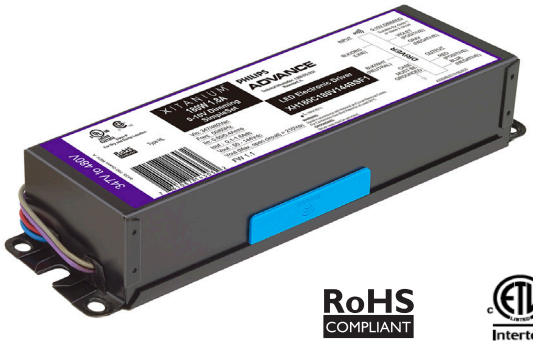
PHILIPS
ADVANCE

LED Driver

Xitanium

180W 0.1-1.8A 0-10V Dimming
with SimpleSet
XH180C180V144BSF1



RoHS COMPLIANT

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

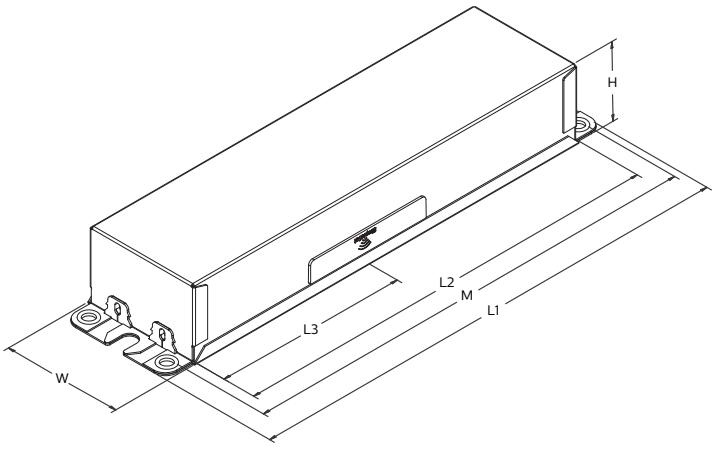
Philips Advance Xitanium outdoor LED drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. With wide operating windows and simple programming, the drivers make it easy for luminaire manufacturers to design luminaires of different sizes and lumen levels for outdoor applications.

Specifications

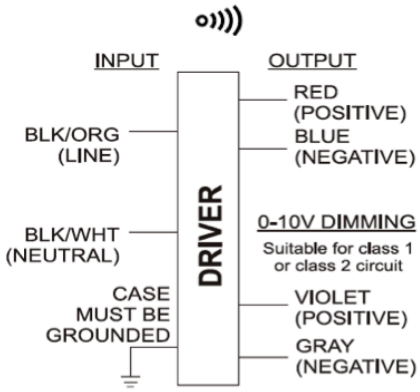
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 75°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating
347	180	50-144	0.1 - 1.8	92	Life - 85°C UL - 90°C	0.56	200	<10%	>0.95	6	UL damp & dry and Type HL
480				92.5		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%	0.1

Xitanium 180W 0.1-1.8A 0-10V Dimming with SimpleSet

Features

- 50,000+ hour lifetime[1]
- 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	XH180C180V144BSF1M (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	210Vdc
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-1.8A via SimpleSet (Factory Default at 1.5A)
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 0.1-1.8A 0-10V Dimming with SimpleSet

Electrical Specifications

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0-10V Dimming Curve

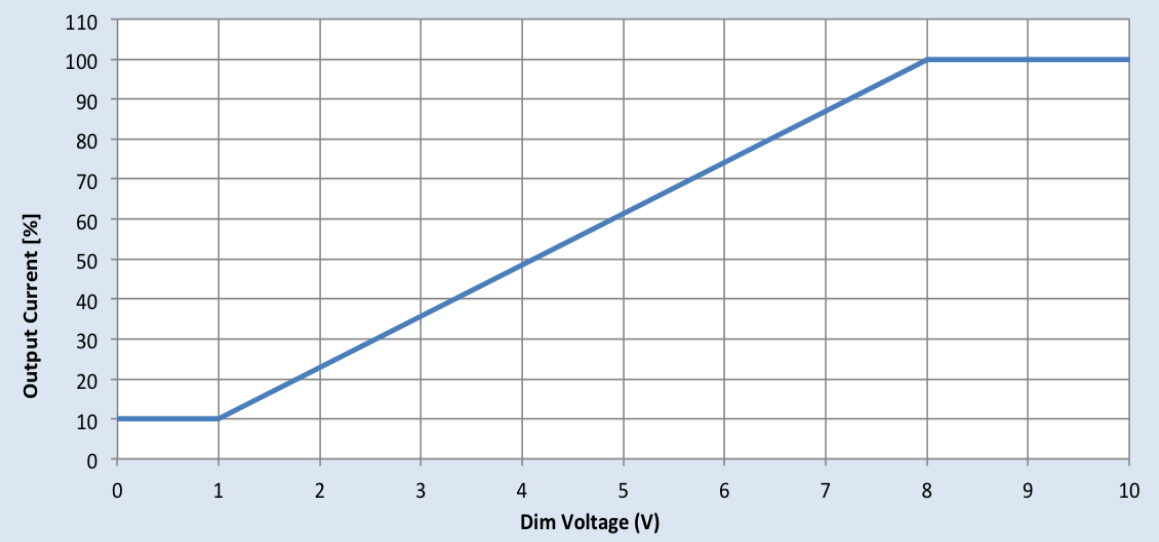
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

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



Xitanium 180W 0.1-1.8A 0-10V Dimming with SimpleSet

Electrical Specifications

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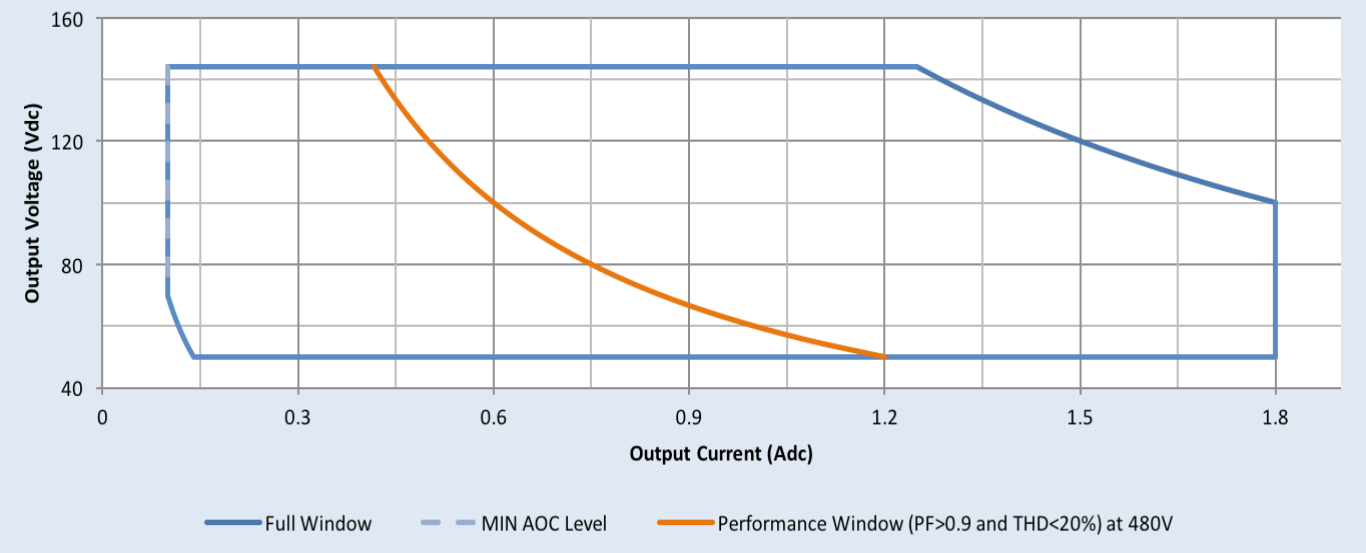
Driver Output Window



Notes

1. Factory default output current is 1.5A.
2. To get a 100% to 10% dimming range, the 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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Electrical Specifications

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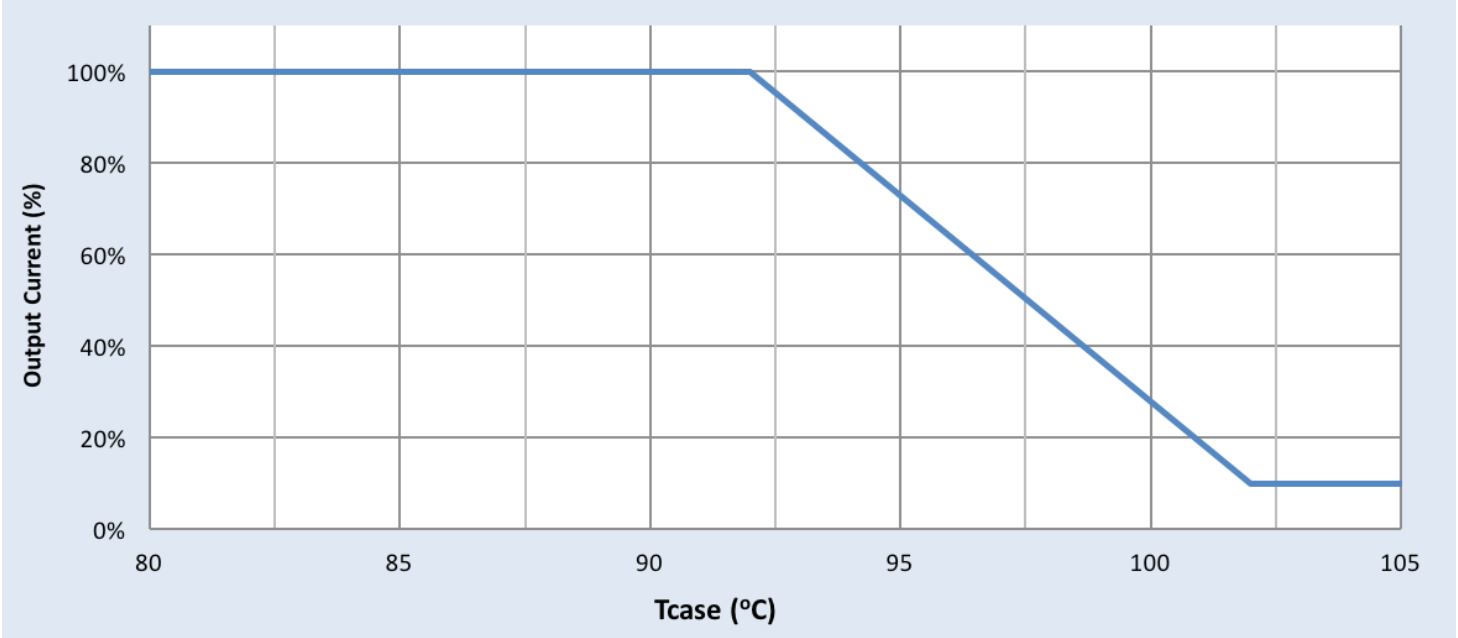
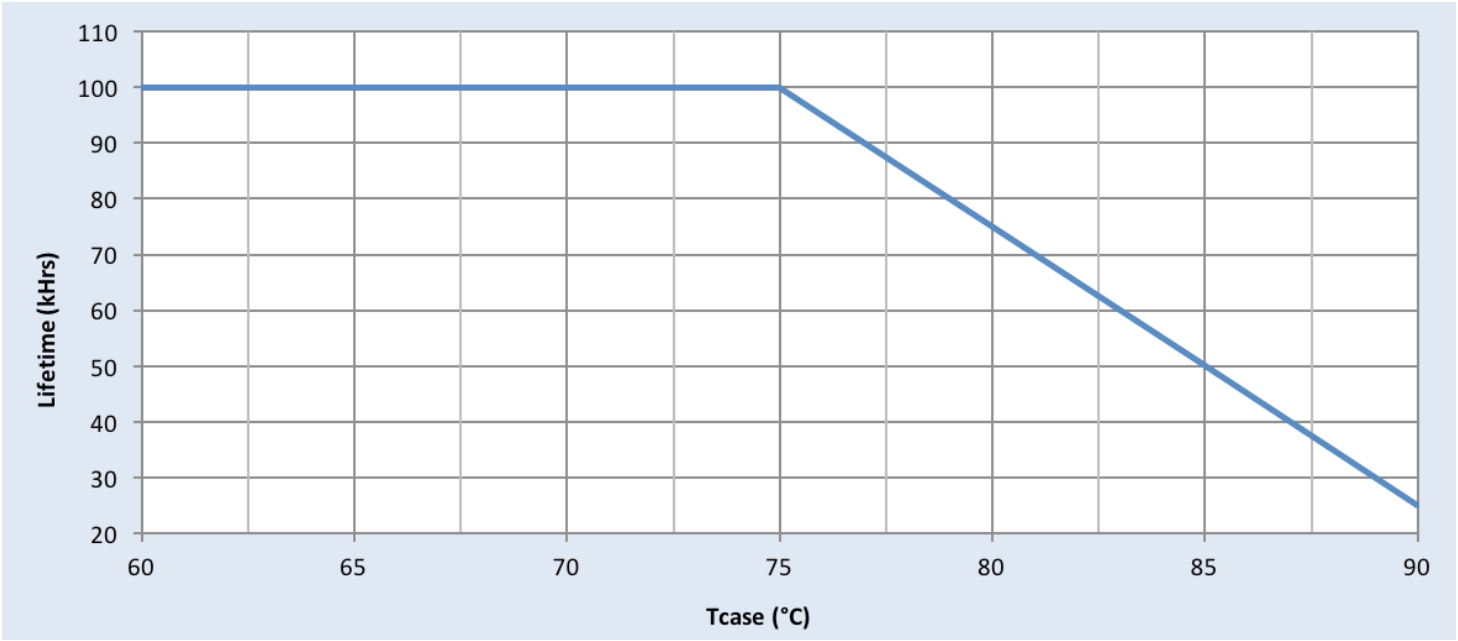
Output Current Vs. Driver Case Temperature



Note

There is ±5°C tolerance on the driver case temperature.

Driver Lifetime Vs. Driver Case Temperature

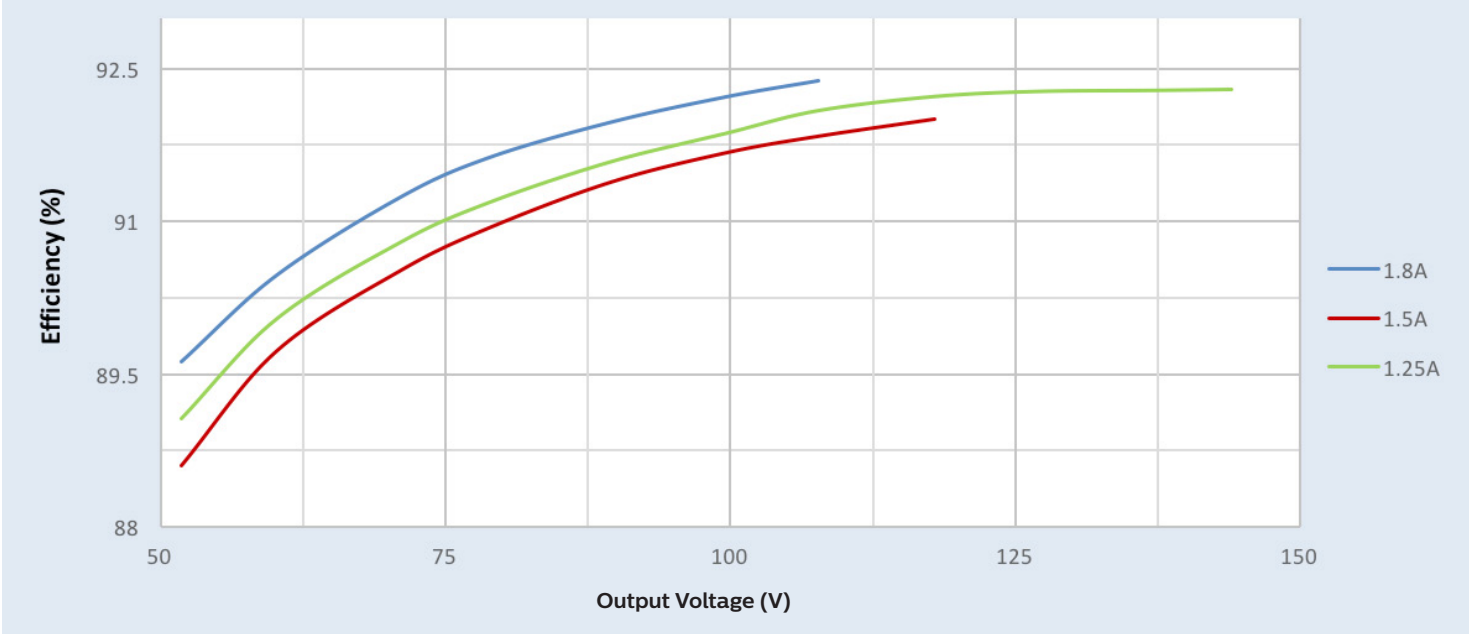


Xitanium 180W 0.1-1.8A 0-10V Dimming with SimpleSet

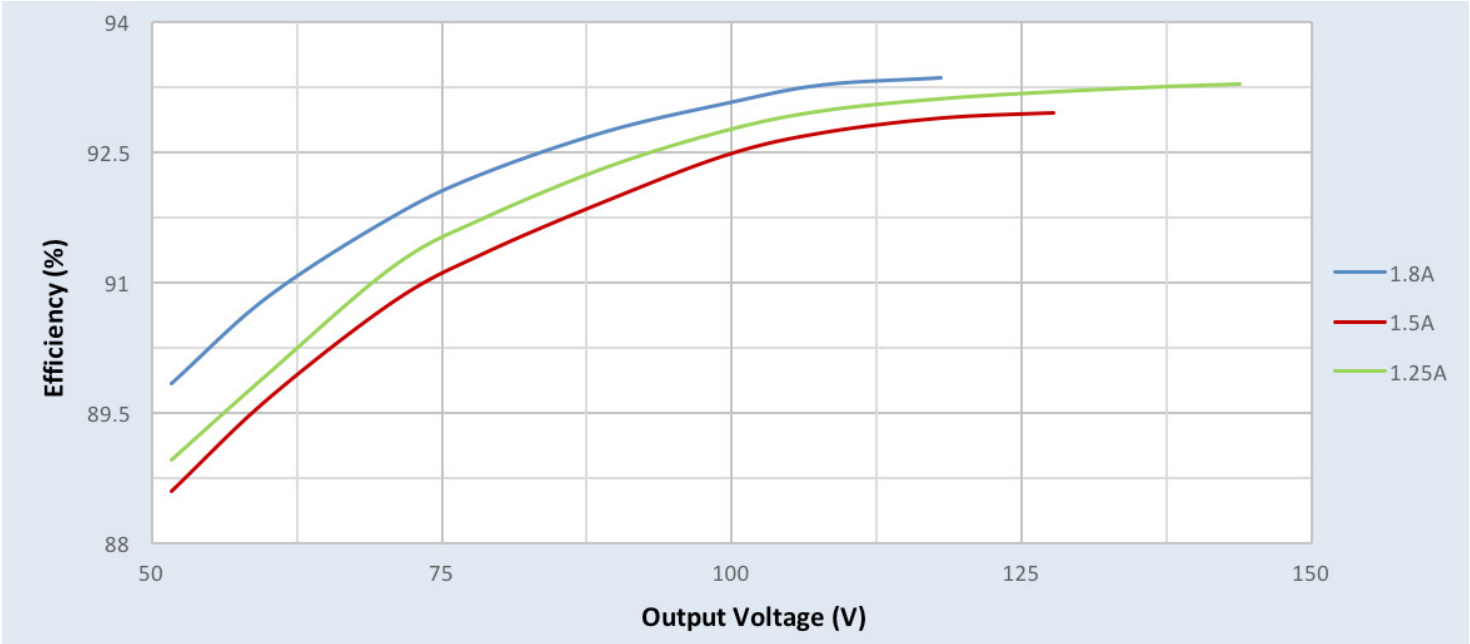
Performance Characteristics

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



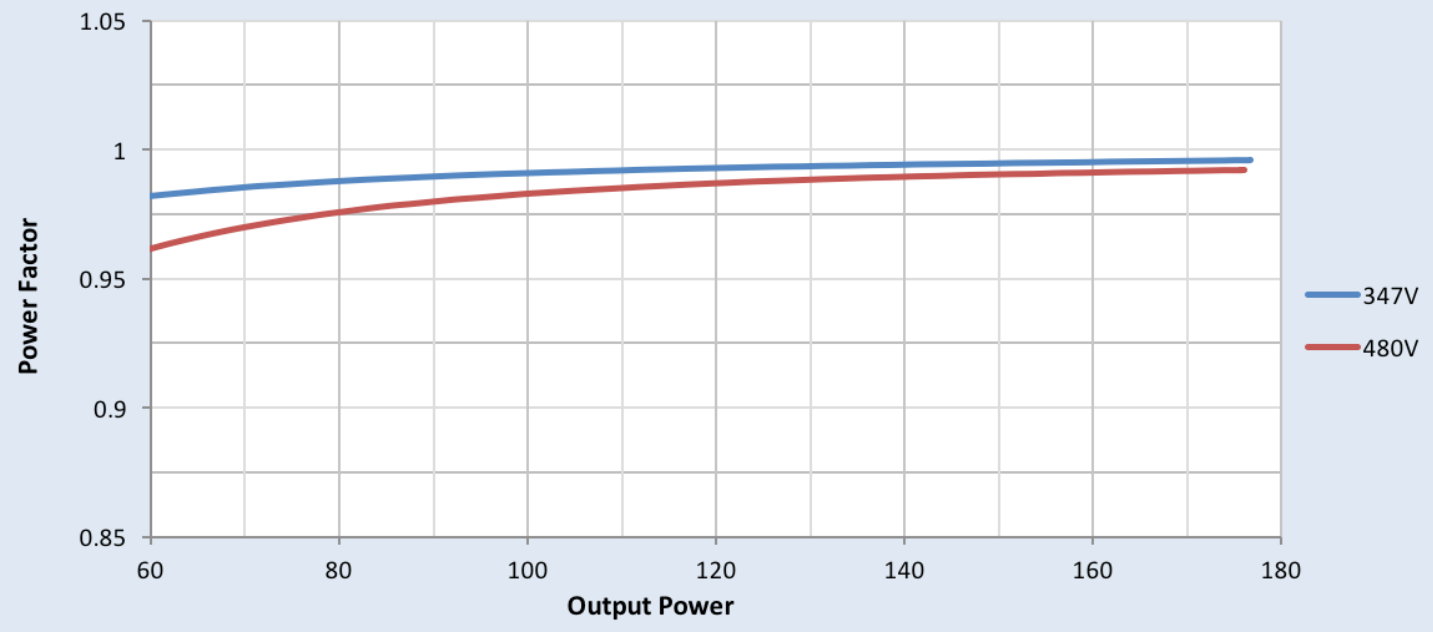
Efficiency Vs. Output Voltage at 480Vac



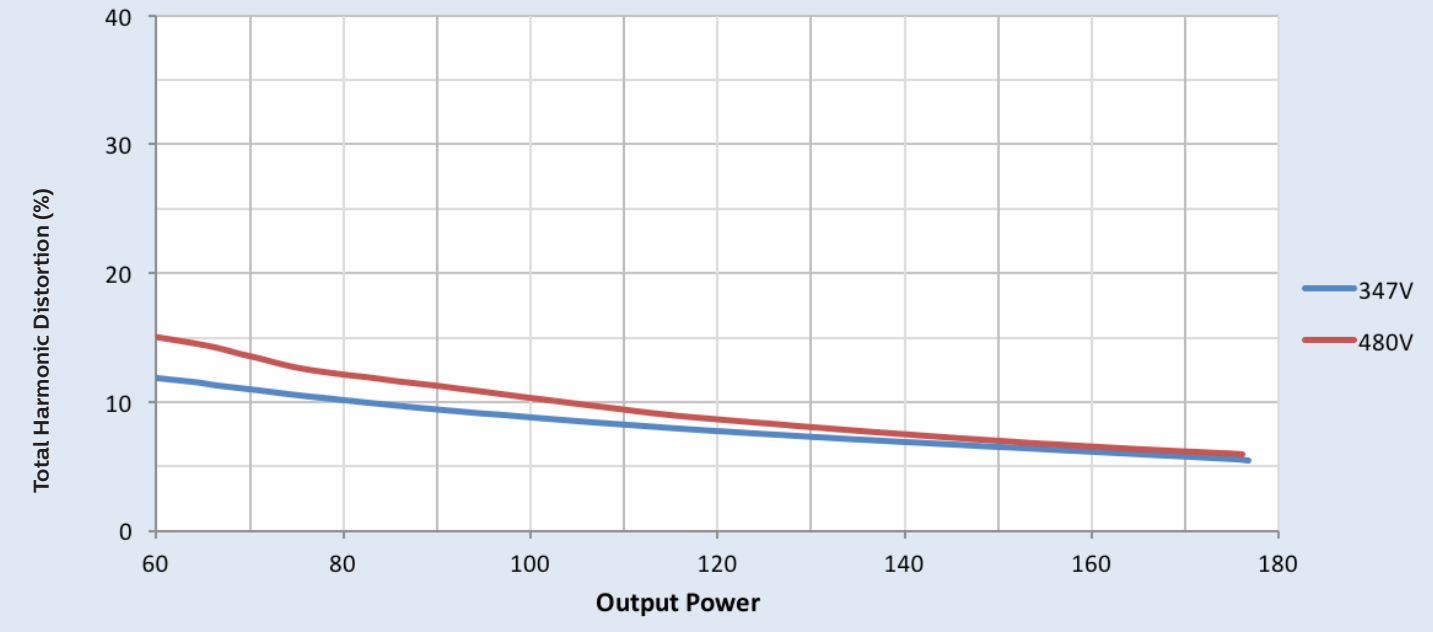
Performance Characteristics

Based on measurements on a typical sample at 75°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



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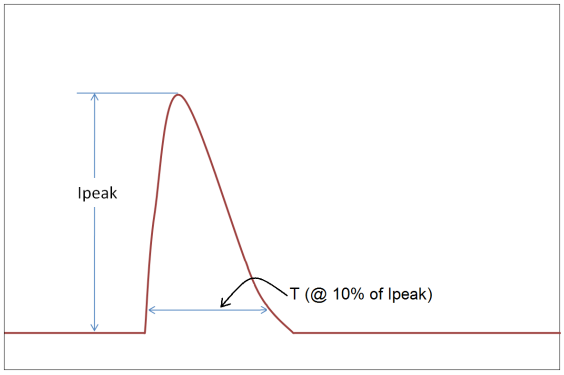
Inrush Current Info



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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