ADVANCE
by signify

LED Driver

CertaDrive

CR014C035V042RNR1

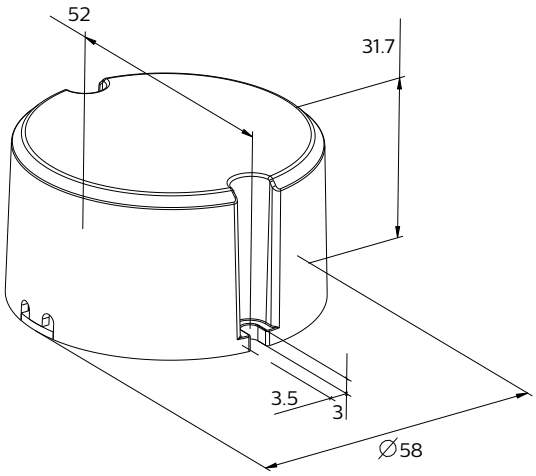
Advance CertaDrive indoor LED drivers are designed to meet basic lighting needs. These drivers are offered with specific voltage-current settings and are, thus, optimized with specifications that are appropriately suited for the application, making LED conversion affordable.

Specifications

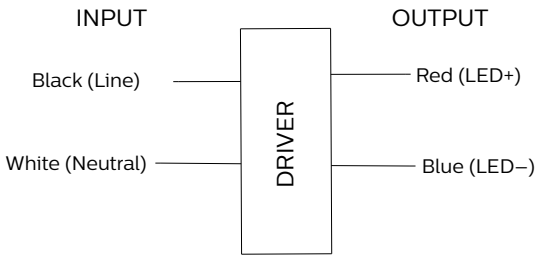
Input Volt. (Vac)	Output Power (W)	Output Volt. (V)	Output Current (A)	Efficiency @ Max. Load and 70°C Case (%)	Max. Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max. Load (%)	Power Factor @ Max. Load	Surge Protect. (Combi-Wave, KV)	Envir. Protect. Rating	Dim	Dimming Range (with specified dimmers)	Min. Output Current (A)	Other Comments	Driver Type
120	14	21-42 Class 2 Output	0.35	86%	Life-85°C UL-90°C	0.17	16	<15%	>0.95	2.5	UL damp & dry	LE + TE Leading Edge & Trailing Edge	3% ~ 100%	0.00105	Only @ 120V	Constant Current

Enclosure

R can	In. (mm)
Case Diameter	2.283 (58)
Case Height	1.25 (31.7)
Mounting Length	2.05 (52)



Wiring Diagram



Input and output use lead-wires.

Input lead-wires are 18AWG 105C/600V stranded copper wires.

Output lead-wires are 22AWG 105C/600V stranded copper wires.

Input lead length outside enclosure: 162mm(+/-10mm)

Output lead length outside enclosure: 254mm(+/-10mm)

All wires have tinned ends.

For connections use wire rated for at least 90°C (194°F).

Pour Les connexions utiliser des conducteurs d'alimentation convenant 90°C (194°F).

Warning

- Install in accordance with national and local electrical codes.

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

USE ONLY WITHIN AN ENCLOSURE
DOIT ÊTRE INSTALLÉ DANS UNE ENCEINTE
USAR UNICAMENTE DENTRO DE UN GABINETE

c UL us LISTED E465448

RoHS COMPLIANT

CertaDrive CR014C035V042RNR1

14W 0.35A 42V LE+TE 120

Features

- 50,000+ hour lifetime[1]
- UL Class 2 output with adjustable drive current
- Leading edge / Trailing edge dimming
- Compact form factor

Benefits

- Enables easy design-in with excellent thermal performance
- Enables simple, fast, flexible application-specific configurations
- Enables light levels suited for the application
- Enables design of low profile fixtures

Application

- Indoor downlight and track applications
- Retail
- Hospitality

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	CR014C035V042RNR1M (Mid-Pack, 24pcs/Box), 12NC: 929001769913
Line Frequency	60Hz
Min. Mains Voltage Operational	108 Vac
Max. Mains Voltage Operational	132 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 (within full output operating range)	350mA: (-8% / +8%) Output Current variation includes effects of line and load regulation, temperature variation and component tolerances
Protections	Short Circuit, Open Circuit Protection for LED + and LED – and Temperature Foldback
Features	
Dimming	LE + TE dimming 3% min
Environment & Approbation	
Operating Ambient Temp. Range	-20°C to +75°C
Max Case Temperature (Tcase)	Max. 90°C, Tcase Life: 85°C
Agency Approbations	UL8750, Class P (UL, cUL)
Electromagnetic Compliance	FCC Title 47 Part 15 Class B
Audible Noise	<24dB Class A
Weight	0.29 lbs. / 130 g

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.

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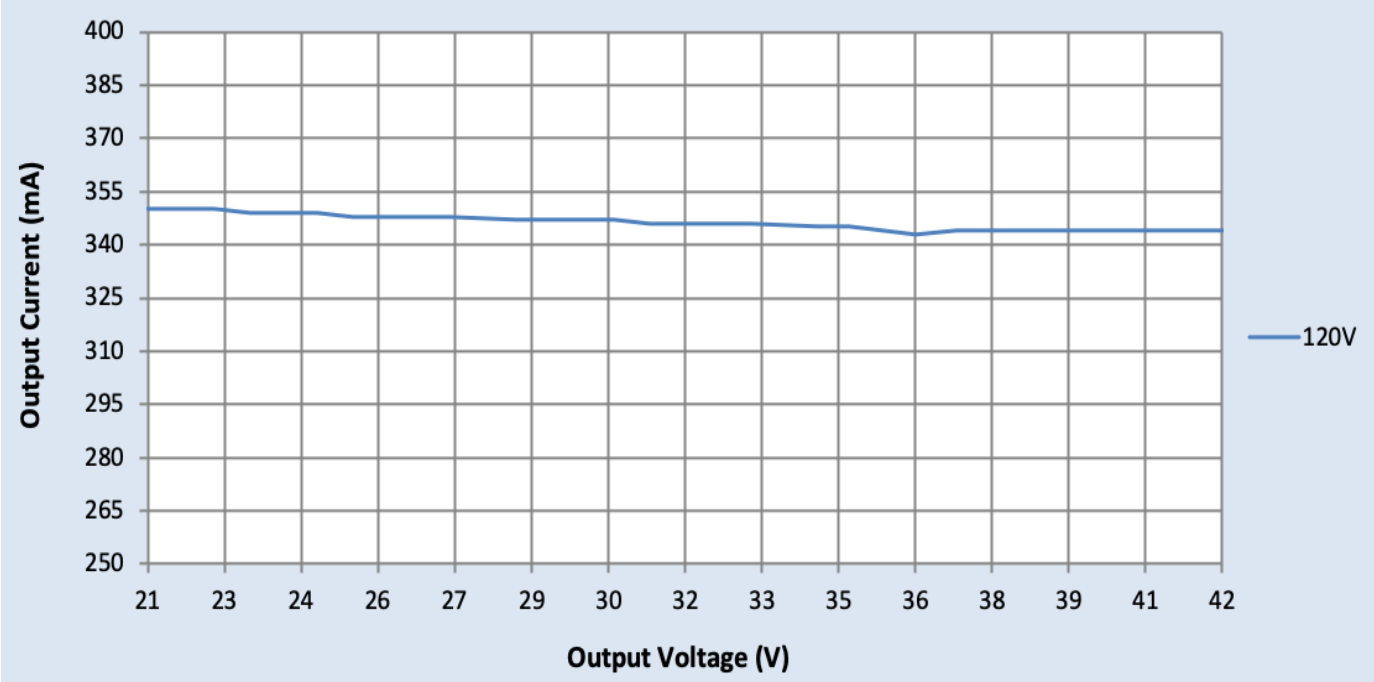
Iout Vs. Vout



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Approved Dimmer List

Leading edge dimmers

Manufacturer	Manufacturer Part Number	Additional Considerations
Lutron	SLV-600X	Dimmers can be loaded up to 80% of their max power rating. The minimum number of drivers per dimmer is 1.
	S2-LX	
	GL-600H	
	NFTU-5A	
	DVCL-153P	
	DVLV-600P	
Leviton	6602-x	
	6681-x	
	6683-x	
	6684-x	
	700-x	
	705-x	
	6633	
	6674	
	IPI06-1LZ	
Cooper	9530XXX	
Lightolier	MP600X	
Philips	SR150LED120	

Trailing edge dimmers

Manufacturer	Manufacturer Part Number	Additional Considerations
Lutron	NTELV-600-XX	Dimmers can be loaded up to 80% of their max power rating. The minimum number of drivers per dimmer is 1.
	SELV-303P	
	MAELV-600-XX	
	DVELV-300P-XX	
	SELV-300P-XX	
Leviton	IPE04-1LZ	
	VZE06-1LX	
	6615-POT	
Philips	SR400RPC120	

Note:

Minimum Dimming level: Up to 3% @ conduction angle of 25 degrees (performance dependant on dimmer model).

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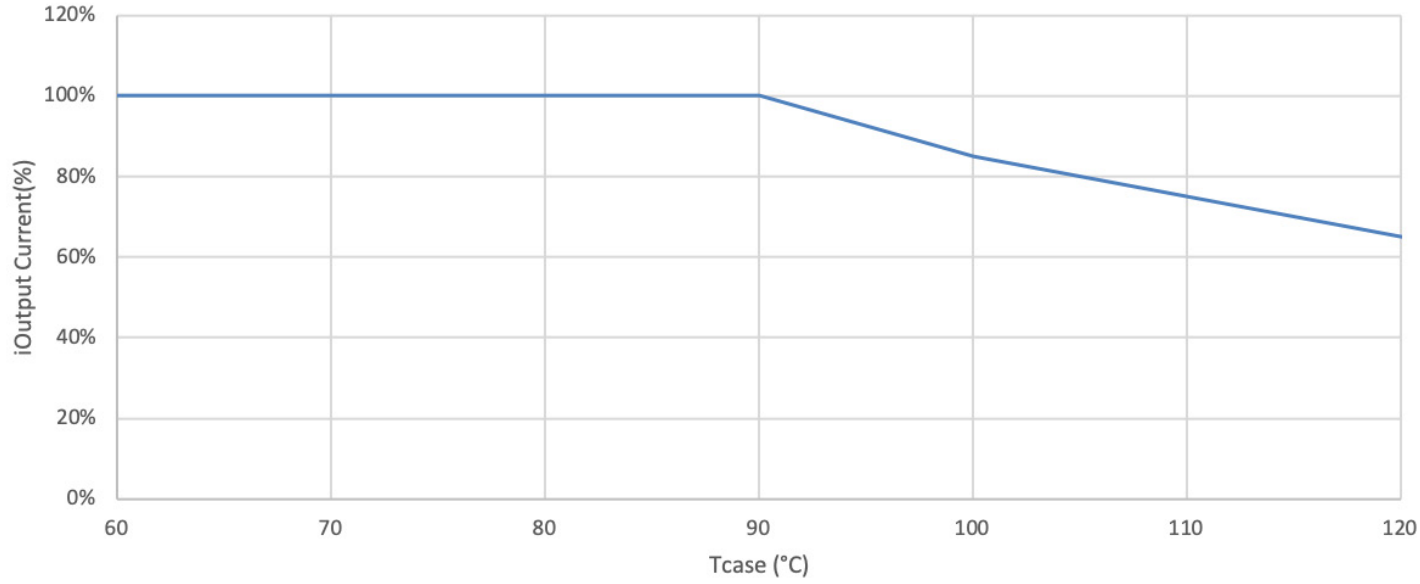
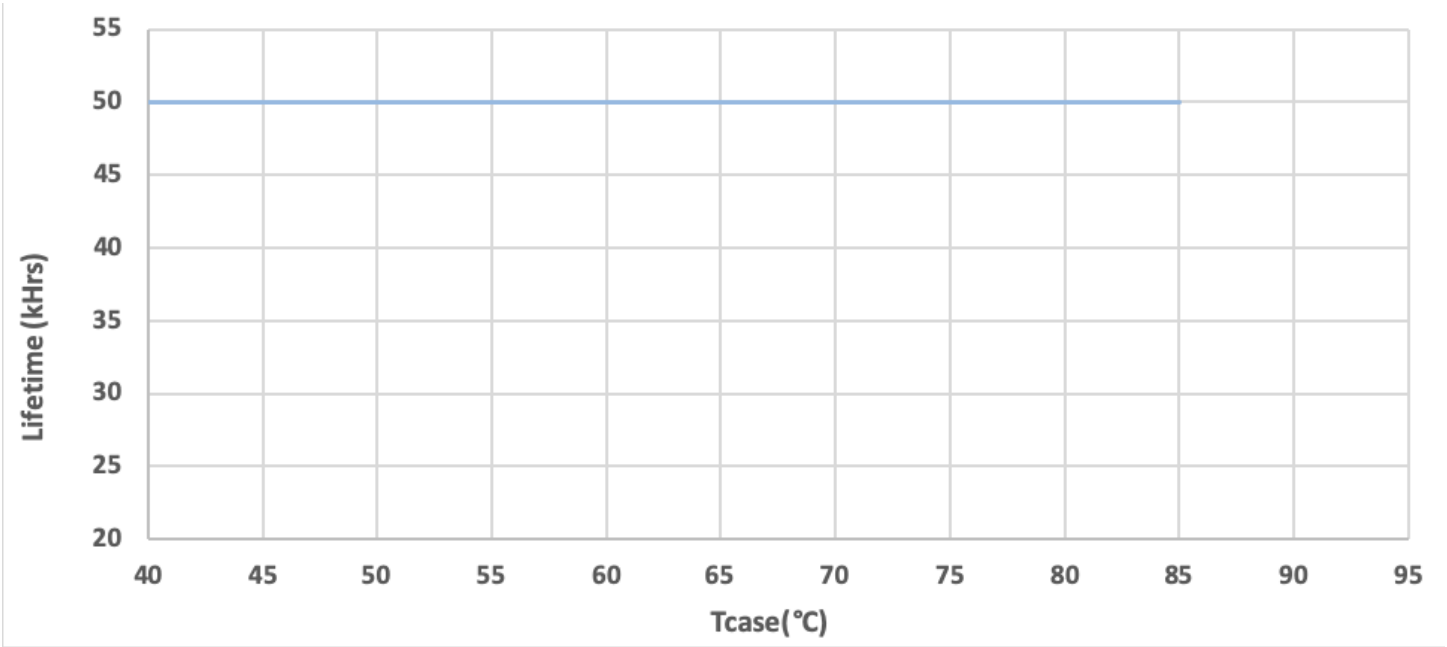
Output Current Vs. Driver Case Temperature



Driver Lifetime vs. Driver Case Temperature



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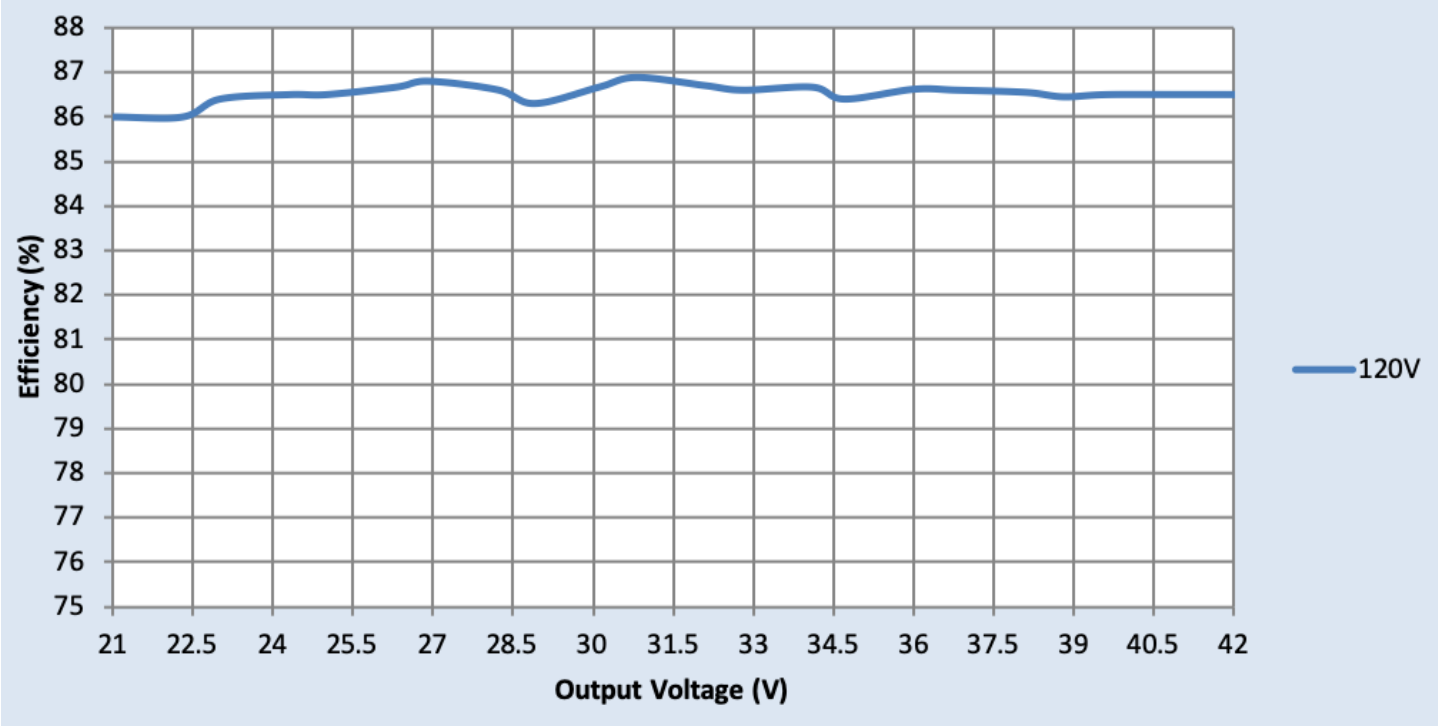
Performance Characteristics

Based on measurements on a typical sample at 75°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Efficiency Vs. Output Voltage



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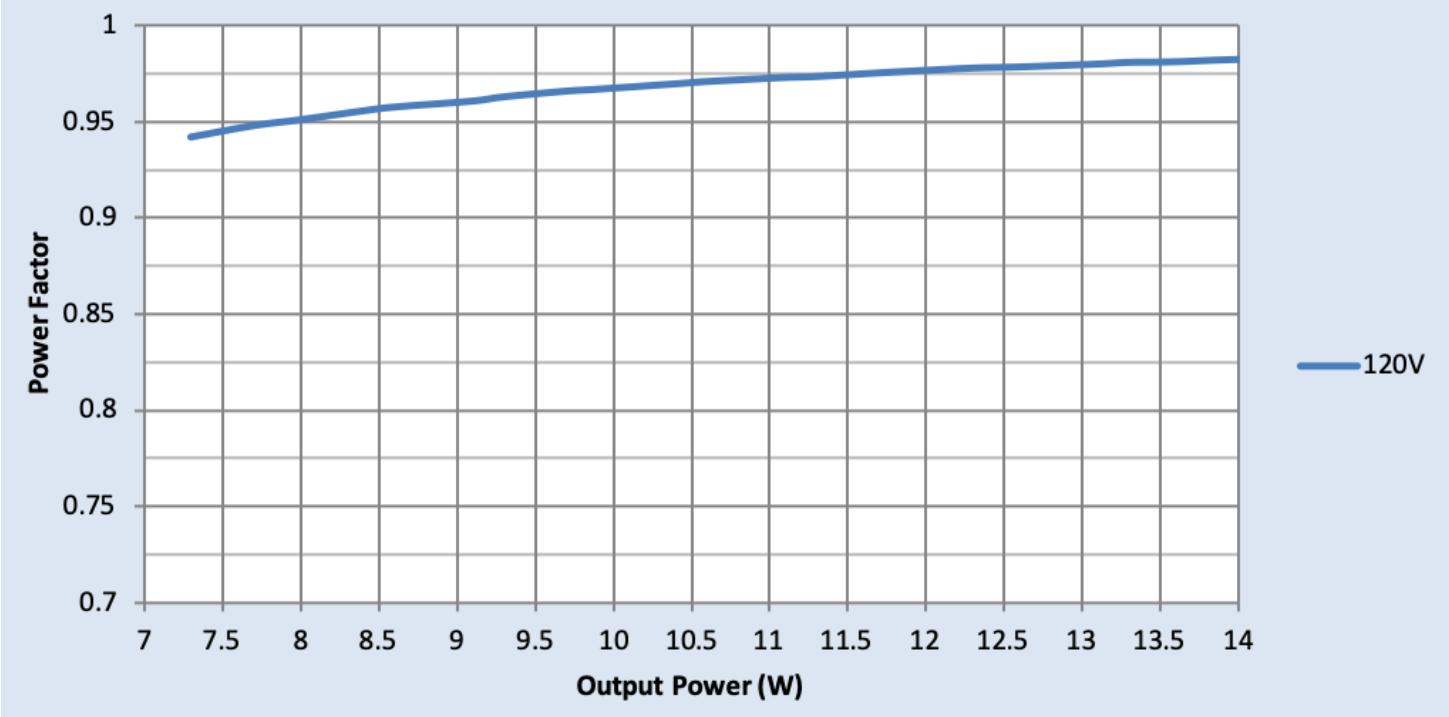
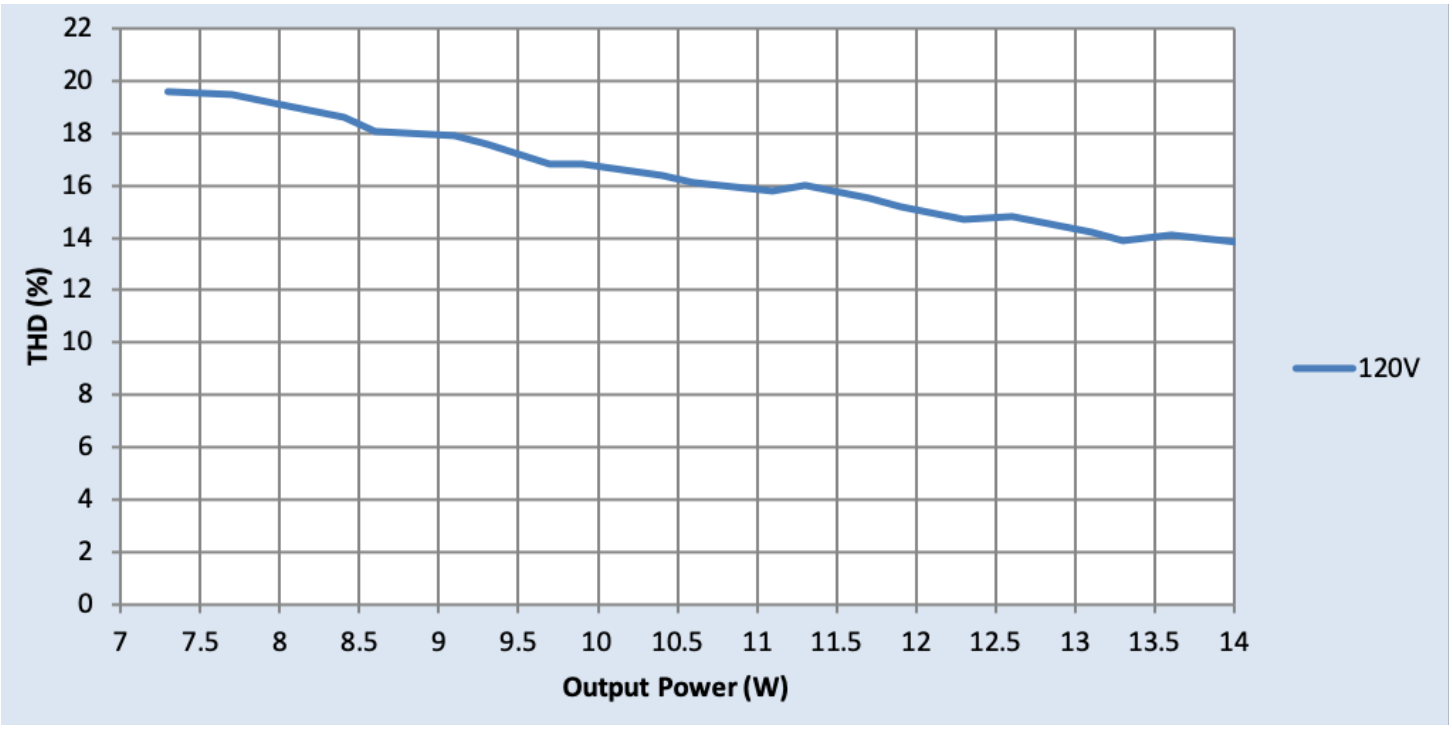
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



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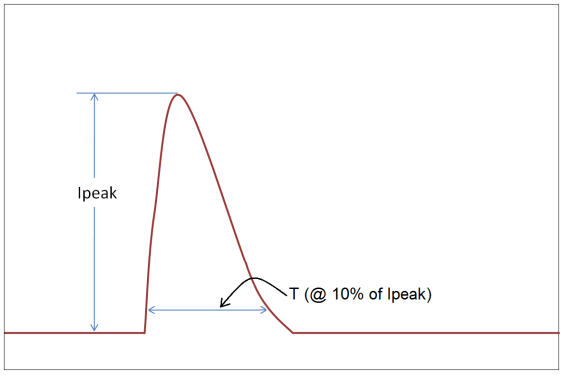
Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	6.8A	15µS

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)
100 kHz Ring Wave (w/t 30Ω)	2.5kV

Isolation

Isolation	Input	Output
Input	n/a	2xU+1kV
Output	2xU+1kV	n/a

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.

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