

POWER SUPPLIES

PROJECT:

PREPARED BY:

DATE:

TYPE:



FEATURE

- · Output constant voltage
- · Built-in PFC function
- Protections: short circuit/ over voltage/ over heat
- · Cooling by free air convection
- · Flicker-free
- · Work with leading edge & trailing edge triac dimmers
- Class 2, Class P, Type HL, CE, UL, FCC compliant
- $\boldsymbol{\cdot}$ PWM output, does not change the color index

- Metal housing
- · Suitable for dry location & wet location
- · Strong compatibility, flicker-free dimming
- · Suitable for LED lighting and moving sign applications
- · Compliance to worldwide safety regulations for lightings.
- Compatible with Forward phase, Reverse phase, Triac,
 MLV, ELV Dimmers
- 5 years warranty

PERFORMANCE

• Wattage 300W

• Input Voltage AC 100-277V

PF >0.97Efficiency >93.5%

• Dimming Range 0-100%

Environmennt

• Minimum Load

Weight

Dimensions

IP67 20%

4 lb

L 10" x W 4.3" x H 1.7"

ORDERING GUIDE

Model	Dimming	Output Voltage	Wattage	Load Regulation
LB55502	Triac / 0-10V	24V	300W	2±

186 Van Dyke Street - Brooklyn, NY 11231

Light Blue USA & Associates LLC

www.lightblueusa.com

718-475-2515

Revision Date 3/25/25



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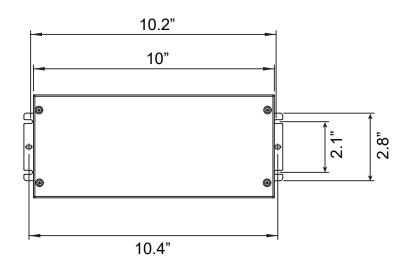
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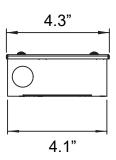
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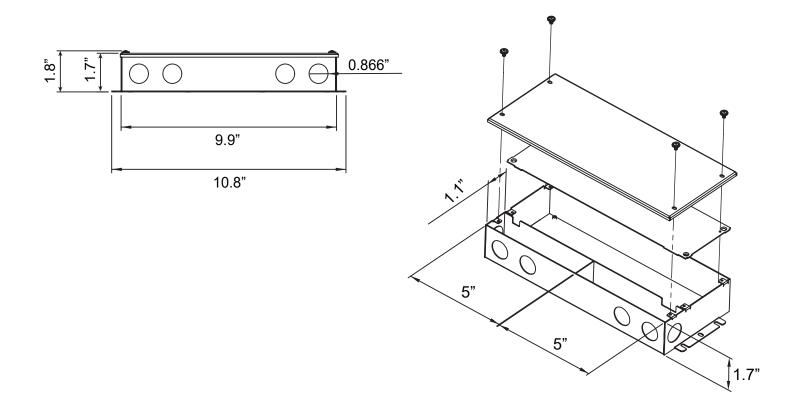
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DIMENSION









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SPECIFICATION CHART

Output	Voltage	24V	
	Voltage Tolerance	±2%	
	Voltage Regulation	≤0.5%	
	Load Regulation	≤2%	
	Rated Current	12.5A	
	Rate Power	300W	
	Voltage Ripple	400mVp-p	
	Overshoot Voltage	<1% full load / <2% no load	
	Output Voltage Adjustment	24-25.5V	
Input -	Voltage Range	110-277V	
	Frequency Range	47-63Hz	
	Power Factor (Typ.)	>0.97@277VAC	
	THD (Typ.)	<15%@277VAC	
	Full Load Efficiency (Typ.)	≥93.5%@277VAC	
	AC Current (Max.)	≤1.4A@277VAC	
	Inrush Current (Typ.)	132A@50%lpeak 180us @277VAC	
	Leakage Current	<0.5mA	
Protection	Short Circuit	Hiccup mode, can be automatically restored after abnormal removal	
	Over Load	≥120%, Constant - Current Mode, automatic recovery after exception	
	Over Temperature	When the ambient temperature exceeds 55°C ±5°C, the output is turn off	
Environment	Working Temperature	-40°C to 40°C	
	Working Humidity	20-95%RH Non-condensing	
	Storage Temperature	-40°C to 80°C, 10-95%RH Non-condensing	
	Temperature coefficient	±0.03%°C (0-50%°C)	
	Vibration	10-500Hz, 5G 12 minutes/cycles, X Y Z axis 72 minute each	



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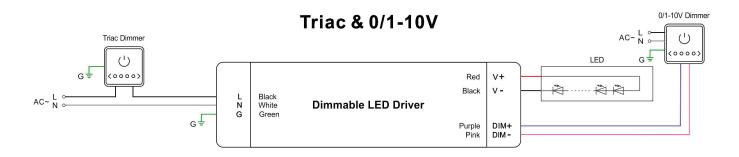
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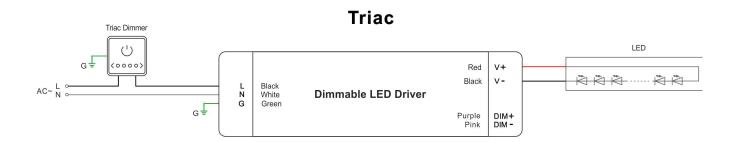
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DIMMING AND CONNECTING DIAGRAM



Using two ways of dimming at the same time

you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming



Using one dimming ---TRIAC/Phase cut dimming

- 1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
- 2. Working with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers or light system.
- 3. Min. loading is about 20%
- 4. Please try to use dimmers with power at least 1.5 times as the output power of the driver.



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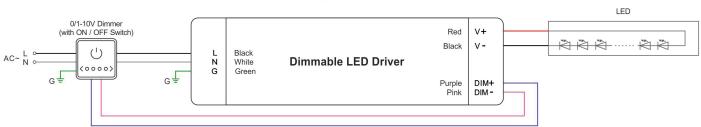
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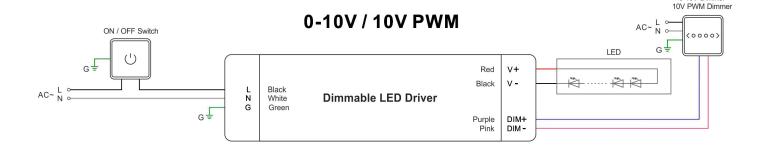
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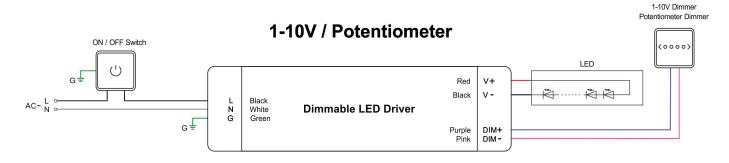
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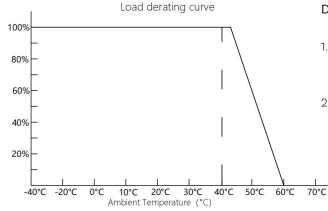








Using one dimming ---0-10/1-10V/10V PWM/ Potentiometer dimming



Derating Curve (output load vs TEMP.)

- 1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
- 2. The output current of the LED driver should be selected according to the rated current of the lamp and the ambient temperature. Normally, we recommend the power supply to reserve a certain amount of load to extend LED driver's life.

0-10V Dimmer



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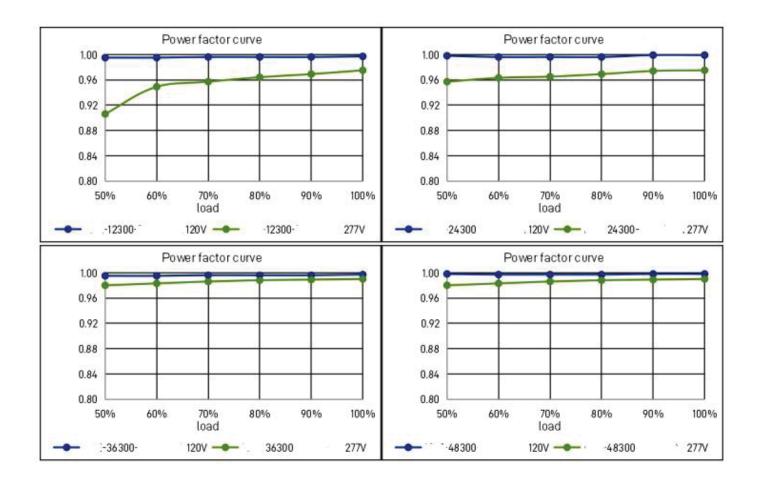
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POWER FACTOR CURVE





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TYPE:

EFFICIENCY CURVE

