ADVANCE
by signify

LED Driver

CertaDrive

CI018C037V048FNN2

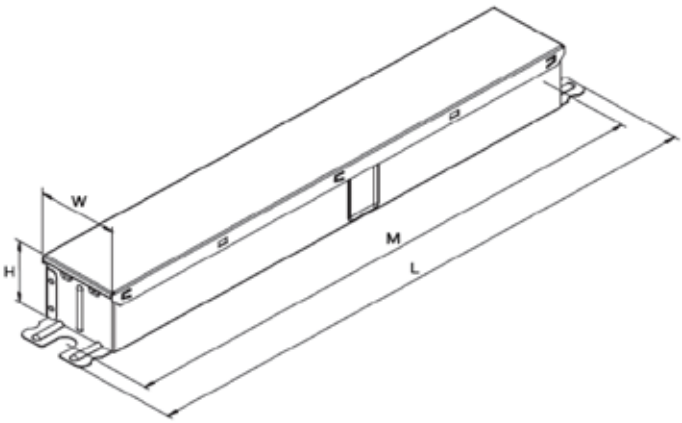
Advance CertaDrive indoor LED drivers are designed to meet basic lighting needs. These drivers are offered with specific voltage-current settings and are, thus, optimized with specifications that are appropriately suited for the application, making LED conversion affordable.

Specifications

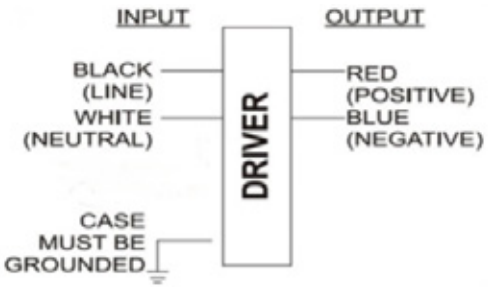
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Ring Wave, KV)	Envir. Protection Rating	Driver Type
120	18	35-48 Class 2 Output	0.375	85	75°C	0.17	21.7	<20%	>0.9	2.5	UL damp & dry	Constant Current
277				85		0.08		<20%				

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.

c UL us LISTED E321253

RoHS

CertaDrive CI018C037V048FNN2

18W 0.375A 48V 120-277V

Features

- 50,000+ hour lifetime[1]
- Excellent thermal performance
- High power factor & low THD[2]

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	CI018C037V048FNN2M (Mid-Pack, 30pcs/Box) 12NC:929001742713
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 Iout
Output Current Tolerance (at maximum output current)	<8%[2]
Protections	Short Circuit, Open Circuit Protection for LED + and LED –
Features	
0-10V Dimming	Non dimmable
Environment & Approbation	
Operating Ambient Temp. Range	-20°C to +50°C
Max Case Temperature (Tcase)[3]	75°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	0.46Lbs / 0.21kgs

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 out) 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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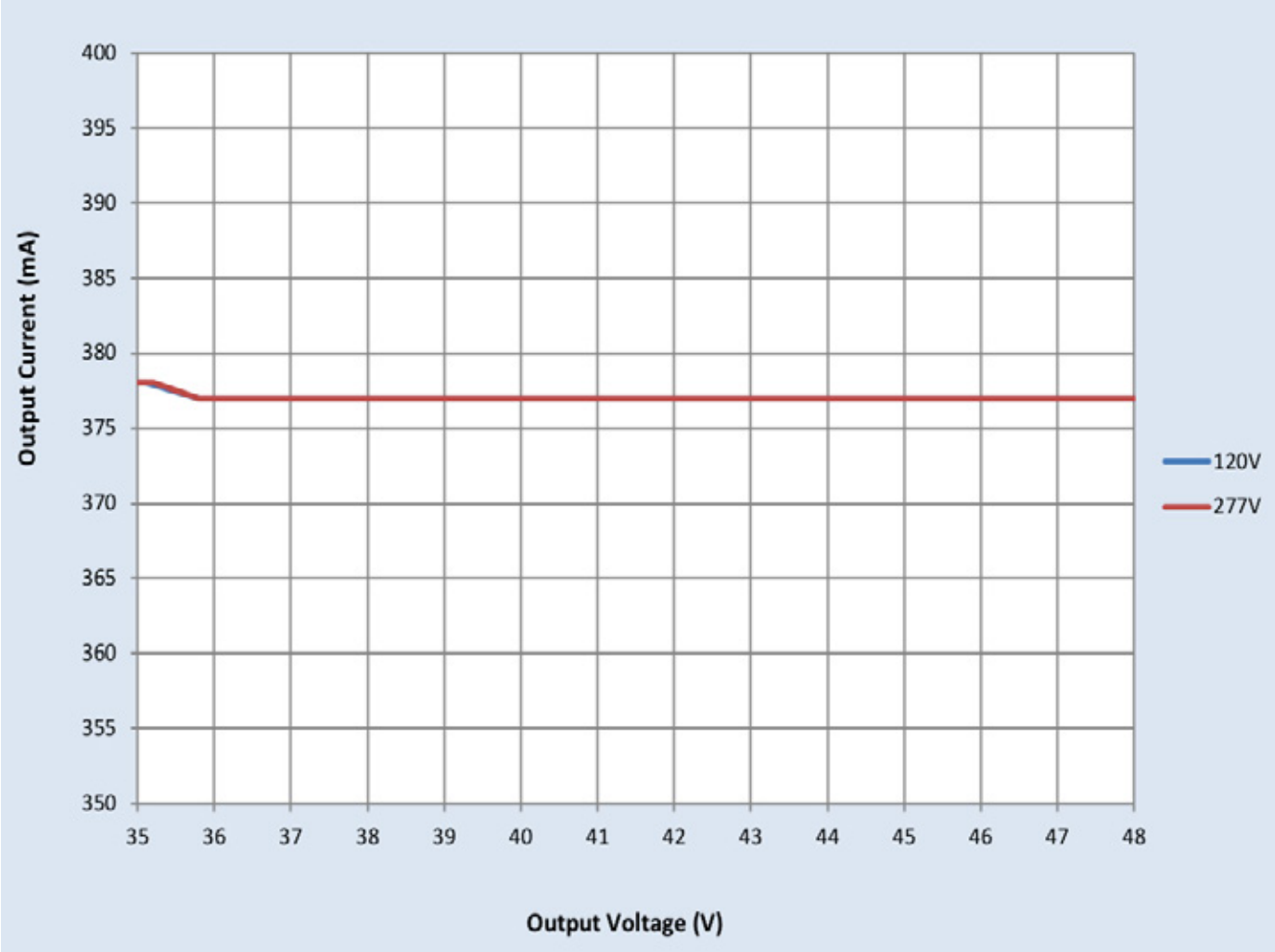
Iout Vs. Vout



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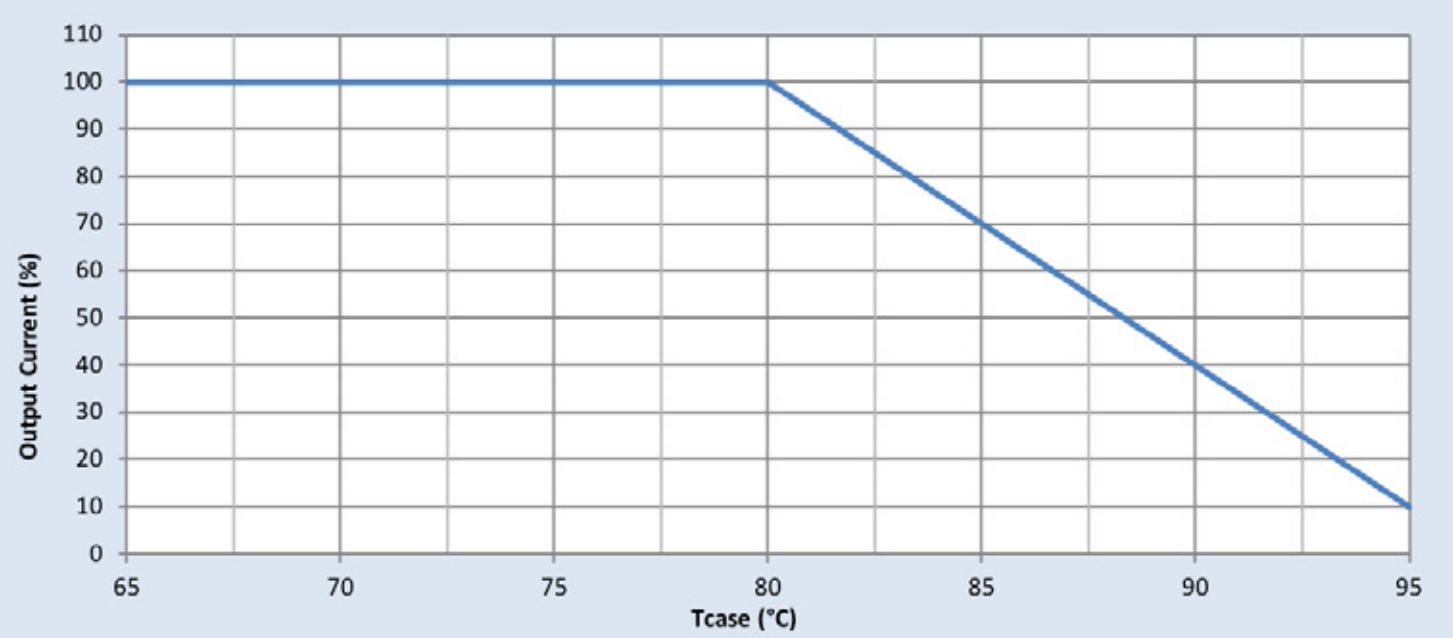
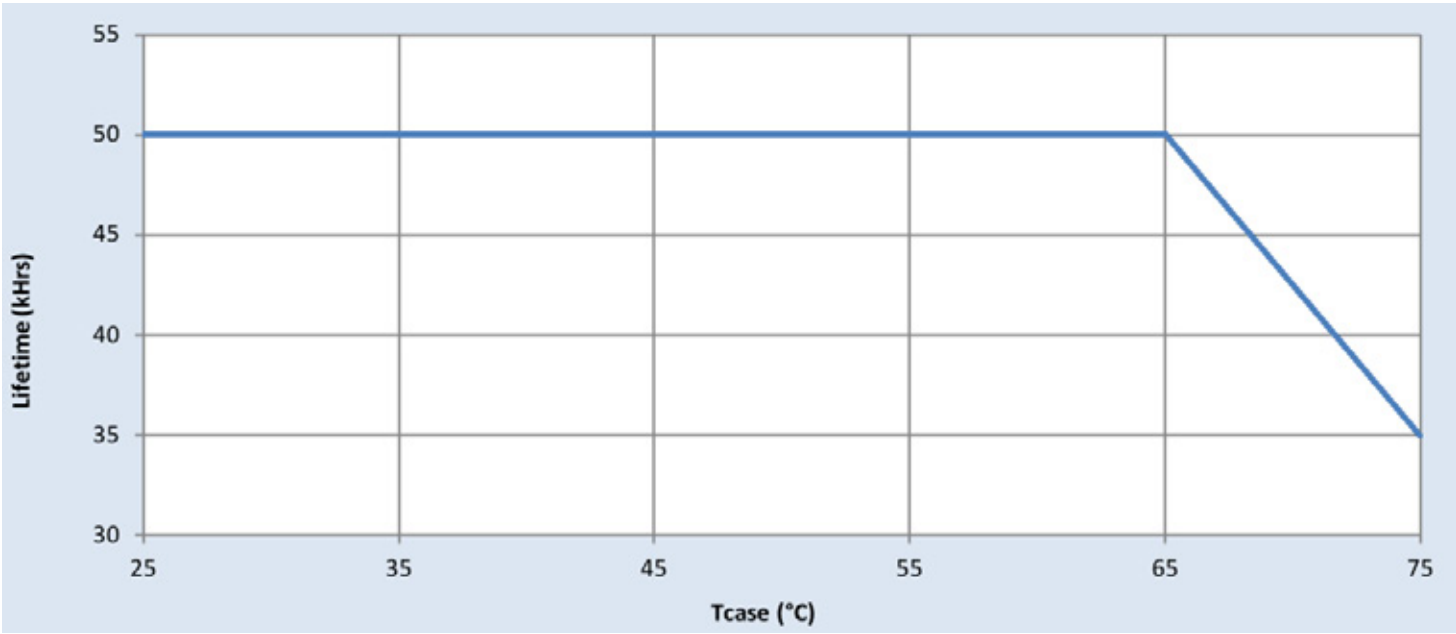
Output Current Vs. Driver Case Temperature



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

Driver Lifetime Vs. Driver Case Temperature



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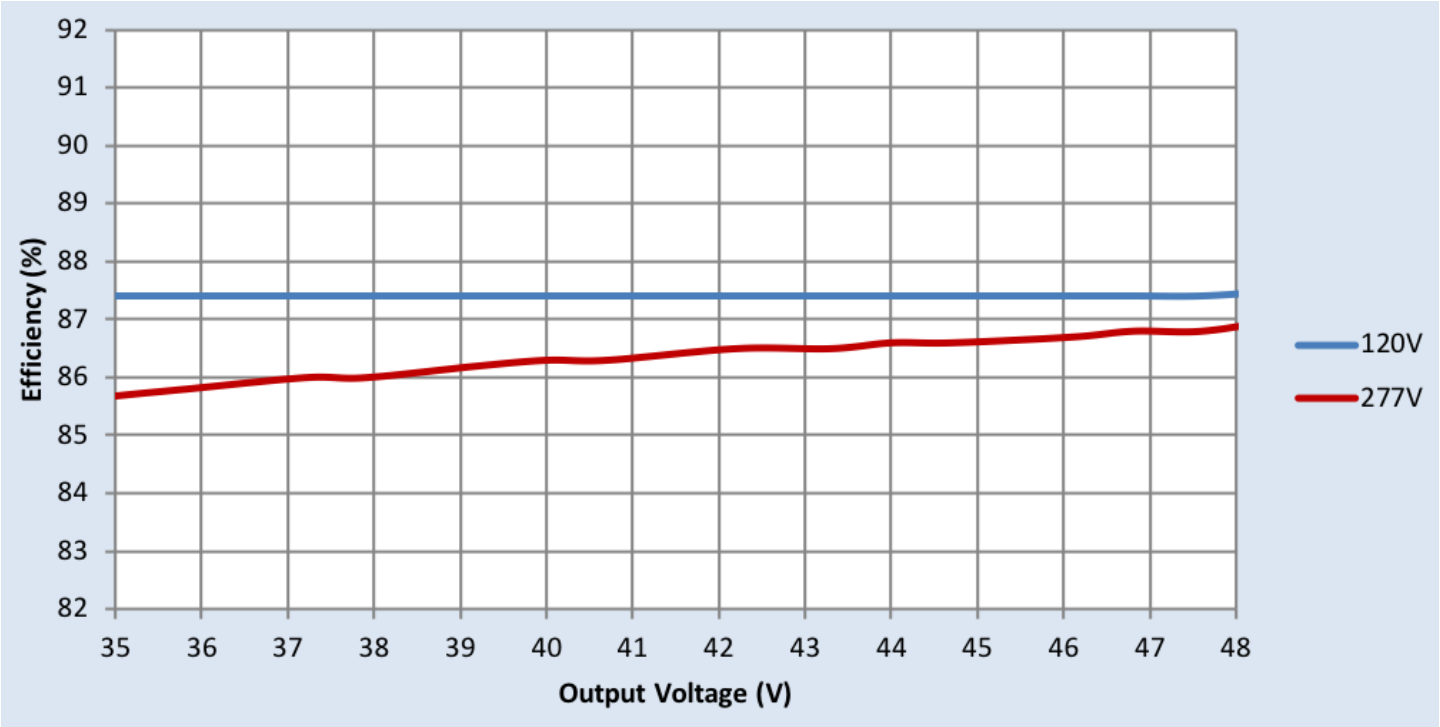
Performance Characteristics

Based on measurements on a typical sample 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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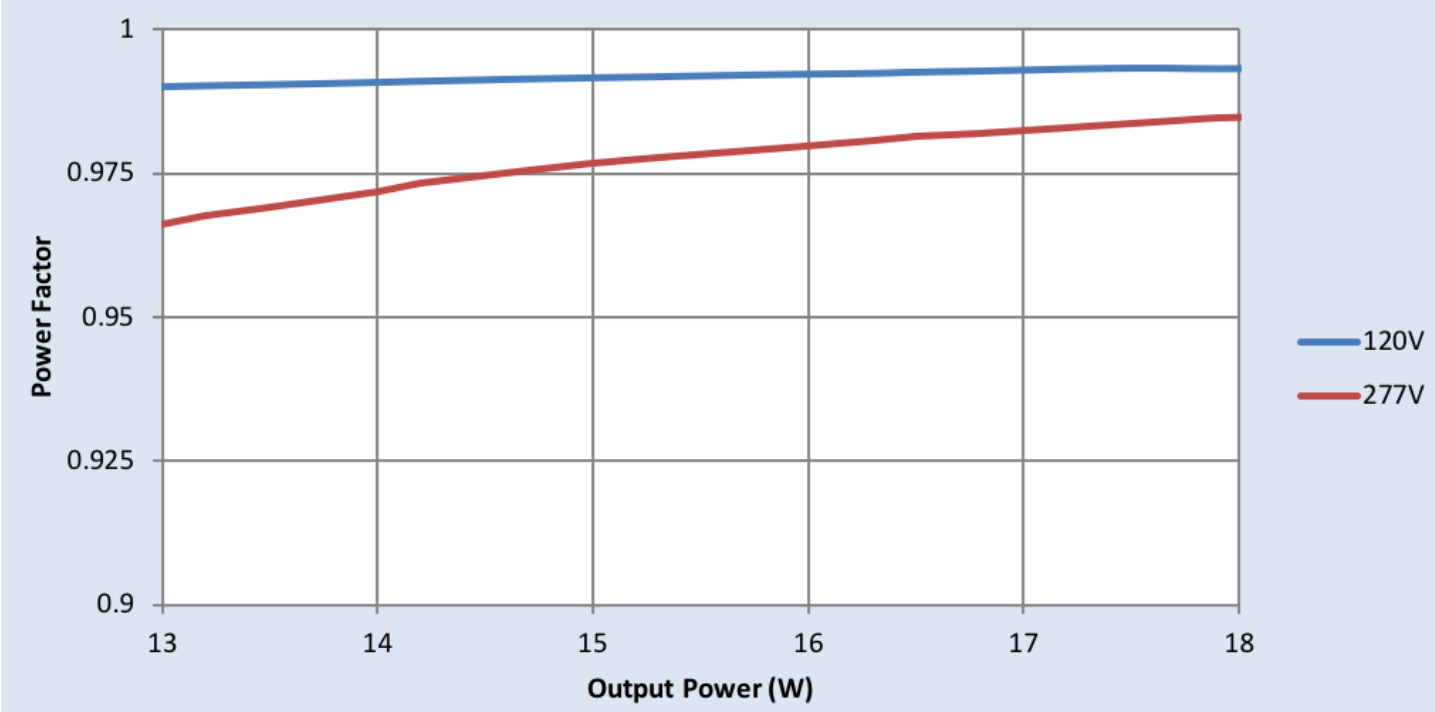
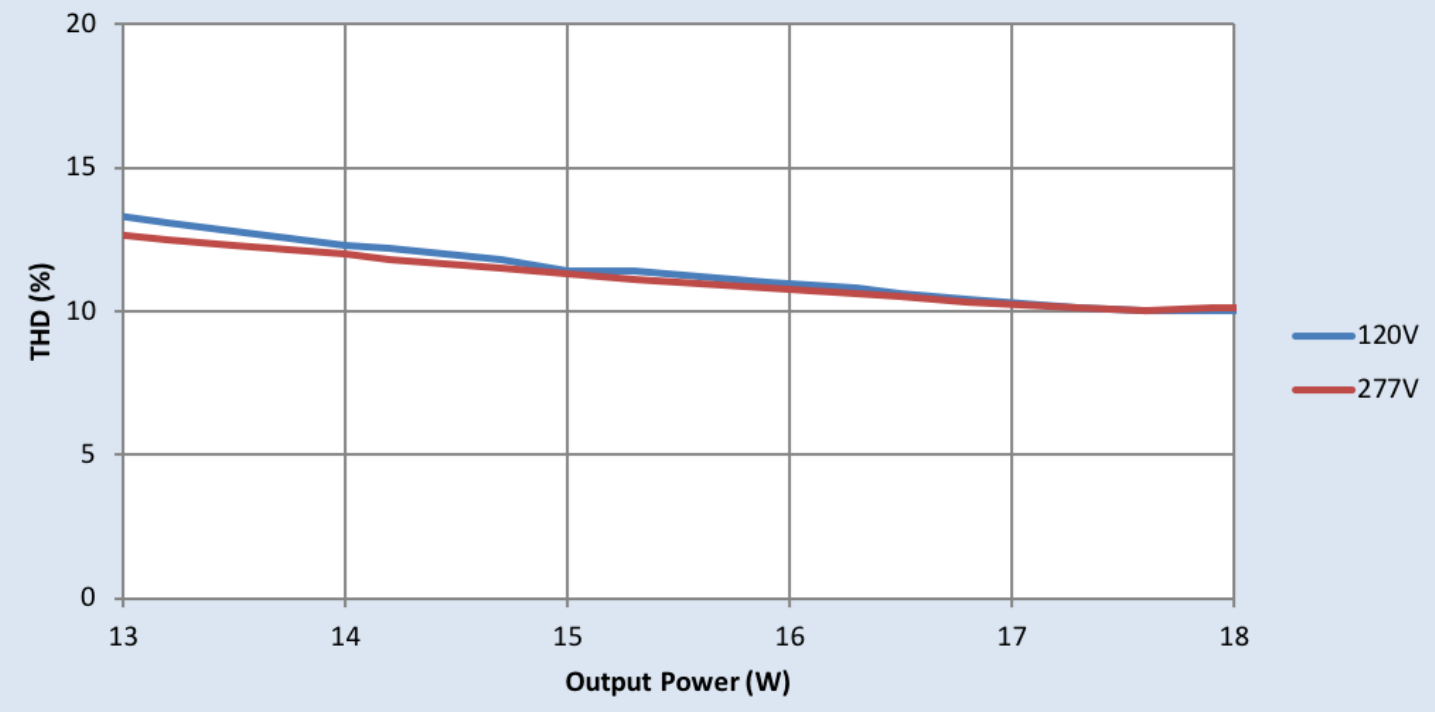
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



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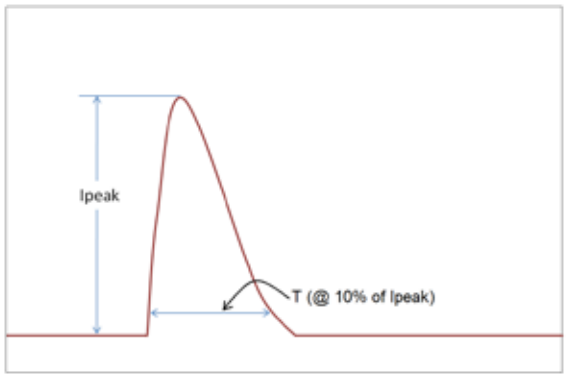
Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	7.68A	3.58µS
277 Vrms	18.1A	3.65µS

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
Enclosure	2xU+1kV	2xU+1kV	2xU+1kV	NA

U = Max working voltage

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