

Advance Xtanium 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

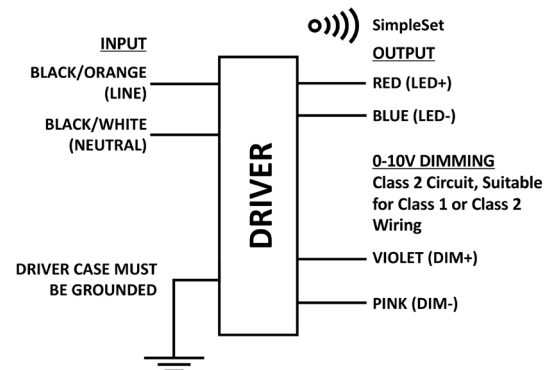
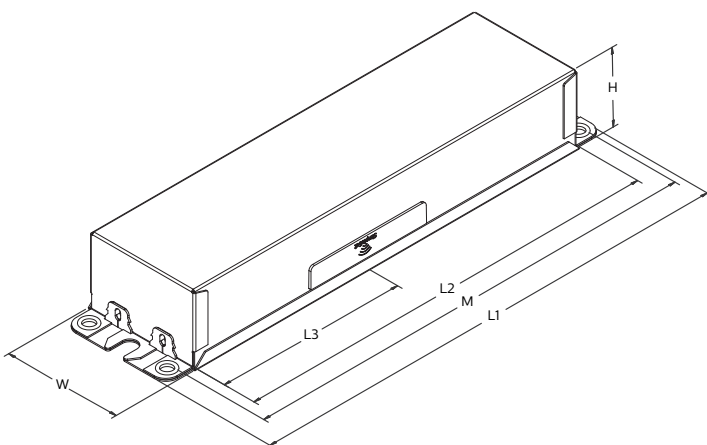
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency @ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating	Dimming	Dimming Range (with specified dimmers)	Min. Output Current (A)	Driver Type
277	180	100-285	0.1 - 0.9	92	Life - 85°C UL - 90°C	0.7	200	<10%	>0.95	6	UL damp & dry and Type HL	0-10V Analog Class 1 and 2 Wiring	10% - 100%	0.05	Constant Current
480				93.5	0.4										

### Enclosure

	In. (mm)	Tolerance
Case Length (L2)	8.31 (211.0)	± 0.5mm
Case Width (W)	2.31 (58.0)	± 0.5mm
Case Height (H)	1.48 (37.6)	± 1.0mm
Mounting Length (M)	8.91 (226.2)	± 0.5mm
Overall Length (L1)	9.45 (240.0)	± 1.0mm
Center of SimpleSet Antenna (L3)	3.75 (95.3)	± 1.0mm

### Wiring Diagram

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



### Warning

- Install in accordance with national and local electrical codes.
- The field-wiring leads or push-in terminals shall be enclosed.



# Xitanium XJ180C090V285BSF2

180W 0.1-0.9A 0-10V dimming with SimpleSet

## Features

- 50,000+ hour lifetime<sup>1</sup>
- Programmable output current through SimpleSet
- 277-480V "Duravolt" range
- 0-10V dimming suitable for UL Class 1 and Class 2 wiring

## Benefits

- Ideal for use in industrial systems at 277V lines with poor power quality or where loss of neutral issues are prevalent
- Enables long life luminaire designs
- Enables fixture designs with wide variety of loads and adjustable current options

## Application

- Area
- Roadway
- Parking garages
- Floodlights
- High-bay

## Electrical Specifications

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

## Product Data

Order Information	
Full Product Code	XJ180C090V285BSF2 (Mid-Pack, 10pcs/Box), 12NC: 929001782113
Line Frequency	50/60Hz
Min. Mains Voltage Operational	249 Vac
Max. Mains Voltage Operational	528 Vac
277Vac Mains Excursions	Can handle loss of neutral and line voltage excursions from 249Vac to 528Vac for the entire life of the driver.
Output Information	
Maximum Open Circuit Voltage	390Vdc
Output Current Ripple (ripple = peak to average / average)	15% max @ max lout (Low frequency ripple ( ≤120Hz) content <5%)
Output Current Tolerance (in the performance window)	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED - and Temperature Foldback
Features	
0-10V Dimming	150µA (±3%) source current from driver.
AOC (Adjustable Output Current)	0.1A-0.9 via SimpleSet (Factory Default at 0.7A)
Additional SimpleSet Configurable Features	Adjustable Min Dim level Adjustable Lumen Output Adjustable Lumen Output Min OEM Write Protection Driver Thermal Limit (DTL) advanced Dynadimmer
Environment & Approbation	
Operating Ambient Temp. Range	-40°C to +55°C
Max Case Temperature (Tcase)	85°C for Life & 90°C for UL Safety
Agency Approbations	UL 8750, cUL, Class P (UL, cUL)
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	2.1 Lbs/0.95 kgs

1. 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 XJ180C090V285BSF2

180W 0.1-0.9A 0-10V dimming with SimpleSet

## Electrical Specifications

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

### 0-10V Dimming Curve

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

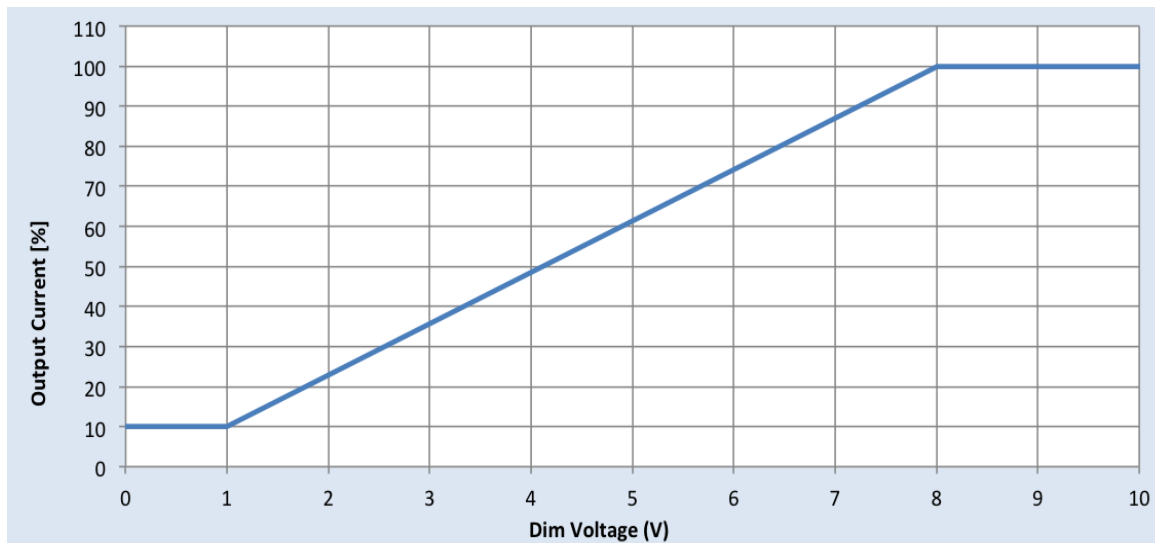
Minimum dim level: Factory default 10% of lout setting as default

Maximum output voltage on the dimming wires: 12V

The dimming lead leakage current is 0.042. The maximum number of drivers that can be connected in parallel to one dimming control circuit is based on this dimming lead leakage current and the calculation is described in the corresponding Design-in Guide.

### 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
Advance	Sunrise - SR1200ZTUNV



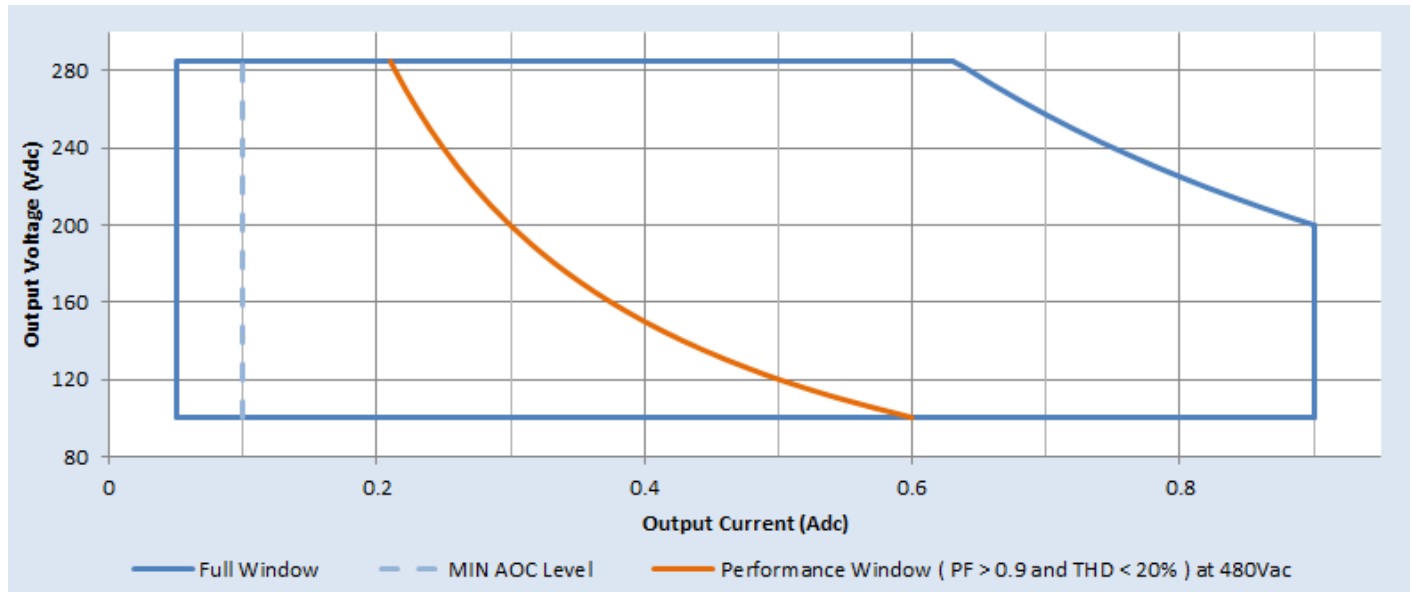
# Xitanium XJ180C090V285BSF2

180W 0.1-0.9A 0-10V dimming with SimpleSet

## Electrical Specifications

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

## Driver Output Window



## Notes

1. Factory default output current is 0.7A.
2. To get a 100% to 10% dimming range, the output current setting through AOC should be  $\geq 500\text{mA}$ .
3. Factory default minimum dimming level is 10%. This can be adjusted between 10% and 100% using Advance MultiOne.

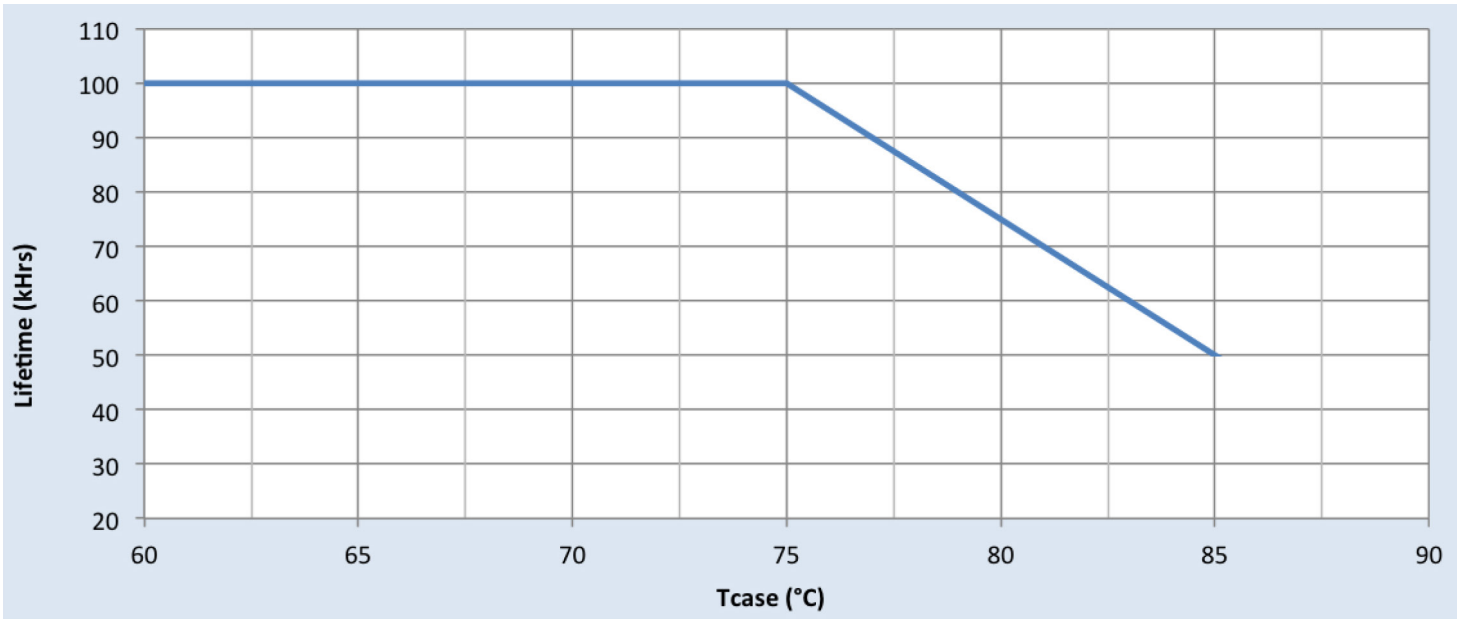
# Xitanium XJ180C090V285BSF2

180W 0.1-0.9A 0-10V dimming with SimpleSet

## Electrical Specifications

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

## Driver Lifetime vs. Driver Case Temperature



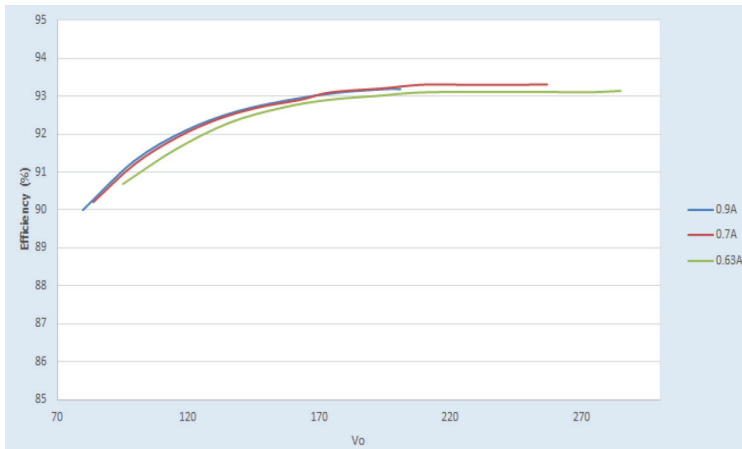
# Xitanium XJ180C090V285BSF2

180W 0.1-0.9A 0-10V dimming with SimpleSet

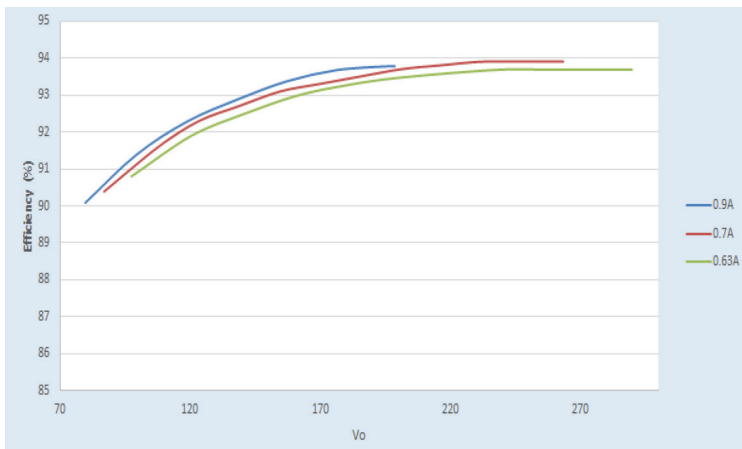
## Performance Characteristics

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

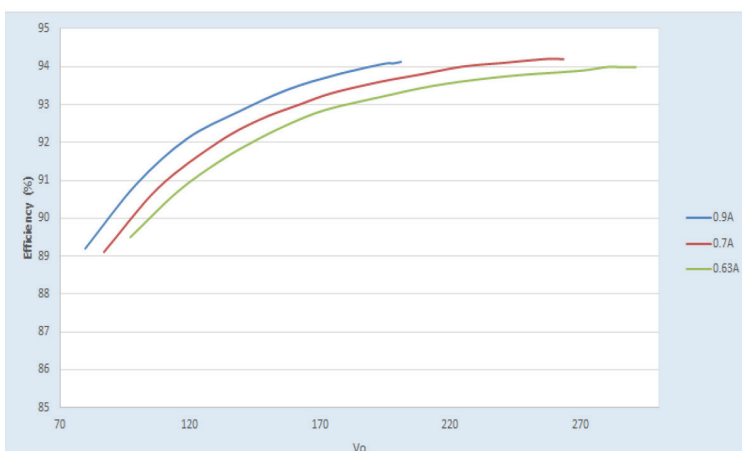
### Efficiency Vs. Output Voltage at 277Vac



### Efficiency Vs. Output Voltage at 347Vac



### Efficiency Vs. Output Voltage at 480Vac



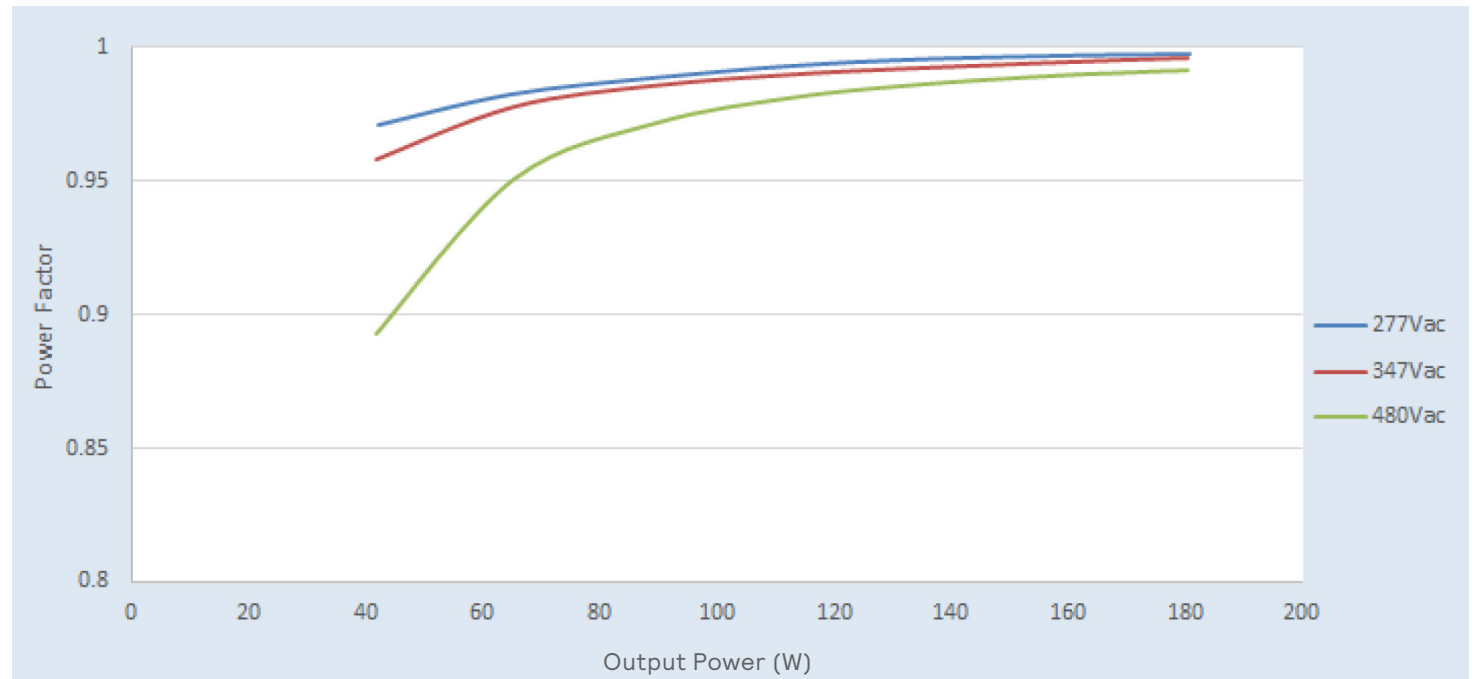
# Xitanium XJ180C090V285BSF2

180W 0.1-0.9A 0-10V dimming with SimpleSet

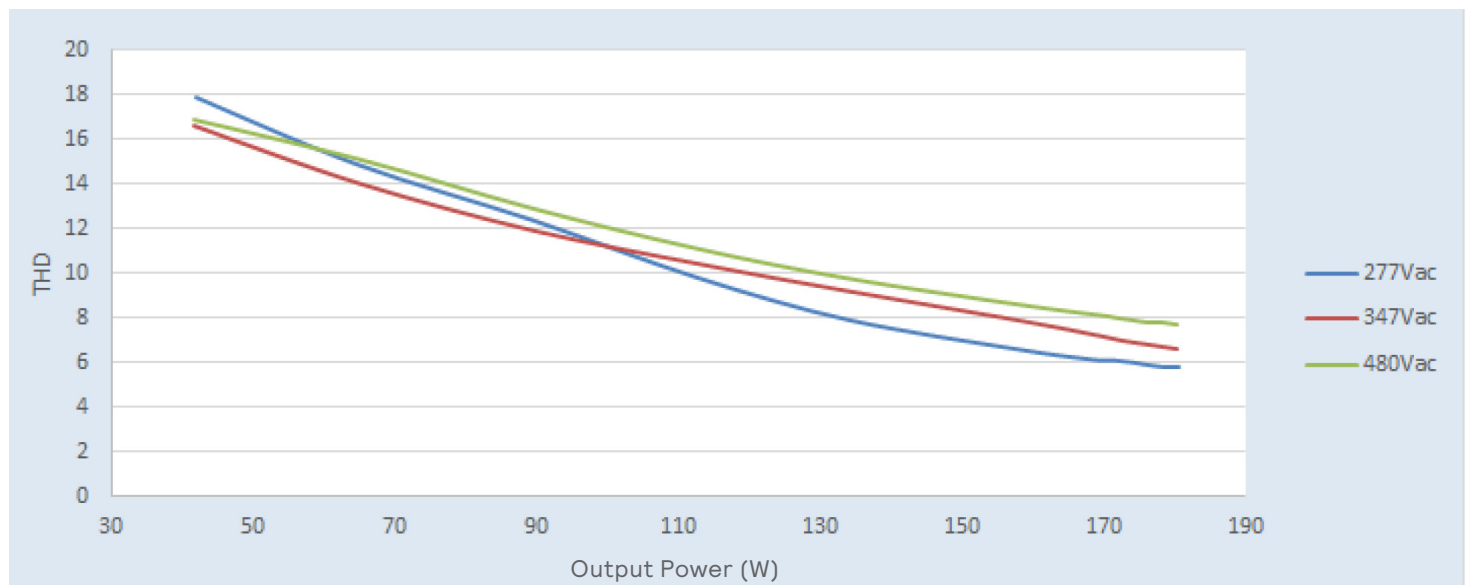
## Performance Characteristics

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

### Power Factor Vs. Output Power



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

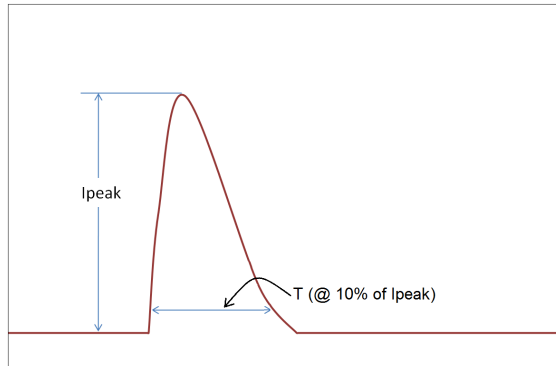


Note: PF>0.9, THD<20%.

# Xitanium XJ180C090V285BSF2

180W 0.1-0.9A 0-10V dimming with SimpleSet

## Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
277 Vrms	46.7A	293.0μS
347 Vrms	59.9A	290.5μS
480 Vrms	80.6A	284.5μS

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	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. working voltage

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.



© 2022 Signify Holding. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Signify North America Corporation  
400 Crossing Blvd, Suite 600  
Bridgewater, NJ 08807  
Telephone: 855-486-2216

Signify Canada Ltd.  
281 Hillmount Road,  
Markham, ON, Canada L6C 2S3  
Telephone: 800-668-9008

All trademarks are owned by Signify Holding or their respective owners.