

XLB Xenon Arc Lamp Power Supplies



The XLB series Xenon lamp ballasts are designed for the OEM customer. The XLB series is ideal for high power applications where economy is important and performance cannot be compromised.

Compact size is possible due to the low-loss Zero Voltage Switching inverter and incorporation of planar magnetics. Power factor is greater than 0.99 and conducted emissions meet stringent European regulations. No additional line filter is required to meet EN 55011 emission requirements.

The XLB Lamp Ballasts set the standard for reliable lamp ignition and long term high power operation in a low cost, compact package. All 5 models offer precision regulation and the lowest ripple specifications in the industry.

They are ideal for medical, projection and industrial applications where a stable light source is essential.



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Advantages

- Models from 650 to 5000 watts
- Ideal for OEM applications
- Reliable "Short Pulse" Ignition
- Power Factor Correction (1Ø models)
- Low conducted emissions
- Low Ripple < 0.5%

Applications

- Digital Projection
- Film Projection
- Stage Lighting
- UV Sterilization
- Search Lights
- Solar Simulators
- Medical Illumination

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Model	Pout max	Iout max	V lamp	Input Voltage	Size		
XLB-650	650 watts	35 A	30V max.	100 to 240 VAC	8.9" x 5.8" x 2.7" 226 x 147 x 69mm		
XLB-1000	1000 watts	50A	35V max.		200 to 240 VAC	10.6" x 8.2" x 3" 269 x 208 x 76mm	
XLB-1500	1500 watts	75A		35V max.		200 to 240 VAC	13.0" x 8.5" x 3.4" 330 x 215.9 x 86.4mm
XLB-2500	2500 watts	120A	50V max.		200 to 440VAC		17" x 16.6" x 3.4" 431 x 422 x 108mm
XLB-3000	3000 watts	150A		50V max.		200 to 440VAC	17.3" x 16.6" x 4.25"
XLB-5000	5000 watts	170A	50V max.		200 to 440VAC		17.3" x 16.6" x 4.25"
XLB-6500	6500 watts						

Note: Maximum output voltage is preset. Actual output voltage tracks the impedance of the lamp.

Specifications

Input Voltage: See table:
 All input voltages $\pm 10\%$, 50/60Hz
 Power Factor: $>.98$ (1Ø Models)
 Efficiency: $>80\%$

Interface

(See interface description page 3)

Connector: 15 Pin "D" Sub Female

Ignition/Boost

Boost Voltage: 250V
 Boost Energy: 500 mj.
 Ignition Voltage: Up to 45kV (~1uSec rise time)
 Igniter Polarity: Positive or Negative (Factory Set)
 Ignition Energy: 65mj.
 Igniter Dimensions: (XLB-650/1000/1500/2500/3000) 5.5" x 3.6" x 2.6"
 140 x 92 x 66mm
 (XLB-5000) 7.0" x 4.625" x 2.5" / 177 x 116 x 63mm

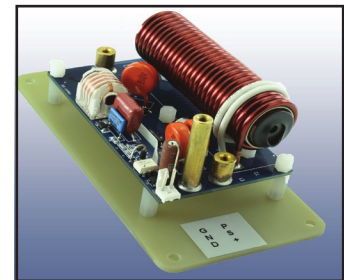
Performance

Line Regulation: $<0.2\%$ of maximum output current
 Current Regulation: $<0.5\%$ of Maximum output current
 Current Ripple: $<0.5\%$ of maximum output current
 Power Limit: Limited to maximum power with power fold-back circuit

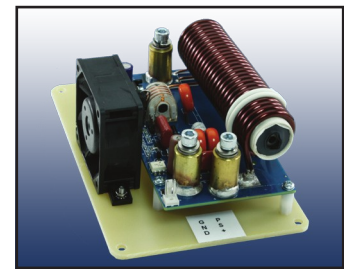
Environment

Operating Temp: 0 to 40°C
 Storage: -25 to 85°C
 Humidity: 0 to 95% RH non-condensing
 Cooling: Forced air

Note: XLB-5000 can be upgraded to 7kW. Contact customer service for details. Units can also be paralleled for higher power applications.



XLB-650/1000/1500/2500 /3000 Igniter



XLB-5000 Igniter

Short Pulse high energy igniters operate from power supply output. Reliable automatic lamp ignition.

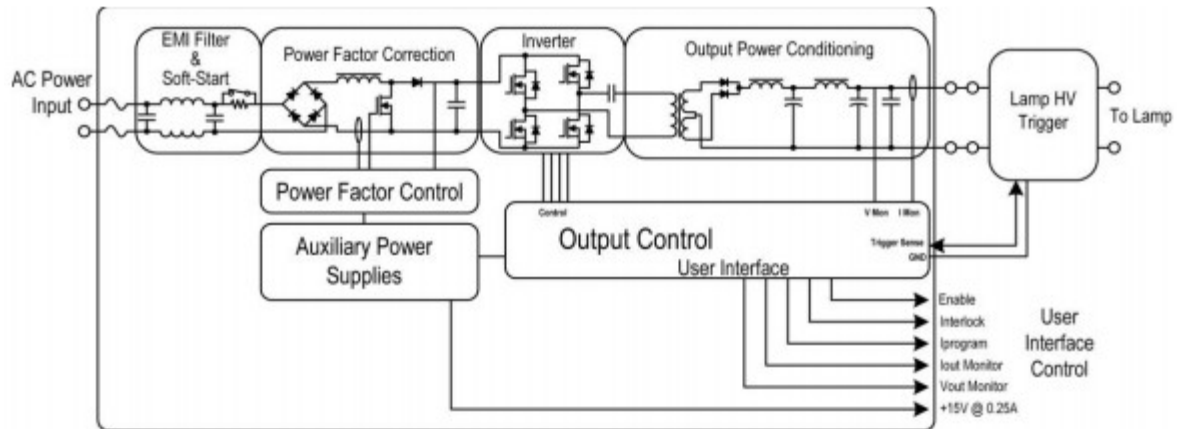
Also Available: The new MLB-series short-arc lamp power supplies designed with constant power output to operate Mercury lamps. Contact customer service or visit our website for more details.

XLB Xenon Arc Lamp Power Supplies

Interface

Pin #	Pin Name	Functional Voltage Level	Description
1	Lamp On/Off (input) (Note: 1)	High = RUN = +5V to +15V Low = OFF = 0V	The Lamp On/Off function is the control function which turns the lamp on and off. When the lamp is turned on, a trigger and boost sequence will ignite the lamp and deliver current as programmed via Iprogram, Pin 7.
3	Interlock (Input)	Open = OFF Connect to GND = RUN	The Interlock function can be connected to external interlock switches such as door or over-temp switches.
4,9, 15	GND		Interface Return
5	Vout Monitor (output)	0-10V = 0-Voutmax	The output voltage of the supply can be monitored by Vout Monitor. Note: See selection chart on page 2 for maximum output voltage setting per model.
6	Iout Monitor (output)	0-10V = 0-Ioutmax	The output current of the supply can be monitored by Iout Monitor.
7	Iprogram (input)	0-10V = 0-Ioutmax	The power supply output current is set by applying a 0-10V analog signal to Iprogram(+). Note: Accuracy will be compromised when operating below 30% of the max value
8	Lamp Status	High = lamp off = 15V Low = lamp on = 0V	The status of the lamp can be monitored using this pin
13,14	+15V (output)		Auxiliary 200mA

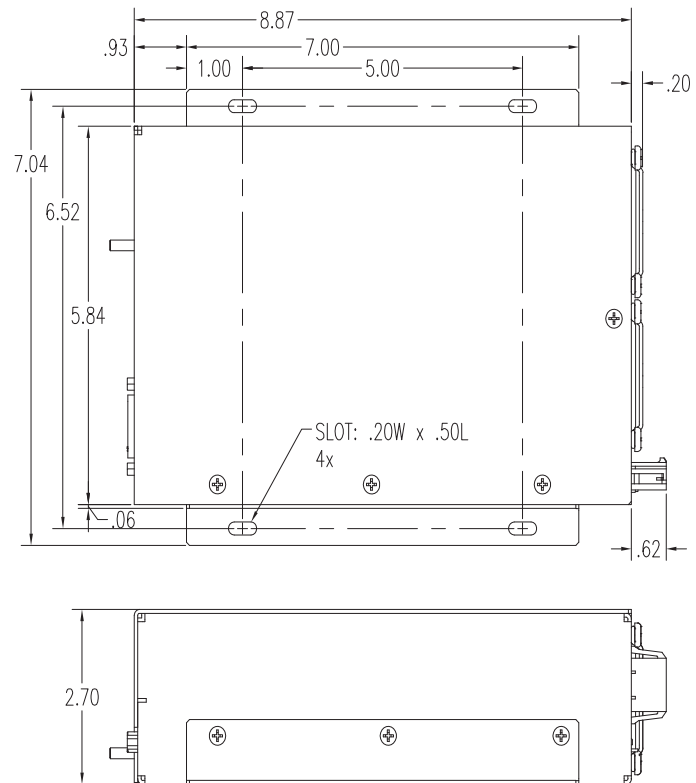
XLB Series Block Diagram (power factor corrected models)



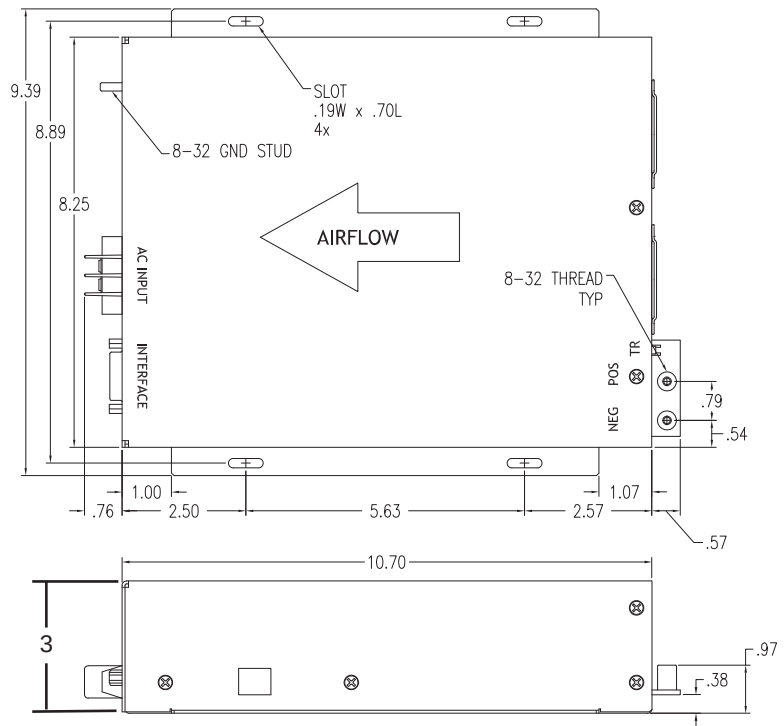
XLB Xenon Arc Lamp Power Supplies

Outline Drawings (dimensions in inches)

XLB-650

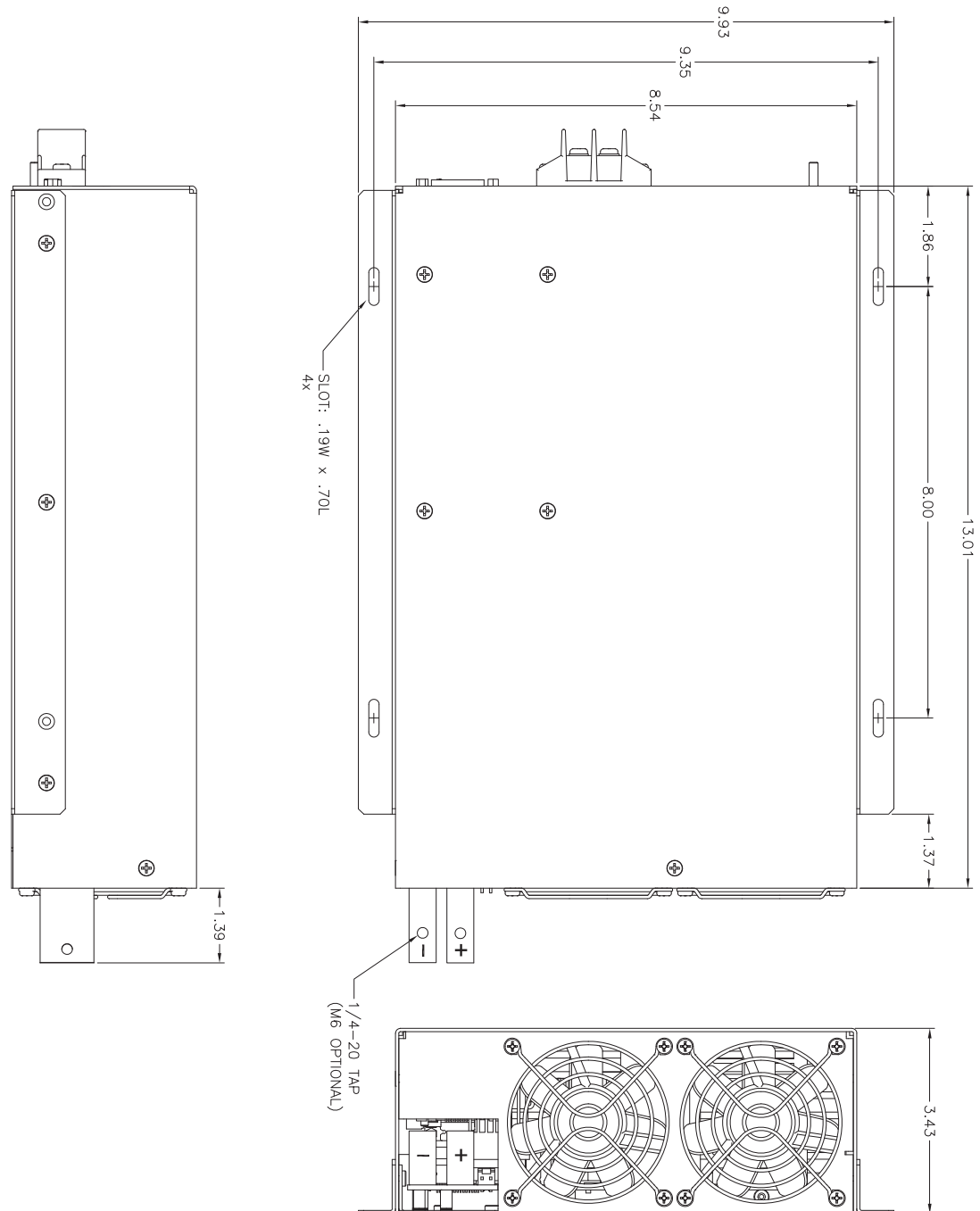


XLB-1000/1500



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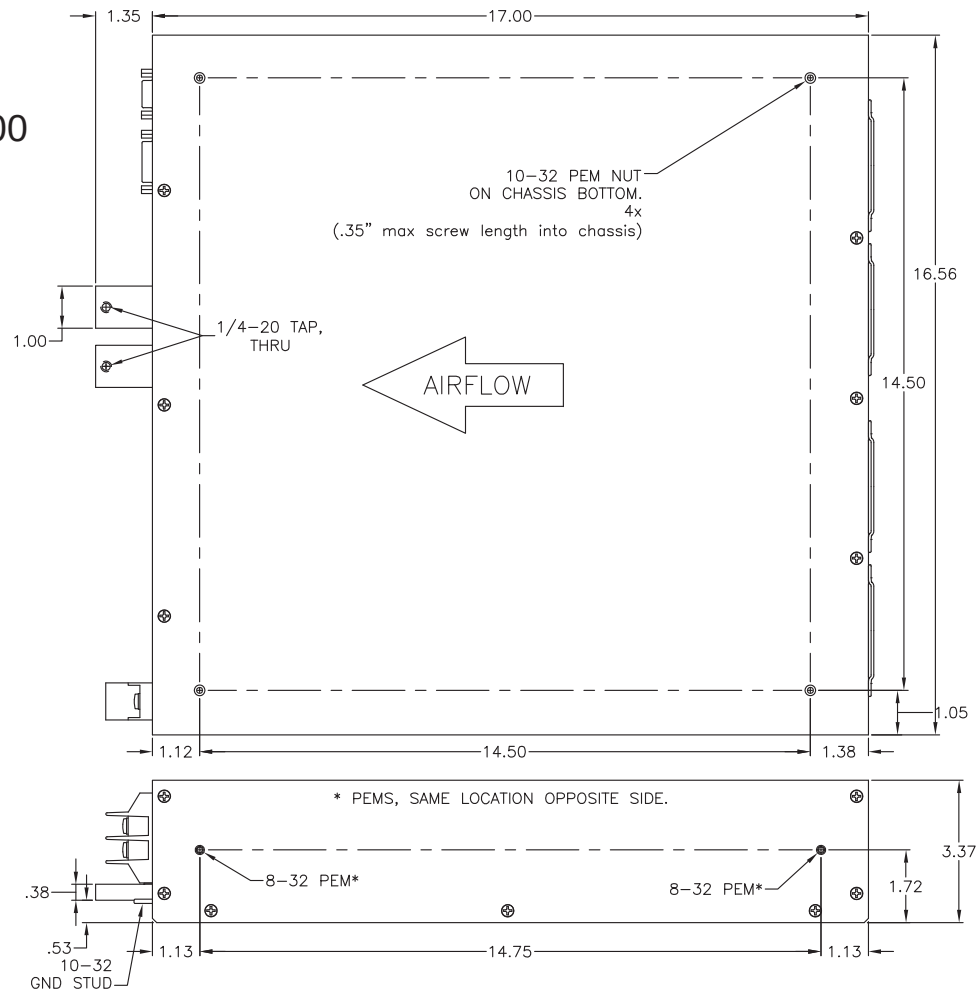
XLB-2500



XLB Xenon Arc Lamp Power Supplies

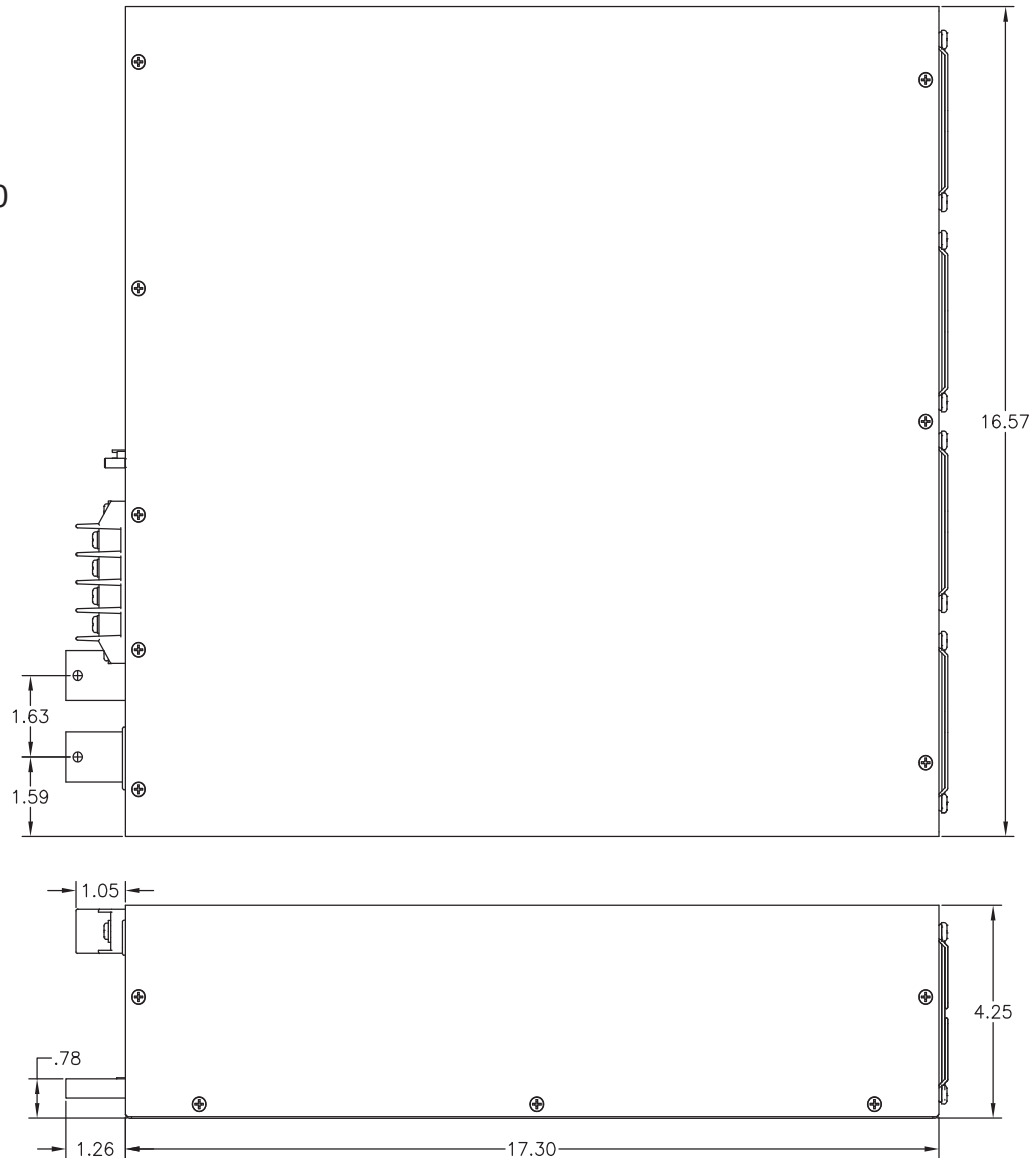
Outline Drawings (dimensions in inches)

XLB-3000



XLB Xenon Arc Lamp Power Supplies

XLB-5000



Lumina Power reserves the right to change the specifications of this product without notice or liability. Contact customer service for latest specifications.

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