ADVANCE

by (signify

LED Driver

Xitanium

XI040C100V048BPT1



The Advance Xitanium Basic Programming Driver offers an optimal balance between performance and ease of use to provide an LED solution for indoor lighting applications. Key features include an adjustable output current, 1% min. dim levels and High efficiency design. Programmable features are supported by SimpleSet wireless tools and MultiOne software. Standardized Mechanicals and enhanced thermal performance allow easy transitions between product families.

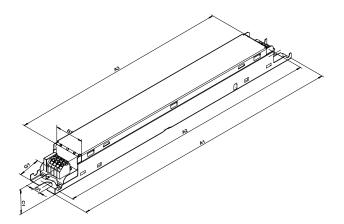
Specifications

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 Protection (Ring Wave, KV)	Envir. Protection Rating	Dimming	Dimming Range (with specified dimmers)	Min. Output Current (A)	Driver Type
120	40	20 - 48 Class 2 Output	0.1 - 1	85	Life-75°C	0.41	49.4	<15%	>0.90		UL damp &	0-10V Analog	1% - 100%		Constant
277				86	UL-85°C	0.18		<15%		2.5	dry	Class 2 (Constant 0.006	Current		

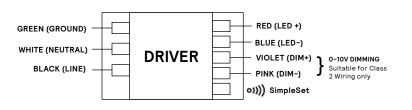
Enclosure

	In. (mm)	Tolerance
Overall Length (A1)	11.02(280)	± 0.5mm
Mounting Length (A2)	10.63(270)	± 0.5mm
Case Length (A3)	8.81(223.8)	± 0.5mm
Case Width (B1)	1.18(29.4)	± 0.5mm
Case Height (C1)	1.0(25.4)	± 1.0mm
Mounting Hole Diameter (D1)	0.31(8.0)	± 0.3mm
Center of SimpleSet Antenna (G1)	0.76(19.2)	± 3.0mm

Mechanical Diagram



Wiring Diagram



Warning

- Install in accordance with national and local electrical codes.
- The field-wiring leads or push-in terminals shall be fully enclosed.
- Use 18 AWG Solid Copper Wire Rated >= 90 °C.
- Strip Wire 3/8".
- For Class 2 Wiring, Use 20 AWG-16 AWG.

Grounding

• Driver case must be grounded.



Xitanium XIO4OC100V048BPT1 40W 0.1-1.0A 48V 0-10V INT (1% dim) with SimpleSet

Features

- High efficiency (>86%)
- 1% min. dim level, 0-10V Dimming
- UL Class P

Benefits

- Allows basic programmability for setting discrete output current levels
- Design flexibility to meet DLC requirements
- Low dimming to cover all major linear applications
- Standard mechanical fit with 280mm mounting distance

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	XI040C100V048BPT1 (Mid-Pack, 18pcs/Box), 12NC: 929002735313			
Line Frequency	50/60Hz			
Min. Mains Voltage Operational	108 Vac			
Max. Mains Voltage Operational	305 Vac			
Output Information				
Maximum Open Circuit Voltage	60Vdc			
Output Current Ripple	15% max @ max lout			
Output Current Tolerance (in the performance window)	<5%			
Protections	Short Circuit, Open Circuit Protection for LED + and LED			
Features				
0-10V Dimming Interface Current	100-250µA			
0-10V Active Range	1V to 8V. See dim curve for details			
AOC (Adjustable Output Current)	0.1A-1A via SimpleSet programming (refer to graph and notes below)			
Additional SimpleSet Configurable Features	Adjustable Minimum dim level Adjustable Output Current (AOC) OEM Write Protected features (OWP)			
Environment & Approbation				
Operating Ambient Temp. Range	-40°C to +50°C			
Driver Lifetime up to Tc Life	50k Hours			
Thermal fold-back at High Temperature	Not supported			
Agency Approbations	UL8750, NOM, Class P(cUL, UL)			
Electromagnetic Compliance	FCC Title 47 Part 15 Class A			
Audible Noise	<24dB Class A			
Weight	0.467Lbs/0.212Kgs			

Xitanium XIO40C100V048BPT1 40W 0.1-1.0A 48V 0-10V INT (1% dim) with SimpleSet

Electrical Specifications

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

0-10V Dimming Interface

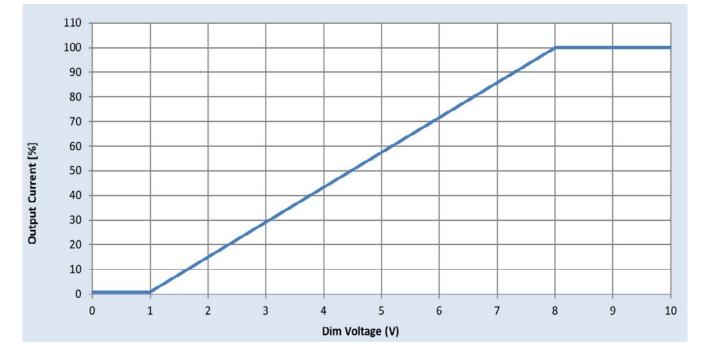
Dimming source current from the driver: 100~250µA (@ 0<Vdim<8V)

Maximum output voltage on the dimming wires: 12V

Leakage current of dimming leads: 0.018mA, recommendation of max number of control circuits in parallel can be found in 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		

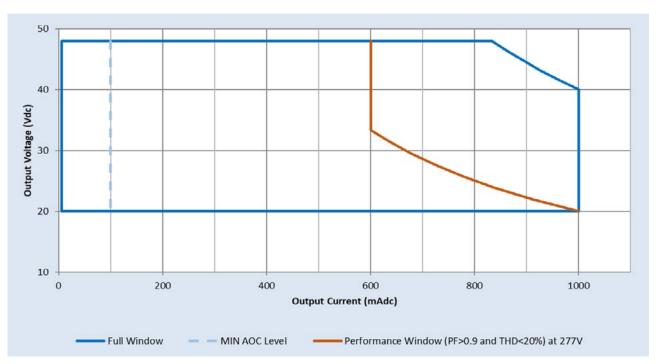


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Electrical Specifications

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Driver Operation Window:



Notes

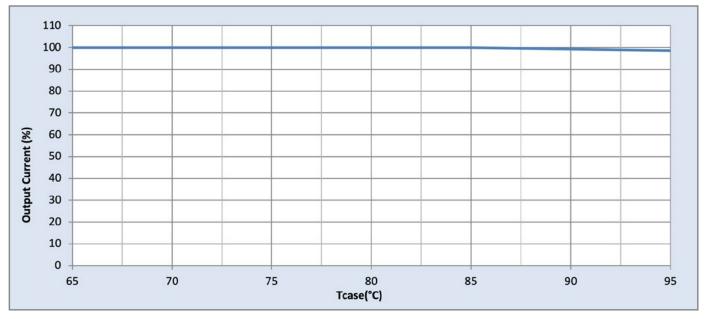
- 1. Factory default output current is 1.0A.
- 2. To get a 100% to 1% dimming range, the output current setting through AOC should be \geq 0.6A.
- 3. Factory default minimum dimming level is 1%. This can be adjusted between 1% and 100% using MultiOne.

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Electrical Specifications

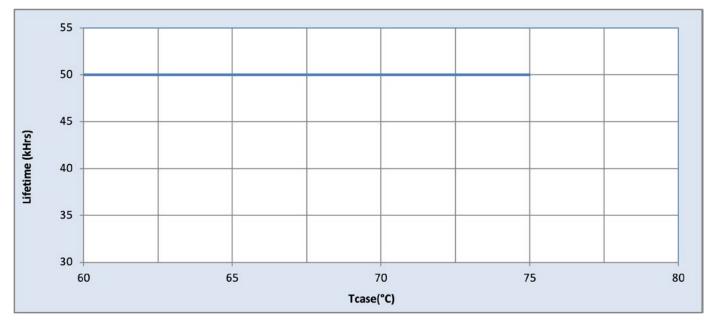
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Output Current Vs. Driver Case Temperature



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

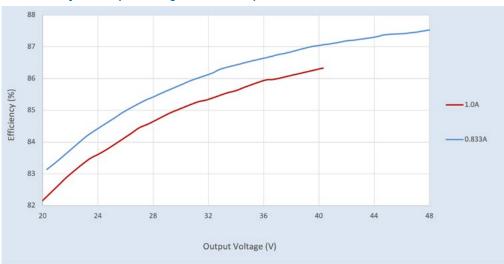
Driver Lifetime vs. Driver Case Temperature



Xitanium XIO4OC100V048BPT1 40W 0.1-1.0A 48V 0-10V INT (1% dim) with SimpleSet

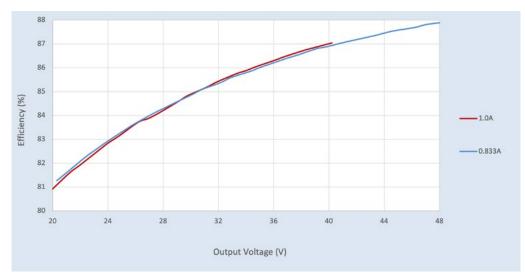
Performance Characteristics

Based on measurements on a typical sample at 70 $^{\circ}$ C case. The accuracy of the measurements is within the tolerance of the measurement instruments.



Efficiency Vs. Output Voltage at 120Vac Input

Efficiency Vs. Output Voltage at 277Vac Input

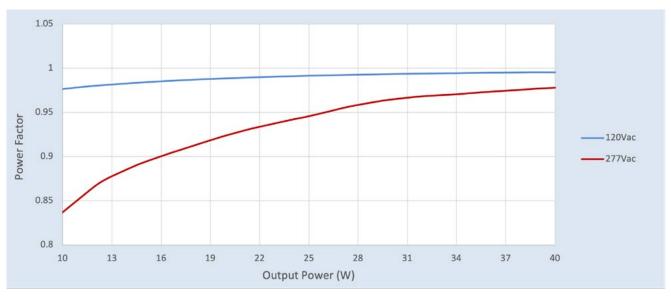


Xitanium XIO4OC100V048BPT1 40W 0.1-1.0A 48V 0-10V INT (1% dim) with SimpleSet

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.

Power Factor Vs. Output Power

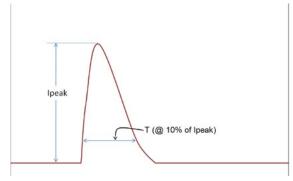


Total Harmonic Distortion (%)



Xitanium XIO4OC100V048BPT1 40W 0.1-1.0A 484V 0-10V INT (1% dim) with SimpleSet

Inrush Current Info



Vin	lpeak	T (@ 10% of Ipeak)		
120 Vrms	6A	37.5µs		
277 Vrms	13.3A	30.5µs		

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

U = Max input voltage

UL Conditions of Acceptability

Please contact your Philips representative for a copy of the latest UL Conditions of Acceptability (COA).

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