

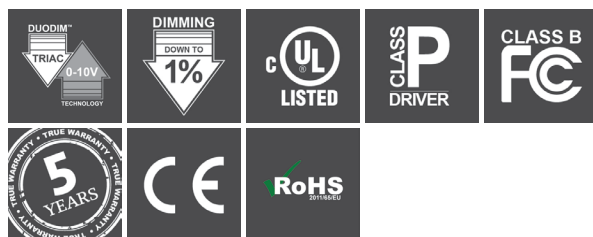
XEL-040D

DuoDim™ Commercial Series



25~45W, 5% 0-10V Dimming /1% Phase-Cut Dimming (TRIAC/ELV/MLV) Driver

Nominal Input Voltage (Vin)	Family Output Power Range (W)	Output Voltage Range (Vout)	Output Current Range (A)	Max Efficiency (%)	UL Max Case Temp. TC (°C)	THD (%)	Power Factor	Dimming Method	Dimming Range (% of Iout)
120~277Vac	25~45W MAX	24~32Vdc 26~42Vdc	0.80~1.05A	≤ 89% (typical)	90°C	< 20%	> 0.9	0-10V & TRIAC/ELV/MLV	Phase-Cut: 1~100% 0-10V:5~100%



- ✔ Ideal for Residential & Commercial Lighting
- ✔ Driver Optimized for COB Based Designs
- ✔ Indoor or Outdoor Use
- ✔ Universal AC input (108~305Vac)
- ✔ DuoDim™ Technology (0-10V & Phase-Cut) (Optional Phase-Cut only)
- ✔ Enables Energy Star & DLC compliant fixtures
- ✔ Turn on/off in less than 500 milliseconds
- ✔ Built-in Commercial grade Surge Protection
- ✔ Integrated over voltage & open load, over current, short circuit & temperature protection
- ✔ Turn on & Full power operation between -30°C to +60°C ambient¹
- ✔ XenerQi Industry Leading 5 Year True Warranty™²
- ✔ UL Class P & Class 2 Output Driver
- ✔ Class A Noise Rating
- ✔ Complies to FCC CFR Title 47 Part 15

See product specific data pages for details.

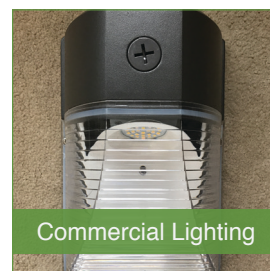
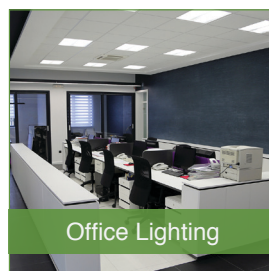
Variants available:

ALTERNATE PACKAGES

XEL-030D



Typical Applications



Dimensions & Installation

(not to scale)

CASE

Material	Painted White Steel
Unit Weight	See variant pages for details
Dimensions	126.5mm x 76.2mm x 32.5mm / 5.0" x 3.0" x 1.28"

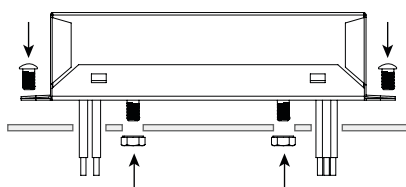
WIRING

Input Wires	18AWG (UL1569) (L:Black, N:White)
Output Wires	18AWG (UL1569) (LED+:Red, LED-:Blue)
DIM Wires	18AWG (UL1430) (DIM+:Purple, DIM-:Gray)
Wire Lengths	152.4mm (±3mm) / 6" (±0.12")
Strip Lengths	9.5mm (±0.5mm) / 0.375" (±0.02")

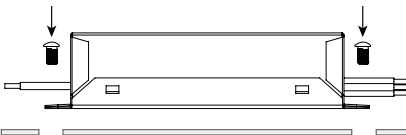
MOUNTING & INSTALLATION

Fixings 2x M6*8mm / 12-24*5/15" Fastners / 2x M4 Nuts

DEU (Bottom Exit)



DBU (Side Exit)

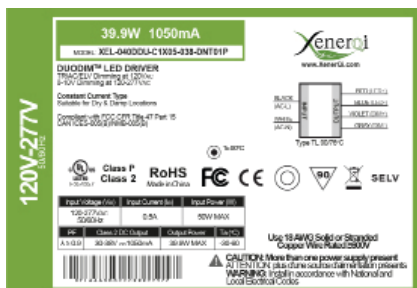


WARNING: TO REDUCE THE RISK OF FAILURE / INJURY
DRIVER CASE MUST BE ELECTRICALLY GROUNDED.
DRIVER MUST BE INSTALLED IN LUMINAIRE IN ACCORDANCE WITH THE LOCAL CODES.
FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY AND/ OR DAMAGE TO THE SYSTEM.

(DRIVER INSTALLATION WITHIN LUMINAIRE MUST FORM A FIRE RATED ENCLOSURE - ELECTRICAL CONNECTIONS MUST BE MADE WITHIN A FIRE RATED ENCLOSURE - COMPLIANCE IS THE RESPONSIBILITY OF THE LUMINAIRE MANUFACTURER)

LABELS

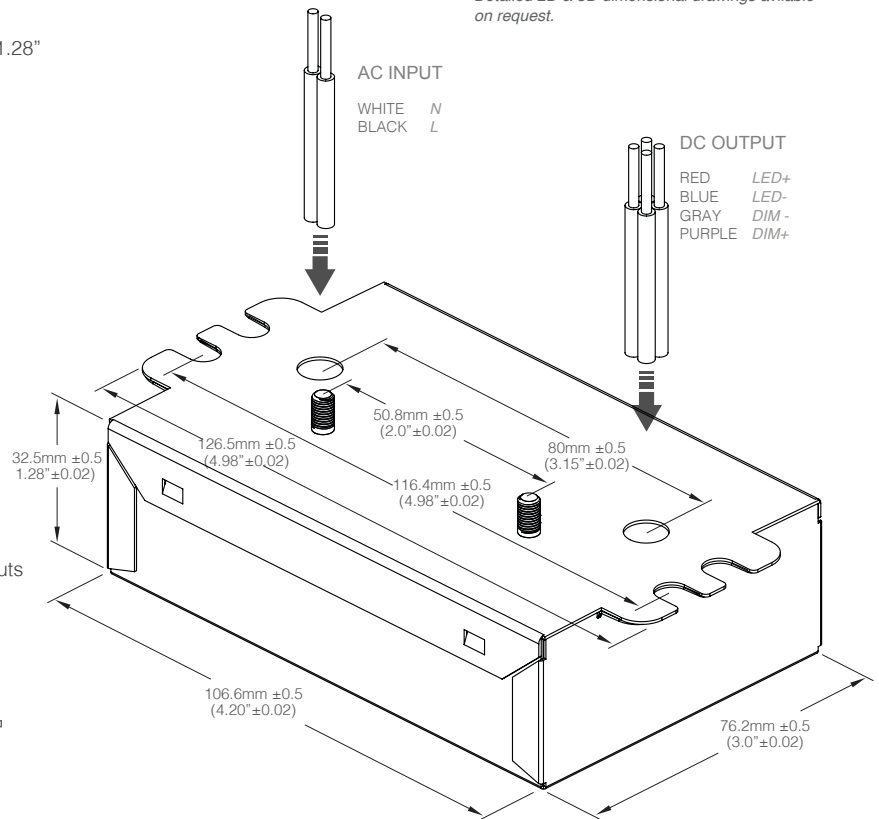
Example Label



BOTTOM EXIT WIRE PACKAGE (DEU)

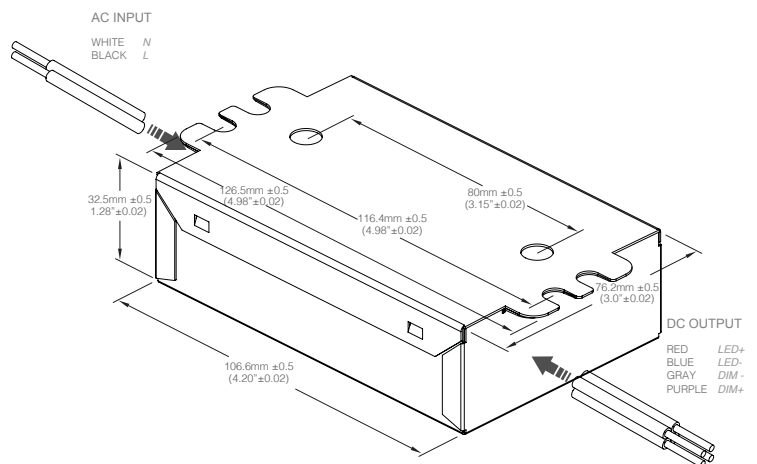
ORDER CODE: XEL-040DEU

Detailed 2D & 3D dimensional drawings available on request.



SIDE EXIT WIRE PACKAGE (DBU)

ORDER CODE: XEL-040DBU



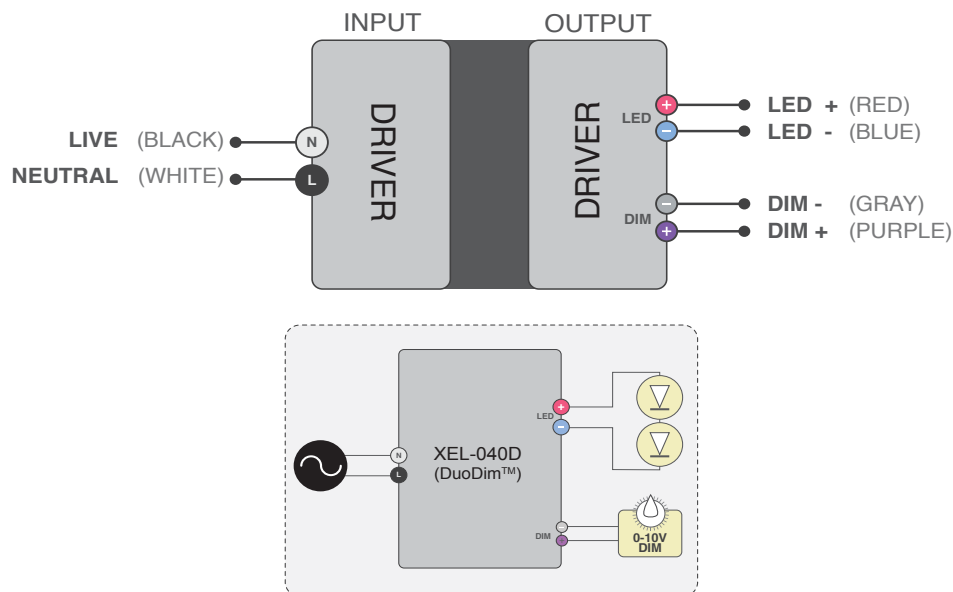
The information and specifications contained in this summary sheet are believed to be accurate and reliable at the time of publication, however Xenerqi Limited assumes no responsibility for damages caused due to potential errors. Also, Xenerqi Limited assumes no responsibility for the use of this product in such a way that it infringes on patents or other rights of third parties. No license is granted by implication or otherwise under any patent rights of Xenerqi Limited. Specifications are subject to change without notice.

Specification Data

Output³	Power Range	25~45W MAX (See Available Models for variant specific data)
	Current Range	0.80~1.05A (Not Dimmed - See Available Models for variant specific data)
	Output Voltage Range	24~42Vdc (Full Power 30 ~ 42dc)
	Optimized Vf Range ⁶	36~38Vdc (For 42 max) / 28~30Vdc (For 32 max)
	Line Regulation ³	±5%
	Load Regulation ³	±5%
	Turn On/Off Time	500ms
Input	Voltage Range ⁴	120 ~ 277Vac Nominal (108 ~ 305Vac Operational)
	Max Input Power	37W
	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	<TBCA @120V (per ANSI test method. Compliant with NEMA410-2015)
		<TBCA @277V (per ANSI test method. Compliant with NEMA410-2015)
Dimming⁸	Mode A	DC Dimming Control: 0-10Vdc (5%) Sink / Source
	Mode B (Phase Cut) ⁹	TRIAC/ELV/MLV Phase Cut Dimming (1%)
	TRIAC Support	Forward Reverse Phase & ELV Dimmers
	0-10V Source Current	260µA (Isolated)
	Compatibility	IEC Compliant. Linear curve
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 ~ 55°C ambient ¹ (Tc rated for 85°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
	Vibration & Impact Resistance	3 ~ 50Hz 1g (for 30 minutes) / 1 g/s (Impact Resistance)
	Operating Life	50,000 Hours (at 95% max power, Tc < 75C) (Higher Operating Temperature Model Available - Contact Sales)
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 B (Class A @ 277V) CAN ICES (A) (B @ 277V) / NMB-005 (A) (B @ 277V) 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 For applications with higher surge protection requirements, pair with XenerQi's lighting optimized surge protectors: 10K Surge Protection: XEL-PA10S-277 / XEL-SU10C-277 20K Surge Protection: XEL-PA20S-277 / XEL-SU20C-277

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Typical Application & Wiring Diagram



Ordering Codes & Available Models

ORDER CODE ('X' indicates type/feature selection)

XEL-040DXU-CAAAA-042-DNT01P

E: Bottom Exit Wires Case
B: Side Exit Wires Case

Current Rating
(see model table below)

CASE OPTIONS:

BOTTOM / SIDE EXIT WIRES

XEL-040D**E**

XEL-040D**B**



Part Number / Ordering Codes (Replace X with case choice)		Output Current (mA)	Output Voltage Range (V)	Maximum Efficiency ^{6,7}	Max Output (W)
FIXED Output Current Variants	XEL-040D X U-C1X05-038-DNT01P	1050	28 ~ 38	89.0%	39.9W
	XEL-040D X U-CX900-042-DNT01P	900	26 ~ 42	88.0%	37.8W
	XEL-040D X U-CX800-042-DNT01P	800	26 ~ 42	87.0%	33.6W
Customized Variants available upon request. Replace 'X' with required feature alphanumeric when ordering.					

¹ Ambient is estimated. Actual temperatures determined by trigger point temperature at driver hotspot. Assumed case is correctly mounted on flat surface.

² Warranty refers to operation for conditions listed under "Operating Life". For specific warranty details refer to XenerQi published warranty document.

³ Parameters guaranteed only over nominal input range.

⁴ Shutdown requires power cycle to recover.

⁵ Units optimized for LED load Vf as per "Optimized Vf" value in specification data. If not value is specified 36 or 42Vf nom is assumed.

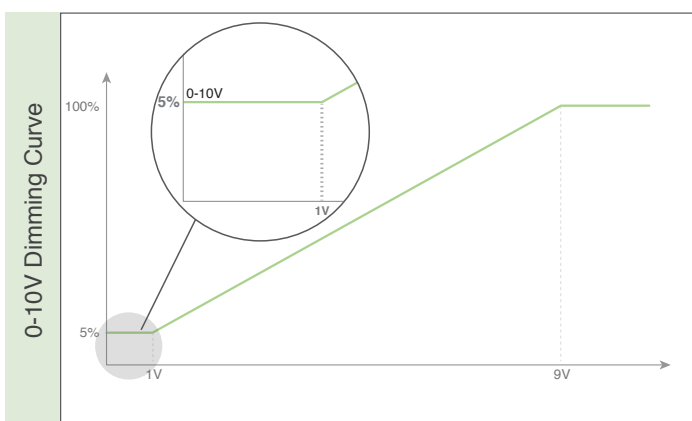
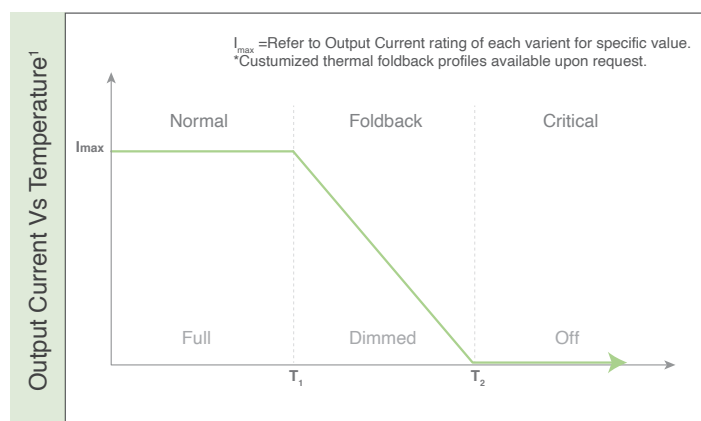
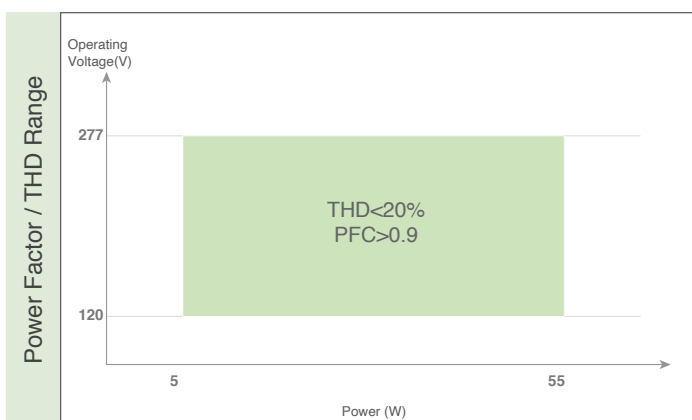
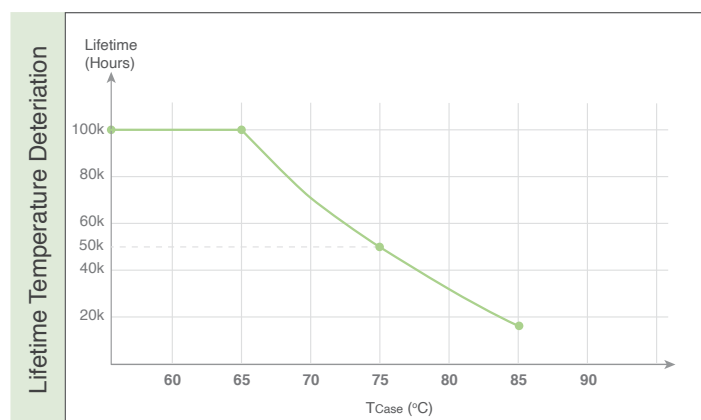
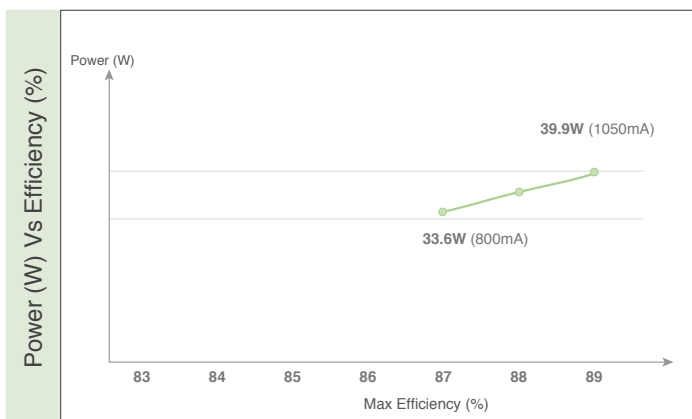
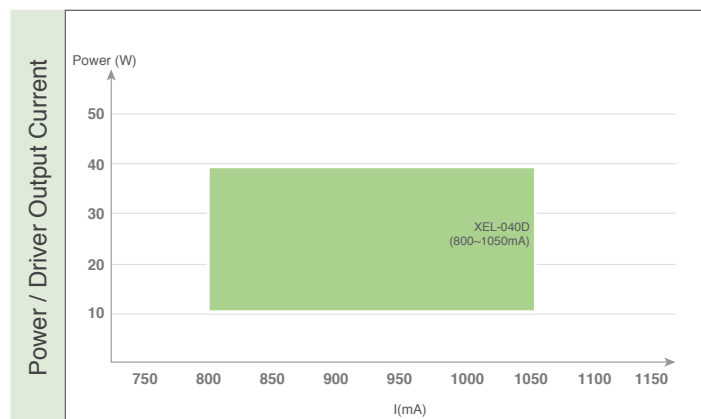
⁶ Tested under two conditions: with & without dimmer connected.

⁷ Value listed is family maximum or minimum best case value as appropriate & can vary depending on part number.

⁸ Driver is designed to meet the 2019 flicker recommendations from IEEE/NEMA with an emphasis on human factors engineering. When the driver is utilized with the appropriate LED load and conditions, the Luminaire should be able to meet IEEE-1789 recommendations for Green/Low-Risk.

⁹ Dimming performance may vary depending on brand and make of dimmer used as well as number of drivers connected to it.

Operation Performance-Family



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