



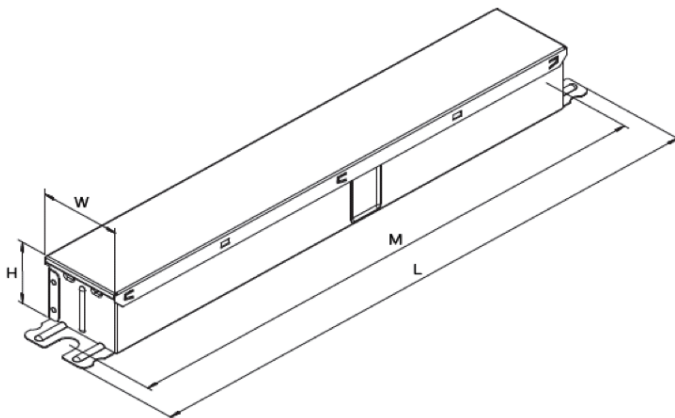
Advance CertaDrive indoor LED drivers are designed to meet basic lighting needs. These dimmable drivers are offered with specific voltage-current settings and are, thus, optimized with specifications that are appropriately suited for the application, making LED conversion affordable.

### Specifications

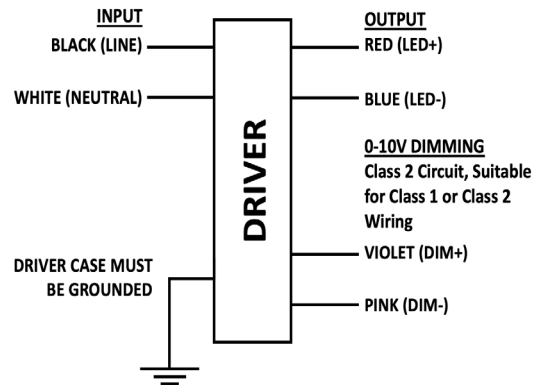
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Ring Wave, KV)	Envir. Protection Rating	Dimming	Dimming Range	Minimum Output Current (A)	Driver Type
120	40	35-48 Class 2 Output	0.825	86	80°C	0.4	47.1	<20%	>0.9	2.5	UL damp & dry	0-10V Analog Class 1 and 2 Wiring	10% - 100%	0.0825	Constant Current
277				88		0.18		<15%							

### Enclosure

	In. (mm)
Case Length	8.34 (212)
Case Width (W)	1.37 (33.5)
Case Height (H)	1.10 (27)
Mounting Length (M)	8.90 (226)
Overall Length (L)	9.50 (240)



### Wiring Diagram



Input and output use lead-wires.

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

Driver case must be grounded.

### Warning

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



# CertaDrive CI040C082V048CNN2

40W 0.825A 48V 0-10V 120-277V

## Features

- 50,000+ hour lifetime<sup>1</sup>
- Excellent thermal performance
- High power factor & low THD<sup>2</sup>

## Benefits

- Enables long life luminaire designs
- Allows operability in indoor (low-bay) ambient conditions
- Suitable for commercial indoor applications

## Application

- Indoor linear troffers, pendants
- Office areas
- Retail centers
- Educational facilities

## Electrical Specifications

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

## Product Data

Order Information	
Full Product Code	CI040C082V048CNN2M (Mid-Pack, 30pcs/Box) 12NC:929001742013
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108 Vac
Max. Mains Voltage Operational	305 Vac
Output Information	
Maximum Open Circuit Voltage	60Vdc, Class 2 output
Output Current Ripple (ripple = peak to average / average)	30% max @ max lout
Output Current Tolerance (at maximum output current)	<8% <sup>2</sup>
Protections	Short Circuit, Open Circuit Protection for LED + and LED -
Features	
0-10V Dimming	See dim curve for detail.
Environment & Approbation	
Operating Ambient Temp. Range	-20°C to +50°C
Max Case Temperature (Tcase) <sup>3</sup>	80°C, Tcase Life: 65°C
Agency Approbations	UL 8750, UL 1310, cUL, Class P (UL, cUL)
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	0.59Lbs / 0.27kgs

1. Advance CertaDrive 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.
2. Note: power factor (PF) and total harmonic distortion (THD) may deviate under adverse mains voltage conditions outside nominal operation. Output current (I<sub>out</sub>) variation includes effects of line and load regulation, temperature variation and component tolerances.
3. For Tc point location, please refer to the Advance CertaDrive design-in guide.

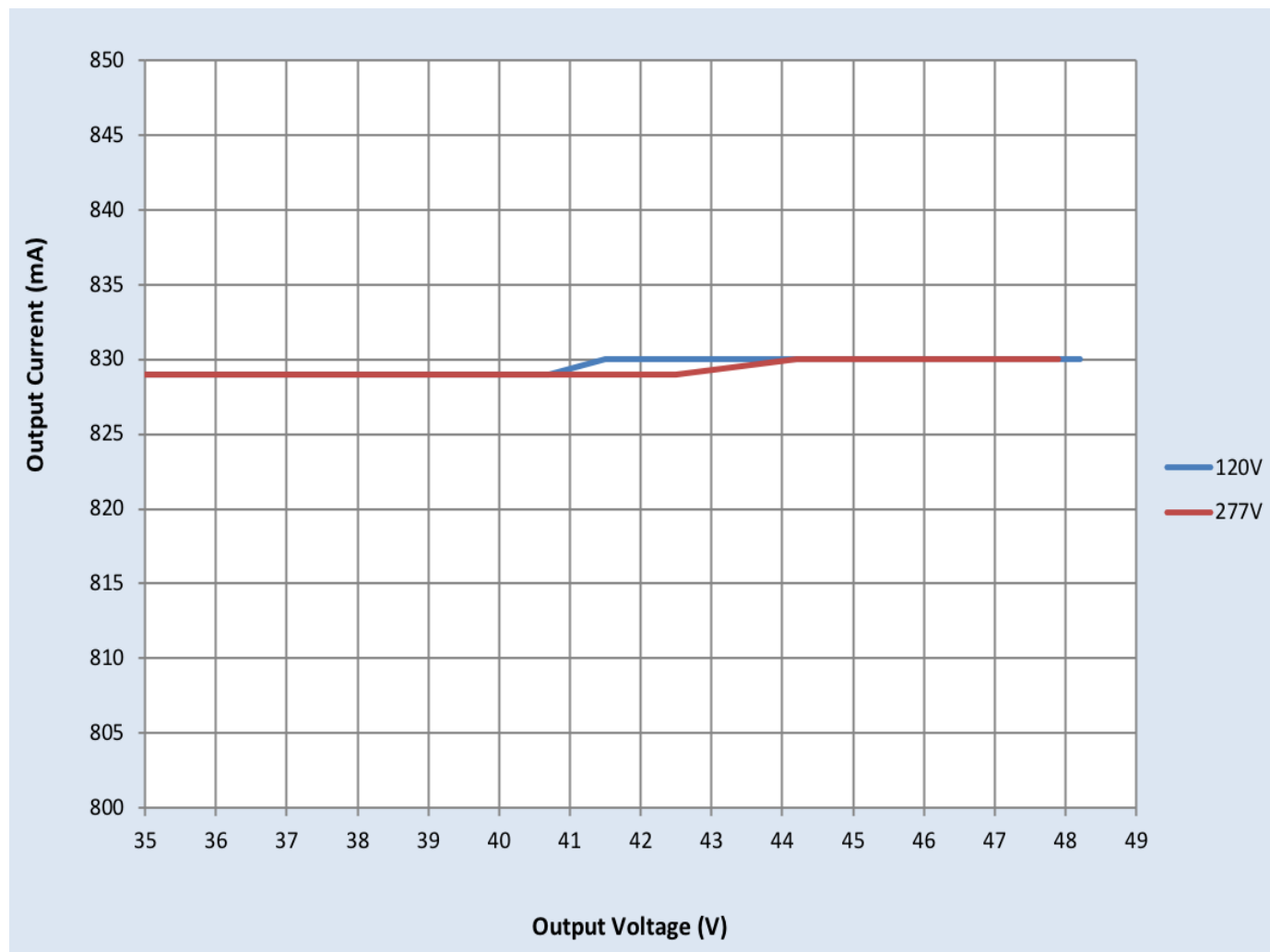
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## Electrical Specifications

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### I<sub>out</sub> Vs. V<sub>out</sub>



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## Electrical Specifications

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## 0-10V Dimming Curve

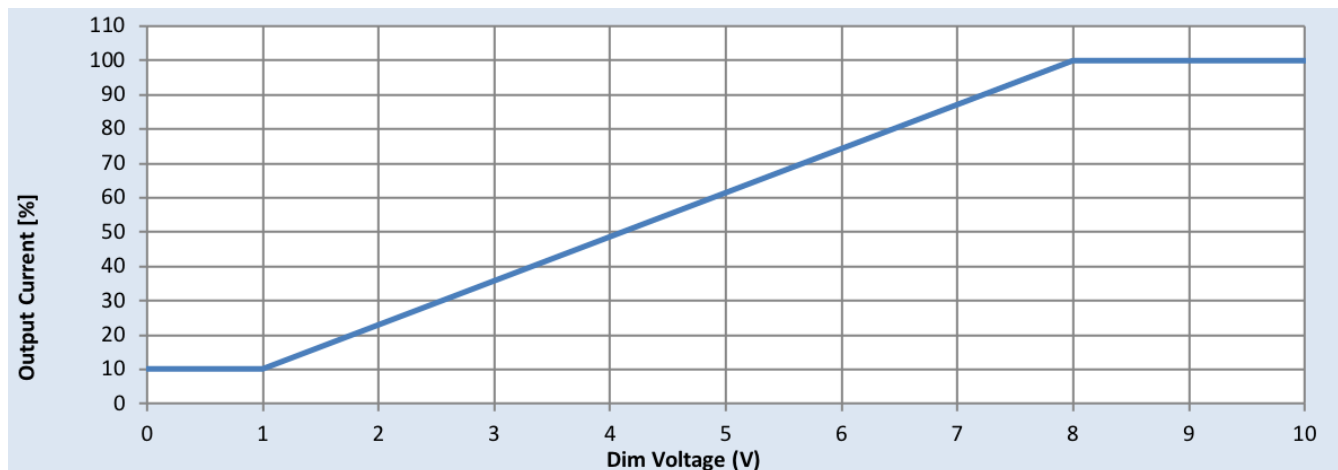
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

Minimum dim level: 10% of Iout

Maximum output voltage on the dimming wires: 12V

## Approved Dimmer List

Manufacturer	Manufacturer Part Number
Lutron	Visit <a href="http://www.lutron.com">www.lutron.com</a>
Leviton	IllumaTech IP7 series
Advance	Sunrise - SR1200ZTUNV



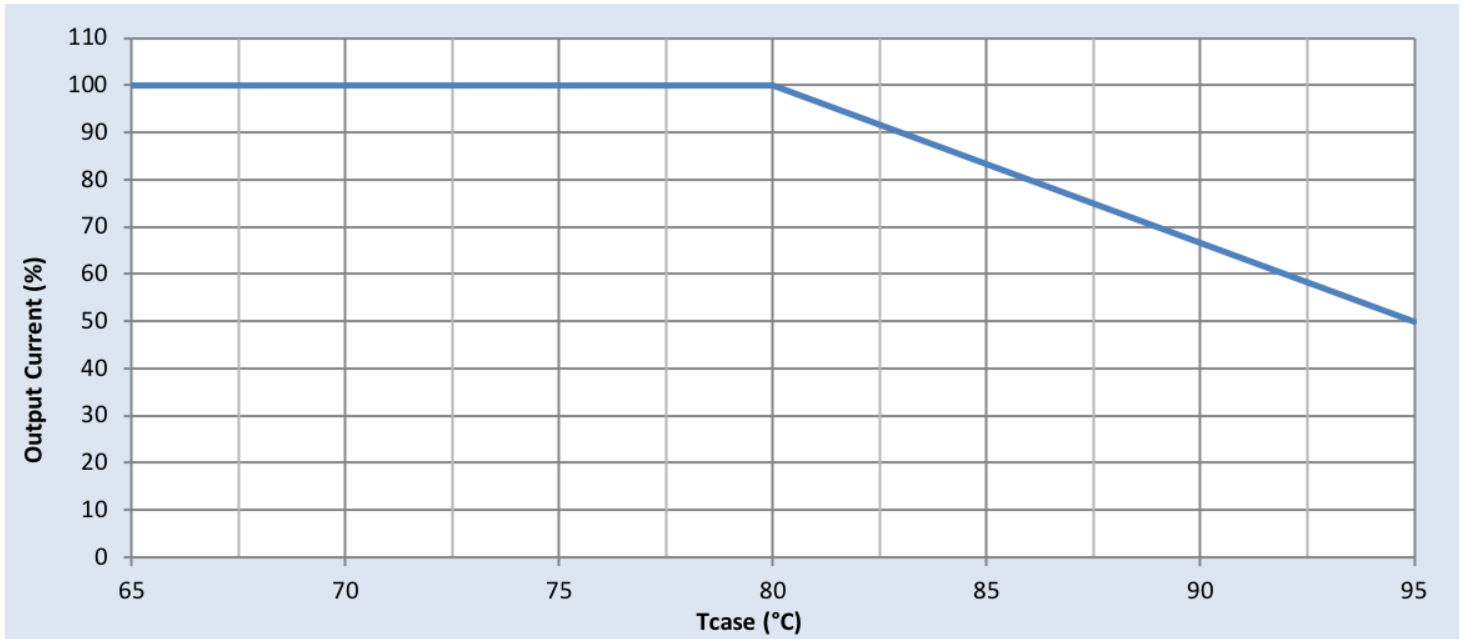
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## Electrical Specifications

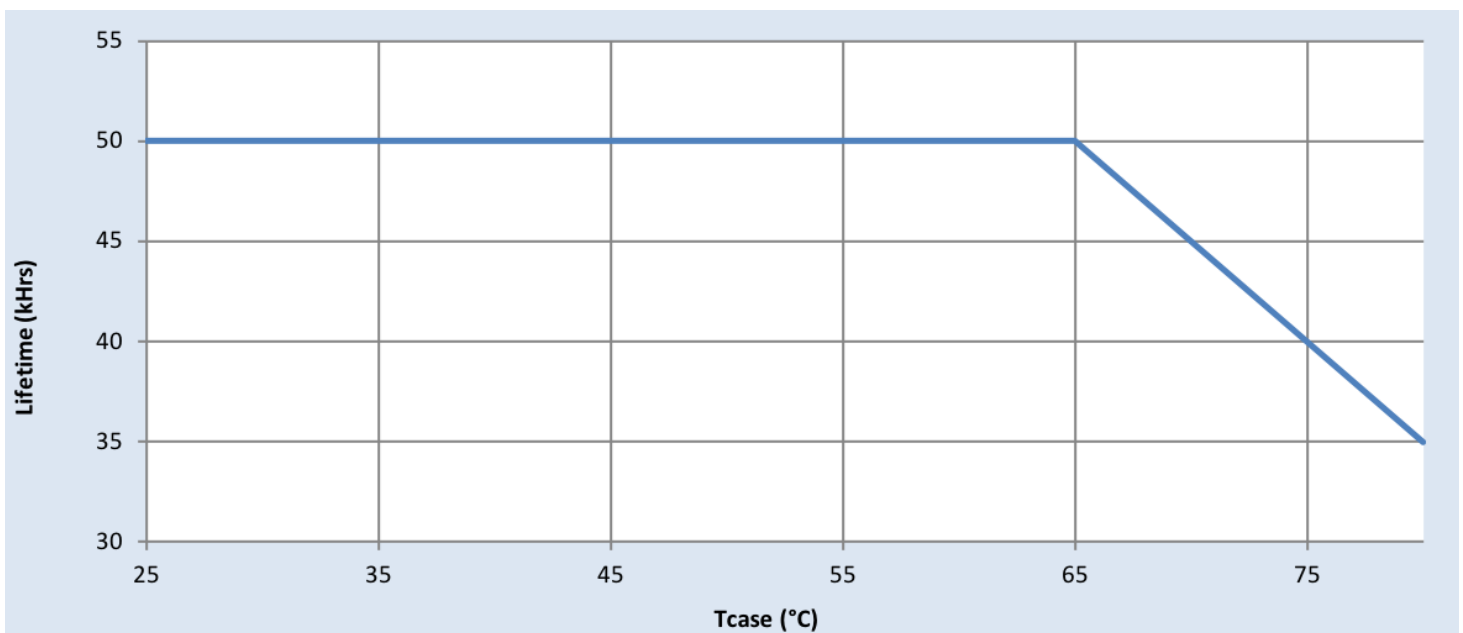
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## Output Current Vs. Driver Case Temperature



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

## Driver Lifetime Vs. Driver Case Temperature



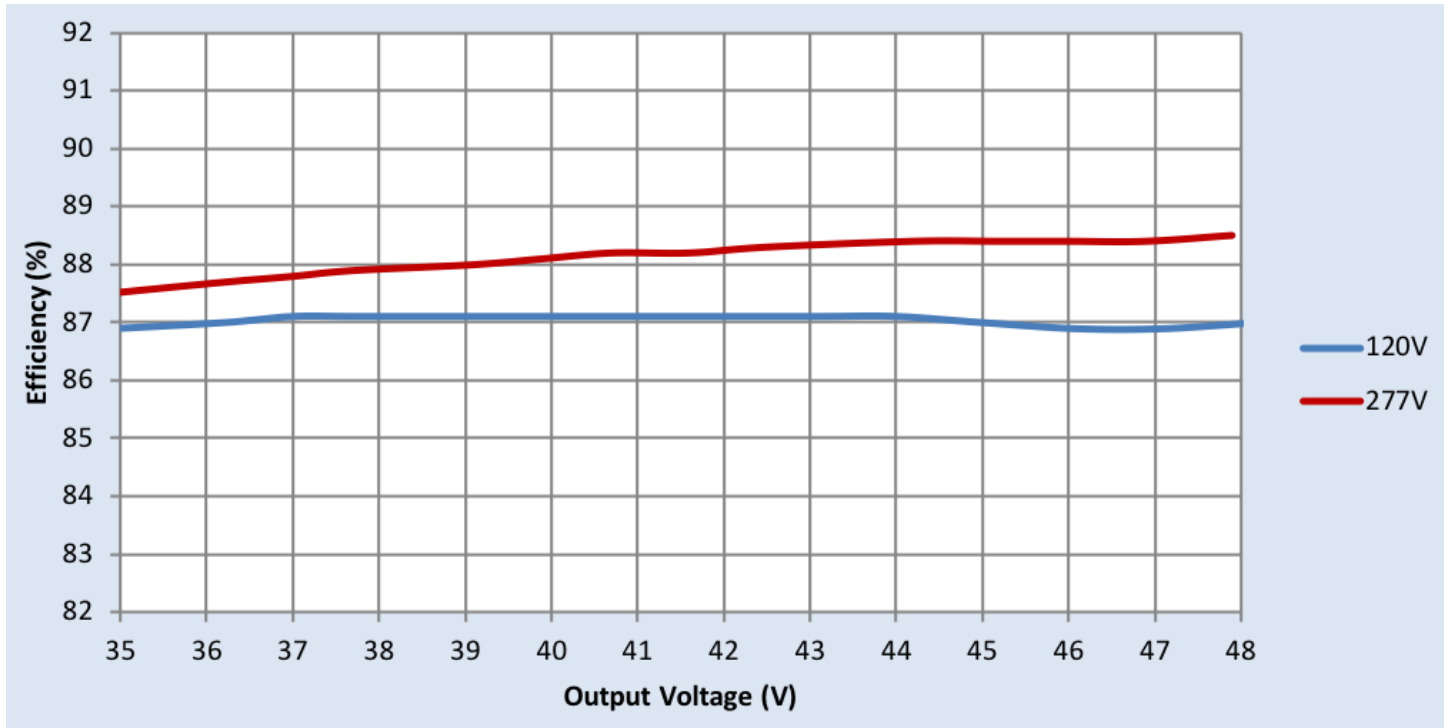
# CertaDrive CI040C082V048CNN2

40W 0.825A 48V 0-10V 120-277V

## 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



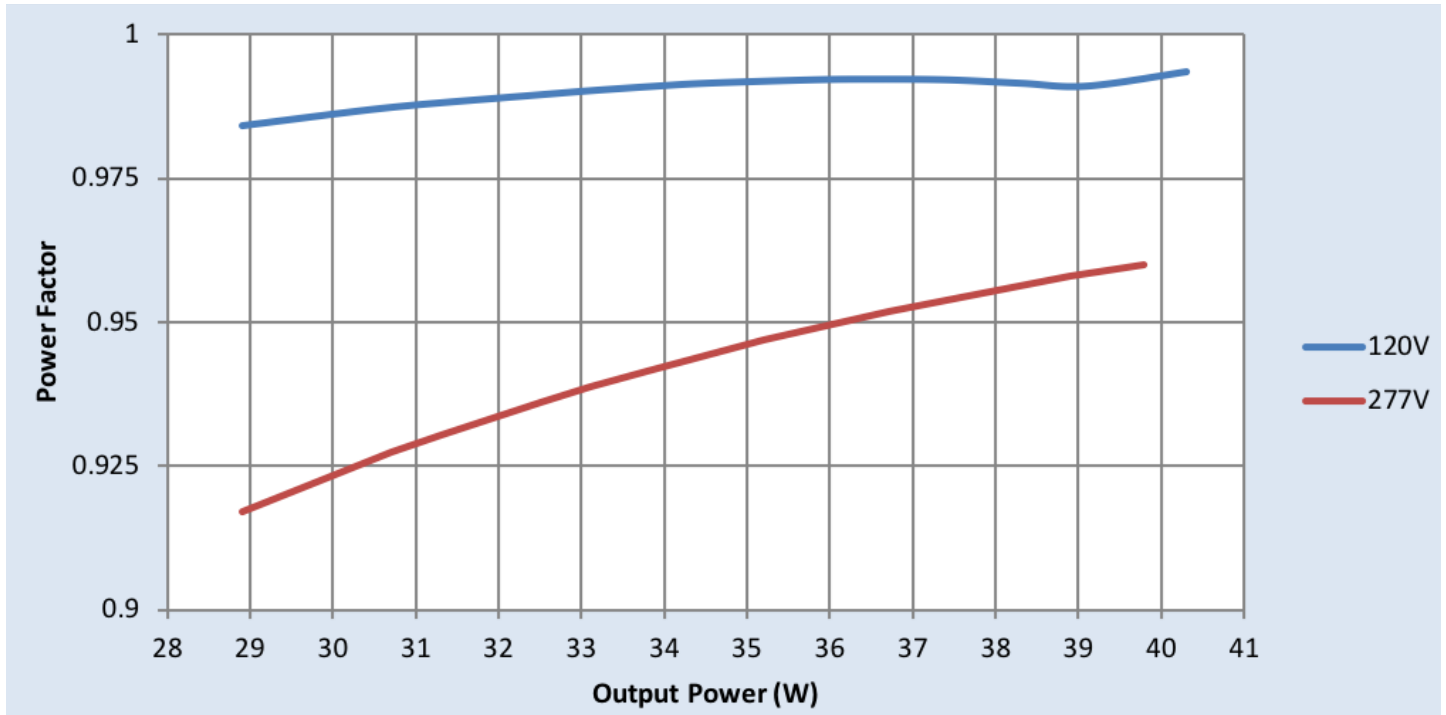
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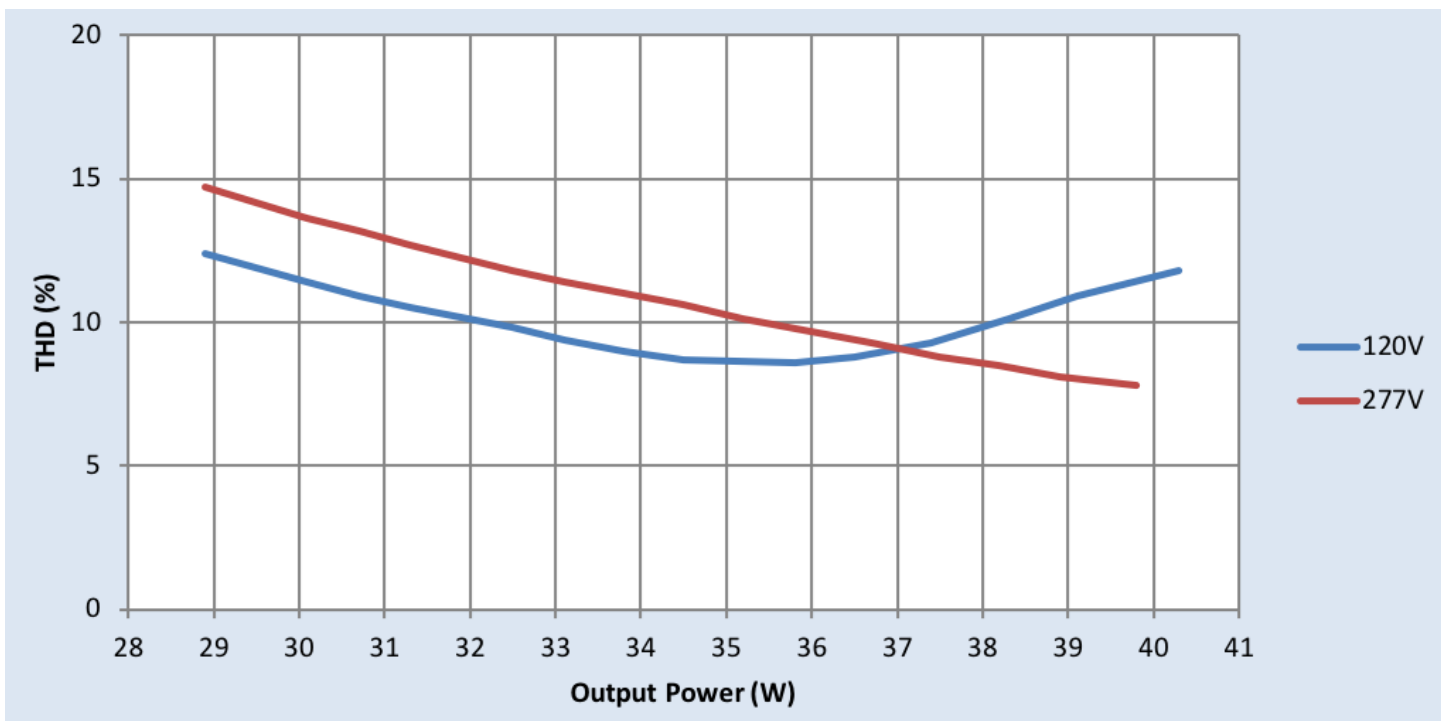
## Performance Characteristics

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



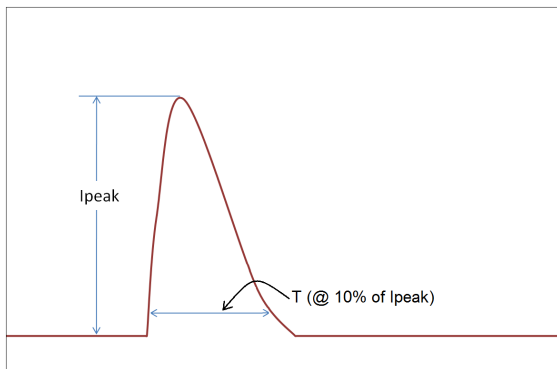
### Total Harmonic Distortion (THD) Vs. Output Power



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## Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	24.35A	21.2µS
277 Vrms	26.9A	21µS

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)
100 kHz Ring Wave (w/t 30Ω)	2.5kV	2.5kV

## 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

U = Max working voltage



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