ADVANCE
by signify

LED Driver

Xitanium

XI095C275V054DNF1

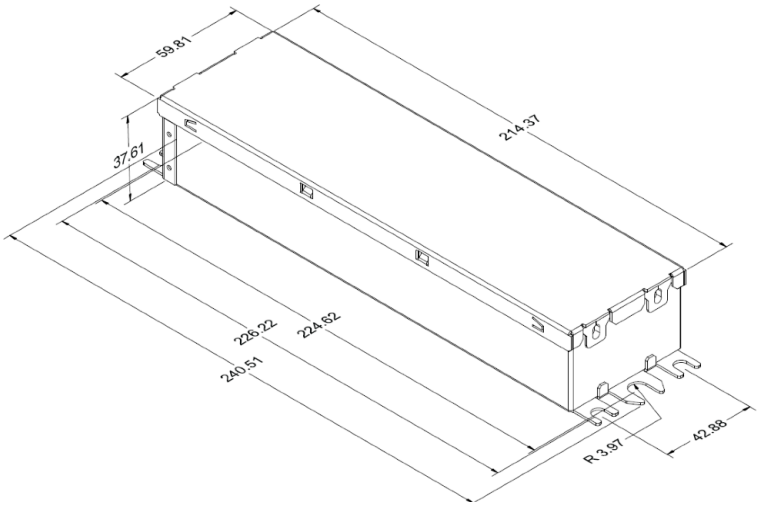
Xitanium Philips Advance Xitanium Linear LED Drivers are designed to give OEMs ultimate flexibility. With wide operating windows and current adjustability, luminaire manufacturers can easily design luminaires with lumen levels appropriate for high-bay and office applications.

Specifications

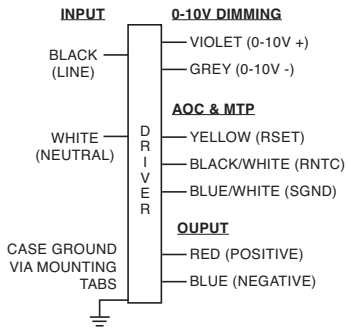
Input Voltage (Vac)	Output Power (W)	Output Voltage Range (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Ring Wave, KV)	Envir. Protection Rating
120	95	27 - 54	1.0 – 2.75	90	90°C	0.9	107	<10%	>0.95	>6	UL damp and dry
277				92		0.4		<15%			

Enclosure

	In. (mm)
Case Length	8.44 (214.4)
Case Width	2.35 (59.8)
Case Height	1.48 (37.6)
Mounting Length	8.91 (226.2)
Overall Length	9.47 (240.5)



Wiring Diagram



Input and output use lead- wires.

Lead-wires are 18AWG 105C/600V solid copper per UL1452.

Lead Length outside enclosure: 260mm (±30mm) on all wires.

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog Class 2 Wiring	5% ~ 100%	0.05	Dimming source current: 150 µA

RoHS COMPLIANT

Class 2 Power Unit Dry & Damp Location

Xitanium XI095C275V054DNF1

95W 1.0–2.75A 54V 0–10V INT

Features

- UL Class 2 output with Adjustable Output Current
- Housing with high thermal capabilities
- 0–10V Dimming

Benefits

- Flexibility and ease of design via adjustable drive current and low voltage output
- Allows luminaire designs for high ambient temperatures
- Helps to maximize energy savings and allows application specific light levels

Application

- High-bay
- Office

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XI095C275V054DNF1M (Mid-Pack, 10pcs/Box) 12NC = 929000715213
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108V
Max. Mains Voltage Operational	305V
Output Information	
Maximum Open Circuit Voltage	<60Vdc
Output Current Ripple (ripple = peak to average / average)	15% max @ max Iout Low frequency (≤120 Hz) 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 source current from driver. See dim curve for detail.
AOC (Adjustable Output Current)	1000mA to 2750mA via external resistor (refer to graph and notes)
MTP (Module Temperature Protection)	Current cutback (refer to specifications)
Environment & Approbation	
Operating Ambient Temp. Range	–35°C to +60°C
Max Case Temperature (Tcase)	90°C
Environmental Protection Rating	UL dry and damp, Type HL
Agency Approbations	UL8750, UL1310, UL935, CSA-C22.2 No. 250.13-12, CSA C22.2 No. 223
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	1.77 Lbs / 0.80 kgs

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0–10V Dimming Curve

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

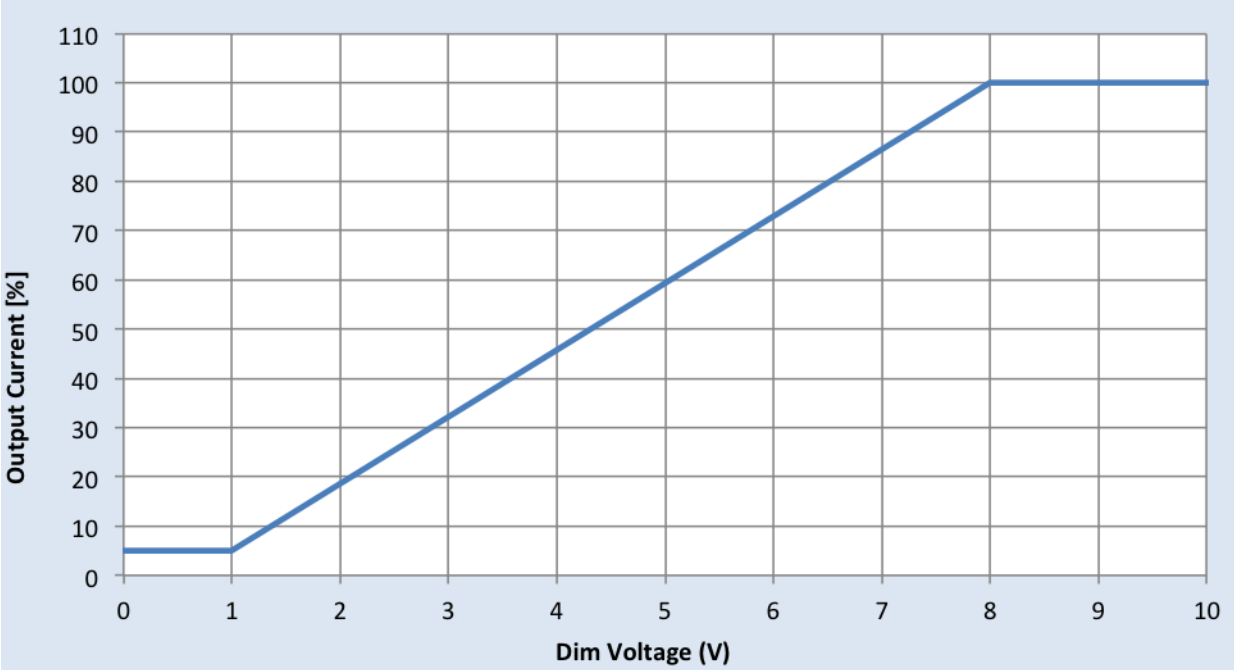
LED Current Tolerance at 2750mA ≤ 5% over temperature and component variations

Minimum Dim Level: 5% of Iout (minimum 50mA)

Maximum output voltage on the dimming wires: 13V

Approved Dimmer List

Manufacturer	Manufacturer Part Number
Lutron	Visit www.lutron.com/advance for a list of dimmers (Mark VII) that will work with this driver.
Leviton	IllumaTech IP7 series
Philips	Sunrise - SR1200ZTUNV



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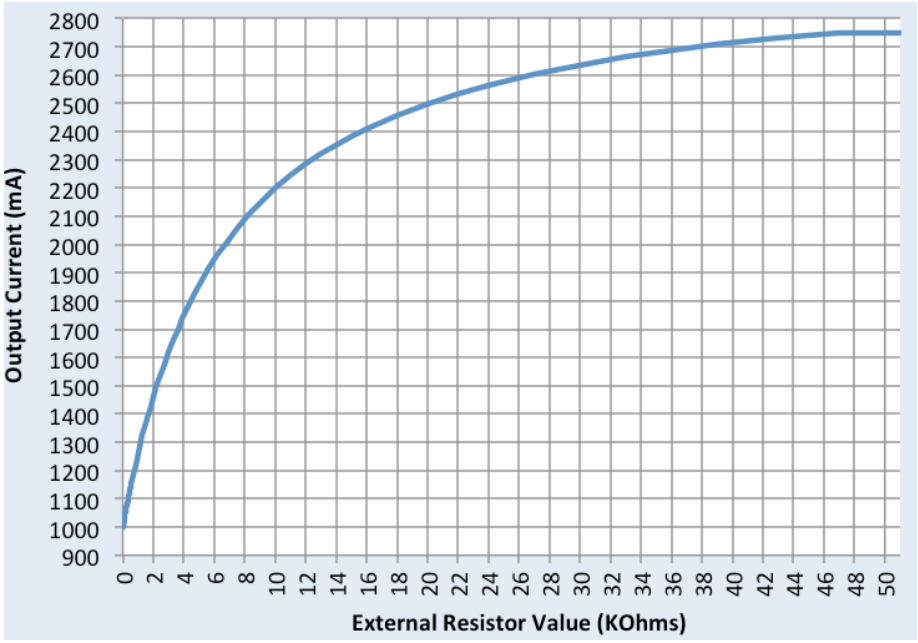
AOC (Adjustable Output Current) Settings (Rset)

Rset (Ohms)	Current (mA)	Rset (Ohms)	Current (mA)
0	1000	2400	1528
100	1029	2700	1575
110	1032	3000	1619
120	1035	3300	1661
130	1038	3600	1700
150	1044	3900	1737
160	1047	4300	1783
180	1052	4700	1826
200	1058	5100	1865
220	1064	5600	1912
240	1069	6200	1962
270	1077	6800	2008
300	1086	7500	2057
330	1094	8200	2102
360	1102	9100	2153
390	1110	10000	2199
430	1121	11000	2244
470	1131	12000	2284
510	1142	13000	2321
560	1154	15000	2383
620	1170	16000	2410
680	1185	18000	2458
750	1202	20000	2499
820	1218	22000	2534
910	1239	24000	2564
1000	1260	27000	2603
1100	1282	30000	2635
1200	1304	33000	2663
1300	1325	36000	2686
1500	1366	39000	2707
1600	1386	43000	2730
1800	1424	47000	2750
2000	1460	>47000	2750
2200	1495		



Driver will default to 2750mA when Rset is left open.

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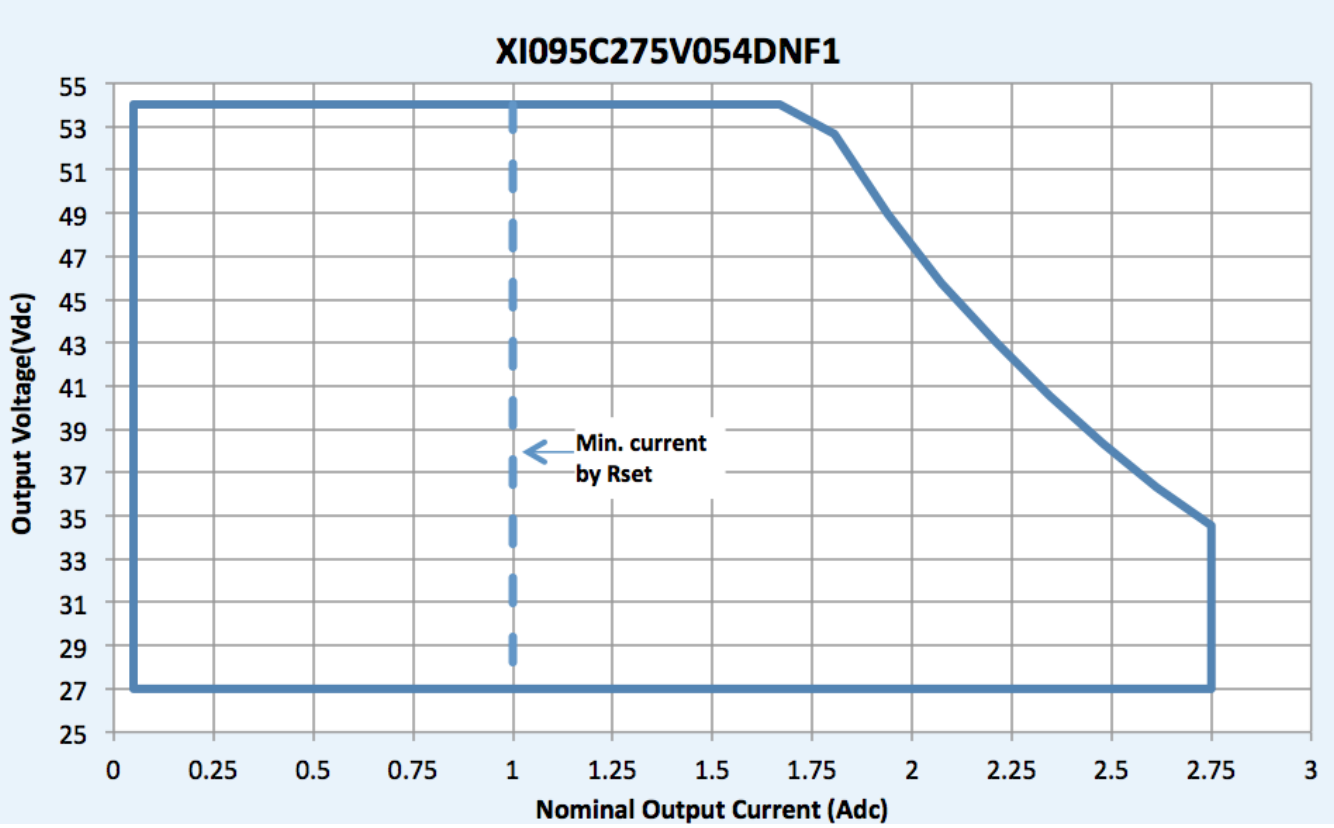
Operating Window



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Electrical Specifications

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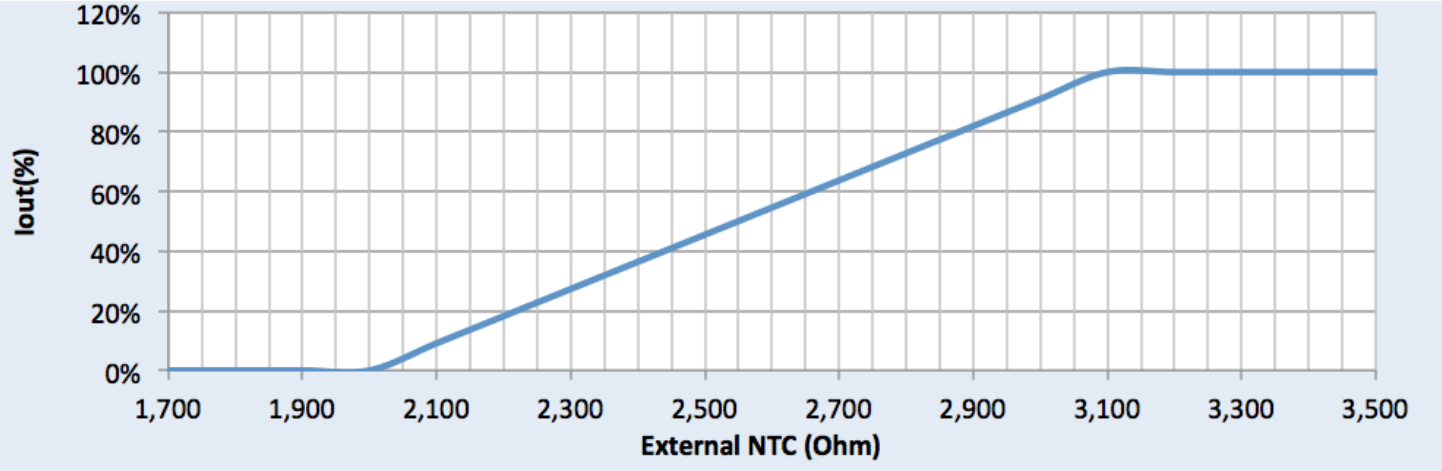
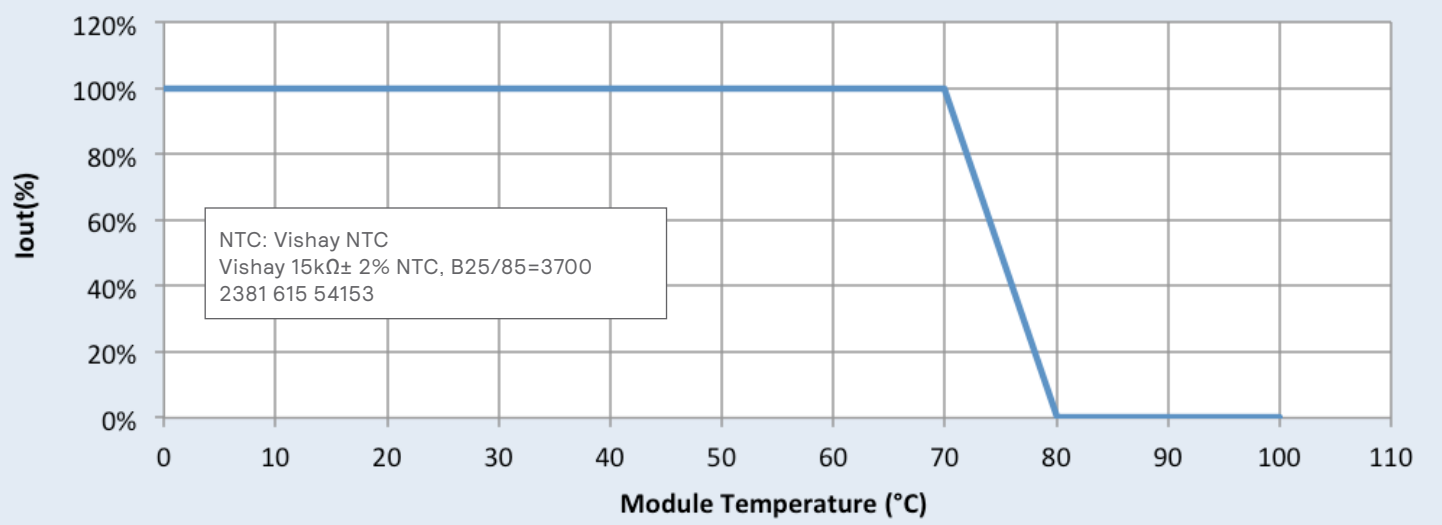
Output Current Vs. External NTC Resistance



Output Current Vs. LED Module Temperature using 15kohm NTC



Electrical Specifications

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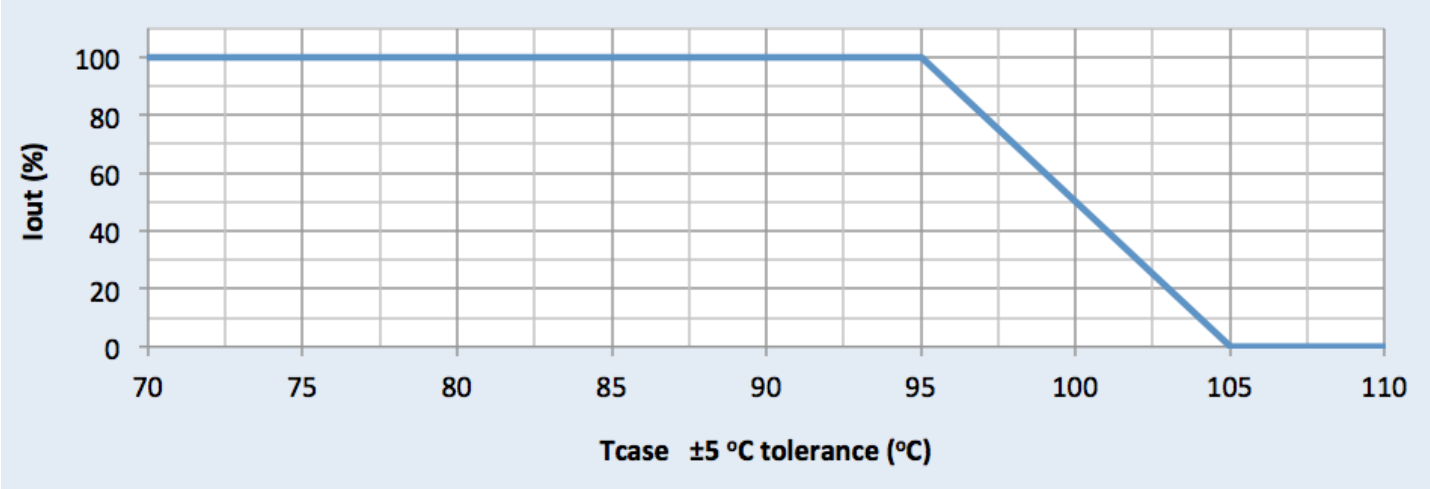
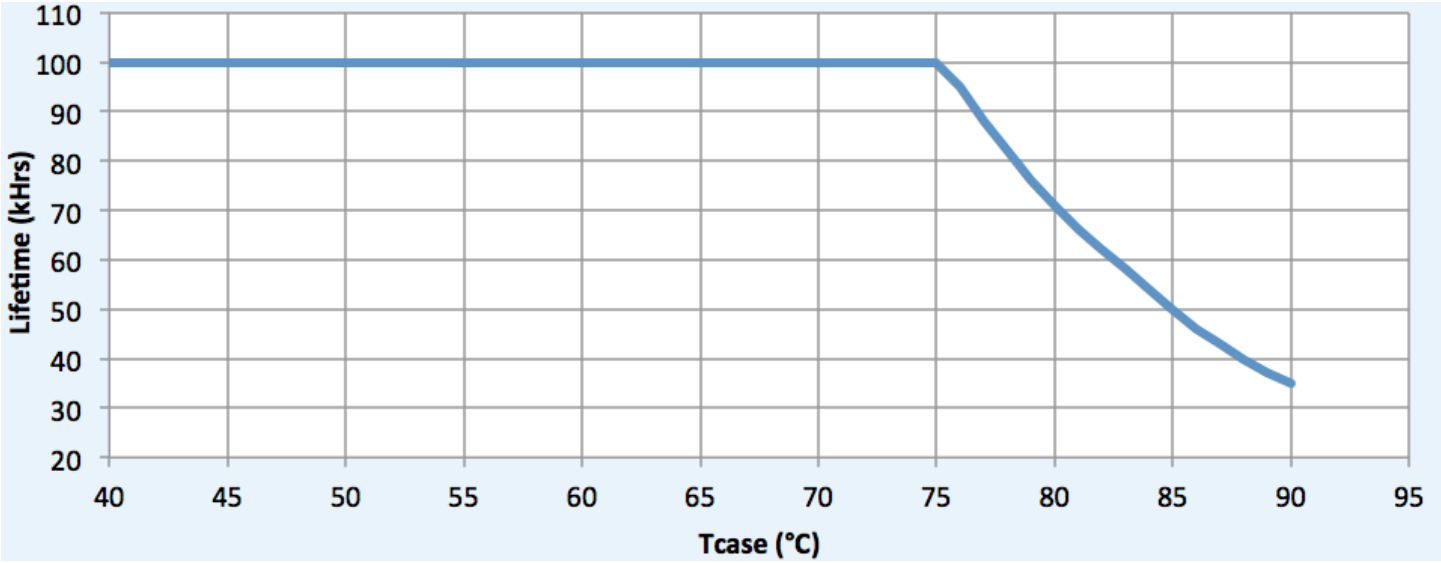
Output Current Vs. Driver Case Temperature



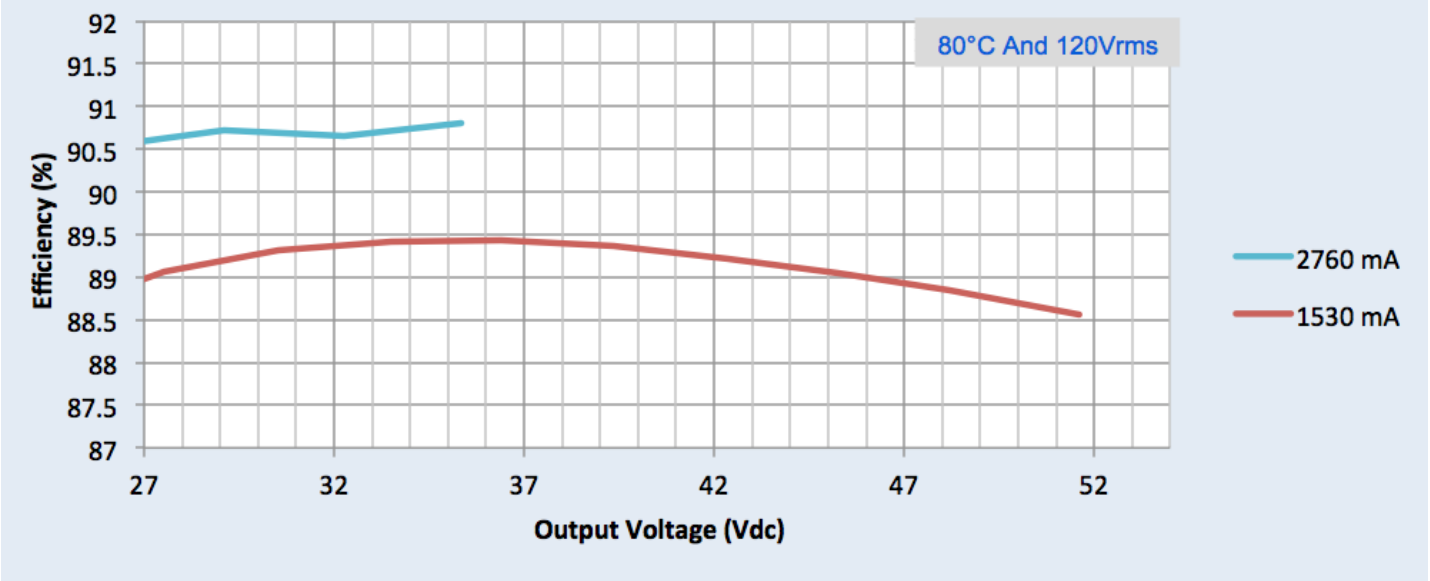
Driver Lifetime Vs. Driver Case Temperature



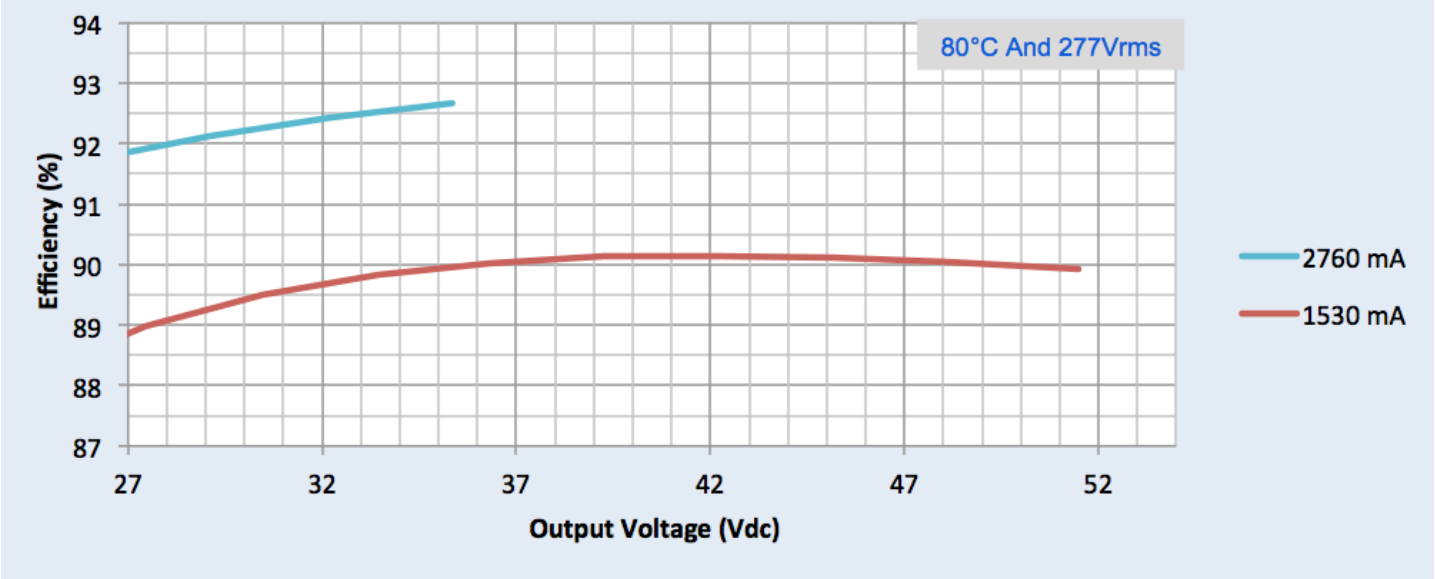
Performance Characteristics

Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

Efficiency Vs. Output Voltage at 120Vac



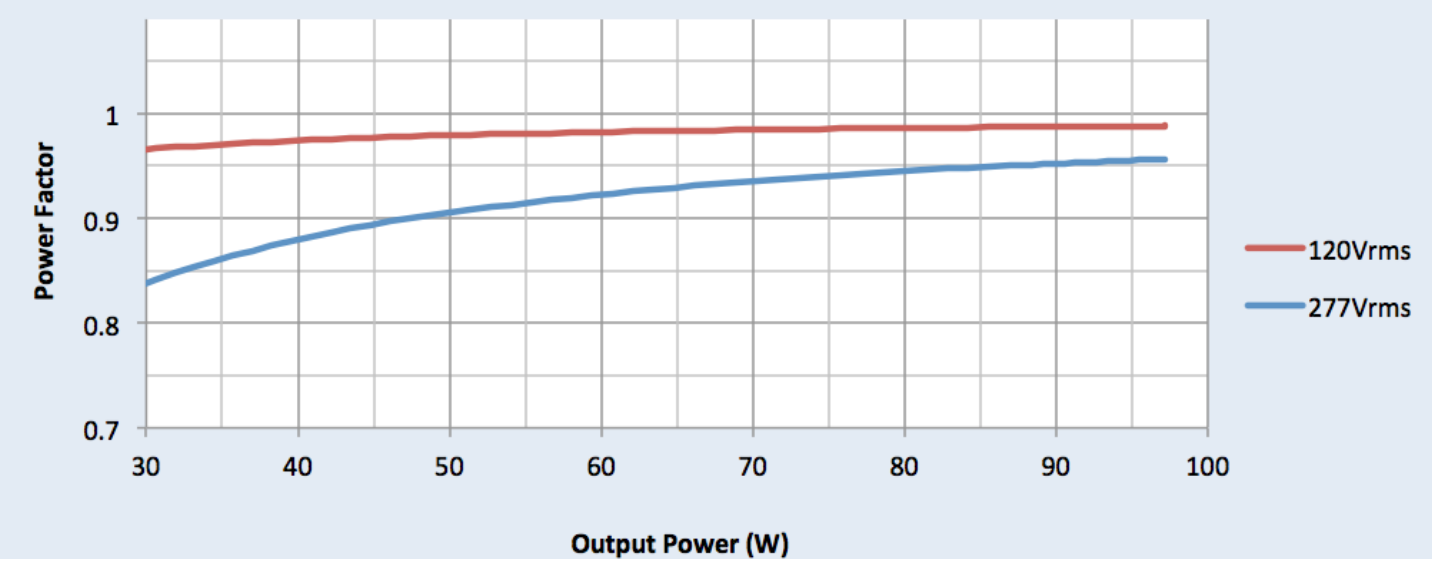
Efficiency Vs. Output Voltage at 277Vac



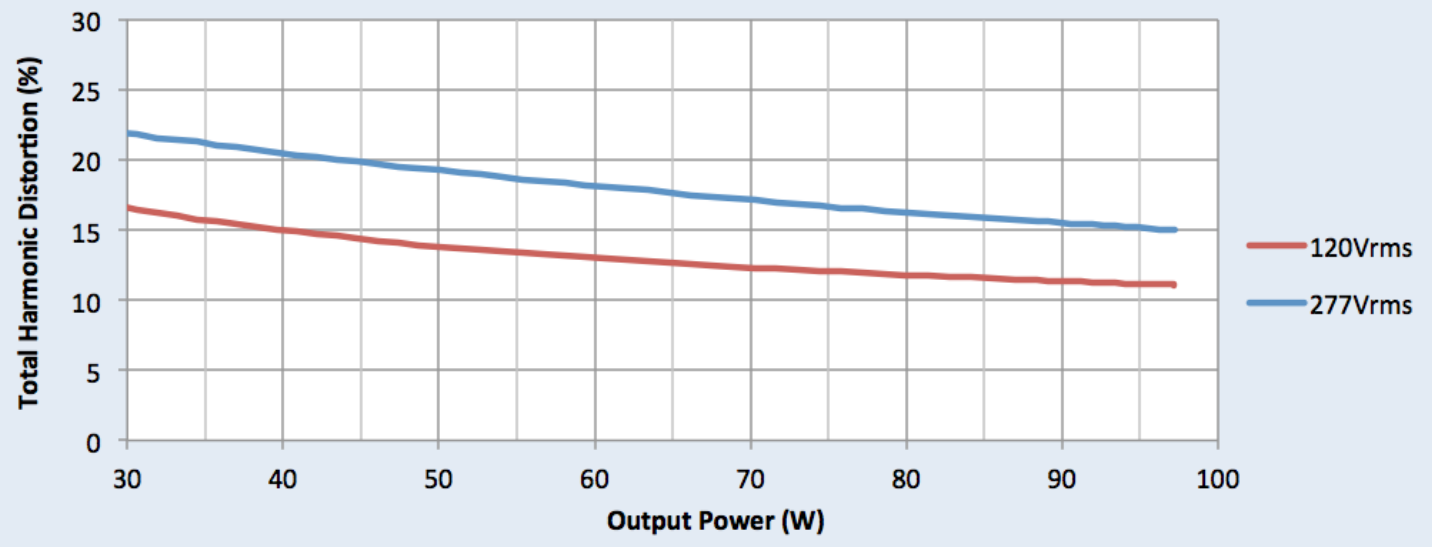
Performance Characteristics

Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



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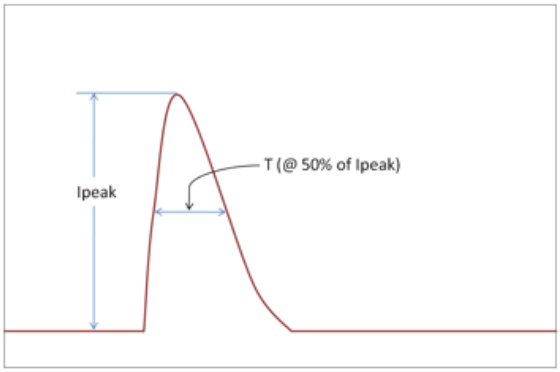
Inrush Current Info



Vin	Ipeak	T (@ 50% of Ipeak)
120 Vrms	50A	142µS
277 Vrms	116A	138µS

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 30_2)	6kV	6kV
1.2/50µs - 8/20µs Combination Wave (w/t 2Ω)	3kV	3kV

Isolation

Isolation	Input	Output	0–10V (Class 2)	Enclosure
Input	NA	2xU+1kV	2.5KVac	2xU+1kV
Output	2xU+1kV	NA	2.5KVac	500V
0–10V (Class 2)	2.5KVac	2.5KVac	NA	500V
Enclosure	2xU+1kV	500V	500V	NA

U = Max. input voltage

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