ADVANCE
by signify

LED Driver

Xitanium SR

XI040C110V054VPT2

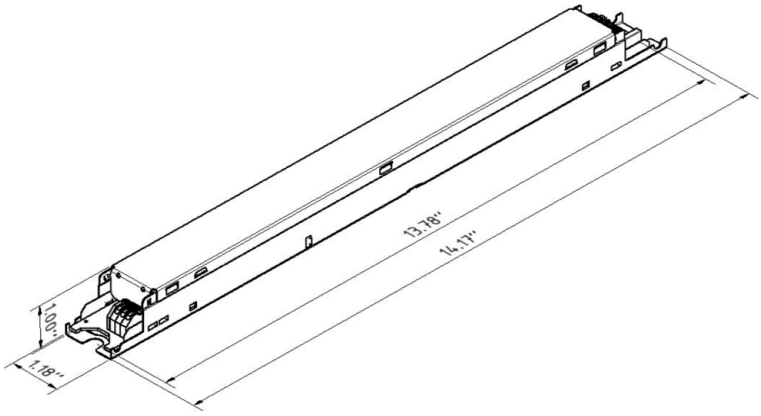
The Xitanium SR LED driver can help reduce complexity and cost of light fixtures used in wireless connected lighting systems. It features a standard digital interface to enable direct connection to any suitably qualified RF sensor on the market. Functionality is integrated into the SR driver that ordinarily would require additional auxiliary components. The result is a simpler, less expensive light fixture that can enable every fixture to become a wireless node.

Specifications

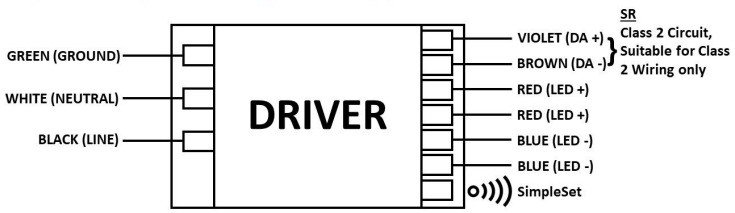
Input Volt. (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency @ Max Load and 75°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protect. (Ring Wave, KV)	Envir. Protect. Rating	Dim.	Dim. Range	Min. Output Current (A)	Driver Type	Other Comments
120	40	16 - 54 Class 2 Output	0.1 - 1.1	85	Life-75°C UL-85°C	0.4	47	<10%	>0.95	2.5	UL damp & dry	SR	1% - 100%	0.0025	Constant Current	SR input current (PSU off), max 2mA
277				87		0.18		<15%								

Enclosure

	In. (mm)
Case Length	14.17 (360)
Case Width	1.18 (30)
Case Height	1.0 (25.4)
Mounting Length	13.78 (350)



Wiring Diagram



Both output positive and negative connectors are equivalent (same electrical point).

Connect wires:

Use 18 AWG Solid Copper Wire
Rated>=300V.
Strip Wire 3/8".

Warning

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

RoHS COMPLIANT · c UL us LISTED · NOM

Xitanium SR XI040C110V054VPT2

40W 1.1A 54V (1% dim) with SimpleSet

Features

- Standard digital interface based on proposed ANSI C137.4
- Auxiliary power for sensors through digital connection, default "on" for connection to single sensing/RF device
- Energy metering and advanced diagnostics
- Continuous dimming down to 1%
- Low standby power <0.25W with no loading and <0.5W with 0.15W load
- Drive current setting via SimpleSet wireless programming
- 5-year limited warranty*

Benefits

- Enable interoperability with diverse wireless sensors/network systems
- Reduce complexity and cost of fixture by eliminating auxiliary components ordinarily required for powering sensors, switching fixture off and monitoring energy use
- Future proof through standard interface to any suitable sensor and ease of adjustable drive current

Application

- Indoor linear applications such as troffers and pendants

Product Data

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

Ordering Information	
Order Code	XI040C110V054VPT2 (12NC:929001748613)
Full Product Code	XI040C110V054VPT2M (Mid-pack, 18/box)
Full Product Name	Xitanium 40W 0.10-1.1A 54V INT SR
Global Trade Identification Number (GTIN)	781087158043
Input Information	
Inrush Current	Per NEMA 410
Line Voltage (AC Operation)	120-277VAC +/- 10%
Line Frequency	50/60Hz
Output Information	
Output Voltage Range	16 - 54V
Output Current Ripple	<15% at max Iout (ripple = pk-avg/avg) Low frequency (<120 Hz) content <5%
Output Current Tolerance	±5% at max output current
Open Circuit Voltage	60V
Protections	Short Circuit and Open Circuit Protection for LED + and LED-
	The dimming lead leakage current is 0.01mA. The maximum number of drivers that can be connected in parallel to one dimming control circuit is based on this dimming lead leakage current and the calculation is described in the corresponding Design-in Guide.
Features	
AOC (Adjustable Output Current)	100mA to 1100mA via SimpleSet programming
Life @ TC 75°C	50000 hr [nom] (refer to graphs)
Suitable for Outdoor Use?	No
Interfaces	AOC (SimpleSet), SR
Ambient Temp Range	-20°C to +50°C
Max Case Temperature (Tcase)	85°C for UL, 75°C for life
Earth Leakage Current	0.75 mA [max]
THD Total	Refer to graph
Power Factor	Refer to graph
Sensor Power Supply	52-60mA Peak (55mA typ.); 12vdc-20vdc (14vdc typ.) (refer to graph)
Power Reporting Accuracy	±0.5W/±4%
Environment & Approbation	
Agency Approbations	UL8750, UL1310, cUL, Class P (UL, cUL)
Audible Noise	<24dB Class A
Isolation Between Output and Input	Refer to table (page 8)
Isolation of Controls	Refer to table (page 8)
EMC (Electromagnetic Compliance)	Meets FCC 47 Part 15 Class A
Envir. Protection Rating	UL Dry & Damp
Net Weight Per Piece	0.58 Lbs / 0.265 Kgs

* View limited warranty: www.signify.com/warranties.

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Electrical Specifications

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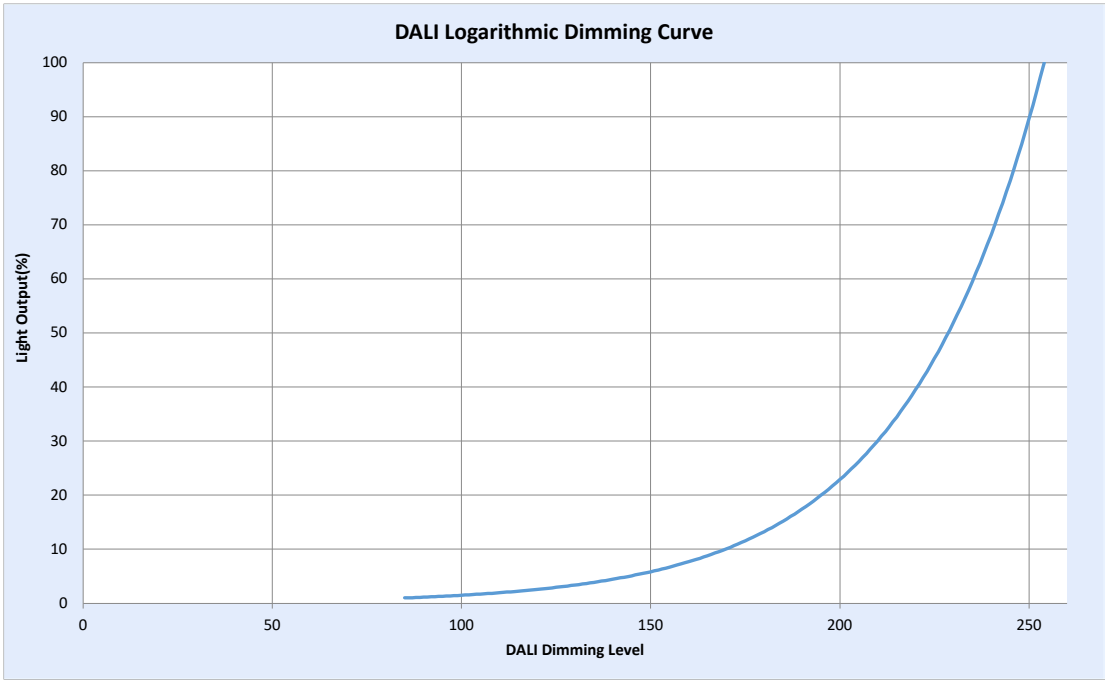
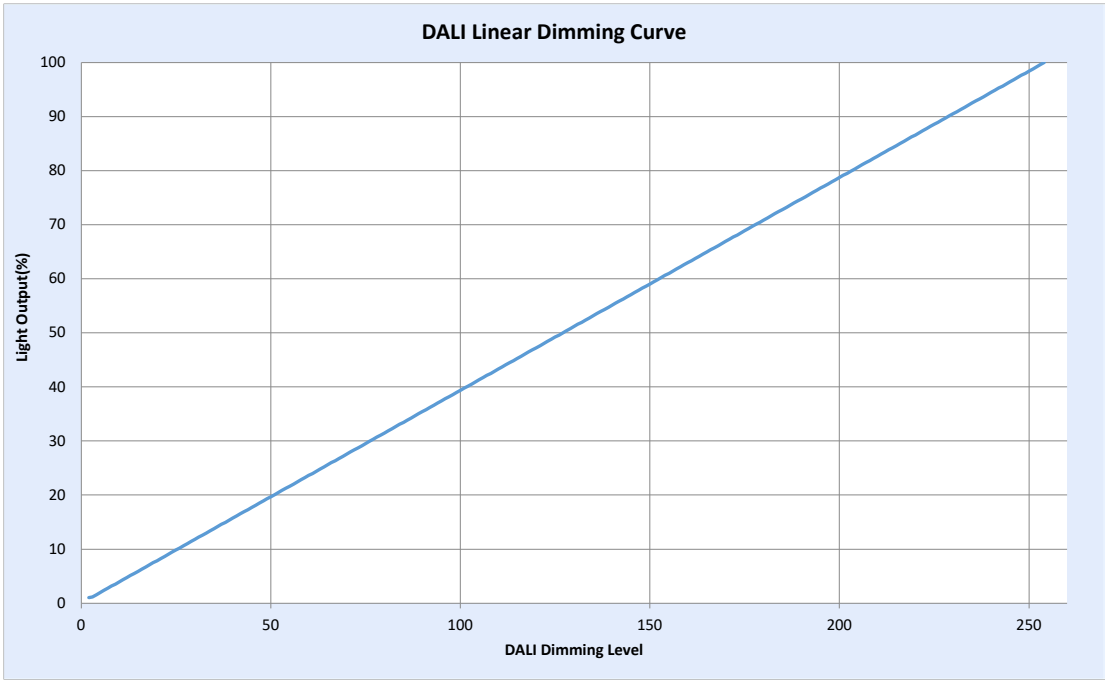
Dimming Characteristics

Dimming is accomplished through the 2-wire DALI connection to the sensor. DALI standard IEC62386_102 Edition 2 defines the logarithmic dimming curve. DALI standard IEC62386_107 Edition 1 defines the linear dimming curve as well as the command for switching between logarithmic and linear curves (Default = Logarithmic).





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Electrical Specifications

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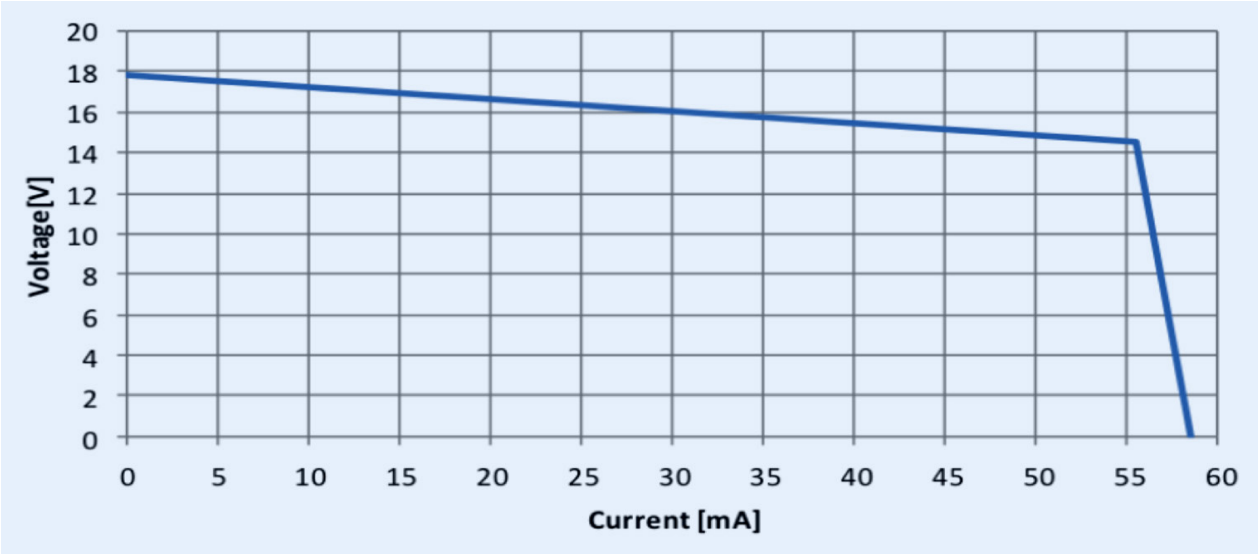
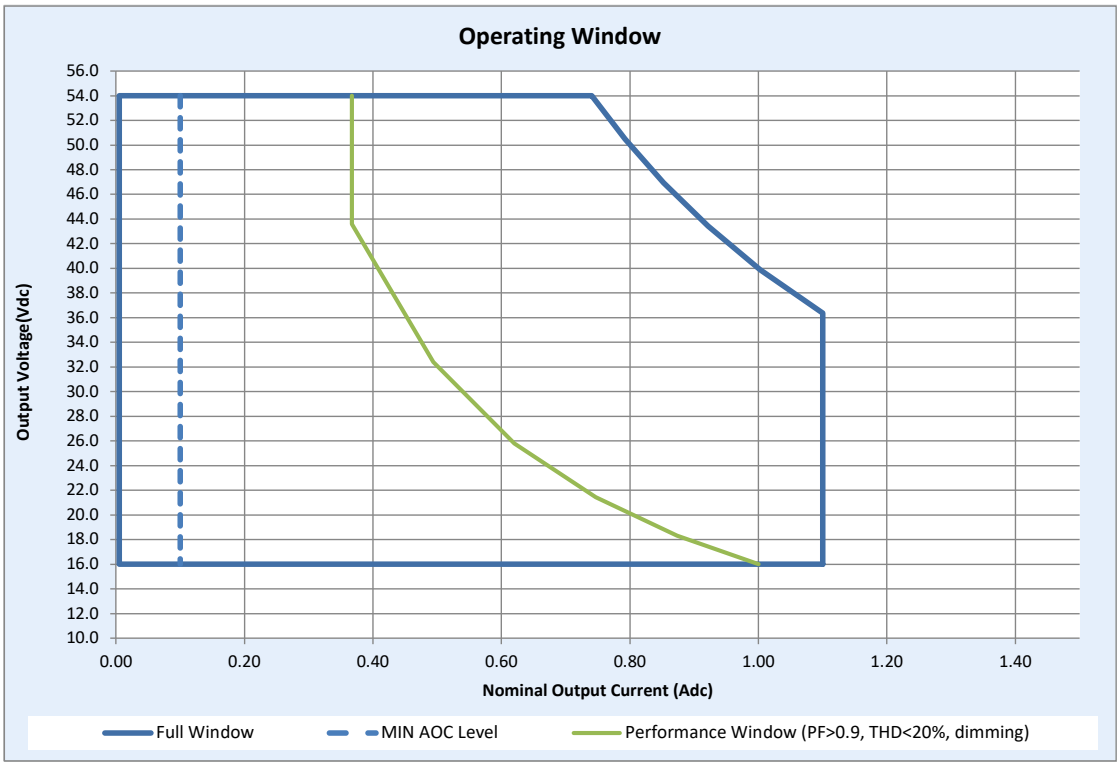
SR Power Supply Characteristics (Typical)



Note:

Power supply through digital connection, default "on," for connection of one driver to one sensing/RF device. Consult your representative for use with multiple devices.



Note:

For 1% dimming output current setting through AOC should be >0.25A.

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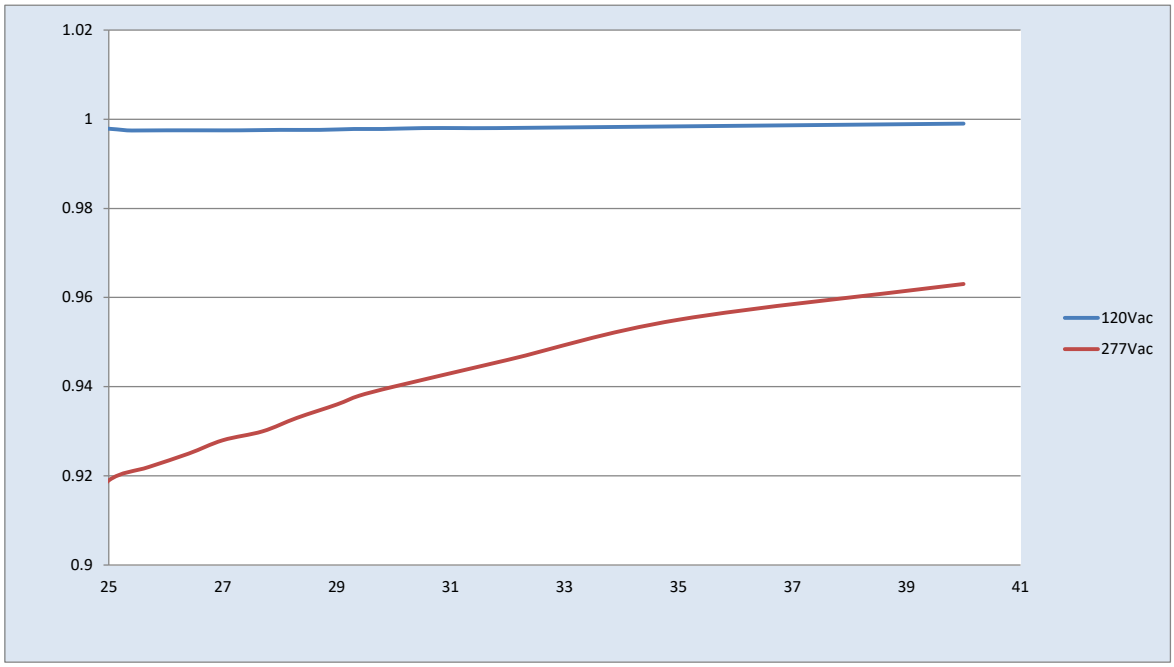
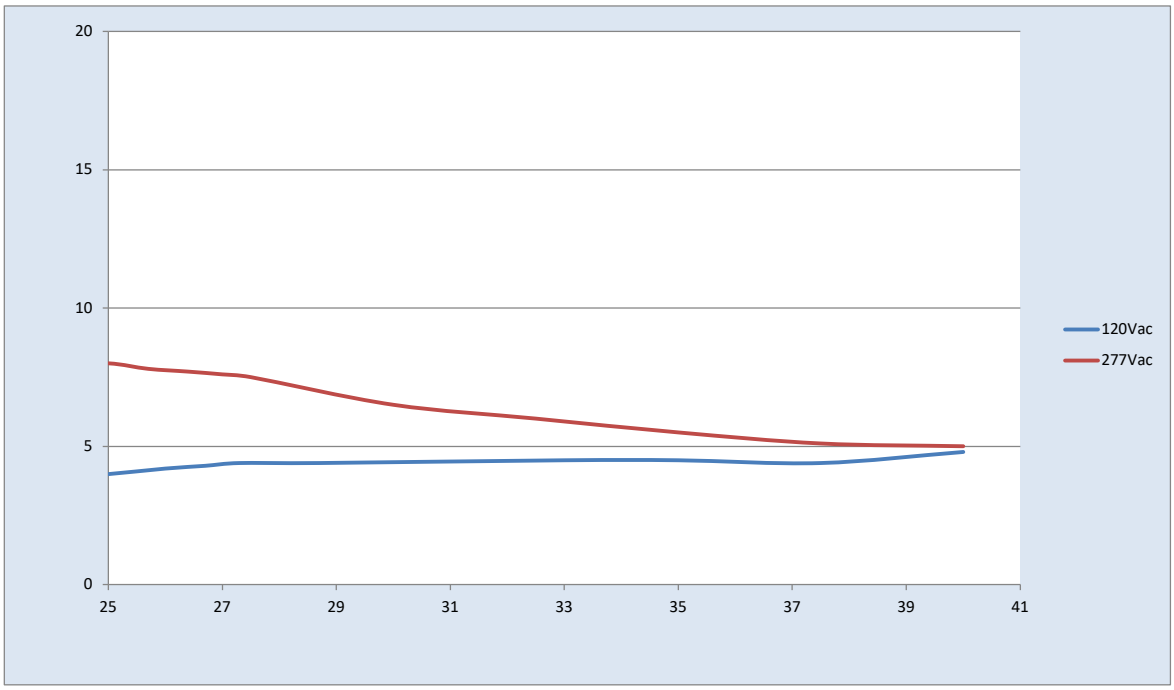
Performance Characteristics

Based on measurements on a typical sample at 75°C case. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

Power Factor vs. Output Power



Total Harmonic Distortion vs. Output Power



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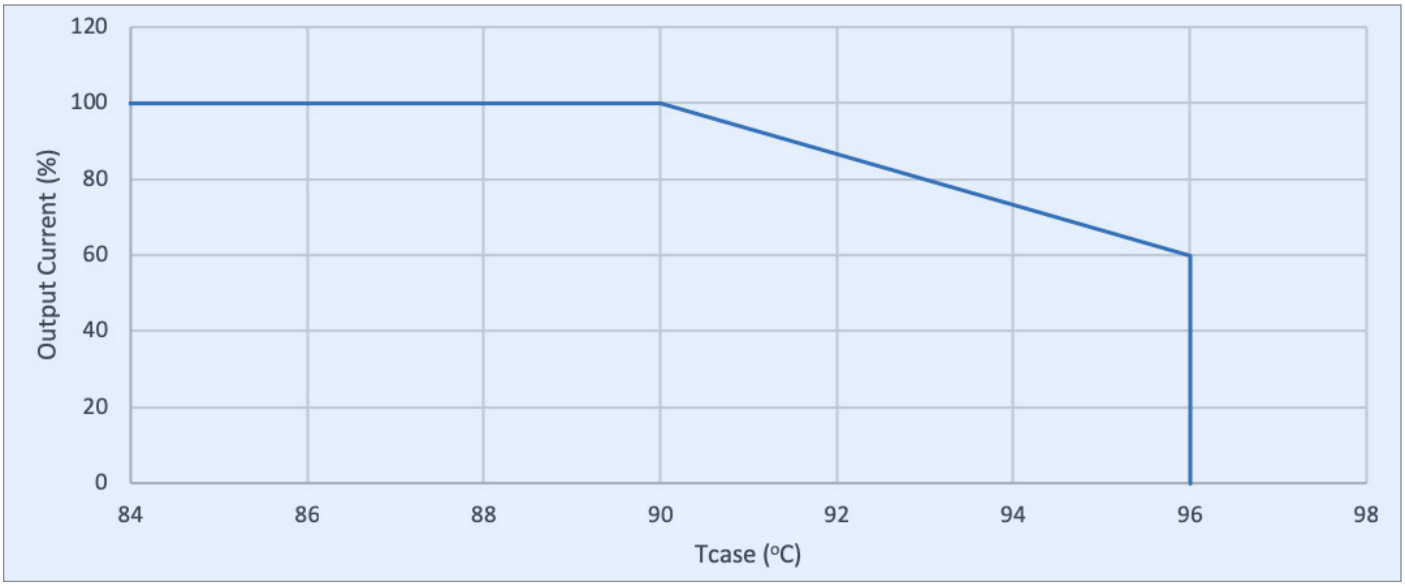
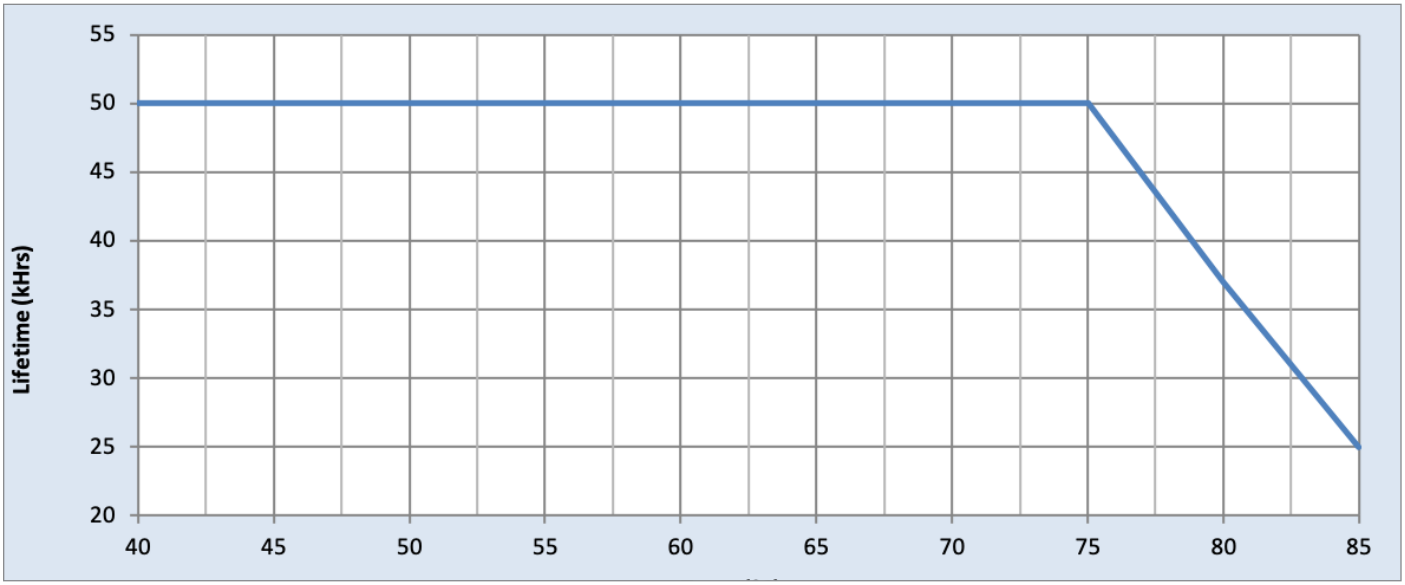
Output Current Vs. Driver Case Temperature



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

Driver Lifetime vs. Driver Case Temperature



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Performance Characteristics

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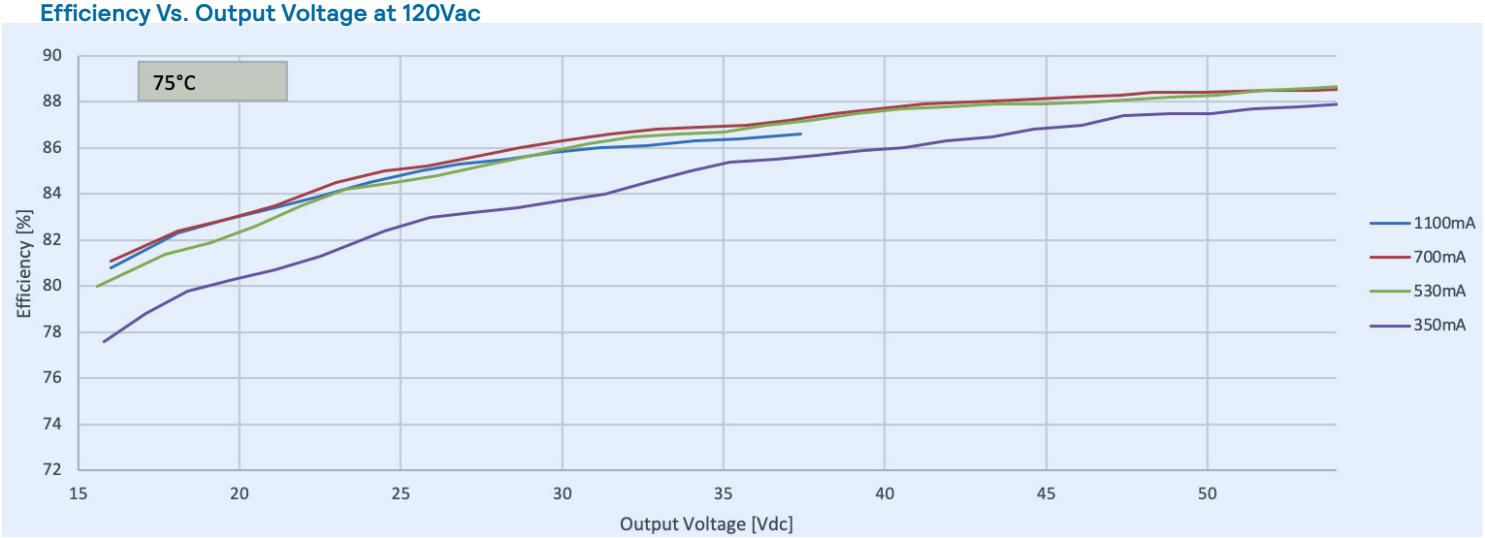
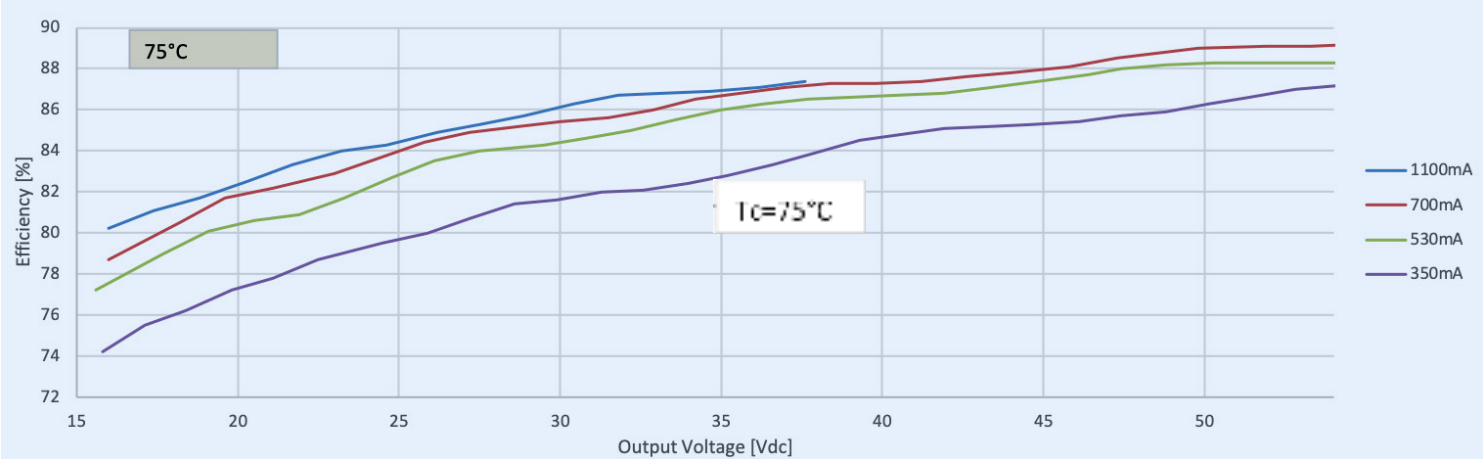
Efficiency Vs. Output Voltage at 120Vac



Efficiency Vs. Output Voltage at 277Vac



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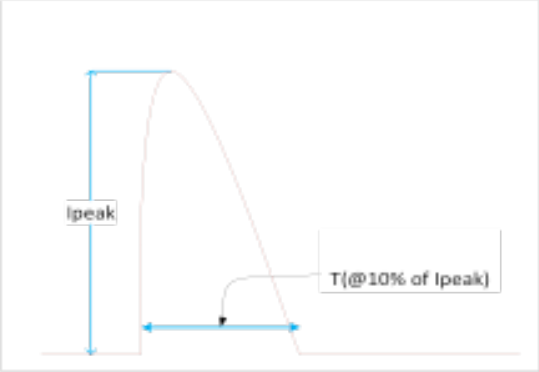
Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	2.7 A	36 µs
277 Vrms	9.8 A	28 µs

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)	>2.5kV	>2.5kV

Isolation:

Isolation	Input Connectors	Output + AOC	SR Connectors	Chassis
Input Connectors	–	1600V	2500V	1600V
Output + AOC	1600V	–	500V	500V
SR Connectors	2500V	500V	–	500V
Chassis	1600V	500V	500V	–

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