

**PHILIPS
ADVANCE**

LED Driver

Xitanium

300W 347-480V 0.1-1.50A
0-10V with SimpleSet
XH300C150V300BSR1



For Dry and Damp Location

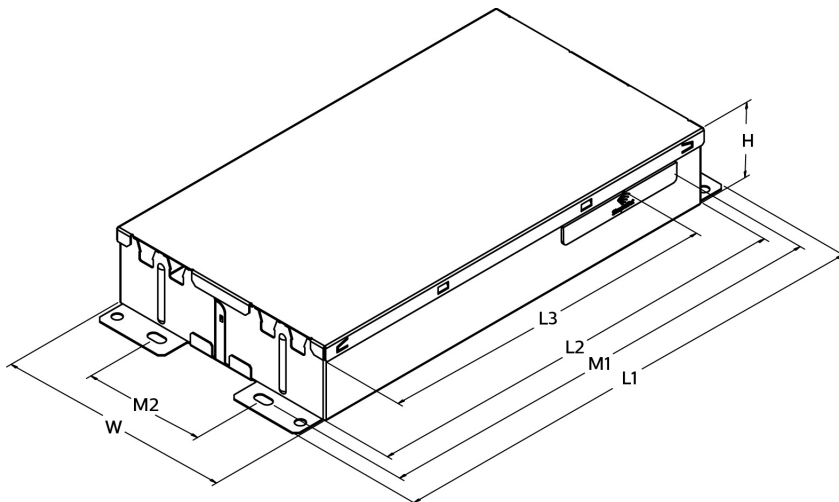
Philips Advance Xitanium outdoor LED drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. With wide operating windows and simple programming, the drivers make it easy for luminaire manufacturers to design luminaires of different sizes and lumen levels for outdoor applications.

Specifications

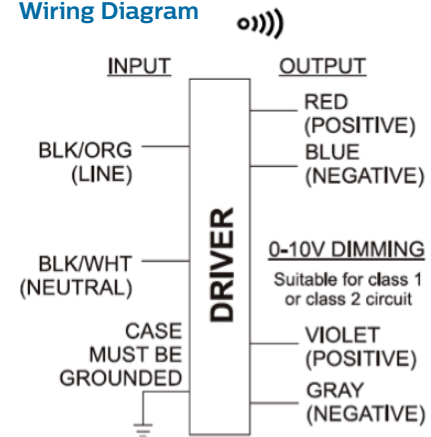
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max. Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max. Load	Power Factor @ Max. Load	Surge Protection (Combi-Wave, kV)	Envir. Protection Rating
347	300	100-300	0.1-1.5	93.7	85°C	1.0	330	<10%	>0.95	6	UL Dry & Damp and Type HL
480				94.5		0.7					

Enclosure

	In. (mm)
Case Length (L2)	8.40 (213.3)
Case Width (W)	4.61 (117.1)
Case Height (H)	1.47 (37.3)
Mounting Length (M1)	8.84 (224.6)
Mounting Width (M2)	2.35 (59.8)
Overall Length (L1)	9.47 (240.6)
Center of SimpleSet Antenna (L3)	6.59 (167.4)



Wiring Diagram



Dimming	Dimming Range	Minimum Output Current (A)
0-10V Analog Class 1 & Class 2 Wiring	10% ~ 100%	0.1

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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 current
- No external surge protection required to pass C82.77-5 CAT C low

Application

- Area
- Roadway
- Floodlights
- Parking garages

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XH300C150V300BSR1M (Mid-Pack, 4pcs/Box)
Line Frequency	50/60Hz
Min. Mains Voltage Operational	312Vac
Max. Mains Voltage Operational	528Vac
Output Information	
Maximum Open Circuit Voltage	400Vdc
Output Current Ripple (ripple = peak to average / average)	<= 15% at maximum output current Low frequency (≤ 120 Hz) content <5%
Output Current Tolerance (in the performance window)	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED -, and Thermal Foldback
Features	
0-10V Dimming	150 μ A ($\pm 3\%$) source current from driver. See dim curve for detail.
AOC (Adjustable Output Current)	0.1A-1.5A 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)	85°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	4.0Lbs / 1.8kgs

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.

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0-10V Dimming Curve

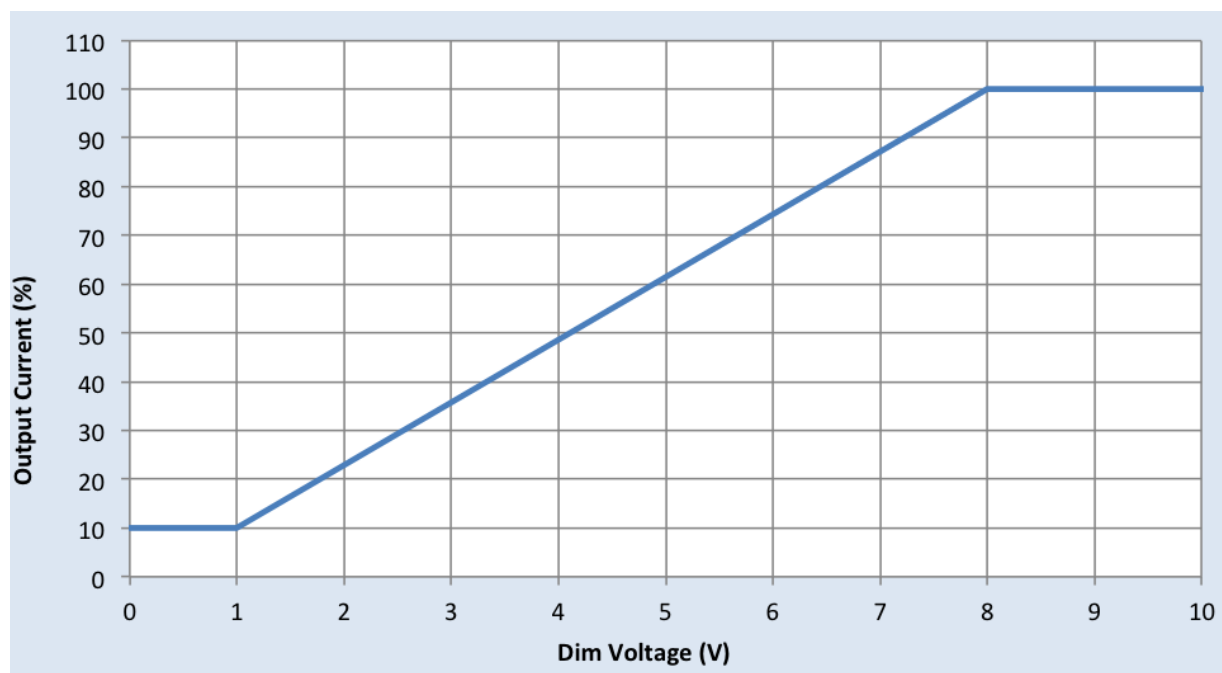
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

Minimum dim level: Factory default 10% of Iout (minimum 100mA), can be programmed to a higher level via SimpleSet

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

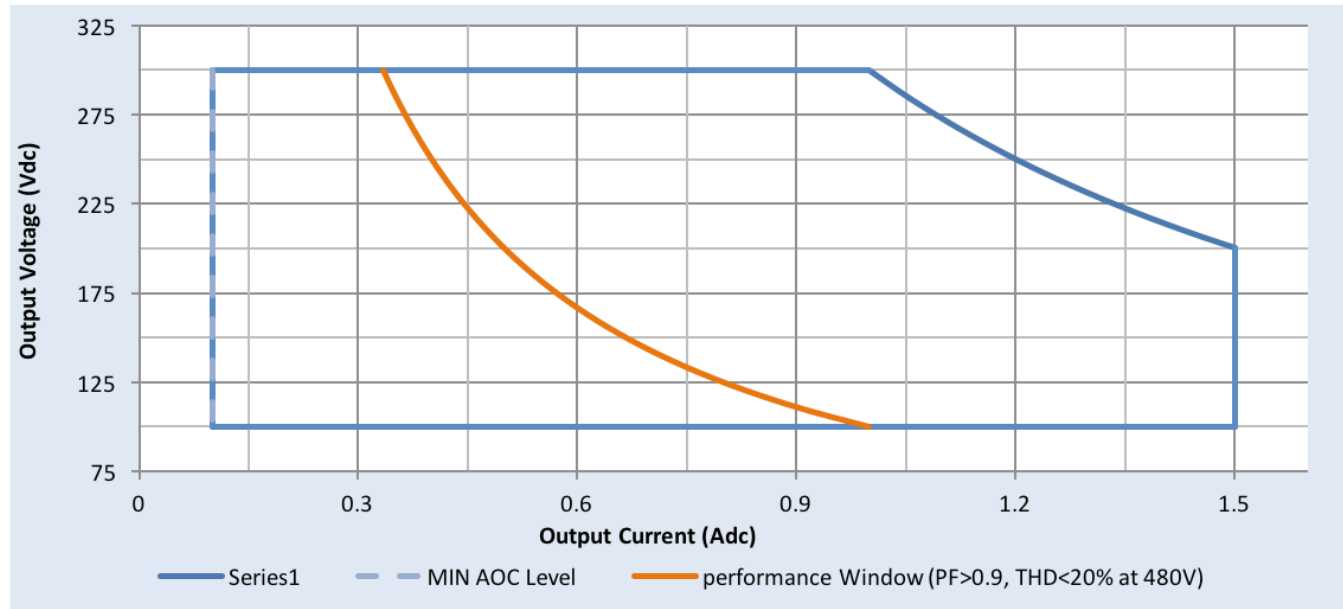


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Operating Window



Notes

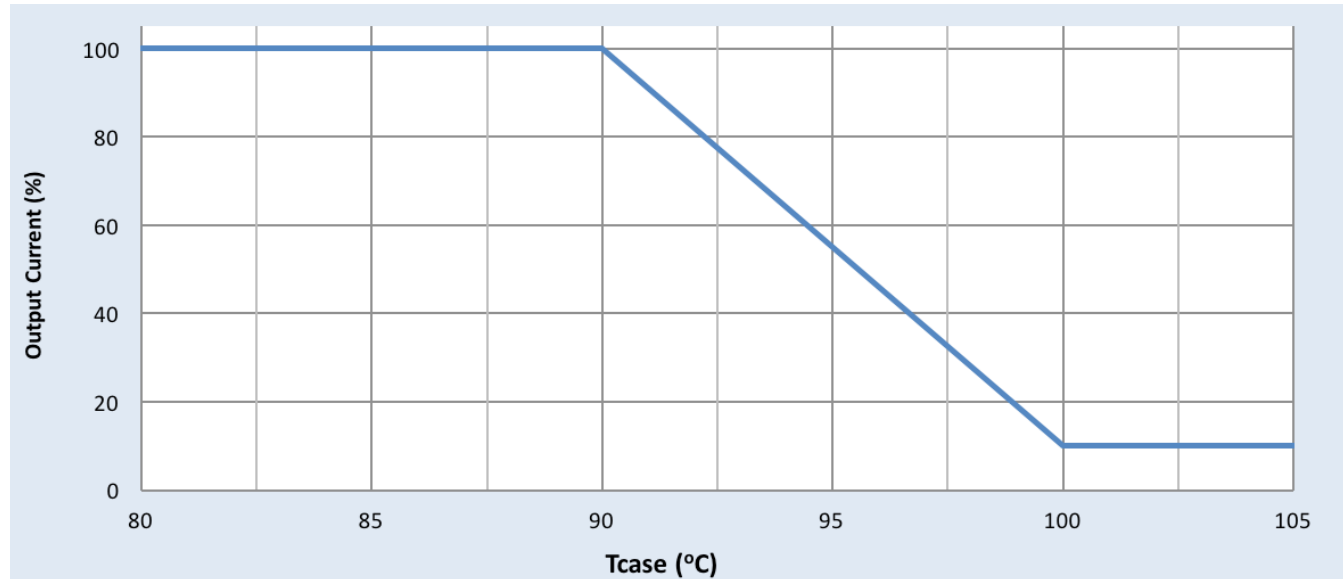
1. Factory default output current is 1.05A.
2. For 10% dimming output current setting through AOC should be >1A.
3. Factory default minimum dimming level is 10%. This can be adjusted between 10% and 100% using Philips MultiOne.

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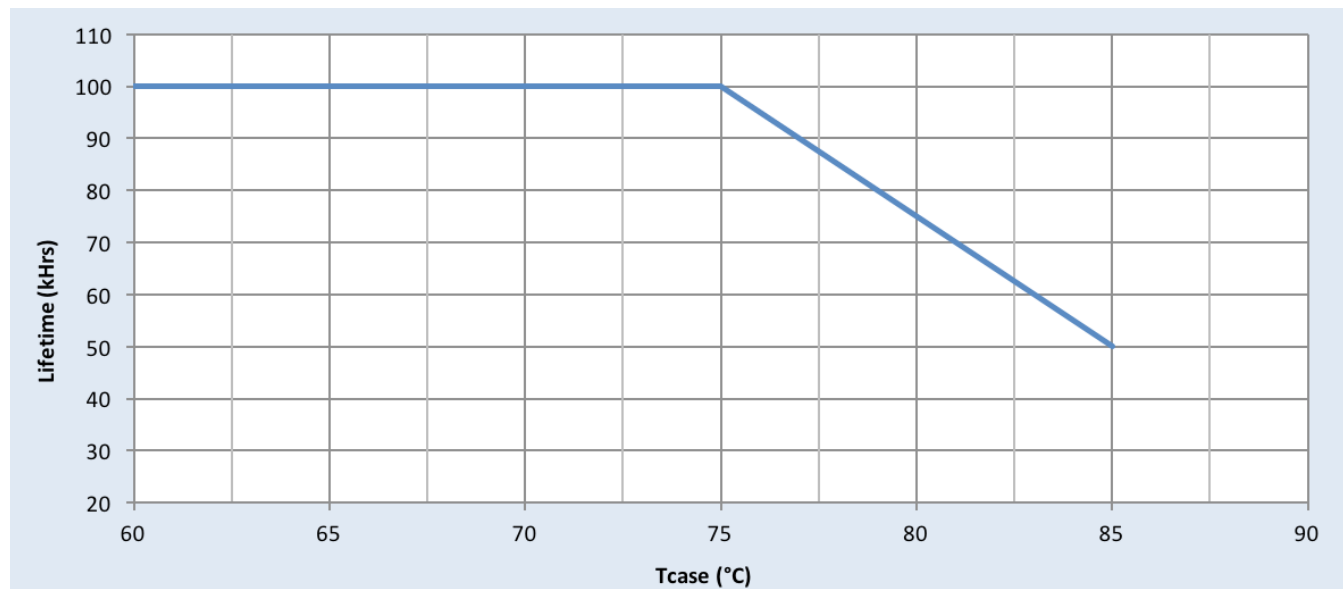
Output Current Vs. Driver Case Temperature



Notes

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

Driver Lifetime Vs. Driver Case Temperature

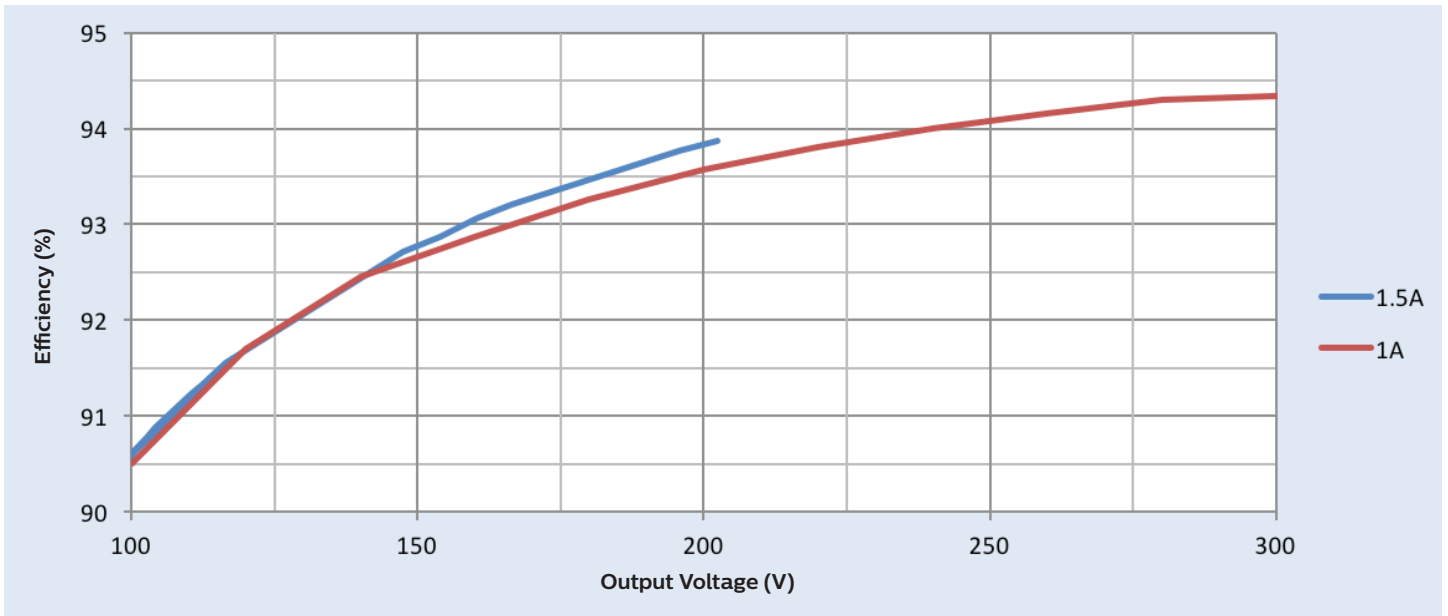


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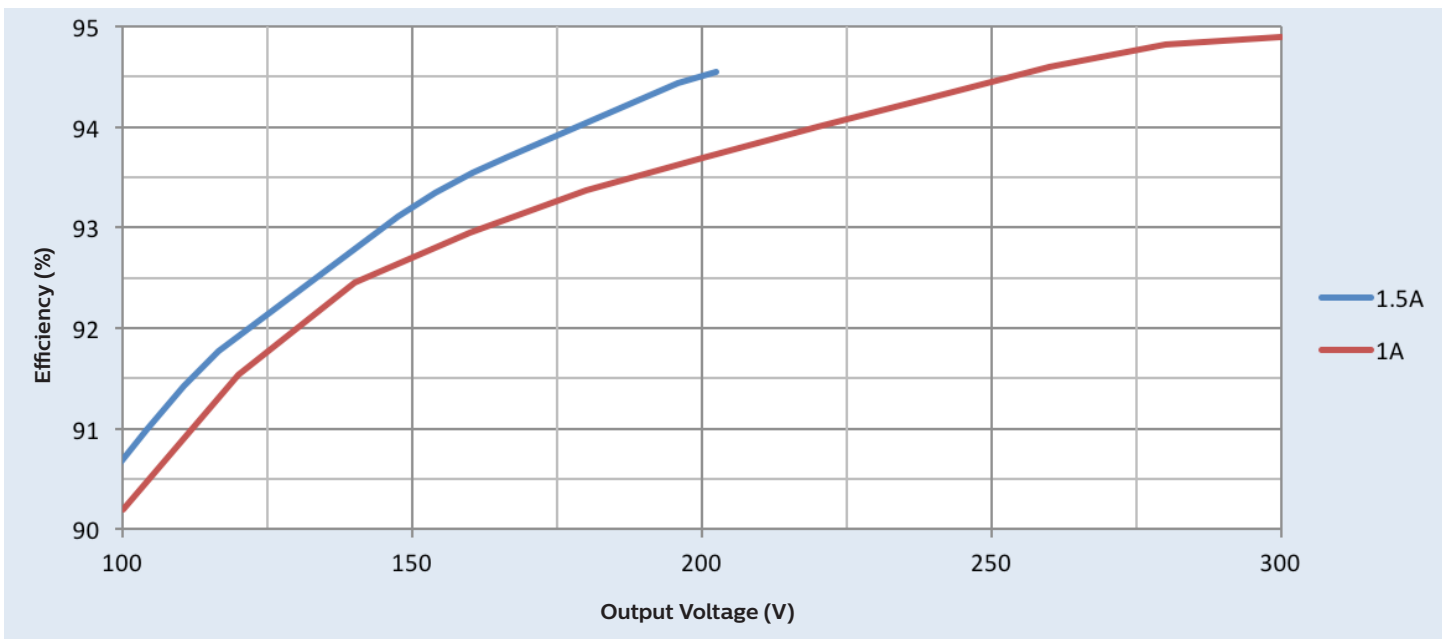
Performance Characteristics

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

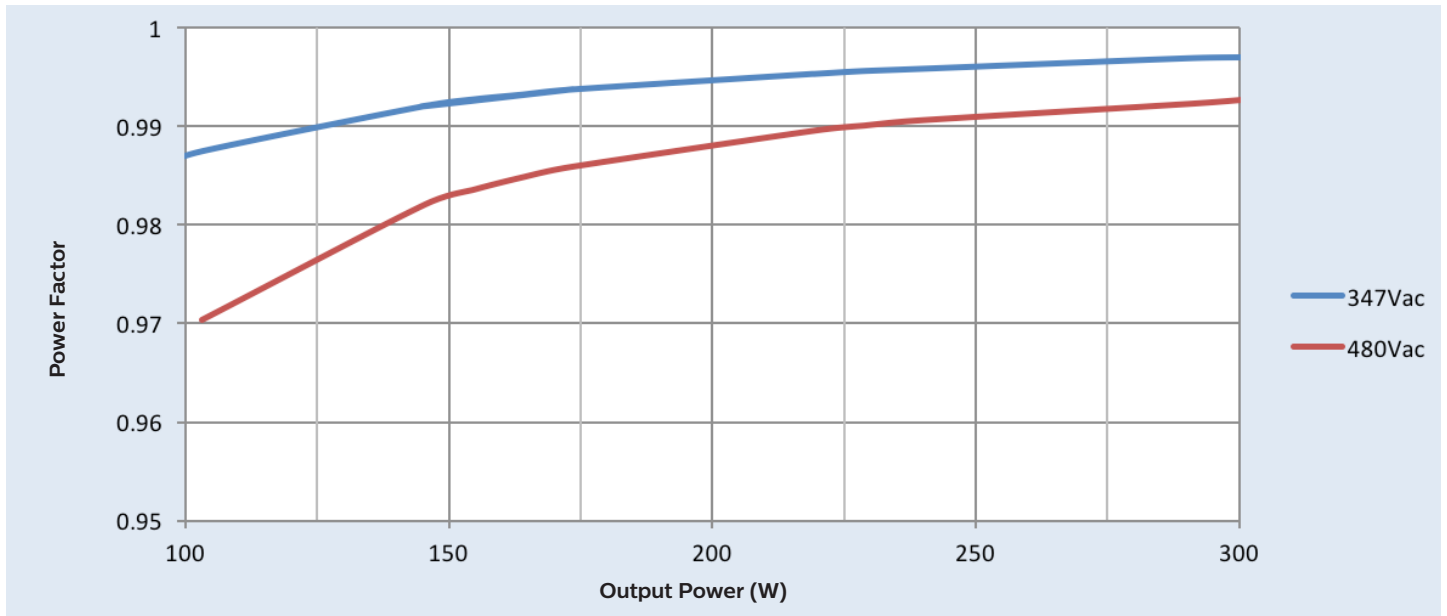


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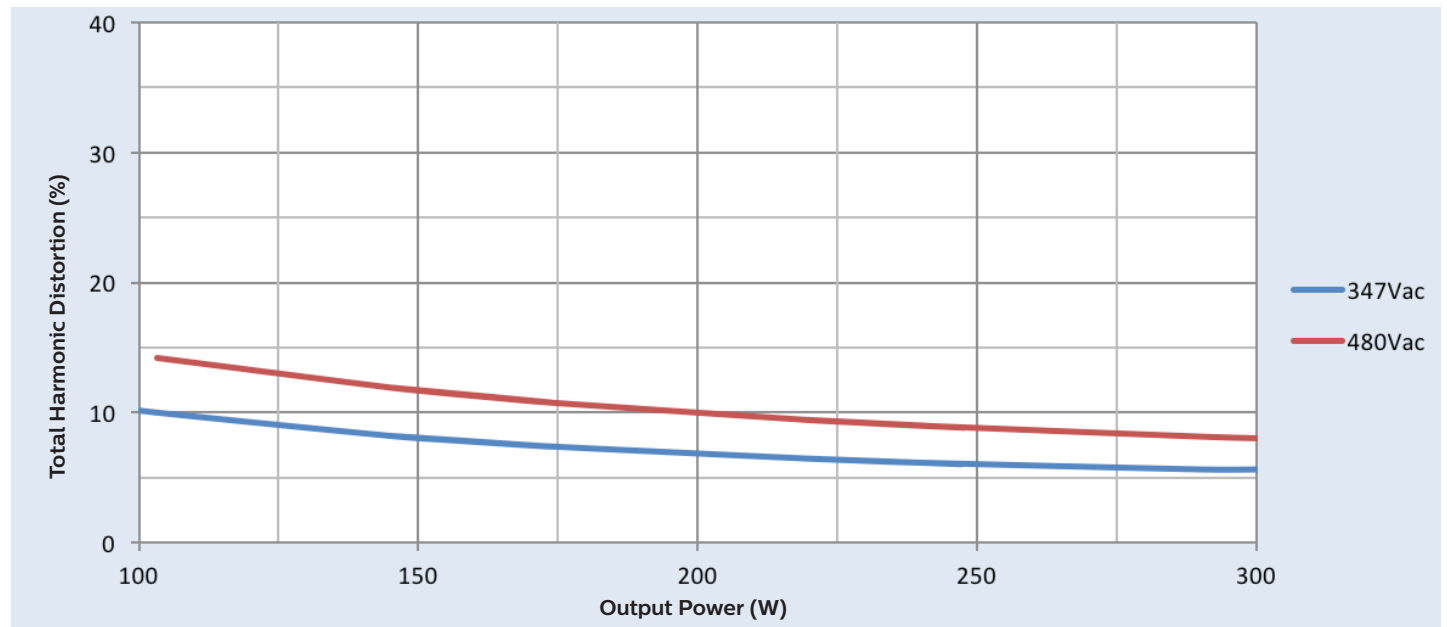
Performance Characteristics

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Power Factor Vs. Output Power

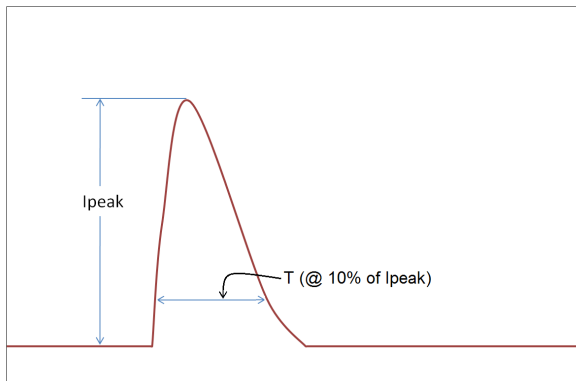


Total Harmonic Distortion (THD) Vs. Output Power



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Inrush Current Info



V_{in}	I_{peak}	T (@ 10% of I_{peak})
347 Vrms	64.9A	224 μ S
480 Vrms	105.7A	222 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)	Common Mode (L-G, N-G, L&N-G)
1.2/50 μ s Combination Wave (w/t 2 Ω)	6kV	6kV

Isolation

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	NA	2xU+1kV	2xU+1kV	2xU+1kV
Output	2xU+1kV	NA	2xU+1kV	2xU+1kV
0-10V (Class 2)	2xU+1kV	2xU+1kV	NA	2xU+1kV
Enclosure	2xU+1kV	2xU+1kV	2xU+1kV	NA

U = Max input voltage

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