L4HVP600 Series

600W, 305-528Vac Input, Programmable Constant Voltage LED Driver

RoHS Compliant

Features

- Power Rating: 600W
- Input Voltage: 305-528Vac
- Constant voltage design
- Output current (1020mA to 16670mA)
- Digital programming with external module and software
- Efficiency up to 93.5%
- Compatible with 0(0.05)-10V, PWM, external resistor, clock, DMX dimming
- Lightning, OVP, SCP, OTP & Open Circuit Protection
- IP67
- 7-year warranty
- Surge Protection: L-N 5.5kV, L/N-Earth 11kV

*Product images are for illustrative purposes only and may vary from actual design.

Application

- Outdoor and indoor LED lights
- LED lights with flexible current settings
- Parking lights and architecture decoration lights
- LED horticulture lights
- LED fishing lights

Model List*(See part number scheme for model number details)

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L4HVP600S036ST	305-528Vac	600W	24-36V	1667mA	16670mA	92.5%	UL/cUL
L4HVP600S048ST	305-528Vac	600W	32-48V	1420mA	14200mA	93.5%	UL/cUL
L4HVP600S054ST	305-528Vac	600W	36-54V	1111mA	11110mA	93.5%	UL/cUL
L4HVP600S058ST	305-528Vac	600W	40-58.8V	1020mA	10200mA	93.5%	UL/cUL

Technical Data

Input voltage range	305-528Vac
Frequency	47-63Hz
Power factor	> 0.95 @347Vac & 80~100% full load, > 0.90 @480Vac & 80~100% full load
Output voltage	24-58.8V
Max Current Ripple	±5%
Max input current	6.5A

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■ Technical Data(cont.)

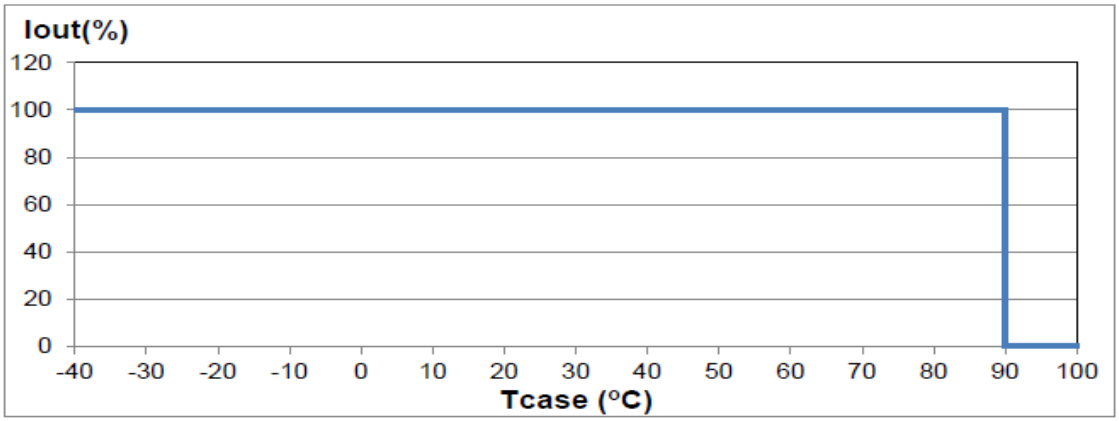
Max input Power	680W
Dimming	0(0.05)-10V, PWM, external resistor, clock, DMX
Output AUX Power Voltage (Optional)	12V
Output AUX Power Current (Optional)	0-100mA
Output power	600W
Max. Voltage ripple	250mVp-p,350mVp-p
Efficiency	92.5-93.5%
Max. open circuit voltage	39V, 51V, 61.8V
THD	< 20% @347Vac & 80~100% full load, < 20% @480Vac & 80~100% full load
Protection	OVP, SCP, OTP, and Open Circuit Protection
Environmental Protection	UL Dry &Damp and wet
Working Temperature	-40~+70˚C
Max Case Temperature	90˚C
Surge Protection	L-N 5.5kV, L/N-Earth 11kV
ANSI Surge Type	1.2/50μs Combination Wave (w/t 2Ω)
Isolation (primary to Secondary)	3750Vac/10maMax/60 seconds
Isolation (primary to Earth)	1875Vac/10maMax/60 seconds
Isolation(Secondary to Earth)	500Vac/10maMax/60 seconds
Dimension	341x123x54mm (14.3x384x2.13 inch)
Mounting Length	353 mm (13.9 inch)
Overall Length	367 mm (14.44 inch)
Weight	4.56 kg (10 lb)
Lifetime	>70,000 hours @ full load, 75˚C Tcase
Packing	4.56 kg; 6 units/carton; 27 cartons/pallet

■ Safety Compliance

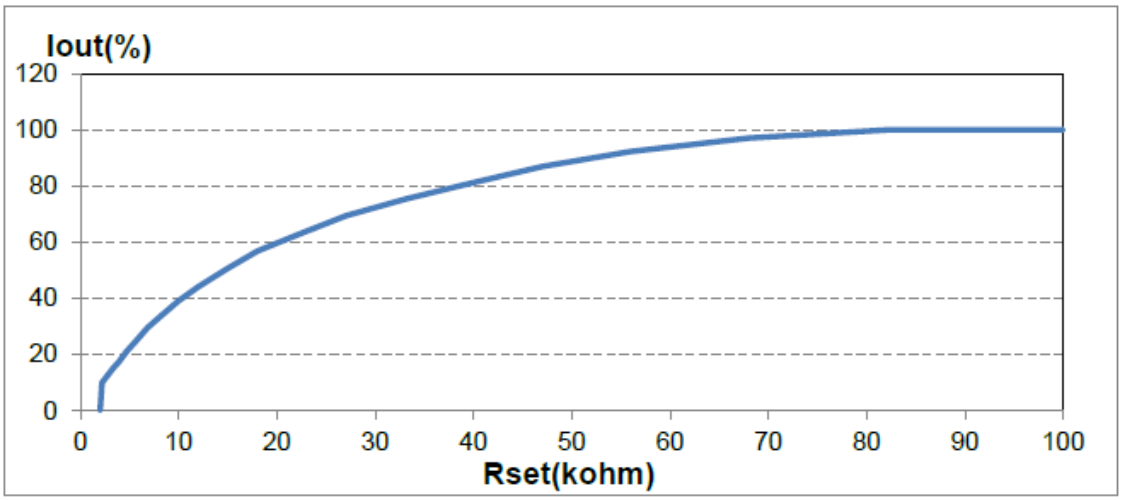
Safeties	UL8750
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class A

■ Electrical Specifications

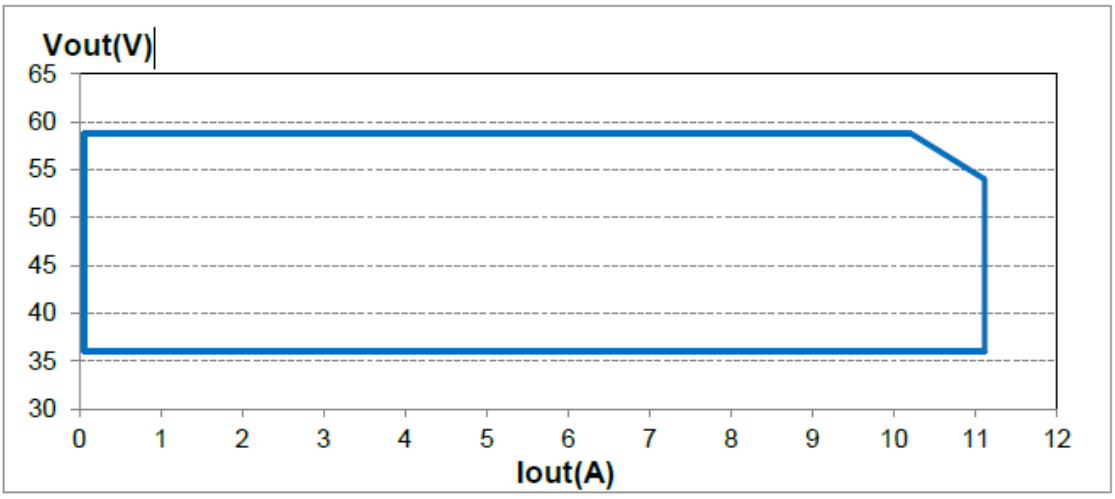
Output Current vs. Case Temperature (with ±5˚C Tolerance)



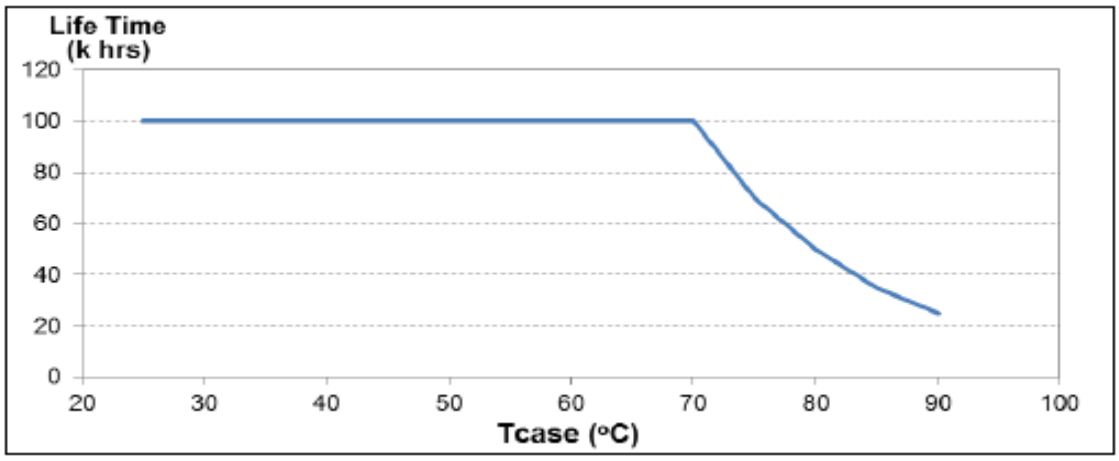
Output Current vs. External Setting Resistor



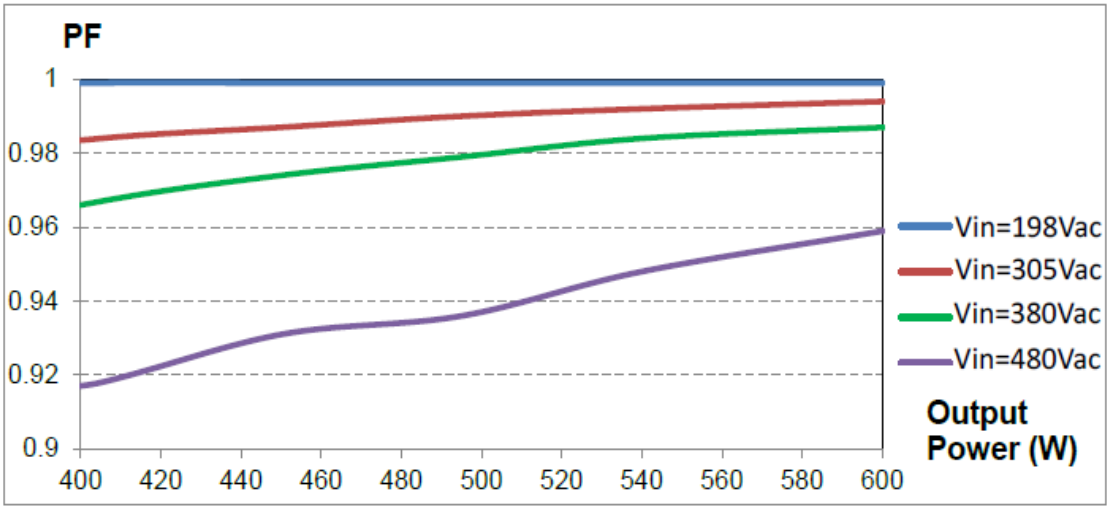
I-V Programming Area: Output Voltage vs. Output Current



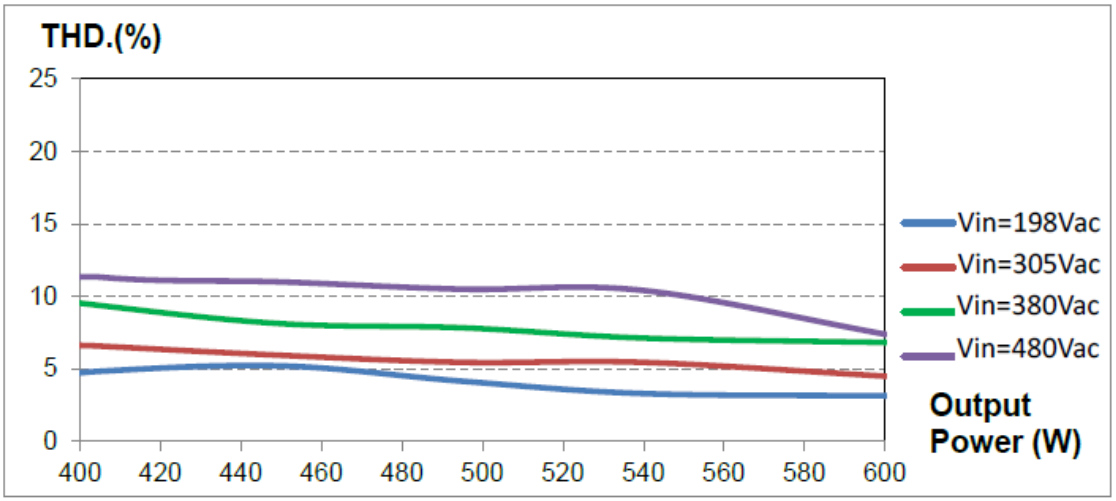
■ Lifetime vs Case Temperature



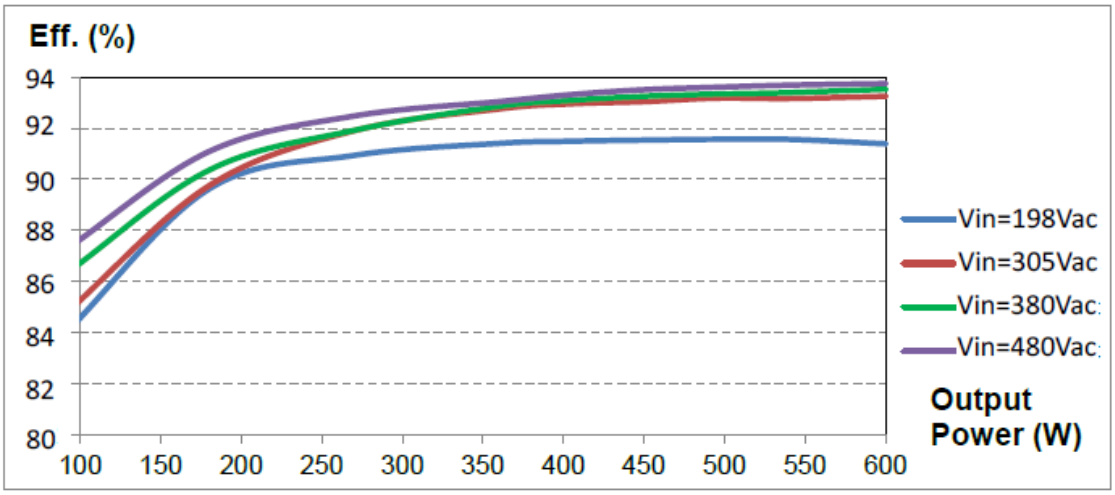
■ Power Factor vs. Output Power



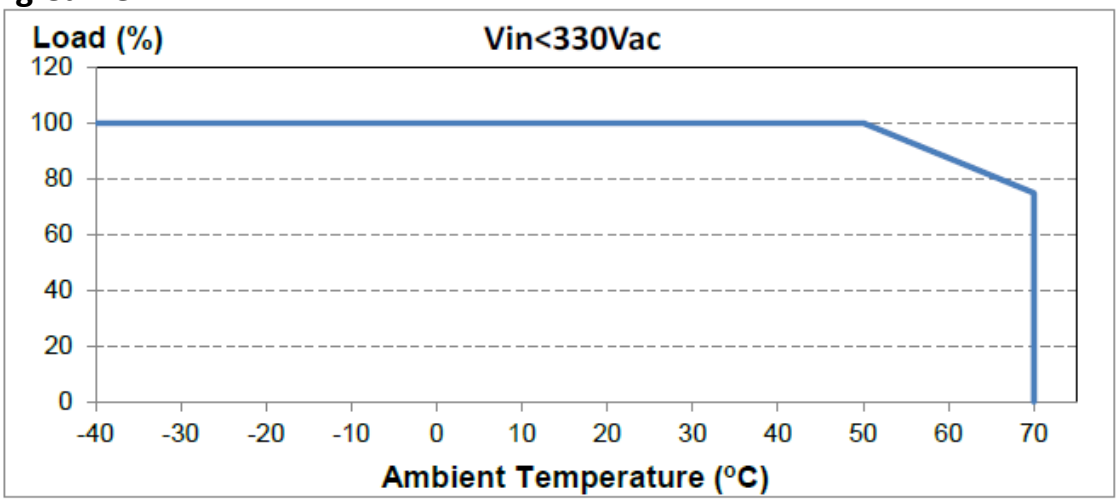
■ THD vs. Output Power

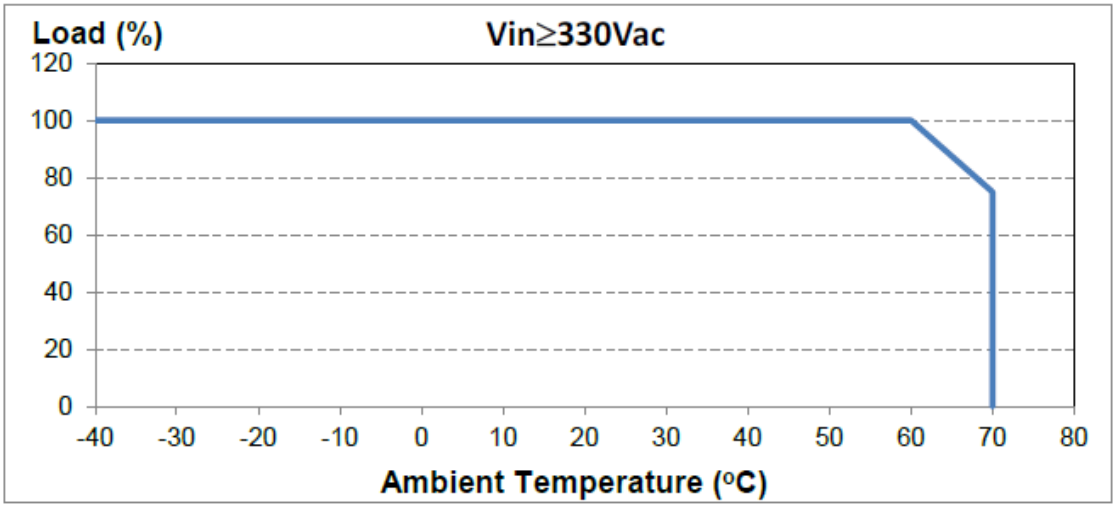


■ Efficiency vs. Output Power

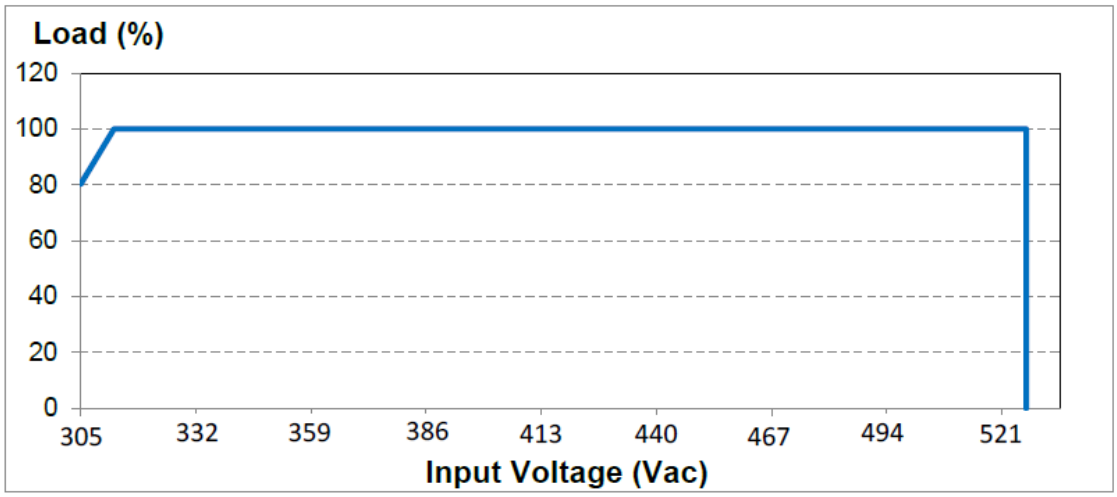


■ Derating Curve



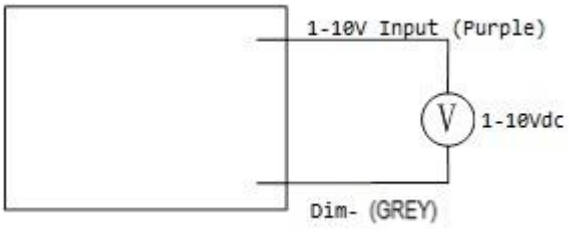


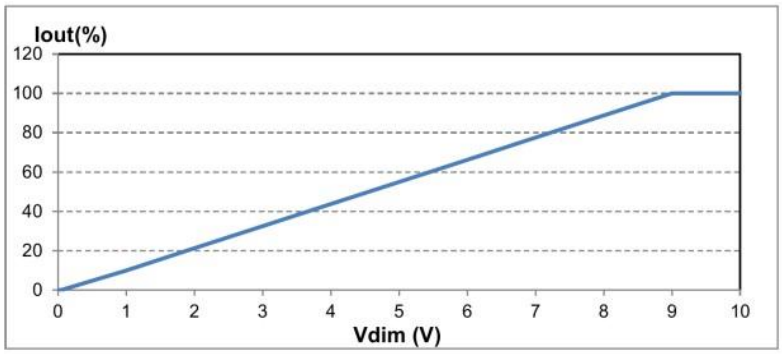
■ Static Characteristics



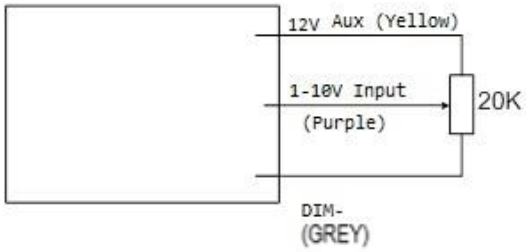
■ Dimming

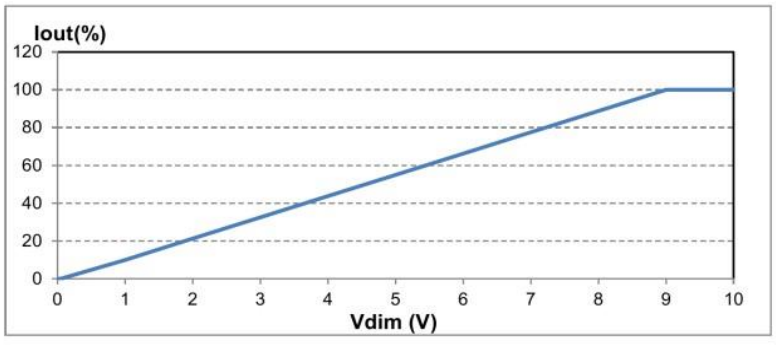
Mode 1 : 1-10Vdc Input on Dimming Control





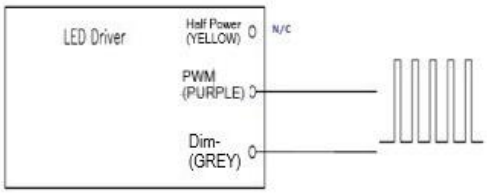
Mode 2 : Potentiometer on Dimming Control

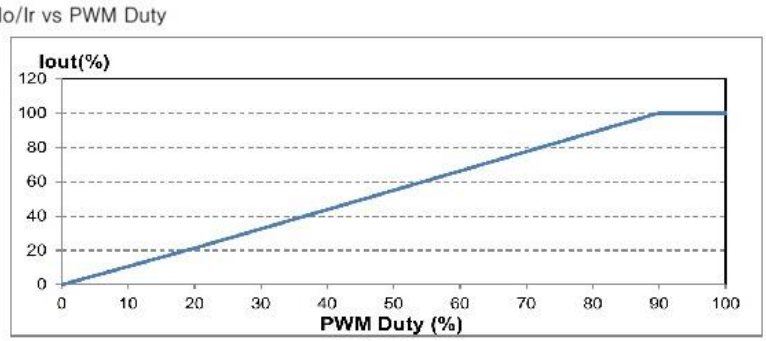




■ Dimming(cont.)

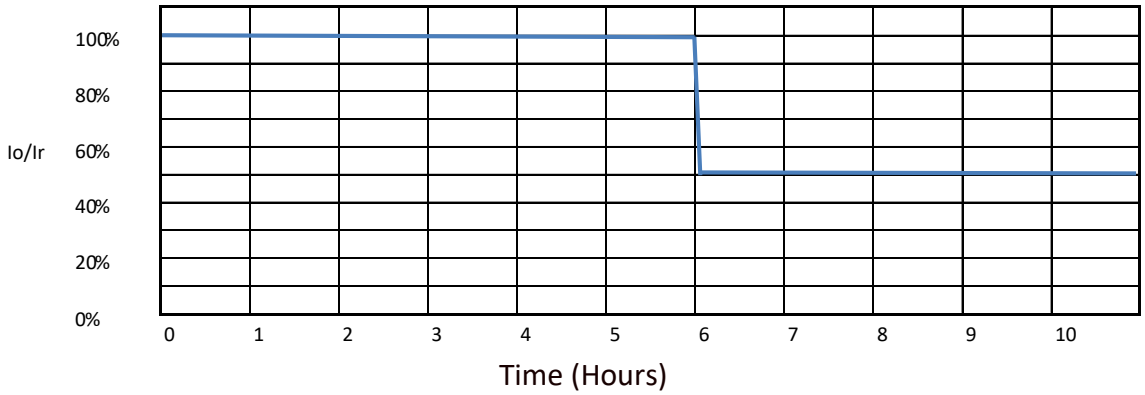
Mode 3 : PWM Signal on Dimming Wires





Parameter	Values	Conditions
Input Voltage	0~10 V	Purple wire.
Input Current	10 mA	
PWM Frequency	0.5 ~ 3 kHz	
PWM Pulse Width	10%~100%	

Mode 4 : Timer Dimming (Does not require dimming wires)

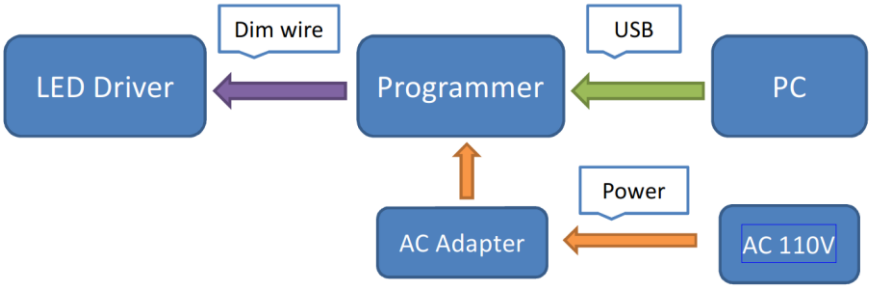


Standard power/time combination above, can be factory set to customer specification. Recycle AC to restart timer.

NOTE:

1. If the dimming function is not used, cap the dimming wires and don't use them.
2. Io is actual output current and Ir is rated current without dimming control.
3. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold, approximately 50% of the max. output voltage for any given mode.
4. The dimming signal can be less than 1V, when it is 0-1V, the output current can maintain about 10%Ir, however, the connected LEDs may flicker. Maintain dimming voltage greater than 1V in the application is strongly recommended.
5. Pulse width less than 10% will cause the driver to work improperly.

■ PC Programming Diagram



NOTES:

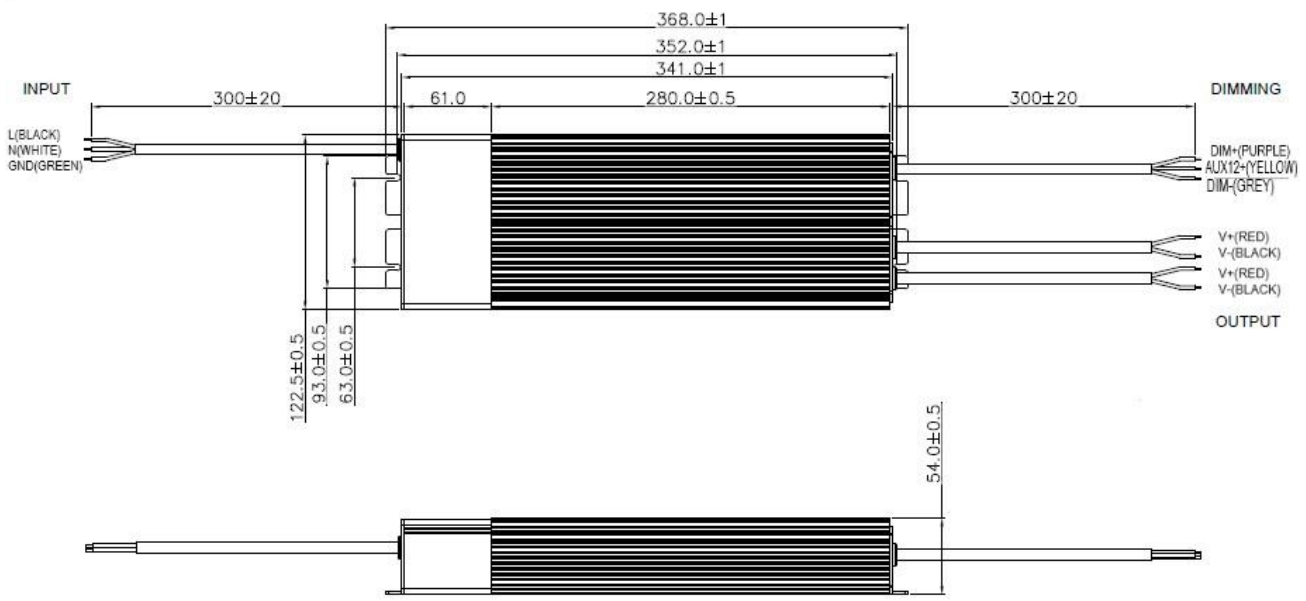
1. To set the desired output current, begin by installing the programming software on your PC and connect the programming module to your PC.

2. Next, connect the LED Driver to the programming module using the Dimming wires.

3. Please note an external power source is needed to provide power to the programming module.

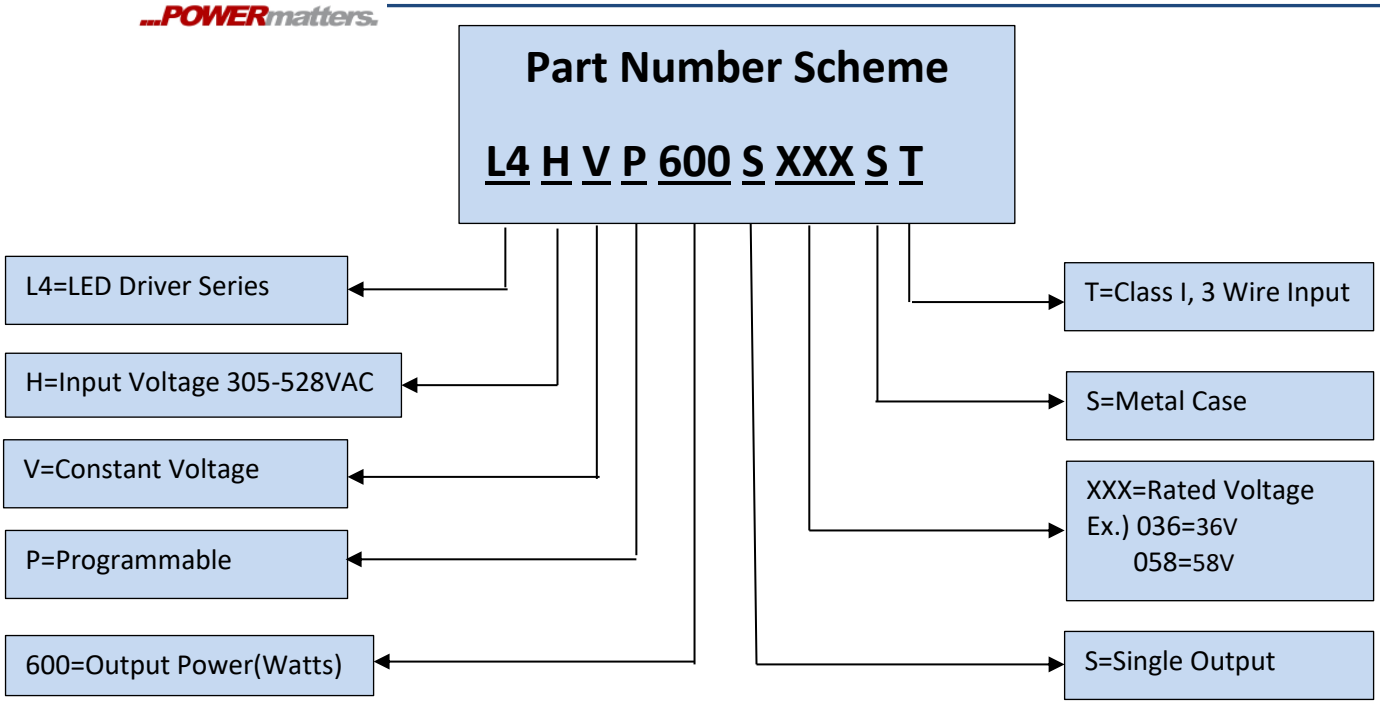
4. Contact Autec Sales for current programming software and complete programming instructions.

■ Mechanical Diagram



Notes 1. Outline Dimension 368L*123W*54H
2. Input and Output Connector and Pin Assignment
3. The Yellow Dimming wire is optional for 12V Auxiliary Power

Wire Specifications		Colors
Input Wire	3/#18AWG	L= Black, N=White, GND=Green
Output	2/#18AWG	V+ is Red, V- is Black
Dimming Wire	3/#22AWG	Dim + is Purple, Dim Return is Grey, AUX12V+/100mA is Yellow



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***Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.**

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