ADVANCE

LED Driver

Xitanium



by (s) ignify

XG075C200V054BST1

Advance Xitanium linear LED drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. The drivers' wide operating windows, slim profile and simple programming allow luminaire manufacturers to design luminaires of different sizes and lumen levels for office and retail applications.

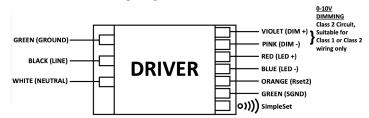
Specifications

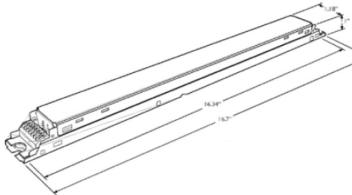
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ 35.7V and 70°C Case (%)	Max. Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max. Load (%)	Power Factor @ Max. Load	Surge Protection (Ring Wave, KV)	Envir. Protection Rating	Driver Type
347	75	27 - 54 Class 2 Output	0.1-2.0	88	85°C	0.26	90	<10%	>0.97	2.5	UL damp & dry	Constant Current

Enclosure

	In. (mm)
Case Length	16.6 (424)
Case Width	1.18 (30)
Case Height	1.00 (25.4)
Mounting Length	16.6 (415)

Wiring Diagram





Warning

Install in accordance with national and local electrical codes. Use 18AWG solid or tinned stranded copper wire.

The field-wiring leads or push-in terminals shall be fully enclosed. $\label{eq:condition}$

Grounding

Driver case must be grounded.

Dimming	Dimming Range (with specified dimmers)	Minimum Output Current (A)	Other Comments
0-10V Analog Class 1 or Class 2 Wiring	1% ~ 100% (for output current range 0.7-2.0A)	0.007	Dimming source current: 150 µA



75W 0.1-2.0A 54V 0-10V 1% 347V with SimpleSet

Features

- 50,000+ hour lifetime¹
- · SimpleSet programmable
- · Large operating window
- 1% minimum dim level

Benefits

- Slim profile housing enables easy design-in with excellent thermal performance
- Enables simple, fast, flexible application-specific configurations
- Enables fixture designs with comprehensive application coverage for various loads and lumen levels

Application

- Indoor linear applications such as troffers and pendants
- Office
- Education
- · Healthcare
- Retail

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XG075C200V054BST1M (Mid-Pack, 18pcs/Box), 12NC: 929000775313
Line Frequency	50/60Hz
Min. Mains Voltage Operational	312 Vac
Max. Mains Voltage Operational	382 Vac
Output Information	
Maximum Open Circuit Voltage	< 60Vdc
Output Current Ripple (ripple = peak to average / average)	15% max. @ max lout 4% max. @ Visible for stroboscopic frequency range 60Hz-3KHz
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)	100mA to 2000mA via external resistor or SimpleSet programming (default set to 2000mA, refer to graph)
Additional SimpleSet Configurable Features	Adjustable minimum dimming level, Dimming curve selection (linear or logarithmic), Adjustable output level, Adjustable output min., OEM write protection
Environment & Approbation	
Operating Ambient Temp. Range	-20°C to +50°C
Max. Case Temperature (Tcase)	85°C
Agency Approbations	UL8750, UL1310, cUL, Class P (UL, cUL)
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	0.79Lbs/0.36 kgs

Advance Xitanium 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.

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0-10V Dimming Curve

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

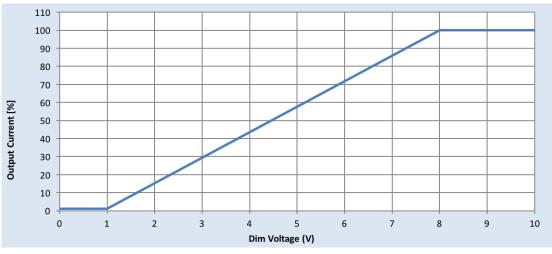
Minimum dim level: 1% of lout (minimum 7mA)

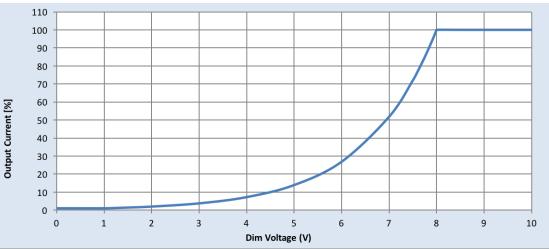
Maximum output voltage on the dimming wires: 12V

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.

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
Advance	Sunrise - SR1200ZTUNV





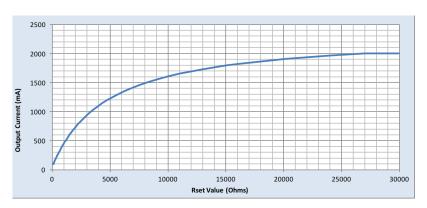
75W 0.1-2.0A 54V 0-10V 1% 347V with SimpleSet

Electrical Specifications

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AOC (Adjustable Output Current) Settings (Rset)

Rset (Ohms) Current (mA) Rset (Ohms) Current (mA) 0 100 2000 733 100 100 2200 780 110 105 2400 823 120 111 2700 883 130 116 3000 941 150 125 3300 993 160 130 3600 1042 180 138 3900 1085 200 146 4300 1143 220 155 4700 1192 240 166 5100 1238 270 176 5600 1293 300 190 6200 1350 330 204 6800 1402 360 215 7500 1454 390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510		T	1	T
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110 105 2400 823 120 111 2700 883 130 116 3000 941 150 125 3300 993 160 130 3600 1042 180 138 3900 1085 200 146 4300 1143 220 155 4700 1192 240 166 5100 1238 270 176 5600 1293 300 190 6200 1350 330 204 6800 1402 360 215 7500 1454 390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 <td>)</td> <td>100</td> <td>2000</td> <td>733</td>)	100	2000	733
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150 125 3300 993 160 130 3600 1042 180 138 3900 1085 200 146 4300 1143 220 155 4700 1192 240 166 5100 1238 270 176 5600 1293 300 190 6200 1350 330 204 6800 1402 360 215 7500 1454 390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	20	111	2700	883
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240 166 5100 1238 270 176 5600 1293 300 190 6200 1350 330 204 6800 1402 360 215 7500 1454 390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	:00	146	4300	1143
270 176 5600 1293 300 190 6200 1350 330 204 6800 1402 360 215 7500 1454 390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	20	155	4700	1192
300 190 6200 1350 330 204 6800 1402 360 215 7500 1454 390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	40	166	5100	1238
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360 215 7500 1454 390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	500	190	6200	1350
390 228 8200 1503 430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	30	204	6800	1402
430 245 9100 1558 470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	60	215	7500	1454
470 261 10000 1604 510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	90	228	8200	1503
510 277 11000 1653 560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	30	245	9100	1558
560 297 12000 1694 620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	70	261	10000	1604
620 318 13000 1730 680 340 15000 1793 750 368 16000 1817	510	277	11000	1653
680 340 15000 1793 750 368 16000 1817	60	297	12000	1694
750 368 16000 1817	520	318	13000	1730
	80	340	15000	1793
	50	368	16000	1817
820 392 18000 1864	20	392	18000	1864
910 422 20000 1902	10	422	20000	1902
1000 452 22000 1935	000	452	22000	1935
1100 485 24000 1965	100	485	24000	1965
1200 515 27000 2000	200	515	27000	2000
1300 545 30000 2000	300	545	30000	2000
1500 602 >100,000 2000	500	602	>100,000	2000
1600 632	600	632		
1800 684	800	684		



Notes

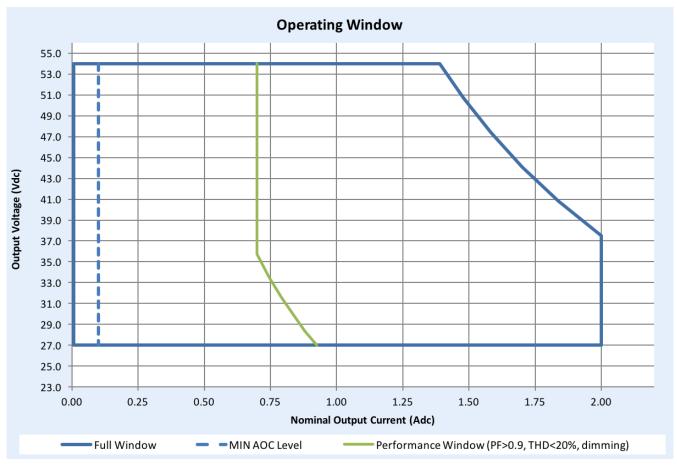
- 1. Current is set via a resistor between Rset2 and SGND leads.
- 2. Any through-hole or SMD resistor with >0.25W and >20V can be used as Rset.
- 3. Driver will default to 2000mA when Rset is left open.

75W 0.1-2.0A 54V 0-10V 1% 347V with SimpleSet

Electrical Specifications

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

Driver Output Window



Notes

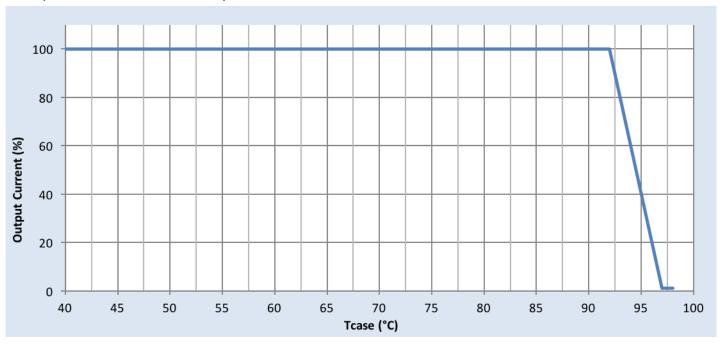
- 1. Factory default output current is 2.0A.
- 2. For dimming to a minimum level of 1% the output current setting through AOC should be ≥ 0.7A.

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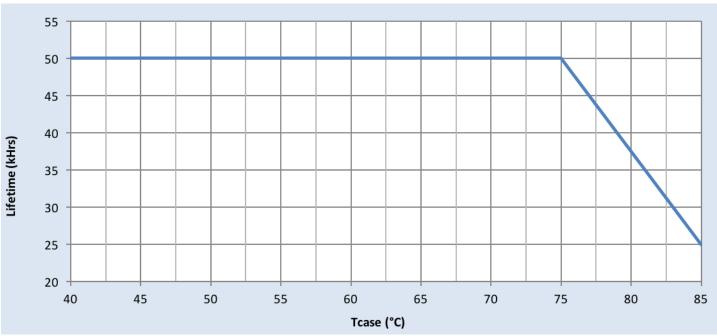
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Output Current Vs. Driver Case Temperature



Driver Lifetime Vs. Driver Case Temperature

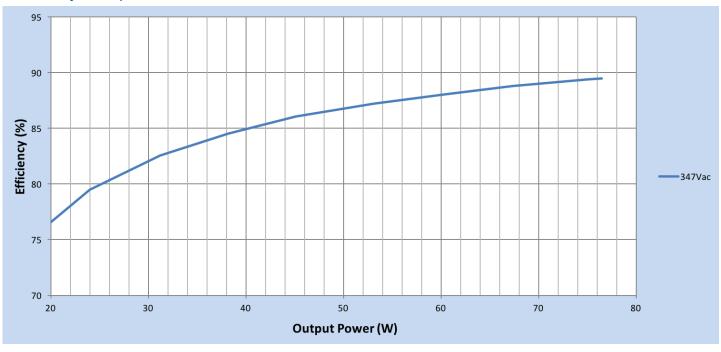


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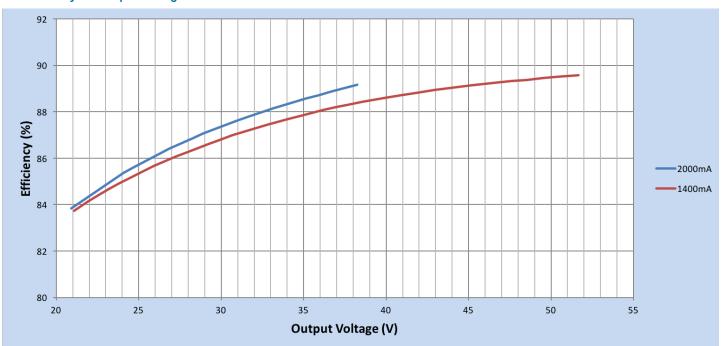
Performance Characteristics

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 Power



Efficiency Vs. Output Voltage

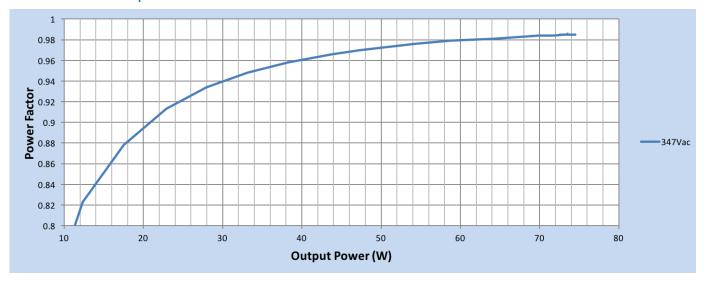


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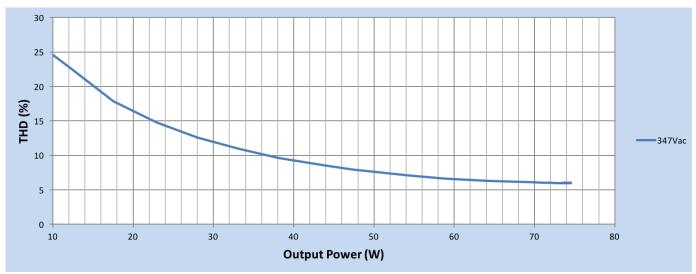
Performance Characteristics

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

Power Factor Vs. Output Power

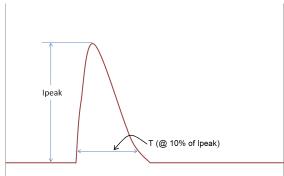


Total Harmonic Distortion (THD) Vs. Output Power



75W 0.1-2.0A 54V 0-10V 1% 347V with SimpleSet

Inrush Current Info



Vin	lpeak	T (@ 10% of Ipeak)
347 Vrms	40A	200µS

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)
100kHz 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	_	2.5kV	500V
0-10V (Class 2)	2.5kV	2.5kV	-	500V
Enclosure	2xU+1kV	500V	500V	-

U = Max. input voltage

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