XEL-040DDU DuoDim™ Commercial Series



25~45W LED Driver Family

0-10V & TRIAC/ELV, 5%/1% Dimming

Nominal Input Voltage (Vin)	Family Output Power Range (W)		Output Current Range (A)	Efficiency (%)	UL Max Case Temp. Tc (°C)	THD (%)	Power Factor	Dimming Method	Dimming Range (%)
120~277Vac	25~45W	24~32Vdc 26~42Vdc	0.80~1.05A	≤ 88% (typical)	90°C	< 20%	> 0.9	0-10V & TRIAC/ELV	5/1-100% (% of lout)



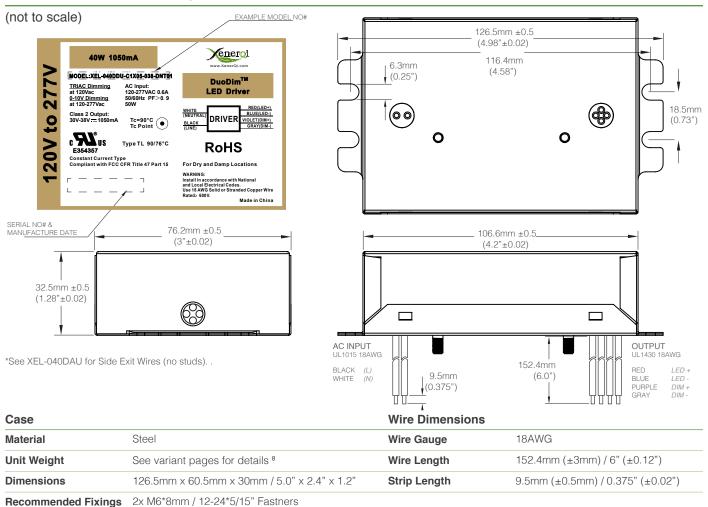
- ☑ Ideal for Residential & Commercial Lighting
- **Q** Optimized for COB's
- Q Universal AC input (108~305Vac)
- DuoDim[™] Technology (0-10V & TRIAC) (Optional TRIAC only, 1% Phase DImming)
- ☑ Enables Energy Star & DLC compliant fixtures
- Q Turn on/off in less than 500 miliseconds
- Q Built-in Commercial grade Surge protection
- Q Type TL UL Driver
- Q Class A Noise Rating
- Integrated over voltage & open load, over current, short circuit & temperature protection
- Turn on & Full power operation between -30°C to +60°C ambient ¹
- Q XenerQi Industry Leading 5 Year True Warranty^{™ 2}
- Q Class 2 power supply
- Q Complies to FCC CFR Title 47 Part 15

See product specific data pages for details.

Typical Applications



Mechanical Drawings-Dimensions



Installation Guide

INPUT

DRIVER

Mounting & Wiring Diagrams



LIVE (BLACK)

NEUTRAL (WHITE)

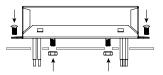
WARNING: TO REDUCE THE RISK OF FAILURE / INJURY: DRIVER MUST BE INSTALLED IN LUMINAIRE AND GROUNDED IN ACCORDANCE WITH THE LOCAL CODES. DRIVER CASE MUST BE ELECTRICALLY GROUNDED. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY AND/ OR DAMAGE TO THE SYSTEM.

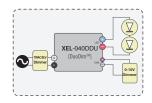
OUTPUT

DRIVER

LE

Fix using 2 M6 screws for recommended mounting.





Wires	Colors	Туре	Wires	Colors	Туре
Input	White (Neutral) Black (Line)	UL1015 AWG 18 UL1015 AWG 18	Dimming	Purple (Dim +) Grey (Dim -)	UL1015 AWG 18 UL1015 AWG 18
Output	Red (Positive) Blue (Negative)	UL1430 AWG 18 UL1430 AWG 18			

LED + (BLUE) LED - (RED)

DIM + (PURPLE) DIM - (GREY)

Specification Data

Output	DC Voltage Range Optimized Vf Range ⁶ Rated Current Range Rated Power Line Regulation ³ Load Regulation ³ Turn On/Off Time	24 ~ 42 Vdc (full power 30 ~ 42dc) 36 ~ 38 Vdc (for 42V max) / 28 ~ 30 Vdc (for 32V max) 0.30 ~ 0.70 A (not dimmed - see specific model pages) 45W max ±5% ±5% < 500ms (at full load)		
Input	Voltage Range⁴ Frequency Range Power Factor THD Typical Inrush Current	120 ~ 277Vac Nominal (108 ~ 305Vac Operational) 47 ~ 63 Hz PFC > 0.9 at ≥ 75% of full power ⁴ THD < 20% at ≥ 75% of full power ⁴ < TBC (per ANSI test method. Compliant with NEMA410-2015		
Dimming	Mode A (0-10V) Mode B (Phase cut)* TRIAC Support 0-10V Source Current Compatibility	DC Dimming control: 0-10Vdc (5%) Sink / Source TRIAC/ELV Phase cut dimming (1%) Forward Reverse Phase & ELV Dimmers 260µA (Isolated) IEC Compliant		
Protection	Short Circuit Over Voltage & Open Load Over Current Over Temperature	Auto-restart (after fault removed) Vout < 60V (Class-2) Inherently limited over operational range Current foldback at hotspot greater than 85°C (shut down at <100°C) ⁵		
Environment	Working Temperature Working Humidity UL Rating Storage Temperature Storage Humidity Impact Resistance Vibration Operating Life	-30°C ~ 60°C ambient ¹ (T _{case} rated for 90°C) 20% ~ 90% RH non-condensing Dry / Damp location use -40°C ~ 85°C ambient 10% ~ 90% RH non-condensing 1 g/s 3 ~ 50Hz 1g (for 30 minutes) 50,000 Hours at Full Load & Maximum Hotspot		
Safety & EMC	Safety Standards Noise Rating EMI Conduction & Radiation EMC Susceptibility Transient Immunity	UL8750, Class 2 (UL1310), Type TL rated Class A (Less than 24dB measured at 1 meter) ^{3,7} Compliant with FCC CFR Title 47 Part 15 Class A at 120/277Vac & Class B at 120V Compliant with European CE requirements EN61000-4-3, EN61000-4-2, EN61000-4-4 2kV/1kA Combination, 2.5kV Ringwave Modes: L-N, L-G, N-G		

¹ Ambient is estimated. Actual temperatures determined by trigger point temperature at driver hotspot. Assumed case is mounted on flat surface. ² True Warranty refers to operation at full load and max hotspot temperature. For specific warranty details refer to XenerQi published warranty document. ³ Guaranteed only within nominal input range. ⁴ Critical parameters guaranteed over nominal input range.

⁵ Shutdown requires power cycle to recover

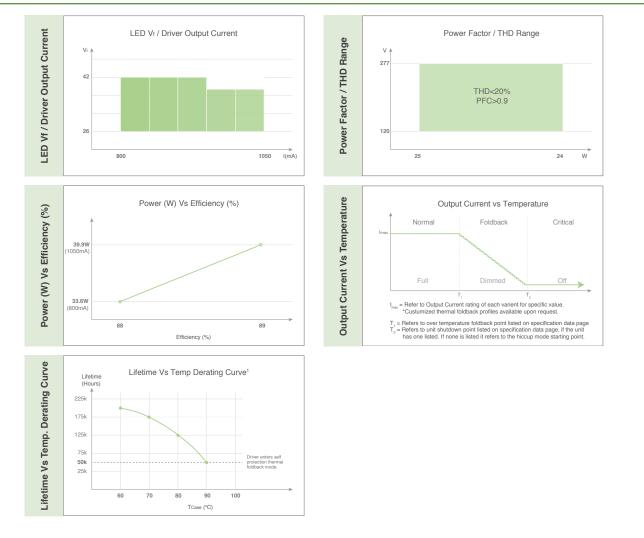
⁶ Units optimized for steady state forward voltage as per "Optimized Vf Range" value in specification data, and for specific LED loads.

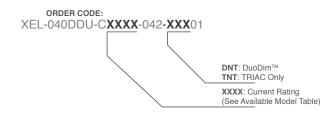
List of LED loads available upon request.

⁸ Value listed is family maximum or minimum best case value as appropriate & can vary depending on part number.

Dimming performance may vary depending on brand and make of dimmer used as well as number of drivers connected to it.

Operation Performance-Family





Available Models

	Part Number	Output Current (mA)	Output Voltage Range (V)	Maximum Efficiency ⁶	Max Output (W)
Fixed Ouput Current (ariants (DuoDim TM)	XEL-040DDU-C1X05-038-DNT01	1050	28 ~ 38	89%	39.9W
	XEL-040DDU-CX900-042-DNT01	900	26 ~ 42	87%	37.8W
	XEL-040DDU-CX800-042-DNT01	800	26 ~ 42	88%	33.6W

Customized Variants available upon request.

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