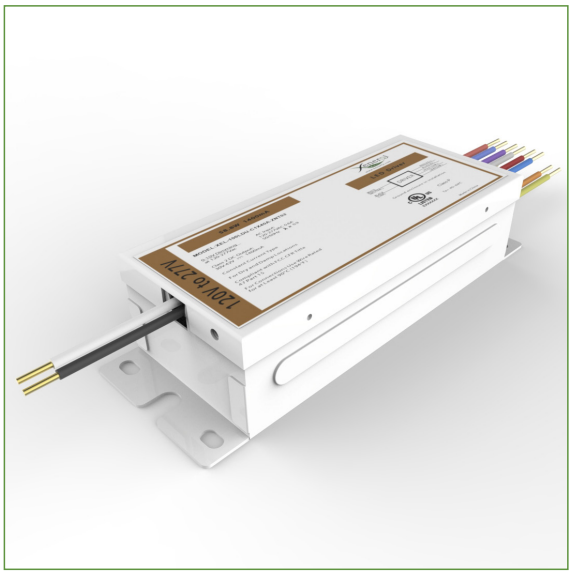
XEL-070LDU
Industrial / Outdoor Commercial Series

75W (Class 2), **75W** (HV) Output LED Driver Family
0-10V, 10% Dimming

PRELIMINARY SPECIFICATION

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 (%)
120~277Vac	75W (Class 2) 75W (HVout)	30~150Vdc	0.50~1.75A	up to 91% (typical)	90°C	< 20%	> 0.9	0-10V (Isolated Sink / Source)	10-100% (% of Iout)



- **Ideal for Industrial & Outdoor Lighting**
- **Universal AC input (108~305Vac)**
- **10% Dimming (0-10V)**
- **Built-in 6kV Commercial grade Surge protection**
- **Enables DLC compliant fixtures**
- Turn on/off in less than 750 miliseconds
- Class A Noise Rating
- Integrated over voltage, over current, short circuit and temperature protection
- Turn on & Full power operation between -40°C to +55°C ambient (see avaialble model table for variant specifics)[1]
- XenerQi Industry Leading 5 Year Warranty
- Class 2 Power Supply*
- Fixed, RSET & Programmable variants available
- Complies to FCC CFR Title 47 Part 15

*Class 2 Output applies to units where the output voltages is less than 60V

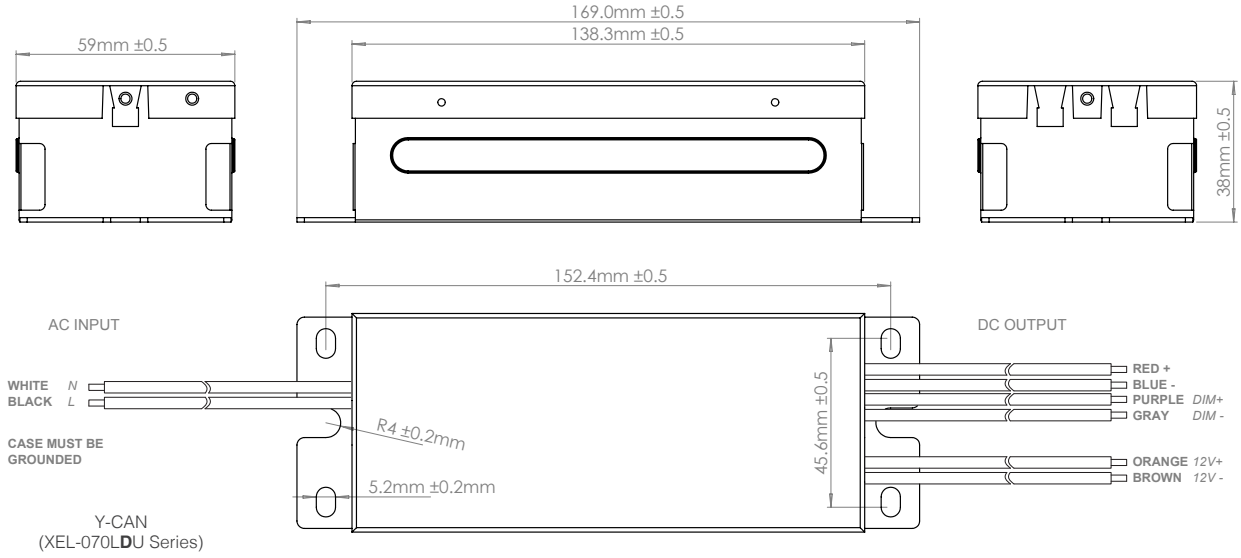
Variants available:
-Units <50W

XEL-045L

Typical Applications

Mechanical Drawings-Dimensions

(not to scale)



Case		Wire Dimensions	
Material	STEEL	**Wire Gauge**	18AWG
Unit Weight	TBC	**Wire Length**	152.4mm (±3mm) / 6" (±0.12")
Dimensions (Var 1)	169mm x 59mm x 38mm / 6.65" x 2.3" x 1.5"	**Strip Length**	9.5mm (±0.5mm) / 0.375" (±0.02")
		Recommended Fixings	2x M5*10mm / 10-24*3/8" Fastners

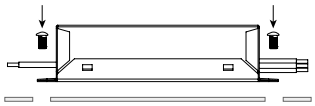
Installation Guide

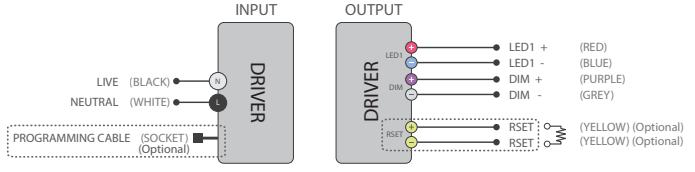
Mounting & Wiring Diagrams

WARNING: TO REDUCE THE RISK OF FAILURE / INJURY:
DRIVER MUST BE INSTALLED IN LUMINAIRE IN ACCORDANCE WITH THE LOCAL CODES.
DRIVER CASE MUST BE ELECTRICALLY GROUNDED.

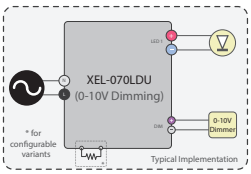
FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY AND/ OR DAMAGE TO THE SYSTEM.

Fix using 2 recommended fastners (see above) for secure mounting.





Configurable variants are set up by connecting a resistor between the two yellow RSET wires.



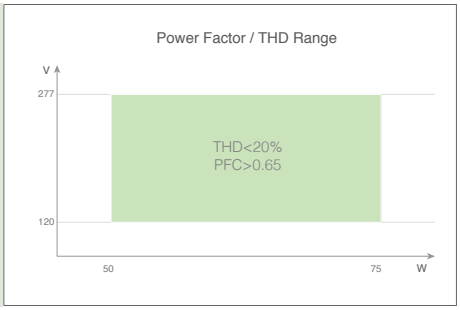
Wires	Colors	Type	Wires	Colors	Type
Input	White (Neutral)	UL1015 AWG 18	**Dimming**	Purple (Dim +)	UL1015 AWG 18
	Black (Line)	UL1015 AWG 18		Grey (Dim -)	UL1015 AWG 18
Output	Red (Positive)	UL1430 AWG 18	**RSET** (Optional)	Yellow	UL1430 AWG 18
	Blue (Negative)	UL1430 AWG 18		Yellow	UL1430 AWG 18

Specification Data

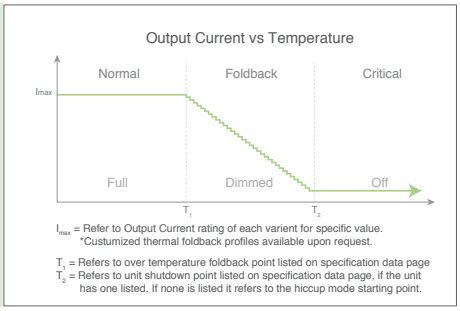
Output	Rated Power	75W (Class 2) / 75W (HVout)
	Optimized Vf Range[6]	38 ~ 41 Vdc (for Class 2)
	Line Regulation[2]	±5%
	Load Regulation[2]	±5%
	Turn On/Off Time	< 750ms (at full load)
Input	Voltage Range[3]	120 ~ 277Vac Nominal (108 ~ 305Vac Operational)
	Frequency Range	47 ~ 63 Hz
	Power Factor	PFC > 0.9 at ≥ 60% of full power [3]
	THD	THD < 20% at ≥ 60% of full power [3]
	Typical Inrush Current	< TBC (per ANSI test method. Compliant with NEMA410-2015)
Dimming	Modes	DC Dimming control: 0-10Vdc (10%) Sink/ Source
	0-10V Source Current	260μA
	Compatibility	IEC Compliant. Customized dimming curves available upon request
Protection	Short Circuit	Auto-restart (after fault removed)
	Over Voltage	Vout < 60V (Class-2); HVout < 1.2 x Vout MAX
	Over Current	Inherently limited over operational range
	Over Temperature	Current foldback at hotspot greater than 85°C (shut down at <100°C) [4]
Environment	UL Tcase Rating	Tc = 90°C
	Working Temperature	LDU: -40°C ~ 55°C ambient [1] (Hotspot rated for 85°C)
	Working Humidity	20% ~ 90% RH non-condensing
	UL Rating	Dry / Damp location use, Type HL
	Storage Temperature	-40°C ~ 85°C ambient
	Storage Humidity	10% ~ 90% RH non-condensing
	Impact Resistance	1 g/s
	Vibration	3 ~ 50Hz 1g
	Operating Life	50,000 Hours (at 95% max power, Hotspot < 75°C)
Safety & EMC	Safety Standards	UL8750, Class 2 (UL1310), Class P rated
	Noise Rating	Class A (Less than 24dB measured at 1 meter) [2,6]
	EMI Conduction & Radiation	Compliant with FCC CFR Title 47 Part 15 Class A
	EMC Susceptibility	EN61000-4-3, EN61000-4-2, EN61000-4-4
	Transient Immunity	6kV/3kA Combination, 6kV Ringwave Modes: L-N, L-G, N-G

Operation Performance-Family

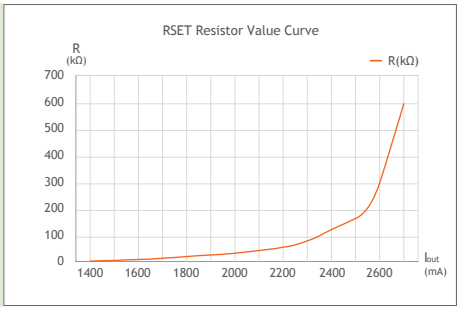
Power Factor / THD Range



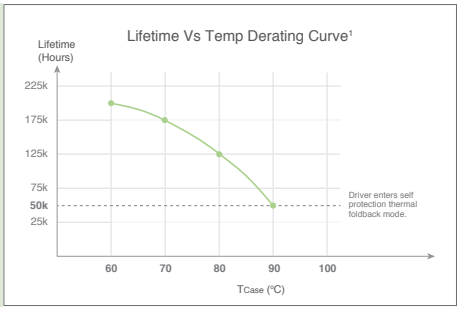
Output Current Vs Temperature



RSET Resistor Value Curve



Lifetime Vs Temp. Derating Curve



RSET Resistor Value Table

Iout (mA)	1400	1600	1900	2200	2400	2600	2700
R (kΩ)	0	8.5	27	67	130	300	600

XEL-070LDU-C**XXXX**X-**XX**X01

- **A**: 12Vdc Auxiliary
  N: No Auxiliary
- **P**: Programmable Output Current
  R: RSET Output Current Setting
  Y: Fixed Output Current
- **G**: 42V MAX / **E**: 48V MAX
  X: 100V MAX / **Y**: 150V MAX
- **XXXX**: Current Rating
  (See Available Model Table)

Available Models

	Part Number	Output Current (mA)	Output Voltage Range (V)	Maximum Efficiency [6]	Ta [1] (°C)	Max Output (W)
RSET Ouput Current Variants	XEL-070LDU-C1X75G-RNT01	1750	30 ~ 42	90%	55C	75.5W
	XEL-070LDU-C1X50E-RNT01	1050	30 ~ 48	90%	55C	67.0W
Fixed Ouput Current Variants	XEL-070LDU-C1X75G-YNT01	1750	30 ~ 42	90.0%	55C	73.5W
	XEL-070LDU-C1X40E-YNT01	1400	36 ~ 48	89.0%	55C	67.0W
	XEL-070LDU-C1X05E-YNT01	1050	36 ~ 48	88.0%	55C	50.5W
	XEL-070LDU-CX750X-YNT01 (non Class 2)	750	70 ~ 100	90.5%	55C	75.0W
	XEL-070LDU-CX500Y-YNT01 (non Class 2)	500	100 ~ 150	91.0%	55C	75.0W
	Customized Variants available upon request.					

[1] Ambient is estimated. Actual temperatures determined by trigger point temperature at driver hotspot. Assumed case is mounted on flat surface.
[2] Guaranteed only within nominal input range.
[3] Critical parameters guaranteed over nominal input range.
[4] Shutdown requires power cycle to recover.
[5] 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.
[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.