

LED Dimmable Driver - 5 in 1 Dimming

- G-600W-24V-DWJ



Commercial-Grade 5 in 1 Dimmable LED Driver provides smooth, stable, efficient, and flicker-free dimming capability for LED lighting. It is rated for wet and dry locations. It has superior dimming performance and is compatible with many dimmer models of:

- Phase dimming: Triac, ELV (reverse phase dimming), MLV (forward phase dimming)
- 0-10V dimming
- 1-10V dimming
- Potentionmeter
- 10V PWM

Features

- Universal AC input: 110-277VAC
- Flicker-free, f≥20 K Hz
- Dimming Range: 0-100%
- Compact housing IP66 waterproof design
- UL, cUL listed, Class 2 unit, Type HL rated, FCC
- 5 Year Warranty



Specification

Input

Voltage Range	110-277VAC
Frequency Range	47-63Hz
Power Factor (Typ.) @ full load	PF≥0.96
THD(Typ.)@ full load	≤10%@120VAC
Efficiency(Typ.)@ full load	90.3%@120VAC 93.45%@277VAC
AC Current(Max.)	5.9A
Inrush Current (Typ.)	52A, 810us@50%110VAC 76A, 148us@50%277VAC
Leakage current	<0.50mA

Output

DC Voltage	24V
Rated Current	25A
Rated Power	600W
Voltage Tolerance	±0.5V
Voltage Regulation	±0.5%
Load Regulation	±1%

Environment

Working Temperature	-40~+140°F (see below derating curve)
Working Humidity	20~95%RH, non-condensing
Storage Temp. Humidity	-40~+176°F, 10~95%RH
Temp. Coefficient	±0.03%/°F(32°F~122°F)
Vibration	10 ~ 500Hz, 5G 12min. /1 cycle,period for 72min. each along X,Y,Z axes

Protection, Safety& EMC

Short Circuit	Hiccup mode, recovers automatically after fault condition is removed
Over Loading	≤120% constant current mode, recovers automatically after fault condition is removed
Over Temperature	Shell surface temp.212°F±50°F shut down o/p voltage, automatically recover after drops.
Safety Standards	UL8750
Withstand Voltage	I/P-O/P: 1.8KVAC I/P-FG: 1.8KVAC O/P-FG1.8KVAC
Isolation Resistance	I/P-O/P: 100MΩ/500VDC/77°F/70%RH
EMC EMISSION	FCC 47 CFR Part 15, Subpart B

Others

Net Weight	5.7 lb
Dimension	11½" x 5½" x 1¾" in
Packing	10PCS/CTN

Order Information

Series	Power	Voltage	Model
G	600W	24V	DWJ

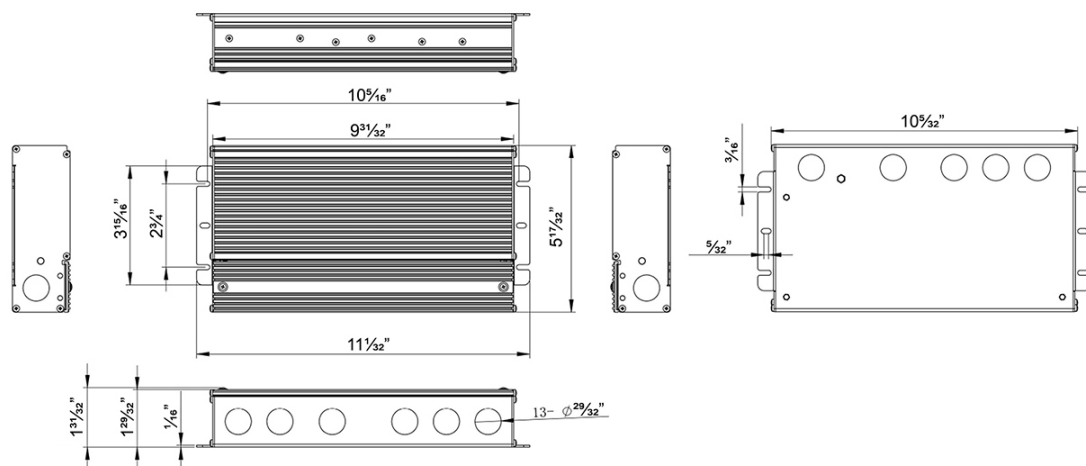
Notes

All parameters if NOT specially mentioned are measured at 120V AC input, rated load and 25°C / 77°F ambient temperature.
Warning: Do NOT reverse polarity high voltage input of the driver as it will destroy the product.

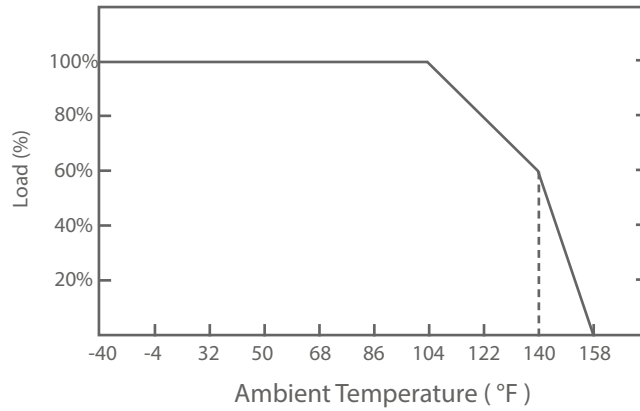
Asynchrony can occur when using multiple drivers in a project due to driver virtual signals and component skew. It is recommended to use the same model of driver to ensure the consistency of the driver.

Dimensions

Units: inch



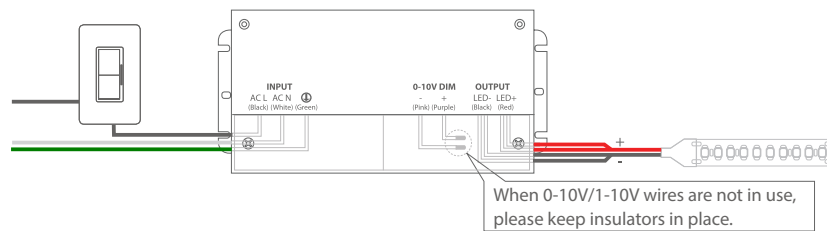
Derating Curve



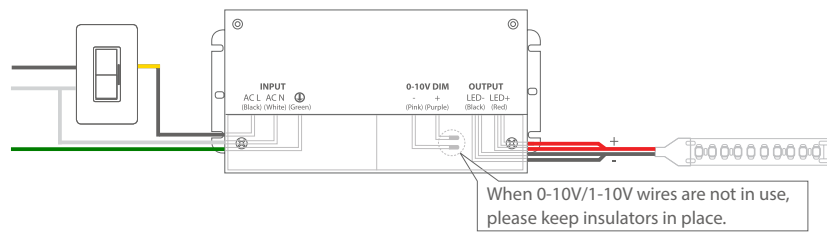
* The Derating curve is a graph that shows how the maximum current rating of a component decreases as the ambient temperature increases. Strong recommendation used in environments less than 104°F.

Connecting Diagram

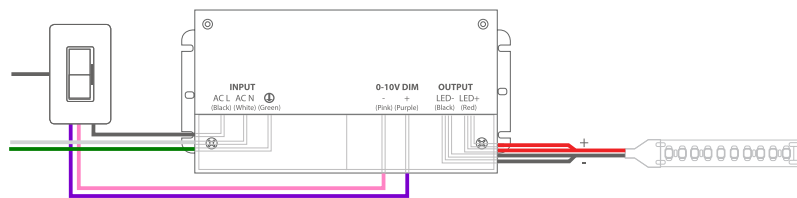
TRIAC dimming



ELV dimming



0-10/1-10V dimming

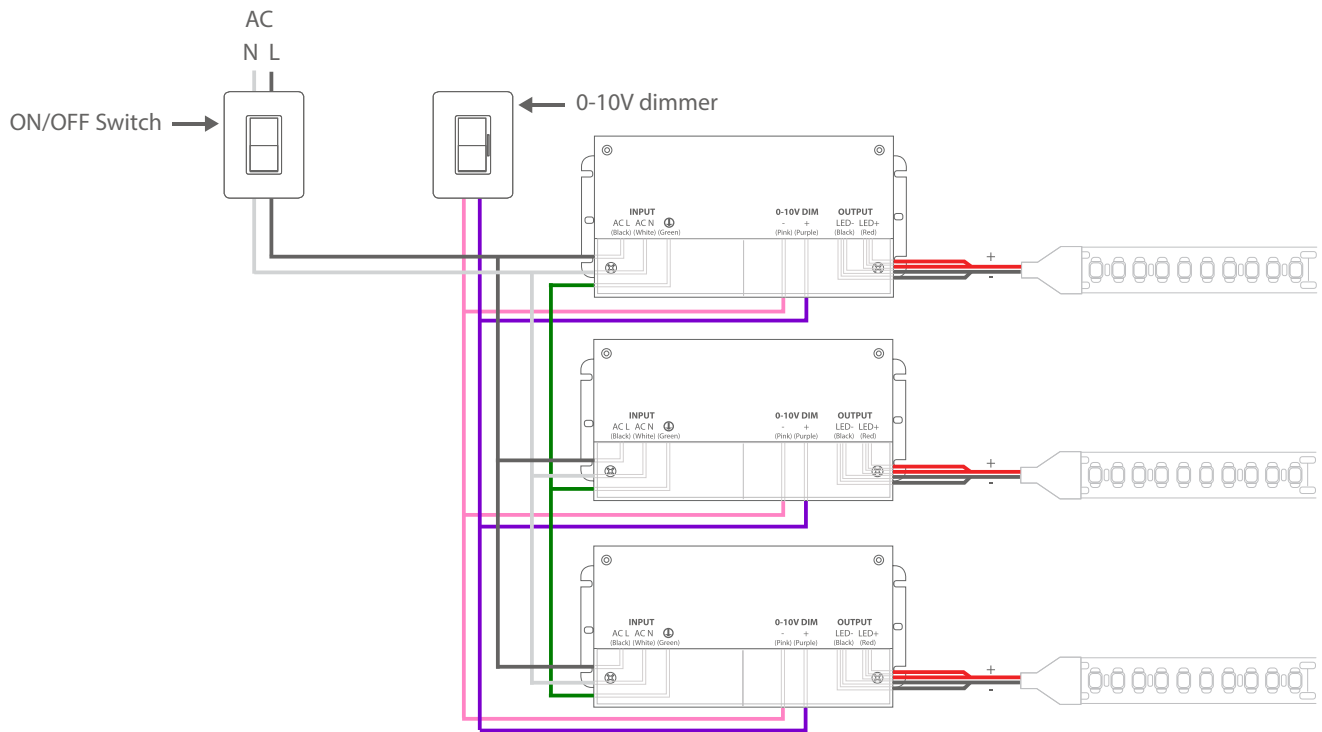


1. Input cable 18AWG, the Green cable to G, Black cable to L, and White cable to N of Mains AC.
2. Output cable 14AWG, 2*Red cable (+) to LED Positive side (+), 2*Black cable (-) to LED Negative side (-).
3. Dimming cable 18AWG, Purple cable DIM (+) to 0/1-10V dimmer signal(+), Pink cable DIM (-) to 0/1-10V dimmer signal (-).
4. Please DO NOT connect "DIM-" to "LED-", "DIM+" to "LED+", or other incorrect connection.
5. Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.

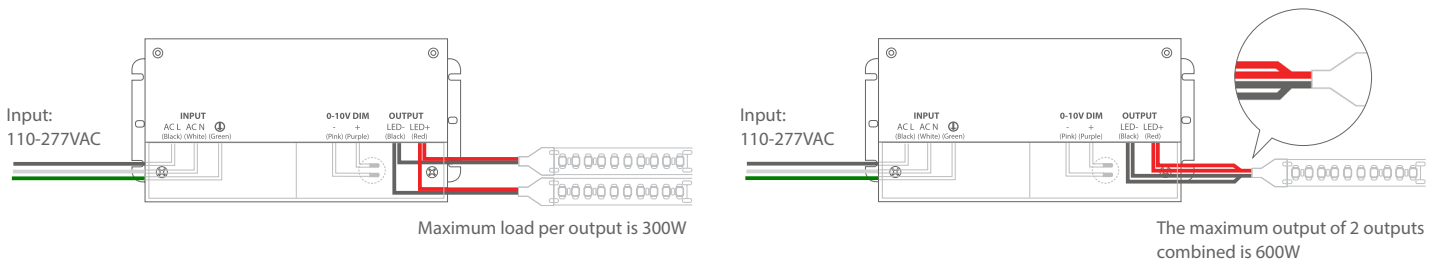
* Note: Dimmer switch wiring for reference use only. Please follow wiring instructions provided with the dimmer switch.

GL LED US LIGHTING reserves the right to modify this specification without prior notices.

0-10V/1-10V dimmer for large scope projects.



Connection Instructions



Note: Dimmer switch wiring for reference use only. Please follow wiring instructions provided with the dimmer switch.

For a large scope project: The 5 in 1 dimmable driver signal power consumption is 0.2mA/pc. When using one 0-10V dimmer and multiple 5 in 1 dimmable drivers for a large scope project, please check the dimmer signal output to calculate the quantity of drivers it can carry.

For example, Lutron Diva 0-10V Dimmer DVSTV signal output is 50mA, it can carry up to 200pcs of the 5 in 1 dimmable driver ($50\text{mA}/0.2\text{mA} \times 80\% = 200\text{pcs}$, using 80% capacity).

Notice

1. This driver should be installed by a qualified professional;
2. Before commencing any installation or maintenance work, disconnect the driver from AC power entirely;
3. Maintain 4-6 inches clearance around the driver and make sure that it is exposed to open airflow. Do not mount the driver near a heat source. High temperature will reduce the load capacity of the driver and shorten the life;
4. When using the driver at a wet location, make sure the connection between the driver and the lighting fixture is watertight;
5. If the driver does not work properly, do not disassemble it for maintenance without permission.