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 Voltage Range (Vout)	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 Iout)

- **Ideal for Residential & Commercial Lighting**
- **Optimized for COB's**
- **Indoor or Outdoor use**
- **Universal AC input (108~305Vac)**
- **DuoDim™ Technology (0-10V & TRIAC) (Optional TRIAC only, 1% Phase DImming)**
- **Enables Energy Star & DLC compliant fixtures**
- Turn on/off in less than 500 miliseconds
- Built-in Commercial grade Surge protection
- Class P UL Driver
- 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]
- XenerQi Industry Leading 5 Year True Warranty™ [2]
- Class 2 power supply
- Complies to FCC CFR Title 47 Part 15

See product specific data pages for details.

Variants available:
-Side Exit Wires -< 30W DuoDim™ — XEL-040DAU
XEL-030D Series

Typical Applications

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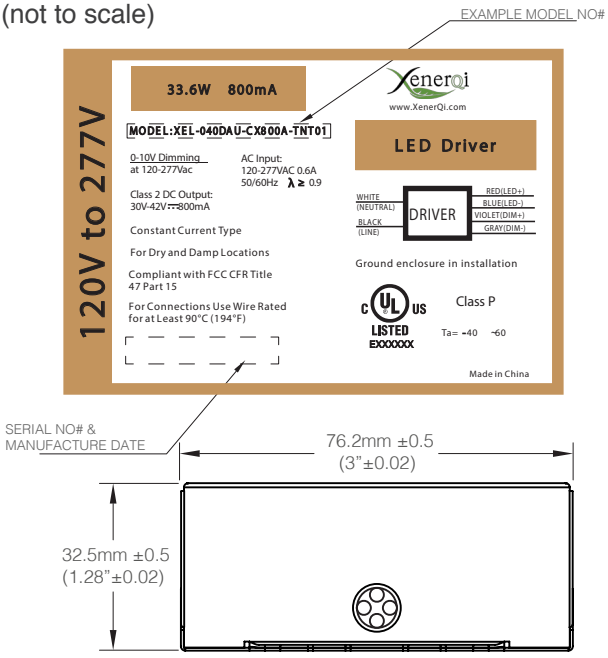
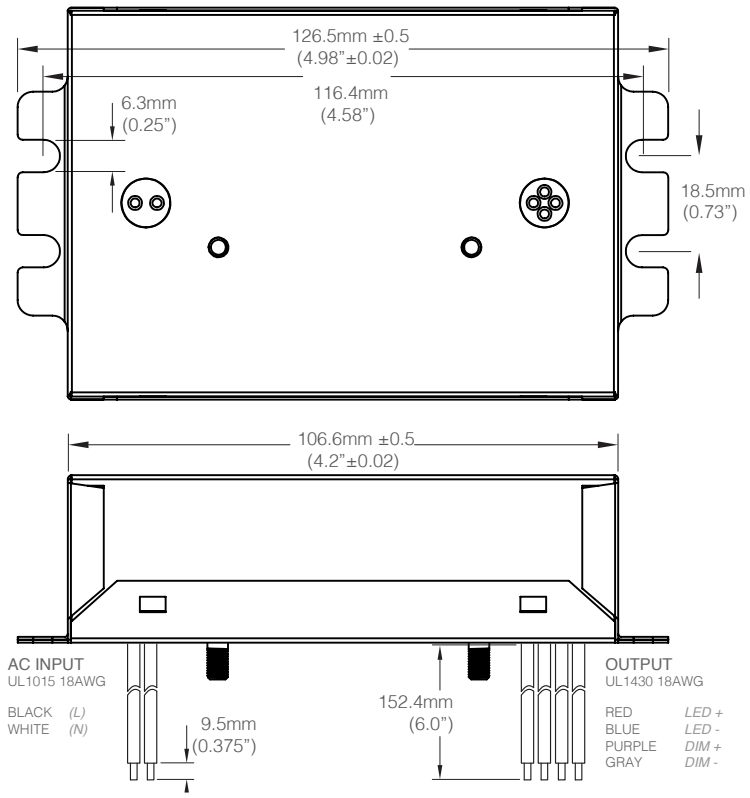
Revision No#: 003E-18-09

Mechanical Drawings-Dimensions

(not to scale)





*See XEL-040DAU for Side Exit Wires (no studs). .

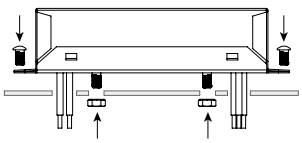
Case		Wire Dimensions	
Material	Steel	**Wire Gauge**	18AWG
Unit Weight	See variant pages for details [8]	**Wire Length**	152.4mm (±3mm) / 6" (±0.12")
Dimensions	126.5mm x 60.5mm x 30mm / 5.0" x 2.4" x 1.2"	**Strip Length**	9.5mm (±0.5mm) / 0.375" (±0.02")
Recommended Fixings	2x M6*8mm / 12-24*5/15" Fastners		

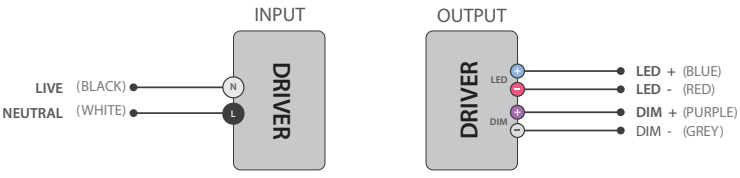
Installation Guide

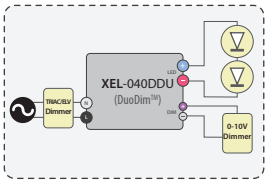
Mounting & Wiring Diagrams

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.

Fix using 2 M6 screws for recommended mounting.







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

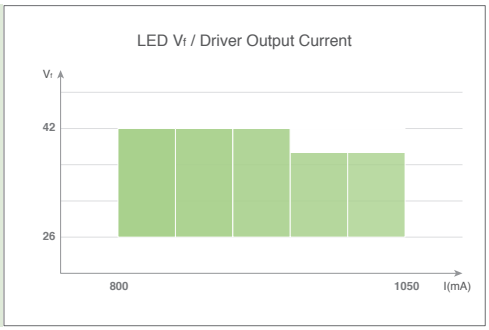
Specification Data

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

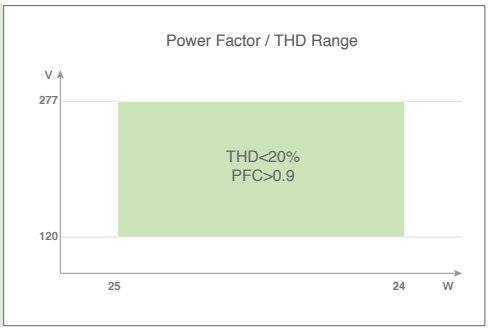
[1] Ambient is estimated. Actual temperatures determined by trigger point temperature at driver hotspot. Assumed case is mounted on flat surface.
[2] True Warranty refers to operation at full load and max hotspot temperature. For specific warranty details refer to XenerQi published warranty document.
[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.
[7] Tested under two conditions: with & without dimmer connected.
[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

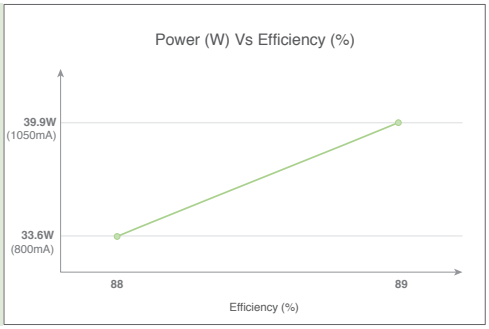
LED Vf / Driver Output Current



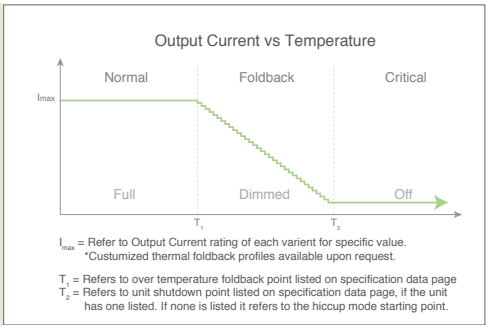
Power Factor / THD Range



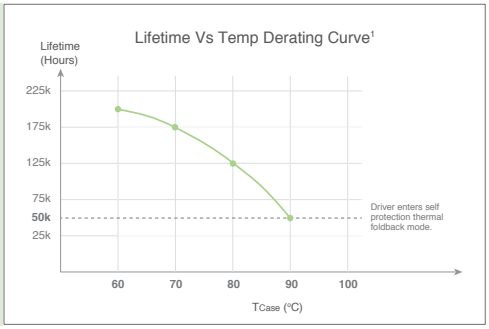
Power (W) Vs Efficiency (%)



Output Current Vs Temperature



Lifetime Vs Temp. Derating Curve



ORDER CODE:
XEL-040DDU-C**XXXX**X-042-**XXX**01

DNT: DuoDim™
TNT: TRIAC Only

XXXX: Current Rating
(See Available Model Table)

Available Models

	Part Number	Output Current (mA)	Output Voltage Range (V)	Maximum Efficiency [6]	Max Output (W)
Fixed Ouput Current Variants (DuoDim™)	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.				