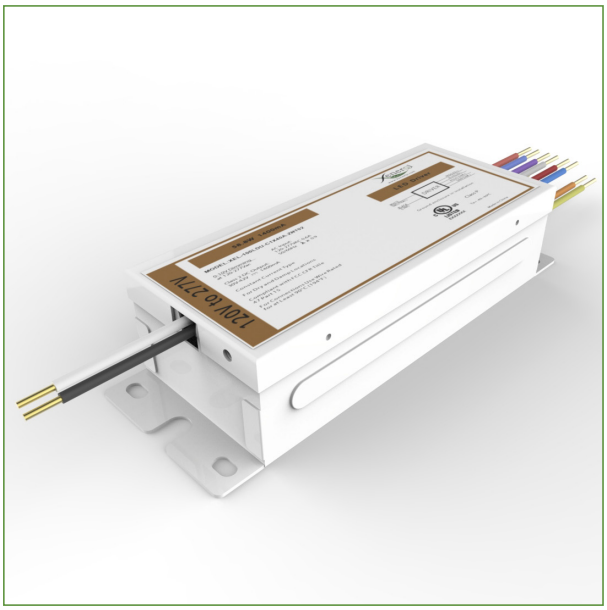
XEL-100L(D/F)U
Industrial / Outdoor Commercial Series

100W (Class 2), **125W** (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)	Efficiency (%)	UL Max Case Temp. Tc (°C)	THD (%)	Power Factor	Dimming Method	Dimming Range (%)
120~277Vac	100W (Class 2) 125W (HVout)	30~150Vdc	0.70~2.75A	up to 90.5% (typical)	90°C	< 20%	> 0.9	0-10V (Isolated Sink / Source)	10-100% (% of Iout)



DIMMING DOWN TO 10% | c UL LISTED | CLASS P DRIVER | FC | 5 YEAR WARRANTY | RoHS | TYPE HL

Variants available:
-Units <75W

XEL-070L

- **Ideal for High Bay & Outdoor Lighting**
- **Universal AC input (108~305Vac)**
- **10% Dimming (0-10V)**
- **Built-in 6kV Commercial grade Surge protection**
- **Enables DLC compliant fixtures**
- Auxiliary Always-On Output (optional)**
- 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 +65°C ambient (see avaialble model table for variant specifics)[1]
- XenerQi Industry Leading 5 Year Warranty
- Class 2 Power Supply*
- Fixed & Programmable variants available
- RSET current setting (optional)
- Complies to FCC CFR Title 47 Part 15

*Class 2 Output applies to units where the output voltages is less than 60V
**Only available on XEL-100LFU variants

Typical Applications

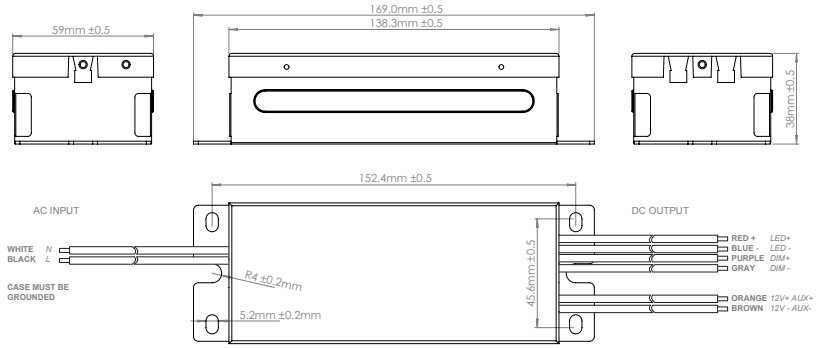
sales@xenerqi.com
www.xenerqi.com

Revision No#: 003K-18-09

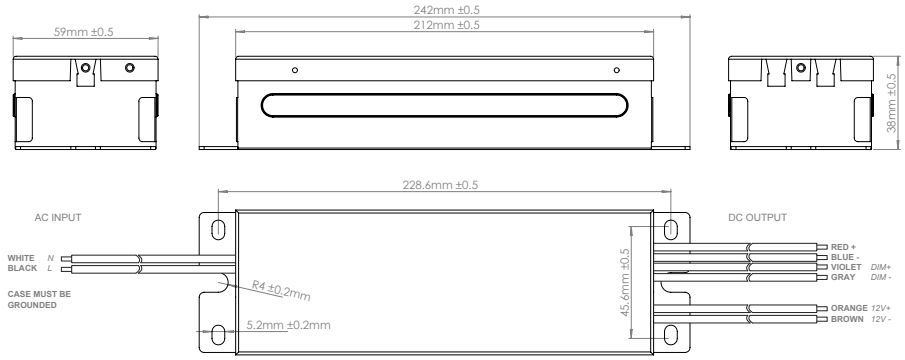
Mechanical Drawings-Dimensions

(not to scale)

VARIANT 1: Y-CAN
(see XEL-100L**DU** Series)



VARIANT 2: F-CAN
(see XEL-100L**FU** Series)
Enhanced Thermal Protection



Case		Wire Dimensions	
Material	STEEL	**Wire Gauge**	18AWG
Unit Weight	TBC	**Wire Length**	152.4mm (±3mm) / 6” (±0.12”)
Dimensions ‘D’ (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”)
Dimensions ‘F’ (Var 2)	242mm x 59mm x 38mm / 9.5” x 2.3” x 1.5”	**Recommended Fixings**	2x M5*10mm / 10-24*3/8” Fastners

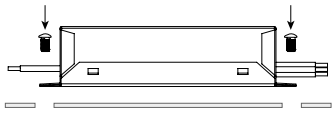
Installation Guide

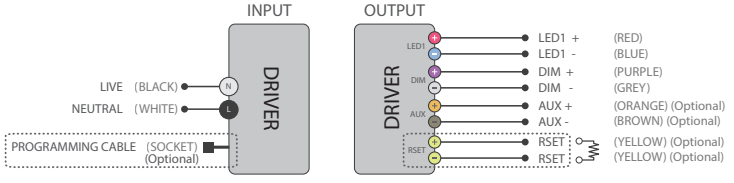
Mounting & Wiring Diagrams

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.

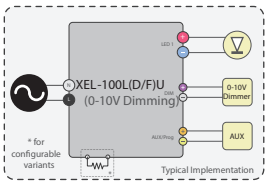
FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY AND/ OR DAMAGE TO THE SYSTEM.

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.



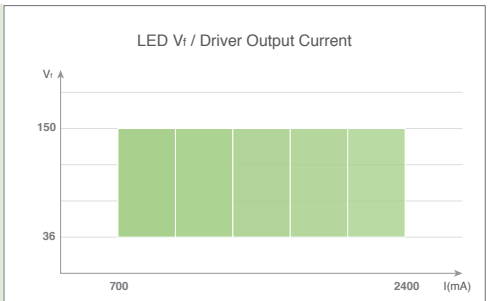
Wires	Colors	Type	Wires	Colors	Type
Input	White (Neutral)	UL1015 AWG 18	**Dimming**	Purple (Dim +)	UL1015 AWG 18
	Black (Line)	UL1015 AWG 18		Grey (Dim -)	UL1015 AWG 18
Output	Red (Positive)	UL1430 AWG 18	**Auxiliary** (Optional)	Orange (+)	UL1430 AWG 18
	Blue (Negative)	UL1430 AWG 18		Brown (-)	UL1430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

Specification Data

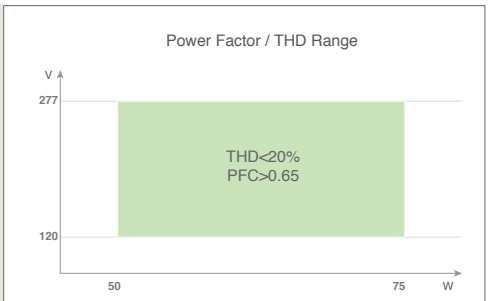
Output	Rated Power	100W (Class 2) / 125W (HVout)
	Optimized Vf Range[6]	38 ~ 41 Vdc (for Class 2)
	Line Regulation[2]	±5%
	Load Regulation[2]	±5%
	Turn On/Off Time	< 750ms (at full load)
Input	Voltage Range[3]	120 ~ 277Vac Nominal (108 ~ 305Vac Operational)
	Frequency Range	47 ~ 63 Hz
	Power Factor	PFC > 0.9 at ≥ 50% of full power [3]
	THD	THD < 20% at ≥ 50% 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)
	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 (Hotspot rated for 85°C)[1] LFU: -40°C ~ 65°C ambient (Hotspot rated for 85°C)[1]
	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
Auxiliary Output* (*optional on XEL-100LFU only)	DC Voltage	12V (24V/5V available on request)
	Maximum Current	250mA continuous (300mA peak)
	Line/Load Regulation	< 5%
	Noise/Ripple	< 100mV
	Turn On Time	< 350ms
	Standby Power	< 750mW

Operation Performance-Family

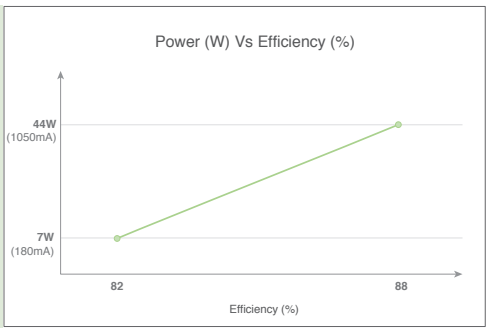
LED Vf / Driver Output Current



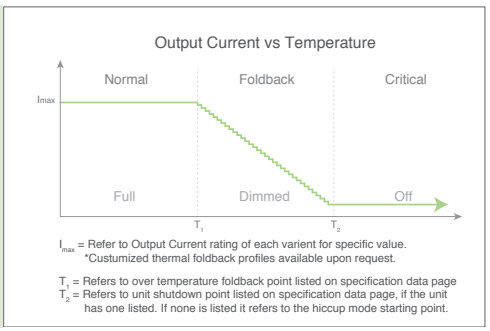
Power Factor / THD Range



Power (W) Vs Efficiency (%)



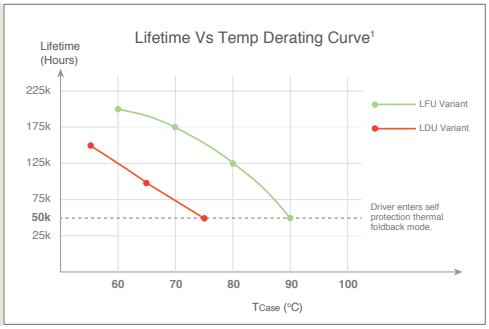
Output Current Vs Temperature



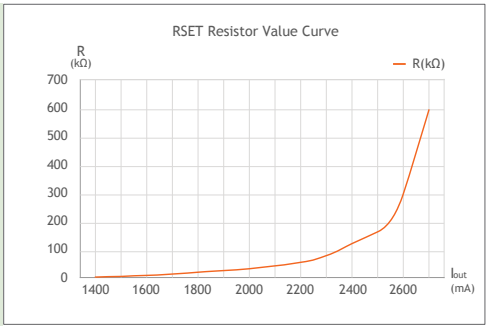
I_{max} = Refer to Output Current rating of each varient for specific value.
*Custumized thermal foldback profiles available upon request.

T_1 = Refers to over temperature foldback point listed on specification data page
T_2 = Refers to unit shutdown point listed on specification data page, if the unit has one listed. If none is listed it refers to the hiccup mode starting point.

Lifetime Vs Temp. Derating Curve



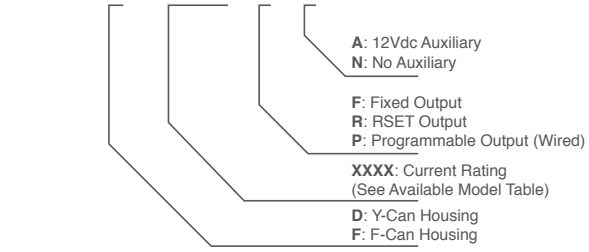
RSET Resistor Value Curve



RSET Resistor Value Table

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

ORDER CODE:
XEL-100L**X**U-C**XXXX**X-**X**XX**X**-A01



Available Models

	Part Number	Output Current (mA)	Output Voltage Range (V)	Maximum Efficiency [6]	Ta [1] (°C)	AUX / RSET (Optional)	Max Output (W)
RSET Ouput Current Variants (LDU/LFU)	XEL-100LDU-C2X40G-RYAN-A01	*2400*	*30 ~ 42*	*90.0%*		✓	*100.0W*
	XEL-100LDU-C2X08E-RYAN-A01	2080	36 ~ 48	90.0%	55C	✓	100.0W
	XEL-100LFU-C2X40G-RYAN-A01	2400	*30 ~ 42*	90.0%	55C	✓	100.0W
	XEL-100LFU-C2X08E-RYAN-A01	2080	36 ~ 48	90.0%	55C	✓	100.0W
Programmable Ouput Current Variants	*XEL-100LFU-C2X40G-PYAN-A01*	*2400*	*30 ~ 42*	*90.0%*			*100.0W*
Fixed Ouput Current Variants (100LDU)	XEL-100LDU-C2X40G-FYAN-A01	2400	30 ~ 42	90.0%	55C	✓	100.0W
	XEL-100LDU-C2X08E-FYAN-A01	2080	36 ~ 48	90.0%	55C	✓	100.0W
	XEL-100LDU-C1X90E-FYAN-A01	1900	36 ~ 48	90.0%	55C	✓	91.0W
	XEL-100LDU-C1X00X-FYAN-A01 (non Class 2)	1000	60 ~ 100	90.5%	55C	✓	91.0W
	XEL-100LDU-CX700Y-FYAN-A01 *(non Class 2)*	*700*	*100 ~ 150*	*91.0%*	*55C*	✓	*105.0W*
Fixed Ouput Current Variants (100LFU)	XEL-100LFU-C2X75J-FYAA-A01	2750	30 ~ 36	90.0%	65C	✓ ✓	100.0W
	XEL-100LFU-C2X40G-FYAN-A01	2400	30 ~ 42	90.0%	65C	✓ ✓	100.0W
	XEL-100LFU-C2X08E-FYAN-A01	2080	36 ~ 48	90.0%	65C	✓ ✓	100.0W
	XEL-100LFU-C1X90E-FYAN-A01	1900	36 ~ 48	90.0%	65C	✓ ✓	91.0W
	XEL-100LFU-C1X00X-FYAN-A01 (non Class 2)	1000	70 ~ 100	90.5%	65C	✓ ✓	100.0W
	XEL-100LFU-CX700Y-FYAN-A01 *(non Class 2)*	*700*	*100 ~ 150*	*91.0%*	*65C*	✓ ✓	*105.0W*
	Customized Variants available upon request // *Units in italics are in pre-release*						

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.

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

--- PAGE LEFT BLANK FOR MARKETING PURPOSES---