



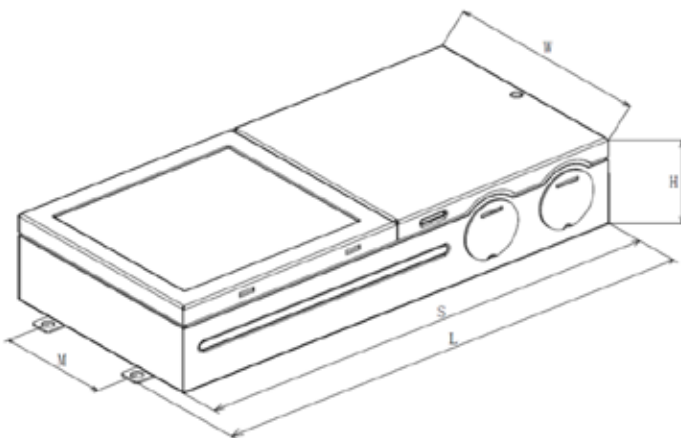
Advance CertaDrive indoor LED drivers are designed to meet basic lighting needs. These drivers are offered with specific voltage-current settings and are, thus, optimized with specifications that are appropriately suited for the application, making LED conversion affordable.

Specifications

Input Volt. (Vac)	Output Power (W)	Output Volt. (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	Dim	Dimming Range (with specified dimmers)	Min. Output Current (A)	Driver Type
120	21	27-42 Class 2 Output	0.5	88	75	0.16	24	<15%	>0.95	2.5	UL damp & dry	0-10V Analog Class 2 Wiring	5% - 100%	0.025	Constant Current
277				87		0.08		<20%	>0.90						

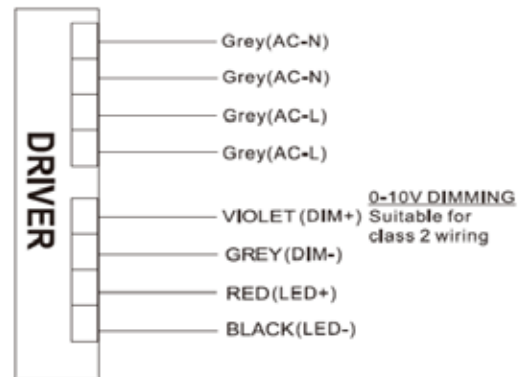
Enclosure

	In. (mm)
Case Length (S)	7.13 (181)
Case Width (W)	3.30 (83.8)
Case Height (H)	1.35 (34.3)
Mounting Length (M)	1.77 (45)
Overall Length (L)	7.39 (187.8)



Typical LED forward voltage 36V, over voltage protection threshold >45V.

Wiring Diagram



Input and output use lead- wires.

Lead-wires are 18AWG 105C/600V solid copper or tinned stranded copper wire.

Warning

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



CertaDrive CI021C050V042CNU1

PANEL 21W 0.50A 42V 0-10V INT

Features

- 50,000+ hour lifetime¹
- Excellent thermal performance
- High power factor & low THD²

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	CI021C050V042CNU1M (Mid-Pack, 16pcs/Box) 12NC:929001758513
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)	-5%, +5%
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)	75°C, Tcase Life: 65°C
Agency Approbations	UL8750, UL1310, cUL, Class P (UL, cUL)
Electromagnetic Compliance	FCC 47 Part 15 Class A @277V input, Class B @120V input
Audible Noise	<20dB 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 35,000 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.

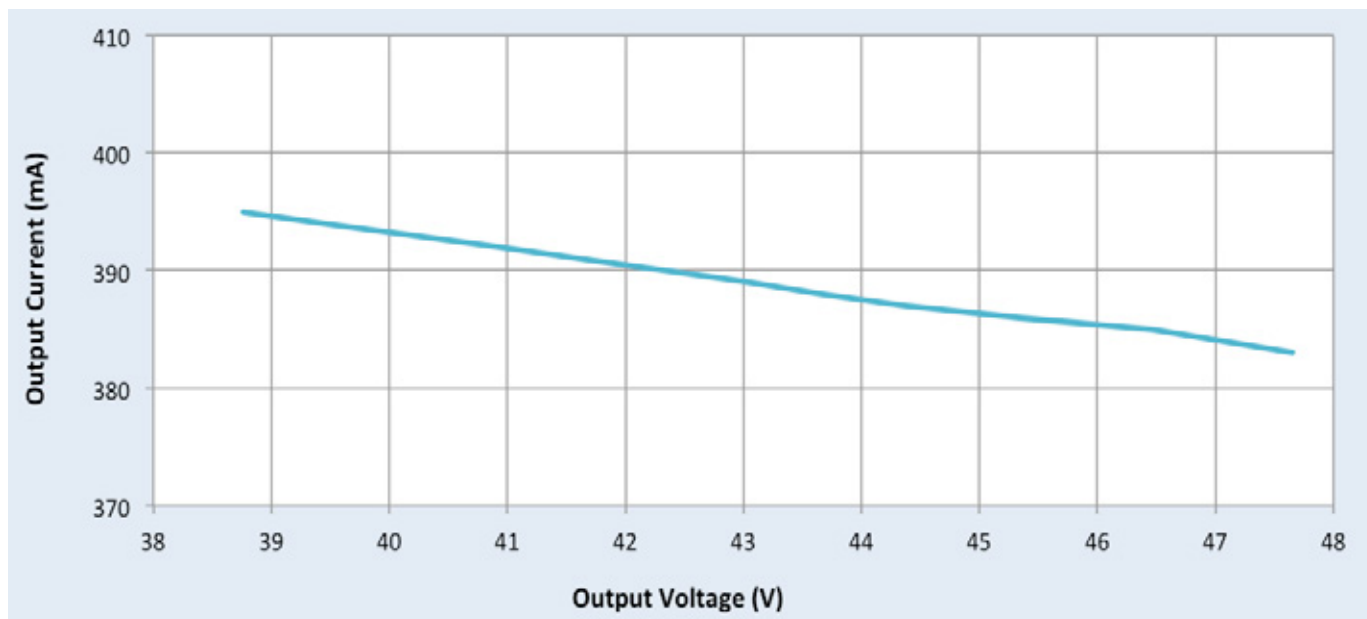
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I_{out} Vs. V_{out}



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0-10V Dimming Curve

Dimming source current from the driver: 450µA (@ 0<Vdim<10V)

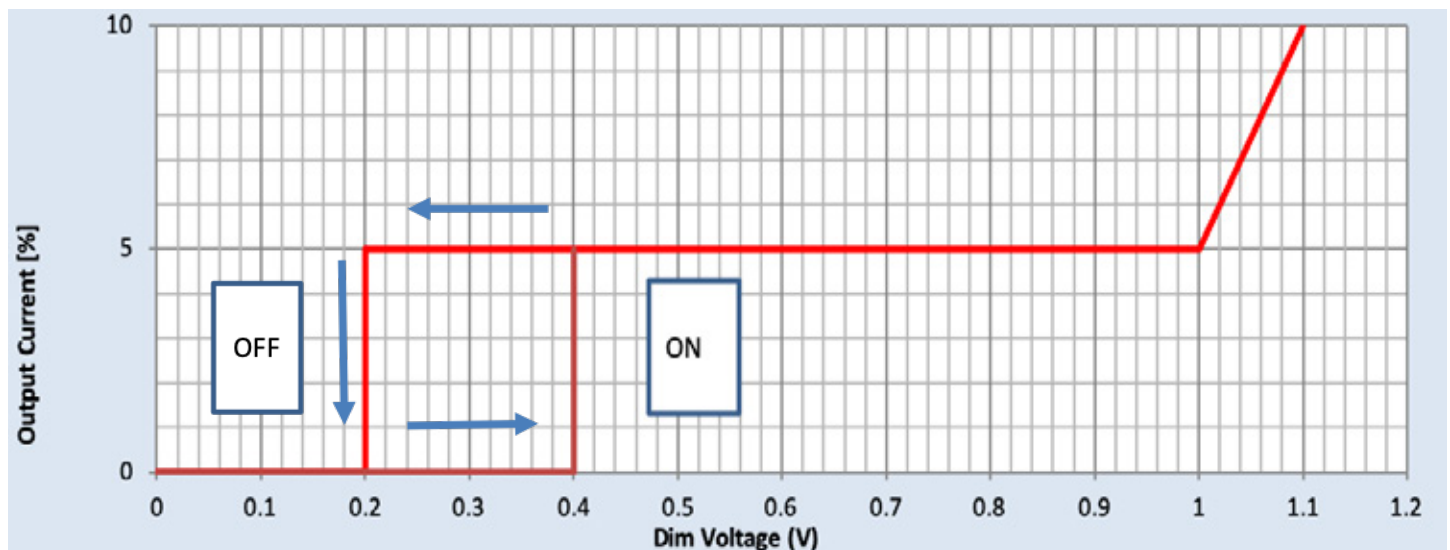
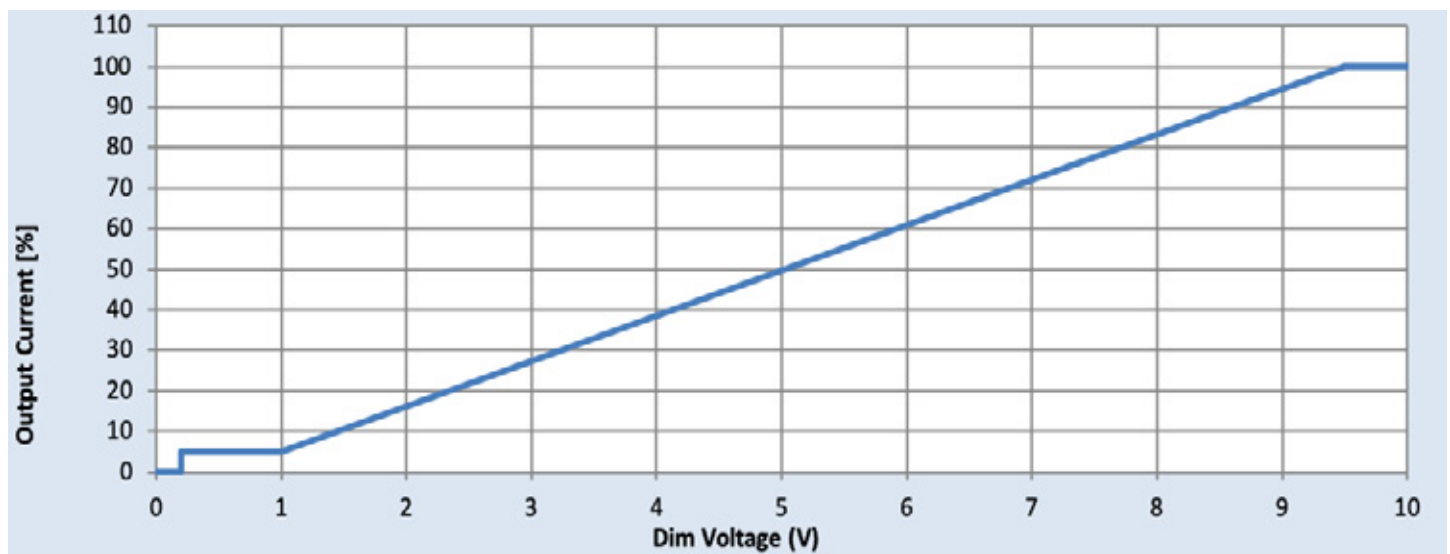
Minimum dim level: 5% of Iout (Dimming to OFF)

Standby power <0.75W

Maximum output voltage on the dimming wires: 12V

Approved Dimmer List

Manufacturer	Manufacturer Part Number
Lutron	Visit www.lutron.com
Leviton	IllumaTech IP7 series
Philips	Sunrise - SR1200ZTUNV



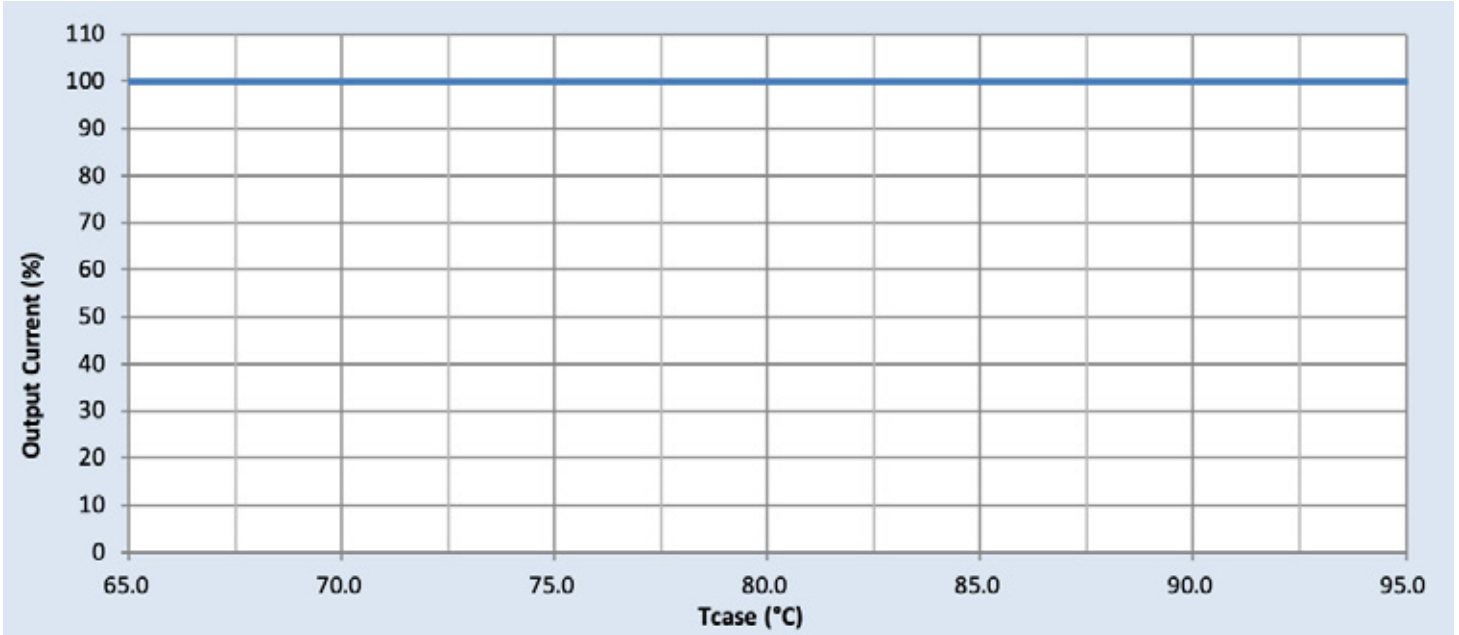
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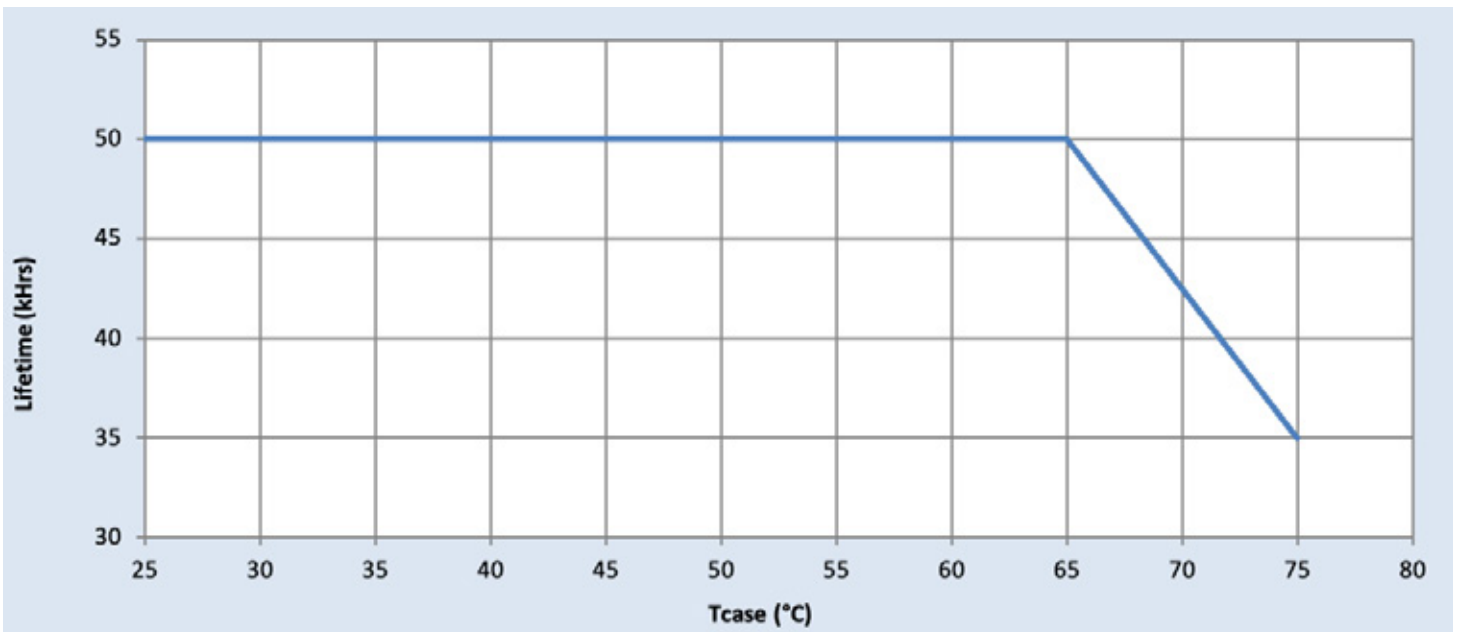
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Output Current Vs. Driver Case Temperature



Driver Lifetime vs. Driver Case Temperature



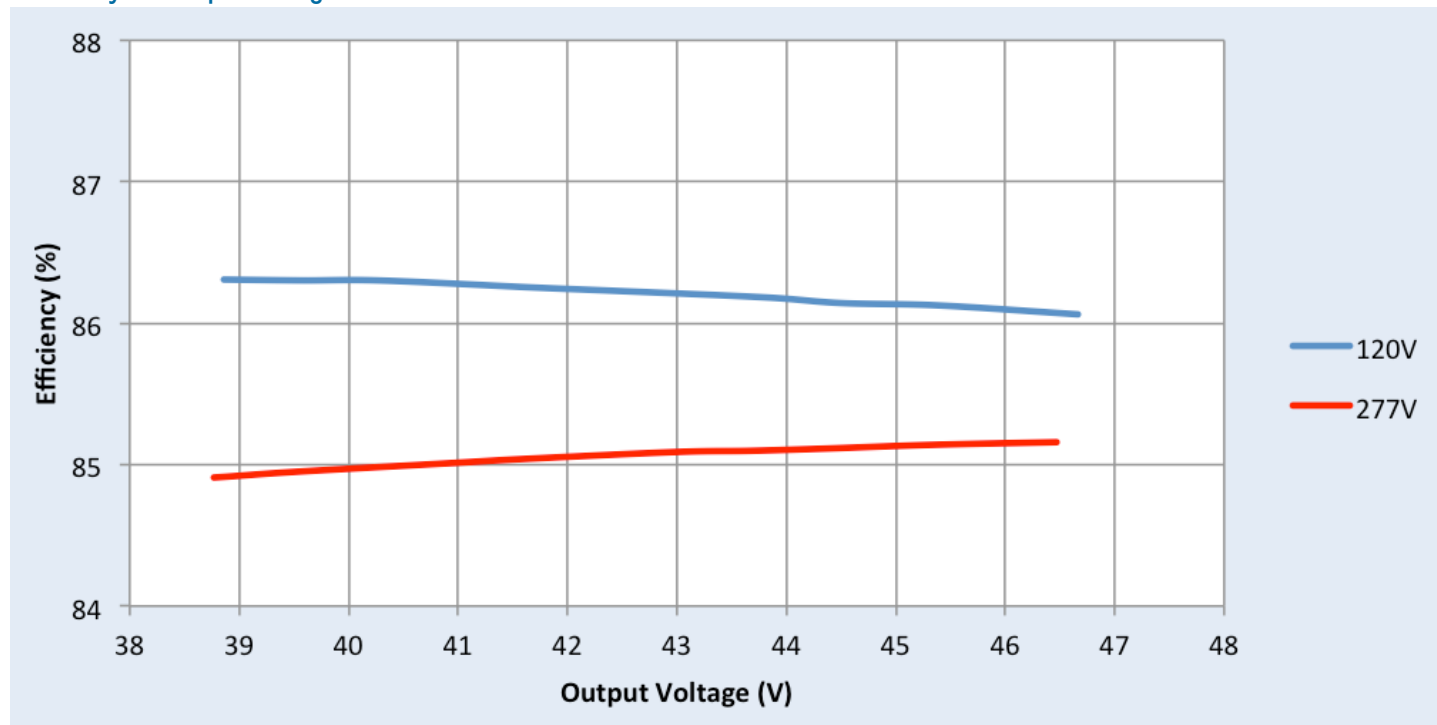
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Performance Characteristics

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



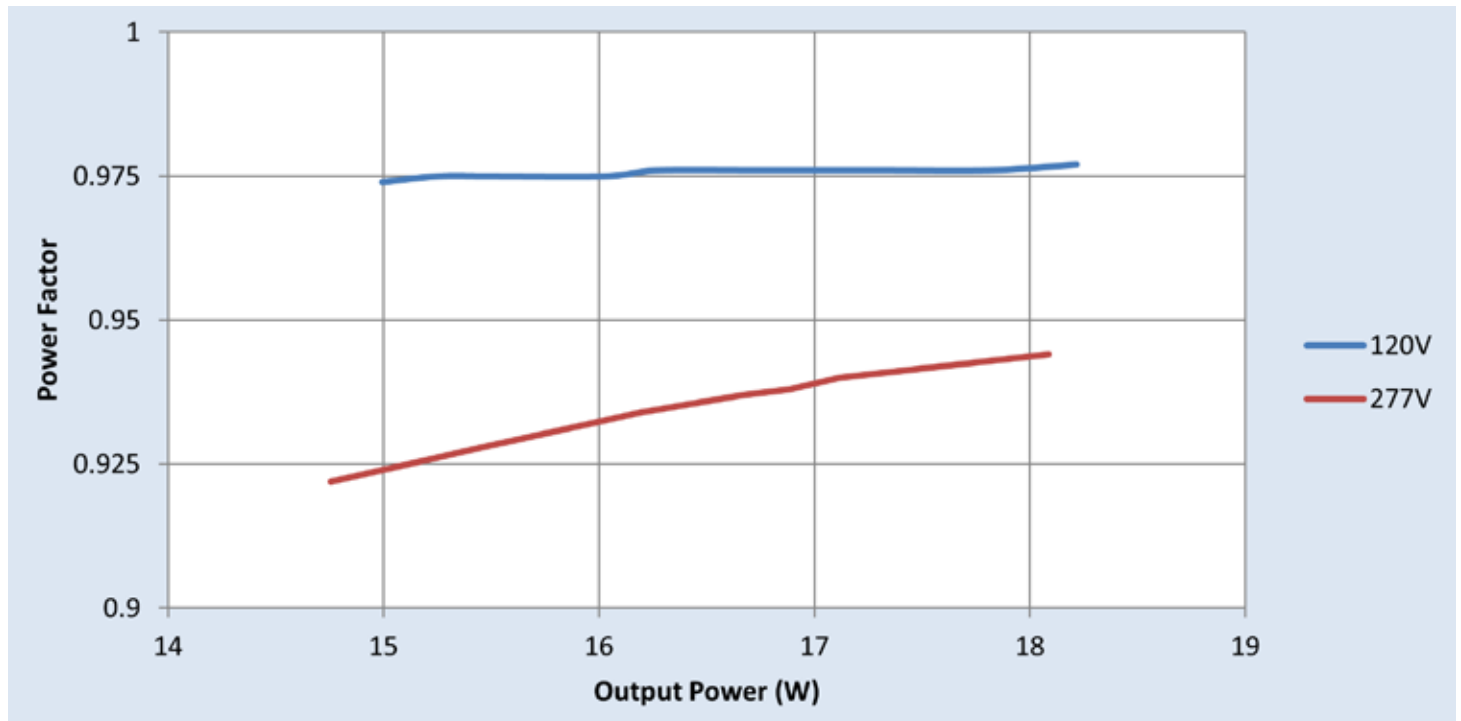
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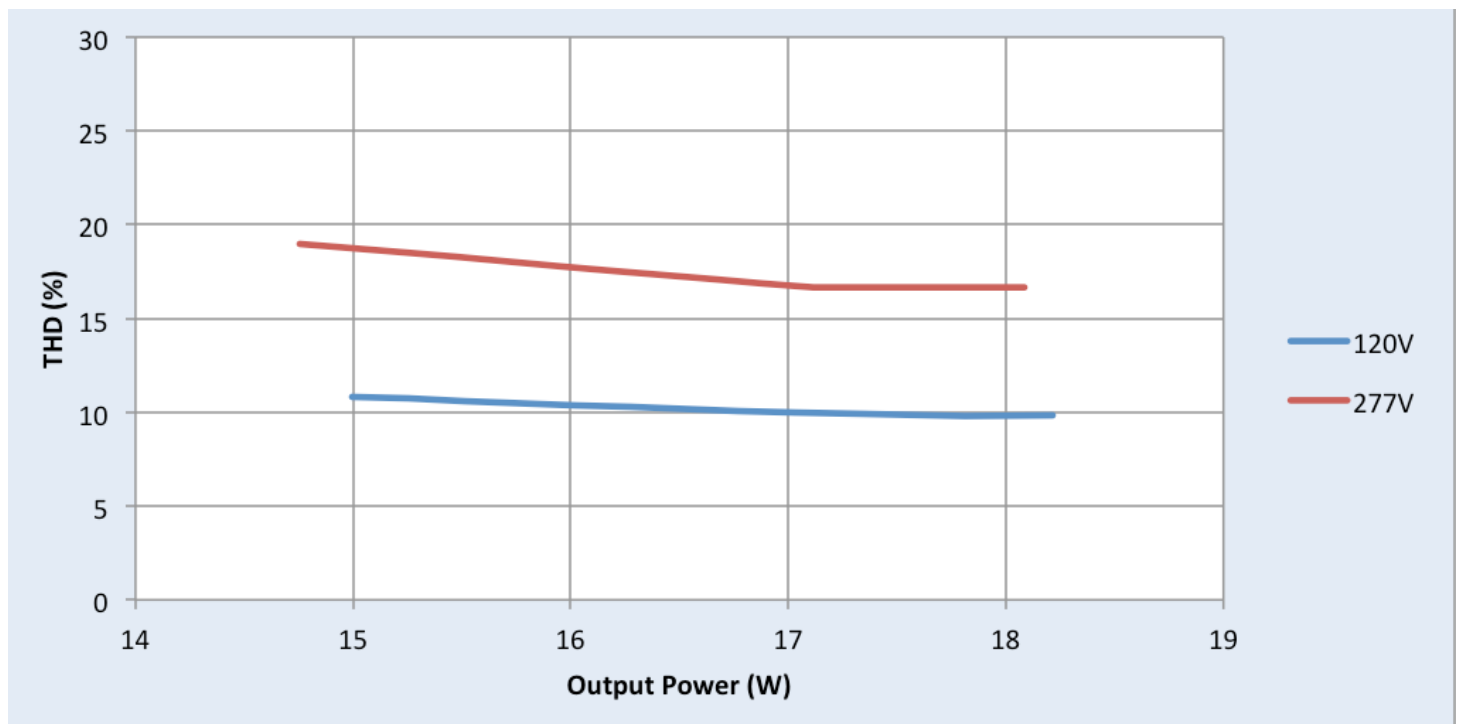
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Power Factor Vs. Output Power



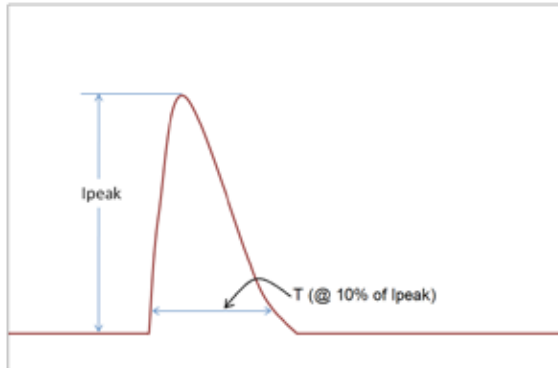
Total Harmonic Distortion (THD) Vs. Output Power



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Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	6.9A	104µS
277 Vrms	16.7A	108µS

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	-	2xU+1kV	2.5kV	2xU+1kV
Output	2xU+1kV	-	Non-isolated	500V
0-10V	2.5kV	Non-isolated	-	500V
Enclosure	2xU+1kV	500V	500V	-

U = Max input voltage

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