

■ Features

- Power Rating: 500W
- Input Voltage: 108-305Vac
- Constant current and constant voltage design
- Output current (850mA-14000mA)
- Digital programming with external module and software
- Efficiency up to 96%
- 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 setting
- 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
L4WCP500S1400ST	108~305Vac	500W	24-36V	1400mA	14000mA	95.5%	UL/cUL
L4WCP500S1190ST	108~305Vac	500W	32-48V	1190mA	11900mA	95.5%	UL/cUL
L4WCP500S0926ST	108~305Vac	500W	36-54V	926mA	9260mA	96%	UL/cUL
L4WCP500S0850ST	108~305Vac	500W	40-58.8V	850mA	8500mA	96%	UL/cUL

■ Technical Data

Input voltage range	108-305Vac
Frequency	47-63Hz
Power factor	> 0.95 @115Vac & 80~100% full load, > 0.90 @277Vac & 80~100% full load
Output voltage	24-36V, 32-48V, 36-54V, 40-58.8V
Output power	500W
Max. Current ripple	± 5%

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■ Technical Data(cont.)

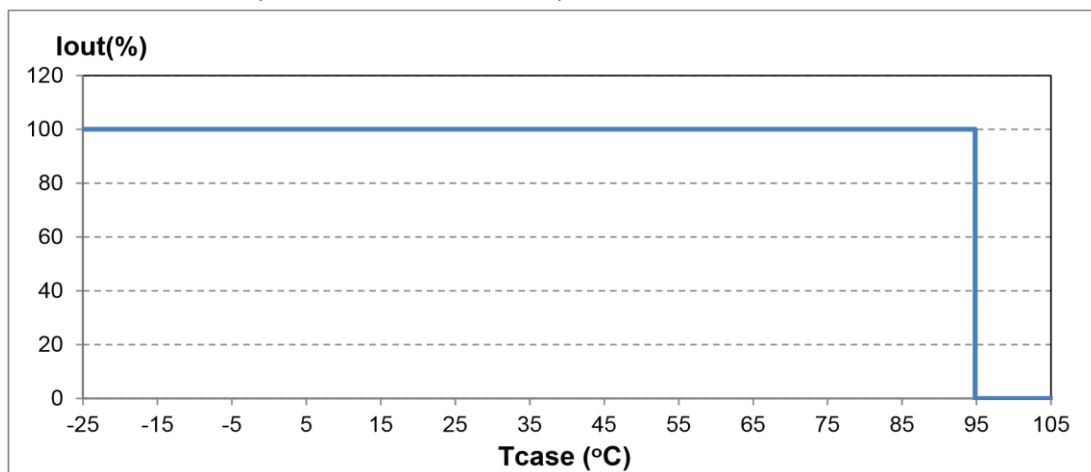
Max input current	5.5A
Max input Power	570W
Current Programable	Yes
Efficiency	95.5%-96%
Output AUX Power Voltage (optional)	12V
Output AUX Power Current (optional)	0-100mA
Max. Voltage Ripple	250mVp-p
Max. open circuit voltage	39V, 51V, 61.8V, 61.8V
Dimming	0(0.05) ~10V, PWM, External Resistor, Clock, DMX
THD	< 20% @120Vac & 80~100% full load condition <20% @ 277Vac & 80~100% full load
Protection	OVP, SCP, OTP, and Open Circuit Protection
Environmental Protection	UL Dry &Damp
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 / 10mA Max / 60 seconds
Isolation (Secondary to Earth)	500Vac / 10mA Max / 60 seconds
Case Type	Metal
Dimension	280x123x54 mm (11.02x4.84x2.13 inch)
Mounting Length	290 mm (11.42inch)
Overall Length	304 mm (11.97 inch)
Weight	3.56 kg (7.85 lb)
Lifetime	>70,000 hours @ full load, 75oC Tcase
Packing	3.56 kg; 6 units/carton; 27 cartons/pallet

■ Safety Compliance

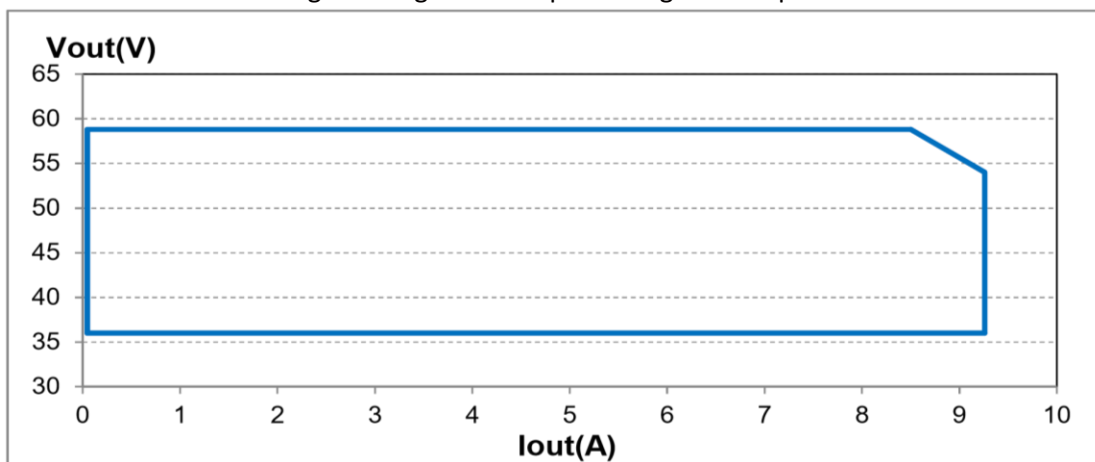
Safeties	UL8750
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class A

■ **Electrical Specifications***(L4WCP500S0545T @25°C)

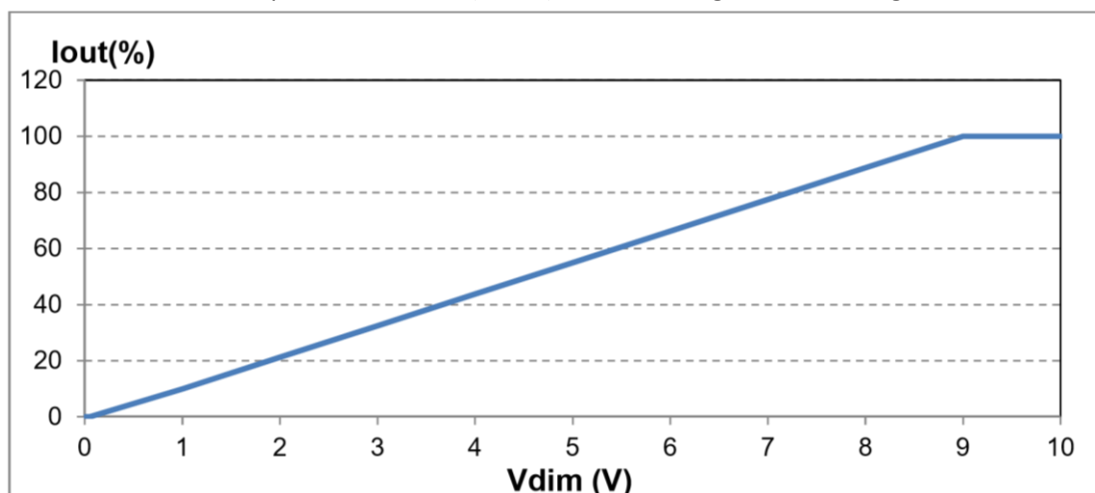
Output Current vs. Case Temperature (with $\pm 5^\circ\text{C}$ Tolerance)



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



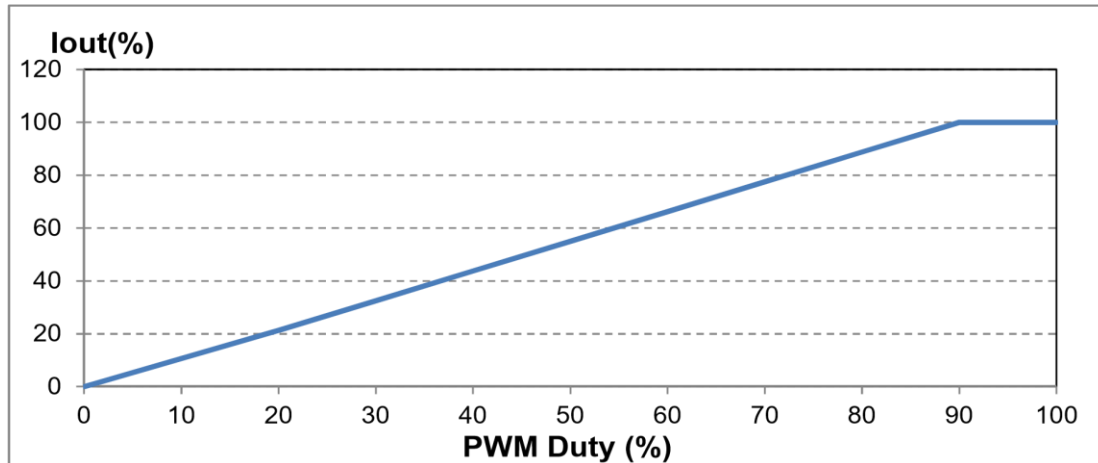
Output Current vs. 0(0.05V)-10V Dimming Control Voltage



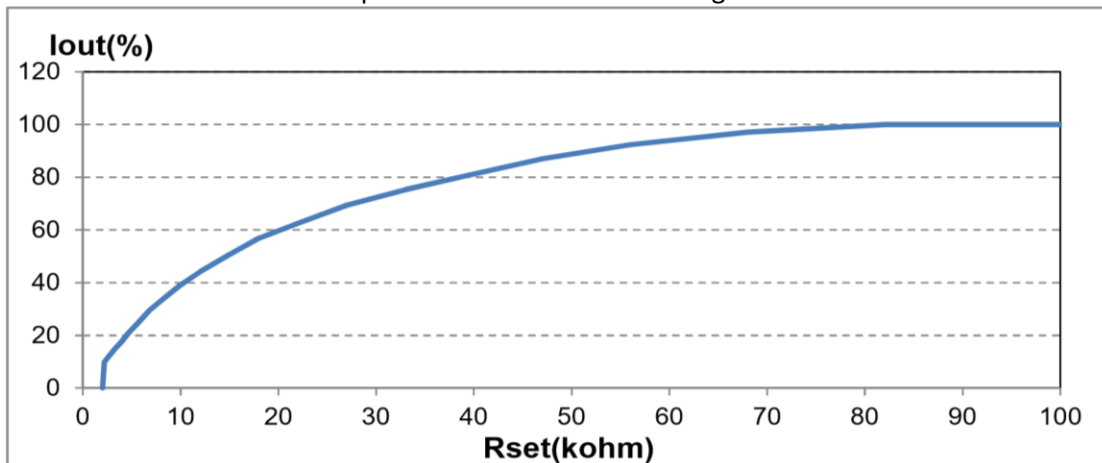
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■ **Electrical Specifications(cont.)**

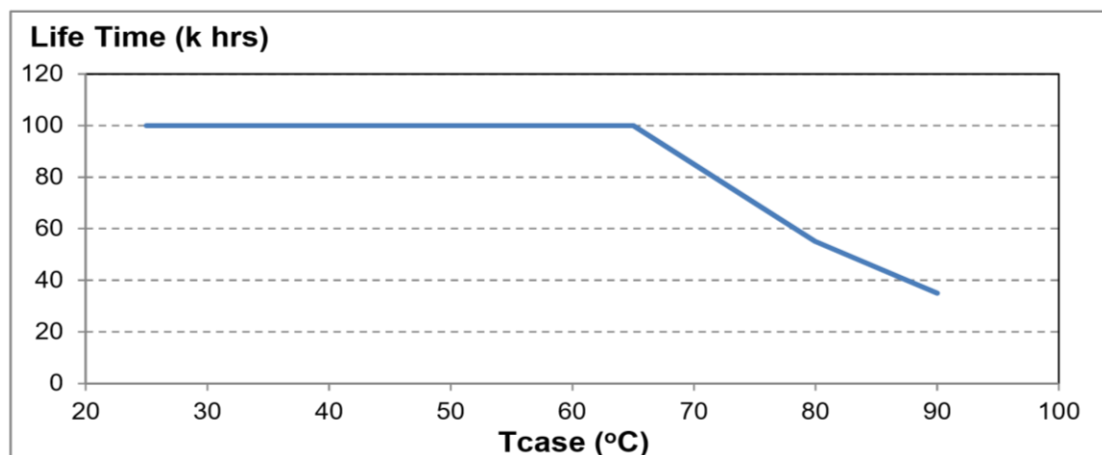
Output Current vs. PWM Dimming Duty Cycle



Output Current vs External Setting Resistor

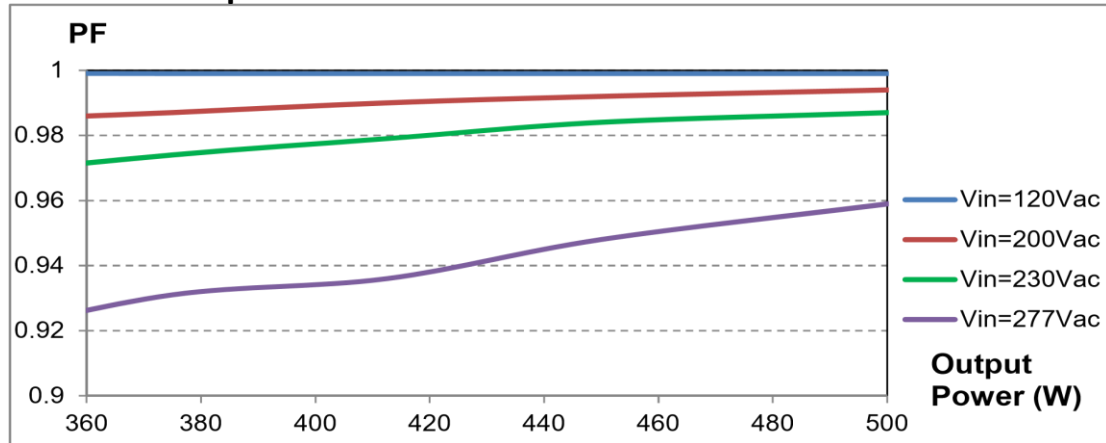


■ **Lifetime vs Case Temperature**

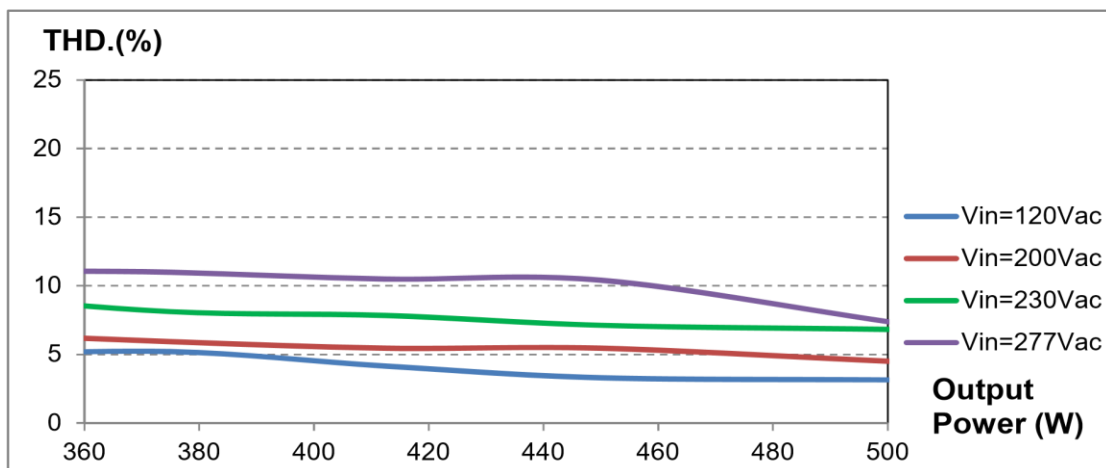


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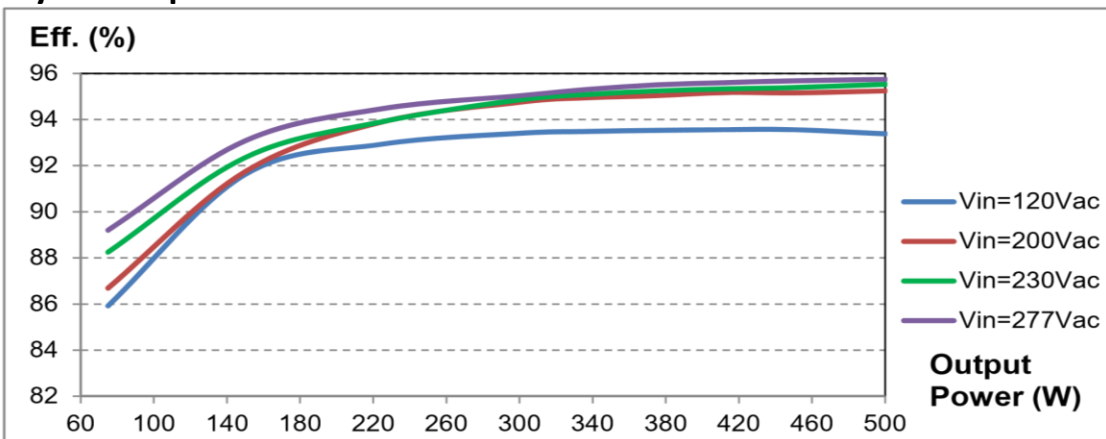
■ **Power Factor vs. Output Power**



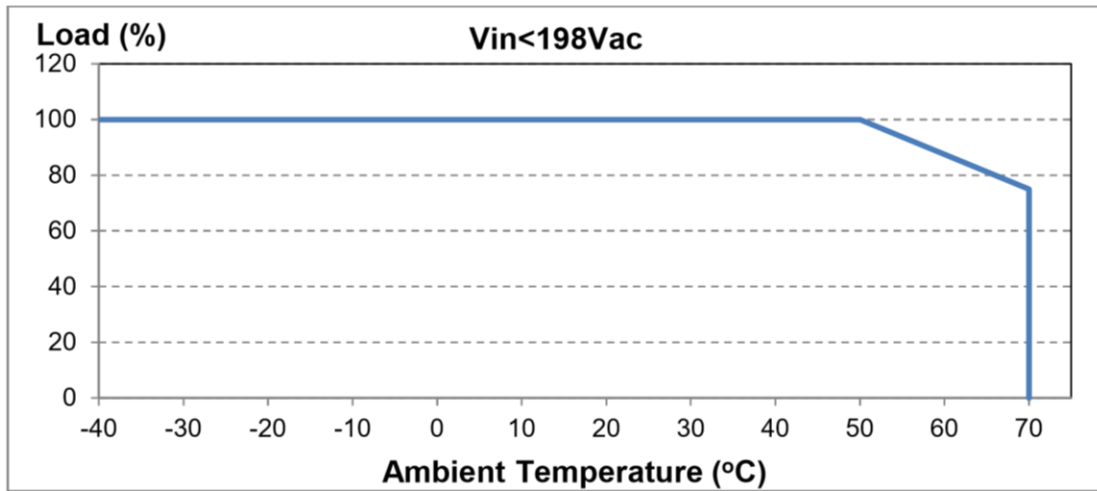
■ **THD vs. Output Power**



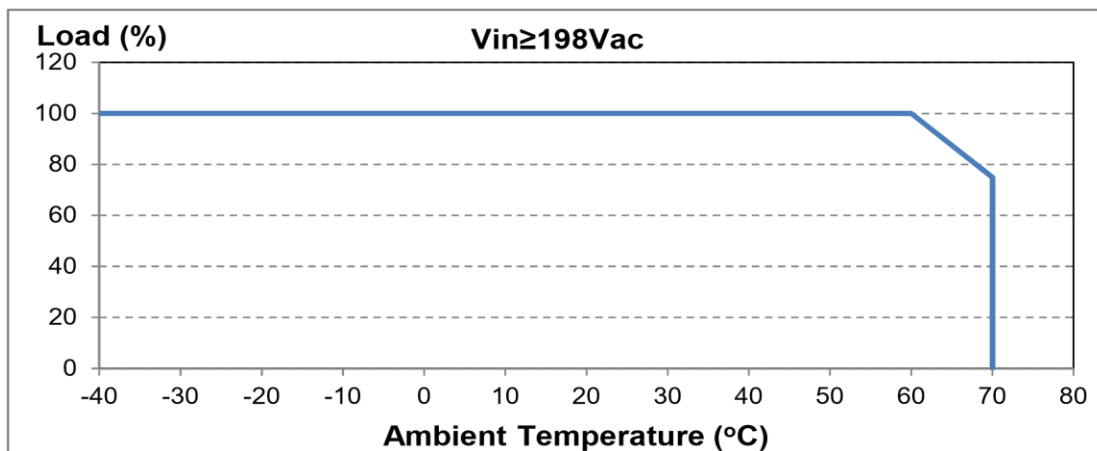
■ **Efficiency vs. Output Power**



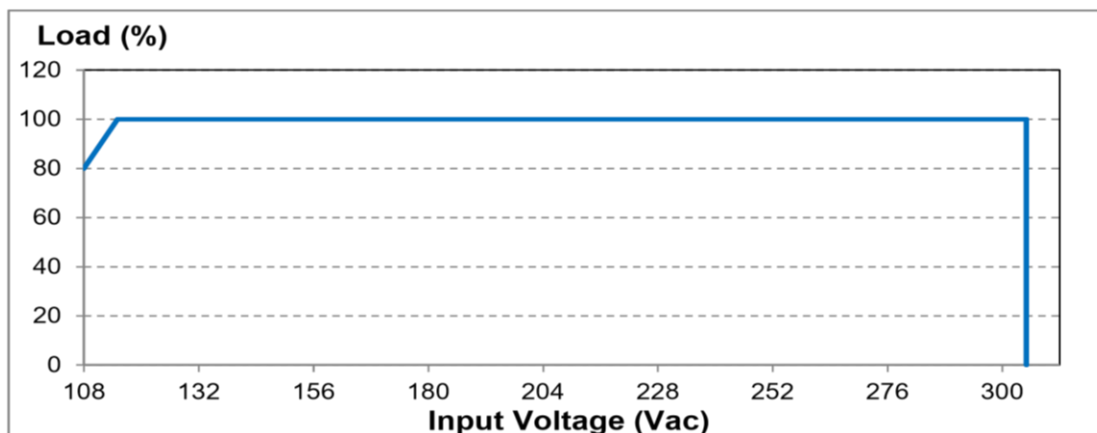
■ **Derating Curve**



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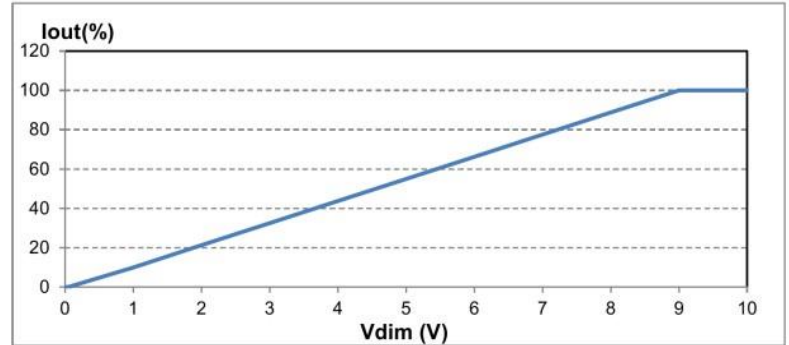
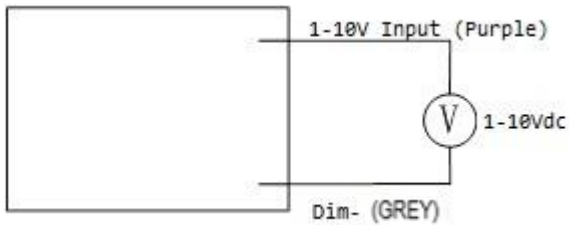


■ **Static Characteristics**

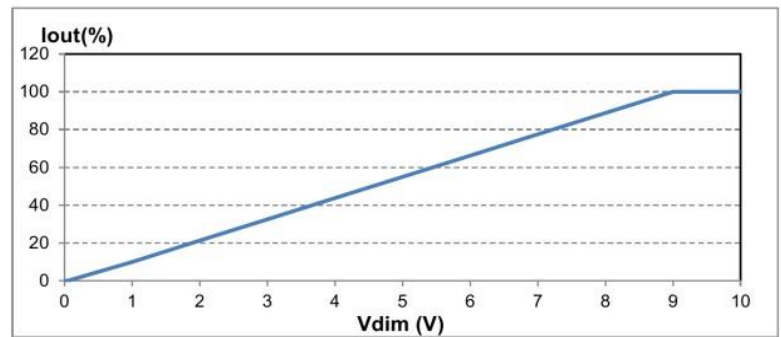
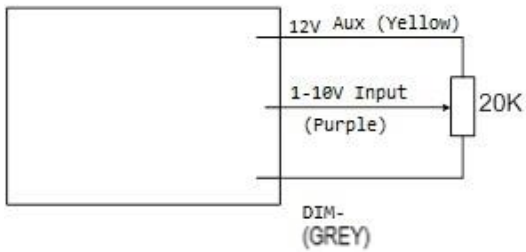


■ **Dimming**

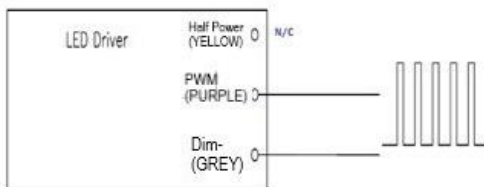
Mode 1 : 1-10Vdc Input on Dimming Control



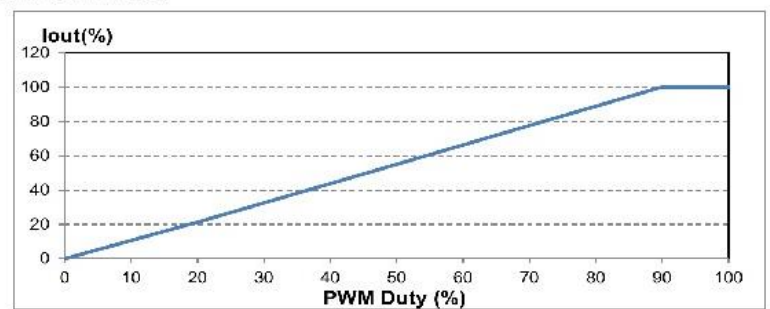
Mode 2 : Potentiometer on Dimming Control



Mode 3 : PWM Signal on Dimming Wires



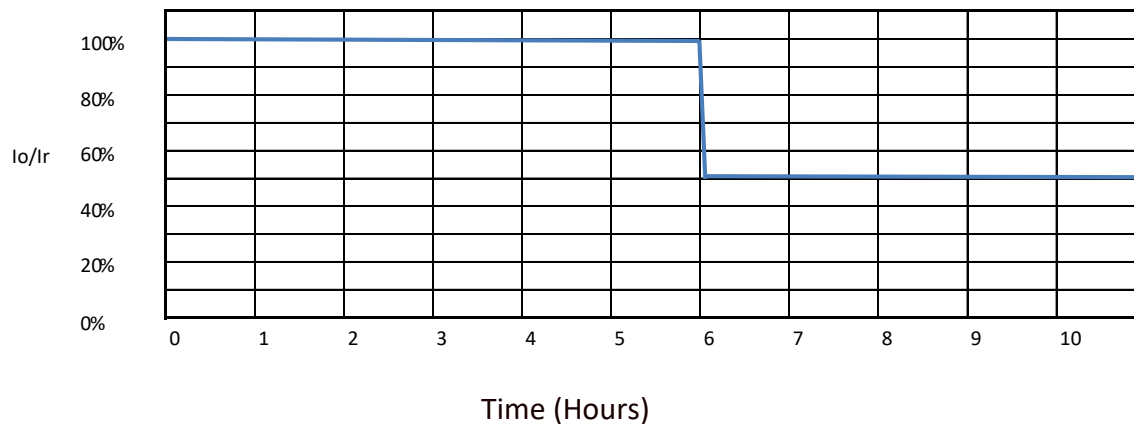
I_o/I_r vs PWM Duty



■ **Dimming(cont.)**

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)

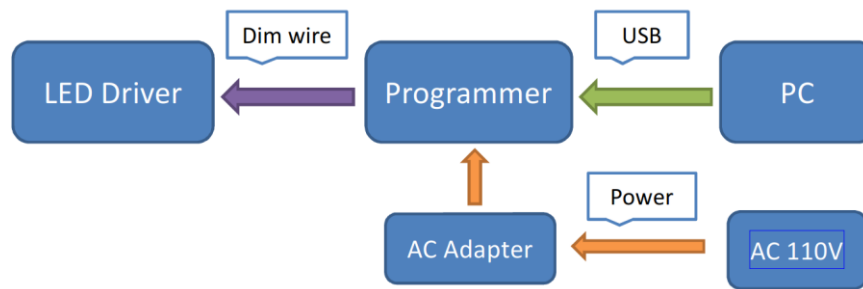


Standard power/time combination above, can be factory set to customer specification. Recycle AC to restart timer.

NOTE:

1. If the dimming function is not used, cap the dimming wires and don't use them.
2. I_o is actual output current and I_r 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% I_r , 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.

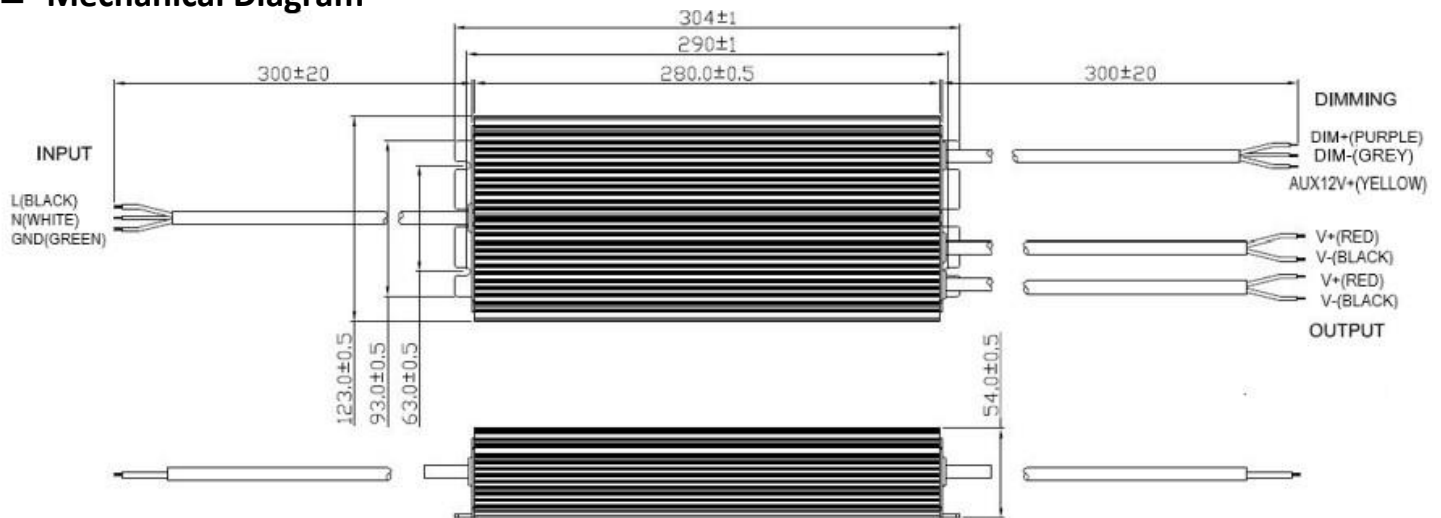
■ PC Programming Diagram



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.

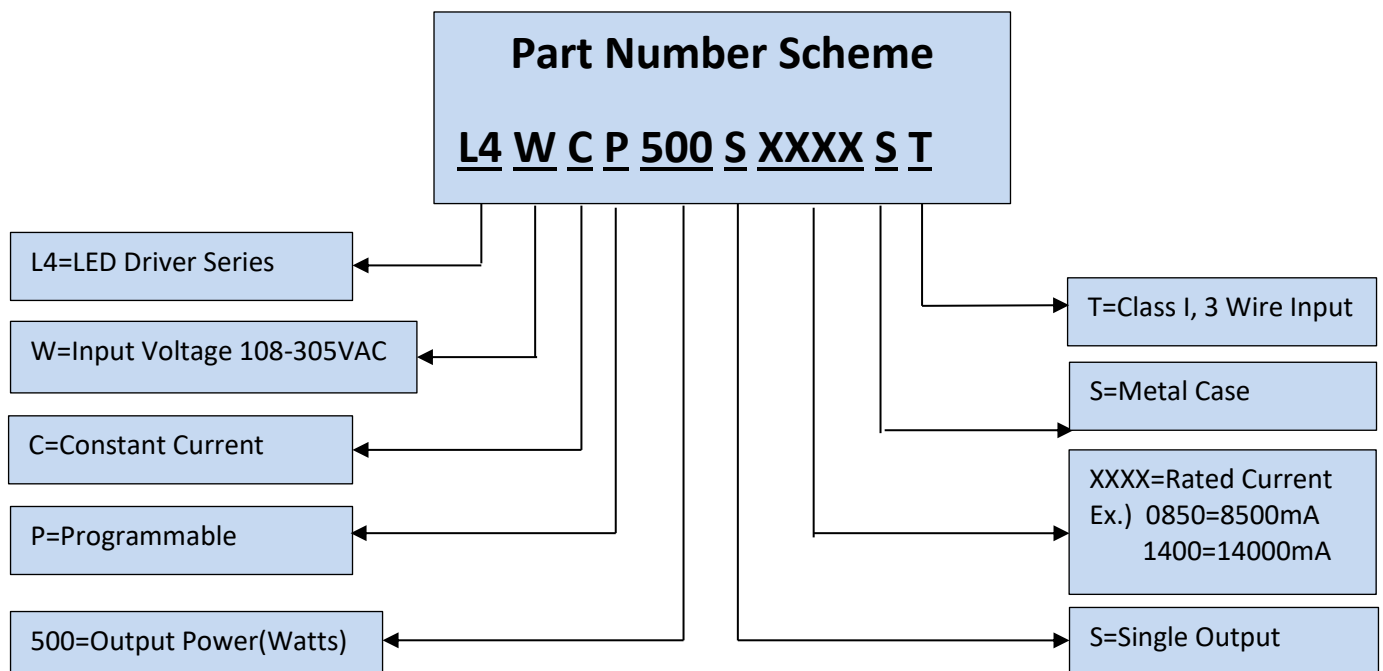
■ Mechanical Diagram



- Notes:
1. Outline Dimension: 304L*123W*54H
 2. Input and Output Connector and Pin Assignment
 3. The Yellow Dimming wire is optional for 12V Auxiliary Power

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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.**

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