

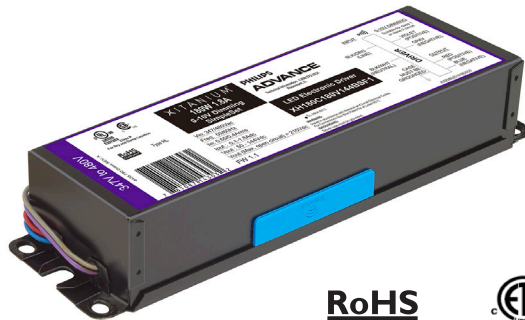
**PHILIPS
ADVANCE**



LED Driver

Xitanium

180W 0.1-1.25A 0-10V Dimming
with SimpleSet
XH180C125V200BSF1



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



LISTED
E321253
Class P
For Dry and Damp Location



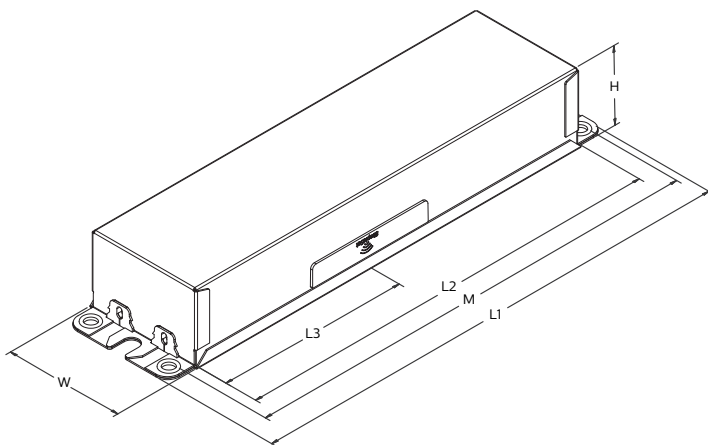
Philips Advance Xitanium outdoor LED drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. With wide operating windows and simple programming, the drivers make it easy for luminaire manufacturers to design luminaires of different sizes and lumen levels for outdoor applications.

Specifications

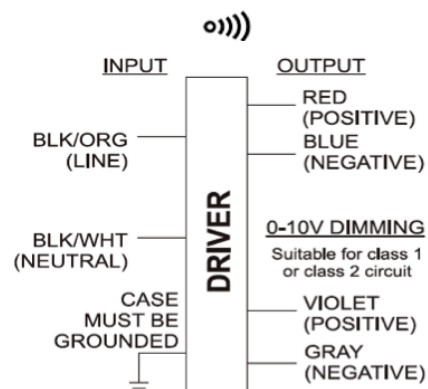
| Input Voltage (Vac) | Output Power (W) | Output Voltage (V) | Output Current (A) | Efficiency@ Max Load and 75°C Case | Max Case Temp. (°C) | Input Current (A) | Max. Input Power (W) | THD @ Max Load (%) | Power Factor @ Max Load | Surge Protection (Combi-Wave, KV) | Envir. Protection Rating |
|---------------------|------------------|--------------------|--------------------|------------------------------------|--------------------------|-------------------|----------------------|--------------------|-------------------------|-----------------------------------|---------------------------|
| 347 | 180 | 70-210 | 0.1 - 1.25 | 92.3 | Life - 85°C UL - 90°C | 0.56 | 200 | <10% | >0.95 | 6 | UL damp & dry and Type HL |
| 480 | | | | 93.2 | | 0.4 | | | | | |

Enclosure

| | In. (mm) |
|----------------------------------|--------------|
| Case Length (L2) | 8.31 (211.0) |
| Case Width (W) | 2.31 (58.0) |
| Case Height (H) | 1.48 (37.6) |
| Mounting Length (M) | 8.91 (226.2) |
| Overall Length (L1) | 9.45 (240.0) |
| Center of SimpleSet Antenna (L3) | 3.75 (95.3) |



Wiring Diagram



| Dimming | Dimming Range (with specified dimmers) | Minimum Output Current (A) |
|-----------------------------------|--|----------------------------|
| 0-10V Analog Class 1 and 2 Wiring | 10% ~ 100% | 0.07 |

Xitanium 180W 0.1-1.25A 0-10V Dimming with SimpleSet

Features

- 50,000+ hour lifetime¹
- Programmable output current through SimpleSet
- Large operating window
- 6kV combi-wave surge rating to comply with ANSI C82.77-5 CAT C low

Benefits

- Enables long life luminaire designs
- Fast and simple way of programming
- Enables fixture designs with wide variety of loads and adjustable current options
- No external surge protection required to pass C82.77-5 CAT C low

Application

- Area
- Roadway
- Parking garages
- Floodlights
- High-bay

Electrical Specifications

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

Product Data

| Order Information | |
|--|--|
| Full Product Code | XH180C125V200BSF1M (Mid-Pack, 10pcs/Box) |
| Line Frequency | 50/60Hz |
| Min. Mains Voltage Operational | 312 Vac |
| Max. Mains Voltage Operational | 528 Vac |
| Output Information | |
| Maximum Open Circuit Voltage | 290Vdc |
| Output Current Ripple (ripple = peak to average / average) | 15% max @ max Iout |
| Output Current Tolerance (at maximum output current) | <5% |
| Protections | Short Circuit, Open Circuit Protection for LED + and LED – and Temperature Foldback |
| Features | |
| 0-10V Dimming | 150µA (±3%) source current from driver. See dim curve for detail. |
| AOC (Adjustable Output Current) | 0.1A-1.25A via SimpleSet (Factory Default at 1.05A) |
| Additional SimpleSet Configurable Features | Adjustable Min Dim level, Adjustable Lumen Output, Adjustable Lumen Output Min, OEM Write Protection |
| Environment & Approbation | |
| Operating Ambient Temp. Range | -40°C to +55°C |
| Max Case Temperature (Tcase) | 90°C |
| Agency Approbations | UL 8750, CSA 250.13, UL Listed, ETL Class P |
| Electromagnetic Compliance | FCC Title 47 Part 15 Class A |
| Audible Noise | <24dB Class A |
| Weight | 2.1 Lbs / 0.95 kgs |

1. Philips 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.

Xitanium 180W 0.1-1.25A 0-10V Dimming with SimpleSet

Electrical Specifications

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0-10V Dimming Curve

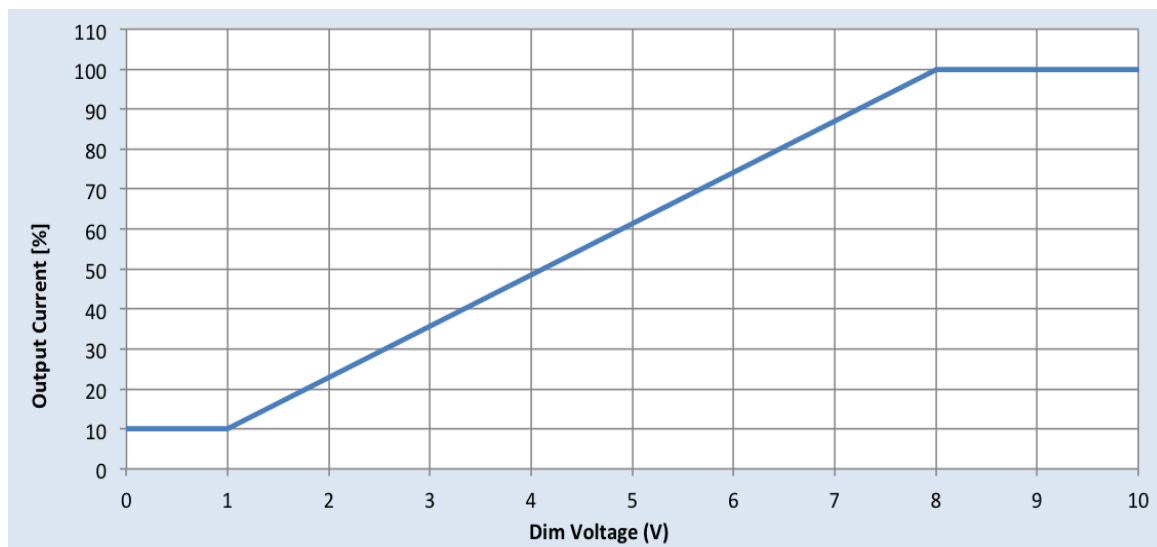
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

Minimum dim level: 10% of Iout setting as default

Maximum output voltage on the dimming wires: 12V

Approved Dimmer List

| Manufacturer | Manufacturer Part Number |
|--------------|---|
| Lutron | Visit www.lutron.com/advance for a list of dimmers (Mark VII) that will work with this driver |
| Leviton | IllumaTech IP7 series |
| Philips | Sunrise - SR1200ZTUNV |

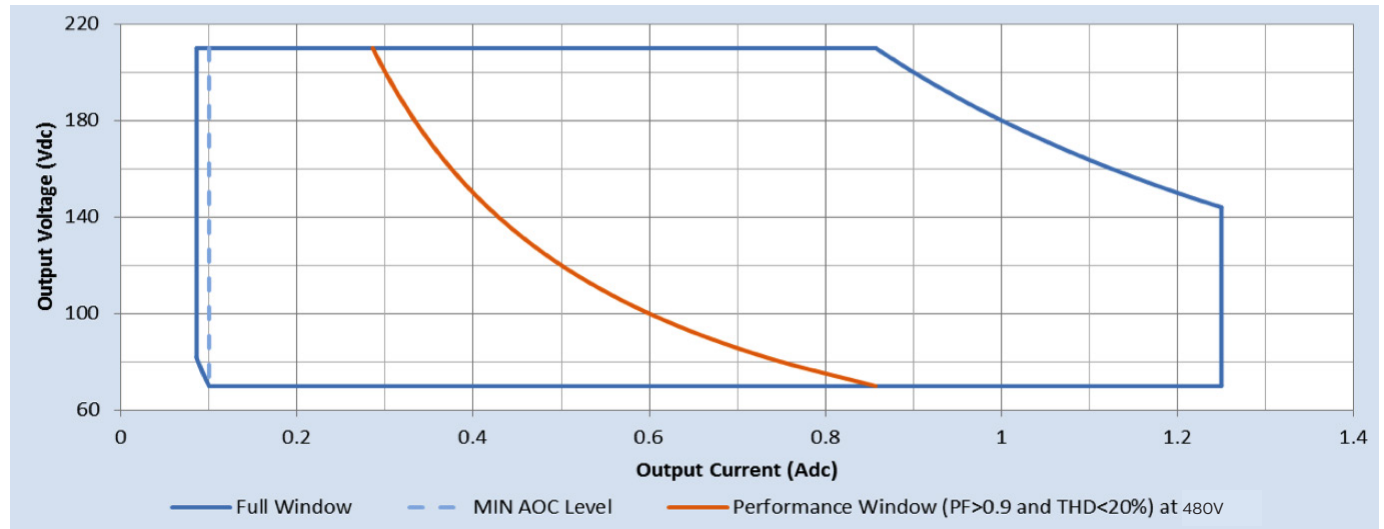


Xtanium 180W 0.1-1.25A 0-10V Dimming with SimpleSet

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Driver Output Window



Notes

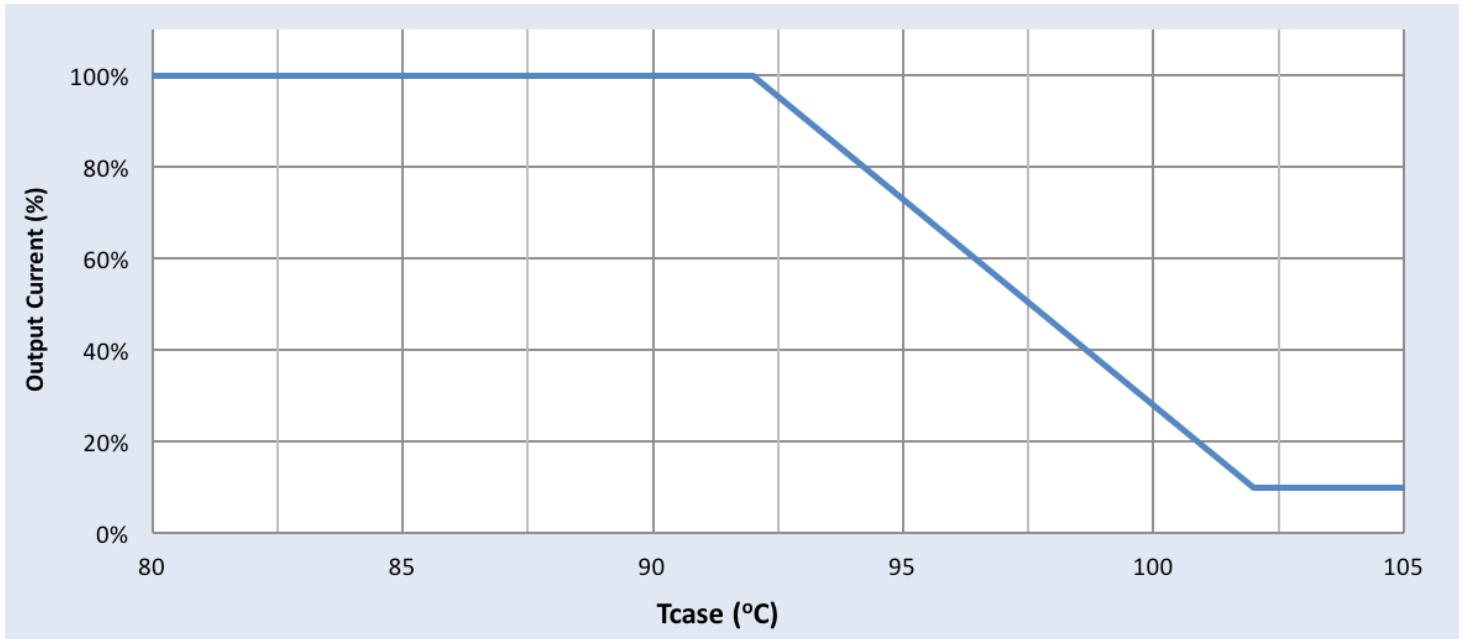
1. Factory default output current is 1.05A.
2. To get a 100% to 10% dimming range, the output current setting through AOC should be $\geq 700\text{mA}$.
3. Factory default minimum dimming level is 10%. This can be adjusted between 10% and 100% using Philips MultiOne.

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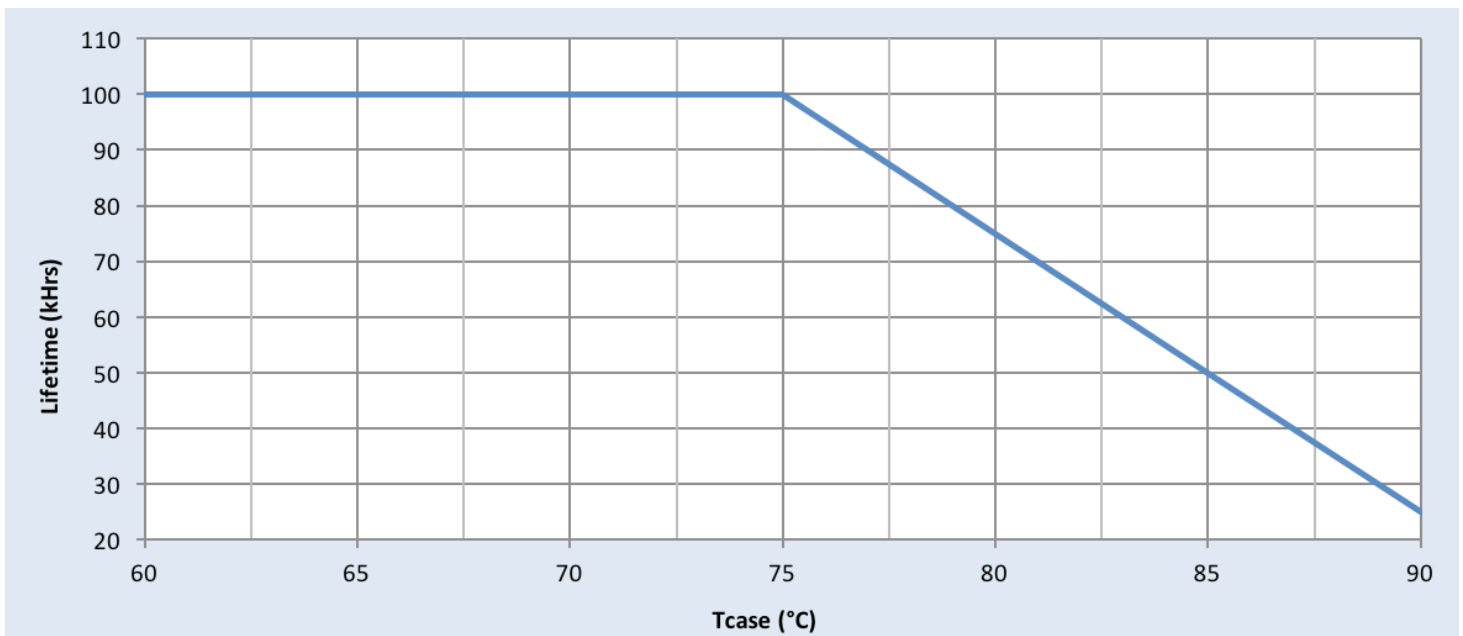
Output Current Vs. Driver Case Temperature



Note

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

Driver Lifetime Vs. Driver Case Temperature

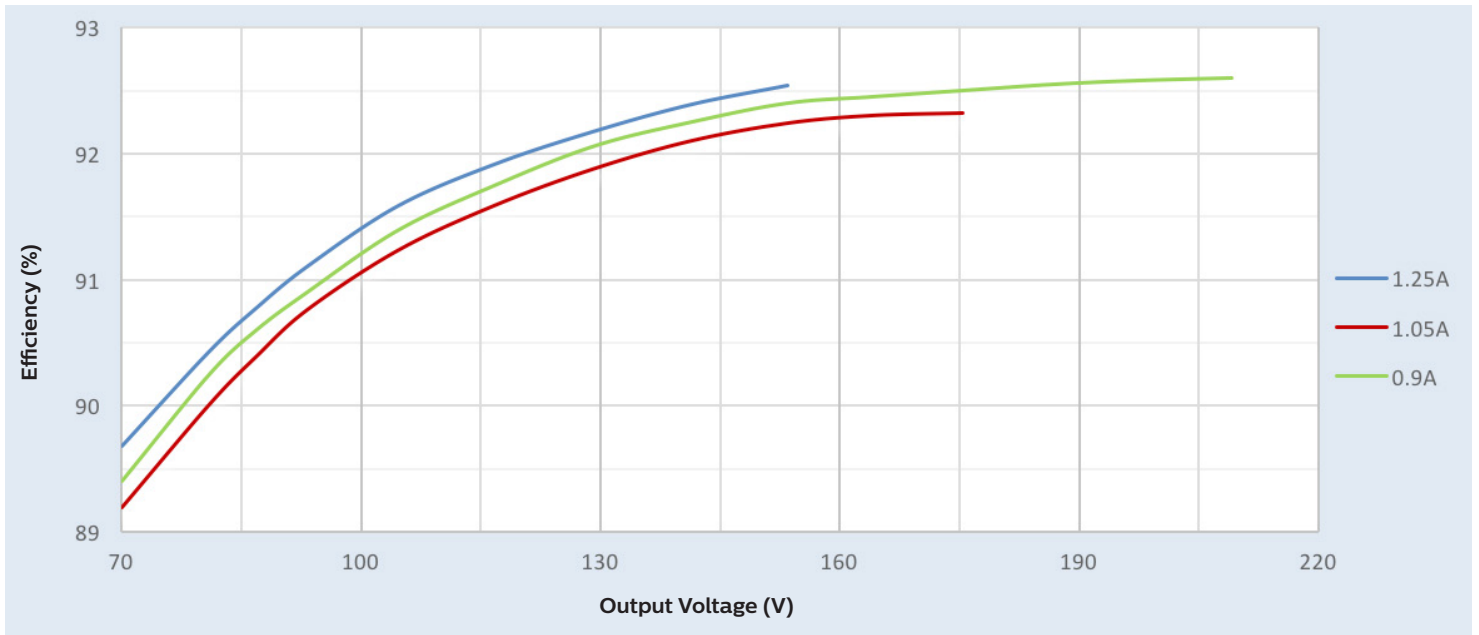


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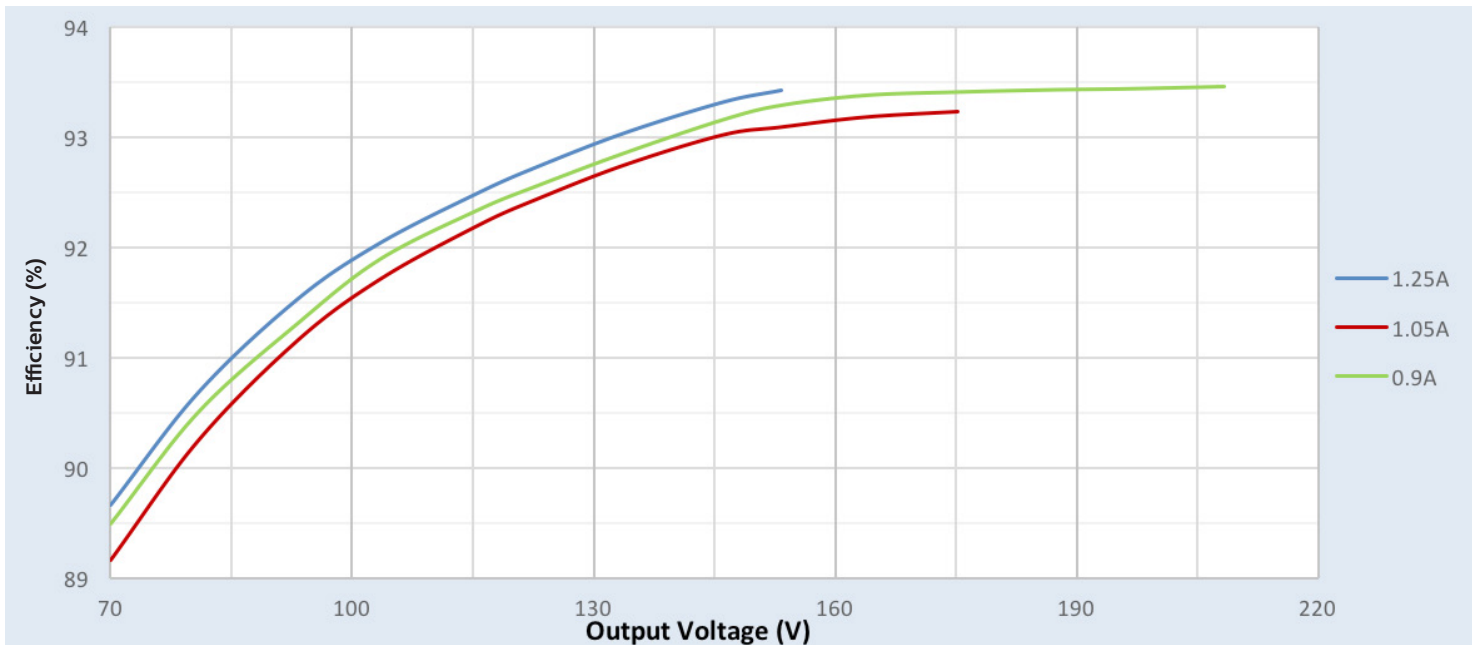
Performance Characteristics

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 at 347Vac



Efficiency Vs. Output Voltage at 480Vac

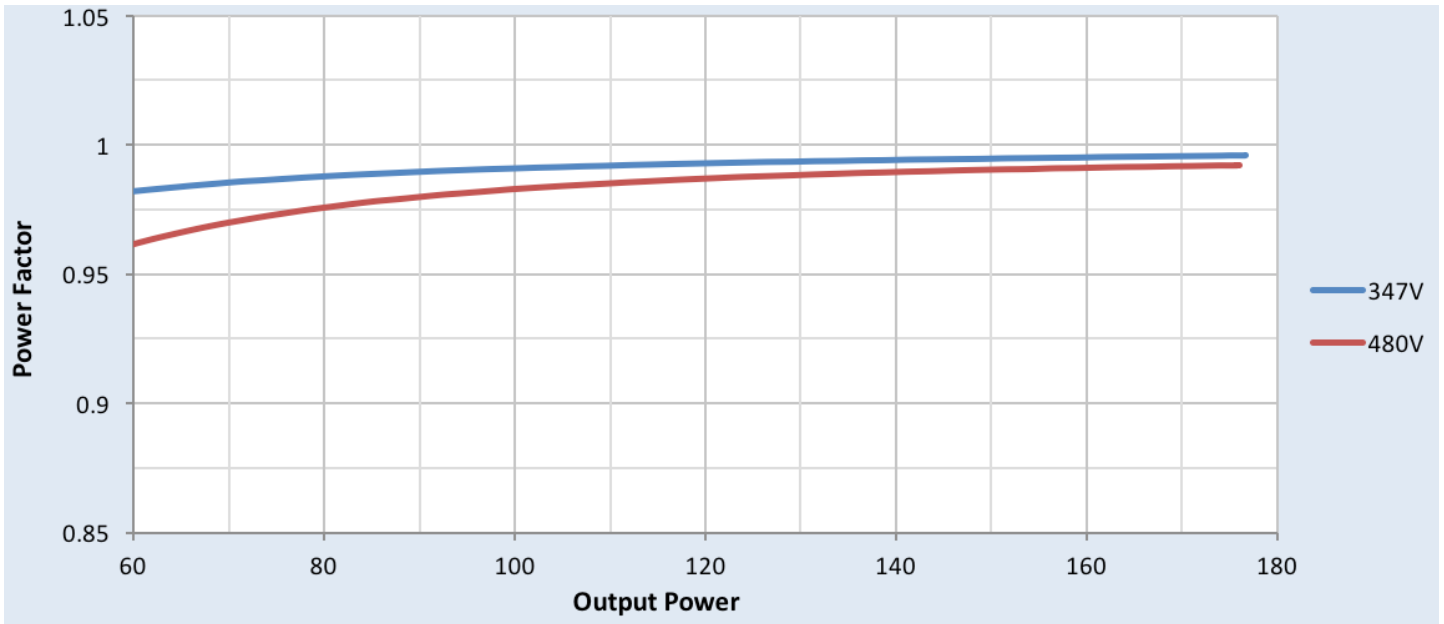


Xtanium 180W 0.1-1.25A 0-10V Dimming with SimpleSet

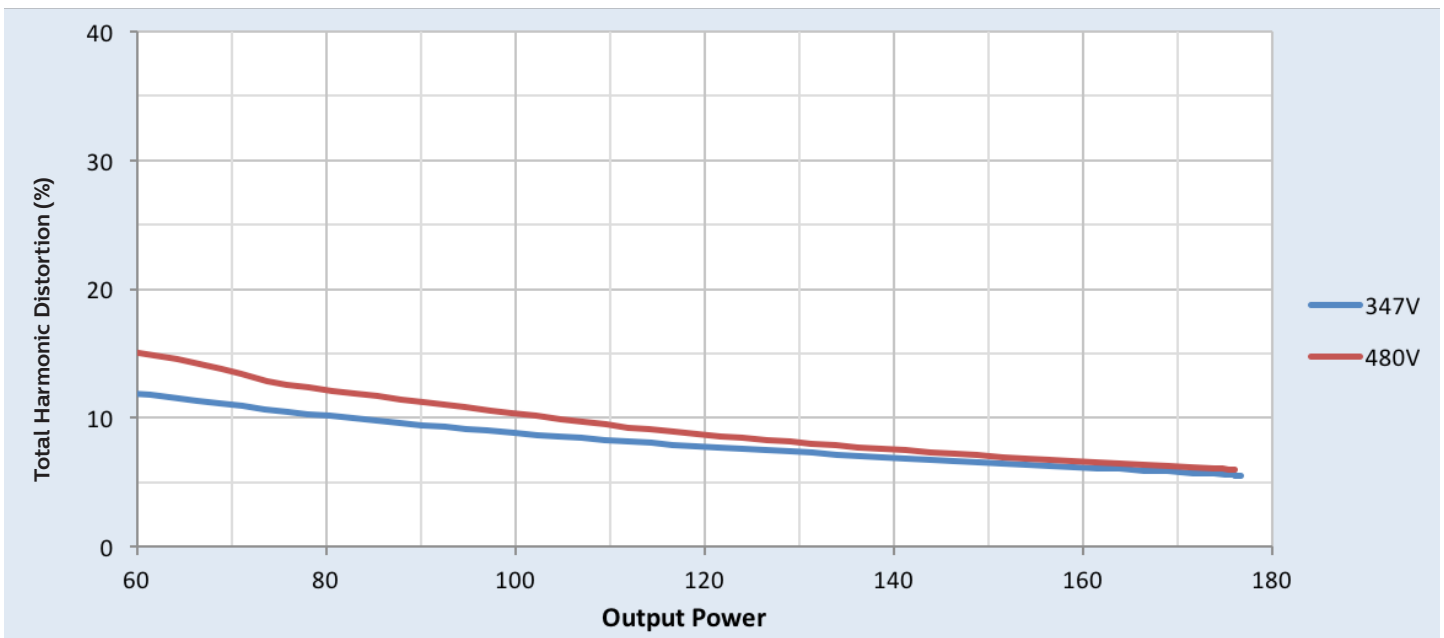
Performance Characteristics

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Power Factor Vs. Output Power

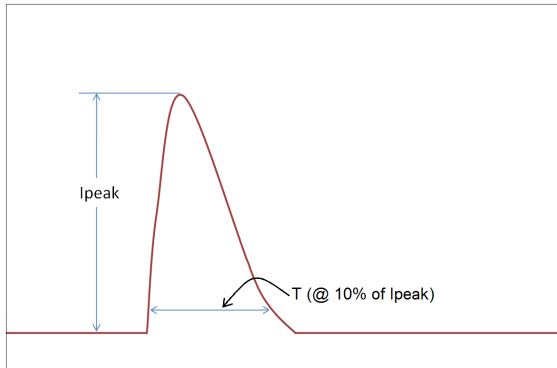


Total Harmonic Distortion (THD) Vs. Output Power



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Inrush Current Info



| Vin | Ipeak | T (@ 10% of Ipeak) |
|----------|-------|--------------------|
| 347 Vrms | 59.3A | 177μS |
| 480 Vrms | 77.6A | 175μS |

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) | 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 |
| Enclosure | 2xU+1kV | 2xU+1kV | 2xU+1kV | NA |

U = Max input voltage

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