XLAV80

Constant Voltage Dimmable LED Driver

XLAV80-SSB XLAV80-SI

Linear Lighting Pro Dimmable Series XLAV80

The Linear Lighting Pro Series is the ideal, dimmable powering solution for linear lighting applications. The XLAV80 is a 80W UL Class II, Constant-Voltage, phase dimmable, LED driver, capable of providing full range, 0-100%, smooth, flicker-free dimming. Tested with over 70 dimmer brands on the market, this unit works with both forward/reverse phase (TRIAC/ELV) type dimmers, and is unsurpassed in dimmer compatibility and performance. This unit comes in two versions - A compact version (SI) for space constrained applications, and a UL listed version (SSB), with patent pending, integral wiring compartments for easy installation.

Features

- Wide Dimmer compatibility-supports most phase type dimmers in the market, including leading edge and trailing edge, electronic low voltage (ELV), TRIAC, and SCR dimmers.
- Dimming Range: 0-100%
- Integral 1-10V Dimming options available
- Integral wiring compartments for reduced installations costs
- Active Power Factor Correction, PF > 0.9
- Energy Star Compliant
- Built-in proection: SCP, OTP, OVP, OCP
- UL Class II, cUL, CE, FCC Title 47 CFR 15 Class B, PSE, CCC
- IP 65
- 3 years warranty

Model Selection Key

XLAV(A)80-BCV-D

- SI: Waterproof standard aluminum housing
- SSB: Aluminum housing with easy install wiring compartments
- B: 1 channel output
- C: Max Vout
- V: Voltage
- Max Output Power
- H 200-240V_{AC} Input
- L 100-120V_{AC} Input
- Series Name

Model Number		Channel(s) Output	Output					Max Output Power per Channel (W)	Rated Output Power (W)
100-120V_{AC} Models	200-240V_{AC} Models		Vout (VDC)	Loading Current (with dimmer) per Channel (A)		Loading Current (without dimmer) per Channel (A)			
				min	max	min	max		max
XLAV(L)80-112V-☒	XLAV(H)80-112V-☒	1	12	2.28	6.50	0.33	6.50	78	80
XLAV(L)80-124V-☒	XLAV(H)80-124V-☒	1	24	1.16	3.30	0.17	3.30	79.2	80

☒ = SSB: Aluminum housing with easy install wiring compartments or SI: Waterproof standard aluminum housing

* Dimming performance is not guaranteed when the loading current is below the min. value mentioned in the above table.
* UL marking: for products manufactured in Vietnam only, effective October 2020.

Input Specification

Voltage Range	Frequency Range	Max Inrush Current	Power Factor	Max Input Current:
XLAV(L) Low Input: 90-130 V_{AC} XLAV(H) High Input: 200-240V_{AC}	47-63 Hz	XLAV(L): 120V_{AC} @ 25 °C , cold start-up XLAV(H): 240V_{AC}@ 25 °C , cold start-up	0.9 min	1.1 A @ 100 V_{AC} Input

THD	<20% @ full load

Output Specification

Max Power	80 W	Noise/Ripple	10% of Rated Output Voltage*
Line Regulation	+/- 10% Max	Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition.
Current Regulation	N/A	Over Voltage Protection	105% of Voltage (typ) Min
Efficiency	80%(min)	Over Current Protection (OCP)	Voltage Reduce
Start-up Time	< 500 ms	Over Temperature Protection	Shutdown- auto recovery
Hold-up Time	0.5mS @ full load, 100V_{AC} input	Load regulation	< 5%

* All noise measurements made at the output terminals, connected to a 20MHz low pass filter.

Environmental Specifications

MTBF	Cooling	Operating Temp	Storage Temp	Relative Humidity
80,000 hours (Full load @ 25°C Ambient, Based on MIL-217F)	Convection	-40°C to 60°C (Full load)	-40°C to 85°C	5% - 95 %

Compliance / Safety

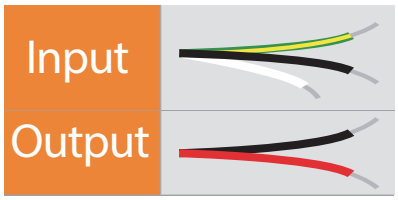
EMI/RFI	ISPR-22 Class B FCC part 15 Class B EN55015, EMC
Safety Agency	UL 1012, 1310 Class 2, UL 8750, UL 879, CSA C22.2 No.107.1 CE(IEC/EN61347-1, IEC/EN61347-2-13)
Weatherability	IP 65

Mechanical

Material:
NEMA 3 Design with aluminum extruded enclosure, with IP65 Waterproof, fully potted PCB.

Supported Dimming Options:

TRIAC/ ELV (Trailing/Leading Edge)/ SCR



UL1015 rated, 18AWG

Expected Life-time*

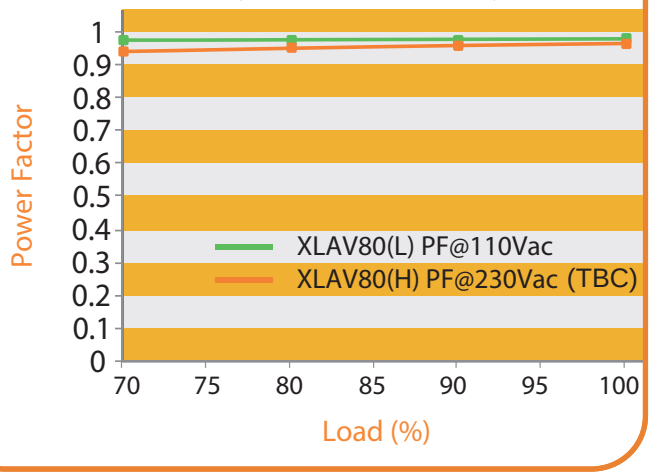
Tc	65°C	75°C
Life-time	50,000h	30,000h

*: @ Full load, based on a failure rate of < 10%

Performance Curves

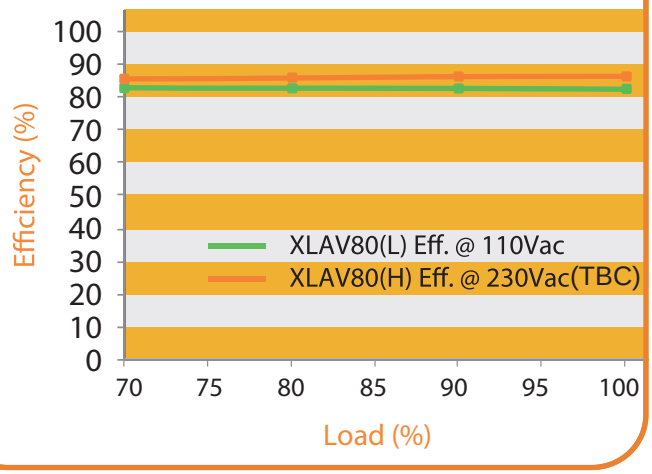
Power Factor Characteristic

(No dimmer connected)



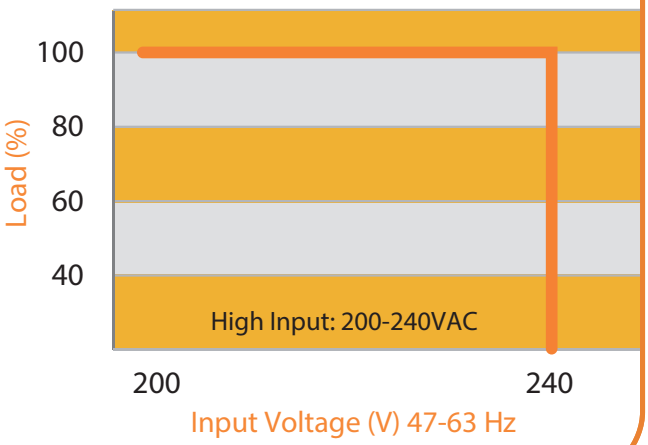
Efficiency Vs Load

(No dimmer connected)



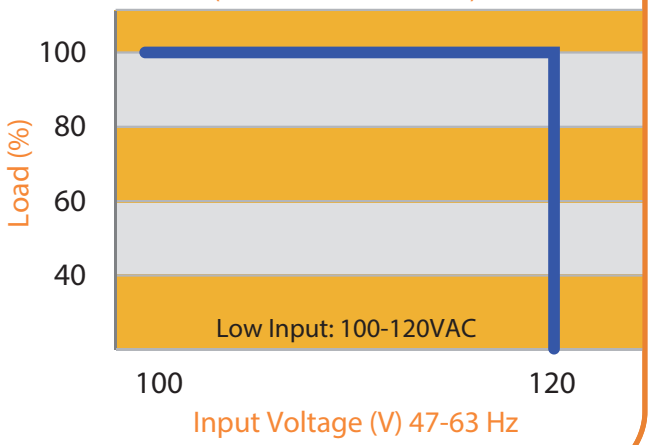
Loading Curve High

(No dimmer connected)



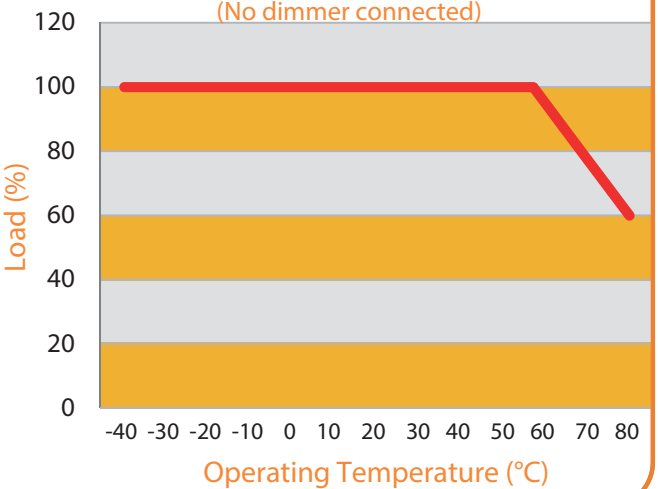
Loading Curve

(No dimmer connected)



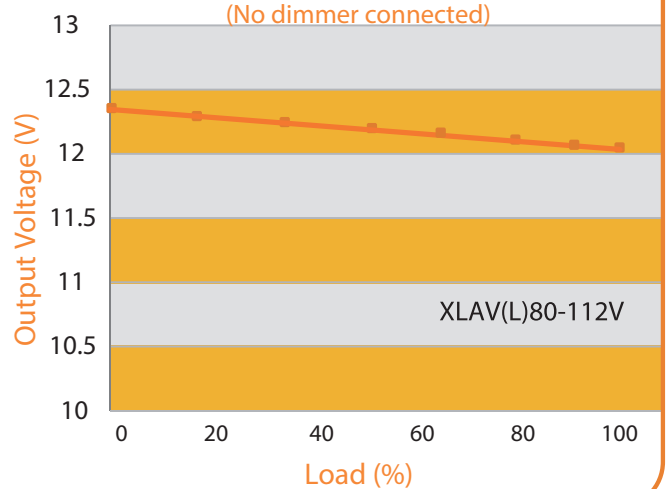
Derating Curve

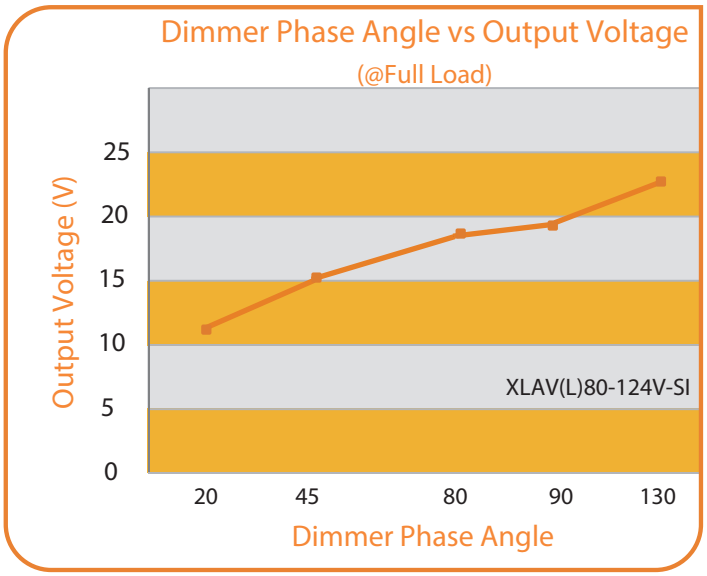
(No dimmer connected)



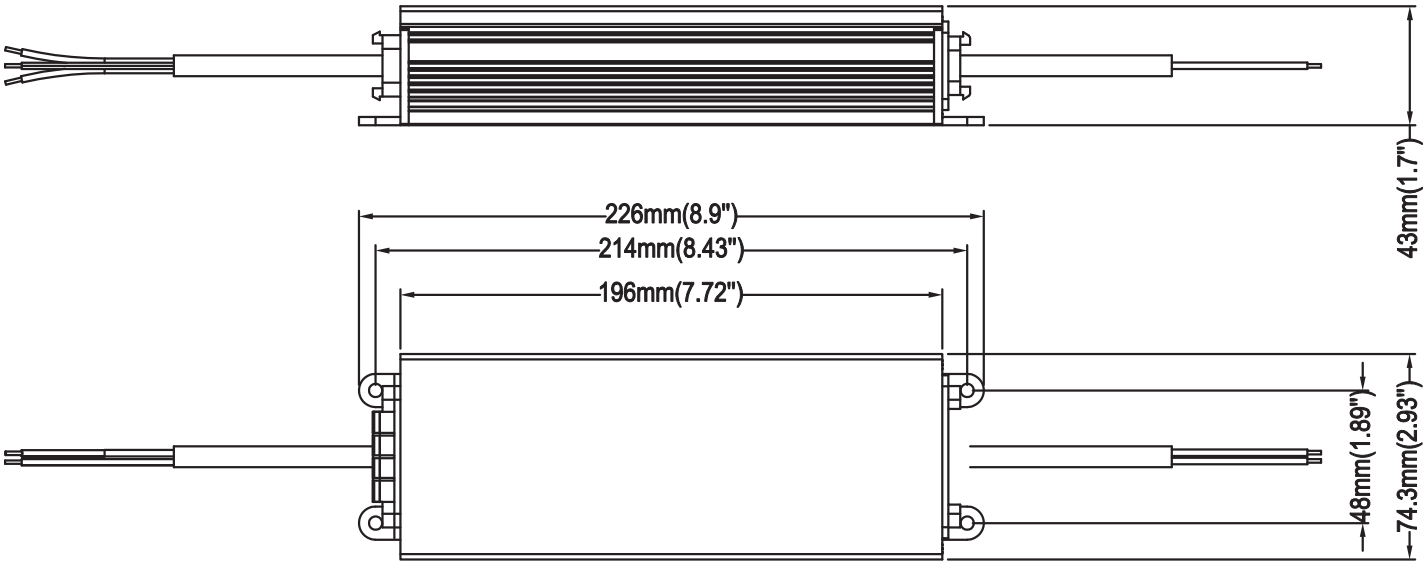
Output Voltage Vs Load

(No dimmer connected)





Mechanical and Wiring Diagrams

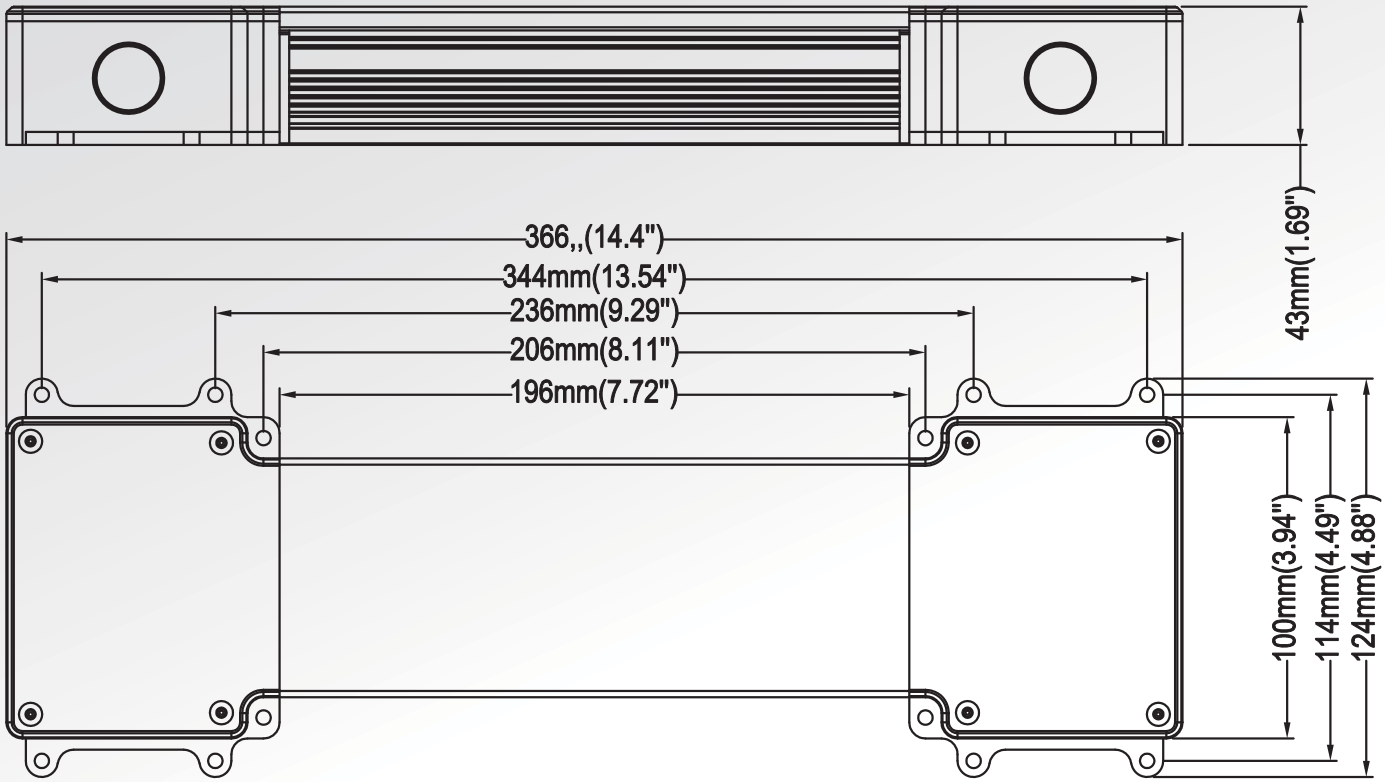


XLAV80-SI

Packing information

Weight:1.4kgs/pcs, 8.1kgs/carton;
6pcs/carton, L288xW237xH268(mm)

Mechanical and Wiring Diagrams



XLAV80-SSB

Packing information

Weight:1.4kgs/pcs, 9.9kgs/carton;
6pcs/carton, L418xW318xH267(mm)