

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
- 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

300W Wattage

· Input Voltage AC 100-277V

• PF >0.97 Efficiency >93.5%

· Dimming Range 0-100% Environmennt

· Minimum Load

Weight

Dimensions

L 9.5" x W 10.3" x H 1.68"

IP67

20%

4 lb

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



POWER SUPPLIES

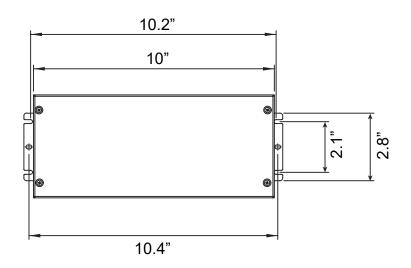
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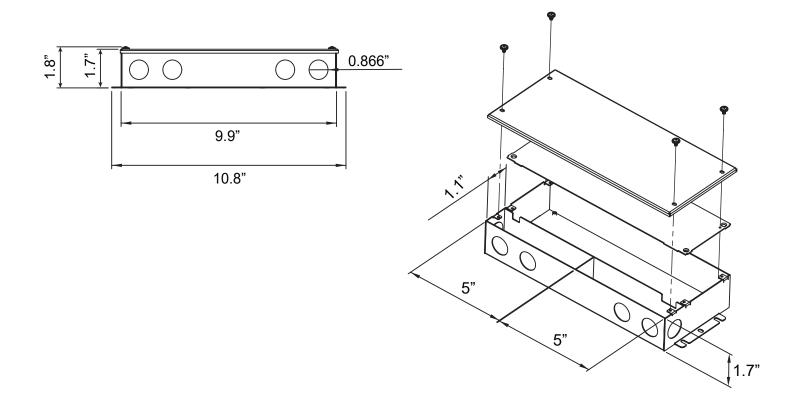
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DIMENSION









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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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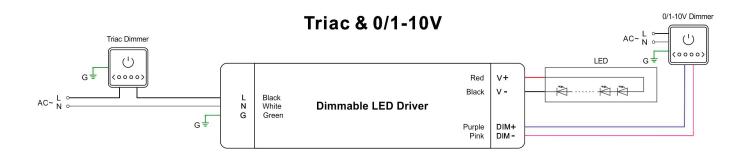
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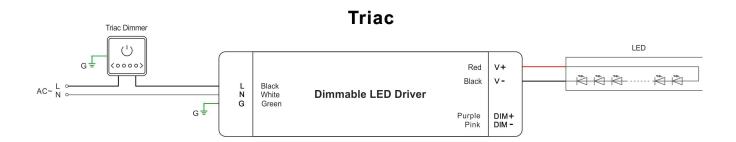
TYPE:

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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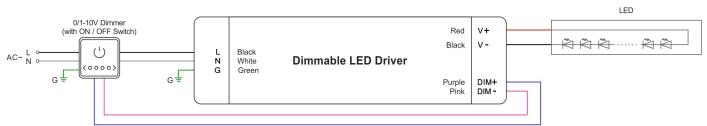
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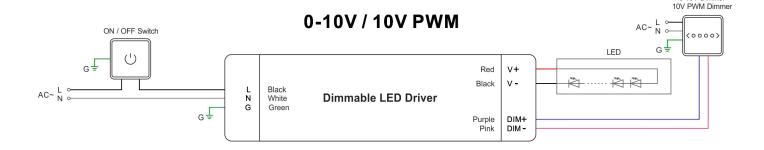
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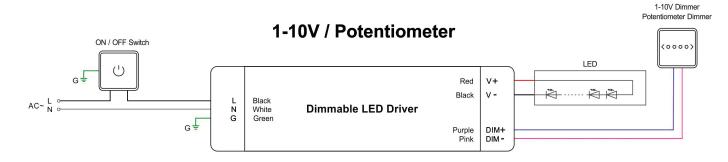
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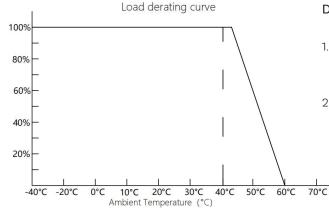
0/1-10V







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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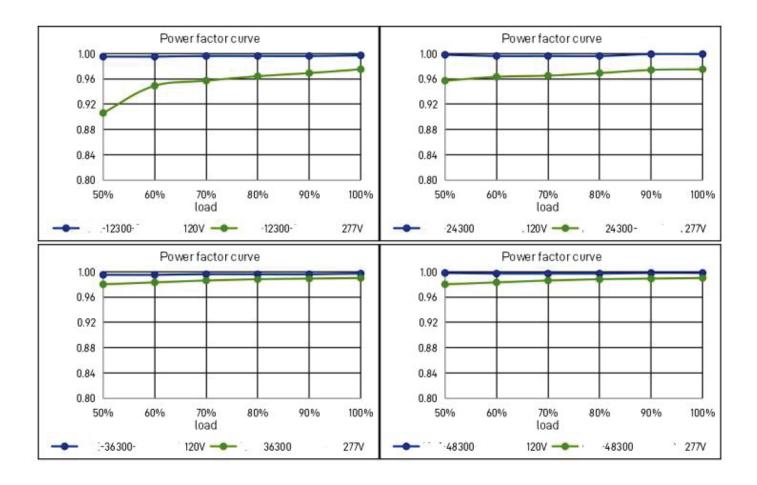
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POWER FACTOR CURVE





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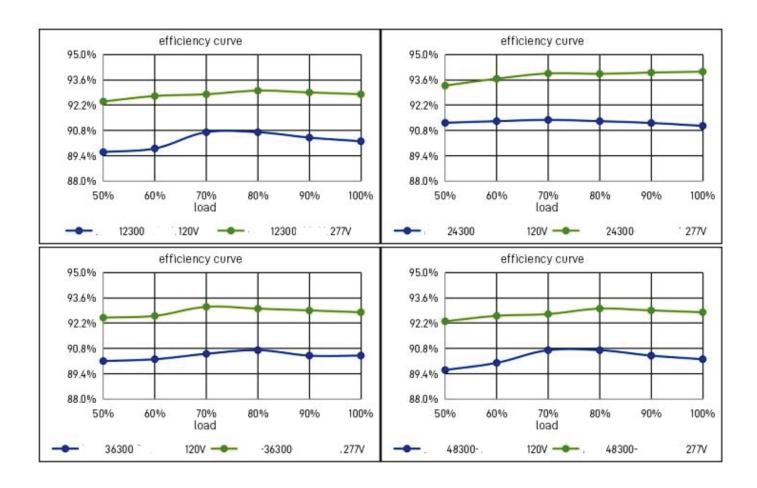
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EFFICIENCY CURVE





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	TRIAC / 0-10V Dimmers compatibility test list					
Brand	Model	LB55502	LB55501	LB55500		
EATON	DLC03P	YES	2.70%	3.40%		
	DUL06P-C2	YES	0.57%	3%		
	LSCL450	YES	YES	YES		
LEGRAND	RH703PTUW	NO	NO	NO		
	RHCL453PTCCCV6	1.80%	2.30%	1.40%		
	6672-1LW	YES	YES	YES		
	6674-P0W	YES	1.1	3.50%		
	DDE06-BLZ	YES	YES	YES		
	DDMX1-BLZ	YES	YES	YES		
	DH6HD (D26HD)	YES	YES	YES		
	DSL06-1LZ	YES	1.50%	3.40%		
	IP710-DLZ(0-10V)	NO	NO	NO		
LEVITON	IPE04-1LZ	3.40%	7.40%	NO		
	IPL06-10Z	1.20%	1.30%	3.20%		
	RDL06-TW	2%	2%	3.80%		
	RNL06-10Z	YES	YES	YES		
	TBL03-10W	YES	YES	YES		
	VPI06	YES	0.30%	YES		
	PNL06-TW	YES	YES	YES		
	6672-3PW	YES	YES	YES		
	AYCL-153P-WH	YES	0.61%	YES		
	CTCL-150-WH	YES	YES	YES		
	DVCL-253P-WH	YES	0.90%	0.96%		
	DVELV-300P-WH	YES	0.48%	1.60%		
	DVRP-253P	YES	0.60%	2.40%		
	DVTV-WH(0-10V)	1.60%	1.70%	1.20%		
-	DVDCL-153P	YES	YES	YES		
	MA-600-WH	NO	NO	NO		
	MACL-153M-WH	YES	0.80%	3.60%		
	MRF2S-6CL-WH	YES	1.10%	3.30%		
-	MSCL-OP153M	YES	0.87%	3%		
LUTRON	MS-Z101-WH(0-10V)	1.40%	1.40%	1.30%		
-	NTCL-250	YES	YES	YES		
_	PD-10NXD	YES	0.58%	2.50%		
	PD-10NXD PD-5NE	YES	1.80%	3.10%		
	PD-6WCL-WH	YES	1.10%	3.90%		
	RMJS-8T-DV-B (0-10V)	0.64%	0.87%	0.30%		
	SCL-153P-WH	YES	YES	YES		
	DVRF-6L	YES	1.20%	3.90%		
	S600P	YES	YES	0.31%		
	CTCL-153PDH-LA	YES	YES	YES		