L4HVP120 Series

120W, 305-600Vac Input, Programmable Constant Voltage LED Driver

RoHS Compliant

Features

- Power Rating: 120W
- Input Voltage: 305-660Vac
- Constant voltage design
- Output current (70mA to 2800mA)
- Digital programming with external module and software
- Efficiency up to 90%
- Ultra-deep dimming down to 1%
  Compatible with 0(0.1)-10V, PWM external resistor
- Lightning, OVP, SCP, OTP & Open Circuit Protection
- IP67
- 7-year warranty
- Surge Protection: L-N 4kV, L/N-Earth 6kV

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

Application

- Outdoor LED lights
- Street lights, high bay and low bay lights, LE panels

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
L4HVP120S170ST	305~660Vac	120W	85-170V	70mA	700mA	90%	UL/cUL
L4HVP120S110ST	305~660Vac	120W	55-110V	105mA	1050mA	90%	UL/cUL
L4HVP120S090ST	305~660Vac	120W	45-90V	140mA	1400mA	90%	UL/cUL
L4HVP120S058ST	305~660Vac	120W	29-58V	210mA	2100mA	89%	UL/cUL
L4HVP120S043ST	305~660Vac	120W	21-43V	280mA	2800mA	89%	UL/cUL

Technical Data

Input voltage range	305-660Vac
Frequency	47-63Hz
Power factor	> 0.95 @115Vac & 80~100% full load, > 0.90 @277Vac & 80~100% full load
Output voltage	21-170V
Output power	120W
Max. Voltage ripple	±0.5%
Max Current Ripple	280mA-1150mA
Max input current	0.5A
Max input Power	135W

Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com
31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • **www.autec.com**

■ Technical Data(cont.)

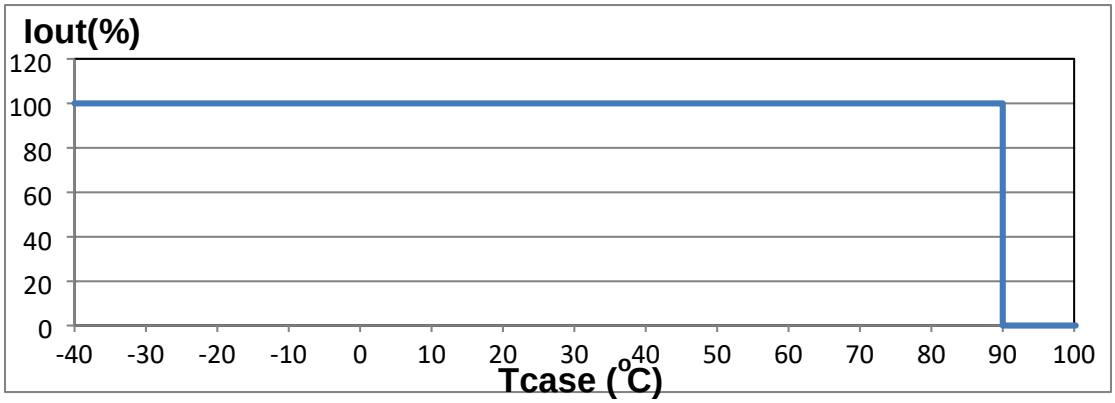
Efficiency	89%-90%
Max. open circuit voltage	200V, 130V, 110V, 65V, 55V
THD	< 20% @120- 277Vac & 80~100% full load
Protection	OVP, SCP, OTP, and Open Circuit Protection
Environmental Protection	UL Dry &Damp and wet and Type TL
Working Temperature	-40~+70˚C
Max Case Temperature	90˚C
Surge Protection	L-N 4kV, L/N-Earth 6kV
ANSI Surge Type	1.2/50μs Combination Wave (w/t 2Ω)
Isolation (primary to Secondary)	3750Vac/10maMax/60 seconds
Dimension	138x68x42.5 mm (5.43x2.68x1.67 inch)
Mounting Length	151 mm (5.95 inch)
Overall Length	161 mm (6.34 inch)
Weight	1.0 kg (1.11 lb)
Lifetime	>70,000 hours @ full load, 75˚C Tcase
Packing	1.0 kg; 16 units/carton; 27 cartons/pallet

■ Safety Compliance

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

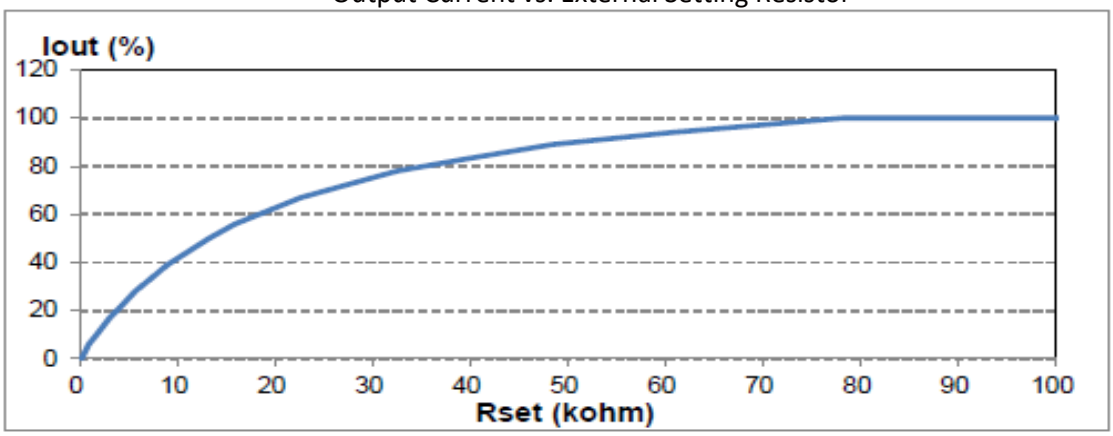
■ Electrical Specifications

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

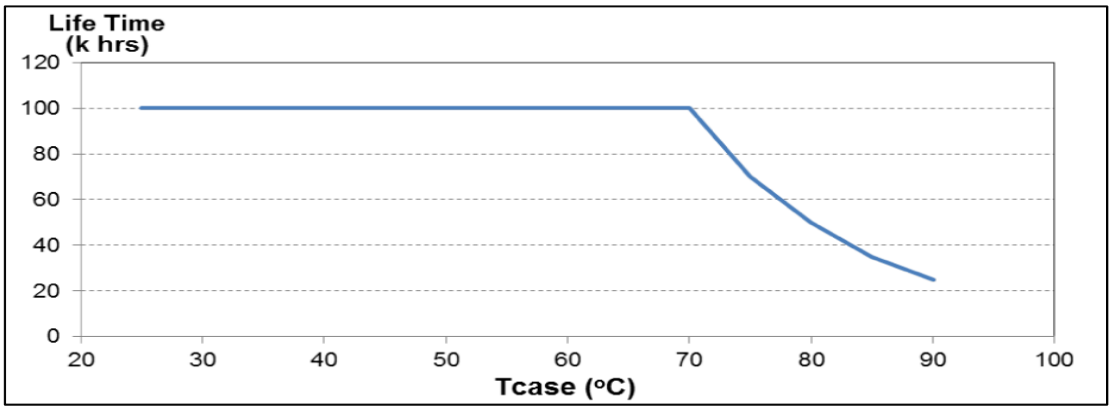


■ Electrical Specifications(cont.)

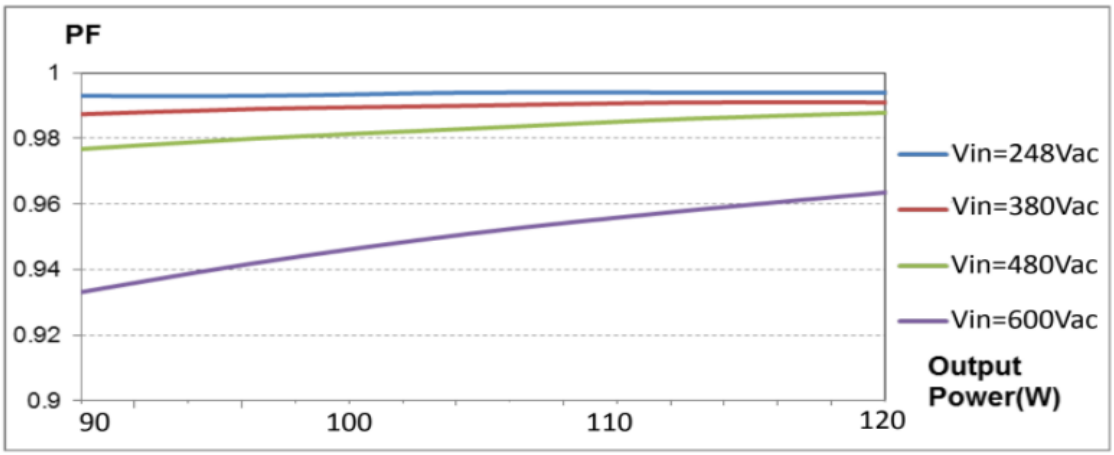
Output Current vs. External Setting Resistor



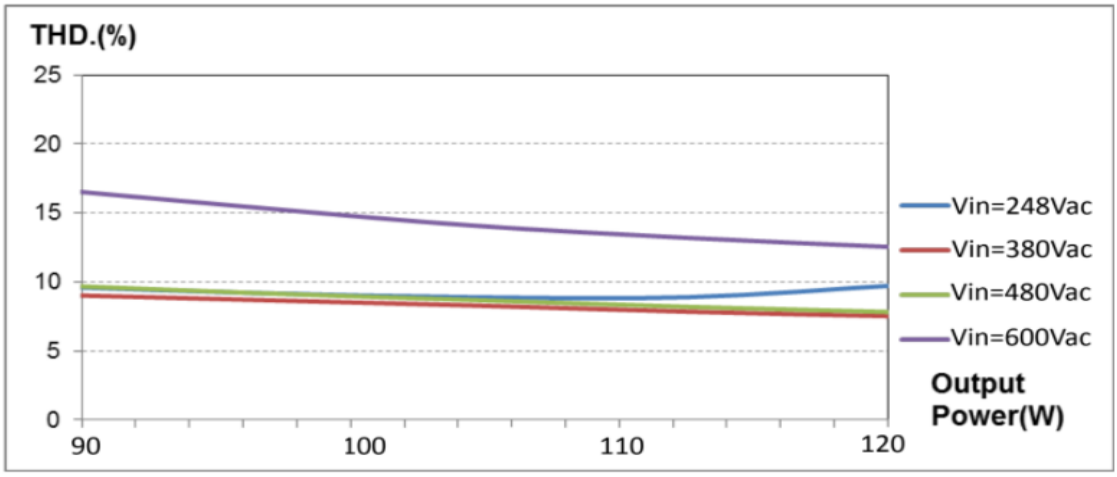
■ Lifetime vs Case Temperature



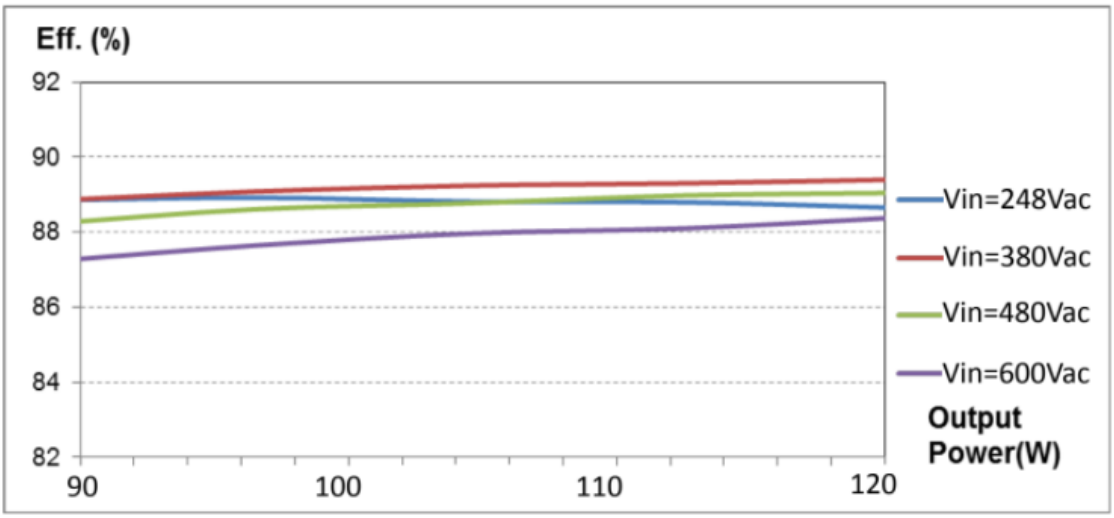
■ Power Factor vs. Output Power



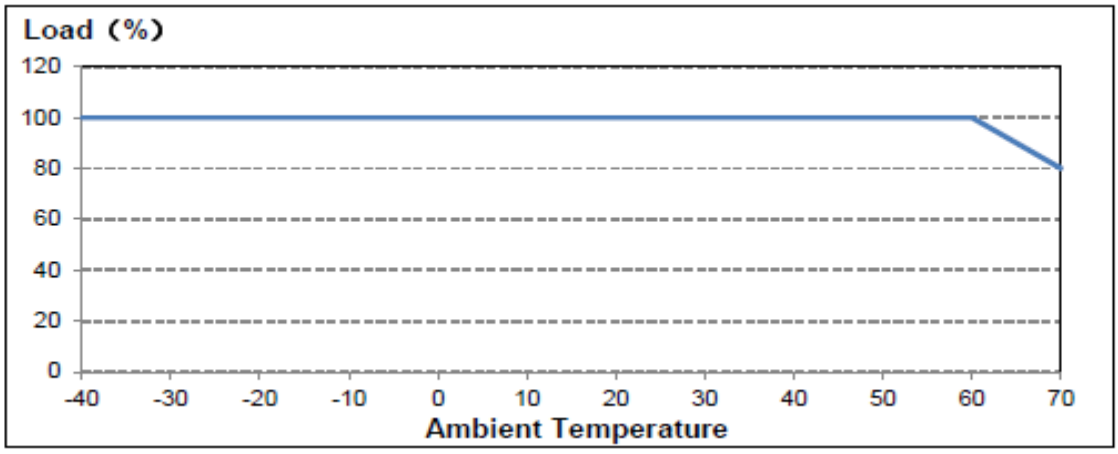
■ THD vs. Output Power



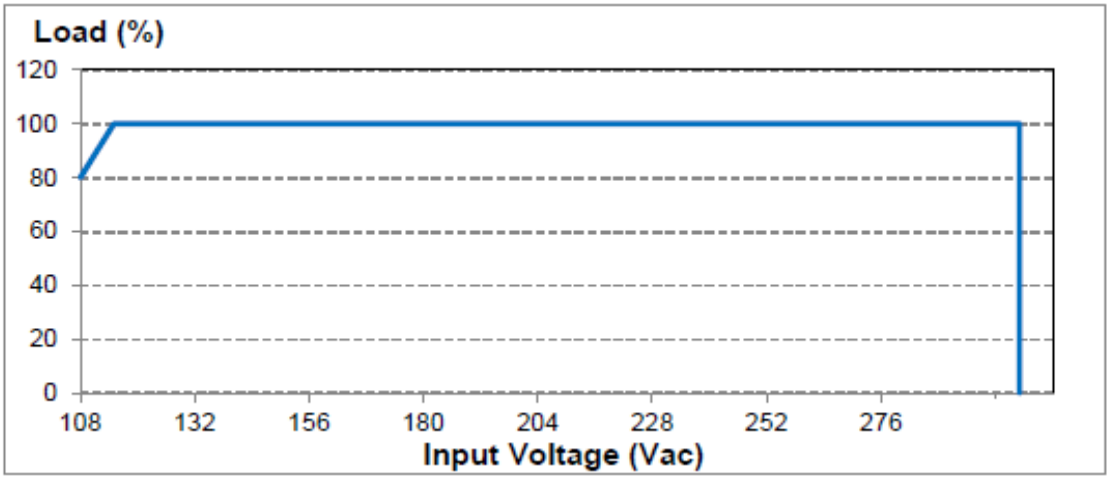
■ Efficiency vs. Output Power



■ Derating Curve

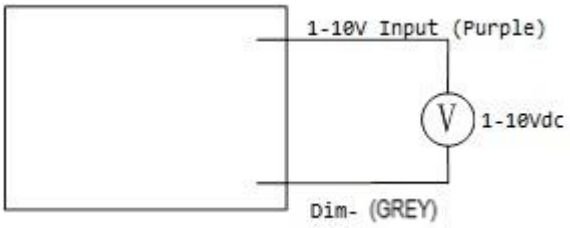


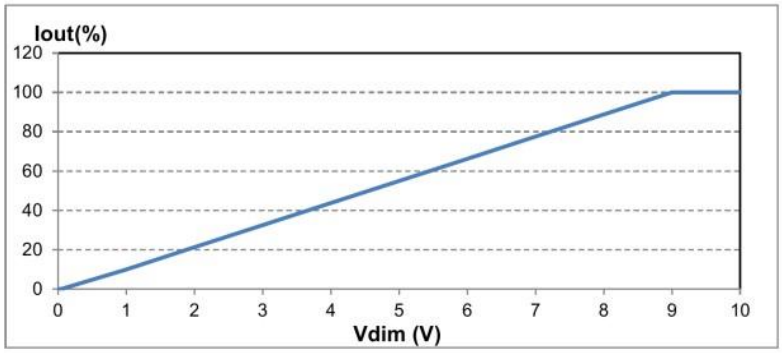
■ Static Characteristics



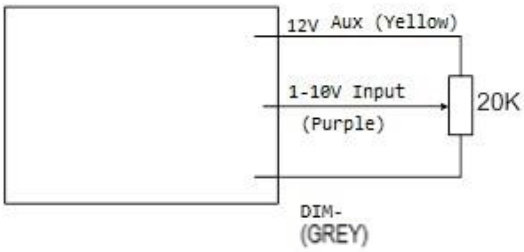
■ Dimming

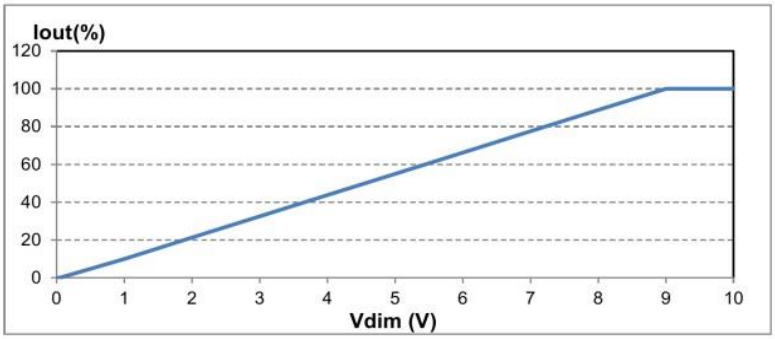
Mode 1 : 1-10Vdc Input on Dimming Control





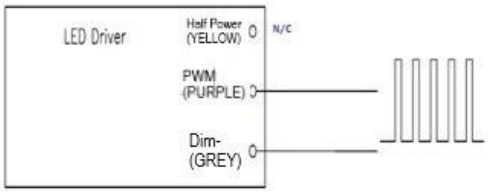
Mode 2 : Potentiometer on Dimming Control

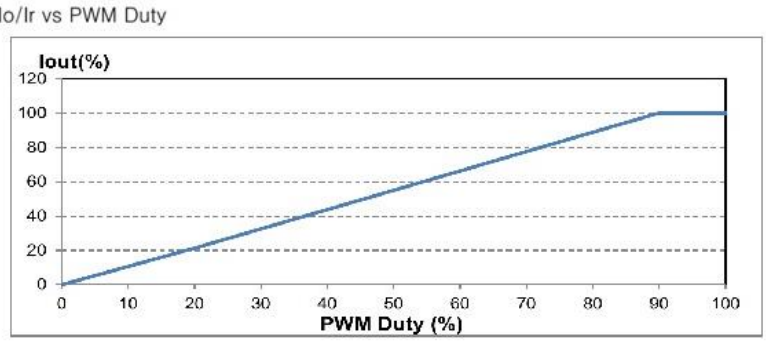




■ Dimming(cont.)

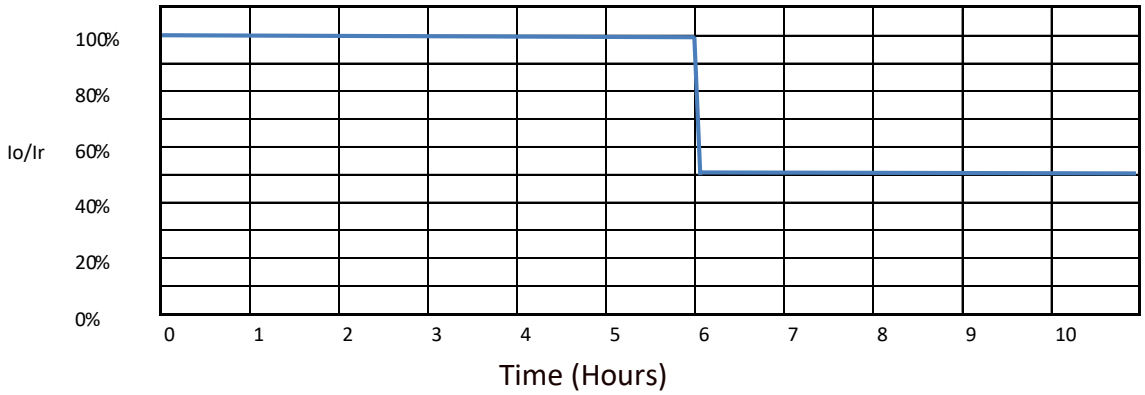
Mode 3 : PWM Signal on Dimming Wires





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)



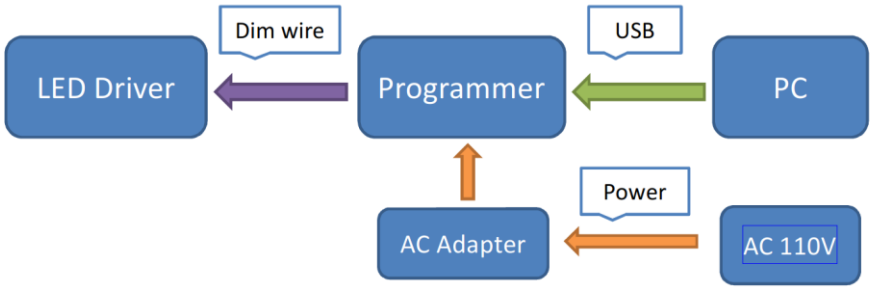
Standard power/time combination above, can be factory set to customer specification. Recycle AC to restart timer.

■ Dimming(cont.)

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.

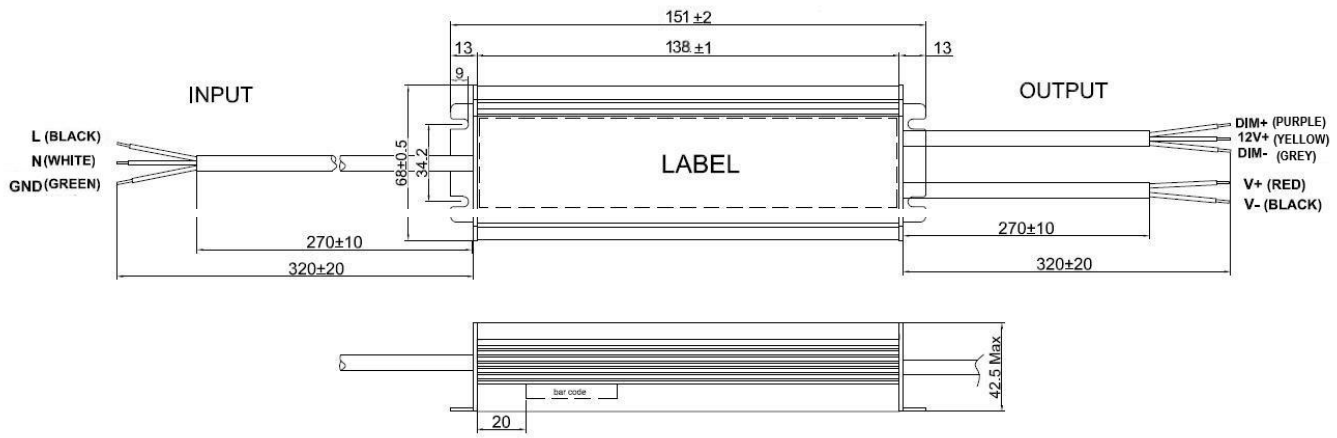
■ PC Programming Diagram



NOTES:

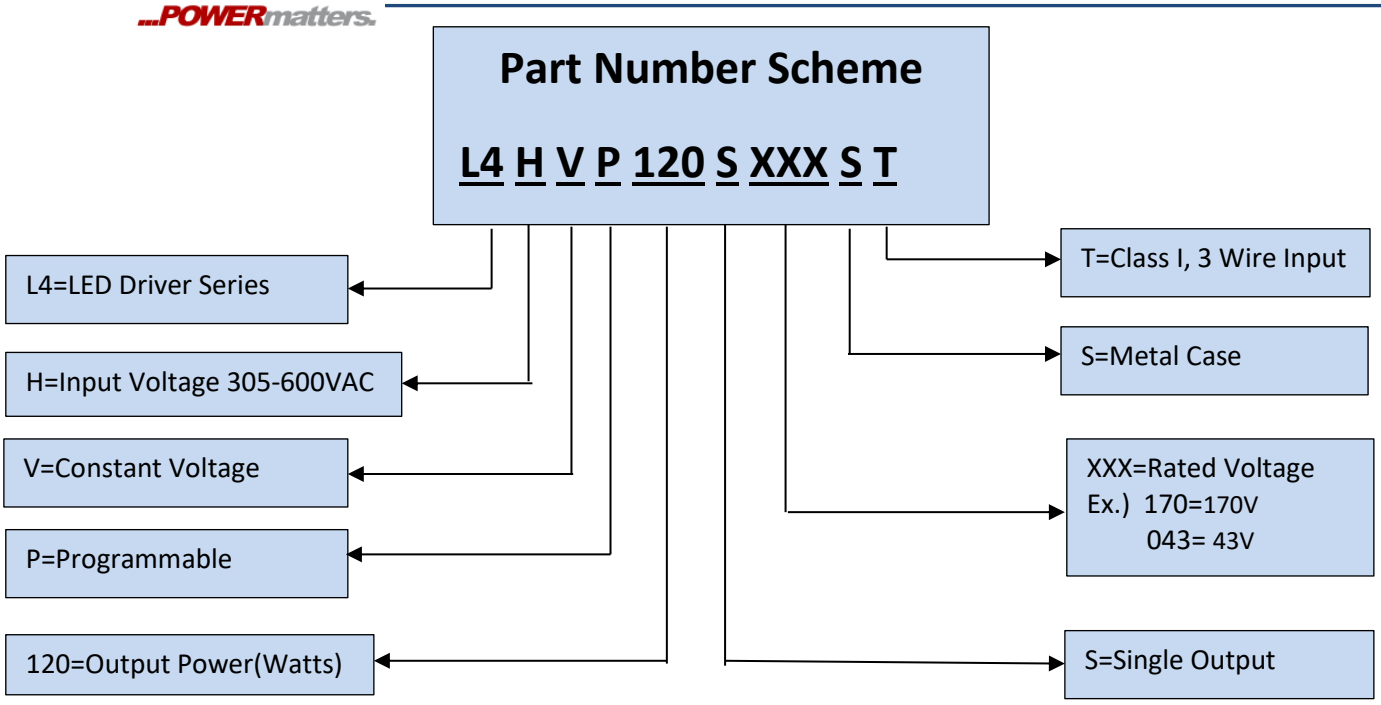
1. To set the desired output current, begin by installing the programming software on your PC and connect the programming module to your PC.
2. Next, connect the LED Driver to the programming module using the Dimming wires.
3. Please note an external power source is needed to provide power to the programming module.
4. Contact Autec Sales for current programming software and complete programming instructions.

■ Mechanical Diagram



Notes 1. Outline Dimension 151L*68W*42.5H
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



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

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