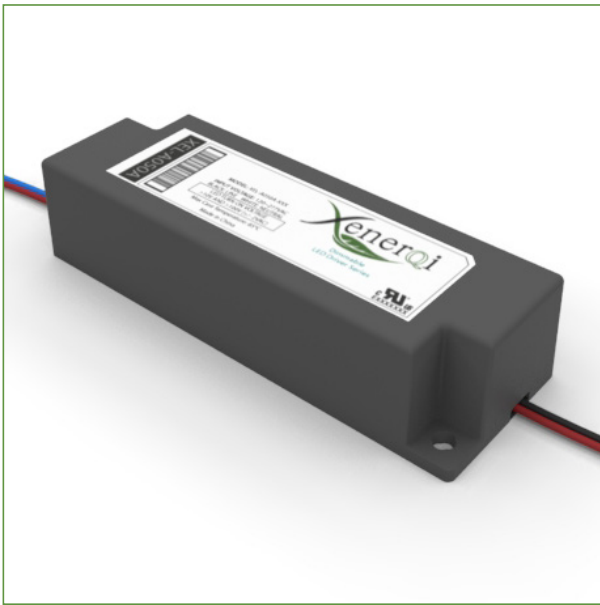




XEL-A050A

Single Output Dimmable LED Driver Series

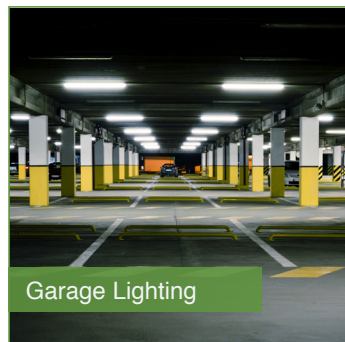
50W LED Driver Family
0-10V, 5% Dimming



- ✔ Ideal for Garage, Canopy, Street and Flood lighting
- ✔ Designed for continuous 24/7 use in outdoor luminaires
- ✔ DLC (DesignLight Consortium®) compliant
- ✔ Universal AC input (108~305Vac)
- ✔ DC Dimming (0-10V)
- ✔ Complies to FCC CFR Title 24 Part 15, Class B
- ✔ Class A Noise Rating
- ✔ Class 2 power supply (UL8750)
- ✔ Built-in Commercial Grade Surge Suppression
- ✔ Integrated over voltage, over current, short circuit and temperature protection
- ✔ Full power operation between -40°C to +55°C ambient with -40°C cold start
- ✔ Enables luminaire to meet market requirements (PFC, THD, flicker & lifetime)
- ✔ Turn on/off in less than 0.75 seconds
- ✔ Suitable for indoor and outdoor applications
- ✔ 5 year warranty

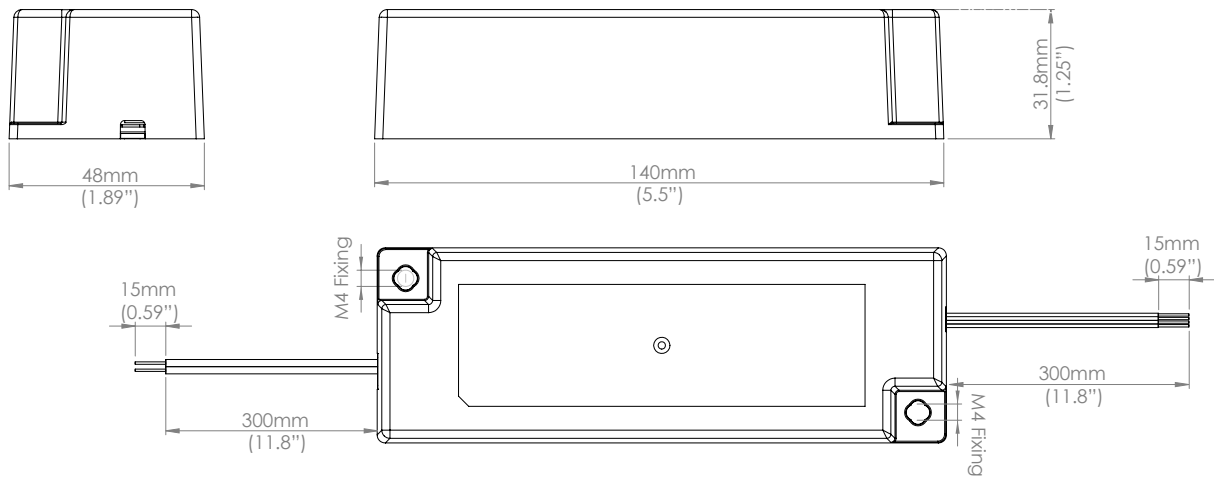
Typical Applications

See product specific data pages for all details



Mechanical Drawings-Dimensions

(not to scale)



Case		Wire Dimensions	
Material	Black/White Plastic (94 V0)	Wire Gauge	18AWG
Unit Weight	360g	Wire Length	300mm (±20mm)
Dimensions	140mm x 48mm x 31.8mm	Strip Length	10mm (±2mm)
Fixings	2x M4 Screws		

Available Models

Customized variatiants available upon request

	Part Number	Output Current (A)	Output Voltage Range (V)	Line/Load Registration	Maximum Efficiency	Max Output (W)
Constant Current Variants	XEL-A050A-024-C2X10-Z	2.10	15 ~ 24	±5%	83%	50.0W
	XEL-A050A-024-C2X00-Z	2.00	16 ~ 24	±5%	83%	48.0W
	XEL-A050A-024-C1X80-Z	1.80	16 ~ 24	±5%	83%	43.2W
	XEL-A050A-030-C1X66-Z	1.66	22 ~ 31	±5%	84%	50.0W
	XEL-A050A-036-C1X40-Z	1.40	24 ~ 36	±5%	84%	50.0W
	XEL-A050A-042-C1X20-Z	1.20	26 ~ 42	±5%	84%	50.0W
	XEL-A050A-052-C1X00-Z	1.00	36 ~ 52	±5%	84%	52.0W
	XEL-A050A-042-CX700-Z	0.70	26 ~ 42	±5%	85%	30.0W
	XEL-A050A-042-CX500-Z	0.50	26 ~ 58	±5%	85%	24.0W
	XEL-A050A-042-CX350-Z	0.35	26 ~ 58	±5%	84%	20.0W
	XEL-A050A-042-CX250-Z	0.25	26 ~ 58	±5%	83%	14.0W

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

Output	DC Voltage Range	15 ~ 58 VDC (see available parts table for details)
	Rated Current Range	0.25~2.1 A (not dimmed - see specific model pages)
	Rated Power	up to 52W
	LineRegulation ¹	±5%
	Load Regulation ¹	±5%
	Turn On/Off Time	< 750ms (at full load)
Input	Voltage Range ²	120 ~ 277VAC Nominal (108 ~ 305VAC Operational)
	Frequency Range	50 ~ 60Hz
	Power Factor	PFC > 0.90 at ≥ 75% of full power over nominal input range
	THD	THD < 20% at ≥ 75% of full power over nominal input range
	Typical Inrush Current	< 15A @ 25°C, 120VAC (cold start with full load)
Dimming	Modes	DC Dimming control: 0-10Vdc (5%) Sink/Source
	0-10V Source Current	260µA
	Compatibility	IEC Compliant. Customized dimming curves available upon request
Protection	Short Circuit	Auto Restart
	Over Voltage	V _{OUT} < 60V (Class 2)
	Over Current	Inherently limited over operational range
	Over Temperature	Current foldback at hotspot > 85°C (shut down after reaching T _{critical}) ⁴
Environment	Working Temperature	-40°C ~ +55°C ambient (Hotspot rated for 90C) ³
	Working Humidity	20% ~ 90% RH non-condensing
	UL Rating	Dry, Damp & Wet location use (IP65 Compliant)
	Storage Temperature	-40°C ~ +85°C ambient
	Storage Humidity	10% ~ 90% RH non-condensing
	Impact Resistance	1 g/s
Vibration	5~500Hz 5g 12 min/1 cycle period (for 30 min each axis)	
Safety & EMC	Noise Rating: Class A	UL8750, Class 2 (UL1310), CE
	EMI Conduction & Radiation	Compliance to FCC CFR Title 47 Part 15 Class B at 120VAC and Class A at 277VAC, and EN55014
	EMI Immunity	Compliance to EN61000 and ENEN55014
	Transient Immunity	4kV/2kA Combination, 4kV Ringwave

¹ Guaranteed only within nominal input range

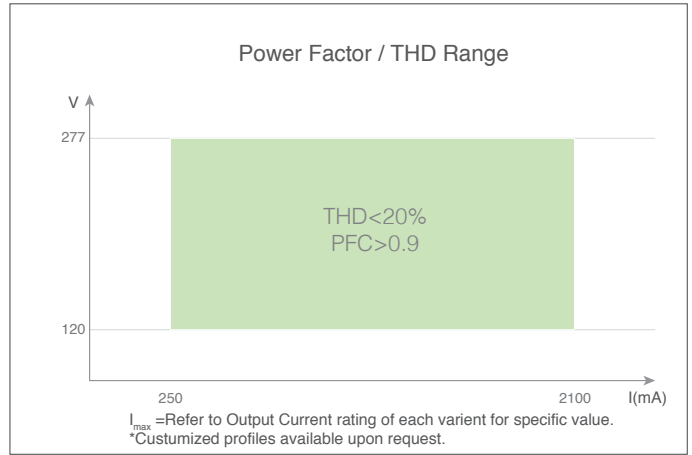
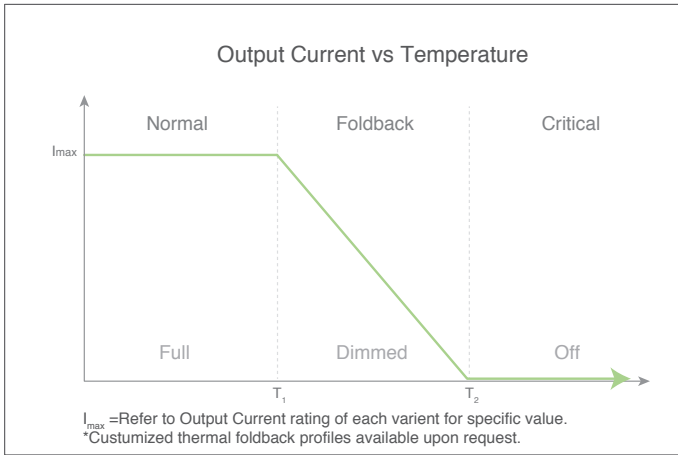
² Critical parameters guaranteed over nominal input range

³ Ambient is estimated. Trigger point is based on actual temperature at hotspot

⁴ Shutdown requires power cycle to recover

Operation Performance-Family

Graphical Data Plots



Installation Guide

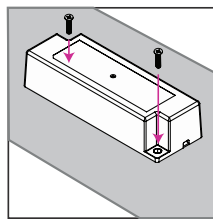
Wiring & Mounting Diagrams



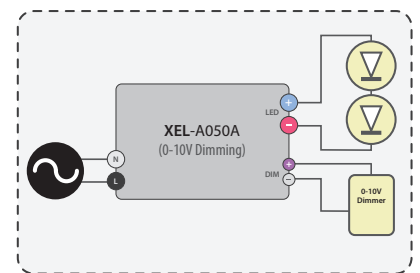
WARNING: TO REDUCE THE RISK OF FAILURE / INJURY:

LUMINAIRE MUST BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LOCAL CODES.

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



Fix using 2 M4 screws and 2 M4 nuts for recommended mounting.



Wires	Colours	Type	Wires	Colours	Type
Input	White (Neutral)	UL1015 AWG 18	Dimming	Purple (Dim +)	UL1430
	Black (Line)	UL1015 AWG 18		Grey (Dim -)	AWG 18
Output	Red (Positive)	UL1430 AWG 18			
	Black (Ground)	UL1430 AWG 18			