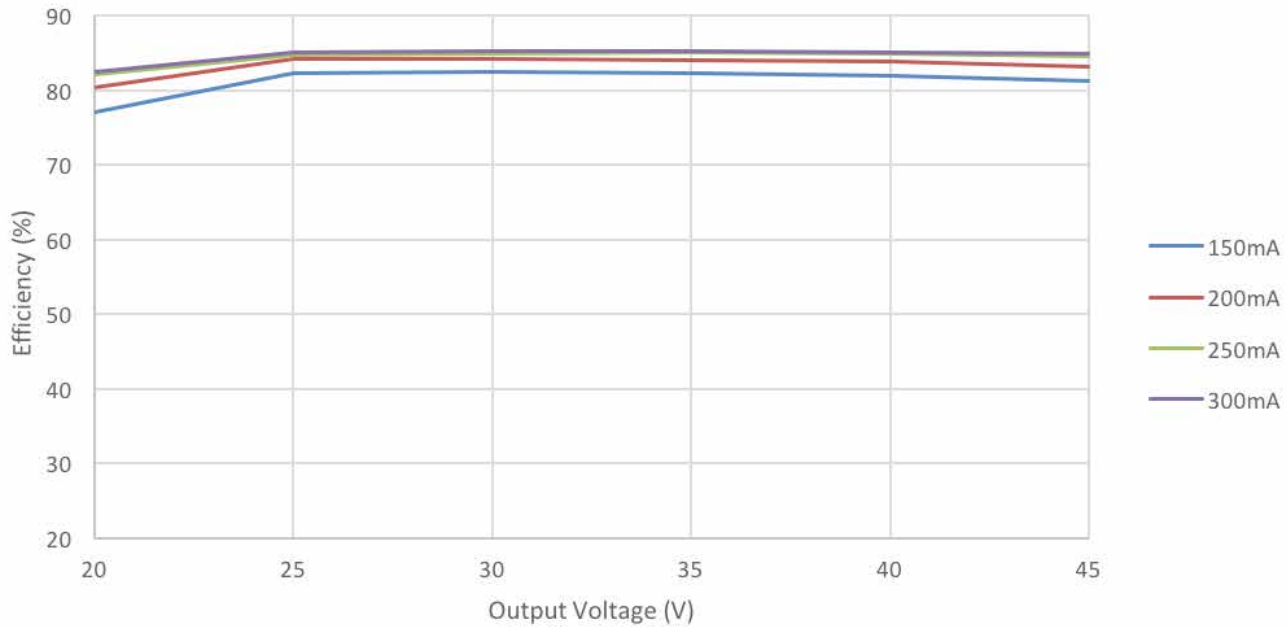
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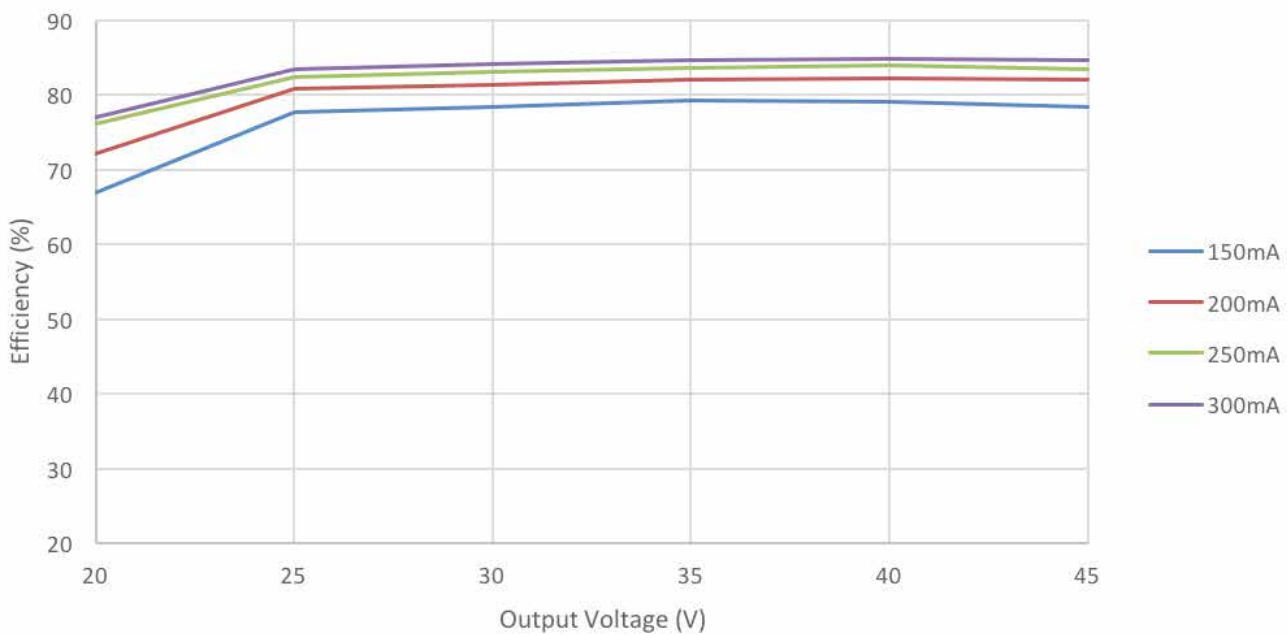
Performance Characteristics

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

Efficiency Vs. Output Voltage at 120Vac



Efficiency Vs. Output Voltage at 277Vac



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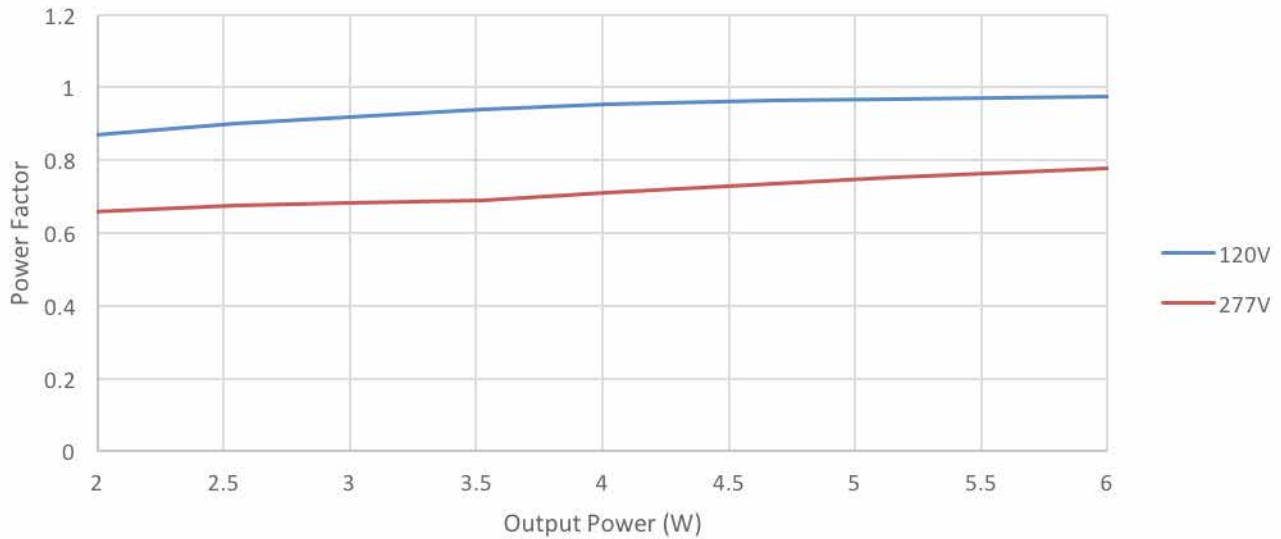
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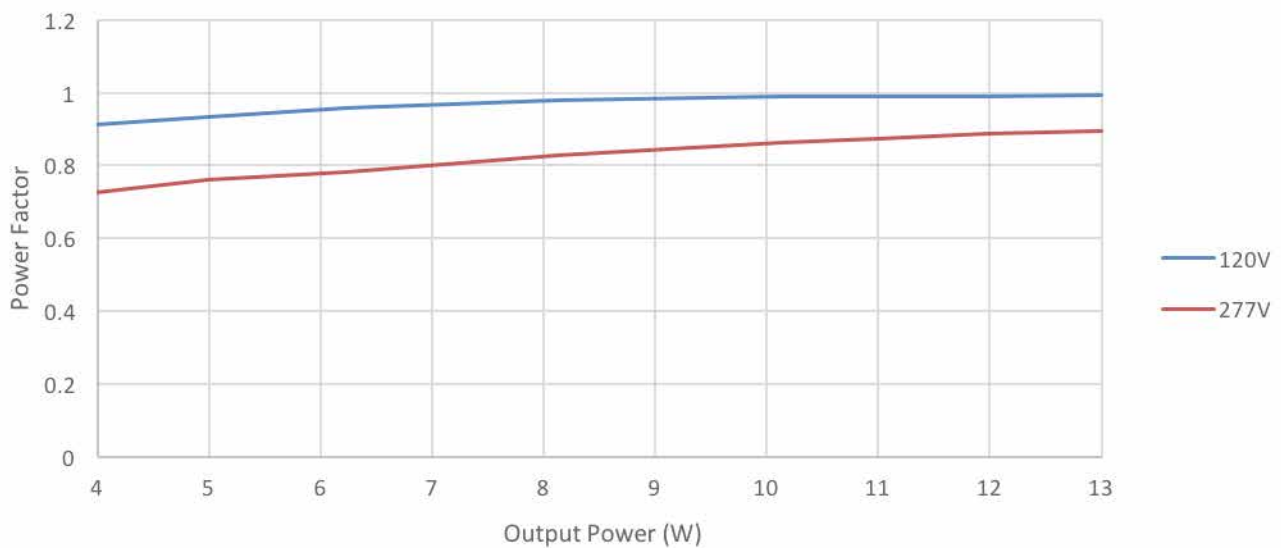
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Power Factor Vs. Output Power

Output Power Vs. PF_150mA



Output Power Vs. PF_300mA



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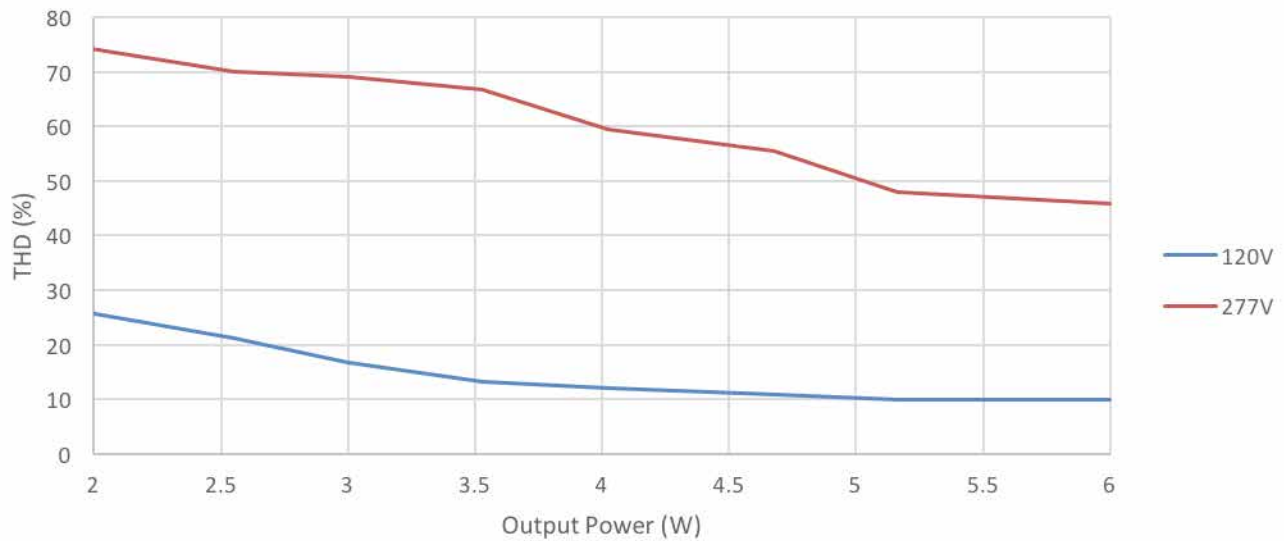
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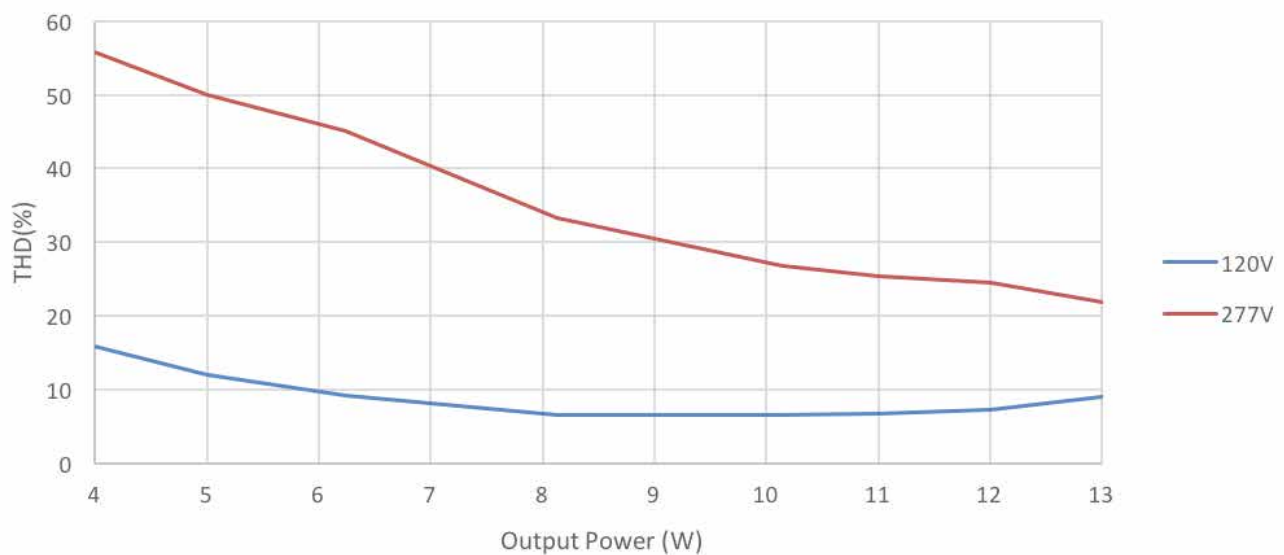
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Total Harmonic Distortion (THD) Vs. Output Power

Output Power Vs. THD_150mA



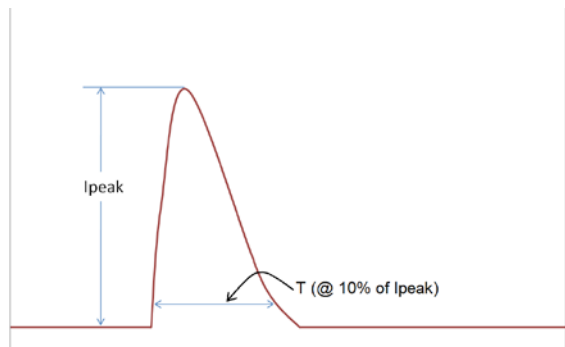
Output Power Vs. THD_300mA



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Inrush Current Info



| Vin | Ipeak | T (@ 10% of Ipeak) |
|----------|-------|--------------------|
| 120 Vrms | 1A | 300 μ S |
| 277 Vrms | 2.3A | 60 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) |
|-------------------------------------|-------------------------|
| 100kHz Ring Wave (w/t 30 Ω) | 2.5KV |

Isolation

| Isolation | Input | Output |
|-----------|---------|---------|
| Input | NA | 2xU+1kV |
| Output | 2xU+1kV | NA |

U = Max working voltage

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

