PHILIPS
ADVANCE

LED Driver

Xitanium

300W 120-277V 0.1-1.50A
0-10V with SimpleSet
XI300C150V300BSR1

Dry & Damp location

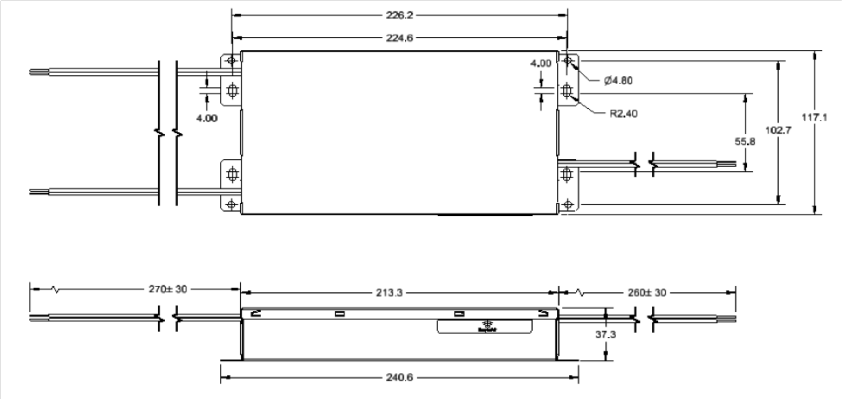
Philips Advance Xitanium Outdoor LED Drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. With wide operating windows and simple programming, luminaire manufacturers can design luminaires of different sizes and lumen levels for outdoor applications.

Specifications

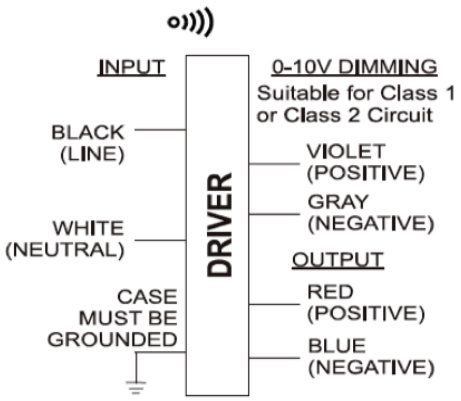
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max. Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max. Load	Power Factor @ Max. Load	Surge Protection (Combi-Wave, kV)	Envir. Protection Rating
120	300	100-300	0.1-1.5	92.5	85°C	2.8	330	<10%	>0.95	4	UL Dry & Damp and Type HL
277				93.5		1.2		<10%			

Enclosure

	In. (mm)
Case Length	8.40(213.3)
Case Width	4.61(117.1)
Case Height	1.47(37.3)
Mounting Length	8.84(224.6)
Mounting Width	2.20(55.8)
Overall Length	9.47(240.6)



Wiring Diagram



Input and output use lead- wires.

Lead-wires are 18AWG 105C/600V solid copper per UL1452.

Lead Length outside enclosure: 270 mm (±30mm) on all wires

Dimming: 270mm (±30mm)

Dimming	Dimming Range	Minimum Output Current (A)
0-10V Analog	10% ~ 100% of the setting current	0.1

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Features

- 50,000+ hour lifetime[1]
- Programmable output current through SimpleSet
- Large operating window

Benefits

- Enables long life luminaire designs
- Fast and simple way of programming
- Enables fixture designs with wide variety of loads and current

Application

- Area
- Roadway
- Floodlights

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 MTBF modeling.

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XI300C150V300BSR1M (Mid-Pack, 4pcs/Box)
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108Vac
Max. Mains Voltage Operational	305Vac
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 –, Thermal Foldback
Features	
0-10V Dimming	150µA source current from driver. See dim curve for detail.
AOC (Adjustable Output Current)	100mA to 1500mA via SimpleSet (Refer to Operating Window)
Adjustable Minimum Dim Level	10% or higher
Environment & Approbation	
Operating Ambient Temp. Range	-40°C to +55°C
Max Case Temperature (Tcase)	85°C
Environmental Protection Rating	UL dry and damp, Type HL
Agency Approbations	UL8750, CSA250.13
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible noise	<24dB Class A
Weight	4.0Lbs / 1.8kgs

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0-10V Dimming Curve

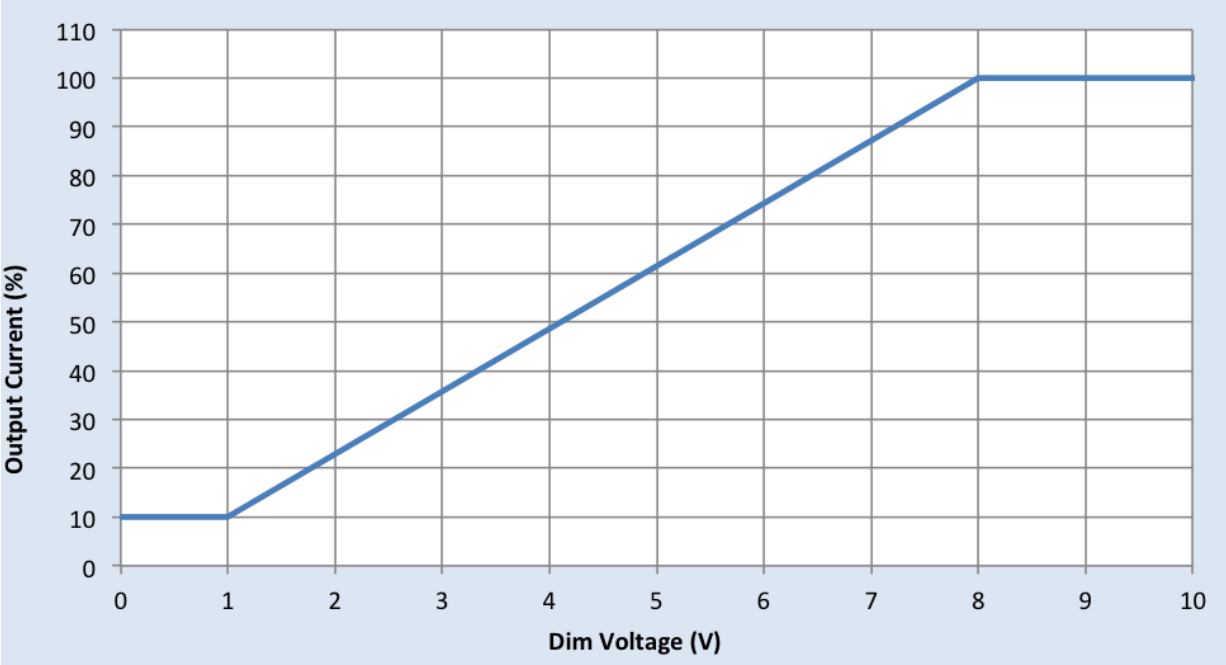
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

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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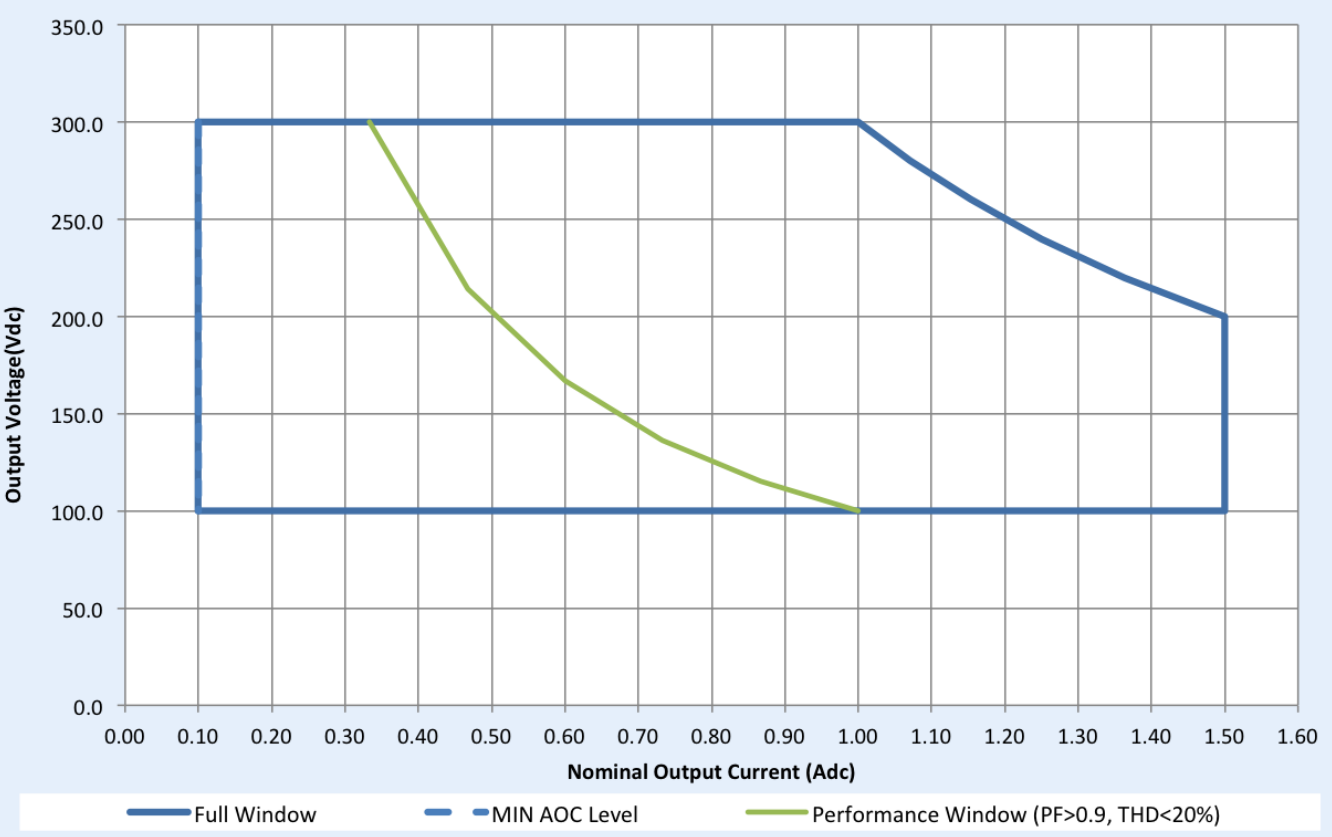
Operating Window



Notes

1. Factory default output current is 1.05A.
2. For 10% dimming output current setting through AOC should be >1A.

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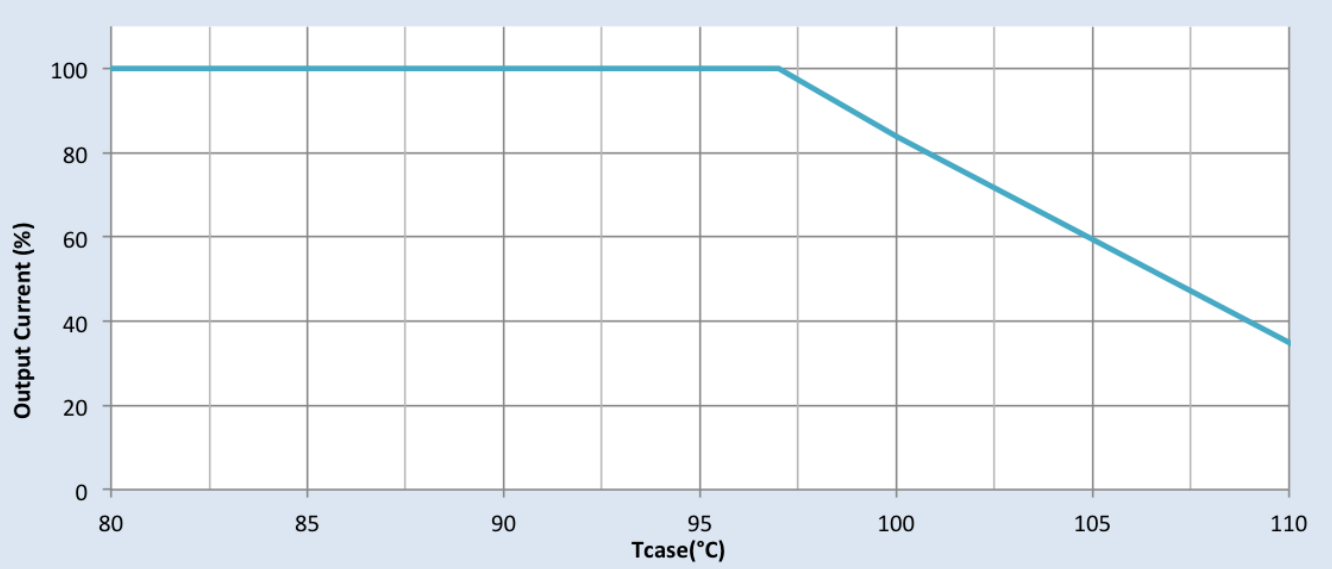
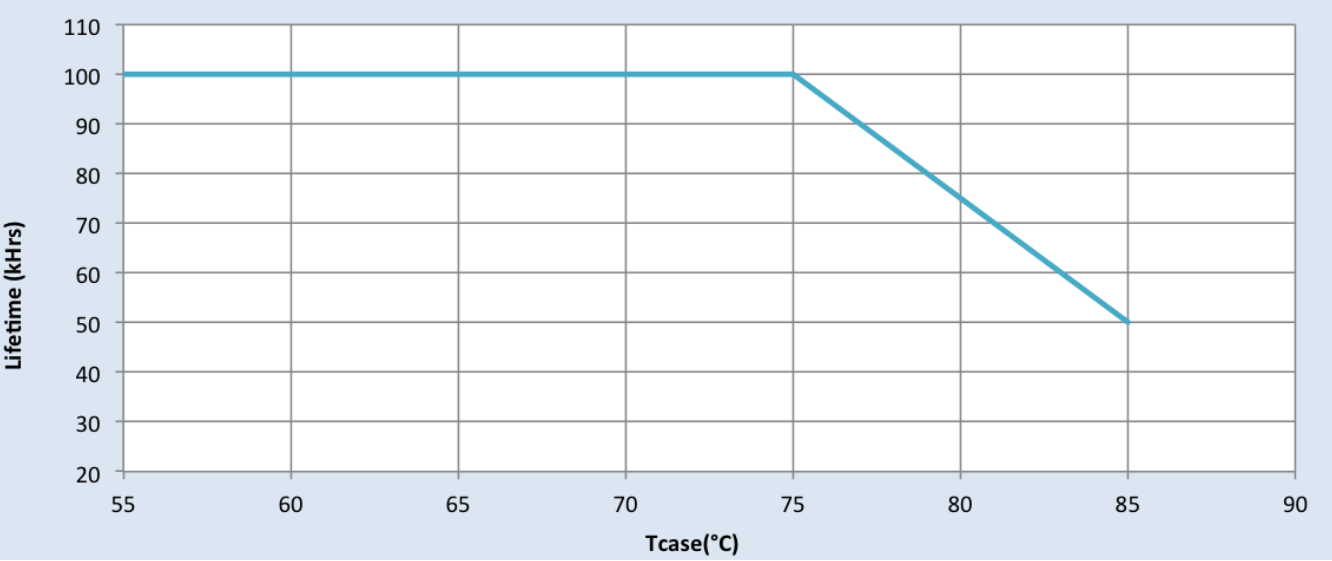
Output Current Vs. Driver Case Temperature



Notes

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

Driver Lifetime Vs. Driver Case Temperature



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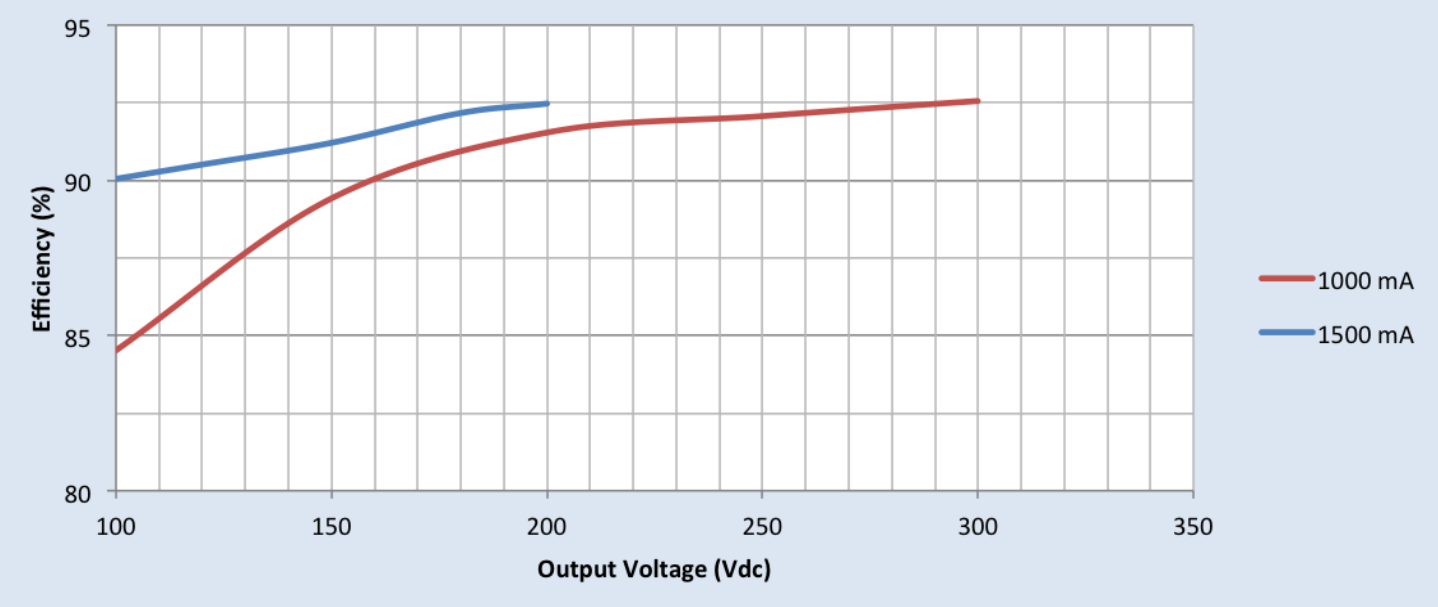
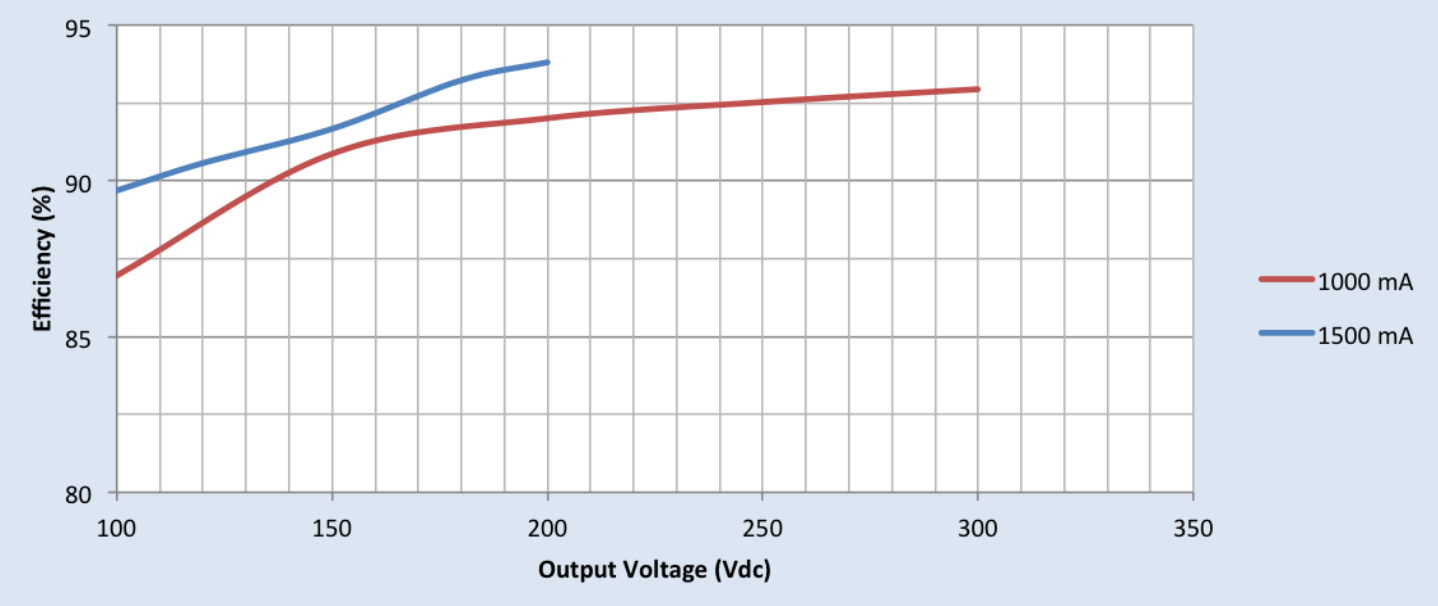
Performance Characteristics

Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

Efficiency Vs. Output Voltage at 120Vac



Efficiency Vs. Output Voltage at 277Vac



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Performance Characteristics

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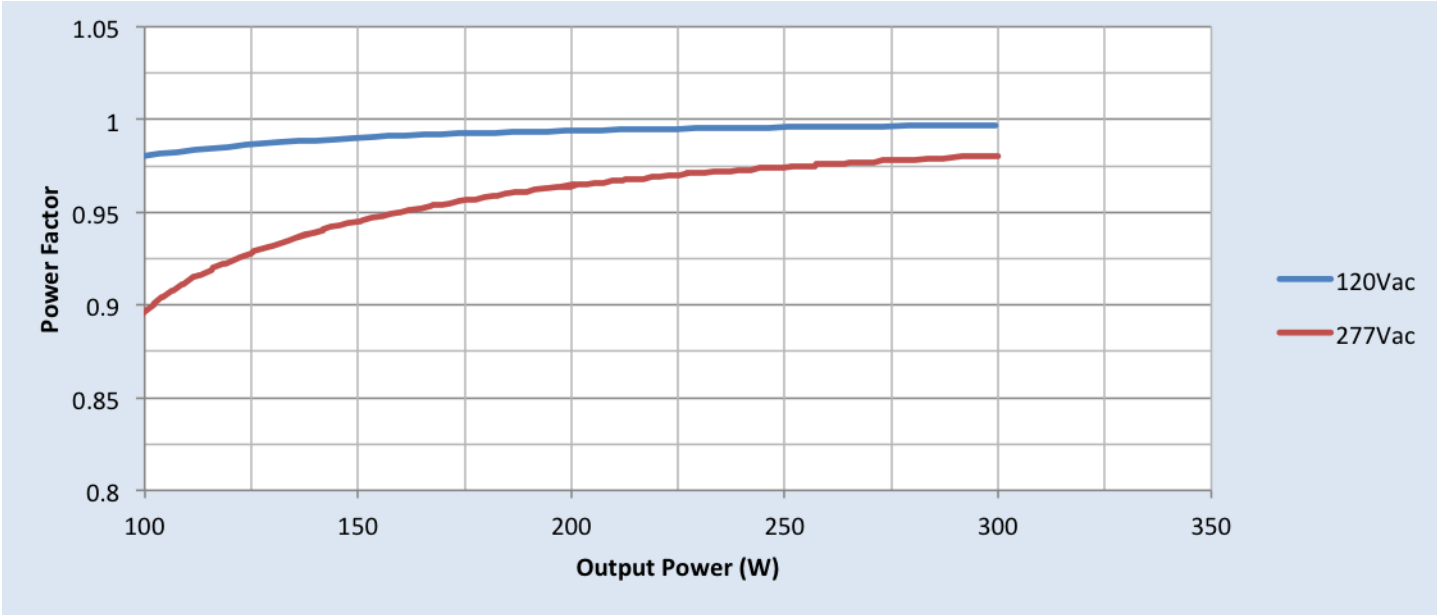
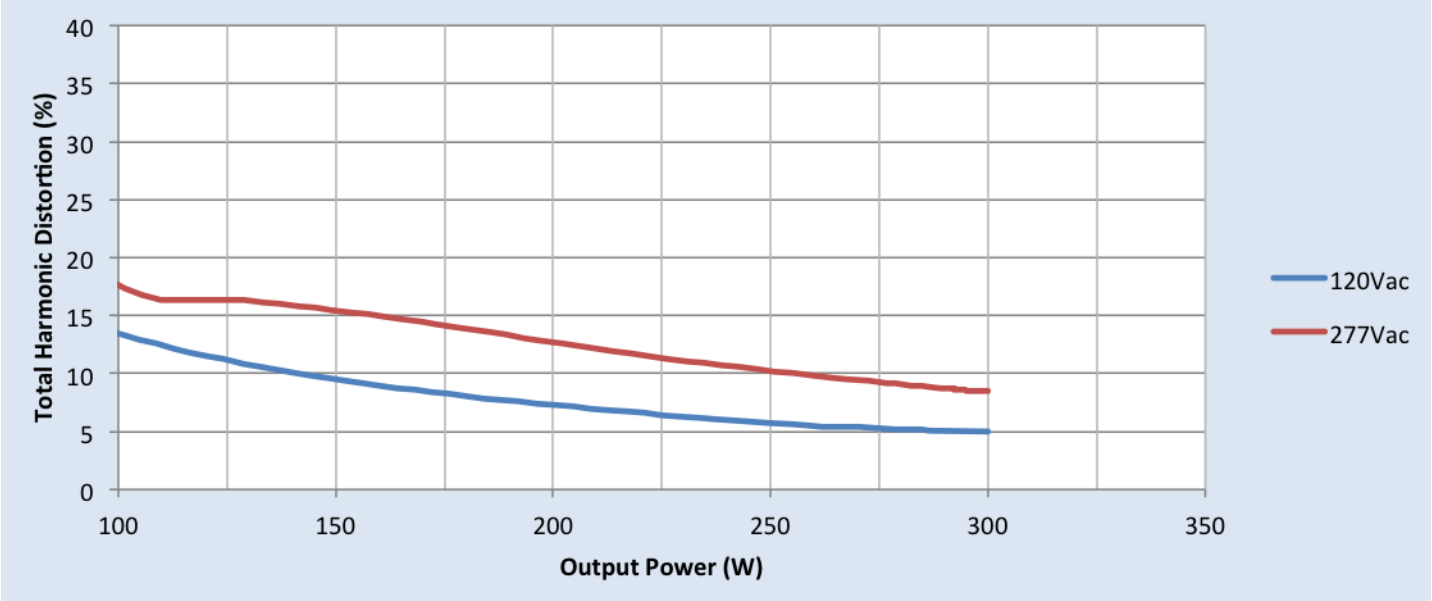
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



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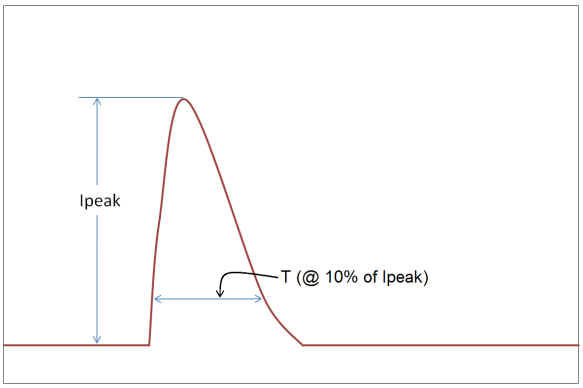
Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	107A	180µS
277 Vrms	289A	220µS

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)	4kV	4kV

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

UL Conditions of Acceptability

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

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