

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 for the most rugged applications. They operate to specification under wide temperature and electrical ranges to ensure reliability.

Specifications

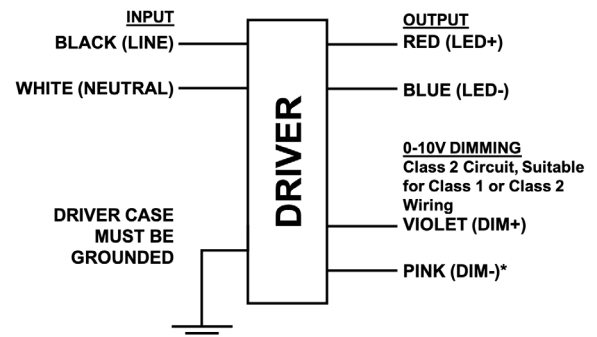
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case (%)	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi Wave, KV)	Envir. Protection Rating	Dimming	Dimming Range (with specified dimmers)	Min. Output Current (A)	Driver Type
120	150	60 - 210	0.7A	91.5	80°C	1.4	169	<10%	>0.95	6	UL damp & dry, Type HL	0-10V Analog Class 1 & 2 Wiring	10% - 100%	0.07	Constant Current
277				93		0.6		<10%							

Enclosure

	In. (mm)	Tolerance
Case Length (A3)	8.31 (211.0)	± 0.5mm
Case Width (B1)	2.32 (59.0)	± 0.5mm
Case Height (C1)	1.48 (37.6)	± 1.0mm
Overall Length (A1)	9.47 (240.5)	± 0.5mm
Mounting Hole Distance (A2)	8.91 (226.2)	± 0.5mm
Mounting Hole Distance (B2)	1.69 (42.9)	± 0.5mm
Mounting Hole Diameter (D1)	0.31 (7.94)	± 0.3mm
Mounting Hole Diameter (D2)	0.24 (6.2)	± 0.3mm

Wiring Diagram

	Wire Length (mm)
Black/ (Line)	270 (± 30)
White/(Neutral)	270 (± 30)
Red (Positive, LED output)	270 (± 30)
Blue (Negative, LED output)	270 (± 30)
Violet (Positive, 0-10V)	270 (± 30)
Pink (Negative, 0-10V)	270 (± 30)

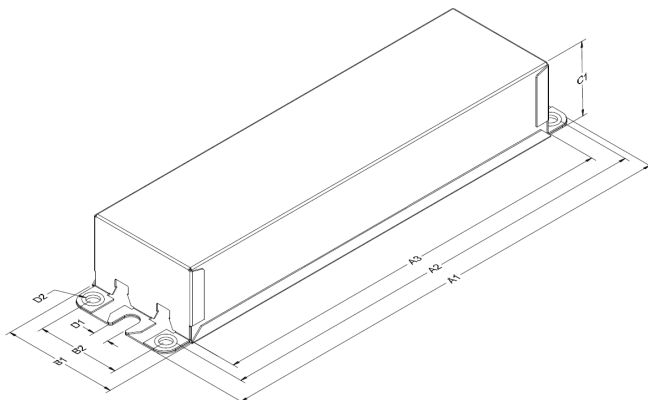


*DIM- will change from GREY to PINK from 2021 onwards.

WARNING:

Install in accordance with national and local electrical codes.

The field-wiring leads or push-in terminals shall be enclosed.



Xitanium XI150C070V210CNF1

150W 0.7A 0-10V Dimming

Features

- 50,000+ hour lifetime¹
- Excellent thermal performance
- 0-10V Dimming suitable for UL Class 1 and Class 2 wiring

Benefits

- Enables long life luminaire designs
- Allows luminaire designs for a wide range of ambient environments

Application

- Area
- Roadway
- Parking garages
- Floodlights

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XI150C070V210CNF1M (Mid-Pack, 10pcs/Box), 12NC: 929002724613
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108Vac
Max. Mains Voltage Operational	305Vac
DC Input Voltage	250Vdc
Output Information	
Output voltage range	60Vdc to 210Vdc
Maximum Open Circuit Voltage	300Vdc
Output Current Ripple (ripple = peak to average / average)	15% max @ max Iout and max Vout (Low frequency ripple content <4%)
Output Current Tolerance	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED - and Temperature Foldback
Features	
Interfaces	0-10V Dimming
0-10V Dimming Interface current	150µA (±3%) source current from driver. See dim curve for detail.
Environment & Approbation	
Operating Ambient Temp. Range	-40°C to +55°C
Max Case Temperature (Tcase)	80°C
Agency Approbations	UL 8750, NOM, UL, cUL, Class P (UL, cUL)
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	2.1Lbs/ 0.95Kgs

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 XI150C070V210CNF1

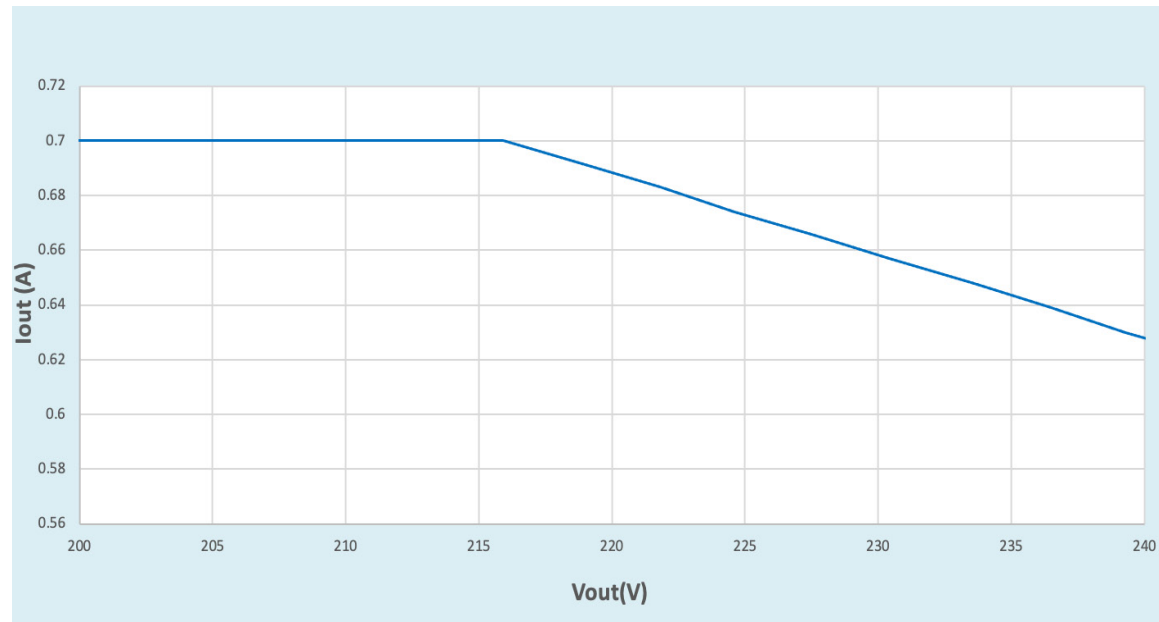
150W 0.7A 0-10V Dimming

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Driver Current Cutback

The Driver Current Cutback feature provides for an increased output voltage with a reduced output current during abnormal LED operation, such as cold weather starting.



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Electrical Specifications

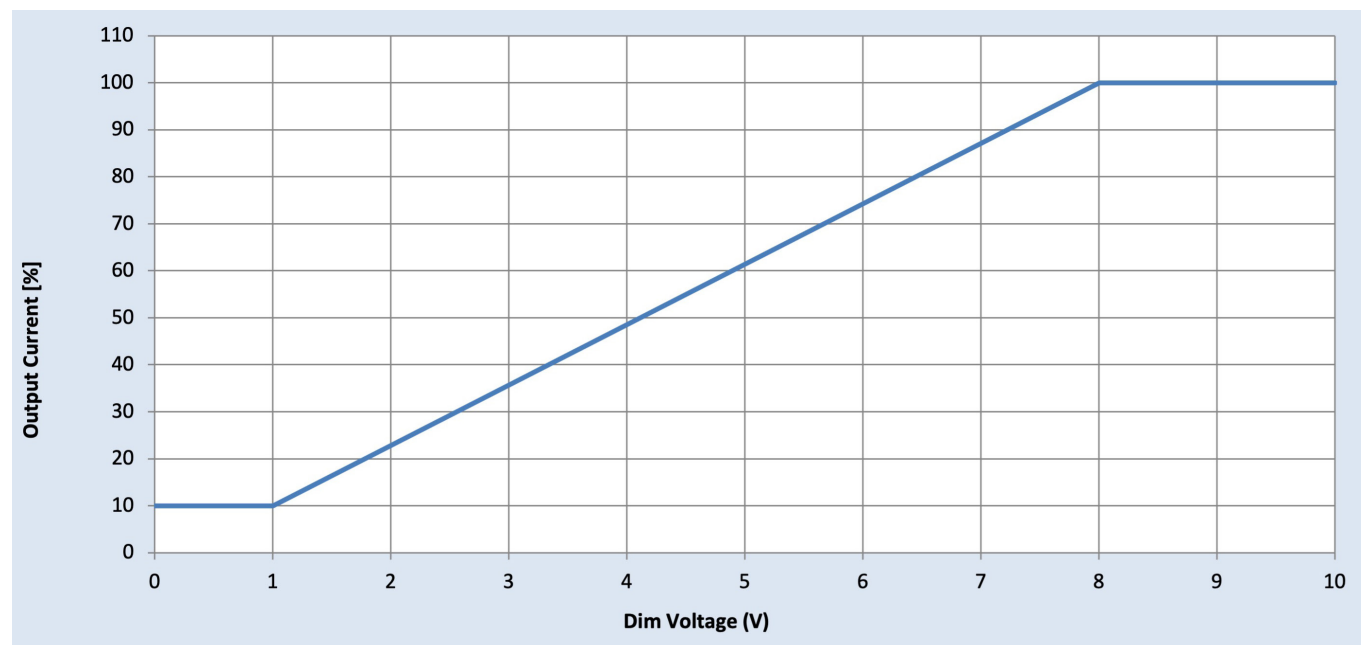
All the specifications are typical and at 25°C TCase unless specified otherwise.

0-10V Dimming Curve

- Dimming source current from the driver: 150 μ A (@ 0<Vdim<8V)
- Minimum Dim Level: Factory default 10% of Iout setting as default
- Maximum output voltage on the dimming wires: 12V
- Leakage current of dimming leads: 0.005 mA, recommended max number of control circuits in parallel refer to Design-in Guide

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



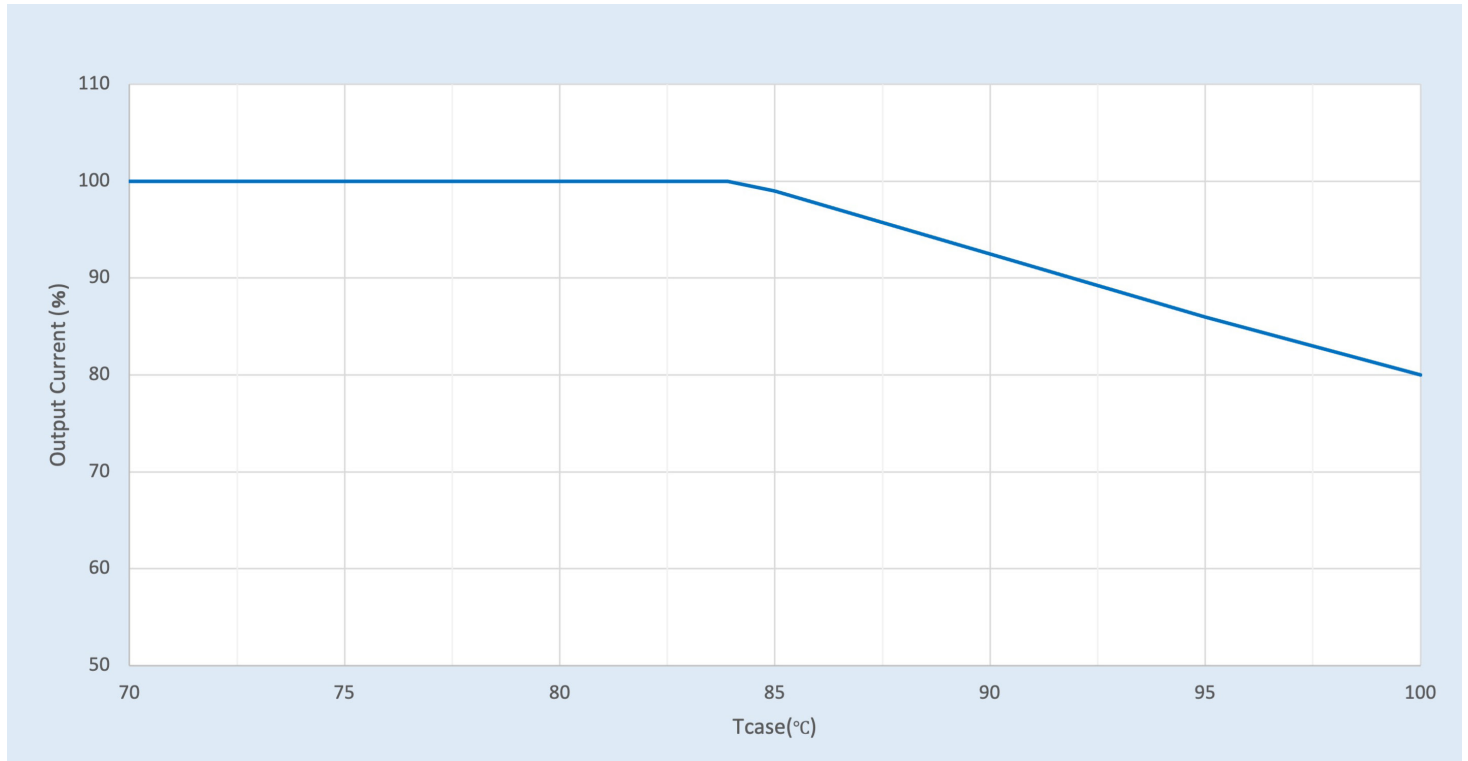
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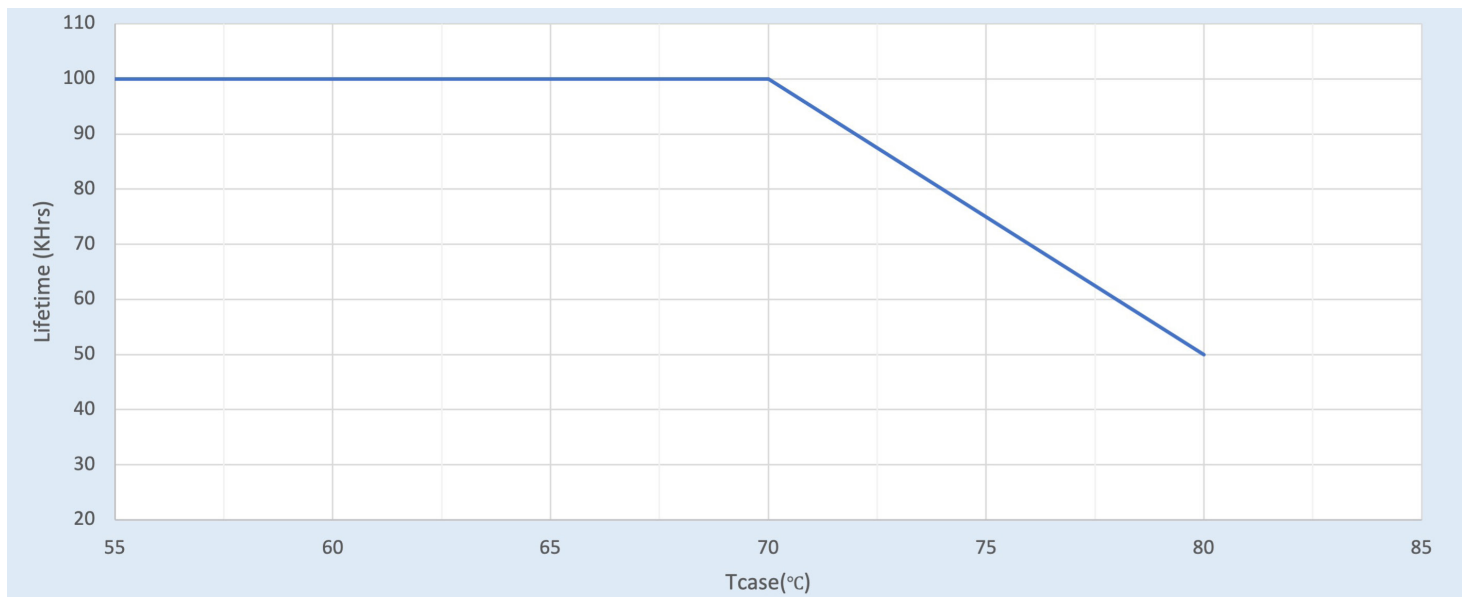
Output Current vs. Driver Case Temperature



Note

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

Driver Lifetime vs. Driver Case Temperature



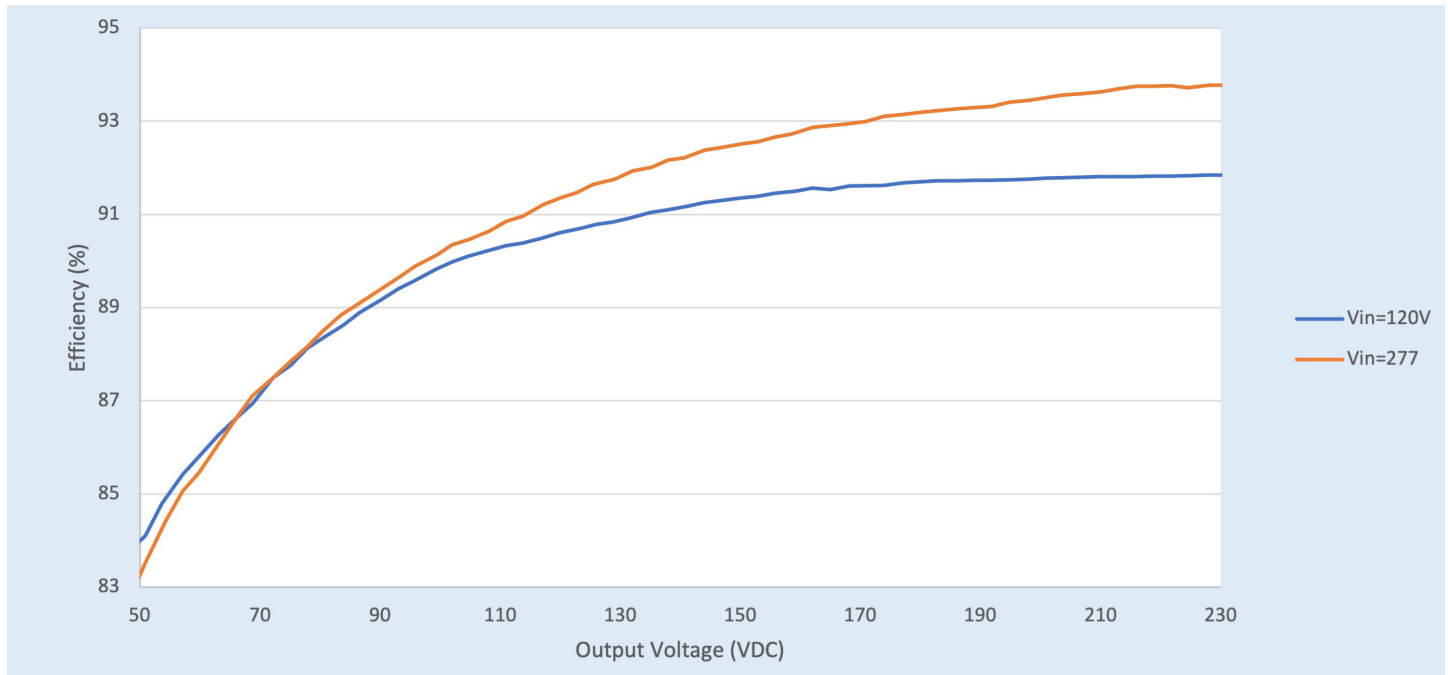
Xitanium XI150C070V210CNF1

150W 0.7A 0-10V Dimming

Performance Characteristics

Based on measurements on a typical sample at 70°C Case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Efficiency vs. Output Voltage



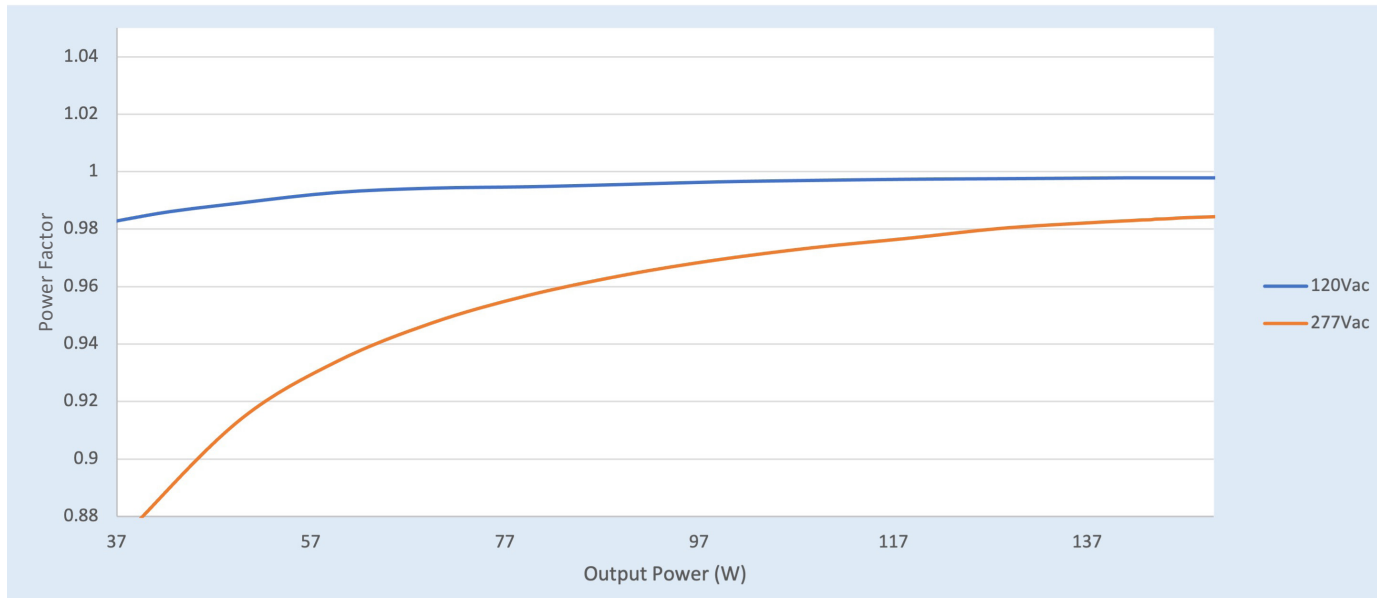
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150W 0.7A 0-10V Dimming

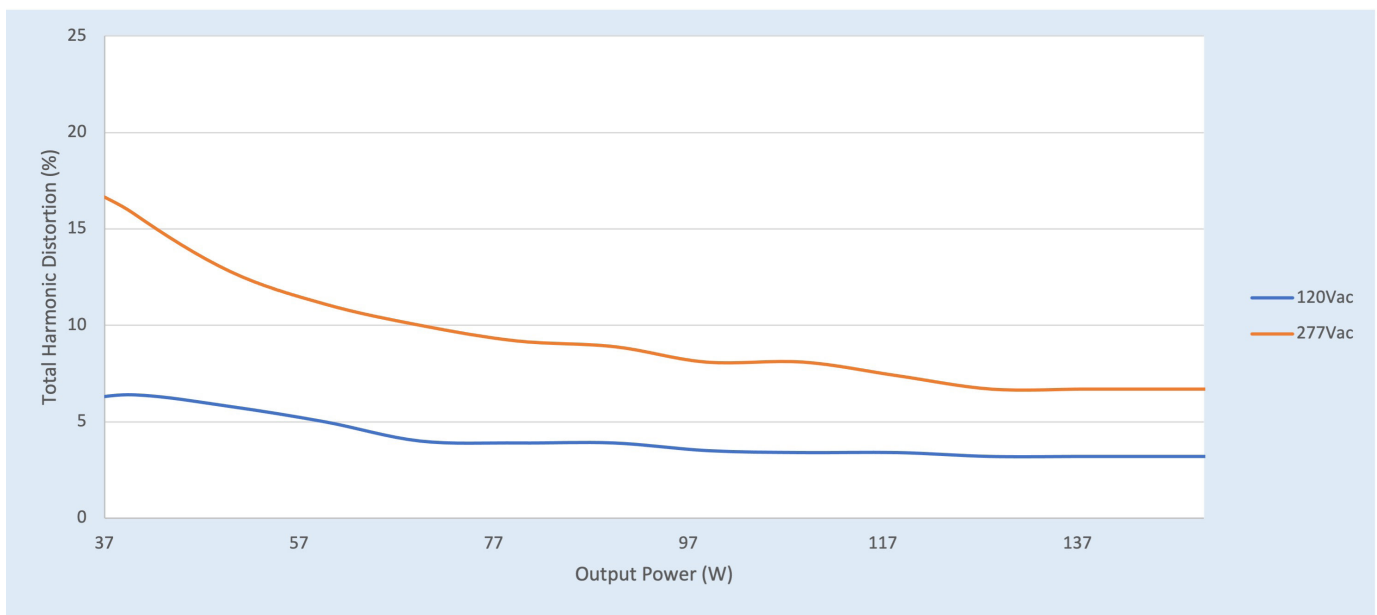
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Power Factor vs. Output Power



Total Harmonic Distortion (THD) vs. Output Power



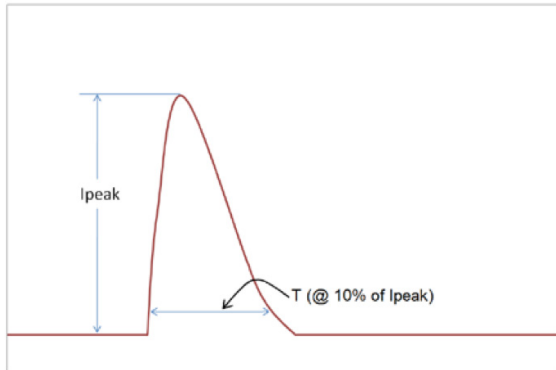
Note

PF>0.9, THD<20%.

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Inrush Current Info



Vin	Ipeak	T (@10% of Ipeak)
120 Vrms	57A	300us
277 Vrms	132A	276us

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)
Combi Wave (w/t 2Ω)	6kV	6kV

Isolation

Isolation	Input	Output	0-10V	Enclosure
Input	NA	2xU+1kV	2xU+1KV	2xU+1kV
Output	2xU+1kV	NA	2xU+1KV	2xU+1kV
0-10V	2xU+1KV	2xU+1KV	NA	2xU+1kV
Enclosure	2xU+1kV	2xU+1kV	2xU+1kV	NA

U = Max output voltage

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