ADVANCE

by (s) ignify

Xitanium

LED Driver



XI025C100V036DNM1M

Input Volt. (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)	Inrush Current (Apk/50%- µs)	THD @ Max. Load (%)	Power Factor @ Max. Load	Surge Protection Common/ Diff (KV)	Weight (Lbs/kgs)	Envir. Protection Rating	Driver Type
120	0.5	18-36	0.1.1.0	84	Life - 80°C	0.27		29.3 / 96	<10%	0.05	0.5	0.44.60.40	UL damp	Constant
277	25	Class 2 Output	0.1-1.0	86	UL - 90°C	0.12	30	47.1 / 93	<15%	>0.95	> 2.5	0.41/0.19	& dry	Current

Features

- UL Class 2 output with Adjustable Output Current (AOC)
- SmartMate style housing with 90°C Tcase max
- · Compatible with Advance Fortimo Down Light Modules

Benefits

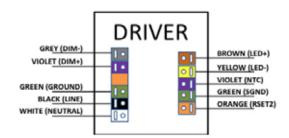
- · Flexibility via adjustable drive current
- Simple integration into existing style fixtures
- System solution that helps optimizes performance and eases design-in

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog Class 2 Wiring	5% ~ 100%	0.015	Dimming source current: I50 µA

Dimensions

in.	mm	
4.20	106.7	
2.36	60	
0.95	24	
4.60	116.8	
4.96	126	
	4.20 2.36 0.95 4.60	4.20 106.7 2.36 60 0.95 24 4.60 116.8

Wire Diagram



Warning

Install in accordance with National and Local Electrical Codes. The field-wiring leads or push-in terminals shall be enclosed. Use 18AWG Solid Copper Wire, Rated>=300V/90C. Strip wire to 3/8".

For Fortimo systems connect pink wire to Violet (NTC).



25W 0.1-1.0A 36V 0-10V

Electrical Specifications

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

Ordering Information	
Order code	XI025C100V036DNM1M
Full product code	XI025C100V036DNM1M
Full product name	Xitanium 25W 0.1-1.0A 36V 0-10V
Input Information	
Line Voltage	120-277Vac_rms
Line Current	0.27A @ I20V, 0.I2A @ 277V
Line Frequency	50/60Hz
Min. Mains voltage operational	108 V [min]
Max. Mains voltage operational	305V [max]
THD (total)	Refer to graph
Power Factor (PF)	Refer to graph
Inrush Current	Per NEMA 410
Lightning Surge Protection	Refer to table below
Output Information	
Output voltage range	I8V to 36Vdc
Maximum open circuit voltage	42V
Output Current Ripple (ripple = peak to average / average)	I5% max @ max lout Low frequency (≤120 Hz) content <5%
Protections	Short Circuit and Open Circuit Protection for LED + and LED
Ambient Temp Range	-20°C to +50°C
Max Case Temperature (Tcase)	80°C for Life & 90°C for UL Safety
Features	
Interfaces	0-10V Dimming, AOC, MTP
AOC (Adjustable Output Current)	100mA to 1000mA via external resistor (refer to graph below & notes in the Application section)
MTP (Module Temperature Protection)	Current cutback to 10% (Refer to specifications below)
0-10V Dimming Specifications	I50μA source current from driver, See dim curve for detail.
Environment and Approbation	
Environmental Protection Rating	UL damp and dry
Agency Approbations	UL8750, UL1310, UL935, cUL
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Isolation	Refer to table
Audible noise	<24dB Class A

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0-I0V Dimming Curve:

Dimming source current from the driver: I50µA (@ 0<Vdim<8V)

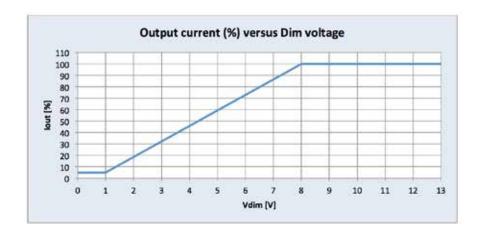
LED Current Tolerance at $1000 \text{mA} \le 5\%$ over temperature and component variations and $\le 10\%$ at any dim level.

Minimum Dim Level: 5% of lout (minimum 15mA) Maximum output voltage on the dimming wires: 13V

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 - SRI200ZTUNV		

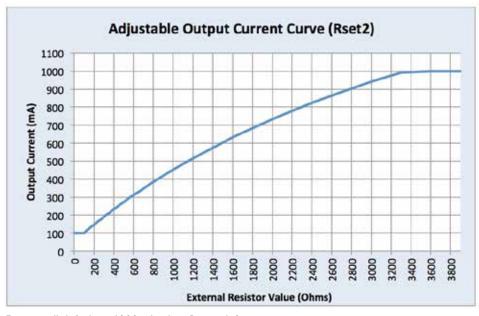


For compatibility with other dimmers please contact the dimmer manufacturer.

AOC (Adjustable Output Current) Settings:

LED Current Tolerance over temperature and component variations for AOC ≤ 10% at any level.

Rset (Ohms)	Current (mA)
100	100
120	111
150	124.5
180	138.2
220	154.6
270	176.4
330	203.7
390	228.3
470	261.0
560	296.5
680	340.2
820	392.1
1000	452.I
1200	514.9
1500	602.3
1800	684.2
2200	779.7
2700	883.5
3300	992.7
3900	1000



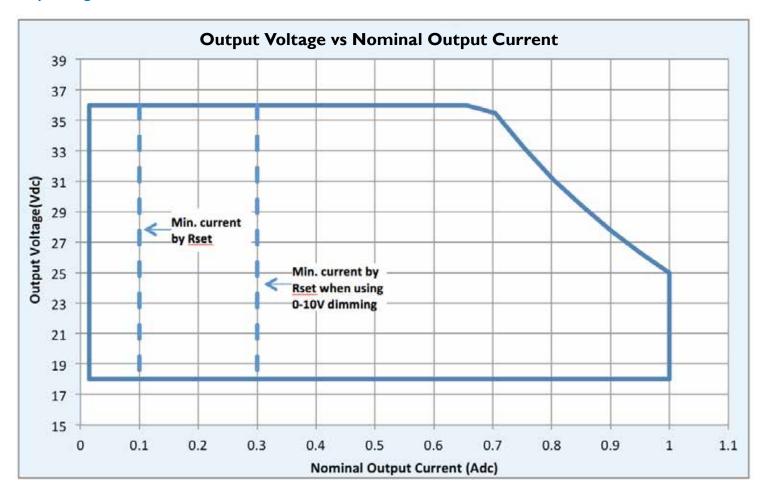
Driver will default to I000mA when Rset is left open.

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Operating Window:

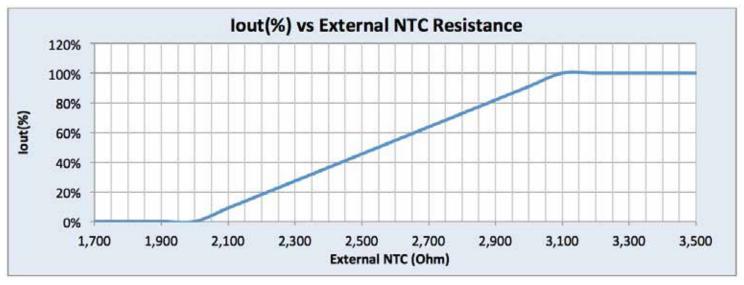


25W 0.1-1.0A 36V 0-10V

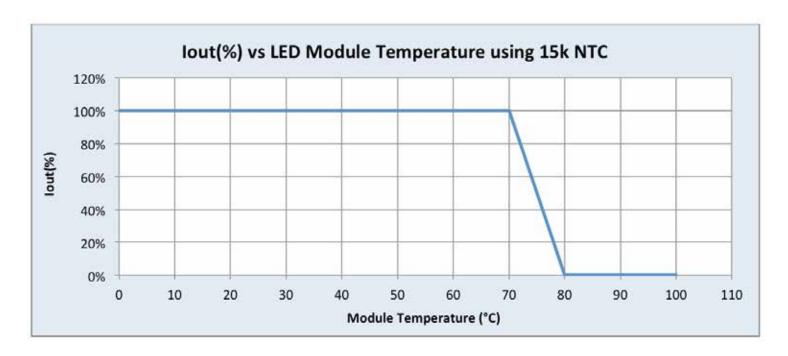
Electrical Specifications

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Module Temperature Protection:



For example: Using NTC Vishay 15kOhm \pm 2% NTC, B25/85=3700 (2381 615 54153), the output current Vs module temperature behavior is as follows.

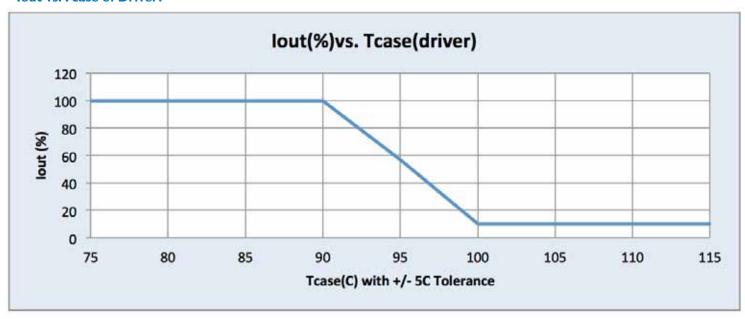


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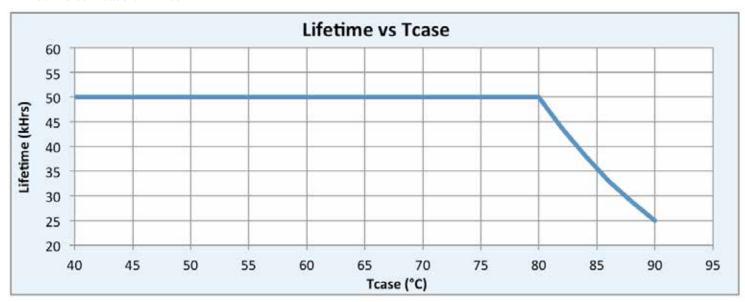
Electrical Specifications

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lout vs. Tcase of Driver:



Lifetime vs. Tcase of Driver:

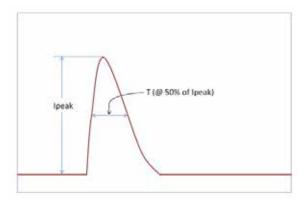


25W 0.1-1.0A 36V 0-10V

Electrical Specifications

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Inrush Current Info:



Vin	lpeak	T (@ 50% of Ipeak)		
I20 Vrms	29.3 A	96 μs		
277 Vrms	47.IA	93 μs		

Inrush current is measured at peak of the corresponding line voltage, source impedance per NEMA 410.

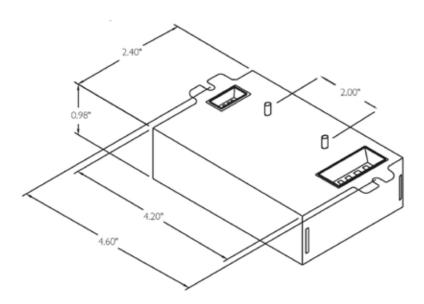
Lightning Surge Info:

ANSI Surge Type	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)	
100 kHz Ring Wave (w/t 30Ω)	6kV	4kV	
1.2/50μs - 8/20μs Combination Wave (w/t 2Ω)	2kV	2kV	

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Mechanical Specifications

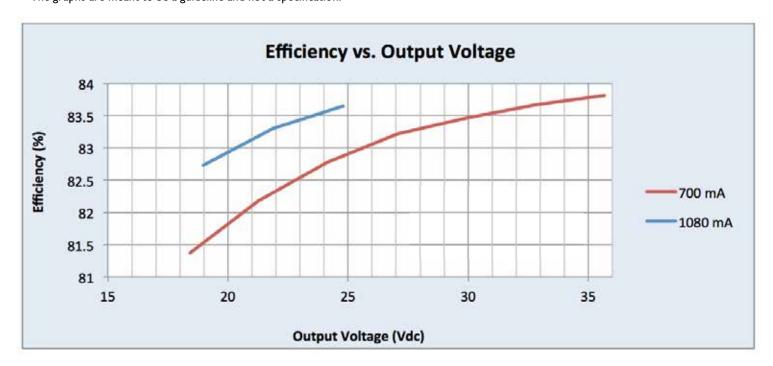
Mechanical Drawing:

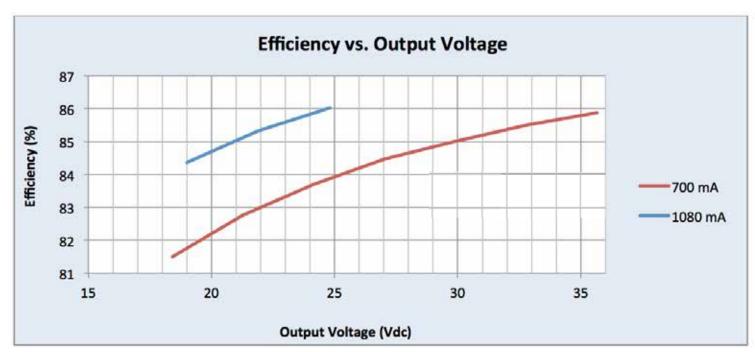


25W 0.1-1.0A 36V 0-10V

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.

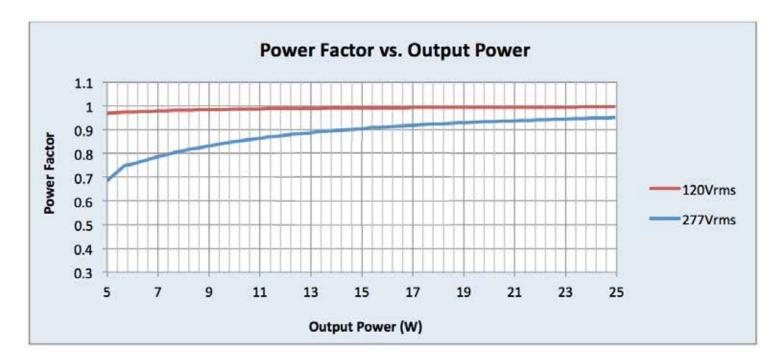


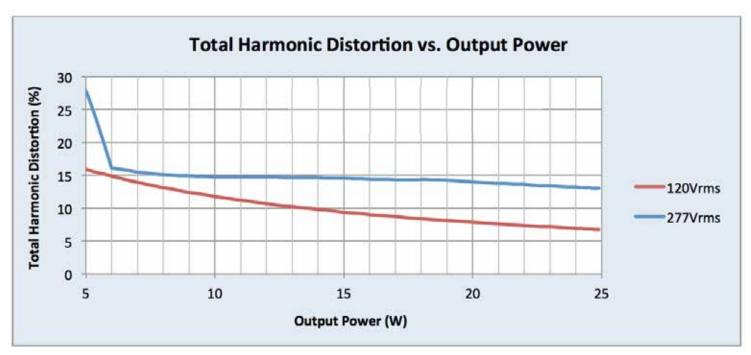


25W 0.1-1.0A 36V 0-10V

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25W 0.1-1.0A 36V 0-10V

Application Notes

Isolation:

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	Not applicable	2xU+IKV	2.5KVac	2xU+IKV
Output	2xU+IKV	Not applicable	Non-isolated	500V
0-10V (Class 2)	2.5KVac	Non-isolated	Not applicable	500V
Enclosure	2xU+IKV	500V	500V	Not applicable

UL Conditions of Acceptability:

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

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Signify North America Corporation 400 Crossing Blvd, Suite 600 Bridgewater, NJ 08807 Telephone: 855-486-2216 Signify Canada Ltd. 281 Hillmount Road, Markham, ON, Canada L6C 2S3 Telephone: 800-668-9008

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