

**PHILIPS  
ADVANCE**

**LED Driver**

**Xitanium**

100W 120-277V 2.3A 0-10V  
XI100C230V042CNS1



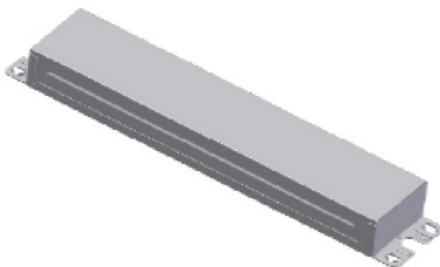
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. The Philips Advance Xitanium LED Outdoor Driver portfolio offers a range of products specially designed to operate LED solutions in outdoor applications. These drivers are designed for hard-wired integration into outdoor luminaires even in rugged applications. They operate to specification under wide temperature and electrical ranges to help ensure reliability.

**Specifications**

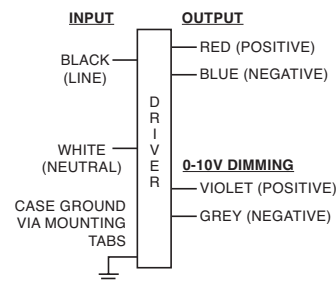
Input Voltage (Vac)	Output Power (W)	Output Voltage Range (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating
120	96.6	21-42	2.3	87.5	90°C	0.95	123	<8%	>0.95	4.0	UL damp & dry and Type HL
277				87.5		0.40		<12%			

**Enclosure**

	In. (mm)
Case Length	8.37 (212.6)
Case Width	1.70 (43.2)
Case Height	1.14 (29.0)
Mounting Length	8.89 (225.8)
Overall Length	9.45 (240.0)



**Wiring Diagram**



Input and output use lead-wires.  
Lead-wires are 18AWG 105C/600V solid copper.  
Input Lead Length outside enclosure: 10.5" (+2"/-1").  
Input Lead Length outside enclosure: 11" (+2"/-1").  
Driver case must be grounded.

Dimming	Dimming Range	Minimum Output Current (A)
0-10V Analog Class 2 Wiring	15% ~ 100% of the setting current	0.345

# Xitanium 100W 120-277V 2.3A 0-10V Dimming

## Features

- UL Class 2 output
- 50,000+ hour lifetime<sup>1</sup>
- High drive current

## Benefits

- Flexibility and ease of design for Class 2 luminaire designs
- Enables long life luminaire designs
- Enables high lumen per dollar fixture designs

## Application

- Area
- Roadway
- Parking garages
- Floodlights

## Electrical Specifications

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

## Product Data

Order Information	
Full Product Code	XI100C230V042CNS1M (Mid-Pack, 20pcs/Box)
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108Vac
Max. Mains Voltage Operational	305Vac
Output Information	
Maximum Open Circuit Voltage	42Vdc
Output Current Ripple (ripple = peak to average / average)	<=10% Low frequency (≤120 Hz) content <5%
Output Current Tolerance (at maximum output current)	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED –
Features	
0-10V Dimming	150µA source current from driver. See dim curve for detail.
Environment & Approbation	
Operating Ambient Temp. Range	-40°C to +55°C
Max Case Temperature (Tcase)	90°C
Environmental Protection Rating	UL dry and damp, Type HL
Agency Approbations	UL8750, UL1310, UL935, CSA-C22.2 No. 250.13-12, CSA C22.2 No. 223
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	1.48Lbs/ .670kgs

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.

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## Electrical Specifications

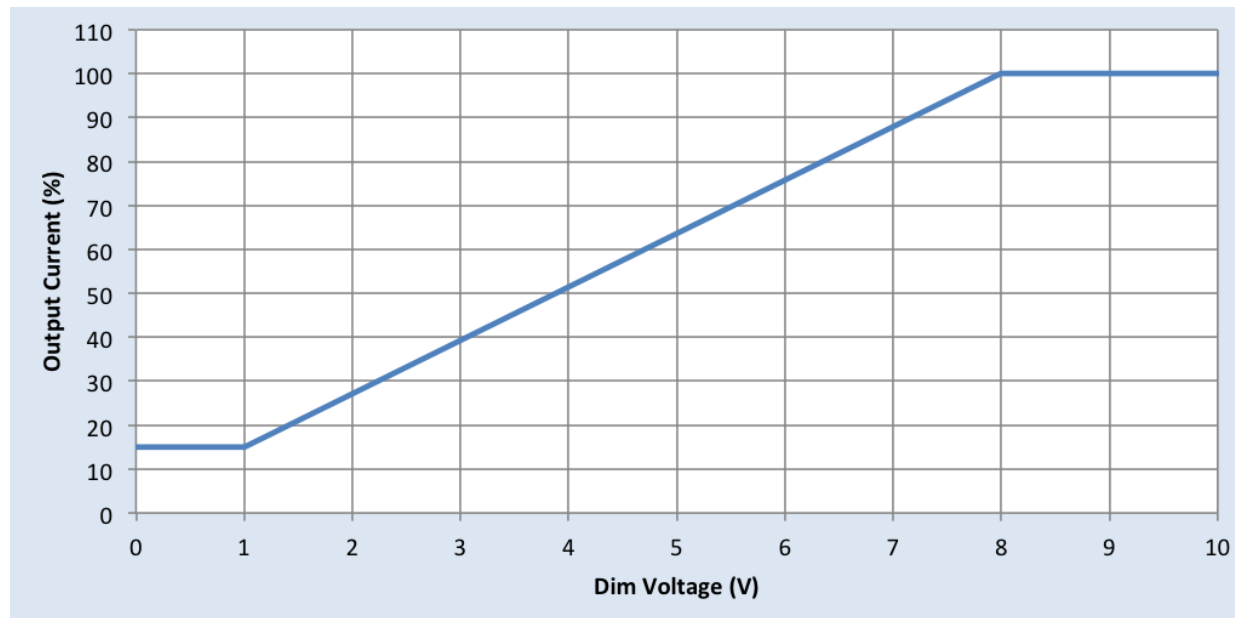
All the specifications are typical and at 25°C Tcase unless specified otherwise.

## 0-10V Dimming Curve

Dimming source current from the driver: 150µA (±3%) (@ 0<Vdim<8V)

## Approved Dimmer List

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

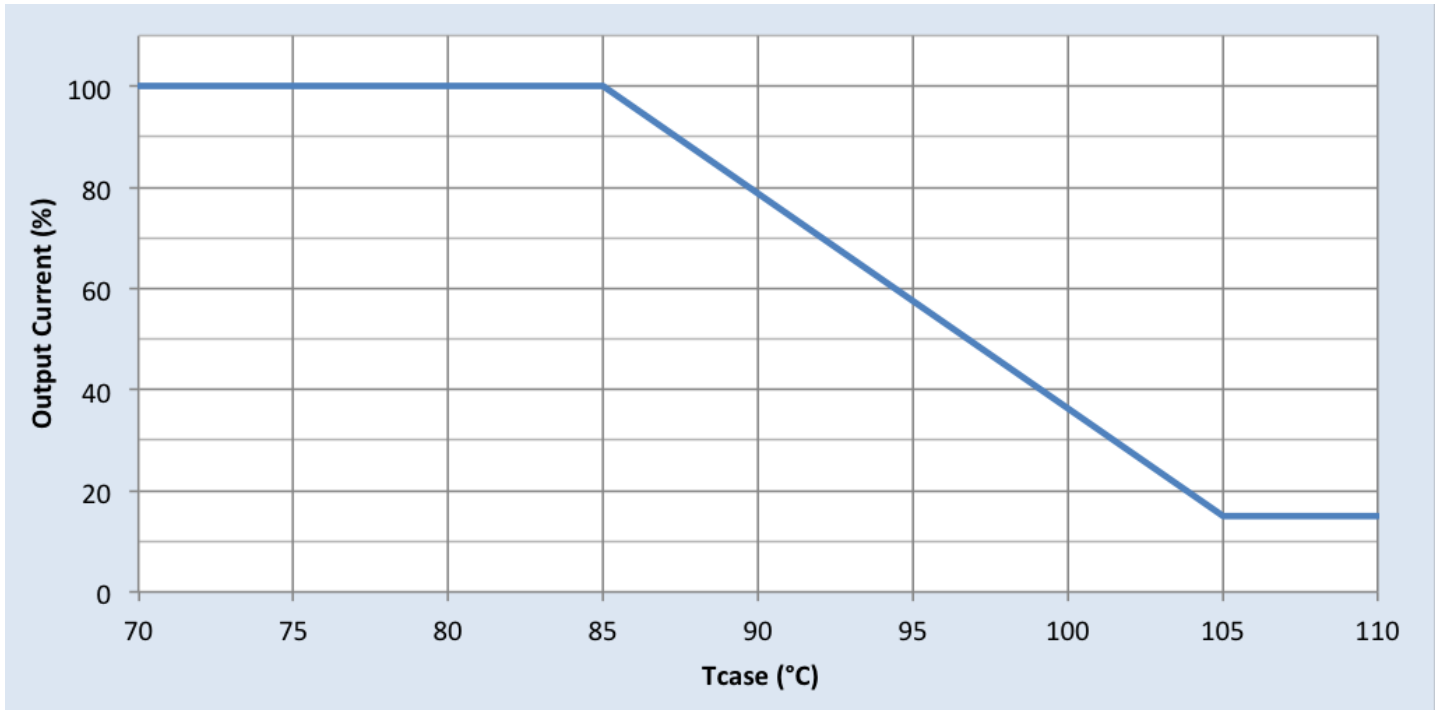


# Xitanium 100W 120-277V 2.3A 0-10V Dimming

## Electrical Specifications

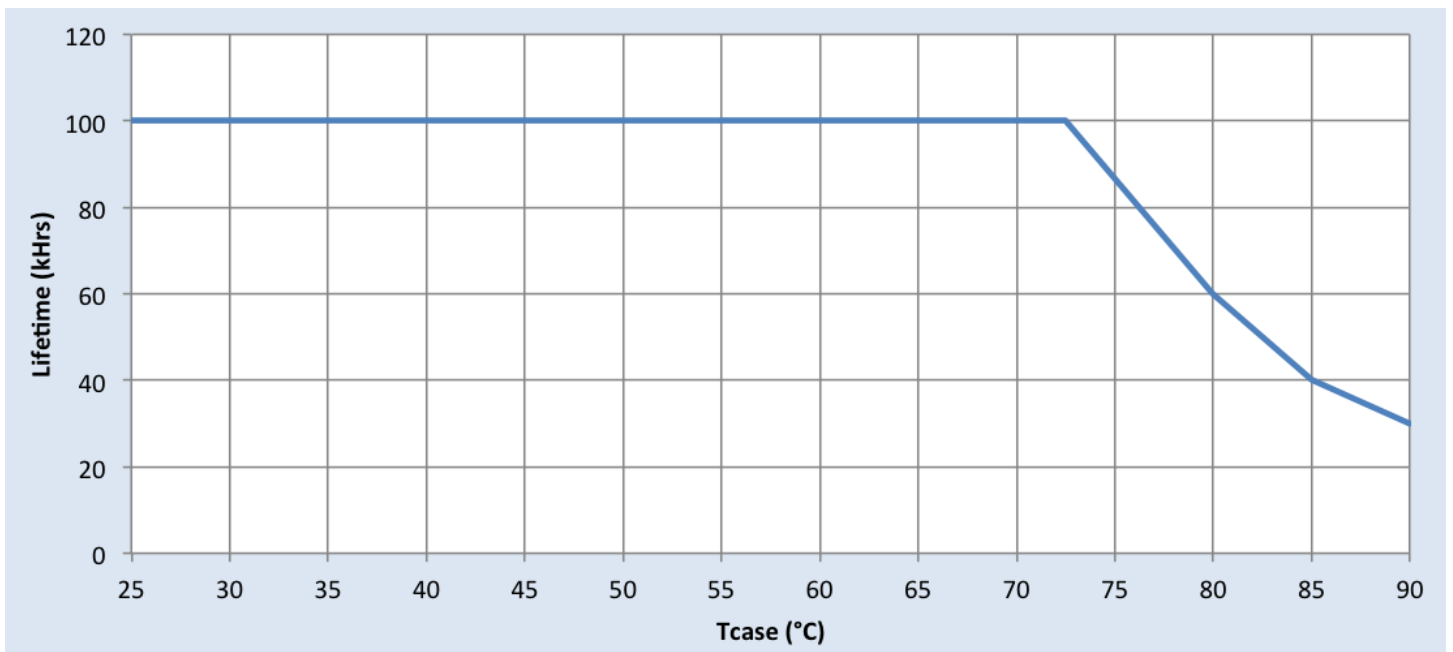
All the specifications are typical and at 25°C Tcase unless specified otherwise.

## 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

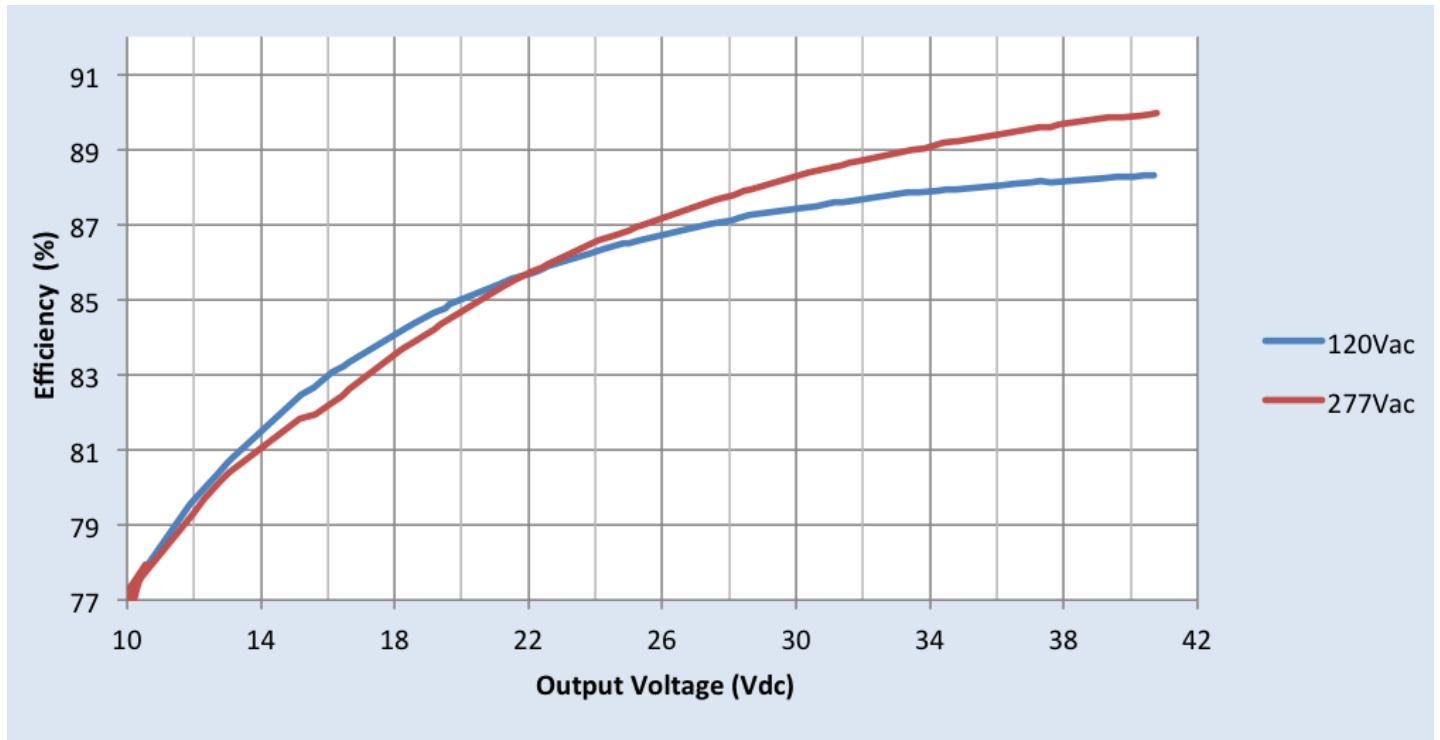


# Xitanium 100W 120-277V 2.3A 0-10V Dimming

## 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

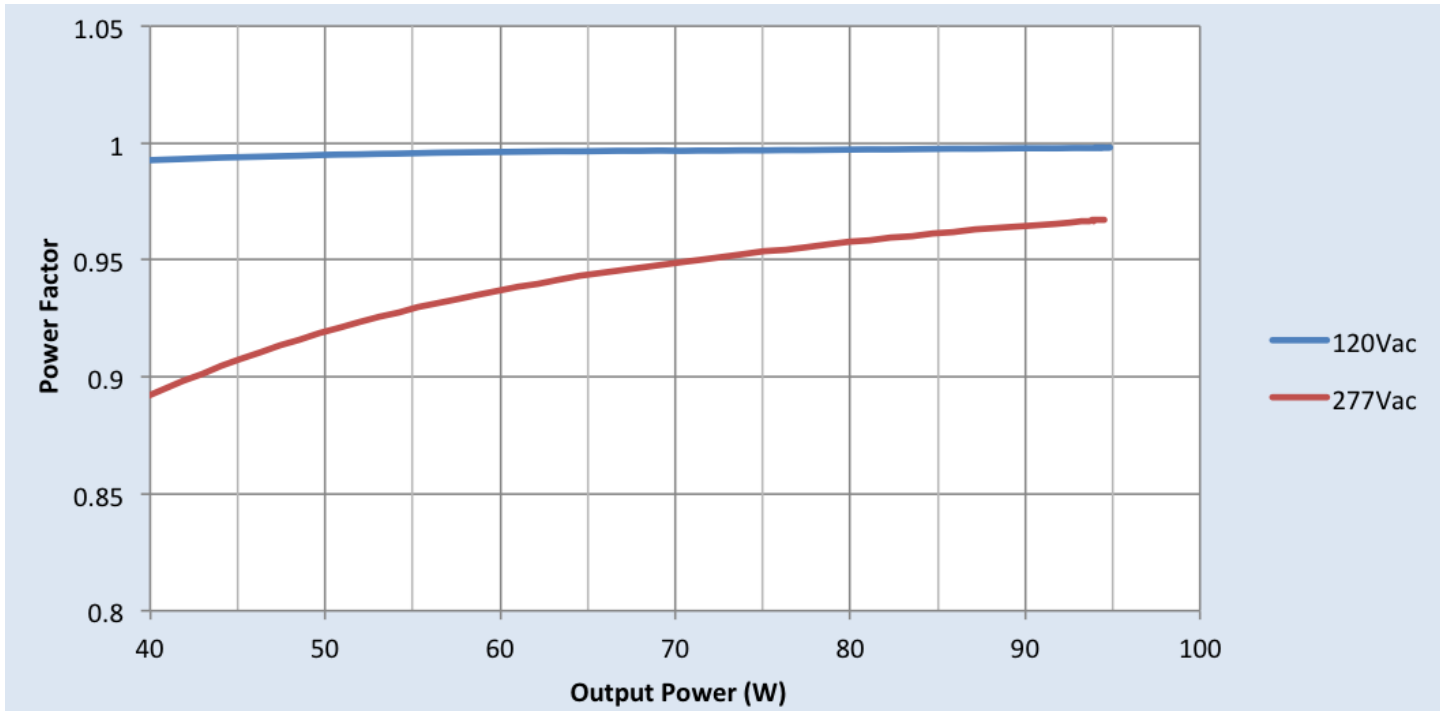


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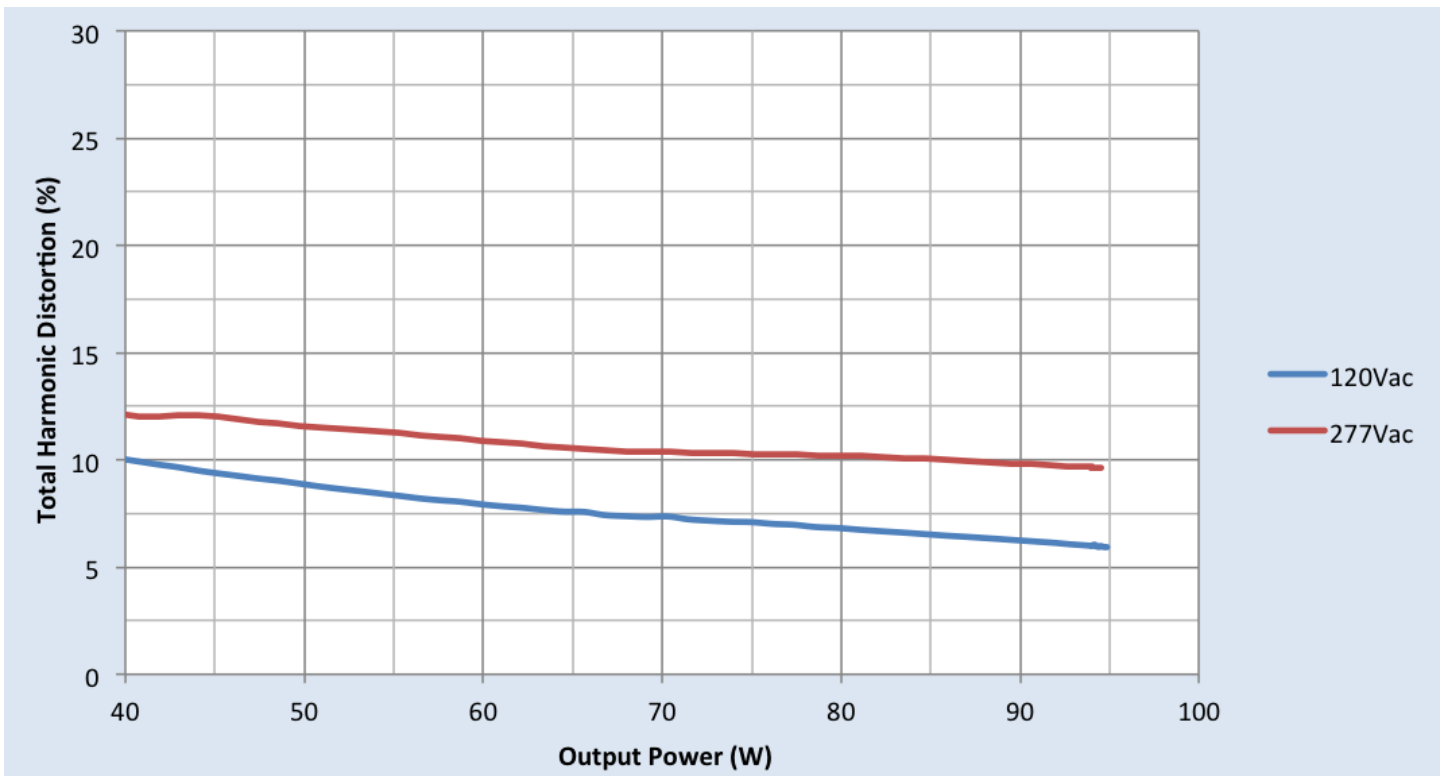
## Performance Characteristics

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### Power Factor Vs. Output Power

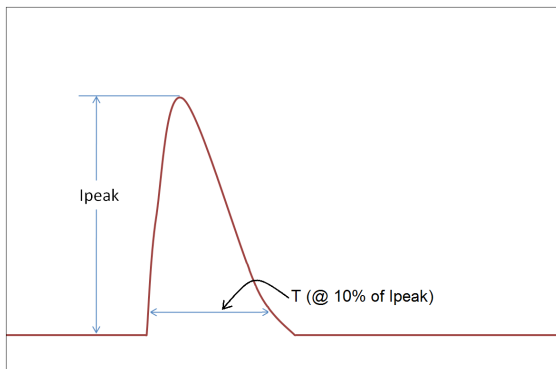


### Total Harmonic Distortion (THD) Vs. Output Power



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## Inrush Current Info



$V_{in}$	$I_{peak}$	$T$ (@ 10% of $I_{peak}$ )
120 Vrms	36A	330 $\mu$ S
277 Vrms	92A	302 $\mu$ 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 $\mu$ s Combination Wave (w/t 2 $\Omega$ )	4kV	4kV

## Isolation

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	NA	2xU+1kV	2.5kV	2xU+1kV
Output	2xU+1kV	NA	NA	500V
0-10V (Class 2)	2.5kV	NA	NA	500V
Enclosure	2xU+1kV	500V	500V	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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